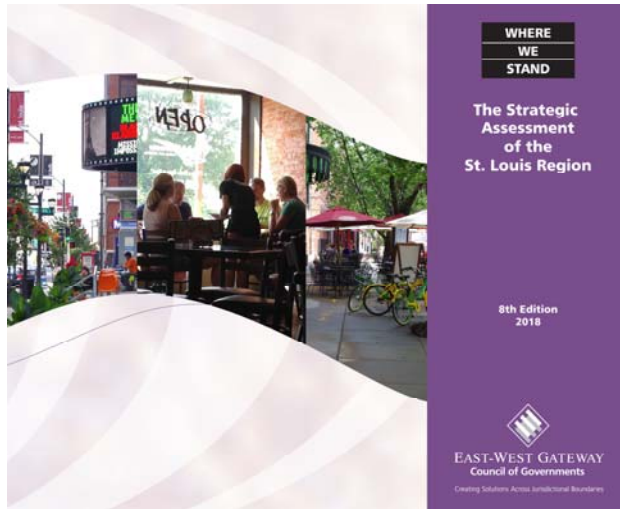




Where We Stand: 8th Edition

Chapter 3: Workforce and Education

November 2018



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

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

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

Introduction

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.

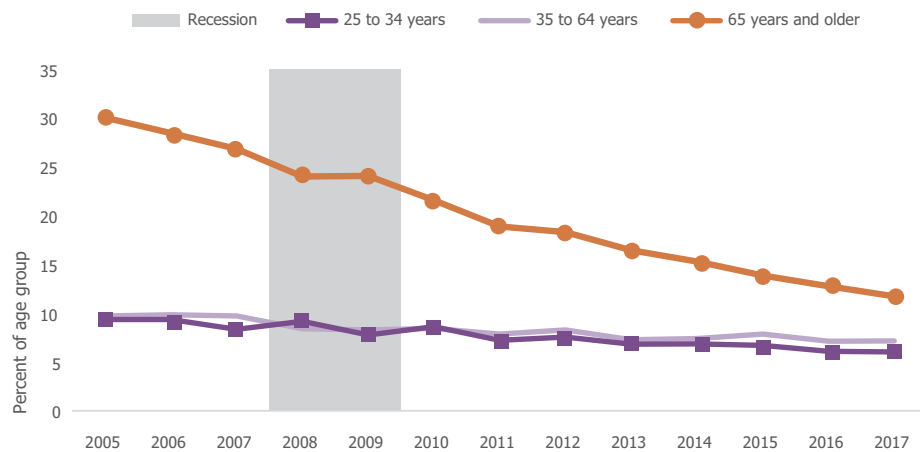
Table 3-10: The region also experienced one of the biggest drops in adults lacking a high school diploma or equivalent. Between 2007 and 2017, the percentage of adults without a high school diploma or equivalent declined by 4.8 points, from 12.8 percent to 8.0 percent. This was the fifth biggest decline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

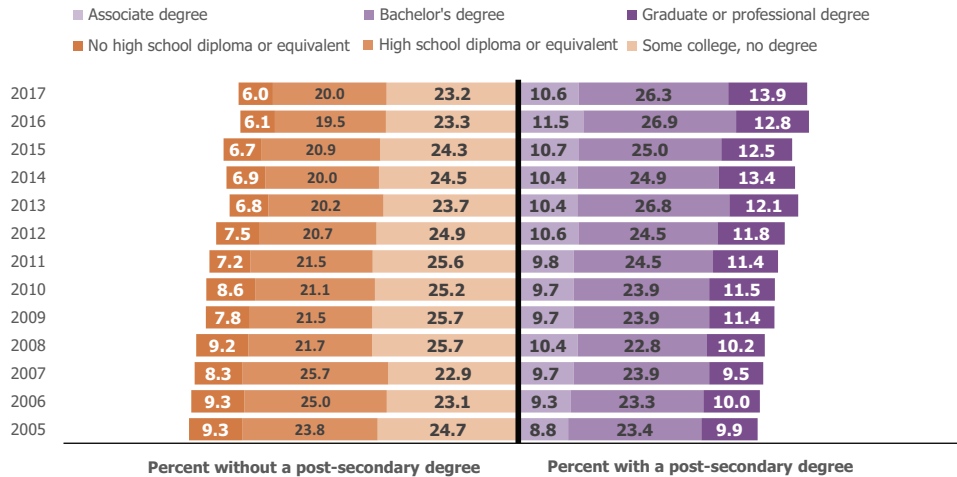
Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (B15002)

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



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 Disparity

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

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

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.

