

District Data Brief

Many Major District Metro Areas Have Yet to Recover to Their Prepandemic Employment Levels

Guhan Venkatu, Federal Reserve Bank of Cleveland
August 31, 2023

Introduction

In 2020, as a consequence of the COVID-19 pandemic, public-health measures put in place to slow the spread of the virus, and an accompanying recession, the United States suffered the sharpest contraction in employment in the post-World War II period. Nationally, employment fell almost 12 percent from the fourth quarter of 2019 to the second quarter of 2020. However, by early 2022, the country had fully recovered to its prepandemic employment level. Can the same be said for metropolitan areas throughout the Fourth Federal Reserve District?¹ In this *District Data Brief*, I review the employment experience of major metro areas in the District, nearly all of which have yet to recover to their prepandemic employment levels as of the end of 2022. In a relative sense, the recent employment experience of these metro areas is largely consistent with their experience through the previous business cycle. Put differently, these areas saw relatively weak employment growth in the period spanning the Great Recession and in the economic expansion that followed, and they have seen relatively weak growth again more recently. That suggests that structural factors are limiting employment growth in the District during the current recovery.

Employment changes for the Fourth District

How has employment changed among the largest Fourth District metro areas² in the current business cycle? To address that question, this analysis uses data from the Quarterly Census of Employment and Wages (QCEW), which is commonly thought to be the highest-quality source of employment data at this

¹ The Cleveland Fed's District covers Ohio, western Pennsylvania, eastern Kentucky, and the northern panhandle of West Virginia.

² This article focuses on employment changes at the metro area level, as opposed to the city level. The US Office of Management and Budget defines domestic metro areas as those that include "a large population nucleus, or urban area, and adjacent communities that have a high degree of integration with that nucleus." These areas are composed of entire counties. MSA is an abbreviation for metropolitan statistical area, also known as a metro area.

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level of geography.³ As a basis for comparison, throughout this piece, I'll refer to the top 100 US metro areas. They are defined as the 100 metro areas having the highest employment levels according to the QCEW as of the fourth quarter of 2019; the major District metro areas mentioned herein are among these top 100. Figure 1 shows employment changes for major District metro areas from the fourth quarter of 2019—when the most recent recession began⁴—through the fourth quarter of 2022 (the latest available data). At the end of this three-year period, nearly every major District metro area (seven of eight) had lower employment levels than at the start. Moreover, when compared with the other top 100 US metro areas, 5 District areas were among the bottom 20 in terms of their employment changes through this period. The associated rankings are shown in parentheses to the right of metro area names in Figure 1, where 100 is indicative of the weakest employment change, a distinction that happens to fall to the Pittsburgh area. Pittsburgh's employment decline during this period approached 6 percent, which, for context, exceeds the national employment decline experienced during the Great Recession (5.3 percent).⁵ These declines are also notable because Pittsburgh, along with Columbus, has one of the lowest shares of goods-producing employment among District areas as well as one of the highest proportions of college completion.⁶ Both attributes have been shown to be correlated with a metro area's population and employment growth in recent decades (Dunne, 2007). In contrast, Columbus had among the strongest employment changes for District areas during this three-year period, though it still saw a modest decline.

