Where We Stand (WWS): Review of Data

Purpose: This is a part of a series of working papers that provides documentation on data points used to measure regional success. The papers highlight methodological issues and nuances that affect how the data should be interpreted and used. They are living documents that will build on previous work and provide one location to reference key information about these topics.

Have something to add to the discussion on data for this topic? Please email us at
wws@ewgateway.org

Topic: Employment and Unemployment

Version: Revised November 2024
* This is a living document that will be updated periodically. Check for updates at
www.ewgateway.org/wws

Data Details

This section provides information about the source, definition, and notes about the source or the specific data that are important to keep in mind when working with this data.

There are at least four data sources on regional employment levels. Which source to use depends on one's purpose. In WWS, sources are used for different purposes.

Source A. The Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics (LAUS) estimates the number of individuals currently working, the number currently looking for work, and the unemployment rate. It differs from the other sources in that it is by place of residence, rather than place of employment.

Source B. BLS Current Employment Statistics (CES) includes wage and salary jobs covered by the Unemployment Insurance (UI) program, as well as estimates of several types of jobs not covered by UI, including employees of religious organizations and some small nonprofits, railroad employees, and others. Unlike BEA, CES covers only wage and salary employment, and therefore excludes proprietors' employment. CES data are based on a sample which is benchmarked to QCEW. The QCEW sampling frame is revised in March of each year, and CES estimates for the previous year are revised accordingly. At the time of this writing, September 2024, CES numbers reflect QCEW estimates through September 2023. Revised CES estimates for October 2023 through September 2024 will be available in March 2025 with the release of the 2024 Benchmark article.[1] The currently available time series from CES reflects March revisions to 2021 and 2022 annual estimates. In each of these years, CES employment estimates exceeded those of QCEW by more than 90,000 jobs in the St. Louis MSA.

CES was selected as the primary employment measure for Where We Stand for three reasons:
- CES data are more current with estimates available for 2023, while the latest BEA estimates as of July 2024 are for 2022.
- It contains the least data suppression at the level of 2-digit NAICS codes which allows for analysis of industry trends

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[1] Personal communication from Daniel Cordier, BLS economist, August 30, 2024.

- It has a broader definition of payroll employment than BLS Quarterly Census of Employment and Wages (QCEW), leading some state departments of labor use CES as the official employment time series.[2]

Source C. BLS Quarterly Census of Employment and Wages (QCEW) data includes only payroll jobs that are covered by the Unemployment Insurance (UI) program. BLS explains the publication schedule and revision process as follows:[3]

> All QCEW data undergo a process of revision. The number of revisions depends on the data's reference quarter. For the first quarter of each year, QCEW data are published five times. The data are first released in September of the reference year followed by a revision in December and then three more revisions in March, June, and September of the subsequent year. Second quarter data are published four times, first in December of the reference year, and then through revisions in March, June, and September of the subsequent year. Third-quarter data are published three times, first in March of the subsequent year, and then through revisions in June and September. And finally, fourth-quarter data are published two times, first in June of the subsequent year, and then through a single revision in September.

As of September 2024, county-level data for 2023 are available. However, the data are subject to revision. The 2023 data went through an initial revision in June and will undergo a final revision in February 2025. The relative timeliness makes it an attractive source, despite not including as many categories of jobs as BEA, and despite the possibility of future revision. This source is used in the EWG regional analysis because it is one of two sources that has county-level data.

Source D. Bureau of Economic Analysis (BEA) has the broadest definition of employment, including both proprietors' jobs (business owners) and payroll employment, including several types of jobs that are not covered by UI. However, there is a large lag in the data release. As of September 2024, the latest county time series in BEA goes through 2022. BEA employment estimates are used in the EWG regional analysis because it is one of two sources that has county-level data.

Measure of Vitality

This section discusses to what degree the variable is a good indicator of regional success.

What makes these good measures of success?

- Most income is derived from employment. Therefore, an increase in employment is directly related to the ability of individuals and households to acquire the money needed to meet basic needs and save for future needs.

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[2] California Employment Development Department (EDD): https://labormarketinfo.edd.ca.gov/data/QCEW_About_the_Data.html#:~:text=Differences%20between%20the%20QCEW%20and,to%20estimate%20for%20all%20employment and Alaska Department of Labor and Workforce Development: https://live.laborstats.alaska.gov/ces/diffnum.html

[3] Bureau of Labor Statistics, September 4, 2024. Overview of QCEW revisions. https://www.bls.gov/cew/revisions/#:~:text=Overview%20of%20QCEW%20Revisions&text=For%20the%20first%20quarter%20of,September%20of%20the%20subsequent%20year.

- A growing number of jobs in a region can indicate increasing opportunities for individuals and households to accumulate wealth.
- An increase in employment in a region indicates that it is an attractive place for businesses to start or expand. This can attract more people as well as additional economic activity which can be beneficial to residents and other businesses.
- A low unemployment rate is a sign of a healthy economy, while a high rate indicates the region is not offering enough jobs for the population or that there is a mismatch between those seeking employment and job openings.

What is problematic about these measures or why is it not necessarily a good predictor of success?

- The metrics do not consider the quality of jobs (i.e. wage level, health insurance), the needs of residents (i.e. number of hours, location), or the skills and education of existing residents (i.e. whether the jobs provide opportunities for existing residents who need a job).
- The measure does not consider who is being employed. It is possible to imagine a scenario in which all of the jobs added to a region are high-paying but are filled mostly by people moving into the region, bypassing individuals and groups that have been excluded from the labor market.
- Among the peer regions, employment growth is not correlated with income growth. For example, a region can add a large number of low-paying jobs and appear favorable on the change in employment variable.
- Additional jobs may lead to an increase in pollution, congestion, housing costs, and demands on public infrastructure and services.
- As measured by CES, employment counts consider only wage and salary jobs, omitting proprietors' employment (those who own a business).
- Unemployment rates do not count people who have given up on job searches and dropped out of the labor force or those who desire additional hours.
- The selection of the time period for analysis may affect results. A 1-year analysis may show the latest trends but may also turn out to be a statistical fluke. A 10- or 15-year trend may be more stable but lack timeliness.
- A small amount of unemployment exists even in healthy labor markets due to job searches. A very low unemployment rate could be associated with labor shortages which pose challenges for businesses.
- In general, a growing number of jobs is considered good. However, if low-paying jobs with no benefits are crowding out higher-paying jobs with benefits, then the total number of jobs does not tell the whole story.
- The reported outcome can change depending on the source of data used.

