

JANUARY 2018

BEST-PERFORMING CITIES

WHERE AMERICA'S JOBS
ARE CREATED AND SUSTAINED

2017



JESSICA JACKSON, JOE LEE, MICHAEL C.Y. LIN, AND MINOLI RATNATUNGA



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ON THE WEB

For data on each city, go to www.best-cities.org

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EXECUTIVE SUMMARY

Metropolitan areas are crucial drivers of growth in the American economy, taking different paths to prosperity depending on their industry mix, policy choices, and available resources. But while some parts of the country are thriving, others are falling behind. The Milken Institute's Best-Performing Cities (BPC) index provides an objective benchmark for examining the underlying factors and identifying unique characteristics of economic growth in metropolitan areas. Our index uses a fact-based set of metrics such as job creation, wage gains, and technology developments to evaluate the relative growth of metropolitan areas. While national and international political and economic forces can affect near-term performance and can lie beyond a region's control, the top-performing metros have cohesive strategies that allow them to leverage their assets more effectively. They offer important lessons that may be helpful to peer regions.

Here are the highlights of the 2017 rankings:

- » **Provo-Orem, UT**, takes the top spot by a wide margin, with a stellar performance across all nine indicators (see Table 2 for a full list of indicators used). High-tech industries have been a key driver, helping to create broad-based job growth that placed first among large metros on our one- and five-year metrics.
- » With more welcoming business climates and lower costs than in the coastal tech cities, **Raleigh, NC**, (No. 2) and **Dallas-Plano-Irving, TX**, (No. 3) complete the Top 3. Raleigh's research and development-driven industries and Dallas-Plano-Irving's broad range of company headquarters—creating jobs in energy, telecoms, and banking—contributed to their rise.
- » **San Francisco-Redwood City-South San Francisco, CA**, held firm at No. 4, while former No. 1 **San Jose-Sunnyvale-Santa Clara, CA**, dropped to No. 11. The high rate of growth experienced by both of these large Bay Area economies so many years into their expansion remains impressive.
- » With a strong university and high quality of life, **Fort Collins, CO**, has a steady stream of visitors to enjoy outdoor recreation and frequent the local craft breweries. It ranked at No. 5.
- » Florida metropolitan areas did well, claiming six of the Top 25 spots this year as their economies hit their stride a little later than other regions of the country. **North Port-Sarasota-Bradenton, FL**, at No. 6 and **Orlando-Kissimmee-Sanford, FL**, at No. 7 were the highest ranked.
- » The continuing development of the No. 8 **Nashville-Davidson-Murfreesboro-Franklin, TN**, No. 9 **Austin-Round Rock, TX**, and No. 10 **Salt Lake City, UT**, metros has begun to erode some of the cost advantages that made them attractive business locations. Managing their growth and investing in key infrastructure will be crucial to maintaining their competitive edge.
- » Four California metros placed in the Top 25, down from six in 2016. The majority of Texas metros have experienced declines in their ranks as well. Apart from **Dallas-Plano-Irving, TX**, and **San Antonio-New Braunfels, TX**, all Texas regions that ranked in the Top 100 large cities in 2016 dropped in rank in our 2017 index.
- » **Bend-Redmond, OR**, repeats as the top-performing small metro in the nation, continuing to add jobs at an impressive rate and leveraging its high quality of life to attract entrepreneurial new residents.

The high-tech industries continue to be important economic drivers in regional economies across the country. As rising wages and rents raised the cost of doing business in cities like San Francisco, Seattle, and San Jose, some firms chose to relocate or expand away from these regions, distributing opportunities to other parts of the U.S. Managing growth and making continued quality investments in infrastructure and education will be key to these cities prospering in the long term.

Professional services, education, and health care all saw large employment gains in 2016, while manufacturing employment was stable. Another year of low oil prices resulted in a dramatic drop in employment in the mining and natural resources industry in 2016, back down to levels not seen since 2005—before widespread shale exploration boosted rig counts and payroll in the sector.

The combination of lower energy prices, rising employment and incomes, and higher home and stock prices have fueled consumer spending, benefiting the tourism, leisure, and hospitality industries. The median home sold in the U.S. in 2016 cost more than \$300,000 for the first time, and the concerns about housing affordability have contributed to the migration of people and jobs out of major metros where space or regulatory constraints have limited new construction.

Best-Performing Large City 2017: Provo-Orem, UT

Provo-Orem, UT, placed first, outpacing its large city peers by a wide margin with strong performance across all nine indicators. The region is home to Brigham Young University, a top technology transfer institution that has helped create a vibrant high-tech economy. The Provo-Orem region last topped the BPC index in 2008, and since then it has only placed outside the Top 25 once. In the last five editions, the region has numbered among the Top 3 in the nation. Its consistently strong performance has attracted new residents and created broad-based economic growth. Software publisher Adobe has set up a large office campus in Lehi, and other tech firms are also moving there or to other parts of the Silicon Slopes within the Provo-Orem region as space in the City of Provo has become more difficult to find. Competition for skilled workers in a tight labor market has been driving up wages, and may be slowing expansion of tech firms within the metro.

TABLE 1 Top 25 Best-Performing Large Cities
Rank according to 2017 index

Metropolitan Statistical Area (MSA)/Metropolitan Division (MD)	2017 Rank	2016 Rank	Change
Provo-Orem, UT (MSA)	1	2	+1
Raleigh, NC (MSA)	2	6	+4
Dallas-Plano-Irving, TX (MD)	3	5	+2
San Francisco-Redwood City-South San Francisco, CA (MD)	4	4	Steady
Fort Collins, CO (MSA)	5	8	+3
North Port-Sarasota-Bradenton, FL (MSA)	6	26	+20
Orlando-Kissimmee-Sanford, FL (MSA)	7	9	+2
Nashville-Davidson-Murfreesboro-Franklin, TN (MSA)	8	7	-1
Austin-Round Rock, TX (MSA)	9	3	-6
Salt Lake City, UT (MSA)	10	11	+1
San Jose-Sunnyvale-Santa Clara, CA (MSA)	11	1	-10
West Palm Beach-Boca Raton-Delray Beach, FL (MD)	12	36	+24
Charlotte-Concord-Gastonia, NC-SC (MSA)	13	12	-1
Atlanta-Sandy Springs-Roswell, GA (MSA)	14	21	+7
Tampa-St. Petersburg-Clearwater, FL (MSA)	15	33	+18
Oakland-Hayward-Berkeley, CA (MD)	16	18	+2
Seattle-Bellevue-Everett, WA (MD)	17	10	-7
Naples-Immokalee-Marco Island, FL (MSA)	18	17	-1
San Antonio-New Braunfels, TX (MSA)	19	24	+5
Riverside-San Bernardino-Ontario, CA (MSA)	20	44	+24
Fort Lauderdale-Pompano Beach-Deerfield Beach, FL (MD)	21	28	+7
Charleston-North Charleston, SC (MSA)	22	16	-6
Denver-Aurora-Lakewood, CO (MSA)	23	13	-10
Portland-Vancouver-Hillsboro, OR-WA (MSA)	24	14	-10
Fayetteville-Springdale-Rogers, AR-MO (MSA)	25	30	+5

Source: Milken Institute.

Biggest Gains

Six of the metros that experienced the largest improvements in rank on our 2017 BPC index were in Florida, including **Palm Bay-Melbourne-Titusville, FL**, the region that rose the most. Catching up on growth that had initially been elusive coming out of the recession, these regions are a combination of retiree havens and health care and medical hubs. Several college towns also climbed up the ranks, as did logistics hubs and some manufacturing centers.

Best-Performing Small City 2017: Bend-Redmond, OR

The **Bend-Redmond, OR**, area remains the top performing small region, held aloft by the second highest job growth among its peers for both 2016 and the five-year period 2011-2016. The region has a high quality of life and easy access to outdoor recreation, drawing in tourists and new residents alike. Demand from these new residents has been contributing to higher housing prices, and the precipitous fall in values experienced during the recession has been more than made up. The presence of the Oregon State University-Cascades campus is helping to create a skilled local workforce, valuable to the diverse local high-tech industry. The collaborative business community tries to foster an entrepreneurial environment and has developed solid support structures for new firms and startups in pursuit of broad-based growth.

INTRODUCTION

Metropolitan areas are crucial drivers of growth in the American economy, taking different paths to prosperity depending on their industry mix, policy choices, and available resources. But while some parts of the country are thriving, others are falling behind. The Milken Institute's Best-Performing Cities index provides an objective benchmark for examining the underlying factors and identifying unique characteristics of economic growth in metropolitan areas.

Our index uses a fact-based set of metrics such as job creation, wage gains, and technology developments to evaluate the relative growth of metropolitan areas. While national and international political and economic forces can affect near-term performance and can lie beyond a region's control, the top-performing metros have cohesive strategies that allow them to leverage their assets more effectively. They offer important lessons that may be helpful to peer regions.

The goal of our Best-Performing Cities index is to help businesses, investors, industry associations, development agencies, government officials, academics, and public-policy groups monitor and evaluate how well their metro is promoting economic vitality relative to the rest of the country. The index also provides benchmarking data that can inform approaches to improving a region's performance. In addition, the index can serve as a tool for understanding consumer markets and business opportunities by indicating where employment is stable and expanding, wages and salaries increasing, and economies and businesses thriving.¹

A shared understanding of their region's competitiveness will help communities create a strategic economic vision focused on industries with the capacity to stimulate sustained growth and prosperity. By targeting sectors where they have a robust competitive advantage, communities can seek to reduce the impact that future dips in the business cycle have on local employment and economic activity. Regions that can better link education and training programs to the workforce needs of employers will attract businesses and create more opportunities for residents. Developing new industries and companies will require fostering entrepreneurship and innovation through research institutions, incubators, and funding programs.² The Best-Performing Cities index also forms the basis for the Milken Institute's "Regional Performance Over Time" research program, which takes a look at regions like Bend, OR, that have outperformed their peers over the course of the business cycle and aims to understand the characteristics and strategies that support their resilience.³

This 2017 edition of the index applies the methodology used previously. We employ the geographic terms and definitions used by the Office of Management and Budget (OMB), most recently updated after the 2010 U.S. census. The OMB defines a metropolitan statistical area (MSA) as a region generally consisting of a large population nucleus and adjacent territory with a high degree of economic and social integration, as measured by community ties. With these parameters, the agency identifies 381 metropolitan statistical areas. County population growth accounts for the creation of new MSAs. If specific criteria are met, an MSA with a single nucleus and a population of 2.5 million or more is further divided into geographic areas called metropolitan divisions (MDs), of which there are currently 31 in the country. For example, the MSA of Philadelphia-Camden-Wilmington, DE-MD-NJ, comprises three MDs (Camden, NJ; Philadelphia, PA; and Wilmington, DE). We include the smaller MDs in the index to reflect more detailed geographic growth patterns.

An Emphasis on Outcomes

Table 2 shows the components used to calculate the Best-Performing Cities rankings. The index measures growth in jobs, wages, salaries, and technology output over five years (2011-2016 for jobs and technology output and 2010-2015 for wages and salaries) to adjust for extreme variations in business cycles. It also incorporates the latest available year's performance in these areas (2015-2016 for jobs and technology output and 2014-2015 for wages and salaries). In addition, it includes a measure of 12-month job growth (August 2016-August 2017) to capture recent momentum among metropolitan economies.⁴

TABLE 2 Components of the Best-Performing Cities Index

Component	Weight
Job growth (I=2011)	0.143
Job growth (I=2015)	0.143
Wage and salary growth (I=2010)	0.143
Wage and salary growth (I=2014)	0.143
Short-term job growth (Aug 16-Aug 17)	0.143
High-tech GDP growth (I=2011)	0.071
High-tech GDP growth (I=2015)	0.071
High-tech GDP location quotient (2016)	0.071
Number of high-tech industries with GDP LQ>1 (2016)	0.071

Note: I refers to the beginning year of the index. Weights do not add up to 1 due to rounding.

Source: Milken Institute.

Employment growth is weighted more heavily because of its critical importance to community vitality, as is growth in wages and salaries because it signals the quality of the jobs being created and retained. Other measures reflect the concentration and diversity of technology industries within the MSAs and MDs. High-tech location quotients (LQs), which measure the industry's concentration in a particular metro relative to the national average, are included to gauge an area's participation in the knowledge-based economy. We also measure the number of specific high-tech fields (out of a possible 19) whose concentrations in an MSA or MD are higher than the national average. Best-Performing Cities is solely an outcomes-based index. It does not incorporate input measures (business costs, cost-of-living components, and quality-of-life conditions such as commute times or crime rates). These measures, although important, are prone to wide variations and can be highly subjective.

National Economic Conditions

Understanding the broader economic context metropolitan economies face when making choices about their regional economies helps distinguish between the results of national and international trends and the effects of local policies and characteristics. For example, in 2016, both a first-quarter slump in international economies and significant political changes affected the U.S. economy and the performance of the regional economies that it comprises.

Sources of Weakness

Political changes in 2016 contributed to rising global uncertainty, including the vote by the United Kingdom to leave the EU in June, the impeachment of Brazilian President Dilma Rousseff in August, and a contentious U.S. presidential election in November. In Europe, populist movements gained ground as concerns over levels of migration influenced voting behavior.

Trade became a key economic theme of the U.S. presidential election campaign. Candidates criticized the Trans-Pacific Partnership (TPP), negotiated by the Obama administration, and the victor, Donald Trump, also attacked the North American Free Trade Agreement (NAFTA).

Productivity gains realized during the recession have lost steam during the recovery, and in 2016, productivity decreased by 0.2 percent in the private nonfarm business sector. Discussions about using new technology to automate some labor-intensive activities are ongoing, but implementation at a large scale is likely to be years away.

Real private investment in equipment dropped for four consecutive quarters (Q4 2015–Q3 2016), very unusual outside of a recession, but picked up in the final quarter of 2016. Reduced investment in resource extraction-related machinery contributed to this fall.

Mining and natural resources took a big (16.6 percent) employment hit in 2016, dropping back down to levels not seen since 2005—before shale exploration expanded employment in the sector dramatically. There were almost 135,000 fewer jobs in the field in 2016 than in the

previous year. Lower prices for oil have persisted, with the global price of Brent Crude dropping from an annual average of \$99 per barrel in 2014 to \$52 and \$44 in the following two years. Natural gas has been retailing for far less in the U.S. than before the recession, thanks to a vastly expanded supply.

Hurricane Harvey, which hit eastern Texas in August 2017—right at the end of the period evaluated for short-term job growth—will have long-lasting effects on certain industries and regions, and created uncertainty in the chemical, energy, and tourism sectors. The impacts of Hurricane Harvey, Irma, and Maria will be covered in our 2018 Best-Performing Cities index.

Sources of Strength

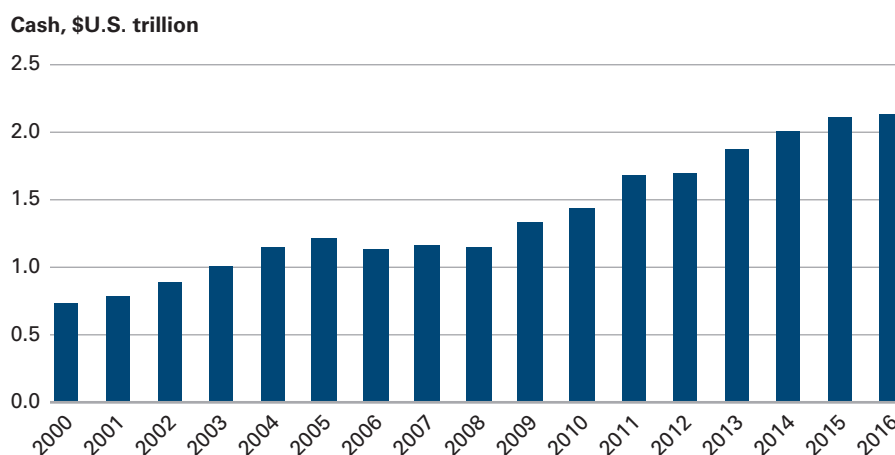
Stronger than expected performance in European and Asian economies in the first two quarters of 2017 helped revive exports both by increasing international demand and slightly weakening the dollar. The stronger Euro and more robust European consumer confidence were particularly valuable.

Domestically, employment and income gains have been solid. Nonfarm employment continued to rise steadily, adding approximately 144,000 jobs each month through 2016. While real median household incomes grew, real disposable incomes were effectively flat during 2016—rising during the summer and then dropping back to January levels by December 2016. Household debt service payments as a percent of disposable personal income have remained below 10 percent over the past two years. Personal consumption expenditures rose by 4 percent in 2016, supporting growth in the retail, leisure, and hospitality industries. Together, these industries accounted for 27 percent of net new jobs in 2016.

Consumer spending has been fueled by growth in employment and incomes, but increased stock prices and home values also helped bolster a sense of wellbeing in 2016. The Dow Jones Industrial Average was nearing 20,000 by the end of 2016 and continued to climb in 2017 as investors anticipated federal corporate tax reform and lighter regulation with the Republican Party holding both houses of Congress and the Presidency from January 20, 2017.

Corporate cash holdings (excluding financial firms) were at record levels, reaching \$2.12 trillion in 2016. A combination of factors may have contributed to this, including the possibility that firms are choosing not to repatriate profits earned overseas to avoid U.S. taxation, one of the motivations cited by those advocating for reform of the corporate tax framework. Other forces driving up cash holdings could be an increased need for research and development (R&D) in an increasingly innovation-driven economy and a necessity for higher cash reserves to respond to supply chain interruptions, given the vulnerability of just-in-time supply chains to large-scale disruptions like Hurricane Harvey.

FIGURE 1 Corporate Cash Holdings (Excluding Financial Firms) Reached \$2.12 Trillion in 2016

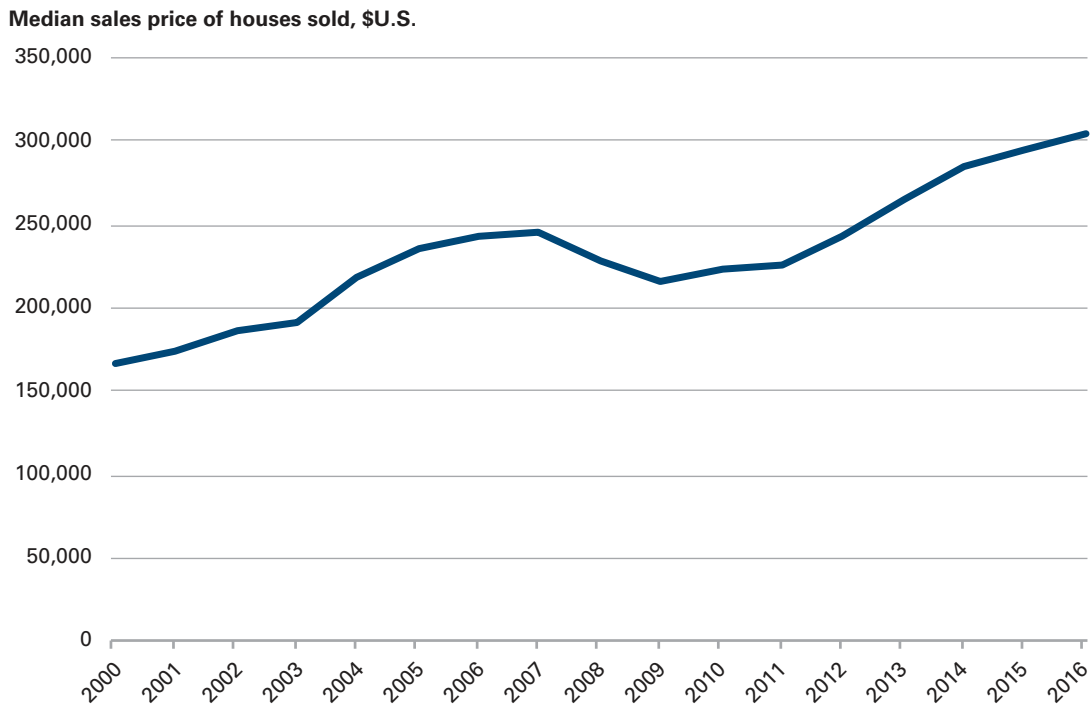


Sources: Company 10-K and 10-Q filings; Bloomberg, Thomson Reuters Eikon, Milken Institute.

Technology- and real estate-related growth have been key drivers of the U.S. and metro economies in the past year. The information sector has been growing, and professional services are a continuing strength, adding approximately 504,000 jobs in 2016, a 2.57 percent increase over the previous year. The education and health care industries employment also saw significant increases in 2016, gaining 592,000 net new positions. After more than a decade of declining employment, manufacturing job numbers have been stable over the past three years, experiencing a tiny (0.1 percent) increase in 2016. Real GDP in the sector was also steady.

