RACE AND THE WORK OF THE FUTURE:
ADVANCING WORKFORCE EQUITY IN THE UNITED STATES

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National Fund for Workforce Solutions

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The USC Dornsife Equity Research Institute (formerly known as USC PERE, the Program for Environmental and Regional Equity) seeks to use data and analysis to contribute to a more powerful, well-resourced, intersectional, and intersectoral movement for equity.

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1.0
FOREWORD

The future of work is today. As the Covid-19 pandemic disproportionately ravages the lives and livelihoods of people of color, it is also hastening the transformation of how work gets done. In a matter of weeks millions of white-collar workers transitioned to remote-working arrangements, and several large companies have already announced their plans to move permanently to "virtual-first" models.[1,2] The pandemic is also fueling an accelerated march toward automation and digitalization, which is projected to eliminate about 85 million jobs in the next five years—potentially displacing up to half of the United States workforce with no clear path for them to connect to the new jobs likely to be created by these technological changes.[3] Meanwhile, the economy may take years to rebound from the coronavirus recession, with the greatest burden falling on the 100 million people already living in economic insecurity in the United States.

50%

Percentage of US workforce potentially displaced by technological changes in the next five years.

Likewise, the future workforce is already here, coming of age in a moment of widespread reckoning with the foundational racism of the nation's past and present. The United States is rapidly diversifying, with the working-age population becoming majority people of color by 2039 and the noncollege educated workforce—those most likely to lose as automation sheds jobs—achieving that milestone just over a decade from today.[4] The workers, innovators, and community leaders who will take up the economic mantle of the future are the babies, youth, and students of today—most of them people of color, and far too many growing up in or near poverty, living in neighborhoods and attending schools deprived of vital resources, and systematically cut off from opportunities to thrive.

This pivotal moment calls upon us to radically rewrite the social contract for workers in the face of sweeping technological change, seismic demographic shifts, and profound inequality. Our nation cannot afford another inequitable "recovery" like the one that followed the Great Recession; instead, we must come together to build a solidarity economy that acknowledges, values, and deepens social ties and mutual care as the foundation of shared prosperity.

This new research makes the case that workforce equity must be at the center of building an equitable economy. White workers are about 50 percent *more* likely than workers of color to hold good jobs, and much *less* likely to be displaced from their jobs by automation. Median wages are higher for White workers with a high school diploma and no college ($19/hour) than for Black workers with an associate's degree ($18/hour). Racial inequities in income already cost the US economy about $2.3 trillion per year, and as the workforce approaches a people-of-color majority that toll will only grow in the absence of bold, equity-focused solutions.

$2.3 trillion

Estimated annual boost to the US economy if racial inequities in income were eliminated.

Race and the Work of the Future is an invitation to policymakers, business leaders, philanthropy, and community organizations to come together to dismantle systemic barriers to opportunity for people of color, scale innovative training and credentialing models, invest in automation resilience strategies to ensure that working people can be uplifted rather than dislocated by technological advancements, and insist on high standards of job quality for all workers.

The work of the future is the work of equity: just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. And the time is now.

Michael McAfee, President and CEO, PolicyLink
Manuel Pastor, Director, USC Equity Research Institute
Sarah Treuhaft, Vice President of Research, PolicyLink

2.0
INTRODUCTION

The United States economy is at a critical inflection point. Long before Covid-19 and its attendant economic crisis struck, advocates, economists, and community organizations were sounding the alarm about the precarious state of the US economy and the future of work—and workers. At the same time, the nation is now just one generation away from a new demographic plurality: by 2045, the US population will no longer be majority White. But while the nation grows more diverse and popular movements against systemic racism have gained momentum in recent years, inequities have persisted and even deepened. The racial wealth gap has continued to expand, gender pay inequities remain deeply entrenched, and one in three people in the United States were economically insecure before the onset of the current recession.[5]

Structural changes in the economy, such as lopsided job growth in low-wage occupations and the advent of the gig economy and "flexible" employment arrangements that leave workers unprotected by fair labor standards, have contributed to the shrinking of the economic middle over the past couple of decades. Meanwhile, advanced industries and other knowledge-based sectors of the economy have continued to expand, outpacing productivity and wage growth in other sectors.[6] Yet too few workers are able to access high-quality jobs in these fields—and the learning, credentials, and connections that lead to them—even as employers struggle to fill critical roles with the skilled workers they need.

The coronavirus crash brought these structural challenges into clear focus, exposing the gap between college-educated, primarily White, knowledge economy workers who could easily continue to work from home via computers, and lower wage, predominantly Black and Brown service sector and gig economy workers whose work puts them face-to-face with the public.

Workers of color, especially women, were disproportionately employed as "essential workers" who continued to work and have been more exposed to the health risks of the virus, and they were also disproportionately among the "nonessential" workers in hospitality, retail, tourism, and other sectors that have experienced the greatest layoffs, diminished hours, and cut wages.

The top-down recovery strategies enacted following the global financial crisis and Great Recession effected a massive upward redistribution of wealth, compounding already toxic inequality and racial inequities.[7] The current recovery appears to be stuttering as well—especially for workers of color. Eight million people in the United States have fallen into poverty since May, including 2.5 million children, with the most dramatic increase among Black households.[8]

Meanwhile, the private sector has dramatically accelerated digitalization and automation,[9] which may enhance the efficiency and resilience of businesses but at the cost of pushing low-wage workers—disproportionately people of color—further to the margins of the economy.

Building on the insights of our June 2020 report, "Race, Risk, and Workforce Equity in the Coronavirus Economy,"[10] this report provides a longer view of racial inequity in the workforce, looking at trends over the past several decades in relation to the current situation and asking how systemic racism manifests in the labor market, and how the Covid-19 pandemic is impacting these dynamics. We analyze labor force data from the Bureau of Labor Statistics, disaggregated data on wages and employment from the 2018 5-year American Community Survey microdata from IPUMS USA, and Burning Glass Technologies data on current and historical job demand in the United States. Unless otherwise noted all data presented in this report are based on the authors' original analysis of these sources.

Our key findings include the following:

- **Growing diversity underscores the urgent need for racial economic inclusion.**

  — ***America's workforce is rapidly growing more diverse.*** In 1980, people of color were just one-fifth of the US population; today, they are double that share. People of color make up about 38 percent of the US workforce ages 25–64, and nearly half of the population under 25.

  — ***Racial inequity is a drag on economic growth.*** In 2018 alone, the US economy could have been $2.3 trillion stronger if there had been no racial gaps in wages or employment for working-age people. Without a change in course, the cost of exclusion will grow as the workforce becomes more diverse.

- **Systemic workforce inequities undermine economic security and mobility and threaten the stability and growth of the nation's economy.**

  — ***Higher educational attainment is critical but insufficient to eliminate workforce inequities.*** Higher education significantly narrows racial gaps in labor force participation and employment, but does not equalize income. Median wages are higher for White workers with a high school diploma and no college ($19/hour) than for Black workers with an associate's degree ($18/hour).

  — ***Workers of color face a significant good-jobs gap.*** Controlling for educational attainment, people of color are underrepresented in good jobs (defined as jobs that are well-compensated, stable, and resilient to automation) by 1.6 million workers. Among workers with no postsecondary education—a group that includes two-thirds of workers of color and about half of White workers—White workers are about 75 percent more likely than workers of color to hold good jobs.

- **The COVID-19 recession is exacerbating pre-existing workforce inequities.**

  — ***The early rebound in labor-market demand is leaving workers of color behind.*** Over the past few months, the unemployment rate for White workers has decreased faster and is currently much lower than the rates for Black, Latinx, and Asian or Pacific Islander workers. Racial gaps in employment have widened since April, erasing short-lived progress in closing these gaps the previous year.

  — ***Black workers, in particular, have not recovered from the early spike in unemployment as quickly as other workers,*** despite the fact that demand for the occupations they held before the crisis has returned more quickly than demand for other jobs.

  — ***Job recovery has been concentrated among low-wage occupations that require minimal preparation.*** Demand for jobs that require little or some experience or education is up by about 16 percent from its February baseline, while demand for jobs that require considerable or extensive preparation is down by more than 20 percent.

- **Automation is accelerating in the wake of the pandemic, and it disproportionately places people of color and immigrants at risk of being dislocated from their jobs.**[11] Latinx workers face 28 percent greater automation risk than White workers, and Native American and Black workers face 21 and 18 percent more risk, respectively.

This analysis of how racial inequities are produced and how they are being exacerbated reveals the need for a comprehensive approach to workforce equity and inclusion—one that goes far beyond a narrow focus on skills development. Advancing workforce equity—where racial income gaps have been eliminated, all jobs are good jobs, and everyone who wants to work has access to family-supporting employment—is crucial to our economic future, and should be a shared responsibility of employers, policymakers, training providers, and community organizations.

We offer the following framework for action:

- **Make racial equity a priority—and develop systems to track and measure progress.**
- **Ensure people of color and low-income residents are prepared to enter and succeed in the labor market.**
- **Dismantle barriers and develop targeted strategies to connect people of color to quality employment opportunities.**
- **Invest in innovative training and credentialing models.**
- **Design programs and partnerships to address inequities in the social determinants of work.**
- **Engage employers to commit to systems change in employment practices and culture.**
- **Proactively implement automation resiliency approaches that prioritize vulnerable workers.**
- **Ensure high standards of job quality for all workers.**

This report will be followed by a series of 10 regional-level reports, with tailored data and recommendations for high-impact and racially equitable workforce strategies, in the following places: Boston, Massachusetts; Chicago, Illinois; Columbus, Ohio; Dallas, Texas; Detroit, Michigan; Los Angeles, California; Miami, Florida; Nashville, Tennessee; San Francisco, California; and Seattle, Washington.

3.0

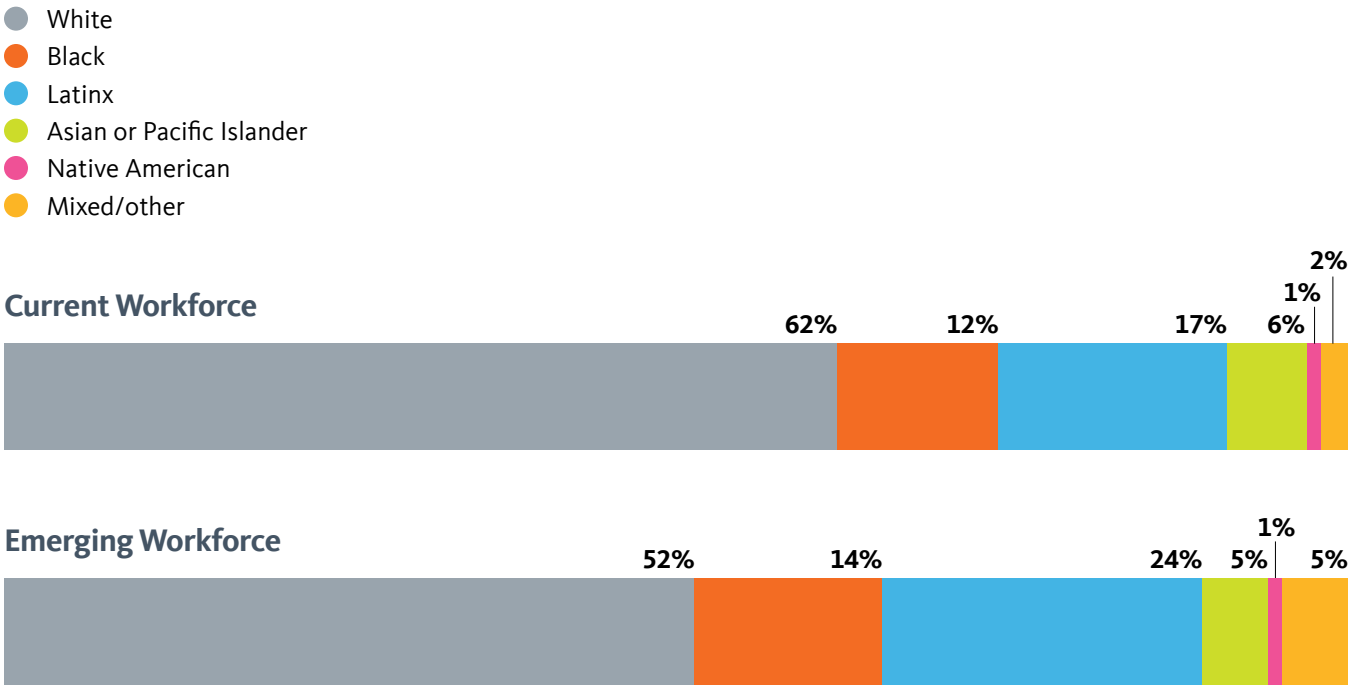
THE WORKFORCE IS GROWING MORE DIVERSE

The face of the nation is changing—and with it, the demographics of the workforce. In about 25 years the United States will no longer have a single majority racial/ethnic group.[12] White people comprise 62 percent of the US workforce overall, but 75 percent of those ages 55 or older. As baby boomers retire, they are being replaced by a much more diverse generation of workers: in 2018, for the first time, people of color accounted for more than half of all new hires of prime working age.[13] As people of color become the majority of the US workforce, racial inequities in the labor market represent a rising liability for the economy as a whole.

Workforce Demographics

Latinx, Black, and other/mixed-race individuals will make up an increasing share of the next generation workforce.

Current and Emerging Workforce by Race/Ethnicity, United States, 2018



Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe of emerging workforce includes all people under the age of 25 years old while current workforce includes all people between the ages of 25 and 64. Data reflect a 2014–2018 average.

