Missed Opportunities

Credential Shortages in Programs Aligned with High-Paying Middle-Skills Jobs in 55 US Metro Areas

2024

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The views expressed in this publication are those of the authors and do not necessarily represent those of JPMorganChase or any of its officers or employees. All errors and omissions are the responsibility of the authors.

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Introduction

Middle-skills workers help keep the American economy and society afloat. They provide essential medical care and public services, build and maintain our energy grid and information technology infrastructure, and run critical business operations—and, in exchange for these and other contributions, they can earn handsome rewards. In this data brief, we discuss high-paying middle-skills occupations and determine whether the current supply of middle-skills credentials (that is, certificates and associate's degrees) leading to these occupations is likely to meet local labor-market demand through 2032. Our six major findings highlight the areas in which we expect shortages and those in which we anticipate an oversupply of the types of credentials needed to fill these critical occupations.[1]

High-paying middle-skills jobs are relatively rare: only one-quarter of early-career middle-skills workers earn more than most young workers who have a bachelor's degree.[2] At the same time, the demand for high-paying middle-skills jobs exceeds the supply of available workers in some sectors and local economies. For that reason, it's important for individuals, regional planners, and education and training providers to know where to find high-paying middle-skills jobs. In what

1. The analysis summarized in this data brief builds on and refines work described in Strohl et al., *The Great Misalignment,* 2024.
2. One-quarter of early-career middle-skills workers (ages 18–35) are in high-paying middle-skills jobs, meaning that they earn more than $53,000 per year (in 2022 dollars). The median annual earnings of young workers (ages 21–30) with a bachelor's degree are $52,200 (also in 2022 dollars). For the purposes of comparison, we use an age range that skews slightly older for early-career middle-skills workers since these workers often need more time in the workforce to earn as much as young workers with a bachelor's degree, for two reasons: (1) returns to work experience typically accrue more gradually than returns to a bachelor's degree, and (2) returns to work experience typically accrue faster for more-educated workers. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2010–22.

occupations are these jobs prevalent? What credentials do young workers need to enter these occupations? And are middle-skills providers — predominantly community colleges — currently conferring enough of these credentials to meet the future needs of local economies?

What is a high-paying middle-skills occupation?

In this analysis, we define **high-paying middle-skills occupations** as those in which more than half of early-career middle-skills workers have a job with annual earnings of more than $53,000 (in 2022 dollars). Early-career middle-skills workers in these jobs not only outearn most young workers with a bachelor's degree but also experience considerable earnings growth over time, with median annual earnings that rise to $80,000 by mid-career (ages 36–49).*

We identified 107 occupations as high-paying for middle-skills workers. They include such positions as firefighters, facilities managers, information security analysts, power plant operators, and radiologic technicians. These high-paying occupations are found in five occupational groups: blue-collar; management; protective services; science, technology, engineering, and mathematics (STEM); and healthcare.

View a complete list of high-paying middle-skills occupations and aligned programs on our website.

* Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2018, 2019, and 2021.

To answer these questions, we examined the current number of certificates and associate's degrees awarded that prepare workers for jobs in high-paying occupations and compared it to the projected number of job openings for workers with these credentials. Our goal was to identify

- which credentials provide middle-skills workers with the greatest economic opportunity; and
- in which geographic locations middle-skills providers would need to produce more of these credentials, and in which fields, to meet projected employment demand.

For the areas that we anticipate will face local credential shortages, we also estimated each middle-skills education and training provider's potential contribution to addressing the shortage (which we defined using a credentials-to-jobs ratio, discussed later in this data brief). We have compiled our results in a publicly available online data tool.

The results in the data tool can help inform individuals' decisions about which credentials to pursue. These results can also enable regional planners and middle-skills providers to make crucial decisions about where to invest in new programs or expand existing ones that can increase the number of local economic opportunities.

Our analysis focused on the 55 major metro areas in the United States that have populations greater than 1 million people.

Missed Opportunities in 55 Metro Areas: Find Your City

Are credential providers in your metro area producing enough certificates and associate's degrees aligned with high-paying middle-skills jobs to keep up with the projected local demand for workers with these credentials? Where are credential providers falling short, and by how much? How much is each provider currently contributing to credential production in your area? Visit our online data tool to find out.

In each of these major metro areas, we assessed the current production of middle-skills credentials (certificates and associate's degrees) linked to high-paying middle-skills occupations.[3] We compared this credential production with the projected local demand for workers with these credentials through 2032. To provide additional context, we also conducted this analysis in the aggregate (1) at the national level, (2) for all major metro areas, and (3) for the rest of the country (including rural areas and metro areas with populations of less than 1 million).

Finally, we estimated the extent to which each geographic area will face a shortfall or surplus in the number of credentials aligned with high-paying middle-skills occupations using a **credentials-to-jobs ratio**. We calculated this ratio by dividing (1) the area's annual number of credentials produced that align with high-paying middle-skills occupations within the occupational group by (2) the projected annual number of job openings available in all occupations (both high-paying and lower-paying) for workers with those credentials.[4] Ratio values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and a value of one indicates perfect alignment between credential production and future occupational demand. Alongside the credentials-to-jobs ratio, we present the total annual number of credential shortages or surpluses in each area.

3. The sample sizes in the American Community Survey data we used for this analysis are too small to produce reliable results at the local level for smaller metro and non-metro areas.
4. The task of measuring credentials-to-jobs alignment relies on the program of study-to-occupation (CIP-SOC) crosswalk developed by the US Department of Labor's Bureau of Labor Statistics and the US Department of Education and involves a number of complications. Programs that prepare workers for high-paying middle-skills occupations also prepare them for some lower-paying middle-skills occupations; at the same time, several programs may prepare workers for any single occupation. Within each occupational group, our ratio accounts for this complexity by including (1) total credential production across all programs aligned with high-paying middle-skills occupations, and (2) the projected annual number of job openings available in all occupations (both high-paying and lower-paying) for workers with those credentials. The latter includes all of the job openings available in high-paying occupations but only some of the job openings available in lower-paying occupations, as other programs also prepare middle-skills workers for those jobs.

Our analysis generated six major findings:

1. Nearly all major metro areas will face a **severe shortage** of locally produced credentials aligned with high-paying middle-skills **blue-collar** occupations, as will the nation at large.

2. Most major metro areas will experience **moderate to severe shortages** of credentials aligned with high-paying middle-skills **management** occupations, although some major metro areas are producing far more of these credentials than are needed locally.

3. **Protective services** is the only occupational group in which **most major metro** areas will experience credential shortages but the rest of the country will not.

4. Most major metro areas **are producing enough** credentials aligned with high-paying middle-skills **STEM** occupations to fill projected local needs, although there is an expected shortage of these credentials nationwide.

5. **Healthcare** is the only occupational group with a projected **nationwide oversupply** of credentials that lead to high-paying middle-skills jobs.

6. To avoid local shortages, many providers would **need to more than double** the number of credentials they award in programs aligned with high-paying middle-skills occupations.

Finding 1: Nearly all major metro areas will face a **severe shortage** of locally produced credentials aligned with high-paying middle-skills **blue-collar** occupations, as will the nation at large.

The greatest nationwide shortage of workers prepared for high-paying middle-skills occupations will be in the blue-collar sector. Nationwide, if annual credential production in programs aligned with these occupations stays at current levels, the credential supply will meet only 13 percent of the projected annual demand through 2032.[5] As a result, the annual production of credentials aligned with high-paying blue-collar occupations will fall short of the annual labor-market demand by more than 360,000 credentials.

Fifty-two of the 55 largest metro areas in the country will face a shortage of these credentials, with a credentials-to-jobs ratio of less than 0.35 in three-quarters of major metro areas — meaning that current credential production in these metro areas meets less than 35 percent of the projected annual demand. These findings indicate that middle-skills providers need to produce more credentials aligned with high-paying blue-collar occupations in nearly every major metro area, with the greatest shortages relative to projected labor demand (i.e., the smallest credentials-to-jobs ratio values) in Washington, DC; Dallas, Texas; and Boston, Massachusetts.