Data Note

The last point deserves further detail. For the St. Louis MSA, QCEW and CES data available as of September 2024 show opposite trends for the period 2019-2023. CES shows a gain of about 22,000 jobs from 2019 to 2023, while QCEW shows a loss of nearly 10,000.

It is not possible at this juncture to determine how much of this difference is attributable to differences in the types of jobs covered by the two sources, and how much is attributable to a

lag in integrating QCEW counts into CES estimates (which will be published in February 2025). The forgoing analysis of trends in the United States and in peer regions was based on CES.

Figure 2-14 shows payroll employment from the four sources of employment data for the St. Louis MSA for the period 2010 to 2023.

Figure 2-14. Employment Estimate Comparison of Sources
St. Louis MSA, 2010 to 2023
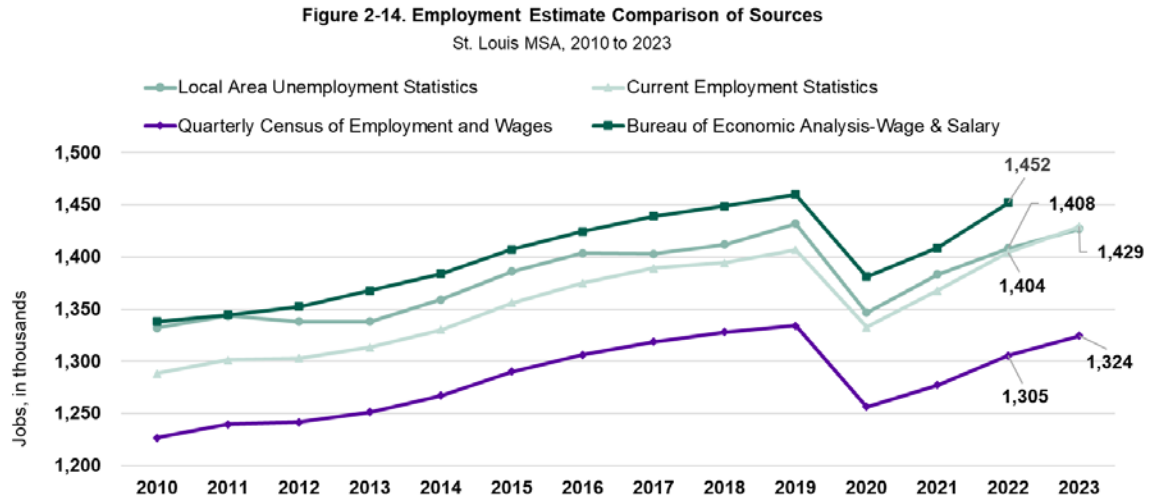
Source: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis

Peer Region Analysis

Summary

The 2023 unemployment rate in St. Louis was lower than the national average and below most of the peer regions. Over the past decade, the region has had moderate employment growth, although it has lagged many of the peer regions. Most of the peer regions, including St. Louis, had higher employment levels in 2023 than 2019 with St. Louis about in the middle of the pack on job growth in this period. The peer regions with employment growth tend to do well in other vitality areas, but positive employment change is not always correlated with overall success.

Ranking Analysis

Employment

Employment is above pre-pandemic levels in 38 of the peer regions, as well as nationally. Gains were not even across the country but followed longer term trends.

Regions in the South and the West continued to be the fastest growing, although not all metros located in the Sunbelt are growing quickly. Both from 2010 to 2023 and from 2019 to 2023, 12 regions in the South and West experienced the fastest employment growth. These regions also tend to have strong population growth, including in their central cities, and relatively low levels of income inequality.

Most Midwest peer regions experienced smaller gains than the national average in both time periods. **St. Louis** fared better in the pandemic recovery, about average among the peers, in contrast to the longer time period when it ranked 41st.

Almost a third of the peer regions experienced net job loss in the four-year period from 2019 to 2023, indicating that they have not recovered jobs lost during the pandemic. The regions that remained more than 1% below 2019 employment were also among the 13 peer regions with slowest employment growth prior to the pandemic (2010 to 2019). The other five regions that have not fully recovered from the pandemic were among the 15 peer regions with the steepest declines from 2019 to 2020, all with more than a 7% decrease.

Change in Employment

Percent change, 2019-2023

1	Austin	19.0
2	Raleigh	12.9
3	Dallas	11.6
4	Nashville	10.6
5	Tampa	10.5
6	Phoenix	10.3
7	Orlando	9.5
8	Jacksonville	9.2
9	Salt Lake City	8.8
10	Charlotte	8.4
11	Las Vegas	8.3
12	Riverside	8.2
13	San Antonio	7.9
14	Houston	6.8
15	Atlanta	6.7
16	Miami	6.5
17	Indianapolis	6.2
18	Denver	5.8
19	Oklahoma City	5.4
20	Sacramento	5.0
21	Richmond	3.7
22	Columbus	3.6
United States		**3.4**
23	Kansas City	3.3
24	San Diego	3.3
25	Philadelphia	3.2
26	Cincinnati	3.1
27	Birmingham	3.0
28	Louisville	3.0
29	Seattle	1.8
30	**St. Louis**	**1.6**
31	Virginia Beach	1.2
32	Portland	1.2
33	New York	0.9
34	San Jose	0.8
35	Washington, D.C.	0.6
36	Memphis	0.6
37	Chicago	0.5
38	Providence	0.0
39	Los Angeles	-0.2
40	Detroit	-0.2
41	Boston	-0.6
42	Minneapolis	-0.7
43	San Francisco	-1.0
44	Hartford	-1.2
45	Baltimore	-1.4
46	Milwaukee	-1.6
47	Cleveland	-1.7
48	Buffalo	-2.1
49	Pittsburgh	-2.5
50	New Orleans	-3.4

