WHERE
WE
STAND

The Strategic Assessment of the St. Louis Region

**8th Edition
2018**

EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Lead Authors: Dan Hutti, John Posey, and Mary Rocchio

Contributors: Ben Fleschert, Ross Friedman, Ted LaBoube, Jennifer Reiman, and Michael Wohlstadter

Graphic Design: Janise Chamblin

Table of Contents

"Where We Stand provides an indication of where we should focus our efforts as a region as well as metrics we can use to track our progress in assembling building blocks of success."

Where do we stand?

In May of this year, the East-West Gateway Board of Directors along with representatives from the business and non-profit sectors gathered to discuss three topic areas they identified as strategic priorities for the region. These regional leaders affirmed that economic development, workforce development, and public safety are three areas that require a regional collaborative effort.

County executives, along with other elected officials and regional citizens make up the East-West Gateway Board of Directors (the Board). The Board represents all parts of the region—urban, suburban, and rural, and the group includes political independents as well as members of multiple political parties. In an era when division and mistrust characterize much of our nation's public discourse, this meeting showed that another way is possible. The Board summit exemplified the possibility of individuals from very different backgrounds, and with very different philosophies, listening respectfully to each other, seeking common ground, and finding ways to work together. At the direction of the Board, we are now convening working groups to determine how different jurisdictions in the region can work together to address each of these pressing concerns.

Since 1992, East-West Gateway has published seven editions of *Where We Stand*. Each edition has compared the St. Louis metropolitan region with a group of other large metropolitan areas that we call our peer regions. Through the years, we have been inspired by the quality of discussions that the research has provoked.

In this, the eighth edition, we are doing things a little differently. We narrowed our focus to home in on the three strategic priorities for the region identified by our Board of Directors. This edition of *Where We Stand* offers chapters on each of the three topics, plus an introductory chapter on the changing demographics of the region.

Looking for your favorite table from past editions but don't see it? For those familiar with *Where We Stand*, you may notice another change—the eighth edition does not include many of the tables on very important topics that were in previous editions. Our newly expanded *Where We Stand* webpage is allowing us to focus solely on the Board's strategic priority areas in this publication and still provide you with your favorite tables from past editions. Check
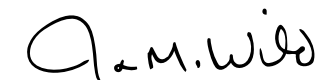
out the webpage for tables that appear in this publication as well as additional comparative metrics that cover a multitude of topics at www.ewgateway.org/wws.

Another subtle change in this edition is our treatment of racial disparity. The last three editions of *Where We Stand* had separate sections that discussed differences in such topics as income and poverty among blacks and whites. Since the Ferguson Commission report, many of us have become, belatedly, more aware of the need to incorporate racial equity in discussions of every major issue facing the region. The Board also recognized this fact in their discussion at the summit in May. Thus, in this edition, discussions of racial equity and disparity are built into each chapter, rather than treated as a separate topic. Building a more inclusive region is a goal that is complementary—and indeed, necessary—to addressing the three strategic priorities addressed in this report.

Our hope is that this report will serve as a starting point for the discussions of the working groups on economic development, workforce development, and crime and public safety. There is no single region that St. Louis can or should emulate. Many regions

are strong in some areas despite struggling in others. Some regions have explosive population and employment growth, but weak income growth. In some regions you can find a very high income level, but also an exorbitant cost of living. Even so, regions with at least moderate levels of growth in income and employment do seem to have a few things in common—a highly educated workforce, an ecosystem of innovation that supports entrepreneurs, high quality infrastructure, and a culture of inclusion. *Where We Stand* provides an indication of where we should focus our efforts as a region as well as metrics we can use to track our progress in assembling building blocks of success.

We hope that you will also use the tables in this report as a starting point to engage in candid and thoughtful discussions of regional issues with your friends and colleagues.

James M. Wild, Executive Director, East-West Gateway Council of Governments

Executive Summary

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.

This edition, the eighth, 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. This publication 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. An introductory chapter on demographics is also included to provide an overview of the population of St. Louis and the peer regions.

The eighth edition of *Where We Stand* shows that St. Louis has many regional assets. St. Louis is above average in the number of adults with college and advanced degrees. Its location and infrastructure make it a national leader in freight and logistics, and its manufacturing sector remains vibrant. Per capita income remains at about the national average, while cost of living is lower than most peer regions. Overall crime rates, including both property and violent crime, are at about the national average.

The region has many challenges as well. It is one of the slowest growing regions in terms of population and employment, and income growth has lagged the rest of the country in recent years. Economic and educational outcomes in the region vary significantly by race and by disability status. And while overall crime rates have dropped over the long term, the rate of violent crime, particularly the murder rate, represents a major challenge for the region.

This edition of *Where We Stand* offers metrics for assessing the performance of the St. Louis region on the strategic priorities. We hope that it provokes thoughtful discussion and debate on important issues facing the St. Louis region and helps the region understand what strengths we have on which to build.

Some Highlights:

- **35 percent of adults in St. Louis** have a bachelor's degree or higher, compared with 32 percent nationally.

- **383 million tons of freight** were shipped to, from, or through St. Louis in 2016, a rate that ranks 13th.

- **115,000 employees work in the manufacturing** industry, making up 8 percent of the workforce in St. Louis.

- St. Louis has the **11th lowest cost of living** with median monthly housing costs under $1,000.

Challenges Persist:

- **17 people:** Between 2015 and 2017, the region's population experienced a net increase of just 17 people.

- St. Louis ranks **in the top 10 on racial disparities** between blacks and whites on:
  - Poverty (ranks 8th),
  - Unemployment (8th),
  - Income (7th),
  - College graduation rates (10th), and
  - Homicide deaths (8th).

- The region has the **3rd highest disparity in unemployment** between adults with disabilities and those without.

- The **murder rate is the 4th highest** among the peer regions.

"This edition, the eighth, 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."

From our Chapter on Demographics

- **2.8 million people** live in the St. Louis region, making it the 21st most populous region in the nation.

- St. Louis has had **population growth of 0.7 percent** since 2010, one of the slowest growth rates of the peer regions.

- St. Louis is the **9th oldest of the peer regions** with a median age of 39.3.

- **136,000 people are foreign-born** residents of the St. Louis region. This makes up 4.9 percent of the regional population and ranks 48th out of the 50 peer regions.

- **367,000 people live with a disability** in St. Louis, making up 13.1 percent of the population and ranking 14th.

The Economy

- **Unemployment stands at 3.7 percent** according to 2017 estimates, one of the lowest of the peer regions.

- As of 2017, **per capita income is $49,510** in the St. Louis region, very close to the national average.

- St. Louis entrepreneurs attracted **$287 million in venture capital investment** in 2017, ranking 28th among the peer regions.

- Freight shipped to, from, or through the region was **valued at $354 billion** in 2016, one of the highest values of the peer regions.

- Between 2005 and 2015, nearly **7,000 utility patents** were granted to inventors living in St. Louis.

- Black St. Louis residents are nearly three times more likely to be unemployed and more than **three times as likely** to live in poverty than white St. Louis residents.

- Adults with disabilities are **also three times more likely** to be unemployed and are nearly three times more likely to live in poverty than adults without disabilities.

The Region's Workforce and Education

- St. Louis has had **one of the largest increases in college attainment** in the country, ranking 8th.

- **274,000 adults have an advanced degree,** making up 14.1 percent of adults of this region and ranking 18th.

- White adults are **more than twice as likely to attain a college education** compared to black adults.

- Out of 185,000 working-age adults who live with a disability, **only 38.3 percent are employed,** ranking 30th.

- With around **15 students per teacher, St. Louis has one of the lowest pupil-teacher** ratios of the peer regions.

- The region **ranks 5th on the use of out-of-school suspension** as a disciplinary tactic.

- On average, black students **miss more than six times as many days of school** because of suspension than white students.

Crime and Public Safety

- **384 people were murdered** in 2017, a rate of 12.6 murders per 100,000 people.

- **St. Louis has the highest black homicide rate** of all the peer regions.

- In St. Louis, **85 percent of homicides involved firearms** in 2016.

- Over **1,000 people died of drug- and alcohol-related causes** in 2016, which is a rate of 39.8 deaths per 100,000 people. This is the 14th highest rate of the peer regions.

- Opioid drugs were involved in **67 percent of all drug-related deaths** in St. Louis.

- **433 people died with synthetic drugs** as a contributing cause.

Guide to Where We Stand

Where does the St. Louis region stand compared to peer metropolitan regions? This strategic assessment of the St. Louis region, *Where We Stand*, addresses that question by providing data on social and economic characteristics of the 50 most populous regions in the United States. These regions are our domestic competition and are generally a consistent yardstick to gauge "Where We Stand."

Since 1992, East-West Gateway has ranked St. Louis among its peer metropolitan regions. This eighth edition of *Where We Stand* continues to provide objective, reliable, and verifiable data that can be used to assess the health and competitiveness of the St. Louis region. The document includes 130 *Where We Stand* (WWS) tables. These and additional tables are available at www.ewgateway.org/wws. A consistent format and terminology is used for all of the WWS tables.

Peer Regions: The WWS tables compare St. Louis to 49 other large regions. See page vii for a map of the 50 peer regions.

Midwest Regions: Each WWS table highlights St. Louis along with nine other regions that are located in the Midwest. They are the regions that are geographically close to St. Louis and share similar histories and patterns of development.

United States or Peer Average: When possible, each WWS table provides data for the United States. When data for the United States as a whole is not available, or when the table is comparing absolute values and not relative values, such as ratios or percentages, an average for the peer regions is included.

MSAs: Unless otherwise noted, data in the WWS tables are for Metropolitan Statistical Areas (MSAs). An MSA is a federally designated geography that groups counties in the United States together based on population and commuting patterns. See page viii for more detail on MSAs. The terms "MSAs," "regions," "peer regions," and "metro areas" are used interchangeably throughout this report.

East-West Gateway Region: Data for some supplemental tables and charts are for the "East-West Gateway Region," also referred to as the "EWG Region." The East-West Gateway Council of Governments serves Madison, Monroe, and St. Clair counties in Illinois, as well as the city of St. Louis and the counties of Franklin, Jefferson, St. Charles, and St. Louis in Missouri.

Rank Order: For consistency, the peer regions are presented from highest to lowest numeric value in all WWS tables. The ordering of the data is not meant to suggest any positive or negative judgment associated with a given measure.

In WWS tables, most data are rounded to the tenths place value (one digit after the decimal point) for presentation purposes. When possible, the rank of the regions is based on the actual value, which may extend beyond a single decimal place. In some instances there appears to be a tie between regions, but the rank of the region is based on the unrounded value. When peer regions have the same value according to the source data they are assigned the same rank.

Sources and Notes: Additional notes on the *Where We Stand* tables are included at the end of each chapter. Notes include definitions of terms and additional information about data sources.

More on WWS: The data in this publication as well as other WWS publications and additional WWS data tables can be found at www.ewgateway.org/wws. Email wws@ewgateway.org with feedback, questions, or to subscribe to the WWS email list.

St. Louis and our Peer Regions

Legend:
- Peer Regions
- Midwest Peer Regions

Seattle · Portland · Salt Lake City · Sacramento · San Francisco · San Jose · Los Angeles · Riverside · San Diego · Phoenix · Las Vegas · Denver · Oklahoma City · Dallas · Austin · San Antonio · Houston · Minneapolis · Milwaukee · Chicago · Kansas City · St Louis · Indianapolis · Columbus · Cleveland · Cincinnati · Louisville · Detroit · Buffalo · Nashville · Memphis · Birmingham · Atlanta · New Orleans · Tampa · Miami · Orlando · Jacksonville · Charlotte · Raleigh · Virginia Beach · Richmond · Washington, D.C. · Baltimore · Philadelphia · New York · Pittsburgh · Hartford · Providence · Boston

Guide to Where We Stand

Population

The WWS peer regions are the 50 Metropolitan Statistical Areas (MSAs) with the largest populations as of July 1, 2017. Populations of the peer regions range from 1.1 million in Buffalo to 20.3 million in New York. The average population among the peer regions is 3.6 million.

St. Louis is just below the average, but the region has a larger population than most of the peers. St. Louis ranks as the 21st most populous MSA in the United States with a population of 2.8 million. See the Demographics chapter for population estimates for the all of the peer regions.

Most of the peer Midwest regions have a smaller population than St. Louis. The population of Chicago is two to six times larger than that of the other peer Midwest regions.

Land Area

The size of the peer regions varies greatly. Covering 27,263 square miles, Riverside is twice as large as the 2nd largest MSA and more than 18 times larger than the smallest MSA (Milwaukee). The St. Louis region ranks 9th with a land area of 7,863 square miles, more than the area of six U.S. states.[1] The land area table does not appear in this publication but is one of many additional tables available at www.ewgateway.org/wws.

Defining MSAs

Currently, there are 383 MSAs in the United States. Each MSA has an urbanized area with a population of at least 50,000 (also referred to as "urban area" or "core"). Counties that contain the urbanized area are considered central counties. Any adjacent, or outlying counties qualify as part of an MSA if 25 percent of employed residents in that county commute to the central counties for work or at least 25 percent of workers in that county reside in the central counties.

Redefining MSAs

After each decennial census, the U.S. Office of Management and Budget (OMB) adjusts the boundaries of MSAs. Current MSA boundaries and delineations were published and went into effect on February 28, 2013, with amendments in 2015 and 2017 to add the new MSAs of Enid, Oklahoma and Twin Falls, Idaho. Readers should be aware that editions of *Where We Stand* published prior to 2013 were based on different MSA boundaries, and will not be consistent with current boundaries. In this publication, historical data was adjusted to the current MSA boundaries whenever possible. In some cases it is not possible to adjust the boundaries.

These instances are noted in the "sources and notes" pages at the end of each chapter.

St. Louis 15 County MSA

The St. Louis MSA, as designated by the federal Office of Management and Budget in 2013, includes the 15 counties depicted on the map. The city of St. Louis and surrounding seven counties that appear in purple are those served by the East-West Gateway Council of Governments.

See page 4 for population trends for each county in the St. Louis MSA.
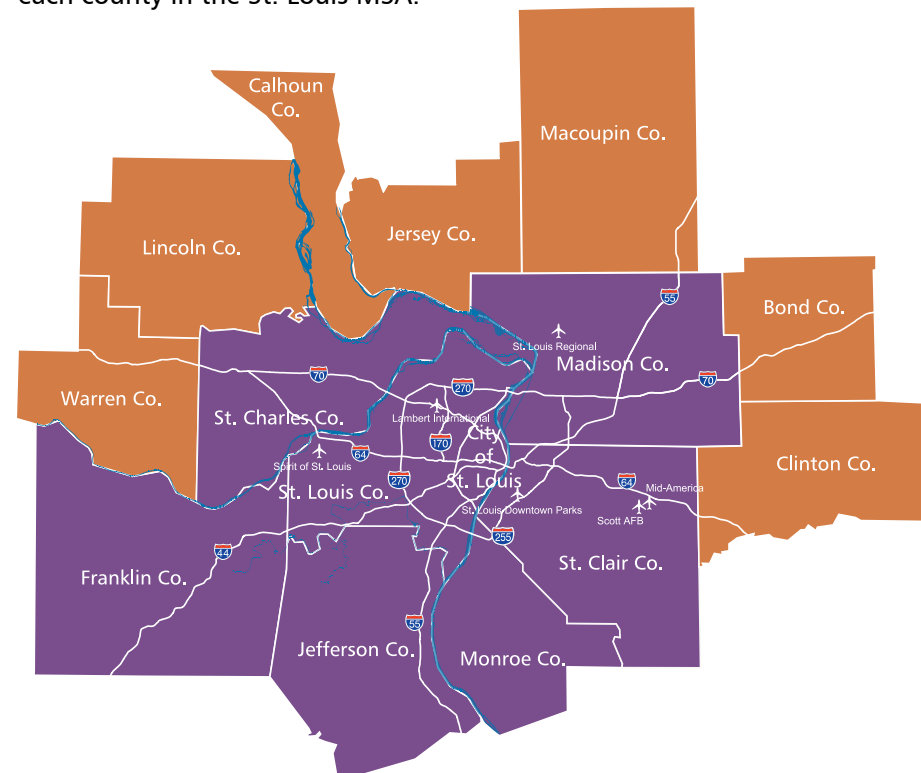
1 The land areas of Rhode Island, Delaware, Connecticut, Hawaii, New Jersey, and Massachusetts are each less than 7,801 square miles.

Population Change

—See page 3 for WWS table with complete data and rankings—

Percent Change, 2010-2017

-1.0   23.3
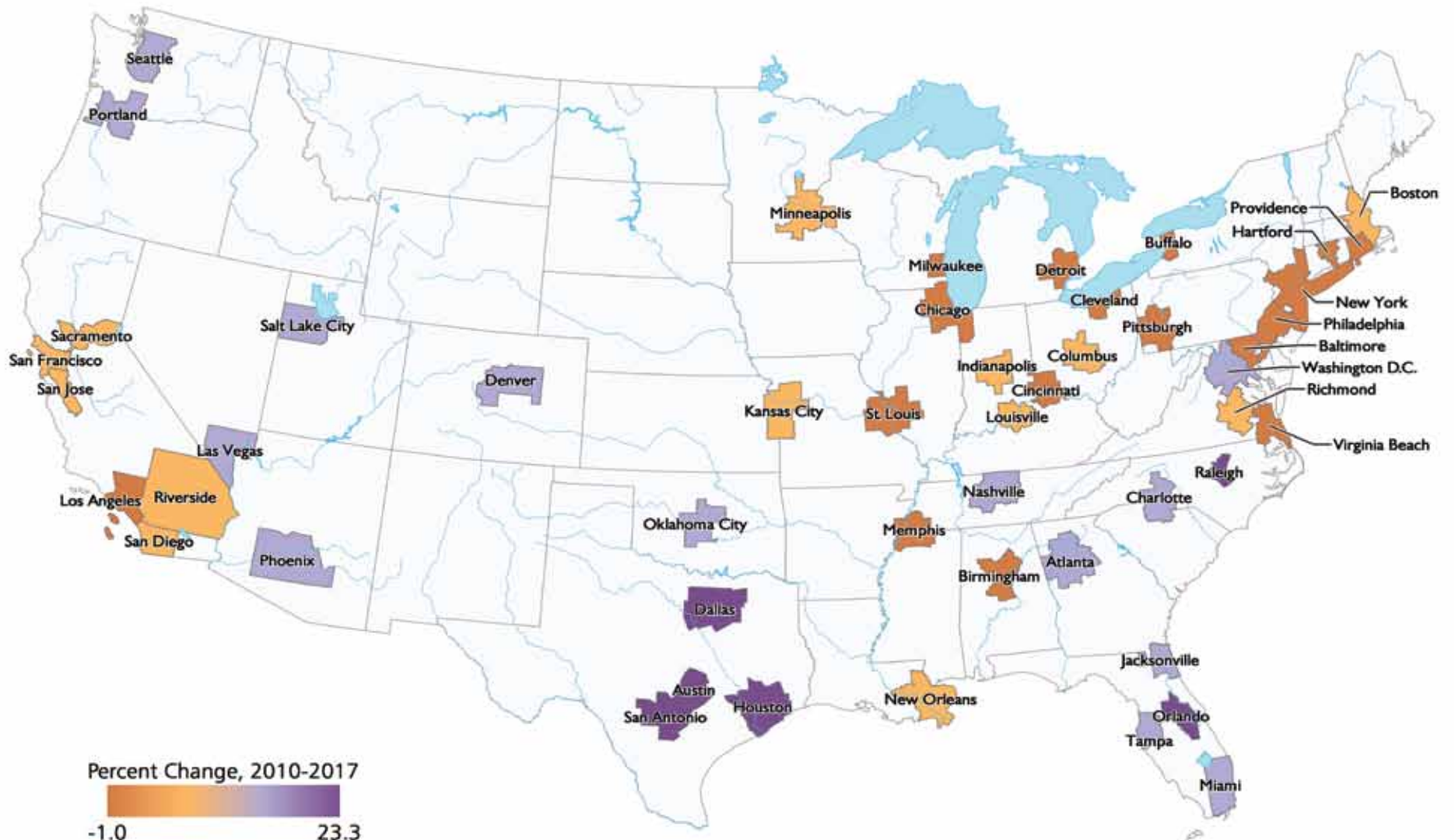
Introduction

Demographic shifts pose challenges to the St. Louis region and some opportunities as well. In 2011, the oldest members of the baby boom generation turned 65, and the senior population will continue to expand at least until the youngest of the boomers become senior citizens in the year 2029. Like other regions that were historically oriented toward manufacturing, the St. Louis area is aging more quickly than the rest of the country and growing more slowly. In St. Louis, the population aged 18 to 64, often considered the prime working-age population, will likely decline in absolute terms over the next 20 years. Opportunities exist to meet workforce needs by attracting immigrants and by expanding employment opportunities for groups that have previously been marginalized.

Population

Table 1-01: In 2017, the population of the St. Louis Metropolitan Statistical Area (MSA) was estimated to be 2.8 million, making it the 21st largest metropolitan area in the country. St. Louis slipped three positions since 2010, having been passed in the last seven years by Tampa, Baltimore, and Denver. At current growth rates, Charlotte could pass St. Louis in the middle of the next decade.

Table 1-02: In the decade thus far, St. Louis has grown by seven-tenths of 1 percent. All but five of the peer regions have experienced higher population growth rates in this decade. Of the five regions with the slowest growth, three—Hartford, Cleveland, and Pittsburgh—have lost population since 2010. These regions were among the world leaders in manufacturing output as late as the 1970s, and they were the hardest-hit by the economic restructuring that occurred over the last four decades.

Table 1-01 Population

2017

1	New York	20,320,876
2	Los Angeles	13,353,907
3	Chicago	9,533,040
4	Dallas	7,399,662
5	Houston	6,892,427
6	Washington, D.C.	6,216,589
7	Miami	6,158,824
8	Philadelphia	6,096,120
9	Atlanta	5,884,736
10	Boston	4,836,531
11	Phoenix	4,737,270
12	San Francisco	4,727,357
13	Riverside	4,580,670
14	Detroit	4,313,002
15	Seattle	3,867,046
16	Minneapolis	3,600,618
Peer Average		**3,596,525**
17	San Diego	3,337,685
18	Tampa	3,091,399
19	Denver	2,888,227
20	Baltimore	2,808,175
21	**St. Louis**	**2,807,338**
22	Charlotte	2,525,305
23	Orlando	2,509,831
24	San Antonio	2,473,974
25	Portland	2,453,168
26	Pittsburgh	2,333,367
27	Sacramento	2,324,884
28	Las Vegas	2,204,079
29	Cincinnati	2,179,082
30	Kansas City	2,128,912
31	Austin	2,115,827
32	Columbus	2,078,725
33	Cleveland	2,058,844
34	Indianapolis	2,028,614
35	San Jose	1,998,463
36	Nashville	1,903,045
37	Virginia Beach	1,725,246
38	Providence	1,621,122
39	Milwaukee	1,576,236
40	Jacksonville	1,504,980
41	Oklahoma City	1,383,737
42	Memphis	1,348,260
43	Raleigh	1,335,079
44	Richmond	1,294,204
45	Louisville	1,293,953
46	New Orleans	1,275,762
47	Hartford	1,210,259
48	Salt Lake City	1,203,105
49	Birmingham	1,149,807
50	**Buffalo**	**1,136,856**

Source: U.S. Census Bureau, Population Estimates

Table 1-02 Population Change

Percent change, 2010-2017

1	**Austin**	**23.3**
2	Raleigh	18.1
3	Orlando	17.6
4	Houston	16.4
5	San Antonio	15.5
6	Dallas	15.1
7	Charlotte	13.9
8	Nashville	13.9
9	Denver	13.5
10	Phoenix	13.0
11	Las Vegas	13.0
12	Seattle	12.4
13	Jacksonville	11.8
14	Atlanta	11.3
15	Tampa	11.1
16	Miami	10.6
17	Salt Lake City	10.6
18	Oklahoma City	10.4
19	Washington, D.C.	10.3
20	Portland	10.2
21	Columbus	9.3
22	San Francisco	9.0
23	San Jose	8.8
24	Riverside	8.4
25	Sacramento	8.2
26	San Diego	7.8
27	Minneapolis	7.5
28	Indianapolis	7.4
29	New Orleans	7.2
30	Richmond	7.1
31	Boston	6.2
32	Kansas City	6.0
United States		**5.5**
33	Louisville	4.7
34	Los Angeles	4.1
35	New York	3.9
36	Baltimore	3.6
37	Cincinnati	3.0
38	Virginia Beach	2.9
39	Philadelphia	2.2
40	Birmingham	1.9
41	Memphis	1.8
42	Milwaukee	1.3
43	Providence	1.2
44	Chicago	0.8
45	**St. Louis**	**0.7**
46	Detroit	0.4
47	Buffalo	0.1
48	Hartford	-0.2
49	Cleveland	-0.9
50	**Pittsburgh**	**-1.0**

Source: U.S. Census Bureau, Population Estimates

Table 1-03: Although St. Louis has had modest population growth since 2010, the growth rate has slowed over the last two years. Between 2015 and 2016, the region lost about 500 people and then regained them between 2016 and 2017, resulting in an estimated net increase of 17 residents for the two-year period.

Tables 1-04 and 1-05 show two components of population change since 2010. Natural change consists of births minus deaths. As an aging region (see page 5), St. Louis ranks 42nd on natural change, a full percentage point behind the national average. The natural increase of 2.2 percent since 2010 was offset by negative net domestic migration. St. Louis is one of 22 peer regions to lose population through domestic out-migration since 2010. Other Midwest peer regions fared worse—Cleveland, Milwaukee, Detroit, and Chicago all experienced greater losses than St. Louis due to net domestic migration.

Table 1-03
Population Change
Percent change, 2016-2017

1	Austin	2.7
2	Raleigh	2.3
3	Orlando	2.3
4	Las Vegas	2.2
5	Dallas	2.0
6	Charlotte	2.0
7	San Antonio	2.0
8	Jacksonville	1.9
9	Phoenix	1.9
10	Nashville	1.8
11	Tampa	1.8
12	Seattle	1.7
13	Columbus	1.6
14	Atlanta	1.5
15	Salt Lake City	1.4
16	Houston	1.4
17	Sacramento	1.3
18	Denver	1.3
19	Riverside	1.3
20	Portland	1.2
21	Minneapolis	1.2
22	Indianapolis	1.1
23	Washington, D.C.	1.1
24	Kansas City	1.1
25	Richmond	0.9
26	Miami	0.8
27	Oklahoma City	0.8
United States		**0.7**
28	Louisville	0.7
29	Boston	0.6
30	San Diego	0.6
31	Cincinnati	0.6
32	San Francisco	0.6
33	San Jose	0.4
34	New Orleans	0.4
35	Providence	0.3
36	Philadelphia	0.3
37	Baltimore	0.3
38	Birmingham	0.3
39	Memphis	0.2
40	New York	0.2
41	Los Angeles	0.2
42	Buffalo	0.2
43	Detroit	0.2
44	Virginia Beach	0.1
45	**St. Louis**	**0.0**
46	Hartford	0.0
47	Milwaukee	0.0
48	Cleveland	-0.1
49	Chicago	-0.1
50	**Pittsburgh**	**-0.3**

Source: U.S. Census Bureau, Population Estimates

Table 1-04
Natural Change
Births minus deaths as a percent of 2010 population, 2010-2017

1	Salt Lake City	8.2
2	Houston	7.4
3	Austin	7.1
4	Dallas	6.5
5	Washington, D.C.	6.1
6	Raleigh	5.6
7	San Jose	5.6
8	Riverside	5.6
9	San Antonio	5.6
10	San Diego	5.4
11	Atlanta	5.3
12	Denver	5.2
13	Minneapolis	5.1
14	Phoenix	4.9
15	Los Angeles	4.9
16	Seattle	4.7
17	Columbus	4.7
18	Oklahoma City	4.4
19	Las Vegas	4.4
20	Nashville	4.3
21	Indianapolis	4.2
22	Charlotte	4.1
23	Memphis	4.0
24	Kansas City	4.0
25	New York	4.0
26	Virginia Beach	3.9
27	Orlando	3.9
28	Chicago	3.9
29	San Francisco	3.7
30	Portland	3.7
31	Sacramento	3.6
32	Jacksonville	3.2
United States		**3.2**
33	Milwaukee	3.1
34	New Orleans	3.1
35	Cincinnati	2.8
36	Richmond	2.8
37	Baltimore	2.7
38	Miami	2.6
39	Boston	2.5
40	Louisville	2.3
41	Philadelphia	2.2
42	**St. Louis**	**2.2**
43	Birmingham	1.9
44	Detroit	1.7
45	Hartford	0.9
46	Providence	0.8
47	Cleveland	0.7
48	Tampa	0.5
49	Buffalo	0.1
50	**Pittsburgh**	**-1.0**

Source: U.S. Census Bureau, Population Estimates

Table 1-05
Net Domestic Migration
Percent of 2010 population, 2010-2017

1	Austin	13.1
2	Raleigh	9.8
3	Charlotte	8.0
4	San Antonio	7.9
5	Nashville	7.5
6	Tampa	7.4
7	Orlando	7.3
8	Denver	6.5
9	Jacksonville	6.5
10	Phoenix	6.3
11	Las Vegas	6.1
12	Dallas	5.8
13	Portland	4.8
14	Houston	4.6
15	Oklahoma City	4.2
16	Seattle	3.6
17	Atlanta	3.6
18	Sacramento	2.3
19	Richmond	2.3
20	Columbus	2.3
21	New Orleans	2.1
22	Riverside	1.9
23	Indianapolis	1.6
24	Louisville	1.0
25	Kansas City	0.8
26	Salt Lake City	0.5
27	San Francisco	0.5
Peer Average		**0.1**
28	Minneapolis	0.0
29	Birmingham	-0.6
30	Cincinnati	-1.0
31	Pittsburgh	-1.0
32	Miami	-1.1
33	San Diego	-1.2
34	Washington, D.C.	-1.2
35	Boston	-1.2
36	Baltimore	-1.4
37	Providence	-2.1
38	Buffalo	-2.2
39	**St. Louis**	**-2.4**
40	Philadelphia	-2.5
41	Memphis	-3.1
42	Virginia Beach	-3.1
43	Cleveland	-3.1
44	Milwaukee	-3.3
45	Detroit	-3.3
46	Los Angeles	-3.9
47	San Jose	-4.0
48	Hartford	-4.4
49	Chicago	-5.1
50	**New York**	**-5.6**

Source: U.S. Census Bureau, Population Estimates

Table 1-06: Over the course of the current decade, international migration has helped to prevent population loss in the St. Louis region. Net international migration into the St. Louis region was 27,770 from 2010 to 2017. The number of international immigrants in St. Louis is small compared to other peer regions; St. Louis ranks 48th out of 50 for net international migration since 2010. Even so, international migration into the region has combined with population increase from natural causes to outweigh the net loss of about 67,600 people due to domestic migration.

Figure 1-01 shows population change in the counties that make up the St. Louis MSA. The region as a whole gained just under 20,000 people since 2010. St. Charles County showed by far the biggest rise in population, increasing its number of residents by 35,000. This was nearly seven times the amount of growth seen in Jefferson County, the second biggest gainer in the region.

Table 1-06
Net International Migration

Percent of 2010 population, 2010-2017

1	Miami	9.2
2	San Jose	7.2
3	Orlando	6.4
4	New York	5.5
5	Washington, D.C.	5.4
6	Boston	5.0
7	San Francisco	4.9
8	Houston	4.4
9	Seattle	4.1
10	San Diego	3.6
11	Hartford	3.2
12	Los Angeles	3.2
13	Tampa	3.1
14	Dallas	2.9
15	Austin	2.9
16	Providence	2.6
17	Raleigh	2.5
18	Philadelphia	2.5
19	Minneapolis	2.5
20	Atlanta	2.5
21	Columbus	2.4
22	Las Vegas	2.4
23	Baltimore	2.4
United States		**2.3**
24	Sacramento	2.3
25	Buffalo	2.3
26	Jacksonville	2.1
27	Virginia Beach	2.1
28	Richmond	2.1
29	Salt Lake City	2.0
30	Detroit	2.0
31	Nashville	2.0
32	New Orleans	1.9
33	Chicago	1.9
34	San Antonio	1.9
35	Oklahoma City	1.8
36	Charlotte	1.8
37	Denver	1.8
38	Phoenix	1.7
39	Portland	1.7
40	Indianapolis	1.6
41	Louisville	1.5
42	Cleveland	1.5
43	Milwaukee	1.5
44	Cincinnati	1.3
45	Pittsburgh	1.2
46	Kansas City	1.1
47	Riverside	1.0
48	**St. Louis**	**1.0**
49	Memphis	0.8
50	**Birmingham**	**0.6**

Source: U.S. Census Bureau, Population Estimates

Aside from Monroe County, which saw its population grow by about 1,100, all of the counties in the Illinois portion of the region lost population. Collectively, these eight counties lost just under 15,000 people. Population change in these counties reflects broader trends in the state of Illinois, which is one of only three states to lose population since 2010. Between 2016 and 2017, more than 80 percent of Illinois counties lost population. Clearly, the Metro East is not immune to statewide trends.

The city of St. Louis and St. Louis County both experienced population decreases since 2010, according to Census estimates. Together, these two jurisdictions lost about 13,000 in population. Population loss in the city appears to be slowing, as annual declines since 2010 have been about half of those seen in the previous decade. The population of St. Louis County is fairly stable, hovering right around one million.

Figure 1-01: Population Change St. Louis MSA by County, 2010 to 2017				
County	**2010**	**2017**	**Change**	**Percent Change**
Bond	17,768	16,948	-820	-4.6
Calhoun	5,089	4,833	-256	-5.0
Clinton	37,762	37,614	-148	-0.4
Jersey	22,985	21,941	-1,044	-4.5
Macoupin	47,765	45,446	-2,319	-4.9
Madison	269,282	265,428	-3,854	-1.4
Monroe	32,957	34,097	1,140	3.5
St. Clair	270,056	262,479	-7,577	-2.8
Franklin	101,492	103,330	1,838	1.8
Jefferson	218,733	223,810	5,077	2.3
Lincoln	52,566	56,183	3,617	6.9
St. Charles	360,485	395,504	35,019	9.7
St. Louis	998,954	996,726	-2,228	-0.2
Warren	32,513	34,373	1,860	5.7
City of St. Louis	319,294	308,626	-10,668	-3.3
St. Louis MSA	**2,787,701**	**2,807,338**	**19,637**	**0.7**
East-West Gateway Region	2,571,253	2,590,000	18,747	0.7

Source: U.S. Census Bureau, Decennial Census and Population Estimates

Table 1-07: St. Louis is an aging region. With a median age of 39.3, St. Louis ranks 9th among the 50 peer regions. The median age in St. Louis is about 1.2 years older than that of the United States as a whole, and more than six years older than Salt Lake City, the youngest of the peer regions. The only regions with an older median age than St. Louis are Rust Belt regions—Pittsburgh, Cleveland, and Detroit—and regions in Florida, where a greater number of retirees reside. The current median age of 39.3 marks a substantial increase from the median age of 32.8 in 1990. The U.S. median age is projected to increase to 41 by 2050 (Pew Research Center, 2014).

Table 1-08: Despite its high median age, St. Louis is about in the middle with respect to the proportion of the population that is under the age of 18. Children comprise an estimated 22.3 percent of the St. Louis population, about the same as the national average and ranking 28th among the peer regions.

Table 1-09: However, St. Louis is among the regions with the largest proportions of the population aged 65 and older, ranking 8th. One in six St. Louisans is a senior citizen. Though this percentage is large compared to most peer regions, it is nearly tied with the United States as a whole. This is in part due to rural areas of the country tending to have older populations than most metropolitan areas.

