# ADVANCING WORKFORCE EQUITY IN NASHVILLE A BLUEPRINT FOR ACTION

## **PolicyLink**

USCDornsife Equity Research Institute



In partnership with BUrban League of Middle Tennessee



# ACKNOWLEDGMENTS

The authors would like to extend our deep gratitude to Justin Scoggins of the USC Equity Research Institute (ERI) for extensive data preparation, analysis, and careful review of this research, and to Sarah Treuhaft of PolicyLink and Joel Simon of Lightcast, who provided invaluable guidance, insights, and feedback. Special thanks to Manuel Pastor of the USC Equity Research Institute (ERI) and Michael McAfee and Josh Kirschenbaum of PolicyLink for their support. Thanks to Thai Le and Sarah Balcha of ERI for data support; to Eliza McCullough and Rosamaria Carrillo of PolicyLink for research assistance; to Heather Tamir of PolicyLink for editorial guidance; to Gabriel Charles Tyler of PolicyLink and Scott Bittle of Lightcast for lending their communications expertise; and to Mark Jones for design.

Special thanks to Clifton Harris, Lane Marks, and Charvis Rand and the Urban League of Middle Tennessee for their leadership on this project. This report was shaped, informed, and greatly enriched by the wisdom and contributions of the following employers, community-based organizations, and state agencies who served on the regional advisory committee for this report and to whom we are immensely grateful:

- Asurion
- Center for Nonprofit Management
- Comcast
- GAP
- Jackson National
- Metropolitan Government of Nashville and Davidson County
- Nashville General Hospital

- Nashville State Community College
- Publix
- Tennessee Department of Labor and Workforce Development
- Tennessee Human Rights Commission
- The Housing Fund
- The Music City Center
- Workforce Essentials

This work is generously supported by JPMorgan Chase & Co. The views expressed in this report are those of PolicyLink, ERI, and Lightcast (formerly Emsi Burning Glass), and do not reflect the views and/or opinions of, or represent endorsement by, JPMorgan Chase Bank, N.A. or its affiliates.

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This report was produced by the National Equity Atlas, a research partnership between PolicyLink and the USC Dornsife Equity Research Institute.

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# **1.0** Foreword

While top-line measures indicate that the US economy has largely bounced back from the Covid-19 pandemic, millions of workers and families across the nation are still reeling. Nearly a quarter of the US workforce experienced at least some period of unemployment due to the pandemic. Millions of parents—especially women—left the workforce to care for their children. Nearly six million households are still behind on rent. And all of these impacts have been disproportionately felt by low-wage workers and workers of color.

Across the nation, policymakers and local leaders are plotting the course for economic recovery. But the Covid-19 crisis laid bare the deep-seated roots of racial inequities in our economy—an economy built on far too many low-wage, lowquality jobs and deeply entrenched occupational segregation by race and gender. To advance an equitable recovery and lay the foundation for a thriving and inclusive future economy that benefits all workers and communities, we must prioritize strategies that dismantle structural racism and promote shared prosperity.

Workforce equity means a labor market in which racial income gaps are eliminated, all jobs are good jobs, and everyone who wants to work has access to familysupporting employment. Employers, policymakers, community organizations, funders, education and training providers, and intermediaries all have important roles to play in bringing this vision to life: uplifting workers' voices, cultivating diverse thriving regional economies that support high-quality jobs, and proactively fostering a just transition and an equitable future of work in the face of accelerating automation and technological change. As businesses and jobs continue to rebound, racial equity must be at the center of coordinated efforts and collaborations across the workforce ecosystem. To support this important work, the reports in the Advancing Workforce Equity series put the power of disaggregated data into the hands of local leaders working to foster a more just and sustainable economy through their policy efforts, programs, and investments.

**Sarah Treuhaft**, Vice President of Research, PolicyLink **Joel Simon**, Vice President of Workforce Strategies, Lightcast

## **2.0** PREFACE

The deconstruction of structural and systemic racism within Middle Tennessee must be more than a worthy aspiration; instead, it must be a highly achievable goal rooted in intentionality (or equity). This process begins by addressing privilege and bias both institutionally and structurally within agencies and organizations throughout Middle Tennessee. By seizing and/or creating opportunities within agencies and organizations throughout Middle Tennessee, we establish the foundation for acknowledging the very existence of bias and privilege, which allows for dialogue and direct impact. We intend to move beyond discussion toward more impactful action as we focus on the policies and practices that impede life, liberty, and the pursuit of happiness. Our approach involves all those with a vested interest in ensuring that equitable freedom is afforded to all, including business owners, legislators, courts, and community members. Overall, we strive to promote education, awareness, diversity, inclusion, and empowerment to all who are adversely impacted by racial inequity.

What we have learned during the pandemic is that we have to build trust and wealth. To build wealth and trust, we have to allow thoughtful consideration to the whole individual and communities, which means paying particular attention to the following:

- 1. Activate an equity-driven comprehensive workforce development plan including education.
- 2. Create a developer's academy to produce affordable housing and safe neighborhoods.
- 3. Invest in operationalizing small and minority-owned businesses.
- 4. Empower healthy living and financial self-sufficiency.

Acknowledging the past and establishing systems that consider the whole person and family dynamics will enable us to continue to build infrastructure in Black and Brown communities—ultimately building trust, wealth, and equity.

This blueprint identifies the gaps to establishing actionable resolutions to combat systematic racism in the workforce system. As a result, the Urban League of Middle Tennessee has initiated an ecosystem, called the Middle Tennessee Workforce Equity Collective, designed to restore individuals and communities to wholeness, thus repairing the damage caused by societal racism and affirming the inherent value of all people. The goal of the Middle Tennessee Workforce Equity Collective is to reduce unemployment and poverty while promoting equity.

The Urban League of Middle Tennessee would like to thank JPMorgan Chase, PolicyLink, the USC Equity Research Institute, and Lightcast for this incredible opportunity to advance workforce equity in our region.

### Urban League of Middle Tennessee

# **3.0** SUMMARY

Since early 2020, Covid-19 has assaulted the health and economic well-being of communities and workers across the country. In the Nashville metropolitan region, as in the rest of the nation, people of color and low-income residents were most deeply impacted—they were overrepresented in both the essential jobs most likely to put workers at risk of exposure to the virus and in the nonessential jobs most deeply impacted by the economic shutdowns and slowdowns. The pandemic exposed and deepened racial inequities in the labor market and spurred the acceleration of automation and digitalization, putting workers of color at a higher risk of job dislocation than their white peers. And, in the midst of these transformations, the costs of racial inequities in Nashville continue to mount as the region grows more diverse.

This regional analysis is part of the Advancing Workforce Equity series, building on the insights of our previous research, Race, Risk, and Workforce Equity in the Coronavirus Economy<sup>1</sup> and Race and the Work of the Future,<sup>2</sup> to inform a tailored, ground-level blueprint for advancing workforce equity. This report provides a data-driven evaluation of racial inequities in workforce outcomes in the Nashville metro region, examining how systemic racism manifests in the labor market, how the Covid-19 pandemic is impacting these dynamics, and how automation is projected to affect industries and workers in the area. (Unless otherwise noted, "Nashville," "Nashville metro," and "Nashville region" are used throughout this report to refer to the Nashville-Davidson-Murfreesboro, TN, Metropolitan Statistical Area as defined by the US Office of Management and Budget's December 2003 Core Based Statistical Area (CBSA) definitions. This region includes Cannon, Cheatham, Davidson, Dickson, Hickman, Macon, Robertson, Rutherford, Smith, Sumner, Trousdale, Willamson, and Wilson counties in the state of Tennessee.) We analyzed labor force data from the US Bureau of Labor Statistics, disaggregated data on wages and employment from the 2018 5-year American Community

Survey microdata from IPUMS USA, data on current and historical job demand and automation risk in the United States from Lightcast, and other sources of local data for the region. Unless otherwise noted, all data presented in this report are based on the authors' original analysis of these sources (further details can be found in the Methodology section). Our key findings include the following.