5. Despite the facts that (1) three of the top five most in-demand high-paying blue-collar occupations for middle-skills workers are in first-line supervisory positions and (2) those jobs may be filled most often through promotion, there is still a severe shortage of credentials aligned with non-supervisory high-paying blue-collar occupations. Nationwide, if annual credential production in programs aligned with non-supervisory high-paying middle-skills blue-collar occupations stays at current levels, the credential supply will meet only 21 percent of the projected annual demand through 2032, resulting in a shortage of 80,000 credentials per year through 2032.

High-Paying Middle-Skills Occupations: **Blue-Collar**

The following high-paying blue-collar occupations will have the greatest demand for middle-skills workers through 2032:

1. First-line supervisors of construction trades and extraction workers
2. First-line supervisors of production and operating workers
3. First-line supervisors of mechanics, installers, and repairers
4. Industrial machinery mechanics
5. Operating engineers and other construction equipment operators

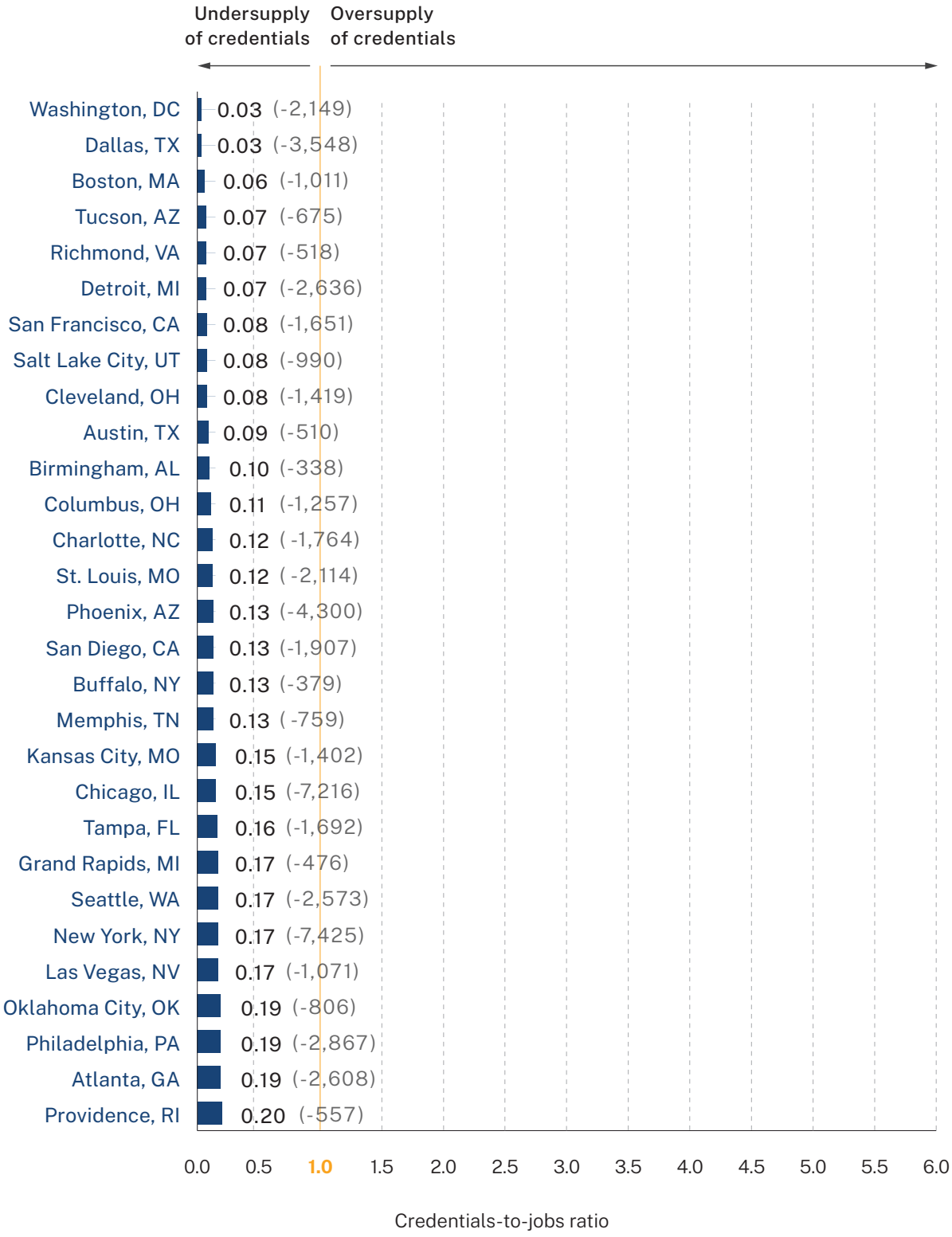
For a complete list of high-paying middle-skills blue-collar occupations, see our online data tool.

Three of the 55 largest metro areas in the country — Rochester, New York; Orlando, Florida; and San Jose, California — are expected to face a surplus of credentials aligned with high-paying blue-collar occupations.[6] Credential surpluses aren't always a problem, especially if local providers help address other areas' education and training needs or graduates from oversupplied programs can use their knowledge and skills to find a high-paying local job in a different field. However, credential overproduction becomes problematic when graduates aim to work locally and acquire occupation-specific training that isn't easily transferable to other professions (**Figure 1**).

6. In many cases highlighted in this data brief, large relative credential surpluses (as measured by the credentials-to-jobs ratio) correspond to low absolute surpluses (as measured by the number of excess credentials produced). In some cases, this phenomenon is due to very low projected demand. For instance, in Rochester, New York, employers are projected to create only six jobs annually through 2032 for workers trained in programs that align with high-paying blue-collar middle-skills occupations, while local providers annually produce 33 credentials that could qualify workers for these jobs. In this case, producing just 27 more credentials than needed represents 5.5 times more credentials supplied relative to local projected demand. Thus, credentials-to-jobs ratio values greatly exceeding one indicate very large credential surpluses in a relative sense but not necessarily in an absolute sense.

Figure 1

Middle-skills providers are producing far fewer credentials aligned with high-paying middle-skills blue-collar occupations than are needed in almost all major metro areas, with Washington, DC; Dallas, Texas; and Boston, Massachusetts, facing the most severe shortages relative to projected labor demand.



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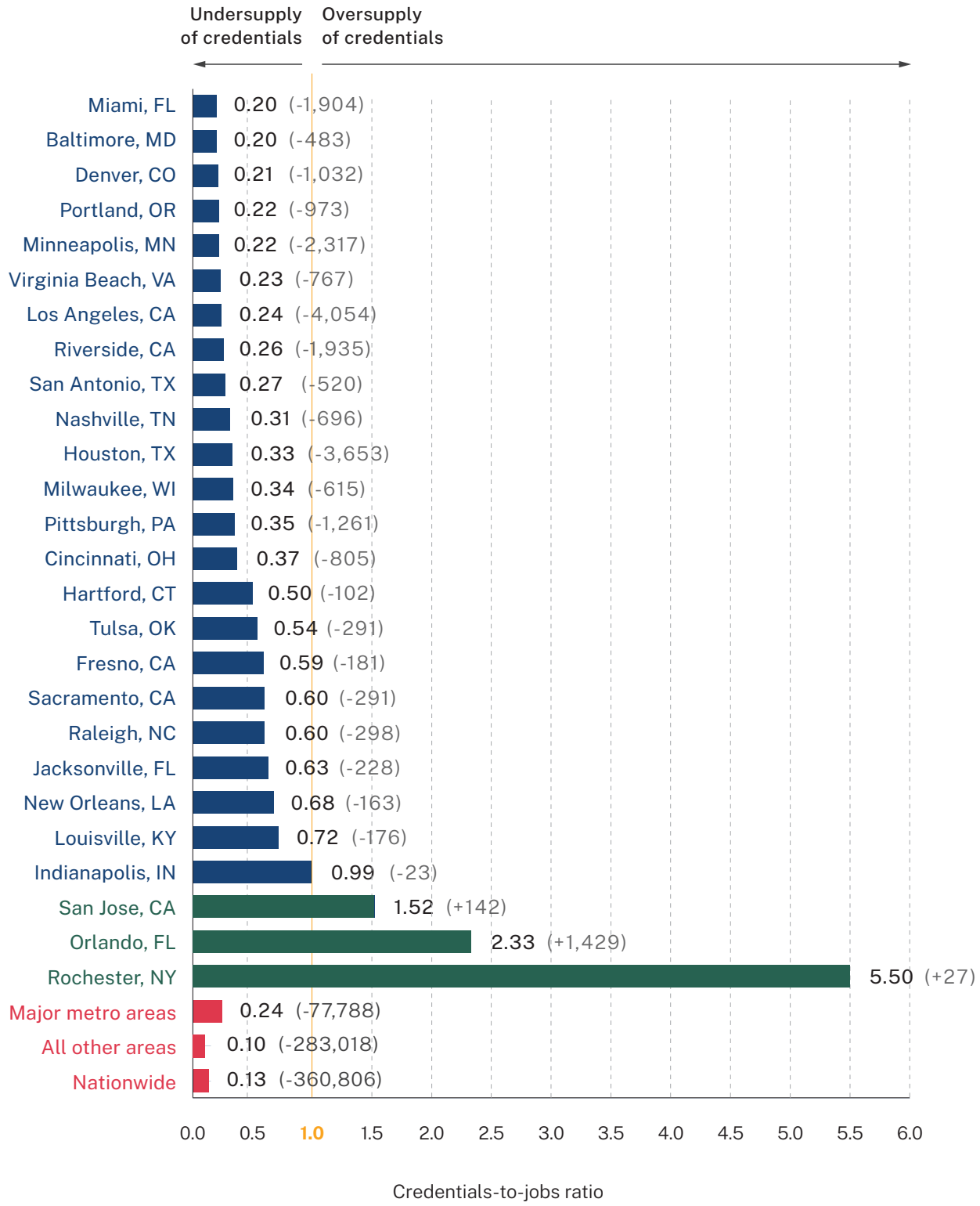


Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

Note: Credentials-to-jobs ratio values are reported in black. This ratio compares each area's annual number of credentials produced that align with high-paying middle-skills occupations to the projected annual number of job openings available in all occupations for workers with those credentials through 2032. Ratio values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and values equal to one indicate perfect alignment between credential production and future occupational demand. The numbers in parentheses report the total annual number of credentials undersupplied (negative numbers) or oversupplied (positive numbers) in each area.

Finding 2: Most major metro areas will experience **moderate to severe shortages** of credentials aligned with high-paying middle-skills **management** occupations, although some major metro areas are producing far more of these credentials than are needed locally.

Nationwide, if annual credential production in programs aligned with high-paying middle-skills management occupations stays at current levels, the credential supply will meet only 50 percent of the projected annual demand through 2032. This undersupply will result in an annual projected shortage of more than 250,000 credentials.

It's tempting to think that this credential shortage may be overstated, since managers often rise to their roles through internal promotion rather than through immediate hiring from aligned programs. But while workers often need experience to land a management job, they also need field-specific knowledge and skills that they gain through formal education or training. The undersupply of credentials in programs aligned with management occupations may indicate that the pipeline from entry-level work into management roles is not large enough. Unless employers are willing to relax their education requirements and expand the pipeline, they will likely face a shortage of qualified managers.[7]

7. In fact, evidence suggests that management occupations are experiencing among the greatest shortages of all occupations in the US economy. Our findings provide suggestive evidence that credential shortages in aligned programs are contributing to these occupational shortages. Milliken et al., *Help Wanted,* 2023.

High-Paying Middle-Skills Occupations: **Management**

The following high-paying management occupations will have the greatest demand for middle-skills workers through 2032:

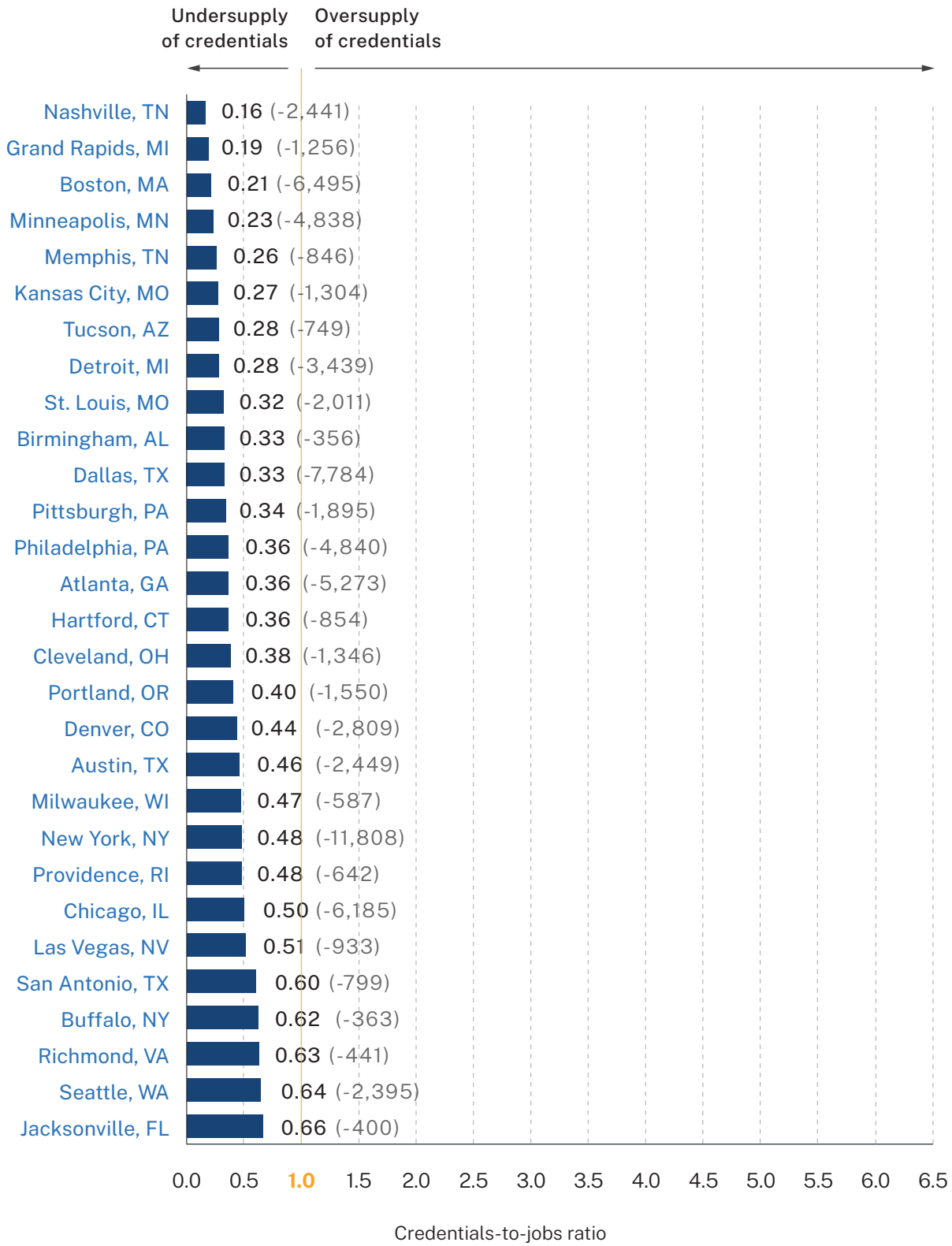
1. General and operations managers
2. Management analysts
3. Project management specialists
4. Computer and information systems managers
5. Sales managers

For a complete list of high-paying middle-skills management occupations, see our online data tool.

Among the 55 largest US metro areas, 39 will face a credential shortage in high-paying middle-skills management occupations, with Nashville, Tennessee, expected to have the greatest local undersupply relative to project labor demand (**Figure 2**). In the remaining 16 major metro areas, credential production is expected to exceed local demand. Thus, expanding credential production in these 16 metro areas may not benefit local employers or the middle-skills workforce, but doing so could help address the nationwide shortage of credentials aligned with high-paying middle-skills management occupations.

Figure 2

Nashville, Tennessee, will face the most severe local credential shortage in programs aligned with high-paying middle-skills management occupations relative to projected labor demand.



