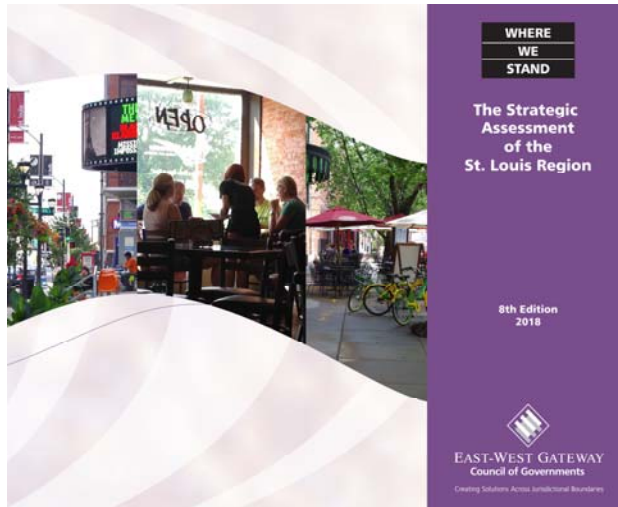




Where We Stand: 8th Edition

Chapter 2: Economy

November 2018



The *Where We Stand* series produced by East-West Gateway (EWG) has provided comparisons of the St. Louis region with other large metropolitan areas since 1992. Over the years, a broad range of topics important to the region have been documented in these publications.

The eighth edition focuses on three strategic priorities identified by the EWG Board of Directors in May of this year: economic development, workforce development, and crime and safety. It shows how St. Louis ranks among the 50 most populous Metropolitan Statistical Areas (MSA) in the United States—the peer regions—on 130 metrics that pertain to these strategic priorities.

This document is a portion of the full document. Access the additional chapters, entire eighth edition, additional data, updates, white papers, and past editions at www.ewgateway.org/www.

Introduction

The St. Louis economy has many strengths. By national standards, the unemployment rate in the St. Louis region is low. Despite many ups and downs in the national economy, St. Louis has held its position, near the national average, on per capita income. After decades of restructuring, the region still has a vibrant manufacturing sector, as well as important competitive advantages in the freight and logistics industry. A relatively low cost of living and low levels of congestion are attractive qualities to the freight industry, employers, and workers. And a growing ecosystem of innovation fosters new and creative companies.

Despite these strengths, St. Louis faces many challenges as well. It lags most peer regions on both income and employment growth. St. Louis also continues to grapple with racial disparities in income and employment. And while much progress has been made on inclusion of individuals with disabilities, much work also remains to be done.

This chapter provides an overview of the national and regional economy, 10 years after the Great Recession, presenting metrics on employment, income, innovation, freight, and inclusion.

Employment and Gross Domestic Product

The economy has grown steadily since the Great Recession of 2007-2009, and the current economic expansion is now nearly 10 years old. In 2017, the national unemployment rate was 4.4 percent, the lowest since 2000, and the third lowest unemployment rate since 1970. In the tight labor market, many employers are expressing concern about labor shortages (STLCC, 2018).

Table 2-01: The unemployment rate in St. Louis is lower than that of the United States and lower than most peer regions. In 2017, St. Louis ranked 37th out of the 50 peer regions. The region's unemployment rate of 3.7 percent was substantially lower than the national average. It is noteworthy that the unemployment rate in St. Louis is much lower than several of the other low-growth regions such as Cleveland, Chicago, and Detroit (see Figure 2-01 on page 19).

Table 2-02: In 2012, the unemployment rate in St. Louis was 7.3 percent, below the national average of 8.1 percent. Since 2012, the region's unemployment rate has fallen by 3.6 percentage points. This is about the same as the national decline of 3.7 percentage points. The regions with the greatest decline in unemployment, shown at the bottom of Table 2-02, are the Metropolitan Statistical Areas (MSAs) that had the highest unemployment rate during the Great Recession. Sacramento, Las Vegas, Riverside, and Detroit all had unemployment rates in excess of 12 percent in 2010, while the rate for St. Louis was 9.6 percent.

Table 2-01
Unemployment Rate

Unemployed individuals who are looking for work as a percent of the labor force, 2017

1	Cleveland	5.7
2	Buffalo	5.4
3	Las Vegas	5.2
4	Riverside	5.1
5	Pittsburgh	5.0
6	Houston	5.0
7	Chicago	4.9
8	New Orleans	4.8
9	Philadelphia	4.7
10	Hartford	4.7
11	Atlanta	4.5
12	Sacramento	4.5
13	New York	4.5
14	Providence	4.5
15	Detroit	4.4
16	Los Angeles	4.4
	United States	4.4
17	Miami	4.3
18	Charlotte	4.3
19	Cincinnati	4.3
20	Memphis	4.3
21	Baltimore	4.3
22	Phoenix	4.2
23	Virginia Beach	4.2
24	Seattle	4.1
25	Louisville	4.1
26	Columbus	4.1
27	Birmingham	4.0
28	San Diego	4.0
29	Raleigh	4.0
30	Jacksonville	3.9
31	Tampa	3.9
32	Portland	3.9
33	Richmond	3.9
34	Oklahoma City	3.9
35	Kansas City	3.8
36	Orlando	3.8
37	St. Louis	3.7
38	Washington, D.C.	3.7
39	Dallas	3.6
40	Milwaukee	3.5
41	San Antonio	3.5
42	Boston	3.4
43	San Francisco	3.3
44	Indianapolis	3.3
45	San Jose	3.3
46	Minneapolis	3.2
47	Salt Lake City	3.1
48	Austin	3.1
49	Nashville	2.9
50	Denver	2.7

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

Table 2-02
Change in Unemployment Rate

Percentage point change, 2012-2017

1	Oklahoma City	-0.7
2	Cleveland	-0.9
3	Houston	-1.6
4	Washington, D.C.	-2.1
5	Pittsburgh	-2.2
6	Salt Lake City	-2.2
7	New Orleans	-2.3
8	Minneapolis	-2.3
9	Columbus	-2.4
10	Austin	-2.6
11	Virginia Beach	-2.6
12	Richmond	-2.7
13	Kansas City	-2.7
14	Boston	-2.7
15	San Antonio	-2.8
16	Dallas	-2.9
17	Birmingham	-3.0
18	Baltimore	-3.0
19	Seattle	-3.0
20	Buffalo	-3.1
21	Cincinnati	-3.1
22	Phoenix	-3.1
23	Raleigh	-3.4
24	Nashville	-3.6
25	St. Louis	-3.6
26	Hartford	-3.6
27	Louisville	-3.7
28	Philadelphia	-3.7
	United States	-3.7
29	Miami	-3.9
30	Milwaukee	-3.9
31	Portland	-4.1
32	Memphis	-4.2
33	Chicago	-4.2
34	Atlanta	-4.3
35	Jacksonville	-4.3
36	New York	-4.3
37	Tampa	-4.3
38	San Francisco	-4.5
39	Orlando	-4.6
40	San Jose	-4.7
41	Indianapolis	-4.7
42	Charlotte	-5.0
43	Denver	-5.0
44	San Diego	-5.1
45	Providence	-5.5
46	Detroit	-5.6
47	Los Angeles	-5.8
48	Sacramento	-5.8
49	Las Vegas	-6.0
50	Riverside	-6.4

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

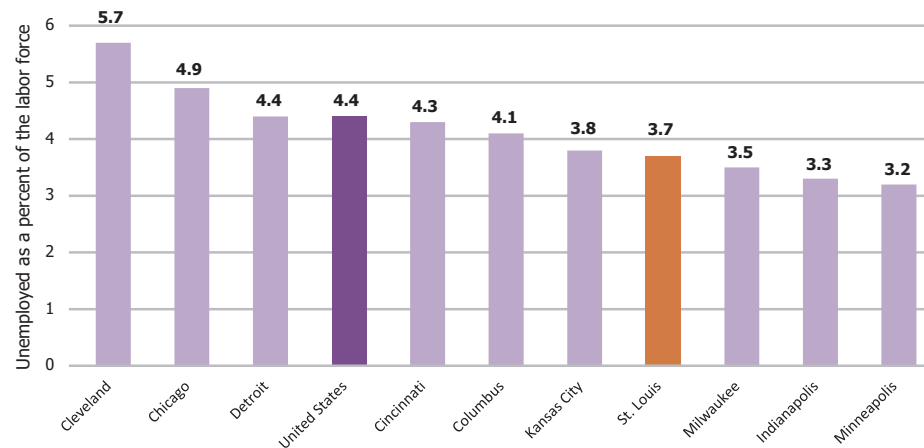
Table 2-03: St. Louis ranked fairly low, 40th out of 50, on employment growth from 2012 to 2017. In part, the region's low ranking is because of its small increase in the number of jobs, but the low ranking also reflects the fact that the recession was milder in St. Louis than in many of the Sunbelt regions. Four Sunbelt regions—Riverside, Austin, Orlando, and Nashville—were the top peer regions for employment growth. Each experienced employment growth of at least 20 percent, more than double the national average.

Table 2-04: St. Louis ranked 37th for employment growth from 2016 to 2017, a bit higher than its ranking for the 2012-2017 time period. Each of the 10 fastest growing regions could be considered part of the Sunbelt, as Nashville and Las Vegas are tied for the northernmost of the top 10.

Riverside, Austin, Orlando, and Nashville were the four peer regions with the biggest growth rates in both the 2012-2017 and the 2016-2017 time periods. It is possible to break down the industries responsible for the explosive growth rates in these four regions. In Riverside, health care and social assistance, transportation and warehousing, and leisure and hospitality collectively were responsible for most of the job growth. In Orlando, Nashville, and Austin, professional services and leisure and hospitality were the dominant sectors.

**Figure 2-01
Unemployment Rate**

St. Louis MSA, Midwest Peers, and United States, 2017



Source: Bureau of Labor Statistics, Current Employment Statistics.

**Table 2-03
Change in Employment**

Percent change, 2012-2017

1	Riverside	22.5
2	Austin	22.3
3	Orlando	20.9
4	Nashville	20.0
5	San Jose	18.8
6	Las Vegas	18.4
7	Charlotte	17.7
8	San Francisco	17.4
9	Raleigh	17.2
10	Denver	17.0
11	Dallas	16.7
12	San Antonio	16.3
13	Jacksonville	16.0
14	Atlanta	15.7
15	Phoenix	15.6
16	Salt Lake City	15.6
17	Seattle	15.4
18	Tampa	15.0
19	Portland	15.0
20	Miami	15.0
21	Sacramento	14.4
22	San Diego	13.1
23	Columbus	12.0
24	Louisville	11.3
25	Los Angeles	11.0
26	Indianapolis	10.7
27	Houston	10.4
28	New York	9.5
29	Richmond	9.5
30	Kansas City	9.4
31	Detroit	9.4
United States		9.3
32	Boston	9.2
33	Minneapolis	9.2
34	Cincinnati	8.4
35	Chicago	7.4
36	Providence	7.1
37	Washington, D.C.	6.9
38	Philadelphia	6.8
39	Oklahoma City	6.7
40	St. Louis	6.4
41	Memphis	6.4
42	Baltimore	6.3
43	Milwaukee	5.5
44	New Orleans	5.5
45	Birmingham	4.5
46	Virginia Beach	4.4
47	Cleveland	3.7
48	Buffalo	3.6
49	Hartford	3.5
50	Pittsburgh	1.6

Source: Bureau of Labor Statistics, Current Employment Statistics

**Table 2-04
Change in Employment**

Percent change, 2016-2017

1	Riverside	3.5
2	Austin	3.2
3	Nashville	3.2
4	Orlando	3.2
5	Jacksonville	3.2
6	Charlotte	2.9
7	Las Vegas	2.9
8	Phoenix	2.8
9	Dallas	2.7
10	Raleigh	2.7
11	Seattle	2.6
12	San Jose	2.5
13	Portland	2.4
14	Salt Lake City	2.4
15	San Antonio	2.3
16	Atlanta	2.2
17	San Francisco	2.2
18	Sacramento	2.1
19	Tampa	2.0
20	San Diego	2.0
21	Denver	1.9
22	Columbus	1.8
23	Miami	1.7
24	Minneapolis	1.6
25	Washington, D.C.	1.6
United States		1.6
26	Kansas City	1.5
27	New York	1.5
28	Detroit	1.5
29	Philadelphia	1.5
30	Indianapolis	1.4
31	Los Angeles	1.4
32	Louisville	1.3
33	Cincinnati	1.3
34	Boston	1.2
35	Richmond	1.1
36	Pittsburgh	1.1
37	St. Louis	1.0
38	Providence	1.0
39	Houston	1.0
40	Virginia Beach	0.9
41	Baltimore	0.9
42	Chicago	0.8
43	Oklahoma City	0.8
44	Buffalo	0.7
45	Birmingham	0.6
46	Memphis	0.6
47	Hartford	0.4
48	Milwaukee	0.3
49	Cleveland	0.2
50	New Orleans	-0.2

Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-05: Gross domestic product (GDP) is the monetary value of goods and services sold, minus the costs of inputs. It is often referred to by the term “value added.” St. Louis stands at about the national average on GDP per capita, ranking 35th among the peer regions.

Output per worker varies dramatically by industry. Finance, real estate, and information all have per worker GDP levels in excess of \$250,000. Not surprisingly, MSAs that are strong in these sectors have relatively high levels of GDP per worker compared to the peers.

**Table 2-05
Gross Domestic Product (GDP)**

Dollars per capita, 2017

1	San Jose	137,752
2	San Francisco	105,918
3	Seattle	92,208
4	Boston	90,702
5	Washington, D.C.	85,254
6	New York	84,529
7	Los Angeles	78,160
8	Hartford	74,627
9	Philadelphia	72,993
10	Salt Lake City	72,979
11	Dallas	72,368
12	Denver	72,317
13	Minneapolis	72,239
14	Chicago	71,299
15	Houston	71,103
16	Indianapolis	70,922
17	Austin	70,303
18	Portland	70,020
19	Nashville	70,020
20	San Diego	69,463
21	Charlotte	68,914
22	Baltimore	68,435
23	Cleveland	67,504
24	Milwaukee	66,885
25	Columbus	65,567
26	Atlanta	65,516
27	Richmond	63,930
28	Cincinnati	63,345
29	Pittsburgh	63,156
30	Raleigh	62,384
31	New Orleans	62,151
32	Kansas City	61,577
33	Detroit	60,425
	United States	59,823
34	Louisville	58,783
35	St. Louis	57,450
36	Birmingham	56,142
37	Miami	55,998
38	Virginia Beach	54,981
39	Sacramento	54,348
40	Oklahoma City	54,117
41	Memphis	53,775
42	Buffalo	52,789
43	Orlando	52,772
44	San Antonio	52,263
45	Phoenix	51,285
46	Providence	51,155
47	Las Vegas	50,946
48	Jacksonville	50,931
49	Tampa	47,341
50	Riverside	34,478

Source: Bureau of Economic Analysis; U.S. Census Bureau, Population Estimates

Employment by Industry

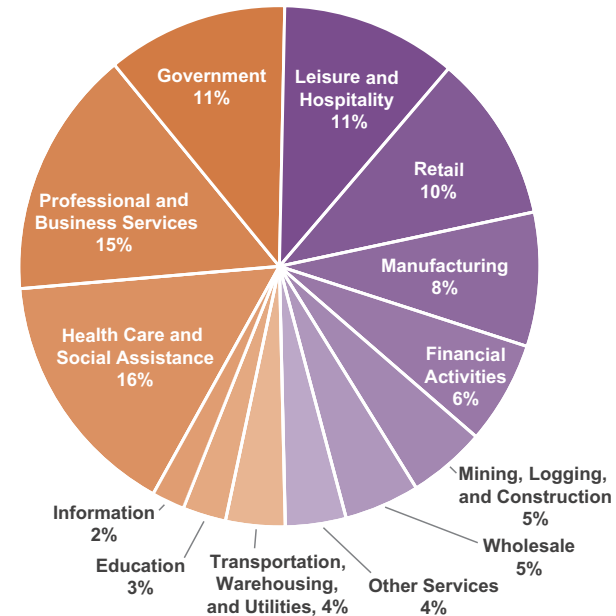
St. Louis has a diversified economy. There is not a single dominant industry in the region.

Figure 2-02 shows employment by industry in the St. Louis MSA. The largest industries are health care and social assistance (214,000 employees) and professional and business services (213,000), followed by leisure and hospitality (151,000) and government (155,000). The manufacturing sector employed 115,000 people in 2017, belying the notion that St. Louis is a post-industrial region. The distribution

of jobs among industries is very similar to the national distribution. Each sector is within one percentage point of the national average, with two exceptions: the health care and social assistance sector is larger in St. Louis than in the rest of the nation, as it accounts for 16 percent of jobs in the St. Louis region compared to 13 percent nationally. By contrast, the government sector is smaller in St. Louis than in the country as a whole, as the public sector accounts for 11 percent of St. Louis jobs, and 15 percent of U.S. jobs.