- As the workforce grows more diverse, racial inequity carries mounting economic costs.
  - People of color are a large and growing share of the Nashville region's workforce, but they are not sharing equitably in its prosperity. Workers of color make up 26 percent of the region's workforce ages 25–64 years, and 36 percent of the next-generation workforce (the population under 25). But workers of color are almost twice as likely as their white counterparts to earn wages under \$15 per hour.
  - *Racial economic exclusion hampers the region's economic growth.* In 2018 alone, racial gaps in wages and employment for working-age people cost the Nashville metro economy about \$9.5 billion in lost economic activity. With racial equity in income, the average annual income of workers would grow by about 47 percent (approximately \$17,000 per year).
- The structure of the regional economy and labor market reinforces racial gaps in employment and wages.
  - Occupational segregation is stark. Despite the growing diversity of the region's workforce, clear patterns of occupational segregation persist. White workers are overrepresented in many higher wage professional occupations, while workers of color are largely crowded in lower paying jobs.
  - The region faces a shortfall of good jobs that do not require a college degree. Overall, about 41 percent of workers are in good jobs (defined as stable, automation-resilient jobs with family-sustaining wages). But the share drops to 14 percent among workers in jobs that require no more than a high school diploma. This good-jobs gap has significant racial equity implications, considering that about two-fifths of Black and US-born Latinx adults and three-quarters of Latinx immigrant adults have no education beyond high school.

- People of color—especially Black and Latinx residents—face systemic and structural barriers to opportunity.
  - Equity in higher educational attainment is essential, but insufficient, to achieve racial economic inclusion. Racial inequities in employment and wages persist across all levels of educational attainment. On average, white workers with only a high school diploma earn higher median wages (\$17/hour) than Black workers with an associate's degree (\$16/hour). While higher education tends to narrow racial gaps in labor force participation and employment, it does not close gaps in median hourly wages.
- The Covid-19 pandemic is compounding preexisting racial inequities and economic inequality, and is likely to further disrupt the labor market by accelerating automation and digitalization.
  - Workers of color were disproportionately left out of the early job recovery in labor market demand. Online job demand returned most quickly in occupations where people of color were concentrated before the crisis, and while unemployment rates have dropped significantly for all groups, they remain higher for Black and Latinx workers relative to their white counterparts.
  - People of color face disproportionate risk of automation-driven job displacement. Latinx workers face the highest average automation risk in the Nashville metro (67 percent), followed by Black and Native American workers (60 percent), while white and Asian or Pacific Islander workers face the lowest average risk scores (50 percent and 47 percent, respectively).

## The blueprint for action

This report reveals the need for a comprehensive approach to advance 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. It is an invitation to employers, policymakers, philanthropists, training providers, and community organizations to create and execute a robust agenda to dismantle systemic barriers to opportunity for people of color, scale future-ready approaches to training and credentialing, invest in automation-resilient strategies to ensure that working people can be uplifted rather than dislocated by technological advancements, and guarantee high standards of job quality for all workers.

A cross-cutting racial equity agenda for the region's workforce is the cornerstone of an equitable economic recovery and a prosperous economy in which all can participate, prosper, and reach their full potential. Our recommendations to inform the efforts of funders, employers, and community-based organizations working to advance workforce equity in the Nashville region include the following:

- Center racial equity in workforce development programs and use disaggregated data to track and measure progress.
- Increase access to preapprenticeships, apprenticeships, and other training and placement services that can connect people of color to high-quality jobs.
- Dismantle barriers to employment for people with criminal records.

# 4.0 INTRODUCTION

Prior to the outbreak of Covid-19, Nashville's strong and sustained growth made it an exemplary "New South Boomtown," surpassing Memphis as Tennessee's largest city and as the state's biggest economic powerhouse. The region's impressive economic expansion in the decade between the Great Recession and the Covid-19 pandemic included gross domestic product (GDP) growth of \$35 billion from 2010 to 2018—an increase of nearly 41 percent.<sup>3</sup> In 2018 alone, the Nashville region's economy grew twice as quickly as that of the rest of the country due to the strength of diverse sectors from tourism (arts, entertainment, hospitality, and food services) to professional and business services, finance, insurance, and real estate.<sup>4</sup>

The region's bustling economy and relatively low cost of living have also attracted several major corporate expansions and relocations in recent years. In 2018, Amazon announced plans to establish an Operations Center of Excellence in the center city, and tech and investment firms from Silicon Valley to Manhattan have relocated corporate headquarters to Nashville.<sup>5</sup>

As metro Nashville's economy has grown, so has its population: from 2010 to 2018, the city grew by nearly 14 percent, all while maintaining one of the lowest unemployment rates in the nation.<sup>6</sup> People of color have driven this population boom—particularly Asian or Pacific Islander, mixed race, and Latinx residents and by 2050 the share of residents who are people of color is projected to grow from about 30 percent to nearly 40 percent.<sup>7</sup> Yet there is a disconnect between the region's increasing diversity and its overall prosperity: while people of color are driving population growth in Nashville, they are not equitably benefiting from its economic gains. In 2019, white workers had a median hourly wage of \$22 per hour, compared to just \$17 for workers of color (and \$14 for Latinx residents).<sup>8</sup> People of color are less likely to own a home than their white counterparts, and are more likely to be rent burdened or unemployed.<sup>9</sup> Latinx residents in the Nashville region—whose share of the total population is projected to double over the next three decades—are nearly three times more likely than their white peers to live in poverty.<sup>10</sup>

These racial inequities that characterized the Nashville regional economy prior to Covid-19 have only deepened during the pandemic. People of color have disproportionately suffered both the health and economic impacts of Covid-19, which hit Nashville's key tourism and entertainment sectors particularly hard.<sup>11,12</sup> And while the region's economy is beginning to show some signs of recovery, racial inequities remain deeply entrenched. People of color continue to face barriers to accessing good jobs and opportunities today, and are also more vulnerable than their white counterparts to being displaced by accelerating automation and digitalization in the economy of tomorrow.

Given the growing diversity of the Nashville area, these racial inequities are not only a moral injustice but also a threat to the region's future economic prospects. Advancing racial equity must be central to both short-term recovery efforts and long-term systems and policy changes to build shared prosperity for all residents. This report provides deeply disaggregated data on workers, workforce outcomes, and labor market dynamics in the Nashville region, and offers a framework for action to support the efforts of local leaders in business, philanthropy, and community organizations who are advancing workforce equity from the ground up.

# 5.0 STRUCTURAL RACISM DRIVES WORKFORCE INEQUITIES



The different economic outcomes experienced by workers and families in the Nashville region arise from a complex set of social and policy causes rooted in the region's history of racial exclusion and discrimination. The key dynamics perpetuating workforce inequities in Nashville include many of the issues discussed in this section.

## **Residential segregation and homeownership**

The legacy of redlining in Nashville is still felt today. Homeownership is highest among white households, at 72 percent, compared to 42 percent for Black households. Redlining prevented families in largely Black neighborhoods from accessing loans that would enable them to purchase their homes.

Homeownership rates are lowest among Latinx households, at 40 percent. Stubbornly low homeownership rates in the wake of rapid population growth among the Latinx community mirrors the outcomes that many Black families faced during the era of redlining. Roughly half of the Latinx population in Nashville is foreign-born; navigating the mortgage maze can be particularly difficult for immigrants, and this difficulty can lock immigrant families out of homeownership.