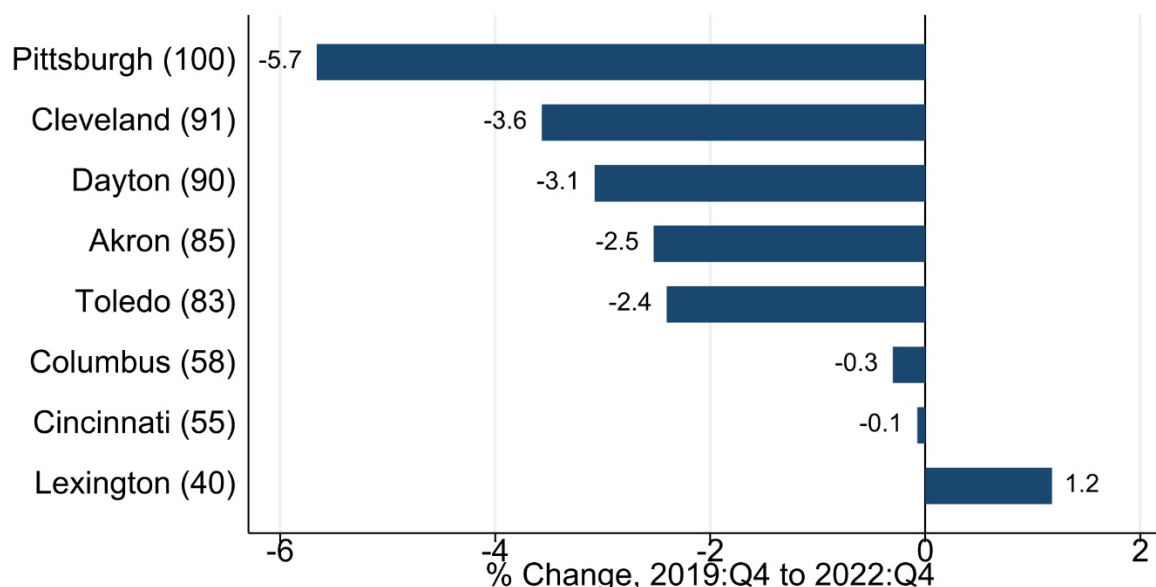
³ Unlike the more commonly cited monthly employment figures, these data are actual counts of employment, which are based primarily on administrative records associated with state unemployment insurance programs. They cover more than 95 percent of jobs available at the national, state, and sub-state levels. Ultimately, the more timely monthly employment estimates are reconciled to these QCEW counts during an annual revision process. For more information, see here (<https://www.clevelandfed.org/publications/economic-commentary/2014/ec-201405-which-estimates-of-metropolitan-area-jobs-growth-should-we-trust?>) and here (<https://www.bls.gov/cew/overview.htm>).

⁴ Official dates for business cycle turning points are available here: <https://www.nber.org/research/data/us-business-cycle-expansions-and-contractions>.

⁵ This decline is measured from the official business cycle peak to its trough, that is, from December 2007 to June 2009, using nonfarm payroll employment estimates from the Current Establishment Survey.

⁶ As of the fourth quarter of 2019, the Columbus and Pittsburgh metro areas had 13.2 percent and 15.3 percent of their employment, respectively, in goods-production industries. The next lowest proportions among District metro areas were around 18 percent, for example, Cincinnati (17.6 percent) and Cleveland (17.9 percent). As far as college completion, both the Columbus and Pittsburgh metro areas had college-completion rates that were above the national average as of 2021. More specifically, according to the Census Bureau's American Community Survey (5-year estimates), the share of the population aged 25 and over with at least a bachelor's degree was 38.4 percent in Columbus and 36.6 percent in Pittsburgh. That compares to a metro area national average of 35.7 percent. By contrast, District metro areas such as Cincinnati and Cleveland had college-completion rates close to or below this average at 35.4 percent and 32.7 percent, respectively.

Figure 1. Employment Change for Selected District Metro Areas during the Current Business Cycle (2019:Q4 to 2022:Q4)



Source: US Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Employment changes in the current and prior business cycle

