

Automation and the future of the African American workforce

Without concerted effort, automation could heighten disparities that already harm minority workers.

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How automation affects the US workforce is largely a question of which jobs and activities can be most easily automated. At a macro level, change will take time to occur. It's not likely that a million truck drivers will be thrown out of work in the next few years, because the technologies to automate these roles have not matured, nor have companies developed business cases to use them.

But at the micro level, change can happen quickly as individual workers are displaced—which is more likely in some types of roles than in others. The kinds of support activities performed by service workers, administrative-support workers, operatives, laborers, and helpers are, not surprisingly, more easily automated than are the directive activities performed by executives, professionals, technicians, and sales and craft workers.¹ And that leaves African Americans especially vulnerable.

In fact, when we overlaid racial representation over automation assessments of nearly 2,000

different detailed work activities in more than 800 occupations, we found that African American workers are disproportionately concentrated in the kinds of support roles most likely to be affected. Moreover, we found that efforts to ease a general workforce transition into an automated future could wind up worsening existing racial disparities in income, opportunity, and wealth.²

A vulnerable workforce

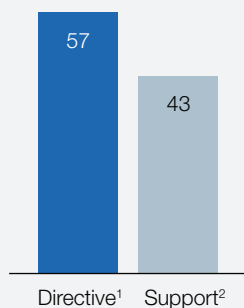
Representation of the African American workforce in directive and support roles is proportionately opposite that of the general population, despite increasing evidence that inclusion and diversity are sources of competitive advantage. While a majority of the general population are employed in directive roles, a majority of African American workers are in support roles (Exhibit 1). Even without the effects of automation, this distribution exacerbates racial wealth inequality. For example, support roles are predicted to grow at 1.5 percent over the next decade, significantly slower than the 8.8 percent growth

Exhibit 1

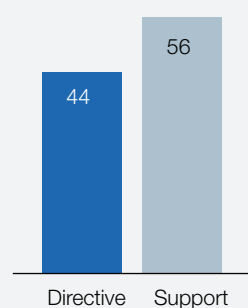
More African Americans are in slow-growing, low-paying support roles than in fast-growing, high-paying directive roles.

Distribution by type of role, % of workforce

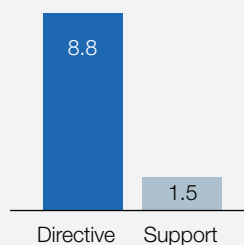
US overall average



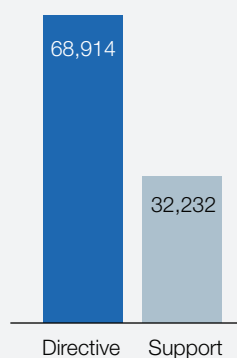
African American



Estimated average job growth 2016–26, %



Estimated annual median income, \$



¹ Examples of directive workers include executive and senior officers and managers, first and middle officers and managers, professionals, craft workers, sales workers, and technicians.

² Examples of support workers include administrative-support workers, laborers, helpers, operatives, and service workers.

Source: US Bureau of Labor Statistics, 2016; US Equal Opportunity Commission; McKinsey Global Institute analysis

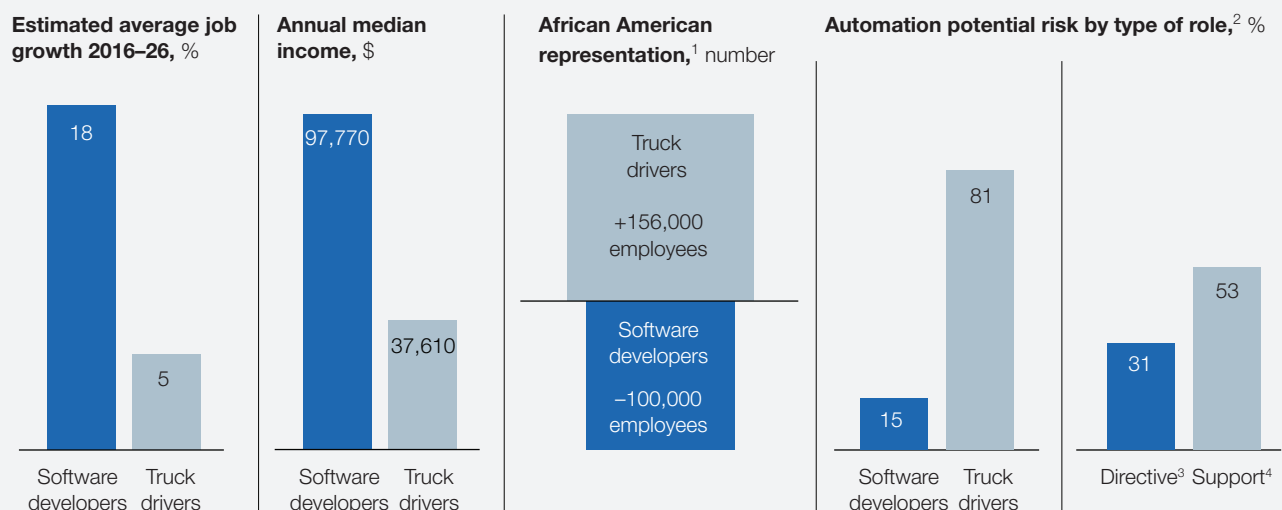
predicted for directive roles over the same period. Moreover, workers in support roles are paid less, with an average wage around \$32,000, compared with nearly \$69,000 for workers in directive roles.³

