



Ohio Workforce Coalition Webinar
Adult Education and Skills-Based Pathways
March 25, 2021

Laureen Atkins - Vice President - Strategic Initiatives

- ❖ What do we do?
 - ❖ Convene and inform
 - ❖ Champion awareness
 - ❖ Identify strategies
- ❖ Engaging literacy stakeholders
- ❖ Promoting promising practices
- ❖ Measuring progress
- ❖ Advocating for sustained support

Our mission is to work to advance literacy by raising awareness of the issue, promoting effective public advocacy, and fostering a delivery system with maximum impact on the region.

What is PIAAC?

The Program for the International Assessment of Adult Competencies (PIAAC)

- Cyclical, large-scale study
- Developed through the Organization for Economic Cooperation and Development (OECD).
- **Focuses on workplace skills needed for 21st-century society and the global economy.**



U.S. Skills Map: State and County Indicators of Adult Literacy and Numeracy

Map of Percentage At or Below Level 1 Literacy

MAP FILTER

County

State

Find counties



Literacy

Numeracy

Percentages

Select options below to filter data on the map.
Hover or tap on info icons to learn more.

At or Below Level 1

At Level 2

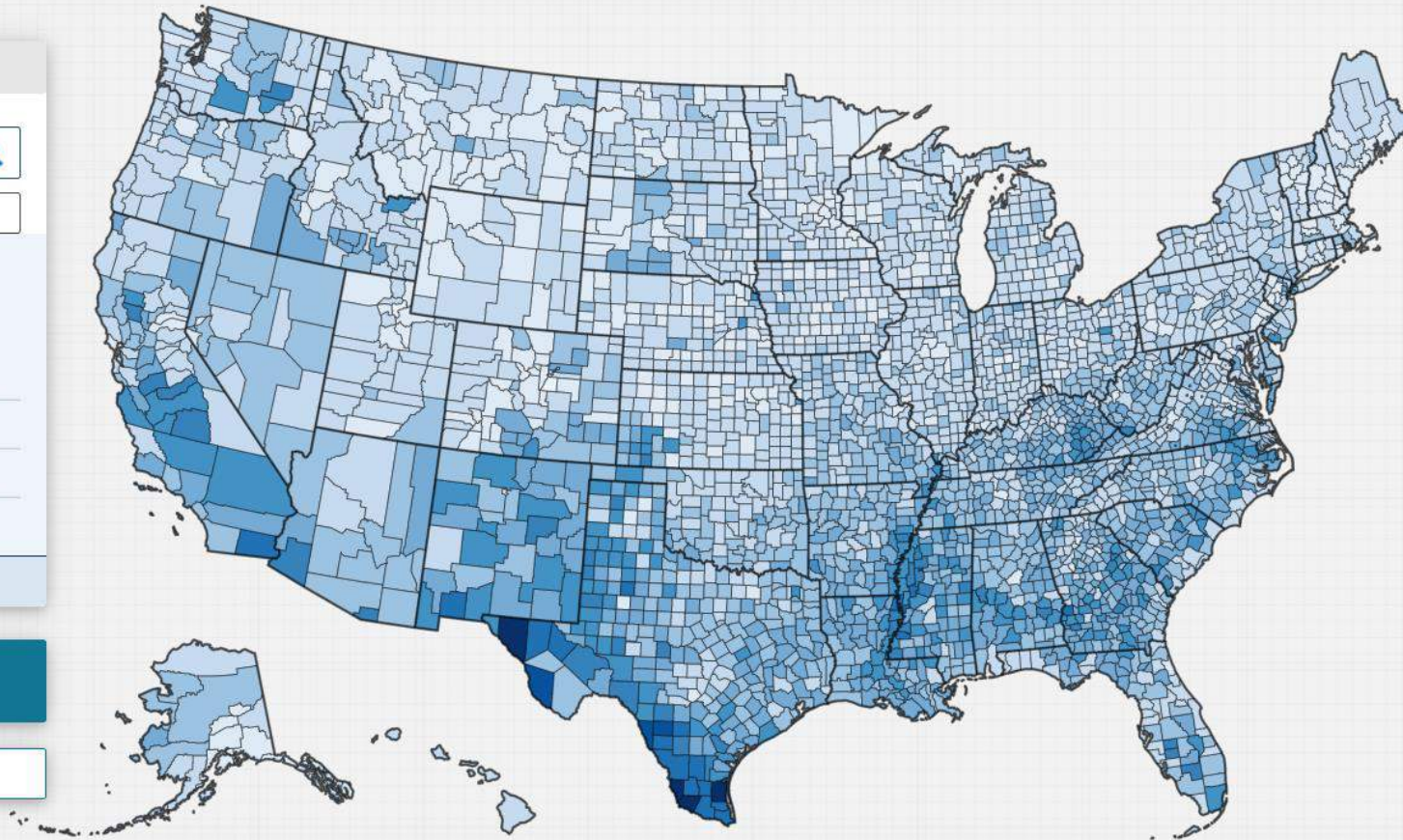
At or Above Level 3

Average Scale Score

More Details

Compare Counties

Download Data



Percentage at proficiency level



AT RISK

At/Below
Level 1



Adults at the upper end of this range can read and understand short texts in print or online well enough to complete simple tasks like filling out forms. These adults can add, subtract, multiply, and divide to do basic, one-step calculations. Adults at this level can have difficulties using or comprehending print material and may only be able to count, sort, and do basic mathematical operations. Adults at the lower end of this range may be considered functionally illiterate or innumerate.

NEARING PROFICIENCY

At
Level 2



Adults in this range can read print and digital texts, relate multiple pieces of information within or across a couple documents, compare and contrast, and draw simple inferences. They can navigate in a digital environment to access information. These adults can successfully perform tasks requiring calculations with decimals, fractions, and percentages. They can do simple measurements and interpret simple data in texts, tables, and graphs. Adults at this level may still struggle to perform tasks with text-based information or with more complicated mathematical problem solving.

PROFICIENT

At/Above
Level 3



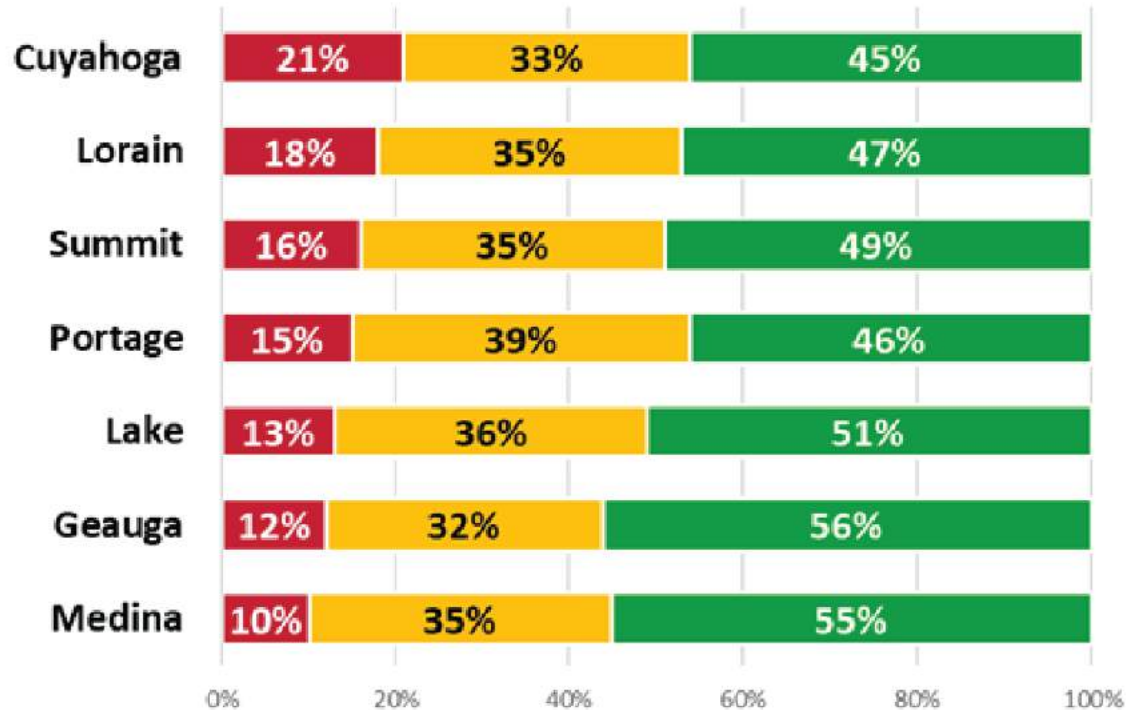
Adults in this range can work with information and ideas in text. They can understand, interpret, and synthesize information across multiple, complex texts and can assess the reliability of information and the meaning of complex ideas. These adults can recognize mathematical relationships and apply proportions. They can understand abstract representations of mathematical concepts and can engage in complex reasoning about data. Adults at this level have a higher range of literacy and mathematical problem solving skills.

The applicability of these levels to any specific occupation is based upon the skill levels required for that occupation and anyone using these scores for occupational coaching should carefully consider the competencies outlined at each level compared to those articulated for the job.

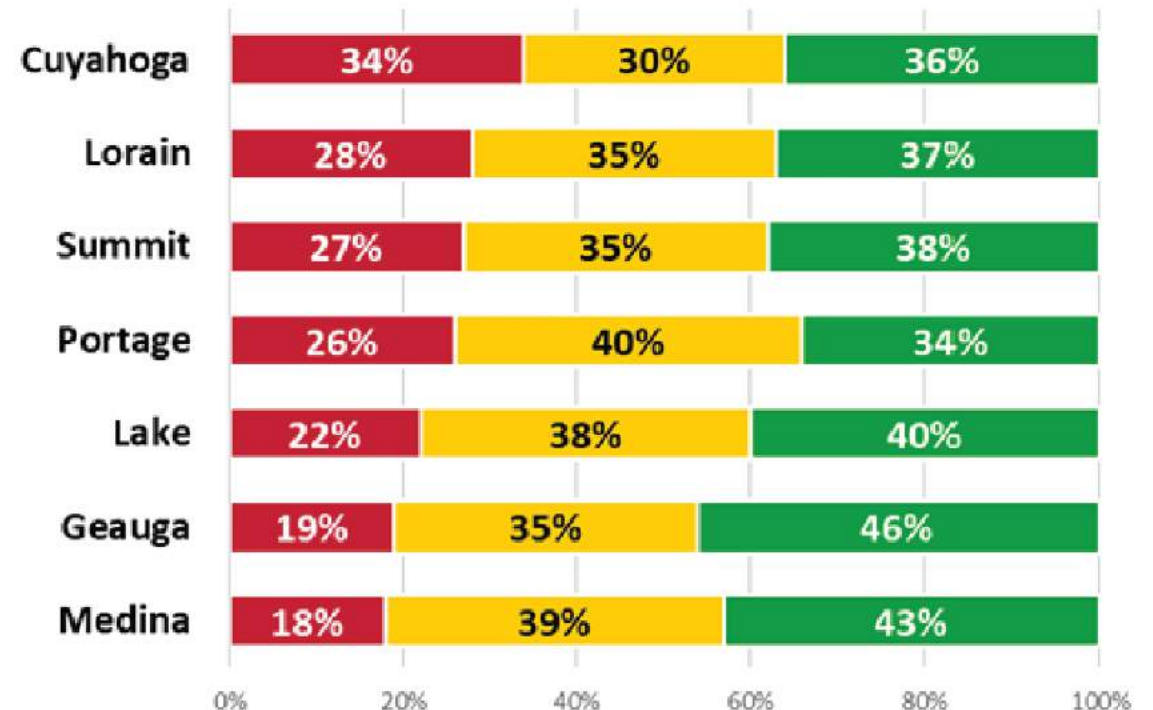
Source: U.S. PIAAC Skills Map, estimates rely on data from 2012, 2014, and 2017 ; data analysis and compilation by The Center for Community Solutions