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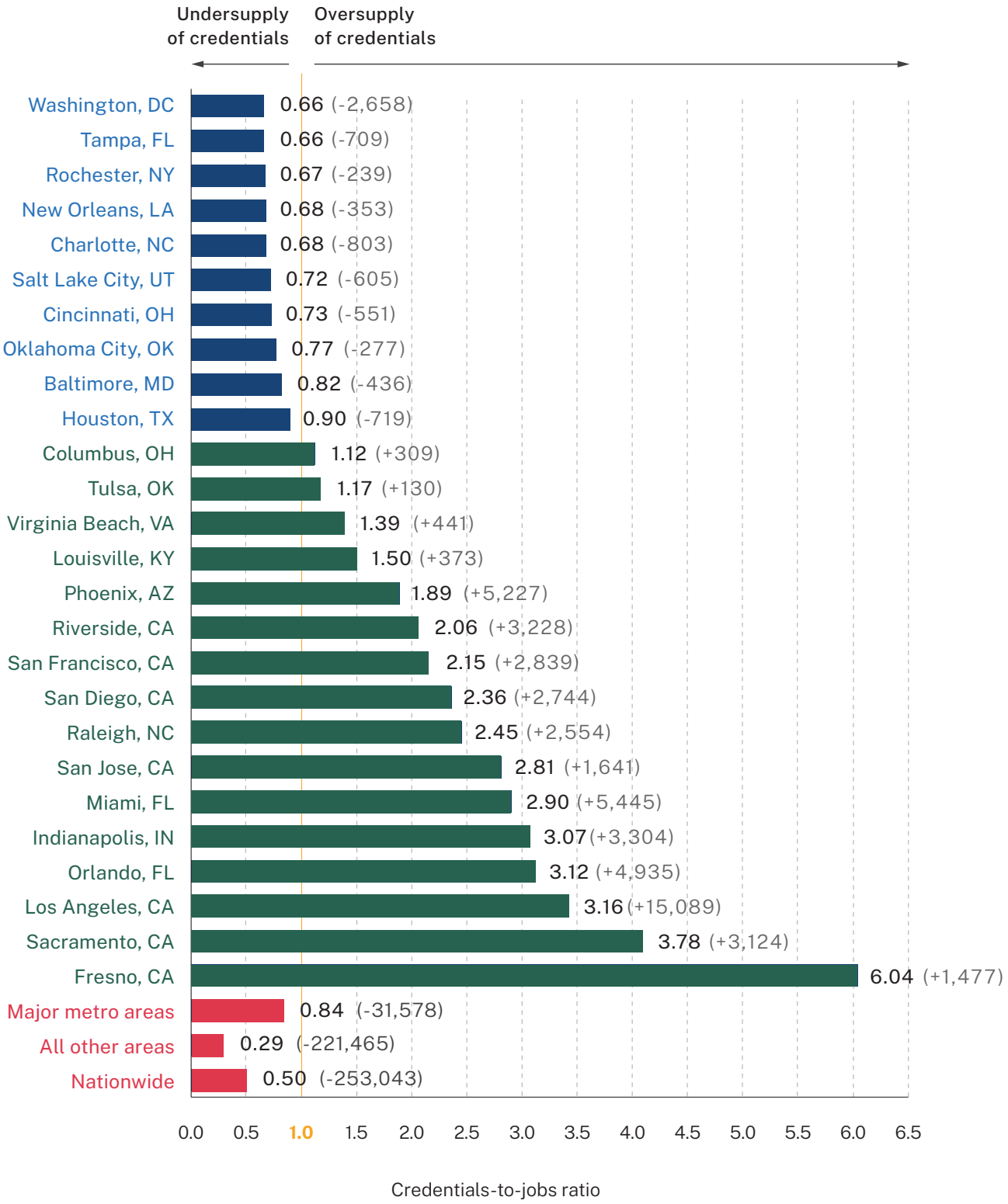


Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

Note: Credentials-to-jobs ratio values are reported in black. This ratio compares each area's annual number of credentials produced that align with high-paying middle-skills occupations to the projected annual number of job openings available in all occupations for workers with those credentials through 2032. Ratio values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and values equal to one indicate perfect alignment between credential production and future occupational demand. The numbers in parentheses report the total annual number of credentials undersupplied (negative numbers) or oversupplied (positive numbers) in each area.

Finding 3: **Protective services** is the only occupational group for which **most major metro areas** will experience credential shortages but the rest of the country will not.

Nationwide, current credential production in programs aligned with high-paying middle-skills protective services occupations is expected to meet 86 percent of the demand for workers through 2032, and most major metro areas will experience a credential shortage. Thirty-nine of the 55 largest metro areas will face a shortage of credentials aligned with high-paying middle-skills protective services occupations, with Portland, Oregon; Seattle, Washington; and Pittsburgh, Pennsylvania, experiencing the most severe undersupply relative to projected labor demand (**Figure 3**).

The protective services occupational group is the only group of high-paying middle-skills occupations for which we project an undersupply of middle-skills workers only in major metro areas (resulting in a total annual projected shortage of nearly 15,000 credentials

High-Paying Middle-Skills Occupations: **Protective Services**

The following high-paying protective services occupations will have the greatest demand for middle-skills workers through 2032:

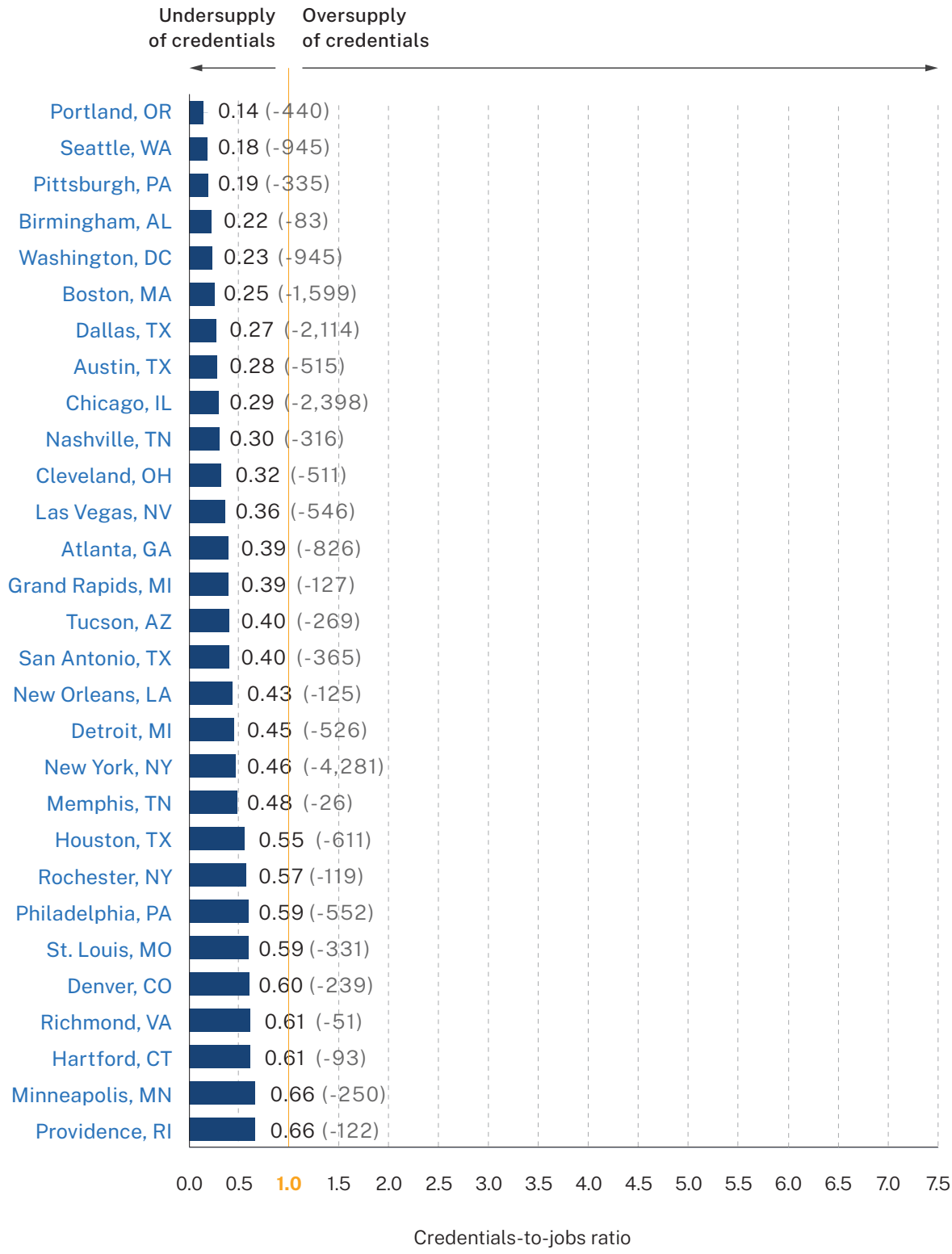
1. Police and sheriff's patrol officers
2. Firefighters
3. First-line supervisors of police and detectives
4. Detectives and criminal investigators
5. Transit and railroad police

For a complete list of high-paying middle-skills protective services occupations, see our online data tool.

across all 55 metro areas). In all other areas of the country, we anticipate that credential production will roughly match the demand for workers with these credentials. The concentration of shortages in major metro areas suggests that it will be harder to fill protective services jobs in large urban areas than in smaller cities or rural areas, perhaps because these jobs have unique characteristics in urban areas and urban economies may offer more attractive alternatives for middle-skills workers.

