

OPPORTUNITY INDUSTRIES

*Exploring the industries that concentrate good
and promising jobs in metropolitan America*



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TABLE OF CONTENTS

Introduction	4
Defining Opportunity Industries	6
Findings	8
1. Promising career pathways depend on the availability of good jobs	8
2. Opportunity Industries concentrate good jobs for workers without college degrees	13
3. Metropolitan areas contain different concentrations of good and promising jobs	16
Conclusion	21
References	23
Endnotes	24
Acknowledgments	26



INTRODUCTION

In recent decades, technological change and the global integration it enables have been rapidly reshaping the U.S. economy. Digitalization, automation, and expanding global trade have vastly improved the potential of some individuals and firms to thrive but have diminished prospects for others. New technologies and trade shocks have claimed scores of decent-paying jobs and rendered certain skills obsolete, altering the pathways available to those individuals striving to reach or maintain their place in the American middle class.

Although this process of economic progress is not new, the accelerating pace at which technology and trade are changing work and society makes it harder for many individuals, institutions, and communities to adapt, contributing to growing disparities between both people and places.

As the labor market continues to tilt toward more advanced and select sets of skills, how and where will individuals find durable sources of good jobs? Experts have devoted increasing attention to this question at the national level. However, relatively little research explores pathways to labor market opportunity in individual metropolitan areas, the relevant economic context for most American workers and jobseekers.

Moreover, the debate about how best to promote upward mobility often begins and ends with a focus on education and skills. If workers can just obtain more education and job-specific training, the argument goes, they will become more productive, more resilient to economic change, and better able to earn higher wages. And there is no shortage of evidence demonstrating a clear link in the United States between educational attainment and income. Yet there remain tens of millions of adults who are already part of the American workforce, and whose work schedule, family obligations, or financial situation preclude them from investing significantly in further education and training. These workers deserve a shot over time at obtaining better jobs, with higher pay and benefits.

This report asserts that the structure of regional economies—in particular, the kinds of occupations and industries present and the relationships among them—can influence outcomes for these workers. It identifies and explores a concept we call “Opportunity Industries.” These are the sectors of the economy that, based on a first-of-its-kind analysis of workers’ experiences over time, appear to offer the best chances for individuals—particularly those without four-year college degrees—to obtain a “good job,” one that provides stable middle-class wages and benefits. We examine the presence of these jobs and industries within the nation’s 100 largest metropolitan areas, and how pathways to those jobs—including through “promising jobs” that represent stepping stones to good jobs over time—may differ for workers by race, gender, and educational attainment.

This report proceeds by first describing the definitions used to identify good and promising jobs and the opportunity industries that contain them. The report analyzes in turn: (a) the occupations accessible to sub-baccalaureate workers that contain good and promising jobs, and how workers tend to access them over time; (b) the characteristics of industries that tend

to concentrate those occupations; and (c) the availability of good and promising jobs across major metropolitan areas. Detailed information on each metropolitan area is available in an accompanying web-based interactive tool. The report concludes by suggesting how local actors in business, economic development, and workforce development can use this information and insight to sustain and expand labor market opportunity in their communities. Forthcoming case studies of the metropolitan regions of Central Indiana and California’s Inland Empire showcase how the insights and solutions this analysis supports also vary according to the economy, workforce, and political landscape of different places.

Overall, the findings of this report should inspire cautious optimism about the future of labor market opportunity in metropolitan America. Although we find a shortage of opportunity across metropolitan areas, the dynamism necessary for adapting to this period of accelerating economic change is already a fundamental part of how local labor markets function. The challenge for local leaders is to harness this dynamism by growing and improving jobs in opportunity industries that encourage, rather than inhibit, upward mobility.





DEFINING OPPORTUNITY INDUSTRIES

Leaders in metropolitan areas—elected officials, presidents of colleges and universities, CEOs of local businesses, heads of major nonprofits and philanthropies—are focused on how they can promote opportunity for more individuals and families in their communities. And for good reason, as economic growth over the past several years has not consistently translated into improved outcomes for all residents. According to Brookings’s latest Metro Monitor, only 11 of the nation’s 100 largest metro areas managed to simultaneously grow their economy, improve standards of living, and deliver increased employment opportunity and earnings for a broad segment of their populations in 2016.¹

Metro areas are a critical geography for achieving inclusive economic growth. They represent the local labor markets in which most Americans live and work. Moreover, U.S. adults who do not possess a four-year college degree—many of whom have struggled to achieve and maintain a foothold in the American middle class in recent years—rely chiefly on their local labor markets to provide opportunities to gain knowledge and experience as they work their way toward better-paying jobs and, hopefully, economic security.²

Accordingly, this analysis aims to reveal both where individuals, especially those without four-

year college degrees (whom we refer to as sub-baccalaureate workers), can find good jobs that provide economic security, and how individuals can navigate local labor markets to obtain these good jobs. To do this, we define and measure three types of wage and salary jobs in each of the nation’s 100 largest metropolitan areas:³

- **Good jobs pay at least a metropolitan area’s median annual earnings for full-time, year-round sub-baccalaureate workers and provide employer-sponsored health insurance.**⁴ Setting the pay threshold in this way ensures that it reflects variations in pay

and costs of living across metropolitan areas.⁵ This threshold ranges from a low of \$13.78 an hour, or about \$28,660 per year, in the McAllen, Texas metropolitan area to a high of \$22.46 per hour, or about \$46,710 per year, in the San Francisco, Calif. metropolitan area.⁶ Employer-sponsored health insurance serves as a proxy for the availability of other benefits, such as paid leave and retirement benefits.

- **Promising jobs are entry-level positions that provide career pathways to good jobs.** Promising jobs do not meet the criteria for a good job but, based on an analysis of historical job-switching patterns and projections, will enable an incumbent worker to reach a good job within 10 years. We use a first-of-its-kind analysis of past occupational mobility trends to estimate how workers will move—or not move—between occupations over the next 10 years, based on projected job openings and demographics of incumbent workers in each metropolitan area.⁷
- **Other jobs are those that do not meet the criteria of either good jobs or promising jobs.** Other jobs fail to meet at least one of the criteria of good jobs, meaning they do not provide adequate pay and/or do not provide employer-sponsored health insurance, nor do they offer incumbent workers reliable career pathways to a good job within 10 years. Although other jobs are a vital source of work and income for the people who hold them, their low pay and lack of benefits to better jobs would leave many working families without sufficient resources to meet all their basic needs and without a viable pathway to a more economically secure future.

We further differentiate good and promising jobs by the typical educational attainment (with and without a four-year college degree) of the people who hold those jobs. For instance, “good jobs held by sub-baccalaureate workers” refers

to jobs that are: (a) occupied by individuals who do not hold a four-year college degree; and (b) meet the earnings and benefits criteria noted above. This report focuses on the types of good and promising jobs held by sub-baccalaureate workers, who face shrinking opportunities in many labor markets. However, it also presents data on jobs held by people who have at least a bachelor’s degree, since these workers and the industries in which they are concentrated help support opportunity and prosperity for all people in metropolitan economies.