Table 1-07
Median Age

2017

1	Pittsburgh	43.3
2	Tampa	42.0
3	Cleveland	41.3
4	Miami	41.0
5	Hartford	40.8
6	Buffalo	40.7
7	Providence	40.2
8	Detroit	40.0
9	St. Louis	39.3
10	San Francisco	39.0
11	Louisville	38.8
11	Richmond	38.8
13	Boston	38.7
13	Philadelphia	38.7
15	Baltimore	38.6
15	Birmingham	38.6
17	New York	38.5
18	Jacksonville	38.3
19	Portland	38.2
20	New Orleans	38.1
United States		**38.1**
21	Milwaukee	37.8
22	Cincinnati	37.7
23	Charlotte	37.5
24	Chicago	37.4
25	Kansas City	37.3
25	Las Vegas	37.3
25	Sacramento	37.3
28	Orlando	37.2
29	San Jose	37.1
29	Seattle	37.1
29	Washington, D.C.	37.1
32	Minneapolis	37.0
33	Los Angeles	36.9
34	Raleigh	36.8
35	Phoenix	36.7
36	Denver	36.6
36	Indianapolis	36.6
38	Atlanta	36.4
38	Nashville	36.4
40	Memphis	36.2
41	Virginia Beach	36.1
42	Columbus	35.9
43	San Diego	35.8
44	Oklahoma City	35.2
45	Dallas	34.9
46	Austin	34.7
46	San Antonio	34.7
48	Riverside	34.5
49	Houston	34.4
50	Salt Lake City	32.9

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B01002)

Table 1-08
Children

Population under age 18 as a percent of total population, 2017

1	Salt Lake City	27.8
2	Houston	26.7
3	Dallas	26.2
4	Riverside	25.9
5	San Antonio	25.4
6	Memphis	24.9
7	Oklahoma City	24.8
8	Indianapolis	24.8
9	Atlanta	24.8
10	Kansas City	24.5
11	Raleigh	24.3
12	Phoenix	24.2
13	Charlotte	24.0
14	Minneapolis	23.8
15	Columbus	23.7
16	Cincinnati	23.6
17	Austin	23.5
18	Las Vegas	23.3
19	Nashville	23.3
20	Milwaukee	23.1
21	Birmingham	23.1
22	Chicago	23.0
23	Washington, D.C.	23.0
24	Sacramento	23.0
25	Denver	22.8
26	Louisville	22.8
United States		**22.6**
27	Jacksonville	22.5
28	St. Louis	22.3
29	San Jose	22.3
30	New Orleans	22.3
31	Detroit	22.3
32	Virginia Beach	22.2
33	Orlando	22.1
34	Los Angeles	21.9
35	Baltimore	21.9
36	San Diego	21.8
37	Philadelphia	21.8
38	Portland	21.7
39	Richmond	21.7
40	Seattle	21.6
41	New York	21.5
42	Cleveland	21.3
43	Buffalo	20.3
44	Miami	20.3
45	Hartford	20.2
46	Tampa	20.2
47	Boston	19.9
48	Providence	19.9
49	San Francisco	19.8
50	Pittsburgh	19.0

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B01001)

Table 1-09
Seniors

Population aged 65 and older as a percent of total population, 2017

1	Pittsburgh	19.5
2	Tampa	19.5
3	Cleveland	18.1
4	Miami	17.9
5	Buffalo	17.6
6	Hartford	16.9
7	Providence	16.7
8	St. Louis	16.1
9	Detroit	16.0
10	Birmingham	15.8
United States		**15.6**
11	Philadelphia	15.6
12	Louisville	15.6
13	Boston	15.3
14	Phoenix	15.3
15	Jacksonville	15.3
16	New York	15.3
17	Milwaukee	15.2
18	New Orleans	15.1
19	San Francisco	15.1
20	Baltimore	15.0
21	Richmond	15.0
22	Sacramento	15.0
23	Cincinnati	14.7
24	Orlando	14.6
25	Portland	14.4
26	Las Vegas	14.4
27	Kansas City	14.4
28	Virginia Beach	14.2
29	Chicago	14.1
30	San Diego	13.6
31	Memphis	13.5
32	Minneapolis	13.5
33	Los Angeles	13.5
34	Oklahoma City	13.5
35	Indianapolis	13.4
36	Charlotte	13.3
37	San Jose	13.1
38	Seattle	13.1
39	Columbus	12.9
40	Nashville	12.8
41	San Antonio	12.8
42	Riverside	12.7
43	Washington, D.C.	12.6
44	Denver	12.6
45	Atlanta	11.9
46	Raleigh	11.7
47	Dallas	11.1
48	Houston	10.8
49	Austin	10.5
50	Salt Lake City	10.4

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B01001)

Table 1-10: Working-age adults form a relatively small proportion of the St. Louis population compared to most of the peer regions. Some 61.6 percent of the population in St. Louis is between the ages of 18 and 64, which is usually considered prime working-age. Other Midwest peers that rank below the national average include Detroit, Cincinnati, Milwaukee, Kansas City, and Cleveland.

Figure 1-02 shows the working-age population for the St. Louis MSA and the United States from 2010 to 2017. Over this time period, this age group increased 3.3 percent for the country as a whole and decreased 1.4 percent in the St. Louis region.

Table 1-11: Young adults between 18 and 34 are a key demographic. These individuals are in the process of putting down roots, starting families, and building careers.

Several different factors explain regions that rank at the top of this table. Austin—with a state capitol, a state university, and a booming technology sector—attracts large numbers of young people through domestic migration. San Diego and Virginia Beach both have substantial military presences. Salt Lake City has a large number of children, who naturally age into the young adult cohort. Midwestern regions with aging populations and Florida regions with large numbers of retirees are at the bottom of this ranking, with St. Louis at 45th.

Figure 1-02
Working-Age Adult (Aged 18-64) Population
St. Louis MSA and United States, 2010 to 2017
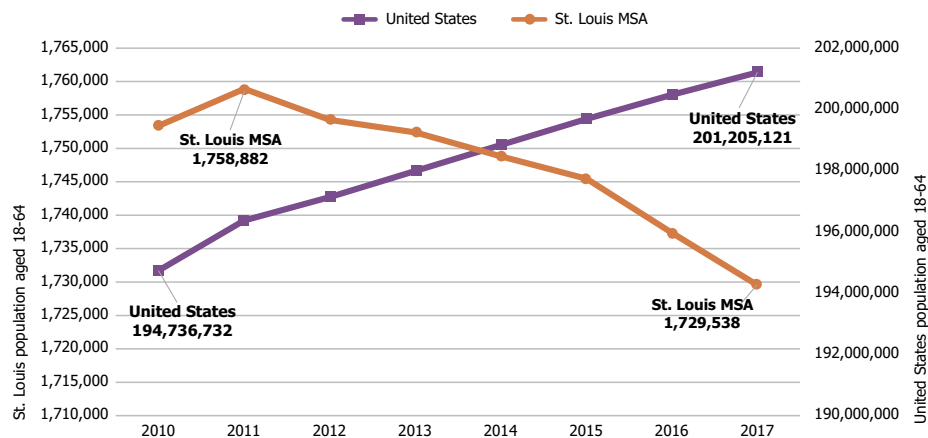
Source: U.S. Census Bureau, Population Estimates.

Table 1-10
Working-Age Adults
Population aged 18 - 64 as a percent of total population, 2017

1	Austin	66.1
2	Seattle	65.3
3	San Francisco	65.0
4	Boston	64.7
5	Denver	64.6
6	Los Angeles	64.6
7	San Jose	64.6
8	San Diego	64.6
9	Washington, D.C.	64.4
10	Raleigh	64.0
11	Nashville	63.9
12	Portland	63.8
13	Virginia Beach	63.6
14	Columbus	63.4
15	Providence	63.4
16	Atlanta	63.4
17	Orlando	63.3
18	Richmond	63.3
19	New York	63.2
20	Baltimore	63.0
21	Hartford	62.9
22	Chicago	62.8
23	Dallas	62.7
24	Minneapolis	62.7
25	Charlotte	62.6
26	Philadelphia	62.6
27	New Orleans	62.6
28	Houston	62.5
29	Las Vegas	62.3
30	Jacksonville	62.2
31	Sacramento	62.0
32	Buffalo	62.0
33	San Antonio	61.8
34	Indianapolis	61.8
35	Miami	61.8
United States		**61.8**
36	Salt Lake City	61.7
37	Detroit	61.7
38	Cincinnati	61.7
39	Oklahoma City	61.7
40	Louisville	61.7
41	Milwaukee	61.7
42	**St. Louis**	**61.6**
43	Memphis	61.6
44	Pittsburgh	61.5
45	Riverside	61.3
46	Kansas City	61.2
47	Birmingham	61.2
48	Cleveland	60.7
49	Phoenix	60.5
50	**Tampa**	**60.3**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B01001)

Table 1-11
Young Adults
Population aged 18 - 34 as a percent of total population, 2017

1	Austin	27.1
2	San Diego	26.8
3	Virginia Beach	26.2
4	Salt Lake City	25.6
5	Los Angeles	25.3
6	Boston	25.1
7	Seattle	25.0
8	San Antonio	25.0
9	Columbus	25.0
10	Oklahoma City	24.9
11	Riverside	24.7
12	Orlando	24.6
13	Denver	24.6
14	Nashville	24.6
15	San Jose	24.5
16	San Francisco	24.1
17	Houston	24.1
18	Dallas	23.9
19	Washington, D.C.	23.8
20	Sacramento	23.7
21	Providence	23.7
22	New York	23.7
23	Richmond	23.5
24	Chicago	23.5
25	Phoenix	23.4
26	Philadelphia	23.4
27	Baltimore	23.3
28	New Orleans	23.3
29	Las Vegas	23.3
30	Portland	23.3
United States		**23.3**
31	Memphis	23.2
32	Minneapolis	23.2
33	Atlanta	23.1
34	Buffalo	23.1
35	Raleigh	23.1
36	Indianapolis	23.0
37	Hartford	23.0
38	Milwaukee	22.9
39	Jacksonville	22.9
40	Cincinnati	22.7
41	Charlotte	22.4
42	Louisville	22.2
43	Kansas City	22.1
44	Birmingham	22.1
45	**St. Louis**	**22.1**
46	Pittsburgh	21.7
47	Miami	21.6
48	Detroit	21.6
49	Cleveland	21.3
50	**Tampa**	**21.0**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B01001)

Figure 1-03: Age pyramids are used to show current and projected age distributions by sex. This figure shows the age pyramid for 2010 and the projected age pyramid for 2030. In both, the male population is shown in purple and the female in orange. The bulge in the middle of the 2010 pyramid represents the baby boom generation. The most notable projected change is that as this cohort ages, the region is projected to see a dramatic increase in the number of persons over the age of 65. In the absence of increases of in-migration, the region can expect to see absolute losses in both the youth and working-age population through 2030.

"In the absence of increases of in-migration, the region can expect to see absolute losses in both the youth and working-age population through 2030."

**Figure 1-03
Age Pyramid**

East-West Gateway Region, 2010

Projected Age Pyramid

East-West Gateway Region, 2030
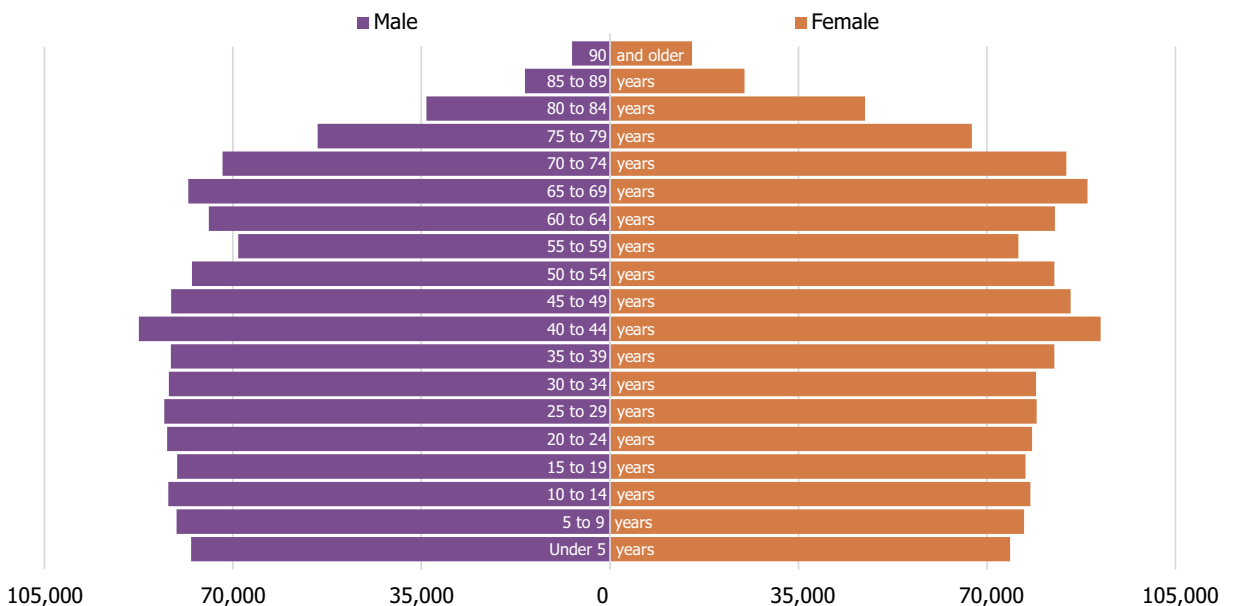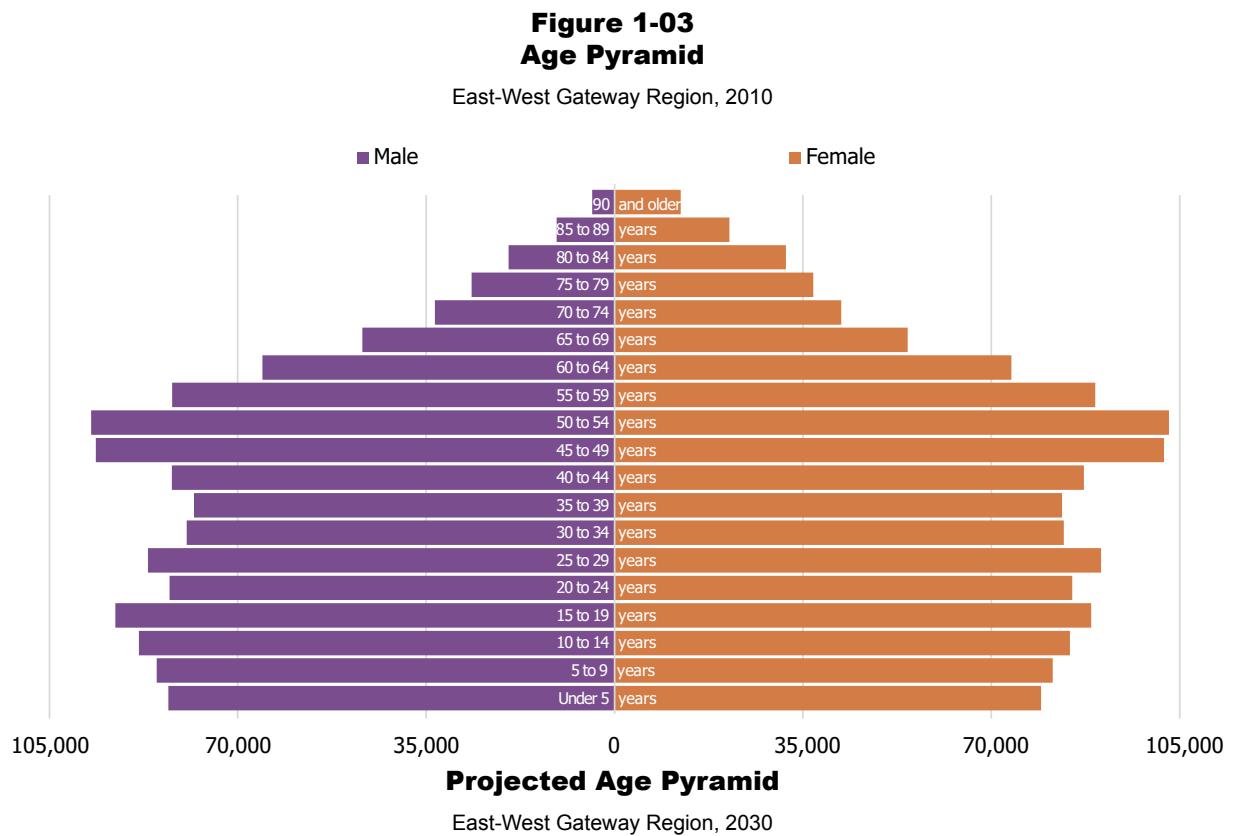
Source: U.S. Census Bureau; Centers for Disease Control and Prevention; East-West Gateway.

Table 1-12: One result of an aging population is relatively fewer households with children.[1] St. Louis ranks 37th on the percentage of households that are families with children. Some 26.6 percent of households have children under the age of 18, ranking below the national average. Most of the regions with a smaller proportion of youth population than St. Louis are either old industrial regions or regions in Florida.

Table 1-13: An outcome of having relatively few families with children is a relatively smaller average household size. St. Louis ranks 47th in this metric, with an average household size of 2.5. There is not a vast difference between most of the peer regions on this metric, as 34 of the 50 vary from St. Louis by two-tenths of a percentage point or less. Six regions in the West are at the top of the rankings on this metric.

Table 1-14: Regions with older populations also have more households consisting of older adults living alone. Since women, on average, have longer lifespans, there are more women over age 65 living alone than men in this age cohort. The Institute on Aging (IOA) reports that older women are twice as likely as men to live alone. IOA also reports that older Hispanic and Asian adults are less likely to live alone than are black or white senior citizens (IOA, 2018).

1 The U.S. Census Bureau defines a "household" as follows: "A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. There are two major categories of households, "family" and "nonfamily."

Table 1-12
Families with Children

Percent of all households, 2017

#		
1	Houston	34.4
2	Dallas	33.8
3	Raleigh	33.8
4	Salt Lake City	33.8
5	Riverside	33.6
6	San Jose	33.0
7	Atlanta	31.6
8	San Antonio	31.0
9	Charlotte	30.3
10	Washington, D.C.	30.0
11	Minneapolis	29.7
12	Sacramento	29.6
13	Columbus	29.5
14	Indianapolis	29.5
15	Austin	29.3
16	San Diego	29.2
17	Oklahoma City	29.0
18	Nashville	28.9
19	Los Angeles	28.7
20	Kansas City	28.7
21	Jacksonville	28.6
22	Virginia Beach	28.3
23	Chicago	28.3
24	Denver	28.2
25	Orlando	28.2
26	New York	27.8
27	Las Vegas	27.8
28	Seattle	27.7
29	Phoenix	27.5
30	San Francisco	27.4
31	Memphis	27.4
United States		**27.4**
32	Portland	27.3
33	Richmond	27.3
34	Cincinnati	27.1
35	Baltimore	27.1
36	Milwaukee	26.8
37	**St. Louis**	**26.6**
38	Philadelphia	26.5
39	Louisville	26.4
40	Birmingham	26.3
41	Providence	26.2
42	Boston	26.2
43	Detroit	26.0
44	Miami	25.4
45	Hartford	25.4
46	Buffalo	24.7
47	New Orleans	24.4
48	Cleveland	23.8
49	Tampa	23.2
50	Pittsburgh	22.6

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B11003)

Table 1-13
Average Household Size

2017

#		
1	Riverside	3.3
2	Los Angeles	3.0
3	San Jose	3.0
4	San Antonio	3.0
5	Salt Lake City	3.0
6	Houston	2.9
7	Miami	2.9
8	San Diego	2.9
9	Dallas	2.8
10	Orlando	2.8
11	Las Vegas	2.8
12	Phoenix	2.8
13	Washington, D.C.	2.8
14	New York	2.8
15	Sacramento	2.8
16	Atlanta	2.8
17	Austin	2.7
18	San Francisco	2.7
19	Chicago	2.7
20	Memphis	2.7
21	Raleigh	2.7
United States		**2.6**
22	Oklahoma City	2.6
23	Charlotte	2.6
24	Jacksonville	2.6
25	Richmond	2.6
26	Nashville	2.6
27	New Orleans	2.6
28	Baltimore	2.6
29	Philadelphia	2.6
30	Virginia Beach	2.6
31	Denver	2.6
32	Portland	2.6
33	Indianapolis	2.6
34	Minneapolis	2.6
35	Columbus	2.6
36	Boston	2.6
37	Birmingham	2.6
38	Seattle	2.6
39	Kansas City	2.5
40	Louisville	2.5
41	Tampa	2.5
42	Cincinnati	2.5
43	Detroit	2.5
44	Providence	2.5
45	Hartford	2.5
46	Milwaukee	2.5
47	**St. Louis**	**2.5**
48	Cleveland	2.3
49	Buffalo	2.3
50	Pittsburgh	2.3

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B11002, B11001)

Table 1-14
Persons Aged 65 and Older Living Alone

Percent of all households, 2017

#		
1	Pittsburgh	14.3
2	Buffalo	13.5
3	Cleveland	13.2
4	Tampa	13.0
5	Providence	12.5
6	Miami	12.4
7	Hartford	12.2
8	Louisville	11.5
9	Detroit	11.5
10	Philadelphia	11.5
11	**St. Louis**	**11.5**
12	New Orleans	11.4
13	Boston	11.3
14	New York	11.2
15	Milwaukee	11.0
United States		**10.8**
16	Birmingham	10.7
17	Baltimore	10.6
18	Chicago	10.5
19	Cincinnati	10.3
20	San Francisco	10.2
21	Kansas City	10.1
22	Portland	10.0
23	Memphis	10.0
24	Sacramento	10.0
25	Jacksonville	9.9
26	Minneapolis	9.9
27	Phoenix	9.9
28	Oklahoma City	9.9
29	Richmond	9.6
30	Indianapolis	9.6
31	Virginia Beach	9.3
32	Columbus	9.1
33	Los Angeles	8.9
34	Riverside	8.9
35	Las Vegas	8.7
36	Orlando	8.7
37	San Diego	8.6
38	Seattle	8.6
39	Denver	8.6
40	Charlotte	8.5
41	Washington, D.C.	8.4
42	San Antonio	8.3
43	Nashville	7.7
44	Atlanta	7.5
45	San Jose	7.4
46	Dallas	7.2
47	Salt Lake City	7.2
48	Raleigh	7.0
49	Houston	6.8
50	Austin	6.7

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B11010, B11001)

Race and Ethnicity

Table 1-15: Nationally, Hispanics and Latinos comprise about 18.1 percent of the population, which makes them the largest minority group in the country. Two of the peer regions, San Antonio and Riverside, are majority-Hispanic and Latino. In several peer regions in the Southwest, as well as some in Florida and California, Hispanics and Latinos make up more than a quarter of the population.

Among the largest 50 metropolitan regions, St. Louis ranks 49th on Hispanics and Latinos as a percentage of population, trailed only by Pittsburgh. The Midwest peer regions have few Hispanics and Latinos compared to the rest of the country; aside from Chicago, all of the Midwest peer regions have Hispanic and Latino populations that make up less than 11 percent of the total population. Even by Midwest standards, St. Louis has attracted few Hispanics and Latinos to the region.

Table 1-16: St. Louis also has relatively few persons of Asian ancestry. On this measure, St. Louis ranks 43rd, with Asians making up just 2.6 percent of the population. Nationally, Asians make up 5.5 percent of the population. Coastal regions tend to attract disproportionate numbers of Asians. The top six metropolitan regions on this metric are all located on the Pacific Coast, and the next two peer regions are on the Atlantic Coast.

Figure 1-04: Although these two groups comprise smaller proportions of the population in St. Louis than in most of the peer regions the Hispanic or Latino and the Asian populations in the MSA have grown. From 2007 to 2017, the Hispanic or Latino population increased by about 25,000 people and the Asian population by an estimated 22,500 people.

Figure 1-04
Asian and Hispanic or Latino Population

St. Louis MSA, 2007 to 2017
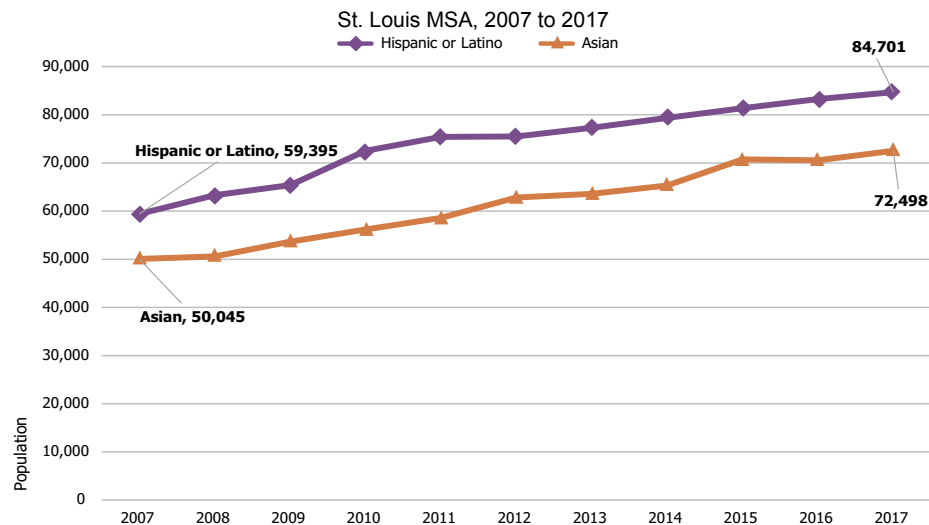
Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B03002).

Table 1-15
Hispanic and Latino Population

Percent of total population, 2017

1	**San Antonio**	**55.4**
2	Riverside	51.1
3	Miami	45.3
4	Los Angeles	45.2
5	Houston	37.3
6	San Diego	33.9
7	Austin	32.5
8	Las Vegas	31.3
9	Phoenix	31.0
10	Orlando	30.5
11	Dallas	28.9
12	San Jose	26.6
13	New York	24.6
14	Denver	23.1
15	Chicago	22.3
16	San Francisco	21.9
17	Sacramento	21.7
18	Tampa	19.4
United States		**18.1**
19	Salt Lake City	17.9
20	Washington, D.C.	15.8
21	Hartford	14.9
22	Oklahoma City	13.4
23	Providence	12.8
24	Portland	12.0
25	Boston	11.2
26	Milwaukee	10.8
27	Atlanta	10.8
28	Raleigh	10.7
29	Charlotte	10.2
30	Seattle	10.1
31	Philadelphia	9.5
32	Kansas City	9.1
33	New Orleans	9.0
34	Jacksonville	8.8
35	Nashville	7.2
36	Indianapolis	6.8
37	Virginia Beach	6.8
38	Richmond	6.1
39	Minneapolis	5.9
40	Baltimore	5.9
41	Cleveland	5.8
42	Memphis	5.6
43	Buffalo	5.0
44	Louisville	4.7
45	Detroit	4.4
46	Birmingham	4.3
47	Columbus	4.1
48	Cincinnati	3.3
49	**St. Louis**	**3.0**
50	**Pittsburgh**	**1.7**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B03002)

Table 1-16
Asian Population (Not Hispanic or Latino)

Percent of total population, 2017

1	**San Jose**	**35.2**
2	San Francisco	26.0
3	Los Angeles	16.0
4	Seattle	13.4
5	Sacramento	12.9
6	San Diego	11.8
7	New York	11.3
8	Washington, D.C.	10.2
9	Las Vegas	10.0
10	Boston	7.9
11	Houston	7.8
12	Dallas	6.7
13	Riverside	6.7
14	Minneapolis	6.7
15	Portland	6.7
16	Chicago	6.5
17	Philadelphia	6.0
18	Atlanta	5.8
19	Raleigh	5.8
20	Austin	5.8
21	Baltimore	5.7
United States		**5.5**
22	Hartford	5.0
23	Columbus	4.3
24	Detroit	4.3
25	Denver	4.3
26	Orlando	4.2
27	Jacksonville	4.1
28	Salt Lake City	3.9
29	Phoenix	3.8
30	Virginia Beach	3.8
31	Milwaukee	3.7
32	Richmond	3.7
33	Charlotte	3.6
34	Tampa	3.5
35	Oklahoma City	3.2
36	Buffalo	3.1
37	Providence	3.1
38	Indianapolis	3.1
39	New Orleans	3.0
40	Kansas City	2.9
41	Nashville	2.7
42	Cincinnati	2.6
43	**St. Louis**	**2.6**
44	Miami	2.4
45	Pittsburgh	2.4
46	San Antonio	2.2
47	Cleveland	2.2
48	Louisville	2.2
49	Memphis	2.0
50	**Birmingham**	**1.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B03002)

Table 1-17: Although their numbers have been small in recent decades, foreign immigrants have contributed to the St. Louis economy and revitalized neighborhoods. Compared to peer regions, St. Louis attracts few immigrants; in 2017, foreign-born residents represented just 4.9 percent of the regional population. There has, however, been growth in recent years. The American Community Survey (ACS) estimates that St. Louis had nearly 119,000 foreign-born residents in 2014, representing 4.2 percent of the population. The latest ACS statistics, for 2017, estimate a foreign-born population of over 136,000, a growth of more than 17,000 in three years.

"Although their numbers have been small in recent decades, foreign immigrants have contributed to the St. Louis economy and revitalized neighborhoods."

Figure 1-05 shows place of birth for the foreign-born population in St. Louis as of 2017. More than 45 percent of foreign-born residents came from Asia, with India (14,644) and China (13,364) representing the most common places of birth. Some 22 percent migrated from elsewhere in the Americas, including nearly 13,000 St. Louisans who were born in Mexico.

Figure 1-05
Region of Birth of Foreign-Born

St. Louis MSA, 2017

Americas 30,322 22%
Europe 29,602 22%
Asia 61,752 45%
Africa 13,783 10%
Oceania 795 1%
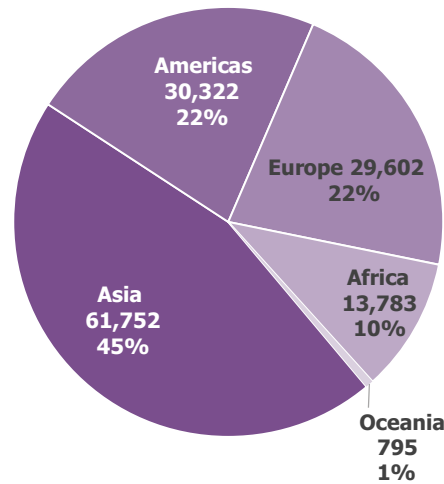
Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B05002).

Table 1-17
Immigrant Population

Percent of total population, 2017

1	**Miami**	**41.0**
2	San Jose	38.9
3	Los Angeles	33.3
4	San Francisco	31.3
5	New York	29.2
6	Houston	23.6
7	San Diego	23.3
8	Las Vegas	23.1
9	Washington, D.C.	23.1
10	Riverside	20.6
11	Sacramento	19.1
12	Boston	19.0
13	Seattle	18.8
14	Orlando	18.7
15	Dallas	18.7
16	Chicago	18.0
17	Austin	15.1
18	Phoenix	14.2
19	Tampa	14.2
20	Atlanta	14.1
United States		**13.7**
21	Providence	13.6
22	Hartford	13.5
23	Raleigh	12.8
24	Portland	12.5
25	Salt Lake City	12.5
26	Denver	12.3
27	San Antonio	11.6
28	Philadelphia	11.1
29	Minneapolis	11.0
30	Baltimore	11.0
31	Detroit	10.3
32	Charlotte	10.2
33	Jacksonville	9.4
34	Nashville	8.1
35	Columbus	7.8
36	New Orleans	7.5
37	Richmond	7.4
38	Oklahoma City	7.4
39	Milwaukee	7.3
40	Indianapolis	7.2
41	Kansas City	6.7
42	Buffalo	6.5
43	Virginia Beach	6.5
44	Louisville	5.9
45	Cleveland	5.8
46	Memphis	5.4
47	Cincinnati	5.0
48	**St. Louis**	**4.9**
49	Pittsburgh	3.8
50	**Birmingham**	**3.7**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B05012)

Tables **1-18** and **1-19:** With relatively few St. Louisans reporting Hispanic or Asian ancestry, non-Hispanic whites and non-Hispanic blacks are the largest racial and ethnic groups in the region. St. Louis ranks above average on both the percentage of population that is black and the percentage of population that is white, with over 90 percent of the population in the region falling into one of these two categories. Regions with the largest percentages of African Americans are either southern MSAs or industrial regions that received large numbers of African Americans in the Great Migration of 1920 to 1970.

Figure 1-06: Among the seven counties and the city of St. Louis that make up the East-West Gateway region, the largest changes in the white and black population groups were in the city of St. Louis, St. Louis County, and St. Charles County. The numbers in this figure reflect births, deaths, people who moved from one county to another within the region, and those who moved into or out of the region.

Figure 1-06
Change in White and Black Population
East-West Gateway Region by County, 2010 to 2017
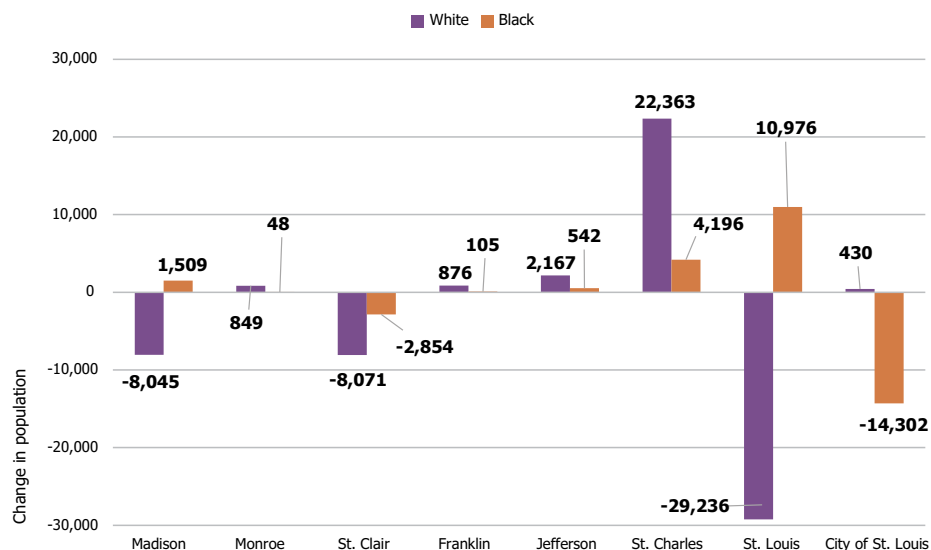
Note: Data is for non-Hispanic blacks and non-Hispanic whites.

Source: U.S. Census Bureau, Population Estimates.

Table 1-18
Black Population (Not Hispanic or Latino)

Percent of total population, 2017

1	Memphis	46.3
2	New Orleans	34.8
3	Atlanta	33.4
4	Virginia Beach	30.0
5	Richmond	29.7
6	Birmingham	28.9
7	Baltimore	28.8
8	Washington, D.C.	24.8
9	Charlotte	22.3
10	Detroit	22.2
11	Jacksonville	21.0
12	Philadelphia	20.4
13	Miami	20.2
14	Cleveland	19.5
15	Raleigh	19.2
16	**St. Louis**	**18.1**
17	Houston	16.9
18	Milwaukee	16.3
19	Chicago	16.3
20	New York	15.6
21	Columbus	15.4
22	Dallas	15.4
23	Orlando	15.3
24	Indianapolis	14.9
25	Nashville	14.8
26	Louisville	14.3
United States		**12.3**
27	Kansas City	12.2
28	Cincinnati	12.0
29	Buffalo	11.8
30	Tampa	11.5
31	Las Vegas	11.4
32	Hartford	10.7
33	Oklahoma City	10.3
34	Minneapolis	8.6
35	Pittsburgh	7.9
36	Boston	7.6
37	San Francisco	6.9
38	Riverside	6.9
39	Austin	6.8
40	Sacramento	6.7
41	San Antonio	6.4
42	Los Angeles	6.3
43	Seattle	5.6
44	Denver	5.5
45	Phoenix	5.1
46	Providence	5.0
47	San Diego	4.6
48	Portland	2.7
49	San Jose	2.4
50	**Salt Lake City**	**1.8**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B03002)

Table 1-19
White Population (Not Hispanic or Latino)

Percent of total population, 2017

1	Pittsburgh	85.3
2	Cincinnati	79.4
3	Buffalo	77.2
4	Louisville	76.2
5	Minneapolis	75.5
6	Providence	75.1
7	**St. Louis**	**73.6**
8	Portland	73.2
9	Columbus	73.0
10	Kansas City	72.5
11	Nashville	72.4
12	Indianapolis	72.3
13	Salt Lake City	71.6
14	Boston	70.3
15	Cleveland	69.8
16	Hartford	67.0
17	Milwaukee	66.5
18	Detroit	66.4
19	Denver	64.2
20	Oklahoma City	64.1
21	Birmingham	63.4
22	Seattle	63.4
23	Jacksonville	63.0
24	Tampa	62.8
25	Philadelphia	61.7
26	Raleigh	61.2
27	Charlotte	61.1
United States		**60.6**
28	Richmond	57.2
29	Baltimore	56.4
30	Phoenix	55.3
31	Virginia Beach	54.9
32	Chicago	52.8
33	Sacramento	52.2
34	Austin	52.0
35	New Orleans	51.1
36	Atlanta	47.0
37	Orlando	46.6
38	Dallas	46.3
39	New York	46.1
40	San Diego	45.3
41	Washington, D.C.	45.2
42	Memphis	43.6
43	Las Vegas	42.3
44	San Francisco	39.4
45	Houston	36.1
46	San Antonio	33.6
47	Riverside	32.0
48	San Jose	31.5
49	Miami	30.3
50	**Los Angeles**	**29.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B03002)
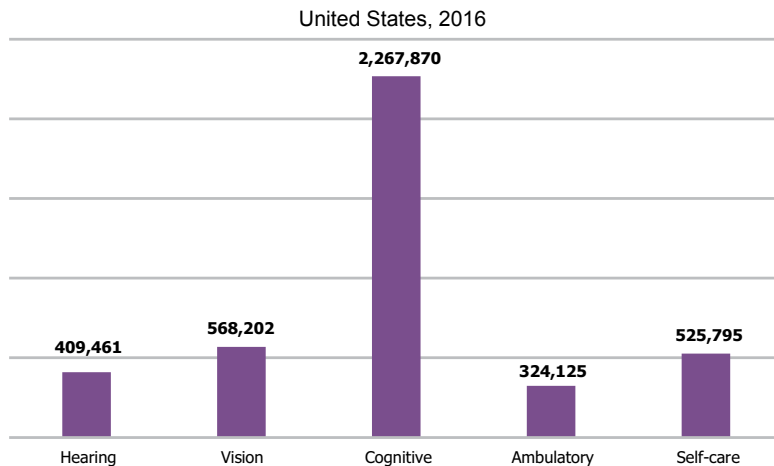
Persons with Disabilities

Table 1-20: St. Louis ranks 14th on percentage of population with a disability, a rate that is close to the national average. There is a wide gap between the region with the largest disability rate, Birmingham, and that with the smallest rate, San Jose. The ACS breaks down disabilities into six broad categories, including vision, hearing, self-care, ambulatory difficulty (trouble with walking or climbing stairs), independent living difficulty, and cognitive difficulty. The tables and figures in this section offer a disaggregation of the overall disability rate by age and type of disability.