Figure 3

Portland, Oregon, will experience the greatest undersupply of locally produced credentials aligned with high-paying middle-skills occupations in protective services relative to projected labor demand.



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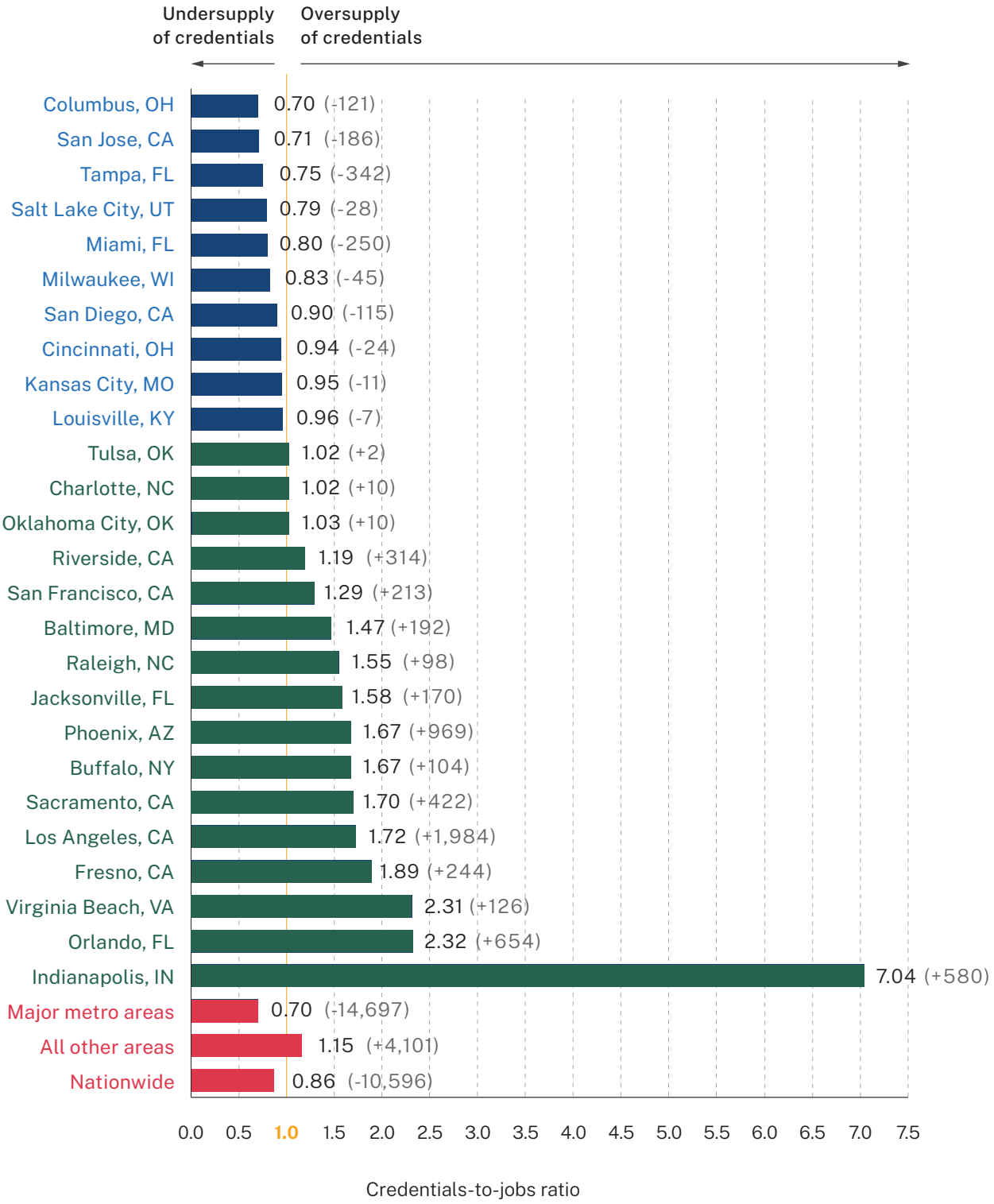

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Finding 4: Most major metro areas **are producing enough** credentials aligned with high-paying middle-skills **STEM** occupations to fill projected local needs, although there is an expected shortage of these credentials nationwide.

In 40 of the 55 major metro areas, the production of credentials aligned with high-paying middle-skills science, technology, engineering, and mathematics (STEM) occupations exceeds the projected number of job openings for workers with these credentials. However, such overproduction is not the norm nationwide: across the country, middle-skills providers are producing too few graduates prepared for these occupations, with the current supply of credentials nationwide meeting only 60 percent of the projected demand. Thus, annual credential production in programs aligned with high-paying middle-skills STEM occupations is projected to fall short of annual demand by more than 87,000 nationwide.

While the production of middle-skills credentials aligned with high-paying STEM occupations exceeds projected demand by 23 percent in major metro areas overall, some of the largest STEM hubs in the country — including Boston, Massachusetts; New York, New York; and Washington, DC — will face credential shortages in programs aligned with high-paying middle-skills

High-Paying Middle-Skills Occupations: **STEM**

The following high-paying STEM occupations will have the greatest demand for middle-skills workers through 2032:

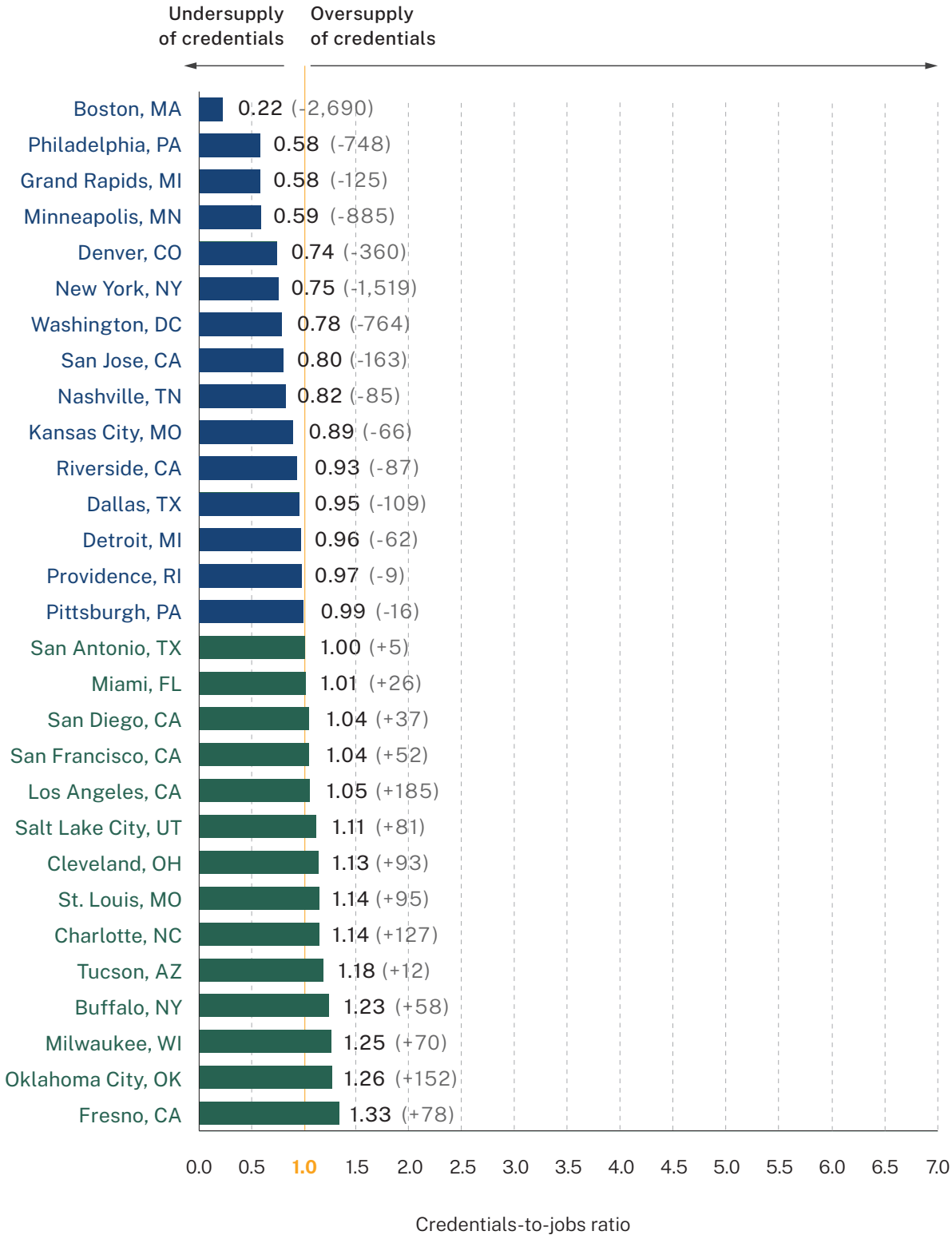
1. Software developers
2. Computer systems analysts
3. Industrial engineers
4. Civil engineers
5. Network and computer systems administrators