This analysis estimates the share of jobs that qualify as good, promising, or other jobs in each occupation and “maps” them to industries. Jobs in each occupation are labeled good, promising, or other based on the probability that they meet the criteria for each category given local economic dynamics, jobholders’ demographic characteristics, and their educational attainment. This approach thus estimates what share of jobs in each of more than 800 occupations (defined by the Standard Occupation Classification (SOC) system) fall into each category of job quality.⁸ We then tie these occupational job quality metrics to industries (defined by the North American Industrial Classification System (NAICS)) using detailed data on the staffing patterns of each metro area’s industries.⁹

This report presents high-level findings on the opportunity industries and occupations that concentrate good and promising jobs across the nation’s 100 largest metropolitan areas. These findings reveal considerable variation in the share of jobs that qualify as good or promising across occupations, industries, and metropolitan areas. More detailed data and findings on individual metropolitan areas and their industries, occupations, and workers are can be explored and downloaded from a web-based interactive tool. More details about the data and methods used to drive these findings are available in an accompanying technical appendix.



FINDINGS

1. Promising career pathways depend on the availability of good jobs

Although we hear a lot about their disappearance due to trade and technology, “good jobs” are important features of nearly all U.S. metropolitan labor markets. By identifying the occupations that concentrate those jobs, as well as those that provide viable pathways to good jobs, local leaders can help more workers without college degrees get a leg up in the labor market.

OCCUPATIONS THAT REQUIRE SPECIALIZED SKILLS CONCENTRATE GOOD JOBS FOR WORKERS WITHOUT COLLEGE DEGREES

Altogether, the nation’s 100 largest metropolitan areas provided 11.4 million good jobs held by sub-baccalaureate workers in 2017, accounting for 11 percent of all jobs in large metro areas. Another 9.4 million jobs, or 9 percent of all jobs, were promising jobs held by sub-baccalaureate workers.

However, with more than 38 million prime-aged sub-baccalaureate workers, the nation’s large metro areas do not provide nearly enough good

and promising jobs for all of them.¹⁰ Only 20 percent of sub-baccalaureate workers currently hold a good job, while another 13 percent hold a promising one. To be sure, not all of these workers could hold good jobs, since the definition of good jobs implies that half of all full-time, year-round sub-baccalaureate workers in the metropolitan area earn less than the threshold. Yet there is scope for increasing that share, as well as the representation of these workers in jobs that facilitate more pathways to higher earnings in the future.

Most good jobs and promising jobs held by sub-baccalaureate workers are concentrated in occupations that themselves contain high shares of good and promising jobs. Yet these good and promising jobs are typically not found in the same occupations.

- **Maintenance, construction, production, and transportation occupations account for a disproportionate share of both good and promising jobs for sub-baccalaureate workers.** These traditionally “blue-collar” occupations together account for 19 percent of jobs in large metro areas, but 44 percent of good jobs and 25 percent of promising jobs held by sub-baccalaureate workers.

These occupations also contain among the highest shares of good and promising jobs for these workers. For example, in maintenance occupations, 42 percent of jobs are good jobs held by sub-baccalaureate workers, on average, and another 10 percent are promising. In production occupations, which are found mostly in manufacturing industries, 22 percent of jobs are good, and 13 percent are promising for sub-baccalaureate workers. In transportation occupations, which include forklift drivers, package and luggage handlers, and truck drivers, 15 percent of jobs are good, and 14 percent are promising.

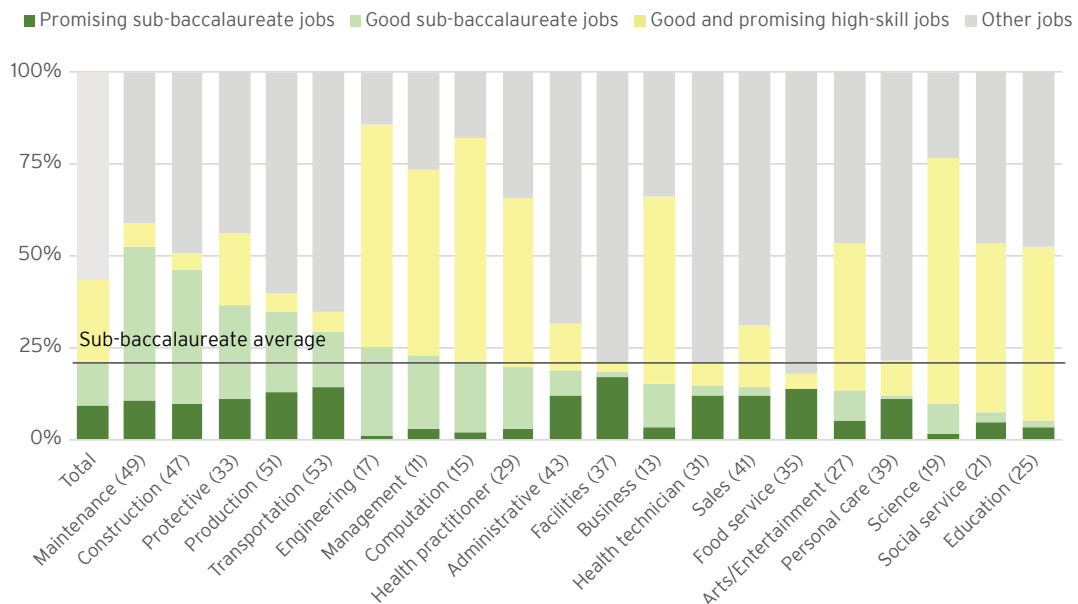
- **Management, business, computer, and engineering occupations also contain a disproportionate share of good jobs held by sub-baccalaureate workers but provide few promising jobs.** Together, occupations under these major categories account for 16 percent of all jobs in large metro areas, and 25 percent

of good jobs held by sub-baccalaureate workers. However, these occupations represent only 4 percent of promising jobs held by sub-baccalaureate workers. In these “white-collar” occupations, large shares of jobs are actually held by sub-baccalaureate workers. Good jobs held by sub-baccalaureate workers represent 24 percent of jobs in engineering and architectural occupations, 20 percent in management occupations, 19 percent in computer and math occupations, and 12 percent in business operations occupations.

- **Likewise, health care practitioner and protective service occupations account for relatively large shares of good jobs held by sub-baccalaureate workers, but few promising ones.** Together these occupations account for 8 percent of jobs in large metro areas, but 14 percent of good jobs held by sub-baccalaureate workers. Like the other skilled professional occupations above, these

FIGURE 1

Concentration of good and promising jobs by major occupation group
2017



Note: Agriculture and legal occupations are excluded.