Table 1-21: Some 6 percent of children in San Antonio are reported to have at least one disability, triple the rate of San Jose. St. Louis ranks 11th on the percentage of children with a reported disability.

Figure 1-07 shows disabilities of children by category for the United States. By far, the largest category is cognitive. This is a broad category that encompasses a wide variety of conditions, including autism, Down's syndrome, Alzheimer's disease, and others. A report by researchers at Mathematica Policy Research found that attention-deficit/hyperactivity disorder (ADHD) is "the most commonly diagnosed mental disorder among children in the United States" (Collins and Cleary, 2016). It is not possible to calculate the extent to which ADHD contributes to the disparities in children's disability rates. Moreover, it is not clear whether geographic differences in ADHD reflects differences in prevalence rates or differences in diagnosis rates. However, a 2012 analysis by Express Scripts found large geographic disparities in ADHD diagnosis rates, with children in southern states being 63 percent more likely to be diagnosed than children living in western states (Frazee, 2012).

Figure 1-07
Reported Disabilities of Persons Under Age 18

United States, 2016

Category	Value
Hearing	409,461
Vision	568,202
Cognitive	2,267,870
Ambulatory	324,125
Self-care	525,795

Note: An individual may have more than one disability.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S18010).

Table 1-20
Disability Rate

Percent of total population, 2017

#	Region	Rate
1	**Birmingham**	**16.4**
2	Pittsburgh	14.8
3	San Antonio	14.6
4	Cleveland	14.5
5	Virginia Beach	14.3
6	Oklahoma City	14.2
7	New Orleans	14.1
8	Louisville	14.1
9	Tampa	14.0
10	Detroit	13.7
11	Providence	13.5
12	Jacksonville	13.5
13	Buffalo	13.3
14	**St. Louis**	**13.1**
15	Memphis	13.0
	United States	**12.7**
16	Cincinnati	12.6
17	Indianapolis	12.4
18	Philadelphia	12.3
19	Richmond	12.3
20	Orlando	12.0
21	Kansas City	12.0
22	Las Vegas	12.0
23	Nashville	12.0
24	Columbus	11.9
25	Portland	11.8
26	Riverside	11.6
27	Baltimore	11.6
28	Phoenix	11.5
29	Sacramento	11.5
30	Hartford	11.5
31	Seattle	11.1
32	Milwaukee	11.0
33	Miami	10.9
34	Boston	10.7
35	Charlotte	10.3
36	Minneapolis	10.1
37	New York	10.1
38	Atlanta	10.0
39	Chicago	9.9
40	Raleigh	9.9
41	San Francisco	9.7
42	Denver	9.6
43	San Diego	9.6
44	Los Angeles	9.5
45	Dallas	9.5
46	Salt Lake City	9.2
47	Houston	9.2
48	Washington, D.C.	9.0
49	Austin	8.9
50	**San Jose**	**8.2**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18101)

Table 1-21
Children with Disabilities

Percent of children under 18, 2017

#	Region	Rate
1	**San Antonio**	**6.0**
2	Pittsburgh	5.7
3	Orlando	5.4
4	Virginia Beach	5.3
5	Cleveland	5.3
6	Indianapolis	5.2
7	Jacksonville	5.1
8	Providence	5.0
9	Cincinnati	5.0
10	Memphis	4.9
11	**St. Louis**	**4.9**
12	Buffalo	4.8
13	Birmingham	4.8
14	Columbus	4.8
15	Hartford	4.7
16	Detroit	4.6
17	Philadelphia	4.5
18	Oklahoma City	4.3
19	Tampa	4.3
20	Richmond	4.3
21	Baltimore	4.3
	United States	**4.2**
22	New Orleans	4.1
23	Portland	4.0
24	Raleigh	4.0
25	Nashville	4.0
26	Boston	3.9
27	Salt Lake City	3.9
28	Minneapolis	3.9
29	Austin	3.8
30	Phoenix	3.7
31	Milwaukee	3.7
32	Louisville	3.7
33	Kansas City	3.7
34	Las Vegas	3.5
35	Seattle	3.5
36	New York	3.5
37	Dallas	3.4
38	Denver	3.4
39	San Diego	3.4
40	Sacramento	3.4
41	Charlotte	3.4
42	Atlanta	3.3
43	Riverside	3.2
44	Houston	3.1
45	Miami	3.1
46	Washington, D.C.	3.0
47	Los Angeles	2.9
48	San Francisco	2.8
49	Chicago	2.8
50	**San Jose**	**2.1**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18101)

Table 1-22: A fairly wide gap also separates the peer regions on the disability rate for the working-age population—adults aged 18 to 64. The rate of Birmingham is more than double that of San Jose. Nationally, the most commonly reported types of disabilities are those in the cognitive, ambulatory, and independent living categories, which together account for 70 percent of all reported disabilities in this age group. St. Louis ranks 14th, just higher than the national average, with 10.9 percent of the working-age population reporting as having a disability.

Figure 1-08 shows types of disabilities for the national working-age population. Note that an individual may have more than one disability, so the total number of disabilities shown may exceed the total number of disabled persons. Nationally, there are nearly 10 million working-age adults with an ambulatory disability and nearly 9 million with a cognitive disability. Just under 4 million working-age adults have difficulty with either seeing or hearing.

A 2015 study by the Center on Budget and Policy Priorities found that four demographic factors are associated with high rates of participation in the Social Security Disability Insurance program at the state level. These were: a less educated workforce, higher median age, a larger percentage of jobs in goods-producing industries, and fewer foreign-born residents (Ruffing, 2015). Among the 50 peer regions, there is not a statistically significant relationship between the proportions of jobs in goods-producing industries and disability rates among the working-age population. There is, however, a strong negative relationship between the percentage of population that is foreign-born and working-age disability rates.

Statistically, differences in the foreign-born population account for about two-thirds of the variation among peer regions on working-age disabilities. Regions that have larger foreign-born populations tend to have lower rates of working-age adults with disabilities.

The causal mechanism between these factors is unclear. It may be that the migrant population is less likely to develop disabilities or to seek diagnosis for a disability, or it may be that regions that attract large numbers of migrants have occupational structures that put workers at lower risk for occupation-related disabilities.

Figure 1-08
Reported Disabilities of Working Age (aged 18-64) Population

United States, 2016

Note: An individual may have more than one disability.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S18010).

Table 1-22
Working-Age Adults with Disabilities
Percent of adults aged 18 - 64, 2017

1	**Birmingham**	**14.3**
2	Virginia Beach	12.9
3	Oklahoma City	12.9
4	San Antonio	12.8
5	Louisville	12.4
6	New Orleans	12.2
7	Cleveland	12.1
8	Detroit	11.8
9	Pittsburgh	11.7
10	Jacksonville	11.5
11	Providence	11.2
12	Memphis	11.1
13	Cincinnati	10.9
14	**St. Louis**	**10.9**
15	Tampa	10.8
16	Buffalo	10.7
17	Indianapolis	10.7
18	Nashville	10.4
	United States	**10.3**
19	Columbus	10.3
20	Richmond	10.2
21	Kansas City	10.1
22	Las Vegas	10.0
23	Philadelphia	9.8
24	Riverside	9.8
25	Portland	9.6
26	Baltimore	9.6
27	Orlando	9.5
28	Phoenix	9.3
29	Sacramento	9.1
30	Seattle	8.9
31	Milwaukee	8.8
32	Hartford	8.7
33	Charlotte	8.5
34	Atlanta	8.3
35	Minneapolis	8.2
36	Raleigh	8.1
37	Salt Lake City	8.0
38	Boston	7.9
39	Dallas	7.9
40	Chicago	7.7
41	Denver	7.7
42	Houston	7.6
43	Austin	7.5
44	Miami	7.4
45	New York	7.4
46	San Diego	7.1
47	Washington, D.C.	7.0
48	San Francisco	6.9
49	Los Angeles	6.6
50	**San Jose**	**5.5**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18101)

Table 1-23: St. Louis is about in the middle of peer regions on the percentage of adults aged 65 and older with a disability. St. Louis ranks 26th, more than a full percentage point below the national average. The peer regions with the highest senior disability rates also have high working-age disability rates. Birmingham, San Antonio, and Oklahoma City, the three regions with the largest rates of senior disability, were among the top ranking four peer regions for working-age disability rates.

Figure 1-09: The breakdown of disability by type for the national elderly population generally resembles that of the working-age population. One difference between the two age groups is that hearing difficulties become more common in the senior population.

Figure 1-09
Reported Disabilities of Persons Aged 65 and Older

United States, 2016
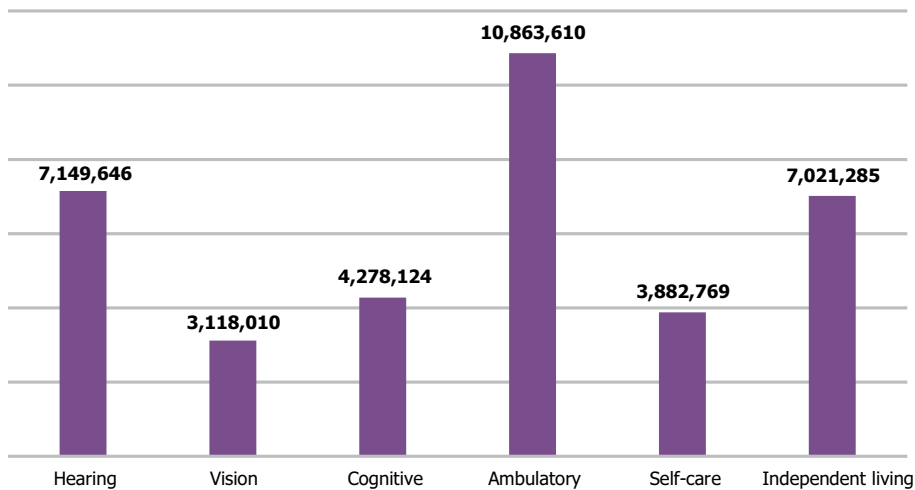
Note: An individual may have more than one disability.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S18010).

Table 1-23
Seniors with Disabilities

Percent of adults aged 65 and older, 2017

1	**Birmingham**	**42.1**
2	San Antonio	40.8
3	Oklahoma City	39.0
4	Riverside	37.9
5	New Orleans	37.2
6	Memphis	36.6
7	Louisville	36.3
8	Seattle	35.1
9	Kansas City	34.8
10	Virginia Beach	34.7
United States		**34.6**
11	Nashville	34.5
12	Los Angeles	34.4
13	Detroit	34.3
14	Las Vegas	34.3
15	Indianapolis	34.2
16	Sacramento	34.2
17	Tampa	34.1
18	Pittsburgh	34.1
19	Jacksonville	34.1
20	Houston	34.0
21	Cleveland	33.9
22	Atlanta	33.7
23	Philadelphia	33.6
24	Columbus	33.5
25	Portland	33.4
26	**St. Louis**	**33.4**
27	Dallas	33.3
28	Orlando	33.2
29	Providence	33.1
30	Phoenix	32.8
31	Richmond	32.6
32	Buffalo	32.5
33	Cincinnati	32.4
34	San Jose	32.2
35	Chicago	32.0
36	Raleigh	31.9
37	Boston	31.9
38	Miami	31.8
39	San Diego	31.4
40	Milwaukee	31.4
41	Charlotte	31.4
42	Denver	31.3
43	Salt Lake City	31.2
44	Baltimore	31.2
45	New York	31.1
46	San Francisco	31.1
47	Minneapolis	30.4
48	Hartford	30.3
49	Washington, D.C.	30.1
50	**Austin**	**29.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B18101)

Population shows the estimated number of people residing within a geographic area as of July 1, 2017. **Population Change 2010-2017** shows estimated net population change from April 1, 2010 to July 1, 2017. **Population Change 2016-2017** shows estimated net population change from July 1, 2016 to July 1, 2017. **Natural Change** shows estimated net population change resulting from births and deaths in the period 2010-2017 as a percentage of 2010 population. **Net Domestic Migration** shows population change resulting from movement within the United States from 2010 to 2017 as a percentage of 2010 population. **Net International Migration** shows population change resulting from movement between the United States and other countries from 2010 to 2017 as a percentage of 2010 population.

Source: U.S. Census Bureau, 2017 Population Estimates

Median Age represents middle of the age distribution of a metropolitan region with half of the population older than the median age and half younger.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B01002)

Children shows population under the age of 18 as a percentage of total population in 2017. **Young Adults** shows individuals between the ages of 18 and 34 as a percentage of total population in 2017. **Working-Age Adults** shows individuals between the ages of 18 and 64 as a percentage of total

population in 2017. **Seniors** shows population over the age of 65 as a percentage of 2017 population.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B01001)

Families with Children includes family households with their own children. Own children is defined as never-married biological, adopted, and stepchildren who are under the age of 18.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B11003)

Average Household Size measures the average number of people per household. A household includes all the persons who occupy a housing unit as their usual place of residence. The occupants may include one or more families living together, one person living alone, or any other combination of related or unrelated people who share living arrangements.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B11002 and B11001)

Persons Aged 65 and Older Living Alone does not include persons aged 65 and older living in group quarters. Group quarters includes people living in institutional facilities such as correctional facilities, nursing homes, or mental hospitals, or in non-institutional facilities, such as college dorms or military barracks.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B11010 and B11001)

Immigrant Population includes anyone who was not a U.S. citizen at birth, also known as the foreign-born population, and is comprised of persons who are a U.S. citizen by naturalization and non-U.S. citizens. Persons born abroad of American parents or born in Puerto Rico or other U.S. Island Areas are not considered foreign-born.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B05012)

White Population (Not Hispanic or Latino), Black Population (Not Hispanic or Latino), and **Asian Population (Not Hispanic or Latino)** each include the percentage of the population who identify as one race alone and not of Hispanic, Latino, or Spanish origin. **White Population** includes people with origins in Europe, the Middle East, or North Africa, including people who indicate their race as "White" or report entries such as Irish, German, Italian, Lebanese, Arab, Moroccan, or Caucasian. **Black Population** includes people having origins in any of the black racial groups of Africa, including people who indicate their race as "Black, African Am., or Negro"; or report entries such as African-American, Kenyan, Nigerian, or Haitian. **Asian Population** includes people having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent.

Hispanic or Latino Population is an ethnic classification that includes people of any race who indicate they are of Mexican, Puerto Rican, Cuban, or other Hispanic, Latino, or Spanish origin. It is recorded separately due to the diversity of "race" within the Hispanic population.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B03002)

Disability Rate, Children with Disabilities, Working Age Adults with Disabilities, and **Adults Aged 65 and Older with Disabilities** each report the civilian noninstitutionalized population with a disability as a percent of the total civilian noninstitutionalized population. Disability status is based on six factors— hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates (B18101)

Change in Employment

—See page 19 for WWS table with complete data and rankings—

Percent Change, 2012-2017

1.6   22.5

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**

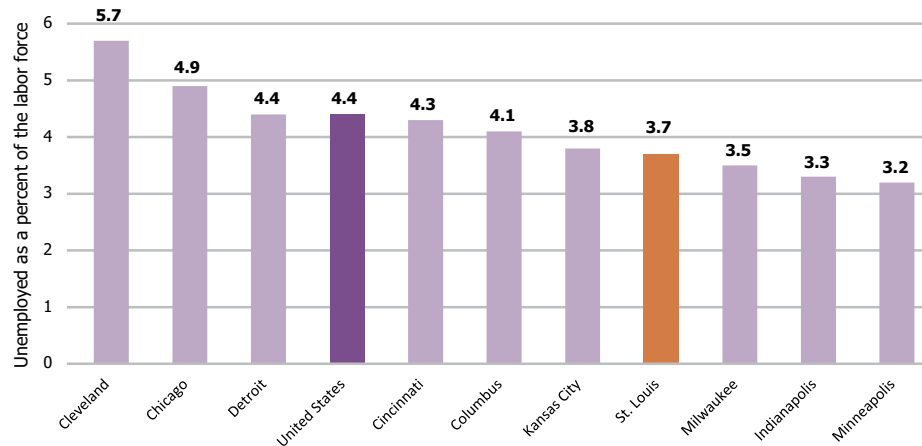Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

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

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
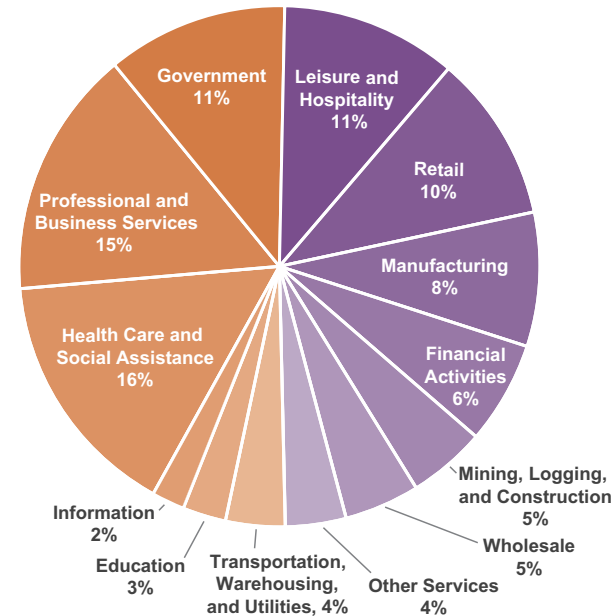
Source: Bureau of Labor Statistics, Current Employment Statistics.

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**

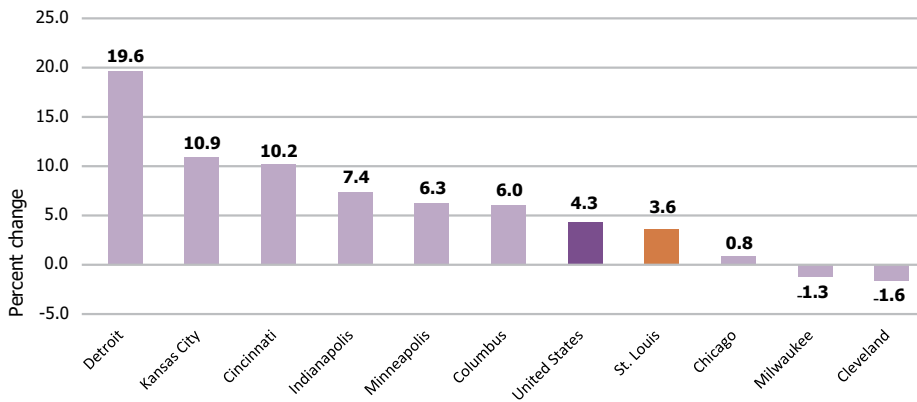Source: Bureau of Labor Statistics, Current Employment Statistics

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.

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
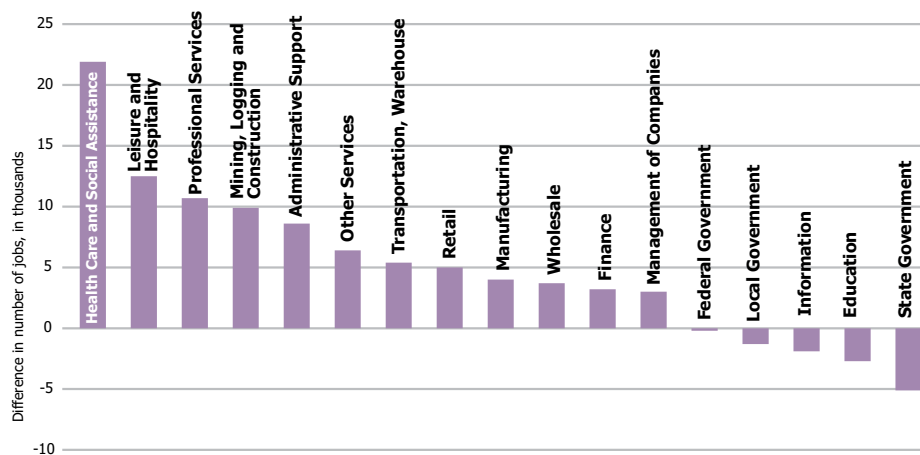
Source: Bureau of Labor Statistics, Current Employment Statistics.

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")	
	• Wage and salary income
	• Supplements to wages and salaries
	• Proprietors'/self-employment income
Unearned Income	
	• 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")	
	• 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**

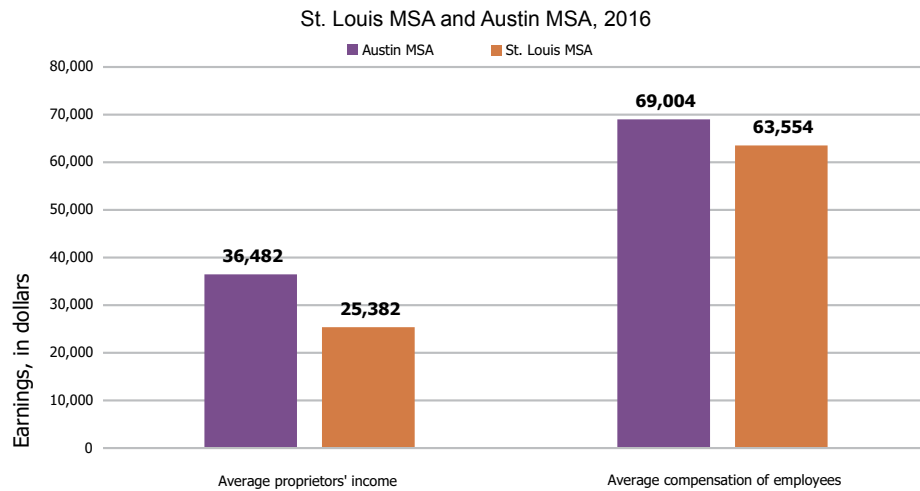Source: Bureau of Economic Analysis (CA4)

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

St. Louis MSA and Austin MSA, 2016

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.

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.

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

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

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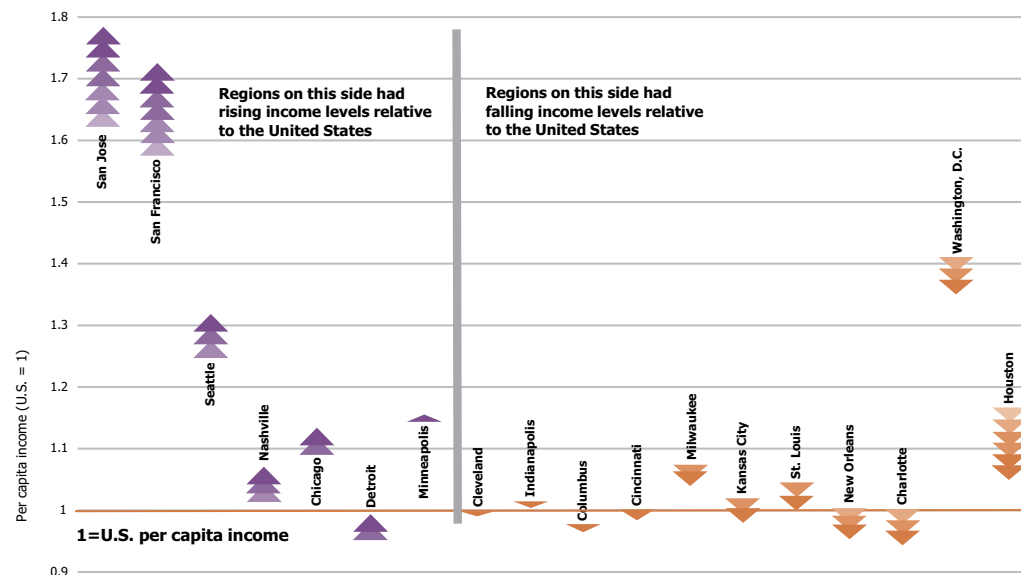
Source: Bureau of Economic Analysis (CA4); Bureau of Labor Statistics

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
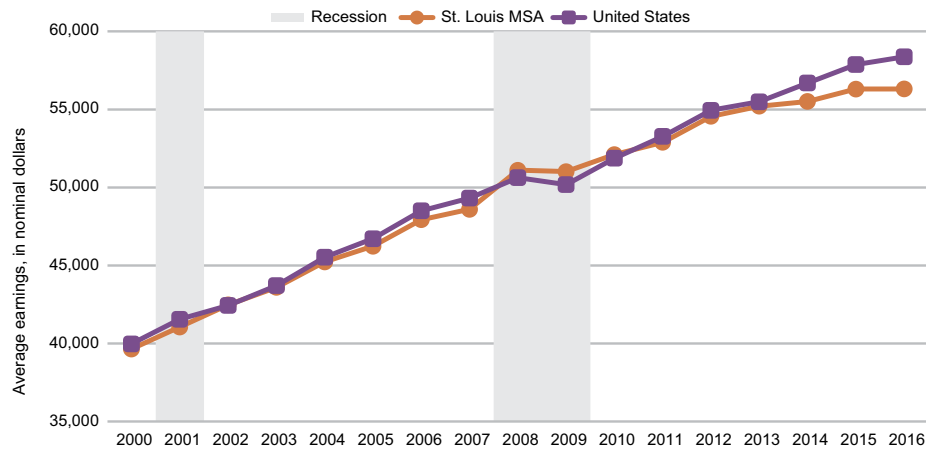
Source: Bureau of Economic analysis (CA4).

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.

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**
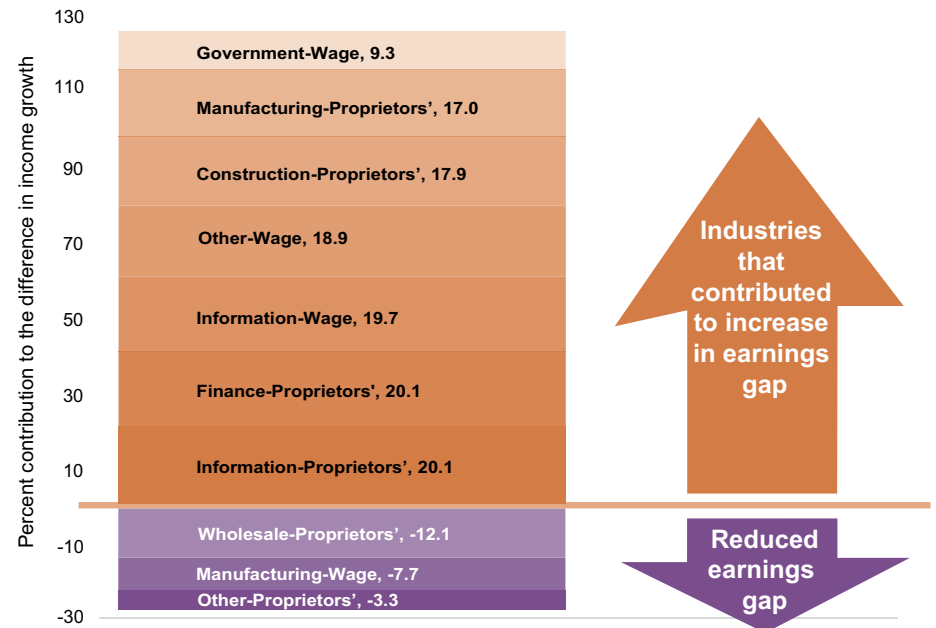
Source: Bureau of Economic Analysis.

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

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

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	Kansas City	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.

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.

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 maker, 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 2-37 Patents

Utility patents granted per 10,000 employees, 2015

#	Region	Value
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

#	Region	Value
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

36 *Where We Stand* | 8th Edition

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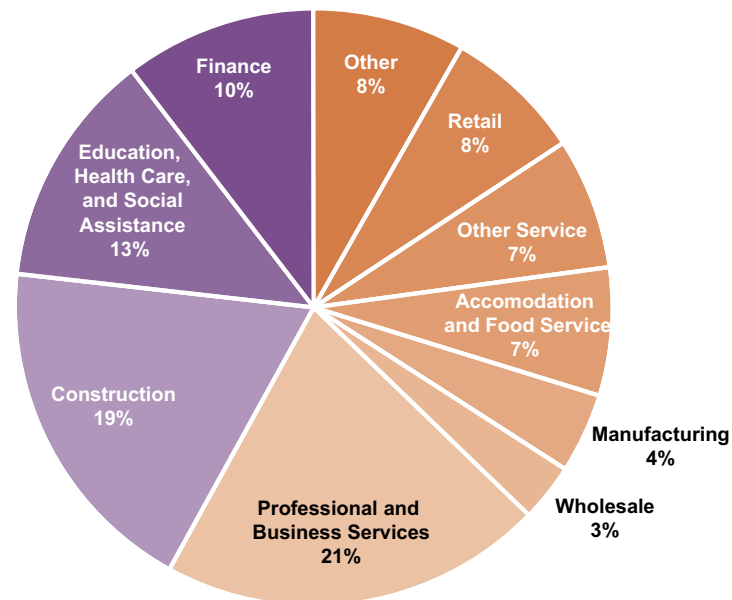
Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B24070).

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.

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

Table 2-43
Truck Travel Time Reliability Index
2016

#	City	Value
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.

Table 2-44
Travel Time Index
Morning rush hour (6 to 9 a.m.), 2016

#	City	Value
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

#	City	Value
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

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).

Change in College-Educated Young Adults
—See page 50 for WWS table with complete data and rankings—

Percentage Point Difference, 2007-2017

1.8   16.0
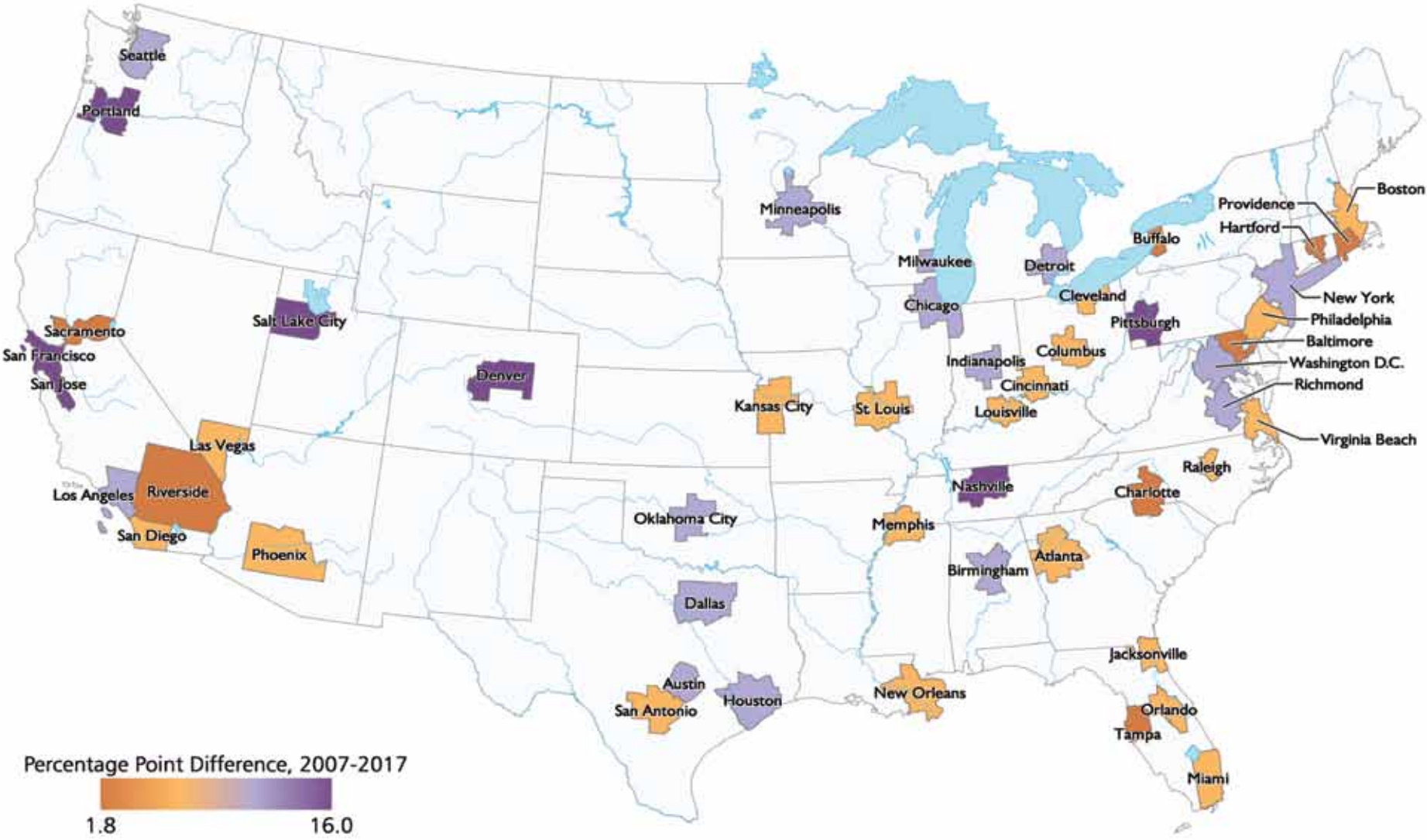
Introduction

Workforce development was one of the regional priorities discussed at the East-West Gateway Board of Director's summit in the summer of 2018. The development of the region's workforce begins as early as childhood and continues throughout adulthood.

The first section of this chapter focuses on the existing workforce of the region, including educational attainment and workforce engagement. The second section discusses the inputs and investments for the future workforce: the funding and quality of learning environments in elementary and secondary schools. Over the last decade, St. Louis has improved on a number of measures, but challenges remain.

Workforce and Educational Attainment

Several education related measures are moving in desirable directions. Over the last decade, the percentages of adults with college degrees and advanced degrees have increased at rates higher than the national average. St. Louis has also become a national leader in associate degrees granted to adults who desire practical skills training. In addition, by national standards, St. Louis has very few adults without a high school diploma.

St. Louis still has several areas in which it could improve, however. Compared to most of the peer MSAs, the region has been able to attract relatively few foreign-born workers to join the workforce. Racial disparities persist in both high school and college graduation rates. And other regions have been more successful at integrating individuals with disabilities into the workforce.

Table 3-01: St. Louis ranks 28th, above the national average and about in the middle of the peer regions, on the percentage of adults over the age of 25 with a bachelor's degree or higher. Just over a third of adults in St. Louis have achieved this milestone. However, as shown in **Table 3-02**, St. Louis ranks among the top eight regions on change in college attainment from 2007 to 2017, one of the fastest growth rates in the nation.