For a complete list of high-paying middle-skills STEM occupations, see our online data tool.

STEM jobs. This underproduction in some of the largest STEM hubs, as well as the fact that smaller metro areas and rural areas will produce only 37 percent of the credentials needed locally, explains why there is a nationwide credential shortage (**Figure 4**). The extra credentials produced in many major metro areas may help fill jobs in smaller cities and rural areas, but more credential production is still needed — especially in less populated areas — to meet the nationwide demand for workers trained in programs that provide a pathway to high-paying middle-skills STEM occupations.

Figure 4

While most major metro areas have an oversupply of STEM credentials aligned with high-paying middle-skills occupations relative to the projected number of local job openings for workers with these credentials, this oversupply is not enough to offset the credential shortage nationwide.



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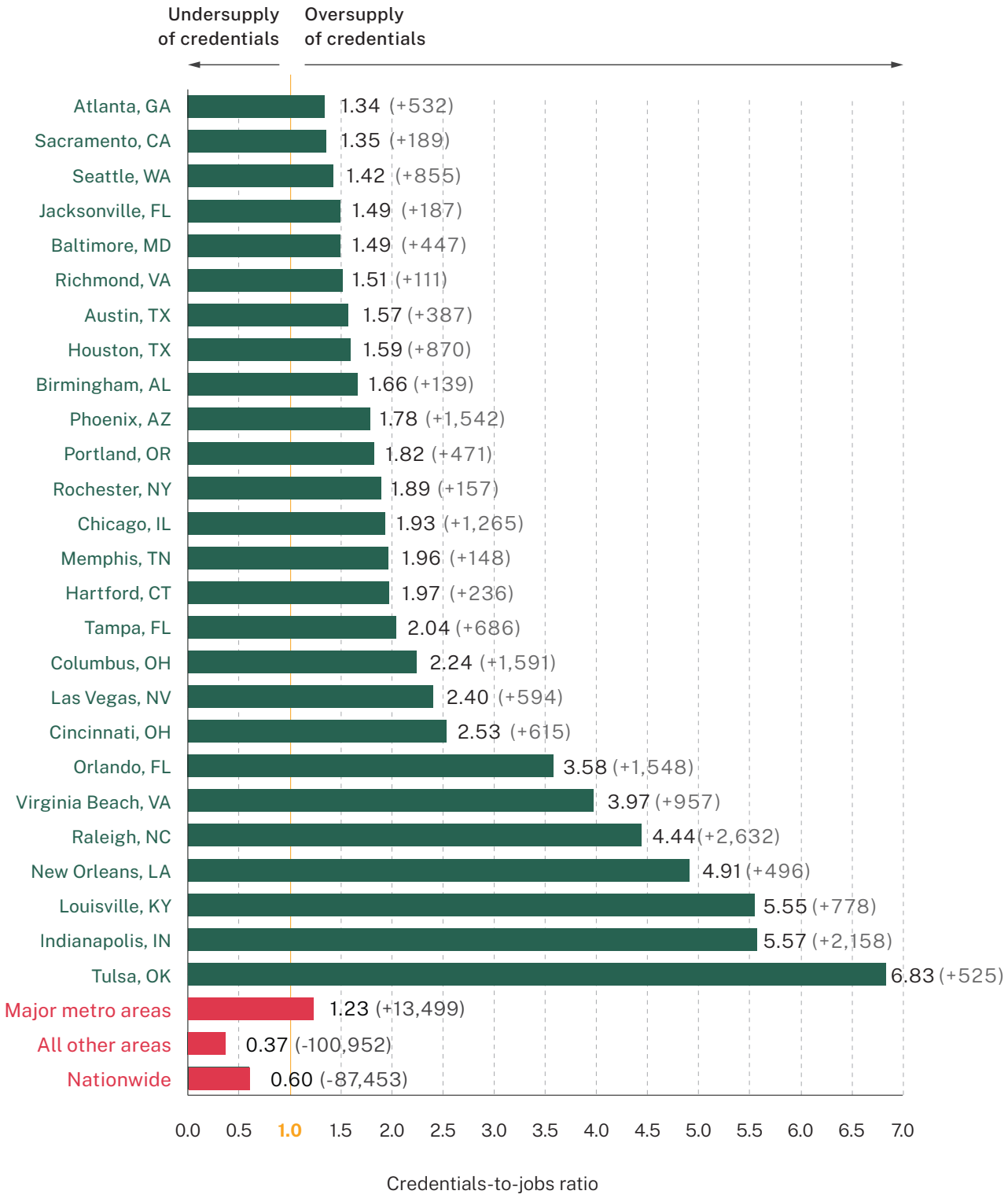

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Finding 5: Healthcare is the only occupational group with a projected nationwide oversupply of credentials aligned with high-paying middle-skills jobs.

Nationwide, the annual supply of credentials aligned with high-paying middle-skills healthcare occupations exceeds the projected annual demand for workers with these credentials by 77 percent, or more than 59,000 credentials annually. This surplus is, in part, a consequence of employers increasingly hiring applicants with a bachelor's degree or higher for high-paying healthcare jobs that have historically been available to middle-skills workers: between 2010 and 2022, the proportion of workers with middle-skills education in these healthcare jobs decreased from 46 percent to 25 percent.[8,9] If this trend continues, middle-skills workers will make up only 10 percent of the workforce in these occupations by 2032.[10] We find that only one of the 55 largest metro areas — Philadelphia, Pennsylvania — has an annual projected shortage that exceeds 50 credentials in programs aligned with high-paying middle-skills healthcare occupations (**Figure 5**).[11]

8. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2010–22.
9. Employment trends for registered nurses (RNs) are a major driver of this trend. Seventy-two percent of the RN workforce held a bachelor's degree or higher in 2022, largely because most employers (72 percent) prefer to hire workers with a bachelor's degree, even though a much smaller proportion of employers (28 percent) require new hires to have a bachelor's degree. American Association of Colleges of Nursing, "Nursing Workforce Fact Sheet," 2024.
10. However, if current hiring trends do not persist and middle-skills workers instead maintain their current representation in high-paying middle-skills healthcare occupations (25 percent), then 12 metro areas would experience a credential shortage: Boston, Massachusetts; Detroit, Michigan; Grand Rapids, Michigan; Kansas City, Missouri; Minneapolis, Minnesota; Philadelphia, Pennsylvania; Portland, Oregon; Raleigh, North Carolina; Rochester, New York; Sacramento, California; San Jose, California; and Washington, DC.
11. In Philadelphia, the credentials-to-jobs ratio is 0.65 and the current annual number of credentials produced falls short of projected annual demand by 590 credentials.