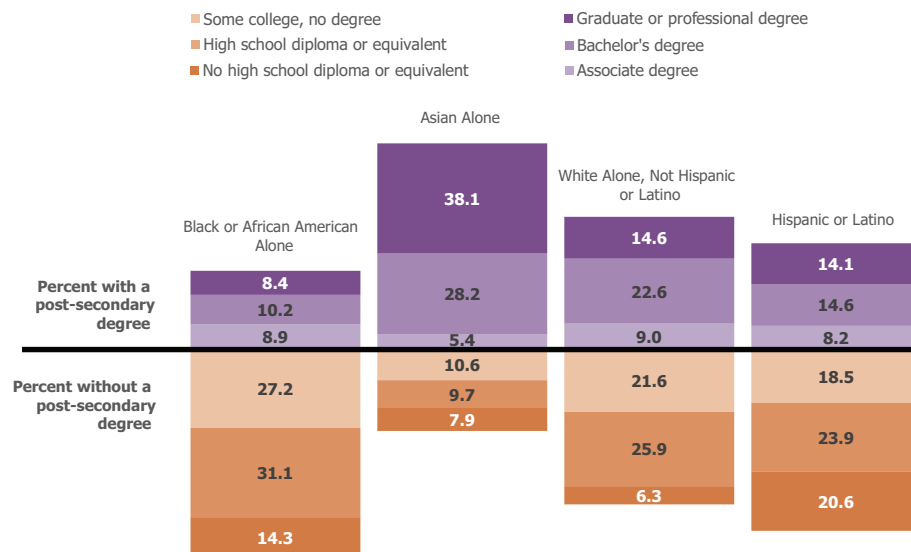
Table 3-22: Among those who have attended college, two-thirds of white adults in St. Louis have graduated with at least one degree

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

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 entrepreneurship (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.

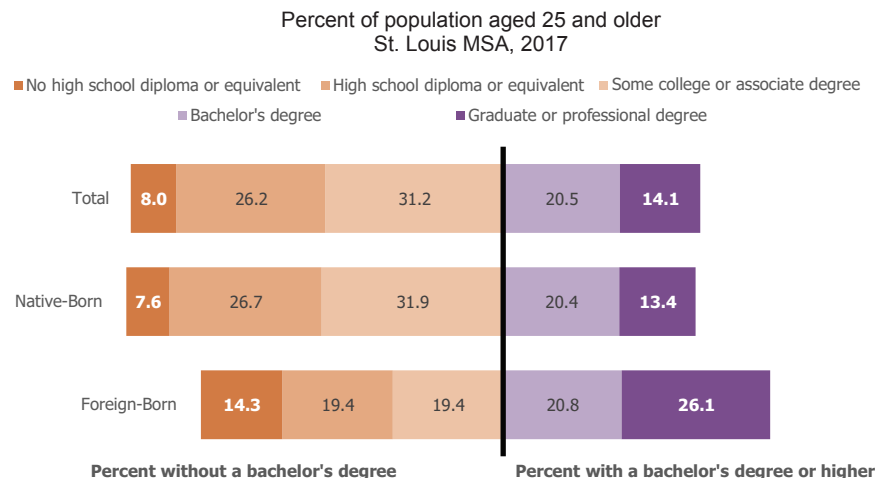
Table 3-23: The St. Louis region has one of the lowest percentages of foreign-born workers. In 2017, 6 percent of the region's workforce were not U.S. citizens at birth. This is the second lowest percentage among the peer regions, ranking 48th. Many of the Midwest peers also have relatively small percentages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



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
23	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)

Workforce Engagement

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

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

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.