As the effects of automation play out, the racial distribution between support and directive roles is likely to become more concerning, and African Americans are especially vulnerable. That's because a much higher percentage of the time spent on the support roles they work in will be automatable as companies adapt and develop technology—53 percent, compared with 31 percent for directive roles. Among the occupations we analyzed, that amounts to an estimated 459,000 more jobs that could be automated.

For example, African Americans are overrepresented in the category of truck drivers—that is, there are roughly 156,000 more African Americans driving trucks than their number in the total US population would predict. Given that overrepresentation, automation of that occupation would disproportionately affect African Americans, yet all African American truck drivers are vulnerable—as many as 581,000 workers. Eventually, as much as 80 percent of a truck driver's work hours—the field's “automation potential”—could be automated as technology rapidly evolves (Exhibit 2). By contrast, African Americans are underrepresented among software developers by around 100,000 employees nationwide. That field has an automation potential of 15 percent. Between

Exhibit 2

Since support roles are more likely to be automated, African Americans are at greater risk relative to the average US employee.



¹ The difference between the number of African Americans in given job classifications and the number predicted by their proportion of the US population.

² Percentage of employee time that can be automated by adapting currently available technology, as calculated by multiplying the automation potential of each role by the number of employees in each role.

³ Examples of directive workers include executive and senior officers and managers, first and middle officers and managers, professionals, craft workers, sales workers, and technicians.

⁴ Examples of support workers include administrative-support workers, laborers, helpers, operatives, and service workers.

Source: US Bureau of Labor Statistics, 2016; US Equal Opportunity Commission; McKinsey Global Institute analysis

the two—and intimately connected to projections of automation—the truck-driver category is projected to grow only 5 percent between 2016 and 2026, with a median wage of nearly \$38,000, while the software-developer category is projected to grow by 18 percent, with a median wage of nearly \$98,000.

Even in job categories that can't be easily automated and where African Americans are overrepresented, the advantage is muted. African Americans are overrepresented among nursing and home-health aides by around 420,000 employees, predominately women. Although the field has only a 16 percent automation potential and is among the fastest-growing job categories, it also has among the lowest median wage levels, at around \$26,000. Fields offering higher wages today may be at greater risk of automation. For example, among postal-service workers, African Americans are overrepresented by about 55,000 employees, with an average wage of \$57,000. That higher wage, plus a 73 percent automation risk, explains the category's negative growth rate of 13 percent.⁴

How to help

As the effects of automation concentrate more African American workers in low-wage jobs, the existing income and wealth gaps between African American and nonminority families are likely to grow. Nonminority workers already earn around 1.5 times more than their African American peers with the same educational backgrounds.⁵ And the average nonminority family has ten times the wealth of the average African American family.⁶

Retraining in just five occupation categories would mitigate nearly 60 percent of the risk to the African American workforce (Exhibit 3). But since African American workers have access to fewer economic resources to address potential displacement on their own, it will take collaboration across the private, public, and social sectors to promote retraining opportunities for African Americans.

Private sector

Companies can lead in two ways. First, they can focus on diversity, equity, and inclusion (DEI) to help future African American workers move into and advance in job roles with a lower risk of automation. Many companies see diversity and inclusion as sources of competitive advantage and financial outperformance.⁷ By focusing on DEI today—addressing various forms of bias that inhibit career growth, for example, or emphasizing inclusion and representation—companies are more likely to retain talented minorities who can progress through the managerial pipeline.

Second, companies can ensure access to reskilling opportunities for low-income workers to prevent displacement. For example, Etsy, the online global marketplace, offers three-month scholarships to its Recurse Center for women who lack training in programming. This initiative was launched to address the underrepresentation of women in Etsy's workforce. Since the program's inception, Etsy has increased the number of women on its engineering team by about 500 percent.⁸ Other companies can launch similar efforts to retrain and reskill African American employees.