Present and historic trends in homeownership, coupled with lower earnings for workers of color, crowd Black and Latinx families into neighborhoods where rents are lower, property values are lower, and local services are scarcer and receive less funding. In the Nashville region, just one in 10 working-age Latinx immigrant adults, one in five Native American adults, and about one in three Black and US-born Latinx adults have at least a four-year degree, compared with four in 10 white adults. These gaps are rooted in racial and economic segregation that concentrates children of color and low-income children in schools that are systematically underfunded and neglected. On average, Black students in Nashville are about 1.9 grades behind their white peers academically, and are 2.7 times as likely to be suspended from school.<sup>13</sup>

## **Racial wealth gap**

Homeownership is the largest and most common form of wealth accretion, so the racial wealth gap is a natural consequence of uneven rates of homeownership. In Nashville, white-owned homes were valued higher by nearly \$39,000 in 1990, almost \$75,000 in 2000, and more than \$107,000 in 2010. White-owned homes were, on average, valued at \$72,558 more than Black-owned homes across all major Tennessee cities.<sup>14</sup> Inequities caused by redlining have continued to widen, as shown in this example:

...in 2019, the typical homeowner in a former 'best' area [as designated by the Home Owners' Loan Corporation] in Nashville had 131% more home equity than the typical homeowner in a former 'hazardous,' or redlined, area—\$648,000 versus \$281,000. Since 1980, the home ownership rate for Black families in former 'best' neighborhoods in Nashville dropped from 36.6% to 34.4%, while the rate for white families rose by more than four percentage points to 75.8% in 2017. This represents a 41.4% ownership gap between Black and white families in 'best' neighborhoods, up from 35.1% four decades ago.<sup>15</sup>

And in another example:

The west Nashville zip code 37205 remains 90 percent white; it was a former 'best' neighborhood. Meanwhile, 37208 in north Nashville remains 71 percent people of color, compared to 73 percent in the 1960s.<sup>16</sup>

Income differences also compound intergenerationally, as families with earnings above their expenses can gain interest from savings or by investing in stocks, bonds, and other securities. In 2019, the median wages of white workers were 29 percent higher than those of Black workers in the region.<sup>17</sup>

## Structural changes in the economy

As Nashville construction has boomed and housing prices have skyrocketed, many companies have turned to temporary staffing agencies and subcontractors. Research has shown that nearly one in five (18 percent) of Nashville workers obtained their current job through a temporary staffing agency, and 24 percent of workers used a temporary agency for construction work in the previous 12 months.<sup>18</sup> Temporary workers experience higher injury rates due to constantly changing work environments and poor access to training. Research has found that temporary workers experience injuries at twice the rate or more of permanent employees.<sup>19</sup>

## Systemic racism in the labor market

National research indicates that racial bias and discrimination in recruitment and hiring remain significant barriers for people of color. Specifically, for those with identical resumes, white applicants (or applicants with "white-sounding" names) are called back 36 percent more often than Black applicants, and 24 percent more often than Latinx applicants. Seemingly race-neutral employer hiring practices like credit checks and criminal background checks present further disproportionate barriers for people of color. In Nashville, Black residents are arrested at about three times the rate of other groups.<sup>20</sup> These interactions with police unnecessarily disqualify Black residents from many jobs that require an occupational license. Credit checks conducted as part of a job-application process also unduly burden Black and Latinx candidates, who are less likely than other groups to have access to affordable banking that supports wealth and credit building.<sup>21</sup>

In the city of Nashville, where Black residents are about 30 percent of the population, around 26 percent of municipal workers are Black. Black city employees are particularly concentrated in departments like Social Services and the Metro Action Commission, and earn an average of around \$52,000 per year, compared to \$62,000 per year for their white counterparts.<sup>22</sup>

## Structural racism in social protections

Structural racism also permeates the social protections that should inoculate against the inequalities described above. Employment benefits are often connected to an employer and the type of job someone is performing. Many occupations in which people of color are concentrated—domestic, restaurant, and gig workers, for example—are not protected by certain federal labor standards, such as minimum wage and overtime laws. Workers of color are therefore systematically deprived of these benefits.

Workforce and economic development strategies can be a powerful lever to narrow racial gaps in income and employment if they are designed and measured against explicit equity targets. Strategies to realize workforce equity and combat structural racism are included in the section of this report entitled "A Framework for Action to Advance Workforce Equity."

# 6.0 THE FACE OF THE REGION IS CHANGING



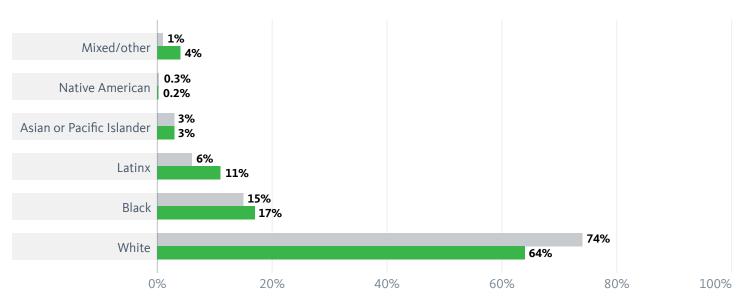
By 2045, the United States is projected to be a majority people-of-color nation. While Nashville's demographic trends trail this national curve, advancing workforce equity and racial economic inclusion are increasingly critical for the region's economic prosperity as the population continues to diversify.

## Workforce demographics

### The Nashville region's workforce is steadily growing more diverse.

#### Current and Emerging Workforce Demographics by Race/Ethnicity, Nashville Metro Region, 2018

- Current workforce
- Emerging workforce



**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, while the current workforce includes the employed population ages 25–64 years.

People of color comprise just over one-quarter of the current workforce in the Nashville region. Black workers account for about 15 percent of the workforce, with Latinx workers at 6 percent. However, labor force demographics will continue to shift as older workers retire and more young people of color enter the workforce. Among the emerging workforce (people under the age of 25 years), people of color make up more than a third of the population. Black youth make up 17 percent of this age group, Latinx youth account for 11 percent, and mixed/other-race youth about 4 percent.

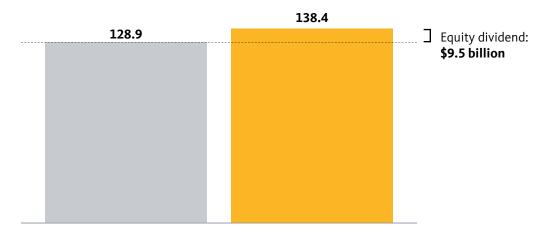
The rapid growth in the Latinx population among the next generation of Nashville workers is particularly striking, nearly doubling from 6 percent of people to 11 percent of workers. The Nashville region must start now to create policies, programs, and a culture of work that integrates these individuals into the workforce.

## Racial equity is a win-win for workers and the economy

# The region's GDP could be nearly \$10 billion larger if racial gaps in income were eliminated.

# Actual GDP and Estimated GDP with Racial Equity in the Workforce (\$ Billions), Nashville Metro Region, 2018

- GDP in 2018
- GDP if racial gaps in income were eliminated



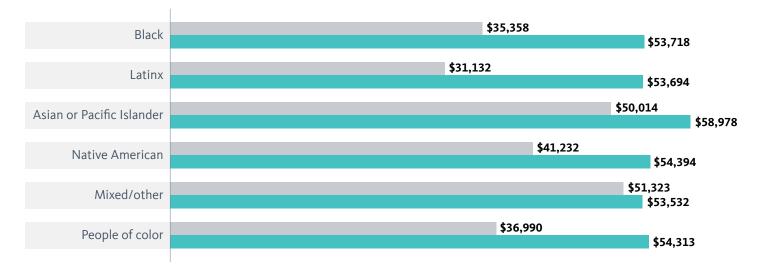
**Source:** Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the population ages 25–64 years. Data reflect a 2014–2018 average. Values are in 2018 dollars. See the Methodology section for details on the analysis.

Rooting out inequity and creating more shared prosperity are essential for a sustainable thriving economy, and this is especially true for an increasingly diverse workforce. In 2018 alone, the Nashville regional GDP could have been \$9.5 billion larger, an increase of about 7 percent, if racial gaps in employment and wages were eliminated (i.e., if workers in all racial/ethnic groups were employed at least at the same rate and earned at least the same average wages as their white peers, adjusted for age).

