

How much opportunity is in your economy for workers without a four-year degree? New research sheds light on metros across Kentucky, Ohio, and Pennsylvania

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INTRODUCTION

College-educated workers typically have greater success in the labor market than do workers without a bachelor's degree (hereafter "sub-baccalaureate workers"), as measured by both earnings and rates of employment.¹ In light of research indicating a "polarization" of the labor market with an increase of higher- and lower-wage jobs and a decline in middle-wage jobs,² it is worth asking this question: Do certain regional economies offer greater opportunity than others for the more than two-thirds of adults without a bachelor's degree?

OUR RESEARCH

Our research explores the jobs available in 121 of the largest metro areas in the United States. In each metro area, we divide employment into one of three categories based on the annual median wage of the job and the educational expectations of employers hiring to fill open positions:

- **Opportunity employment** is accessible to sub-baccalaureate workers and pays above the national annual median wage (\$37,690) adjusted up or down to reflect the local cost of living (i.e., the local wage threshold). Occupations characterized by a high level of opportunity employment are referred to as "opportunity occupations."
- **Higher-wage employment** requiring a bachelor's degree also pays above the national median wage adjusted for the cost of living but is not accessible to sub-baccalaureate workers.
- **Lower-wage employment** can be found in occupations that pay below the local wage threshold.

The remainder of this post briefly summarizes our findings for eight metro areas in the Fourth Federal Reserve District: Akron, OH; Cincinnati, OH-KY-IN; Cleveland-Elyria, OH; Columbus, OH; Dayton, OH; Lexington-Fayette, KY; Pittsburgh, PA; and Toledo, OH.

FOURTH DISTRICT FINDINGS

Opportunity employment takes many different forms. As Table 1 illustrates, the occupations with largest share of opportunity employment in these eight metro areas represent a true cross-section of the economy, ranging from healthcare (registered nurses and licensed practical/vocational nurses) to supervisory positions (retail sales) to office work (bookkeepers and secretaries). However, the individual character of a regional economy emerges when looking at the top 10 occupations in each metro area. For example, general and operation managers in Akron, customer services representatives in Cleveland, and carpenters in Pittsburgh are top-10 opportunity occupations in these markets, even though they are not among the largest sources of opportunity employment overall. In both Toledo and Lexington, assemblers and fabricators was the largest opportunity occupation; in the other six metros, registered nurses topped the list.

Table 1. Largest Opportunity Occupations in Fourth District Metros (2017)

Rank	Occupation	Opportunity employment
1	Registered Nurses	92,134
2	Heavy and Tractor-Trailer Truck Drivers	67,570
3	Maintenance and Repair Workers	49,150
4	Secretaries and Administrative Assistants	48,464
5	Bookkeeping, Accounting, and Auditing Clerks	39,543
6	Construction Laborers	35,370
7	Licensed Practical and Licensed Vocational Nurses	34,450
8	Supervisors of Retail Sales Workers	27,353
9	Sales Representatives, Wholesale and Manufacturing	24,696
10	Machinists	23,322

Sources: Authors' calculations using data from BLS Occupational Employment Statistics (May 2017), Burning Glass Technologies (2015–2017), BEA Regional Price Parities (2016), and American Community Survey Five-Year Public Use Microdata Sample (2012–2016).

¹ www.bls.gov/emp/tables/unemployment-earnings-education.htm

² Autor, David H., Lawrence F. Katz, and Melissa S. Kearney. 2006. "The Polarization of the U.S. Labor Market." *American Economic Review* 96(2): 189–194.

Just as the largest opportunity occupations vary somewhat from metro area to metro area, we find that opportunity employment as a share of total employment varies regionally, as well. As Figure 1 illustrates, the opportunity employment share ranges from 34 percent in Toledo—highest among the 121 metro areas analyzed—to 25 percent in Pittsburgh, which ranked 55 out of the 121 metro areas. All eight Fourth District metro areas had opportunity employment shares above the all-metro average. Figure 1 also highlights how employment varies across the wage and education categories. For example, Toledo’s economy has fewer higher-wage jobs requiring a bachelor’s degree (20 percent) compared to Columbus, where nearly 29 percent of the employment pays higher wages and requires a bachelor’s degree.

Our research also allows us to untangle the effects of several factors that influence a regional economy’s level of opportunity employment, mainly the mix of occupations present, the level of education that employers seek when filling open positions, and the area’s cost of living. By comparing actual opportunity employment shares with hypothetical levels that are based on the national averages for these factors, we can discern the effects of each factor.