The median sales price of homes sold in the U.S. in 2016 was \$305,125, well above pre-recession levels and crossing the \$300,000 threshold for the first time. Across the U.S., urban areas are experiencing record-breaking housing costs, with the median house in the San Francisco metropolitan division above \$1 million. Low interest rates have helped sustain the housing recovery, and the number of sales of new and existing homes reached a 10-year high in 2016 but remained below peak pre-recession levels. Home prices are one factor contributing to domestic migration, as workers unable to afford to own or rent in expensive metros consider the economic and quality of life trade-offs of relocating to less costly cities.

FIGURE 2 | Median Sales Price of Houses Sold Rose Above \$300,000 for the First Time in 2016



Source: U.S. Bureau of the Census.

Like the real estate market, the financial sector continues its recovery, with employment nearing pre-recession levels. The trend of institutions consolidating and relocating positions to lower-cost regions of the country continues, driven in part by high office rents in major coastal cities.

The decision by the Federal Reserve Board of Governors to raise the key interest rate by 0.25 percent in December 2016 indicates their expectations that the economy was on a solid footing and would continue to expand in the coming year.

Biggest Gains

A large share of the top gainers this year have defense and/or health care/medical sectors as their anchor industries. About one-third of these metros are college towns, like **Syracuse, NY**, logistics hubs like **Tacoma-Lakewood, WA**, and/or manufacturing centers like **Hickory-Lenoir-Morganton, NC**. Nearly one-fourth (i.e., six out of 25 metros) of the biggest gainers are Florida metros, including the region that climbed the most, **Palm Bay-Melbourne-Titusville, FL**. The majority of the top gainers are either retiree havens or metros anchored by the health care and medical industries, or often both. The phenomenal growth of these 25 metros can be largely attributed to the recent favorable macroeconomic environment that is highly associated with the public and private spending in academic, defense, health care/medical, and manufacturing sectors. Although most of these metros have low business and living costs compared to the regions in which they are situated, many of them also have relatively low education profiles and industrial diversity, which may be a concern for their long-term economic prosperity.

TABLE 3 Biggest Gains Among Large Cities
(Based on Change in Rankings)

Metropolitan Statistical Area (MSA)/Metropolitan Division (MD)	2017 Rank	2016 Rank	Change
Palm Bay-Melbourne-Titusville, FL (MSA)	63	153	+90
Olympia-Tumwater, WA (MSA)	39	113	+74
Hickory-Lenoir-Morganton, NC (MSA)	103	167	+64
Augusta-Richmond County, GA-SC (MSA)	102	164	+62
Huntsville, AL (MSA)	86	142	+56
Ocala, FL (MSA)	75	130	+55
Tallahassee, FL (MSA)	117	172	+55
Lancaster, PA (MSA)	93	147	+54
Pensacola-Ferry Pass-Brent, FL (MSA)	107	160	+53
Visalia-Porterville, CA (MSA)	54	98	+44
Lakeland-Winter Haven, FL (MSA)	70	114	+44
Albany-Schenectady-Troy, NY (MSA)	111	152	+41
Modesto, CA (MSA)	33	73	+40
Philadelphia, PA (MD)	98	136	+38
Syracuse, NY (MSA)	152	188	+36
Killeen-Temple, TX (MSA)	123	158	+35
Tacoma-Lakewood, WA (MD)	97	131	+34
Roanoke, VA (MSA)	145	179	+34
Kalamazoo-Portage, MI (MSA)	69	102	+33
Rochester, NY (MSA)	136	169	+33
Oxnard-Thousand Oaks-Ventura, CA (MSA)	81	112	+31
Spartanburg, SC (MSA)	36	66	+30
Las Vegas-Henderson-Paradise, NV (MSA)	41	71	+30
Montgomery, AL (MSA)	137	166	+29
Gainesville, FL (MSA)	74	100	+26

Source: Milken Institute.

Biggest Drops

Many of the biggest drops in our ranking came from metros whose economies are reliant on natural resources. **Bakersfield, CA**, for example, made the Best-Performing Cities Top 25 both in 2012 and 2013 but now is ranked 161. The Bakersfield metro area covers Kern County, which was both the largest oil producing county in the contiguous United States and the second-largest U.S. food producer as of 2015.⁵ When economies are so reliant on natural resources like oil or water, external shocks can cause significant drops in a growth-based ranking like BPC U.S. In Bakersfield's case, it was affected by the contraction in the oil and energy sector and California's drought that only recently ended in 2017, causing the region to drop 102 spots.

Other regions with large drops rely on manufacturing as an economic driver. For example, one of the top employing industries in **Toledo, OH**, is transportation equipment manufacturing. Though the industry's employment grew by 97.4 percent in the five-year period ending 2015, it only grew 1.9 percent from 2015 to 2016.⁶ Part of the stagnation involves a leveling out after the recession recovery period, but part of it involves structural shifts in the manufacturing sector as companies turn to innovation and foreign labor to circumvent expensive domestic labor costs.

TABLE 4 Biggest Declines Among Large Cities
(Based on Change in Rankings)

Metropolitan Statistical Area (MSA)/Metropolitan Division (MD)	2017 Rank	2016 Rank	Change
Bakersfield, CA (MSA)	161	59	-102
Wilmington, DE-MD-NJ (MD)	166	93	-73
Laredo, TX (MSA)	114	55	-59
Beaumont-Port Arthur, TX (MSA)	174	123	-51
Lafayette, LA (MSA)	198	148	-50
Knoxville, TN (MSA)	127	80	-47
Corpus Christi, TX (MSA)	144	97	-47
Toledo, OH (MSA)	146	99	-47
Brownsville-Harlingen, TX (MSA)	155	108	-47
Rockford, IL (MSA)	171	125	-46
McAllen-Edinburg-Mission, TX (MSA)	88	43	-45
Houston-The Woodlands-Sugar Land, TX (MSA)	113	68	-45
Greeley, CO (MSA)	73	31	-42
New York-Jersey City-White Plains, NY-NJ (MD)	82	40	-42
Akron, OH (MSA)	163	124	-39
Manchester-Nashua, NH (MSA)	100	63	-37
Worcester, MA-CT (MSA)	115	79	-36
Clarksville, TN-KY (MSA)	179	143	-36
Springfield, MO (MSA)	83	53	-30
Trenton, NJ (MSA)	101	72	-29
Baton Rouge, LA (MSA)	110	81	-29
Anaheim-Santa Ana-Irvine, CA (MD)	47	19	-28
Oklahoma City, OK (MSA)	131	103	-28
Canton-Massillon, OH (MSA)	189	161	-28
Salem, OR (MSA)	72	45	-27

Source: Milken Institute.

An aerial photograph of a city, likely a university campus, with a mountain range in the background. The city is densely packed with buildings, streets, and green spaces. The mountains are hazy and brownish, suggesting a dry climate. The sky is clear and blue.

2017

Best-Performing
Large Cities

#1 PROVO-OREM, UT

Gained 1 spot

JOB GROWTH (2011-16)	1ST
JOB GROWTH (2015-16)	1ST
WAGE GROWTH (2010-15)	4TH
WAGE GROWTH (2014-15)	3RD
SHORT-TERM JOB GROWTH (8/2016-8/2017)	7TH
HIGH-TECH GDP GROWTH (2011-16)	3RD
HIGH-TECH GDP GROWTH (2015-16)	12TH
HIGH-TECH GDP CONCENTRATION (2016)	16TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	20TH

ASSETS

- Brigham Young University is a leading educational institution and a vital innovation hub for the region.
- A strong and expanding technology sector is creating broad economic opportunity.

LIABILITIES

- Swift growth may strain existing infrastructure without strategic investments, although economic expansion may also be slowed by the tight labor market.

Provo-Orem, UT, claims first place on the 2017 Best-Performing Cities index. By a wide margin, the region outperformed larger metros competing for the top spot thanks to a stellar performance across all nine indicators. Since 2008, when the Provo region last took the top spot, it has ranked outside the Top 25 only once (at 28th in 2009), and its consistently strong economy has numbered among the Top 3 in the U.S. for each of the past five years. Home to Brigham Young University (BYU) and a growing technology and entrepreneurial community, the region is adding to its workforce and reaping the rewards of a vibrant industry on the broader economy.

Technology has been a major driver of economic growth in the Provo-Orem metro. The region ranked third among large metros for high-tech growth, and the professional, scientific, and technical services sector—the industry category that includes many high-tech jobs—added 5,500 positions between 2011 and 2016. Adobe, a software company headquartered in San Jose, CA, is a major presence in the Provo-Orem region and employs more than 1,200 in their digital marketing unit based in Lehi. The firm announced in 2017 that they would be building a second facility next door, which will house another 1,260 workers when completed.⁷ As part of the announced deal, the Utah Governor's Office of Economic Development has approved a \$26 million post-performance tax credit rebate on future additional state tax revenues available in years where Adobe meets criteria outlined in the contract with the state.⁸ Agreements of this type, which eschew upfront financial incentives for incentives conditional on continuing presence, reduce the risk to taxpayers of state governments trying to predict whether current star firms will remain future industry leaders.

BYU is a major source of employment in the region, contributing significantly to the 24,000 jobs in educational services overall. The university also contributes to the vibrancy of the region by attracting students, who support consumer spending and

have the opportunity to join the skilled local workforce upon graduation. Rising levels of enrollment have bolstered the importance of the university to the regional economy.

BYU ranked fourth on the Milken Institute's 2017 index of the best universities for technology transfer, in part due to its success creating startup firms.⁹ The university fosters an entrepreneurial culture, offering attractive incentives for faculty to commercialize research, and supporting student ventures through the Rollins Center for Entrepreneurship and Technology. Entrata, which originally won a student business plan competition at BYU, is now based in Lehi and provides a platform for apartment landlords to better manage their properties and allow tenants to pay their rent online.¹⁰ Notably, the firm has grown without significant venture capital investment.

Another BYU-related firm is Qualtrics, an enterprise software firm focused on automating statistical data analysis. The influx of \$180 million in venture capital announced in the second quarter of 2017 took its valuation to \$2.5 billion.¹¹ The firm, founded 15 years ago by a BYU professor and his son, now has 1,300 employees worldwide and is the most highly-valued private technology firm headquartered in Utah.¹²

The expanding high-tech sector and broader growth in the region have affected the local labor and real estate markets. Unemployment remains low, and the tighter labor market is putting upward pressure on wages as competition for skilled workers increases. Average weekly wages in the Provo-Orem region have increased by \$100 (up 14 percent) between 2011 and 2016.¹³ Household incomes are also rising.¹⁴ While locating near the BYU campus is attractive for firms spun out of the university or looking to hire its graduates, a lack of large pad-ready spaces and available office buildings within the City of Provo has propelled growing firms into other communities in the Utah Valley.¹⁵

This population growth and economic activity has helped create demand in the construction sector, where the count of specialty trade contractors has almost doubled in the five years since 2011. A large number of mixed-use developments, including University Place in Orem, have been under construction in recent years.¹⁷ Phase 1 of the project, a redevelopment of the former University Mall site, was completed in late 2017, with more housing and offices planned as part of Phase 2.¹⁸ Population growth and rising wages have also bolstered consumer spending driven establishments, including restaurants and bars, where employment has grown by 4,100 in the last five years.

Another prospering industry category is non-store retailers, which covers online vendors. Companies in this sector added 4,000 jobs in the five years ending in 2016, more than tripling total headcount over that period. Small firms like Taft Clothing, that designs and sells high-end shoes manufactured in Spain, contributed to this total.¹⁹

As it grows, the region is investing in infrastructure that can help it successfully support a larger population base. The Utah Transit Authority is currently building a bus rapid transit (BRT) line that will link Orem and Provo, and connect Utah Valley University and Brigham Young University.²⁰ Overruns on the construction project are creating concerns, but the project is due to open in 2018.²¹

As with any lower cost tech-driven economy, a recurring concern is the ability of local firms to compete with Silicon Valley firms for the best talent as potential recruits weigh the much higher salaries in the Bay Area against the benefits of a lower cost of living and their community connections in the Silicon Slopes.²²



#2 RALEIGH, NC

Gained 4 spots

JOB GROWTH (2011-16)	20TH
JOB GROWTH (2015-16)	22ND
WAGE GROWTH (2010-15)	13TH
WAGE GROWTH (2014-15)	10TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	4TH
HIGH-TECH GDP GROWTH (2011-16)	19TH
HIGH-TECH GDP GROWTH (2015-16)	94TH
HIGH-TECH GDP CONCENTRATION (2016)	9TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	9TH

ASSETS

- Universities in the Research Triangle help educate the high-skilled workforce needed by local high-tech firms.
- Lower business costs help the region attract and retain company expansions and relocations.

LIABILITIES

- Continued population growth could overwhelm regional infrastructure.

Raleigh, NC, climbs four spots to rank second. The region has experienced strong job and wage growth in recent years, and short-term job gains indicate that economic momentum remains strong. In the 12 months ending in August 2017, the rate at which new positions were created in Raleigh was 2 percent higher than the U.S. average.

Home to North Carolina State University (NC State), Raleigh is a key part of the Research Triangle, an area which encompasses Raleigh, Durham, and Chapel Hill. While all major universities in the area have strong connections to the firms and workforce clustered by the Research Triangle Business Park and environs, NC State was the only university in the area that placed in the top tier of the Milken Institute's 2017 index of the best universities for technology transfer and commercialization, ranking 25th.²³ The university's Centennial Campus, which now houses more than 75 research centers and academic departments alongside a similar number of private, nonprofit, and government partners, expands the ability of academics and industry to collaborate and innovate.²⁴ One prominent spin-out from the university system is SAS, an analytics and business intelligence software firm established in 1976, which serves researchers and analysts around the world. The company continues to develop its suite of tools, and in October 2017 announced added artificial intelligence capabilities to help analysts gain deeper insights using SAS products.²⁵ Overall, the software publishing industry has been growing steadily, adding 840 jobs in 2016 and 2,500 over the past five years.

Close to 34,000 students are currently enrolled at NC State, so the university also plays a key role in supplying an educated workforce to the region and state. Through co-op and internship programs, the school creates strong ties to local industry, and tightens the relationship between curriculum and career by introducing students early to real-world applications and challenges.²⁶

The large and diverse high-tech sector in Raleigh has been a major economic contributor, although in 2016, its high-tech GDP growth lagged behind peer regions and was the only indicator for which Raleigh ranked outside the Top 25.

The region's economy is twice as concentrated in high-tech industries as the U.S. average, and generating big percentage increases in large tech clusters is more difficult than for newly developing hubs. The communications technology firm Bandwidth, which is based on NC State's Centennial Campus, filed its \$85 million initial public offering in 2017.²⁷ The firm's products include tools that allow developers to add calling and texting capabilities to their applications and websites, and Bandwidth has built a client base including firms like ZipRecruiter and Cisco.

Advanced manufacturing has been another source of strength in the high-tech sector, unsurprising given the investments in innovation within the Research Triangle. Employment in computer and electronic product manufacturing grew by 600, adding more jobs in Raleigh than in all but three (more populous) metro areas in the U.S. in 2016. In the past five years, employment in the sector has more than doubled to 11,900 in the region, even as it shrank by 55,000 positions nationwide.

Raleigh's competitive business climate has helped it attract employers looking to relocate some of their operations away from rising rents in major metros. Credit Suisse announced in May 2017 that they would be creating 1,200 new positions in Raleigh over several years, through a combination of hiring locally and moving workers from their New York operations.²⁸ More than 10,000 jobs have been created in the administrative and support services over the past five years, representing the broader employment growth experienced in the metro that extends well beyond the high-tech sector.

Thanks to the humming regional economy, Raleigh has seen consistent in-migration contribute to its population increase of 12 percent between 2011 and 2016.²⁹ This has had an effect on demand for hospital services and real estate, and has also supported leisure expenditures. Employment at restaurants and bars increased by 2,800 in 2016, fueled by robust wage gains in Raleigh and a concomitant upswing in consumer spending.

#3 DALLAS-PLANO-IRVING, TX

Gained 2 spots

JOB GROWTH (2011-16)	15TH
JOB GROWTH (2015-16)	12TH
WAGE GROWTH (2010-15)	14TH
WAGE GROWTH (2014-15)	25TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	25TH
HIGH-TECH GDP GROWTH (2011-16)	34TH
HIGH-TECH GDP GROWTH (2015-16)	30TH
HIGH-TECH GDP CONCENTRATION (2016)	25TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	9TH

ASSETS

- An attractive business climate and established corporate and financial center support broad-based economic growth.
- High levels of in-migration help provide a workforce for continuing economic expansion and add to the consumer spending base.

LIABILITIES

- Rapidly rising housing costs could erode the cost advantage over West Coast technology hubs and slow business attraction.

Dallas-Plano-Irving, TX, rises two spots to replace Austin in third place, outperforming all other Texas metro areas. The region has seen significant employment gains in a variety of sectors, underscoring the metro's broad economic base. With a diverse high-tech sector that continues to grow, the Dallas-Plano-Irving region added more than 50,000 jobs in the high-skill professional, scientific, and technical service industry between 2011 and 2016. A popular headquarters location—with ExxonMobil based in Irving and Southwest Airlines Co. based in Dallas—administrative and support services have also grown locally, adding 42,600 jobs in the five years ending in 2016. JP Morgan Chase invested in a new campus in Plano, where it expects to consolidate 6,000 of its regional employees under one roof.³⁰ In conjunction with a similar announcement by State Farm, Liberty Mutual Insurance's 2015 decision to locate 5,000 employees in Plano has also bolstered job numbers.³¹ Insurance carriers added more jobs in the region over recent one- and five-year periods than in any other large metro, with total employment growing by a third between 2011 and 2016. The momentum remains strong, with 2,800 of the 16,800 new jobs added in 2016 alone.

Alongside steady economic gains, the region's population has been rising, increasing by 10.6 percent between 2011 and 2016. Net migration into the region is a major contributor to this change, with 58,600 more people moving into the area than left in 2016. This is creating pressure on the housing market. The region had 10,000 more people employed in the real estate sector in 2016 than in 2011, and construction-related sectors have all seen significant gains. Housing costs have risen as opportunities in the region have attracted more residents. Existing single-family homes sold for a median price of \$155,000 in 2011 when the market had already regained ground lost during the recession, but cost \$265,000 in 2016, a 57 percent increase over five years.³² As incomes have not kept pace, this reduction in housing affordability has created concern over the competitiveness of the region's cost advantage to businesses and residents.³³ Looking ahead, increased demand for building supplies in the wake of Hurricane Harvey, which hit Houston and other areas of Southeast Texas and caused significant damage to structures around the region, may drive up prices for new homes in the Dallas-Plano-Irving metro as material costs rise.³⁴

The telecommunications sector is anchored by AT&T, which has its headquarters in downtown Dallas. All major firms' margins have been affected by cord cutting, where customers choose to access premium television and video content over the internet rather than subscribing to pay-TV channels.³⁵ However, as an internet television provider through DirectTV Now, AT&T has been able to slightly mitigate the effect. Should the merger of AT&T and Time Warner go through, media speculation suggests a consolidated entertainment division would be located in Dallas. This would follow the move of entertainment division positions from Atlanta to Dallas and Los Angeles in 2017.³⁶

Overall, venture capital investment in Texas has been lagging behind other states, and startup firms in the Dallas-Plano-Irving region have less access to venture funds than competitors in the Bay Area, New York, or New England. However, 2017 data looks more encouraging than previous years, and firms have leveraged local sources of investment. Varidesk, which designs and sells adjustable office desks, was named the fastest growing business in the Dallas area by Southern Methodist University Cox School of Business in 2016.³⁷ The firm, established in 2012 and owned by parent company Gemmy Industries, has achieved significant market share without accessing outside venture funding.³⁸

Like elsewhere in the country, the computer and electronic product manufacturing industry has been trending downwards since the turn of the century, but it has made gains in recent years that, while modest, were larger than in any other large metro in the U.S. However, the 1,700 new jobs added in 2016 still leave employment in the metro below 2011 levels in this sector. Texas Instruments, based in Dallas, has benefited from increased demand for its chips from the automotive sector as automated systems continue to encompass more of the driving experience.³⁹

The region is also benefiting from major stadium construction projects. Although the Texas Rangers chose to break ground on Globe Life Field in neighboring Arlington in late 2017 rather than move to Dallas,⁴⁰ school districts in the Dallas suburbs have been investing in large stadiums of their own. In January 2017, McKinney Independent School District began construction of a new \$80 million, 12,000 seat stadium in anticipation of future population growth and to compete with nearby school districts with similarly scaled facilities.⁴¹

#4 SAN FRANCISCO-REDWOOD CITY-SOUTH SAN FRANCISCO, CA

Held steady

JOB GROWTH (2011-16)	3RD
JOB GROWTH (2015-16)	9TH
WAGE GROWTH (2010-15)	1ST
WAGE GROWTH (2014-15)	11TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	91ST
HIGH-TECH GDP GROWTH (2011-16)	1ST
HIGH-TECH GDP GROWTH (2015-16)	31ST
HIGH-TECH GDP CONCENTRATION (2016)	6TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	16TH

ASSETS

- The large and established high-tech economy contributes to and benefits from the Silicon Valley innovation ecosystem.
- The highly skilled labor force fuels the knowledge economy, with 54 percent of the population over 25 having earned at least a bachelor's degree.