Literacy and Numeracy Levels in Northeast Ohio Counties

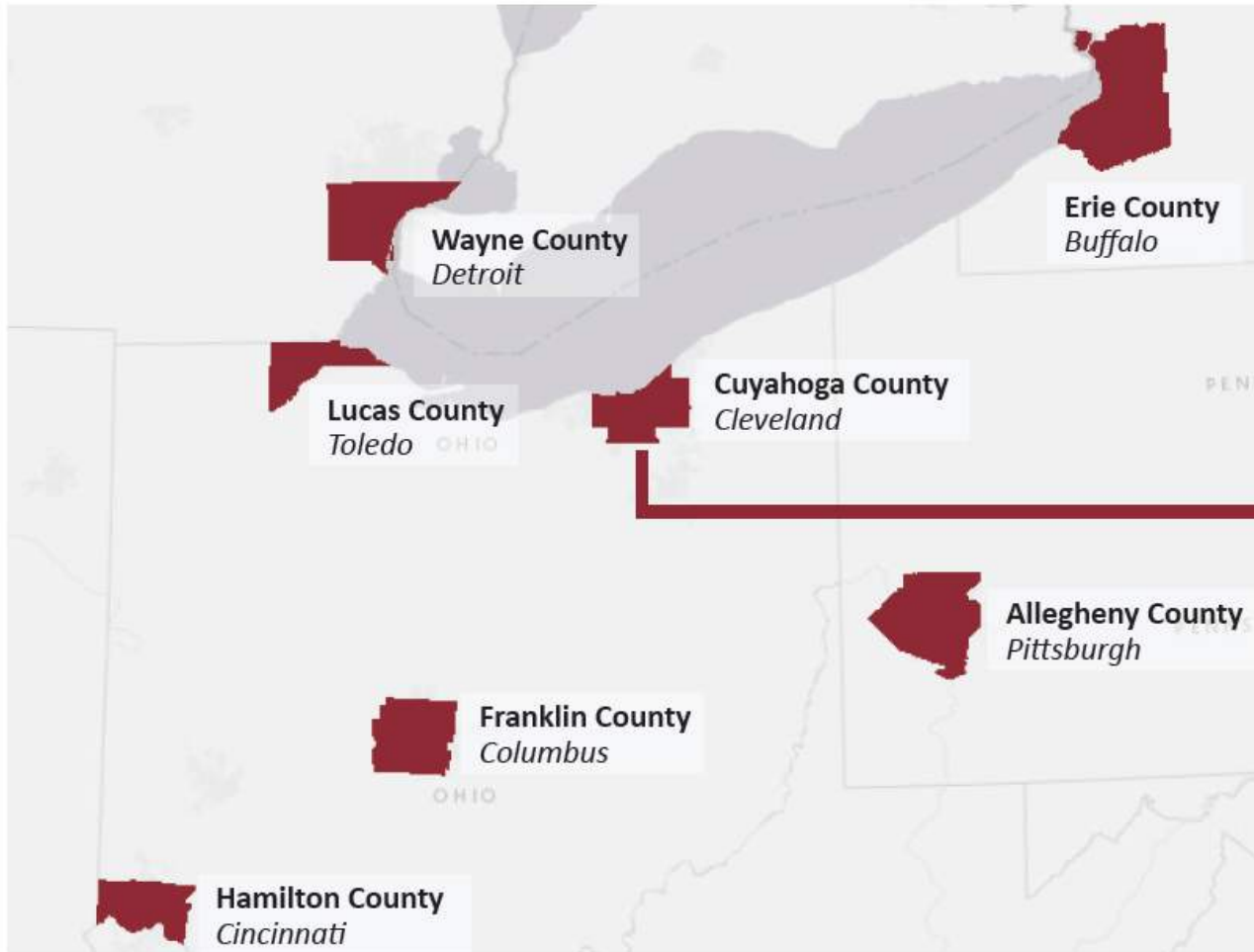
Literacy Levels



Numeracy Levels



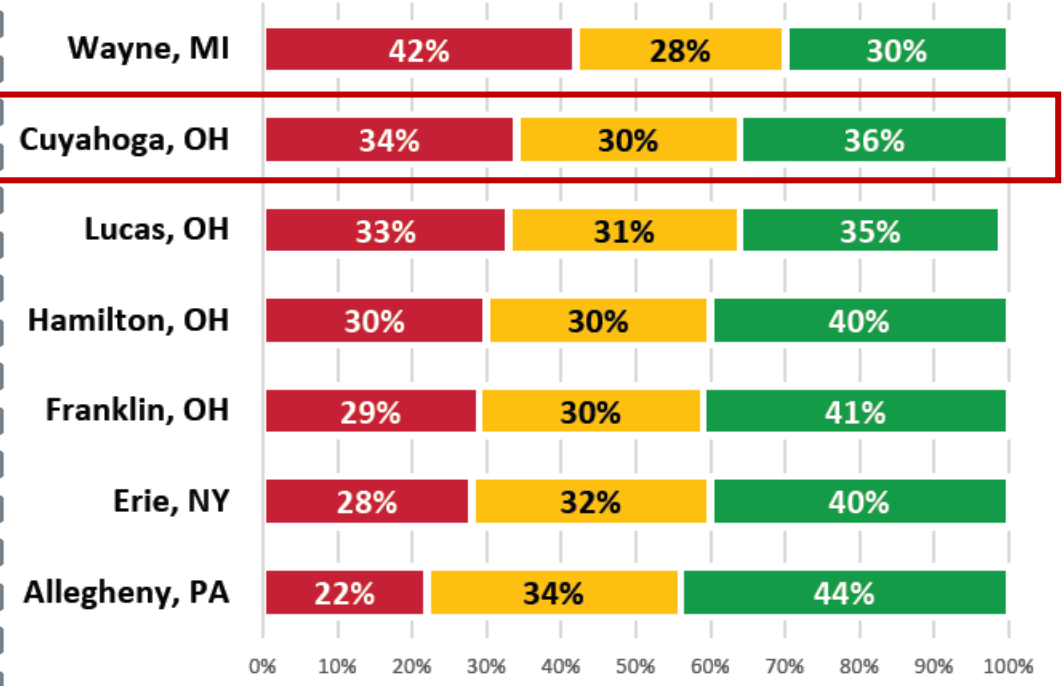
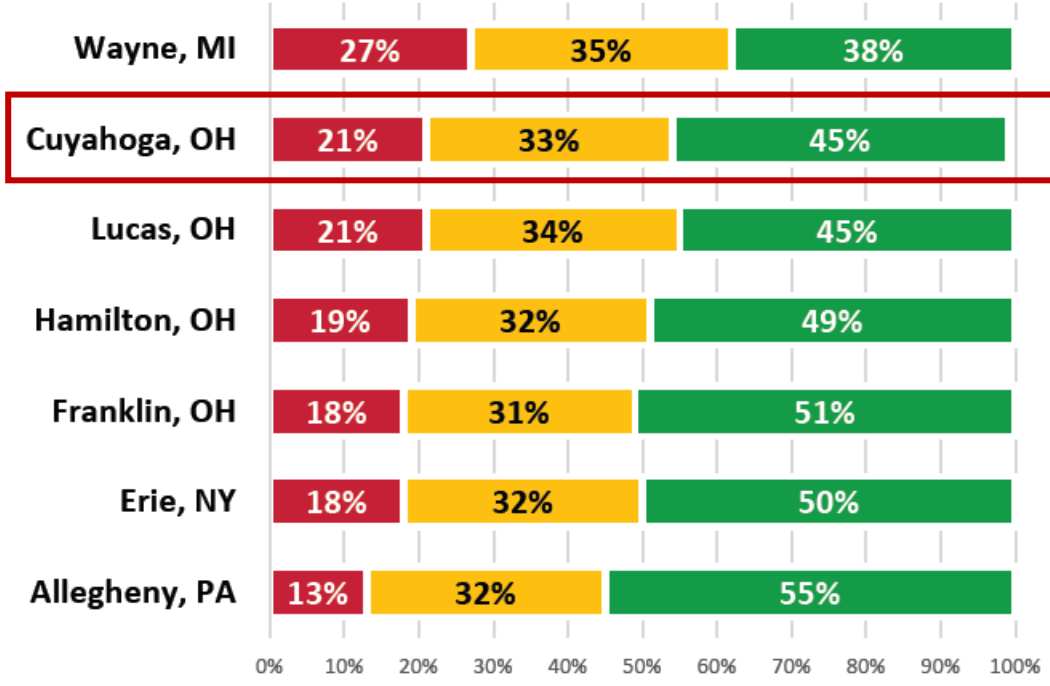
Note: Percentages may not total to 100% due to rounding.



How does **Cuyahoga County** compare to similar urban counties when it comes to **literacy** and **numeracy**?

Literacy Levels

Numeracy Levels



Note: Percentages may not total to 100% due to rounding.