**Figure 2-02
Employment by Industry**

Percent of Total Employment
St. Louis MSA, 2017



Source: Bureau of Labor Statistics, Current Employment Statistics.

Table 2-06: St. Louis was close to the national average on change in manufacturing (see Figure 2-03 on page 22). After decades of decline, manufacturing has seen a small resurgence since the Great Recession. Manufacturing employment grew by 3.6 percent in St. Louis, compared to 4.3 percent for the United States. St. Louis is about in the middle compared to the peer regions, ranking 29th.

Table 2-07: Data on the health care and social assistance sector is unavailable for 11 of the peer regions. St. Louis ranked 27th out of the 39 regions for which data is available. The growth rate of 11.4 percent for the region was lower than most peer regions, but close to the national average.

Table 2-08: St. Louis ranked near the bottom for change in employment for the leisure and hospitality industry. Growth in St. Louis was about half the national average and about a quarter of the top performing regions in this sector. Nationally, the restaurant subsector dominates employment in this industry. Restaurant employment comprises two-thirds of the jobs in the leisure and hospitality sector, while hotels and accommodations make up 12.5 percent of employment in the sector. Thus, growth in this industry is more closely related to overall population growth than to tourism.

**Table 2-06
Change in
Manufacturing
Employment**

Percent change, 2012-2017

1	Nashville	19.9
2	Detroit	19.6
3	San Francisco	19.6
4	Louisville	19.2
5	Orlando	17.1
6	Miami	16.0
7	Las Vegas	13.9
8	Riverside	13.8
9	Raleigh	13.7
10	Atlanta	12.7
11	Tampa	11.8
12	San Diego	11.0
13	Kansas City	10.9
14	Jacksonville	10.8
15	Cincinnati	10.2
16	Denver	9.3
17	Charlotte	8.6
18	Portland	7.9
19	Indianapolis	7.4
20	Washington, D.C.	6.8
21	Minneapolis	6.3
22	Salt Lake City	6.3
23	Columbus	6.0
24	Richmond	5.9
25	Phoenix	5.7
26	San Jose	5.2
27	Sacramento	4.7
	United States	4.3
28	San Antonio	3.6
29	St. Louis	3.6
30	Dallas	3.5
31	Memphis	2.5
32	Providence	1.6
33	Buffalo	1.4
34	Birmingham	1.4
35	Austin	0.9
36	Chicago	0.8
37	Hartford	0.7
38	Philadelphia	-1.2
39	Milwaukee	-1.3
40	Cleveland	-1.6
41	Virginia Beach	-2.4
42	Boston	-2.6
43	New York	-2.7
44	Seattle	-3.1
45	Los Angeles	-4.5
46	Pittsburgh	-4.6
47	Oklahoma City	-4.8
48	New Orleans	-5.6
49	Baltimore	-8.7
50	Houston	-9.5

Source: Bureau of Labor Statistics,
Current Employment Statistics

**Table 2-07
Change in Health and
Social Assistance
Employment**

Percent change, 2012-2017

1	Riverside	30.7
2	Las Vegas	27.3
3	San Jose	24.4
4	Sacramento	24.3
5	Phoenix	21.8
6	Atlanta	21.7
7	Denver	21.6
8	New Orleans	21.3
9	Austin	20.8
10	San Diego	20.1
11	Raleigh	19.3
12	Columbus	19.0
13	Dallas	17.4
14	San Antonio	16.4
15	Houston	16.4
16	Minneapolis	16.3
17	Los Angeles	16.1
18	Milwaukee	15.8
19	Portland	15.6
20	Nashville	15.3
21	New York	15.3
22	Philadelphia	14.5
23	Indianapolis	13.7
24	Charlotte	13.3
25	Kansas City	13.1
26	Washington, D.C.	12.2
	United States	12.0
27	St. Louis	11.4
28	Virginia Beach	10.9
29	Baltimore	9.9
30	Birmingham	9.7
31	Cincinnati	9.2
32	Richmond	9.1
33	Buffalo	8.8
34	Hartford	8.3
35	Oklahoma City	7.0
36	Detroit	6.3
37	Pittsburgh	5.2
38	Cleveland	3.8
39	Providence	3.4

Source: Bureau of Labor Statistics,
Current Employment Statistics

**Table 2-08
Change in Leisure
and Hospitality
Employment**

Percent change, 2012-2017

1	Austin	33.5
2	Nashville	28.7
3	Riverside	28.1
4	Raleigh	25.1
5	Los Angeles	24.7
6	Charlotte	24.1
7	San Jose	24.0
8	Jacksonville	23.8
9	Houston	23.8
10	Atlanta	23.6
11	Dallas	23.4
12	Sacramento	22.4
13	Denver	22.3
14	Orlando	22.0
15	Portland	21.9
16	Seattle	21.5
17	San Diego	21.5
18	Phoenix	21.4
19	San Francisco	20.1
20	San Antonio	19.8
21	Salt Lake City	19.6
22	Tampa	19.6
23	New York	18.5
24	Miami	17.0
	United States	16.6
25	Richmond	16.6
26	Washington, D.C.	16.4
27	Oklahoma City	16.2
28	Birmingham	15.7
29	Chicago	15.4
30	New Orleans	15.3
31	Cincinnati	14.5
32	Boston	14.1
33	Cleveland	14.1
34	Detroit	13.5
35	Baltimore	13.3
36	Minneapolis	12.7
37	Louisville	12.7
38	Columbus	12.4
39	Philadelphia	12.3
40	Kansas City	11.8
41	Milwaukee	11.4
42	Providence	10.9
43	Buffalo	10.9
44	Las Vegas	10.6
45	Indianapolis	10.1
46	Memphis	9.1
47	St. Louis	9.1
48	Virginia Beach	9.0
49	Hartford	7.6
50	Pittsburgh	7.3

Source: Bureau of Labor Statistics,
Current Employment Statistics

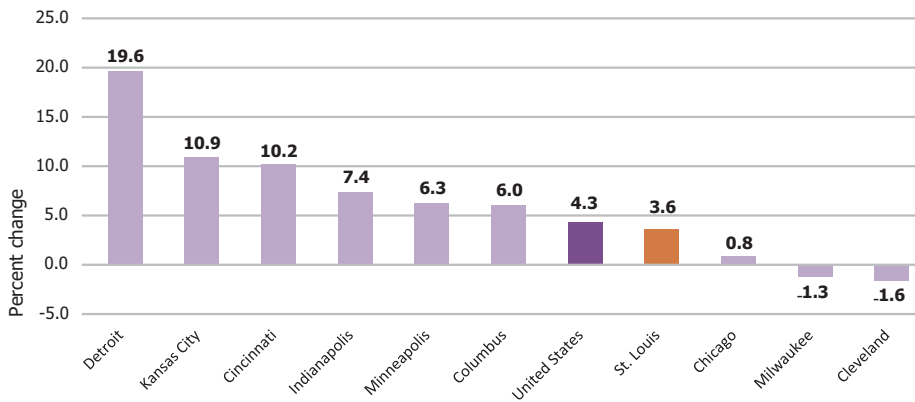
Table 2-09: St. Louis also ranked near the bottom on change in employment in the financial services industry. Nonetheless, about 6 percent of the workforce was engaged in financial services, virtually the same as the national average.¹

Table 2-10: St. Louis ranked 33rd for growth in the professional services industry from 2012 to 2017. This industry encompasses a wide variety of firms, including law offices, accountants, architects, and engineers. These types of professional services collectively make up about 15 percent of the national total for the industry.

Computer system design makes up another 10 percent. The single largest category is employment services, which comprises 18 percent of the professional and business services industry. Employment services include employment placement, executive search, and temporary employment services. Services to buildings makes up an additional 10 percent of this category, with janitorial services being the single largest source of employment.

Figure 2-03
Change in Manufacturing Employment

St. Louis MSA, Midwest Peers, and United States, 2017



Source: Bureau of Labor Statistics, Current Employment Statistics.

¹ This table does not appear in this document. View this and other *Where We Stand* tables at www.ewgateway.org/www.

Table 2-09
Change in Financial Activities Employment

Percent change, 2012-2017

1	Nashville	29.0
2	Austin	27.0
3	Phoenix	23.9
4	Salt Lake City	21.9
5	San Antonio	21.1
6	Las Vegas	20.9
7	Charlotte	19.9
8	Raleigh	19.7
9	Dallas	17.7
10	Tampa	17.6
11	Denver	17.0
12	Detroit	16.0
13	Columbus	15.5
14	Buffalo	15.3
15	Cincinnati	15.1
16	Portland	12.8
17	San Francisco	12.6
18	Jacksonville	12.2
19	Houston	11.8
20	Louisville	11.7
21	Orlando	11.2
22	Miami	10.9
23	New Orleans	10.8
24	Indianapolis	10.8
25	Richmond	10.8
26	Atlanta	10.5
27	Baltimore	10.3
28	Riverside	9.3
29	Seattle	9.2
30	San Jose	8.7
	United States	8.6
31	Sacramento	8.1
32	Minneapolis	7.9
33	Providence	7.8
34	Philadelphia	7.1
35	Kansas City	6.8
36	Washington, D.C.	6.8
37	Cleveland	6.6
38	San Diego	6.2
39	Los Angeles	6.0
40	Chicago	5.8
41	Boston	4.6
42	New York	4.5
43	Oklahoma City	4.4
44	Memphis	4.4
45	Birmingham	4.2
46	St. Louis	3.8
47	Pittsburgh	3.0
48	Virginia Beach	1.1
49	Milwaukee	-1.3
50	Hartford	-6.6

Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-10
Change in Professional and Business Services Employment

Percent change, 2012-2017

1	Austin	36.0
2	Nashville	35.9
3	Orlando	29.7
4	Las Vegas	29.3
5	San Jose	28.5
6	Charlotte	26.6
7	Tampa	23.5
8	Miami	23.1
9	San Antonio	22.1
10	Portland	21.6
11	Dallas	21.5
12	Providence	21.4
13	Phoenix	20.6
14	Atlanta	20.2
15	Seattle	19.8
16	Salt Lake City	19.4
17	San Francisco	19.3
18	Indianapolis	19.0
19	Raleigh	18.7
20	Denver	18.2
21	Sacramento	17.5
22	Kansas City	16.1
23	Riverside	15.8
24	Jacksonville	15.7
25	Richmond	15.7
26	Boston	15.4
27	Louisville	15.4
	United States	14.1
28	Hartford	13.0
29	Columbus	12.8
30	New York	12.8
31	Houston	12.7
32	Baltimore	12.1
33	St. Louis	11.7
34	Chicago	11.5
35	Los Angeles	11.4
36	San Diego	10.9
37	Detroit	10.4
38	Philadelphia	10.1
39	Memphis	9.8
40	Virginia Beach	8.7
41	Minneapolis	8.6
42	New Orleans	8.3
43	Milwaukee	6.9
44	Birmingham	6.1
45	Oklahoma City	6.0
46	Cleveland	6.0
47	Pittsburgh	5.8
48	Washington, D.C.	5.3
49	Cincinnati	3.8
50	Buffalo	-3.6

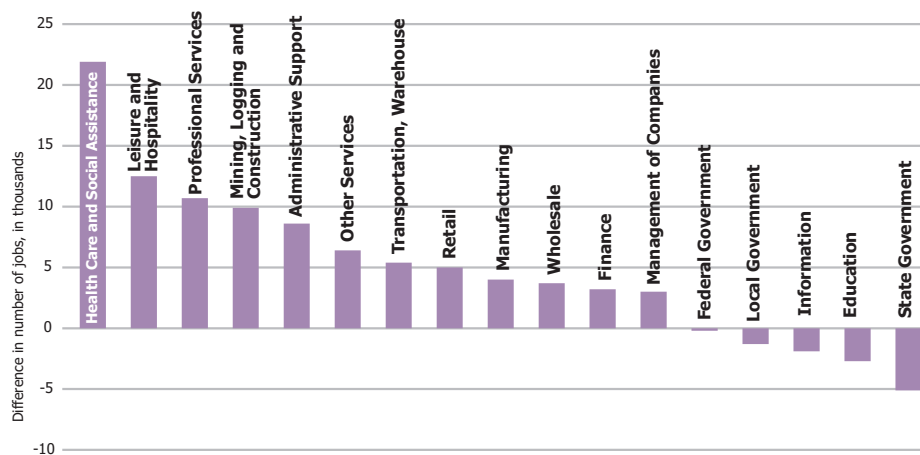
Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-11: St. Louis ranked 40th on change in employment in the transportation and warehousing sector. The fastest-growing region in this sector is Riverside, which saw an increase of 48,000 jobs in transportation and warehousing. The warehousing and storage subsector accounts for 73 percent of this increase, or 35,000 jobs. The single biggest factor in Riverside's growth was the location of an Amazon distribution center, with several associated fulfillment and sorting centers nearby (Semuels, 2018).

Table 2-12: St. Louis also ranked 40th on change in employment in the retail sector. Seattle was the top-ranking MSA on this metric. It should be noted that several large retail companies have headquarters in Seattle, including Amazon, Nordstrom, Eddie Bauer, REI, and Costco. Thus, much of Seattle's job growth in this sector comes from corporate headquarters, rather than jobs in stores.

Figure 2-04
Change in Employment by Industry

St. Louis MSA, 2012 to 2017



Source: Bureau of Labor Statistics, Current Employment Statistics.



Figure 2-04 shows change in employment by industry for the St. Louis MSA. The biggest increase was in health care and social assistance, and the biggest decreases were in the government sector.

Table 2-11
Change in Transportation and Warehousing Employment

Percent change, 2012-2017

1	Riverside	64.7
2	Austin	43.3
3	San Antonio	41.4
4	Richmond	39.9
5	Nashville	39.2
6	Dallas	37.3
7	San Francisco	31.6
8	Providence	29.0
9	Charlotte	28.9
10	Raleigh	28.4
11	Orlando	27.2
12	Hartford	26.3
13	Louisville	22.6
14	Salt Lake City	22.0
15	Baltimore	21.4
16	Las Vegas	20.7
17	Miami	20.5
18	San Jose	20.3
19	Los Angeles	20.2
20	Columbus	19.6
21	Denver	19.5
22	Atlanta	19.4
23	Phoenix	18.7
24	Sacramento	18.2
25	Seattle	17.7
26	Oklahoma City	17.4
27	Kansas City	17.4
28	Philadelphia	17.1
29	Minneapolis	17.0
United States		17.0
30	Portland	16.9
31	San Diego	16.8
32	Detroit	16.7
33	Chicago	16.5
34	Jacksonville	16.3
35	New York	16.1
36	Tampa	15.4
37	Cincinnati	14.0
38	Indianapolis	13.6
39	Virginia Beach	13.2
40	St. Louis	11.9
41	Houston	9.7
42	Memphis	9.2
43	Buffalo	8.2
44	Washington, D.C.	5.9
45	Pittsburgh	5.8
46	New Orleans	5.6
47	Birmingham	5.0
48	Cleveland	3.3
49	Milwaukee	-3.3

Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-12
Change in Retail Employment

Percent change, 2012-2017

1	Seattle	28.9
2	Raleigh	18.4
3	Austin	18.0
4	Orlando	16.6
5	Dallas	16.3
6	San Antonio	16.2
7	Jacksonville	14.2
8	Tampa	13.9
9	Louisville	13.8
10	Phoenix	13.2
11	Portland	13.1
12	Salt Lake City	12.3
13	Riverside	12.2
14	Atlanta	12.1
15	Indianapolis	11.8
16	Charlotte	11.8
17	Houston	11.4
18	Miami	11.3
19	Las Vegas	11.0
20	Sacramento	10.9
21	Denver	10.6
22	Nashville	10.3
23	San Francisco	9.1
24	Columbus	9.0
25	San Diego	8.4
26	Minneapolis	8.1
27	Memphis	7.7
28	Kansas City	7.6
29	Detroit	7.1
United States		6.9
30	Oklahoma City	6.6
31	Cincinnati	6.2
32	New Orleans	6.1
33	Los Angeles	5.7
34	Virginia Beach	5.2
35	New York	5.1
36	Washington, D.C.	4.8
37	Milwaukee	4.7
38	Chicago	3.8
39	San Jose	3.7
40	St. Louis	3.6
41	Birmingham	2.3
42	Providence	2.2
43	Philadelphia	1.8
44	Baltimore	1.5
45	Richmond	1.4
46	Hartford	0.0
47	Buffalo	-1.0
48	Cleveland	-1.6
49	Pittsburgh	-2.7

Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-13: Nationally, the information industry has been relatively slow growing, and half of the peer regions, including St. Louis, saw decreases in employment for this sector. The information sector is composed of a range of industries, including book and newspaper publishers, broadcasters, and motion picture production, in addition to computer-related fields such as internet publishing and telecommunications. Declining subsectors within the information industry included newspaper, book, and directory publishers, which lost over 100,000 jobs; broadcasting, which lost 20,000 jobs; and telecommunications, which lost 74,000. Rising sectors included software publishers (+87,400), internet publishing (+94,000), motion picture and sound recording (+63,000), and data processing and hosting (+62,000).