Source: Bureau of Labor Statistics, Current Employment Statistics

Change in Employment

Percent change, 2010-2023

1	Austin	69.6
2	Nashville	51.6
3	Orlando	47.2
4	Raleigh	46.6
5	Riverside	45.9
6	Dallas	44.2
7	Phoenix	42.1
8	Charlotte	41.3
9	Las Vegas	39.7
10	Salt Lake City	39.5
11	Tampa	38.6
12	Jacksonville	36.4
13	Denver	36.3
14	San Antonio	35.9
15	Atlanta	34.2
16	Miami	32.3
17	San Jose	32.3
18	Houston	31.5
19	Sacramento	29.0
20	San Francisco	28.0
21	Seattle	27.6
22	Indianapolis	27.2
23	Portland	26.6
24	Columbus	25.4
25	San Diego	25.1
26	Oklahoma City	22.9
27	Richmond	20.4
United States		**19.7**
28	Louisville	19.5
29	Los Angeles	17.5
30	Cincinnati	17.5
31	Kansas City	17.4
32	Detroit	17.3
33	New York	16.9
34	Boston	15.4
35	Minneapolis	15.0
36	Philadelphia	14.1
37	Birmingham	14.0
38	Washington, D.C.	12.9
39	Chicago	12.8
40	Memphis	11.1
41	**St. Louis**	**10.9**
42	Baltimore	10.5
43	Providence	10.2
44	Virginia Beach	9.5
45	Cleveland	7.2
46	Milwaukee	6.5
47	New Orleans	6.1
48	Hartford	5.3
49	Buffalo	3.3
50	Pittsburgh	3.1

Source: Bureau of Labor Statistics, Current Employment Statistics

Regions with employment growth tend to do well on other vitality areas, but employment change does not have a direct relationship with success or failure. Further, it is important to consider how much new jobs pay and who is being hired for them.

Employment growth is associated with some positive regional outcomes among the peer regions, including access to amenities such as vehicles, computers, and the Internet. Some regions combined fast employment growth with high education levels and wages. Austin, Raleigh, Dallas, and Charlotte were among the 10 fastest-growing regions from 2010 to 2023 and were also above the national average on wage per job and college attainment.

However, fast employment growth does not guarantee positive outcomes on other metrics. **Orlando**, **Las Vegas**, and **Riverside** have consistently experienced robust job growth, but are in the bottom 10 on per capita income and are below the national average on college attainment and wages

Slow employment growth does not guarantee failure on other metrics. Regions such as **Boston**, **San Francisco**, **San Jose**, **Minneapolis**, and **Seattle** have seen below average job growth, but are above average on several metrics including income, educational attainment, and well-being score.

Employment growth is not always associated with low unemployment. **Las Vegas**, **Riverside**, **Sacramento**, and **Houston** were among the eight regions with the highest unemployment rates despite having higher employment growth than most of the peer regions. Such a situation can occur when migrants or new entrants to the workforce are hired for a large proportion of jobs, or when job turnover rates are high.

Employment growth can occur without direct benefits to current residents. **St. Louis** residents who were born in the MSA earn, on average, lower incomes than those who were born elsewhere in the country as well as those who were born in other countries.[4] In addition, research commissioned by the James S. McDonnell Foundation shows that education levels are higher for **St. Louis** residents who were born elsewhere than for individuals born in the region.[5]These factors suggest that while it benefits the region to attract educated workers who fill high-paying jobs in the region, educational and employment opportunities for existing residents remain a topic of concern.

Most of the peer regions have experienced annual increases in employment since 2010 (except during the pandemic) and have low unemployment rates, but there are large racial and ethnic disparities.

None of the peer regions have seen dramatic drops in employment from 2010 to 2023. With the exception of 2019-2020, only four regions experienced one year-over-year decrease in the 13-year period, all with declines of less than 0.5%.

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[4] In the St. Louis MSA, full-time workers who were born in Missouri or Illinois earn, on average, $70,098. People who move from elsewhere in the United States earn $90,162, while full-time workers who were born in other countries earn $79,551. Source: U.S. Census Bureau, 1-Year American Community Survey Public Use Microdata Sample accessed through IPUMS USA, University of Minnesota, www.ipums.org.

[5] Benner, Chris & Manuel Pastor. 2024. Looking Forward: Inclusion, Prosperity, & Community in a Changing St. Louis.

Unemployment

In 2023, all regions had an unemployment rate lower than 5.5%, low relative to historical trends, as seen on Figure 2-01 and the WWS table on unemployment. However, in 2022, only four regions had white unemployment rates that were higher than the lowest Black unemployment rate. See Figure 2-02.

In **St. Louis**, the Black unemployment rate was more than three times higher than the rate for the white population, 8.6% and 2.4%, respectively.

Among the peer regions, there are correlations that indicate regions with lower unemployment rates tend to also have experienced relatively large increases in per capita income and have a larger percentage of the working-age population being employed (employment-population ratio).

In 2023, the St. Louis MSA landed with the 7th lowest rate of unemployment with only 2.8% of those seeking jobs not able to secure employment. The rate is significantly lower than in 2020 (6.8%) but slightly higher than in 2022 (2.9%). This could be due to more people entering the labor force.