Table 3-01
Bachelor's Degree or Higher
Percent of adults aged 25 and older, 2017

1	San Jose	50.8
2	Washington, D.C.	50.8
3	San Francisco	49.3
4	Boston	47.6
5	Raleigh	46.2
6	Austin	44.8
7	Denver	43.9
8	Seattle	41.9
9	Minneapolis	41.7
10	Portland	40.3
11	New York	39.6
12	Baltimore	39.5
13	San Diego	38.8
14	Hartford	38.3
15	Atlanta	37.9
16	Chicago	37.7
17	Philadelphia	37.7
18	Richmond	36.8
19	Kansas City	36.5
20	Nashville	36.0
21	Columbus	35.9
22	Milwaukee	35.8
23	Indianapolis	35.6
24	Salt Lake City	35.5
25	Charlotte	35.5
26	Pittsburgh	35.1
27	Dallas	34.6
28	**St. Louis**	**34.6**
29	Los Angeles	34.2
30	Cincinnati	33.2
31	Sacramento	32.7
32	Buffalo	32.5
33	Houston	32.4
34	Orlando	32.1
35	Virginia Beach	32.1
36	Miami	32.1
United States		**32.0**
37	Providence	31.9
38	Detroit	31.1
39	Phoenix	31.1
40	Oklahoma City	31.0
41	Cleveland	30.8
42	Jacksonville	30.7
43	Birmingham	30.5
44	Tampa	30.0
45	New Orleans	29.5
46	Louisville	28.8
47	San Antonio	28.1
48	Memphis	27.8
49	Las Vegas	24.4
50	**Riverside**	**21.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-02
Change in Bachelor's Degree or Higher
Percentage point difference, 2007-2017

1	Portland	7.6
2	Nashville	7.5
3	Pittsburgh	7.4
4	Denver	7.4
5	San Jose	7.1
6	Richmond	6.6
7	San Francisco	6.5
8	**St. Louis**	**6.5**
9	Philadelphia	6.4
10	Austin	6.4
11	Salt Lake City	6.2
12	Baltimore	6.2
13	Seattle	5.8
14	Boston	5.8
15	Chicago	5.4
16	Indianapolis	5.4
17	Milwaukee	5.4
18	San Diego	5.3
19	Buffalo	5.2
20	Louisville	5.1
21	Birmingham	5.1
22	Virginia Beach	5.1
23	Cincinnati	5.0
24	Kansas City	4.9
25	Jacksonville	4.9
26	Minneapolis	4.9
27	Raleigh	4.8
28	Dallas	4.7
29	Detroit	4.6
30	Houston	4.6
31	New York	4.6
United States		**4.5**
32	Phoenix	4.5
33	Los Angeles	4.2
34	Orlando	4.1
35	Cleveland	4.1
36	Tampa	4.0
37	Providence	3.9
38	New Orleans	3.9
39	Hartford	3.9
40	Atlanta	3.8
41	San Antonio	3.8
42	Miami	3.6
43	Columbus	3.5
44	Washington, D.C.	3.5
45	Memphis	3.4
46	Oklahoma City	3.2
47	Las Vegas	3.0
48	Sacramento	2.9
49	Charlotte	2.9
50	**Riverside**	**2.3**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-03: The St. Louis region has also seen strong growth in the share of adults who have a post-graduate or advanced degree. This includes master's degrees, professional degrees, and doctorates. In 2017, 14.1 percent of adults aged 25 and older held advanced degrees, a rate that ranks 18th among the peer regions and about two percentage points higher than the national average. The region's ranking is also improving. In 2007, around 10 percent of adults in the region had an advanced degree, and the region ranked 27th.

Table 3-04: Over the last decade, the region experienced the third largest increase in the share of adults with an advanced degree. St. Louis' increase of nearly four points ranks behind only San Jose and Boston. Across different age groups, adults between the ages of 35 and 44 are most likely to have an advanced degree in St. Louis. Among adults in this age group, 17.1 percent have an advanced degree compared with just under 14 percent of adults aged 45 to 64 and adults aged 25 to 34. Among adults aged 65 and older, 12.4 percent have an advanced degree.

Table 3-05: A four-year college degree is not for everyone. At the time of high school graduation, some young adults may not be able to make the time or financial commitment to a four-year degree. Some prefer skilled jobs that do not require a bachelor's degree, and some wish to begin careers sooner. In addition, workers in their mid-20s and older who went straight to work after high school may wish to upgrade their skills without interrupting their careers for several years. For adults in any of

Table 3-03 Advanced Degrees
Adults with a post-graduate degree as a percent of adults aged 25 and older, 2017

1	Washington, D.C.	25.0
2	San Jose	24.2
3	Boston	21.9
4	San Francisco	20.2
5	Baltimore	17.7
6	Raleigh	17.1
7	Hartford	16.9
8	New York	16.7
9	Seattle	16.0
10	Denver	15.8
11	Austin	15.7
12	Philadelphia	15.6
13	Portland	15.1
14	San Diego	15.0
15	Minneapolis	14.8
16	Chicago	14.7
17	Atlanta	14.3
18	St. Louis	14.1
19	Richmond	14.0
20	Buffalo	13.8
21	Pittsburgh	13.8
22	Kansas City	13.6
23	Columbus	13.1
24	Indianapolis	13.0
25	Salt Lake City	13.0
26	Cincinnati	12.8
27	Milwaukee	12.6
28	Detroit	12.6
29	Virginia Beach	12.5
30	Nashville	12.3
United States		**12.3**
31	Providence	12.3
32	Cleveland	12.1
33	Dallas	12.0
34	Los Angeles	11.9
35	Miami	11.8
36	Charlotte	11.7
37	Houston	11.7
38	Sacramento	11.7
39	Louisville	11.5
40	Birmingham	11.3
41	New Orleans	11.2
42	Phoenix	11.2
43	Memphis	11.2
44	Tampa	10.6
45	Oklahoma City	10.6
46	Orlando	10.5
47	Jacksonville	10.5
48	San Antonio	10.2
49	Las Vegas	8.1
50	**Riverside**	**7.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-04 Change in Advanced Degrees
Percentage point difference, 2007-2017

1	San Jose	5.2
2	Boston	3.9
3	St. Louis	3.8
4	San Francisco	3.8
5	Raleigh	3.6
6	Portland	3.4
7	Richmond	3.3
8	Philadelphia	3.3
9	Pittsburgh	3.3
10	Seattle	3.2
11	Baltimore	3.1
12	Denver	3.0
13	Nashville	3.0
14	Minneapolis	2.9
15	Kansas City	2.9
16	Cincinnati	2.8
17	San Diego	2.8
18	Washington, D.C.	2.8
19	New Orleans	2.8
20	Atlanta	2.8
21	Salt Lake City	2.7
22	Indianapolis	2.7
23	Dallas	2.7
24	Virginia Beach	2.6
25	Chicago	2.5
26	Houston	2.5
27	Louisville	2.5
28	New York	2.4
29	Memphis	2.4
30	Detroit	2.2
United States		**2.2**
31	Tampa	2.2
32	Austin	2.1
33	Phoenix	2.0
34	Charlotte	2.0
35	Milwaukee	1.9
36	Columbus	1.9
37	Jacksonville	1.8
38	Hartford	1.8
39	Birmingham	1.8
40	San Antonio	1.8
41	Miami	1.8
42	Providence	1.8
43	Sacramento	1.8
44	Cleveland	1.7
45	Buffalo	1.6
46	Los Angeles	1.6
47	Orlando	1.4
48	Oklahoma City	1.3
49	Riverside	0.9
50	**Las Vegas**	**0.8**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-05 Associate Degree as Highest Educational Attainment
Percent of adults aged 25 and older, 2017

1	Orlando	13.3
2	Buffalo	11.9
3	Minneapolis	10.3
4	Jacksonville	10.1
5	Pittsburgh	10.1
6	Virginia Beach	9.9
7	Sacramento	9.7
8	Tampa	9.6
9	Seattle	9.5
10	Miami	9.4
11	Detroit	9.2
12	St. Louis	9.0
13	Charlotte	8.9
14	Portland	8.8
15	Salt Lake City	8.7
16	Cleveland	8.7
17	Hartford	8.6
18	Birmingham	8.6
19	Phoenix	8.6
20	Cincinnati	8.5
United States		**8.5**
21	Milwaukee	8.4
22	Raleigh	8.4
23	Riverside	8.4
24	Providence	8.3
25	San Diego	8.2
26	San Antonio	8.1
27	Louisville	8.0
28	Oklahoma City	7.8
29	Indianapolis	7.7
30	Kansas City	7.7
31	Las Vegas	7.7
32	Columbus	7.6
33	Atlanta	7.6
34	Denver	7.5
35	Memphis	7.4
36	Richmond	7.4
37	Houston	7.2
38	Nashville	7.2
39	Los Angeles	7.1
40	Dallas	7.1
41	Chicago	7.0
42	Boston	7.0
43	Philadelphia	7.0
44	New York	6.9
45	Baltimore	6.8
46	Austin	6.7
47	San Francisco	6.6
48	San Jose	6.5
49	Washington, D.C.	6.0
50	**New Orleans**	**5.9**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

these situations, an associate degree can be an important link to higher-paying jobs. St. Louis is among the national leaders on the percentage of adults with an associate degree, ranking 12th among the peer regions. Nine percent of adults have an associate degree as their highest level of educational attainment. Moreover, St. Louis is in the top 10 for growth in adults with associate degrees, as shown in **Table 3-06**. Workers who have achieved this milestone are an important part of the region's efforts to build a more highly skilled workforce.

Table 3-07: St. Louis also ranks higher than most peer regions on the percentage of adults with some college, but no degree. More than one-fifth of adults in the region fall into this category. This population represents an opportunity for the region to build a more educated workforce. The St. Louis Regional Chamber has articulated a four-point strategy designed to help working adults complete college degrees, including employer assistance and flexibility, tailored programs by educational institutions, coaching services, and systems of seamless pathways between classroom and workplace (2017).

Table 3-08: St. Louis ranks 24th, about in the middle, on the percentage of adults with a high-school diploma as the highest level of educational attainment. Just over a quarter of adults in the region fall into this category of educational attainment.

Table 3-06
Change in Associate Degree as Highest Educational Attainment
Percentage point difference, 2007-2017

1	Orlando	3.7
2	Birmingham	2.1
3	Oklahoma City	2.0
4	Cincinnati	1.8
5	Minneapolis	1.6
6	Detroit	1.6
7	Virginia Beach	1.5
8	Memphis	1.4
9	Cleveland	1.4
10	St. Louis	1.4
11	Buffalo	1.4
12	Pittsburgh	1.4
13	Richmond	1.4
14	New Orleans	1.4
15	Jacksonville	1.3
16	San Antonio	1.2
17	Miami	1.2
18	Nashville	1.2
19	Houston	1.1
20	Atlanta	1.1
United States		**1.0**
21	Portland	1.0
22	Indianapolis	1.0
23	Louisville	1.0
24	Columbus	1.0
25	Kansas City	0.9
26	Dallas	0.8
27	Milwaukee	0.8
28	Tampa	0.8
29	Phoenix	0.7
30	Charlotte	0.7
31	Salt Lake City	0.7
32	New York	0.6
33	Baltimore	0.5
34	Sacramento	0.5
35	Denver	0.5
36	Las Vegas	0.4
37	Providence	0.4
38	Chicago	0.4
39	Austin	0.3
40	Seattle	0.3
41	Hartford	0.3
42	Washington, D.C.	0.2
43	Philadelphia	0.2
44	San Diego	0.2
45	Riverside	0.2
46	Raleigh	0.1
47	Los Angeles	0.1
48	Boston	0.0
49	San Francisco	-0.5
50	San Jose	-0.7

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-07
Some College, No Degree as Highest Educational Attainment
Percent of adults aged 25 and older, 2017

1	Virginia Beach	24.9
2	Las Vegas	24.8
3	Sacramento	24.8
4	Riverside	24.5
5	Salt Lake City	24.5
6	Phoenix	24.0
7	Portland	23.6
8	Oklahoma City	23.4
9	Memphis	23.3
10	Detroit	23.2
11	San Antonio	23.0
12	New Orleans	22.9
13	Louisville	22.7
14	Cleveland	22.3
15	St. Louis	22.2
16	San Diego	22.1
17	Kansas City	21.8
18	Birmingham	21.6
19	Seattle	21.3
20	Dallas	21.3
21	Jacksonville	21.2
22	Charlotte	21.0
23	Houston	20.7
24	Tampa	20.4
United States		**20.4**
25	Nashville	20.3
26	Richmond	20.1
27	Milwaukee	20.1
28	Minneapolis	20.0
29	Orlando	19.8
30	Columbus	19.8
31	Chicago	19.6
32	Atlanta	19.6
33	Denver	19.4
34	Los Angeles	19.4
35	Austin	19.2
36	Cincinnati	19.2
37	Baltimore	19.0
38	Buffalo	19.0
39	Indianapolis	18.9
40	Raleigh	18.6
41	San Francisco	17.6
42	Miami	17.5
43	Providence	17.3
44	Philadelphia	16.5
45	Pittsburgh	16.4
46	Hartford	16.4
47	San Jose	15.9
48	Washington, D.C.	15.7
49	New York	14.8
50	Boston	14.6

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-08
High School Diploma or Equivalent as Highest Educational Attainment
Percent of adults aged 25 and older, 2017

1	Pittsburgh	32.3
2	Louisville	30.6
3	Cincinnati	30.0
4	Memphis	30.0
5	Philadelphia	30.0
6	Providence	29.9
7	Tampa	29.8
8	Las Vegas	29.1
9	Cleveland	28.7
10	Buffalo	28.4
11	Jacksonville	28.4
12	New Orleans	28.3
13	Birmingham	28.3
14	Columbus	27.9
15	Hartford	27.5
16	Milwaukee	27.3
17	Oklahoma City	27.3
18	Indianapolis	27.2
United States		**27.1**
19	Nashville	27.0
20	Riverside	26.9
21	Miami	26.9
22	Detroit	26.7
23	San Antonio	26.5
24	St. Louis	26.2
25	Richmond	25.7
26	Kansas City	25.5
27	New York	25.1
28	Baltimore	25.1
29	Orlando	24.9
30	Virginia Beach	24.6
31	Atlanta	24.6
32	Chicago	24.1
33	Charlotte	23.7
34	Phoenix	23.7
35	Houston	23.2
36	Boston	22.5
37	Dallas	22.5
38	Salt Lake City	22.3
39	Sacramento	21.9
40	Minneapolis	21.5
41	Denver	20.4
42	Portland	20.1
43	Los Angeles	20.0
44	Austin	19.9
45	Seattle	19.8
46	San Diego	18.6
47	Washington, D.C.	18.3
48	Raleigh	17.8
49	San Francisco	15.4
50	San Jose	14.9

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-09: By contrast, St. Louis has relatively few adults who have not completed high school or passed a GED exam. Just 8 percent of the adult population has not received a high-school diploma or equivalent. Among the peer regions, only four other MSAs had lower rates. The population without this level of educational attainment skews older; in 2017, 11.7 percent of persons over the age of 65 were without a high school diploma.

Table 3-10: The region also experienced one of the biggest drops in adults lacking a high school diploma or equivalent. Between 2007 and 2017, the percentage of adults without a high school diploma or equivalent declined by 4.8 points, from 12.8 percent to 8.0 percent. This was the fifth biggest decline of the peer regions.

The region's ranking on this measure dropped noticeably as well. In 2007, the region was in the middle of the peer regions, ranking 33rd, but by 2017, St. Louis' ranking declined to 46th.

Figure 3-01: Changes within the senior age group explain over half of the region's decrease in adults without a high school diploma. In 2007, 26.8 percent of those 65 and older in the St. Louis area lacked a high school diploma. By 2017, this percentage declined to 11.7 percent. Compared to 2007, there were 81,000 fewer adults without a high school diploma in 2017, 43,000 of whom were in the senior age group.

Figure 3-01
No High School Diploma by Age Group

Percent of age group without a high school diploma or equivalent
St. Louis MSA, 2005 to 2017
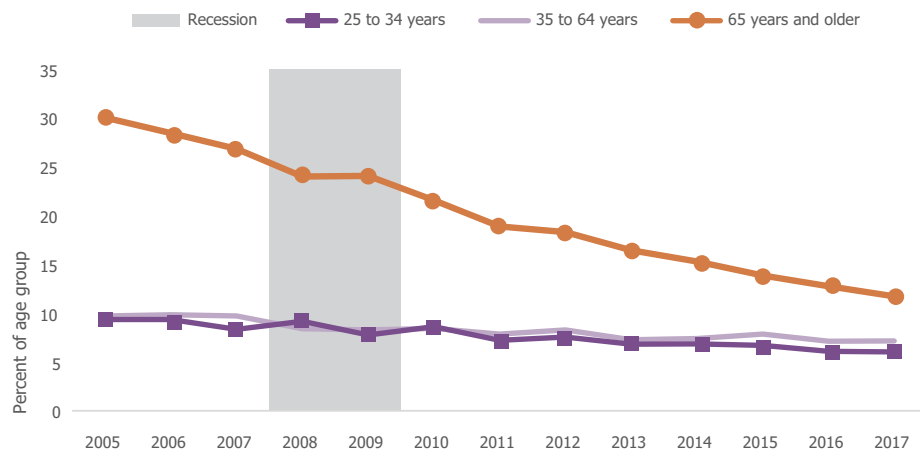
Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15001).

Table 3-09
No High School Diploma or Equivalent
Percent of adults aged 25 and older, 2017

1	Los Angeles	19.3
2	Riverside	18.8
3	Houston	16.5
4	Dallas	14.6
5	San Antonio	14.4
6	Miami	14.1
7	Las Vegas	13.9
8	New York	13.5
9	New Orleans	13.4
10	Phoenix	12.7
11	Providence	12.7
12	San Diego	12.4
United States		**12.0**
13	San Jose	11.8
14	Memphis	11.6
15	Chicago	11.5
16	San Francisco	11.1
17	Birmingham	11.0
18	Sacramento	10.9
19	Charlotte	10.9
20	Indianapolis	10.6
21	Oklahoma City	10.6
22	Atlanta	10.4
23	Tampa	10.1
24	Louisville	10.0
25	Richmond	10.0
26	Orlando	9.8
27	Detroit	9.8
28	Jacksonville	9.6
29	Nashville	9.5
30	Baltimore	9.5
31	Cleveland	9.5
32	Austin	9.4
33	Hartford	9.2
34	Washington, D.C.	9.2
35	Cincinnati	9.1
36	Salt Lake City	9.0
37	Raleigh	9.0
38	Philadelphia	8.9
39	Denver	8.8
40	Columbus	8.7
41	Kansas City	8.5
42	Virginia Beach	8.5
43	Milwaukee	8.4
44	Boston	8.3
45	Buffalo	8.2
46	**St. Louis**	**8.0**
47	Seattle	7.4
48	Portland	7.3
49	Minneapolis	6.4
50	**Pittsburgh**	**6.1**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-10
Change in No High School Diploma or Equivalent
Percentage point difference, 2007-2017

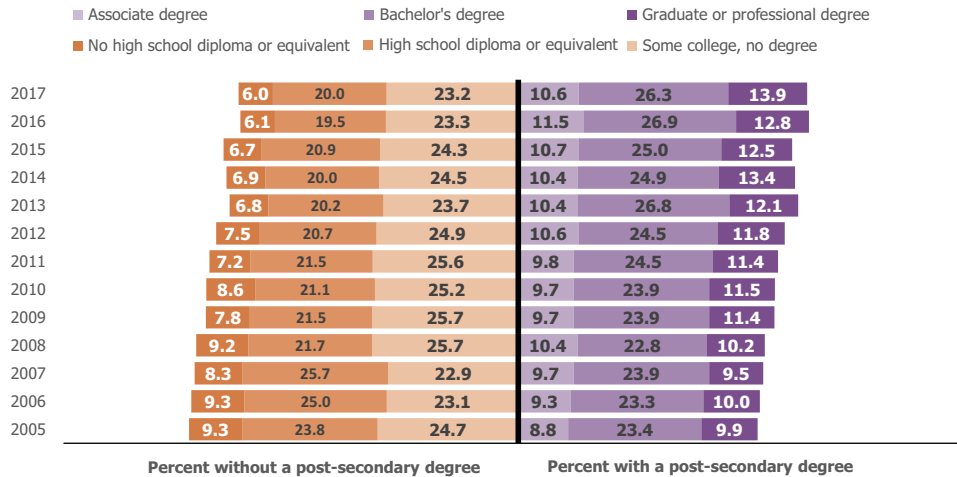| 1	Minneapolis	-1.1
2	Washington, D.C.	-1.2
3	Kansas City	-1.3
4	Seattle	-1.4
5	Boston	-1.9
6	Indianapolis	-2.0
7	San Francisco	-2.0
8	Sacramento	-2.1
9	Raleigh	-2.3
10	Columbus	-2.3
11	Salt Lake City	-2.4
12	San Diego	-2.4
13	Oklahoma City	-2.4
14	New York	-2.5
15	Jacksonville	-2.6
16	Hartford	-2.6
17	Riverside	-2.7
18	Denver	-2.9
19	Charlotte	-3.1
20	Portland	-3.2
21	Chicago	-3.2
22	Atlanta	-3.2
23	Las Vegas	-3.2
24	Virginia Beach	-3.2
25	Milwaukee	-3.3
26	Detroit	-3.4
27	Tampa	-3.4
28	Cleveland	-3.4
29	San Jose	-3.4
United States		**-3.5**
30	Miami	-3.5
31	Orlando	-3.6
32	San Antonio	-3.6
33	Los Angeles	-3.7
34	Dallas	-3.8
35	Buffalo	-3.9
36	Phoenix	-3.9
37	Baltimore	-3.9
38	Philadelphia	-3.9
39	Pittsburgh	-4.0
40	New Orleans	-4.2
41	Houston	-4.3
42	Cincinnati	-4.3
43	Louisville	-4.5
44	Memphis	-4.6
45	Richmond	-4.7
46	**St. Louis**	**-4.8**
47	Austin	-4.9
48	Birmingham	-5.3
49	Nashville	-5.5
50	**Providence**	**-5.7**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Table 3-11: College-educated young adults constitute a demographic group that is key to a region's future. Attracting and retaining individuals in this group can help build a skilled and high-income workforce in the future. St. Louis ranks 25th, in the middle of the peers, for the percentage of young adults with a college degree. This is nearly five percentage points higher than the national average. Moreover, St. Louis ranks 23rd on the change in the percentage of young adults with a college degree from 2007 to 2017 (**Table 3-12**).

Figure 3-02 shows the educational attainment levels of adults aged 25 to 34 in the St. Louis region from 2005 to 2017. The bars to the right of the black line represent the percentage of young adults with post-secondary degrees, and the bars to the left represent young adults without post-secondary degrees. Over the last 12 years, the percentage of adults with post-secondary degrees has steadily increased. In 2005, 42.1 percent of young adults had a post-secondary degree, and in 2017, over 50 percent had such degrees.

Figure 3-02
Educational Attainment of Young Adults

Percent of adults aged 25-34
St. Louis MSA, 2005 to 2017

■ Associate degree   ■ Bachelor's degree   ■ Graduate or professional degree
■ No high school diploma or equivalent   ■ High school diploma or equivalent   ■ Some college, no degree

Year	No HS diploma	HS diploma	Some college	Associate	Bachelor's	Graduate
2017	6.0	20.0	23.2	10.6	26.3	13.9
2016	6.1	19.5	23.3	11.5	26.9	12.8
2015	6.7	20.9	24.3	10.7	25.0	12.5
2014	6.9	20.0	24.5	10.4	24.9	13.4
2013	6.8	20.2	23.7	10.4	26.8	12.1
2012	7.5	20.7	24.9	10.6	24.5	11.8
2011	7.2	21.5	25.6	9.8	24.5	11.4
2010	8.6	21.1	25.2	9.7	23.9	11.5
2009	7.8	21.5	25.7	9.7	23.9	11.4
2008	9.2	21.7	25.7	10.4	22.8	10.2
2007	8.3	25.7	22.9	9.7	23.9	9.5
2006	9.3	25.0	23.1	9.3	23.3	10.0
2005	9.3	23.8	24.7	8.8	23.4	9.9

Percent without a post-secondary degree   Percent with a post-secondary degree

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates (B15001).

Table 3-11
College-Educated Young Adults
Percent of adults aged 25-34 with a bachelor's degree or higher, 2017

1	San Jose	59.4
2	Boston	57.9
3	San Francisco	57.0
4	Washington, D.C.	55.0
5	Raleigh	50.9
6	New York	48.8
7	Pittsburgh	48.5
8	Denver	48.0
9	Austin	47.1
10	Minneapolis	46.9
11	Seattle	46.9
12	Chicago	45.4
13	Nashville	44.2
14	Philadelphia	43.9
15	Portland	43.4
16	Hartford	43.1
17	Baltimore	42.8
18	Milwaukee	41.9
19	Columbus	41.9
20	Indianapolis	41.1
21	Richmond	41.1
22	Charlotte	40.9
23	Buffalo	40.6
24	San Diego	40.3
25	**St. Louis**	**40.2**
26	Atlanta	39.8
27	Kansas City	39.3
28	Los Angeles	38.7
29	Cincinnati	37.8
30	Cleveland	37.0
31	Salt Lake City	36.8
32	Dallas	35.9
33	Birmingham	35.8
34	Providence	35.7
United States		**35.6**
35	Oklahoma City	35.6
36	Detroit	35.4
37	New Orleans	33.7
38	Miami	33.7
39	Houston	33.6
40	Orlando	33.0
41	Louisville	32.9
42	Sacramento	32.4
43	Tampa	32.4
44	Virginia Beach	31.5
45	Jacksonville	31.4
46	Phoenix	30.6
47	San Antonio	28.9
48	Memphis	28.6
49	Las Vegas	23.4
50	**Riverside**	**20.7**

Source: U.S. Census Bureau,
American Community Survey
1-Year Estimates (B15001)

Table 3-12
Change in College-Educated Young Adults
Percentage point difference, 2007-2017

1	San Jose	16.0
2	Denver	13.7
3	Nashville	13.0
4	San Francisco	11.8
5	Pittsburgh	11.1
6	Portland	10.6
7	Salt Lake City	10.6
8	Birmingham	9.8
9	Austin	9.8
10	Chicago	9.6
11	Seattle	9.1
12	Houston	8.7
13	Los Angeles	8.6
14	Dallas	8.2
15	Milwaukee	8.1
16	Richmond	7.7
17	Oklahoma City	7.6
18	Washington, D.C.	7.6
19	Minneapolis	7.3
20	Detroit	7.2
21	Indianapolis	7.2
22	New York	7.0
23	**St. Louis**	**6.8**
24	Raleigh	6.7
25	Atlanta	6.6
26	Louisville	6.6
27	Phoenix	6.6
United States		**6.5**
28	Cleveland	6.1
29	New Orleans	6.0
30	Kansas City	6.0
31	Philadelphia	5.9
32	San Diego	5.8
33	San Antonio	5.6
34	Boston	5.2
35	Virginia Beach	5.1
36	Cincinnati	5.0
37	Memphis	4.8
38	Orlando	4.7
39	Miami	4.7
40	Jacksonville	4.6
41	Las Vegas	4.5
42	Columbus	4.5
43	Buffalo	4.1
44	Charlotte	3.9
45	Tampa	3.8
46	Baltimore	3.7
47	Providence	3.4
48	Riverside	3.1
49	Hartford	2.0
50	**Sacramento**	**1.8**

Source: U.S. Census Bureau,
American Community Survey
1-Year Estimates (B15001)

Field of Study and STEM Employment

According to the St. Louis Regional Chamber, employment in science, technology, engineering, and mathematics (STEM) is projected to grow 12 percent from 2012 to 2022 (2017). Wallace and Sheldon report that "there is a growing, worldwide scarcity in almost all engineering fields (2017). The current pipelines of those qualified in science, technology, engineering, and mathematics (STEM) are not considered adequate to meet future demands for qualified engineers and related professionals." (For additional information on STEM employment, see page 52.)

Table 3-13: Data from the U.S. Census Bureau enables analysis of the various fields of study chosen by adults with bachelor's degrees. In the St. Louis region, a plurality of adults with a bachelor's degree or higher have degrees in science, engineering, or other related fields

(42.3 percent), but compared with the peer regions, this percentage is relatively low, ranking 41st. It should be noted that most regions in the country are closely clustered, with all but 10 having between 40 percent and 50 percent of adults with degrees in STEM fields.

The regions with the highest share of bachelor's degrees in science, engineering, and related fields include San Jose; San Francisco; Seattle; Washington, D.C.; and Raleigh. In these regions, over 50 percent of degrees are in science, engineering, or related fields.

Table 3-14: Many adults in the region also hold degrees in business (22.7 percent) and in the arts, humanities, and other fields (22.2 percent). In the business category, St. Louis' percentage is in the top half of the peer regions, ranking 16th, and it ranks above all of the Midwest peers. Other regions with high shares of business degrees include Atlanta, Dallas, Charlotte, Miami, and Birmingham.

Table 3-13
Degrees in Science, Engineering, and Related Fields
Percent of population aged 25 and older with a bachelor's degree or higher, 2017

1	San Jose	63.4
2	San Francisco	53.4
3	Seattle	52.7
4	Washington, D.C.	52.4
5	Raleigh	51.2
6	San Diego	50.5
7	Boston	50.0
8	Sacramento	49.7
9	Houston	49.1
10	Portland	48.9
11	Baltimore	48.8
12	Denver	47.2
13	Detroit	46.9
14	Austin	45.7
15	Philadelphia	45.6
16	Pittsburgh	45.5
17	Hartford	45.4
18	Virginia Beach	45.4
19	Los Angeles	45.2
20	Minneapolis	45.2
21	Riverside	45.1
United States		**45.0**
22	Salt Lake City	44.5
23	Providence	44.3
24	New York	44.2
25	Columbus	44.0
26	Tampa	43.7
27	Jacksonville	43.7
28	Atlanta	43.5
29	Dallas	43.5
30	Indianapolis	43.5
31	Richmond	43.4
32	San Antonio	43.3
33	Milwaukee	43.3
34	Chicago	43.1
35	Buffalo	42.9
36	Cleveland	42.8
37	Cincinnati	42.6
38	Orlando	42.6
39	New Orleans	42.4
40	Miami	42.4
41	**St. Louis**	**42.3**
42	Phoenix	42.2
43	Las Vegas	41.2
44	Louisville	40.8
45	Kansas City	40.3
46	Charlotte	40.0
47	Memphis	39.8
48	Nashville	39.5
49	Oklahoma City	39.4
50	**Birmingham**	**38.2**

U.S. Census Bureau, American Community Survey 1-Year Estimates (B15012)

Table 3-14
Degrees in Business
Percent of population aged 25 and older with a bachelor's degree or higher, 2017

1	Miami	25.6
2	Birmingham	25.4
3	Charlotte	25.1
4	Las Vegas	24.9
5	Dallas	24.9
6	Orlando	24.7
7	Atlanta	24.5
8	Nashville	24.4
9	Tampa	24.3
10	Memphis	24.0
11	Jacksonville	23.9
12	Houston	23.3
13	Phoenix	23.2
14	Oklahoma City	23.1
15	San Antonio	22.7
16	**St. Louis**	**22.7**
17	Louisville	22.2
18	Kansas City	22.0
19	Chicago	21.7
20	Indianapolis	21.5
21	Cleveland	21.5
22	Columbus	21.4
23	Detroit	21.1
24	Richmond	20.6
25	Cincinnati	20.6
26	Denver	20.5
27	Milwaukee	20.3
28	New Orleans	20.3
29	Philadelphia	20.2
30	Riverside	20.1
31	New York	20.0
32	Pittsburgh	20.0
33	Minneapolis	19.7
United States		**19.6**
34	Virginia Beach	19.4
35	Los Angeles	19.1
36	Raleigh	19.0
37	Providence	18.9
38	San Diego	18.7
39	Austin	18.4
40	Salt Lake City	18.2
41	Hartford	18.0
42	Sacramento	17.7
43	Baltimore	17.5
44	Boston	17.4
45	Buffalo	17.1
46	Washington, D.C.	16.6
47	San Francisco	16.6
48	Seattle	16.1
49	Portland	16.0
50	**San Jose**	**15.0**

U.S. Census Bureau, American Community Survey 1-Year Estimates (B15012)

Table 3-15: St. Louis also has a relatively high share of degrees in education (12.9 percent), which ranks 11th among the peers.

Table 3-16: St. Louis is somewhat below average on the percentage of adults with degrees in arts and humanities. This category includes literature and languages, liberal arts, history, visual and performing arts, and communications. St. Louis ranks 33rd among peer regions, with 22.2 percent of adults holding degrees in one of these fields.

Table 3-17: In St. Louis, the proportion of jobs in occupations requiring knowledge of STEM is 6.3 percent, according to estimates from the Bureau of Labor Statistics. This represents over 80,000 workers in the St. Louis MSA. This percentage is similar to the national rate and ranks 31st among the peer regions. In San Jose, which ranks first on this measure, one out of every five jobs require knowledge of STEM.

Table 3-15 Degrees in Education
Percent of population aged 25 and older with a bachelor's degree or higher, 2017

1	Buffalo	16.1
2	Oklahoma City	15.5
3	Memphis	14.5
4	Kansas City	14.0
5	Birmingham	14.0
6	Cincinnati	13.7
7	Cleveland	13.6
8	Pittsburgh	13.4
9	Milwaukee	13.0
10	Phoenix	12.9
11	St. Louis	12.9
12	Indianapolis	12.9
13	San Antonio	12.8
14	Providence	12.0
15	Louisville	11.9
16	Virginia Beach	11.9
United States		11.9
17	Tampa	11.8
18	Detroit	11.7
19	Columbus	11.7
20	Salt Lake City	11.5
21	Miami	11.4
22	Las Vegas	11.4
23	Orlando	11.3
24	Philadelphia	11.1
25	Charlotte	11.1
26	Jacksonville	11.0
27	Hartford	10.9
28	Chicago	10.8
29	Nashville	10.8
30	New Orleans	10.8
31	Minneapolis	10.7
32	Baltimore	10.3
33	Atlanta	10.1
34	Dallas	10.0
35	Richmond	9.8
36	New York	9.5
37	Riverside	9.4
38	Houston	9.3
39	Raleigh	9.0
40	Austin	8.9
41	Portland	8.2
42	Denver	7.9
43	Boston	7.4
44	Seattle	7.2
45	San Diego	6.7
46	Washington, D.C.	6.6
47	Sacramento	6.4
48	Los Angeles	6.1
49	San Francisco	4.2
50	San Jose	4.1

U.S. Census Bureau, American Community Survey 1-Year Estimates (B15012)

Table 3-16 Degrees in Arts, Humanities, and Other Fields
Percent of population aged 25 and older with a bachelor's degree or higher, 2017

1	Los Angeles	29.6
2	Austin	27.0
3	Portland	26.9
4	New Orleans	26.6
5	Sacramento	26.3
6	New York	26.3
7	Richmond	26.2
8	Salt Lake City	25.9
9	San Francisco	25.8
10	Hartford	25.6
11	Riverside	25.3
12	Nashville	25.3
13	Boston	25.2
14	Louisville	25.0
15	Providence	24.8
16	Minneapolis	24.5
17	Washington, D.C.	24.5
18	Denver	24.4
19	Chicago	24.4
20	San Diego	24.2
21	Seattle	24.0
22	Buffalo	24.0
23	Charlotte	23.8
24	Kansas City	23.6
United States		23.6
25	Baltimore	23.4
26	Milwaukee	23.4
27	Virginia Beach	23.3
28	Cincinnati	23.1
29	Philadelphia	23.0
30	Columbus	22.8
31	Birmingham	22.4
32	Las Vegas	22.4
33	St. Louis	22.2
34	Cleveland	22.1
35	Indianapolis	22.1
36	Oklahoma City	22.0
37	Atlanta	21.9
38	Memphis	21.7
39	Phoenix	21.7
40	Dallas	21.6
41	Jacksonville	21.4
42	Orlando	21.3
43	San Antonio	21.2
44	Pittsburgh	21.1
45	Raleigh	20.9
46	Miami	20.6
47	Detroit	20.2
48	Tampa	20.2
49	Houston	18.2
50	San Jose	17.5

U.S. Census Bureau, American Community Survey 1-Year Estimates (B15012)

Table 3-17 STEM Employment
Jobs requiring knowledge of science, technology, engineering, or math as a percent of all jobs, 2017

1	San Jose	20.5
2	Washington, D.C.	11.7
3	Seattle	11.5
4	Raleigh	11.3
5	San Francisco	10.9
6	Austin	10.8
7	Boston	10.7
8	Detroit	9.6
9	Denver	9.4
10	San Diego	9.0
11	Portland	8.8
12	Baltimore	8.7
13	Minneapolis	8.1
14	Hartford	7.9
15	Columbus	7.8
15	Salt Lake City	7.8
17	Atlanta	7.5
17	Kansas City	7.5
19	Houston	7.4
20	Sacramento	7.3
21	Philadelphia	7.1
21	Pittsburgh	7.1
23	Dallas	7.0
23	Phoenix	7.0
23	Virginia Beach	7.0
26	Charlotte	6.9
27	Cincinnati	6.7
28	Cleveland	6.5
28	Indianapolis	6.5
28	Oklahoma City	6.5
31	Milwaukee	6.3
31	Richmond	6.3
31	St. Louis	6.3
United States		6.2
34	Chicago	6.1
35	Los Angeles	6.0
36	Tampa	5.7
37	New York	5.6
38	Nashville	5.4
39	Providence	5.3
40	Buffalo	5.2
41	Orlando	5.1
41	San Antonio	5.1
43	Jacksonville	5.0
44	Birmingham	4.8
45	Louisville	4.7
46	Miami	4.1
47	New Orleans	3.9
48	Memphis	3.6
49	Las Vegas	2.9
50	Riverside	2.8

Source: Bureau of Labor Statistics, Occupational Employment Statistics

Table 3-18: Jobs in STEM pay well relative to other occupations in the St. Louis region. The median wage for STEM occupations in the region is around $80,000, which is over twice as high as the median wage for non-STEM occupations. St. Louis ranks close to the national average with respect to median wages in STEM jobs. Coastal regions have higher wages and salaries but also higher costs of living (see page 32).