Business journalist Iain Morris notes that 107,000 jobs have been cut since 2015 by the 20 largest U.S. telecommunications operators. Morris attributes much of the decline to merger activity. According to Morris, the \$48 billion acquisition of DirecTV by AT&T accounts for as many as 14,500 of the jobs lost (Morris, 2018).

In St. Louis, employment in the information sector dropped from 30,000 to 28,100. There is data for only one subsector in the St. Louis region: telecommunications. From 2012 to 2017, employment in telecommunications dropped from 13,200 to 10,400, larger than the overall drop in the information industry. From 2012 to 2017, St. Louis ranked 38th on growth in the information industry. Not surprisingly, San Jose and San Francisco led the nation with increases of more than 45 percent in information industry employment.

Table 2-14: St. Louis ranked near the bottom on change in government employment, with a 4.2 percent decline from 2012 to 2017. The United States as a whole experienced a 1.8 percent increase in government jobs. Overall, St. Louis lost 6,700 jobs in the government sector. Most of this, some 5,000, was in state government jobs, with another 1,300 lost in local government.

Table 2-13
Change in Information Sector Employment

Percent change, 2012-2017

1	San Jose	57.0
2	San Francisco	46.4
3	Austin	32.6
4	Raleigh	24.4
5	Seattle	24.1
6	Atlanta	23.8
7	Charlotte	19.8
8	Salt Lake City	16.9
9	Las Vegas	16.5
10	Phoenix	15.1
11	Miami	12.8
12	Los Angeles	11.7
13	Nashville	11.6
14	Portland	10.8
15	Denver	8.8
16	Boston	6.1
17	Dallas	5.2
	United States	4.4
18	New York	3.4
19	Detroit	3.0
20	San Antonio	2.5
21	Baltimore	2.3
22	Orlando	2.1
23	Jacksonville	1.1
24	Louisville	1.1
25	Pittsburgh	-0.5
26	Columbus	-0.6
27	Houston	-0.6
28	Cincinnati	-0.7
29	Chicago	-2.0
30	San Diego	-2.4
31	Tampa	-2.7
32	Riverside	-3.4
33	Virginia Beach	-3.4
34	Washington, D.C.	-4.5
35	Hartford	-5.4
36	Indianapolis	-6.2
37	Richmond	-6.2
38	St. Louis	-6.3
39	Minneapolis	-6.4
40	Philadelphia	-7.6
41	Buffalo	-7.9
42	Memphis	-8.2
43	Cleveland	-8.5
44	Milwaukee	-9.3
45	Oklahoma City	-10.5
46	Birmingham	-15.7
47	New Orleans	-17.0
48	Providence	-17.8
49	Sacramento	-19.9
50	Kansas City	-27.9

Source: Bureau of Labor Statistics, Current Employment Statistics

Table 2-14
Change in Government Employment

Percent change, 2012-2017

1	Salt Lake City	11.5
2	Riverside	11.3
3	Denver	10.0
4	Houston	9.5
5	Dallas	9.1
6	Las Vegas	8.9
7	San Diego	8.9
8	Seattle	8.1
9	Portland	7.9
10	San Francisco	7.5
11	Charlotte	7.3
12	Orlando	7.2
13	Sacramento	6.8
14	Columbus	6.6
15	Raleigh	6.2
16	San Antonio	6.1
17	Nashville	6.0
18	Los Angeles	5.9
19	Austin	5.7
20	Oklahoma City	4.9
21	San Jose	4.7
22	Minneapolis	4.1
23	Indianapolis	3.6
24	Miami	3.3
25	Atlanta	3.2
26	Phoenix	3.1
27	Tampa	2.8
28	Boston	2.6
29	Jacksonville	2.3
30	Birmingham	2.1
31	Kansas City	1.9
32	Providence	1.9
	United States	1.8
33	Washington, D.C.	1.4
34	Cleveland	1.3
35	Cincinnati	1.2
36	Richmond	0.8
37	New York	0.5
38	Chicago	-0.1
39	Buffalo	-0.8
40	Philadelphia	-1.3
41	Milwaukee	-1.7
42	Virginia Beach	-1.8
43	Memphis	-2.1
44	Baltimore	-2.6
45	Hartford	-3.2
46	Detroit	-3.8
47	St. Louis	-4.2
48	Pittsburgh	-4.2
49	Louisville	-4.3
50	New Orleans	-8.6

Source: Bureau of Labor Statistics, Current Employment Statistics

Income

According to the Bureau of Economic Analysis (BEA), personal income consists of earned income and unearned income. Unearned income is transfer income, including Social Security; and financial income, i.e., dividends, interest, and rent. Earned income can be divided into proprietors' income and wage and salary income. Proprietors' income is also known as self-employment income. Wage and salary income includes employer-provided supplements to income such as retirement benefits. **Figure 2-05** illustrates the relationship between these types of income.

“In 2016, St. Louis had a per capita income of \$49,519. Of all the peer regions, St. Louis was the closest to the national average.”

St. Louis is close to the national average on per capita income. The region is above average with respect to unearned income, but lags on earned income, particularly proprietors' income. The tables in this section on income and change in income rely on data from the BEA, for which 2016 is the latest information available.

Table 2-15: In 2016, St. Louis had a per capita income of \$49,519. Of all the peer regions, St. Louis was the closest to the national average. Six peer regions stood out for having very high income levels compared to the rest of the country: San Jose;

San Francisco; Boston; Washington, D.C.; New York; and Seattle all had per capita income levels that were at least 30 percent greater than the national average. It is worth noting that several of the regions at the bottom of the per capita income rankings were among the regions with the greatest growth in employment from 2012 to 2017. Las Vegas, Orlando, and Riverside were all in the top 10 MSAs for employment growth, but were also among the bottom four for per capita income, proving that rapid employment growth does not always lead to higher-paying jobs.

Figure 2-05: Sources of Income Categories	
Earned Income (also referred to as “earnings”)	
	<ul style="list-style-type: none"> • Wage and salary income • Supplements to wages and salaries • Proprietors/self-employment income
Unearned Income	
	<ul style="list-style-type: none"> • Transfer income (i.e. Social Security, Medicare, unemployment insurance, and veterans' benefits) • Financial income (i.e. interest, dividends, and rent)
Personal Income (also referred to as “income”)	
	<ul style="list-style-type: none"> • Earned • Unearned Income
Source: Bureau of Economic Analysis	

Table 2-15
Per Capita Income

In dollars, 2016

1	San Jose	87,643
2	San Francisco	84,675
3	Boston	70,157
4	Washington, D.C.	66,786
5	New York	65,846
6	Seattle	64,553
7	Hartford	59,343
8	Philadelphia	58,589
9	Baltimore	57,189
10	Los Angeles	57,160
11	Denver	56,892
12	Minneapolis	56,723
13	Chicago	55,621
14	San Diego	55,168
15	Richmond	53,340
16	Nashville	52,450
17	Miami	52,210
18	Houston	51,913
19	Austin	51,566
20	Milwaukee	51,444
21	Sacramento	51,370
22	Pittsburgh	51,187
23	Dallas	51,099
24	Portland	50,489
25	Raleigh	50,444
26	Providence	49,940
27	Indianapolis	49,681
28	St. Louis	49,519
United States		49,246
29	Cleveland	48,968
30	Detroit	48,692
31	Cincinnati	48,668
32	Kansas City	48,514
33	Columbus	47,725
34	Atlanta	47,348
35	New Orleans	47,205
36	Charlotte	46,679
37	Buffalo	46,511
38	Salt Lake City	46,023
39	Virginia Beach	45,904
40	Birmingham	45,795
41	Louisville	45,525
42	Jacksonville	45,468
43	Oklahoma City	44,646
44	San Antonio	44,284
45	Tampa	43,807
46	Memphis	43,498
47	Las Vegas	42,284
48	Phoenix	42,218
49	Orlando	40,169
50	Riverside	36,807

Source: Bureau of Economic Analysis (CA4)

Table 2-16: St. Louis ranks 32nd on average wage per job, lower than most peer regions. Since wage and salary income is the biggest category of personal income, it is not surprising that the top six regions for per capita income are the same top six for wage and salary income per capita. Again, the fast-growing regions of Riverside, Las Vegas, and Orlando are at the bottom of this ranking.

Table 2-17: St. Louis ranks 40th on average proprietors' (self-employment) income. The St. Louis average of \$25,382 was \$5,000 lower than the national average and \$40,000 lower than the peer region with the highest proprietors' income (Nashville).

Table 2-18: St. Louis ranks 19th, close to the national average, on transfer payments per capita. This category includes payments for Social Security, Medicare, unemployment insurance, and veterans' benefits.

**Table 2-16
Average Wage per Job**

In dollars, 2016

1	San Jose	116,580
2	San Francisco	85,913
3	Washington, D.C.	73,289
4	New York	72,864
5	Boston	71,998
6	Seattle	68,727
7	Houston	63,739
8	Hartford	62,791
9	Denver	61,377
10	Chicago	61,094
11	Los Angeles	60,800
12	Baltimore	59,935
13	Philadelphia	59,446
14	San Diego	59,317
15	Dallas	58,902
16	Minneapolis	58,891
17	Atlanta	58,543
18	Austin	57,610
19	Detroit	57,216
20	Sacramento	57,057
21	Portland	56,589
22	Charlotte	56,049
23	Raleigh	54,420
	United States	53,870
24	Miami	52,967
25	Richmond	52,934
26	Kansas City	52,869
27	Pittsburgh	52,824
28	Cincinnati	52,549
29	Nashville	52,406
30	Columbus	52,286
31	Cleveland	52,253
32	St. Louis	52,141
33	Milwaukee	52,112
34	Phoenix	52,072
35	Salt Lake City	51,491
36	Jacksonville	50,845
37	Providence	50,670
38	Tampa	50,570
39	Indianapolis	50,465
40	New Orleans	50,324
41	Birmingham	50,167
42	Memphis	49,695
43	Virginia Beach	49,459
44	Louisville	48,617
45	Las Vegas	48,426
46	San Antonio	47,783
47	Oklahoma City	47,745
48	Orlando	47,683
49	Buffalo	46,512
50	Riverside	45,329

Source: Bureau of Economic Analysis (CA4)

**Table 2-17
Average Proprietors' Income**

In dollars, 2016

1	Nashville	65,812
2	Indianapolis	55,787
3	San Francisco	49,000
4	Philadelphia	47,589
5	Houston	44,729
6	Washington, D.C.	41,095
7	San Jose	41,028
8	Hartford	39,544
9	New York	39,065
10	Denver	38,297
11	Seattle	38,217
12	Richmond	38,216
13	San Antonio	38,068
14	Austin	36,482
15	Dallas	36,335
16	Los Angeles	36,173
17	Boston	35,009
18	Charlotte	34,046
19	Birmingham	33,191
20	Oklahoma City	32,890
21	Pittsburgh	32,709
22	Milwaukee	31,721
23	Cincinnati	31,586
24	Chicago	31,502
	United States	30,644
25	Kansas City	29,750
26	Buffalo	29,070
27	New Orleans	28,998
28	Minneapolis	28,792
29	Sacramento	28,786
30	Salt Lake City	28,737
31	Cleveland	28,210
32	Baltimore	28,016
33	Detroit	27,899
34	Memphis	27,850
35	Columbus	27,770
36	San Diego	27,116
37	Portland	27,112
38	Providence	26,863
39	Atlanta	25,836
40	St. Louis	25,382
41	Raleigh	24,382
42	Louisville	23,723
43	Phoenix	23,303
44	Riverside	22,421
45	Jacksonville	17,708
46	Las Vegas	17,140
47	Virginia Beach	16,612
48	Miami	16,473
49	Orlando	16,419
50	Tampa	16,193

Source: Bureau of Economic Analysis (CA4)

**Table 2-18
Transfers per Capita**

In dollars, 2016

1	Providence	10,405
2	Pittsburgh	10,398
3	Buffalo	10,116
4	New York	9,978
5	Philadelphia	9,936
6	Detroit	9,536
7	Cleveland	9,427
8	Tampa	9,403
9	Sacramento	9,266
10	Hartford	9,232
11	Baltimore	9,069
12	Los Angeles	8,930
13	Boston	8,718
14	Louisville	8,652
15	New Orleans	8,619
16	Birmingham	8,583
17	Miami	8,567
	United States	8,567
18	Milwaukee	8,507
19	St. Louis	8,501
20	Jacksonville	8,423
21	Memphis	8,216
22	Cincinnati	8,096
23	San Diego	8,008
24	San Francisco	8,003
25	Virginia Beach	7,874
26	San Antonio	7,717
27	Indianapolis	7,661
28	Riverside	7,655
29	Orlando	7,630
30	Chicago	7,628
31	Portland	7,491
32	Phoenix	7,483
33	Minneapolis	7,482
34	Kansas City	7,478
35	Richmond	7,433
36	Columbus	7,433
37	Oklahoma City	7,355
38	Charlotte	7,161
39	Seattle	7,126
40	Las Vegas	7,082
41	Nashville	7,027
42	San Jose	6,844
43	Washington, D.C.	6,644
44	Denver	6,439
45	Atlanta	6,285
46	Houston	6,244
47	Dallas	6,123
48	Raleigh	5,946
49	Salt Lake City	5,591
50	Austin	5,351

Source: Bureau of Economic Analysis (CA4)

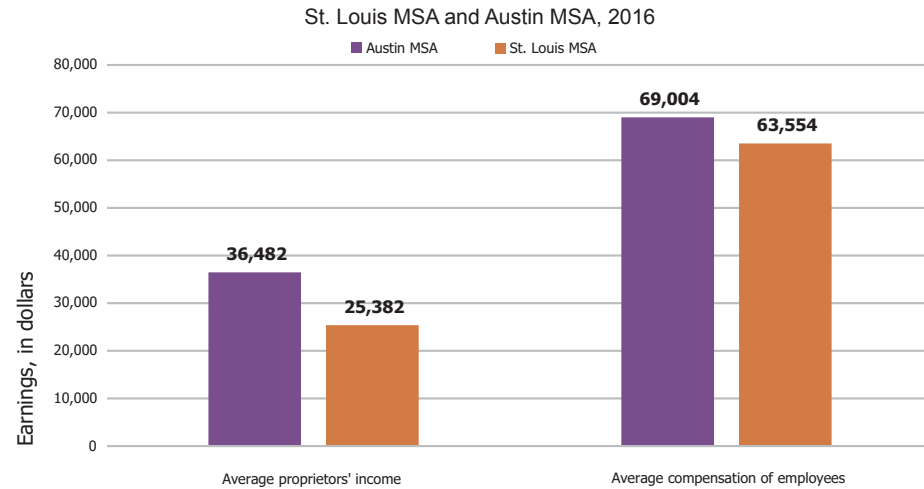
Table 2-19: St. Louis ranks 17th, above average, on per capita income derived from dividends, interest, and rent.

Table 2-20: For earned income, the sum of wage and salary income plus proprietors' income, St. Louis ranked 34th in 2016, about \$2,000 below the national average.

St. Louis is higher than the national average on unearned income, but lower on earned income; this results in a per capita income fairly close to the national average.

Figure 2-06 compares components of income for the St. Louis and Austin MSAs. In 2016, proprietors' income in Austin is, on average, about \$11,000 higher than in St. Louis, while average wage and salary compensation is about \$5,500 higher in Austin. In both regions, average wage and salary compensation is higher than average proprietors' income. St. Louis has a higher proportion of wage and salary employment, which offsets a portion of the differences in average earnings.

Figure 2-06
Components of Earnings per Worker



Source: Bureau of Economic Analysis.