AT RISK

At/Below
Level 1



**NEARING
PROFICIENCY**

At
Level 2

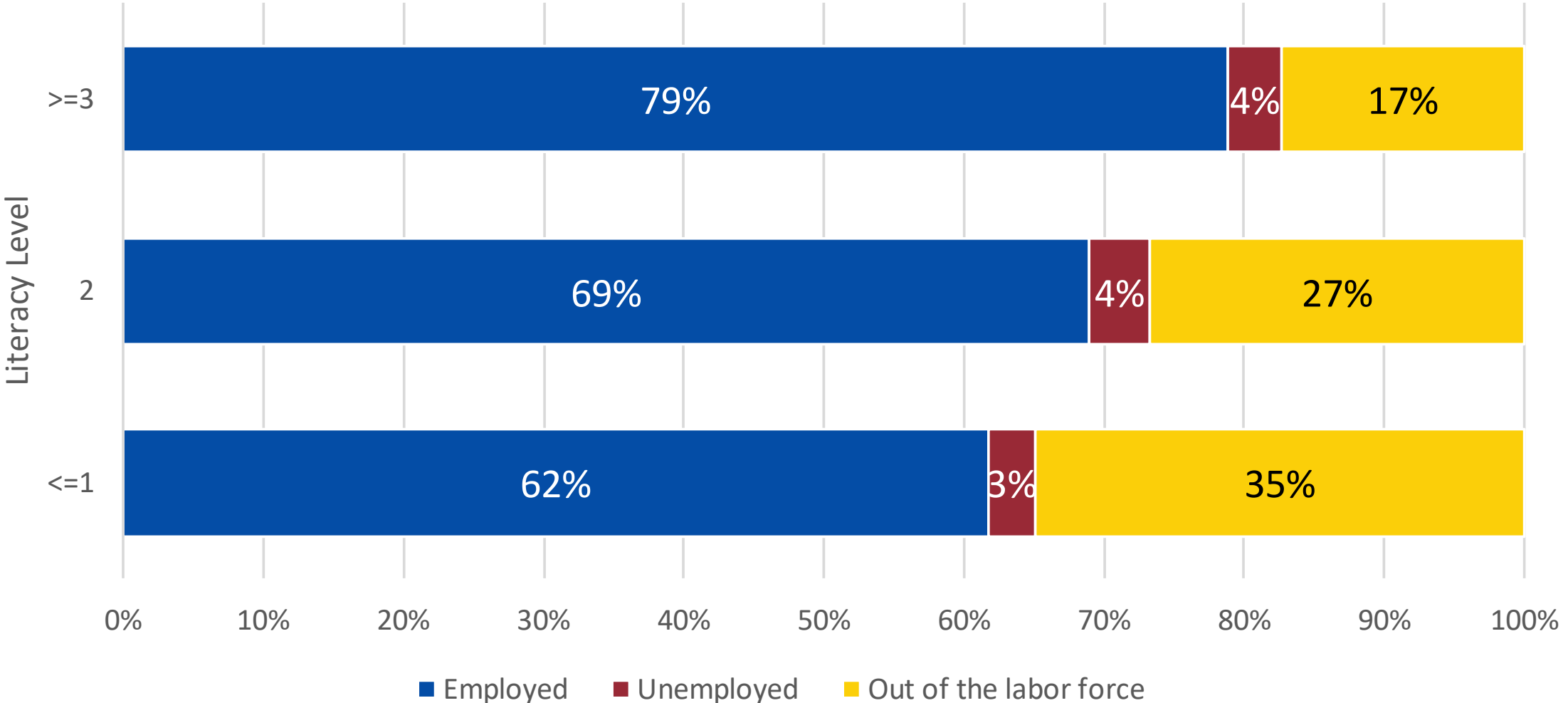


PROFICIENT

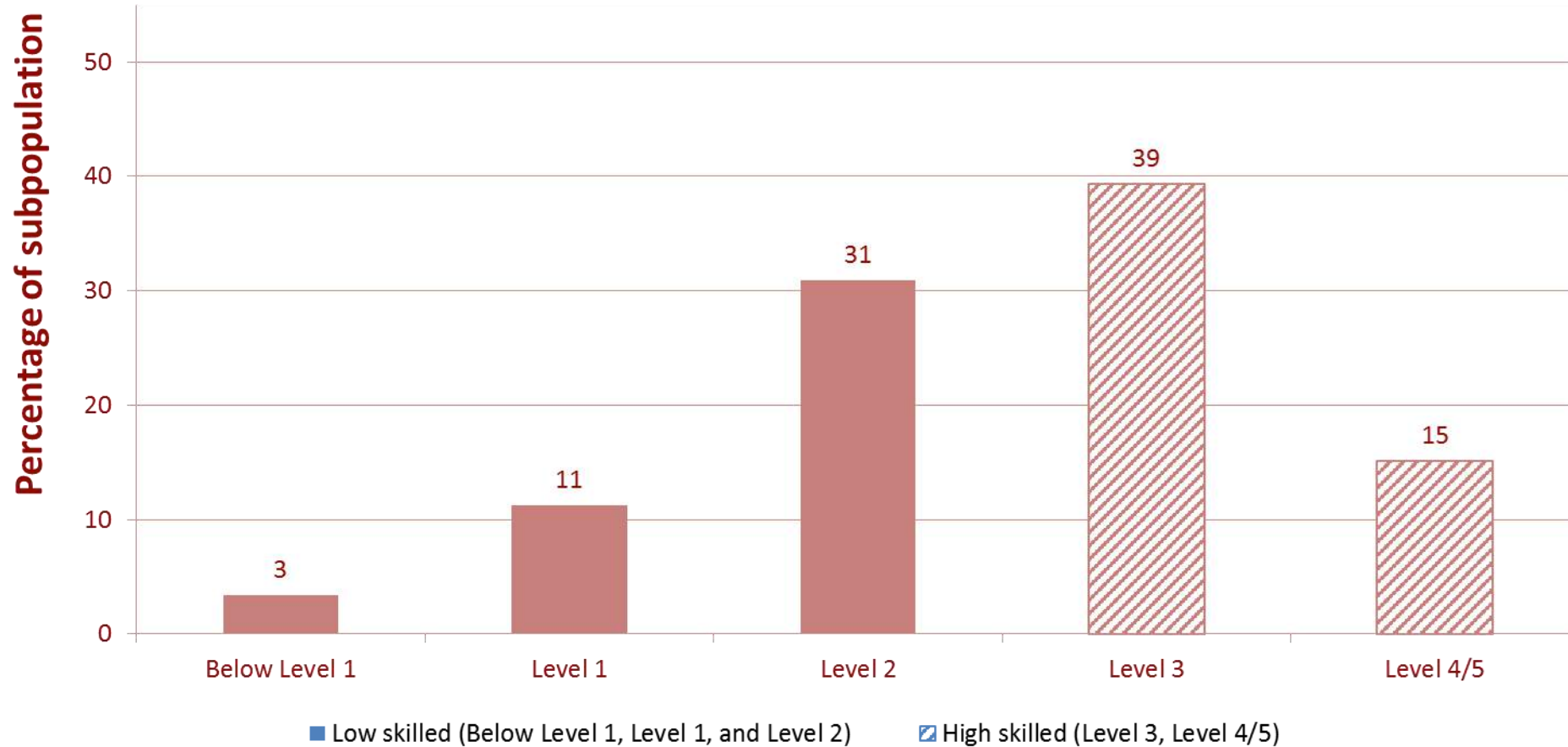
At/Above
Level 3



Literacy Levels by Employment Status

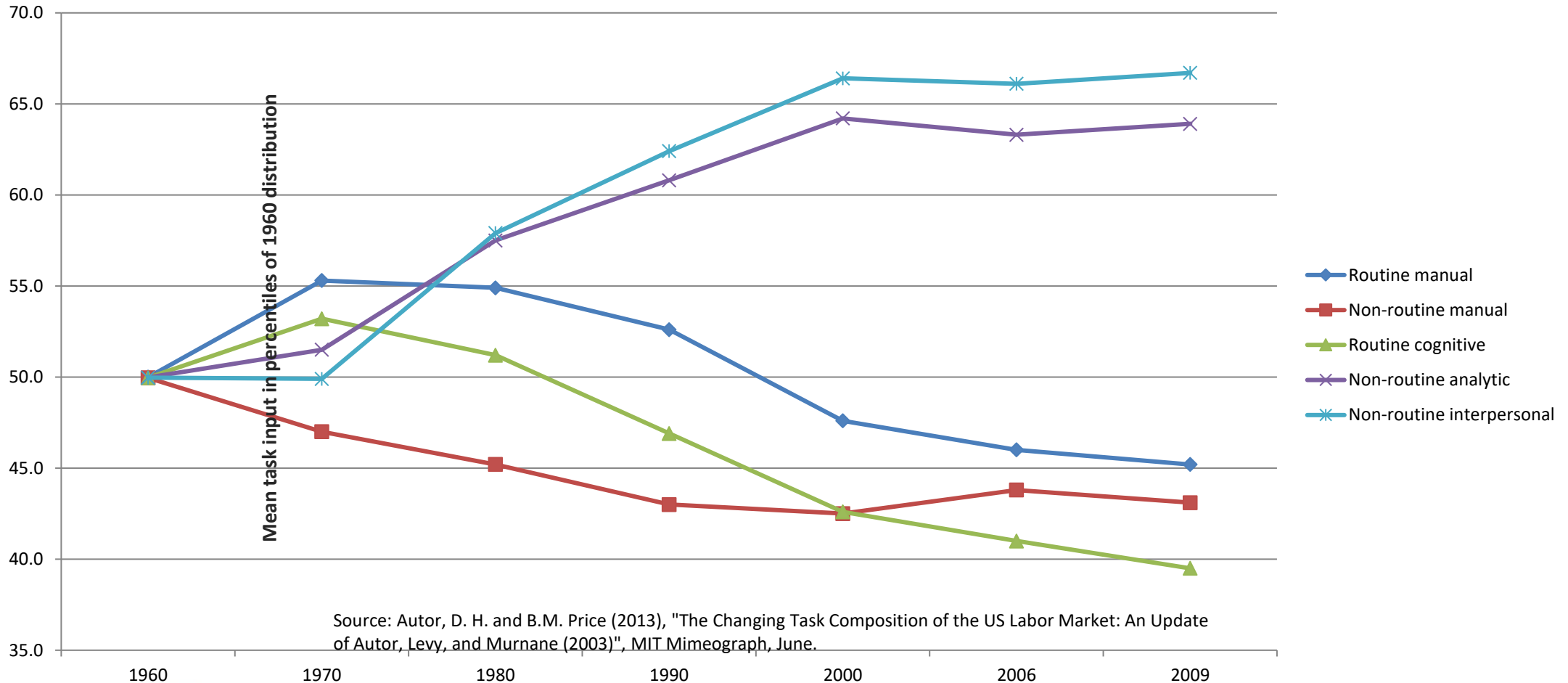


46% of U.S. working adults scored no higher than level 2 in literacy; 15% scored at the two lowest levels.



Note: Detail may not sum to totals because of rounding.

Since 1970, there has been a shift in the U.S. economy away from routine and manual tasks and towards more analytic and interpersonal tasks that require higher skills.