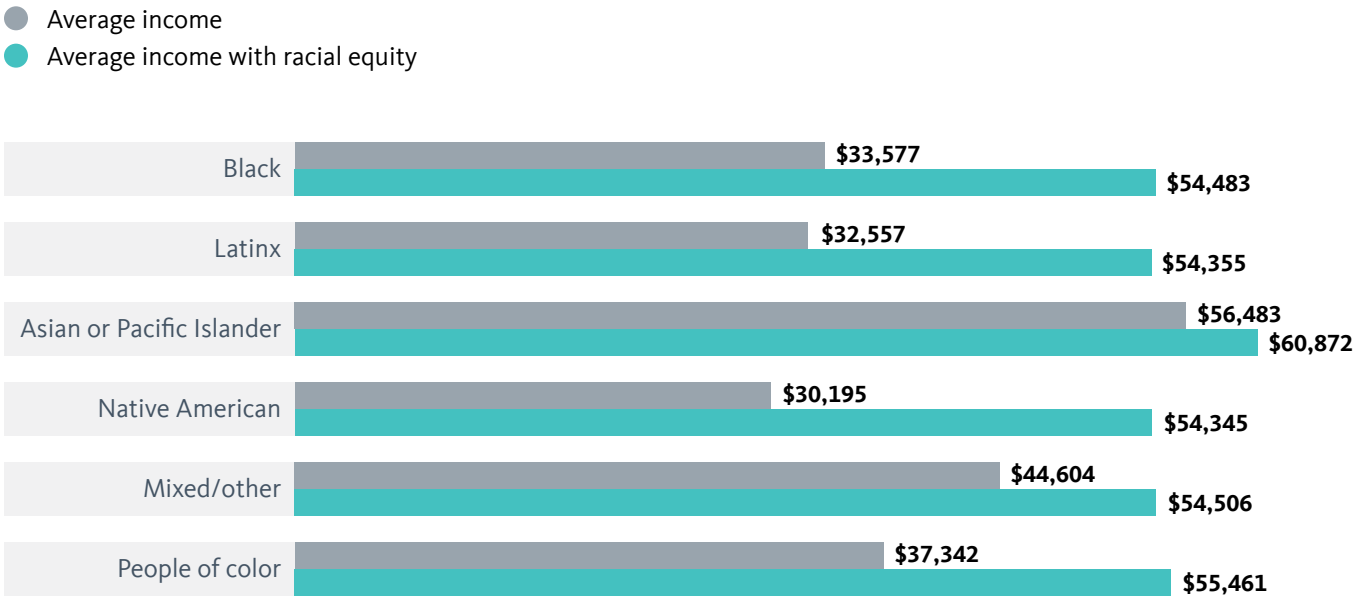
Today, roughly half of all young people under the age of 25 are people of color, too many of whom are being left behind by policies and practices that leave them relegated to underresourced schools and neighborhoods, left on the wrong side of the digital divide, and systematically locked out of access to the transportation, resources, and personal and professional networks that can unlock opportunity.

The Economic Benefits of Equity

Workforce equity and shared prosperity are essential to a strong, resilient economy—and as the population becomes more diverse, this economic imperative will only escalate. In 2018 alone, the US economy could have been $2.3 trillion stronger if there had been no racial gaps in income for the working-age population. These gaps are driven by inequities in both employment and wage that harm workers, families, and the economy.

Racial equity would increase the average incomes of people of color by $18,000—a 49 percent gain.

Income Gains with Racial Equity in the Workforce, United States, 2018

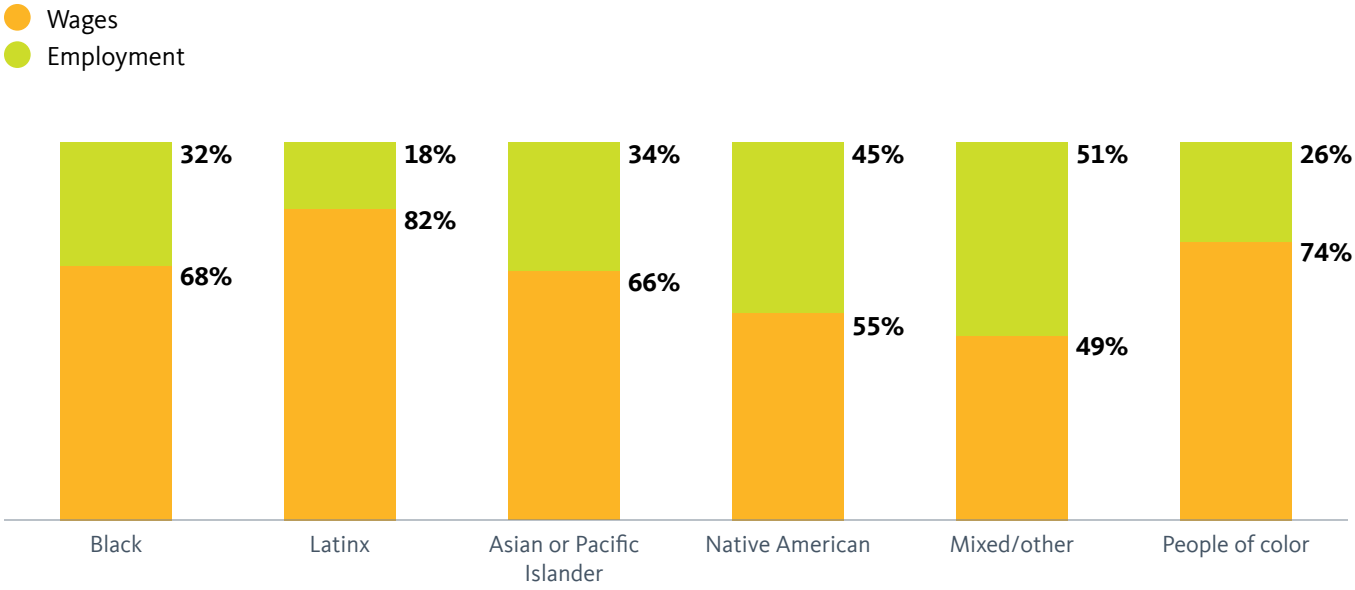


Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the population ages 25–64. Data reflect a 2014–2018 average. Values are in 2018 dollars. See the methodology for details on this analysis.

Achieving racial equity in income would rely on closing racial gaps in both employment and wages. Native Americans stand to make the greatest gains in income with racial equity, from around $30,200 to $54,300 (an 80 percent increase). Incomes for Black and Latinx adults would grow by 62 and 67 percent, respectively. On average, incomes for people of color would increase by more than $18,000 a year.

Eliminating racial inequities in income requires targeted strategies to address gaps in both employment and wages.

Source of Income Gains with Racial Equity in the Workforce, United States, 2018



Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the population ages 25–64. Data reflect a 2014–2018 average. See the methodology for details on the analysis.

Overall, racial gaps in wages account for about three-quarters of income inequity for people of color, while racial gaps in employment account for one-quarter. Among Latinx people of working age, 82 percent of the gains with racial equity would be achieved through increased wages, indicating the priority of strategies to increase job quality and support worker transitions into better-paying jobs. For Native American and mixed/other race workers, on the other hand, gaps in employment are also a significant driver of income gaps, suggesting that tailored approaches to help jobseekers develop skills and connect to employment are equally important.

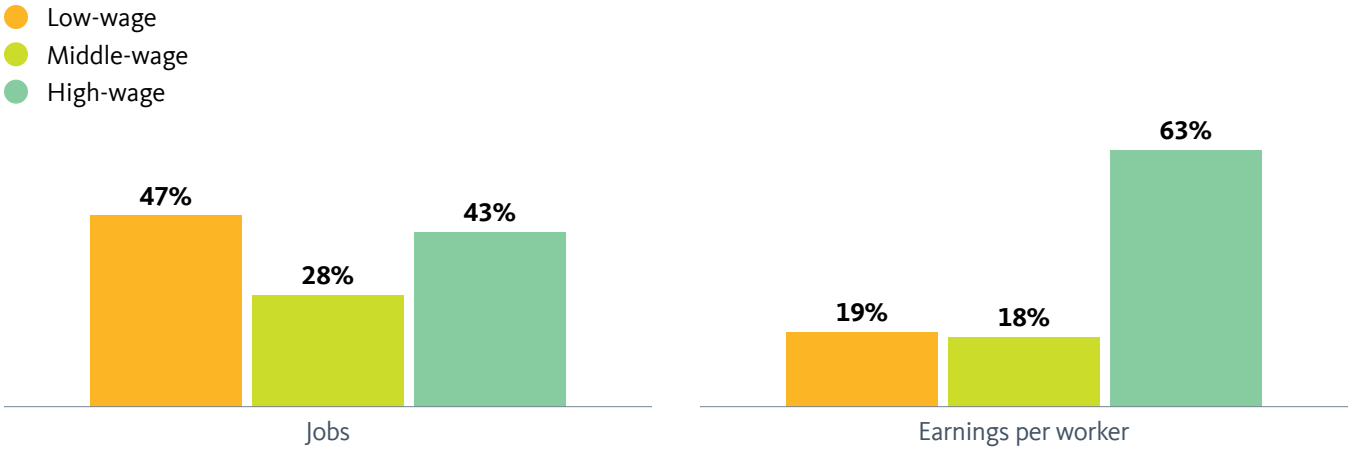
4.0
STRUCTURAL CHANGES IN THE LABOR MARKET UNDERPIN MOUNTING INEQUITIES

While the workforce has been growing more diverse, the structure of the economy has shifted in ways that have reduced opportunities for workers without college degrees—including two out of three workers of color—to achieve economic security and mobility. Declining growth in "middle skills" jobs, dangerously low standards of job quality at the bottom of the income distribution, and growing income inequality are three of the primary vectors of workforce inequity in the United States today. Amid a changing economic landscape, systemic racial inequities in employment, wages, and education remain deeply entrenched, alongside employer bias and discrimination in hiring, pay, and promotion practices.[14]

Decline of Middle-Class Job Opportunities

Earnings growth over the past 30 years has been largely captured by high-wage workers, while middle-wage job growth has lagged.

Growth in Jobs and Earnings by Wage Level, United States, 1990–2018



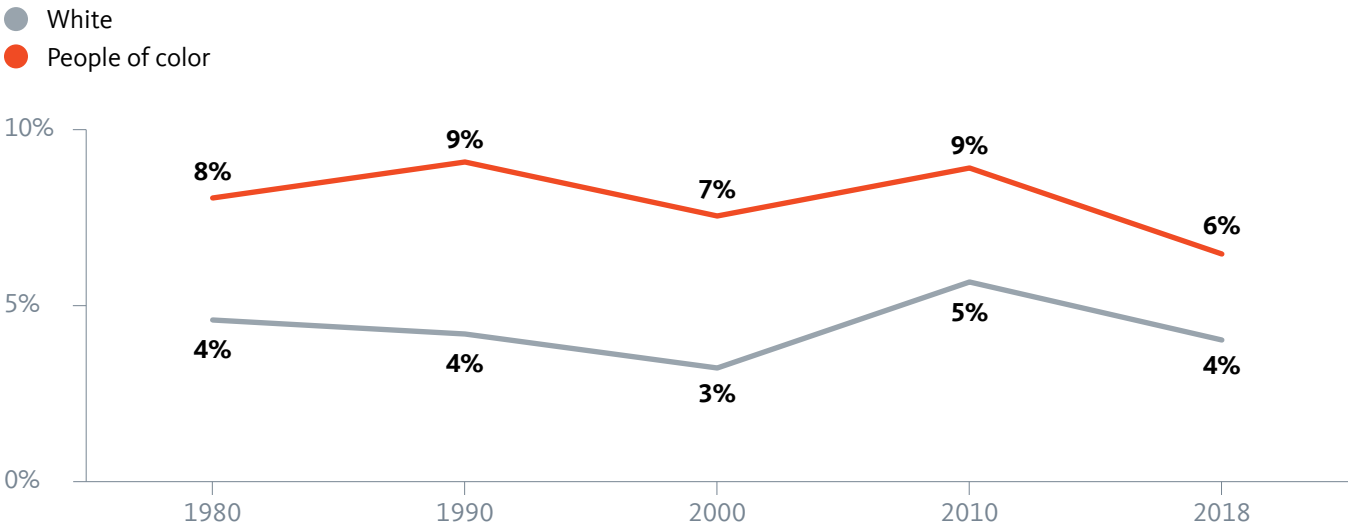
Source: National Equity Atlas, PolicyLink/USC Equity Research Institute.[15] **Note:** Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Over the last 30 years, jobs in low- and high-wage industries have proliferated at 1.5 times the rate of middle-wage jobs, hollowing out the foundation of a strong middle class. Especially for people without a bachelor's degree—a group that includes about 85 percent of Latinx and Native American adults and almost 80 percent of Black adults—jobs that offer economic security have diminished, while the costs of housing and other basic necessities have ballooned.

Employment

People of color continue to face greater exclusion from the labor market.

Unemployment by Race/Ethnicity, United States, 1980–2018



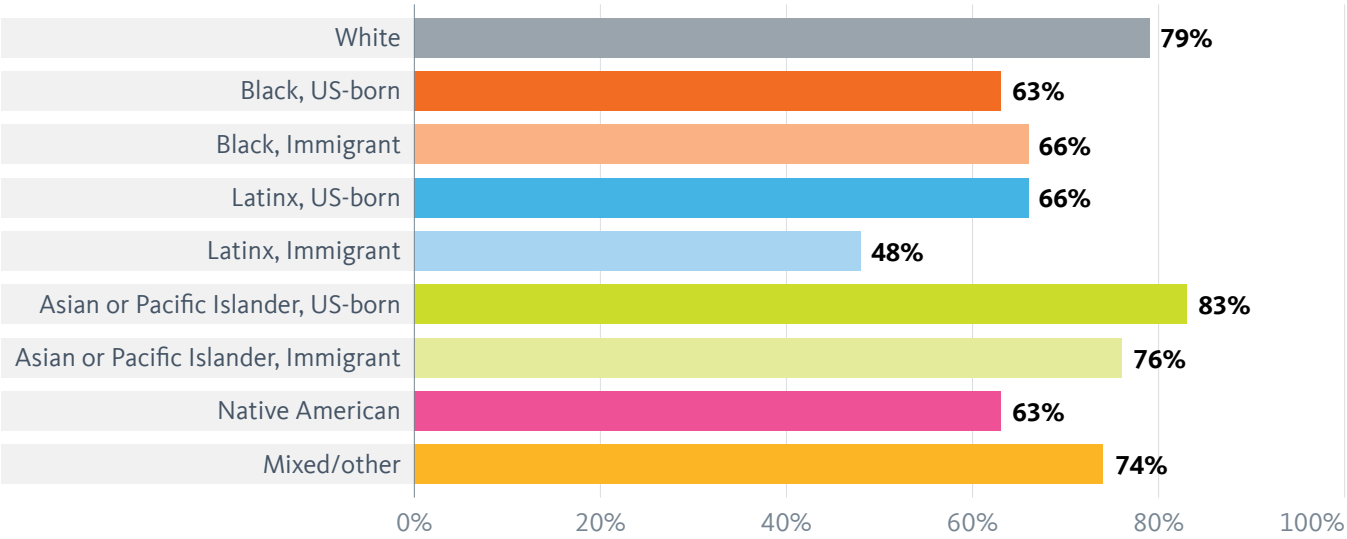
Source: Authors' analysis of decennial census (1980 through 2000) and 5-year American Community Survey (2010 and 2018) microdata from IPUMS USA. **Note:** Universe includes the civilian noninstitutional population ages 25–64. Joblessness is defined as those unemployed or not in the labor force as a share of the total population. Data for 2010 and 2018 reflect 2006–2010 and 2014–2018 averages, respectively.

Workers of color consistently face higher levels of unemployment compared with White workers. These racial gaps reflect not only weaker employment markets due to disinvestment in communities with large Black or Latinx populations, but also unabated racial discrimination in hiring, inequities in educational access and attainment, weaker professional and mentorship networks, and racial inequities in incarceration and the subsequent challenges of reentry.[16,17,18,19]

Wages

Four out of five White and Asian or Pacific Islander workers earn at least $15 an hour, but fewer than half of Latinx immigrants are paid this basic living wage.