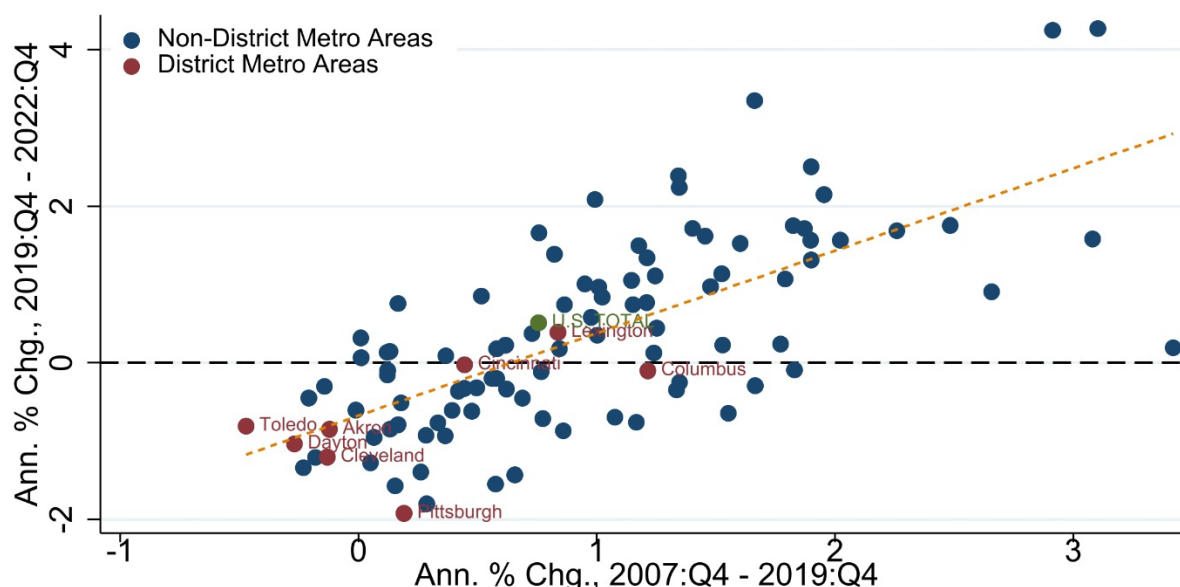
In a relative sense—that is, relative to the other top 100 metro areas—how does the employment experience of District areas in the current cycle compare to their experience through the last business cycle? Similarly, it turns out. Through the last business cycle, four of these eight District metro areas also ranked in the bottom 20, with Toledo taking the bottom spot at 100 and Dayton at 99; Pittsburgh was just outside of the bottom quintile at 78.⁷ This rough correspondence between current and prior performance is true more generally, as shown in Figure 2. This figure plots employment changes in the current business cycle (2019:Q4 to 2022:Q4) for the top 100 US metro areas against those from the prior business cycle (2007:Q4 to 2019:Q4).⁸ District metro areas are labeled and highlighted in red. The dashed orange line, which is the line of best fit through these points, shows the positive association between the current period and the prior period.⁹ Essentially, metro areas that saw strong/weak employment growth in the previous business cycle have also seen strong/weak growth (relative to other metro areas) between late 2019 and late 2022. This suggests that whatever changes the pandemic may have caused to households' and businesses' location decisions, those differences so far have not yet noticeably reshaped relative differences in employment growth across major US metro areas.

⁷ The full set of rankings for these District metro areas for this period is as follows: Toledo, 100; Dayton, 99; Cleveland, 94; Akron, 93; Pittsburgh, 78; Cincinnati, 68; Lexington, 51; Columbus, 34.

⁸ Changes are presented as annualized in both periods to facilitate comparability.

⁹ Best-fit line: $y = -0.7 + (1.1)x$, where the standard error of x is 0.11 and $R^2 = 0.49$.

Figure 2. Employment Change for Top 100 Metro Areas during the Prior (2007:Q4 to 2019:Q4) and Current (2019:Q4 to 2022:Q4) Business Cycles