Table 2-19
Dividends, Interest, and Rent per Capita

In dollars, 2016

1	San Francisco	19,258
2	San Jose	17,939
3	Miami	16,369
4	Seattle	14,803
5	Boston	14,249
6	New York	13,744
7	Washington, D.C.	12,567
8	Los Angeles	12,337
9	San Diego	12,213
10	Chicago	11,143
11	Denver	11,056
12	Philadelphia	10,527
13	Minneapolis	10,520
14	Baltimore	10,511
15	Austin	10,212
16	Richmond	10,077
17	St. Louis	9,992
18	Portland	9,923
19	Jacksonville	9,747
20	Virginia Beach	9,740
21	Milwaukee	9,737
22	Hartford	9,650
United States		9,531
23	Las Vegas	9,480
24	New Orleans	9,085
25	Houston	9,045
26	Sacramento	8,982
27	Raleigh	8,779
28	Tampa	8,692
29	Salt Lake City	8,663
30	Dallas	8,536
31	Cincinnati	8,533
32	Cleveland	8,508
33	Pittsburgh	8,371
34	Birmingham	8,278
35	Kansas City	8,199
36	Providence	8,183
37	San Antonio	8,135
38	Oklahoma City	8,101
39	Detroit	7,974
40	Atlanta	7,828
41	Phoenix	7,784
42	Louisville	7,522
43	Buffalo	7,285
44	Indianapolis	7,249
45	Columbus	7,152
46	Charlotte	7,129
47	Nashville	6,886
48	Orlando	6,650
49	Memphis	6,138
50	Riverside	5,841

Source: Bureau of Economic Analysis (CA4)

Table 2-20
Average Earnings per Job

In dollars, 2016

1	San Jose	116,177
2	San Francisco	89,779
3	Washington, D.C.	80,767
4	New York	76,696
5	Boston	75,305
6	Seattle	74,640
7	Hartford	70,018
8	Houston	68,532
9	Philadelphia	68,111
10	Chicago	65,501
11	Baltimore	65,020
12	Denver	64,957
13	Los Angeles	64,805
14	Nashville	64,025
15	Sacramento	63,990
16	San Diego	63,696
17	Minneapolis	63,465
18	Dallas	61,837
19	Indianapolis	60,872
20	Detroit	60,637
21	Austin	60,634
22	Charlotte	60,497
23	Portland	59,822
24	Richmond	59,777
25	Pittsburgh	59,478
26	Milwaukee	59,238
27	Atlanta	59,232
28	Cincinnati	58,416
United States		58,372
29	Kansas City	57,663
30	Columbus	57,593
31	Cleveland	57,401
32	Salt Lake City	57,008
33	Raleigh	56,555
34	St. Louis	56,312
35	Virginia Beach	55,737
36	Providence	55,705
37	Buffalo	55,676
38	Birmingham	55,583
39	Phoenix	54,225
40	San Antonio	54,114
41	New Orleans	53,874
42	Louisville	53,264
43	Jacksonville	53,133
44	Memphis	53,128
45	Oklahoma City	52,920
46	Tampa	51,280
47	Las Vegas	50,210
48	Riverside	49,505
49	Miami	49,306
50	Orlando	48,594

Source: Bureau of Economic Analysis (CA4)

Change in Income

The tables in this section show change in the period 2012-2016. The baseline of 2012 was chosen to be consistent with the employment tables in this chapter.

Table 2-21: St. Louis ranked 46th out of the 50 peer regions on change in per capita income from 2012 to 2016. Regions with the fastest growing income levels are concentrated in the West, with five of the top six in Pacific Coast states. Nashville is the only mid-continent region to break into the top six. (See **Box 1** on page 42 for further discussion of income growth in Nashville).

Table 2-22: St. Louis ranked 45th on change in average earnings (earned income) per job. The top regions for earnings growth are fairly spread out around the country, with the top five consisting of San Jose, Nashville, Denver, Seattle, and San Antonio. In St. Louis, average earnings declined 1.3 percent from 2012 to 2016.

Table 2-23: The two components of earned income are wage and salary, and proprietors' income. Wage and salary employment is by far the larger of the two. Total wage and salary income in 2016 in St. Louis was more than 10 times the amount of total proprietors' income. On change in wage and salary income from 2012 to 2016, St. Louis ranked 40th, with 2.4 percent inflation-adjusted growth. The national average on this variable was an increase of 4 percent, while San Jose enjoyed an explosive 16.4 percent growth in this category.

Table 2-21
Change in per Capita Income

Percent change 2012-2016, adjusted to 2016 dollars

1	San Jose	16.7
2	San Francisco	16.1
3	Nashville	11.8
4	Seattle	11.8
5	Sacramento	11.0
6	Riverside	10.5
7	Detroit	10.4
8	Denver	10.4
9	Portland	10.2
10	Salt Lake City	10.2
11	Chicago	10.2
12	Atlanta	10.0
13	San Diego	9.9
14	Orlando	9.3
15	Miami	9.1
16	Los Angeles	8.6
17	San Antonio	8.2
18	Boston	7.5
19	Austin	7.3
20	Phoenix	6.9
21	Minneapolis	6.7
United States		6.4
22	Cleveland	6.4
23	New York	6.2
24	Raleigh	6.2
25	Philadelphia	6.1
26	Indianapolis	5.7
27	Dallas	5.5
28	Buffalo	5.5
29	Columbus	5.5
30	Providence	5.4
31	Baltimore	5.3
32	Richmond	5.1
33	Pittsburgh	5.0
34	Cincinnati	4.9
35	Las Vegas	4.9
36	Tampa	4.8
37	Birmingham	4.8
38	Jacksonville	4.7
39	Louisville	4.7
40	Hartford	4.7
41	Memphis	3.7
42	Virginia Beach	3.5
43	Milwaukee	3.5
44	Washington, D.C.	2.9
45	Kansas City	2.7
46	St. Louis	2.2
47	Oklahoma City	1.7
48	New Orleans	1.6
49	Charlotte	0.6
50	Houston	-3.9

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

Table 2-22
Change in Average Earnings per Job

Percent change 2012-2016, adjusted to 2016 dollars

1	San Jose	13.4
2	Nashville	9.1
3	Denver	7.3
4	Seattle	7.1
5	San Antonio	6.4
6	Raleigh	6.3
7	Austin	6.0
8	Portland	5.9
9	Atlanta	5.4
10	San Francisco	5.3
11	Orlando	5.0
12	Salt Lake City	4.7
13	Minneapolis	4.4
14	Pittsburgh	3.6
15	Detroit	3.6
16	Phoenix	3.6
17	Chicago	3.4
18	Richmond	3.1
19	Sacramento	2.7
20	Dallas	2.6
21	Louisville	2.6
22	Cleveland	2.3
23	Oklahoma City	2.3
24	San Diego	2.3
25	Indianapolis	2.0
26	Columbus	2.0
27	Baltimore	2.0
28	Birmingham	1.9
29	Riverside	1.9
30	Buffalo	1.9
31	Miami	1.7
United States		1.6
32	Hartford	1.6
33	Jacksonville	1.4
34	Philadelphia	0.9
35	Washington, D.C.	0.7
36	Milwaukee	0.3
37	Boston	-0.1
38	Tampa	-0.1
39	Virginia Beach	-0.3
40	New York	-0.4
41	Cincinnati	-0.6
42	Providence	-0.6
43	Memphis	-0.7
44	Las Vegas	-0.8
45	St. Louis	-1.3
46	Kansas City	-1.3
47	Los Angeles	-1.9
48	New Orleans	-3.0
49	Charlotte	-4.6
50	Houston	-6.2

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

Table 2-23
Change in Average Wage per Job

Percent change 2012-2016, adjusted to 2016 dollars

1	San Jose	16.4
2	Seattle	8.6
3	San Francisco	7.9
4	Portland	7.0
5	Raleigh	6.4
6	Boston	6.2
7	Charlotte	5.8
8	Austin	5.7
9	Buffalo	5.5
10	Louisville	5.3
11	Salt Lake City	4.9
12	Miami	4.8
13	Orlando	4.8
14	Providence	4.7
15	Minneapolis	4.6
16	Detroit	4.4
17	San Antonio	4.3
18	Nashville	4.2
19	Atlanta	4.2
20	Dallas	4.1
21	Pittsburgh	4.0
United States		4.0
22	Columbus	3.9
23	Tampa	3.9
24	Riverside	3.7
25	Indianapolis	3.4
26	Chicago	3.2
27	Baltimore	3.2
28	Kansas City	3.2
29	Denver	3.1
30	New York	3.0
31	Las Vegas	2.9
32	Birmingham	2.9
33	Los Angeles	2.8
34	Sacramento	2.8
35	San Diego	2.7
36	Washington, D.C.	2.6
37	Milwaukee	2.6
38	Hartford	2.6
39	Cleveland	2.6
40	St. Louis	2.4
41	Cincinnati	2.3
42	Richmond	2.3
43	Philadelphia	2.2
44	Jacksonville	2.2
45	Oklahoma City	2.0
46	Phoenix	1.7
47	Virginia Beach	1.5
48	Memphis	0.7
49	New Orleans	0.6
50	Houston	0.3

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

Table 2-24: St. Louis ranked 45th on change in average proprietors' income from 2012 to 2016 with a decline of 22.6 percent in inflation-adjusted terms. In comparing the difference in earnings growth between MSAs and the country as a whole, proprietors' income accounts for most of the advantage in several MSAs that have the largest growth rates in total income. In both Nashville and Denver, more than 95 percent of the difference in growth rates relative to the nation is attributable to proprietors' income. In San Antonio and Atlanta, more than 70 percent of the differential is attributable to proprietors' income.

Table 2-25: St. Louis ranked 17th on change in transfer income. It may be that an aging population brings in a disproportionate amount in Social Security and pension benefits.

Figure 2-07 shows per capita income (PCI) relative to the United States for selected regions. The orange line shows PCI in the United States. Points above the line represent PCI levels higher than the national average; points below the line represent PCI levels below the national average. Arrows show direction and magnitude of change. In 2012, San Jose's PCI was 62 percent higher than the national average. In 2016, it was 78 percent higher than the national average. In 2012, St. Louis had a PCI that was 4.6 percent greater than the national average. By 2016, the PCI for St. Louis had dropped to 0.6 percent greater than the national average.

Table 2-24
Change in Average Proprietors' Income

Percent change 2012-2016, adjusted to 2016 dollars

1	Denver	48.4
2	Orlando	32.8
3	Nashville	31.7
4	Phoenix	31.0
5	Raleigh	25.1
6	Chicago	23.7
7	Atlanta	21.6
8	San Antonio	19.1
9	Jacksonville	16.3
10	Portland	14.4
11	Cleveland	11.4
12	Pittsburgh	11.4
13	San Diego	11.0
14	Seattle	9.1
15	Austin	8.4
16	Sacramento	8.2
17	Richmond	6.9
18	Miami	6.7
19	Oklahoma City	4.9
20	Detroit	3.9
21	Minneapolis	2.1
22	Salt Lake City	2.1
23	Hartford	-1.5
24	Baltimore	-1.5
25	Philadelphia	-2.0
26	Memphis	-2.2
27	San Francisco	-3.0
28	Indianapolis	-3.1
29	San Jose	-4.6
30	Dallas	-5.5
31	Birmingham	-5.6
32	Washington, D.C.	-6.0
33	Columbus	-7.4
United States		-7.4
34	Milwaukee	-7.9
35	Riverside	-10.0
36	New York	-10.6
37	Louisville	-11.0
38	Buffalo	-14.8
39	Virginia Beach	-16.4
40	Cincinnati	-18.2
41	Los Angeles	-19.2
42	New Orleans	-20.8
43	Providence	-21.1
44	Boston	-21.8
45	St. Louis	-22.6
46	Las Vegas	-23.3
47	Tampa	-25.2
48	Kansas City	-27.0
49	Houston	-31.2
50	Charlotte	-42.9

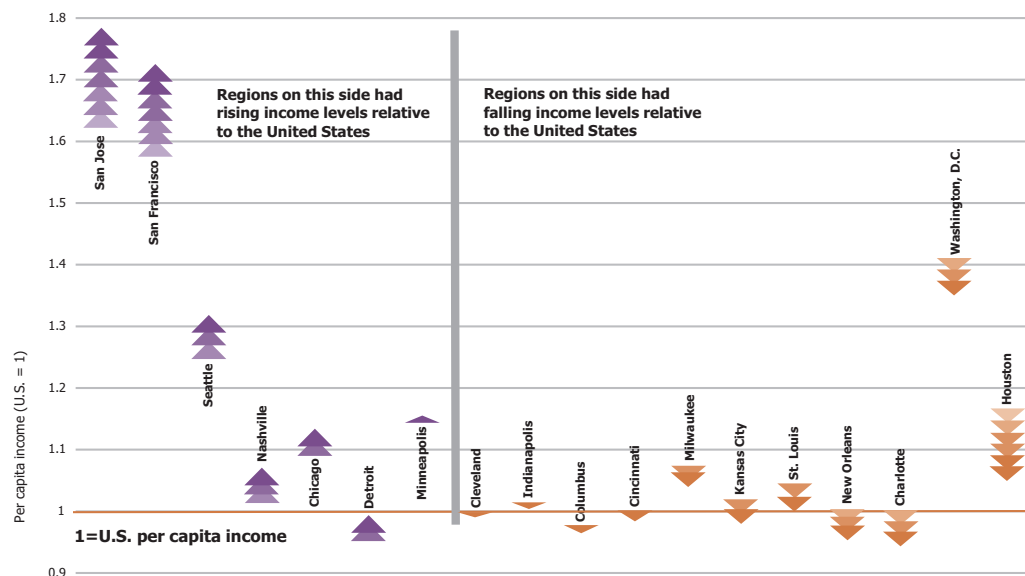
Table 2-25
Change in Transfers per Capita

Percent change 2012-2016, adjusted to 2016 dollars

1	Los Angeles	15.7
2	Sacramento	15.6
3	San Diego	13.3
4	New Orleans	12.7
5	Baltimore	12.4
6	Riverside	11.7
7	Las Vegas	11.7
8	San Francisco	11.3
9	Washington, D.C.	10.9
10	Philadelphia	10.6
11	San Jose	10.6
12	Jacksonville	10.6
13	Virginia Beach	10.5
14	Richmond	10.3
15	Portland	9.9
16	Denver	9.6
17	St. Louis	9.2
18	Cincinnati	9.1
19	Cleveland	8.9
20	Louisville	8.9
United States		8.8
21	Houston	8.4
22	Dallas	8.4
23	Austin	8.4
24	San Antonio	8.1
25	Atlanta	7.9
26	Pittsburgh	7.9
27	Tampa	7.7
28	Chicago	7.7
29	Minneapolis	7.5
30	Kansas City	7.4
31	Boston	7.2
32	Providence	7.2
33	Phoenix	7.1
34	Orlando	6.9
35	Hartford	6.8
36	Detroit	6.6
37	Memphis	6.4
38	Birmingham	6.3
39	Miami	6.3
40	Salt Lake City	5.9
41	Buffalo	5.9
42	Indianapolis	5.8
43	Columbus	5.7
44	Seattle	5.3
45	New York	5.2
46	Raleigh	5.2
47	Oklahoma City	5.1
48	Milwaukee	4.0
49	Charlotte	3.9
50	Nashville	2.3

Figure 2-07
Per Capita Income Relative to the United States

St. Louis MSA and Selected Peer Regions, 2012 to 2016



Source: Bureau of Economic Analysis; Bureau of Labor Statistics.

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

Table 2-26: St. Louis ranked 46th on change in dividends, interest, and rent. Unfortunately, it is not possible to disaggregate interest, rent, and dividends, making it difficult to discern what drives high growth on this type of income in different regions. Additional research finds some factors that are likely contributing in the regions with the biggest growth rates. A booming real estate market may be driving up rental interest in Riverside. A report by the real estate firm Cushman & Wakefield attributes rapid commercial real estate absorption rates to warehouse utilization by e-commerce firms, including

Amazon (Cushman & Wakefield, 2017). In Seattle and San Jose, regions with disproportionate numbers of major corporate headquarters, the run-up in equity prices may have benefitted corporate executives compensated with stock options (S&P Dow, 2018).²

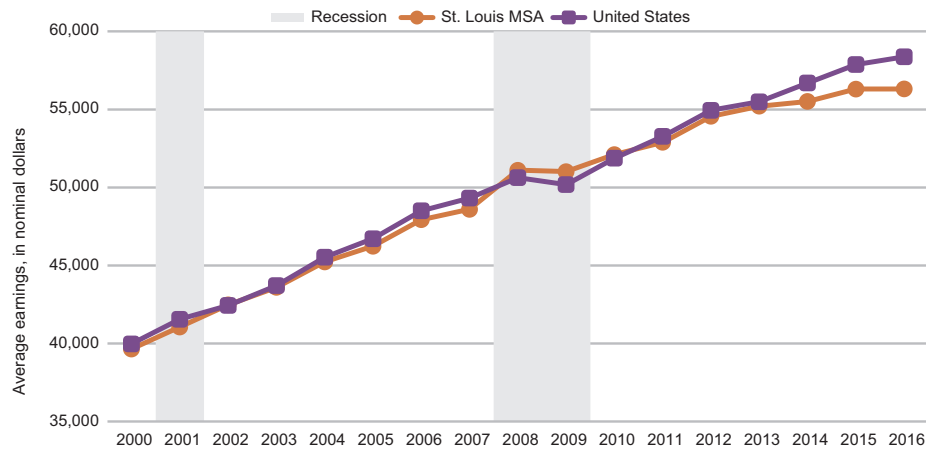
Figure 2-08 shows average earnings for St. Louis, and for the United States, from 2000 to 2016. Until about 2011, St. Louis tracked the nation fairly closely. Since 2012, however, there has been a divergence between average earnings for St. Louis and average earnings for the country,

with St. Louis lagging the nation in income growth. In 2012, the average amount earned in a job nationally was seven-tenths of a percent higher than the average amount earned in St. Louis. By 2016, the gap had risen to 3.7 percent. Thus, the earnings gap between the United States and St. Louis increased a full three percentage points in four years.