High-Paying Middle-Skills Occupations: **Healthcare**

The following high-paying healthcare occupations will have the greatest demand for middle-skills workers through 2032:

1. Registered nurses
2. Radiologic technologists and technicians
3. Respiratory therapists
4. Diagnostic medical sonographers
5. Paramedics

For a complete list of high-paying middle-skills healthcare occupations, see our online data tool.

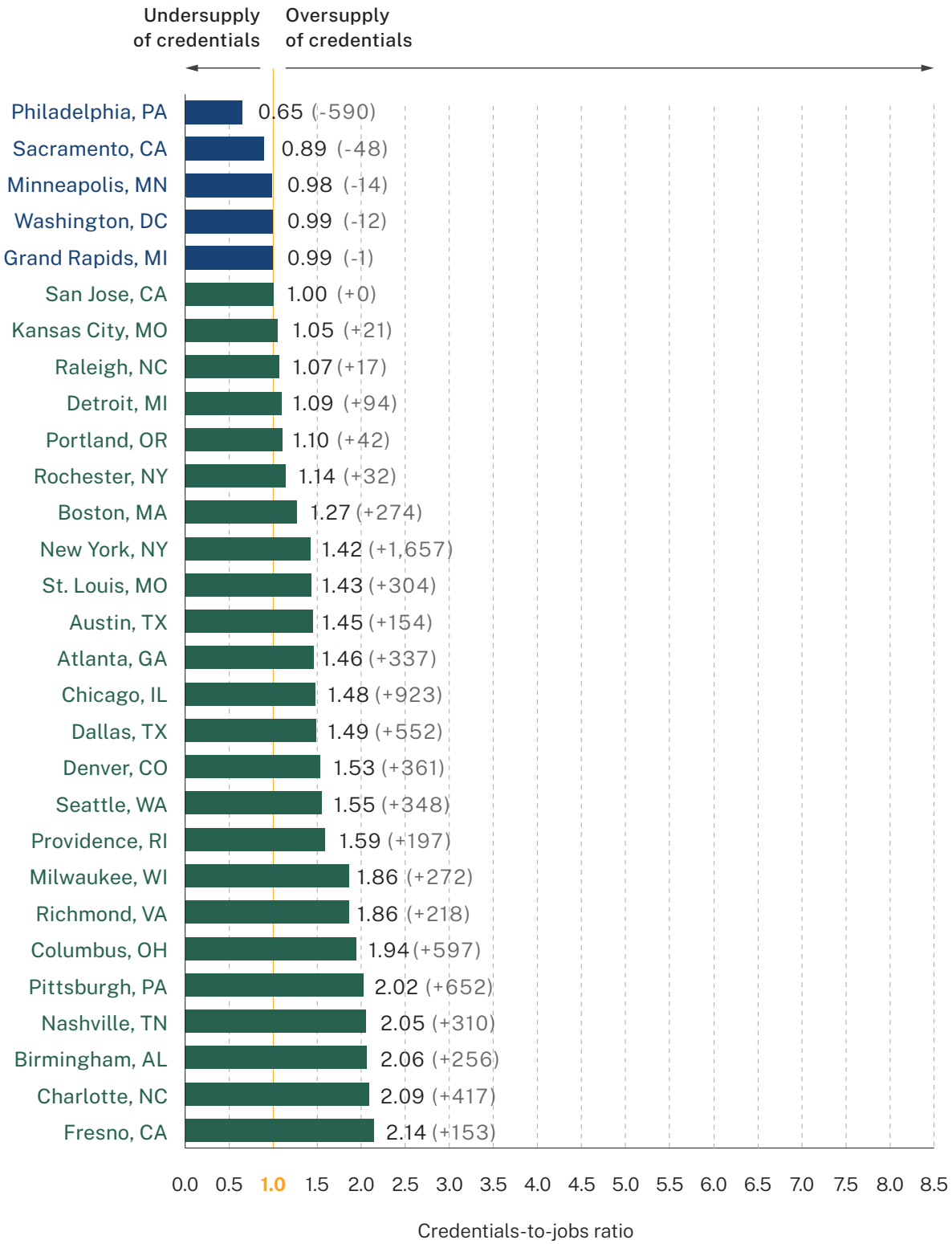
That being said, the projected surplus of middle-skills workers whose credentials align with high-paying healthcare occupations conceals overall projected labor shortages in the healthcare workforce over the next several years.[12] For example, researchers have forecast "significant" shortages in the registered nursing workforce based on the anticipated needs of an aging population.[13]

These shortages may prompt employers to suspend or reverse the trend toward hiring workers with bachelor's degrees, thereby opening up more opportunities for middle-skills workers. Middle-skills education and training providers can make the case that their graduates are prepared to help address these needs.

12. US Department of Health and Human Services, "Workforce Projections."
13. Juraschek et al., "United States Registered Nurse Workforce," 2019.

Figure 5

Providers nationwide are producing enough (and often more than enough) credentials in programs aligned with high-paying middle-skills healthcare occupations.



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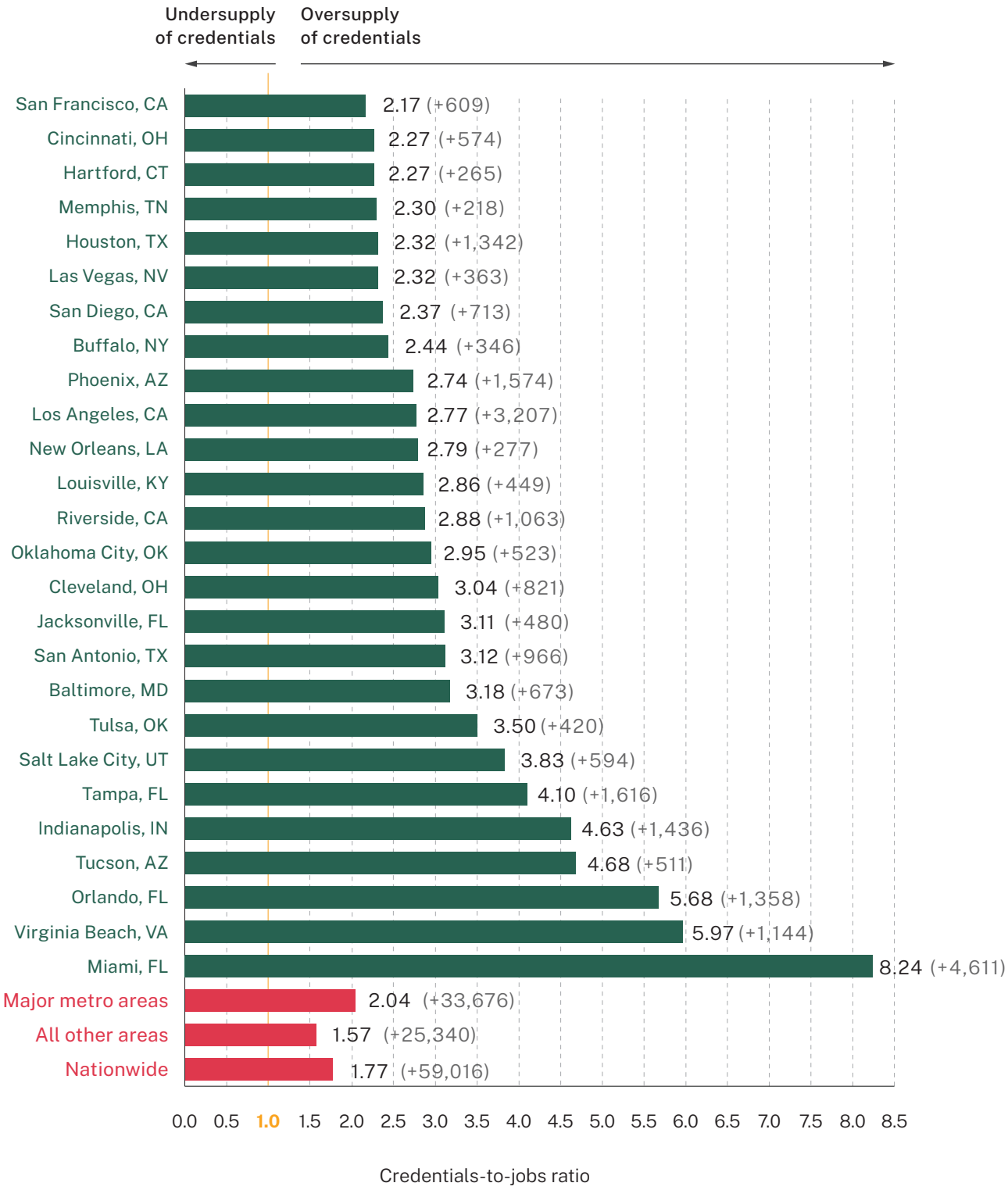

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Note: Credentials-to-jobs ratio values are reported in black. This ratio compares each area's annual number of credentials produced that align with high-paying middle-skills occupations to the projected annual number of job openings available in all occupations for workers with those credentials through 2032. Ratio values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and values equal to one indicate perfect alignment between credential production and future occupational demand. The numbers in parentheses report the total annual number of credentials undersupplied (negative numbers) or oversupplied (positive numbers) in each area.