Source: Authors’ analysis of U.S. Census Bureau public-use microdata and EMSI estimates

occupations provide fewer promising jobs. Health practitioner occupations, such as nurses, therapists, and diagnostic technicians, provide significantly more good jobs for sub-baccalaureate workers than health support occupations, such as home health aides and nursing assistants. In protective services occupations, public sector jobs such as police and firefighters are typically good jobs, while private sector jobs such as security guards are typically not.

- **Many of the occupations that provide relatively few good jobs for sub-baccalaureate workers provide many more promising jobs.** Jobs in administrative, sales, and food-service occupations are among the most prevalent in metropolitan America, accounting for more than one out of every three jobs. These occupations provide few good jobs, but higher-than-average shares of promising jobs held by sub-baccalaureate workers. Together, they provide 47 percent of all promising jobs for sub-baccalaureate workers in large metro areas. Similarly, personal care occupations, such as child care workers, and facilities care occupations, such as groundskeepers and janitors, provide almost no good jobs but many promising ones.
- **In some occupations, the bulk of good and promising jobs are held by workers with a four-year college degree.** Large shares of jobs in the social service, education, arts, and science occupations are good or promising for high skill workers. These occupations provide few good or promising jobs for sub-baccalaureate workers. By contrast, although half or more of all positions in management, computer, and engineering are good or promising jobs held by high-skill workers, these fields also meet or exceed the average share of good and promising jobs held by sub-baccalaureate workers.

PEOPLE SWITCH CAREERS TO GET GOOD JOBS

Occupations that provide the best chances of obtaining a good job typically require specialized skills. Yet few people follow a specific career pathway to get one. Instead, most people who obtain a good job do so by switching from an unrelated occupation—especially people who do not have a four-year college degree.

Obtaining a good job often requires an occupational switch because good jobs are scarce and highly concentrated in a few types of occupations. Meanwhile, promising jobs are also highly concentrated, but often in different occupations. As a result, most promising career pathways to good jobs are “lattices” that run across occupations rather than “ladders” that exist within them.

- **Workers with less education are more likely to switch careers and depend more on career switching to get a good job.** Across the nation’s largest metro areas, more than 71 percent of workers who are projected to obtain a good job by 2027 will move from one major occupation group to another, representing a significant career switch. This is especially the case for workers without college degrees. Nearly 72 percent of workers with an associate degree will switch careers to get a good job, and more than 77 percent of workers with only a high school diploma will switch careers to get a good job.
- **Sub-baccalaureate workers are more likely to switch careers to get a good job in part because more of them start in occupations that provide few good jobs.** Less educated workers are more likely to begin their careers in food service, personal care, facilities care, and health care technician occupations where good jobs are scarce. In fact, more than 90 percent of sub-baccalaureate workers

who start in one of these four occupational categories will switch to a different occupational category in order to obtain a good job. Sub-baccalaureate workers who start from occupations that provide more good jobs or require more specialized training or experience, such as health care practitioners, protective service, construction, production, and science and engineering occupations, are far less likely to switch careers in order to obtain a good job.

- **Workers who make the most successful career switches move into jobs that are better paid but entail similar skill sets.** For example, nearly 33 percent of sub-baccalaureate workers who switch out of health care technician occupations switch into good jobs in health care practitioner occupations. About 39 percent of sub-baccalaureate workers who switch out of facilities care occupations switch into

construction, maintenance and repair, or production occupations. And sub-baccalaureate workers who switch from jobs in these better-paying occupational categories often switch into good jobs in management, business, or supervisory roles within other occupational categories that entail judgment, decision making, and communication.

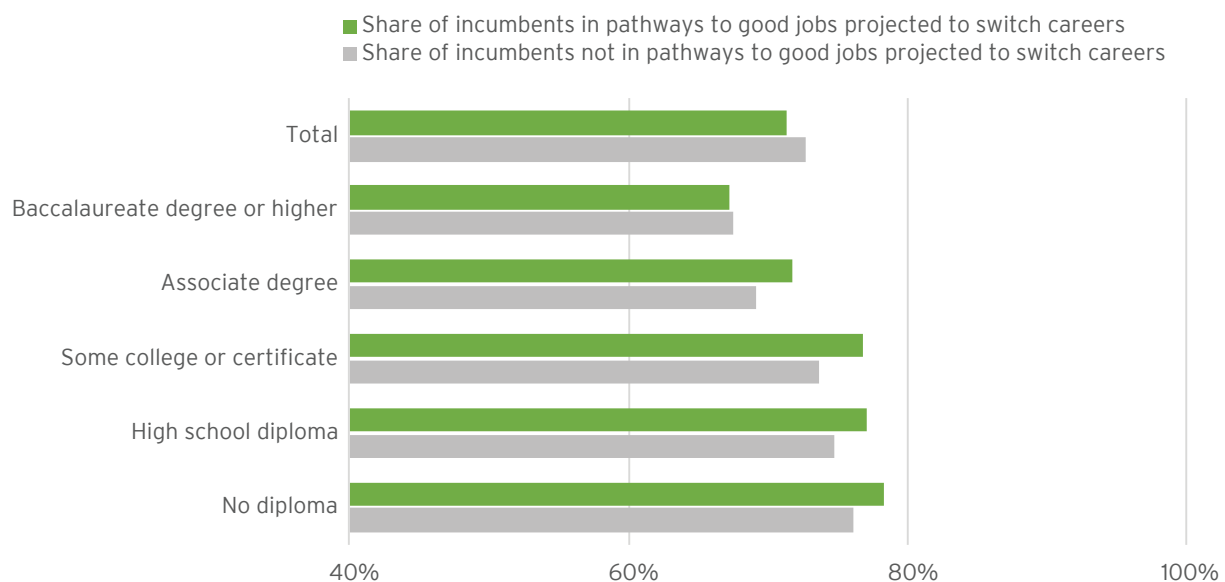
These findings suggest two key implications for how metropolitan leaders across an array of systems and institutions might seek to broaden local labor market opportunity.