Job Access

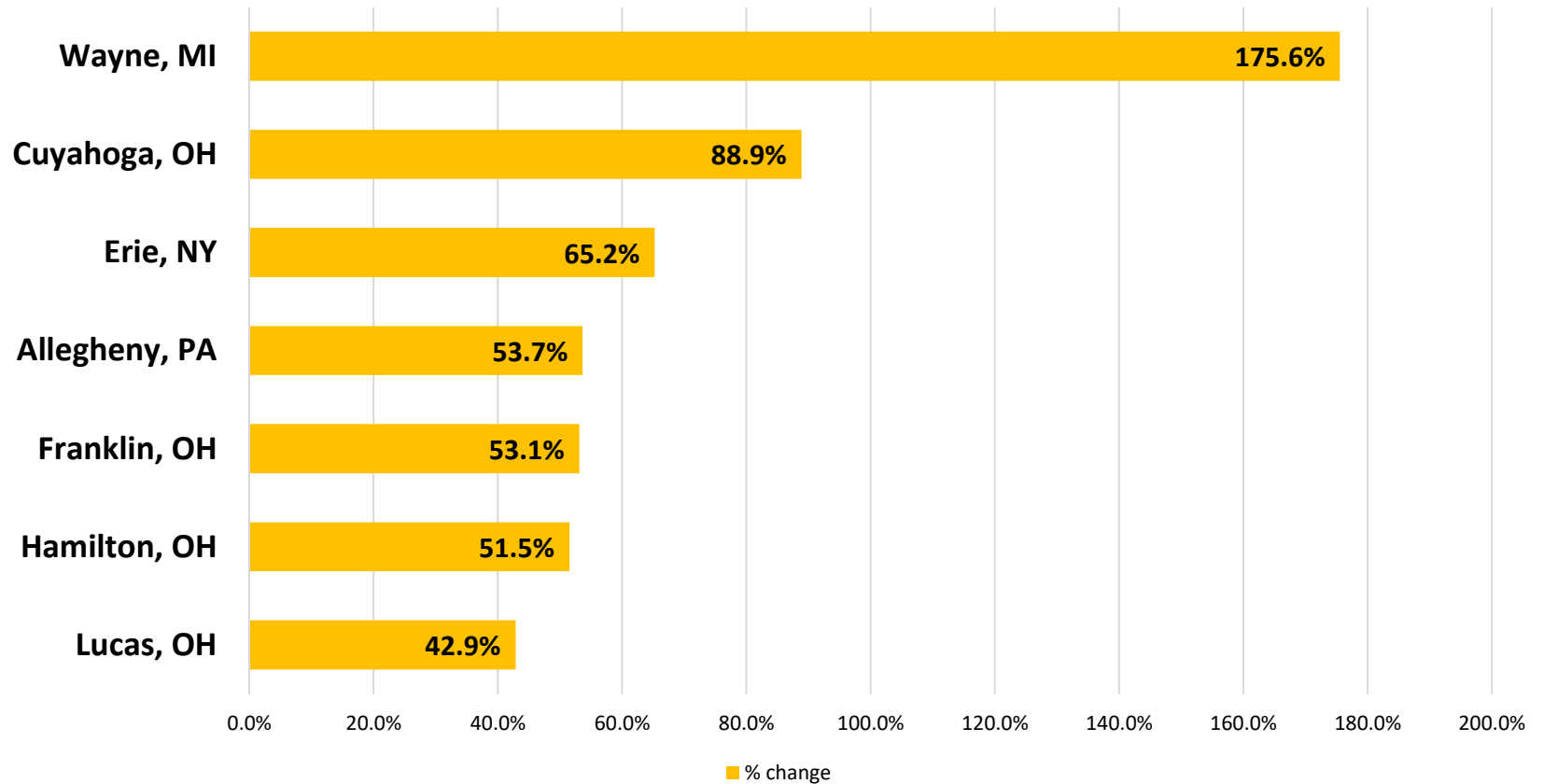
Literacy Ranking

- 7 - Wayne
- 5/6 - Cuyahoga
- 5/6 - Lucas
- 4 - Hamilton
- 2/3 - Franklin
- 2/3 - Erie
- 1 - Allegheny

↑
Worst
↓
Best

The two counties with lowest literacy also saw the greatest increase in unemployment between 2019-2020.

Percent Increase in Unemployment between December 2019 and December 2020



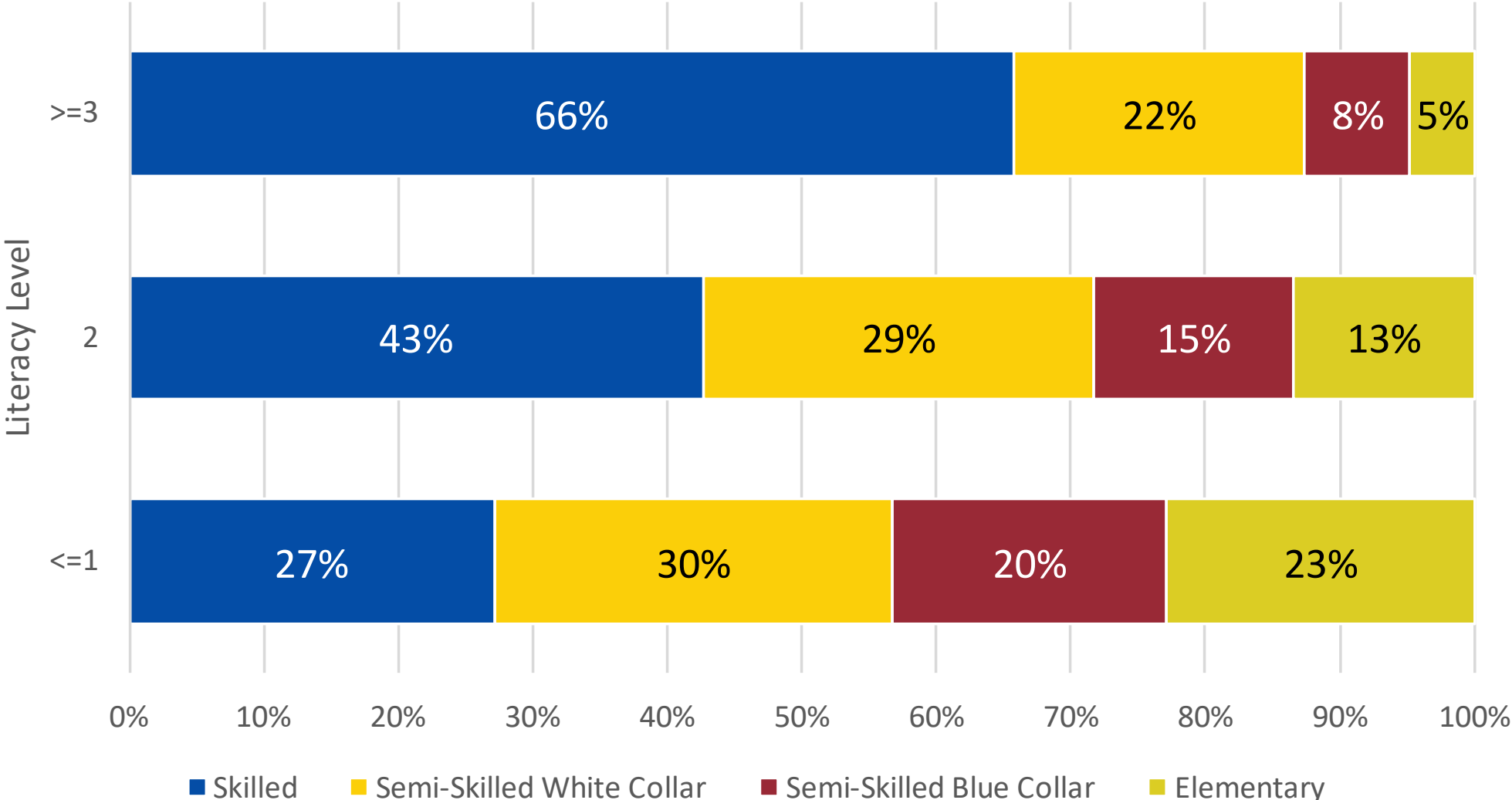
*Correlation does not mean there is a causal relationship

OH: % Increase: **34.1%**

Occupational Skills Category

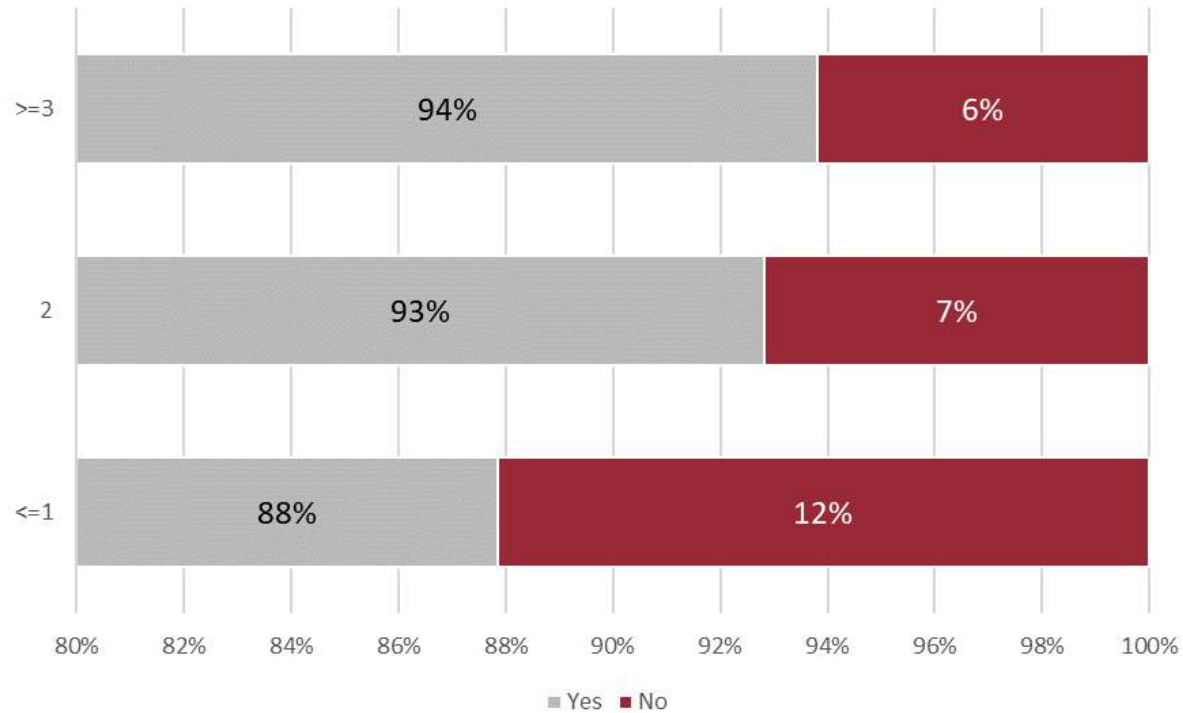
- Skilled Occupations
 - Managers
 - Professionals
 - Technicians and Associate Professionals
- Semi-Skilled White Collar
 - Clerical Support Workers
 - Services and Sales Workers
- Semi-Skilled Blue Collar
 - Skilled Agricultural Workers
 - Craft and Related Trade Workers
 - Plant and Machine Operators and Assemblers
- Elementary Occupations
 - Cleaners, Helpers, Laborers, Assistants