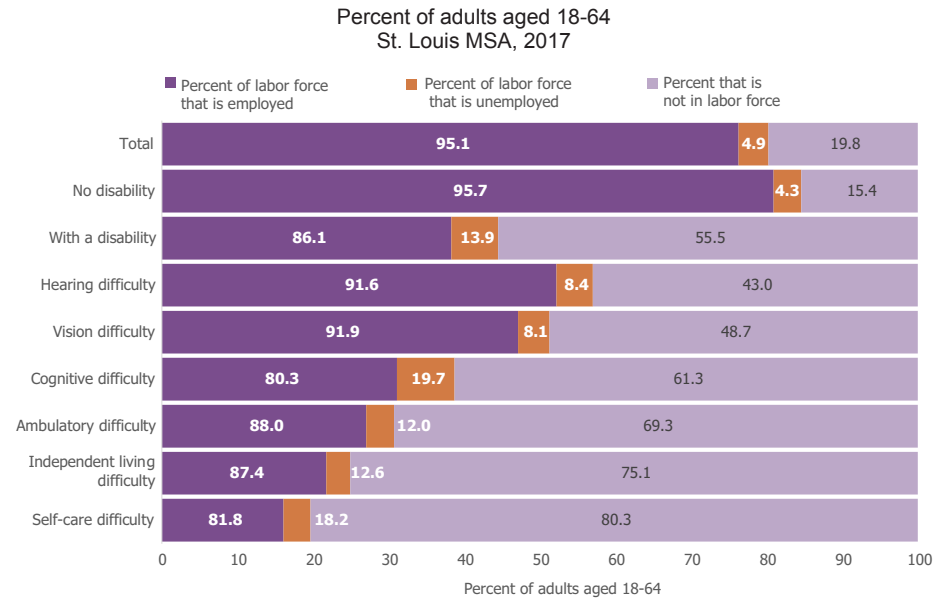
Figure 3-05 shows rates of labor force participation, employment, and unemployment for adults aged 18 to 64 by disability status. The figure shows that 55.5 percent of adults living with a disability do not participate in the labor force (they are neither employed nor seeking employment). Of those who 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



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 Resources³

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/www.

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 Sakellaris, 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.

**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

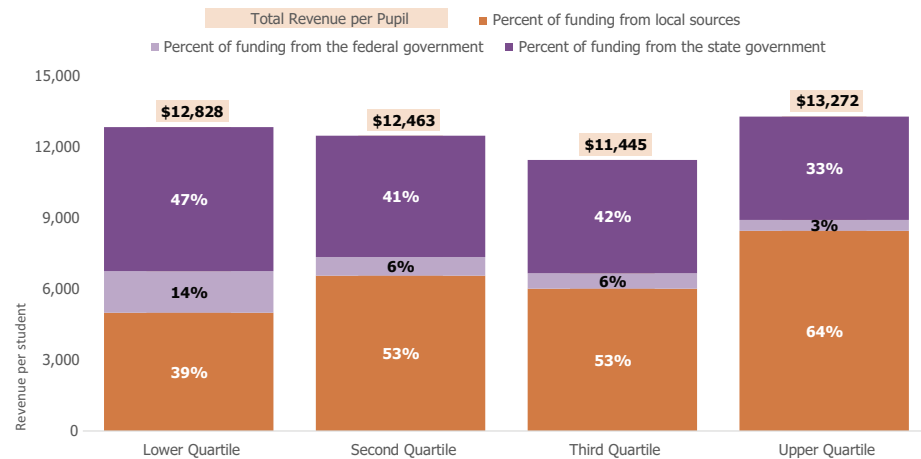
1	Memphis	61.1
2	Los Angeles	44.6
3	New York	28.8
4	Minneapolis	28.3
5	San Francisco	27.5
6	Seattle	25.8
7	Hartford	24.2
8	Buffalo	23.9
9	Philadelphia	22.9
10	San Jose	19.7
11	Providence	19.1
12	Salt Lake City	18.2
13	Boston	17.9
14	Chicago	15.1
15	Columbus	14.9
16	Portland	14.8
17	Cleveland	14.2
18	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

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.

School Quality⁴

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

⁴ See *Where We Stand White Paper 3* for a more detailed discussion on this topic www.ewgateway.org/www.

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

Learning Environments

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



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