"The median wage for STEM occupations in the region is around $80,000, which is over twice as high as the median wage for non-STEM occupations."

Racial disparities in educational attainment persist even as the overall educational attainment levels of the region increase. This section explores several measures of educational attainment through a racial equity lens.

Table 3-19: In spite of improvements, black adults in St. Louis are still over twice as likely to lack a high school diploma as their white counterparts. In 2017, 14.3 percent of black adults lacked a high school diploma or equivalent, compared with 6.3 percent of white adults.

Some progress has occurred in recent years. In 2007, about one out of every five black adults did not have a high school diploma, but as of 2017, this rate is now around one out of every seven black adults. Still, the disparity between black and white adults has held steady, even increasing slightly over the last decade.

Table 3-18
STEM
Annual Median Wage
Annual median wage for STEM occupations, 2017

#	City	Wage
1	San Jose	119,720
2	San Francisco	110,800
3	Seattle	105,920
4	Washington, D.C.	105,590
5	New York	95,910
6	Boston	93,870
7	San Diego	92,420
8	Hartford	92,250
9	Houston	92,200
10	Baltimore	91,660
11	Denver	91,580
12	Los Angeles	91,410
13	Dallas	89,760
14	Sacramento	88,660
15	Philadelphia	87,590
16	Austin	86,680
17	Portland	86,560
18	Charlotte	86,520
19	Providence	85,130
20	Detroit	85,000
21	Raleigh	84,880
22	Minneapolis	84,280
23	Atlanta	83,240
24	Chicago	83,150
United States		**83,110**
25	Richmond	81,570
26	Columbus	80,900
27	**St. Louis**	**80,670**
28	Phoenix	79,350
29	San Antonio	79,250
30	Virginia Beach	78,670
31	Cincinnati	78,320
32	Birmingham	77,740
33	Kansas City	77,630
34	Salt Lake City	76,720
35	Riverside	76,710
36	Las Vegas	76,590
37	Pittsburgh	75,440
38	Cleveland	75,080
39	Orlando	74,770
40	Milwaukee	74,550
41	Jacksonville	74,270
42	Indianapolis	74,110
43	Louisville	72,820
44	New Orleans	72,750
45	Nashville	72,700
46	Miami	72,080
47	Buffalo	71,500
48	Oklahoma City	71,100
49	Tampa	70,170
50	**Memphis**	**68,980**

Source: Bureau of Labor Statistics, Occupational Employment Statistics

Table 3-19
Racial Disparity in Education
Ratio of black to white adults aged 25 and older with less than a high-school diploma, 2017

#	City	Ratio
1	Minneapolis	5.90
2	San Francisco	4.12
3	Milwaukee	3.63
4	Miami	3.45
5	Buffalo	3.00
6	Denver	2.97
7	Boston	2.94
8	Austin	2.66
9	Washington, D.C.	2.59
10	Chicago	2.57
11	New York	2.49
12	Raleigh	2.48
13	Orlando	2.47
14	Richmond	2.45
15	Seattle	2.41
16	Portland	2.40
17	Kansas City	2.39
18	Hartford	2.37
19	**St. Louis**	**2.27**
20	New Orleans	2.24
21	Memphis	2.15
22	San Diego	2.13
23	Philadelphia	2.13
24	Los Angeles	2.13
25	Virginia Beach	2.12
26	Houston	2.11
27	Cleveland	2.03
28	Indianapolis	2.01
United States		**1.97**
29	Baltimore	1.95
30	Sacramento	1.90
31	Las Vegas	1.88
32	Dallas	1.80
33	San Antonio	1.79
34	Cincinnati	1.77
35	Detroit	1.74
36	Phoenix	1.71
37	Tampa	1.68
38	Columbus	1.65
39	Pittsburgh	1.62
40	Atlanta	1.56
41	Jacksonville	1.47
42	Nashville	1.45
43	Oklahoma City	1.44
44	Charlotte	1.43
45	Providence	1.42
46	Birmingham	1.41
47	Riverside	1.31
48	**Louisville**	**1.26**

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

Table 3-20: There is also a high rate of racial disparity between black and white adults in terms of college attainment. The percentage of white adults with a college degree is twice the percentage of black adults, and this disparity has changed little over the last decade.

In St. Louis, 18.5 percent of black adults have a college degree, which is relatively low compared to the peer regions. The percentage of white adults with a college degree is also relatively small compared with the peer regions. In St. Louis, 37.2 percent of white adults have a college degree. On both measures, St. Louis is in the bottom half of the peer regions.

Nonetheless, the percentage of black adults with a college degree has increased over the last decade. In 2007, 14.8 percent of black adults held a college degree, compared with 18.5 percent as of 2017. Black females account for much of the growth in college attainment among black adults. Over the last decade, there were nearly 16,000 additional black adults with a college degree, 60 percent of whom were women.

Between 2007 and 2017, the percentage of black women with a college degree increased from 16.3 percent to 20.1 percent. For black males, the percentage with a college degree has remained mostly the same, fluctuating around 15 percent.

Women are also driving much of the increase in college attainment levels among white adults. Between 2007 and 2017, white females accounted for 63.3 percent of the increases in white adults with a college degree. In 2007, 28.6 percent of white females had attained a college degree, and in 2017, this percentage increased to 37.2 percent. The percentage of white men with a college degree also increased but by a smaller margin. From 2007 to 2017, the percentage of white males with a college degree increased from 32.2 percent to 37 percent.

Table 3-20
Racial Disparity in Higher Education

Ratio of white to black adults aged 25 and older with a bachelor's degree or higher, 2017

1	**Milwaukee**	**3.07**
2	Miami	2.33
3	Buffalo	2.28
4	Kansas City	2.28
5	New Orleans	2.24
6	Cleveland	2.22
7	San Francisco	2.21
8	Hartford	2.13
9	Memphis	2.09
10	Chicago	2.08
11	**St. Louis**	**2.01**
12	Richmond	2.01
13	Philadelphia	1.99
14	Minneapolis	1.96
15	New York	1.92
16	Detroit	1.91
17	Boston	1.89
18	San Diego	1.89
19	Birmingham	1.88
20	Jacksonville	1.85
21	Washington, D.C.	1.83
22	Denver	1.82
23	Cincinnati	1.81
24	Los Angeles	1.81
25	Columbus	1.78
26	Baltimore	1.74
27	Orlando	1.73
28	Raleigh	1.72
29	Pittsburgh	1.71
30	Indianapolis	1.69
United States		**1.67**
31	Seattle	1.66
32	Houston	1.64
33	Las Vegas	1.62
34	Dallas	1.62
35	Sacramento	1.61
36	Virginia Beach	1.61
37	Oklahoma City	1.60
38	Austin	1.59
39	Phoenix	1.58
40	Providence	1.58
41	Tampa	1.57
42	Louisville	1.57
43	Atlanta	1.50
44	Charlotte	1.43
45	Portland	1.40
46	San Antonio	1.33
47	Nashville	1.31
48	**Riverside**	**1.20**

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

College Attendance and Completion

White adults are not only more likely to graduate with a degree than black adults, but they are also more likely to attend college.[1] These factors impede the region's progress on achieving racial equity in education.

Table 3-21: In St. Louis, two-thirds of white adults have attended college at some point in their life. For black adults, the percentage is 54.6. The region's rate of disparity on college attendance is slightly larger than the national average and ranks 18th among the peer regions.

Table 3-22: Among those who have attended college, two-thirds of white adults in St. Louis have graduated with at least one degree compared with around 50 percent of black adults. Of those who have attended college, white adults are 36 percent more likely to have graduated than black adults. This disparity is actually one of the largest among the peer regions, ranking 10th. Similar to other measures of racial disparity and segregation, many Midwest peers have the highest rates of racial disparity in college graduation.

Figure 3-03 shows educational attainment levels for adults aged 25 and older by race and ethnicity in the St. Louis area. Asians have the highest percentage with a post-secondary degree (71.7 percent), followed by whites (46.2 percent). Hispanic or Latinos and Blacks have the lowest percentages of adults with post-secondary degrees, with 37.0 and 27.4 percent, respectively.

Figure 3-03
Educational Attainment by Race
Percent of population aged 25 and older
St. Louis MSA, 2017
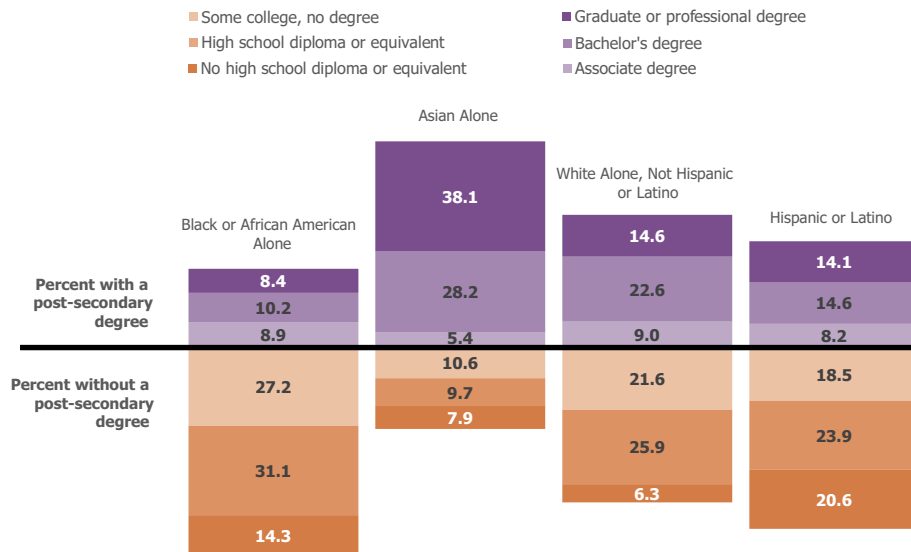
Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates (B15001, B15002D, B15002H, B15002I).

Table 3-21
Racial Disparity in College Attendance
Ratio of white to black adults, 2017

1	**Miami**	**1.50**
2	Milwaukee	1.46
3	Hartford	1.42
4	Memphis	1.35
5	New York	1.33
6	New Orleans	1.33
7	Richmond	1.33
8	San Francisco	1.33
9	Austin	1.32
10	Providence	1.31
11	Kansas City	1.30
12	Washington, D.C.	1.30
13	Boston	1.30
14	Minneapolis	1.29
15	Philadelphia	1.29
16	Buffalo	1.27
17	Denver	1.26
18	**St. Louis**	**1.24**
19	Indianapolis	1.24
20	Chicago	1.23
21	Baltimore	1.22
22	Jacksonville	1.22
United States		**1.21**
23	Cleveland	1.21
24	Orlando	1.21
25	Raleigh	1.20
26	Tampa	1.19
27	Los Angeles	1.19
28	Virginia Beach	1.19
29	Seattle	1.18
30	Cincinnati	1.18
31	Dallas	1.18
32	Detroit	1.18
33	Houston	1.18
34	Birmingham	1.18
35	San Jose	1.17
36	San Diego	1.17
37	Oklahoma City	1.17
38	Columbus	1.17
39	Salt Lake City	1.16
40	Phoenix	1.15
41	Portland	1.14
42	Atlanta	1.14
43	Las Vegas	1.13
44	Sacramento	1.12
45	Charlotte	1.12
46	Pittsburgh	1.11
47	Louisville	1.08
48	San Antonio	1.07
49	Riverside	1.04
50	**Nashville**	**1.02**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002B, B15002H)

Table 3-22
Racial Disparity in College Graduation
Ratio of white to black adults, 2017

1	**Milwaukee**	**1.55**
2	Cleveland	1.52
3	Kansas City	1.51
4	New Orleans	1.48
5	Buffalo	1.46
6	Chicago	1.42
7	San Francisco	1.40
8	Detroit	1.38
9	Minneapolis	1.37
10	**St. Louis**	**1.36**
11	Philadelphia	1.35
12	Memphis	1.35
13	San Diego	1.34
14	Columbus	1.33
15	Pittsburgh	1.33
16	San Jose	1.32
17	Boston	1.31
18	Louisville	1.31
19	Raleigh	1.31
20	Los Angeles	1.30
21	Jacksonville	1.29
22	Baltimore	1.29
23	Richmond	1.28
24	Washington, D.C.	1.28
25	New York	1.26
26	Birmingham	1.26
27	Las Vegas	1.26
28	Dallas	1.26
United States		**1.24**
29	Houston	1.24
30	Hartford	1.24
31	Seattle	1.23
32	Phoenix	1.23
33	Sacramento	1.23
34	Oklahoma City	1.22
35	Charlotte	1.22
36	Providence	1.22
37	Cincinnati	1.22
38	Denver	1.21
39	Miami	1.19
40	Nashville	1.19
41	Virginia Beach	1.19
42	Portland	1.18
43	Indianapolis	1.18
44	Tampa	1.18
45	Atlanta	1.16
46	Austin	1.12
47	Orlando	1.10
48	Riverside	1.09
49	San Antonio	1.07
50	**Salt Lake City**	**1.02**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002B, B15002H)

1 Degrees include associate, bachelor's, professional, and other post-graduate degrees as well as doctorates.

Foreign-born workers are an important and growing subset of the region's workforce. Research finds that there are many economic benefits associated with foreign-born workers, including greater labor force participation and higher rates of entrepreneurism (Strauss, 2012). Several local initiatives are seeking to attract and connect more foreign-born individuals with the regional workforce, including the International Institute of St. Louis and the St. Louis Mosaic Project.

Table 3-23: The St. Louis region has one of the lowest percentages of foreign-born workers. In 2017, 6 percent of the region's workforce were not U.S. citizens at birth. This is the second lowest percentage among the peer regions, ranking 48th. Many of the Midwest peers also have relatively small percentages of foreign-born workers; all are below the national

average except for Chicago, where nearly 23 percent of the workforce is foreign-born.

Table 3-24: The foreign-born population in St. Louis is highly educated. In 2017, nearly 47 percent of the foreign-born population aged 25 and older in St. Louis had a college degree. By comparison, 34 percent of the native-born population in St. Louis had a bachelor's degree or higher. With a ranking of 5th, the percentage of foreign-born adults with a college degree is one of the highest among the peer regions.

Figure 3-04 shows educational attainment levels for adults aged 25 and older who live in St. Louis by their place of birth. This figure shows that in St. Louis, foreign-born adults not only have higher rates of college degrees, but also are nearly twice as likely to have an advanced degree as native-born adults.

Figure 3-04
Educational Attainment by Place of Birth

Percent of population aged 25 and older
St. Louis MSA, 2017

- ■ No high school diploma or equivalent
- ■ High school diploma or equivalent
- ■ Some college or associate degree
- ■ Bachelor's degree
- ■ Graduate or professional degree

	No high school diploma	High school diploma	Some college or associate	Bachelor's degree	Graduate or professional
Total	8.0	26.2	31.2	20.5	14.1
Native-Born	7.6	26.7	31.9	20.4	13.4
Foreign-Born	14.3	19.4	19.4	20.8	26.1

Percent without a bachelor's degree | Percent with a bachelor's degree or higher

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates (S0501).

Table 3-23
Foreign-Born Workers
Percent of all employed persons, 2017

1	Miami	49.3
2	San Jose	47.9
3	Los Angeles	40.0
4	San Francisco	36.7
5	New York	35.8
6	Houston	30.8
7	Las Vegas	30.6
8	Washington, D.C.	29.2
9	San Diego	28.5
10	Riverside	26.8
11	Dallas	24.1
12	Sacramento	23.1
13	Chicago	22.7
14	Orlando	22.6
15	Boston	22.2
16	Seattle	22.0
17	Austin	18.5
18	Atlanta	18.3
19	Phoenix	17.9
20	Tampa	17.5
United States		**17.3**
21	Hartford	16.4
22	Raleigh	16.0
23	Salt Lake City	16.0
24	Portland	15.7
25	Providence	15.2
26	San Antonio	14.8
27	Denver	14.6
28	Baltimore	14.0
29	Philadelphia	13.7
30	Minneapolis	12.9
31	Charlotte	12.9
32	Jacksonville	12.0
33	Detroit	11.8
34	Nashville	10.1
35	Oklahoma City	9.9
36	Columbus	9.6
37	New Orleans	9.4
38	Richmond	9.2
39	Indianapolis	8.7
40	Milwaukee	8.5
41	Kansas City	8.5
42	Virginia Beach	7.8
43	Louisville	7.6
44	Memphis	7.4
45	Cleveland	6.5
46	Cincinnati	6.4
47	Buffalo	6.3
48	**St. Louis**	**6.0**
49	**Pittsburgh**	**4.4**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0501)

Table 3-24
College-Educated Foreign-Born Adults
Percent of foreign-born adults aged 25 and older with a bachelor's degree or higher, 2017

1	Pittsburgh	57.6
2	San Jose	52.0
3	Cincinnati	50.9
4	Baltimore	47.1
5	**St. Louis**	**46.9**
6	Raleigh	44.6
7	Washington, D.C.	43.9
8	Seattle	43.3
9	Richmond	42.8
10	Columbus	42.7
11	San Francisco	42.6
12	Philadelphia	41.8
13	Detroit	41.5
14	Boston	40.7
15	Cleveland	40.1
16	Buffalo	38.0
17	Atlanta	37.7
18	Indianapolis	37.3
19	Austin	37.0
20	Jacksonville	36.3
21	Virginia Beach	35.1
22	Minneapolis	35.0
22	Portland	35.0
24	Hartford	34.7
25	Milwaukee	33.9
26	Nashville	33.7
27	Charlotte	33.6
28	New York	32.9
29	Memphis	32.7
30	Kansas City	31.9
31	San Diego	31.6
32	Chicago	31.5
United States		**31.0**
33	Louisville	30.9
34	Orlando	30.5
35	Denver	29.9
36	Tampa	29.5
37	Sacramento	29.2
38	Dallas	29.1
38	Houston	29.1
40	Salt Lake City	27.7
41	Miami	27.4
42	Los Angeles	27.2
43	Oklahoma City	26.1
44	New Orleans	24.5
45	Phoenix	24.0
46	Providence	22.8
47	San Antonio	22.6
48	Las Vegas	21.6
49	**Riverside**	**18.9**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0501)

The employment picture is improving for many individuals in the St. Louis region (see Economy Chapter, page 17), but some workers still struggle to find employment. This section explores several measures related to workforce engagement, including employment-population ratios, college enrollment, disconnected youth, and the employment rate for people with disabilities.

Table 3-25: A growing share of the working-age population is finding employment in the St. Louis region. In 2017, over 75 percent of adults aged 18 to 64 were employed in St. Louis, a rate that ranks 16th among the peer regions. Between 2012 and 2017, the employment rate for adults aged 18 to 64 increased by over four percentage points, which was one of the biggest increases of the peer regions, as shown in **Table 3-26**.

Over the last decade, the employment picture has varied by age. Following the recession, younger workers experienced the biggest decline in employment and have recovered slowly. Meanwhile, the employment rate for people 55 and older has steadily increased. Researchers at the Bureau of Labor Statistics (BLS) have also observed growing employment rates for older Americans, which they say "is being fueled by the aging baby-boom generation" (Toossi and Torpey, 2017).

People are working later in life for a number of reasons. They are healthier and have a longer life expectancy than previous generations. They are better educated, which increases their likelihood of staying in the labor force. And changes to Social Security benefits and employee retirement plans, along with the need to save more for retirement, create incentives to keep working.

Table 3-25 Employment-Population Ratio

Ratio of employees aged 18-64 to total population aged 18-64, 2017

1	Minneapolis	82.1
2	Denver	80.5
3	Salt Lake City	79.3
4	Washington, D.C.	79.1
5	Kansas City	78.4
6	Nashville	78.0
7	Boston	78.0
8	Austin	77.5
9	Raleigh	77.5
10	Portland	77.2
11	San Francisco	76.8
12	Seattle	76.6
13	Columbus	76.6
14	San Jose	76.5
15	Milwaukee	76.5
16	St. Louis	76.3
17	Indianapolis	76.2
18	Cincinnati	76.1
19	Baltimore	76.1
20	Dallas	75.9
21	Richmond	75.8
22	Louisville	75.7
23	Hartford	75.5
24	Pittsburgh	75.3
25	Charlotte	75.2
26	Buffalo	75.1
27	Atlanta	75.0
28	Providence	74.9
29	Chicago	74.6
30	Oklahoma City	74.1
31	Cleveland	73.9
32	San Diego	73.9
33	Virginia Beach	73.8
34	Orlando	73.6
35	New York	73.6
36	Phoenix	73.5
37	Miami	73.2
United States		**73.1**
38	Las Vegas	73.0
39	Philadelphia	72.9
40	Jacksonville	72.7
41	Los Angeles	72.6
42	Houston	72.2
43	Tampa	72.0
44	Detroit	71.4
45	Memphis	71.3
46	San Antonio	71.3
47	Sacramento	70.6
48	New Orleans	69.7
49	Birmingham	69.3
50	Riverside	67.5

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

Table 3-26 Change in Employment-Population Ratio

Percentage point difference, 2012-2017

1	Portland	6.0
2	Atlanta	5.8
3	San Diego	5.7
4	Jacksonville	5.5
5	Riverside	5.5
6	Nashville	5.4
7	San Jose	5.4
8	Detroit	5.2
9	Denver	4.8
10	San Francisco	4.8
11	Tampa	4.7
12	Las Vegas	4.6
13	Sacramento	4.5
14	Los Angeles	4.5
15	St. Louis	4.3
16	Louisville	4.3
17	Orlando	4.1
18	Cincinnati	4.1
19	Phoenix	4.0
20	Kansas City	3.9
21	Salt Lake City	3.9
22	Charlotte	3.9
23	Miami	3.8
24	Austin	3.8
25	New York	3.8
26	Buffalo	3.8
27	Raleigh	3.7
28	Chicago	3.7
29	Providence	3.5
30	Memphis	3.4
United States		**3.4**
31	Seattle	3.4
32	Philadelphia	3.4
33	Cleveland	3.3
34	Columbus	3.3
35	Minneapolis	3.2
36	Richmond	3.2
37	Baltimore	3.2
38	Boston	3.2
39	Pittsburgh	3.0
40	Dallas	2.9
41	Milwaukee	2.6
42	Virginia Beach	2.6
43	Birmingham	2.4
44	Indianapolis	2.3
45	New Orleans	2.0
46	Oklahoma City	1.9
47	Washington, D.C.	1.8
48	Houston	1.7
49	Hartford	1.0
50	San Antonio	0.9

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

Table 3-27: There are currently around 170,000 individuals enrolled in college or graduate school in the St. Louis area, which is 7.8 percent of the adult population. A majority, 56 percent, are women. If the region could increase the proportion of these enrollees that graduate and retain a larger number of graduates, this would go a long way to alleviating current and future shortages in skilled labor.

Table 3-28: Young adults who are currently not engaged in either school or work offer another potential resource in meeting the workforce needs of the region. In St. Louis, there are around 330,000 youth between the ages of 16 and 24. Of this total, around 26,000 are disconnected from the workforce. These youth do not have jobs and are not enrolled in school. Engaging these young people in productive activities could offer an opportunity to fill some of the region's looming workforce shortages.

Most disconnected youth have completed high school (73 percent), but a vast majority lack a college degree (96 percent). About 20 percent of disconnected youth live with a disability. A significant majority of the disabled in this population group have a cognitive disability (78.7 percent). The disconnected youth population in the region is disproportionately non-white (52.7 percent). Non-Hispanic black disconnected youth comprise 44 percent of the disconnected youth population.

In St. Louis, the percentage of youth who are disconnected from the workforce ranks in the middle of the peer regions and is near the national average. Many regions with the highest percentages of disconnected youth are located in the South and in the West. Among the Midwest peers, St. Louis has the third highest rate of disconnected youth, behind only Detroit and Chicago. In St. Louis, black youth are over two and half times more likely to be disconnected from the workforce than their white peers.

Table 3-27
Enrollment in College or Graduate School
Percent of adults aged 18 and older, 2017

#	City	Value
1	San Diego	11.6
2	Los Angeles	11.1
3	Boston	10.9
4	Virginia Beach	10.8
5	Riverside	10.6
6	San Jose	10.4
7	Sacramento	10.4
8	Hartford	10.4
9	Providence	10.2
10	Salt Lake City	10.1
11	Austin	10.1
12	Washington, D.C.	10.0
13	Baltimore	9.8
14	Oklahoma City	9.8
15	Orlando	9.7
16	San Francisco	9.3
17	Raleigh	9.1
18	San Antonio	9.0
19	Miami	9.0
20	Buffalo	8.9
21	Philadelphia	8.9
22	New York	8.9
United States		**8.8**
23	Columbus	8.8
24	Houston	8.7
25	Minneapolis	8.6
26	Chicago	8.5
27	Atlanta	8.5
28	Dallas	8.5
29	Richmond	8.3
30	New Orleans	8.3
31	Phoenix	8.2
32	Milwaukee	8.2
33	Cincinnati	8.2
34	Tampa	8.0
35	Cleveland	8.0
36	Nashville	7.9
37	Portland	7.8
38	**St. Louis**	**7.8**
39	Detroit	7.8
40	Seattle	7.8
41	Memphis	7.7
42	Charlotte	7.6
43	Jacksonville	7.6
44	Denver	7.5
45	Birmingham	7.5
46	Pittsburgh	7.5
47	Indianapolis	7.2
48	Kansas City	7.1
49	Las Vegas	7.0
50	**Louisville**	**6.7**

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B14004)

Table 3-28
Disconnected Youth
Youth aged 16 to 24 not in school and not working as a percent of all youth, 2012-2016 average

#	City	Value
1	Riverside	12.4
2	Memphis	11.2
3	New Orleans	11.1
4	Phoenix	10.9
5	Las Vegas	10.8
6	Detroit	10.3
7	Tampa	10.2
8	Sacramento	9.9
9	Birmingham	9.9
10	New York	9.7
11	Miami	9.7
12	Atlanta	9.5
13	Jacksonville	9.4
14	San Antonio	9.3
15	Houston	9.2
16	Philadelphia	9.2
17	Los Angeles	8.9
United States		**8.7**
18	Charlotte	8.6
19	Orlando	8.6
20	Chicago	8.5
21	San Diego	8.0
22	**St. Louis**	**8.0**
23	Dallas	8.0
24	Baltimore	8.0
25	Louisville	7.8
26	Indianapolis	7.7
27	Milwaukee	7.7
28	Cleveland	7.6
29	Portland	7.5
30	Richmond	7.2
31	Virginia Beach	7.1
32	Oklahoma City	7.0
33	Seattle	7.0
34	Washington, D.C.	7.0
35	Salt Lake City	6.9
36	Kansas City	6.9
37	Nashville	6.8
38	San Francisco	6.8
39	Raleigh	6.7
40	Providence	6.6
41	Buffalo	6.6
42	Denver	6.6
43	Hartford	6.5
44	Cincinnati	6.4
45	Columbus	6.4
46	San Jose	6.1
47	Austin	5.9
48	Pittsburgh	5.9
49	Minneapolis	4.5
50	**Boston**	**4.4**

Source: IPUMS-USA, University of Minnesota

Table 3-29: An additional resource for meeting workforce needs is the population of disabled individuals who are currently not participating in the labor force. In St. Louis, less than half (38.3 percent) of disabled adults aged 18 to 64 are employed. Most peer regions have higher employment rates for disabled working-age adults. In Austin and Salt Lake City, more than half of those with disabilities are employed. Some of the Midwest peers, including Minneapolis and Kansas City, also have higher employment rates for persons with disabilities.

Figure 3-05 shows rates of labor force participation, employment, and unemployment for adults aged 18 to 64 by disability status. The figure shows that 55.5 percent of adults living with a disability do not participate in the labor force (they are neither employed nor seeking employment). Of those who do participate in the labor force, 86.1 percent are employed and 13.9 percent are unemployed. Adults with hearing and vision difficulties are most likely to participate in the labor force and have higher rates of employment compared with adults who live with other disability types. Adults with cognitive and self-care difficulties are the most likely to be unemployed.

Table 3-29
Employment Rate for Adults with Disabilities
Percent of disabled
adults aged 18-64, 2017

1	**Austin**	**54.3**
2	Salt Lake City	50.2
3	Denver	49.7
4	Minneapolis	49.6
5	Washington, D.C.	49.2
6	Raleigh	47.5
7	Virginia Beach	46.0
8	Kansas City	45.3
9	Seattle	45.0
10	Dallas	43.1
11	Boston	41.8
12	Nashville	41.7
13	San Jose	41.3
14	Columbus	41.3
15	Indianapolis	41.3
16	Portland	41.0
17	San Francisco	41.0
18	Hartford	40.9
19	Orlando	40.5
20	San Antonio	40.2
21	Oklahoma City	40.2
22	San Diego	40.0
23	Baltimore	39.5
24	Pittsburgh	39.5
25	Richmond	39.2
26	Cleveland	38.8
27	Chicago	38.6
28	Phoenix	38.6
29	Las Vegas	38.3
30	**St. Louis**	**38.3**
31	Houston	38.2
32	Atlanta	38.1
33	Los Angeles	37.7
34	Jacksonville	37.5
35	Providence	37.5
United States		**37.0**
36	Cincinnati	36.7
37	New York	36.5
38	Philadelphia	36.4
39	Louisville	36.4
40	Milwaukee	35.6
41	Charlotte	34.6
42	Miami	33.7
43	Tampa	33.6
44	Buffalo	32.9
45	Sacramento	32.8
46	Riverside	32.8
47	New Orleans	32.8
48	Detroit	32.4
49	Memphis	30.2
50	**Birmingham**	**29.5**

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

Figure 3-05
Labor Force Participation and Employment by Disability Status

Percent of adults aged 18-64
St. Louis MSA, 2017
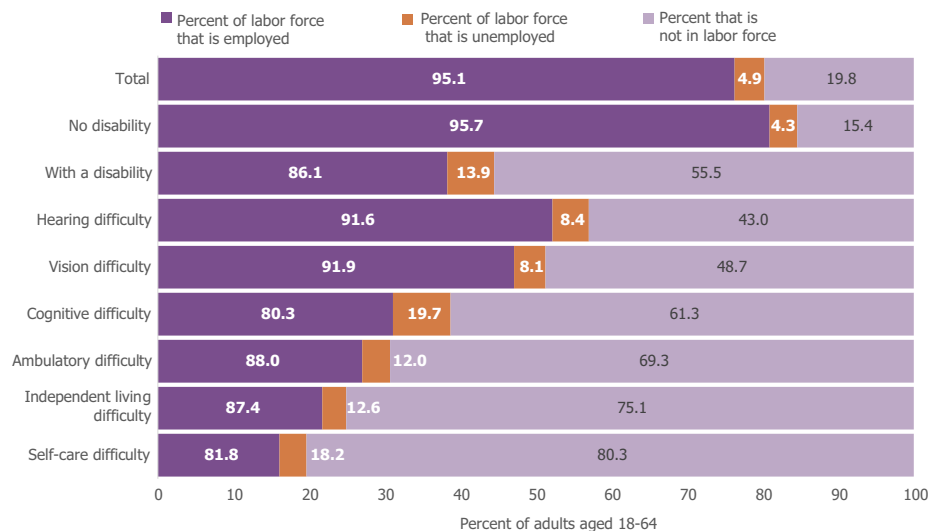
Note: An individual may have more than one disability.

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

School Resources and Quality: Investing in the Future Workforce

A more competitive workforce begins with the K-12 education system. This section offers some indicators of school resources and of school quality.

School Resources[3]

In terms of resources, districts in the St. Louis region remain about in the middle of the peer regions. While spending levels vary somewhat among districts within the region, aggregate spending per pupil in the region appears competitive with most of the peer regions.

Table 3-30: St. Louis stands at about the national average with respect to education spending. In the 2015-2016 school year, school districts in the St. Louis region spent about $13,500 per pupil. The region ranks 20th on total spending per pupil, which is close to the national average. School spending is relatively even across the region's richest and poorest school districts (based on median household income),

but there are key distinctions with how school funds are spent. Poorer districts in the region tend to spend more on administrative expenses and support services, whereas wealthier districts tend to spend more on areas such as instruction and building construction.

Table 3-31: In the years leading up to the last recession and through it, St. Louis saw strong growth in per pupil spending. Between 2006 and 2009, per pupil spending increased by around 15 percent in the MSA and about 8 percent nationally, after accounting for inflation.

Following the recession, however, per pupil spending in the St. Louis region waned, experiencing a decline of around 4 percent between 2009 and 2016. Nevertheless, in comparison with 2006 levels, per pupil spending in 2016 was still higher, by around 10 percent, in St. Louis. Compared with the peer regions, this is one of the biggest increases in per pupil spending over the last decade, ranking 12th, and is about twice as much as the national increase in per pupil spending.

Table 3-30 Education Spending
Total spending per pupil, 2015-2016

1	New York	26,092
2	Hartford	22,032
3	Philadelphia	21,716
4	Buffalo	21,411
5	Pittsburgh	19,422
6	Boston	19,006
7	Cleveland	17,144
8	Chicago	16,968
9	Providence	16,919
10	Washington, D.C.	16,194
11	Minneapolis	15,859
12	Baltimore	15,737
13	New Orleans	15,427
14	Seattle	14,879
15	San Francisco	14,775
16	San Jose	14,627
17	Columbus	14,597
18	Los Angeles	14,079
United States		**13,928**
19	Milwaukee	13,902
20	**St. Louis**	**13,479**
21	Detroit	13,440
22	Cincinnati	13,317
23	Portland	13,287
24	San Diego	13,256
25	Austin	12,928
26	Riverside	12,891
27	Sacramento	12,691
28	Kansas City	12,150
29	Louisville	12,137
30	Houston	11,835
31	Virginia Beach	11,730
32	Dallas	11,546
33	Indianapolis	11,544
34	Atlanta	11,338
35	San Antonio	11,338
36	Denver	11,295
37	Richmond	10,930
38	Birmingham	10,456
39	Tampa	10,372
40	Raleigh	10,336
41	Miami	10,142
42	Nashville	10,076
43	Charlotte	9,978
44	Memphis	9,944
45	Orlando	9,938
46	Jacksonville	9,480
47	Las Vegas	9,452
48	Oklahoma City	8,811
49	Phoenix	8,377
50	**Salt Lake City**	**8,129**

Source: U.S. Census Bureau, Annual Survey of School System Finances

Table 3-31 Change in Education Spending
Percent change in dollars per pupil, 2005-2006 to 2015-2016, adjusted to 2016 dollars

1	Hartford	29.7
2	Chicago	26.0
3	Seattle	26.0
4	New York	19.8
5	Pittsburgh	18.7
6	Buffalo	17.4
7	Cleveland	15.8
8	Portland	15.8
9	Philadelphia	14.4
10	Baltimore	10.7
11	Boston	10.5
12	**St. Louis**	**9.8**
13	Minneapolis	9.8
14	Providence	9.6
15	San Jose	8.3
16	Los Angeles	8.0
17	Louisville	7.1
18	Riverside	6.3
19	San Francisco	6.0
20	Columbus	5.9
United States		**5.3**
21	Salt Lake City	5.1
22	Houston	4.8
23	Nashville	3.1
24	Milwaukee	1.9
25	Kansas City	1.1
26	Washington, D.C.	0.1
27	Virginia Beach	-0.3
28	New Orleans	-0.9
29	Austin	-1.3
30	Sacramento	-1.3
31	San Diego	-3.0
32	Cincinnati	-3.2
33	Dallas	-3.6
34	Oklahoma City	-3.7
35	Memphis	-4.2
36	Richmond	-4.5
37	Charlotte	-4.9
38	San Antonio	-5.0
39	Tampa	-6.2
40	Denver	-6.8
41	Jacksonville	-7.3
42	Atlanta	-7.7
43	Raleigh	-8.0
44	Birmingham	-9.1
45	Detroit	-10.6
46	Orlando	-12.9
47	Indianapolis	-15.9
48	Phoenix	-16.0
49	Las Vegas	-19.4
50	**Miami**	**-21.0**

Source: U.S. Census Bureau, Annual Survey of School System Finances; Bureau of Labor Statistics

3 See *Where We Stand White Paper 2* for a more detailed discussion on this topic www.ewgateway.org/wws.

Table 3-32: Most education funding in the United States comes from state or local sources. Federal funding plays a relatively minor role, contributing less than 10 percent of school funding nationwide. States vary considerably on the amount of funding they devote to schools. Amounts range from $3,272 per pupil in South Dakota to over $18,000 in Vermont. The statewide average of per pupil funding is higher in Illinois than in Missouri, with Illinois spending $5,935 per pupil compared to $5,125 in Missouri. Sunbelt states tend to offer lower levels of state support for schools than states in other parts of the country. Aside from South Dakota, the other five states at the bottom of the rankings include Arizona, Florida, Oklahoma, and Texas (U.S. Census Bureau, 2016).