# With racial equity in employment and wages, average incomes for Black and Latinx workers would increase by over 50 percent.

#### Income Gains with Racial Equity in the Workforce, Nashville Metro Region, 2018

- Average income
- Average income with racial equity



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

Achieving workforce equity would require closing gaps in both employment and wages. A majority of the income gains that would be experienced by people of color (83 percent) would come from wage increases, with just 17 percent coming from increased employment. For some racial/ethnic groups, however, eliminating employment gaps would account for a notably large share of income gains. For example, around a third of the gains in income for Native Americans and mixed/ other-race workers would come from closing gaps in employment. If these gaps in employment and wages were closed, average annual incomes for people of color would increase by over \$17,000 (about 47 percent). Latinx workers would see the greatest increases in income at over \$22,000 (an increase of around 72 percent). Black workers would experience an increase of more than \$18,000 (52 percent).

# 7.0 AGGREGATE GROWTH MASKS ENTRENCHED INEQUITIES



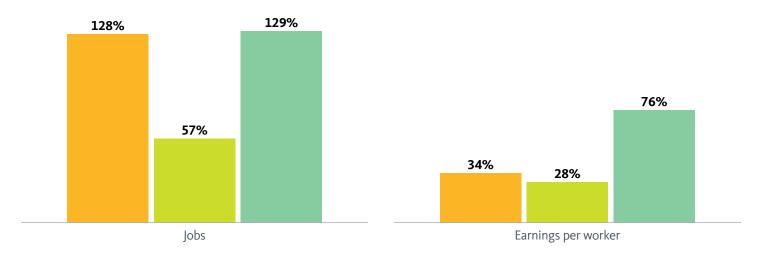
Over the past few decades, jobs and earnings growth in the Nashville metro region have outpaced the nation as a whole. Between 1990 and 2018, both low- and high-income jobs increased by close to 130 percent, nearly three times the national rate. Although middle-income jobs grew at less than half the rate of other jobs in the region, they still grew at about twice the rate of middle-wage jobs for the US as a whole (28 percent). Nashville also posted stronger-thanaverage earnings increases during this time, with high-wage workers experiencing a 76 percent jump in earnings compared to 63 percent at the national level. Earnings growth for low- and middle-wage workers in the region were 10 to 15 percentage points higher than the national level. Despite the stronger relative growth in both wages and jobs, there was still a disproportionate distribution of these gains, with middle-wage workers experiencing the least robust growth in both earnings and jobs.

### Uneven job and wage growth

### Earnings growth over the past 30 years has been disproportionately captured by highwage workers.

#### Growth in Jobs and Earnings by Wage Level, Nashville Metro Region, 1990–2018

- Low-wage
- Middle-wage
- High-wage



**Source:** National Equity Atlas, PolicyLink, and the USC Equity Research Institute, accessed June 16, 2021, available at <a href="https://nationalequityatlas.com/indicators/Job\_and\_wage\_growth">https://nationalequityatlas.com/indicators/Job\_and\_wage\_growth</a>. Note: Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

# Occupational segregation remains a significant challenge—workers of color remain locked out of the highest-paying sectors.

#### Occupational Groups by Race/Ethnicity, Nashville Metro Region, 2018

- White
- Black
- Latinx
- Asian or Pacific Islander
- Native American
- Mixed/other

Total
Arts, Design, Entertainment, Sports
Financial Specialists
Management
Installation, Maintenance, and Repair
Education, Training, and Library
Architecture and Engineering
Health-Care Practitioners and Technical
Sales
Business Operations Specialists
Community and Social Services
Protective Service
Computer and Mathematical
Office and Administrative Support
Personal Care and Service
Life, Physical, and Social Science
Production
Transportation and Material Moving
Farming, Fishing, and Forestry
Construction Trades
Health-Care Support
Food Preparation and Serving
Building and Grounds Cleaning and Maintenance

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

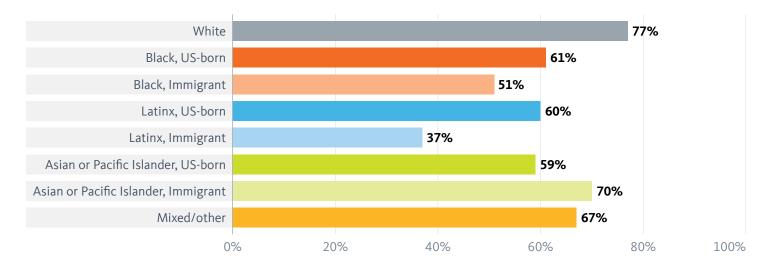
Although Black workers make up around 15 percent of the current workforce they are vastly underrepresented in well-paying occupations. Black workers make up about 10 percent of computer and mathematical occupations; around 11 percent of life, physical, and social sciences; and around 6 percent of architecture and engineering occupations. By contrast, Black workers are overrepresented in low-paying occupations like building and grounds cleaning and maintenance (19 percent); food preparation and serving (18 percent); and transportation and material moving (27 percent). Black immigrants are particularly concentrated in low-paying sectors. Despite the fact that Black immigrants make up only a tenth of Black workers in the region overall, they constitute around one-fifth of Black workers in life, physical, and social science and in health-care support occupations and three-quarters of Black workers in farming, fishing, and forestry occupations.

Similarly, Latinx workers make up around 6 percent of the workforce but comprise a quarter of building and grounds cleaning and maintenance workers and about a third of farming, fishing, and forestry occupations. On the other hand, they make up only about 3 percent of those in computer and mathematical jobs and healthcare practitioners and technical occupations. Latinx immigrants make up around 70 percent of the Latinx workforce, but constitute 85 percent or more of Latinx workers in the occupations of building and grounds cleaning and maintenance; food preparation and serving; and farming, fishing, and forestry.

While Asian or Pacific Islander workers make up a small minority of workers, around 3 percent, they are overrepresented in life, physical, and social sciences (around 17 percent) and computer and mathematical positions (around 11 percent).

## Wages

# Just six of 10 US-born Asian or Pacific Islander, Latinx, and Black workers—and fewer than four in 10 Latinx immigrants—earn at least \$15/hour.



#### Share of Workers Earning at Least \$15/hour by Race/Ethnicity and Nativity, Nashville Metro Region, 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 years. Data reflect a 2014–2018 average. The \$15/hour wage threshold is based on 2018 dollars.

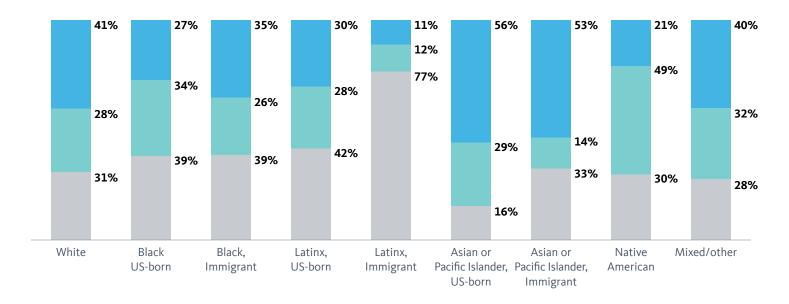
A majority of white workers make at least \$15 per hour, including about 81 percent of white men and 73 percent of white women, compared to only 58 percent of people of color. Latinx and Black immigrants are least likely to earn this basic wage threshold: just 37 percent of Latinx immigrants and 51 percent of Black immigrants are paid at least \$15 per hour. This wage difference is especially concerning given that the basic minimum living wage for a single adult living with one child in the Nashville metro area is \$28.12.<sup>23</sup>

## **Higher education**

# Just one in 10 Latinx immigrants and less than one in three Native American, US-born Latinx, and Black adults in the Nashville region have a bachelor's degree.