LIABILITIES

- The continued deficit in affordable housing is pushing workers to lower cost metros nearby, increasing their commute times or causing them to leave the region for lower cost cities elsewhere in the U.S.

San Francisco-Redwood City-South San Francisco, CA, holds steady in fourth place. Rapid wage gains, the fastest in the nation between 2010 and 2015, were a major contributor to its continuing prominence on the index. As the sixth most concentrated high-tech regional economy, the vigorous pace of high-tech growth, more than 60 percent higher than the national average, is particularly impressive. Varied tech firms call the metro home, including the Amazon subsidiary Twitch, a live streaming platform, and Airbnb, a short-term rentals portal.

High-tech GDP growth led the nation between 2011 and 2016, benefiting from access to the venture capital and expertise available in and around the Bay Area. Service-based technology firms and cloud computing have risen in importance. Economic activity in cloud-related services is captured in the data processing, hosting, and related services industry category. Over the one- and five-year periods ending in 2016, this sector added more jobs in the San Francisco region than anywhere else in the nation—2,600 and 8,500 jobs respectively.

Salesforce, a cloud-based customer relationship manager (CRM) provider, is a prominent San Francisco high-tech leader. With the new 61-floor Salesforce tower now the tallest building in the city, it is claiming its place in the skyline too.⁴² The firm is expected to occupy half of the building when it opens in 2018, a testament to its robust growth and strong ties to the region. Fortune shares the positive outlook for Salesforce, naming it top of their Future 50 Leaders list positioned for breakout growth.⁴³ Salesforce will be joined by other tech leaders in the Transbay area around Salesforce tower and the Transbay Transit Center development, with high-end residential and dining accommodating employees working in the offices towers.⁴⁴ Facebook signed a deal to lease 436,000 square feet of office space in the neighborhood, its first major operations outside its Menlo Park headquarters.⁴⁵

The number of people employed in the professional, scientific, and technical services increased by 56,100 between 2011 and 2016, taking total jobs in these high-skills professions up to 178,000, a 46 percent increase over five years. Unlike other regions in the Top 5, where food service and construction-

related employment have closely tracked these high-skills jobs, in the San Francisco-Redwood City-South San Francisco region, employment at restaurants and bars only increased at half the rate of the professional services category. With space within the metropolitan area at more of a premium than in Provo or Raleigh, the geographic characteristics of the region add to the regulatory structure in inhibiting growth. Some may see this as a loss locally, but from a national perspective, distributing some high-tech related growth to less-space constrained emerging clusters can help spread opportunities to new communities.

While fairly stable numbers of births and deaths have kept the natural increase in population steady, there have been significant fluctuations in net migration. After the dot.com bust, tens of thousands of people moved out of the region to elsewhere in the U.S., with this domestic flow only changing direction in 2008. Since 2014, people have been leaving the region again—9,000 in 2016—moving to cheaper housing in neighboring metros, following firms to other cities, or looking for opportunities in regions where they can afford a better quality of life.⁴⁶ International migration has remained relatively stable, varying between 10,000 and 13,000 net new arrivals each year. Ongoing discussions regarding greater restrictions on immigrant visas have the potential to stem this flow in the future, possibly putting additional upward pressure on wages if companies are competing for fewer skilled workers in a low unemployment environment.

The median existing single-family home in the region sold for more than \$1 million in 2016.⁴⁷ Although median household incomes are high compared to the rest of the nation, \$97,000 in 2015, housing is becoming less affordable.⁴⁸ Rents have followed a similar upward trajectory, but new construction is helping slow the rate of increase. In 2016, San Francisco added 5,065 net new units in multifamily buildings.⁴⁹

Recent economic figures suggest that the region's economy is slowing down, reflected in the low ranking on our short-term job growth indicator. However, the economy remains on solid footing with low unemployment.

#5 FORT COLLINS, CO

Gained 3 spots

JOB GROWTH (2011-16)	17TH
JOB GROWTH (2015-16)	15TH
WAGE GROWTH (2010-15)	15TH
WAGE GROWTH (2014-15)	26TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	2ND
HIGH-TECH GDP GROWTH (2011-16)	73RD
HIGH-TECH GDP GROWTH (2015-16)	40TH
HIGH-TECH GDP CONCENTRATION (2016)	24TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	20TH

ASSETS

- Colorado State University provides an innovation anchor and contributes to the skilled workforce.
- The high quality of life and opportunities for outdoor recreation attract visitors and new residents.

LIABILITIES

- The high-tech sector growth is not keeping pace with peers.

Fort Collins, CO, continues to rise the ranks in this edition of BPC, climbing three spots to rank fifth. Fort Collins was the top-ranked Colorado metro thanks to its combination of tourism and high-tech activity. As with our No. 1 small city, Bend, OR, Fort Collins is reaping the quality of life dividend of being a location popular with high-tech talent for both tourism and putting down roots. Opportunities for relocating workers include high-skills occupations; 1,800 jobs were added in the professional, technical, and scientific service sector in 2016. Economic momentum is strong, with short-term job growth in the region second among large metros, and more than 3 percent above the U.S. average.

Broad-based job creation and high quality of life have been attracting new residents, with 7,000 people moving into the metro in 2015. The inflow slowed somewhat in 2016, to 4,000. Nevertheless, in combination with the natural population growth, the region's population has grown by 35,000 between 2011 and 2016, an 11 percent expansion over five years. This has created higher demand for housing, and although new construction is meeting some of the demand, prices have begun to rise.^{50, 51}

The high-tech industry in Fort Collins, although relatively large and diverse, is not keeping pace with many of its peers. The region is home to advanced manufacturing firms like Advanced Energy Solutions, a power and control technology manufacturer, along with HP Inc. and Intel. Woodward, an aerospace and engine systems firm, opened its new manufacturing facility and corporate headquarters in Fort Collins in 2016, and expects to employ 1,700 at this new campus.⁵²

Fort Collins is home to Colorado State University (CSU). The university is a major employer, and 32,000 students were enrolled in the fall of 2017.⁵³ Both university populations provide a stable base for the regional economy, contributing to consumer spending. Fort Collins was fourth on the Bloomberg Brain Concentration Index in 2017, thanks in

large part to CSU.⁵⁴ In addition to adding to the educational attainment of the region and creating a skilled-workforce, CSU also acts as a hub for innovation, helping transform academic research into economic activity. CSU Ventures, the university's technology transfer division, helps found startups, register patents, and engages with faculty and the private sector to support innovation in the region. In 2016, CSU Ventures celebrated ten years of work, with 49 startup companies launched and \$19 million in licensing revenue generated over a decade.⁵⁵

CSU has been investing heavily in its campus; with the recently completed LEED-gold certified biology and chemistry buildings now open, new projects have begun.⁵⁶ These include the JBS Global Food Innovation Center and the Richardson Design Center.⁵⁷ Close to 1,000 new construction-related jobs were added in 2016, and the sector has been consistently strong. Future development opportunities include the 160-acre site of the former CSU football stadium, which the university plans to sell.⁵⁸

Craft brewing has been growing steadily in Fort Collins, adding 8.5 percent to employment in beverage manufacturing in 2016 and approximately 470 jobs since 2011. In the summer of 2017, there were more than 20 breweries for visitors and residents to choose from, including nationally distributed New Belgium Brewing.⁵⁹ Some of these have been put up for sale, offering others the chance to try their hand at running a business making and selling beer.⁶⁰

Tourism, recreation, and hospitality are another major source of employment, accounting for 13 percent of private sector employment in 2016. Fort Collins draws visitors interested in hiking and biking, as well as those with ties to CSU. The dining options downtown were cited as a particular draw in a recent study commissioned by Visit Fort Collins.⁶¹ Playing to the region's strengths, CSU offers a master's degree in tourism management, and beginning in spring 2018, will also offer an online graduate certificate in adventure tourism.⁶²

#6 NORTH PORT-SARASOTA-BRADENTON, FL

Gained 20 spots

JOB GROWTH (2011-16)	6TH
JOB GROWTH (2015-16)	14TH
WAGE GROWTH (2010-15)	22ND
WAGE GROWTH (2014-15)	15TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	1ST
HIGH-TECH GDP GROWTH (2011-16)	13TH
HIGH-TECH GDP GROWTH (2015-16)	26TH
HIGH-TECH GDP CONCENTRATION (2016)	119TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	97TH

North Port-Sarasota-Bradenton, FL, made significant gains to make its way to the sixth spot. The region tops the chart in 12-month job growth, beating out economic powerhouses around the country. Though the region is largely a tourist destination and retiree haven, high-tech industry output has been growing recently, signaling some success in the area's push to diversify its industry profile and thus improving resilience.^{63, 64}

The city of North Port's community has been willing to look to its future by investing \$1 billion over the last ten years in infrastructure, which allowed the growth in the city that anchors the metro.⁶⁵ The North Port-Sarasota-Bradenton region is located central to Tampa and Fort Myers, which is helpful in attracting businesses.⁶⁶ As space in Miami filled up, Florida's construction boom spread to other areas of South Florida, and North Port was no exception.⁶⁷ In 2016 alone the specialty trade contractors industry, which is a construction-related industry, grew 8.3 percent.

ASSETS

- The natural environment is a draw for tourists and retirees.
- As an emerging economy, there is still much room to grow and improve in our growth-based index.

LIABILITIES

- The area has a high cost of living, and much of the employment is in low-wage jobs making affordability an issue.

Though not experiencing the same large gains as the high-tech industries, the food services and drinking places industry caters to tourists and employs 30,400 people, giving it the largest base of any other industry in the metro from which to grow. As the nation's unemployment remains low and consumer confidence is high, the region can expect to benefit from increased domestic tourism in coming months.⁶⁸

Given North Port-Sarasota-Bradenton's high concentration of senior citizens in its population, many of the largest employers in the area are health care entities. Sarasota Memorial Health Care System, Bon Secours Venice Hospital, Venice Regional Medical Center, Manatee Memorial Hospital, and Blake Medical Center are all among the metro's top employers.⁶⁹ Similar to the food services and drinking places industry, medical-related industries already have a large employment base, making it more difficult to achieve high growth numbers.

#7 ORLANDO-KISSIMMEE-SANFORD, FL

Gained 2 spots

JOB GROWTH (2011-16)	12TH
JOB GROWTH (2015-16)	7TH
WAGE GROWTH (2010-15)	19TH
WAGE GROWTH (2014-15)	18TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	12TH
HIGH-TECH GDP GROWTH (2011-16)	78TH
HIGH-TECH GDP GROWTH (2015-16)	22ND
HIGH-TECH GDP CONCENTRATION (2016)	81ST
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	71ST

Orlando-Kissimmee-Sanford, FL, continues its climb up our ranking by gaining two spots to No. 7. The region performed particularly well in the job and wage growth categories, with employment rising by over 4 percent from 2015 to 2016 and wages surging by nearly 8 percent from 2014 to 2015.⁷⁰ High-tech sectors have recently increased in importance with high-tech GDP growth in the one-year category scaling from 62nd among our large metros in the previous ranking to 22nd in this ranking. Orlando-Kissimmee-Sanford is also home to one of the largest universities in the nation, the University of Central Florida, which has an enrollment of over 64,000 students. The presence of the university combined with a high rate of in-migration provides a young and educated population that helps feed the growing high-tech industries.⁷¹

The Orange County Convention Center is poised to construct a \$500 million, two-building expansion over the next few years to increase its capacity in the hopes of bringing in more

ASSETS

- A diversifying industry profile adds to region's resilience.
- The large university in combination with robust in-migration provides growing industries with talent.

LIABILITIES

- Tourism is still a large part of the region's economy, which is reliant on outside economic conditions and, due to its location, natural conditions.

visitors to the Orlando-Kissimmee-Sanford area.⁷² Other expansions include Deloitte, whose recent debut in Orlando bolstered the metro's job growth by hiring 1,000 employees. It has announced plans to expand its technology center with a \$24 million capital investment bringing 850 new jobs in the next four years.^{73, 74} The professional, scientific, and technical services industry grew 8.2 percent from 2015 to 2016, benefiting from the investment of companies like Deloitte in human capital. Though typically known as a tourist destination, the continued diversification of the metro's economy will add to its success in the future.

Orlando has been experiencing a construction boom along with much of Florida. However, large expansions from Walt Disney World Resort and the convention center make the boom more pronounced in this region. Construction-related industries added 7,130 jobs in 2016.

#8 NASHVILLE-DAVIDSON-MURFREESBORO-FRANKLIN, TN

Dropped 1 spot

JOB GROWTH (2011-16)	9TH
JOB GROWTH (2015-16)	11TH
WAGE GROWTH (2010-15)	8TH
WAGE GROWTH (2014-15)	8TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	31ST
HIGH-TECH GDP GROWTH (2011-16)	55TH
HIGH-TECH GDP GROWTH (2015-16)	27TH
HIGH-TECH GDP CONCENTRATION (2016)	128TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	71ST

Nashville-Davidson-Murfreesboro-Franklin, TN, ranks eighth. Though the region dropped one spot, it maintains its strength in job and wage growth. The tight labor market in the Nashville area has driven wage growth, especially in the five-year category, with a 36 percent increase in wages from 2010 to 2015. Contributing to the region's expansion are the professional, scientific, and technical services industry and administration and support services, which together added 8,000 jobs from 2015 to 2016. The region is also known for auto manufacturing as shown by job growth of 6.5 percent from 2015 to 2016 in the transportation equipment manufacturing industry.

Nashville-Davidson-Murfreesboro-Franklin benefits from the presence of Vanderbilt University, which provides a talented labor pool and is responsible for the employment of more than 60,000 people in combination with its medical center.⁷⁵

ASSETS

- The diverse and educated population creates a unique culture unrivaled in the South.
- A strong health care industry provides both employment and high-quality health services for the region.

LIABILITIES

- Rapid growth will require significant investments to avoid overstretching existing infrastructure.

Together, Vanderbilt's medical center, Saint Thomas Health Services, HCA Inc., Community Health Systems Inc., and National HealthCare Corp. employ a combined 42,200 workers, giving the region a strong health care industry.⁷⁶

Though growth has been driven by many industries, the city of Nashville is perhaps best known as a music industry hub. The region maintains its reputation in this edition of BPC with a 19 percent growth in employment in the motion picture and sound recording industries, bolstering Nashville's diverse culture.⁷⁷ A reported 30 percent of students in the Nashville metro speak a language other than English at home.⁷⁸ The Global Education Center has been in the area for close to twenty years working to spread global awareness through the arts.⁷⁹

#9 AUSTIN-ROUND ROCK, TX

Dropped 6 spots

JOB GROWTH (2011-16)	5TH
JOB GROWTH (2015-16)	13TH
WAGE GROWTH (2010-15)	5TH
WAGE GROWTH (2014-15)	9TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	87TH
HIGH-TECH GDP GROWTH (2011-16)	48TH
HIGH-TECH GDP GROWTH (2015-16)	99TH
HIGH-TECH GDP CONCENTRATION (2016)	11TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	32ND

Austin-Round Rock, TX, drops six spots in this ranking but remains a strong competitor at No. 9. The region continues to experience strong job and wage growth, but when high-tech industries already account for such a large portion of the area's GDP (approximately 21 percent of Austin's total GDP⁸⁰), it is hard to maintain large growth numbers in high-tech GDP. Of metro areas with populations greater than two million, the Austin-Round Rock region had the second fastest growth in total real GDP at 4.9 percent, bested only by the San Francisco-Oakland-Hayward, CA MSA.⁸¹ As with most emerging economic powerhouses, Austin is experiencing some growing pains as seen in the high rents and urban congestion.

ASSETS

- The University of Texas provides a highly educated workforce.
- The tech hub combined with a creative culture in the region is attractive to startups.

LIABILITIES

- The increasing cost of living and crowding may eventually erode the region's edge over its competition in attracting large businesses.

Austin benefits from tech giants, like Samsung, investing in the area. The company has already spent \$14 billion on its Austin facility and invested another \$1 billion in the beginning of 2017.⁸² As startup costs become a larger and larger barrier to entry in Silicon Valley, Austin will continue luring companies with its burgeoning tech cluster and access to skilled labor from the University of Texas.

Though housing prices are high, residential construction growth is expected to persist.⁸³ Due to Austin's housing boom, there has been a marked increase in construction employment. The construction of buildings industry in the region grew by 13.9 percent from 2015 to 2016.

#10 SALT LAKE CITY, UT

Gained 1 spot

JOB GROWTH (2011-16)	23RD
JOB GROWTH (2015-16)	18TH
WAGE GROWTH (2010-15)	21ST
WAGE GROWTH (2014-15)	34TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	54TH
HIGH-TECH GDP GROWTH (2011-16)	66TH
HIGH-TECH GDP GROWTH (2015-16)	29TH
HIGH-TECH GDP CONCENTRATION (2016)	46TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	13TH

Salt Lake City, UT, gained one spot to land at No. 10. Though the region only advanced a small amount relative to its peers, Salt Lake City made the largest gains in job and wage growth from 2015 to 2016 and from 2014 to 2015, respectively. The professional, scientific, and technical services; administrative and support services; specialty trade contractors; ambulatory health care services; and credit intermediation and related activities industries were the Top 5 job gainers in total jobs added, giving the region growth in a diverse industry profile.

Financial firms, in particular, have found a sort of business-cost sanctuary in Salt Lake City. The city now has the fourth-largest population of Goldman Sachs staff with close to 2,200 employees, beaten only by New York, London, and the company's location in Bengaluru, India.⁸⁴ Goldman Sachs considers Salt Lake City

ASSETS

- Low business costs are attracting big employers like Goldman Sachs.
- A diverse array of industries make up the largest job gainers.

LIABILITIES

- The tight high-tech labor market is impeding employment growth in those industries.

as one of its strategic locations with lower-costs, signaling a shift in how some companies are strategizing their expansions away from the traditional major business hubs.

As more companies choose to locate to Salt Lake City, jobs and, consequently, housing needs will increase as well. This will mean an uptick in the construction-related industries, which already added 2,600 jobs in 2016. However, the high-tech labor market is currently tight which may mean a lag while employers search for talent.

The natural geography of the area creates a robust tourism industry for the metro. Though a strong part of the economy, Salt Lake City's tourism is largely based on skiing and is sensitive to both economic and environmental conditions.

#11 SAN JOSE-SUNNYVALE-SANTA CLARA, CA

Dropped 10 spots

JOB GROWTH (2011-16)	10TH
JOB GROWTH (2015-16)	49TH
WAGE GROWTH (2010-15)	2ND
WAGE GROWTH (2014-15)	1ST
SHORT-TERM JOB GROWTH (8/2016-8/2017)	134TH
HIGH-TECH GDP GROWTH (2011-16)	2ND
HIGH-TECH GDP GROWTH (2015-16)	64TH
HIGH-TECH GDP CONCENTRATION (2016)	1ST
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	2ND

After two years at the No. 1 spot in our ranking, **San Jose-Sunnyvale-Santa Clara, CA**, has dropped to the 11th position in this edition. Though wage growth remains a driver of success, performance in the short-term job growth categories suggests the region may be nearing a plateau for employment. Employment in high-tech industries is still growing, but in service industries outside of tech, job gains are slowing and in some cases decreasing.

Employment in general merchandise stores, miscellaneous store retailers, and food and beverage stores all contracted from 2015 to 2016. This is likely exacerbated by high rent prices and traffic congestion. Service workers cannot easily afford to live in the area, and the commute from outside the region has become difficult enough to counteract perceived pay premiums from the wealthy area. Another contributing factor may be the perks-based office environment prevalent in Silicon Valley where companies offer many in-office services—be it lunch, dry cleaning, or even haircuts—which people would otherwise shop around for locally.⁸⁵ These perks, designed to help recruit and then keep employees in the office, also have other negative spillover effects, such as perpetuating Silicon Valley's notoriously poor gender and

ASSETS

- Since Silicon Valley is the gold standard of tech hubs, it is easy to attract top talent from around the world.
- Stanford University provides a pipeline of highly skilled graduates.