“Since 2012, however, there has been a divergence between average earnings for St. Louis and average earnings for the country, with St. Louis lagging the nation in income growth.”

Figure 2-08
Average Earnings per Job

St. Louis MSA and United States, 2000 to 2016



Source: Bureau of Economic analysis (CA4).

Table 2-26
Change in Dividends, Interest, and Rent per Capita

Percent change 2012-2016, adjusted to 2016 dollars

1	Riverside	19.6
2	Seattle	19.5
3	San Jose	17.9
4	Detroit	17.0
5	Sacramento	15.9
6	San Diego	15.3
7	San Francisco	14.4
8	Chicago	13.4
9	Buffalo	12.9
10	Salt Lake City	12.6
11	Los Angeles	11.5
12	Raleigh	10.3
13	New York	10.2
14	Portland	10.0
15	Cincinnati	9.9
16	San Antonio	8.9
	United States	8.3
17	Boston	8.2
18	Miami	7.7
19	Hartford	7.4
20	Charlotte	7.2
21	Phoenix	7.2
22	Atlanta	6.8
23	Orlando	6.3
24	Indianapolis	6.2
25	Virginia Beach	6.1
26	Providence	5.8
27	Columbus	5.6
28	Minneapolis	5.5
29	Kansas City	5.2
30	Baltimore	5.1
31	Milwaukee	4.9
32	Birmingham	4.9
33	Philadelphia	4.8
34	Las Vegas	4.3
35	Cleveland	4.2
36	Denver	3.8
37	Memphis	3.1
38	Tampa	3.1
39	Nashville	2.6
40	Pittsburgh	2.4
41	Houston	2.1
42	Oklahoma City	2.1
43	Dallas	1.5
44	Jacksonville	1.4
45	Washington, D.C.	0.8
46	St. Louis	-1.2
47	Richmond	-1.4
48	New Orleans	-2.3
49	Austin	-2.5
50	Louisville	-4.4

Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

² The Dow-Jones Industrial Average increased 60 percent from the beginning of 2012 to the end of 2016.

Accounting for Differences in Income

In inflation-adjusted terms, the gap in earnings per job between the St. Louis MSA and the United States grew by \$1,651 between 2012 and 2016. Of this quantity, 61 percent can be attributed to a growing gap in proprietors' income, while the remaining 39 percent is attributable to a growing gap in wage and salary income.³

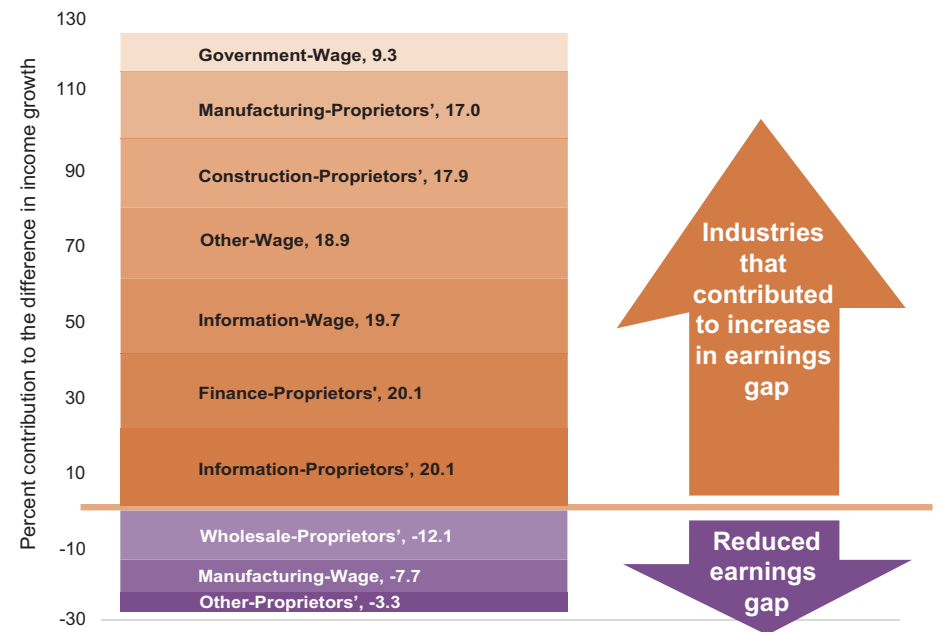
The growth of the earnings gap between St. Louis and the nation can also be broken down by industry.⁴ Unfortunately, the Bureau of Economic Analysis does not publish income data on several important industries for the St. Louis MSA. However, information for some industries is available for a slightly larger geography, the St. Louis Consolidated Metropolitan Area (CSA).⁵ Figure 2-09 shows a breakdown of factors driving the growth of the earnings gap between the St. Louis CSA and the United States as a whole.

In **Figure 2-09**, the industries shown above the orange line contributed to the increase in the earnings gap, while those below the line pulled St. Louis back closer to the national average. Two types of proprietors' income collectively accounted for 40 percent of the change in the earnings gap. These were proprietors' income in information and proprietors' income in finance, each of which accounted for 20.1 percent of the change in the earnings gap. Proprietors' income in construction and manufacturing also contributed to the change in

earnings gaps, while wage and salary income in the information and government sectors contributed as well. By contrast, proprietors' income in the wholesale sector and wage income in the manufacturing sector grew more quickly in St. Louis than in the country as a whole. This growth helped offset some of the changes contributed by earnings in other industries.

“Proprietors’ income in the wholesale sector and wage income in the manufacturing sector grew more quickly in St. Louis than in the country as a whole.”

Figure 2-09
Relative Contributions of Industries to the Difference in Income Growth between United States and St. Louis CSA, 2012 to 2016



Source: Bureau of Economic Analysis.

³ See *Where We Stand Technical Report 1* for a detailed description of data and methods used in this decomposition at www.ewgateway.org/www.

⁴ See *Where We Stand Technical Report 2* for a detailed description of data and methods used in this decomposition at www.ewgateway.org/www.

⁵ The St. Louis CSA includes the 15 counties of the St. Louis MSA, plus the Missouri counties of Lincoln and St. Francois. The additional two counties add just 4 percent to the total population.

Cost of Living

Table 2-27: St. Louis consistently ranks as having a low cost of living among peer regions. St. Louis ranks 40th with a monthly median housing cost of \$954. This is less than the national average (\$1,048) and less than half that of the peer regions in the Bay Area.

Table 2-28: The Bureau of Economic Analysis creates an index of purchasing power that combines income levels and cost of living as a way of attempting to control for the variation in the price of goods in different parts of the country. By this measure, St. Louis has the 10th highest purchasing power in the country, due to per capita income near the national average and the low cost of living. Using this adjustment for purchasing power, the standard of living in St. Louis is virtually the same as in Minneapolis, and is higher than all of the other peer Midwest regions.

**Table 2-27
Median Monthly
Housing Costs**

In dollars, 2017

1	San Jose	2,341
2	San Francisco	2,059
3	Washington, D.C.	1,778
4	San Diego	1,735
5	Boston	1,655
6	Los Angeles	1,630
7	Seattle	1,597
8	New York	1,588
9	Denver	1,443
10	Sacramento	1,392
11	Portland	1,382
11	Riverside	1,382
13	Baltimore	1,367
14	Austin	1,337
15	Hartford	1,301
16	Miami	1,280
17	Minneapolis	1,250
18	Chicago	1,243
19	Virginia Beach	1,242
20	Philadelphia	1,234
21	Salt Lake City	1,213
22	Dallas	1,175
23	Providence	1,167
24	Atlanta	1,159
25	Raleigh	1,152
26	Richmond	1,144
27	Orlando	1,128
28	Houston	1,118
29	Las Vegas	1,117
30	Phoenix	1,110
31	Nashville	1,060
	United States	1,048
32	Jacksonville	1,040
33	Columbus	1,025
34	Kansas City	1,014
35	Charlotte	1,007
36	Tampa	999
37	Milwaukee	994
38	San Antonio	990
39	New Orleans	956
40	St. Louis	954
41	Detroit	951
42	Indianapolis	947
43	Cincinnati	939
44	Memphis	914
45	Oklahoma City	900
46	Louisville	885
47	Cleveland	868
48	Birmingham	861
49	Buffalo	846
50	Pittsburgh	837

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B25105)

**Table 2-28
Purchasing Power**

Personal income per capita
adjusted for regional price levels in
chained dollars, 2016

1	San Jose	62,590
2	San Francisco	61,639
3	Boston	57,317
4	Hartford	53,048
5	Seattle	53,003
6	Washington, D.C.	50,861
7	Nashville	50,425
8	Minneapolis	50,311
9	Philadelphia	50,209
10	St. Louis	49,480
11	Cleveland	49,292
11	Cincinnati	49,278
13	Pittsburgh	49,264
14	New York	48,992
15	Milwaukee	48,831
16	Richmond	48,800
17	Denver	48,728
18	Chicago	48,625
19	Indianapolis	48,602
20	Baltimore	48,393
21	Raleigh	47,759
22	Dallas	47,011
23	Austin	46,820
24	Birmingham	46,790
25	Columbus	46,550
26	Houston	46,378
27	Dallas	46,270
28	Detroit	46,061
29	Sacramento	45,693
30	Providence	45,448
31	Louisville	45,423
32	Charlotte	45,297
33	Portland	45,034
34	New Orleans	44,979
35	Buffalo	44,730
36	Atlanta	44,598
	United States	44,450
37	Oklahoma City	44,218
38	Los Angeles	44,087
39	Miami	44,037
40	Virginia Beach	43,574
41	Memphis	43,378
42	Jacksonville	43,091
43	San Diego	43,063
44	San Antonio	42,595
45	Salt Lake City	42,030
46	Tampa	39,843
47	Phoenix	39,455
48	Las Vegas	39,247
49	Orlando	37,210
50	Riverside	31,088

Source: Bureau of Economic Analysis (RPI1)

Wage Structure ⁶

The Pew Research Institute has proposed a range between two-thirds of national median income and 200 percent of national median income as a definition of middle class (Pew, 2016). In this schema, an individual or household with income less than two-thirds of the median falls in the low-income category, while those with an income more than twice the median are in the upper-income category. The Pew Institute has documented that in recent decades, the proportion of households in the middle-wage tier has declined, while there has been an increasing proportion of households in both the high- and low-income tiers.

The tables in this section use these numerical ratios to define high-, medium-, and low-wage jobs. The universe for these tables is workers employed full-time and full-year with reported wage income at least equal to the federal minimum wage. The U.S. median incomes were \$40,000 in 2006 and \$48,000 in 2016.

⁶ See *Where We Stand White Paper 1* for a more detailed discussion on this topic at www.ewgateway.org/wws.

Table 2-29: In 2016, low-wage jobs were those with annual earnings of less than \$32,000 per year. St. Louis had a smaller proportion of low-wage jobs than most peer regions, and a lower proportion than the national average on this metric. This means that St. Louis has a greater proportion of jobs that pay medium to high wages than most of the peer regions. Several Sunbelt regions were among the top 10 on percentage of jobs in the low-wage category. These included three regions in Florida and two in Tennessee.

Table 2-30: St. Louis was in the top 10 for middle-wage jobs as a percentage of full-time, full-year employment. Nearly 60 percent of jobs in St. Louis fall into the middle-wage category. Most of the Midwest peers are fairly close to St. Louis on this measure.

Table 2-31: St. Louis is slightly below the national average for the percentage of jobs in the high-wage category. St. Louis ranks 29th out of the 50 peer regions on high-wage jobs. The top seven MSAs in the high-wage category are all on the Atlantic or Pacific coasts.

**Table 2-29
Low-Wage Jobs**

Percent of jobs that earn less than two-thirds of the national median wage, 2016

1	Miami	39.2
2	San Antonio	38.0
3	Orlando	37.7
4	Memphis	35.1
5	Tampa	34.9
6	Las Vegas	34.9
7	Riverside	34.6
8	New Orleans	34.1
9	Los Angeles	33.4
10	Nashville	33.0
11	Oklahoma City	32.8
12	Houston	32.5
13	Jacksonville	32.0
14	Virginia Beach	31.7
15	Phoenix	31.6
16	Dallas	31.4
17	Charlotte	30.9
18	Birmingham	30.8
19	San Diego	30.5
	United States	30.5
20	Salt Lake City	30.5
21	Louisville	29.6
22	Atlanta	28.9
23	Kansas City	28.5
24	Austin	28.5
25	Indianapolis	28.2
26	Detroit	27.5
27	Cleveland	27.4
28	St. Louis	27.1
29	Pittsburgh	26.4
30	Richmond	26.4
31	Columbus	26.1
32	Sacramento	25.8
33	Chicago	25.6
34	Portland	25.4
35	Milwaukee	25.3
36	Cincinnati	25.2
37	Buffalo	25.2
38	Raleigh	25.0
39	New York	24.3
40	Philadelphia	24.0
41	Denver	23.8
42	Providence	23.5
43	Minneapolis	20.3
44	Baltimore	20.0
45	Seattle	19.3
46	Washington, D.C.	18.3
47	Hartford	17.6
48	Boston	17.1
49	San Francisco	17.0
50	San Jose	16.7

Source: IPUMS-USA, University of Minnesota

**Table 2-30
Middle-Wage Jobs**

Percent of jobs that earn between two-thirds and two times the national median wage, 2016

1	Buffalo	63.9
2	Hartford	63.3
3	Providence	62.6
4	Minneapolis	62.0
5	Milwaukee	60.9
6	Cincinnati	60.0
7	Columbus	60.0
8	Pittsburgh	59.7
9	Cleveland	59.3
10	St. Louis	59.2
11	Richmond	59.0
12	Louisville	59.0
13	Indianapolis	58.8
14	Baltimore	58.6
15	Denver	58.0
16	Kansas City	57.9
17	Portland	57.8
18	Boston	57.3
19	Birmingham	57.0
20	Philadelphia	56.9
21	Salt Lake City	56.9
22	Seattle	56.7
23	Virginia Beach	56.4
24	Jacksonville	56.3
25	Oklahoma City	55.8
26	Chicago	55.7
27	Detroit	55.6
28	Las Vegas	55.4
29	Sacramento	55.4
30	Phoenix	55.3
31	Raleigh	55.0
32	Nashville	54.9
	United States	54.9
33	Atlanta	54.9
34	Charlotte	54.3
35	Austin	54.2
36	Memphis	53.9
37	Riverside	53.5
38	New Orleans	53.4
39	Tampa	53.0
40	Dallas	52.6
41	New York	52.2
42	San Antonio	51.8
43	San Diego	51.6
44	Washington, D.C.	51.5
45	Orlando	51.3
46	Houston	49.4
47	Miami	49.2
48	Los Angeles	48.9
49	San Francisco	48.4
50	San Jose	43.2

Source: IPUMS-USA, University of Minnesota

**Table 2-31
High-Wage Jobs**

Percent of jobs that earn over twice the national median wage, 2016

1	San Jose	40.1
2	San Francisco	34.6
3	Washington, D.C.	30.2
4	Boston	25.6
5	Seattle	24.0
6	New York	23.5
7	Baltimore	21.4
8	Raleigh	20.0
9	Hartford	19.2
10	Philadelphia	19.1
11	Sacramento	18.8
12	Chicago	18.7
13	Denver	18.2
14	Houston	18.1
15	San Diego	17.8
16	Los Angeles	17.8
17	Minneapolis	17.7
18	Austin	17.3
19	Detroit	16.8
20	Portland	16.7
21	Atlanta	16.3
22	Dallas	16.0
23	Charlotte	14.8
24	Cincinnati	14.8
	United States	14.6
25	Richmond	14.6
26	Providence	13.9
27	Pittsburgh	13.9
28	Columbus	13.9
29	St. Louis	13.8
30	Milwaukee	13.7
31	Kansas City	13.6
32	Cleveland	13.3
33	Phoenix	13.1
34	Indianapolis	12.9
35	Salt Lake City	12.6
36	New Orleans	12.6
37	Birmingham	12.2
38	Tampa	12.0
39	Nashville	12.0
40	Riverside	11.9
41	Virginia Beach	11.8
42	Jacksonville	11.7
43	Miami	11.5
44	Louisville	11.4
45	Oklahoma City	11.4
46	Memphis	11.0
47	Orlando	10.9
48	Buffalo	10.9
49	San Antonio	10.2
50	Las Vegas	9.7

Source: IPUMS-USA, University of Minnesota

Tables 2-32 to 2-34: These three tables tell the story of changes in the wage structure in the United States between 2006 and 2016. Nationally, the percentage of jobs falling into the middle-wage category declined by 2.1 percentage points. These jobs were redistributed to the high-wage category, which increased by 1.2 percentage points, and the low-wage category, which increased by 0.9 percentage points. In St. Louis, middle-wage jobs also declined, falling by 2.3 percentage points. Unlike the nation as a whole, most of the redistribution in the region was downward, with low-wage jobs increasing by 2.1 percentage points. High-wage jobs in St. Louis increased by just 0.2 percentage points. The 11 bottom regions on Table 2-34 all experienced declines in the proportion of jobs in both the high-wage and middle-wage categories.