#### Educational Attainment by Race/Ethnicity, Nashville Metro Region, 2018

- High school diploma or less
- Some college or associate's degree
- Bachelor's degree or higher



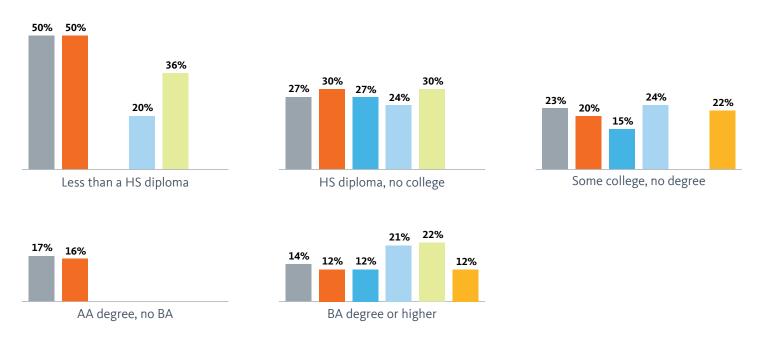
**Source:** Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the population ages 25–64 years. Data reflect a 2014–2018 average.

Over 40 percent of white adults and more than half of Asian or Pacific Islander adults have a bachelor's degree or higher, but only a third or less of Black and Latinx workers—and about a fifth of Native American workers—have a four-year degree. Latinx immigrant adults are the least likely to have a bachelor's degree, at just 11 percent. Latinx immigrants and US-born Latinx residents have drastically different educational attainment profiles: US-born Latinx adults are nearly three times as likely as Latinx immigrants to have a bachelor's degree or higher. Black immigrants have slightly higher bachelor's degree attainment rates than US-born Black adults (35 percent and 27 percent, respectively).

### Higher educational attainment narrows, but does not close, racial gaps in employment.

Joblessness by Educational Attainment, Race/Ethnicity, and Nativity, Nashville Metro Region, 2018

- White
- Black, US-born
- Latinx, US-born
- Latinx, Immigrant
- Asian or Pacific Islander, Immigrant
- Mixed/other



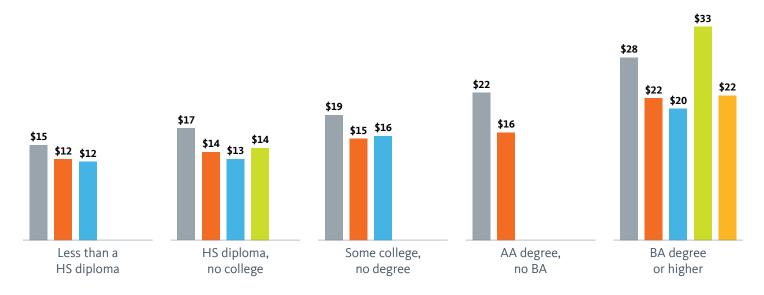
**Source:** Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Universe includes the civilian noninstitutional population ages 25–64 years. Joblessness is defined as those unemployed or not in the labor force as a share of the total population. Data reflect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

Joblessness generally decreases as educational attainment increases. Around half of Black and white workers without a high school diploma are jobless, compared to around 17 percent of Black and white workers with an associate's degree. However, this trend does not hold true for Latinx immigrants in the Nashville region. Latinx immigrants without a high school diploma have a jobless rate of about 20 percent, a lower rate than Latinx immigrants with a high school diploma or some college (24 percent) or a bachelor's degree or higher (21 percent). This suggests that this group continues to face persistent occupational segregation and other barriers to employment in jobs with higher educational requirements.

# Black and Latinx workers earn substantially less than their white counterparts at every level of educational attainment.

#### Median Wages by Educational Attainment and Race/Ethnicity, Nashville Metro Region, 2018

- White
- Black
- Latinx
- Asian or Pacific Islander
- Mixed/other



**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 years. Data reflect a 2014–2018 average. Values are in 2018 dollars.

Higher educational attainment is associated with higher median wages across all racial/ethnic groups, but racial gaps are also evident at each level of education. White workers earn more than people of color across every level of education, except among those with a bachelor's degree or higher, where Asian American or Pacific Islander workers have the highest median wages. The hourly wage premium for earning a bachelor's degree compared with having only a high school diploma is highest for Asian American or Pacific Islander workers, with an increase of \$19 (a 136 percent increase). The same educational achievement carries smaller wage increases for Latinx workers (a \$7/hour increase), Black workers (an \$8/hour increase), and white workers (an \$11/hour increase).

# **8.0** WORKERS FACE A SHORTAGE OF GOOD JOBS



As the data above reveal, not everyone who wants to work in Nashville has a job, and not all workers are paid a basic living wage. As the economy and labor market evolve toward advanced industries and services, far too few workers are benefiting from the region's growth. Workforce development agencies, intermediaries, and policymakers need to both grow the quantity of good jobs and ensure equitable access to those jobs.

To better understand the shortage of good jobs in the region, we analyzed access to good jobs in Nashville by race, ethnicity, and level of required education, using the localized definition of good jobs summarized in the table below.

### Characteristics and Examples of Good Jobs by Typical Education Requirements, Nashville Metro Region, 2019

#### **Characteristics of good jobs**

- Living-wage compensation: Average wage for the occupation is sufficient to sustain a working family of two working adults and two children—\$31,699 in Nashville.<sup>24</sup>
- Stable or growing base of employment: The number of jobs is projected to grow or to remain relatively stable for the next decade—employment in the occupation is not declining by more than 10 percent over 10 years, or more than 2 percent over 10 years for small occupations.
- Automation resilient: The occupation has a probability of computerization lower than 50 percent, given the full array of tasks that comprise the role.

#### Example occupations accessible to workers by education level

#### High school diploma or less:

- First-line supervisors of retail sales workers
- Telecommunications line installers and repairers
- Musicians and singers

Postsecondary certificate or license or vocational training through an apprenticeship:

- Licensed practical and licensed vocational nurses
- Electricians
- Plumbers, pipefitters, and steamfitters

#### Associate's degree:

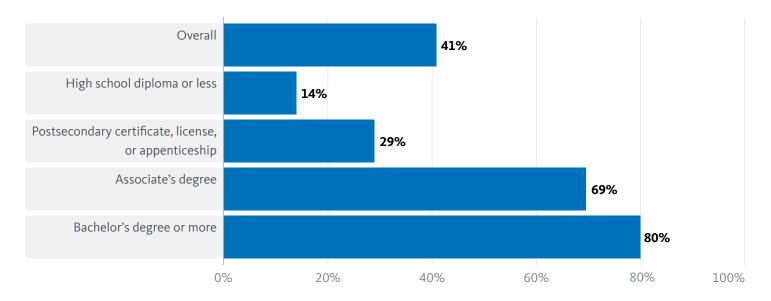
- Registered nurses
- Chefs and head cooks
- Radiologic technologists and technicians

#### Bachelor's degree or higher:

- Elementary and middle school teachers
- Financial managers
- Education and childcare administrators

# More than 500,000 workers in Nashville do not have good jobs

### Just two in five Nashville workers are in good jobs.



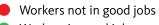
#### Share of Workers in Good Jobs, Overall and by Educational Requirements, Nashville Metro Region, 2018

**Sources:** Employment from 2018 5-year American Community Survey microdata from IPUMS USA, and occupational characteristics from Lightcast job posting data and 2018 5-year American Community Survey microdata from IPUMS USA.