Literacy Level by Occupational Skill Classification

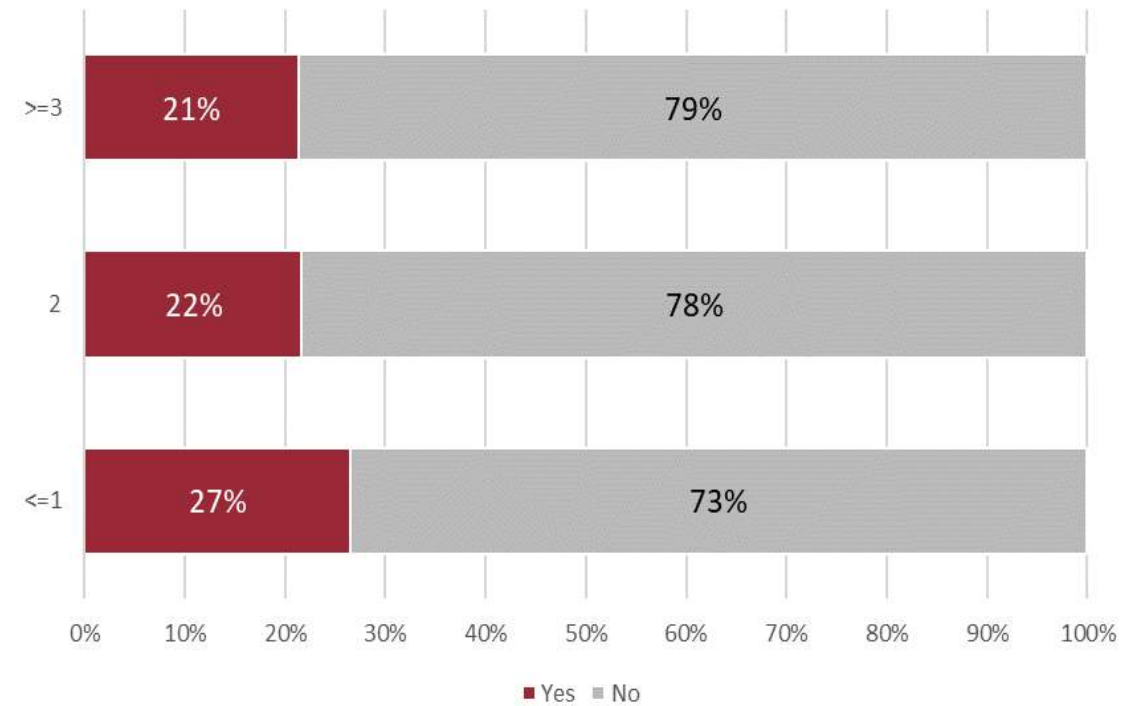


How do workers feel about their skills?

Percentage of Workers Who Have Skills to Cope With More Demanding Duties Than Required in Job, By Literacy Level

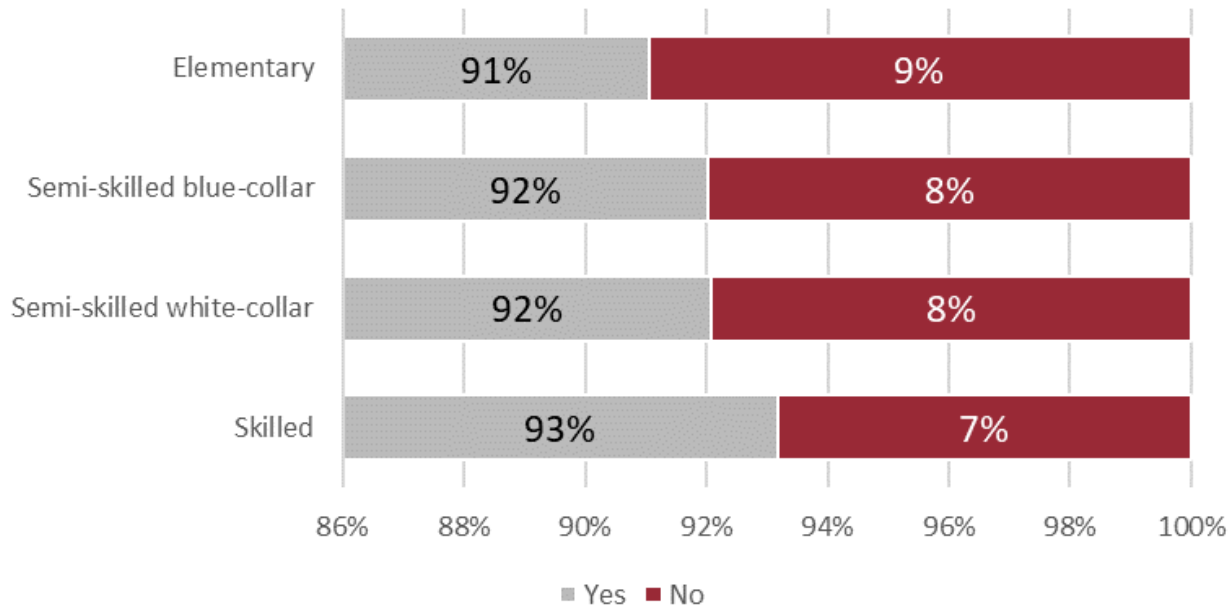


Percentage of Workers Who Need Further Training For Present Duties, By Literacy Level

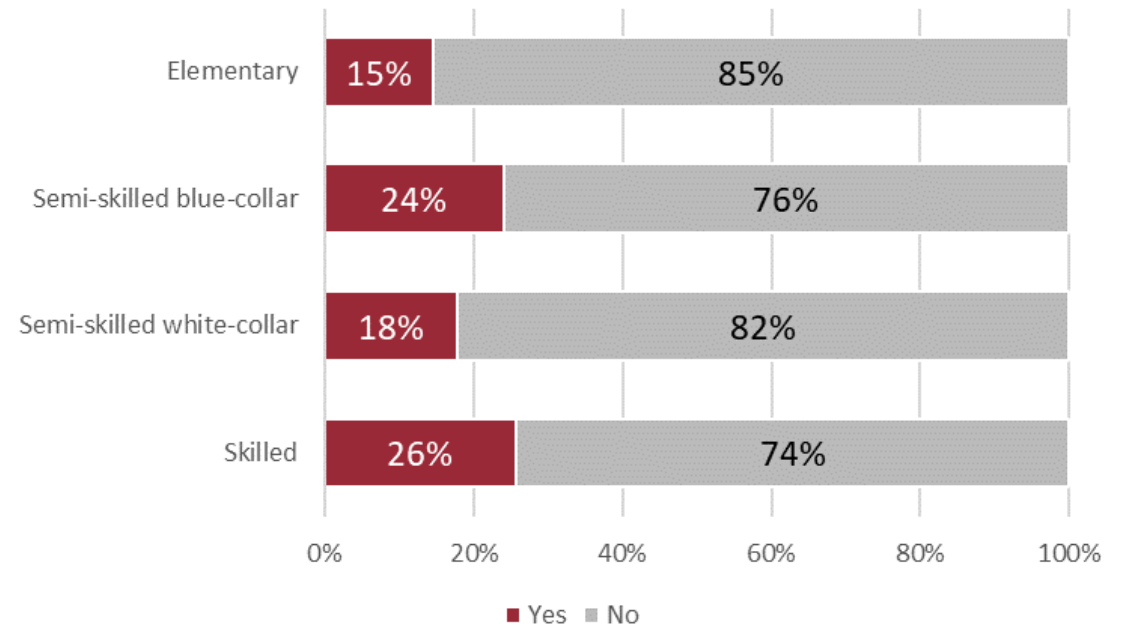


How do workers feel about their skills?

Percentage of Workers Who Have Skills to Cope With More Demanding Duties Than Required in Job, By Occupational Skill Level



Percentage of Workers Who Need Further Training For Present Duties, By Occupational Skill Level



Skill-Based Approach to Hiring and Training

Connecting Jobseekers and Employers through a Common Language – Skills - Talent NEO

- Used an objective tool, WorkKeys, to open access to quality career paths for individuals while increasing the pool of qualified applicants for business
- Results from the pilot demonstrated NEO residents have the scores needed for jobs our community

How do the literacy levels play a part in the development of the skills needed for in-demand jobs?

How can we prepare adults for in-demand jobs using this data?

2021
Opportunities
to Advance
Literacy and
Increase
Employment

- Use Contextualized Literacy and Numeracy with Skills Training
- Connect Adult Literacy to Workforce and Economic Development
- Use of Occupation Mobility Explorer to Identify Opportunities
- Explore Internal and External Career Pathways
- Connect Skill-Based Approach to Sector Partnerships