**Table 2-32
Change in Low-Wage Jobs**

Percentage point difference in low-wage jobs, 2006-2016

1	Detroit	6.0
2	Kansas City	4.5
3	Las Vegas	4.4
4	Jacksonville	4.1
5	Memphis	4.0
6	Nashville	3.7
7	Minneapolis	3.7
8	Orlando	3.6
9	Philadelphia	3.5
10	Sacramento	3.4
11	Riverside	3.2
12	San Diego	3.0
13	Indianapolis	2.9
14	Atlanta	2.9
15	Phoenix	2.8
16	Birmingham	2.6
17	Tampa	2.4
18	Columbus	2.3
19	St. Louis	2.1
20	Seattle	2.0
21	Washington, D.C.	1.9
22	Virginia Beach	1.9
23	Richmond	1.8
24	Cleveland	1.8
25	Charlotte	1.7
26	New Orleans	1.5
27	Milwaukee	1.4
28	Portland	1.4
29	Chicago	1.3
30	San Antonio	1.2
31	New York	0.9
	United States	0.9
32	Raleigh	0.7
33	Dallas	0.7
34	Boston	0.6
35	Louisville	0.5
36	Baltimore	0.5
37	Los Angeles	0.2
38	Denver	0.1
39	Salt Lake City	0.0
40	Houston	0.0
41	Cincinnati	-0.2
42	San Francisco	-0.4
43	Providence	-1.2
44	Pittsburgh	-1.7
45	Austin	-1.9
46	San Jose	-2.1
47	Hartford	-2.1
48	Buffalo	-2.9
49	Oklahoma City	-3.0
50	Miami	-3.8

Source: IPUMS-USA,
University of Minnesota

**Table 2-33
Change in Middle-Wage Jobs**

Percentage point difference in middle-wage jobs, 2006-2016

1	Buffalo	2.4
2	Miami	2.2
3	Oklahoma City	1.2
4	Austin	1.2
5	Hartford	1.1
6	Cincinnati	0.0
7	Pittsburgh	-0.4
8	Dallas	-1.3
9	Birmingham	-1.3
10	Los Angeles	-1.4
11	Salt Lake City	-1.5
12	San Jose	-1.7
13	Providence	-1.7
14	Denver	-1.7
15	Chicago	-1.9
16	Columbus	-2.0
17	Phoenix	-2.0
	United States	-2.1
18	Charlotte	-2.1
19	San Antonio	-2.2
20	Raleigh	-2.3
21	St. Louis	-2.3
22	Milwaukee	-2.4
23	Baltimore	-2.5
24	Richmond	-2.6
25	Portland	-2.6
26	Boston	-2.6
27	Houston	-2.7
28	Washington, D.C.	-2.7
29	Atlanta	-2.9
30	Cleveland	-2.9
31	Louisville	-2.9
32	San Diego	-3.0
33	Tampa	-3.0
34	New Orleans	-3.0
35	Las Vegas	-3.1
36	New York	-3.1
37	Indianapolis	-3.2
38	Memphis	-3.3
39	Nashville	-3.4
40	Virginia Beach	-3.4
41	Riverside	-3.6
42	Orlando	-3.7
43	Minneapolis	-3.7
44	Detroit	-3.8
45	Seattle	-3.8
46	Jacksonville	-3.9
47	Philadelphia	-4.0
48	Kansas City	-4.5
49	Sacramento	-5.0
50	San Francisco	-5.9

Source: IPUMS-USA,
University of Minnesota

**Table 2-34
Change in High-Wage Jobs**

Percentage point difference in high-wage jobs, 2006-2016

1	San Francisco	6.4
2	San Jose	3.7
3	Providence	2.9
4	Houston	2.7
5	Louisville	2.4
6	New York	2.2
7	Pittsburgh	2.1
8	Boston	2.1
9	Baltimore	2.0
10	Seattle	1.8
11	Oklahoma City	1.8
12	Denver	1.6
13	Miami	1.6
14	Sacramento	1.6
15	Virginia Beach	1.6
16	New Orleans	1.6
17	Salt Lake City	1.6
18	Raleigh	1.5
19	Portland	1.2
	United States	1.2
20	Los Angeles	1.1
21	Cleveland	1.1
22	Hartford	1.0
23	Milwaukee	1.0
24	San Antonio	0.9
25	Washington, D.C.	0.9
26	Richmond	0.7
27	Austin	0.7
28	Chicago	0.6
29	Tampa	0.6
30	Dallas	0.6
31	Philadelphia	0.5
32	Buffalo	0.5
33	Riverside	0.4
34	Charlotte	0.3
35	Indianapolis	0.3
36	Cincinnati	0.2
37	St. Louis	0.2
38	Orlando	0.1
39	Minneapolis	0.0
40	Atlanta	0.0
41	San Diego	0.0
42	Kansas City	0.0
43	Jacksonville	-0.2
44	Columbus	-0.3
45	Nashville	-0.4
46	Memphis	-0.7
47	Phoenix	-0.8
48	Las Vegas	-1.3
49	Birmingham	-1.3
50	Detroit	-2.2

Source: IPUMS-USA,
University of Minnesota

Innovation

Silicon Valley is an example of the ways in which innovative products can bring wealth into a region. Regions fortunate enough to be the home of pioneering firms in new industries stand to attract income and wealth. For this reason, leaders in many regions have a strong interest in fostering a culture of innovation. St. Louis has many strengths in its quest to build an ecosystem of innovation. James Bullard, President of the Federal Reserve Bank of St. Louis, remarked in 2015, “I see new technologies and venture capital creating an innovative business culture that will drive growth in this region for many years to come (Bullard, 2015).”

Table 2-35: Venture capital is money invested in a new or expanding business, and it is considered a riskier strategy than traditional investment in stocks and bonds. Venture capitalists typically extend startup or expansion money to a firm in exchange for an equity share in the firm’s profits. Venture capital is highly concentrated in a handful of MSAs. San Francisco, New York, Boston, and San Jose grab 28 percent of venture capital dollars. In 2017, St. Louis attracted a respectable \$287 million in venture capital funds, ranking 28th, just ahead of Cincinnati and just behind Pittsburgh.

Table 2-36: When the different sized employment bases of the regions are considered, venture capital is even more concentrated. The median value for the peer metropolitan regions is about \$274 dollars in venture capital investment per employee. San Francisco and San Jose have per worker values that are more than 30 times this median. St. Louis ranks 30th on this measure with \$208 per worker.

**Table 2-35
Venture Capital
Investment**

In millions of dollars, 2017

United States		245,511
1	San Francisco	20,625
2	New York	19,961
3	Boston	15,963
4	San Jose	11,070
5	Los Angeles	5,422
6	Philadelphia	4,660
7	Austin	3,313
8	Dallas	2,825
9	Denver	2,464
10	San Diego	2,044
11	Atlanta	1,807
12	Seattle	1,744
13	Washington, D.C.	1,701
14	Chicago	1,520
15	Minneapolis	1,369
16	Houston	1,250
17	Miami	1,193
18	Orlando	956
19	Louisville	833
20	Charlotte	671
21	Oklahoma City	623
22	Nashville	620
23	San Antonio	578
24	Baltimore	330
25	Salt Lake City	327
26	Phoenix	314
27	Pittsburgh	311
28	St. Louis	287
29	Cincinnati	270
30	Portland	251
31	Kansas City	166
32	New Orleans	164
33	Milwaukee	148
34	Cleveland	131
35	Indianapolis	126
36	Sacramento	125
37	Columbus	111
38	Richmond	95
39	Las Vegas	94
40	Raleigh	85
41	Jacksonville	74
42	Tampa	68
43	Detroit	56
44	Hartford	54
45	Riverside	45
46	Buffalo	44
47	Providence	44
48	Virginia Beach	42
49	Birmingham	32
50	Memphis	7

Source: Thomson Reuters

**Table 2-36
Venture Capital**

Venture capital investment per employee in dollars, 2017

1	San Jose	10,080
2	San Francisco	8,607
3	Boston	5,833
4	Austin	3,209
5	New York	2,064
6	Denver	1,685
United States		1,674
7	Philadelphia	1,601
8	San Diego	1,407
9	Louisville	1,249
10	Oklahoma City	982
11	Los Angeles	896
12	Seattle	872
13	Dallas	786
14	Orlando	766
15	Minneapolis	688
16	Atlanta	664
17	Nashville	632
18	Charlotte	568
19	San Antonio	557
20	Washington, D.C.	519
21	Salt Lake City	457
22	Miami	454
23	Houston	414
24	Chicago	324
25	New Orleans	284
26	Pittsburgh	264
27	Cincinnati	247
28	Baltimore	236
29	Portland	214
30	St. Louis	208
31	Milwaukee	170
32	Phoenix	154
33	Kansas City	154
34	Richmond	142
35	Raleigh	138
36	Sacramento	129
37	Cleveland	124
38	Indianapolis	119
39	Jacksonville	108
40	Columbus	102
41	Las Vegas	97
42	Hartford	94
43	Buffalo	78
44	Providence	74
45	Birmingham	60
46	Virginia Beach	54
47	Tampa	51
48	Riverside	31
49	Detroit	28
50	Memphis	11

Source: Thomson Reuters;
Bureau of Labor Statistics,
Current Employment Statistics

Table 2-37: Another measure of an innovative economy is the number of patents per worker.⁷ A National Science Foundation survey in 2013 found that two sectors account for nearly half of all patents in the United States: computer and electronic products, and information (NSF, 2013). Not surprisingly, regions that specialize in information technology such as San Jose, San Francisco, Austin, and Seattle have high patent rates.

St. Louis ranks 31st on this measure with 5.5 patents per 10,000 employees in 2015. Between 2005 and 2015, over 7,000 patents were granted in the St. Louis region, many of which were granted for inventions related to the life sciences, including multicellular organisms, drugs, organic compounds, and molecular biology. The companies with the most patents granted during this time include Boeing (590), Monsanto (378), Washington University (155), Mallinckrodt (131), and Emerson Electric (110). Nearly 500 patents were also granted to individuals for inventions during this time.

7 In this report, patents measure utility patents. According to the U.S. Patent and Trademark Office, utility patents “may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.” This report does not discuss other patent types, such as design patents, which are issued for the ornamental design of an item, or plant patents, which are issued for invented or discovered plants (U.S. Patent and Trademark Office, 2015).

Table 2-38: The Census Bureau’s Annual Survey of Entrepreneurs provides a snapshot of startup scenes in the peer regions. St. Louis ranks 38th on manufacturing and tech startups, defined as firms in manufacturing or professional, scientific, and technical services that are less than two years old. Although St. Louis lags most peer regions, it is ahead of several of the Midwest peers, including Indianapolis, Cleveland, Columbus, Milwaukee, and Cincinnati. Interestingly, the region also ranks ahead of Nashville and Riverside, two regions with rapidly growing employment levels.

Table 2-37
Patents

Utility patents granted
per 10,000 employees, 2015

1	San Jose	132.7
2	San Francisco	40.3
3	San Diego	34.9
4	Austin	27.5
5	Raleigh	24.8
6	Seattle	23.8
7	Boston	21.8
8	Portland	18.6
9	Minneapolis	17.3
10	Detroit	16.8
11	Hartford	12.9
12	Houston	10.3
13	Washington, D.C.	9.7
14	Cincinnati	9.7
United States		9.5
15	Salt Lake City	9.2
16	Phoenix	8.9
17	Cleveland	8.7
18	Dallas	8.7
19	Chicago	8.3
20	Denver	8.2
21	New York	8.1
22	Atlanta	8.1
23	Philadelphia	8.1
24	Milwaukee	7.9
25	Kansas City	7.5
26	Pittsburgh	7.5
27	Indianapolis	7.0
28	Providence	6.8
29	Sacramento	6.6
30	Baltimore	5.9
31	St. Louis	5.5
32	Miami	5.1
33	Memphis	5.1
34	Tampa	4.8
35	Louisville	4.6
36	Buffalo	4.5
37	Las Vegas	4.4
38	Columbus	4.2
39	Richmond	4.0
40	San Antonio	4.0
41	Charlotte	3.8
42	Orlando	3.8
43	Riverside	3.3
44	Jacksonville	3.0
45	Oklahoma City	2.4
46	Nashville	2.4
47	New Orleans	2.2
48	Birmingham	2.1
49	Virginia Beach	1.8

Source: U.S. Patent and Trademark Office; Bureau of Economic Analysis

Table 2-38
Manufacturing and Tech Startups

Firms in manufacturing, professional, scientific, and technical services industries with less than 2 years in business per 100,000 residents, 2016

1	San Jose	64.6
2	Miami	62.5
3	Denver	56.9
4	San Francisco	53.9
5	Los Angeles	50.1
6	Las Vegas	47.8
7	Washington, D.C.	45.7
8	San Diego	44.7
9	Salt Lake City	43.7
10	Tampa	41.9
11	Seattle	41.2
12	Portland	40.6
13	Raleigh	40.3
14	Orlando	39.7
15	Jacksonville	38.5
16	Atlanta	36.7
17	Austin	36.2
18	New York	34.3
19	Houston	33.6
20	Dallas	33.5
21	Phoenix	33.5
22	Minneapolis	32.1
23	Oklahoma City	32.0
24	Chicago	30.8
25	Kansas City	30.2
26	Charlotte	29.5
27	Boston	28.0
United States		27.6
28	Sacramento	26.8
29	Birmingham	25.9
30	Pittsburgh	25.4
31	Detroit	25.1
32	Hartford	24.9
33	Buffalo	24.5
34	Philadelphia	23.1
35	Baltimore	22.0
36	Richmond	21.2
37	New Orleans	20.8
38	St. Louis	20.0
39	San Antonio	19.7
40	Indianapolis	18.9
41	Cleveland	18.3
42	Nashville	18.1
43	Riverside	17.8
44	Virginia Beach	15.4
45	Columbus	15.3
46	Milwaukee	15.0
47	Louisville	14.1
48	Providence	13.9
49	Cincinnati	13.8
50	Memphis	7.9

Source: U.S. Census Bureau, Annual Survey of Entrepreneurs (CSA02) and Population Estimates

Table 2-39: One measure of entrepreneurialism is the number of workers who are self-employed. There are two types of self-employment: incorporated and unincorporated. Nationally, the median income for self-employed workers in incorporated businesses is about twice that of self-employed workers in unincorporated businesses, \$51,400 to \$25,240, respectively. St. Louis ranks 32nd on the percentage of workforce that is self-employed in an incorporated business, with 3.1 percent of workers. For the United States, 3.6 percent of the workforce is self-employed in incorporated businesses.

Figure 2-10: Industries represented by incorporated self-employed entrepreneurs are similar for St. Louis and for the United States as a whole. For both, professional and business services is the industry with the greatest share of incorporated self-employed, followed by education, health care, and social assistance, and then by construction, and then by education, health care, and social assistance.