Share of Workers Earning at Least $15/hour by Race/Ethnicity and Nativity, United States, 2018



Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes civilian noninstitutional full-time wage and salary workers ages 25–64. Data reflect a 2014-2018 average. The $15/hour wage threshold is based on 2018 dollars.

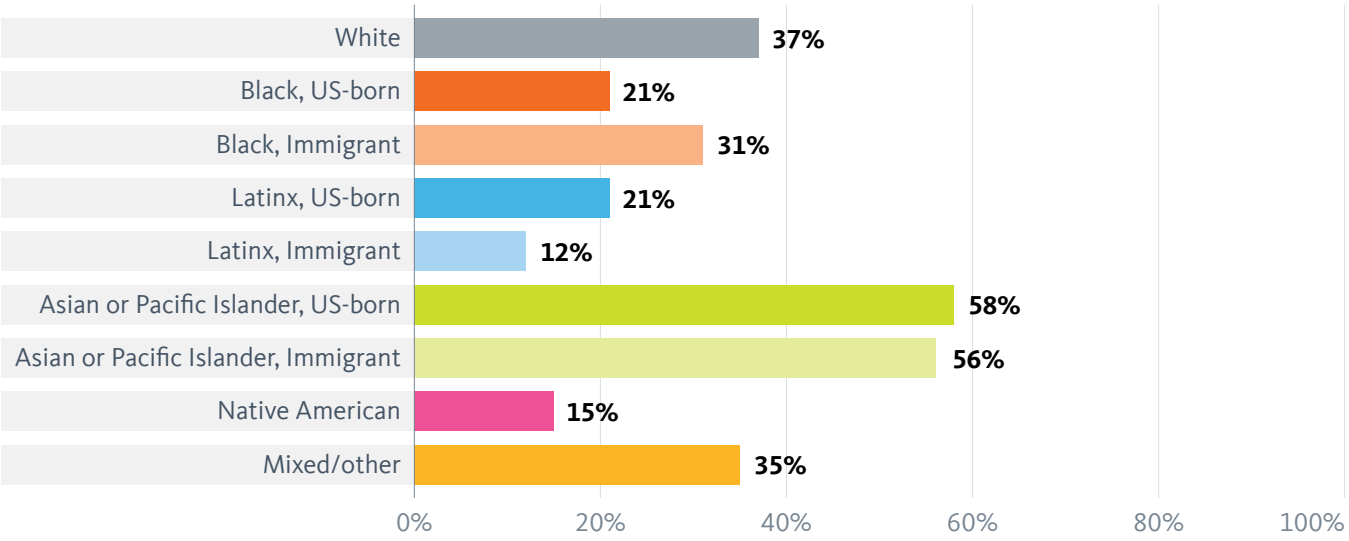
Racial gaps in the share of workers earning at least $15/hour have been stubbornly persistent over the past several decades. Nearly 80 percent of White workers are paid at least $15/hour, compared to just 63 percent of Native American and US-born Black workers and fewer than half of Latinx immigrants. And even with full-time, year-round work, $15 per hour is enough to afford a two-bedroom apartment (without being rent burdened) in just six of the 50 US states.[20] Even when controlling for education, White workers are more likely than workers of color to earn a $15 wage; when looking across different education levels, White workers continue to earn 15–25 percent more than their Black and Latinx counterparts.

Higher Education

Since 1990, the share of US adults who hold at least a bachelor's degree has increased from 23 percent to 32 percent, but racial gaps remain entrenched.[21] Just 15 percent of Native American, 12 percent of Latinx immigrants, 21 percent of US-born Latinx adults, and 22 percent of Black residents in the United States have at least a four-year degree, compared with 37 percent of White workers.

Fewer than one in six Native Americans and Latinx immigrants, and just one in five Black and US-born Latinx adults, have a bachelor's degree.

Share of Adults With at Least a Bachelor's Degree by Race/Ethnicity and Nativity, United States, 2018

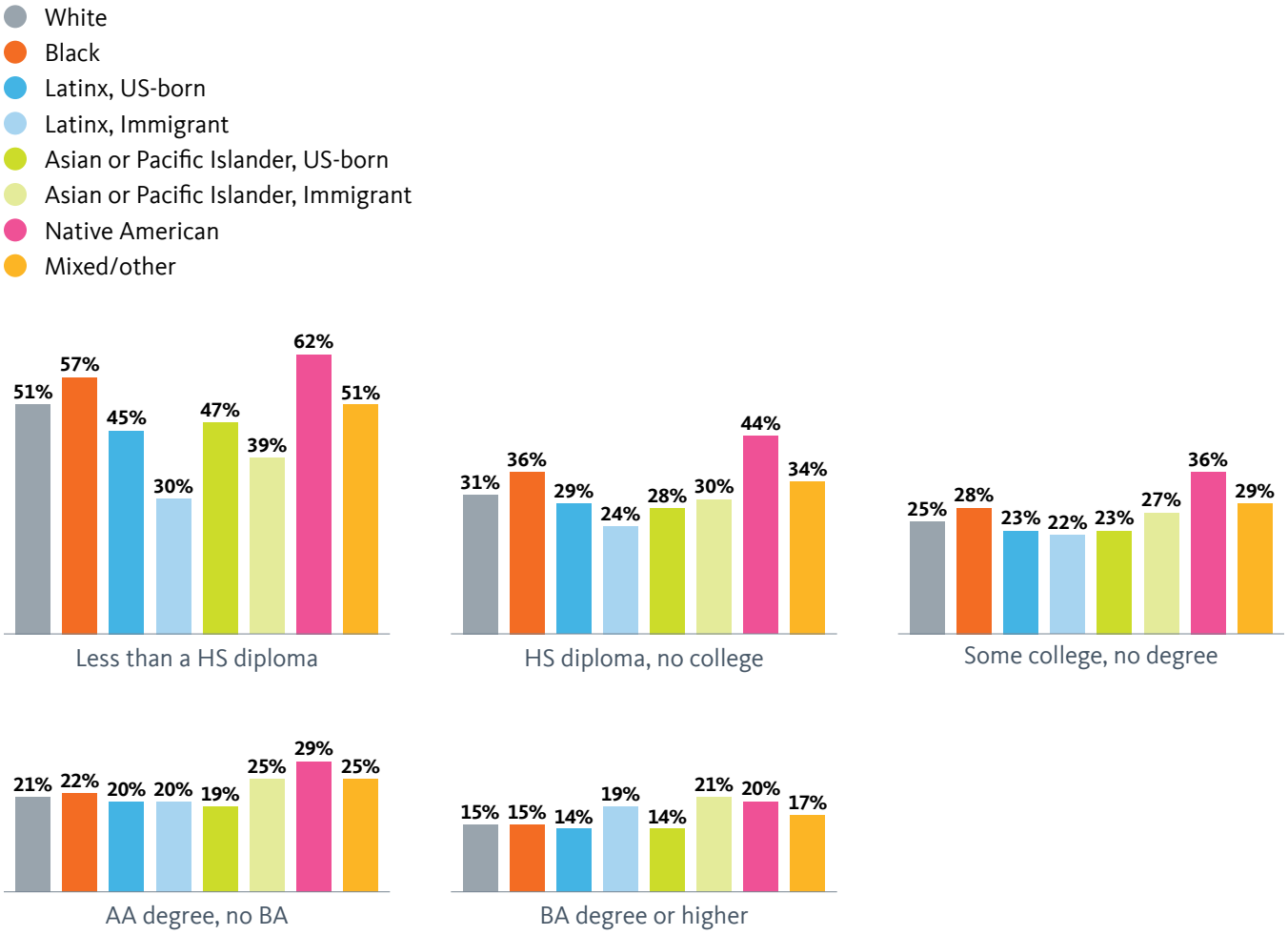


Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the population ages 25–64. Data reflect a 2014–2018 average.

The attainment of a bachelor's degree is strongly correlated with lower unemployment, higher wages, and lesser vulnerability to automation-related job disruptions. About one in three US adults have earned at least a bachelor's degree, but this varies significantly across racial/ethnic groups. The rate for White and mixed/other race individuals is slightly higher than the population average, while Asian or Pacific Islander adults are nearly twice as likely as the overall population to have a bachelor's degree. Meanwhile, just one in eight Latinx immigrants, one in six Native Americans, and one in five Black or US-born Latinx adults have a bachelor's degree.

Higher education narrows racial gaps in employment, but benefits only a small share of Native American, Latinx, and Black workers.

Joblessness by Educational Attainment, Race/Ethnicity and Nativity, United States, 2018

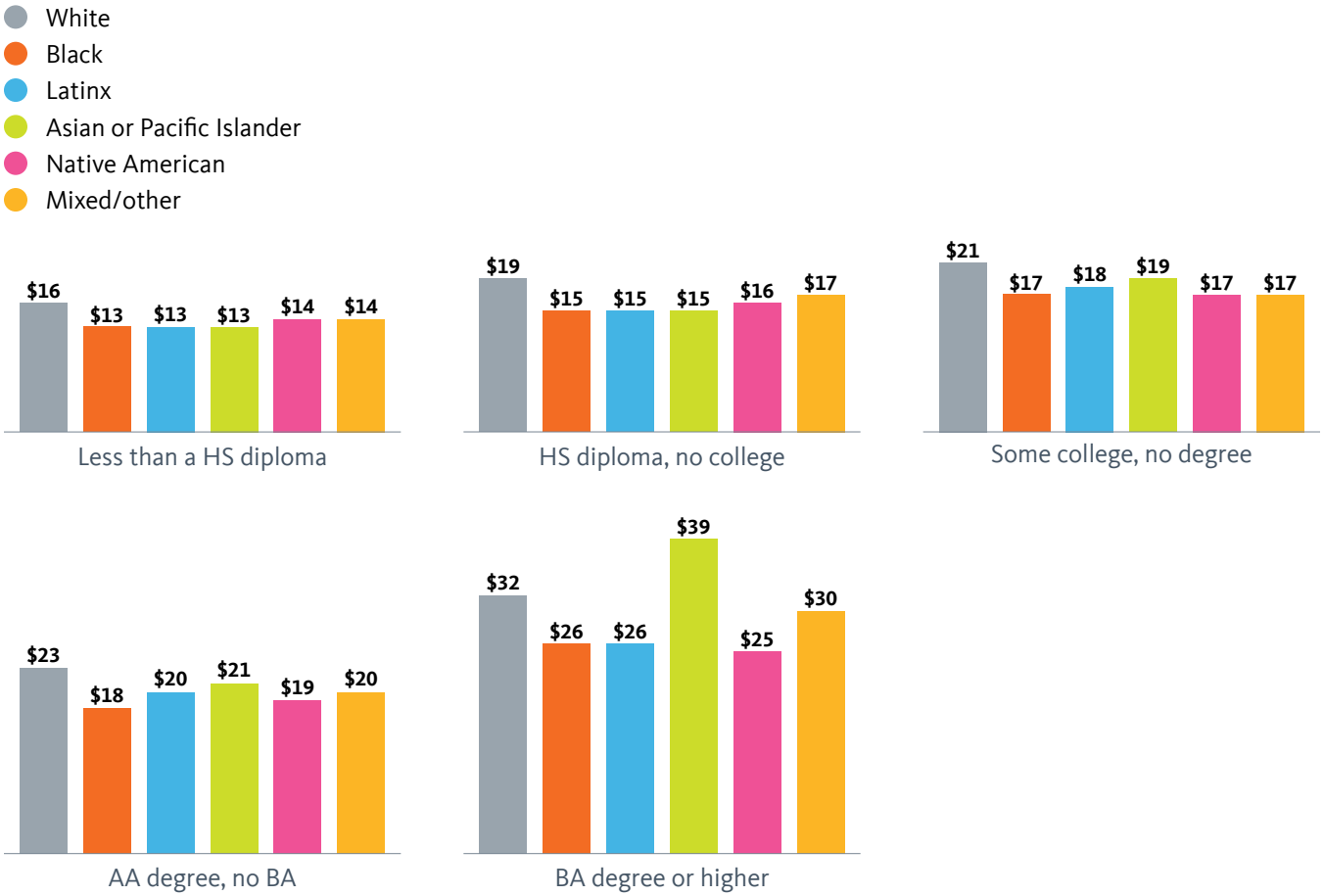


Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the civilian noninstitutional population ages 25–64. Joblessness is defined as those unemployed or not in the labor force as a share of the total population. Data reflect a 2014–2018 average.

Across all racial/ethnic groups, joblessness declines steadily as educational attainment increases, but racial inequities remain. Native Americans experience the highest jobless rates of each educational cohort except for those with a BA degree or higher—a group to which only 15 percent of Native Americans belong (as shown in the previous chart). Nearly half of Native American adults and more than 70 percent of Latinx immigrants are concentrated among the groups with no college, where jobless rates are highest. The attainment of a college degree decreases racial gaps in joblessness most dramatically for Black workers, but less than a third of Black adults have an AA degree or higher.

Black, Latinx, and Native American workers earn less than their White counterparts at every level of educational attainment.

Median Wage by Educational Attainment and Race/Ethnicity, United States, 2018



Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes civilian noninstitutional full-time wage and salary workers ages 25–64. Data reflect a 2014–2018 average. Values are in 2018 dollars.

On average, Black workers with an associate's degree earn less than White workers with only a high school diploma, and Native Americans with an associate's degree earn about the same. While wages increase with higher levels of educational attainment, White workers earn more than people of color across all educational cohorts, except among those with a BA degree or higher, where Asian or Pacific Islander workers have the highest median wages. And the relative wage gains are not equivalent: the median hourly wage premium for earning an AA degree as opposed to a high school diploma is highest for Asian or Pacific Islander individuals at 40 percent (a $6 increase). The same educational achievement carries just a 19 percent median wage increase for Native Americans, and a 20 percent premium for Black workers. The gap in wage gains from a high school diploma to BA

degree or higher is even more pronounced: a 160 percent gain for Asian or Pacific Islander workers, a 73 percent gain for Black and Latinx workers, and a 56 percent gain for Native American workers.

Occupational Segregation

Occupational segregation crowds workers of color in lower quality jobs.