First, for most people, the likelihood of obtaining a good job depends significantly on how many good jobs are available in the local economy. Career ladder or apprenticeship models, in which someone starts in a low-paid job and acquires skills and experience over time that allows them to advance to a good job in the same occupation, are rare. Instead, most people gain experience

FIGURE 2

Share of workers projected to switch careers within 10 years

By level of educational attainment

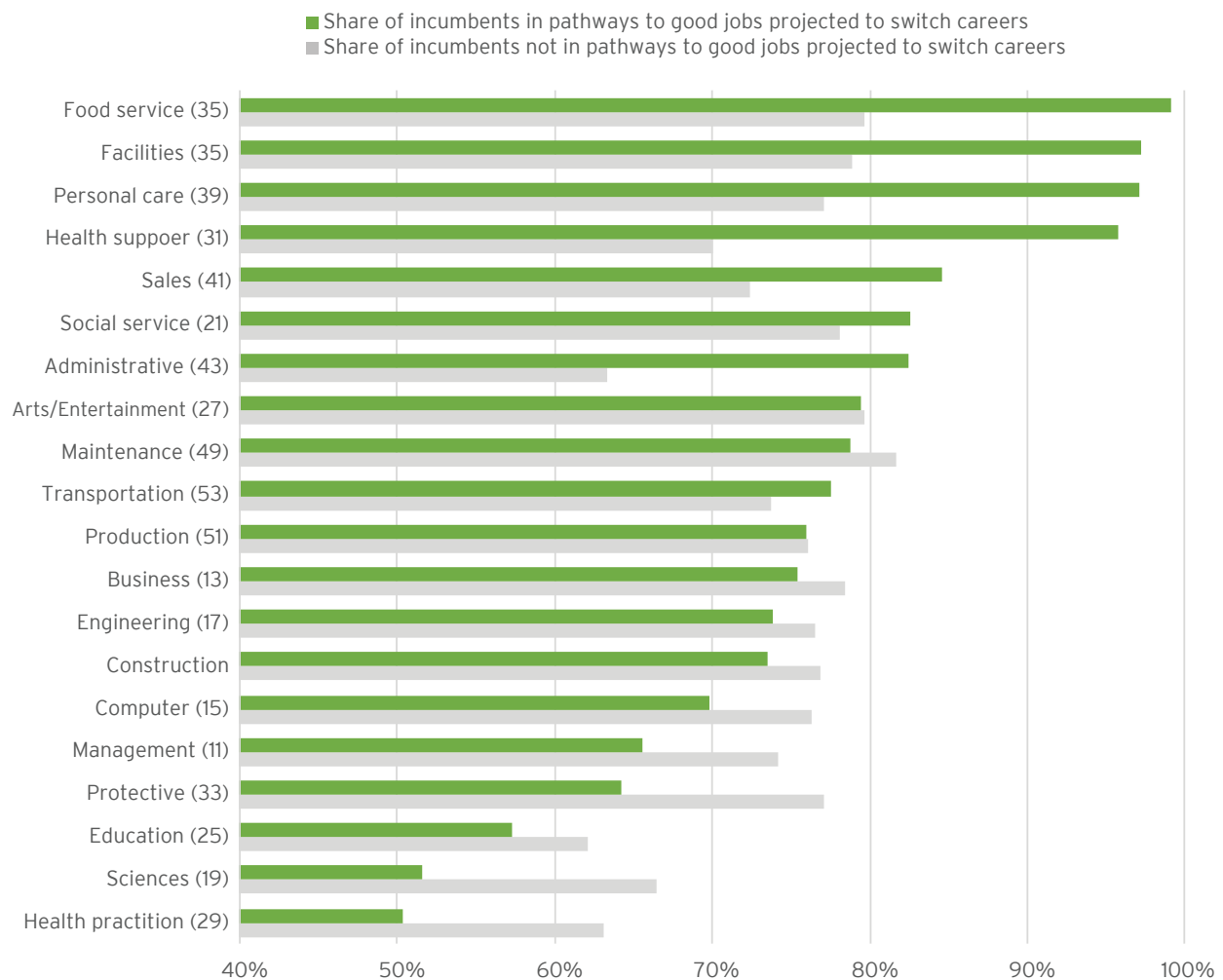


Source: Authors' analysis of U.S. Census Bureau public-use microdata and EMSI estimates

FIGURE 3

Share of sub-baccalaureate workers projected to switch careers within 10 years

By starting occupation group



Source: Authors' analysis of U.S. Census Bureau public-use microdata and EMSI estimates

in one occupation and then move to a better job in a different occupation when they find an opportunity to do so.

Second, as people navigate promising career pathways to good jobs, they hold jobs in different occupations that require different sets of knowledge and skills. Navigating these different

opportunities likely requires workers to hone the ability to learn new skills and to adapt to different work environments and work styles. Cultivating the abstract cognitive abilities this sort of learning and thinking entails is a hallmark of four-year college degrees but is not always found in vocational or career and technical education programs today.

2. Opportunity industries concentrate good jobs for workers without college degrees

Industries organize work around different sets of occupations and skills. This naturally means that different industries provide different levels of good and promising jobs. Opportunity industries are those in which good jobs represent an above-average share of the industry's total jobs.

By supporting the growth of opportunity industries, especially those that help drive growth in other parts of the economy, leaders in metropolitan areas can increase opportunities for more people and families to reach and maintain their place in the middle class.

TRADABLE INDUSTRIES OFFER AMONG THE BEST CHANCES FOR SUB-BACCALAUREATE WORKERS TO OBTAIN GOOD JOBS

Regional economists tend to describe metropolitan economies as containing two types of industries. “Tradable” industries are those in which firms export most of their products or services to customers outside the region, and thus compete in national and global markets. These tradable industries—think manufacturing, software, higher education, or freight transportation—constitute the wealth-generating sectors of the local economy. They, in turn, support a set of “local-serving” industries in areas such as retail, food services, and basic health care that cater primarily to consumers within the region.

This simple rubric for characterizing metropolitan industries enables a useful first-order look at where good and promising jobs tend to exist within metro economies.

- **The opportunity industries that provide among the highest concentrations of good jobs for people without a four-year college degree are tradable.** Across the nation's 100

largest metropolitan areas, tradable industries contain only about 29 percent of all jobs but account for 38 percent of the good jobs held by sub-baccalaureate workers.¹¹ These tradable opportunity industries not only contain many of metropolitan America's good jobs for sub-baccalaureate workers, but also generate wealth and growth for the entire economy, accounting for nearly 44 percent of metropolitan America's economic output in 2017.¹²

Tradable industries typically associated with blue-collar jobs, including the manufacturing, logistics, and wholesale trade sectors, provide especially high concentrations of good jobs and near-average shares of promising jobs for sub-baccalaureate workers. In both the logistics sector, which comprises industries involved in the transportation and warehousing of goods, and the manufacturing sector, about 25 percent of jobs are good jobs held by sub-baccalaureate workers—higher than the 11 percent average across all large metropolitan economies. In wholesale trade, 12 percent of jobs are good jobs held by sub-baccalaureate workers.

- **The share of good jobs varies across detailed industries within tradable sectors.** For example, 36 percent of jobs in the primary metal manufacturing industry are good jobs for sub-baccalaureate workers, but the same is true of only 8 percent of jobs in apparel manufacturing. In logistics, 36 percent of long-distance freight trucking jobs are good jobs for sub-baccalaureate workers, versus only 14 percent of jobs in general warehousing or distribution centers. Sectors thus indicate only so much about where real opportunity lies for workers without four-year college degrees.