Exploring a Skills-Based Approach to Occupational Mobility

Kyle Fee

Federal Reserve Bank of Cleveland

Kyle DeMaria

Keith Wardrip

Federal Reserve Bank of Philadelphia



FEDERAL RESERVE BANK
OF PHILADELPHIA

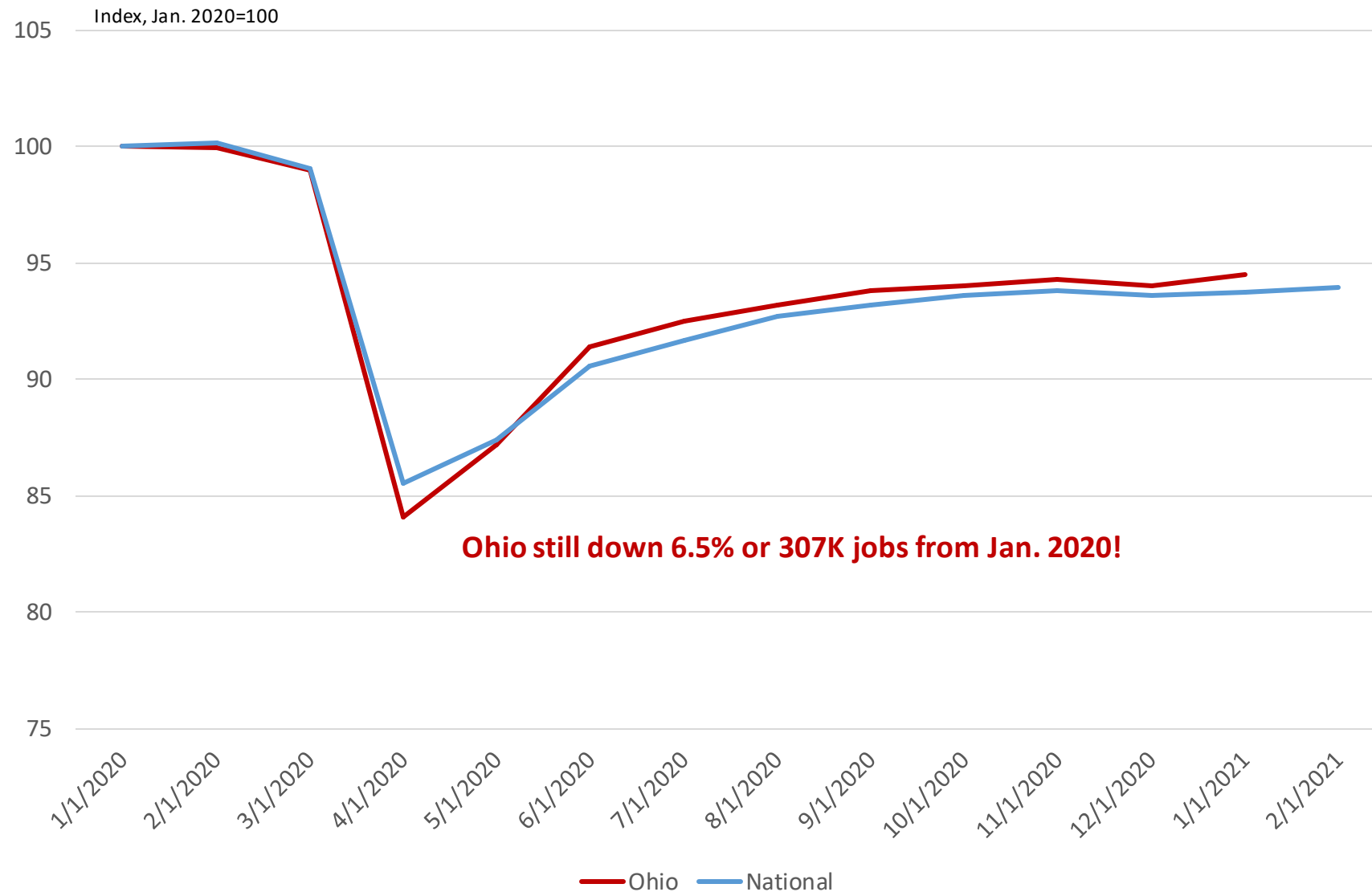
FEDERAL RESERVE BANK
of CLEVELAND

The views expressed here are those of the presenters and do not necessarily represent the views of the Federal Reserve Banks of Cleveland or Philadelphia or the Federal Reserve System.

Agenda

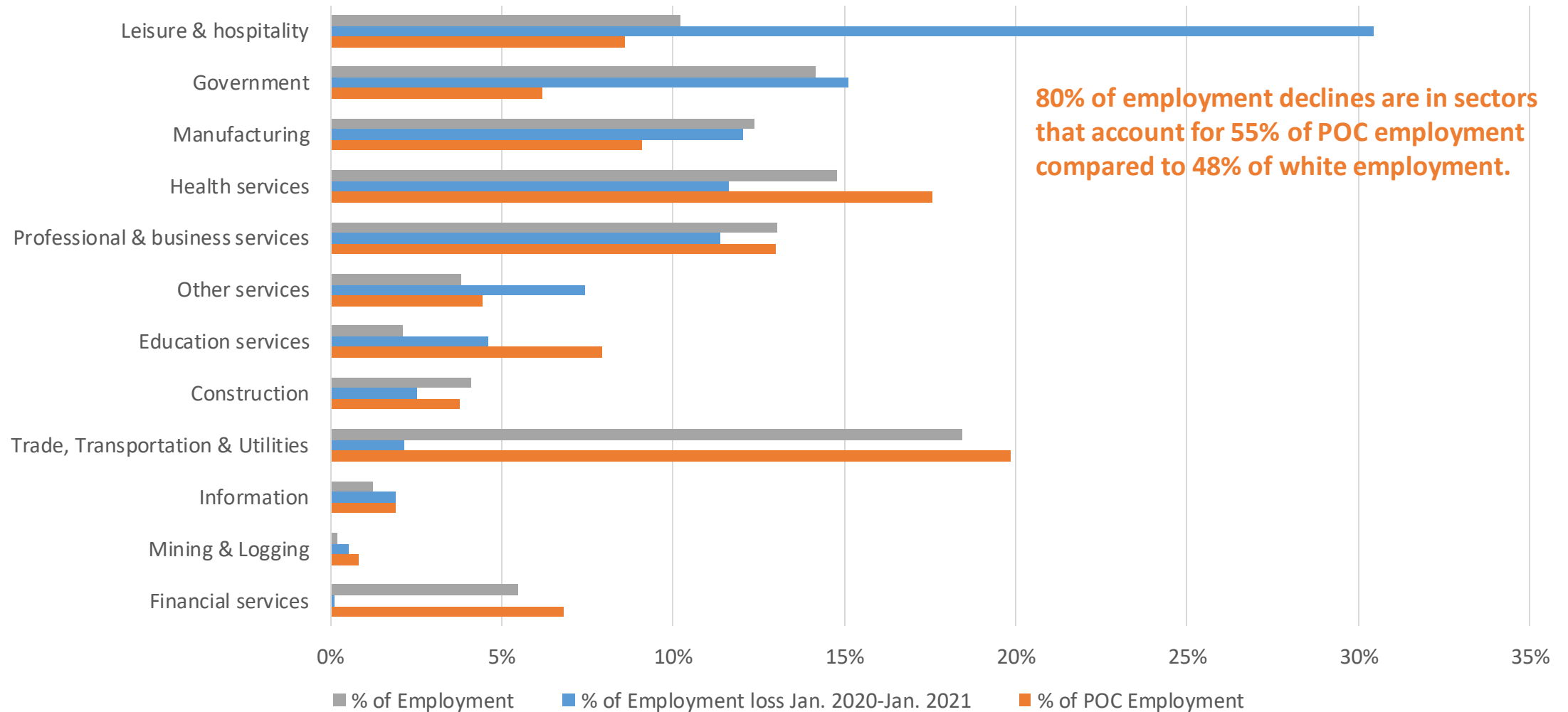
- Why is a skills-based approach needed more than ever?
 - Differential impact of COVID pandemic on the labor market.
 - Latest BLS employment projections
- Quick review of a skills-based approach concept and benefits
- Occupational Mobility Explorer tool demonstration
- Discussion