Employment by industry

Different industries drove employment growth in different regions. Professional and business services was the fastest-growing industry nationally and in many regions, including **Orlando**, **Tampa**, **Austin** and **Raleigh**. The education and health industry group was the leading sector in **Phoenix** and **Jacksonville**. **Riverside's** employment growth was driven primarily by growth in transportation and logistics (see case study at www.ewgateway.org/wws).

Unemployment Rate

Unemployed individuals who are looking for work as a percent of the labor force, 2023

1	Las Vegas	5.4
2	Riverside	4.7
3	Los Angeles	4.7
4	New York	4.4
5	Chicago	4.3
6	Sacramento	4.3
7	Houston	4.2
8	Memphis	4.0
9	San Diego	3.9
10	Buffalo	3.8
11	New Orleans	3.8
12	Dallas	3.7
13	Hartford	3.7
14	San Antonio	3.7
15	San Francisco	3.7
16	Cleveland	3.7
17	Seattle	3.7
18	Louisville	3.7
United States		**3.6**
19	Detroit	3.6
20	Philadelphia	3.6
21	Portland	3.6
22	San Jose	3.6
23	Phoenix	3.5
24	Pittsburgh	3.5
25	Austin	3.3
26	Cincinnati	3.3
27	Milwaukee	3.3
28	Charlotte	3.2
29	St. Louis	3.2
30	Providence	3.2
31	Denver	3.2
32	Atlanta	3.1
33	Columbus	3.1
34	Boston	3.1
35	Virginia Beach	3.1
36	Raleigh	3.0
37	Richmond	3.0
38	Oklahoma City	3.0
39	Jacksonville	3.0
40	Indianapolis	3.0
41	Tampa	3.0
42	Orlando	2.9
43	Kansas City	2.9
44	Minneapolis	2.7
45	Salt Lake City	2.7
46	Nashville	2.6
47	Washington, D.C.	2.6
48	Miami	2.5
49	Birmingham	2.3
50	**Baltimore**	**2.1**

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

Nationally, four industries (professional and business services, health care and social assistance, transportation and warehousing, and construction) had the most robust growth both from 2010 to 2023 and from 2019 to 2023**.** See Table 2-01 and Figure 2-03.

Professional and business services accounted for the most growth, 29.3% of job gains from 2019 to 2023 and 23.4% from 2010 to 2023. This industry was the third fastest growing from 2010 to 2023, increasing by 35.8% and becoming the largest sector. Often, jobs categorized here are connected to other large growth industries, such as information technology in Austin (see case study).

Health care and social assistance accounted for about 20% of U.S. employment gains for both time periods. This includes employment at hospitals and nursing care facilities.

Transportation & warehousing was the fastest growing industry with a 15.9% increase in jobs from 2019 to 2023 (average annual 4%) and a 57.1% increase from 2010 to 2023 (average annual 4.4%). The industry also saw the smallest decrease from 2019 to 2022. Even with the

substantial growth, the industry accounted for a relatively small (4.2%) proportion of U.S. employment in 2023.

Construction accounted for about 10% of gains in both time periods but was the largest growth industry from 2010 to 2019, second largest from 2010 to 2023, and the third from 2019 to 2023.
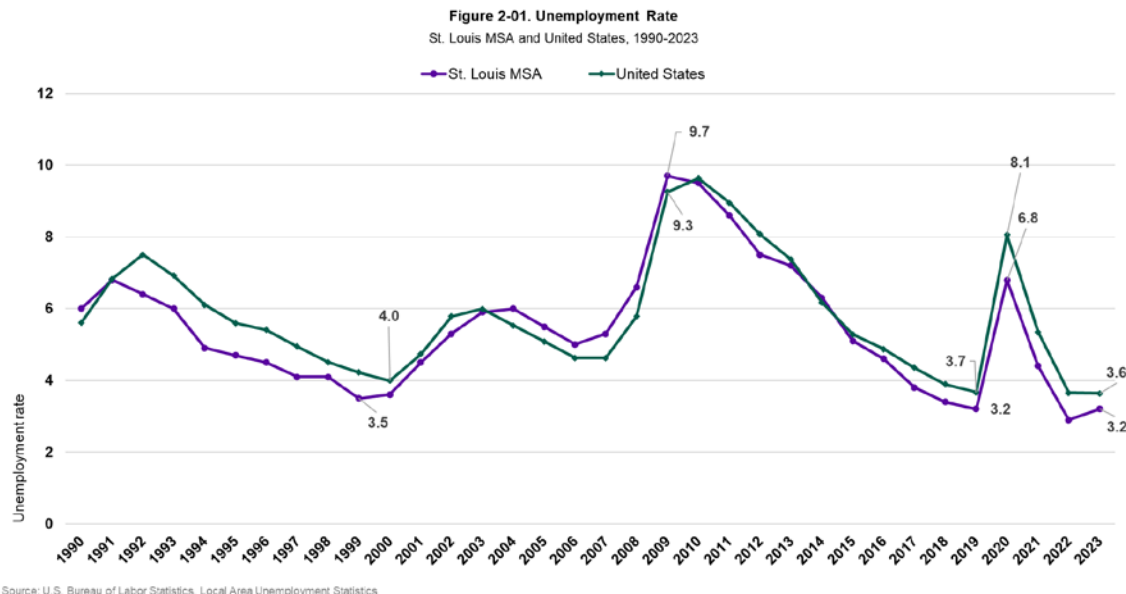
Leisure and Hospitality accounted for a larger percentage of U.S. employment gains from 2010 to 2023 than either the construction or transportation sections, but barely came out even from 2019 to 2023.
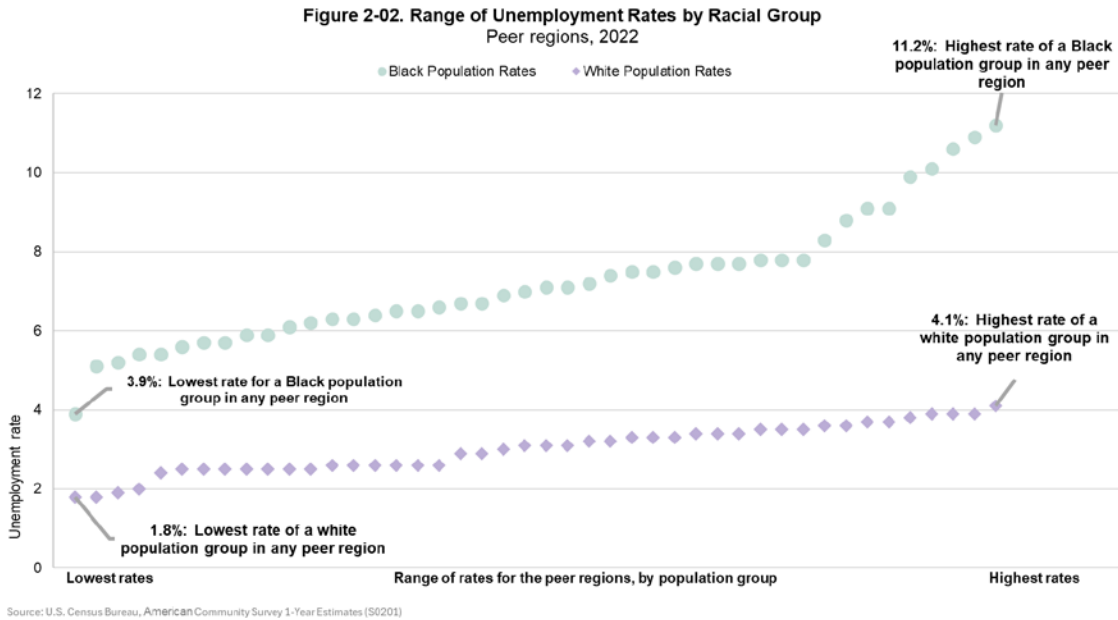
Government is the second largest sector for employment but has added relatively few jobs over the time frame and has only contributed to 1.1% of the U.S. employment growth.