The St. Louis MSA ranks 25th out of the most populous 50 regions on state funding per pupil. School districts in the region receive an average of $5,418 per pupil. This is about $1,000 lower than the national average.

Table 3-33: While St. Louis ranks below the national average on state funding for education, the region ranks just above the national average on local funding. As a result, the St. Louis region is about at the national average on total spending from state and local sources. Northeastern regions tend to have the highest levels of local funding for education. The six regions at the top of the ranking are all in states on the Atlantic Coast. The bottom fifth is made up of Sunbelt regions from the South or Southwest. St. Louis ranks 17th, with an average of $7,372 per pupil from local sources.

Figure 3-06 (see page 62) shows average per pupil revenue for districts in the St. Louis area by median household income. Districts with the lowest levels of median household income take in nearly as much in revenue per pupil as districts with the highest levels of median household income. This is due to differences in sources of funding. Districts with the lowest levels of median household income receive over 60 percent of their revenues from the state and federal governments on average. Among districts with the highest levels of median household income, an average of 64 percent of revenues come from local sources of funding.

Note that within the St. Louis MSA, there are 122 school districts with data on median household income. As a result, each income quartile has at least 30 school districts, with the lower and upper quartiles having 31. School districts are grouped into quartiles by the following median household income ranges in 2016: the lowest quartile has less than $49,601; the second quartile has between $49,602 to $54,875; the third quartile has between $54,875 and $68,940; and the upper quartile has levels greater than $68,940.

Table 3-32
State Funding per Pupil
Dollars per pupil, 2015-2016

1	Buffalo	12,554
2	Hartford	10,374
3	Minneapolis	9,693
4	New York	9,176
5	Riverside	9,143
6	Los Angeles	8,865
7	Detroit	8,302
8	Sacramento	8,296
9	Seattle	8,070
10	Philadelphia	7,885
11	Indianapolis	7,775
12	Providence	7,553
13	Pittsburgh	7,340
14	Baltimore	7,239
15	Portland	6,819
16	Milwaukee	6,635
United States		**6,546**
17	San Diego	6,523
18	Boston	6,486
19	Kansas City	6,298
20	Las Vegas	6,153
21	San Francisco	6,137
22	Chicago	5,950
23	Louisville	5,947
24	Cincinnati	5,466
25	**St. Louis**	**5,418**
26	Cleveland	5,406
27	Birmingham	5,404
28	Raleigh	5,391
29	Virginia Beach	5,365
30	Charlotte	5,363
31	Richmond	5,191
32	Washington, D.C.	5,020
33	San Jose	4,901
34	Atlanta	4,897
35	Denver	4,868
36	New Orleans	4,810
37	Memphis	4,712
38	Tampa	4,623
39	Columbus	4,614
40	Jacksonville	4,571
41	San Antonio	4,393
42	Orlando	4,223
43	Nashville	4,122
44	Salt Lake City	4,061
45	Dallas	3,944
46	Oklahoma City	3,940
47	Houston	3,716
48	Phoenix	3,640
49	Miami	3,165
50	**Austin**	**2,613**

Source: U.S. Census Bureau, Annual Survey of School System Finances

Table 3-33
Local Funding per Pupil
Dollars per pupil, 2015-2016

1	New York	15,207
2	Philadelphia	12,879
3	Hartford	12,331
4	Boston	12,006
5	Pittsburgh	10,787
6	Washington, D.C.	10,268
7	Cleveland	9,967
8	Chicago	9,891
9	San Jose	9,479
10	New Orleans	9,381
11	Austin	9,196
12	Columbus	9,062
13	Providence	8,888
14	San Francisco	8,123
15	Buffalo	8,111
16	Baltimore	7,743
17	**St. Louis**	**7,372**
18	Cincinnati	7,177
19	Dallas	6,493
20	Houston	6,399
United States		**6,381**
21	Milwaukee	6,150
22	San Diego	6,107
23	Denver	5,894
24	Miami	5,829
25	Atlanta	5,637
26	San Antonio	5,524
27	Richmond	5,523
28	Portland	5,409
29	Kansas City	5,387
30	Seattle	5,312
31	Orlando	5,286
32	Detroit	5,235
33	Louisville	5,195
34	Virginia Beach	5,122
35	Minneapolis	4,863
36	Nashville	4,797
37	Los Angeles	4,493
38	Phoenix	4,293
39	Indianapolis	4,263
40	Sacramento	4,150
41	Birmingham	4,029
42	Tampa	3,999
43	Oklahoma City	3,974
44	Jacksonville	3,900
45	Memphis	3,877
46	Salt Lake City	3,774
47	Charlotte	3,272
48	Riverside	3,194
49	Las Vegas	2,875
50	**Raleigh**	**2,554**

Source: U.S. Census Bureau, Annual Survey of School System Finances

Table 3-34: St. Louis ranks 24th, near the middle, on percent change in state funding for schools from 2006 to 2016. After adjusting for inflation, 16 MSAs have seen declines in state support. Three Texas peer regions have seen increases of 29.7 percent or more in state funding, with Dallas topping the list with an increase of 53.4 percent. In part, this reflects increases in property values that subsequently generate more property taxes, which are commonly used to fund schools. In Texas, most of the increase in property taxes went to state government, which in turn distributed it to districts according to a formula. This appears to account for much of the increase in state funding in Texas (Dickson and Sakelaris, 2018). Chicago is another region that saw a dramatic increase. Much of this increase appears to be due to changes in the poverty funding formula through which the state's General State Aid grants funneled resources to districts with high proportions of families in poverty (Klingner, 2013).

Table 3-35: Nineteen MSAs saw declines in local funding for schools, after adjusting for inflation, between 2006 and 2016. In St. Louis, local funding per pupil increased by nearly 14 percent, a rate that ranks 18th among the peer regions and is larger than the national average.

Figure 3-06
Total School Funding by Revenue Source and Household Income

Districts within the St. Louis MSA, 2015 to 2016

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates (B19013) and the Annual Survey of School System Finances.

Table 3-34
Change in State Funding per Pupil

Percent change in state funding per pupil, 2005-2006 to 2015-2016, adjusted to 2016 dollars

1	**Dallas**	**53.4**
2	Chicago	50.0
3	Hartford	43.7
4	Austin	34.3
5	Pittsburgh	31.4
6	Houston	29.7
7	Buffalo	28.8
8	Indianapolis	25.7
9	Seattle	24.0
10	San Jose	21.6
11	Baltimore	20.9
12	Sacramento	20.4
13	Washington, D.C.	19.8
14	Philadelphia	18.5
15	Portland	18.1
16	Riverside	18.0
17	Nashville	15.5
18	Los Angeles	15.0
19	New York	14.8
20	Kansas City	13.1
21	Louisville	9.7
United States		**9.4**
22	San Francisco	7.4
23	Cincinnati	6.4
24	**St. Louis**	**6.2**
25	Providence	5.0
26	Denver	4.8
27	San Diego	4.5
28	Las Vegas	4.4
29	San Antonio	4.4
30	Detroit	4.0
31	Minneapolis	3.9
32	Richmond	1.6
33	Milwaukee	1.2
34	Atlanta	1.0
35	Salt Lake City	-0.9
36	Charlotte	-1.2
37	Birmingham	-1.7
38	Raleigh	-3.0
39	Jacksonville	-4.2
40	Cleveland	-4.2
41	Virginia Beach	-6.7
42	Columbus	-7.1
43	Boston	-7.3
44	Oklahoma City	-8.1
45	Tampa	-8.2
46	Memphis	-10.6
47	Orlando	-13.7
48	Phoenix	-18.6
49	New Orleans	-19.1
50	**Miami**	**-27.7**

Source: U.S. Census Bureau, Annual Survey of School System Finances; Bureau of Labor Statistics

Table 3-35
Change in Local Funding per Pupil

Percent change in local funding per pupil, 2005-2006 to 2015-2016, adjusted to 2016 dollars

1	**Memphis**	**61.1**
2	Los Angeles	44.6
3	New York	28.8
4	Minneapolis	28.3
5	San Francisco	27.5
6	Seattle	25.8
7	Hartford	24.2
8	Buffalo	23.9
9	Philadelphia	22.9
10	San Jose	19.7
11	Providence	19.1
12	Salt Lake City	18.2
13	Boston	17.9
14	Chicago	15.1
15	Columbus	14.9
16	Portland	14.8
17	Cleveland	14.2
18	**St. Louis**	**13.9**
19	San Diego	13.2
20	Pittsburgh	11.0
21	Baltimore	8.6
United States		**7.8**
22	Riverside	7.5
23	Virginia Beach	5.3
24	San Antonio	4.4
25	Detroit	2.2
26	Austin	0.8
27	Cincinnati	0.5
28	Richmond	0.5
29	Nashville	0.3
30	Denver	0.3
31	New Orleans	0.2
32	Milwaukee	-0.1
33	Louisville	-0.5
34	Oklahoma City	-1.0
35	Houston	-1.3
36	Orlando	-2.2
37	Miami	-6.5
38	Washington, D.C.	-6.7
39	Birmingham	-9.2
40	Kansas City	-9.6
41	Phoenix	-9.6
42	Sacramento	-10.1
43	Tampa	-13.6
44	Jacksonville	-13.8
45	Dallas	-13.9
46	Atlanta	-16.6
47	Charlotte	-17.0
48	Las Vegas	-27.1
49	Indianapolis	-34.2
50	**Raleigh**	**-36.2**
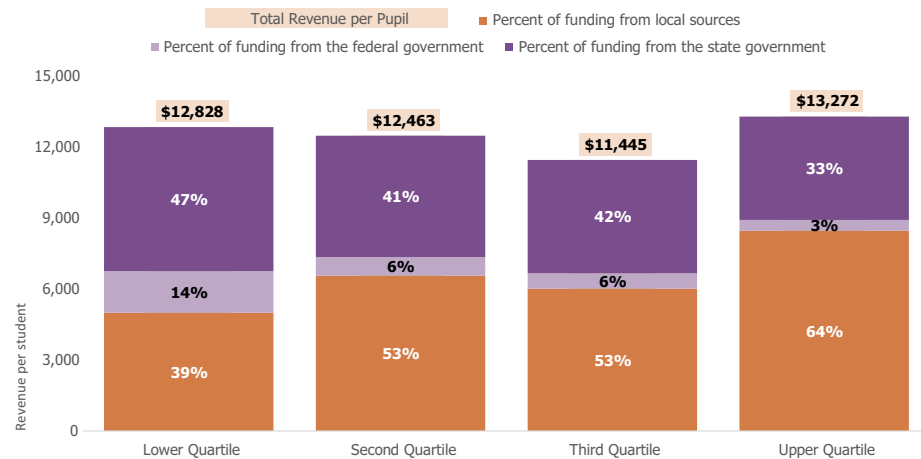
Source: U.S. Census Bureau, Annual Survey of School System Finances; Bureau of Labor Statistics

It is difficult to assess, measure, and compare the quality of schools. Different states mandate different types of standardized tests, making it difficult to compare test scores across state lines. Even within a state, a lower test score does not necessarily reflect poorly upon a district. Many factors other than school quality affect test scores, including the stability of housing for students' families, food insecurity, exposure to trauma, and health issues. Nonetheless, there are some indicators that are associated with quality of instruction, such as pupil-teacher ratios, experienced teachers, and absenteeism rates among teachers. These and other indicators of school quality are presented in this section. Overall, St. Louis ranks fairly well on several measures related to quality of instruction.

Table 3-36: Smaller pupil-teacher ratios are associated with better standardized test scores, greater levels of college enrollment, and higher earnings later in life (Card and Krueger, 1990). By national standards, St. Louis has low pupil-teacher ratios, with 15.1 students per teacher. This is below the national average of 15.9. Six metropolitan areas in California have pupil-teacher ratios greater than 20.

There is considerable variation in pupil-teacher ratios across school districts in the St. Louis region.

Districts with the highest pupil-teacher ratios are located in the Illinois portion of the region. The five districts with the highest pupil-teacher ratios are Breese Elementary District No. 12 (Clinton County), Granite City Community Unit School District (CUSD) No. 9, East St. Louis School District, O'Fallon Community Consolidated School District No. 90, and Jersey CUSD No. 100. The districts with the lowest pupil-teacher ratios serve disabled students; these are the Special School District of St. Louis County and the Missouri School for the Blind. Beyond these two, the districts with the lowest ratios are Venice CUSD, Brentwood, Brussels CUSD, and two charter schools: Preclarus Master Academy and the Hawthorn Leadership School for Girls. (Preclarus has closed since data were collected.)

Table 3-37: Experienced teachers benefit schools and students in several ways. Higher experience levels are associated with lower staff turnover rates, particularly in districts with higher proportions of minority students. High teacher turnover increases costs of recruiting and training teachers. In addition, research indicates that skill levels increase with experience and that the experience level of teachers is related to students' success later in life (National Commission on Teaching and America's Future, 2007).

In St. Louis, only 11 percent of teachers are in their first two years of teaching, indicating a relatively high level of experience for teachers in the region. In Memphis, more than half of teachers are in their first or second years of teaching.

Table 3-36
Pupil-Teacher Ratio
2015-2016

1	Riverside	24.6
2	Los Angeles	24.3
3	San Diego	23.6
4	San Jose	23.1
5	Sacramento	22.8
6	San Francisco	22.5
7	Las Vegas	20.9
8	Portland	19.9
9	Seattle	19.3
10	Indianapolis	19.0
11	Detroit	18.7
12	Columbus	18.4
13	Cincinnati	18.3
14	Denver	18.1
15	Birmingham	17.5
16	Louisville	17.2
17	Milwaukee	17.1
18	Oklahoma City	16.9
19	Cleveland	16.8
20	Charlotte	16.6
21	Miami	16.6
22	Jacksonville	16.5
23	Memphis	16.4
24	Minneapolis	16.4
25	Virginia Beach	16.3
26	Houston	16.2
27	Chicago	16.1
28	Richmond	16.1
29	Atlanta	15.9
United States		**15.9**
30	Raleigh	15.8
31	San Antonio	15.8
32	Nashville	15.4
33	Dallas	15.3
34	Orlando	15.3
35	**St. Louis**	**15.1**
36	Baltimore	15.0
37	Washington, D.C.	14.9
38	Kansas City	14.9
39	Austin	14.8
40	Philadelphia	14.5
41	Tampa	14.3
42	Pittsburgh	14.2
43	Buffalo	13.7
44	Providence	13.7
45	New York	13.3
46	New Orleans	13.3
47	Boston	13.2
48	**Hartford**	**12.4**

Source: National Center for Education Statistics

Table 3-37
New Teachers
Teachers in their first or second year of teaching as a percent of all teachers, 2015-2016

1	Memphis	51.7
2	Indianapolis	21.4
3	Orlando	20.9
4	San Antonio	20.1
5	Denver	19.0
6	Phoenix	18.8
7	Jacksonville	18.6
8	Dallas	16.2
9	Oklahoma City	15.6
10	Washington, D.C.	15.6
11	New Orleans	15.5
12	Houston	15.4
13	Salt Lake City	15.3
14	Baltimore	15.0
15	Nashville	14.5
16	Columbus	14.3
17	San Francisco	14.0
18	Milwaukee	13.7
19	Minneapolis	13.6
20	Tampa	13.5
21	Kansas City	13.1
Peer Average		**13.1**
22	Chicago	13.0
23	Austin	12.8
24	San Jose	12.4
25	Boston	12.3
26	Virginia Beach	12.2
27	Richmond	12.2
28	Cincinnati	12.2
29	Cleveland	12.0
30	Philadelphia	11.8
31	Las Vegas	11.3
32	New York	11.3
33	Riverside	11.3
34	**St. Louis**	**11.0**
35	San Diego	10.9
36	Atlanta	10.9
37	Louisville	10.8
38	Seattle	10.7
39	Hartford	10.7
40	Buffalo	10.0
41	Birmingham	9.9
42	Sacramento	9.6
43	Portland	9.4
44	Los Angeles	9.1
45	Detroit	9.0
46	Providence	9.0
47	Pittsburgh	7.4
48	Charlotte	7.1
49	Miami	6.3
50	**Raleigh**	**6.2**

Source: U.S. Department of Education, Office of Civil Rights

There is, however, a large disparity between predominantly white districts and predominantly black districts in St. Louis. In districts with a student population that is more than 50 percent black, over 20 percent of teachers have less than two years of experience; this is double the rate of districts with student populations that are less than 50 percent black.

Table 3-38: Teacher pay is also often used as a measure of teacher quality. In most school districts, teacher salaries are based on a schedule that rises with additional years of experience and higher levels of educational attainment (Hansen and Quintero, 2017). Thus, teachers with more professional training and more years of experience tend to earn a higher salary than newer teachers or teachers with lower levels of educational attainment. In St. Louis, elementary and secondary teachers earn an average annual salary of around $58,000.

Across the peer regions, differences in teacher pay are explainable by a variety of factors, including local costs of living and state and local education policies. With this in mind, Table 3-38 is an attempt to control for these confounding factors. This table shows average teacher wages relative to the average wage for all jobs in each region. In St. Louis, the ratio is 1.18, meaning the average teacher makes around 18 percent more than the typical wage earner. In San Francisco, a region that has become notorious for its high cost of living, the average teacher wage is much higher than it is in St. Louis—$76,000 annually. However, teachers in San Francisco receive a lower relative wage than in St. Louis, with a ratio of 1.10.

Table 3-39: Research indicates that student performance improves with teachers that are regularly in the classroom. Thus, chronic absenteeism on the part of teachers is one measure of school quality (Miller, Murnane, and Willett, 2008). Teachers in the St. Louis region are absent less frequently than in most peer regions. About one-quarter of teachers in St. Louis missed more than 10 days of school in 2015-2016; 34 of the peer regions had higher rates of teacher absenteeism. Las Vegas was an outlier on this metric, with more than half of teachers missing more than 10 days per year.

Table 3-38
Relative Wages for Elementary, Middle, and High School Teachers

Ratio of average teacher wage to the average wage of all occupations, 2017

1	**Riverside**	**1.71**
2	Virginia Beach	1.44
3	Los Angeles	1.42
4	Buffalo	1.40
5	Pittsburgh	1.36
6	New York	1.33
7	Sacramento	1.31
8	San Diego	1.31
9	Louisville	1.31
10	Portland	1.30
11	Detroit	1.30
12	Providence	1.29
13	Philadelphia	1.26
14	Hartford	1.26
15	Chicago	1.26
16	Cincinnati	1.26
17	Las Vegas	1.25
18	Cleveland	1.25
19	Columbus	1.24
20	San Antonio	1.24
21	Memphis	1.22
22	Minneapolis	1.21
23	Milwaukee	1.21
Peer Average		**1.21**
24	Baltimore	1.19
25	**St. Louis**	**1.18**
26	Dallas	1.18
27	New Orleans	1.16
28	Houston	1.16
29	Boston	1.16
30	Richmond	1.13
31	Salt Lake City	1.13
32	Indianapolis	1.12
33	Washington, D.C.	1.11
34	Kansas City	1.11
35	Miami	1.10
36	San Francisco	1.10
37	Jacksonville	1.10
38	Atlanta	1.10
39	Birmingham	1.08
40	Orlando	1.08
41	Austin	1.07
42	Tampa	1.05
43	Nashville	1.05
44	Seattle	1.03
45	San Jose	0.99
46	Denver	0.99
47	Charlotte	0.96
48	Phoenix	0.95
49	Raleigh	0.93
50	**Oklahoma City**	**0.93**

Source: Bureau of Labor Statistics, Occupational Employment Statistics

Table 3-39
Absent Teachers

Teachers who were absent more than 10 school days during the school year as a percent of all teachers, 2015-2016

1	**Las Vegas**	**58.6**
2	Baltimore	38.5
3	Providence	38.0
4	Virginia Beach	37.3
5	Columbus	36.8
6	Cleveland	35.5
7	Buffalo	35.2
8	Louisville	35.1
9	Hartford	34.1
10	Pittsburgh	34.1
11	Richmond	33.8
12	Raleigh	33.7
13	Birmingham	33.6
14	Seattle	33.2
15	Charlotte	31.6
16	Minneapolis	31.6
17	Oklahoma City	31.3
18	Riverside	30.5
19	Philadelphia	29.4
20	Cincinnati	29.3
21	Portland	29.3
22	Memphis	29.2
23	Atlanta	29.1
24	Kansas City	29.0
25	Houston	28.5
26	Nashville	28.5
27	Miami	27.8
28	Washington, D.C.	27.7
Peer Average		**27.4**
29	Chicago	27.1
30	New Orleans	26.8
31	Denver	25.7
32	San Diego	25.2
33	New York	25.2
34	San Jose	25.0
35	**St. Louis**	**25.0**
36	Boston	24.5
37	Dallas	24.2
38	San Francisco	24.1
39	Indianapolis	24.0
40	Detroit	23.6
41	Tampa	23.5
42	Phoenix	23.5
43	Jacksonville	23.1
44	San Antonio	21.9
45	Milwaukee	21.1
46	Austin	20.4
47	Los Angeles	19.7
48	Salt Lake City	19.5
49	Sacramento	17.5
50	**Orlando**	**11.1**

Source: U.S. Department of Education, Office of Civil Rights

Regions with more school districts tend to have higher rates of student segregation. As a result, in regions with numerous school districts, learning experiences also tend to vary by race. Disciplinary methods and student outcomes vary dramatically between predominantly black and predominantly white schools. As shown in **Table 3-40**, the educational system in St. Louis is one of the most racially segregated in the nation. Using the dissimilarity index, the most commonly used measure of segregation, St. Louis ranks 6th on segregation between school districts.

Research suggests that high rates of school segregation perpetuate academic achievement gaps between black and white students. A report from the National Center of Education Statistics finds black students who attend schools that are over 60 percent black tend to

perform worse academically than black students who attend schools with smaller shares of black students (Bohrnstedt et al., 2015). The report finds that these achievement gaps persist even after controlling for variables related to socioeconomic status.

Table 3-41: Although out-of-school suspensions are sometimes necessary for dealing with severe discipline issues, the practice is not without costs. The Ferguson Commission report cited research showing that suspension rates are correlated with poor academic performance, higher dropout rates, and, for black students, higher incarceration rates later in life (Ferguson Commission, 2015). St. Louis ranks 5th among the peer regions on the use of out-of-school suspension as a disciplinary tactic. The use of the tactic varies dramatically by race. Black students on average miss more than six times as many days of school because of suspension than white students (see Figure 3-07 on page 66).

Table 3-40
Segregation of School Districts
Black-white student segregation, based on the dissimilarity index, 2015-2016

1	Cleveland	78.8
2	Milwaukee	77.9
3	Chicago	73.2
4	Buffalo	72.4
5	Detroit	71.2
6	St. Louis	70.6
7	Cincinnati	70.4
8	Indianapolis	69.8
9	Pittsburgh	69.4
10	Boston	68.0
11	New York	67.3
12	Philadelphia	65.1
13	Memphis	61.5
14	Hartford	61.3
15	Columbus	61.2
16	San Francisco	60.9
17	Denver	60.5
18	Birmingham	59.7
Peer Average		**59.5**
19	Kansas City	58.5
20	Los Angeles	58.3
21	Providence	55.9
22	Oklahoma City	55.6
23	Minneapolis	55.3
24	Nashville	54.4
25	Washington, D.C.	54.3
26	Dallas	52.8
27	Sacramento	51.6
28	New Orleans	50.7
29	Louisville	50.7
30	Houston	49.8
31	Seattle	46.7
32	Baltimore	44.7
33	Jacksonville	43.4
34	Portland	43.0
35	Atlanta	42.9
36	Phoenix	42.6
37	San Diego	42.1
38	Riverside	40.5
39	Virginia Beach	40.0
40	Charlotte	39.4
41	San Antonio	38.0
42	Austin	37.7
43	Richmond	37.2
44	San Jose	35.3
45	Salt Lake City	30.5
46	Orlando	27.7
47	Tampa	25.4
48	Miami	19.8
49	Raleigh	12.1
50	**Las Vegas**	**0.0**

Source: U.S. Department of Education, Office of Civil Rights

Table 3-41
Days of School Missed to Out-of-School Suspension
Days missed per student, 2015-2016

1	Memphis	0.80
2	Virginia Beach	0.61
3	Buffalo	0.59
4	Richmond	0.57
5	St. Louis	0.50
6	Cleveland	0.50
7	Oklahoma City	0.43
8	Columbus	0.39
9	Charlotte	0.39
10	Raleigh	0.39
11	Detroit	0.38
12	New Orleans	0.38
13	Kansas City	0.36
14	Atlanta	0.35
15	Louisville	0.35
16	Las Vegas	0.32
17	Orlando	0.30
18	Birmingham	0.28
19	Milwaukee	0.28
20	Indianapolis	0.25
21	Philadelphia	0.25
22	Phoenix	0.25
23	Cincinnati	0.25
24	Nashville	0.23
25	Seattle	0.23
26	Jacksonville	0.22
Peer Average		**0.22**
27	Tampa	0.21
28	Pittsburgh	0.21
29	Baltimore	0.20
30	Washington, D.C.	0.20
31	Hartford	0.18
32	Sacramento	0.18
33	Houston	0.17
34	New York	0.17
35	Dallas	0.17
36	Providence	0.16
37	Riverside	0.16
38	San Antonio	0.16
39	Denver	0.14
40	Chicago	0.14
41	Minneapolis	0.14
42	Portland	0.13
43	San Diego	0.13
44	Austin	0.12
45	Boston	0.11
46	San Francisco	0.10
47	Miami	0.07
48	San Jose	0.07
49	Salt Lake City	0.07
50	**Los Angeles**	**0.06**

Source: U.S. Department of Education, Office of Civil Rights

Table 3-42: Students who are chronically absent tend to perform worse academically in school, and many eventually drop out altogether. In addition to academics, chronic absenteeism is also associated with a number of behavioral and health related issues, such as substance abuse, teen pregnancy, anxiety, depression, and higher rates of suicide (Kearney, 2008). St. Louis has a lower percentage of students who miss more than 15 days of school per year than most of the peer regions. In 2015-2016, 13.7 percent of students in the St. Louis region were chronically absent by this definition. The peer region average was 15.8 percent. In Seattle; Portland; and Washington, D.C., the rate of chronic absenteeism was more than double that of the St. Louis region. There is a significant racial disparity in rates of chronic absenteeism: 11.3 percent for white students and 19.7 for black students (see Figure 3-07).

Table 3-43: Participation in Advanced Placement (AP) programs is a factor associated with college performance. Compared to peer regions, relatively few St. Louis students participate in AP courses. About 16 percent of St. Louis students enroll in AP classes, compared to 21 percent nationally. San Jose and Orlando have nearly double the St. Louis rate of AP class enrollment. Again, a racial disparity is present within the rates of AP participation; in St. Louis, white students are twice as likely as black students to enroll in AP courses (see Figure 3-07).

Figure 3-07
Racial Disparity in Learning Environments

St. Louis MSA, 2015-2016

■ White Students   ■ Black Sudents

Chronic Absenteeism
Students who missed 15 days of school
or more as a percent of all students

11.3   19.7

Out-of-School Suspension Rates
Percentage of students who have received
one or more out-of-school suspensions

3.2   18.5

Advanced Placement Enrollment
Percentage of high-school students
enrolled in advanced placement courses

18.0   8.9

Days of School Missed to Out-of-School Suspension
Days missed per student

0.22   1.30

Source: U.S. Department of Education, Office of Civil Rights.

Table 3-42
Chronic Absenteeism
Students who missed
15 days of school or more as a
percent of all students, 2015-2016

1	**Washington, D.C.**	**25.6**
2	Seattle	24.9
3	Portland	24.0
4	Buffalo	22.7
5	Milwaukee	21.5
6	Las Vegas	21.1
7	Louisville	20.9
8	Baltimore	20.9
9	Denver	20.6
10	Cleveland	20.6
11	Detroit	20.4
12	Jacksonville	19.8
13	Tampa	19.8
14	Orlando	19.8
15	Columbus	19.2
16	New York	18.9
17	Providence	18.7
18	Philadelphia	17.8
19	Pittsburgh	17.1
20	Phoenix	16.8
21	Chicago	16.4
22	New Orleans	16.4
23	Cincinnati	15.9
Peer Average		**15.8**
24	Miami	15.2
25	Salt Lake City	15.0
26	Virginia Beach	14.9
27	Birmingham	14.1
28	Sacramento	14.1
29	Nashville	14.1
30	**St. Louis**	**13.7**
31	Minneapolis	13.4
32	Riverside	13.1
33	Boston	13.0
34	Austin	12.9
35	Atlanta	12.7
36	Hartford	12.6
37	San Antonio	12.6
38	Kansas City	12.3
39	Oklahoma City	12.1
40	Indianapolis	11.9
41	Raleigh	11.8
42	Charlotte	11.8
43	San Francisco	11.7
44	Los Angeles	11.5
45	Dallas	11.4
46	San Diego	11.3
47	Houston	10.9
48	San Jose	10.2
49	Memphis	9.6
50	**Richmond**	**9.6**

Source: U.S. Department of Education, Office of Civil Rights

Table 3-43
Advanced Placement Enrollment
Percent of high-school students
enrolled in advanced placement
courses, 2015-2016

1	**Orlando**	**31.4**
2	San Jose	29.6
3	Washington, D.C.	28.3
4	San Diego	27.0
5	Austin	26.8
6	Baltimore	25.7
7	Atlanta	25.5
8	Dallas	25.5
9	Tampa	25.5
10	San Francisco	25.0
11	Houston	24.7
12	Milwaukee	24.5
13	Virginia Beach	23.7
14	Los Angeles	23.6
15	Louisville	23.6
16	Chicago	23.2
17	Miami	22.9
18	Jacksonville	22.5
19	San Antonio	22.0
20	Raleigh	21.7
21	Seattle	21.1
22	Richmond	20.5
Peer Average		**20.4**
23	Minneapolis	19.8
24	Sacramento	19.7
25	Riverside	19.2
26	Denver	19.1
27	Portland	18.3
28	Oklahoma City	18.3
29	Las Vegas	17.4
30	Boston	17.3
31	Indianapolis	17.1
32	Charlotte	17.0
33	Birmingham	16.9
34	Nashville	16.8
35	Cincinnati	16.5
36	Detroit	16.4
37	Buffalo	16.1
38	Kansas City	16.1
39	Hartford	16.0
40	**St. Louis**	**16.0**
41	New York	15.8
42	Pittsburgh	15.4
43	Philadelphia	14.9
44	Salt Lake City	14.2
45	Phoenix	13.7
46	New Orleans	13.5
47	Providence	13.2
48	Columbus	12.9
49	Cleveland	11.6
50	**Memphis**	**7.8**

Source: U.S. Department of Education, Office of Civil Rights

Some College, No Degree as Highest Educational Attainment; Associate Degree as Highest Educational Attainment; Bachelor's Degree or Higher; and **Advanced Degrees** reflect educational attainment for the population aged 25 and older. **Some College, No Degree as Highest Educational Attainment** and **Associate Degree as Highest Educational Attainment** report the percentage of adults who have attained the respective levels of education as the highest level of education. **Bachelor's Degree or Higher** and **Advanced Degrees** report the percentage of adults who have attained the respective levels of education, regardless of highest level of attainment.

No High School Diploma or Equivalent and **High School Diploma or Equivalent as Highest Educational Attainment** each report the highest level of educational attainment for adults aged 25 and older. The equivalent of a high school diploma includes General Education Development (GED) or alternative credential.

Change in Bachelor's Degree or Higher, Change in Advanced Degrees, Change in Associate Degree as Highest Educational Attainment, and **Change in No High School Diploma or Equivalent** measure the percentage point difference from 2007 to 2017 based on ACS 1-Year Estimates.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

Degrees in Science, Engineering, and Related Fields; Degrees in Business; Degrees in Education; and **Degrees in Arts, Humanities and other Related Fields** reflect bachelor's degrees in each field as a percentage of all adults aged 25 and older who have a bachelor's degree or higher. This measure does not consider the field of study associated with advanced degrees.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15012)

STEM Employment reflects the percentage of total employment in occupations requiring knowledge of science, technology, engineering, or math.

STEM Annual Median Wage reports the annual median wage for occupations requiring knowledge of science, technology, engineering, or math.

Source: Bureau of Labor Statistics, Occupational Employment Statistics

College-Educated Young Adults reports the percentage of adults aged 25 to 34 who have attained a bachelor's degree or higher, regardless of highest level of attainment. **Change in College-Educated Young Adults** measures the percentage point difference from 2007 to 2017 based on ACS 1-Year Estimates.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15001)

Racial Disparity in Education and **Racial Disparity in Higher Education** report on data for the black population (not Hispanic or Latino) and white population (not Hispanic or Latino) who identify as one race alone. San Jose and Salt Lake City are not included due to low sample sizes.

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

Racial Disparity in College Attendance and **Racial Disparity in College Graduation** report on data for white population (not Hispanic or Latino) and black population (Hispanic or Latino and not Hispanic or Latino) who identify as one race alone.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002B, B15002H)

Foreign-Born Workers presents the percentage of workers who were not U.S. citizens at birth. Data for Birmingham is not available due to low sample size.

College-Educated Foreign-Born Adults reports the percentage of foreign-born adults aged 25 and older with a bachelor's degree or higher, regardless of highest level of attainment.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (S0501)

Employment-Population Ratio measures the percentage of the working age civilian noninstitutionalized population that is employed. **Change in the Employment-Population Ratio** measures the percentage point difference from 2012 to 2017 based on ACS 1-Year Estimates.

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

Enrollment in College or Graduate School reports the percentage of adults aged 18 and older enrolled in college, graduate school, or professional school beyond a bachelor's degree (such as medical school or law school). Adults enrolled in vocational, trade, or technical schools are not included in this measure.

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B14004)

Disconnected Youth measures the percentage of 16 to 24 year olds who have not attended school in the last three months and have not worked in the last year.

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

Education Spending measures total elementary and secondary expenditures per student. The data are self-reported by school districts and "nonoperating" districts that collect and distribute tax revenue to schools. Charter schools are included if the charter is held by a government body, whereas charters operated by non-governmental bodies are not included in the dataset. The data reflects spending within the 2015-2016 fiscal year. For most states, including Missouri and Illinois, the fiscal year extends from July to June of the following year.

State Funding per Pupil and **Local Funding per Pupil** measures the total amount of revenues received per student. State funding includes all revenues originating from state governments, including general formula assistance revenues, revenues for special education, limited English proficiency, transportation, and other programs. Local funding includes all revenues raised locally, such as property taxes, fees, and other charges.

Change in Education Spending, Change in State Funding per Pupil, and **Change in Local Funding per Pupil** reflect the percentage change in spending and revenues per pupil from fiscal years 2005-2006 to 2015-2016. Data from 2005-2006 were adjusted for inflation to 2016 price levels using the Consumer Price Index (CPI) for urban consumers.

Sources: U.S. Census Bureau, Annual Survey of School System Finances; Bureau of Labor Statistics

Pupil-Teacher Ratio divides the number of students by the number of full-time equivalent teachers in public schools for the fiscal year 2015-2016.

Source: National Center for Education Statistics

New Teachers reflects percentages of full-time equivalent (FTE) teachers who are in their first or second year of teaching in any school, subject, or grade as a percentage of all FTE teachers.

Absent Teachers reports the percentage of FTE teachers who missed more than 10 days in the regular school year "when the teacher would otherwise be expected to be teaching students."

Segregation of School Districts uses the dissimilarity index to measure the extent to which two groups are evenly spread across school districts in each region. Values of 60 or above are considered very high.

Days of School Missed to Out of School Suspension refers to the number of school days missed due to an out-of-school suspension divided by the total number of students. This measure includes out-of-school suspensions for students with disabilities and without.

Chronic Absenteeism includes students who miss 15 days of school or more as a percentage of all students. A day is counted when a student was absent from school for more than half of the school day "regardless of whether the absence is excused or unexcused."

Source: U.S. Department of Education, Office of Civil Rights

Relative Wages for Elementary, Middle, and High School Teachers divides the annual average wage of teachers by the annual average wage for all occupations in each region. This measure includes elementary, middle, and high school teachers, but excludes teachers of special education, career, and technical education.