Source: US Bureau of Labor Statistics, Quarterly Census of Employment and Wages

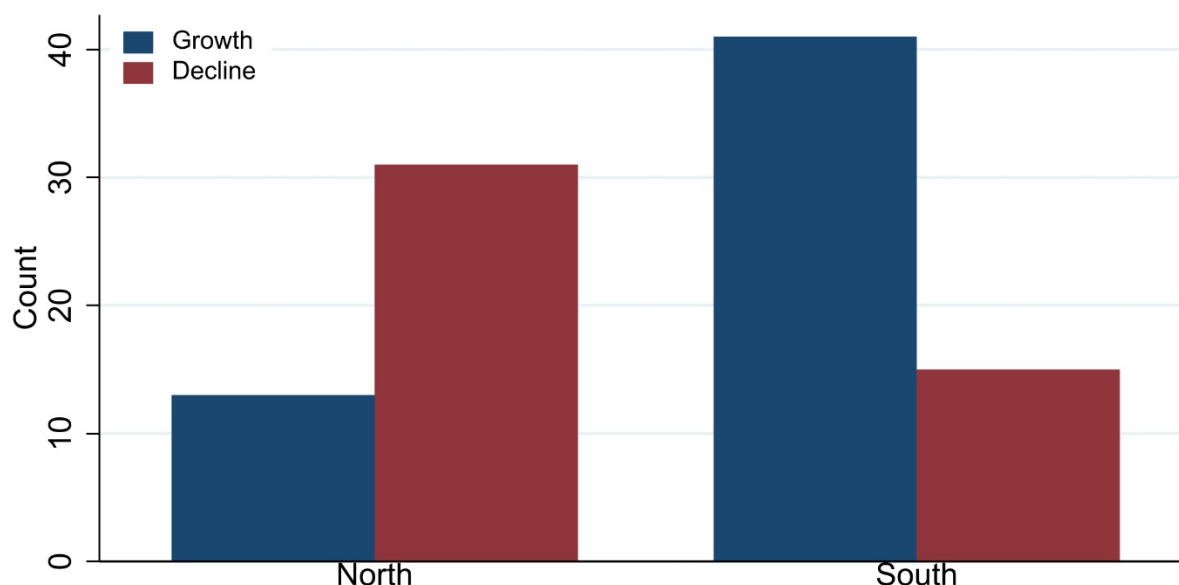
Location matters

What has driven the differences we observe in metro area employment growth over the last 15 years? At least one factor appears to be whether an area is in the northern or southern United States. Figure 3 shows the number of metro areas among the top 100 that saw their employment grow or decline in the two regions.¹⁰ The dividing line between north and south is the 39th parallel, just south of Cincinnati, which roughly divides these 100 metro areas in half.¹¹ Among southern areas, 41 of 56 have seen their employment increase in the three-year period considered here (2019:Q4 to 2022:Q4), and, accordingly, have eclipsed their prepandemic employment levels. By contrast, only 13 of 44 northern areas can claim the same thing. This pattern has previously been documented by other researchers, notably Edward Glaeser (2011). He and others attribute it to the desire for warmer weather (aided in recent decades by the widespread adoption of air conditioning) but note that the pattern is also associated with lower land development costs, for both business construction and housing, and less burdensome business regulatory environments, including more limited protections for unionization.

¹⁰ Strictly speaking, what's shown in Figure 3 as a decline includes areas that saw no change in their employment over this three-year period.

¹¹ Of the 100 areas discussed here, 56 are below the 39th parallel.

Figure 3. Metro Areas Gaining or Losing Employment, Top 100 Metro Areas, by Region, Current Business Cycle (2019:Q4 to 2022:Q4)