Other largely blue-collar sectors like utilities or construction are mostly local-serving but contain some tradable industries that are important sources of good jobs. Thirty-seven

(37) percent of jobs in the utilities sector are in tradable industries, but of those jobs—mostly in electric power generation or transmission—49 percent qualify as good jobs for sub-baccalaureate workers. In the construction sector, only 7 percent of jobs are in tradable industries, including civil infrastructure and industrial facilities construction. Fully 31 percent of jobs in these industries qualify as good jobs for sub-baccalaureate workers.

Tradable industries in sectors typically associated with white-collar jobs also provide above-average shares of good jobs for sub-baccalaureate workers: 13 percent in information (telecommunications, broadcast, and other media industries); 15 percent in corporate headquarters; and 14 percent in professional services industries (engineering, legal, accounting, and consulting services).

- **Although tradable industries concentrate good jobs for sub-baccalaureate workers, they do not concentrate promising jobs.** Good jobs outnumber promising jobs by nearly two-to-one in tradable industries, on average. In tradable industries, people who hold promising jobs can often obtain good jobs without switching industries, by building specific expertise that allows them to climb career ladders. For example, workers who begin as assemblers of engines and other machines move into first-line supervisor roles or roles that involve more advanced techniques and skills in the same industry, such as computer-controlled tool operation.
- **In contrast to tradable industries, industries in local-serving sectors of the economy provide below-average shares of good jobs for people without a four-year college degree.** In the nation's 100 largest metropolitan areas taken together, local-serving industries account for 57 percent of all jobs but only 41 percent of good jobs held by sub-baccalaureate workers. However, local-

serving industries provide many workers with stepping stones to upward mobility, accounting for 67 percent of promising jobs held by sub-baccalaureate workers. Improving job quality and career pathways from these industries can help more people reach good jobs.

Local-serving industries in the hospitality and retail sectors are among metropolitan areas' largest sources of jobs but provide some of the lowest concentrations of good jobs. In food service industries, which make up the local-serving portion of the hospitality sector, less than 1 percent of jobs are good jobs held by sub-baccalaureate workers. In the retail sector, which is almost entirely local-serving, that share is under 3 percent.

Overall, most jobs in local-serving industries are neither good nor promising. However, there are some local-serving industries that provide exceptional opportunities for sub-baccalaureate workers. Industries in the utilities and construction sectors that primarily serve local consumers offer good jobs for sub-baccalaureate workers at rates well above the economy-wide average. Across the nation's largest metropolitan areas, 48 percent of jobs in the utilities sector and 31 percent of jobs in the construction sector qualify as good for sub-baccalaureate workers.

- **Local-serving sectors do provide many promising jobs in metropolitan areas.** Although relatively few good jobs for sub-baccalaureate workers exist in local-serving sectors, they tend to provide significant shares of promising jobs. In hospitality and retail, promising jobs held by sub-baccalaureate workers account for 14 percent of all jobs, well above the economy-wide average. In the administrative services sector, which includes industries like temporary hiring agencies, waste management, and facilities management, just 5 percent of jobs are good jobs, but 15 percent are promising jobs. In

the local “other services” sector—a catchall that includes auto repair shops, dry cleaners, religious and civic institutions—just 6 percent of jobs are good jobs, but 11 percent are promising jobs. The real estate and arts and entertainment (A&E) industries also contain few good jobs but above-average shares of promising ones.

- **Routes to upward mobility from local-serving sectors often involve switching industries.** Because local-serving sectors tend to comprise a large share of all jobs in the typical metropolitan area, especially for workers without college degrees, they account for many promising jobs. However, because these sectors provide relatively few good jobs, workers who start from promising jobs in local-serving industries typically switch to another industry in order to obtain a good job. Although some people who work in food service industries have promising jobs, most are not likely to become restaurant managers. To get ahead, they are more likely to move to a different industry altogether, becoming truck drivers or customer service representatives.
- **Neither tradable nor local-serving, government is typically a large and rich source of good jobs for sub-baccalaureate workers.** Government accounts for the remaining 14 percent of jobs in metropolitan America not accounted for by tradable or local-serving sectors. Most government jobs in metropolitan areas are in either state or local government. But in government at all levels, an average of 21 percent of jobs are good jobs held by sub-baccalaureate workers, while another 7 percent qualify as promising.

HIGH-SKILL WORKERS FIND GOOD AND PROMISING JOBS ACROSS A RANGE OF INDUSTRIES

For workers with bachelor’s degrees, the distinction between tradable and local-serving

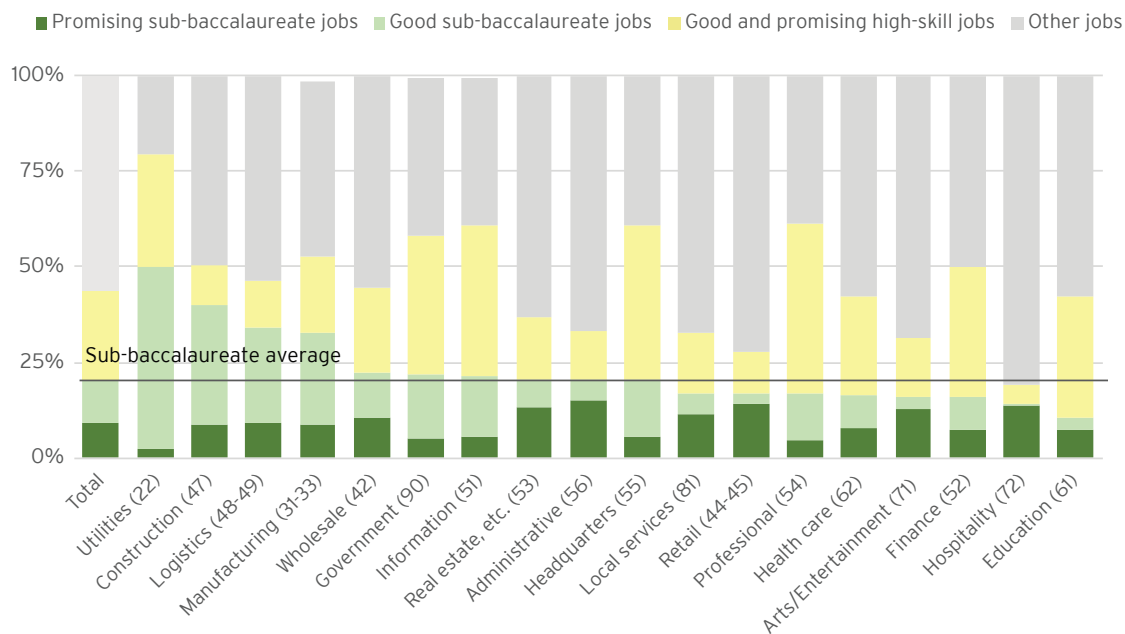
industries is less sharp with regard to where good and promising jobs exist in most metro areas.