Select Occupational Groups by Race/Ethnicity and Nativity, United States, 2018

	White	Black	Latinx	Asian or Pacific Islander	Native American	Mixed/ Other
Total workforce	63%	11%	17%	6%	1%	2%
Management	74%	7%	10%	6%	<1%	2%
Arts, design, entertainment, sports	74%	7%	11%	6%	<1%	3%
Education, training, and library	73%	10%	10%	5%	1%	2%
Architecture and engineering	71%	5%	9%	13%	<1%	2%
Financial specialist	71%	9%	9%	10%	<1%	2%
Business operations specialists	71%	10%	10%	7%	<1%	2%
Extraction workers	69%	5%	22%	1%	1%	1%
Life, physical, and social science	69%	6%	8%	15%	<1%	2%
Health-care practitioners and technical	69%	11%	8%	10%	<1%	2%
Community and social services	69%	14%	11%	4%	1%	2%
Sales	68%	9%	14%	6%	1%	2%
Installation, maintenance, and repair	68%	8%	18%	3%	1%	2%
Military specific	65%	13%	14%	4%	1%	4%
Office and administrative support	64%	13%	15%	5%	1%	2%
Computer and mathematical	63%	8%	7%	20%	<1%	2%
Protective service	61%	20%	15%	2%	1%	2%
Production	57%	12%	23%	6%	1%	1%
Construction trades	57%	6%	34%	2%	1%	1%
Personal care and service	57%	13%	17%	11%	1%	2%
Transportation and material moving	54%	18%	22%	4%	1%	2%
Food preparation and serving	48%	13%	28%	8%	1%	2%
Health-care support	46%	26%	19%	7%	1%	2%
Building and grounds cleaning and maintenance	42%	14%	39%	3%	1%	2%
Farming, fishing, and forestry	37%	4%	56%	2%	1%	1%

Source: Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the employed population ages 25–64. Data reflect a 2014–2018 average.

Black workers make up about 11 percent of the total workforce in the United States, but more than double that share (26 percent) of health-care support workers. They are also overrepresented among protective service jobs (20 percent), transportation and material moving jobs (18 percent), and building, grounds cleaning, and maintenance (14 percent). Black immigrants are especially overrepresented in health-care support jobs. Conversely, Black workers are significantly underrepresented in architecture and engineering (5 percent), computer and mathematical jobs (8 percent), and life, physical, and social sciences (6 percent).

While Latinx workers account for 17 percent of the workforce overall, they hold 56 percent of jobs in farming, fishing, and forestry occupations; 39 percent of building, grounds cleaning, and maintenance jobs; 34 percent of construction trades jobs; and 28 percent of food service and preparation jobs. Latinx workers are most underrepresented among computer and mathematical jobs (7 percent); life, physical, and social science jobs (8 percent); health-care practitioners and technical occupations (8 percent); and architecture and engineering (9 percent).

Latinx immigrants, who make up 9 percent of the US workforce overall, account for 48 percent of farming, fishing, and forestry workers; 30 percent of building and grounds cleaning workers; and 25 percent of construction workers.

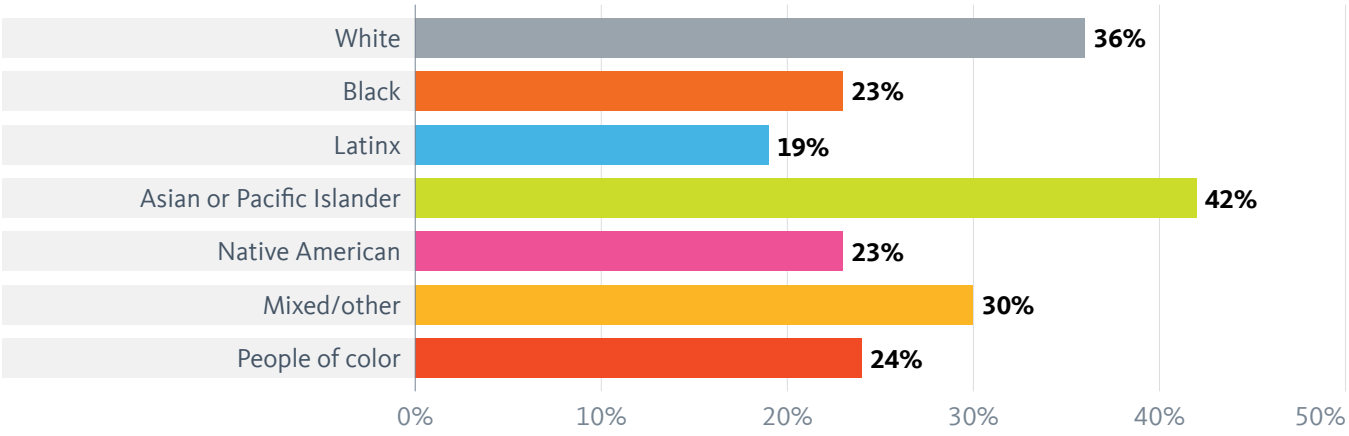
5.0

WORKERS OF COLOR FACE A GOOD-JOBS GAP

Good jobs—those that provide a reasonable expectation of job stability, insulation from existential forces like automation and offshoring, and family-sustaining compensation—are crucial for economic mobility and the foundation of a strong middle class and a resilient economy. But workers of color are underrepresented in good jobs, even when controlling for educational attainment. The concentration of workers of color in low-wage occupations is not only a *cause* of these racial gaps; it is also an *effect* of historic and ongoing policies that define jobs done largely by people of color—such as agricultural, food service, and domestic work—as "low skill" occupations and exclude them from wage protections and fair labor standards laws. When people of color are systematically shut out of high-quality employment due to discrimination or structural barriers, workers, communities, and the economy suffer.

White workers are 50 percent more likely than workers of color to hold good jobs.

Share of Workers in Good Jobs by Race/Ethnicity, United States, 2018



Source: Authors' analysis of Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey.

Overall, 36 percent of White workers hold good jobs, compared to less than a quarter of workers of color. Fewer than one in five Latinx workers are employed in good jobs—the lowest rate of any racial/ethnic group.

Racial gaps in good jobs are pronounced, but even if these gaps were completely eliminated, tens of millions of workers would still be employed in lower quality occupations—underscoring the need to raise the floor on low-wage work and transform existing jobs into good jobs. For every good job available today, there are about 50 workers in need of good jobs. This "good-jobs gap" contributes to economic insecurity for workers and decreased productivity for employers, and impacts people of color most deeply.

Access to Good Jobs

Characteristics of good jobs:

- Well-compensated: Median wage for the occupation at or above the national median
- Stable or growing employment: The number of jobs is projected to grow or to remain relatively stable for the next decade—*either* not declining by more than 2 percent over 10 years, *or* over 100,000 workers and not declining by more than 10 percent over 10 years
- Automation resilient: Probability of computerization lower than 50 percent

Example occupations accessible to workers with a high school diploma or less:

- First-line supervisors of nonretail sales workers
- Electricians
- Medical appliance technicians
- Gaming managers
- Plumbers, pipefitters, and steamfitters

Example occupations accessible to workers with some postsecondary education or an associate's degree:

- Licensed practical/ licensed vocational nurses
- Radiation therapists
- Firefighters
- Web developers
- Wind turbine service technicians

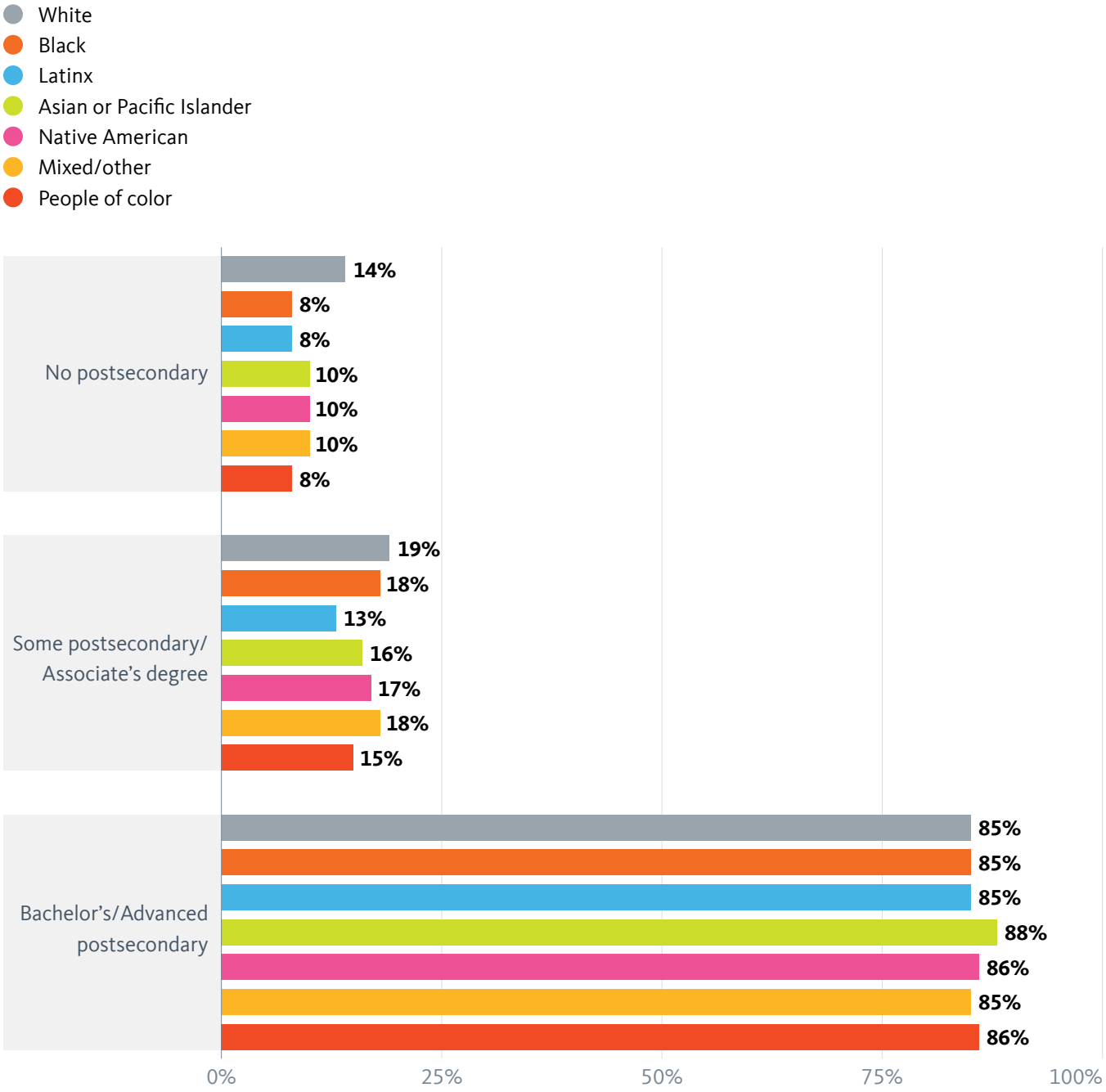
Example occupations accessible to workers with a bachelor's degree or higher:

- Registered nurses
- General and operations managers
- Physician assistants
- Statisticians
- Information security analysts

To analyze access to good jobs by race using available data, we define good jobs as those occupations that pay at or above the national median wage, provide a large and stable base of employment, and have greater than average resilience to automation. By these standards, approximately one-third of the American workforce are in good jobs, including 12 percent of workers (12 million) with no postsecondary education, 17 percent of workers (3 million) with some postsecondary or an associate's degree, and 86 percent (36 million) of workers with a bachelor's or advanced degree.

Among jobs that do not require postsecondary education, White workers are about 75 percent more likely than workers of color to hold good jobs.

Share of Workers in Good Jobs by Educational Requirements and Race/Ethnicity, United States, 2019



Source: Authors' analysis of Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey.

Among jobs that do not require postsecondary education, 14 percent of White workers are in good jobs compared to 8 percent of Black and Latinx workers. In positions that require an associate's degree or other postsecondary

credential, 19 percent of White workers are in good jobs, compared to 15 percent of workers of color. Black and White workers are similarly represented in these jobs; but it is important to note that this group includes underemployed college graduates, and Black college graduates are less likely than their White peers to land a job that actually requires a degree. For every 100 White people with a college degree, there are 69 White people in a job that requires a college degree; that figure drops to 65 out of 100 for Black workers.

People of color are acutely overrepresented in the lowest-paying jobs, making up the majority of workers in *all 25* of the lowest-wage occupations with at least 100,000 workers of color. Black workers are most dramatically overrepresented among home health aides, nursing assistants, security guards, taxi drivers, and truck and tractor operators. Latinx workers are particularly concentrated among farm workers, cleaners, construction workers, landscapers, and packagers. (See Appendix A for details.)

To eliminate racial inequities in who holds good jobs, the number of Black and Latinx workers in jobs that do not require postsecondary education would need to increase by nearly 50 percent.

Job Changes Needed for Representation in Good Jobs to Equal Representation in the Overall Workforce by Race/Ethnicity, United States, 2019

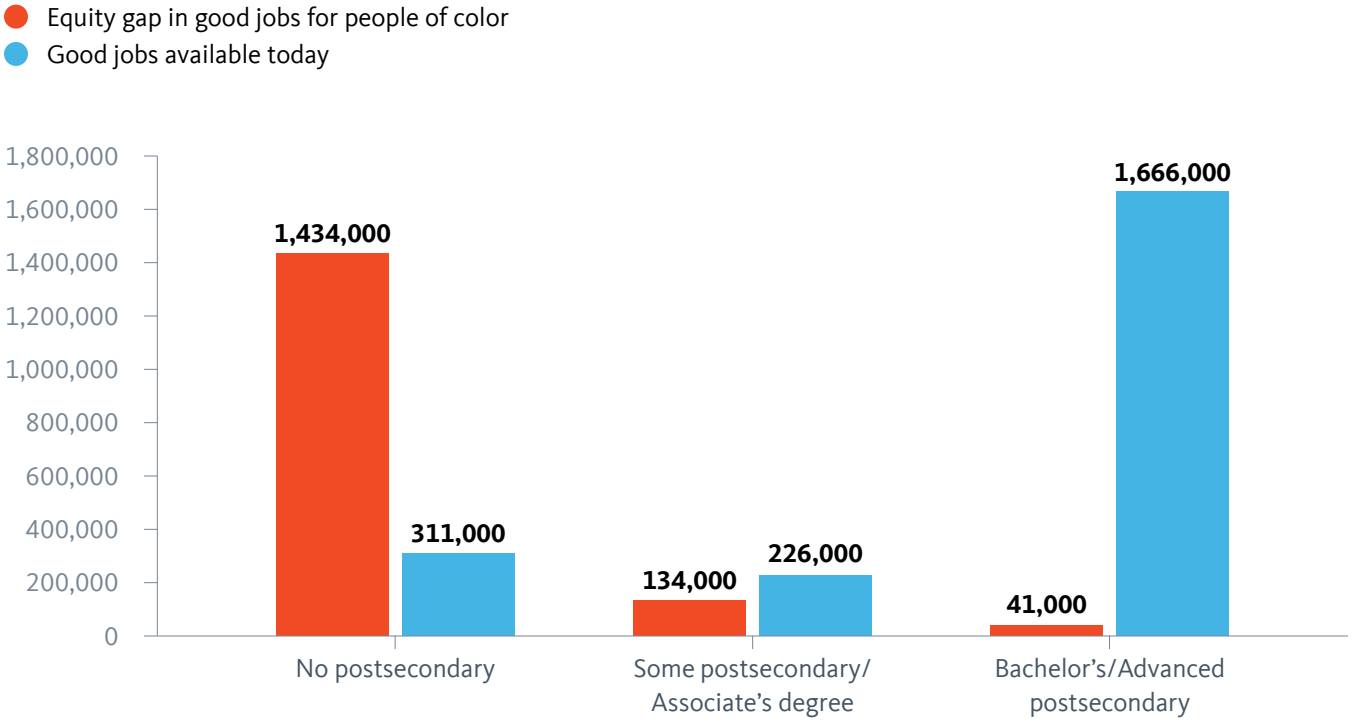
	No postsecondary		Some postsecondary/ Associate's degree		Bachelor's/ Advanced postsecondary	
Race/ethnicity	Number	Percent increase	Number	Percent increase	Number	Percent increase
White	—	N/A	—	N/A	35,000	<1%
Latinx	786,000	45%	123,000	35%	21,000	1%
Black	510,000	49%	—	N/A	18,000	1%
Asian or Pacific Islander	89,000	20%	11,000	7%	—	N/A
Native American	13,000	21%	1,000	3%	<1,000	<1%
Mixed/Other	36,000	16%	—	N/A	1,000	<1%
People of Color	1,434,000	41%	134,000	13%	41,000	<1%

Source: Authors' analysis of Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey. **Note:** Numbers rounded to nearest thousand.