Employment



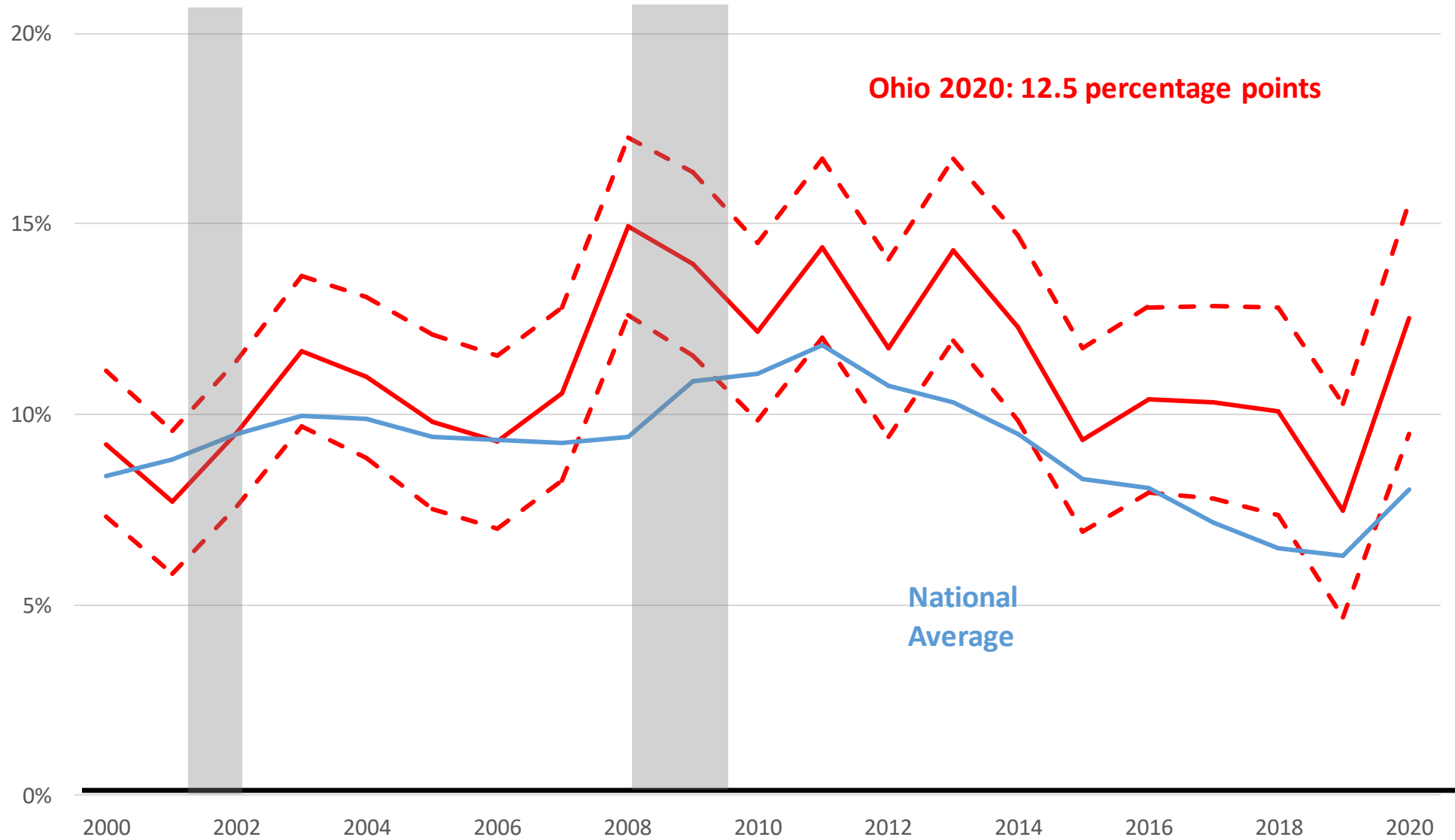
Source: Bureau of Labor Statistics

Ohio Employment by Sector



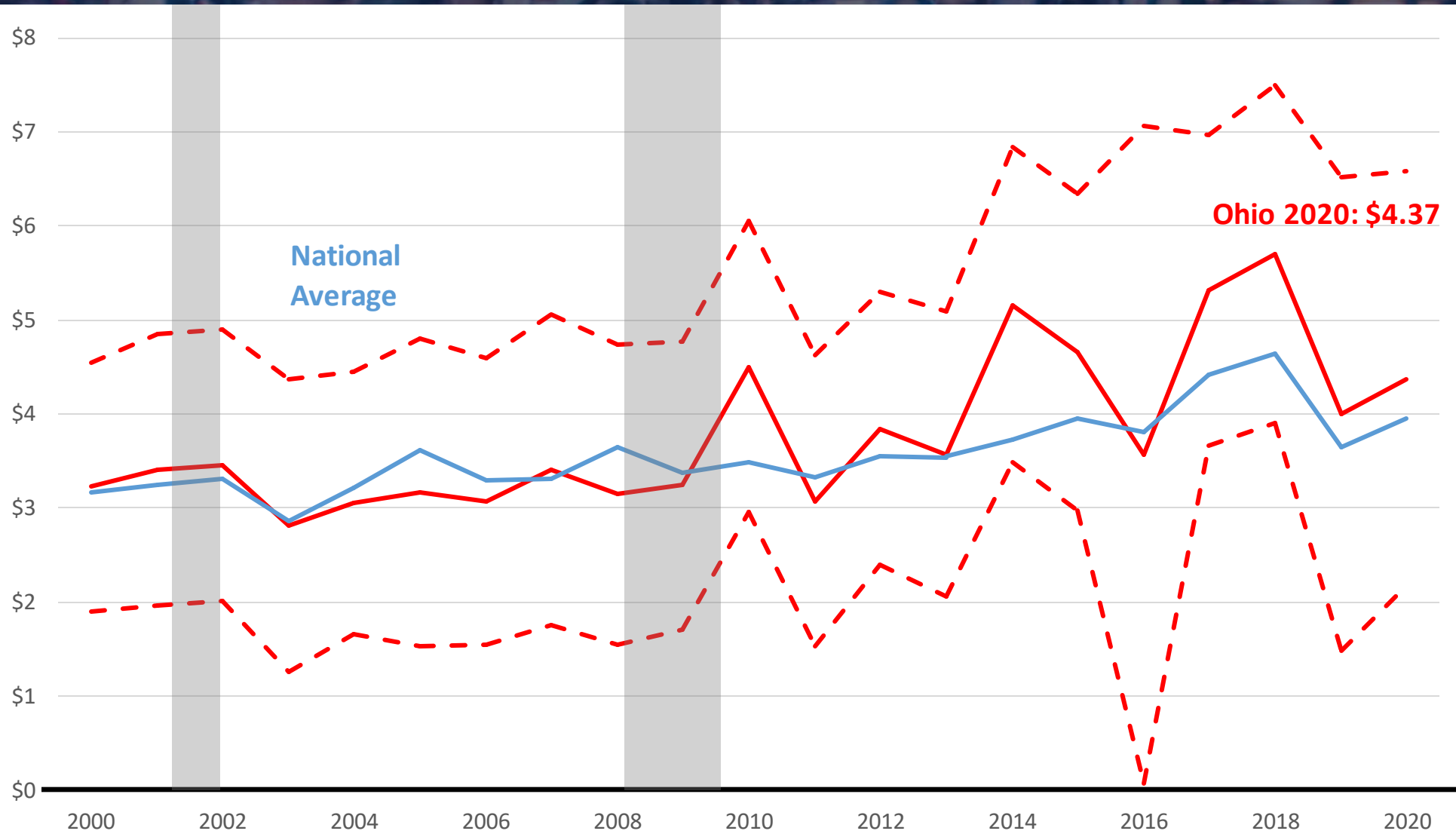
Source: Bureau of Labor Statistics

Ohio Black-white Employment Rate Gap



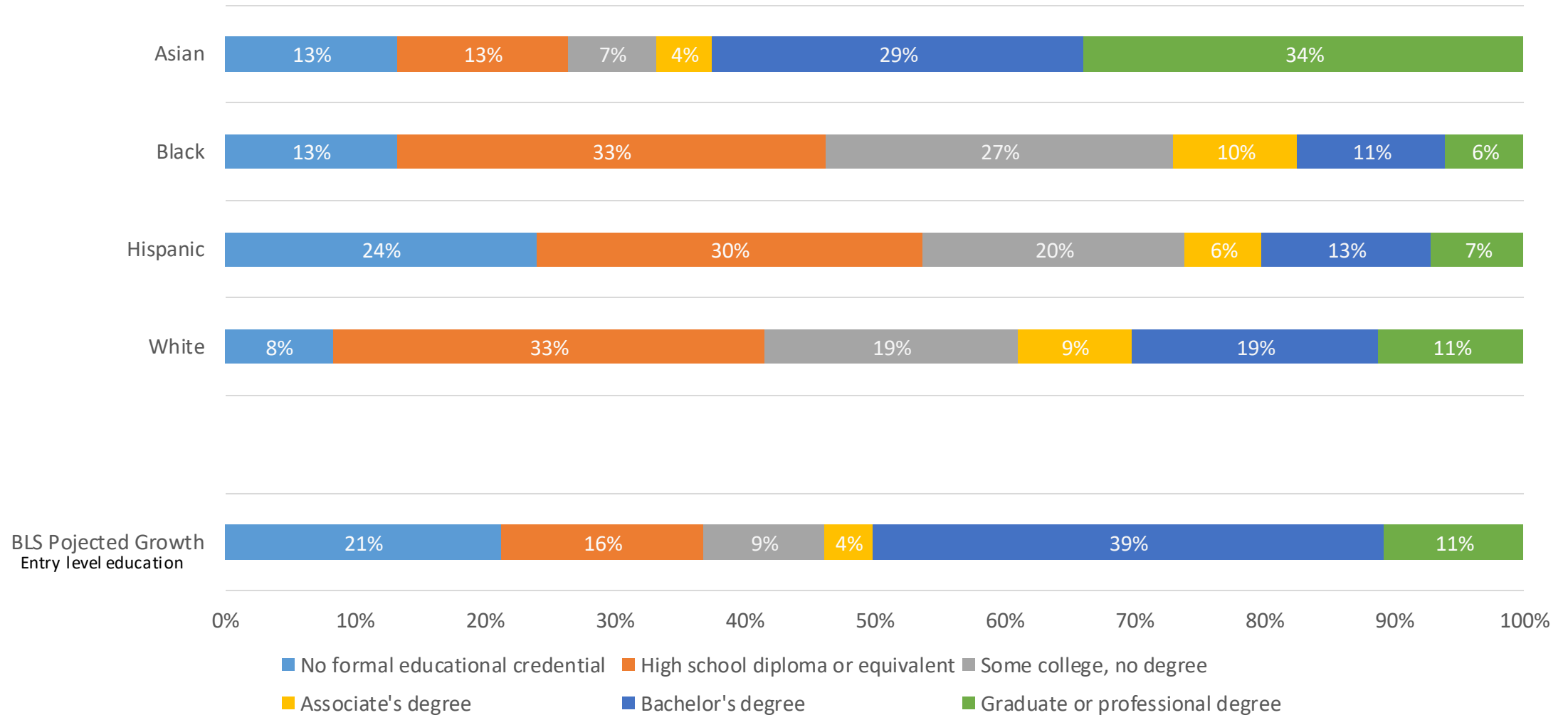
Source: CPS; Dashed lines indicate 95% confidence interval

Ohio Black-white Median Hourly Earnings Gap



Source: CPS; Dashed lines indicate 95% confidence interval

Ohio's Educational Composition by Race, 2019



Source: American Community Survey, 2019 (5 year) Bureau of Labor Statistics

Guiding Principles, Data, and Methods

Occupations Defined by Tasks and Skills

- Occupations can be defined as bundles of tasks that require skills to complete.
- Occupations differ in the skills they request and the frequency with which they request them.

Skills Described in Online Job Ads

- We analyzed nearly 60 million online job ads posted between 2014 and 2018.
- Our analysis covers the 33 metro areas with at least 1 million jobs.

Occupational Transition with a Low Similarity Score

The vast majority of potential transitions involve very different skill sets...

The average similarity score for the roughly 685,000 potential transitions analyzed is 0.25.

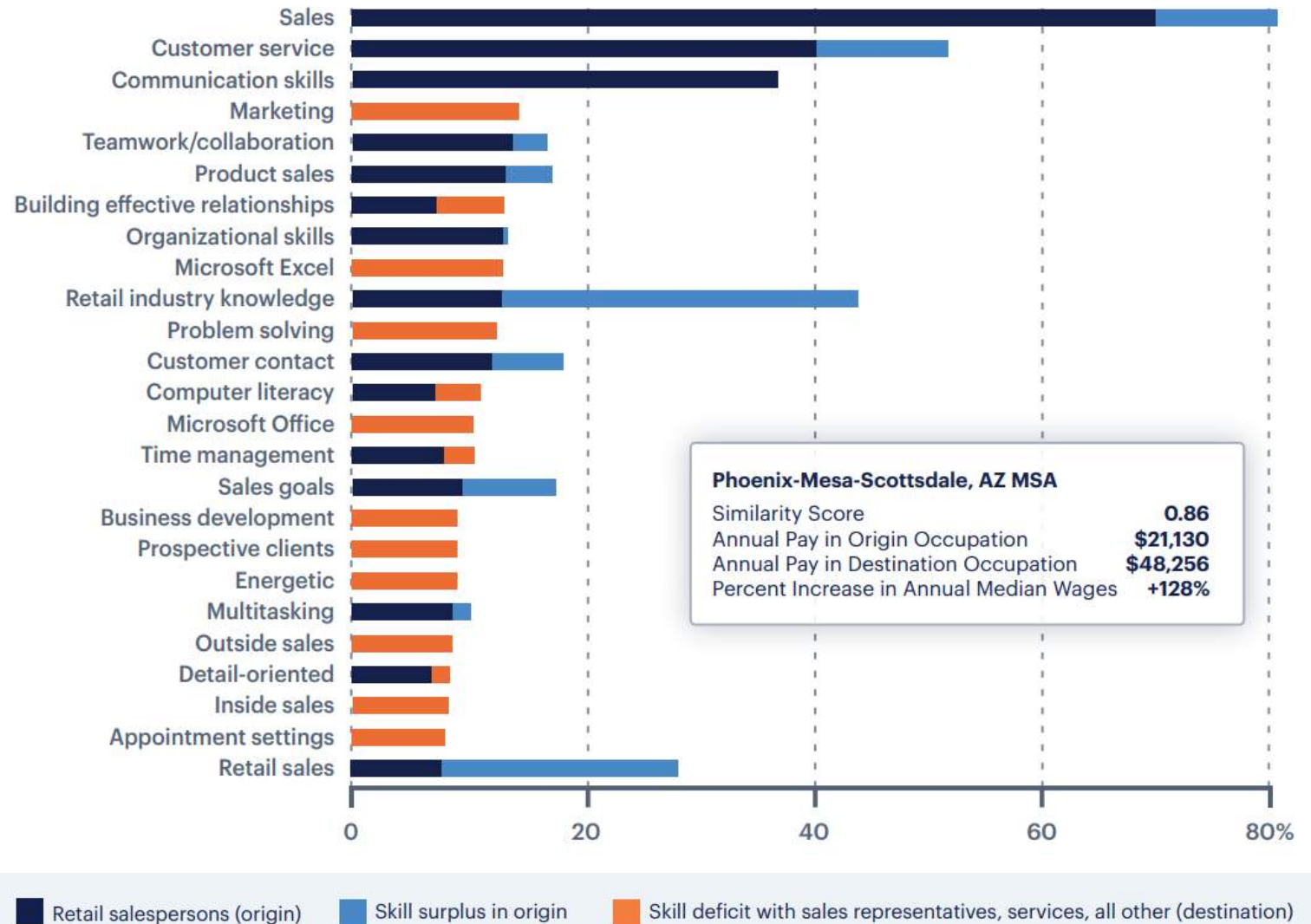


Source: DeMaria, Kyle, Kyle Fee, and Keith Wardrip. 2020. *Exploring a Skills-Based Approach to Occupational Mobility*. Federal Reserve Banks of Philadelphia and Cleveland.