The largest industries in the St. Louis MSA are similar to the largest industries nationally. Health care and social assistance is the largest employer in the MSA, accounting for 15.8% of jobs. The professional and business services industry is close behind, accounting for 15.4% of employment. See Table 2-02 and Figure 2-04.

In the nine years leading up to the pandemic, the region experienced an annual average increase of 1% in employment. From 2019 to 2023, the average was less than half that, 0.4% but included a loss of 5.3% in 2020.

Most sectors had recovered from pandemic losses as of 2023, but jobs in government, leisure and hospitality, retail, and manufacturing were lower than in 2019. Government was on the decline prior to the pandemic but the other three had seen increases in employment from 2010 to 2019. The transportation and warehousing industry is the only industry that grew from 2019 to 2020, by 7.9%, compared to an annual average of 3.4% in the prior nine years.

Figure 2-01. Unemployment Rate
St. Louis MSA and United States, 1990-2023

Source: U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics

Figure 2-02. Range of Unemployment Rates by Racial Group
Peer regions, 2022

Black Population Rates • White Population Rates

11.2%: Highest rate of a Black population group in any peer region

3.9%: Lowest rate for a Black population group in any peer region

4.1%: Highest rate of a white population group in any peer region

1.8%: Lowest rate of a white population group in any peer region

Lowest rates — Range of rates for the peer regions, by population group — Highest rates

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

Correlation Analysis

Employment Change

Summary. Pearson and Spearman both show positive correlations of r>.5 with health care coverage, net migration, in-migration, and population change. Negative correlation of r<-0.489 for racial disparity in homeownership, income gap, excess homicides and racial segregation.

Changes in employment are associated with some positive regional outcomes including increase health insurance coverage, improved access to important amenities, improved racial disparities, and increases in regional incomes. Additionally, it is associated with other trends that are generally seen as positive, such as more development, population growth, more family households, and a younger population. There is some evidence that suggests possible associations to increased housing costs and some weaker correlations with negative outcomes such as suicides, disparity in homicides, and lower well-being scores. Some of these associations may not be the direct result of the employment change. Relationships between employment change and some metrics, including racial segregation, racial disparity, and amenity access, may be the result of confounding factors, such as the racial makeup of the region and a region developing primarily after the passage of national policies preventing segregation.

Amenities Access. There is a clear signal that ranking higher for employment change over the long and short term is associated with better access to important amenities particularly health care, internet, computers, and vehicles. Employment change from 2010 to 2023 has negative correlations with these metrics indicating regions with larger employment gains generally rank lower on proportion of no vehicle households (rho = -0.82), deficient bridges (-0.64), and households without a computer (-0.56). Ranks on employment change from 2019 to 2023 have

negative correlations with households without a computer (-0.74), no vehicle households (-0.74), deficient bridges (-0.58), and households without internet (-0.57).

Racial Segregation and Equity. There are also signs that disparities improve, though there are some mixed signals that could be further explored. The two timeframes of employment change are associated with better ranks on racial disparity in homicides (2019-23: -0.74, 2010-23: -0,65), racial segregation (-0.61, -0.65), racial disparity in median household income (-0.65, -0.62), racial disparity in homeownership between White and Hispanic (-0.50, -0.50), White-Black racial disparity in poverty (-0.49, -0.52), White-Black disparity in college graduation (-0.59, -0.58), lower rates of black homicides (-0.56, - 0.61), and people with disabilities in poverty (-0.55, -0.63). However, at least over the longer timeframe, ranks on employment growth are associated with worsening White-Black disparity in the percentage point difference in concentrated poverty (+0.54) and homicides (+0.53).