Examining the number of job upgrades needed for the distribution of workers in good jobs by race/ethnicity to parallel overall workforce demographics (within each educational level), we find that 1.4 million workers of color without postsecondary education need job upgrades—a 41 percent increase. Among good jobs that typically require an associate's degree or other postsecondary credential, workers of color are underrepresented by 13 percent, and Latinx workers are underrepresented by 35 percent.

Currently available jobs could close 22 percent of the racial gap in good jobs that do not require postsecondary education.

Equity gaps (racial underrepresentation) in good jobs and good jobs available in October 2020, United States



Source: Authors' analysis of Burning Glass job posting data (September 2020); occupational employment from Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey microdata from IPUMS USA.

Looking at the racial gap in access to good jobs, we found that workers of color are significantly underrepresented. In order for the racial demographics of workers in good jobs to match the racial demographics of the overall workforce, 1.6 million workers of color would need upgrades to good jobs (represented in the chart above as the equity gap in good jobs for people

of color). The vast majority of this underrepresentation is among jobs that do not require a postsecondary education, where there is an equity gap of more than 1.4 million jobs. Overall, there are about 2.2 million open postings for good jobs, but the vast majority of these open positions require a bachelor's degree or higher. So while there is sufficient demand for good jobs today to fully close the equity gap for workers with a four-year degree, existing demand (311,000 jobs) could only close the equity gap by 22 percent among those with no postsecondary education.

This mismatch is often described as a "skills gap" that makes it difficult for employers to find workers with the skills and competencies they need. But this data alternatively suggests that the formal job requirement of a four-year degree may prevent optimal matching between workers and employers. There is a growing consensus that many occupations that often require a bachelor's degree simply should not do so—especially as the pace of technological change means that the skills and knowledge accrued through a formal education are quickly outmoded in the workplace.[22]

6.0
MULTIPLE INTERLOCKING SYSTEMS PRODUCE WORKFORCE INEQUITIES

Workforce inequities arise from racial exclusion across a range of systems and institutions, and are deeply rooted in the nation's history. Modern occupational segregation follows from the legacy of slavery and Jim Crow, polarized immigration policies, educational discrimination, and institutional racism in the workplace. And exclusions in fair labor standards leave millions and millions of workers unprotected by minimum wage, overtime, and other laws designed to protect working people. Concentrated unemployment, especially high among Black and Native American workers, is not only a result of hiring discrimination, but also an effect of broader disinvestment in communities of color and structural racism that makes people of color more likely to face systemic barriers to opportunity.

In the years since the Great Recession, the US economy has only grown more top-heavy, with massive wealth accumulation at the top built on an increasingly precarious foundation of low-wage and contingent labor—where Indigenous, Black, Latinx, and Pacific Islander workers are most concentrated. The key drivers of workforce inequity include the following:

- **Structural changes in the economy and related policies have intensified inequality and racial inequities.** Across the United States, large-scale economic trends have polarized wealth and income inequality, leaving an increasing share of the population economically insecure. Deindustrialization, automation, and the globalization of the labor market have eliminated many of the traditional career pathways to the middle class (particularly for workers without a college education), which have been supplanted by extensive growth in low-wage, highly precarious service sector jobs. Meanwhile, the suppression of union organizing and other forms of worker power and significant cuts to public benefits and social programs have eroded economic protections both in and out of the workplace.

- **Educational inequities reinforce racial gaps in employment and wages.** As described above, higher educational attainment does not equalize racial income gaps, but it does raise wages and decrease joblessness for workers across all racial/ethnic groups. Inequitable school funding, racial and economic segregation (especially the concentration of low-income children in schools with other low-income students), lack of wraparound supports for students and families (especially students who are also parenting), housing and food insecurity among students, and ballooning costs of higher education and training programs and associated debt all

contribute to the reproduction and retrenchment of these inequities, leaving too few young people of color ready for college or careers, and too many taking employment opportunities that are necessary in the short term but hinder longer term career development. And even among workers who have a postsecondary education, people of color are more likely to end up in jobs that do not actually require that level of education, missing out on the increased wages and job quality associated with higher education.

- **Racial bias and discrimination persist in the labor market.** Bias in recruitment and hiring—in particular, discrimination against Black job candidates—has shown no signs of improvement over the past several decades: with identical resumes, White applicants are called back 36 percent more often than Black applicants and 24 percent more often than Latinx applicants.[23] First-generation professionals and low-income workers, who are disproportionately people of color, are less likely to have access to the social capital of well-connected personal and professional networks, which can also play an important role in employment opportunities. Informal job matching—hiring based on personal networks rather than fair application processes—may also contribute to racial inequities in access to good jobs: in a recent survey, 31 percent of respondents reported that they found their most recent job through their personal network, compared to a combined 19 percent who landed a job through online job boards, social media, or classified ads.[24] And even where corporate diversity and inclusion efforts have resulted in better recruitment and hiring outcomes for people of color, they are still likely to face discrimination in pay and promotion and bias in company culture. Occupational crowding and other forms of occupational segregation reinforce racial income gaps, and even when controlling for educational attainment, 87 percent of occupations are racially segregated.[25] Black and Latinx people remain significantly underrepresented in management, business operations, and finance occupations, and across the tech industry as a whole.[26] Among management and professional jobs, each $10,000 increase in average annual wages for an occupation corresponds to a 9 percent decrease in the share of those jobs held by Black men.[27]

- **Pervasive structural barriers to good jobs prevent many workers, especially people of color, from fully participating in the economy.** While employer hiring practices like credit checks and criminal background checks may appear to be race-neutral, in practice they present higher barriers for people of color, compounding inequities in the financial and criminal-legal systems. Black people are incarcerated at five times the rate of White people in the United States, and study after study have demonstrated deep racial injustices throughout the criminal-legal system, from policing to arrests to quality of legal representation to convictions to sentencing.[28] About one in four jobs in the United States requires an occupational license, many of which disqualify anyone with a criminal conviction. Similarly, employer credit checks unduly burden Black and Latinx applicants, who are significantly more likely than other groups to be unbanked—relying on higher cost, higher risk financial services and locked out of access to "good debt" (like prime-rate mortgages) that supports wealth and credit building.[29]

- **Systemic inequities in the "social determinants of work"[30] exacerbate racial gaps in income.** Meaningful access to employment entails more than education, training, and equitable hiring practices. It also depends on an individual's ability to take advantage of a given job opportunity: living close enough to the worksite, having reliable and affordable transportation, being able to arrange dependable family care, and enjoying affordable health care and benefits like paid leave that support employment stability and worker well-being. These essential supports and conditions are the connective tissues of workforce equity and can be understood as the social determinants of work—but stark racial divides are consistent across all of these spheres. The coronavirus era has underscored these and other barriers to workforce equity, including the digital divide and a steep gender imbalance in childrearing duties that is driving women ages 25-44 out of the labor force at three times the rate of their male peers.[31,32]

An expanded definition of the workforce ecosystem—one that is sensitive to the intersections of these challenges and builds cross-sector collaborative efforts—is essential to the design and implementation of strategies to advance workforce equity.

7.0

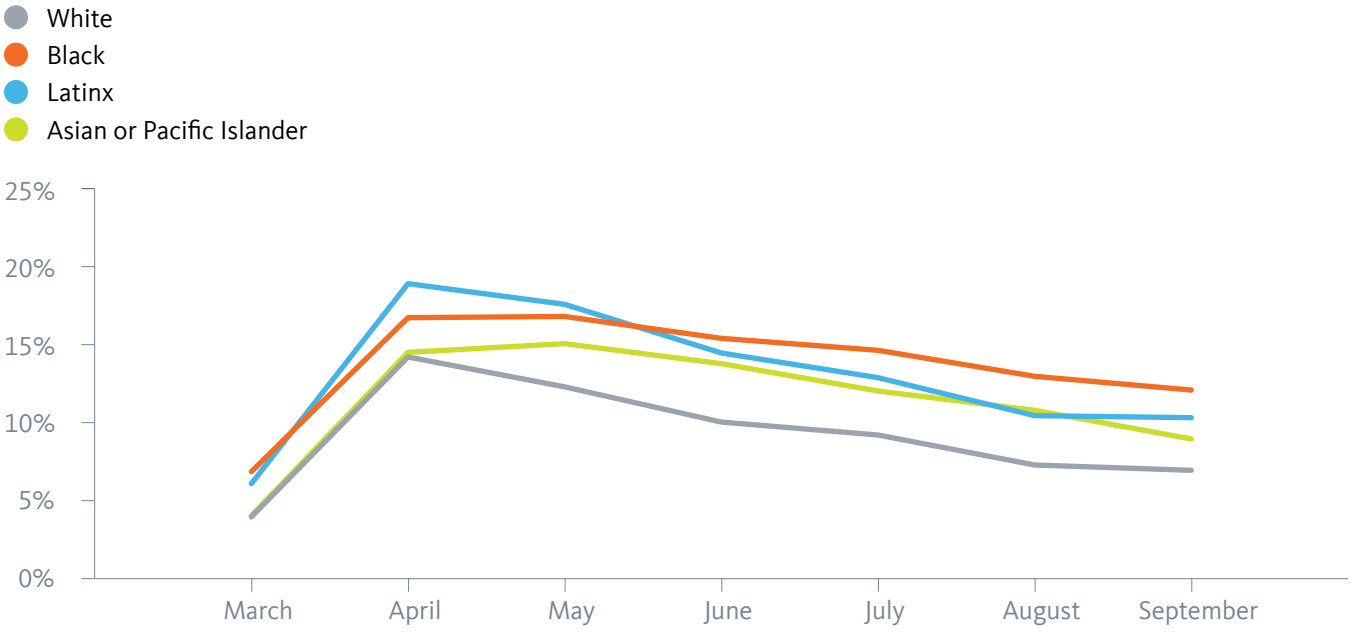
COVID-19 IS DEEPENING RACIAL ECONOMIC EXCLUSION

The onset of the Covid-19 pandemic rapidly exacerbated and complicated pre-existing workforce inequities, upending the lives and livelihoods of millions of workers and their families. Just one month after widespread shutdown orders took effect in an effort to stem the spread of the virus, more than 23 million US workers found themselves out of work as unemployment spiked to levels not seen since the Great Depression. Countless businesses shuttered, and nearly half of US households reported a loss of employment income; Black households were 29 percent more likely and Latinx households were 38 percent more likely than their White counterparts to have reported such a loss.[33]

In the months that followed, the US economy began to rally: employment rose by 2.5 million in May and 4.8 million in June.[34,35] Sales in combined retail and food services returned to pre-Covid levels.[36] Aggregate online job postings rebounded to surpass pre-crisis monthly totals.[37] However, nearly 20 million people are still out of work—12.6 million unemployed and another 7.2 million who are out of the labor force but want to work. Total nonfarm employment is still down 10.7 million (7 percent) from February.[38]

Black workers are experiencing the slowest recovery in unemployment…

Unemployment Rates by Race/Ethnicity, United States, March to September, 2020

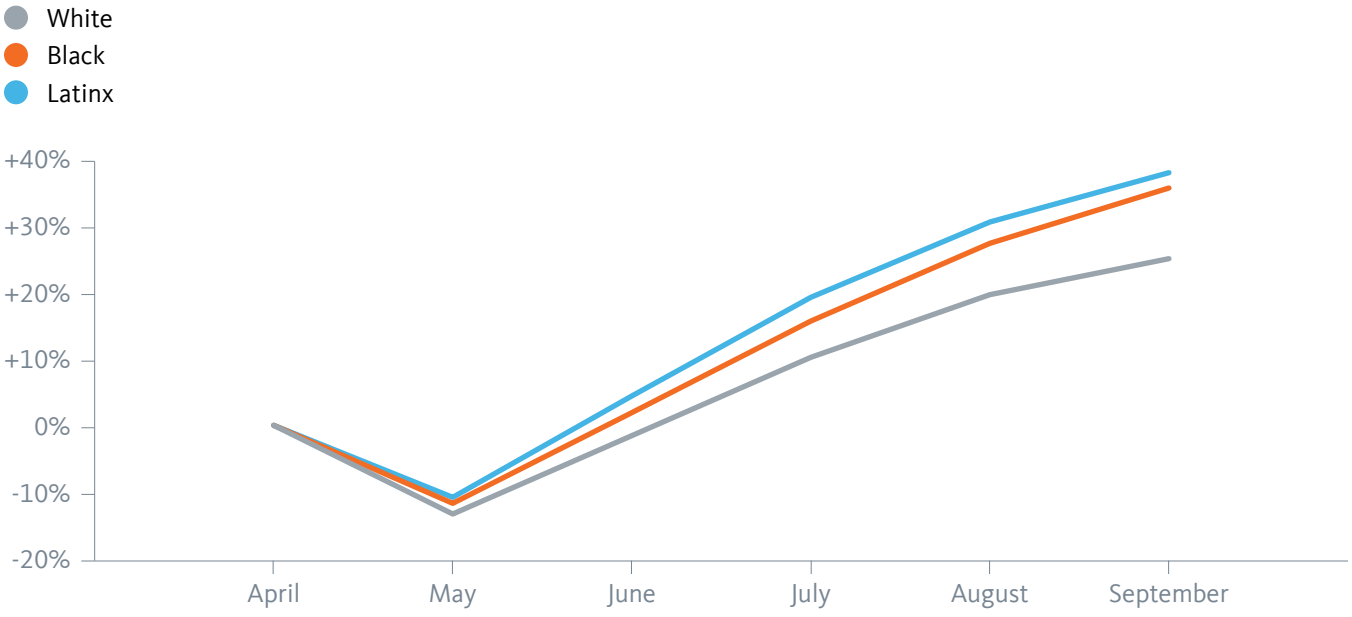


Source: Unemployment estimates from the Bureau of Labor Statistics "Employment Situation Summary" Tables A-1 & A-2 (April-September, 2020). Unemployment rates are seasonally adjusted. Race and ethnicity are not mutually exclusive; all groups other than Latinx include those of Hispanic or Latino origin who identify with that particular racial group.