Occupational Transition with a High Similarity Score

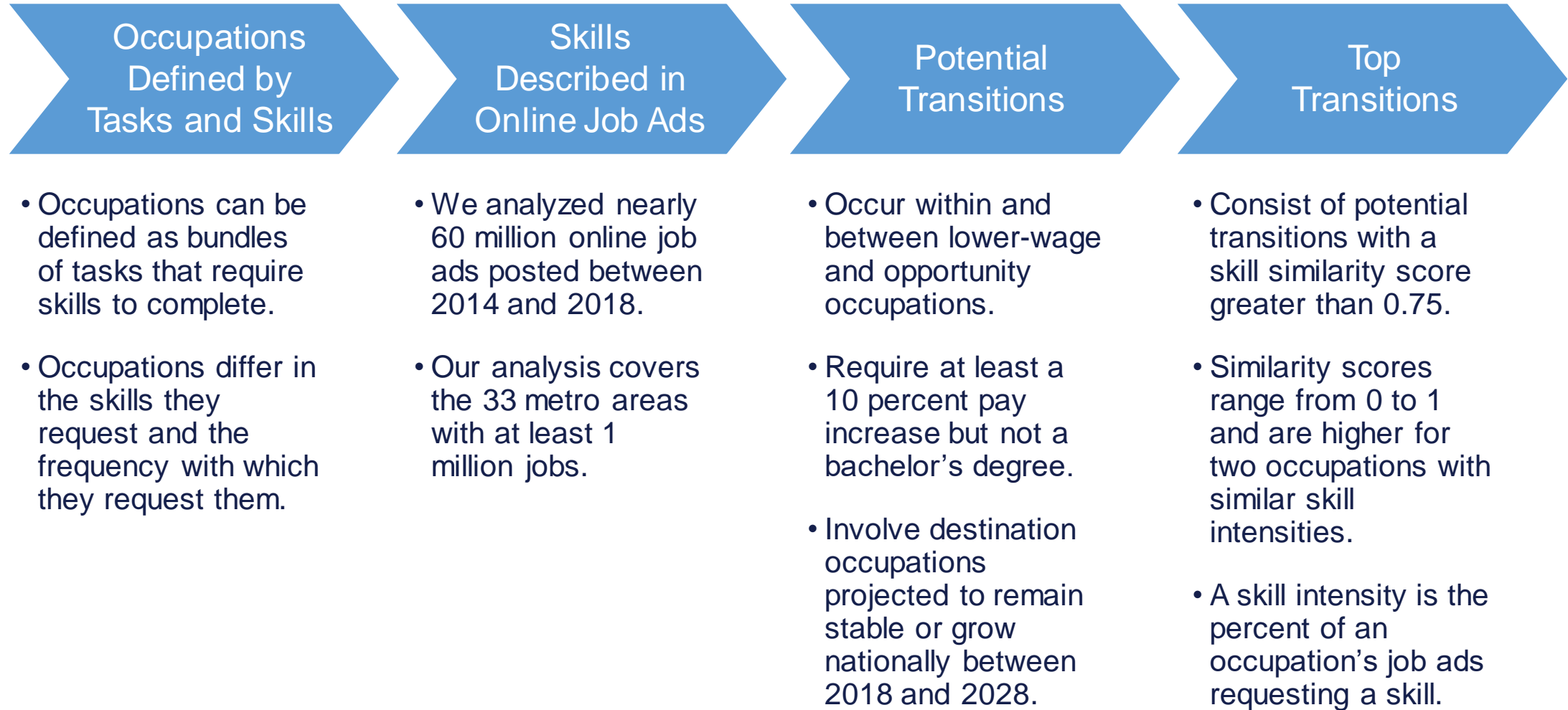
...but top transitions exist in every metro area.

In the 33 metro areas analyzed, we find 4,097 top transitions (similarity score >0.75).



Source: DeMaria, Kyle, Kyle Fee, and Keith Wardrip. 2020. *Exploring a Skills-Based Approach to Occupational Mobility*. Federal Reserve Banks of Philadelphia and Cleveland.

Guiding Principles, Data, and Methods



21st-Century Skills Form the Bridge Between Occupations

Skills can be viewed as a bridge rather than as a gap.

There is overlap in the top skills requested for lower-wage and opportunity occupations (rank order correlation of 0.70).

21st-century skills form the bridge between lower-wage and opportunity occupations.

Top 20 skills overall and ranked within occupational categories (ranks ≤ 10 shaded dark orange; ranks > 30 shaded light orange)

Skill	Overall intensity	RANK		
		Overall	Lower-wage occupations	Opportunity occupations
Communication skills	26.9%	1	1	1
Customer service	17.7%	2	2	3
Physical abilities	14.3%	3	3	8
Organizational skills	13.1%	4	4	4
Teamwork/collaboration	11.8%	5	9	10
Scheduling	10.9%	6	7	6
Detail-oriented	10.2%	7	8	13
Sales	9.9%	8	6	9
Microsoft Excel	9.4%	9	16	5
Computer literacy	9.3%	10	11	7
Problem solving	8.8%	11	18	11
Writing	8.7%	12	14	15
Repair	8.4%	13	13	2
English	8.0%	14	10	21
Microsoft Office	7.7%	15	23	12
Planning	7.7%	16	36	14
Cleaning	7.0%	17	5	54
Building effective relationships	6.7%	18	19	17
Teaching	6.4%	19	30	64
Research	6.1%	20	47	19

Source: DeMaria, Kyle, Kyle Fee, and Keith Wardrip. 2020. *Exploring a Skills-Based Approach to Occupational Mobility*. Federal Reserve Banks of Philadelphia and Cleveland.

Top Transitions Can Lead to Economic Mobility

Nearly half of lower-wage employment can be paired with a top transition.

The same is true for 29 percent of the jobs classified as opportunity occupations.

Share of Employment by Type of Top Transition



Source: DeMaria, Kyle, Kyle Fee, and Keith Wardrip. 2020. *Exploring a Skills-Based Approach to Occupational Mobility*. Federal Reserve Banks of Philadelphia and Cleveland.

Top Transitions Can Lead to Economic Mobility

On average, top transitions from lower-wage to opportunity occupations can result in a 78% pay increase—from around \$29,000 to \$51,000.

Type of transition	AVERAGE ANNUAL MEDIAN WAGES			
	Origin occupations	Destination occupations	Increase	Percent increase
Lower-wage occupation to lower-wage occupation	\$21,508	\$28,367	\$6,859	32%
Lower-wage occupation to opportunity occupation	\$28,547	\$50,672	\$22,125	78%
Opportunity occupation to opportunity occupation	\$53,426	\$76,128	\$22,703	42%
Overall	\$30,100	\$44,974	\$14,873	49%

Source: DeMaria, Kyle, Kyle Fee, and Keith Wardrip. 2020. *Exploring a Skills-Based Approach to Occupational Mobility*. Federal Reserve Banks of Philadelphia and Cleveland.

Occupational Mobility Explorer

In *Exploring a Skills-Based Approach to Occupational Mobility*, researchers from the Philadelphia and Cleveland Feds analyze the skills that employers request in the 33 largest metro areas and look for opportunities for workers to transfer their skills from one occupation to a similar — but higher-paying — occupation in the same labor market. This application is designed to make the findings interactive and wholly accessible to those interested in economic mobility.

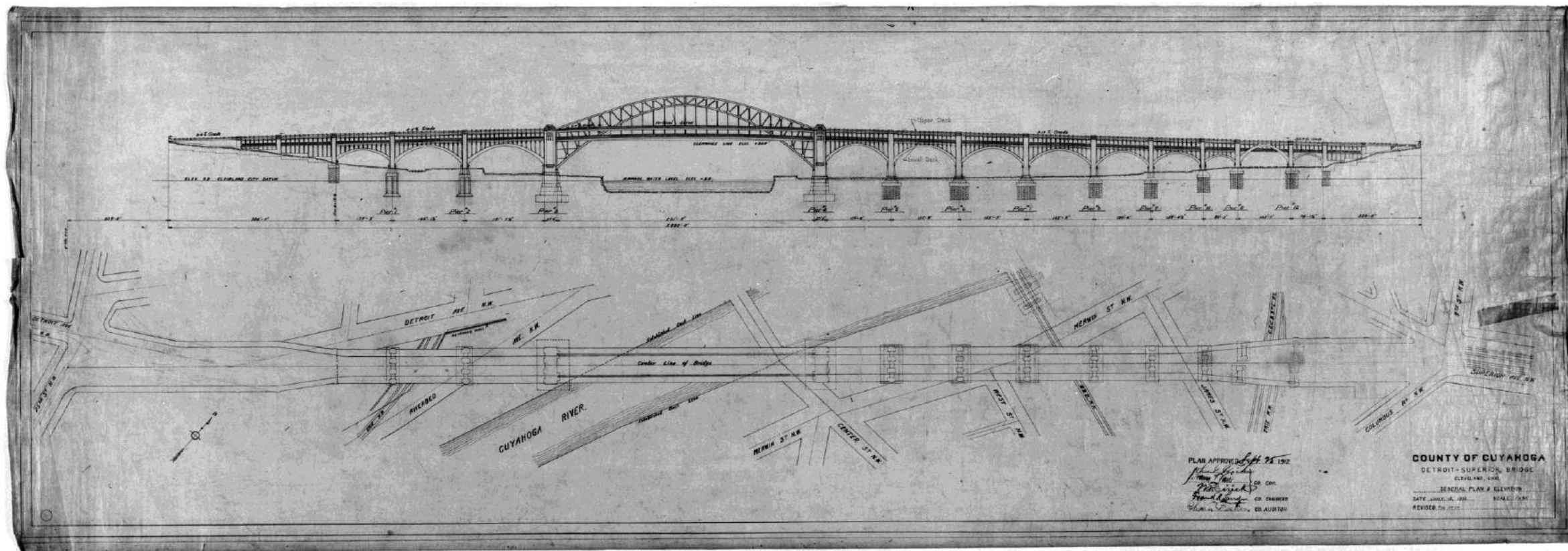
OCCUPATIONAL MOBILITY EXPLORER

BUILD YOUR PATH

COMPARE SKILLS

VIEW TOP TRANSITIONS

<https://www.philadelphiafed.org/surveys-and-data/community-development-data/occupational-mobility-explorer>



Source:
historicbridges.org

Discussion

- Skills need to be emphasized for an inclusive recovery.
- Skills-based approaches hold promise for job seekers and employers but require investment & buy-in to be successful.
- Skills-based approaches align with OWC policy priorities.
 - Flexible training fund
 - Premier employer designation
 - Sector-partnerships

Thank You

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