LIABILITIES

- Business costs and the cost of living are extremely high, making it difficult for startups to locate in the region.

age diversity and creating unsustainable expectations for a startup's work environment. Notably Dropbox, feeling the pain in its wallet after spending an estimated \$38 million in perks per year for just 1,500 employees, announced major perk cuts in 2016.⁸⁶ Many startups are having to decide whether tightening purse strings to move toward profitability is worth the risk of losing talent.⁸⁷

Despite the drop in performance related to job growth, high-tech industries continue to drive the San Jose-Sunnyvale-Santa Clara economy. The professional, scientific, and technical services industry—already the largest employer in the region—grew 4.4 percent from 2015-2016 by adding 6,300 jobs. With research expanding in ventures such as self-driving cars, companies have been trying to establish their position in the emerging market whose main cluster exists in Silicon Valley. Ford announced in 2016 that it would be expanding its offices and labs in Palo Alto and subsequently doubling its employees at the location to establish itself as a competitor in self-driving car development.⁸⁸ Jobs in high-tech industries tend toward the higher end of the pay spectrum, driving the region's excellence in wage growth.

#12 WEST PALM BEACH-BOCA RATON-DELRAY BEACH, FL

Gained 24 spots

JOB GROWTH (2011-16)	13TH
JOB GROWTH (2015-16)	24TH
WAGE GROWTH (2010-15)	20TH
WAGE GROWTH (2014-15)	24TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	49TH
HIGH-TECH GDP GROWTH (2011-16)	28TH
HIGH-TECH GDP GROWTH (2015-16)	17TH
HIGH-TECH GDP CONCENTRATION (2016)	97TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	71ST

West Palm Beach-Boca Raton-Delray Beach, FL, ranks 12th in this edition of BPC Large Cities and returns to the Top 25 for the first time since 2004. The metro ranks in the Top 20 for five-year job growth and one-year high-tech GDP growth. The high-tech sector has grown by 6.5 percent over 2016 and 14.5 percent in the last five years. The metro supports a large biotech cluster, which is anchored by Florida Atlantic University, Scribbs Research Institute-Florida, and the Max Planck Society. The university is planning to build a \$30 million building for which it has received \$4.5 million from the state to boost the concentration of life science activity.⁸⁹

The biotech industry in the metro has developed a substantial presence and is able to support local startups in recruiting talent locally.⁹⁰ From 2015-2016 the metro added 2,600 professional, scientific, and technical service jobs, making this sector the second fastest growing in the U.S. Biotech firm Sancilio & Company is looking to invest \$20 million into its own research in the metro.⁹¹ The high-tech sector is not limited to just biotech; United Technologies, an aerospace company, has invested

ASSETS

- The metro has a local finance industry helping to commercialize local biotech innovations.
- A strong health care industry provides high-wage, stable employment for the metro.

LIABILITIES

- Low enrollment in Florida Atlantic University may hinder the creation of local talent for life science companies.

\$115 million into new facilities and planned to increase its payroll by 380 people.⁹²

One of the advantages the metro's life science industry has is that six of the 20 largest employers are hospitals or medical centers.⁹³ The health care industry benefits not only from the presence of the biotech industry but also the retirement community, which is large enough to attract medical systems like the Cleveland Clinic, which employed 2,620 South Floridians as of 2013.⁹⁴ The health care industry is supported by a population in which nearly 12 percent is over 75.⁹⁵

West Palm Beach-Boca Raton-Delray Beach, FL has 12.4 percent of total employment related to housing, which has seen investments throughout the metro. Frankel Enterprises has invested \$145 million into condominiums in Palm Beach Garden, and \$52 million was invested into an apartment complex in Royal Palm Beach.^{96, 97} The real estate market has seen multifamily housing permits increase while single-family permits decreased in 2016, coinciding with housing prices rising faster than in the rest of the state.⁹⁸

#13 CHARLOTTE-CONCORD-GASTONIA, NC-SC

Dropped 1 spot

JOB GROWTH (2011-16)	21ST
JOB GROWTH (2015-16)	21ST
WAGE GROWTH (2010-15)	10TH
WAGE GROWTH (2014-15)	16TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	64TH
HIGH-TECH GDP GROWTH (2011-16)	33RD
HIGH-TECH GDP GROWTH (2015-16)	100TH
HIGH-TECH GDP CONCENTRATION (2016)	84TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	40TH

Charlotte-Concord-Gastonia, NC-SC, drops one spot to No. 13. The region excels in wage growth and remains strong in job growth as well. Driven by financial services, this MSA is expected to continue its growth in the short-term.⁹⁹

The professional, scientific, and technical services industry added 5,800 jobs from 2015 to 2016, which was an increase of about 9 percent. Much of this growth is fueled by fintech companies like PrecisionLender and AvidXchange, which both made Charlotte Business Journal's 2016 and 2017 Fast 50 list, reflecting dollar and percentage growth over three years.^{100, 101} PrecisionLender made a series of strategic partnerships in 2017, including joining forces with Cloud Security Alliance, bringing the company into the same network as Microsoft,

ASSETS

- Low business costs give the metro a competitive edge over other larger metros.
- The fintech cluster is becoming a competitive advantage for the region.

LIABILITIES

- A relatively homogenous educational and industrial profile may impede creative innovation.

Atlassian, and Box.¹⁰² AvidXchange also strategically partnered with Mastercard Inc., sparking a \$300 million expansion that will bring 600 new jobs by the end of 2018.¹⁰³

Charlotte was hit particularly hard by the housing crisis about ten years ago but has fully recovered with median housing prices reaching a new peak of \$185,000 in 2016.¹⁰⁴ Job and wage growth in the region helped the crisis come to an end, though now a low housing supply is unable to meet rising demand.¹⁰⁵ Construction-related industries are already growing significantly, and Charlotte-Concord-Gastonia can expect to see an increase in those industries as residential housing construction stays in demand.

#14 ATLANTA-SANDY SPRINGS-ROSWELL, GA

Gained 7 spots

JOB GROWTH (2011-16)	34TH
JOB GROWTH (2015-16)	32ND
WAGE GROWTH (2010-15)	34TH
WAGE GROWTH (2014-15)	59TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	15TH
HIGH-TECH GDP GROWTH (2011-16)	72ND
HIGH-TECH GDP GROWTH (2015-16)	19TH
HIGH-TECH GDP CONCENTRATION (2016)	37TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	54TH

ASSETS

- Industry diversity is strengthening the region's economy.
- The low cost of doing business is attracting companies.

LIABILITIES

- Infrastructure improvements are not keeping pace with economic growth.

Atlanta-Sandy Springs-Roswell, GA, gains seven spots to land at No. 14. The region performed best relative to its peers in the most recent measurements of job growth and high-tech GDP growth, and was strong across most of our indicators. The total job growth is spread across many industries. Nearly 45,000 jobs were added in 2016 by a diverse array of industries including dining and drinking industries, knowledge-based industries, health-related industries, construction-related industries, and film- and television-related industries. This diverse industrial makeup adds both growth and resilience.

Though insurance, finance, and real estate industries contributed significantly to Atlanta's total GDP growth in 2016, none contributed more than information technology.¹⁰⁶

This growth adds fuel to the buzz over the metro's coming pitch for Amazon's second headquarters. In Moody's Analytics' assessment of current intended bidders, Atlanta ranked second just behind Austin, TX.¹⁰⁷ Amazon has already been expanding its distribution centers and even its high-tech operations in Atlanta.¹⁰⁸ Other tech companies are also taking notice of the Atlanta metro. Tech Mahindra Ltd., part of the Mahindra Group, which specializes in IT consulting, announced an expansion that will bring the firm's employment from 100 to over 600 people in its suburban Atlanta location.¹⁰⁹

Increases in employment and wages are putting more people in the housing market, benefiting both the real estate- and construction-related industries.

#15 TAMPA-ST. PETERSBURG-CLEARWATER, FL

Gained 18 spots

JOB GROWTH (2011-16)	33RD
JOB GROWTH (2015-16)	20TH
WAGE GROWTH (2010-15)	56TH
WAGE GROWTH (2014-15)	39TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	17TH
HIGH-TECH GDP GROWTH (2011-16)	63RD
HIGH-TECH GDP GROWTH (2015-16)	47TH
HIGH-TECH GDP CONCENTRATION (2016)	70TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	32ND

ASSETS

- The natural environment is a draw for tourists.
- The University of South Florida provides an educated labor pool.

LIABILITIES

- Domestic tourism is a major part of the economy and is sensitive to cyclical downturns.

Tampa-St. Petersburg-Clearwater, FL, was a high gainer, rising 18 spots to No. 15. The region performed well across all categories, but excelled in short-term job measures. The University of South Florida helps fill new jobs with an educated workforce. The non-store retailers industry added 4,900 jobs for a 60.5 percent increase from 2015 to 2016 with the help of Amazon, which added thousands of jobs in regional locations during that time.¹¹⁰

The Tampa-St. Petersburg-Clearwater MSA is known both as a domestic tourism destination and for its concentration of retirees. To help accommodate travelers, the Tampa International Airport has been growing and will continue to do so as part of an approximate \$2.3 billion renovation and expansion.¹¹¹ In the next ten years, the airport will be able to accommodate twice as many passengers as it currently services. The Clearwater Marine Aquarium plans to break ground at the end of 2017 on an expansion to the tune of \$66 million.¹¹² The Clearwater City Council approved a \$5 million contribution to the project, considering it an investment in one of its largest tourism draws.¹¹³

USAA expanded its operations in 2015 when it added a 420,000 square-foot location to bring its employment to 3,600 people in the Tampa area.¹¹⁴ The company announced in 2017 that it plans to build another 240,000 square-foot office building in the same location which is expected to bring as many as 1,000 additional jobs.¹¹⁵

These expansions add to the effect that South Florida's overall construction boom has had on the metro, which brought 5,800 new jobs to the Tampa-St. Petersburg-Clearwater construction-related industries in 2016.

#16 OAKLAND-HAYWARD-BERKELEY, CA

Gained 2 spots

JOB GROWTH (2011-16)	31ST
JOB GROWTH (2015-16)	42ND
WAGE GROWTH (2010-15)	27TH
WAGE GROWTH (2014-15)	17TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	100TH
HIGH-TECH GDP GROWTH (2011-16)	27TH
HIGH-TECH GDP GROWTH (2015-16)	80TH
HIGH-TECH GDP CONCENTRATION (2016)	18TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	1ST

ASSETS

- A strong tech sector and vibrant startup activity allow the metro to stay economically relevant.
- Relatively cheaper business costs provide a cost advantage over neighboring San Francisco and San Jose.

LIABILITIES

- Declining housing affordability may hinder future growth.

Oakland-Hayward-Berkeley, CA, takes 16th place in our latest index. Its rank has been improving in the recent decade, jumping from 178th in 2010 to 16th place this year. The one-year wage growth (2014-2015) and high-tech GDP concentration are ranked among the Top 20 in the U.S. Its number of high-tech industries has been standing among the Top 3 in the past five years and is No. 1 in this edition of BPC.

The government, medical, and high-tech sectors are the three main pillars of this metro's economy. The clustering of the University of California, Berkeley, California State University, East Bay, the Lawrence Berkeley National Laboratory, and the Lawrence Livermore National Laboratory not only provide government jobs, but also form a strong foundation of research and development. The medical sector also provides a significant number of jobs. Medical institutions such as Alameda Health System, Alta Bates Summit Medical Center, Children's Hospital Oakland, John Muir Health, and Kaiser Permanente all cluster in this region.

Proximity to San Francisco and San Jose has tremendously facilitated the development of the tech sector in this metro. Now that the Bay Area office rent is higher than anywhere in America, tech industry spillover is reaching more affordable neighborhoods in Oakland. For instance, San Francisco's average monthly asking rent for offices in the fourth quarter of 2016 was \$72.46 per square foot whereas the price in Oakland was \$2.91 per square foot.¹¹⁶ The cost advantage Oakland can provide has attracted creative, technology, green energy, and food startups.¹¹⁷ The recent expansion of co-working space signals the rising demand for office space for entrepreneurial and startup activities. Since 2012, there has been a greater supply of co-working space notably from Impact Hub, the Port Workspaces, and WeWork in this metro. WeWork is expected to open a shared office space in downtown Oakland, the company's first location in the East Bay Area, in late 2017.¹¹⁸

#17 SEATTLE-BELLEVUE-EVERETT, WA

Dropped 7 spots

JOB GROWTH (2011-16)	32ND
JOB GROWTH (2015-16)	36TH
WAGE GROWTH (2010-15)	6TH
WAGE GROWTH (2014-15)	77TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	52ND
HIGH-TECH GDP GROWTH (2011-16)	77TH
HIGH-TECH GDP GROWTH (2015-16)	66TH
HIGH-TECH GDP CONCENTRATION (2016)	2ND
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	20TH

ASSETS

- The rise of cloud computing brings more high-paying jobs to the metro.
- The metro has a highly-educated workforce to supply local labor demand.

LIABILITIES

- Job cuts in the aerospace industry are further reducing economic diversity.

Seattle-Bellevue-Everett, WA, dips seven places to 17th, with a larger degree of decline in one-year wage growth and short-term job growth. The lower growth rates in the short-term indicators should not be deemed a sign of a declining economy. In fact, this metro has been standing among the Top 20 in our ranking since 2012. As in the 2016 ranking, it has strong performance in five-year wage growth (No. 6) and high-tech GDP concentration (No. 2).

The region has been losing jobs in the aerospace industry. Boeing is installing more robots to automate its Everett manufacturing site and outsourcing more work to other countries like China.¹¹⁹ In April 2017, Boeing sent out a layoff notice for 191 of its Everett employees.¹²⁰ In July 2017, Rockwell-Collins, a Boeing supplier with 600 employees in Everett, announced it will be moving its manufacturing product lines to Lenexa, Kansas.¹²¹ Despite the loss in aerospace manufacturing employment, this metro is benefiting from the growing software development industry. Amazon and Microsoft, headquartered in this metro, have been expanding their businesses in cloud computing and have earned Seattle the name of "Cloud City."¹²²

The recent expansion of Amazon's online retail, data storage, and data processing added more software developer jobs in Seattle.¹²³ Seattle ranks No. 3 in the number of software developers, behind the Bay Area and New York City. The median salary for software developers in Seattle is \$132,000, beaten only by the Bay Area.¹²⁴ The increase in high-paying jobs in the tech sector will help strengthen the metro's economic health.

The growth in the tech sector is the main contributor to the recent strong economic performance of the metro. The talent pool, together with relatively cheaper housing prices in this metro compared with the Bay Area or New York City, are the main reasons for the growth of the tech sector in Seattle-Bellevue-Everett.¹²⁵ In 2016, the share of population with at least a bachelor's degree accounted for 46.2 percent of the metro's population aged 25 and over.¹²⁶ The median sales price for existing single-family homes in this metro for the fourth quarter of 2016 was \$468,785, compared to \$1,056,561 in San Francisco-Redwood City-South San Francisco, CA.¹²⁷

#18 NAPLES-IMMOKALEE-MARCO ISLAND, FL

Dropped 1 spot

JOB GROWTH (2011-16)	4TH
JOB GROWTH (2015-16)	3RD
WAGE GROWTH (2010-15)	16TH
WAGE GROWTH (2014-15)	37TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	61ST
HIGH-TECH GDP GROWTH (2011-16)	15TH
HIGH-TECH GDP GROWTH (2015-16)	18TH
HIGH-TECH GDP CONCENTRATION (2016)	154TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	144TH

ASSETS

- The metro has strong tourism and retail sectors.
- Nice weather and scenic views help boost population—attracting retirees in particular.

LIABILITIES

- Tourism and retail activities are vulnerable to business cycles and natural disasters.

Naples-Immokalee-Marco Island, FL, takes 18th place. This metro's economy has been bouncing back since 2012 and has been among the Top 20 in our ranking three years in a row. This metro has a very strong performance in our one- (No. 3) and five-year (No. 4) job growth measurements. Moreover, its five-year wage growth and one- and five-year high-tech GDP growth all stand in our Top 20 list.

The metro has long been a tourist destination supported by retail shops, restaurants, and hotels. Marriott International, Inc., Naples Grande Beach Resort, and the Registry Collection are major players in hospitality for this region. However, the tourism industry in this region may need some time to recover from the recent damage by Hurricane Irma. Food-related consumer services is also an important part of the metro's economy. The Wal-Mart Stores Inc., the second largest employer in the metro, employs more than 1,700 employees.¹²⁸ This area has not only been luring in numerous tourists, but it has also been attracting many retirees. Providing service to a large pool of retirees, the health care

industry is strong in this metro. Arthrex (a global medical device company), HCR ManorCare, and the Naples Community Hospital (NCP) Healthcare System are major employers in this industry and currently employ more than 5,500 people.¹²⁹

Naples-Immokalee-Marco Island, FL, has recently experienced population growth, which brought down the stock of available housing and drove up housing prices and rents. After apartment vacancy rates fluctuated between 2 to 4 percent from 2012 to 2015, they rose in 2016 and reached 4.6 percent by the fourth quarter of 2016. From 2013 to 2016, the growth rates of asking rent for apartments were over 10 percent.¹³⁰ The median sales price of existing single-family homes for this metro went up by 83.5 percent from 2011 to 2016, reaching \$424,124 in 2016. All of these have driven new developments for multi-family projects, which helps job creation in the construction sector. Nonetheless, the median family income over the same period only increased by 11.6 percent, standing at \$70,457 in 2016.¹³¹ This mismatch in growth rates raises concerns for housing affordability in this region.

#19 SAN ANTONIO-NEW BRAUNFELS, TX

Gained 5 spots

JOB GROWTH (2011-16)	27TH
JOB GROWTH (2015-16)	57TH
WAGE GROWTH (2010-15)	23RD
WAGE GROWTH (2014-15)	52ND
SHORT-TERM JOB GROWTH (8/2016-8/2017)	46TH
HIGH-TECH GDP GROWTH (2011-16)	36TH
HIGH-TECH GDP GROWTH (2015-16)	16TH
HIGH-TECH GDP CONCENTRATION (2016)	79TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	40TH

ASSETS

- Fort Sam Houston's presence provides a stable economic base.
- The health care industry and emerging biotech sector help to diversify the metro's economy.

LIABILITIES

- Oil extraction activity is vulnerable to fluctuations in gasoline price.

San Antonio-New Braunfels, TX, gains five positions from the 2016 edition. This metro has been a strong performer in our ranking, standing among the Top 25 since 2008. Its one-year high-tech GDP growth ranks No. 16 among all U.S. metros.

San Antonio, known as "Military City USA," has a large military presence with a significant pool of active and retired military personnel and their family members. It is the home of Fort Sam Houston, which houses the Department of Defense's largest medical center.¹³² This metro also has a concentration of medical facilities including Baptist Health System, CHRISTUS Santa Rosa Health System, and Methodist Healthcare. The biotech sector is growing in the metro, which can be attributed to the talent pool in and affordability of the region.¹³³

Apart from its military, health care, and biotech industries, this metro is also known for its oil extraction. The Eagle Ford Shale is just south of San Antonio, whose manufacturers of drilling

equipment and supplies have benefited from oil operations in recent years. In addition to energy-related manufacturing, this metro supports other manufacturing activities. Incentivized by the Texas Enterprise Fund, the Texas Workforce Commission, and local government agencies, Continental Automotive Systems Inc. has been expanding its manufacturing capacity in automotive sensors in Seguin since early 2012.¹³⁴ Indo-MIM, an India-based manufacturer making precision component parts that can be used in other products such as surgical instruments and auto parts, announced its plan in 2015 to build a plant in Port San Antonio. This investment initiative was encouraged by Port San Antonio and other local economic development agencies. This company recently announced that it will expand the size of the workforce at this plant from 52 to 300.¹³⁵ Other major manufacturers in San Antonio-New Braunfels, TX, include Caterpillar and GW Plastics.

#20 RIVERSIDE-SAN BERNARDINO-ONTARIO, CA

Gained 24 spots

JOB GROWTH (2011-16)	8TH
JOB GROWTH (2015-16)	23RD
WAGE GROWTH (2010-15)	24TH
WAGE GROWTH (2014-15)	5TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	50TH
HIGH-TECH GDP GROWTH (2011-16)	79TH
HIGH-TECH GDP GROWTH (2015-16)	69TH
HIGH-TECH GDP CONCENTRATION (2016)	130TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	118TH

ASSETS

- Military employment provides stable support for the metro's economy.
- The role as a regional logistics hub is further strengthened by the growing number of flights at the Ontario International Airport.