Growth and Development. Signs of increasing population and development are largely seen as positives for regions, despite having their own drawbacks. Growth in employment is often associated with variables that signal a growing region. Some of the strongest or most important are population change (short and long), housing starts ratio (2019-23: +0.85, 2010-2023: +0.83), change in developed land per capita (+0.81, +0.71), net migration 2022-2023 (+0.72, +0.58), increasing largest city population (+0.71, +0.7), and change in daily flight departures (+0.7, +0.7).

Age and Household. Employment growth is associated with more families and younger regions, despite also being associated with a smaller change in the proportion of children. The ranks on change in employment over both time periods are associated with ranking lower for median age (2019-23: -0.58, 2010-23: -0.53), seniors (-0.58,-0.62), and higher for family households (+0.56, +0.56) and families with children (+0.54, +0.53).

Other. There are additional interesting but not particularly strong correlations between employment and some negative community outcomes. First, there is a moderately weak correlation with suicides rates and employment change from 2019-2023, rho = +0.4. The correlation is weaker with the longer timeframe, rho = 0.2. Also, there are mixed signals on the cost of housing. Median monthly rent is moderately correlated with change in employment 2010-2023, rho = +0.5, but the correlation is very weak with the shorter timeframe, +0.27. There is only a weak correlation with actual housing affordability (2019-23: rho = +0.18, 2010-23: +0.36). Further, the correlation with cost-burdened renters is weak (2019-23: +0.23, 2010-23: +0.22).

Unemployment Rate

The unemployment rate is associated with some measures of changes in average income. A lower unemployment rate and rank generally indicates a greater increase in financial well-being. This relationship is not surprising, as a tighter labor market would normally be expected to result in rising wages.

Among the peer regions, there is a negative correlation between ranks on the unemployment rate and ranks on change in per capita income (-0.52), change in average earnings (-0.48), change in purchasing power (-0.48), and change in per capita income (-0.40). While there is a strong association with change in per capita income and earnings, there is no meaningful association with change in average wage per job or median household income.

Poverty: If low unemployment rates are associated with improved financial well-being it should also be associated with better poverty rates. Indeed, lower unemployment rates are associated with less poverty, as people are able to find work more easily. However, like most of the financial well-being metrics, the relationships are moderately weak. The strongest relationship between ranks on one of the poverty metrics and unemployment is with the overall poverty rate, rho= +0.43. This indicates that regions with higher poverty rates also tend to have higher unemployment rates. This relationship is also observed with other measures of poverty, including children in poverty (rho = +0,42), seniors in poverty (+0.38), white concentrated poverty (+0.35), disconnected youth (+0.36), and persons with disabilities in poverty (+0.31).

Equity: While most are moderately weak, there are signs that a lower unemployment rate is associated with more equitable outcomes in the labor market. The strongest relationship is between the peer regions' ranks on unemployment and on income gap, rho = +0.44, indicating that a high unemployment rate is associated with more inequitable incomes based on the income gap metric (the difference of income between those at the 20th and 80th percentiles of the income distribution).

To a weaker extent, though still statistically significant, higher unemployment is associated with a less equal income distribution as measured by the Gini index (+0.34) and lower employment rates for people with disabilities (-0.36). Interestingly, women may fair worse during low unemployment, with a positive correlation between a region's unemployment rate and its rank on gender wage gap, rho = +0.31. It's important to remember that the strength of some of these correlations are quite low and only indicates relationships for the peer regions. Expanding the sample size may have effects on these relationships.

Table 2-01. Employment by Industry						
United States, 2010, 2019, and 2023						
	Employment (in thousands)			Average Annual Percent Change		
	2010	2019	2023	2010-2019	2019-2020	2019-2023	2010-2023
Professional and Business Services	16,824	21,334	22,840	3.0	-4.5	1.8	2.8
Government	22,490	22,613	22,782	0.1	-2.8	0.2	0.1
Health and Social Assistance	16,820	20,421	21,524	2.4	-3.1	1.4	2.2
Leisure and Hospitality	13,049	16,586	16,593	3.0	-20.7	0.0	2.1
Retail	14,404	15,560	15,590	0.9	-4.8	0.0	0.6
Manufacturing	11,528	12,817	12,940	1.2	-5.1	0.2	0.9
Financial Activities	7,695	8,754	9,197	1.5	-0.6	1.3	1.5
Construction	5,518	7,493	8,018	4.0	-3.2	1.8	3.5
Transportation and Warehousing	4,179	5,665	6,565	3.9	-0.4	4.0	4.4
Information	2,707	2,864	3,027	0.6	-5.0	1.4	0.9
Total Employment	130,345	150,904	156,051	1.8	-5.8	0.9	1.5

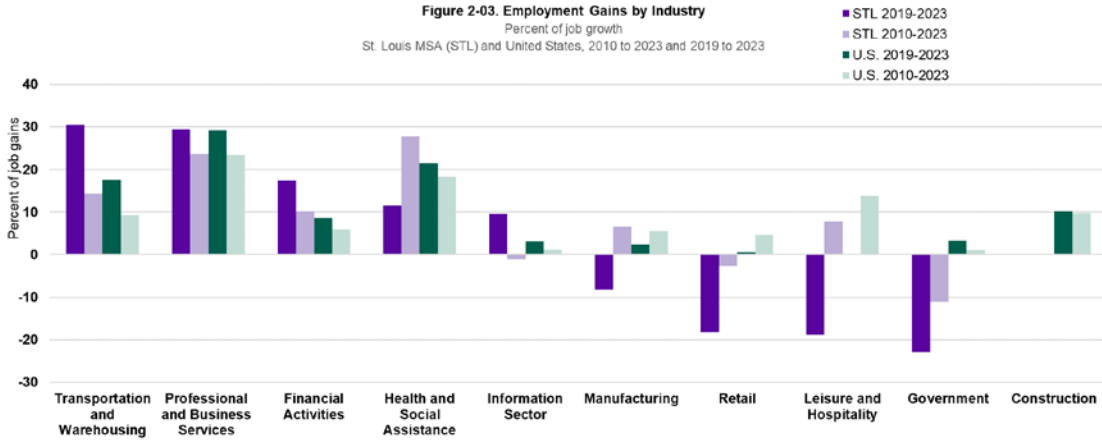Source: U.S. Bureau of Labor Statistics, Current Employment Statistics