For most of the Fourth District metro areas, all three factors expand the local opportunity employment share when compared with their hypothetical levels using national averages (Figure 2). Of the three main factors, the lower cost of living in the Fourth District metro areas is the primary driver behind the increased opportunity employment shares. The opportunity employment shares are slightly reduced in the Columbus and Pittsburgh metro areas because of the other two factors: the mix of occupations (in Columbus) and the employers’ educational expectations (in Pittsburgh).

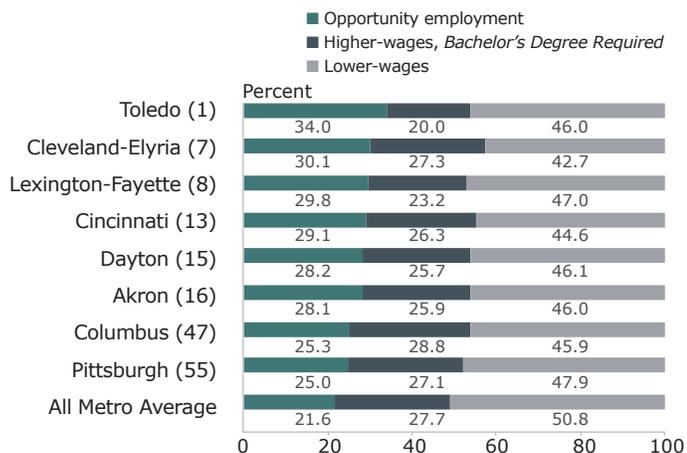
How can opportunity employment be expanded locally?

A regional economy’s level of opportunity employment is influenced by a number of factors including the types of jobs available, the level of education that employers seek when filling job openings, and the relationship between wages and the cost of living. The multifaceted nature of these factors means that the local opportunity employment could be expanded through any number of the following approaches:

- Economic development strategies that prioritize industries characterized by high levels of opportunity employment.
- A reconsideration by employers of their hiring requirements and a commitment to objectively assessing the skills of workers from a variety of educational backgrounds.
- An expansion of both private- and public-sector programs for post-secondary skills development.
- Efforts to better align regional wages and costs, possibly through modest wage increases for lower-wage workers or through efforts to expand the supply of affordable housing.

Through engagement with our stakeholders, we will monitor how these approaches are used; those approaches with the greatest success can further inform current and future policy and practice.

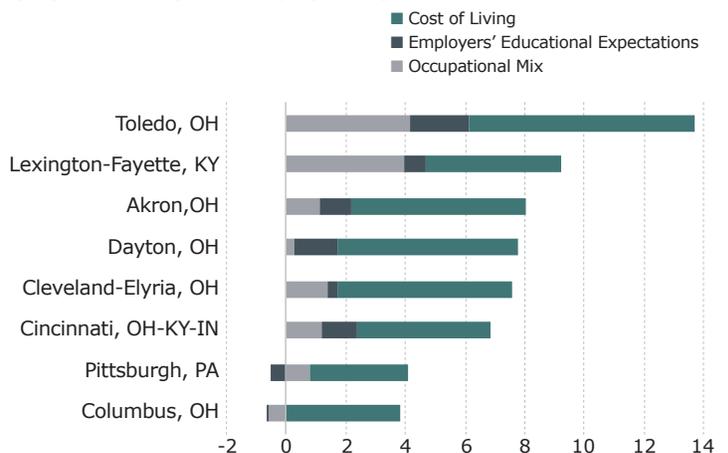
Figure 1. Distribution of Employment by Wages and Education (2017)



Note: Value in parentheses indicates the metro area’s rank nationally (1 through 121) based on the share of total employment classified as opportunity employment.

Sources: Authors’ calculations using data from BLS Occupational Employment Statistics (May 2017), Burning Glass Technologies (2015–2017), BEA Regional Price Parities (2016), and American Community Survey Five-Year Public Use Microdata Sample (2012–2016).

Figure 2. Effect on Opportunity Employment Share (expressed in percentage points)



Sources: Authors’ calculations using data from BLS Occupational Employment Statistics (May 2017), Burning Glass Technologies (2015–2017), BEA Regional Price Parities (2016), and American Community Survey Five-Year Public Use Microdata Sample (2012–2016).

For more information on these metro areas and 121 of the largest in the United States, please see *Opportunity Occupations Revisited: Exploring Employment for Sub-Baccalaureate Workers across Metro Areas and Over Time* by Kyle Fee, Keith Wardrip, and Lisa Nelson at the Federal Reserve Banks of Cleveland and Philadelphia.