LIABILITIES

- A lack of high-skilled workers may hinder the development of high value-added jobs.

Riverside-San Bernardino-Ontario, CA, gains 24 places from our previous ranking. Its five-year job growth and one-year wage growth both stand in the Top 10. It experienced a big improvement in the one- and five-year wage growth and five-year high-tech GDP growth from the last edition. In addition to the aforementioned factors, the booming housing market has also been driving the metro's recent economic growth.¹³⁶ The overall ranking of this metro has been improving since 2014.

The metro has a large military presence. It is the home to Fort Irwin, the March Air Reserve Base, and the Marine Corps Air Ground Combat Center, altogether employing more than 38,000 on site. Education and health care are the other two major industries here. California State University, San Bernardino, Loma Linda University, and the University of California, Riverside provide a large pool of jobs. There are several retirement cities in this region, such as Palm Springs. This bolsters the development of the health care industry.

Arrowhead Regional Medical Center, Eisenhower Medical Center, Kaiser Permanente, Riverside County Regional Medical Center, and VA Loma Linda Healthcare System all are located in this metro. Casinos, resorts, and spas in this area provide hospitality employment.

Riverside-San Bernardino-Ontario, CA, is known as a regional logistics hub with warehouses, storage facilities, airports, and railways. Logistics for retail and e-commerce giants including Amazon, Target, and Walmart altogether employ nearly 25,000 employees in this metro. The recent opening of new flights between the Ontario International Airport and several Asian cities will further contribute to the development of logistics and trade activities. Although this region has a rather diverse set of industrial sectors, its relatively low share of college-educated population (20 percent of the total population¹³⁷) may provide challenges for its long-term economic growth.

#21 FORT LAUDERDALE-POMPANO BEACH-DEERFIELD BEACH, FL

Gained 7 spots

JOB GROWTH (2011-16)	39TH
JOB GROWTH (2015-16)	55TH
WAGE GROWTH (2010-15)	42ND
WAGE GROWTH (2014-15)	38TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	14TH
HIGH-TECH GDP GROWTH (2011-16)	64TH
HIGH-TECH GDP GROWTH (2015-16)	37TH
HIGH-TECH GDP CONCENTRATION (2016)	87TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	54TH

ASSETS

- The metro has strong tourism and health care sectors.
- The improvement in transportation infrastructure is conducive to furthering the metro's economic development.

LIABILITIES

- The tourism- and real estate-driven economy may be sensitive to business cycles.

Fort Lauderdale-Pompano Beach-Deerfield Beach, FL, climbs seven places, entering our Top 25. It has strong short-term job growth (ranked No. 14), and the diversity of its high-tech sector jumps from No. 84 to No. 54. Its overall ranking has been trending up since 2013.

This metro is known for its tourism and health care industries. The nice weather and scenic views have made it a popular tourist spot. This has also spawned many tourism-related services. Sixt, a car rental company, will set its North America headquarters in Fort Lauderdale and create 300 jobs. Draws for Sixt to the region include its diverse workforce, strong tourism market, location near both the Fort Lauderdale-Hollywood International Airport and Miami International Airport, relative proximity to its international headquarters in Munich, Germany, and the government incentive package.¹³⁸ This metro also has a high proportion of retirement-age residents supporting health care services. Many of the

top employers are from the health care industry including Broward Health, HCA East Florida Division, Holy Cross Hospital, MBF Healthcare Partners, L.P., Memorial Healthcare System, and Tenet Healthcare Corporation.

In addition to the airports around this region, a Brightline high-speed rail is under construction and will connect Miami, Fort Lauderdale, and West Palm Beach.¹³⁹ This new transportation infrastructure should be a plus to the metro's economy in the future. Low-wages, stringent lending standards, and the high share of retired population have spurred on increased construction of multi-family housing in this metro.¹⁴⁰ Nevertheless, Fort Lauderdale-Pompano Beach-Deerfield Beach, FL, is also facing some challenges. The recent job creation in this metro mainly came from low-wage jobs. Moreover, it may take some time for tourism in this area to recover from the recent impact of Hurricane Irma.

#22 CHARLESTON-NORTH CHARLESTON, SC

Dropped 6 spots

JOB GROWTH (2011-16)	26TH
JOB GROWTH (2015-16)	25TH
WAGE GROWTH (2010-15)	26TH
WAGE GROWTH (2014-15)	48TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	80TH
HIGH-TECH GDP GROWTH (2011-16)	38TH
HIGH-TECH GDP GROWTH (2015-16)	3RD
HIGH-TECH GDP CONCENTRATION (2016)	66TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	118TH

ASSETS

- The expanding activities in Port Charleston continue driving the region's economic growth.
- The emerging tech-sector adds high value-added jobs, enhancing the metro's economic health.

LIABILITIES

- The export-oriented economy may be more susceptible to future economic downturns.

Charleston-North Charleston, SC, falls six places, standing at No. 22 this year. Its rank in short-term job growth drops from No. 46 to No. 80. On the other hand, its one-year high-tech GDP growth jumps from No. 108 to No. 3. This metro has been among the Top 40 in our ranking since 2005, showing a stable economic performance in the recent decade.

The Port of Charleston plays a key role in this metro's economy, and the recent expansion of the Panama Canal has increased the flow of cargo ships to the metro, linking it with more ports around the globe. The port makes this metro an important regional logistics hub and has attracted many export-oriented industries to the region. Transportation manufacturing is one of the pillar industries in the metro. In October 2009, Boeing selected North Charleston as a new site for the 787 Dreamliner final assembly and delivery line.¹⁴¹

However, facing strong competition from Airbus, Boeing has been cutting costs by downsizing employment. In January 2017, the aerospace giant laid off 200 workers at this campus. Despite this, Boeing still currently employs approximately 7,500 people in this metro.¹⁴² In addition, major auto industry players—including BMW, Michelin, and Volvo—are all important parts of this metro's export-based economic activity.

The tech sector is emerging in this metro. The growth rate of the tech industry is approximately twice the national rate in the past few years.¹⁴³ Blackbaud, Inc., a supplier of software and services, has its headquarters in Charleston. It is currently expanding its HQ and expects to offer 300 new jobs.¹⁴⁴ SPAWAR-Atlantic, which involves the development of warfare systems, has approximately 4,000 employees in this metro.

#23 DENVER-AURORA-LAKEWOOD, CO

Dropped 10 spots

JOB GROWTH (2011-16)	19TH
JOB GROWTH (2015-16)	71ST
WAGE GROWTH (2010-15)	18TH
WAGE GROWTH (2014-15)	50TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	79TH
HIGH-TECH GDP GROWTH (2011-16)	103RD
HIGH-TECH GDP GROWTH (2015-16)	43RD
HIGH-TECH GDP CONCENTRATION (2016)	31ST
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	16TH

ASSETS

- The metro has a large pool of highly educated workers.
- Diversified industries will help the metro stay economically healthy in the long run.

LIABILITIES

- Tech manufacturing in the metro has been slowing down.

Denver-Aurora-Lakewood, CO, slides ten spots to 23rd place. The rankings for job growth measures all dipped this year. Despite this, its one-year high-tech GDP growth moved up from No. 164 to No. 43. Moreover, its number of high-tech industries remains as strong as in the previous edition. The overall performance of this metro has been mostly improving since 2011.

Lockheed Martin, an aerospace and defense company, is one of the major employers in the regional tech sector and employs approximately 6,300 employees.¹⁴⁵ The company recently announced plans for the construction of a \$350 million satellite manufacturing plant at its Waterton Canyon campus, which is expected to be completed in 2020.¹⁴⁶ In 2014, Panasonic Enterprise Solutions announced a new business solutions operations center, technology center, and assembly facilities adjacent to Denver International Airport.¹⁴⁷ GlobalFoundries, a major player in the semiconductor industry, employs approximately 2,800 people in the region.¹⁴⁸

This metro has a high concentration of the air transportation sector. Frontier Airlines, Southwest Airlines, and United Airlines together have more than 12,000 employees in the region.¹⁴⁹ The metro has also been improving its transportation networks. Alongside upgrading the Denver International Airport, the City of Denver has recently been shaping itself as a smart city with better public transit and more renewable energy vehicles.

In addition to the high-tech and air transportation sectors, the financial services, health care, and logistics sectors also fare well in the region. Although the recent performance of tech manufacturing has been sluggish, the high-tech sector remains strong. With an abundance of college graduates (approximately 40 percent of the total metro population aged 25 and over) and its diverse industrial base, the short-term economic prospects are looking up.

#24 PORTLAND-VANCOUVER-HILLSBORO, OR-WA

Dropped 10 spots

JOB GROWTH (2011-16)	40TH
JOB GROWTH (2015-16)	54TH
WAGE GROWTH (2010-15)	17TH
WAGE GROWTH (2014-15)	22ND
SHORT-TERM JOB GROWTH (8/2016-8/2017)	60TH
HIGH-TECH GDP GROWTH (2011-16)	198TH
HIGH-TECH GDP GROWTH (2015-16)	68TH
HIGH-TECH GDP CONCENTRATION (2016)	7TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	40TH

ASSETS

- A strong high-tech sector provides high-paying jobs.
- A diversified industrial mix and a highly-educated workforce can boost long-term economic growth.

LIABILITIES

- High housing prices may restrain the metro's growth.

Portland-Vancouver-Hillsboro, OR-WA, dives down ten spots to land at No. 24. Despite the decline in the overall rank, the metro's high-tech sector remains a strong force supporting the metro's economic development. The overall performance of this metro has been improving since 2011 and has remained in the Top 25 for the last six years.

The high-tech sector is the main driver for this metro's recent growth. Many established and startup tech firms are located in the metro's cluster of high-tech companies known as the Silicon Forest, drawn by the metro's highly-educated workforce and relatively cheap business costs relative to Silicon Valley. Intel is the anchor tech company in this metro. It has five campuses west of Portland in Washington County, focusing on semiconductor research and manufacturing.¹⁵⁰ Intel currently employs around 18,600 workers in the metro.¹⁵¹ Eclipsium, Inc., a cybersecurity startup in Portland, recently obtained \$2.3 million in funding from Intel Capital,

Intel's investment arm.¹⁵² In addition to Intel, WaferTech, LLC (a member company of the Taiwan Semiconductor Manufacturing Company, TSMC) has roughly 1,000 employees in the region. SHE (Shin-Etsu Handotai) America Inc., a silicon wafer manufacturer, also employs nearly 900 people in the Vancouver area.

This metro is also home to fitness equipment manufacturers including Nike and Nautilus. Together, they employ more than 8,800 workers.¹⁵³ In addition to the high-tech and fitness equipment sectors, logistics and health care are also major employers in this metro. The rising demand for housing (multi-family in particular) triggered by population growth is pushing up housing prices and heating up construction activity in the region. However, the booming housing market is expected to cool in the next few years due to increased supply of housing.¹⁵⁴

#25 FAYETTEVILLE-SPRINGDALE-ROGERS, AR-MO

Gained 5 spots

JOB GROWTH (2011-16)	11TH
JOB GROWTH (2015-16)	8TH
WAGE GROWTH (2010-15)	12TH
WAGE GROWTH (2014-15)	23RD
SHORT-TERM JOB GROWTH (8/2016-8/2017)	21ST
HIGH-TECH GDP GROWTH (2011-16)	128TH
HIGH-TECH GDP GROWTH (2015-16)	90TH
HIGH-TECH GDP CONCENTRATION (2016)	184TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	178TH

ASSETS

- Walmart's headquarters, along with the local food and health care industries, provide employment and a solid industrial base.

LIABILITIES

- The lack of high-tech sectors may hinder long-term growth.

Fayetteville-Springdale-Rogers, AR-MO, grasps the 25th place, moving up five spots from our previous ranking. Its one- and five-year job and wage growth stand among the Top 25. Since 2002, this metro has been moving up the BPC rankings, showing a steady economic performance over the past 15 years.

The metro's recent job gains can be attributed to the health care and food manufacturing sectors. Mercy Northwest Arkansas, Northwest Medical Center, Pinnacle Healthcare, and Washington Regional Medical Center altogether employ more than 6,700 workers in the region.¹⁵⁵ Arkansas Children's Hospital Northwest campus is expected to open in January 2018 and will add 250 more jobs.¹⁵⁶ This metro also has a high concentration of food-related enterprises such as Cargill, George's Inc., Pinnacle Foods, Twin Rivers Foods Inc., and Tyson Foods, Inc.

This area is known for housing the headquarters of the retail giant, Walmart. Although it announced a layoff plan in January 2017, it is still the main employer in this region. It currently employs more than 25,000 workers locally.¹⁵⁷ The metro has recently seen positive population growth. In both 2015 and 2016, the year-to-year population growth rates were 2.2 percent.¹⁵⁸ With the positive demographic trend and robust industrial mix of food and health care sectors, the metro should be able to maintain steady economic growth in the near future.

COMPLETE RESULTS: 2017 BEST-PERFORMING LARGE CITIES

RANKINGS BY COMPONENT

Rank Change	2016 Rank	2017 Rank	Metropolitan Statistical Area/Metropolitan Division	Job Growth (2011-16)	Job Growth (2015-16)	Wage Growth (2010-15)	Wage Growth (2014-15)	Short-Term Job Growth (8/2016-8/2017)	High-Tech GDP Growth (2011-16)	High-Tech GDP Growth (2015-16)	High-Tech GDP Concentration (2016)	Number of Industries with LO>=1 (2016)
1	2	1	Provo-Orem, UT	1	1	4	3	7	3	12	16	20
4	6	2	Raleigh, NC	20	22	13	10	4	19	94	9	9
2	5	3	Dallas-Plano-Irving, TX	15	12	14	25	25	34	30	25	9
0	4	4	San Francisco-Redwood City-South San Francisco, CA	3	9	1	11	91	1	31	6	16
3	8	5	Fort Collins, CO	17	15	15	26	2	73	40	24	20
20	26	6	North Port-Sarasota-Bradenton, FL	6	14	22	15	1	13	26	119	97
2	9	7	Orlando-Kissimmee-Sanford, FL	12	7	19	18	12	78	22	81	71
-1	7	8	Nashville-Davidson-Murfreesboro-Franklin, TN	9	11	8	8	31	55	27	128	71
-6	3	9	Austin-Round Rock, TX	5	13	5	9	87	48	99	11	32
1	11	10	Salt Lake City, UT	23	18	21	34	54	66	29	46	13
-10	1	11	San Jose-Sunnyvale-Santa Clara, CA	10	49	2	1	134	2	64	1	2
24	36	12	West Palm Beach-Boca Raton-Delray Beach, FL	13	24	20	24	49	28	17	97	71
-1	12	13	Charlotte-Concord-Gastonia, NC-SC	21	21	10	16	64	33	100	84	40
7	21	14	Atlanta-Sandy Springs-Roswell, GA	34	32	34	59	15	72	19	37	54
18	33	15	Tampa-St. Petersburg-Clearwater, FL	33	20	56	39	17	63	47	70	32
2	18	16	Oakland-Hayward-Berkeley, CA	31	42	27	17	100	27	80	18	1
-7	10	17	Seattle-Bellevue-Everett, WA	32	36	6	77	52	77	66	2	20
-1	17	18	Naples-Immokalee-Marco Island, FL	4	3	16	37	61	15	18	154	144
5	24	19	San Antonio-New Braunfels, TX	27	57	23	52	46	36	16	79	40
24	44	20	Riverside-San Bernardino-Ontario, CA	8	23	24	5	50	79	69	130	118
7	28	21	Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	39	55	42	38	14	64	37	87	54
-6	16	22	Charleston-North Charleston, SC	26	25	26	48	80	38	3	66	118
-10	13	23	Denver-Aurora-Lakewood, CO	19	71	18	50	79	103	43	31	16
-10	14	24	Portland-Vancouver-Hillsboro, OR-WA	40	54	17	22	60	198	68	7	40
5	30	25	Fayetteville-Springdale-Rogers, AR-MO	11	8	12	23	21	128	90	184	178
-3	23	26	Boise City, ID	16	6	45	126	3	104	78	49	118
-5	22	27	Grand Rapids-Wyoming, MI	29	50	11	47	66	53	38	137	118
1	29	28	Ogden-Clearfield, UT	30	48	64	53	34	113	4	92	97
6	35	29	Rockingham County-Strafford County, NH	89	80	52	66	16	37	76	48	13
-15	15	30	Cape Coral-Fort Myers, FL	2	5	7	4	171	8	93	177	144
16	47	31	Santa Cruz-Watsonville, CA	44	75	72	27	63	14	132	55	40
18	50	32	Port St. Lucie, FL	25	10	89	20	30	117	101	151	97
40	73	33	Modesto, CA	42	37	58	7	27	24	91	185	178
-9	25	34	San Luis Obispo-Paso Robles-Arroyo Grande, CA	18	78	35	19	88	11	181	102	71
19	54	35	Wilmington, NC	46	53	92	65	59	23	111	36	54
30	66	36	Spartanburg, SC	43	40	51	88	40	9	2	181	144
24	61	37	Reno, NV	28	2	103	43	78	62	32	145	118
3	41	38	Warren-Troy-Farmington Hills, MI	51	85	25	78	84	42	58	53	71
74	113	39	Olympia-Tumwater, WA	50	16	91	29	56	31	5	161	193

RANKINGS BY COMPONENT

Rank Change	2016 Rank	2017 Rank	Metropolitan Statistical Area/Metropolitan Division	Job Growth (2011-16)	Job Growth (2015-16)	Wage Growth (2010-15)	Wage Growth (2014-15)	Short-Term Job Growth (8/2016-8/2017)	High-Tech GDP Growth (2011-16)	High-Tech GDP Growth (2015-16)	High-Tech GDP Concentration (2016)	Number of Industries with LO>=1 (2016)
6	46	40	Phoenix-Mesa-Scottsdale, AZ	37	45	47	76	89	93	109	56	40
30	71	41	Las Vegas-Henderson-Paradise, NV	22	34	85	69	23	46	60	171	144
-8	34	42	Boulder, CO	59	70	28	90	43	142	160	3	2
-23	20	43	Santa Rosa, CA	14	79	41	6	177	60	116	59	20
-7	37	44	Boston, MA	77	95	32	54	68	40	59	75	71
-7	38	45	Santa Maria-Santa Barbara, CA	86	157	50	28	83	18	53	19	7
23	69	46	Deltona-Daytona Beach-Ormond Beach, FL	53	4	108	40	115	82	42	113	32
-28	19	47	Anaheim-Santa Ana-Irvine, CA	49	86	33	13	179	47	119	23	2
-21	27	48	Savannah, GA	35	87	63	31	20	50	153	60	178
0	49	49	Greenville-Anderson-Mauldin, SC	60	102	38	60	102	22	52	77	54
-11	39	50	Jacksonville, FL	47	35	90	96	55	69	35	104	97
-19	32	51	San Diego-Carlsbad, CA	52	68	59	98	114	41	113	15	2
6	58	52	Ann Arbor, MI	101	105	97	72	18	43	54	41	32
4	57	53	Louisville/Jefferson County, KY-IN	61	62	49	32	73	67	65	160	118
44	98	54	Visalia-Porterville, CA	55	31	88	12	26	52	104	195	193
-3	52	55	Sacramento-Roseville-Arden-Arcade, CA	41	26	62	49	112	105	162	69	54
6	62	56	Des Moines-West Des Moines, IA	69	81	37	93	9	35	57	159	144
N/A	Small 70	57	Crestview-Fort Walton Beach-Destin, FL	72	38	73	119	11	156	24	76	97
18	76	58	Madison, WI	90	111	31	44	147	21	33	35	54
1	60	59	Miami-Miami Beach-Kendall, FL	38	59	40	41	106	58	46	150	178
-18	42	60	Fort Worth-Arlington, TX	68	120	30	109	36	76	9	50	144
-13	48	61	Los Angeles-Long Beach-Glendale, CA	74	66	71	73	144	91	44	17	8
3	65	62	Columbus, OH	56	83	29	70	53	168	67	105	97
90	153	63	Palm Bay-Melbourne-Titusville, FL	113	19	190	67	22	106	74	10	9
3	67	64	Vallejo-Fairfield, CA	45	51	68	71	142	17	115	28	118
12	77	65	Asheville, NC	70	28	84	57	101	25	178	114	40
-10	56	66	Fresno, CA	36	27	69	36	85	65	172	178	118
-3	64	67	Minneapolis-St. Paul-Bloomington, MN-WI	93	116	55	84	74	57	75	45	20
18	86	68	Stockton-Lodi, CA	24	30	53	2	141	44	123	182	193
33	102	69	Kalamazoo-Portage, MI	118	60	86	64	77	90	36	62	71
44	114	70	Lakeland-Winter Haven, FL	58	43	121	92	28	26	11	190	178
-21	50	71	Cambridge-Newton-Framingham, MA	96	129	54	46	118	112	85	5	2
-27	45	72	Salem, OR	54	39	79	35	133	187	6	121	97
-42	31	73	Greeley, CO	7	196	3	123	5	94	14	175	144
26	100	74	Gainesville, FL	87	44	139	114	10	89	15	149	71
55	130	75	Ocala, FL	65	33	140	100	57	59	50	132	97
16	92	76	Kansas City, MO-KS	91	92	83	68	98	96	81	58	40
24	101	77	Chattanooga, TN-GA	110	69	101	63	35	87	13	166	118
12	90	78	Eugene, OR	82	52	70	33	123	193	88	83	71