Source: Bureau of Labor Statistics, Occupational Employment Statistics

Opioid Deaths 2016
—See page 79 for WWS table with complete data and rankings—

Opioid-Drug Related Deaths
Deaths per 100,000 population, 2016

3.2   43.0
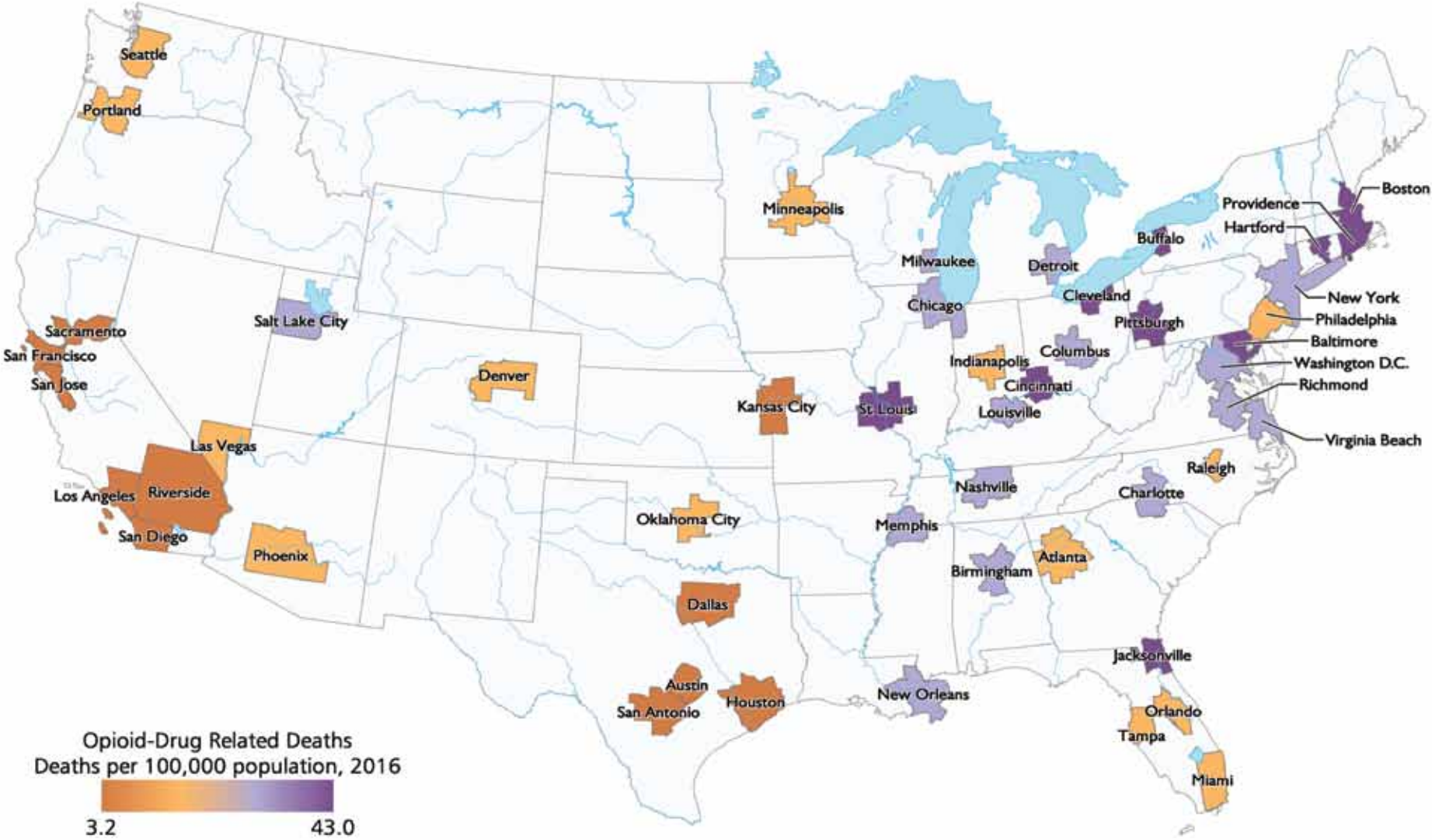
Introduction

Crime and safety are consistently expressed as concerns in the St. Louis region. A recent increase in violent crimes, particularly homicides, nationally as well as in the St. Louis area has heightened that concern.

This chapter seeks to start a baseline for a discussion among St. Louis regional leaders on how to address crime and the safety of residents in the region. First, the chapter provides a description of current crime rates for the St. Louis MSA, the United States, and peer regions. Second, it takes a closer look at two key factors in the recent rise in crime—firearm homicides and opioid-related deaths. These are not the sole factors for the increase in crime, but significant increases have occurred for both in the past few years.

Crime Rates

Many factors have been found to contribute to crime and differences in rates for different areas and across time. Policies that govern how municipalities and police departments are funded (Makowksy, et al., 2018), rates of non-participation in the labor force (Kleck and Jackson, 2016), the proportion of the population that is youth, and the increase in the market for drugs (Rosenfeld, 2002) are a few of the factors that have been identified in research.

Further, crime rates may fluctuate based on the rate at which people report their occurrence. The Bureau of Justice Statistics (BJS) finds differences in the likelihood that a crime is reported based on gender, age, and type of community. Victims in rural and suburban areas were slightly less likely to report serious violent crimes than those in urban areas, and victims in suburban areas were slightly more likely to report property crimes than residents of urban and rural areas. Males are more likely than females to report crimes and adults are more likely to report than youth. By U.S. region, residents in the South were most likely to report property crimes while those in the Midwest were less likely than people in the rest of the country to report violent crimes. Victims may not report a crime for a variety of reasons, including fear of retaliation, mistrust of law enforcement, or thinking the crime is not significant enough to report (Morgan, 2017).

Crimes are broken down into two large categories—property and violent.

Table 4-01: Property crimes make up a vast majority of the offenses reported to law enforcement, comprising 86 percent of all crimes nationally in 2017. Property crimes include the offenses of burglary, larceny-theft, and motor vehicle theft—crimes committed with the motive of obtaining money or property without the use of force. Considering all property crimes, the St. Louis region ranks in the middle among the peer regions with a rate of 2,439 crimes per 100,000 population in 2017. Unlike what is observed in many of the other *Where We Stand* rankings, there does not appear to be a clear pattern here among regions from different parts of the country— the Midwest regions are spread throughout the rankings as are the most populous regions. Salt Lake City ranks 1st with the largest rate of property crime among the peers as well as on two of the categories of property crime—larceny-theft and auto theft.

In 2016, the BJS found that 64 percent of victims of property crimes did not report the crime to law enforcement (Morgan, 2017). See Box 1 on page 71 for a description of the BJS Survey.

Table 4-01
Property Crime Rate

Per 100,000 population, 2017

1	Salt Lake City	4,435
2	Memphis	4,229
3	Louisville	3,095
4	Miami	3,076
5	New Orleans	2,948
6	Oklahoma City	2,898
7	Indianapolis	2,882
8	Atlanta	2,866
9	Columbus	2,866
10	Phoenix	2,815
11	Charlotte	2,800
12	Las Vegas	2,779
13	Jacksonville	2,778
14	Orlando	2,774
15	Baltimore	2,733
16	Virginia Beach	2,634
17	Nashville	2,559
18	Milwaukee	2,546
19	Riverside	2,490
20	Cincinnati	2,441
21	St. Louis	2,439
22	Minneapolis	2,406
	United States	2,362
23	Los Angeles	2,350
24	Austin	2,344
25	San Jose	2,275
26	Hartford	2,259
27	Sacramento	2,249
28	Buffalo	2,186
29	Cleveland	2,111
30	Tampa	2,102
31	Philadelphia	2,056
32	Chicago	2,025
33	Detroit	1,946
34	Washington, D.C.	1,745
35	San Diego	1,696
36	Providence	1,692
37	Pittsburgh	1,573
38	New York	1,336
39	Boston	1,309

Source: FBI, Uniform
Crime Reports (Tables 1, 6)

Figure 4-01: About three-fourths of property crimes for both the St. Louis MSA and the United States are larceny-theft. The largest category of such crimes is stealing items from motor vehicles, comprising 26.8 percent of larceny-thefts in 2017 nationally. Shoplifting is second (20.8 percent) (FBI, 2018b; FBI, 2011). Burglary, the unlawful entry of a structure with or without forcing entry (FBI, 2018a), made up about 16.8 percent of property crimes in St. Louis and slightly more (18.2 percent) for the country as a whole. Nationally, 67.2 percent of burglaries were of residential properties (FBI, 2018c).[1] The third category, auto theft, accounts for about 10 percent of property crimes for both geographies.

Figure 4-01: Property Crimes				
St. Louis MSA and United States, 2017				
	Volume		Per 100,000 Population	
	St. Louis MSA	United States	St. Louis MSA	United States
Property crime	**68,598**	**7,694,086**	**2,438.5**	**2,362.2**
Larceny-theft	50,276	5,519,107	1,787.2	1,694.4
Burglary	11,496	1,401,840	408.6	430.4
Motor vehicle theft	6,826	773,139	242.6	237.4

Source: FBI, Uniform Crime Reports (Tables 1, 6).

Box 1: Sources of Data

There are three primary sources of data that are used in this chapter. Each presents a different perspective on crime and safety in the St. Louis region, among its peers, and nationally.

Federal Bureau of Investigation Uniform Crime Report: The Federal Bureau of Investigation (FBI) publishes crime statistics reported voluntarily by local, county, state, tribal, and federal law enforcement agencies via the Uniform Crime Reporting (UCR) program. The FBI cautions against comparing and ranking data of reporting agencies due to the number of factors that can affect crime itself as well as how crime is reported or recorded.

The FBI cites a number of factors that can lead to the varying occurrence and reporting of crime, including citizens' attitudes toward crime, criminal justice system policies, effectiveness of law enforcement, economic conditions, climate, concentration of youth population, population density, and degree of urbanization in an area.

While the WWS tables do not compare individual agencies, nor are the rankings meant to imply that one region is safer than another, the FBI's caveats should be considered. Tables in this chapter are intended to provide readers with an indication of how reported crime in St. Louis compares to that of other metropolitan regions. Not all of the peer regions are included in these tables; the UCR does not report crime statistics for MSAs if not enough agencies in the MSA submit data or if the FBI determines that data was underreported, over reported, or not in compliance with the national UCR Program guidelines (FBI, 2017).

The Bureau of Justice Statistics (BJS) conducts a nationally representative survey of persons 12 years and older on nonfatal crime victimization called the National Crime Victimization Survey (NCVS). The results provide an estimate of how many crimes are not reported to law enforcement (Morgan, 2017).

Centers for Disease Control and Prevention (CDC) reports the number of homicides and drug-related deaths based on death certificates for U.S. residents. Regarding homicides, this dataset provides data from a different angle than the UCR. The UCR estimates the number of murders based on where the crime was committed. The CDC reports the number of U.S. residents who were murdered based on the location of their residence. The CDC also reports the age, race, Hispanic ethnicity, and gender of victims.

1 UCR does not report subcategories of larceny-theft by MSA.

For 2016 and 2017, St. Louis is one of the regions for which the FBI does not report aggravated assault due to one or more agencies in the region underreporting and not following the UCR Program guidelines for reporting (see Box 1). Therefore, violent crime rates are provided for the most recent year for which data are available for the St. Louis region (2015).

Table 4-02: Violent crimes—assault, robbery, rape, and murder—account for a smaller proportion of total crimes than property crimes. Table 4-02 provides the peer region data for the most recent year for which St. Louis MSA data is available (2015) along with the available 2017 data. In both years, Memphis stands out as an outlier. In 2017, the violent crime rate in Memphis was almost twice as big as the region with next largest rate, Indianapolis. In 2015, St. Louis ranked as having the 15th highest violent crime rate among the peer regions.

The percentage of victims of violent crimes who said they did not report the crime to police was slightly lower than those for property crimes but still a large proportion of victims (58 percent).

Figure 4-02: Aggravated assault—an attack on another person, with the purpose of inflicting harm, usually with a weapon—accounts for 65 percent of violent crimes in the United States in 2017 as well as in St. Louis in 2015. BJS found that 58 percent of aggravated assault victims reported the crimes. Robbery, the attempt to steal from someone with threat or use of force, is the next biggest category, comprising about a quarter of violent crimes. Murder and rape are the final categories of violent crime. Rape and sexual assault are the least likely crimes to be reported to police with only about a quarter of victims reporting.[2]

Table 4-02
Violent Crime Rate

	Per 100,000 population, 2015		Per 100,000 population, 2017
1	**Memphis**	**1,038**	**1,168**
2	Las Vegas	815	608
3	Birmingham	682	NA
4	Milwaukee	680	681
5	Indianapolis	674	695
6	Baltimore	625	783
7	Nashville	613	625
8	Houston	567	593
9	Kansas City	536	NA
10	New Orleans	534	564
11	Orlando	530	444
12	Miami	510	458
13	Detroit	498	544
14	Jacksonville	494	481
15	**St. Louis**	**486**	**NA**
16	San Francisco	485	477
17	Oklahoma City	462	498
18	Philadelphia	460	429
19	Sacramento	445	387
20	San Antonio	437	524
21	Los Angeles	432	497
22	Louisville	423	418
23	Buffalo	402	376
24	Atlanta	401	368
25	Salt Lake City	392	401
26	Tampa	384	333
27	Riverside	378	383
28	Chicago	378	NA
United States		**373**	**383**
29	Denver	362	414
30	Providence	334	295
31	San Diego	332	337
32	Seattle	324	354
33	Washington, D.C.	324	273
34	Virginia Beach	309	331
35	Columbus	298	291
36	Austin	288	306
37	Minneapolis	285	283
38	Pittsburgh	266	278
39	Cincinnati	259	265
40	Hartford	253	247
41	San Jose	252	309
42	Richmond	237	NA
NA	Phoenix	NA	471
NA	Charlotte	NA	416
NA	Dallas	NA	369
NA	New York	NA	333
NA	Boston	NA	305
NA	**Portland**	**NA**	**283**

Source: FBI, Uniform Crime Reports (Tables 1, 6)

Figure 4-02: Violent Crimes				
St. Louis MSA and United States, 2017				
	Volume		**Per 100,000 Populations**	
	St. Louis MSA	**United States**	**St. Louis MSA**	**United States**
Violent crime	**NA**	**1,247,321**	**NA**	**382.9**
Aggravated assault	NA	810,825	NA	248.9
Robbery	3,428	319,356	121.9	98.0
Rape	1,088	135,755	38.7	41.7
Murder and non-negligent manslaughter	354	17,284	12.6	5.3

Source: FBI, Uniform Crime Reports (Tables 1,6).

2 The BJS definition differs from that of the UCR—the survey includes sexual assaults and attempted sexual assaults in addition to rape. Yet, this is an indication that the crime is underreported.

Table 4-03: Nationally, in 2017, an estimated 136,000 people reported being a victim of rape. St. Louis ranks below the U.S. average on this crime rate. In St. Louis, an annual average of about 1,000 people over the last five years reported being victims of rape. This is an annual average of 37 people per 100,000 residents for 2013 to 2017.

In 2013, the FBI revised the definition of rape, removing "forcible" from the offense name and meaning in order to include all sexual assaults where the victim did not provide consent. Based on this revised definition, the number of rapes in the United States increased 19 percent since 2013 (an increase of 5.8 crimes per 100,000 people).

The United States is the only geography for which rape is reported in the UCR according to both the legacy and revised definition. In 2017, the revised definition included an additional 36,000 more crimes than the legacy definition, changing the rate from 30.7 per 100,000 people based on the legacy definition to 41.7 per 100,000 people. Data for St. Louis and most of the peer regions is based on the revised definition. The following peer regions include data from one or more agency that continues to use the legacy definition of rape and therefore would likely report larger rates and change the rankings of the peer regions if the revised definition were used: Indianapolis, Louisville, Memphis, Seattle, and Virginia Beach.

Table 4-04: Murder is the final category under violent crime. The St. Louis MSA ranks 4th among the most populous U.S. regions with a rate of 12.6 per 100,000 people. In 2017, an estimated 17,284 people were reported as murdered in the country, 384 of them in the St. Louis MSA. The range between the regions is large. Eight regions—including the most populated peer, New York—have rates of less than 3 murders per 100,000 population while the seven regions at the top of the rankings have rates over three times that.

Table 4-03
Rape Crime Rate

Per 100,000 population, 2017

1	Salt Lake City	83.0
2	Denver	72.7
3	San Antonio	70.3
4	Las Vegas	70.0
5	Columbus	65.2
6	Austin	63.6
7	New Orleans	59.7
8	Memphis*	59.6
9	Oklahoma City	58.2
10	Portland	58.2
11	Detroit	52.8
12	Phoenix	49.9
13	Indianapolis*	48.3
14	Jacksonville	48.1
15	Dallas	47.3
16	Orlando	47.1
17	Nashville	47.0
18	Cincinnati	46
19	Minneapolis	43.3
20	Cleveland	43.2
21	Houston	42.8
United States		**41.7**
22	San Jose	41.3
23	Milwaukee	40.9
24	Providence	39.4
25	San Francisco	39.1
26	**St. Louis**	**38.7**
27	Los Angeles	38.3
28	Chicago	37.5
29	Seattle*	37.5
30	Baltimore	37.3
31	Tampa	36.9
32	Virginia Beach*	34.5
33	Philadelphia	33.2
34	San Diego	32.8
35	Miami	32.5
36	Riverside	30.5
37	Buffalo	29.6
38	Washington, D.C.	28.8
39	Boston	27.7
40	Sacramento	26.5
41	Atlanta	26.1
42	Hartford	24.4
43	Louisville*	23.1
44	Charlotte	21.8
45	Pittsburgh	20.6
46	**New York**	**19.8**

* Denotes regions where at least one reporting agency uses the legacy definition of rape

Source: FBI, Uniform Crime Reports (Tables 1, 6)

Table 4-04
Murder Rate

Per 100,000 population, 2017

1	New Orleans	17.1
2	Memphis	16.3
3	Baltimore	14.7
4	**St. Louis**	**12.6**
5	Las Vegas	10.8
6	Louisville	9.5
7	Chicago	9.4
8	Indianapolis	8.3
9	Jacksonville	8.2
10	Philadelphia	8.1
11	Columbus	7.9
12	Detroit	7.9
13	Milwaukee	7.9
14	Virginia Beach	7.9
15	Nashville	7.8
16	Oklahoma City	7.6
17	Cleveland	7.2
18	Atlanta	6.7
19	Houston	6.4
20	San Antonio	6.4
21	Miami	6.1
22	Phoenix	5.7
23	Pittsburgh	5.4
24	Charlotte	5.3
United States		**5.3**
25	Dallas	5.2
26	Cincinnati	5.1
27	Orlando	5.0
28	Los Angeles	4.8
29	Denver	4.6
30	Riverside	4.6
31	Washington, D.C.	4.5
32	Buffalo	4.3
33	Sacramento	4.3
34	San Francisco	4.2
35	Hartford	3.9
36	Salt Lake City	3.7
37	Tampa	3.6
38	Seattle	3.0
39	New York	2.8
40	Boston	2.6
41	Minneapolis	2.6
42	Portland	2.6
43	Austin	2.5
44	San Diego	2.4
45	San Jose	2.4
46	**Providence**	**2.0**

Source: FBI, Uniform Crime Reports (Tables 1, 6)

Trends in Crime

There has been a long-term decline in crime rates, both nationally and in the St. Louis region. The United States observed the longest and steepest declines in crime rates since World War II during the 1990s and 2000s. In the past few years, some cities have seen an uptick in violent crimes, particularly murders, although even those cities are not at historically high rates (James, 2018). The reason for this increase is inconclusive.

A recent study by the National Institute of Justice provides an exploration of two factors that are often discussed as reasons for this recent increase—the opioid epidemic and what is often referred to as "the Ferguson effect." The research identifies both as "plausible candidates" that merit further research. The drug epidemic is seen as a potential cause since a heightened drug market will lead to increased disputes that cannot be settled with legitimate means. Broadly, the Ferguson effect is the idea that police shootings have led to police making fewer arrests, people being empowered to challenge law enforcement, and a greater mistrust of law enforcement,

particularly among African Americans. The report discusses a multitude of perspectives on this theory, ultimately finding that the picture is "complex and uncertain" (Rosefeld et al., 2017).

Figure 4-03: The property crime rates in 2017 were half what they were in the early 1990s for both the nation as a whole and the St. Louis MSA. While we do not have complete data, there appears to be a fairly steady downward trend.[3]

Figure 4-04: Violent crime followed a similar pattern with the rates cut in half for both geographies. Trends are more volatile from year to year for violent crime than for property crime.

For the years of data provided here the largest percentage increases in the rates for the United States were from 2014 to 2015 and 2015 to 2016, 3.3 percent and 3.5 percent, respectively. For the St. Louis MSA, among the years of data reported, the largest increase was from 2014 to 2015 (13.1 percent). The region also saw an 11.1 percent increase from 2004 to 2005.

Figure 4-03
Property Crime Rate

Crimes per 100,000 population
St. Louis MSA and United States, 1991 to 2017
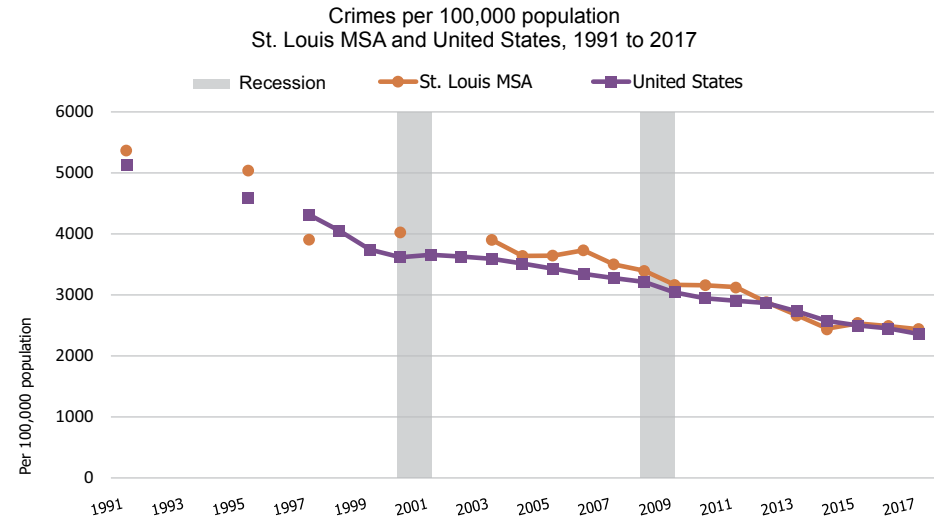
Source: Where We Stand 6th Edition; FBI Uniform Crime Reports (Tables 1, 6).

Figure 4-04
Violent Crime Rate

Crimes per 100,000 population
St. Louis MSA and United States, 1991 to 2017
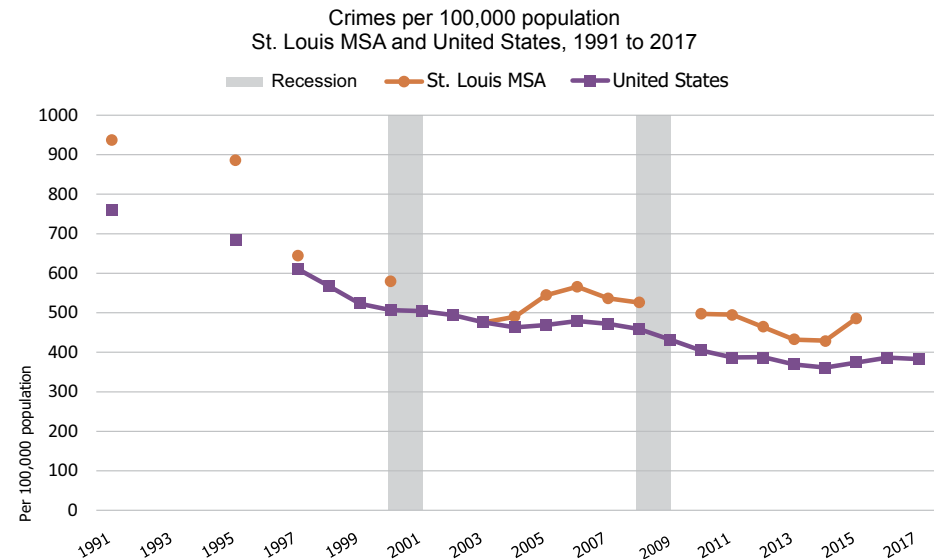
Source: *Where We Stand 6th Edition*; FBI Uniform Crime Reports (Tables 1, 6).

3 Over the time period, the proportion of agencies reporting for the St. Louis MSA increased. For example, 75 percent of agencies reported in 2003 and 98 percent did so in 2017.

Figure 4-05 provides the trend in murder rates for the St. Louis MSA and the United States from 2003 to 2017. The U.S. murder rate has been around five to six per 100,000 people throughout the time period, hitting a high of 5.8 in 2006. The rate in St. Louis was about the same as the nation in 2003 but has been higher since. For the last four years, the rate for the St. Louis MSA has been at least twice that of the United States. In the St. Louis MSA, the number of murders was about 200 per year from 2004 through 2013 and has since increased.

Figure 4-05
Murder Rate

Murders per 100,000 population
St. Louis MSA and United States, 2003 to 2017
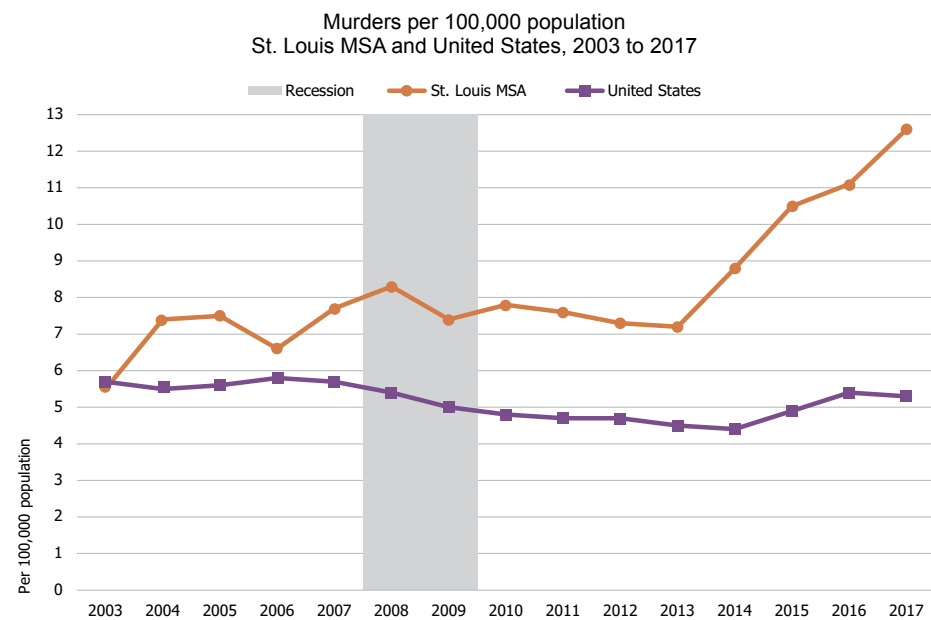
Source: FBI Uniform Crime Reports (Tables 1, 6).

4 As explained in Box 1 (see page 71), CDC homicide estimates vary from FBI statistics.

5 About 55 percent of the U.S. population resides in the 50 peer regions. Less than 1 percent reside in the St. Louis MSA.

This section provides data on two key topics in the current discussion on crime and public safety in the United States: homicide, specifically by firearms, and the increase in deaths due to drugs, specifically from the abuse of opioids.

Homicides

In 2016, 345 St. Louis residents and 19,362 U.S. residents were murdered.[4] More than half (60.7 percent) of the U.S. homicides were of residents of the 50 most populous regions; about 2 percent were St. Louis residents.[5] In the St. Louis region, a majority of homicides involve firearms and a majority of those who are murdered are non-Hispanic black males. Although homicide is not one of the 10 leading causes of death for any age group of non-Hispanic whites, it was the seventh leading cause for non-Hispanic blacks nationally in 2016 and the number one cause of death for non-Hispanic blacks in the following age groups: 15 to 19 year olds, 20 to 24 year olds, and 25 to 34 year olds (Heron, 2018).

Table 4-05: In 2016, the homicide rate for the St. Louis region was the 5th largest among the peer regions. The rate is twice that of the nation and six times that of the peer regions that have the smallest rates—Boston, Hartford, and Providence. Most of the peer Midwest regions are toward the top of the rankings. A cluster of southern peer regions make up three of the four peers with the largest rates—Memphis, New Orleans, and Birmingham.

Table 4-05
Homicides

Per 100,000 population, 2016

1	Memphis	20.6
2	New Orleans	19.6
3	Baltimore	14.1
4	Birmingham	13.9
5	St. Louis	12.3
6	Chicago	11.3
7	Louisville	11.0
8	Milwaukee	10.9
9	Cleveland	10.1
10	Kansas City	10.1
11	Indianapolis	9.8
12	Detroit	9.7
13	Richmond	9.5
14	Jacksonville	9.2
15	Virginia Beach	9.0
16	San Antonio	8.8
17	Philadelphia	8.5
18	Las Vegas	8.4
19	Oklahoma City	8.3
20	Atlanta	7.9
21	Houston	7.9
22	Orlando	7.3
23	Charlotte	7.0
24	Miami	6.9
25	Nashville	6.4
26	Pittsburgh	6.4
27	Columbus	6.2
28	Phoenix	6.1
29	Buffalo	6.0
	United States	6.0
30	Washington, D.C.	5.7
31	Dallas	5.6
32	San Francisco	5.6
33	Cincinnati	5.4
34	Los Angeles	5.4
35	Riverside	5.3
36	Tampa	5.2
37	Denver	4.9
38	Sacramento	4.7
39	Austin	3.9
40	Salt Lake City	3.7
41	New York	3.6
42	Raleigh	3.5
43	San Diego	3.2
44	San Jose	2.9
45	Seattle	2.9
46	Portland	2.7
47	Minneapolis	2.6
48	Hartford	2.2
49	Providence	2.2
50	Boston	2.0

Source: Centers for Disease Control and Prevention

Table 4-06:[6] From 1999 to 2016 the largest increases in the homicide rates among the peer regions were mostly in the Midwest and the South. St. Louis had the 5th largest increase in homicide rates from 1999 to 2016. In this time period, the homicide rate went from 8.6 to 12.3, an increase of 3.7 per 100,000 people.

While the rate for the United States varied some over the time period, it mostly remained around six homicides per 100,000 population. The rate in the St. Louis region fluctuated more, between a low of 6.1 in 2003 and a high above 12 in the most recent two years, 2015 and 2016.

Table 4-07: The increase in the homicide rate for St. Louis over the last two years ranked it 10th among the peers. Memphis, Baltimore, and Birmingham all experienced larger increases than St. Louis and had higher rates in 2016. These regions are not alone; the homicide rate increased over the last two years in 42 of the peer regions.

Figure 4-06: People in their 20s and 30s were the most likely to be victims of homicide. About one-third of St. Louis residents who were killed in 2016 were between the ages of 25 and 34. The 20 to 24 and 35 to 44 year old age groups each accounted for 22 percent of homicides.

Figure 4-06
Homicides by Age Group

Percent of total homicides
St. Louis MSA, 2016

- 35-44 year olds 22%
- 45-54 year olds 8%
- 55-64 year olds 7%
- 25-34 year olds 33%
- 20-24 year olds 22%
- 15-19 year olds 8%
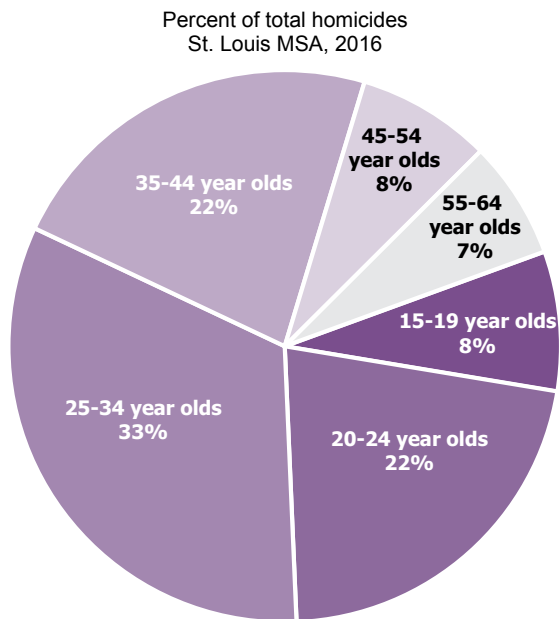
Source: Centers for Disease Control and Prevention.

Table 4-06
Change in Homicides

Point difference in homicide rate, 1999-2016

#	Region	Value
1	**Memphis**	**6.7**
2	Cleveland	5.6
3	Louisville	4.8
4	New Orleans	4.2
5	**St. Louis**	**3.7**
6	Buffalo	3.1
7	Columbus	2.2
8	Oklahoma City	2.0
9	Pittsburgh	1.8
10	Milwaukee	1.7
11	Cincinnati	1.7
12	Indianapolis	1.4
13	Orlando	1.1
14	Birmingham	0.9
15	Philadelphia	0.7
16	Chicago	0.6
17	Tampa	0.6
18	Baltimore	0.5
19	San Antonio	0.5
20	San Jose	0.5
21	Austin	0.2
22	Virginia Beach	0.1
23	Boston	0.0
24	Jacksonville	0.0
25	Salt Lake City	0.0
26	Atlanta	-0.1
27	Kansas City	-0.1
United States		**-0.1**
28	San Francisco	-0.2
29	Houston	-0.3
30	Minneapolis	-0.3
31	Sacramento	-0.3
32	San Diego	-0.4
33	Denver	-0.6
34	Portland	-0.6
35	Miami	-0.7
36	Las Vegas	-0.8
37	Providence	-0.8
38	Seattle	-0.9
39	Hartford	-1.0
40	Nashville	-1.1
41	Dallas	-1.4
42	Riverside	-1.4
43	Raleigh	-1.8
44	New York	-1.9
45	Richmond	-2.0
46	Los Angeles	-2.7
47	Washington, D.C.	-2.8
48	Detroit	-2.8
49	Charlotte	-3.1
50	**Phoenix**	**-4.3**

Source: Centers for Disease Control and Prevention

Table 4-07
Change in Homicides

Point difference in homicide rate, 2014-2016

#	Region	Value
1	**Memphis**	**6.0**
2	Louisville	5.0
3	Baltimore	4.8
4	Birmingham	4.6
5	Milwaukee	4.2
6	Chicago	3.9
7	Cleveland	3.2
8	Kansas City	3.1
9	Richmond	2.7
10	**St. Louis**	**2.6**
11	Virginia Beach	2.5
12	Charlotte	2.2
13	San Antonio	2.1
14	Denver	1.9
15	Indianapolis	1.9
16	Orlando	1.8
17	Oklahoma City	1.7
18	Nashville	1.7
19	Washington, D.C.	1.6
20	Las Vegas	1.5
21	New Orleans	1.5
22	Philadelphia	1.5
23	Salt Lake City	1.4
24	Dallas	1.4
25	Houston	1.3
26	Austin	1.1
27	Phoenix	1.1
United States		**1.0**
28	Atlanta	0.9
29	San Francisco	0.9
30	Los Angeles	0.8
31	Pittsburgh	0.8
32	Columbus	0.8
33	Minneapolis	0.6
34	San Diego	0.6
35	San Jose	0.5
36	Tampa	0.4
37	Raleigh	0.4
38	Riverside	0.4
39	Detroit	0.3
40	Portland	0.2
41	Cincinnati	0.1
42	New York	0.1
43	Seattle	0.0
44	Miami	-0.1
45	Providence	-0.1
46	Boston	-0.1
47	Jacksonville	-0.4
48	Sacramento	-0.5
49	Buffalo	-0.7
50	**Hartford**	**-1.5**

Source: Centers for Disease Control and Prevention

6 While the FBI data is not consistently available for the peer regions, the CDC provides the number of homicides for all of the peer regions from 1999 to 2016.

Table 4-08: The rate of death by homicide for non-Hispanic blacks is 15.8 times the rate for non-Hispanic whites in the St. Louis region, ranking as the 7th largest disparity rate among the peer regions. Chicago had the highest disparity rate in 2016 with a ratio of 22.0. Black residents are more likely to be murdered than white residents in all of the peer regions for which there are data (46 regions). For the country as a whole, a black resident is 8.4 times more likely to be killed than a white resident. With the exception of Cincinnati, all of the Midwest peers have larger disparities than the nation.

Tables 4-09 and 4-10: Among the peer regions for which there are data, the smallest rate of black homicides, 9.4 per 100,000 people for Raleigh, is almost twice as high as the largest rate of white homicides, 5.6 per 100,000 people in Louisville. St. Louis, along with three Midwest peers—Chicago, Kansas City, and Milwaukee—top the black homicide ranking with rates of close to 50 black victims of homicide per 100,000 black residents. Seventy-eight percent of the homicides in the St. Louis region were of non-Hispanics blacks, a rate vastly disproportionate to the 18 percent of the population for which they account.