Figure 2-03. Employment Gains by Industry
Percent of job growth
St. Louis MSA (STL) and United States, 2010 to 2023 and 2019 to 2023

Source: U.S. Bureau of Labor Statistics, Current Employment Statistics

Table 2-02. Employment by Industry							
St. Louis MSA, 2010, 2019, and 2023							
	Employment			Average Annual Percent Change			
	2010	2019	2023	2010-2019	2019-2020	2019-2023	2010-2023
Health and Social Assistance	186,142	222,667	225,267	2.2	-3.7	0.3	1.6
Professional and Business Services	186,783	213,592	220,167	1.6	-3.6	0.8	1.4
Government	168,025	157,467	152,367	-0.7	-3.6	-0.8	-0.7
Leisure and Hospitality	137,558	152,733	148,525	1.2	-21.5	-0.9	0.6
Retail	136,858	137,200	133,142	0.0	-5.7	-0.8	-0.2
Manufacturing	108,017	119,075	117,233	1.1	-4.4	-0.4	0.7
Financial Activities	82,217	92,625	96,500	1.4	-1.1	1.1	1.3
Transportation and Warehousing	44,242	57,667	64,483	3.4	7.9	2.7	3.5
Information Sector	30,858	27,167	29,317	-1.3	-5.8	2.1	-0.4
Total Employment	1,288,125	1,406,683	1,428,992	1.0	-5.3	0.4	0.8

Source: U.S. Bureau of Labor Statistics, Current Employment Statistics

Figure 2-04. Employment by Industry
Percent of total employment
St. Louis MSA and United States, 2023

Source: U.S. Bureau of Labor Statistics, Current Employment Statistics
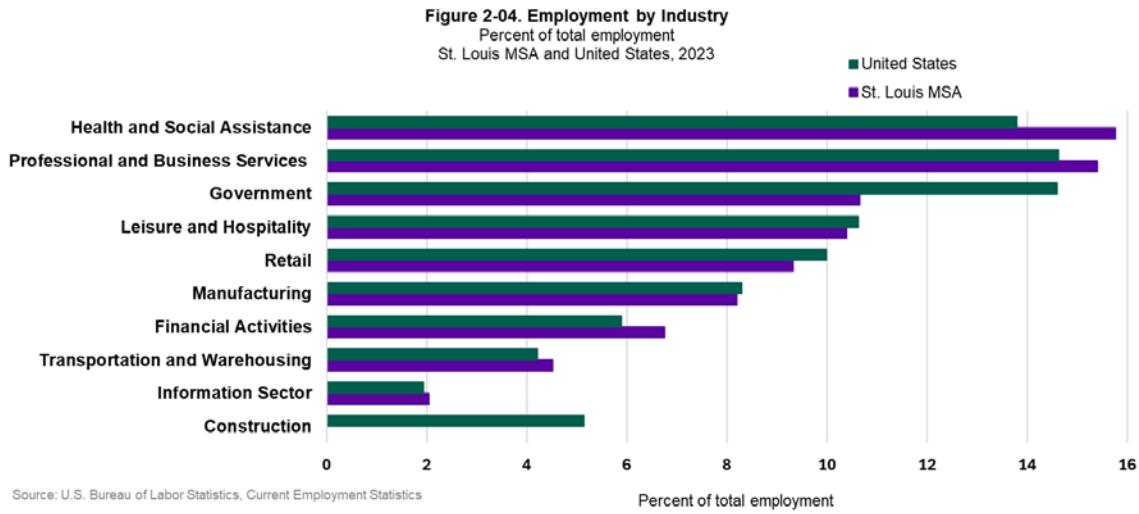
East-West Gateway (EWG) Region Analysis

Employment

Federal employment data paint an ambiguous picture of employment trends in the EWG region, with CES and BEA showing an increase and QCEW indicating there has been a decrease in recent years. While it may not explain all the differences, the two estimates appear to vary in part because of what each includes in its estimate of jobs.

There are two sources that provide county-level data. Based on these sources, it generally appears that employment in the region has increased since 2019, but there are differences in the counties and the two data sources provide different pieces to the story.

Table 2-03 provides employment estimates reported by BEA, including both proprietors (business owners) and payroll employment for 2019 and 2022.

Table 2-04 provides employment estimates as reported by QCEW. Unlike BEA, this data is only for payroll employment because QCEW only includes employment that is covered by the Unemployment Insurance (UI) program. Data is shown for 2019 to 2022 to allow a comparison with BEA. Data is also provided for 2023, to offer a timelier estimate, although, this data is subject to revision. As of September 2024, the 2023 data went through an initial revision in June and will undergo a final revision in February 2025.

Figures 2-05 through 2-13 provide the same data plus the data separately for the two types of employment included in the BEA data – proprietors and payroll.

The following are some of the key findings.

- Payroll employment for the region had not returned to pre-pandemic levels in 2022 (based on both sources), nor has it based on preliminary 2023 data from QCEW.
  - Compared to pre-pandemic employment levels, payroll employment growth has been strongest in St. Charles and Madison counties with both sources indicating growth from 2019 to 2022.
  - The region as a whole and each county saw increases in payroll employment from 2022 to 2023, although half have not returned to pre-pandemic employment levels.
- Business ownership has increased substantially in each county of the region and the region as a whole, which has offset some of the losses experienced since the onset of the pandemic. Proprietors' employment makes up about 21% of regional employment.