**Table 2-39
Incorporated
Self-Employment**

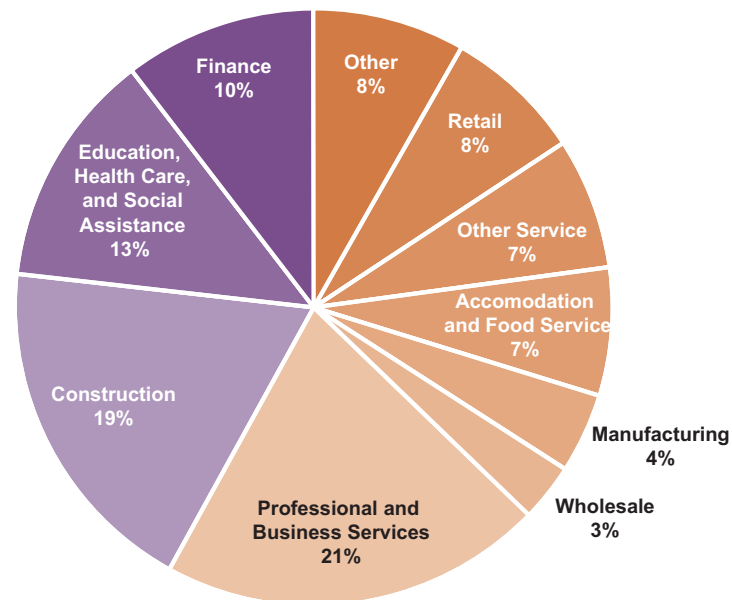
Percent of employed population that is self-employed in own incorporated business, 2017

1	Miami	7.1
2	Tampa	5.4
3	Denver	5.2
4	Orlando	4.9
5	Atlanta	4.9
6	Jacksonville	4.6
7	Portland	4.4
8	Los Angeles	4.3
9	New York	4.2
10	Salt Lake City	4.2
11	New Orleans	4.2
12	Oklahoma City	4.2
13	San Diego	4.1
14	Phoenix	4.0
15	Minneapolis	4.0
16	Seattle	3.9
17	Chicago	3.9
18	Austin	3.9
19	Detroit	3.7
	United States	3.6
20	Charlotte	3.6
21	Philadelphia	3.6
22	Raleigh	3.5
23	Baltimore	3.4
24	Cleveland	3.4
25	San Francisco	3.4
26	Washington, D.C.	3.4
27	Richmond	3.4
28	Birmingham	3.3
29	Kansas City	3.3
30	Louisville	3.3
31	Virginia Beach	3.1
32	St. Louis	3.1
33	Boston	3.0
34	Dallas	3.0
35	Houston	3.0
36	Hartford	3.0
37	Riverside	3.0
38	Nashville	3.0
39	Indianapolis	2.9
40	Sacramento	2.9
41	Pittsburgh	2.8
42	San Jose	2.8
43	San Antonio	2.8
44	Cincinnati	2.8
45	Milwaukee	2.7
46	Las Vegas	2.7
47	Columbus	2.6
48	Buffalo	2.6
49	Providence	2.6
50	Memphis	2.4

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B24080)

**Figure 2-10
Incorporated Self-Employment by Industry**

Percent of total self-employment
St. Louis MSA, 2017



Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B24070).

St. Louis has many assets that make it competitive in the field of freight and logistics, including the northernmost lock-free and ice-free ports on the Mississippi River to and from the Gulf of Mexico. Because of the region’s strategic location at the confluence of the continent’s two largest rivers, St. Louis boasts both the third and eighth largest inland ports. Four interstates with national access, six Class I railroads, and two international cargo airports contribute to the region having the third highest volume rail hub and the third highest volume multimodal hub (STL Freightway, 2018). As a result, the region handles a large proportion of the nation’s inland freight.

Table 2-40: St. Louis ranks 14th in the nation on freight value going to, from, or through the region; this is the highest value among the peer regions not located in a state with a port for oceangoing vessels.

Table 2-41: St. Louis has a similar ranking on total freight tonnage handled in the region. St. Louis ranks 13th, ahead of the peer average, and again ahead of every region in states without deep sea ports.

Table 2-42: Another of the region’s advantages in freight and logistics is the reliability of its surface transportation network. St. Louis ranks 7th on interstate travel time reliability, which is defined as the percentage of person-miles travelled on interstates that are deemed reliable, based on the ratio of travel time between the most and least congested times of the day.

**Table 2-40
Freight Value**

Value of freight imported to, exported from, or shipped within the region in millions of dollars, 2016

1	Los Angeles	2,231,536
2	New York	2,194,910
3	Houston	1,669,419
4	Chicago	1,429,049
5	Dallas	1,103,264
6	San Francisco	838,229
7	Detroit	831,992
8	Philadelphia	736,435
9	Boston	704,773
10	Atlanta	644,490
11	Seattle	601,767
12	Miami	466,645
Peer Average		460,968
13	Minneapolis	393,431
14	St. Louis	354,313
15	Columbus	334,308
16	New Orleans	332,864
17	Cleveland	326,390
18	Portland	296,329
19	San Diego	288,571
20	Phoenix	285,981
21	Indianapolis	284,710
22	Baltimore	282,847
23	Denver	269,794
24	Washington, D.C.	268,708
25	Cincinnati	265,865
26	San Antonio	264,281
27	Kansas City	264,170
28	Louisville	264,142
29	Memphis	258,356
30	Pittsburgh	245,023
31	Salt Lake City	235,664
32	Milwaukee	225,321
33	Nashville	224,096
34	Buffalo	222,622
35	Tampa	205,647
36	Charlotte	187,463
37	Birmingham	184,802
38	Sacramento	175,889
39	Hartford	171,607
40	Orlando	165,714
41	Virginia Beach	155,439
42	Jacksonville	146,539
43	Raleigh	142,599
44	Austin	140,121
45	Richmond	131,921
46	Oklahoma City	121,349
47	Las Vegas	96,092

Source: Federal Highway Administration, Freight Analysis Framework

**Table 2-41
Freight Tonnage**

Amount of freight imported to, exported from, or shipped within the region in thousands of tons, 2016

1	Houston	1,848,078
2	New York	1,184,331
3	Los Angeles	1,089,304
4	Chicago	1,022,264
5	Dallas	732,473
6	New Orleans	601,615
7	Philadelphia	568,803
8	San Francisco	532,600
9	Detroit	425,767
10	Boston	423,749
11	Miami	405,003
12	Atlanta	404,742
13	St. Louis	383,994
14	Seattle	383,241
15	Minneapolis	350,572
Peer Average		340,824
16	San Antonio	323,929
17	Denver	310,393
18	Cleveland	309,999
19	Portland	261,548
20	Pittsburgh	232,007
21	Phoenix	227,159
22	Cincinnati	226,807
23	Tampa	223,784
24	Washington, D.C.	220,262
25	Kansas City	208,541
26	Indianapolis	199,753
27	Milwaukee	190,577
28	Baltimore	182,835
29	Columbus	176,019
30	Orlando	172,182
31	Buffalo	168,003
32	Birmingham	163,688
33	Salt Lake City	157,753
34	Austin	155,356
35	Oklahoma City	151,608
36	Nashville	140,878
37	Charlotte	136,520
38	Sacramento	133,207
39	Raleigh	128,713
40	Virginia Beach	127,643
41	Louisville	124,371
42	Memphis	121,500
43	San Diego	120,706
44	Jacksonville	102,228
45	Richmond	99,850
46	Las Vegas	88,260
47	Hartford	76,115

Source: Federal Highway Administration, Freight Analysis Framework

**Table 2-42
Interstate Travel Time Reliability**

Percent of person-miles traveled on interstates that are reliable, 2016

1	Kansas City	88.6
2	Cleveland	88.3
3	Pittsburgh	88.1
4	Memphis	87.2
5	Virginia Beach	83.7
6	Providence	83.0
7	St. Louis	82.4
8	Milwaukee	77.9
9	Columbus	77.0
10	Cincinnati	76.8
11	Las Vegas	75.7
12	San Antonio	72.7
12	Tampa	72.7
14	New York	72.2
15	Salt Lake City	71.9
16	Charlotte	71.1
17	Riverside	69.8
18	Philadelphia	69.3
19	Detroit	68.8
20	Jacksonville	68.7
21	Miami	68.3
Peer Average		67.0
22	Atlanta	66.9
23	Sacramento	65.3
24	Baltimore	64.5
25	Minneapolis	64.2
26	Chicago	63.5
27	Orlando	63.1
28	Dallas	62.9
29	San Diego	61.1
30	Austin	59.0
31	Boston	58.7
32	Denver	56.0
33	Washington, D.C.	54.1
34	San Francisco	49.2
35	Houston	48.7
36	Portland	48.4
37	Seattle	47.5
38	Phoenix	47.2
39	San Jose	45.7
40	Los Angeles	41.1

Source: Federal Highway Administration, National Performance Management Research Data Set. Data is for urbanized areas.

Table 2-43: Truck travel time reliability is a metric devised by the Federal Highway Administration (FHWA), and is a performance measure that Metropolitan Planning Organizations, such as East-West Gateway, are required to track. Although the numerical value defies intuitive explanation, smaller numbers indicate lower levels of congestion affecting freight. By this measure, St. Louis has one of the lowest levels of congestion for trucks, standing at 33rd out of the 41 urbanized areas for which values are available.

Table 2-44: The travel time index (TTI) is a ratio of the time it takes to travel during peak traffic volume compared to free-flow. TTIs are calculated for a.m. and p.m. rush hours. For the morning rush hour, St. Louis has a score of 1.15, indicating it takes 15 percent longer than under free flow conditions. A 30 minute drive during free flow will take 35 minutes during a.m. rush hour. This is the lowest level of congestion of any of the peer regions with the exception of Indianapolis. Los Angeles is the most congested region. That same half hour trip would take nearly 55 minutes in Los Angeles.

Table 2-45: St. Louis has made considerable progress in expanding access to domestic and international flights over the last five years. Currently, St. Louis has about 260 departures per day from area airports, and ranks 22nd among peer regions on this measure.⁸ In the last five years, however, the number of departures from St. Louis has increased by 12 percent, the 11th highest growth among peer regions. Twenty-three of the peer regions saw reductions in departures during this time period.

**Table 2-43
Truck Travel Time
Reliability Index**

2016

1	Seattle	3.99
2	Houston	3.81
3	Portland	3.71
4	Los Angeles	3.70
5	Washington, D.C.	3.64
6	San Francisco	3.44
7	Phoenix	3.29
8	San Jose	3.20
9	Minneapolis	3.01
10	New York	2.99
11	Salt Lake City	2.96
12	Riverside	2.95
13	Virginia Beach	2.94
14	San Diego	2.82
15	Las Vegas	2.81
16	Boston	2.78
17	Dallas	2.77
18	Baltimore	2.73
19	Orlando	2.71
Peer Average		2.65
20	Denver	2.64
21	Miami	2.59
22	Sacramento	2.55
23	Milwaukee	2.43
24	Atlanta	2.36
25	Jacksonville	2.34
26	Austin	2.29
26	San Antonio	2.29
28	Philadelphia	2.28
28	Providence	2.28
30	Chicago	2.26
31	Detroit	2.25
32	Pittsburgh	2.20
33	St. Louis	2.13
34	Columbus	2.11
35	Charlotte	2.09
36	Tampa	2.08
37	Cincinnati	2.06
38	Memphis	1.94
39	Kansas City	1.86
40	Cleveland	1.74
41	Indianapolis	1.68

Source: Federal Highway Administration, National Performance Management Research Data Set.
Data is for urbanized areas.

⁸ This table does not appear in this document. View this and other *Where We Stand* tables at www.ewgateway.org/www.

**Table 2-44
Travel Time Index**

Morning rush hour (6 to 9 a.m.),
2016

1	Los Angeles	1.88
2	San Francisco	1.64
3	San Jose	1.57
4	Boston	1.50
5	Seattle	1.48
6	Washington, D.C.	1.46
7	New York	1.44
7	Philadelphia	1.44
7	San Diego	1.44
10	Miami	1.42
10	Portland	1.42
12	Orlando	1.41
13	Austin	1.39
14	Baltimore	1.38
14	Houston	1.38
16	Denver	1.36
16	Virginia Beach	1.36
18	Chicago	1.31
Peer Average		1.30
19	Atlanta	1.30
20	Dallas	1.29
21	Pittsburgh	1.28
21	Tampa	1.28
23	Detroit	1.27
23	Milwaukee	1.27
23	Minneapolis	1.27
23	Riverside	1.27
27	Raleigh	1.25
27	Sacramento	1.25
29	Jacksonville	1.24
29	Nashville	1.24
31	Buffalo	1.23
31	Charlotte	1.23
31	Hartford	1.23
31	Providence	1.23
35	New Orleans	1.22
35	Phoenix	1.22
37	Las Vegas	1.21
37	San Antonio	1.21
39	Cleveland	1.19
40	Cincinnati	1.17
40	Kansas City	1.17
40	Oklahoma City	1.17
40	Salt Lake City	1.17
44	Louisville	1.16
44	Memphis	1.16
46	Birmingham	1.15
46	Columbus	1.15
46	Richmond	1.15
46	St. Louis	1.15
50	Indianapolis	1.13

Source: Federal Highway Administration, National Performance Management Research Data Set.
Data is for truck and passenger vehicles for weekdays only.

**Table 2-45
Change in Daily Flight
Departures**

Percent Change, 2012-2017

1	Seattle	37.4
2	San Jose	37.0
3	Boston	22.5
4	Austin	20.5
5	Miami	20.2
6	New Orleans	19.9
7	Orlando	15.4
8	Louisville	13.9
9	Los Angeles	13.6
10	Portland	13.3
11	St. Louis	12.3
12	San Diego	12.1
13	Pittsburgh	11.9
14	Nashville	11.3
15	Tampa	10.9
16	Sacramento	10.2
17	San Francisco	7.6
18	Dallas	6.4
19	Las Vegas	6.3
20	Raleigh	4.3
21	Riverside	3.7
22	Salt Lake City	3.1
23	Indianapolis	1.8
24	New York	1.7
Peer Average		1.7
25	Charlotte	1.4
26	Columbus	0.8
27	Hartford	0.3
28	Baltimore	-0.6
29	Providence	-1.2
30	Chicago	-1.6
31	Richmond	-1.7
32	Jacksonville	-2.3
33	Phoenix	-2.6
34	Minneapolis	-2.7
35	Cincinnati	-3.1
36	Detroit	-3.9
37	San Antonio	-4.9
38	Atlanta	-5.0
39	Kansas City	-7.7
40	Denver	-8.0
41	Washington, D.C.	-8.1
42	Oklahoma City	-8.5
43	Houston	-8.7
44	Birmingham	-12.3
45	Buffalo	-14.7
46	Philadelphia	-18.2
47	Virginia Beach	-18.6
48	Milwaukee	-22.3
49	Memphis	-28.7
50	Cleveland	-37.3

Source: Bureau of Transportation Statistics, Air Carrier Statistics

Poverty and Inclusion

The Great Migration of 1920-1970 brought millions of African Americans into industrial cities where they found employment in manufacturing. The dramatic and rather sudden decline in manufacturing employment following 1980, combined with highly segregated housing patterns, created communities that were deprived of an economic base. While most workers, white and black, adjusted with some difficulty to the new economy, people in the areas with the most concentrated poverty faced multiple barriers. These barriers included lack of transportation access to employment and lack of access to the informal job networks that help ease young workers into the labor force.⁹ A generation later, many of these communities continue to struggle with concentrated poverty and social exclusion.

Table 2-46: Although the poverty rate in St. Louis is lower than that of many of the peer regions, as well as the national average, it is still sobering that one St. Louisan in nine, and one child in six, lives in poverty.

Table 2-47: The poverty rate is not evenly distributed by race. The poverty rate for blacks is more than three times that of whites. Racial disparities in poverty rates exist everywhere in the United States, but the gap in St. Louis is particularly pronounced, ranking the region at the eighth highest disparity level among the peer regions.

Regions that historically had substantial manufacturing employment tend to have the highest rates of racial disparity. Other regions above or near St. Louis on the disparity measure include Milwaukee, Cleveland, Buffalo, Chicago, and Pittsburgh.

**Table 2-46
Poverty Rate**

Individuals living in poverty as a percent of total population, 2017

1	New Orleans	18.6
2	Memphis	17.1
3	Cleveland	14.8
4	Birmingham	14.6
5	Detroit	14.6
6	San Antonio	14.5
7	Riverside	14.4
8	Miami	14.3
9	Buffalo	14.2
10	Orlando	14.1
11	Los Angeles	14.1
12	Houston	13.9
13	Tampa	13.9
14	Oklahoma City	13.9
15	Las Vegas	13.8
United States		13.4
16	Phoenix	13.3
17	Milwaukee	13.3
18	Jacksonville	13.3
19	Sacramento	13.1
20	Columbus	13.1
21	Philadelphia	12.8
22	New York	12.8
23	Virginia Beach	12.3
24	Louisville	12.2
25	Charlotte	12.1
26	Cincinnati	12.1
27	Atlanta	12.0
28	Indianapolis	11.9
29	San Diego	11.8
30	Chicago	11.8
31	St. Louis	11.6
32	Providence	11.4
33	Dallas	11.3
34	Richmond	11.2
35	Pittsburgh	11.0
36	Nashville	10.9
37	Portland	10.9
38	Raleigh	10.5
39	Austin	10.4
40	Baltimore	10.2
41	Kansas City	10.0
42	Hartford	10.0
43	Boston	9.6
44	Seattle	9.0
45	Salt Lake City	8.9
46	San Francisco	8.8
47	Denver	8.6
48	Minneapolis	8.1
49	Washington, D.C.	7.9
50	San Jose	7.3

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B17001)

**Table 2-47
Racial Disparity in
Poverty Rate**

Ratio of black to white poverty rate, 2017

1	Minneapolis	5.00
2	Milwaukee	4.21
3	Cleveland	3.83
4	Kansas City	3.63
5	San Francisco	3.60
6	Buffalo	3.48
7	Chicago	3.46
8	St. Louis	3.23
9	Las Vegas	3.18
10	Pittsburgh	3.16
11	Cincinnati	3.10
12	Philadelphia	3.05
13	Memphis	3.02
14	Seattle	2.99
15	New Orleans	2.88
16	Baltimore	2.88
17	Oklahoma City	2.84
18	Richmond	2.82
19	Detroit	2.82
20	Boston	2.80
21	Columbus	2.80
22	Louisville	2.76
23	Virginia Beach	2.75
24	Washington, D.C.	2.73
25	Indianapolis	2.73
26	Dallas	2.71
27	Portland	2.67
28	Houston	2.64
29	Providence	2.60
30	Hartford	2.56
31	San Diego	2.49
32	New York	2.45
33	Miami	2.39
34	Phoenix	2.39
United States		2.39
35	Nashville	2.38
36	Atlanta	2.37
37	Denver	2.30
38	Austin	2.28
39	Orlando	2.28
40	Tampa	2.27
41	Birmingham	2.27
42	Los Angeles	2.26
43	Sacramento	2.19
44	Jacksonville	2.16
45	Riverside	1.96
46	Charlotte	1.92
47	San Antonio	1.83
48	Raleigh	1.82

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0201)

⁹ See *Where We Stand 7th Edition* for a discussion of employment rates for white and black youths in the 1970s and 1980s. Available at www.ewgateway.org/wws.