- **A wide range of industries provide relatively high shares of good and promising jobs for workers with at least a bachelor’s degree.** High-skilled workers are required in nearly every industry to one degree or another, whether tradable or local-serving. Across the nation’s 100 largest metropolitan areas, an average of 23 percent of jobs are good or promising jobs held by people with at least a bachelor’s degree (because good and promising jobs are broadly similar for workers with four-year degrees, we combine these categories).
- **Tradable industries in the professional services, information, and headquarters sectors offer the largest shares of good and promising jobs for workers with at least a bachelor’s degree.** In some professional services industries, such as computer systems design, engineering services, and scientific research, over 50 percent of jobs are good or promising for high-skill workers. In the information sector, industries such as publishing and data processing offer above-average (45 percent) shares of good or promising jobs for college degree holders, similar to corporate headquarters jobs (40 percent).
- **Several local-serving industries also provide opportunities for good jobs and upward mobility for workers with at least a bachelor’s degree.** The health care, education, and government sectors are particularly important local-serving sources of good jobs for these workers. The private health care sector, often held up as providing rich opportunity for sub-baccalaureate workers, actually delivers relatively low shares of good or promising jobs for those workers, but many jobs for high-skill workers. Twenty-six (26) percent of jobs in the health care sector, 32 percent in the education sector, and 37

FIGURE 4

Concentration of good and promising jobs by industry sector

2017



Note: Agriculture and mining industries are excluded.

Source: Authors' analysis of U.S. Census Bureau public-use microdata and EMSI estimates

percent in the government sector are good or promising for college-educated workers.

For economic development leaders, these findings reinforce the importance of tradable industries as drivers of local wealth generation and opportunity. In almost every tradable industry, the share of jobs that qualify as good or promising—for people both with and without a bachelor's degree—exceeds the economy-wide average. As these industries grow, they can disproportionately increase metropolitan areas' wealth and opportunity.

For leaders of workforce development and higher education institutions, these findings point to industries where people can find better labor market opportunities. Yet these leaders must also consider the circuitous career pathways many people, especially those without a four-year college degree, follow to good jobs. Not only do

few upwardly mobile sub-baccalaureate workers stay in the same occupation over a 10-year period, but they also tend to switch industries as well. By recognizing these non-linear pathways to higher earnings, local leaders can develop more effective policies and initiatives that help sub-baccalaureate workers move more quickly toward good jobs.

3. Metropolitan areas contain different concentrations of good and promising jobs

This analysis reveals considerable variation across major metropolitan areas, not only in the total share of jobs that qualify as good or promising, but also in the distribution of those jobs by workers' educational attainment. As a result, each metropolitan area manages to stand out on some dimension of its labor market opportunity, or lack of it.

- **The share of jobs that are good or promising jobs held by sub-baccalaureate workers varies considerably across the nation's largest metropolitan areas.** Nationwide, 21 percent of jobs in large metro areas are good or promising jobs held by sub-baccalaureate workers. This share varies, however, from a high of 35 percent of jobs in the Spokane, Wash. metro area to a low of just 9 percent of jobs in the Washington, D.C. metro area.
- **The chances that a sub-baccalaureate worker holds a good or promising job also differs considerably across metro areas.** The number of good or promising jobs held by sub-baccalaureate workers varies by place not only because those places have different kinds of occupations and industries, but also because their workers have varying levels of education. Overall, about one in three (34 percent) of sub-baccalaureate workers in the 100 largest metro areas holds a good or promising job. The Spokane, Wash. metro area has enough good and promising jobs for one out of every two sub-baccalaureate workers there, while the Washington, D.C. metro area has enough for only one-in-five sub-baccalaureate workers.
- **The share of jobs that are good or promising jobs held by high-skill workers also varies across metro areas.** High-skill workers have better chances of obtaining good and promising jobs. Nationwide, 23 percent of jobs are good or promising jobs held by high-skill workers who have at least a four-year college degree. Because high-skill workers represent about 42 percent of all workers in large metro areas, these labor markets provide enough good and promising jobs for 70 percent of all high-skill workers. High-skill good and promising jobs represent 35 percent of all jobs in San Jose, the largest share of the top 100 metro areas, where 75 percent of high-skill workers hold a good or promising job. The Stockton, Calif. metro area provides the lowest share—13 percent—of good and promising jobs

for high-skill workers. But because a much lower share of Stockton's workers have four-year degrees, it still provides enough good and promising jobs for 71 percent of its high-skill workers.

INDUSTRIES AND WAGE LEVELS ARE THE PRIMARY FACTORS BEHIND LOCAL LABOR MARKET OPPORTUNITY

Metropolitan areas that have a diverse base of tradable industries, while maintaining overall affordability, provide among the highest shares of good and promising jobs. Metropolitan areas that have only one or neither of these ingredients tend to have less broad-based labor market opportunity:

- **The size and diversity of a metro area's sectors help determine the share of its jobs that are good and promising—and who holds these jobs.** For example, the Youngstown, Ohio and Jackson, Miss. metropolitan areas offer among the highest shares of good and promising jobs for sub-baccalaureate workers. This is primarily because their manufacturing and logistics sectors, which tend to concentrate good and promising jobs, employ especially large shares of these workers. In these metro areas, the share of jobs in opportunity industries, such as primary metal manufacturing in Youngstown or freight trucking in Jackson, is several times the national large metro average. Similarly, the San Jose and Washington metropolitan areas concentrate opportunity industries that yield good and promising jobs for high-skill workers, such as professional services, corporate headquarters, and government.
- **Within sectors, variation in metro areas' detailed industries lead to differences in the quantity of good jobs.** For example, across all large metropolitan areas, 24 percent of jobs in the manufacturing sector are good jobs held by sub-baccalaureate workers. In Tucson,

Ariz., 45 percent of manufacturing jobs are in transportation equipment manufacturing, which requires advanced skill sets. As a result, 30 percent of Tucson's manufacturing jobs are good jobs for sub-baccalaureate workers. By contrast, 44 percent of manufacturing jobs in Stockton, Calif. are in lower-skilled food and beverage manufacturing, such that only 16 percent of that region's manufacturing jobs are good jobs for sub-baccalaureate workers.

- **Even within industries, differing company specializations and skills requirements can translate into regional differences in good jobs.** For example, 70 percent of the workers in Wichita's transportation equipment manufacturing industry, which is focused mostly on aerospace manufacturing, have some post-secondary education or credential. However, only 51 percent of workers in Memphis's transportation equipment manufacturing industry, which is focused mostly on automotive parts, have some post-secondary education.¹³ As a result, Wichita's transportation equipment manufacturing industry workers are better compensated, and 67 percent of the jobs in this industry qualify as good jobs, versus 46 percent in Memphis.
- **Metro areas with higher typical earnings for sub-baccalaureate workers tend to exhibit smaller overall shares of good jobs for those workers.** For example, median earnings for sub-baccalaureate workers in Jackson, Miss. are \$32,400, but in Houston they are \$38,900.¹⁴ As a result, only 19 percent of jobs in Houston's general freight trucking industry qualify as good jobs for sub-baccalaureate workers, versus 50 percent in Jackson. In metro areas with higher sub-baccalaureate earnings, part-time and seasonal jobs are less likely to qualify as good jobs, even if they pay high hourly wages.