RANKINGS BY COMPONENT

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8	87	79	Indianapolis-Carmel-Anderson, IN	64	73	67	83	108	165	121	27	54
-10	70	80	Waco, TX	97	58	119	89	193	4	7	32	32
31	112	81	Oxnard-Thousand Oaks-Ventura, CA	112	128	128	120	6	71	129	12	13
-42	40	82	New York-Jersey City-White Plains, NY-NJ	76	101	81	137	97	49	87	73	54
-30	53	83	Springfield, MO	105	131	74	97	29	6	157	98	118
11	95	84	Lexington-Fayette, KY	63	100	61	42	119	180	167	94	54
20	105	85	Lincoln, NE	111	126	76	105	42	133	56	85	97
56	142	86	Huntsville, AL	106	76	176	144	38	134	51	8	20
-4	83	87	Richmond, VA	80	98	106	74	41	161	84	133	118
-45	43	88	McAllen-Edinburg-Mission, TX	71	112	77	130	70	10	28	194	144
-7	82	89	Lake County-Kenosha County, IL-WI	121	150	43	21	111	148	170	21	71
-12	78	90	Colorado Springs, CO	66	56	148	136	65	172	143	26	20
-17	74	91	Lubbock, TX	85	77	44	108	76	149	131	110	144
19	111	92	Detroit-Dearborn-Livonia, MI	143	122	80	94	51	45	45	101	144
54	147	93	Lancaster, PA	92	99	123	62	110	80	20	123	144
-19	75	94	Columbia, SC	57	94	78	61	181	29	89	153	144
-5	89	94	Merced, CA	78	65	60	14	96	177	177	199	178
-2	94	96	El Paso, TX	95	63	116	145	47	123	110	135	71
34	131	97	Tacoma-Lakewood, WA	62	29	151	117	24	143	146	139	178
38	136	98	Philadelphia, PA	141	93	114	106	86	32	49	67	144
-3	96	99	Myrtle Beach-Conway-North Myrtle Beach, SC-NC	67	47	93	56	143	83	108	192	178
-37	63	100	Manchester-Nashua, NH	124	107	95	175	72	118	86	20	20
-29	72	101	Trenton, NJ	81	84	132	168	103	70	107	33	54
62	164	102	Augusta-Richmond County, GA-SC	116	96	166	86	32	141	23	138	118
64	167	103	Hickory-Lenoir-Morganton, NC	151	88	134	45	132	7	186	95	32
-20	84	104	Cincinnati, OH-KY-IN	100	108	99	153	48	125	73	91	118
11	116	105	Salinas, CA	83	74	117	51	58	107	193	188	178
-21	85	106	Durham-Chapel Hill, NC	79	67	161	188	37	159	190	4	20
53	160	107	Pensacola-Ferry Pass-Brent, FL	99	46	149	91	45	174	155	140	118
11	119	108	Omaha-Council Bluffs, NE-IA	122	145	75	58	71	139	103	134	144
-21	88	109	Chicago-Naperville-Arlington Heights, IL	103	125	82	82	162	85	138	93	54
-29	81	110	Baton Rouge, LA	94	180	57	99	44	51	192	158	144
41	152	111	Albany-Schenectady-Troy, NY	131	124	120	101	169	30	95	38	40
-21	91	112	Spokane-Spokane Valley, WA	104	64	87	118	156	127	105	111	97
-45	68	113	Houston-The Woodlands-Sugar Land, TX	48	177	9	167	82	115	163	125	144
-59	55	114	Laredo, TX	75	132	36	155	99	54	82	200	193
-36	79	115	Worcester, MA-CT	117	127	118	149	124	97	118	40	9
4	120	116	Montgomery County-Bucks County-Chester County, PA	146	110	131	157	94	116	117	14	20
55	172	117	Tallahassee, FL	148	61	185	154	19	84	122	112	97
-8	110	118	Washington-Arlington-Alexandria, DC-VA-MD-WV	126	103	167	129	62	155	120	30	71
-13	106	119	Allentown-Bethlehem-Easton, PA-NJ	125	118	104	139	197	5	63	47	71
-11	109	120	Salisbury, -DE	102	104	145	55	69	194	180	148	97

RANKINGS BY COMPONENT

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-17	104	121	Winston-Salem, NC	108	119	100	111	161	20	173	143	54
6	127	121	Kennewick-Richland, WA	136	41	182	30	135	196	165	61	118
35	158	123	Killeen-Temple, TX	73	17	192	103	33	200	191	172	193
10	134	124	Harrisburg-Carlisle, PA	160	139	126	135	13	145	183	88	54
-18	107	125	Baltimore-Columbia-Towson,	120	130	115	115	126	160	148	57	40
2	128	126	St. Louis, MO-IL	152	123	142	133	150	99	25	64	40
-47	80	127	Knoxville, TN	114	91	113	102	168	163	135	99	71
-13	115	128	Fort Wayne, IN	132	146	133	87	95	179	133	106	54
6	135	129	Silver Spring-Frederick-Rockville,	159	155	172	125	67	137	112	22	32
15	145	130	Portland-South Portland, ME	144	117	144	95	125	114	114	118	71
-28	103	131	Oklahoma City, OK	107	183	39	181	105	68	55	174	144
-15	117	132	Springfield, MA	135	114	112	131	109	147	61	147	118
-15	118	133	Providence-Warwick, RI-MA	133	138	105	127	113	144	141	100	71
7	141	134	South Bend-Mishawaka, IN-MI	157	90	156	75	198	131	10	109	97
4	139	135	Camden, NJ	142	89	180	107	140	111	145	90	40
33	169	136	Rochester, NY	173	154	153	79	189	75	79	44	16
29	166	137	Montgomery, AL	158	106	193	169	138	39	1	72	71
0	138	138	Lansing-East Lansing, MI	128	72	169	148	139	88	21	157	144
5	144	139	Flint, MI	167	153	143	112	164	16	48	82	118
-14	126	140	Reading, PA	156	163	130	128	39	150	151	120	97
-1	140	141	Duluth, MN-WI	174	184	107	151	81	12	71	155	118
-21	121	142	Greensboro-High Point, NC	149	152	127	113	107	121	195	86	54
7	150	143	Pittsburgh, PA	187	179	98	138	154	61	70	54	71
-47	97	144	Corpus Christi, TX	137	194	48	197	8	95	161	189	178
34	179	145	Roanoke, VA	169	148	154	80	92	171	127	127	97
-47	99	146	Toledo, OH	98	82	102	142	165	162	128	168	193
-25	122	147	Elgin, IL	134	186	94	81	188	170	124	107	71
1	149	148	Memphis, TN-MS-AR	123	109	164	162	121	74	154	146	118
-20	129	149	Dayton, OH	155	137	158	132	136	181	126	71	40
15	165	150	York-Hanover, PA	170	136	171	150	167	92	39	89	54
5	156	151	Nassau County-Suffolk County, NY	130	121	152	122	170	164	176	63	71
7	159	152	Urban Honolulu, HI	109	135	111	104	172	129	130	167	178
36	188	152	Syracuse, NY	183	158	179	147	122	86	97	65	40
1	155	154	Tucson, AZ	154	134	183	189	155	130	41	52	16
-47	108	155	Brownsville-Harlingen, TX	84	97	141	156	104	195	147	193	178
1	157	156	Green Bay, WI	147	147	110	85	187	98	106	179	144
-25	132	157	Tulsa, OK	127	191	65	182	131	102	144	144	97
-25	133	158	Cedar Rapids, IA	177	176	109	140	152	132	174	51	20
14	173	159	Birmingham-Hoover, AL	150	156	129	143	137	108	96	141	144
14	174	160	Albuquerque, NM	165	113	186	164	129	186	137	34	54
-102	59	161	Bakersfield, CA	115	192	46	194	75	173	199	176	144
8	170	162	Newark, NJ-PA	168	162	138	116	186	169	158	43	32
-39	124	163	Akron, OH	139	161	122	124	192	120	77	129	144

RANKINGS BY COMPONENT

Rank Change	2016 Rank	2017 Rank	Metropolitan Statistical Area/Metropolitan Division	Job Growth (2011-16)	Job Growth (2015-16)	Wage Growth (2010-15)	Wage Growth (2014-15)	Short-Term Job Growth (8/2016-8/2017)	High-Tech GDP Growth (2011-16)	High-Tech GDP Growth (2015-16)	High-Tech GDP Concentration (2016)	Number of Industries with LO>=1 (2016)
-2	162	164	Milwaukee-Waukesha-West Allis, WI	140	159	137	134	196	119	134	103	71
3	168	165	Little Rock-North Little Rock-Conway, AR	162	142	165	161	182	126	83	74	71
-73	93	166	Wilmington, DE-MD-NJ	119	165	125	171	90	191	200	136	118
-13	154	167	Hartford-West Hartford-East Hartford, CT	172	175	136	166	146	124	140	68	71
-22	146	168	Bridgeport-Stamford-Norwalk, CT	161	181	174	172	190	101	136	29	20
-18	151	169	Cleveland-Elyria, OH	153	151	124	170	145	188	139	131	118
7	177	170	Buffalo-Cheektowaga-Niagara Falls, NY	171	149	146	141	184	138	150	96	118
-46	125	171	Rockford, IL	163	185	135	152	183	146	8	162	144
6	178	172	Evansville, IN-KY	178	172	168	121	116	199	168	78	144
14	187	173	Wichita, KS	166	168	162	163	159	184	152	13	118
-51	123	174	Beaumont-Port Arthur, TX	191	193	66	110	195	81	159	183	178
0	175	175	Dutchess County-Putnam County, NY	181	170	195	185	117	135	171	42	71
-13	163	176	Jackson, MS	138	133	155	177	153	122	175	170	144
8	185	177	Norwich-New London, CT	196	144	197	191	93	185	182	39	97
8	186	178	New Haven-Milford, CT	176	171	170	174	173	154	156	80	40
-36	143	179	Clarksville, TN-KY	88	143	191	183	158	109	164	198	193
3	183	180	Virginia Beach-Norfolk-Newport News, VA-NC	164	166	178	158	191	153	102	126	97
0	181	181	Gary, IN	175	140	175	192	178	140	34	186	118
13	195	182	Utica-Rome, NY	194	164	194	180	128	175	125	108	71
-7	176	183	New Orleans-Metairie, LA	129	182	159	146	166	166	198	164	144
-2	182	184	Scranton-Wilkes-Barre-Hazleton, PA	180	160	160	160	163	190	187	117	97
-5	180	185	Fayetteville, NC	192	115	198	179	148	110	188	142	144
3	189	186	Mobile, AL	179	141	184	159	176	157	196	122	97
11	198	187	Erie, PA	195	197	157	165	127	182	166	124	97
6	194	188	Atlantic City-Hammonton, NJ	198	174	200	199	120	56	98	173	144
-28	161	189	Canton-Massillon, OH	145	178	96	196	180	192	142	196	193
0	190	190	Columbus, GA-AL	188	187	181	178	157	183	169	116	71
6	197	191	Peoria, IL	197	199	150	184	160	151	72	152	178
-21	171	192	Anchorage, AK	184	195	147	176	185	136	184	115	144
-2	191	193	Fort Smith, AR-OK	182	167	188	190	194	100	92	197	144
-2	192	194	Davenport-Moline-Rock Island, IA-IL	189	189	177	186	149	152	149	165	144
-11	184	195	Kingsport-Bristol-Bristol, TN-VA	185	169	187	187	130	167	197	163	178
0	196	196	Huntington-Ashland, WV-KY-OH	193	188	189	195	174	158	62	180	144
2	199	197	Gulfport-Biloxi-Pascagoula, MS	186	173	199	198	151	178	194	156	144
-50	148	198	Lafayette, LA	199	200	163	200	175	176	189	169	118
-6	193	199	Youngstown-Warren-Boardman, OH-PA	190	190	173	173	200	189	185	187	144
0	200	200	Shreveport-Bossier City, LA	200	198	196	193	199	197	179	191	118

TOP 10 Best-Performing Small Cities



TABLE 5 Top 10 Best-Performing Small Cities
Rank according to 2017 index

Metropolitan Statistical Area (MSA)/Metropolitan Division (MD)	2017 Rank	2016 Rank	Change
Bend-Redmond, OR (MSA)	1	1	Steady
St. George, UT (MSA)	2	4	+2
Gainesville, GA (MSA)	3	10	+7
San Rafael, CA (MD)	4	3	-1
Wenatchee, WA (MSA)	5	36	+31
Elkhart-Goshen, IN (MSA)	6	39	+33
Yuba City, CA (MSA)	7	45	+38
Bellingham, WA (MSA)	8	76	+68
Columbus, IN (MSA)	9	7	-2
Auburn-Opelika, AL (MSA)	10	6	-4

Source: Milken Institute.

The 2017 edition of Best-Performing Small Cities index ranks 201 U.S. metros. Six of 2016's Top 10 return in 2017. All the Top 10 metros have health care as a cornerstone industry, but there are a few industries that set the Top 10 apart. For example, outdoor tourism-related economies like **Bend-Redmond, OR, St. George, UT, Wenatchee, WA, and Bellingham, WA,** are all experiencing growth. As populations grow, these metros' real estate industries have been stimulated, spurred by lower living costs. Meanwhile, aging populations further bolster the local health care sectors by increasing demand for services. Two notable industries that define some metro economies are manufacturing and high-tech sectors. Bend-Redmond, OR, **San Rafael, CA,** and Bellingham, WA benefit from a continued growth of their economies' high-tech presence while **Gainesville, GA, Elkhart-Goshen, IN, Columbus, IN, and Auburn-Opelika, AL,** see growth coming from manufacturing. **Yuba City, CA,** sees its health care industry continue to grow, helping the metro become a Top 10 performer. Health care, tourism, manufacturing, high-tech sectors, and all things housing-related set the top performers apart in this year's Small Cities ranking.

#1 BEND-REDMOND, OR

Held steady

JOB GROWTH (2011-16)	2ND
JOB GROWTH (2015-16)	2ND
WAGE GROWTH (2010-15)	5TH
WAGE GROWTH (2014-15)	1ST
SHORT-TERM JOB GROWTH (8/2016-8/2017)	17TH
HIGH-TECH GDP GROWTH (2011-16)	133RD
HIGH-TECH GDP GROWTH (2015-16)	25TH
HIGH-TECH GDP CONCENTRATION (2016)	22ND
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	2ND

Bend-Redmond, OR, retains its No. 1 ranking in this year's BPC Small Cities index. Six of the nine indicators improved over the 2016 index, continuing the metro's stellar economic performance. Bend-Redmond has seen sustained wage gains represented by year over year increases in ranks in both the one- and five-year indicators. Wage growth accompanied by high job growth over the last five years are continuing sources of strength this year. Helping to sustain the metro's economic expansion is a diverse set of high-tech industries, which ranks second once again.

The local economy has three anchor industries that have helped to create an economically diverse metro. The health care industry has provided stable employment due to the metro's history as a retirement community and accounted for 15.1 percent of employment in Bend-Redmond.¹⁵⁹ St. Charles Medical Center is the largest employer in the metro with 2,468 staff members.¹⁶⁰ The second key industry is outdoor recreational tourism. The metro supports both summer and winter tourism. Nearby Mount Bachelor is a major ski resort and offers a variety of hiking, cycling, and golf summer options. In 2017, Bend-Redmond was in the path of the solar eclipse, which provided a boost to the industry. The available outdoor recreation attractions have been an integral part of the development of the metro. Many that relocate first visit as tourists, and this year, 4,050 people have moved into Bend-Redmond. The term "California to Bend" refers to a wave of in-migration that has contributed to population growth.

Bend has developed a diverse high-tech sector—its third anchor industry—which includes software development and biotech, as well as cultivating local venture capital and seed funding sources. One of the longtime staples of this sector is Bend Research, which employs 318 people.¹⁶¹ Bend hosts a growing tech sector, which should see the gains from the development of local talent through Oregon State University-Cascades. Jobs in professional, scientific, and technical services have increased 14.6 percent from 2015 to 2016, and 43 percent from 2011 to 2016. This growth is attributable in part with mid-career,

ASSETS

- Oregon State University-Cascades will help develop the local labor market talent.
- The tourism industry exposes the metro to new people, spurring in-migration.

LIABILITIES

- Increased housing prices and low vacancy rates will persist as population growth continues.

highly educated professionals choosing to move to Bend-Redmond. The entrepreneurial activity is fueled by a network of people that collaborate within and across sectors.¹⁶² This collaborative energy can be seen in how the support structure of economic development agencies, both public and private, operate within the entrepreneurial community and work with each other.¹⁶³ A notable example of this is the Economic Development for Central Oregon agency, which supports and facilitates communication between businesses in the metro.

The population gain has helped to fuel several growing industries, adding to the diversity of the metro's economy. Traded goods, software development, biotech, and housing have all contributed to Bend-Redmond's continued growth. The traded goods industry is tailored to the outdoor recreation sector. Companies like Cairn, Picky Bars, and Hydro Flask have helped establish this cluster, and the quality of life and easy access to outdoor recreation helps attract employees whose values and interests align with the sector.

Bend-Redmond has been able to maintain and expand its manufacturing base. PCC Schlosser's titanium plant is looking to invest \$2.6 million for an expansion in its Redmond operations.¹⁶⁴ The metro benefits from lower business and living costs and has been able to bring back some of the manufacturing base that had seen declines. The building of experimental aircraft in the metro has also helped solidify the manufacturing base. There is a large presence of microbrewers with Crux Fermentation Project, Deschutes Brewery, and GoodLife Brewing all operating in the metro. Bend alone has 26 breweries, and Deschutes Brewery increased their workforce by 21 percent in the past year, ranking as one of the largest employers in the metro.^{165, 166}

This metro has been able to recover faster than many of the metros in the Small Cities index since the Great Recession. The diversity of the economy and the type of industries all play a role in this metro's sustainable growth.

#2 ST. GEORGE, UT

Gained 2 spots

JOB GROWTH (2011-16)	1ST
JOB GROWTH (2015-16)	1ST
WAGE GROWTH (2010-15)	10TH
WAGE GROWTH (2014-15)	9TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	6TH
HIGH-TECH GDP GROWTH (2011-16)	16TH
HIGH-TECH GDP GROWTH (2015-16)	10TH
HIGH-TECH GDP CONCENTRATION (2016)	78TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	135TH

St. George, UT, climbs the ranks rising to second from fourth over the last BPC Small Cities ranking. The metro increased in seven of the nine indicators. It had two first-place finishes in one- and five-year job growth with a 4.6 percent increase and 19.8 percent increase, respectively. The metro added 3,575 jobs in 2015-2016. The unemployment rate dropped to 3.4 percent toward the end of 2016.¹⁶⁷ This metro has continued to climb the ranks over the last few BPC indices.

St. George has benefited from an increase both in retirees and in tourists, which has helped to boost consumption in the metro. The national economy has put 2017 tourism in Zion National Park on pace to break the 2016 record of 4.3 million visitors.¹⁶⁸ The increase in tourism is reflected in SkyWest adding new airline routes into St. George.¹⁶⁹ SkyWest is among the top 20 employers in the metro. The inflow of retirees has not only increased consumption

ASSETS

- The metro has a highly educated workforce that can support long-term economic development.
- Low costs of business and living is attractive to companies.

LIABILITIES

- The metro is highly dependent on tourism.

but also generated wealth effects from stock market gains and Social Security payment increases.¹⁷⁰ Education and health services account for 17.2 percent of employment in the metro and will continue to grow as the expansion of the Dixie Regional Medical Center wraps up in the coming years.¹⁷¹

The metro has lower business and living costs in comparison to other parts of the state. The food manufacturer Litehouse is expected to build a \$40 million facility.¹⁷² 2017 looks to continue the expansion of the manufacturing base with an \$11 million facility to manufacture aerospace parts for RAM Manufacturing.¹⁷³ This metro has room for more than just traditional industries. The startup PrinterLogic had revenue of \$10 million in 2016, which represents a 2,480 percent increase in less than four years.¹⁷⁴ The development of more industries will help the metro grow and make the area less prone to external fluctuations in a few dominant sectors.