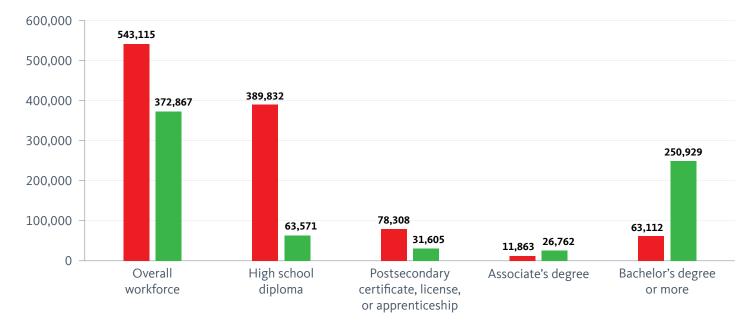
The good-jobs deficit in Nashville is deep: only 41 percent of the region's 915,000 workers are in good jobs. The share of workers in good jobs increases as the level of education required for the job increases, but even among occupations that require nondegree postsecondary certifications, licenses, or apprenticeships, just 29 percent of workers are in good jobs. The vast majority of jobs that require postsecondary degrees (associate's and higher) are good jobs, but these educational requirements are a systemic barrier for many.

# 453,000 Nashville jobs require no more than a high school diploma, but only 14 percent of them are good jobs.

#### Distribution of Employment by Educational Requirements and Job Quality, Nashville Metro Region, 2018



Workers in good jobs



**Sources:** Employment from 2018 5-year American Community Survey microdata from IPUMS USA, and occupational characteristics from Lightcast job posting data and 2018 5-year American Community Survey microdata from IPUMS USA.

The distribution of Nashville's good jobs by education underscores the importance of a multifaceted approach to create more good jobs, upgrade existing jobs, and develop race-conscious workforce development strategies to ensure people of color can access good jobs. Given that fewer than a third of Black and Latinx adults in Nashville have a bachelor's degree, workforce intermediaries must consider interventions that will improve the quality of the jobs available to these workers.

One approach is to grow employment in the occupations that provide the largest number of good jobs but do not require college experience. These include supervisory positions in retail, food service, manufacturing, construction and other industries, several trades, nursing, and other occupations described in the table below. Presently, workers of color are underrepresented in 14 of the largest 15 good jobs that do not require a college degree. The lone exception is supervisors of transportation and material moving workers.

# Good jobs that do not require a college degree, with occupational characteristics, by race and ethnicity, Nashville metro region, 2018

Occupation	Total Employment	10-Year Growth Rate	Automation Score (Probability of Computerization)	Average Income in Nashville	% Workers of Color
First-line supervisors of retail sales workers	18,037	0%	28%	\$55,755	21%
First-line supervisors of nonretail sales workers	9,204	2%	8%	\$83,076	23%
Food service managers	6,601	16%	8%	\$47,031	31%
First-line supervisors of production and operating workers	6,100	6%	2%	\$59,670	23%
Licensed practical and licensed vocational nurses	5,250	12%	6%	\$40,660	28%
Electricians	4,939	7%	15%	\$43,603	20%
Sales representatives of services, except advertising, insurance, financial services, and travel	4,888	3%	39%	\$89,103	11%
Musicians and singers	4,669	13%	7%	\$49,817	16%
First-line supervisors of construction trades and extraction workers	4,224	13%	17%	\$64,807	22%
Police officers	3,900	5%	10%	\$53,302	20%
Plumbers, pipefitters, and steamfitters	3,021	10%	35%	\$37,186	24%
Firefighters	1,719	10%	17%	\$52,458	8%
Supervisors of transportation and material moving workers	1,649	7%	21%	\$50,778	33%
Photographers	1,536	-3%	2%	\$36,263	<b>9%</b>
Miscellaneous installation, maintenance, and repair workers, including wind turbine service technicians	1,457	11%	50%	\$52,107	25%

**Sources:** Employment from 2018 5-year American Community Survey microdata from IPUMS USA, and occupational characteristics from Lightcast job posting data and 2018 5-year American Community Survey microdata from IPUMS USA. **Note:** Data formatted in red indicate underrepresentation of this race/ethnicity group relative to their representation in all occupations that do not require a college degree.

### Major racial inequities persist in access to good jobs

White workers are overrepresented in good jobs overall and particularly overrepresented in good jobs that do not require any postsecondary education.

Distribution of Workers by Race/Ethnicity, Job Quality, and Educational Requirements, Nashville Metro Region, 2018

- Black
- Latinx
- Asian or Pacific Islander
- Native American
- Mixed/other
- White



Overall workforce		L								
Workers not in good jobs	189	%	9% 39	% <b>2%</b>			69%			
	10%	4% 3% 2%				819	2			
Workers in good jobs	1078	4/8 5/8 2/	/0			01.	70			
High school diploma	2(	0%	10%	2% 2%			66%			
Workers not in good jobs			10/0	2/0 2/0			0070			
	11%	5% 3%	2%			80	)%			
Workers in good jobs										
Doctoocondory cortificato										
Postsecondary certificate, license, or apprenticeship										
	15%	<b>9</b> 9	% 3% 1	.%			72%			
Workers not in good jobs										
Workers in good jobs	11%	8%	1%			80	%			
workers in good jobs										
Associate's degree										
Workers not in good jobs	14%	4% 29	% 2%			7	8%			
Workers not in good jobs	110/	404 204	201			70	<b>N</b> 0/			
Workers in good jobs	11%	4% 3%	2%			/9	9%			
Bachelor's degree or higher	11%	3% 3% 1%				82%	L			
Workers not in good jobs	11 /0	1/2 5/2 17	Ö			027	U			
	10%	3% 4% 2%	6			829	6			
Workers in good jobs										
										,
	0%	20	0%	4(	)%	60	%	80%	6	100%

**Sources:** Employment from 2018 5-year American Community Survey microdata from IPUMS USA, and occupational characteristics from Lightcast job posting data and 2018 5-year American Community Survey microdata from IPUMS USA.

Examining good jobs by race and education requirements, we find large inequities: white workers are overrepresented in good jobs overall, and particularly overrepresented in good jobs that do not require a college degree—the very jobs that the vast majority of workers of color are qualified to obtain given the barriers to higher education described above. Just 9 percent of workers of color in jobs that require only a high school degree are in good jobs, relative to 16 percent of white workers. And, 22 percent of workers of color in jobs that require nondegree postsecondary training, such as a certificate or apprenticeship, are in good jobs, compared to 31 percent of white workers.

## Available Jobs in 2019 Could Have Closed Racial Gaps in Attainment of Good Jobs

In 2019, there were enough openings for good jobs over the year to close the racial equity gaps in good jobs at each level of educational attainment. For example, to close the racial gap in good jobs for jobs that require no more than a high school diploma, 7,600 workers of color would have needed a job upgrade; in 2019, there were 17,000 openings for good jobs at this educational level.

Still, 69 percent of the 135,000 good jobs available in 2019 required a bachelor's degree or more, underscoring the need for workforce intermediaries and employers to reexamine credentialing requirements and design pathways into these jobs for workers without a four-year degree, wherever possible.

Access to the three key dimensions of good jobs (family-sustaining wages, large or stable base of employment, and automation resiliency) varies between racial/ ethnic groups. We found systematic inequities that have important implications for equitable workforce strategies.

 Crowding in low-wage occupations is the largest reason that workers of color without a college degree face an equity gap in good jobs. Only 45 percent of workers of color in jobs that require no more than a high school diploma are in occupations with average wages above the regional living wage, compared to 59 percent of white workers. That gap shrinks modestly for workers in jobs that require nonacademic postsecondary training such as a certification, license, or apprenticeship: 64 percent of workers of color are in above-living wage occupations compared to 76 percent of white workers. Workforce intermediaries must ensure that nonacademic postsecondary training diminishes racial gaps, rather than expanding them. In Nashville, more can be done to build racial equity with these types of programs.