Public sector

The public sector—especially educational institutions—could offer more access to reskilling opportunities for African American workers, enabling future workers to select higher-paying career pathways. Reskilling and training in low-income communities, often through community colleges, have potential for great impact, and several organizations are already finding success in cross-sector collaboration. The Kansas Advanced Manufacturing Program, for example, provides low-income unemployed and underemployed workers access to employer-driven-training programs in advanced-manufacturing industries by working with public workforce agencies, employers, industry groups, and colleges.⁹

Exhibit 3

More than 60 percent of the automation risk for the African American workforce is concentrated in five occupation categories.

Top occupations that drive automation risk for the African American workforce,¹
% of total automation risk

Office and administrative support 19.1	Production 11.3	Personal care and service 4.4	3.0	Installation, maintenance, and repair
		Management 4.2	2.4	Building and grounds cleaning/maintenance
	Food preparation and serving related 10.1	Healthcare practitioners and technical 3.9	2.1	Educational instruction and library
Construction and extraction 3.4		1.8	Computer and mathematical	
		1.4	Business and financial operations	
		1.3	Community and social service	
Sales and related 9.3		0.6	Legal	
		0.6	Arts, design, entertainment, sports, and media	
		0.5	Farming, fishing, and forestry	
		0.4	Architecture and engineering	
	0.3	Life, physical, and social sciences		
Transportation and moving materials 14.0				

¹ As calculated by dividing the number of employee hours that can be automated in each occupation category by the total number of employee hours that can be automated in the African American workforce.

Source: US Bureau of Labor Statistics, 2017; US Equal Opportunity Commission; McKinsey Global Institute analysis

Social sector

Not for profits and other social-sector organizations may need to increase their support for communities of color, especially those that are low income, in gaining access to reskilling opportunities and high-paying careers. Some programs do exist today, but the impact could be increased if reskilling were combined with career-related education. Examples of successful existing models include Project QUEST (Quality Employment Training through Skills Training) in San Antonio, whose mission is to understand and meet current and emerging employer needs. The organization enables

low-income adults in community college to get an associate degree or an accredited occupational certificate, with a focus on industries that offer family-sustaining wages and career-advancement opportunities. An evaluation of the six-year impact of the program found participants earn over \$5,000 more a year annually than peers who did not enter the program.¹⁰

African American community

The African American workforce itself, along with the broader community, should support the initiatives and ideas outlined in this article

by partnering with or sponsoring the associated institutions. Beyond providing financial resources, there is an opportunity to provide perspective and insight on how to reach and serve communities of color. In Washington, DC, for example, an organization called Opportunity@Work seeks to help skilled, talented, overlooked Americans find jobs in today's world.



Technology will change the nature of work across the spectrum as more and more work activities are automated. African Americans are among the most vulnerable to this change. Collaboration across the private, public, and social sectors can help. ■

¹ Categories defined by the US Equal Employment Opportunity Commission, "EEO-1 job classification guide 2010," eeoc.gov.

² Adapted from McKinsey's presentation at the Black Economic Forum, presented in partnership with Beta Iota Boulé and the Executive Leadership Council, Martha's Vineyard, MA, August 9–10, 2018.

³ "Employment by detailed occupation," Employment projections, US Bureau of Labor Statistics, January 30, 2018, bls.gov.

⁴ "Postal service workers," *Occupational outlook handbook*, US Bureau of Labor Statistics, April 13, 2018, bls.gov.

⁵ Eileen Patten, "Racial, gender wage gaps persist in U.S. despite some progress," FactTank: News in the numbers, Pew Research Center, July 1, 2016, pewresearch.org.

⁶ Lisa J. Detting et al., "Recent trends in wealth-holding by race and ethnicity: Evidence from the survey of consumer finances," FEDS Notes, Board of Governors of the Federal Reserve System, September 27, 2017, federalreserve.gov.

⁷ Vivian Hunt, Sundiatu Dixon-Fyle, Sara Prince, and Lareina Yee, *Delivering through diversity*, January 2018, McKinsey.com.

⁸ Meghan Casserly, "Double-standards: How Etsy upped its female engineers by 500%," *Forbes*, February 8, 2013, forbes.com.

⁹ Christin Durham, "How local workforce systems can support lifelong learning," Urban Wire: Job Market and Labor Force, Urban Institute, June 5, 2018, urban.org.

¹⁰ Tazra Mitchell, "Research note: Sectoral skills training programs for low-income workers can yield sustained earnings and employment gains, new evaluation finds," Center on Budget and Policy Priorities, June 20, 2017, cbpp.org.

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