Workers of all races saw a dramatic spike in unemployment between March and April. The jump in unemployment was steepest for White workers, but White workers are also getting back to work most quickly. As of September, the unemployment rate remains higher among Black and Latinx workers (12.1 and 10.3 percent, respectively) compared to White workers (7 percent). Despite overrepresentation of Latinx workers in "essential jobs,"[39] the year-over-year increase in unemployment hit Latinx workers harder than White or Black workers (a 164 percent increase in unemployment for Latinx workers since 2019).[40] This fact highlights the precarity of much of the Latinx workforce: both a greater fraction of workers facing health risks in essential jobs, and a greater fraction of workers laid off from jobs that are vulnerable to business cycle swings and Covid impact. Asian or Pacific Islander workers are experiencing the greatest and most prolonged increase in unemployment over the Covid period, with September unemployment 256 percent higher than it was before the crisis. From April to September White unemployment fell by half, while Black unemployment has only dropped by a quarter and unemployment for Asian or Pacific Islander workers has only fallen by a third.

....Even though demand for positions held by Black workers prior to the crisis is up 36 percent relative to April.

Job Postings Relative to April Baseline by Pre-Crisis Occupational Demographics (Race/Ethnicity), United States, April–September 2020

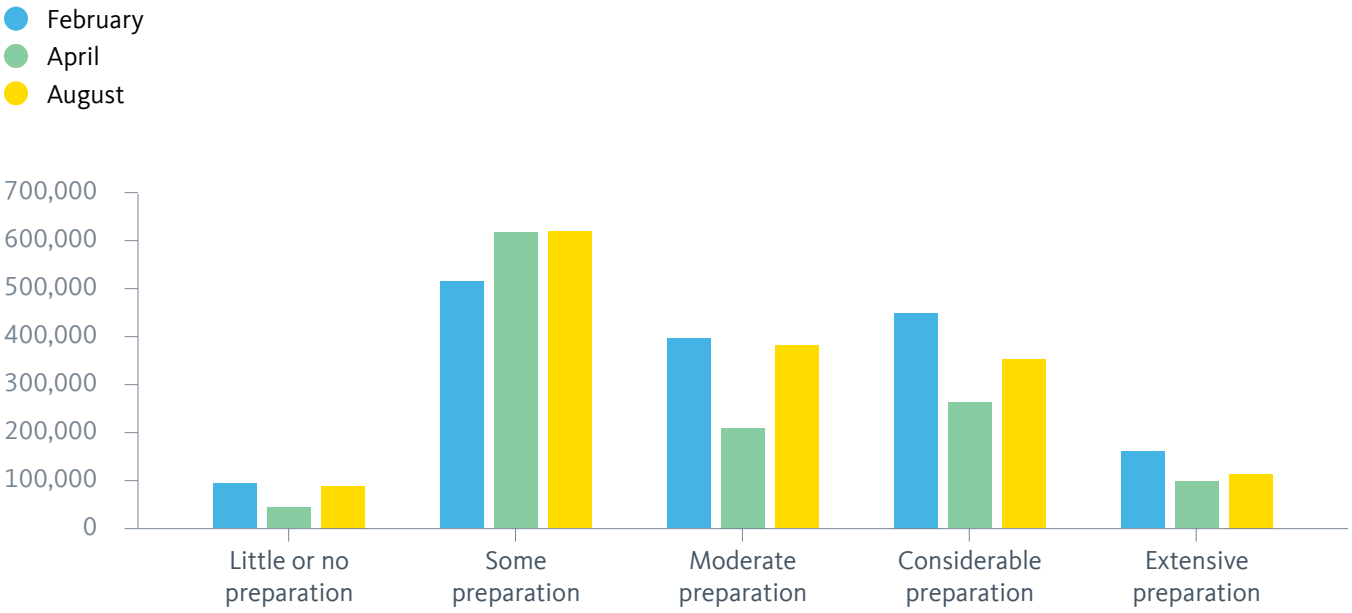


Source: Authors' analysis of Burning Glass job posting data (April–September 2020), with job postings allocated according to occupational race and ethnicity characteristics from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA. Race and ethnicity are not mutually exclusive; all groups other than Latinx include those of Hispanic or Latino origin who identify with that particular racial group.

Today, White jobseekers are returning to work more quickly in spite of the fact that demand is rebounding fastest for occupations that tended to employ more Black or Latinx workers. The chart above shows how employment recovery would have been allocated to different racial/ethnic groups if recovering jobs went proportionately to the workers who held those jobs pre-crisis. For example, unemployment for Black workers would have decreased by 36 percent—significantly more than the 25 percent decrease that has actually occurred—and unemployment for White workers would have declined by 25 percent, rather than the 49 percent drop they have experienced.[41]

The early labor market recovery has been concentrated in jobs that require only some preparation and training.

Monthly Job Postings by Degree of Preparation Required, United States, February to August, 2020



Source: Authors' analysis of Burning Glass Technologies data on monthly job postings, using O*NET occupational classifications.
Note: For more information on job zone definitions, see https://www.onetonline.org/help/online/zones.

In the early months of the pandemic, jobs requiring only some experience and education have rebounded most quickly, highlighting the importance of low-preparation, low-wage work to the recovery. Postings for jobs that require some preparation—generally a high school diploma and/or some minimal work experience—have actually increased by 20 percent above the February baseline, and the pandemic has highlighted the immense importance of many jobs that require little formal preparation as frontline care workers,

gig workers, production workers, and service workers have kept the US economy afloat—but also the ways in which these jobs, and the workers who perform them, are systematically undervalued.

Meanwhile, new postings for jobs that require considerable or extensive preparation—often a bachelor's or advanced degree and significant specialized skills or experience—is still down 20 percent compared to February. Workers in jobs that require greater experience and education are often more insulated from economic volatility than other workers, but this data suggests that the Covid-19 crisis is taking a different shape and that many workers filling newly available jobs may be reentering the labor market as "underemployed"—taking jobs for which they are overqualified.

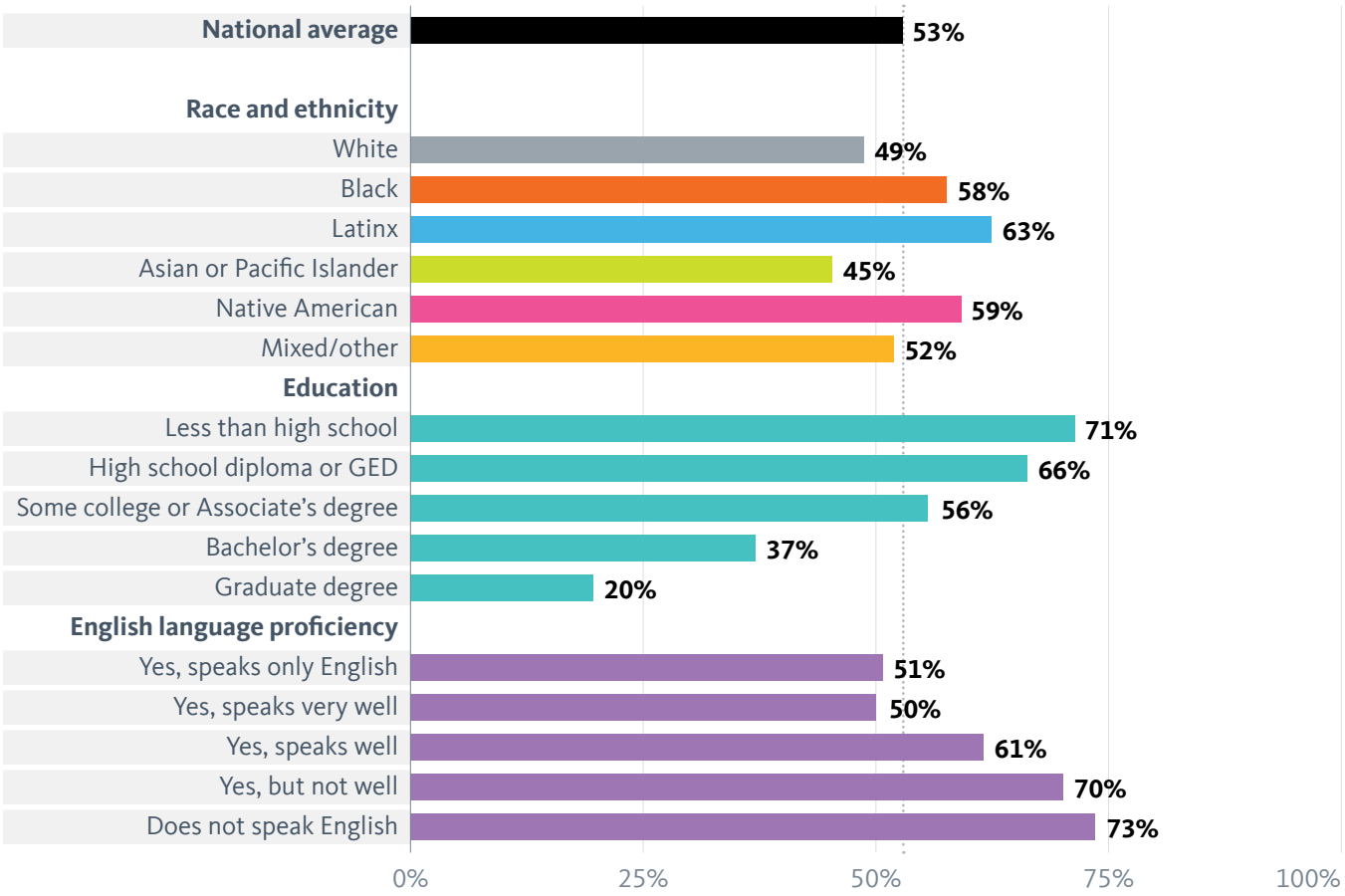
8.0
AUTOMATION THREATENS JOB QUALITY AND QUANTITY

Automation, digitalization, and computerization are on course to radically transform work and jobs in the United States. Certain occupations will become obsolete; others will be profoundly changed, expanded, or combined; and technological advancement, especially in artificial intelligence, is likely to create entirely new roles across industries and fields. Some of these processes cannot be reliably predicted, but given the current trajectory of automation-driven job change, it is clear that people of color are at increased risk of job disruption that may push them into more precarious, marginalized work or displace them from the labor market altogether in the absence of proactive, equity-focused policy solutions.

Automation risk is best calculated in terms of the likelihood of computerization of the underlying tasks that make up a given occupation, which can lead to worker displacement.[42] Very few jobs consist *entirely* of tasks that can be computerized,[43] but most occupations include enough automatable tasks to be considered at risk of automation. The national average risk is about 52 percent, indicating that about half of job tasks performed by the US workforce can be automated.[44]

Workers of color, those with less than a high school diploma, and non-English speakers are most vulnerable to automation-driven job disruption.

Automation Vulnerability by Worker Characteristics, United States, 2019



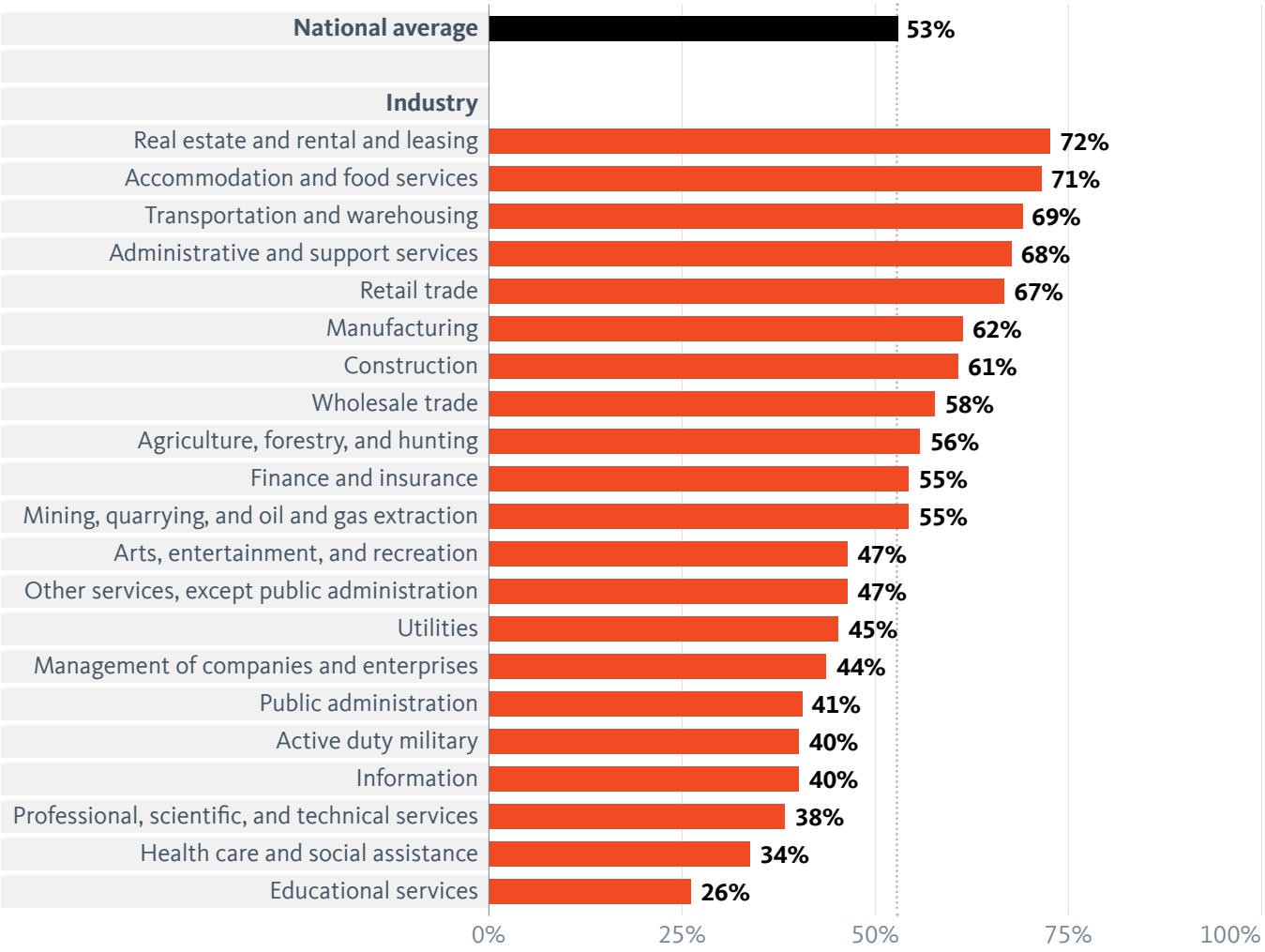
Source: Occupation-level automation scores from "The Future of Employment: How Susceptible Are Jobs to Computerisation" (Frey and Osborne, 2013), and worker characteristics from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA.