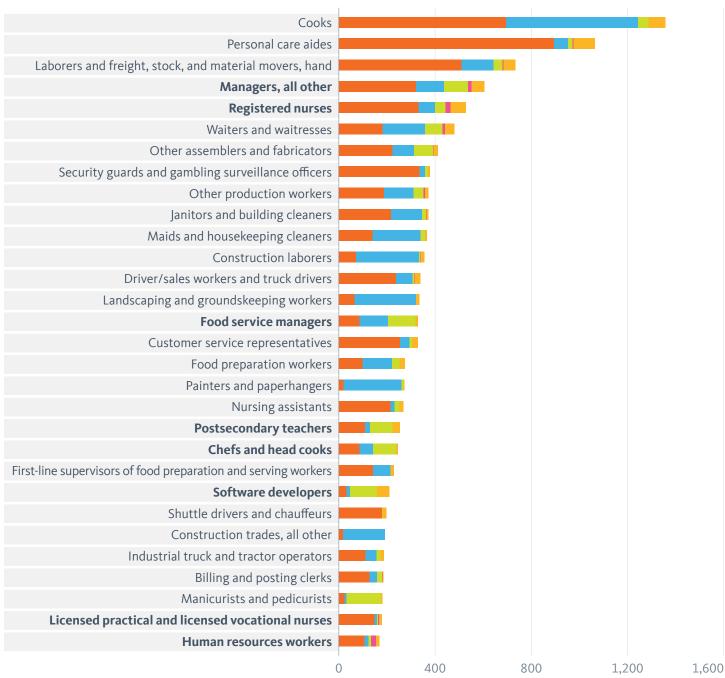
- Workers of color, especially Latinx workers, are in occupations that are growing quickly but face elevated automation risk relative to their white colleagues. In jobs that require no more than a high school diploma, for instance, 91 percent of Latinx workers are in stable or growing occupations, compared to 79 percent of white workers. However, 89 percent of Latinx workers are in occupations that are more likely than not to experience disruption due to automation, compared to 79 percent of white workers. Absent appropriate safety nets and employment transition strategies, decisions to advance automation will leave a disproportionate number of Latinx workers struggling to find employment. Critically, interventions to mitigate automation risk should include language and accessibility features that take into consideration the high concentration of Latinx workers in at-risk jobs.
- In occupations that require an associate's degree or more, the racial equity gaps in good jobs are small. White workers in Nashville are more likely than workers of color to have a college degree, so workers of color remain underrepresented in jobs that require one. But among those already in college-level jobs, workers of color are just as likely as white workers to have good jobs. Workforce resources devoted to generating more good jobs at this level will not have to also contend with the underrepresentation of workers of color in these good jobs, which is the case for good jobs that do not require a college degree.

Delivering workforce equity in the Nashville region will require not only generating more good jobs, but also ensuring that people of color are hired into them. Without policies and programs that connect workers of color to growth in good jobs that do not require a college degree, these opportunities will disproportionately benefit white workers. Additionally, programs and policies that benefit all workers should take into account accessibility constraints faced disproportionately by people of color, such as language and transportation.

### Projected job growth for Latinx and Black workers is heavily concentrated in lowquality jobs.

# Occupations Projected to Add the Most Workers of Color, by Race/Ethnicity, Nashville Metro Region, 2020–2030

- Black
- Latinx
- Asian or Pacific Islander
- Native American
- Mixed/other



**Sources:** Lightcast modeling for occupational growth, and 2018 5-Year ACS microdata from IPUMS for demographic characteristics of occupations. **Note:** Occupations marked in bold are classified as good jobs.

The Nashville workforce is projected to grow 5 to 10 percent over 10 years, and just over half (51 percent) of job growth during this period is projected to be in good jobs. Not all workers are poised to benefit from this growth. If occupational segregation remains as it is today, good jobs will continue to be concentrated among Asian and white workers: just two of the 10 occupations projected to add the most Black workers and none of the 10 occupations projected to add the most Latinx workers are good jobs. Seven of the top 10 growing occupations for Asian or Pacific Islander workers are good jobs, along with four of the top 10 for white workers.

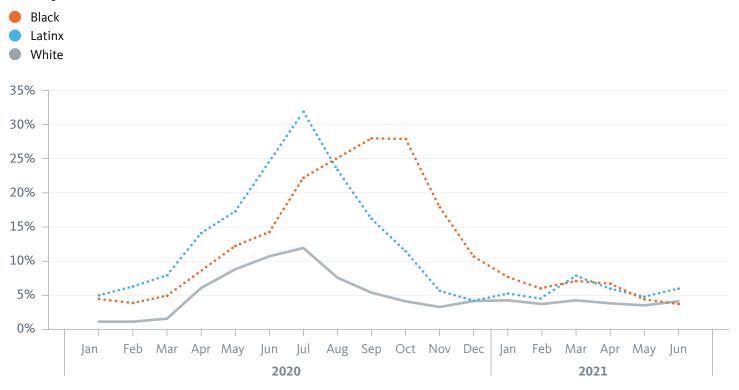
## 9.0 THE WAVERING COVID RECOVERY IS LEAVING WORKERS OF COLOR BEHIND



Covid-19 caused significant turbulence in the Nashville labor market. The unemployment rate in the Nashville region reached 15.9 percent in May 2020 and then dropped to consistently under 5.0 percent in 2021. The early recovery has also unfolded unevenly across the labor market. Considering the racial stratification of different occupational groups in the region, these gaps have significant consequences for racial economic equity.

### Black and Latinx workers experienced higher unemployment rates through the pandemic.

# Unemployment Rates by Race/Ethnicity (4-month rolling average), Nashville Metro Region, January 2020–June 2021

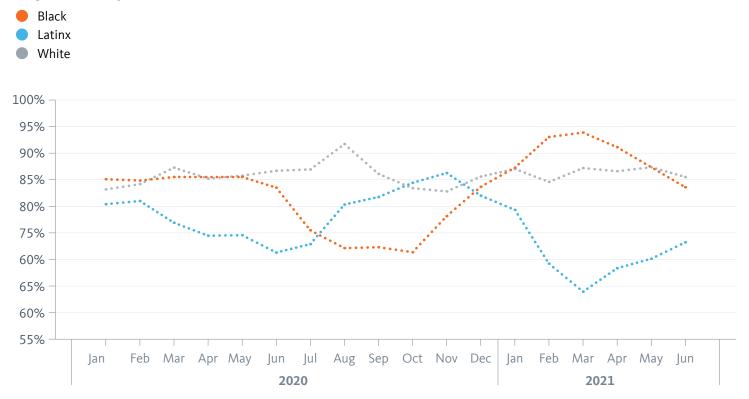


Source: Unemployment estimates from the Current Population Survey (CPS) microdata from IPUMS USA.

Unemployment rates rose for all workers in the Nashville region during 2020, but unemployment hit dramatic heights for Latinx and Black workers. The fourmonth rolling average of unemployment rates in the graph shows unemployment peaking for white workers at 12 percent but 32 percent for Latinx workers and 28 for Black workers. Unemployment has come down for all groups since the 2020 peak and is close to the prepandemic baseline for Black and Latinx workers.

# Labor force participation has been volatile for Black and Latinx workers during the pandemic but is converging to prepandemic levels.

Prime-Age Labor Force Participation Rates by Race/Ethnicity (4-month rolling average), Nashville Metro Region, January 2020–June 2021



**Source:** Labor force participation estimates from the Current Population Survey (CPS) microdata from IPUMS USA. **Note:** Prime age includes individuals 25–55 years old.

Labor force participation for prime-age workers, ages 25 to 55 years, was also volatile during the pandemic. In Nashville, prime-age Black workers initially left the labor force, but during the end of 2020 and the beginning of 2021 these workers entered and re-entered the labor force to levels above the prepandemic baseline. The trend among Latinx workers is the inverse. In Nashville, unlike in some other regions, women largely remained in the labor force during the pandemic, despite increased demands on labor that women often shoulder, such as childcare and homecare. In fact, prime-age labor force participation among women ticked up slightly during the pandemic, while it slid downward by a few percentage points for men.