Finding 6: To avoid local shortages, many providers would **need to more than double** the number of credentials they award in programs aligned with high-paying middle-skills occupations.

Not all metro areas will face credential shortages in programs aligned with high-paying middle-skills occupations. However, where shortages exist, they tend to be substantial. Consequently, in metro areas that will experience shortages, most providers would need to dramatically expand their credential production to fill all of the job openings available to middle-skills workers with credentials aligned with those occupations.

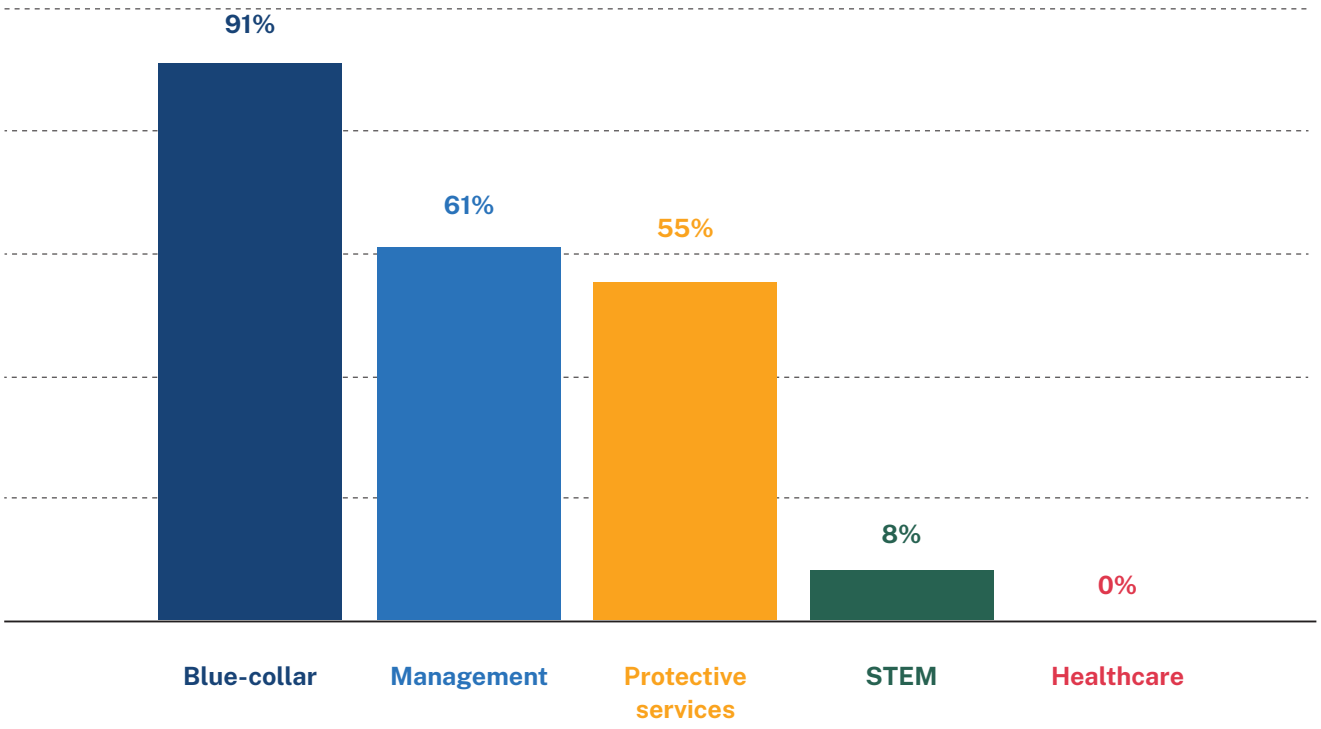
For example, 343 providers award credentials in programs aligned with high-paying middle-skills blue-collar occupations across the 52 major metro areas that will experience credential shortages in those programs.[14] Among these 343 providers, 311 (91 percent) would need to more than double their credential production in those programs to avoid the shortage in the local labor market.[15] Likewise, more than half of providers in metro areas that will experience credential shortages in programs aligned with high-paying middle-skills management and protective services occupations would need to more than double their credential production in those programs to fill the projected number of local job openings for workers with these credentials (**Figure 6**).

14. In total, our analysis included 1,194 middle-skills providers across all 55 metro areas.
15. To estimate how much each provider would need to increase its annual credential production to collectively avoid the metro area's credential shortage, we assumed each provider would expand production in proportion to its current production share of credentials aligned with high-paying middle-skills occupations in the metro area.

Figure 6

More than half of providers in major metro areas that will face credential shortages in programs aligned with high-paying middle-skills blue-collar, management, and protective services occupations would need to more than double their credential production in those programs to meet local demand.

Percentage of middle-skills providers in metro areas experiencing a credential shortage that would need to more than double credential production to meet projected local demand



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

Note: STEM = science, technology, engineering, and mathematics.

Conclusion

These findings underscore the need for many middle-skills providers to substantially expand their program capacity to prepare workers for jobs in high-paying fields. This expansion can occur in several ways, all of which should be pursued. First, middle-skills providers need to recruit more individuals without a college degree to attend their institutions. Second, high schools and institutions that grant middle-skills credentials need to offer better career counseling to future and current enrollees, as students are ultimately responsible for choosing their program of study and too often choose one without fully understanding the financial consequences.[16] Third, employers need to work with institutions to provide more work-based learning opportunities in programs that lead to occupations facing anticipated shortages, especially those that require work-based learning as preparation for employment following program completion. Thus, expanding capacity in programs aligned with high-paying fields requires investments that simultaneously increase the overall number of middle-skills students, direct more students toward programs aligned with high-paying middle-skills jobs, and ensure that students have the experiential learning they need to prepare for these jobs.

However, even with these investments, current providers will likely struggle to fully address credential shortages in many metro areas. Unmet demand far exceeds most providers' existing credential production in undersupplied labor markets, and capacity constraints likely limit how much each provider can expand its program offerings. Ultimately, we believe that more providers will need to enter the market to eliminate credential shortages in many of the largest US metro areas.

Visit our online data tool to investigate how much each middle-skills provider in the 55 largest metro areas would need to increase credential production in programs aligned with high-paying middle-skills occupations to avoid labor shortages.

16. Baker et al., "The Effect of Labor Market Information," 2018.

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Errata

This version of *Missed Opportunities* reflects corrections to the publication's figures as specified in the table below.

Page	*Original*	*Corrected*
16 (Figure 3, line 2): credential shortages for Seattle, WA	-331	-945
16 (Figure 3, line 20): credential shortages for Memphis, TN	-515	-26
16 (Figure 3, line 24): metro area name	Seattle, WA	St. Louis, MO
16 (Figure 3, line 24): credential shortages for St. Louis, MO	-945	-331
21 (Figure 4 continued, line 3): metro area name	San Jose, CA	Seattle, WA
24 (Figure 5, line 6): credential surpluses for San Jose, CA	348	0
24 (Figure 5, line 20): metro area name	San Jose, CA	Seattle, WA

Missed Opportunities: Credential Shortages in Programs Aligned with High-Paying Middle-Skills Jobs in 55 US Metro Areas
can be accessed online at
cew.georgetown.edu/high-paying-middle-skills

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