Table 4-08
Racial Disparity in Homicides

Ratio of black to white homicide rate, 2016

1	Chicago	22.0
2	Buffalo	19.1
3	San Francisco	19.1
4	Detroit	18.2
5	Pittsburgh	17.6
6	Milwaukee	17.1
7	St. Louis	15.8
8	Philadelphia	15.7
9	Baltimore	15.0
10	Cleveland	14.4
11	Kansas City	13.1
12	New York	12.9
13	Richmond	12.1
14	Los Angeles	11.9
15	New Orleans	11.1
16	Minneapolis	10.6
17	Indianapolis	10.6
18	Boston	10.5
19	San Diego	10.2
20	Washington, D.C.	10.0
21	Columbus	9.5
22	Miami	9.4
United States		**8.4**
23	Virginia Beach	8.3
24	Birmingham	8.2
25	Atlanta	7.9
26	Louisville	7.6
27	Memphis	7.5
28	Phoenix	7.4
29	Cincinnati	7.2
30	Orlando	6.9
31	Denver	6.8
32	Portland	6.7
33	Seattle	6.6
34	Nashville	6.6
35	Sacramento	6.5
36	Jacksonville	6.5
37	Charlotte	5.9
38	San Antonio	5.8
39	Oklahoma City	5.8
40	Riverside	5.7
41	Dallas	5.0
42	Las Vegas	4.9
43	Houston	4.7
44	Austin	4.7
45	Raleigh	4.5
46	**Tampa**	**4.2**

Source: Centers for Disease Control and Prevention

Table 4-09
Non-Hispanic Black Homicides

Per 100,000 non-Hispanic black people, 2016

1	St. Louis	50.4
2	Chicago	48.3
3	Kansas City	48.3
4	Milwaukee	47.9
5	New Orleans	47.8
6	Pittsburgh	45.7
7	Louisville	42.6
8	Baltimore	40.4
9	Indianapolis	40.2
10	Birmingham	37.1
11	Memphis	36.6
12	San Francisco	36.2
13	Cleveland	36.0
14	Detroit	34.5
15	Buffalo	32.5
16	Philadelphia	29.9
17	Oklahoma City	27.7
18	San Antonio	27.4
19	Jacksonville	27.1
20	Richmond	25.4
21	Los Angeles	24.9
22	Columbus	24.6
23	Las Vegas	24.5
24	Phoenix	23.8
United States		**23.4**
25	Virginia Beach	22.4
26	Orlando	22.0
27	Houston	21.3
28	Nashville	21.0
29	Cincinnati	20.8
30	Miami	20.6
31	Charlotte	19.5
32	Riverside	19.5
33	Denver	19.0
34	Sacramento	18.9
35	Atlanta	18.2
36	San Diego	17.4
37	Washington, D.C.	16.0
38	Tampa	15.2
39	Dallas	15.1
40	Portland	14.0
41	New York	12.9
42	Minneapolis	12.7
43	Seattle	12.5
44	Hartford	11.0
45	Boston	10.5
46	Austin	9.8
47	**Raleigh**	**9.4**

Source: Centers for Disease Control and Prevention

Table 4-10
Non-Hispanic White Homicides

Per 100,000 non-Hispanic white people, 2016

1	Louisville	5.6
2	Las Vegas	5.0
3	Memphis	4.9
4	Oklahoma City	4.8
5	San Antonio	4.7
6	Birmingham	4.5
7	Houston	4.5
8	New Orleans	4.3
9	Jacksonville	4.2
10	Indianapolis	3.8
11	Kansas City	3.7
12	Tampa	3.6
13	Riverside	3.4
14	Charlotte	3.3
15	Nashville	3.2
16	Orlando	3.2
17	Phoenix	3.2
18	St. Louis	3.2
19	Dallas	3.0
20	Cincinnati	2.9
21	Sacramento	2.9
22	Denver	2.8
23	Milwaukee	2.8
United States		**2.8**
24	Baltimore	2.7
25	Virginia Beach	2.7
26	Pittsburgh	2.6
27	Columbus	2.6
28	Cleveland	2.5
29	Atlanta	2.3
30	Chicago	2.2
31	Miami	2.2
32	Salt Lake City	2.2
33	San Jose	2.2
34	Austin	2.1
35	Los Angeles	2.1
36	Portland	2.1
37	Raleigh	2.1
38	Richmond	2.1
39	Detroit	1.9
40	Philadelphia	1.9
41	San Francisco	1.9
42	Seattle	1.9
43	Buffalo	1.7
44	San Diego	1.7
45	Providence	1.6
46	Washington, D.C.	1.6
47	Minneapolis	1.2
48	Boston	1.0
49	New York	1.0

Source: Centers for Disease Control and Prevention

Firearm Homicides

BJS reports that about 60 percent of violent crimes that involved a firearm were reported to police with the total number of victims of such crimes reaching nearly a half a million in 2016.

Table 4-11: A majority (85 percent) of homicides in the St. Louis region in 2016 involved firearms, higher than for the nation as a whole (74 percent). The St. Louis region had the 8th largest proportion of homicides involving firearms among the peer regions. San Diego, Providence, San Jose, and Portland were at the bottom of the rankings with less than 60 percent of homicides involving firearms.

In the St. Louis MSA, 90 percent of black non-Hispanic homicides and 63 percent of white non-Hispanic homicides involved firearms. A majority of all homicides in the region (70 percent) were of black people being killed with guns. Of the 345 St. Louis residents killed in St. Louis in 2016, 293 of them were killed with guns. Black males between the ages of 15 and 44 killed with firearms comprise nearly 50 percent of all homicides in the region.

Table 4-11
Firearm Homicides

Percent of All Homicides, 2016

1	**Virginia Beach**	**87.1**
2	Birmingham	86.9
3	Indianapolis	86.2
4	Kansas City	85.9
5	New Orleans	85.5
6	Memphis	85.1
7	Louisville	85.1
8	**St. Louis**	**84.9**
9	Orlando	84.8
10	Raleigh	84.4
11	Chicago	84.0
12	Richmond	83.6
13	Atlanta	83.0
14	Milwaukee	82.6
15	Detroit	82.3
16	San Francisco	81.5
17	Cleveland	80.7
18	Miami	80.5
19	Phoenix	80.2
20	Austin	80.0
21	Philadelphia	79.9
22	Baltimore	79.5
23	Pittsburgh	79.5
24	Columbus	78.7
25	Cincinnati	78.4
26	Houston	77.7
27	Jacksonville	76.5
28	Nashville	75.8
29	San Antonio	75.2
30	Charlotte	75.1
31	Seattle	74.5
	United States	**74.4**
32	Los Angeles	74.3
33	Oklahoma City	73.7
34	Hartford	73.1
35	Las Vegas	71.4
36	Dallas	71.4
37	Washington, D.C.	70.8
38	Minneapolis	70.3
39	Denver	69.8
40	Tampa	69.0
41	Sacramento	68.8
42	Riverside	68.6
43	Boston	64.2
44	Buffalo	63.2
45	New York	62.6
46	Salt Lake City	61.4
47	Portland	58.5
48	San Jose	56.1
49	Providence	51.4
50	**San Diego**	**46.7**

Source: Centers for Disease Control and Prevention

Drug- and Alcohol-Related Deaths

In 2016, over 100,000 people in the United States and 1,101 people in the St. Louis MSA died of drug- and alcohol-related causes. Nationally, deaths due to overdoses of opioids increased by almost 30 percent from 2015 to 2016 (Vivolo-Kantor et al., 2018), now accounting for two-thirds of all drug-related deaths (CDC, 2017). In the St. Louis region, the increase was 48 percent.

Table 4-12: The rate of drug- and alcohol-related deaths for the St. Louis MSA, 39.2 deaths per 100,000 population, stands as the 15th largest rate among the peer regions. Three times as many people die of drugs and alcohol than die from homicides. The range among the peer regions is large with the lowest rate being 17.3 in San Jose and the highest being 62.8 in Pittsburgh. All four of the Texas peer regions are in the bottom 10 of the peers as well as three of the California peers. Interestingly, the peer Missouri region—Kansas City—ranks 40th with a rate of 24.6 deaths per 100,000 population, substantially lower than the rate of St. Louis. The rate for the Kansas City MSA increased 28 percent from 2006 to 2016, while the rate in St. Louis doubled. All of the peer regions, except San Antonio and Houston, experienced increases in drug-related deaths over this time period. Many of the regions at the top of the rankings are in the Midwest and Northeast regions of the country.

Table 4-12
Drug-and Alcohol-Related Deaths

Deaths per 100,000 population, 2016

1	**Pittsburgh**	**62.8**
2	Cincinnati	56.1
3	Baltimore	54.7
4	Cleveland	54.2
5	Louisville	53.3
6	Providence	51.9
7	Jacksonville	48.4
8	Boston	43.7
8	Detroit	43.7
10	Philadelphia	43.1
11	Buffalo	41.8
12	New Orleans	41.3
13	Birmingham	40.0
14	Hartford	39.7
15	Milwaukee	39.2
15	**St. Louis**	**39.2**
17	Tampa	38.6
18	Indianapolis	38.4
19	Salt Lake City	36.7
20	Las Vegas	36.0
21	Nashville	35.8
21	Phoenix	35.8
23	Oklahoma City	34.0
24	Miami	33.2
25	Denver	32.9
	United States	**31.6**
26	Sacramento	31.0
27	Virginia Beach	30.9
28	Columbus	30.8
29	Portland	30.0
30	Richmond	28.9
31	Chicago	28.3
31	San Diego	28.3
33	Seattle	28.1
34	Charlotte	27.3
34	Memphis	27.3
36	Riverside	26.9
37	New York	26.5
38	Orlando	26.1
39	Minneapolis	25.6
40	Kansas City	24.6
41	Washington, D.C.	24.2
42	San Francisco	23.4
43	Los Angeles	21.8
44	Atlanta	21.3
45	San Antonio	20.8
46	Raleigh	20.3
47	Dallas	18.9
48	Austin	17.9
49	Houston	17.8
50	**San Jose**	**17.3**

Source: Centers for Disease Control and Prevention

Figure 4-07: The total number of drug- and alcohol-related deaths for the St. Louis MSA increased by 417 from 2012 to 2016. In 2016, the number of drug- and alcohol-related deaths reached over 1,000. Figure 4-07 shows drug- and alcohol-related death rates for the St. Louis MSA and the United States for 1999 to 2016. There has been a fairly steady increase throughout the time period. The largest year-over-year increase for both geographies was from 2015 to 2016, with a 10.7 point increase in the rate for St. Louis and 4.0 for the United States.

The increase in drug- and alcohol-related deaths has been seen in all age groups, races, in all parts of the country, and in large metropolitan regions as well as suburban and rural communities (CDC, 2018). In the St. Louis MSA, the age groups with the highest rates of deaths in 2016 were those aged 35 to 44 years old (73.6 deaths per 100,000 people) and those aged 25 to 34 years old (72.3). These age groups also experienced the largest increases in rates from 1999 to 2016. The increase in rate was higher for the younger age group with a 64.5 point increase among 25 to 34 year olds and 47 point increase for 35 to 44 year olds. For blacks and whites in St. Louis, the increases in death rates from 1999 to 2016 were about the same, 28 points. However, the drug- and alcohol-related death rate for blacks in 2016 (48.5 per 100,000 people) was higher than that of whites (39.3).

Figure 4-07
Drug- and Alcohol-Related Deaths

Deaths per 100,000 population
St. Louis MSA and United States, 1999 to 2016
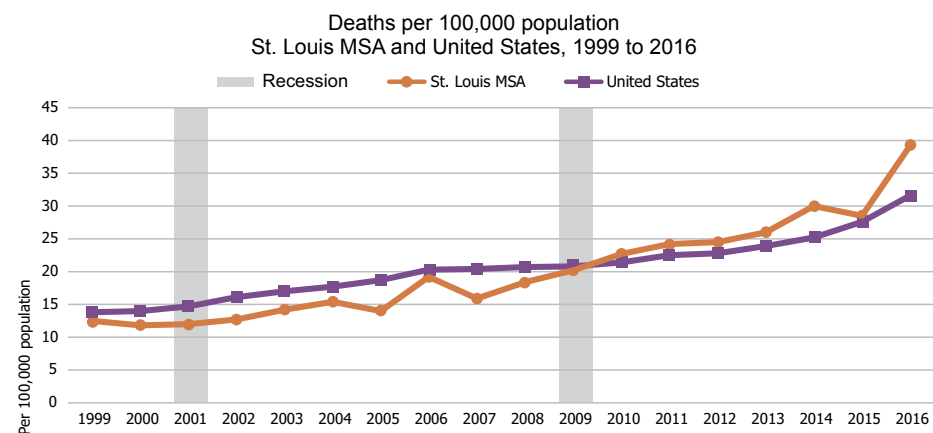
Source: FBI Uniform Crime Reports.

Opioid Drugs

This rise in drug- and alcohol-related deaths is in large part due to the abuse of opioid drugs. In 2016, opioid drugs were involved in 66 percent of all drug- and alcohol-related deaths in the United States. The proportion was about the same in the St. Louis MSA (67.3 percent), a percentage that has increased steadily from 22 percent in 1999.

"Opioids" are pain relieving drugs that also produce euphoria and can be made from the poppy plant (e.g. morphine) or synthesized in a laboratory (e.g. fentanyl) (Krieger, 2018). This class of drugs includes illicit drugs such as heroin as well as pharmaceutical drugs such as oxycodone, hydrocodone, codeine, and morphine. Fentanyl, has pharmaceutical uses, but is often manufactured illegally. Pharmaceutical opioids can be used safely when prescribed by a doctor. However, they are highly addictive, which creates the risk of individuals becoming dependent on them, abusing them, overdosing, and/or dying from them (National Institute on Drug Abuse, 2018b).

Table 4-13: For deaths with opioid drugs as a contributing cause, the St. Louis MSA ranks 10th among the peer regions with a rate of 26.4 deaths per 100,000 population in 2016. This rate is twice that of the United States and larger than most of the peer regions. Most of the Midwest peer regions along with regions in the Northeast join St. Louis with higher rates than that of the United States. Again, Kansas City has a notably lower rate than the St. Louis region.

Table 4-13
Opioid-Drug Related Deaths

Deaths per 100,000 population, 2016

1	Baltimore	43.0
2	Cincinnati	39.4
3	Pittsburgh	38.6
4	Cleveland	37.9
5	Providence	32.0
6	Boston	29.3
7	Jacksonville	28.8
8	Buffalo	27.8
9	Hartford	26.8
10	St. Louis	26.4
11	Milwaukee	23.5
12	Louisville	23.1
13	Detroit	22.1
14	Nashville	19.5
15	Birmingham	19.3
16	Richmond	18.4
17	Virginia Beach	18.3
18	Columbus	17.3
19	Salt Lake City	16.9
20	Chicago	16.0
21	Memphis	15.5
22	New Orleans	15.3
23	Charlotte	15.0
24	New York	14.9
25	Washington, D.C.	14.8
26	Las Vegas	13.3
27	Miami	13.3
28	Indianapolis	13.2
United States		13.1
29	Orlando	11.8
30	Tampa	10.9
31	Phoenix	10.7
32	Seattle	10.6
33	Oklahoma City	10.0
34	Denver	9.9
35	Atlanta	9.7
36	Philadelphia	9.7
37	Raleigh	9.1
38	Portland	8.3
39	Minneapolis	8.2
40	San Diego	7.6
41	Kansas City	7.4
42	Austin	6.6
43	Houston	5.6
44	Dallas	5.2
45	San Antonio	5.2
46	San Francisco	5.0
47	Los Angeles	4.7
48	Sacramento	3.7
49	San Jose	3.4
50	Riverside	3.2

Source: Centers for Disease Control and Prevention

The CDC documents three surges in drug abuse that have led to this "opioid epidemic." The first was in the 1990s when an increase in prescription opioids was seen. Heroin was the main contributor in the second rise around 2010. Most recently, the third wave over the past few years has been mainly due to the increase in synthetic opioids, which is primarily illegal fentanyl (CDC, 2017b).

Fentanyl is a man-made opioid that is 50 times more potent than heroin. The drug is made as a pharmaceutical for extreme pain and end-of-life care, but it is also manufactured illegally. The illegal fentanyl, is known as illicitly manufactured fentanyl (CDC, 2016). Drug dealers sometimes mix it with other illegal drugs, including heroin, cocaine, and counterfeit pills (Puja, et al. 2018), as a way of increasing the intensity of the drugs. Even small doses of the drug can be fatal.

Deaths with fentanyl as a contributing cause increased significantly in the past few years. U.S. deaths involving synthetic opioids doubled from 2015 to 2016.

In the St. Louis MSA, deaths with synthetic opioids as a contributing cause nearly tripled from 149 in 2015 to 433 in 2016. Nationally, there were 19,413 deaths involving synthetic opioids in 2016, up from 3,007 in 2010 (National Institute on Drug Abuse, 2018a).

In 2016, synthetic opioids surpassed prescription-opioid-related deaths and became the most common drug involved in drug overdose deaths in the United States (National Institute on Drug Abuse, 2018a). Prescription opioids still accounted for 27 percent of all drug-related deaths, but synthetic opioids contributed to 31 percent.

Figure 4-08 shows the percentage of drug-deaths that involved synthetic opioids along with other drugs in 2016 in the United States. There were about 42,000 drug-related deaths. Almost half of these deaths involved synthetic opioids. About 4,000 deaths involved both prescription opioids and synthetic opioids. Heroin was a contributing cause to 15,500 deaths, about 25 percent of all drug-overdose deaths. Many of these deaths, 37 percent, also involved synthetic opioids.

Figure 4-08
Drug Overdose Deaths

Death with select drugs as a contributing cause by type of drug
United States, 2016

■ Percent of deaths involving synthetic opioids (primarily fentanyl)   ■ Total drug-related deaths

Drug	Percent	Total deaths
Any Opioid	46%	42,249
Heroin	37%	15,469
Cocaine	40%	10,375
Prescription opioids	24%	17,087
Benzodiazepines	31%	10,684
Psychostimulants	14%	7,542
Antidepressants	21%	3,811
Antipsychotics, neuroleptics	21%	1,877
Other illicit drugs	27%	543
Barbiturates	22%	409

Number of deaths

Note: Deaths are not mutually exclusive.

Source: Vivolo-Kantor et al., National Institute of Drug Abuse, 2018.

"From 2006 to 2017, the rate at which opioids were prescribed declined 19.2 percent, from 72.4 per 100,000 people to 58.5."

Figure 4-09 shows how the rise in opioids is the main contributor to the rise in drug- and alcohol-related deaths in the St. Louis MSA. Non-opioid deaths remained around nine to 10 deaths per 100,000 people over the time period. In 2016, a higher rate was recorded. This increase could even be in part due to opioids since the CDC found that an average of 16 percent of death certificates in 2015 and 2016 did not specify the drug involved (Puja, et al. 2018). In comparison to the lack of growth in non-opioid drug-related deaths, the deaths involving at least one opioid drug increased from 2.8 per 100,000 people in 1999 to 26.4 in 2016.

CDC data on drug-related deaths is the most readily available, but the epidemic is even wider than what is recorded by these numbers. A study of 45 states found that in 2014 about 92,000 emergency room visits were for nonfatal opioid overdoses. From 2016 to 2017, the number of emergency room visits for opioid overdoses increased 29.7 percent. Increases were seen across the country, but the largest increase was in the Midwest where emergency room visits increased 69.7 percent. The West also experienced a substantial increase, 40.3 percent. The increases in the Northeast (21.3 percent), Southwest (20.2 percent), and Southeast (14.0 percent) were much smaller but still significant (Vivolo-Kantor et al., 2018).

A recent report from CDC offers some hope. Prescription opioids were the first wave of the opioid crisis and continue to be the second leading opioid involved in drug-related deaths. Reducing the volume of opioids prescribed is one mechanism for addressing the increase in drug-related deaths. CDC found that the prescribing of opioids has declined in recent years. From 2006 to 2017, the rate at which opioids were prescribed declined 19.2 percent, from 72.4 per 100,000 people to 58.5. The rate increased annually from 2006 to 2010 but has declined annually from 2010 to 2017 (CDC, 2018).

**Figure 4-09
Drug-Related Death Rates**

Deaths per 100,000 population by type of drug
St. Louis MSA, 1999 to 2016
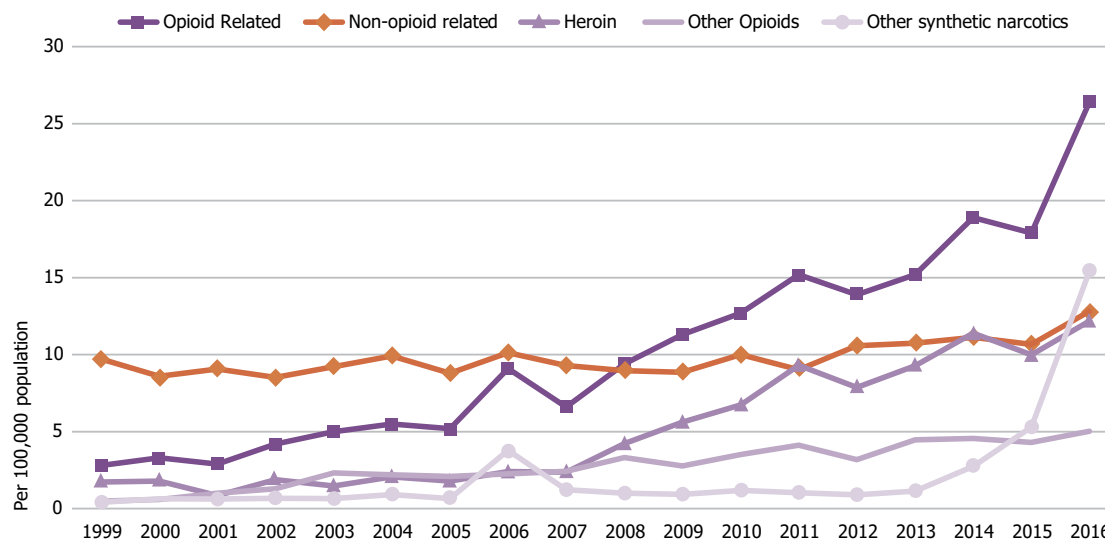
Note: Deaths are not mutually exclusive.

Source: Centers for Disease Control and Prevention.

Property Crime Rate, Violent Crime Rate, Murder Rate and Rape Crime Rate present offenses known to law enforcement agencies and voluntarily reported to the Uniform Crime Reporting (UCR) Program. The UCR includes data for MSAs only if 75 percent of the law enforcement agencies report data and the agencies for the principal city/cities report 12 months of complete data. For the MSAs that meet this standard, data for agencies that do not report or do not report complete data are estimated. The UCR does not report data if the FBI determines that the agency's data were over-reported, under-reported, or did not follow national UCR Program guidelines. **Property Crime Rate** includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. **Violent Crime Rate** includes the offenses of murder and non-negligent manslaughter, rape, robbery, and aggravated assault. The 2015 and 2017 violent crime rates are reported for 37 regions. For at least 14 of these regions, data are not comparable due to at least one of the reporting agencies in the MSAs revising how they report crimes over the time period. For Las Vegas, victims of the October 1st mass shooting are included in the 2017 data. **Rape Crime Rate:** The FBI changed the definition of rape in 2013. One or more of the agencies reporting in five peer MSAs, indicated with an "*" on the table, use the legacy definition.

Violent Crime Rate, Property Crime Rate, and Murder Rate (figures) report data for the St. Louis MSA as it was delineated at the time. The boundary of the St. Louis MSA changed three times from 1991 to 2013. In 2005, 2010, 2015, 2016, and 2017 at least one state or local agency in the St. Louis MSA changed their reporting practices and the FBI warns against comparing data from previous years. Violent crime data are not available for the MSA in the following years for these reasons: 2009 because the data collection methodology for the offense of forcible rape used by the Illinois state UCR Program did not comply with national UCR program guidelines; 2016 and 2017 because the FBI determined that one or more agencies in the St. Louis MSA over-reported aggravated assaults; and 2017 because one more agency did not follow the national guidelines for reporting aggravated assaults.

Source: FBI, Uniform Crime Reports

Non-Hispanic Black Homicides, Non-Hispanic White Homicides, and Racial Disparity in Homicides report data for the black population (not Hispanic or Latino) and white population (not Hispanic or Latino).

Firearm Homicides include those classified as terrorism involving firearms; assault by handgun discharge; assault by rifle, shotgun, and larger firearm discharge; and assault by other and unspecified firearm discharge.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. WONDER: Compressed Mortality File (1999-2016)

Drug- and Alcohol-Related Deaths measures the number of deaths categorized as drug-induced or alcohol-induced by the National Center for Health Statistics per 100,000 population. Drug overdose deaths include those that are unintentional, suicide, homicide, and those for which no intent is determined. **Opioid Drug-Related Deaths** include those with at least one of the following identified as a contributing cause of death: opium, heroin, other opioids, methadone, other synthetic narcotics, and other and unspecified narcotics. Deaths with more than one drug involved are only counted once.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. WONDER: Detailed Mortality File (1999-2016)

Drug Overdose Deaths is replicated from a graph produced by the National Institute on Drug Abuse. Deaths are not mutually exclusive, as some deaths involve more than one drug.

Source: Vivolo-Kantor et al., National Institute of Drug Abuse, 2018

Barnes, Gary, Edward Crowe, and Benjamin Schaefer. 2007. The Cost of Teacher Turnover in Five School Districts: A Pilot Study. National Commission on Teaching and America's Future. https://files.eric.ed.gov/fulltext/ED497176.pdf.

Bohrnstedt, George, Sami Kitmitto, Burhan Ogut, Daniel Sherman, and D. Chan. 2015. School Composition and the Black–White Achievement Gap. U.S. Department of Education, National Center for Education Statistics. https://files.eric.ed.gov/fulltext/ED560723.pdf.

Bullard, James. June 30, 2015. Remarks at Emerging Venture Leaders' Summit: Perspectives on Innovation and Entrepreneurship. St. Louis, MO.

Card, David, and Alan Krueger. 1990. Does School Quality Matter? Returns to Education and Characteristics of Public Schools in the United States. National Bureau of Economics, Working Paper Series (3358). doi:10.3386/w3358.

Centers for Disease Control and Prevention. December 19, 2017. Drug Overdose Death Data. https://www.cdc.gov/drugoverdose/data/statedeaths.html.

—. December 16, 2016. Synthetic Opioid Overdose Data. https://www.cdc.gov/drugoverdose/data/fentanyl.html.

—. August 30, 2017. Understanding the Epidemic. https://www.cdc.gov/drugoverdose/epidemic/index.html.

Centers for Disease Control and Prevention. August 31, 2018. 2018 Annual Surveillance Report of Drug-Related Risks and Outcomes—United States. Surveillance Special Report. https://www.cdc.gov/drugoverdose/pdf/pubs/2018-cdc-drug-surveillance-report.pdf.

Collins, Kevin P., and Sean D. Cleary. 2016. Racial and ethnic disparities in parent-reported diagnosis of ADHD: National Survey of Children's Health (2003, 2007, and 2011). The Journal of Clinical Pyschiatry (1): 52-59. doi:10.4088/JCP.14m09364.

Cushman & Wakefield. 2017. Marketbeat: Inland Empire Industrial Q3 2017. http://www.cushmanwakefield.com/en/research-and-insight/unitedstates/inland-empire-industrial-snapshot.

Dickson, Gordon, and Nicholas Sakelaris. July 6, 2018. Priced out of their home? North Texans see tax bill rise $1,200 in five years. Star-Telegram. https://www.star-telegram.com/news/business/growth/article213050609.html.

Federal Bureau of Investigation (FBI). Fall 2018a. Burglary. https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/burglary.

—. Fall 2018b. Larceny-theft. https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/larceny-theft.

--. 2018c. Table 7: Offense Analysis, United States, 2013-2017. https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-7

—. September 2011. Larceny-theft. https://ucr.fbi.gov/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/property-crime/larcenytheftmain.

—. May 2017. Uniform Crime Reporting Statistics: Their Proper Use. https://ucr.fbi.gov/ucr-statistics-their-proper-use.

Frazee, Sharon. May 10, 2012. How Geography Drives ADHD Diagnosis. Express Scripts Labs. http://lab.express-scripts.com/lab/insights/specialized-care/how-geography-drives-adhd-diagnosis.

Gamble, Molly. May 3, 2012. 15 Largest For-Profit Hospital Operators of 2012. Becker's Hospital Review. https://www.beckershospitalreview.com/lists/15-largest-for-profit-hospital-operators-of-2012.html.

Hansen, Michael, and Diana Quintero. September 7, 2017. Scrutinizing equal pay for equal work among teachers. Brookings. https://www.brookings.edu/research/scrutinizing-equal-pay-for-equal-work-among-teachers/.

Heron, Melonie. July 26, 2018. Deaths: Leading Causes for 2016. National Vital Statistics Reports 67 (6). https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_06.pdf

Institute on Aging. 2018. Read how IOA views aging in America. https://www.ioaging.org/aging-in-america.

James, Nathan. June 20, 2018. Recent Violent Crime Trends in the United States. Congressional Research Service. https://fas.org/sgp/crs/misc/R45236.pdf.

Johansson, Ola. 2007. Ten People Can't Run This City Anymore: Neoliberalism and Governance Change in Nashville, Tennessee. Southeastern Geographer (University of North Carolina Press) 47 (2): 298-319. https://www.jstor.org/stable/26222280.

Kearney, Christopher A. 2008. An Interdisciplinary Model of School Absenteeism in Youth to Inform Professional Practice and Public Policy. Educational Psychology Review 20 (3): 257-282. http://www.jstor.org/stable/23363891.

Kleck, Gary, and Dylan Jackson. 2016. What Kind of Joblessness Affects Crime? A National Journal of Quantitative Criminology 32 (4): 489-513. https://doi.org/10.1007/s10940-016-9282-0.

Klingner, John. October 2013. Understanding Illinois' Broken Education Funding System. Illinois Policy. https://www.illinoispolicy.org/reports/understanding-illinois-broken-education-funding-system/.

Kochhar, Rakesh, and Russ Oates. 2014. Attitudes about Aging: A Global Perspective. Pew Research Center. http://pewglobal.org/wp-content/uploads/sites/2/2014/01/Pew-Research-Center-Global-Aging-Report-FINAL-January-30-20141.pdf.

Kochhar, Rakesh, Richard Fry, and Molly Rohal. 2016. America's Shrinking Middle Class: A Close Look at Changes Within Metropolitan Areas. Pew Research Center. http://www.pewresearch.org/wp-content/uploads/sites/3/2016/05/Middle-Class-Metro-Areas-FINAL.pdf.

Krieger, Carrie. March 21, 2018. What are opioids and why are they dangerous? Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/expert-answers/what-are-opioids/faq-20381270.

Kuttner, Robert. 1996. Columbia/HCA and the Resurgence of the For-Profit Hospital Business. New England Journal of Medicine 335 (5): 362-368. doi:10.1056/NEJM199608083350620.

Makowsky, Michael D., Thomas Stratmann, and Alexander T. Tabarrok. 2018. To Serve and Collect: The Fiscal and Racial Determinants of Law Enforcement. GMU Working Paper in Economics (16-17). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2745000.

Miller, Raegen T., Richard J. Murnane, and John B. Willett. 2008. Do Teacher Absences Impact Student Achievement? Longitudinal Evidence from One Urban School District. Educational Evaluation and Policy Analysis 30 (2): 181-200. https://www.jstor.org/stable/30128059.

Morgan, Rachel E. and Grace Kena, 2017. Criminal Victimization, 2016. U.S. Department of Justice, Bureau of Justice Statistics. December. https://www.bjs.gov/content/pub/pdf/cv16.pdf .

Morris, Iain. June 11, 2018. Big Telcos Have Slashed 107K Jobs Since 2015. Light Reading. https://www.lightreading.com/business-employment/jobs/big-telcos-have-slashed-107k-jobs-since-2015/d/d-id/743765.

National Institute on Drug Abuse. May 2018. Fentanyl and Other Synthetic Opioids Drug Overdose Deaths. https://www.drugabuse.gov/related-topics/trends-statistics/infographics/fentanyl-other-synthetic-opioids-drug-overdose-deaths.

—. Opioids. Accessed October 16, 2018. https://www.drugabuse.gov/drugs-abuse/opioids

National Science Foundation (NSF), National Center for Science and Engineering Statistics, and the U.S. Census Bureau, Business R&D and Innovation Survey. 2013. Table 60. U.S. patent applications and patents issued by industry and company size. https://www.nsf.gov/statistics/2016/nsf16313/pdf/tab60.pdf.

Rosenfeld, Richard. 2002. Crime Decline in Context. Contexts 1 (1): 25-34. http://journals.sagepub.com/doi/abs/10.1525/ctx.2002.1.1.25.

Rosenfeld, Richard, Shytierra Gaston, Howard Spivak, and Seri Irazola. November 2017. Assessing and Responding to the Recent Homicide Rise in the United States. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. https://centerforimprovinginvestigations.org/wp-content/uploads/2018/07/Assessing-Responding-to-the-Recent-Homicide-Rise-in-US_NIJ-2017.pdf.

Ruffing, Kathy A. 2015. Geographic Pattern of Disability Receipt Largely Reflects Economic and Demographic Factors: Disability Benefits Especially Important in South and Appalachia. Center on Budget and Policy Priorities. https://www.cbpp.org/sites/default/files/atoms/files/1-8-15ss.pdf.

Ruggles, Steven, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas, and Matthew Sobek. 2018. IPUMS USA: Version 8.0 [dataset]. Minneapolis, MN. https://doi.org/10.18128/D010.V8.0.

Seth, Puja, Lawrence Scholl, Rose A. Rudd, and Sarah Bacon. March 30, 2018. Overdose Deaths Involving Opioids, Cocaine, and Psychostimulants—United States, 2015-2016. Morbidity and Mortality Weekly Report (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention) 67 (12): 349-358. https://www.cdc.gov/mmwr/volumes/67/wr/mm6712a1.htm?s_cid=mm6712a1_w.

S&P Dow Jones Indices LLC. Accessed on October 1, 2018. Dow Jones Industrial Average [DJIA], retrieved from FRED. Federal Reserve Bank of St. Louis. https://fred.stlouisfed.org/series/DJIA.

Semuels, Alana. February 1, 2018. What Amazon Does to Poor Cities. The Atlantic. https://www.theatlantic.com/business/archive/2018/02/amazon-warehouses-poor-cities/552020/.

Smith, Carol. September 24, 2018. Top of the List: Nashville's biggest private companies. Nashville Business Journal. https://www.bizjournals.com/nashville/news/2018/09/24/top-of-the-list-nashvilles-biggest-private.html.

St. Louis Community College. 2017. State of St. Louis Workforce. https://www.stlcc.edu/docs/st-louis-workforce/state-of-st-louis-workforce-report-2017.pdf.

St. Louis Regional Chamber. 2017a. St. Louis Regional Overview. http://www.stlregionalchamber.com/docs/regional-chamber/economic-development/business-environment/st-louis-regional-highlights-powerpoint.pdf?sfvrsn=8.

—. 2017b. The St. Louis Regional Education Commitment: A Shared Community Agenda to See St. Louis Become a Top 10 Region. December 7. http://www.stlregionalchamber.com/docs/default-document-library/st-louis-regional-commitment-12-7-17.pdf.

St. Louis Regional Freightway. 2018. The Region as a Resource. https://www.thefreightway.com/advantages/.

Strauss, Jack. June 2012. The Economic Impact of Immigration on St. Louis. https://www.iistl.org/pDF/Economic%20impact%20study%20-%20Immigration1.pdf.

The Ferguson Commission. 2015. Forward through Ferguson: A Path Toward Racial Equity. https://3680or2khmk3bzkp33juiea1-wpengine.netdna-ssl.com/wp-content/uploads/2015/09/101415_FergusonCommissionReport.pdf.

Toossi, Mitra, and Elka Torpey. May 2017. Older workers: Labor force trends and career options. https://www.bls.gov/careeroutlook/2017/article/older-workers.htm.

U.S. Census Bureau, Annual Survey of School System Finances. 2016. https://www.census.gov/data/tables/2016/econ/school-finances/secondary-education-finance.html.

United States Patent and Trademark Office (USPTO). October 2015. General information concerning patents. https://www.uspto.gov/patents-getting-started/general-information-concerning-patents.

Vivolo-Kantor, Alana M., Puja Seth, R. Matthew Gladden, Christine L. Mattson, Grant T. Baldwin, Aaron Kite-Powell, and Michael A. Coletta. March 9, 2018. Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses — United States, July 2016–September 2017. Morbidity and Mortality Weekly Report (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention) 69 (9): 279-285. http://dx.doi.org/10.15585/mmwr.mm6709e1.

Wallace, Michelle, and Neroli Sheldon. 2014. Women and Engineering: A Workforce Development Issue. Chap. 7 in Workforce Development: Perspectives and Issues, edited by Roger Harris and Tom Short, 113-129. Springer.

Calhoun Co.

Macoupin Co.

Jersey Co.

Lincoln Co.

Bond Co.

St. Louis Regional

Madison Co.

Warren Co.

St. Charles Co.

Lambert International

City of St. Louis

Spirit of St. Louis

St. Louis Co.

Clinton Co.

Mid-America

St. Louis Downtown Parks

Scott AFB

Franklin Co.

St. Clair Co.

Jefferson Co.

Monroe Co.

Cups $8.00

Refills $4.00

TIPS

PUBLIC SAFETY