- **The share of a metro area's jobs that are promising depends on the same factors that determine the share of good jobs as well as the overall dynamism of the economy.**

As noted above, the availability of good jobs directly determines the share of jobs in a metropolitan area that are promising. Though industries in some sectors of the economy provide internal career ladders that permit workers to gain specific knowledge and experience, most upwardly mobile workers instead switch between occupations and industries based on the availability of better paying jobs in other parts of the local economy. The share of jobs in a metropolitan area that provide promising pathways to good jobs also depends on the metropolitan area's growth rate and affordability, however. For example, the combination of faster growth and lower wage thresholds in many Sun Belt metro areas creates more opportunities for incumbent workers and their lower wage thresholds help them reach good jobs faster.

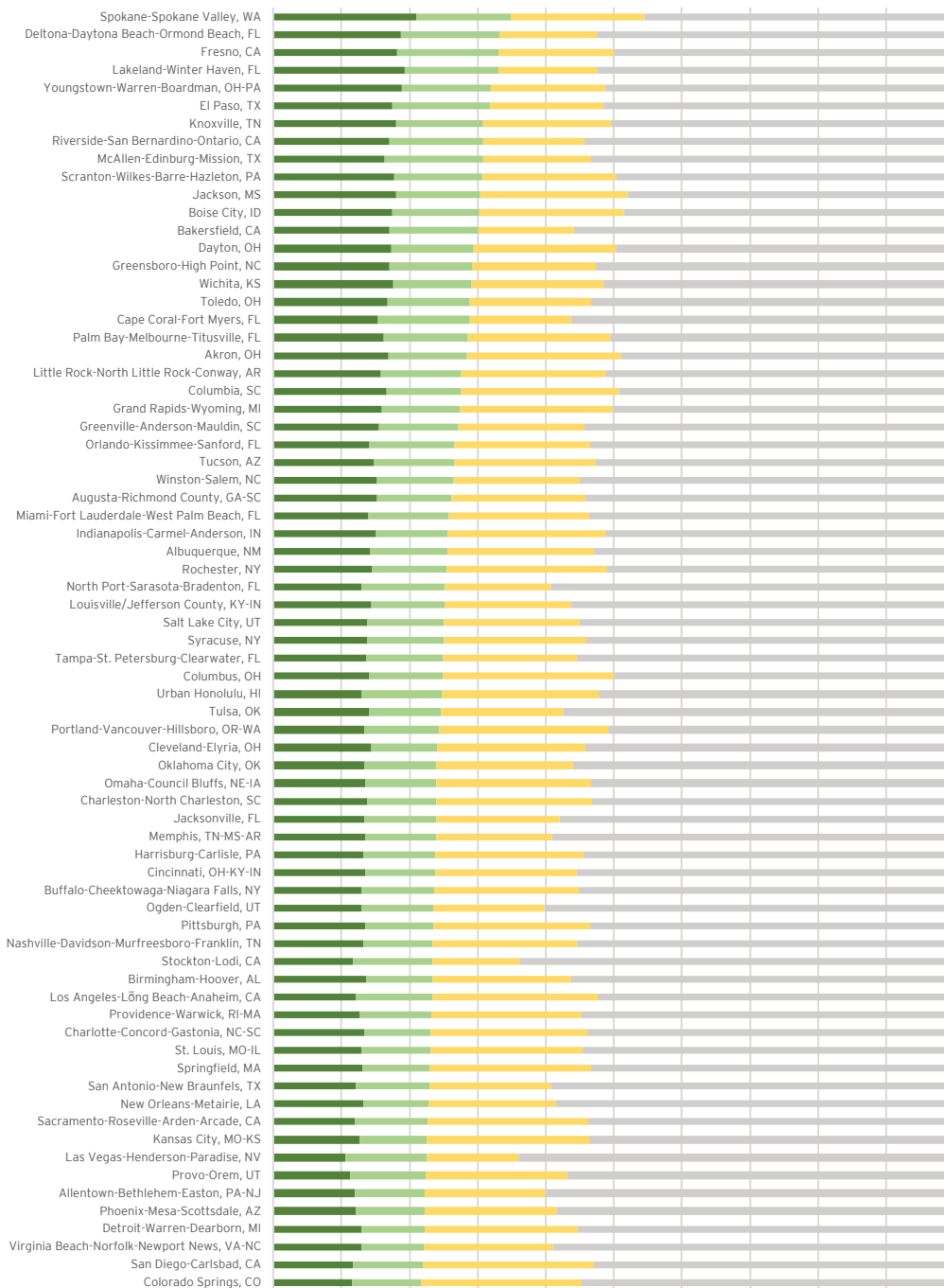
No large U.S. metropolitan area provides sufficient high-quality labor market opportunities for all the people who need them, especially workers without a bachelor's degree. Even in Spokane, with the highest share of good and promising jobs for sub-baccalaureate workers, only half of its sub-baccalaureate workers hold one. Metro areas can begin to close these gaps by addressing factors that influence local labor market opportunity, such as industrial composition, workforce characteristics, wage levels, and growth dynamics.

FIGURE 5 (part I of II)

Share of jobs that qualify as good, promising, or other

By metropolitan area

■ Promising sub-baccalaureate jobs ■ Good sub-baccalaureate jobs ■ Good and promising high-skill jobs ■ Other jobs