#3 GAINESVILLE, GA

Gained 7 spots

JOB GROWTH (2011-16)	7TH
JOB GROWTH (2015-16)	18TH
WAGE GROWTH (2010-15)	12TH
WAGE GROWTH (2014-15)	2ND
SHORT-TERM JOB GROWTH (8/2016-8/2017)	28TH
HIGH-TECH GDP GROWTH (2011-16)	46TH
HIGH-TECH GDP GROWTH (2015-16)	1ST
HIGH-TECH GDP CONCENTRATION (2016)	101ST
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	88TH

Gainesville, GA, increased seven ranks from tenth to third. Improvements in six indicators and ranking No. 1 in one-year high-tech GDP growth help the metro return to the Top 10. Growing by 17.5 percent and outperforming all its small city peers, Gainesville's short-term high-tech GDP growth saw a 116 place improvement over the metro's previous ranking. The lack of a highly concentrated high-tech sector helps to make this type of growth possible over a year. The purchase of Alkermes plc's assets in the metro helped boost the high-tech GDP growth rate this year with a \$50 million price tag and a possibility of reaching \$120 million to pass final stage four FDA requirements.¹⁷⁵ One-year wage growth is ranked second which is a continuing source of strength, improving 14 spots from the previous ranking.

The two key industries in the metro are food manufacturing and health care. Gainesville is a major supplier of poultry to international markets and has seen its competition in China and the E.U. struggle with avian flu.¹⁷⁶ The poultry industry in Gainesville employs 8,320 people, and access to Atlanta allows this metro to compete on an international level.¹⁷⁷ The unemployment rate has been falling while the labor force

ASSETS

- Proximity to Atlanta, GA, will provide opportunity beyond traditional industries.
- Creation of local talent at University of North Georgia's branch campus will help the local labor market.

LIABILITIES

- Renegotiation of NAFTA would add uncertainty to the metro's dominant industry.

participation rate is increasing.¹⁷⁸ This trend should continue as companies start or expand operations in Gainesville. Kubota Manufacturing of America expanded its presence in the metro and opened a new \$100 million plant requiring 600 employees.¹⁷⁹ The health care industry makes up a substantial portion of the metro economy and employment, accounting for 14,020 jobs.¹⁸⁰ Northeast Georgia Health System is the largest employer with 7,100 staff while the Good News Clinic was a recipient of a \$35,000 CVS Health Foundation grant awarded for improvements made in service availability.^{181, 182}

The metro should continue to see new opportunities with the region's increasing influence in entertainment production. The expansion of Atlanta's movie industry has benefited Gainesville with an ABC affiliate being purchased as part of an \$85 million deal to acquire regional stations by Gray Television.¹⁸³ Gainesville has been growing for many years, but its main industries may face headwinds if a renegotiated NAFTA reduces access to its international markets.¹⁸⁴ Population growth in the metro should help consumption, and proximity to Atlanta will continue to be a competitive advantage for the metro's future growth.¹⁸⁵

#4 SAN RAFAEL, CA

Dropped 1 spot

JOB GROWTH (2011-16)	30TH
JOB GROWTH (2015-16)	40TH
WAGE GROWTH (2010-15)	18TH
WAGE GROWTH (2014-15)	27TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	56TH
HIGH-TECH GDP GROWTH (2011-16)	4TH
HIGH-TECH GDP GROWTH (2015-16)	37TH
HIGH-TECH GDP CONCENTRATION (2016)	4TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	28TH

San Rafael, CA, dropped one rank to fourth place from 2016's BPC Small Cities index. The metro does improve its one- and five-year wage growth indicator ranks. San Rafael is seeing all the benefits and problems that come with being part of the Bay Area as more people move in for the relatively lower cost of living.

The continued growth of the Bay Area economy into the North Bay can be seen in infrastructure projects like the \$272 million bridge widening of the Richmond-San Rafael Bridge.¹⁸⁶ The further integration of the North Bay will extend the reach of the overall economy with the opening of the new SMART transit line linking San Rafael to Sonoma.¹⁸⁷ San Rafael is seeking \$30 million to replace or renovate their transit centers as a part of a \$4.4 billion transportation bill.¹⁸⁸

The metro specializes in the life science and entertainment sectors of the high-tech economy. Disney's Lucasfilm and a wide range of video game producers are located in the metro. 2017 should see the Bay Area's entertainment industry continue

ASSETS

- The metro has a highly educated workforce that helps it compete in the Bay Area regional economy.
- The highly diverse economy will add resilience to the metro's economy.

LIABILITIES

- Spillover effects from the rest of the Bay area will continue to increase the cost of living.

to strengthen, expanding the overall economic footprint of the Bay Area. Virtual Reality (VR) startup Nomadic obtained seed funding of \$6 million, adding to the depth of the entertainment industry in the metro.¹⁸⁹ AutoDesk invested \$7 million in funding for startup SmartVid.io.¹⁹⁰

The metro is looking to increase its infrastructure spending into clean energy as well. Solar company Danlin has completed its \$5.5 million solar farm in San Rafael.¹⁹¹ The city of Novato, where the farm is located, is seeking to power the city from all renewable sources by 2050. Schools in the Larkspur Corte Madera district have also installed \$350 thousand worth of solar panels to save money over the next 20 years.¹⁹²

The Bay Area continues to grow, and the North Bay will continue to benefit from the regional economy. As a continually growing part of the Bay Area, San Rafael can take advantage of new types of infrastructure which will help the development of the metro in the long run.

#5 WENATCHEE, WA

Gained 31 spots

JOB GROWTH (2011-16)	11TH
JOB GROWTH (2015-16)	19TH
WAGE GROWTH (2010-15)	16TH
WAGE GROWTH (2014-15)	11TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	11TH
HIGH-TECH GDP GROWTH (2011-16)	12TH
HIGH-TECH GDP GROWTH (2015-16)	30TH
HIGH-TECH GDP CONCENTRATION (2016)	127TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	174TH

Wenatchee, WA, reaches No. 5 this year on the Top 10 BPC Small Cities index—this is a 31 rank improvement over last year's edition. Strong growth in jobs and wages in both one- and five-year indicators contribute to the metro's fifth-place finish this year.

The metro is highly dependent on agriculture, specifically apples. A heavy fire season has spared the metro's crops, helping to maintain growth. The metro hosts the Washington State University Tree Fruit Research and Extension Center, which benefits from an area that produced more apples than the rest of the U.S., Canada, and Mexico.¹⁹³ The metro hopes to introduce a new apple WA 38, or the "Cosmic Crisp," in 2019 and mass market it in 2020. The apple will be priced to compete at the upper-end of the apple market where profit margins are higher.¹⁹⁴ C&O Nursery in Wenatchee has invested in tech company Phytelligence, which is developing more robust planting methods for fruit trees and grapevines.¹⁹⁵

ASSETS

- R&D investments in the region may boost harvest productivity that can help maintain the metro's competitive advantages.
- Washington State University has a permanent presence that can spur innovation in agriculture.

LIABILITIES

- Rising labor costs and uncertainty over future immigration enforcement will affect orchards.

Abundant Robotics has been developing robotic harvesters, which have received funding from Stanford Research Institute (SRI) and investment interest from Google.¹⁹⁶ Investment into more capital intensive farming and other methods used to save on labor costs are being tested in the metro. Allan Bros. and Stemlit are also developing a way to increase the harvesting productivity of orchards through mechanization.¹⁹⁷ Apples are the main crop, but the metro supports cherry and pear orchards as well.

The other major industry in the metro is tourism, but there is an increasing presence of health-care-related development. Private sector job growth came from tourism and health care with these two sectors contributing 860 jobs this year. The area is also home to one of the nine U.S. Forestry Science Labs, which contributes to a large concentration of forestry employment. In fact, the region is 24 times more concentrated than the U.S.¹⁹⁸

#6 ELKHART-GOSHEN, IN

Gained 33 spots

JOB GROWTH (2011-16)	5TH
JOB GROWTH (2015-16)	26TH
WAGE GROWTH (2010-15)	4TH
WAGE GROWTH (2014-15)	17TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	2ND
HIGH-TECH GDP GROWTH (2011-16)	129TH
HIGH-TECH GDP GROWTH (2015-16)	90TH
HIGH-TECH GDP CONCENTRATION (2016)	141ST
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	48TH

Elkhart-Goshen, IN, gains 33 spots over the previous BPC Small Cities index, coming in at sixth. This marks the first time that Elkhart-Goshen has entered the Top 10. The metro has indicators in the Top 10 in five-year job and wage growth as well as ranking second in short-term job growth which improved 191 spots over the 2016 index.

Elkhart-Goshen has long been the home of American RV manufacturing. The importance of the RV industry is hard to overstate in Elkhart-Goshen, with nearly half of all employment in manufacturing related to the industry.¹⁹⁹ The largest employer in the metro is Thor Industries, which accounts for about half of all RV manufacturing-related employment; this comes in the wake of acquiring Jayco Corp. for \$576 million.²⁰⁰ Consolidation of the RV industry has happened at various stages of the supply chain, but the larger companies are looking for competitive advantages from increased scale. RV parts-maker Lippert Components purchased seat manufacturer Lexington for \$40 million. RVs are not the only type of manufacturing expanding in the metro; walk-in truck manufacturer Utilimaster is investing

ASSETS

- The low cost of living and doing business helps the RV manufacturing industry.
- Tailwinds from demographic changes should help the RV manufacturing industry in the short-term.

LIABILITIES

- Lack of an educated workforce limits investment into industrial diversification.

\$10.9 million into its operations.²⁰¹ The metro's unemployment numbers are decreasing, and the labor force participation rate is increasing, demonstrating that the local labor market continues to draw in workers.²⁰²

While the RV industry is a cornerstone for Elkhart-Goshen, efforts to diversify the economy are evident from public-private partnerships like Launch Elkhart, which is an expansion of the enFocus incubator program.²⁰³ Launch Elkhart is a regional incubator program to try and take advantage of the local talent that might otherwise leave the metro.²⁰⁴ Elkhart-Goshen has been able to draw in more than just the manufacturing side of business operations, with Genesis Products investing \$10 million into a new headquarters.²⁰⁵ The growth in the metro has some looking to the future as exemplified by a new \$29 million housing development.²⁰⁶ Redevelopment of the metro can also be seen in the \$50 million plan to modernize the Concord Mall into a mixed-used space.²⁰⁷ Investments in housing and urban renewal should bring welcomed changes to an area that saw the unemployment rate reach 19.6 percent in 2009.²⁰⁸

#7 YUBA CITY, CA

Gained 38 spots

JOB GROWTH (2011-16)	25TH
JOB GROWTH (2015-16)	10TH
WAGE GROWTH (2010-15)	57TH
WAGE GROWTH (2014-15)	22ND
SHORT-TERM JOB GROWTH (8/2016-8/2017)	39TH
HIGH-TECH GDP GROWTH (2011-16)	25TH
HIGH-TECH GDP GROWTH (2015-16)	104TH
HIGH-TECH GDP CONCENTRATION (2016)	82ND
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	6TH

Yuba City, CA, gained 38 ranks to place seventh in this year's BPC Small Cities index, breaking into the Top 10 for the first time. The concentration of high-tech industries gains 14 places over the previous index. The metro increased all but one of the nine indicators over the 2016 ranking.

Beale Air Force Base anchors Yuba's employment. The base provides stable employment that is also a reliable source of consumer spending for the local economy. The other important industry in the metro is farming, which has had some rough times due to drought conditions and water restrictions. The larger region has seen growth in entertainment industries coming from a rise in large-scale casinos, and Yuba City will now add to that industry. The Colusa Casino will be a \$170 million investment in the metro.²⁰⁹

ASSETS

- The economy is stable because of Beale Air Force Base.
- Diversification of the metro's economy to include health care will help the long-term growth potential of Yuba City.

LIABILITIES

- Yuba is highly dependent on a few industries for employment.

A growing new sector for the metro is the health care industry. The overall health care sector totals 7,770 employees in Yuba City. If Yuba health care can create a new major source of employment, this will go a long way in reducing the local economy's dependence on the military and farming. Yuba's health care system benefits from an aging population and continued population growth.²¹⁰ The largest employer in the metro is Fremont-Rideout Health Group with 2,276 staff.²¹¹ The health care industry added 420 new jobs this year. As job growth has continued since 2013, the social assistance sector has come back and in the last five years added 1,710 new jobs to the sector.

#8

BELLINGHAM, WA

Gained 68 spots

JOB GROWTH (2011-16)	29TH
JOB GROWTH (2015-16)	24TH
WAGE GROWTH (2010-15)	60TH
WAGE GROWTH (2014-15)	24TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	34TH
HIGH-TECH GDP GROWTH (2011-16)	138TH
HIGH-TECH GDP GROWTH (2015-16)	42ND
HIGH-TECH GDP CONCENTRATION (2016)	20TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	2ND

Bellingham, WA, gained 68 spots over the previous ranking to end up eighth on this year's BPC Small Cities index. The last time this metro was in the Top 10 was 2008. Solid cornerstone industries have helped Bellingham grow, aided by a high concentration of high-tech firms. The metro's competitive advantages from bordering Canada, the university, favorable changes in demographics, and solid performances from extraction industries lifted growth.²¹²

Bellingham has significant employment in the natural resource sector. The two most prominent industries are petroleum products and aluminum, which have helped expand the regional economy. The petroleum refinery supports both U.S. and Canadian crude. The as-yet-unknown scale of damage that the 2017 hurricanes have caused in the Gulf of Mexico will force crude to other refineries, including Bellingham. The aluminum industry has seen three-year highs in prices resulting from increased demand and lower levels of global production.²¹³ Tourism to the metro helped spur growth adding 449 jobs in 2016.

ASSETS

- Firms can recruit local talent from Western Washington University.
- Bellingham has an emerging high-tech sector that is moving beyond software development.

LIABILITIES

- Exposure to extraction industries can heighten economic volatility.

There has been some growth in manufacturing goods, and some manufacturers are looking to take advantage of opportunities in green-tech. One example of this is a repurposed pulp and tissue warehouse that now produces solar panels for Itek Energy.²¹⁴ Itek's \$6 million purchase from the Port of Bellingham is helping diversify this metro's economy.²¹⁵

The metro combines lower business and labor costs relative to the major cities along the northern Pacific coast with a high concentration of high-tech industries. As Bellingham's high-tech industry continues to grow, the local talent generated by Western Washington University can help keep labor costs lower. A.I. company Conversica, has secured \$34 million in funding.²¹⁶ The startup growth is also captured by firms like Emergency Reporting, which hired up to 71 people to supply a business to business reporting system.²¹⁷ With A.I. and cloud B2B services, the local metro has all the makings of a strong entrepreneurial culture that can create a regional cluster.

#9

COLUMBUS, IN

Dropped 2 spots

JOB GROWTH (2011-16)	13TH
JOB GROWTH (2015-16)	100TH
WAGE GROWTH (2010-15)	7TH
WAGE GROWTH (2014-15)	23RD
SHORT-TERM JOB GROWTH (8/2016-8/2017)	9TH
HIGH-TECH GDP GROWTH (2011-16)	49TH
HIGH-TECH GDP GROWTH (2015-16)	147TH
HIGH-TECH GDP CONCENTRATION (2016)	56TH
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	15TH

Columbus, IN, drops two ranks to ninth in this year's BPC Small Cities index. It returns to the Top 10 for the third year in a row with two indicators ranking in the Top 10 of their respective categories. Manufacturing is the driving force in this metro led by Cummins, the largest employer in Columbus, which is planning a \$50 million investment in the metro.²¹⁸ The solid manufacturing base provides opportunity despite a lack of economic diversity in the metro. Columbus has relatively stable employment thanks to local universities.

Manufacturing in the metro is focused on transportation, and there are few better examples than Toyota deciding to locate more staff in the metro through 2019 and making a \$17.5 million investment.^{219, 220} Economic diversity is improving as Columbus draws in different types of manufacturers. Lindal Group, an aerosol manufacturer, is building a \$20 million facility that will include some R&D operations.²²¹ The parts

ASSETS

- Major investments in infrastructure will help long-term competitiveness through decreased business costs.
- Columbus has a highly specialized auto-manufacturing workforce.

LIABILITIES

- The metro's minimal industrial diversity exposes its economy to domestic and global fluctuations.

being produced in the metro also draw in manufacturing at different stages in the supply chain. Logistics company TPS Industrial Services is investing \$3.5 million to expand its headquarters in Columbus, adding 61 jobs.²²² The metro continues its history of attracting foreign investment with Canadian-based Dorel Industries moving 60 jobs to its operations in Columbus. The manufacturer plans to produce one million children's car seats annually at this plant.²²³

Columbus continues to attract manufacturing to the metro with lower costs, but long-term investments in education are also being made. The Community Education Coalition has received \$350,000 from the Lumina Foundation to continue efforts to increase educational attainment in Columbus and southeast Indiana.²²⁴

#10 AUBURN-OPELIKA, AL

Dropped 4 spots

JOB GROWTH (2011-16)	8TH
JOB GROWTH (2015-16)	23RD
WAGE GROWTH (2010-15)	17TH
WAGE GROWTH (2014-15)	30TH
SHORT-TERM JOB GROWTH (8/2016-8/2017)	72ND
HIGH-TECH GDP GROWTH (2011-16)	9TH
HIGH-TECH GDP GROWTH (2015-16)	52ND
HIGH-TECH GDP CONCENTRATION (2016)	133RD
NUMBER OF HIGH-TECH INDUSTRIES (LQ>=1) (2016)	88TH

Auburn-Opelika, AL, returns to the Top 10, placing tenth in this year's BPC Small Cities index. This metro has been ranked in the Top 10 since 2014, which is reflected in the five-year job and high-tech GDP growth. Durable goods manufacturing and Auburn University are the two pillars of this metro's economy.

Auburn University is a stable source of employment and, because of its research activity, will continue to play a major role in the success of the metro. The university brought in just under \$136 million in research funding in 2015 and employs 5,500 people.²²⁵ Investment in education infrastructure in the metro grew with a new \$14.8 million elementary school building set to open in 2018.²²⁶ Population growth over the last few years has been high, which has pushed construction- and real estate-related businesses to hire 310 people. Opelika has been looking to invest in its infrastructure with a fiber optic network that could bring rural communities internet speeds of one gigabyte per second.²²⁷ The highly educated workforce coming from the university along with the right investments could give the

ASSETS

- The metro has a highly educated workforce that supports a more diverse local labor market.
- The major industries in the metro provide stable employment.

LIABILITIES

- Low wage levels may deter graduates from staying in the metro.

metro the potential to be competitive for the newest wave of innovation, which could provide long-term advantages.

Auburn-Opelika has a large manufacturing base. The defense industry and auto industry have a large presence, and interest from manufacturers in durable goods is increasing. Baxter Inc. has spent \$270 million to expand its medical device manufacturing facilities in Opelika.²²⁸ The metro has drawn in new business with Golden State Foods investing \$63 million in meat processing operations.²²⁹ Auburn-Opelika's specialization in aerospace manufacturing continues to draw in international investment like German aerospace manufacturer Winkelman, who is planning to invest \$12 million into the metro for its metal forming operations.²³⁰

This metro has been able to sustain growth for some years. Benefiting from the university and a competitive manufacturing base, Auburn-Opelika is well positioned to maintain economic success.