Table 2-03. U.S. Bureau of Economic Analysis (BEA) Employment Estimates

East-West Gateway (EWG) region by county, 2019 and 2022

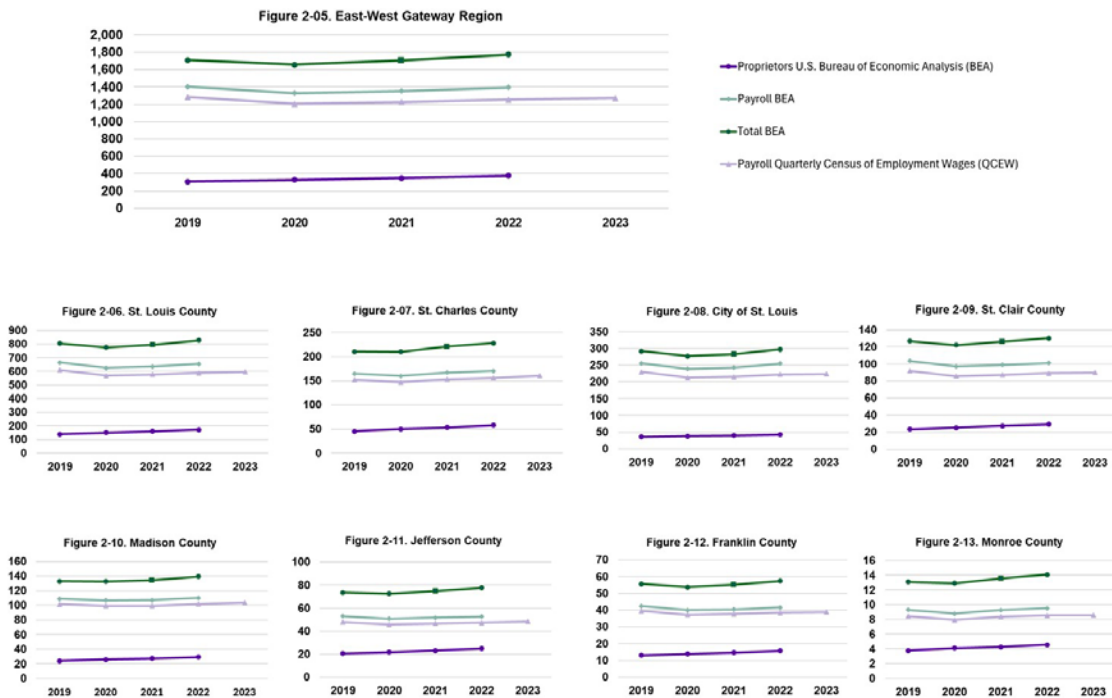|	Total Employment (Payroll and Proprietors)		
	2019	2022	Percent Change, 2019-2022
Madison	132,901	139,190	4.7
Monroe	13,086	14,092	7.7
St. Clair	126,959	130,305	2.6
Franklin	55,522	57,273	3.2
Jefferson	73,567	77,610	5.5
St. Charles	210,374	227,982	8.4
St. Louis	805,614	829,047	2.9
City of St. Louis	291,562	297,058	1.9
EWG Region	1,709,585	1,772,557	3.7
St. Louis MSA	1,790,759	1,858,091	3.8

Source: U.S. Bureau of Economic Analysis

Table 2-04. Quarterly Census of Employment and Wages (QCEW) Employment Estimates

East-West Gateway (EWG) region by county, 2019, 2022, and 2023

	Total Employment (Payroll only)			Percent Change		
	2019	2022	2023	2019-2022	2019-2023	2022-2023
Madison	101,531	101,735	103,506	0.2	1.9	1.7
Monroe	8,456	8,560	8,590	1.2	1.6	0.4
St. Clair	92,156	89,032	90,028	-3.4	-2.3	1.1
Franklin	39,539	38,337	38,852	-3.0	-1.7	1.3
Jefferson	47,947	47,493	48,403	-0.9	1.0	1.9
St. Charles	151,936	155,852	160,581	2.6	5.7	3.0
St. Louis	610,438	589,994	597,676	-3.3	-2.1	1.3
City of St. Louis	229,800	222,214	223,562	-3.3	-2.7	0.6
EWG Region	1,281,803	1,253,217	1,271,198	-2.2	-0.8	1.4
St. Louis MSA	1,334,155	1,305,367	1,324,353	-2.2	-0.7	1.5

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

Figures 2-05 to 2-13. Employment (in thousands) by Type and Source Comparison, 2019 to 2023
Note: Scales on figures differ.

Figure 2-05. East-West Gateway Region

- Proprietors U.S. Bureau of Economic Analysis (BEA)
- Payroll BEA
- Total BEA
- Payroll Quarterly Census of Employment Wages (QCEW)

Figure 2-06. St. Louis County

Figure 2-07. St. Charles County

Figure 2-08. City of St. Louis

Figure 2-09. St. Clair County

Figure 2-10. Madison County

Figure 2-11. Jefferson County

Figure 2-12. Franklin County

Figure 2-13. Monroe County

Source: U.S. Bureau of Economic Analysis (BEA); U.S. Bureau of Labor Statistics (BLS); Quarterly Census of Employment and Wages (QCEW).

Ideas for Exploration/Next Steps

Case Studies

The following regions are interesting on this variable. They are regions that do not fit the mold or have something else of interest in regard to this variable.

- Washington, D.C. has experienced relatively low increase in employment but ranks favorably on many other vital statistics.
- Riverside, Tampa, and Las Vegas rank unfavorable on many variables but saw high employment growth from 2017 to 2022.

Research Questions

- What is the role of the following in generating employment growth in specific regions: federal spending, presence of a pioneer firm in a growth industry, and real estate or asset price bubbles?