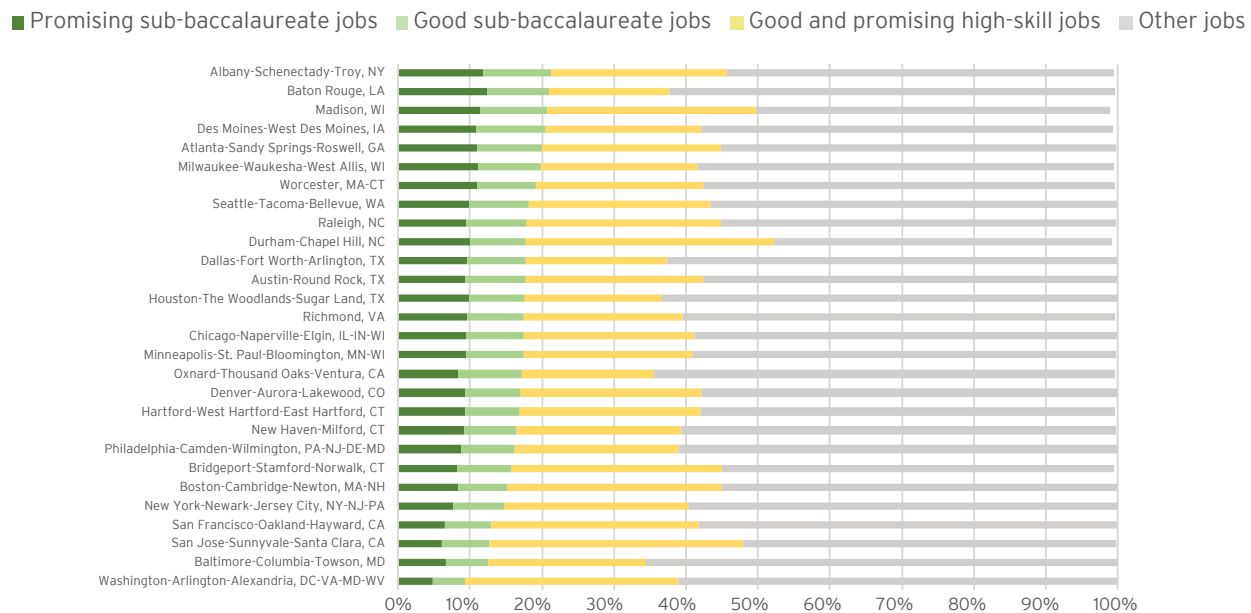


Source: Authors' analysis of U.S. Census Bureau public-use microdata and EMSI estimates

FIGURE 5 (part II of II)

Share of jobs that qualify as good, promising, or other

By metropolitan area



Source: Authors' analysis of U.S. Census Bureau public-use microdata and EMSI estimates





CONCLUSION

This report reinforces the challenges facing leaders throughout metropolitan America in expanding labor market opportunity, especially for individuals without a four-year college degree. Yet it also points to potential solutions.

Nearly all metropolitan areas do not provide enough good and promising jobs for sub-baccalaureate workers. Furthermore, those jobs are highly concentrated in industries such as construction and manufacturing that have grown slowly in recent years and not likely to account for much greater proportions of future jobs. In fact, as technological change continues to reshape work, some good jobs in these industries and others, including logistics, may disappear.

Yet the report also finds reasons for optimism. For one, some fast-growing industries and occupations typically associated with higher-skill work, such as computer, engineering, and information technology jobs, in fact contain many good jobs for sub-baccalaureate workers.

More importantly, this report finds considerable dynamism in local labor markets. Many people

switch occupations and industries from one year to the next. This dynamism is crucial to communities' adjustment to a changing economy. In a series of recent studies on automation, McKinsey Global Institute found that as many as one in four U.S. workers will need to switch occupations by 2030 as their current one disappears.¹⁵ As it turns out, many more workers will switch occupations naturally as they seek better opportunities.

The challenge for leaders in metropolitan America is harnessing this dynamism in ways that enable workers' mobility to better jobs and the middle class. Although there is no doubt arming people with the knowledge and skills required by the jobs of the future is essential, most people cannot find opportunity where none exists. Metropolitan economies must provide the good jobs people need to move ahead.

To that end, leaders should seek to grow more good jobs in opportunity industries, improve job quality in industries where it is low, and prepare people for a more dynamic economy. These strategies implicate a number of systems and institutions in metropolitan areas.

- **First, economic developers can prioritize opportunity industries that concentrate good jobs.** Too often, scarce public resources are spent on incentivizing on job growth or retention in industries that provide too little opportunity. Though job growth is important, economic development is more effective when the job growth it spurs increases the share of good jobs in the local economy. Such jobs not only broaden access to opportunity, but industries that concentrate good jobs also tend to have a greater economic impact. Economic development can also involve more than incentives. Existing institutions and customized services can create shared knowledge and resources that can enhance the growth and competitiveness of local firms, especially the more footloose firms in tradable industries that disproportionately contain good jobs.¹⁶
- **Second, leaders in the private and public sectors can work together to improve job quality.** In most metropolitan areas, job growth alone is unlikely to close the gap between the number of good jobs and the number of people who need them. Improving the quality of the existing job base is not only essential for workers but can also help employers. A growing body of research shows that improving job quality—by treating labor as an asset rather than a cost—is good for the bottom line in some sectors that provide many “other” jobs, including retail, hospitality, health care, and education.¹⁷ Improving job quality doesn’t just mean increasing wages and benefits. Improving the visibility of pathways from low-quality jobs to better ones can also increase opportunity.

- **Third, education and workforce development institutions can prepare people for and connect them to today’s more demanding and dynamic labor market.** The content of work changes rapidly today, even within occupations. New technologies constantly emerge, requiring continuous training and adaptation. Meanwhile, workers may need to switch careers more often to stay ahead of change or access opportunity. These dynamics stress the growing importance of abstract cognitive abilities that enable people to think and learn by themselves. Specific knowledge and skills remain essential to getting a job, but keeping that job or finding a better one may require workers and institutions to adopt new modes of learning and teaching to succeed in today’s labor market.

These efforts to expand labor market opportunity, while not a panacea, can help more of today’s working families thrive and invest in their own future and that of their community. Ultimately, creating an economy that provides greater opportunity for more people and families requires leaders across multiple systems to share an understanding of the challenges and pursue a coordinated strategy to address them. By assessing the effects of shifting local labor market demand on the local workforce, this report and its accompanying web-based interactive tool provide new information to help inform such efforts, charting the industries and occupations that may provide the best chances for individuals in each metro area to obtain a good middle-class job.

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2. Timothy J. Bartik, "What Proportion of Children Stay in the Same Location as Adults, and How Does This Vary Across Location and Groups?" Upjohn Institute for Employment Research, 2009. https://research.upjohn.org/up_workingpapers/145/.
3. Wage and salary jobs represent over 90 percent of employment nationwide and at least 85 percent of employment in every large metropolitan area. These shares have remained stable in recent years. Not only are wage and salary jobs the most dominant and enduring form of employment, but they also tend to provide more stable employment and income compared to contract and contingent work.
4. Median earnings thresholds for each metropolitan area were determined from 2012-2016 1-year American Community Survey (ACS) microdata collected from the Minnesota Population Center's Integrated Public-Use Microdata Series (IPUMS). Dollar-denominated fields were deflated prior to analysis.
5. In many metropolitan areas, this earnings threshold is roughly equivalent to the income a typical working-age adult would need to meet their family's basic needs according to detailed county-based cost-of-living estimates.
6. Authors' analysis of 2012-2016 1-year ACS microdata collected from IPUMS.
7. These anticipated trends take into account recent regional growth patterns, macroeconomic projections, and modest estimates of labor automation. A description of the underlying data and methods of analysis is available in the technical appendix.
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