COMPLETE RESULTS: 2017 BEST-PERFORMING SMALL CITIES

RANKINGS BY COMPONENT

Rank Change	2016 Rank	2017 Rank	Metropolitan Statistical Area/Metropolitan Division	Job Growth (2011-16)	Job Growth (2015-16)	Wage Growth (2010-15)	Wage Growth (2014-15)	Short-Term Job Growth (8/2016-8/2017)	High-Tech GDP Growth (2011-16)	High-Tech GDP Growth (2015-16)	High-Tech GDP Concentration (2016)	Number of Industries with LO>=1 (2016)
0	1	1	Bend-Redmond, OR	2	2	5	1	17	133	25	22	2
2	4	2	St. George, UT	1	1	10	9	6	16	10	78	135
7	10	3	Gainesville, GA	7	18	12	2	28	46	1	101	88
-1	3	4	San Rafael, CA	30	40	18	27	56	4	37	4	28
31	36	5	Wenatchee, WA	11	19	16	11	11	12	30	127	174
33	39	6	Elkhart-Goshen, IN	5	26	4	17	2	129	90	141	48
38	45	7	Yuba City, CA	25	10	57	22	39	25	104	82	6
68	76	8	Bellingham, WA	29	24	60	24	34	138	42	20	2
-2	7	9	Columbus, IN	13	100	7	23	9	49	147	56	15
-4	6	10	Auburn-Opelika, AL	8	23	17	30	72	9	52	133	88
13	24	11	Chico, CA	16	28	21	6	24	30	178	109	88
6	18	12	Daphne-Fairhope-Foley, AL	10	12	25	15	36	131	35	157	88
0	13	13	The Villages, FL	3	16	8	103	12	3	24	164	135
21	35	14	Sebastian-Vero Beach, FL	22	14	46	34	25	95	73	84	88
-3	12	15	Charlottesville, VA	44	69	28	10	46	60	98	32	48
67	83	16	Punta Gorda, FL	15	15	49	14	41	17	7	170	174
-9	8	17	Grants Pass, OR	34	29	63	5	44	178	64	17	28
-16	2	18	College Station-Bryan, TX	26	60	23	66	19	51	61	65	88
34	52	18	Kokomo, IN	32	20	31	98	14	119	58	38	48
47	67	20	Redding, CA	31	34	98	21	4	37	112	89	48
-6	15	21	Fargo, ND-MN	20	86	9	44	47	87	89	58	28
42	64	22	Albany, OR	23	11	72	28	22	197	71	86	15
14	37	23	Mount Vernon-Anacortes, WA	42	42	34	43	23	70	57	139	48
-19	5	24	Logan, UT-ID	24	43	62	41	38	117	139	11	6
7	32	25	Janesville-Beloit, WI	38	73	35	60	25	5	162	64	28
7	33	26	Prescott, AZ	17	7	54	39	68	149	28	148	28
7	34	27	Barnstable Town, MA	52	46	69	56	18	108	79	29	28
-11	17	28	Medford, OR	19	13	39	18	106	180	117	36	6
-1	28	29	Coeur d'Alene, ID	14	9	64	26	80	144	54	102	48
-7	23	30	Lake Charles, LA	4	4	6	4	1	155	194	190	174
-11	20	31	Columbia, MO	67	131	20	48	16	18	111	35	28
-16	16	32	Sioux Falls, SD	27	58	15	32	114	34	94	63	135
-22	11	33	Ames, IA	37	149	29	57	13	15	121	75	48
16	50	34	Lewiston, ID-WA	64	25	97	65	10	29	72	125	88
31	66	35	Bowling Green, KY	28	8	36	31	49	160	16	184	174
2	38	36	Hilton Head Island-Bluffton-Beaufort, SC	9	38	67	16	78	50	86	162	135
-10	27	37	Mankato-North Mankato, MN	72	61	32	54	125	10	125	21	6
-29	9	38	Napa, CA	12	125	13	3	8	112	157	92	174
4	43	39	Kahului-Wailuku-Lahaina, HI	21	67	22	25	53	77	77	193	135

RANKINGS BY COMPONENT

Rank Change	2016 Rank	2017 Rank	Metropolitan Statistical Area/Metropolitan Division	Job Growth (2011-16)	Job Growth (2015-16)	Wage Growth (2010-15)	Wage Growth (2014-15)	Short-Term Job Growth (8/2016-8/2017)	High-Tech GDP Growth (2011-16)	High-Tech GDP Growth (2015-16)	High-Tech GDP Concentration (2016)	Number of Industries with LO>=1 (2016)
-18	22	40	Cleveland, TN	6	47	14	84	37	65	138	147	135
58	99	41	Lawrence, KS	70	50	114	82	76	1	13	27	48
49	91	42	Athens-Clarke County, GA	51	27	78	8	67	157	81	97	88
25	68	43	Missoula, MT	59	51	65	33	95	59	44	91	88
55	99	44	Hattiesburg, MS	66	68	99	53	21	41	19	168	48
4	49	45	Lafayette-West Lafayette, IN	40	66	45	51	64	175	97	71	28
-20	26	46	Jonesboro, AR	33	21	47	49	82	88	74	146	135
-3	44	47	Iowa City, IA	50	54	48	95	29	94	174	47	48
81	128	47	Brunswick, GA	47	6	129	13	134	97	4	108	48
-30	19	49	Morgantown, WV	82	136	53	46	54	61	41	57	28
99	149	50	Jackson, MI	80	35	37	104	102	33	2	144	48
92	143	51	Sebring, FL	54	5	168	37	5	36	31	165	174
-27	25	52	Tyler, TX	53	53	83	93	51	53	120	67	48
10	63	53	Yakima, WA	87	37	56	40	30	80	123	154	135
26	80	54	Appleton, WI	68	63	58	52	50	120	105	104	88
-1	54	55	Billings, MT	62	119	19	29	69	62	113	106	135
-41	14	55	Monroe, MI	35	146	38	135	92	2	8	62	48
-10	47	57	St. Cloud, MN	75	103	27	19	85	54	142	119	88
72	130	58	Ithaca, NY	77	116	118	36	74	121	38	15	15
72	131	59	Lake Havasu City-Kingman, AZ	89	48	123	92	77	28	6	117	48
-31	29	60	Winchester, VA-WV	43	57	70	71	70	38	114	152	135
-13	48	61	Fond du Lac, WI	96	148	52	70	75	20	124	33	15
49	111	62	Staunton-Waynesboro, VA	110	55	107	99	94	6	87	39	15
14	77	63	Gettysburg, PA	76	75	103	159	27	52	40	94	15
5	69	64	Idaho Falls, ID	39	30	155	12	99	172	155	3	88
-24	41	65	Blacksburg-Christiansburg-Radford, VA	88	129	73	109	35	93	62	49	28
-5	61	66	Madera, CA	46	3	71	144	7	146	198	150	88
-21	46	67	Morristown, TN	58	39	115	108	45	57	5	187	174
14	82	68	Rochester, MN	61	59	145	55	98	101	164	28	28
26	95	69	Sherman-Denison, TX	71	104	87	138	31	106	75	41	88
104	174	70	Harrisonburg, VA	92	22	108	64	40	198	78	126	135
10	81	71	Flagstaff, AZ	73	96	59	59	103	118	101	60	135
24	96	72	Manhattan, KS	49	152	92	58	20	92	137	143	88
75	148	73	Walla Walla, WA	108	17	138	148	32	45	9	138	135
34	108	74	Florence, SC	63	93	125	88	59	125	47	137	48
12	87	75	Macon, GA	102	83	93	77	144	116	11	54	48
13	89	76	Panama City, FL	45	65	116	45	112	181	130	72	88
-3	74	77	Kankakee, IL	137	170	74	100	66	13	82	13	48
-22	56	78	Corvallis, OR	57	62	121	74	130	200	170	1	1

RANKINGS BY COMPONENT

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-58	21	79	Pueblo, CO	98	56	88	102	170	23	68	61	88
-23	57	80	Wausau, WI	90	128	26	69	133	40	51	166	135
36	117	81	Burlington, NC	106	36	111	134	96	82	196	40	6
-12	70	82	Rapid City, SD	104	98	77	105	116	32	93	120	48
33	116	83	Rome, GA	94	74	150	79	101	164	21	79	48
-6	78	84	State College, PA	143	72	68	80	173	72	143	16	6
N/A	Large 137	85	Amarillo, TX	113	105	91	101	90	44	18	112	135
11	97	86	Bremerton-Silverdale, WA	93	71	146	38	161	103	65	83	48
4	91	87	Greenville, NC	83	123	61	86	149	102	129	5	88
27	115	88	Hot Springs, AR	154	106	110	127	62	43	56	50	88
4	93	89	Pocatello, ID	55	64	141	90	33	75	166	177	174
33	123	90	Jackson, TN	56	31	101	110	117	111	49	196	174
-6	85	91	Owensboro, KY	120	89	51	42	122	96	110	181	135
17	109	92	Carbondale-Marion, IL	131	143	135	126	48	24	34	124	28
-40	53	93	Tuscaloosa, AL	48	139	90	121	43	115	23	197	174
-29	65	94	Valdosta, GA	91	94	154	142	131	26	70	31	48
-65	30	95	Bismarck, ND	36	176	3	68	186	66	190	118	88
39	135	96	Lebanon, PA	125	84	157	150	137	35	48	8	6
39	136	97	Hanford-Corcoran, CA	103	129	75	81	57	27	127	191	174
-26	72	98	Hagerstown-Martinsburg,-WV	60	118	96	115	177	98	53	98	28
25	124	99	El Centro, CA	81	122	89	61	60	142	80	189	174
6	106	100	Sioux City, IA-NE-SD	86	127	41	7	179	89	150	167	135
17	118	101	Oshkosh-Neenah, WI	126	44	109	107	185	78	95	66	48
-40	62	102	Chambersburg-Waynesboro, PA	105	159	102	89	73	90	122	77	88
-62	41	103	Longview, WA	65	108	50	149	118	147	96	123	88
8	112	104	Grand Forks, ND-MN	85	81	24	62	183	58	175	159	174
-26	79	105	Elizabethtown-Fort Knox, KY	41	32	189	176	83	150	46	110	88
-3	103	106	Lewiston-Auburn, ME	115	84	119	132	87	11	50	140	174
-19	88	107	Dalton, GA	107	76	126	114	107	171	100	34	88
19	127	108	Sheboygan, WI	79	102	79	119	151	83	92	135	88
11	120	109	La Crosse-Onalaska, WI-MN	101	79	85	111	88	151	151	142	88
-16	94	110	Eau Claire, WI	117	126	43	67	198	135	132	55	48
-25	86	111	Battle Creek, MI	84	111	112	117	105	162	3	163	88
14	126	112	Monroe, LA	121	140	132	120	89	7	183	51	48
1	114	113	St. Joseph, MO-KS	116	115	106	118	164	19	144	23	88
-41	73	114	Sumter, SC	95	108	55	168	139	76	173	87	48
-2	113	115	Pittsfield, MA	148	165	117	85	86	127	109	30	48
21	137	116	Gadsden, AL	100	52	156	106	55	165	99	185	135
-33	84	117	Saginaw, MI	135	95	131	147	142	42	20	73	88
4	122	118	Johnson City, TN	141	101	134	50	136	176	156	52	28
58	177	119	Bloomington, IN	150	121	104	20	174	193	176	2	48
26	146	120	Yuma, AZ	69	49	133	124	109	190	163	103	135

RANKINGS BY COMPONENT

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-62	59	121	Dover, DE	78	90	84	137	119	55	181	176	135
-83	39	122	Muskegon, MI	97	157	76	123	146	110	60	113	88
-18	105	123	Midland, TX	18	198	1	199	52	159	146	194	135
63	186	123	Vineland-Bridgeton, NJ	149	82	170	136	15	107	116	155	88
-74	51	125	Burlington-South Burlington, VT	99	145	86	128	163	188	118	10	15
13	139	126	Kingston, NY	140	91	158	75	91	134	193	88	48
-51	75	126	Niles-Benton Harbor, MI	124	120	82	72	80	153	169	160	135
57	185	128	East Stroudsburg, PA	171	41	191	47	150	105	131	12	135
18	147	129	Las Cruces, NM	127	45	169	139	147	143	165	25	2
-20	110	130	Grand Island, NE	153	134	81	151	93	74	29	186	88
-29	102	131	Champaign-Urbana, IL	123	141	113	97	138	132	177	46	28
0	132	132	Muncie, IN	128	137	94	73	151	136	160	105	48
46	179	133	Warner Robins, GA	147	33	185	157	127	145	17	70	88
41	175	134	Joplin, MO	145	132	139	96	126	148	91	100	15
28	163	135	Cumberland,-WV	175	110	176	112	175	63	39	26	6
32	168	136	Topeka, KS	132	78	152	165	132	21	36	128	135
8	145	137	Santa Fe, NM	133	135	171	131	148	81	14	69	48
33	171	138	Bangor, ME	158	167	149	87	61	73	76	122	135
5	144	139	Altoona, PA	163	158	136	116	171	31	69	14	48
12	152	140	Jefferson City, MO	159	77	173	143	167	14	43	68	88
37	178	141	Carson City, NV	160	80	174	35	151	185	171	96	15
-13	129	142	California-Lexington Park,	129	152	147	146	97	156	145	6	28
28	171	143	Terre Haute, IN	165	150	178	163	65	154	63	18	15
10	154	144	Florence-Muscle Shoals, AL	130	69	143	125	151	99	12	192	174
-7	138	145	Springfield, IL	144	107	142	83	151	123	134	74	135
-26	120	146	Cheyenne, WY	109	183	66	166	135	67	184	114	48
14	161	147	Bloomsburg-Berwick, PA	166	113	95	133	115	187	85	90	135
-93	55	148	Midland, MI	118	178	120	177	172	8	119	37	48
-89	60	149	Dubuque, IA	114	160	42	94	151	195	191	153	88
-25	125	150	Ocean City, NJ	112	177	175	113	3	56	180	182	174
2	153	151	New Bern, NC	122	88	182	160	110	71	103	132	135
-19	133	152	Racine, WI	139	138	122	155	124	64	133	151	88
13	166	153	Bay City, MI	169	152	148	145	182	47	45	24	88
-3	151	154	Glens Falls, NY	161	161	128	130	79	182	167	45	88
32	187	155	Dothan, AL	162	117	163	76	165	48	84	180	135
-98	58	156	San Angelo, TX	74	179	33	164	187	169	154	93	135
-59	98	157	Williamsport, PA	191	195	30	171	189	114	83	48	28
25	183	158	Texarkana, TX-AR	174	99	184	63	194	79	26	174	135
33	192	159	Rocky Mount, NC	185	142	183	78	188	124	148	19	2
-2	158	160	Albany, GA	157	92	186	186	108	128	115	59	88
1	162	161	Decatur, AL	176	152	177	191	123	22	27	145	28
5	167	162	Mansfield, OH	170	124	165	172	121	168	140	44	28
-132	31	163	Victoria, TX	111	197	11	193	141	104	188	156	135

RANKINGS BY COMPONENT

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29	193	164	Binghamton, NY	193	133	188	153	113	161	159	7	6
-46	119	165	Lima, OH	146	114	137	154	120	177	168	134	88
4	170	166	Homosassa Springs, FL	164	97	190	129	178	86	88	136	88
-26	141	167	Hammond, LA	138	87	193	198	84	113	66	171	174
8	176	168	Great Falls, MT	152	174	153	122	58	170	108	161	174
-10	159	169	Cape Girardeau, MO-IL	155	147	160	152	197	69	107	95	48
-80	90	170	Odessa, TX	119	199	2	201	71	196	187	200	174
-72	99	171	Abilene, TX	136	169	80	182	162	126	161	116	88
-68	104	172	Longview, TX	177	193	124	196	129	100	136	80	15
16	189	173	Johnstown, PA	198	182	192	179	145	91	67	9	15
-34	140	174	Lynchburg, VA	151	151	159	158	184	173	152	43	15
15	190	175	Charleston, WV	195	187	187	183	128	68	22	111	48
-3	173	176	Wichita Falls, TX	182	181	180	173	151	85	33	42	135
-36	141	177	Decatur, IL	187	162	130	169	151	130	128	130	48
18	196	178	Hinesville, GA	184	112	196	184	42	189	149	131	135
-19	160	179	Jacksonville, NC	142	163	198	195	100	137	102	129	88
-23	157	180	Wheeling, WV-OH	168	185	44	188	169	167	32	179	174
19	200	181	Anniston-Oxford-Jacksonville, AL	194	152	200	190	143	174	15	121	48
-18	164	182	Goldsboro, NC	179	164	166	162	166	84	197	115	48
-14	169	183	Lawton, OK	167	175	195	140	111	39	153	183	174
-4	180	184	Parkersburg-Vienna, WV	183	186	162	170	180	109	106	81	88
-29	156	185	Waterloo-Cedar Falls, IA	156	168	105	181	176	122	158	175	135
-4	182	186	Bloomington, IL	189	190	151	141	63	166	189	172	174
1	188	187	Grand Junction, CO	134	166	144	167	151	179	172	158	174
-33	155	188	Danville, IL	188	191	161	156	199	139	126	99	88
6	195	189	Michigan City-La Porte, IN	181	173	172	175	200	184	135	107	28
-26	164	190	Elmira, NY	197	189	167	185	151	183	186	76	48
-10	181	191	Watertown-Fort Drum, NY	171	171	197	189	140	140	182	85	135
-42	150	192	Farmington, NM	178	196	127	187	181	152	55	199	135
4	197	193	Fairbanks, AK	190	184	164	91	168	163	185	178	174
-88	106	194	Casper, WY	186	200	40	197	195	158	192	195	135
-4	191	195	Springfield, OH	180	188	140	161	104	201	201	201	174
-62	134	196	Houma-Thibodaux, LA	192	201	100	200	191	141	199	169	88
1	198	197	Sierra Vista-Douglas, AZ	199	180	201	180	193	199	195	53	88
-4	194	198	Weirton-Steubenville, WV-OH	196	192	179	178	196	186	59	188	174
-15	184	199	Alexandria, LA	173	172	181	174	192	191	200	173	174
-1	199	200	Beckley, WV	200	194	194	194	201	192	141	149	135
0	201	201	Pine Bluff, AR	201	144	199	192	190	194	179	198	174

ENDNOTES

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ABOUT THE AUTHORS

JESSICA JACKSON is a research analyst in regional economics at the Milken Institute Center for Regional Economics, conducting research on human capital, innovation, entrepreneurship, and competitiveness. Jackson's previous work includes "New Skills at Work: Keeping Los Angeles at the Cutting Edge in an Evolving Industry," "Hollywood's Diversity Problem: It's Not Just Actors," "Regional Performance Over Time Case Study: The Bend-Redmond, Ore. Metropolitan Statistical Area," and "Best-Performing Cities China 2016." Prior to joining the Institute, Jackson was a teaching fellow at the University of North Texas, teaching courses in macroeconomics. She holds bachelor's degrees in economics and history from the University of North Texas, where she also earned a master's degree in economics focusing on applied econometrics.

JOE LEE is a research analyst with the Milken Institute on the regional economics team. He specializes in labor economics with a focus in human capital and economic development. Recent work includes the internet effect on educational attainment. He has been involved in projects that include regional workforce issues, human capital interactions, entrepreneurship, and innovation. Joe received his M.A. in economics from CSULB and graduated from The Evergreen State College.

MICHAEL C.Y. LIN is a research analyst in regional economics at the Milken Institute. His current research focuses on urban and regional economic development in Asia and the United States. Prior to joining the Institute, Dr. Lin was a teaching associate at the University of Southern California (USC) focusing on quantitative methods and analysis. Dr. Lin's articles have been published in such academic outlets as the *Annals of Regional Science*, and he has published two book chapters about community planning and shrinking cities. He was also involved in writing several reports on green buildings, informal housing, sustainable community development, and urban and regional economic development. He has also participated in peer reviews for academic journal articles. Dr. Lin holds a bachelor's degree in architecture and a master's degree in urban design, both from the National Taipei University of Technology in Taiwan, and a Ph.D. in policy, planning, and development with a specialization in urban economics from USC.

MINOLI RATNATUNGA is an economist and the director of regional economics research at the Milken Institute Center for Regional Economics. With her team, she investigates the key economic development issues facing regions, including competitiveness, fostering innovation and entrepreneurship, and building human capital. Ratnatunga's publications include "Concept to Commercialization: The Best Universities for Technology Transfer," "Regional Performance Over Time: Thriving and Reviving Amid Economic Challenges," "California's Innovation-Based Economy: Policies to Maintain and Enhance It," "State Technology and Science Index," and the Best-Performing Cities series. Before joining the Institute, she worked for eight years at the Allegheny Conference on Community Development, a regional economic development organization focused on the Pittsburgh area's competitiveness and quality of life. There she focused her research on energy policy, transportation and infrastructure funding, and state tax competitiveness, working with civic and business leaders to help key decision-makers make better policy choices. Ratnatunga has a bachelor's degree in philosophy and economics from the London School of Economics and a master's degree in public policy and management from Carnegie Mellon University.



SANTA MONICA

1250 Fourth Street
Santa Monica, CA 90401
P +1.310.570.4600

WASHINGTON

1101 New York Avenue NW
Suite 620
Washington, D.C. 20005
P +1.202.336.8930

LONDON

23 Savile Row
London W1S 2ET UK
P +44 (0) 207.043.5926

SINGAPORE

8 Marina View #15-05
Asia Square Tower 1
Singapore 018960
P +65.6636.2507

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