Source: US Bureau of Labor Statistics, Quarterly Census of Employment and Wages

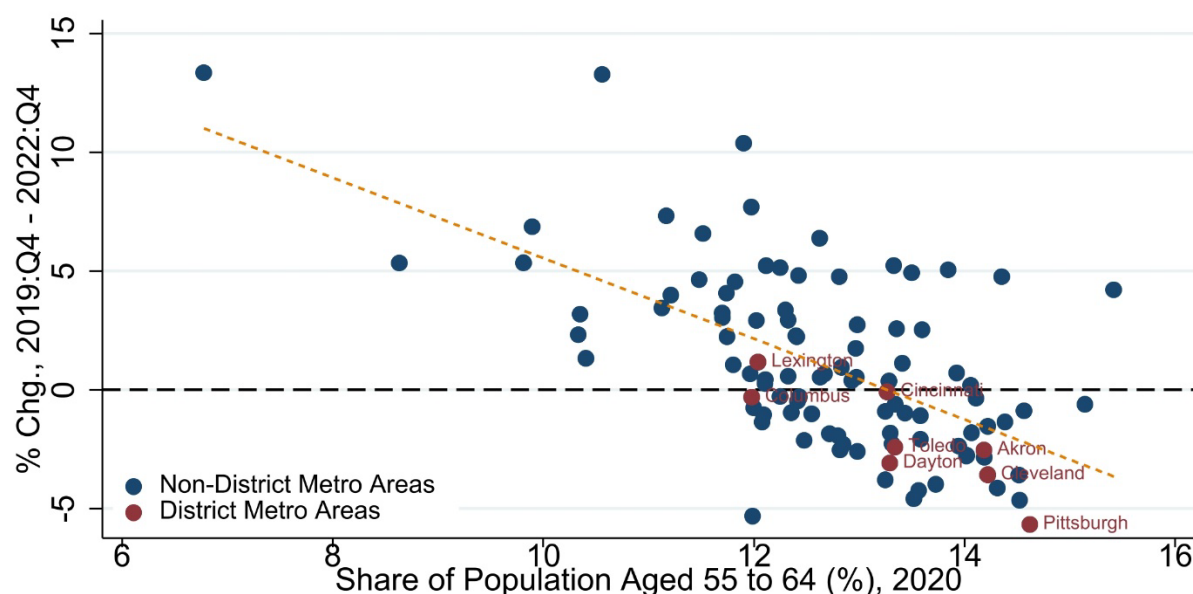
Age of residents and employment growth

Differences in recent employment growth—both within the District and across the country—also appear to be associated with differences in the proportion of older residents in an area. Figure 4 shows the share of residents between 55 and 64 in a metro area as of 2020 (horizontal axis) relative to recent employment growth (vertical axis). The orange best-fit line through these points indicates that for these 100 metro areas, a higher proportion of older residents is associated with weaker employment gains through the recent three-year period.¹² In many areas, a higher proportion of older residents likely reflects more limited (net) in-migration of younger individuals—which would counter the natural aging of the US population—than an increase in the net in-migration of older individuals (Frey, 2021). The latter would be more common in places that cater to retirees, such as Sarasota or Fort Myers—two Florida metro areas with a high share of older individuals,¹³ which, nevertheless, saw strong employment growth (4.2 percent and 4.8 percent, respectively). But for other areas, such as those in the District (labeled and highlighted in red in Figure 4), a higher proportion of older residents will likely make it more challenging to return to their prepandemic employment levels. That’s because it appears that many individuals in this age range have accelerated their retirements recently, and only a small fraction of retirees have historically returned to the workforce—around 3 percent in 2019 (Montes, Smith, and Dajon, 2022; Fry, 2021; Dill, 2022).

¹² Best-fit line: $y = 22.5 + (-1.7)*x$, where the standard error of x is 0.22 and $R^2 = 0.37$.

¹³ For both areas, the share of their population aged 55 to 64 was over 14 percent.

Figure 4. Employment Change and Age, Top 100 Metro Areas, Current Business Cycle (2019:Q4 to 2022:Q4)



Sources: US Bureau of Labor Statistics, Quarterly Census of Employment and Wages; US Census Bureau

Conclusion

The recovery in national employment from the pandemic-associated recession in 2020 took less than 2 years—notably faster than the nearly 6.5 years in the episode associated with the Great Recession (2007–09)—and was complete by early 2022. In contrast, by the end of 2022, many major District metro areas had employment levels that were still well below their prepandemic employment peaks. The weaker employment experience of District metro areas through the current business cycle parallels their experience in the prior business cycle, when they also experienced weaker employment growth relative to other large US metro areas. This suggests that enduring structural factors, such as the ongoing migration of people to the South, have held employment growth back in the District (Biernacka-Lievstro and Fall, 2023; US Census Bureau, 2022).

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