People of color are disproportionately employed in jobs that offer unstable, precarious, or low-wage work and face an elevated risk of automation compared to good jobs. Many large occupations, such as food preparation workers and warehouse workers, have recently begun to experience displacement due to automation. Other occupations, such as typists and data entry keyers, are projected to shrink precipitously because much of the job content has already been computerized. People of color and immigrants are the most likely to be dislocated from their jobs by these transformations, as they are disproportionately crowded into jobs that can be automated. Latinx workers face 28 percent greater automation risk than White workers, and Native American and Black workers face 21 and 18 percent more risk, respectively.

English-language fluency is another compounding issue, carrying a difference of 23 points in automation risk. Workers who do not speak English face an automation risk of 73 percent; those who speak the language but not well are in occupations that face on average a 70 percent automation risk, and those without a four-year college degree face a significantly higher automation risk than those with a bachelor's degree.

Many industries where workers of color are concentrated face an elevated risk of automation.

Automation Vulnerability by Worker Characteristics and Industry, United States, 2019



Source: Occupation-level automation scores from "The Future of Employment: How Susceptible Are Jobs to Computerisation" (Frey and Osborne, 2013), and occupation-industry matrix from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA.

Overall, 33 percent of the US workforce is in high-risk jobs. High-risk occupations, such as cashiers, retail salespersons, and accountants, have at least an 85 percent risk of automation. Another 25 percent of the US workforce is in moderate-risk occupations. Moderate-risk jobs, such as personal care aides and customer service representatives, have between 50 percent and 85 percent risk of automation. About 42 percent of US jobs are largely insulated from automation with a risk of less than 50 percent, including registered nurses, software developers, and elementary school teachers.

Nearly 20 million workers of color are employed in a handful of low-wage occupations with elevated automation risk.

Highest-risk occupations with at least 500,000 workers of color, United States, 2019

Occupation Title	Automation Score	# Workers of Color	% People of Color	% Latinx	% Black	% Asian or Pacific Islander	% Native American	% Mixed/Other
Cashiers	0.97	1,812,634	50%	22%	17%	7%	1%	3%
Retail salespersons	0.92	1,660,874	37%	18%	11%	5%	<1%	2%
Combined food preparation and serving workers, including fast food	0.92	1,536,449	41%	19%	14%	5%	1%	3%
Laborers and freight, stock, and material movers, hand	0.85	1,357,679	46%	23%	17%	3%	1%	2%
Personal care aides	0.74	1,333,225	55%	20%	23%	9%	1%	2%
Customer service representatives	0.55	1,256,961	42%	18%	17%	4%	<1%	3%
Janitors and cleaners, except maids and housekeeping cleaners	0.66	1,244,242	52%	30%	16%	3%	1%	2%
Office clerks, general	0.96	1,219,548	39%	17%	12%	6%	1%	2%
Waiters and waitresses	0.94	1,046,128	40%	21%	8%	7%	1%	3%
Maids and housekeeping cleaners	0.69	1,031,651	69%	46%	16%	5%	1%	2%
Stock clerks and order fillers	0.64	911,818	44%	20%	17%	4%	1%	3%

Occupation Title	Automation Score	# Workers of Color	% People of Color	% Latinx	% Black	% Asian or Pacific Islander	% Native American	% Mixed/ Other
Heavy and tractor-trailer truck drivers	0.79	780,664	40%	20%	15%	2%	1%	2%
Cooks, restaurant	0.96	778,007	57%	32%	16%	6%	1%	2%
Construction laborers	0.88	750,467	53%	43%	7%	2%	1%	2%
Assemblers and fabricators, all other, including team assemblers	0.96	651,413	47%	20%	18%	8%	1%	2%
Landscaping and groundskeeping workers	0.95	636,796	53%	42%	8%	1%	1%	1%
Secretaries and administrative assistants, except legal, medical, and executive	0.96	632,019	27%	13%	9%	3%	1%	2%
Security guards	0.84	626,313	55%	18%	30%	3%	1%	3%
Teacher assistants	0.56	528,204	38%	17%	13%	5%	1%	2%

Source: Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA. Occupation-level automation scores from "The Future of Employment: How Susceptible Are Jobs to Computerisation" (Frey and Osborne, 2013).

Workers of color are overrepresented in 15 of the 19 highest-risk occupations with at least 500,000 workers of color. Many of these occupations also have very low median wages, which may serve to delay automation, but at the expense of poor job quality for workers.

Some high-risk occupations are already in rapid decline. Many of these are occupations where key functions of the role have been computerized, or where general workforce digitalization has caused the key functions to be absorbed as a foundational skill for other occupations. For example, few employers will need dedicated word processors and typists when a critical mass of people bring typing skills with them to any job. Highly automatable occupations (such as machine operators and assemblers) have been hit particularly hard by Covid-19; within those jobs, people of color have been displaced at higher rates than their White counterparts, suggesting that "forced automation" due to the pandemic will disproportionately burden workers of color.[45]

9.0

AN EQUITABLE RECOVERY AND FUTURE OF WORK REQUIRES TARGETED STRATEGIES

In the midst of the Covid-19 recession, work is rapidly evolving—and polarizing in new ways. In many parts of the country, nonessential services remain shut down or scaled back, while critical sectors like education struggle to transition to virtual operations. Many businesses have transitioned to remote-working arrangements for white-collar jobs, with researchers estimating that nearly half of all US workers are now working from home.[46] Two-thirds of these businesses expect to adopt at least some remote-work arrangements permanently, and several large companies have already announced their plans to do so.[47]

Meanwhile, the coronavirus crash presents compounding challenges for people who can't do their jobs from home. About 30 million people are out of work and receiving some form of unemployment benefits.[48] Others remain employed but are suffering from reduced income, as public officials struggle to balance economic recovery with policies for safely reopening—and low-income workers have been hit hardest by job and income losses.[49] Real disposable personal income increased 6 percent from February to July due to state and national stimulus efforts, including a provision in the CARES Act that provided an additional benefit of $600 per week for workers receiving unemployment insurance. But following much debate about whether or not the additional payments discouraged people from going back to work, the enhanced benefits expired on July 31 and the federal government has yet to authorize additional relief. Researchers have found that the availability of employment opportunities—and not the bump up in unemployment benefits—was the primary factor in determining whether or not people went back to work, and that those receiving payments were more likely, not less, to continue looking for work.[50,51]

Many of those whose work has not been interrupted face not just the health risks of the pandemic but also its rippling social effects, such as lack of childcare and cuts to public transportation. And Covid-19 is likely to motivate many employers to accelerate automation, digitalization, and artificial intelligence, threatening to exacerbate racial gaps in workforce engagement and economic security. Because of deep-seated racial inequities in the economy prior to the pandemic, people of color have been disproportionately harmed by the ensuing economic downturn.

Racial inclusion and shared prosperity for all are the twin components of workforce equity. As this research has shown, there are significant racial gaps in high-quality jobs, even when controlling for education. These gaps could be considerably narrowed through targeted workforce interventions and equitable recruitment and hiring practices. However, closing racial gaps is just one element of workforce equity, because there are simply not enough good jobs to go around. Raising the floor on low-wage jobs and ensuring that everyone who wants to work has access to family-supporting employment remains a critical priority.

Even as the attention of local and national leaders is rightly fixed on the challenges of the current moment—ameliorating the immediate harms of the pandemic and charting the course for economic recovery—the broadscale evolution of the economy in the information age continues apace. Automation and digitalization are remaking the US labor market, and tectonic shifts in the nation's demographics are transforming the labor force. Employers and policymakers alike have important roles to play to ensure that workers are prepared for the jobs of tomorrow with the skills, supports, and access they need to fully participate and thrive in the emerging economy. A racial equity agenda to transform workforce ecosystems—an agenda that centers the needs of the most impacted to maximize benefits for all—is the key to advancing a lasting recovery and a resilient future economy. This will require both private and public investment and action to dismantle systemic racism and reimagine high-quality jobs and equitable talent development as a social good. Our recommendations for designing and activating such an agenda include the following:

1. **Make racial equity a priority—and develop systems to track and measure progress.** Deep structural inequities are often masked by aggregated data and metrics that do not attend to the specific experiences of different groups of people. Businesses, government, and workforce development institutions should invest in robust, disaggregated data collection and reporting systems, and utilize granular insights on differential outcomes in order to drive systems change. Education and training providers can track enrollment and attainment data—disaggregated by race/ethnicity, ancestry, gender, and income—to understand where the gaps are, inform program design and policymaking, and document progress. Metrics can examine disaggregated data at each stage—outreach, recruitment, assessment, training completion, credential attainment,

and employment—to identify where inequities occur in these processes, and take corrective action to remove bias and marshal resources needed to reach equitable outcomes at each stage. Business leaders should use disaggregated data to guide policy change related to recruitment, training, retention, and civic engagement. Public, private, and nonprofit organizations can embed racial equity measures in strategic planning, from education and workforce development to philanthropic efforts, labor standards law, and fiscal policy. For example, the Federal Reserve could adopt an equity-focused approach by setting and tracking employment targets using the Black unemployment rate rather than the overall rate, in recognition of the fact that aggregate improvements in employment numbers have not closed persistent racial gaps.[52]

2. **Ensure people of color and low-income residents are prepared to enter and succeed in the labor market.** Investments in racial equity should include long-term strategies to address upstream drivers and guarantee that all children can attend high-quality, opportunity-rich schools, including early childhood education. But a host of other solutions could have more immediate effects for workers and job seekers today. Employers, educational institutions, and training providers should collaborate to define the specific skills and aptitudes needed for in-demand living-wage occupations, build training programs focused on those skills, and partner closely with intermediaries and community-based organizations to ensure these upskilling models are accessible to people of color and low-income individuals. Targeted training programs to help people of color move into higher wage, skills-adjacent jobs should also be integrated into existing workforce development systems even after initial job placements are achieved.

   In addition to specific professional competencies, disadvantaged job seekers should be supported to develop essential skills (sometimes called "soft skills")—often intangible but highly valuable and transferable relational skills that are critical to success across industries and occupations.[53] Workforce intermediaries can also lighten some of the burdens that fall on job seekers: reducing information asymmetries by providing detailed information on job characteristics (including expected salary, typical benefits, and work conditions); facilitating and lowering the cost of job searching by developing pipelines in partnership with employers and providing services like childcare and transportation (either directly or

through subsidies). In addition to instruction and supportive services, workforce development programs must also address social capital deficits, increasing attention to how networking and mentorship also impact engagement in skills development programming, work, and advancement opportunities.

3. **Dismantle barriers and develop targeted strategies to connect people of color to quality employment opportunities.** As training programs evolve toward skills, rather than degree-focused approaches, hiring practices should mirror this shift and eliminate artificial and unnecessary educational requirements in favor of skills requirements wherever possible. Other formal barriers to employment that disproportionately disadvantage people of color can also be remedied by both public policy and employer practices such as "fair chance" employment policies designed to ensure that job seekers with criminal records are not unfairly disadvantaged.[54] Similarly, occupational licensing agencies should examine and, where appropriate, revise or eliminate requirements that prohibit justice-involved individuals from holding professional licenses. Bonding and insurance programs can be used to mitigate perceived risks of employment of individuals who have been involved in the justice system. Employers should also restrict the use of credit checks in hiring decisions, as credit scoring tends to both reflect and reinforce racial inequities in the economy.[55] In addition to these barriers that appear during the application and hiring processes, employers and community leaders can also take steps to lower barriers that arise from residential segregation and inequitable patterns of neighborhood investment. Specific strategies to this end include strong community benefits for development projects in and near communities of color to ensure residents have access to newly created good jobs, including both the development/ construction phase and longer term operations. Employers and workforce development agencies should also partner with community- and faith-based organizations to design equitable talent pipelines, nurture the development of social capital and professional networks for people of color, and connect workers in low-opportunity neighborhoods to training and jobs.

4. **Invest in innovative training and credentialing models.** While the data presented in this report underscores the importance of addressing racial inequities in education and wealth that prevent many people of color from attaining a college degree, they also suggest that employers and policymakers should take explicit steps to democratize the economic benefits associated with a bachelor's degree to a wider swath of the workforce. Apprenticeships and pre-apprenticeships can be a powerful tool for lowering barriers to entry associated with other formal training and education programs, and have shown promise in nontraditional industries such as professional and financial services. These and other models of paid on-the-job training provide a viable alternative to inflated education requirements that disproportionately bar people of color from accessing good jobs. Other such strategies include the development of portable, stackable credentials and microcredentials to facilitate upward career transitions, which can be integrated into traditional education programs as well as employer-based upskilling efforts. Training programs and job-matching supports could be made more accessible and equitable in partnership with community organizations, social service agencies, schools, and other neighborhood-based institutions in communities of color, and should be integrated with wraparound services to support equitable access.

   Employers and training providers can also design targeted strategies to help workers transition into higher quality jobs based on skills adjacencies between different occupations. The graphic below illustrates an example of such a transition within sales and related occupations. Retail sales workers—who are disproportionately Latinx, Black, and/or female—earn a median of about $26,092 per year (or $12.50 per hour). Many of the skills required for their jobs are transferrable to higher paying sales occupations such as wholesale and manufacturing sales representatives, which pay an average of 47 percent more than retail sales jobs ($18.50 per hour) and where the current workforce is 80 percent White and 72 percent male.

Skills adjacencies can help lower wage workers (such as retail sales workers) transition into higher quality jobs (such as wholesale and manufacturing sales representatives).

	Retail trade		Demographic data			
Sales and related occupations	**Job count (5 years)**	**Median predicted salary**	**White**	**Black**	**Latinx**	**Female**
Other sales and related workers	39,676	$33,170	75%	7%	12%	54%
Retail sales workers	**3,918,052**	**$26,092**	**57%**	**14%**	**20%**	**61%**
Sales representatives, services	54,312	$39,198	75%	7%	11%	41%
Sales representatives, wholesale and manufacturing	**417,051**	**$38,433**	**80%**	**4%**	**10%**	**28%**
Supervisors of sales workers	2,206,119	$34,012	70%	8%	14%	41%

High-value skills in the origin occupation	**Skills to acquire to bridge the gap to the destination occupation**
Sales goals	Outside sales
Product knowledge	Prospective clients
Product sales	Appointment setting
Store management	Business development
Scheduling	Inside sales

Source: Authors' analysis of Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey.