Table 2-48: The disparity in income table resembles the disparity in poverty table, with the same group of former industrial powerhouses ranked near the top. St. Louis ranks 7th on disparity in income, roughly tied with Chicago, Cleveland, and Minneapolis. In St. Louis, the median income in 2017 was \$68,494 for white households and \$33,343 for black households. The income disparity in St. Louis has grown in recent years. In 2010, the white to black income ratio was 1.88, compared with 2.07 in 2017.

Table 2-49: Disparities in unemployment rates also persist. In 2017, a black worker was 2.83 times as likely to be unemployed as a white worker in St. Louis.

Table 2-50: Racial inequity is not the only form of social exclusion. Individuals with disabilities are also far more likely to experience poverty. St. Louis ranks 12th on disparity in poverty rates between working-age adults with disabilities and those without disabilities. In St. Louis, 26.7 percent of individuals between the ages of 18 and 64 with disabilities were in poverty. This compares to a poverty rate of 9.3 percent for people in this age cohort who do not have disabilities. Thus, working age adults with disabilities are nearly three times as likely to experience poverty. Nationally, people with disabilities are 2.35 times as likely to be in poverty.

**Table 2-48
Racial Disparity in
Income**

Ratio of white to black median household income, 2017

1 Milwaukee	2.41
2 San Francisco	2.40
3 New Orleans	2.14
4 Buffalo	2.11
5 Cleveland	2.11
6 Chicago	2.10
7 St. Louis	2.07
8 Minneapolis	2.07
9 Pittsburgh	2.00
10 Philadelphia	1.96
11 Portland	1.95
12 Cincinnati	1.94
13 Kansas City	1.93
14 New York	1.91
15 Los Angeles	1.90
16 San Diego	1.87
17 Detroit	1.86
18 Indianapolis	1.85
19 Boston	1.84
20 Hartford	1.82
21 Birmingham	1.82
22 Memphis	1.82
23 Oklahoma City	1.80
24 Baltimore	1.80
25 Columbus	1.75
26 Seattle	1.73
27 Dallas	1.73
28 Houston	1.72
29 Providence	1.68
30 Richmond	1.68
31 Washington, D.C.	1.66
32 Jacksonville	1.66
33 Virginia Beach	1.65
34 Denver	1.64
35 Miami	1.64
United States	1.64
36 Louisville	1.64
37 Las Vegas	1.60
38 Austin	1.59
39 Sacramento	1.59
40 Raleigh	1.56
41 San Antonio	1.56
42 Orlando	1.56
43 Atlanta	1.53
44 Charlotte	1.52
45 Phoenix	1.52
46 Nashville	1.41
47 Tampa	1.40
48 Riverside	1.34

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0201)

**Table 2-49
Racial Disparity in
Unemployment Rate**

Ratio of black to white unemployment rate, 2017

1 Louisville	3.58
2 Chicago	3.44
3 Buffalo	3.23
4 Memphis	3.05
5 Cleveland	2.96
6 Detroit	2.93
7 Columbus	2.90
8 St. Louis	2.83
9 Indianapolis	2.79
10 Milwaukee	2.79
11 Sacramento	2.78
12 Oklahoma City	2.76
13 Minneapolis	2.71
14 Las Vegas	2.70
15 San Francisco	2.68
16 Pittsburgh	2.62
17 San Diego	2.59
18 Miami	2.48
19 Jacksonville	2.44
20 New Orleans	2.43
21 Kansas City	2.41
22 Phoenix	2.40
23 Philadelphia	2.33
24 Houston	2.28
United States	2.27
25 Atlanta	2.25
26 Washington, D.C.	2.21
27 Hartford	2.19
28 Austin	2.18
29 New York	2.15
30 Dallas	2.08
31 Baltimore	2.08
31 Boston	2.08
33 Birmingham	2.07
34 Raleigh	2.05
35 Orlando	2.00
35 Riverside	2.00
35 Virginia Beach	2.00
38 Providence	1.90
39 Richmond	1.88
40 Nashville	1.86
41 Seattle	1.85
42 Portland	1.79
42 Tampa	1.79
44 Los Angeles	1.78
45 Charlotte	1.73
46 Cincinnati	1.68
47 Denver	1.41
48 San Antonio	1.24

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0201)

**Table 2-50
Disparity in Poverty
Rate of Adults by
Disability Status**

Ratio of disabled adults to adults without disabilities, 2017

1 Hartford	3.39
2 Minneapolis	3.34
3 Pittsburgh	3.23
4 Louisville	3.13
5 Providence	3.12
6 Milwaukee	3.05
7 San Francisco	3.05
8 Baltimore	2.93
9 Buffalo	2.92
10 Denver	2.91
11 Boston	2.88
12 St. Louis	2.88
13 Portland	2.87
14 Kansas City	2.84
15 Seattle	2.80
16 Cleveland	2.77
17 Richmond	2.76
18 Cincinnati	2.72
19 Charlotte	2.70
20 Washington, D.C.	2.60
21 New York	2.59
22 Indianapolis	2.59
23 Birmingham	2.53
24 Nashville	2.52
25 San Jose	2.38
26 Jacksonville	2.37
27 Detroit	2.37
28 Atlanta	2.37
29 Columbus	2.36
United States	2.35
30 Raleigh	2.34
31 Miami	2.31
32 Memphis	2.30
33 Chicago	2.30
34 Philadelphia	2.26
35 Oklahoma City	2.25
36 Virginia Beach	2.22
37 Las Vegas	2.21
38 Dallas	2.17
39 Tampa	2.16
40 San Antonio	2.11
41 Austin	2.06
42 Houston	2.00
43 Salt Lake City	1.98
44 Los Angeles	1.96
45 Phoenix	1.89
46 Orlando	1.87
47 Riverside	1.84
48 Sacramento	1.83
49 New Orleans	1.83
50 San Diego	1.80

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18130)

Table 2-51: St. Louis ranks 3rd nationally on disparity in the unemployment rates of disabled and non-disabled individuals. In St. Louis, the unemployment rate for disabled individuals between 18 and 64 years old is 13.9 percent, compared to 4.3 percent for the non-disabled. Thus, in St. Louis, a disabled worker is 3.21 times as likely to be unemployed. In the United States as a whole, a disabled worker is 2.46 times as likely to be unemployed.

**Table 2-51
Disparity in
Unemployment Rate of
Adults by
Disability Status**

Ratio of disabled adults to adults without disabilities, 2017

1	Buffalo	3.58
2	Oklahoma City	3.49
3	St. Louis	3.21
4	San Francisco	3.17
5	Salt Lake City	3.15
6	Columbus	3.13
7	New Orleans	3.07
8	Charlotte	3.06
9	Denver	3.02
10	Sacramento	2.96
11	Portland	2.93
12	Seattle	2.87
13	Pittsburgh	2.87
14	Jacksonville	2.84
15	Louisville	2.84
16	Nashville	2.83
17	Minneapolis	2.72
18	Birmingham	2.71
19	San Jose	2.63
20	Baltimore	2.62
21	Cincinnati	2.61
22	Philadelphia	2.61
23	Phoenix	2.61
24	Houston	2.60
25	Boston	2.54
26	Las Vegas	2.53
27	Tampa	2.47
	United States	2.46
28	Miami	2.45
29	New York	2.45
30	Providence	2.44
31	Indianapolis	2.42
32	Washington, D.C.	2.40
33	Raleigh	2.37
34	Chicago	2.35
35	Orlando	2.35
36	Atlanta	2.34
37	Dallas	2.34
38	Richmond	2.31
39	Kansas City	2.30
40	Los Angeles	2.26
41	Milwaukee	2.26
42	Detroit	2.26
43	Cleveland	2.21
44	Memphis	2.17
45	San Antonio	2.11
46	Riverside	2.05
47	San Diego	1.92
48	Hartford	1.79
49	Austin	1.78
50	Virginia Beach	1.68

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18120)

Box 1: Nashville

The rankings for change in earned income suggest that Nashville has been a major success story in recent years. Nashville ranks second on change in average earnings per job between 2012 and 2016, trailing only the technology powerhouse of San Jose. In 2012, Nashville's average earning was \$58,700, 2 percent higher than the United States as a whole. In 2016, Nashville's average earning had risen to \$64,000, nearly 10 percent higher than the national average. In inflation-adjusted 2016 dollars, Nashville enjoyed a 9 percent increase in average earnings per job in just a four-year period.

As noted earlier, earnings consists of employee compensation and proprietors' income. In Nashville, proprietors' income grew much more rapidly than employee compensation. Nashville ranked 3rd on change in proprietors' income with a robust 33 percent increase, more than triple the national average. However, Nashville ranked 18th on change in average wage, with just a 4 percent increase.

Proprietors' income accounts for almost all of the difference between Nashville's income growth and U.S. income growth; over 95 percent of this difference is attributable to self-employment income, while just under 5 percent is attributable to growth in employee compensation. The single largest contributor to growth in the income gap between Nashville and the United States is proprietors' income in the hospitals industry. This single sector accounted for 37 percent of the difference between Nashville earnings growth and national earnings growth. An additional 8 percent was attributable to proprietors' income in the ambulatory health care services industry. Thus, nearly half of the difference between Nashville and U.S. earnings growth is attributable to proprietors' income in the health care industry. Aside from these dominant factors, other major contributors included proprietors' income in the publishing industry and proprietors' income in the construction industry.

The story of Nashville's dominance in the health care industry, and particularly in the hospitals sector, begins with a company called HCA Healthcare. Formed in 1968 by a team of Nashville physicians, the corporation aggressively began buying up hospitals across the country. In 1993, HCA merged with Louisville-based Columbia Hospital Corporation. In 1996, the firm was reported to own 340 hospitals, 135 outpatient surgery offices, and 200 home health care agencies in 38 states (Kuttner 1996).

This dynamic corporation pursued mergers, acquisitions and spinoffs, helping to make Nashville a national leader in the for-profit hospital business and health care more generally (Johansson 2007). A 2012 survey of the 15 largest hospital holding companies found that seven were located in Nashville (Gamble 2012). In 2017, Nashville was home to four privately held companies in the health care field worth more than \$1 billion. These were: Iasis Health, Ardent Health Services, Change Healthcare, and Correct Care Solutions. In addition, Premise Health and Compassus were privately held health care firms with revenues in excess of \$400 million (Smith 2017). These large, privately held companies contributed to the increase in self-employment income in the health care industry, which contributed greatly to Nashville's overall growth in earnings.

Nashville's history is unique, but in broad terms it mirrors recent trends in the United States as a whole. The last five years have been good ones for owners of capital, including business owners and owners of corporate equities. For average employees, income gains have been much more modest.

Unemployment Rate presents the percentage of the civilian labor force that was unemployed. A person is counted as unemployed if they are jobless, looking for jobs, and available for work.

Change in Unemployment Rate shows the difference between the percentages of the workforce that were unemployed from 2012 to 2017; it is calculated by subtracting the average unemployment rate for 2012 from the average unemployment rate for 2017. Regions in New England are defined according to New England City and Town Areas (NECTAs) instead of MSA definitions.

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

Change in Employment for the periods 2012-2017 and 2016-2017 show the percentage increase in the total number of non-farm workers on payrolls from the base period to 2017. Annual averages were used for the base years and for 2017. The change in employment by industry tables (**Tables 2-06 through 2-14**) represent employment in the specified sector. In some cases, data were suppressed to maintain confidentiality, resulting in fewer than 50 of the peer regions being represented. Regions in New England are defined according to New England City and Town Areas (NECTAs) instead of MSA definitions.

Source: Bureau of Labor Statistics, Current Employment Statistics

Gross Domestic Product (GDP) is a measure of economic activity that reflects the value of goods and services produced in each region. GDP is presented in current dollars per capita.

Source: Bureau of Economic Analysis; U.S. Census Bureau, 2017 Population Estimates

Per Capita Income represents total personal income received by residents of a geographic area divided by population. Sources of income are wages, salaries, proprietors' income, interest, dividends, rent, and transfer payments.

Average Wage per Job is a measure of all wages and salaries divided by all wage and salary employment.

Average Proprietors' Income is the quotient of total proprietors' income divided by total proprietors' employment. A proprietor is someone who is self-employed.

Transfers per Capita represents all current transfer receipts for a geographic area divided by the population of the area. Current transfer receipts are receipts of persons from government and business for which no current services are performed. These include Social Security benefits, medical benefits, veterans' benefits and unemployment insurance benefits. **Dividends, Interest, and Rent per Capita** represents total income from stock dividends; interest from bonds, savings accounts, or direct lending; and income from rental of real estate or equipment; all divided by total population.

Average Earnings per Job is the total of all wages, salaries, and proprietors' income in a given area, divided by total employment in that area.

For the change in income tables, 2012 values were adjusted for inflation to calculate change from 2012 to 2016.

Source: Bureau of Economic Analysis, Table CA4

Tables 2-21 through 2-26: For the change in income tables, 2012 values were adjusted for inflation to calculate change from 2012 to 2016.

Median Monthly Housing Costs includes all occupied units with monthly housing costs. Included are costs associated with rent, mortgages, utilities, and maintenance incurred by the occupant of the unit.

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates (B25105)

Purchasing Power presents real personal income as reported by the Bureau of Economic Analysis. Real personal income is based on personal income divided by regional price parities (RPP) and the national personal consumption expenditure (PCE) price index, and is presented in chained 2008 dollars.

Source: Bureau of Economic Analysis, Real Personal Income (RPI1)

Low-Wage Jobs, Middle-Wage Jobs, High-Wage Jobs, and the change in wage tables (**Tables 2-32 through 2-34**): A low-wage job is defined as a full-time full-year job that pays less than two-thirds of the median wage for a full-time full-year job. A high-wage job is defined as a job that pays more than twice the median wage. A middle-wage job is one that pays between two-thirds of the median and twice the median. The threshold for a low-wage job was \$26,667 in 2012, and was \$32,000 in 2016. The threshold for a high-wage job was \$80,000 in 2012, and was \$96,000 in 2016. The tables are based on 2016 American Community Survey microdata published by the IPUMS project of the University of Minnesota.

Source: IPUMS-USA, University of Minnesota, www.ipums.org

Venture Capital Investment shows disbursements to companies receiving venture capital funding from early to late stages.

Venture Capital shows total venture capital investment in a geographic region divided by the total number of workers in that region.

Source: Thomson-Reuters SDC Platinum database accessed at the Kopolow library of the Olin Business School at Washington University; Bureau of Labor Statistics, Current Employment Statistics

Patents measures utility patents for inventions that are new and useful divided by the number of wage and salary employees. It does not include design patents, which are issued for the ornamental design of an item, or plant patents, which are issued for invented or discovered plants. About 90 percent of patents issued by the USPTO in recent years have been utility patents.

Source: U.S. Patent and Trademark Office, Patent Technology Monitoring Team, General Patent Statistics Reports; Bureau of Economic Analysis.

Manufacturing and Tech Startups shows firms in manufacturing, professional, scientific, and technical services industries with less than two years in business per 100,000 residents.

Source: U.S. Census Bureau, Annual Survey of Entrepreneurs (CSA02) and Population Estimates.

Incorporated Self-Employment shows the percentage of employed people that are self-employed in incorporated businesses. Incorporated businesses enjoy several advantages over unincorporated businesses, including limited liability, tax considerations, and enhanced opportunity to raise capital.

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates (B24080).