5. **Design programs and partnerships to address inequities in the social determinants of work.** Workforce outcomes are not an effect of labor market dynamics alone. Other obstacles—housing costs, transportation challenges, family care needs, and so on—also contribute to racial inequities in employment and wages. Workforce development stakeholders alone cannot ameliorate all of these obstacles, but they should be engaged in cross-sector efforts to develop and implement integrated solutions. Employers and policymakers alike should invest in childcare and family care as critical workforce infrastructure, improving the quality of care jobs and ensuring the availability and affordability of care for all. They should promote targeted supports to ease transportation and housing burdens, both to help people of color connect to good jobs and to stabilize labor markets in high-cost areas. In the Covid era, access to opportunity is about both geographic connectedness and virtual connectedness as well as digital skills, so business and community leaders should collaborate to

close the digital divide in terms of infrastructure, equipment, and skills. This could in turn allow for increased utilization of remote work to neutralize housing and transportation barriers. Finally, easing the risks of career transitions—for example, by protecting employees from retaliation and uncoupling health care from employment—would allow more workers to pursue progressive career pathways.

6. **Engage employers to commit to systems change in employment practices and culture.** Employers have a critical role to play in advancing workforce equity. Robust sectoral partnerships can provide an effective mechanism for reducing bias and discrimination, and helping businesses move beyond diversity hiring to building a corporate culture of equity and inclusion in recruitment, hiring, onboarding, and employee retention. Employers can also take the lead on developing meaningful approaches to progressive skills development and internal promotion with explicit equity targets, supported by strategies to invest in the training of diverse workers to advance within the company. This should include investments in supporting workers of color to build professional capital and opportunities to participate in and develop professional networks, and creating partnerships to support upward mobility and career pathways both within firms and across an industry. For example, tuition assistance programs could be strengthened as vehicles for advancing racial equity by expanding eligibility, using a pre-pay rather than reimbursement model, integrating career and education advising, and providing flexible learning opportunities (such as on-site training, use of company computers, and release time) to allow more workers to take advantage of tuition benefits.

7. **Proactively implement automation resiliency approaches that prioritize vulnerable workers.** Beyond anticipating patterns of employment disruption due to automation and devising strategies to mitigate their worst effects, now is the moment for equity leaders across sectors to design an equitable future of work that unleashes the transformative power of new technologies to build healthy, resilient communities and local economies. Such an approach could include an insurance program for wage loss due to automation, an adjustment benefit to support dislocated workers, and investing in reskilling incumbent workers. Employers can also prioritize strategic initiatives that have equity components. Pursuant to a labor agreement between Kaiser-Permanente

and the Coalition of Kaiser-Permanente Unions, the firm agreed to retrain record-keeping workers, who were made redundant with an electronic medical records system, to fill acute vacancies in clinical positions. The internal pipeline of diverse employees into clinical positions improved Kaiser-Permanente's ability to provide culturally competent patient care.[56] Forward-looking programs could include tuition assistance for students or workers from underrepresented groups in tech, fostering a sense of community among underrepresented workers in automation-resilient industries, and both school- and community-based programs designed to ameliorate inequalities in digital skills acquisition. Retraining initiatives tailored to specific occupational groups are another essential strategy that can nurture automation resiliency by established skills-based pathways from vulnerable to resilient occupations.

8. **Ensure high standards of job quality for all workers.** As job growth has polarized between low- and high-wage occupations and new models of precarious labor have proliferated, the challenge of ensuring that all jobs are good jobs is as pressing as ever. Raising the floor on low-wage work begins with increasing the minimum hourly wage and removing minimum wage and benefit exemptions for domestic, agricultural, restaurant, gig, contingent, and other workers—and protecting all workers from wage theft. Many jurisdictions can also enact living-wage laws for public jobs and employees of companies engaged in public contracting. Beyond a livable minimum wage, good jobs should provide guaranteed paid leave, equal pay, and fair scheduling practices. New employment models may require innovative policy solutions, such as portable benefits, to ensure that gig and contingent workers have access to basic supports like quality health care, retirement savings, and paid time off.[57] Strengthening workers' right to organize and ensuring they have a fair say in the workplace is an essential strategy to promote high labor standards for all, and could also be a key approach to closing the racial wealth gap: the median wealth of Black and Latinx union members is about 10 times the median wealth of their nonunion counterparts.[58] Finally, a federal job guarantee would create a public option for a good job with dignified wages, benefits (including health care), safe working conditions, and full worker rights. The implementation of such a policy could solve for several of the major drivers of workforce inequity today, eliminating involuntary unemployment, raising the floor on low-wage jobs, and shrinking racial inequities perpetuated by discrimination in the labor market.[59]

10.0
CONCLUSION

In a just and fair economy, racial income gaps have been eliminated, all jobs are good jobs, and everyone who wants to work has access to family-supporting employment. But inequities are entrenched at every stage of the economic life cycle: in educational opportunities and outcomes, in college access, in workforce training, in hiring, in the quality of first jobs, in promotion and advancement, in lifetime mobility, and in the services and benefits that are afforded workers throughout their careers. Wide racial disparities in intergenerational wealth advantage White families and disadvantage their Black, Indigenous, and Latinx counterparts before this cycle even begins.

Realizing shared economic prosperity will require large-scale transformation across workforce systems, from education to employment to social support. This systems-change approach will require significant investment and sustained collaborative efforts, and may seem to place equity on a distant horizon. But targeted strategies to improve job quality and ensure equal access to safe and stable employment can chart the course to an equitable future of work.

Good jobs and inclusive growth are the bedrock of shared prosperity, and now more than ever—amid the economic uncertainty of the current moment and the projected scale of technological transformation in the not-too-distant future—racial equity is essential to securing the nation's economic stability and resilience.

11.0
METHODOLOGY

The analysis presented here draws from two key data sources: the 2018 5-year American Community Survey (ACS) microdata from IPUMS USA and a proprietary occupation-level dataset from Burning Glass Technologies expressed at the six-digit Standard Occupational Classification (SOC) level. While detailed sources and notes are included beneath each figure in the report, here we provide additional information on these two key data sources and methods used for the analysis of "good jobs" and income/GDP gains with racial equity in the workforce.

The ACS is the largest annual survey of US households administered by the US Census Bureau, collecting a wealth of socioeconomic and demographic information. It is released in both a "summary file" format which includes a limited set of summary tabulations for a wide variety of geographies as well as a "microdata file" which includes individual-level responses for the survey and affords an analyst the flexibility to create custom tabulations. These files also come in both 1-year and 5-year versions, which cover about 1 and 5 percent of the US population, respectively. We utilize the 5-year sample of the microdata to achieve a larger sample size (and to be consistent with the regional analyses that are associated with this report), and we use the version released by IPUMS USA because it has been harmonized to be more consistent over time and augmented with many useful variables.

Unless otherwise noted, the ACS microdata is the source of all tabulations of demographic and workforce equity metrics by race/ethnicity and nativity included in this report. Also, unless otherwise noted, racial/ethnic groups are defined such that all groups are non-Latino (excluding those who identify as Hispanic or Latino), leaving all persons identifying as Hispanic or Latino in the "Latinx" category. The term "US-born" refers to all people who identify

as being born in the United States (including US territories and outlying areas), or born abroad of at least one US citizen parent, while "immigrant" refers to all people who identify as being born abroad, outside of the United States, of non-US citizen parents. The ACS microdata was aggregated to the detailed occupation level and merged with data from Burning Glass Technologies to conduct the "good jobs" analysis that appears in the report (see below).

The proprietary data from Burning Glass Technologies is based on job postings by collecting data from close to 50,000 online job boards, newspapers, and employer sites daily. Burning Glass then de-duplicates postings for the same job, whether it is posted multiple times on the same site or across multiple sites. Finally, Burning Glass applies detailed text analytics to code the specific jobs, skills, and credentials requested by employers.

The equity gap for good jobs was calculated using occupation characteristics from the Occupational Projections and Worker Characteristics table from the Employment Projections division at the Bureau of Labor Statistics and employment distribution across racial and ethnic groups from the 2014–2018 ACS. Information on education and training requirements comes from the Employment Projections table.

Information on automation risk associated with each occupation is from the 2013 paper, "The Future of Employment: How Susceptible Are Jobs to Computerisation" by Frey and Osborne (see Note 42).

The income and GDP gains with racial equity in the workforce are based on a methodology used for the "Racial equity in income" indicator on the National Equity Atlas. That analysis estimates aggregate income and income per person for the population ages 16 or older, by race/ethnicity, under the status quo and under a hypothetical scenario in which there is no inequality in age-adjusted average income and employment by race/ethnicity. That is, it assumes that all racial/ethnic groups have the same average annual income and hours of work, by income percentile and age group, as non-Hispanic Whites. The aggregate income gains are then used to estimate the gain in GDP by applying the percentage increase in aggregate income (for all racial/ethnic groups combined) to actual GDP as reported by the US Bureau of Economic Analysis.

For the income and GDP gains with racial equity in the workforce analysis included in this report, we replicated the same methodology used in the National Equity Atlas but restricting to the working-age population (ages 25–64). Care was taken to ensure that the percentage (and total) gain in GDP we estimate is based on the percentage gain in overall aggregate income (i.e., for the population ages 16 or older) that we would expect if there were racial equity in income for just the population ages 25–64.

12.0
APPENDIXES

Appendix A:

Median wages and demographic composition of the lowest-paying occupations with at least 100,000 workers of color, 2019

Occupation Title	Median Wage	Workers of Color	% People of Color	% Black	% Latinx	% Asian or Pacific Islander	% Native American	% Mixed/Other
Total US workforce	—	—	**38%**	**12%**	**17%**	**6%**	**1%**	**2%**
Dining room and cafeteria attendants and bartender helpers	$23,470	252,146	**54%**	12%	33%	6%	1%	3%
Cooks, fast food	$23,510	280,580	**57%**	16%	32%	6%	1%	2%
Dishwashers	$23,970	290,835	**56%**	16%	32%	4%	1%	2%
Personal care aides	$24,020	1,333,225	**55%**	23%	20%	9%	1%	2%
Home health aides	$24,200	500,111	**60%**	34%	18%	5%	1%	2%
Laundry and dry-cleaning workers	$24,220	140,465	**64%**	18%	35%	9%	1%	2%
Food servers, nonrestaurant	$24,430	142,313	**52%**	21%	21%	7%	1%	3%
Maids and housekeeping cleaners	$24,850	1,031,651	**69%**	16%	46%	5%	1%	2%
Farmworkers and laborers, crop, nursery, and greenhouse	$25,440	328,424	**62%**	3%	56%	1%	<1%	1%
Manicurists and pedicurists	$25,770	123,146	**79%**	3%	10%	64%	<1%	2%
Cleaners of vehicles and equipment	$25,800	229,800	**56%**	17%	34%	3%	1%	2%
Packers and packagers, hand	$25,910	469,442	**70%**	17%	43%	7%	<1%	2%
Taxi drivers and chauffeurs	$25,980	225,726	**61%**	25%	19%	13%	1%	3%
Janitors and cleaners, except maids and housekeeping cleaners	$27,430	1,244,242	**52%**	16%	30%	3%	1%	2%
Cooks, institution and cafeteria	$27,750	239,004	**57%**	16%	32%	6%	1%	2%
Cooks, restaurant	$27,790	778,007	**57%**	16%	32%	6%	1%	2%
Farmworkers, farm, ranch, and aquacultural animals	$27,830	158,011	**62%**	3%	56%	1%	<1%	1%
Helpers, production workers	$29,100	208,778	**59%**	10%	40%	7%	1%	1%
Nursing assistants	$29,660	864,030	**57%**	34%	15%	5%	1%	2%
Security guards	$29,680	626,313	**55%**	30%	18%	3%	1%	3%
Landscaping and groundskeeping workers	$30,440	636,796	**53%**	8%	42%	1%	1%	1%
Packaging and filling machine operators and tenders	$30,990	265,198	**67%**	18%	40%	8%	1%	1%
Electrical, electronic, and electro-mechanical assemblers, except coil winders, tapers, and finishers	$34,810	147,034	**53%**	12%	21%	19%	<1%	1%
Industrial truck and tractor operators	$36,200	342,245	**56%**	23%	29%	2%	<1%	2%
Construction laborers	$36,860	750,467	**53%**	7%	43%	2%	1%	2%

Source: Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA.

Appendix B:

Projected employment decline and workforce demographics in large occupations (minimum 20,000 workers of color) estimated to decline by more than 10 percent over 10 years

Occupation	10-year Projected Employment Decline	Workers of Color	% People of Color	% Latinx	% Black	% Asian or Pacific Islander	% Native American	% Mixed/Other
Word processors and typists	-33.8	23,909	40%	15%	15%	7%	<1%	2%
Postal service mail sorters, processors, and processing machine operators	-23.8	58,077	58%	10%	34%	11%	<1%	3%
Switchboard operators, including answering service	-23.8	29,808	41%	15%	19%	4%	<1%	3%
Data entry keyers	-23.2	70,667	38%	15%	14%	6%	<1%	2%
Aircraft structure, surfaces, rigging, and systems assemblers	-22	21,298	47%	20%	18%	8%	1%	2%
Pressers, textile, garment, and related materials	-21.2	27,467	69%	46%	16%	5%	<1%	1%
Legal secretaries	-20.9	45,883	25%	12%	8%	3%	1%	2%
Executive secretaries and executive administrative assistants	-19.8	168,985	27%	11%	9%	4%	<1%	2%
Postal service clerks	-19.8	39,929	53%	10%	29%	12%	<1%	2%
Postal service mail carriers	-19.8	123,308	38%	12%	18%	6%	<1%	1%
Inspectors, testers, sorters, samplers, and weighers	-17.6	223,525	39%	18%	12%	7%	1%	2%
Telemarketers	-16.6	72,111	43%	16%	22%	2%	1%	3%
Structural metal fabricators and fitters	-14.6	20,795	26%	13%	9%	2%	<1%	1%
File clerks	-13.5	44,034	38%	15%	13%	6%	1%	2%
Office machine operators, except computer	-12.8	22,455	45%	18%	17%	7%	<1%	2%
Tellers	-12.2	180,327	38%	19%	11%	5%	1%	2%
Sewing machine operators	-11.9	95,156	63%	39%	9%	13%	1%	1%
Assemblers and fabricators, all other, including team assemblers	-11.8	651,413	47%	20%	18%	8%	1%	2%
Printing press operators	-11.8	58,449	33%	18%	8%	5%	<1%	2%
Adult basic and secondary education and literacy teachers and instructors	-10.3	21,243	32%	12%	10%	7%	<1%	3%

Source: Bureau of Labor Statistics 2018 occupational projections and worker characteristics table, and demographic characteristics from 2018 5-year American Community Survey (ACS) microdata from IPUMS USA.

13.0
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