### Prime-Age Labor Force Participation Rates by Gender, Nashville Metro Region, January 2020–June 2021

**Source:** Labor force participation estimates from the Current Population Survey (CPS) microdata from IPUMS USA. **Note:** Prime age includes individuals 25–55 years old.

# Online job postings for positions held by Black and Latinx workers prior to the crisis recovered more quickly than for those held by white workers.

Job Postings Relative to January–February Baseline Occupational Demographics (Race/Ethnicity) Before the Covid Pandemic, Nashville Metro Region, January 2020–June 2021



**Source:** Authors' analysis of Lightcast job posting data (January–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.

The chart shown uses job postings data to measure the change in demand over 2020 for jobs relative to the beginning of the year. The chart shows how online job vacancies would have been allocated to different racial and ethnic groups if recovering jobs went proportionately to the workers who held those jobs before the Covid crisis.

In the Nashville area, new demand has been greatest in the jobs that employed a greater number of Black and Latinx workers before the pandemic. The dynamics of this return in labor market demand may help explain why the unemployment rates for white workers and workers of color are converging. As demand moves away from frontline staff to other sectors of the economy, it is critical that Nashville prioritize an inclusive recovery.

## **10.0** ACCELERATING AUTOMATION PUTS WORKERS OF COLOR AT RISK



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.

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.<sup>25</sup> Very few jobs consist *entirely* of tasks that can be computerized,<sup>26</sup> 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.<sup>27</sup>

### Black and Latinx workers are overrepresented in automation-vulnerable jobs.

### Automation Risk by Race/Ethnicity, Nashville Metro Region, 2018

- Black
- Latinx
- Asian or Pacific Islander
- Native American
- Mixed/other
- White

Overall workforce	15%	7% 3% 2%	74%	
Workforce facing high automation risk	18%	8% 3% 2%	68%	

**Source:** Authors' analysis of the 2018 5-year American Community Survey microdata from IPUMS USA and automation scores from *The Future of Employment: How Susceptible Are Jobs to Computerisation* (Frey and Osborne, 2013). **Note:** Universe includes the employed civilian noninstitutionalized population ages 16 years or older.

Automation is a threat to employment growth in the Nashville region. The risk of automation is acute for workers of color, who are overrepresented in jobs susceptible to automation. White people in the Nashville area constitute 74 percent of the workforce, but only 68 percent of workers in jobs with high automation risk. Inversely, Black workers make up 15 percent of the workforce overall but 18 percent of automation-vulnerable workers. The concentration of workers of color in jobs with elevated automation risk is projected to continue over time.

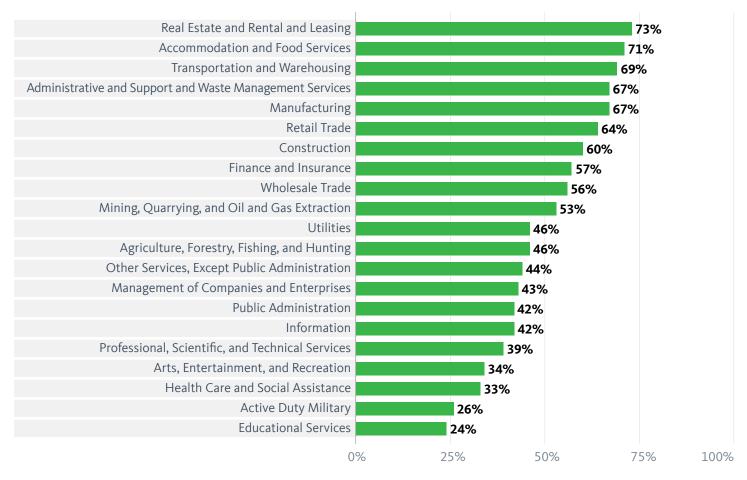
# Workers of color, those with less than a high school diploma, and non-English speakers are most vulnerable to automation-driven job disruption.

#### Nashville average 53% Age 16 to 24 67% 25 to 34 51% 35 to 44 49% 45 to 54 50% 55 to 64 52% 65 and Older 51% Gender Male 53% Female 52% **Race and ethnicity** White 50% Black 60% Latinx 67% Asian or Pacific Islander 47% Native American 60% Mixed/other 56% Education Less than high school 72% High school diploma or GED 66% Some college or Associate's degree 55% Bachelor's degree 39% Graduate degree 21% **English language proficiency** Yes, speaks only English 51% Yes, speaks very well 51% Yes, speaks well 64% Yes, but not well 73% Does not speak English 76% 0% 25% 50% 75% 100%

### Automation Vulnerability by Worker Characteristics, Nashville Metro Region, 2018

**Source:** Authors' analysis of 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.

### Automation Vulnerability by Industry, Nashville Metro Region, 2018



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

In addition to race and ethnicity, a variety of other worker characteristics correlate with high automation risk. English language is associated with automation resiliency: workers who speak English well face one-third less automation risk compared to workers who do not speak English. Increasing educational attainment is another pathway to jobs that enjoy automation resiliency. The degree that affects the greatest level of change is a graduate degree, dropping automation risk by 18 percentage points. Bachelor's degree holders face almost a third less automation risk compared to workers with some college experience or an associate's degree. Additionally, Black workers are 10 percentage points more likely than white workers to be affected by automation, and Latinx workers are 17 percentage points more likely.

## **11.0** A FRAMEWORK FOR ACTION TO ADVANCE WORKFORCE EQUITY



The data presented in this report underscore the urgent need for funders, policymakers, employers, and community-based organizations to prioritize workforce equity in the Nashville region. A cross-cutting racial equity agenda should be the cornerstone of a future Nashville economy in which all can participate, prosper, and reach their full potential. This means elevating the voices and needs of workers, coordinating across sectors to address inequities in the social determinants of work, and targeting resources to the people and neighborhoods with the greatest needs. Policymakers, employers, educators, training providers, and community-based organizations all 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 thrive in the emerging economy.

Our initial recommendations for designing and activating such a racial equity agenda include the following.

# Center racial equity in workforce development programs and use disaggregated data to track and measure progress.

Workforce inequities are driven by a range of interrelated practices and policies, including underinvestment in education and resources for communities of color, and underinvestment in efforts designed to correct racial inequities. Yet without racially disaggregated data, inequities in specific workforce program outcomes are difficult to identify. Federal and state policies and funding structures do not prioritize analyzing the impact of training programs by race/ethnicity, and the workforce development field remains broadly "race-neutral," without any explicit directive or goal to redress historic inequities. State, regional, and local workforce development plans should be deliberately designed to include explicit racial equity targets, strategies, and metrics.

Deep structural inequities are often masked by aggregated data and metrics. Workforce development agencies, service and training providers, employers, and government should invest in robust, disaggregated data collection and reporting systems, and use granular insights on differential outcomes 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. They should also examine disaggregated data at each stage—outreach, recruitment, assessment, training completion, credential attainment, and employment—to identify where inequities occur in these processes, take corrective action to remove bias, and marshal the necessary resources to promote equitable outcomes. 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.

### Increase access to preapprenticeships, apprenticeships, and other training and placement services that can connect people of color to high-quality jobs.

As part of a comprehensive, equity-driven workforce development plan, earnand-learn apprenticeship programs can help lay the foundation for career advancement and economic security for people of color, including opportunity youth. Apprenticeships represent vital pipelines to industries and occupations in which workers of color are underrepresented, and are an important upstream point of intervention to reduce occupational segregation, especially in growing sectors such as manufacturing, technology, business/finance, and health care.

Stakeholders across the workforce system can support this strategy to help ensure equitable access to high-quality opportunities for all Nashville workers. Communitybased organizations are essential partners in designing preapprenticeship programs to ensure that participants are prepared to succeed in established apprenticeships administered by employers and educational institutions. This includes not only formal skills training, but also wraparound supports to mitigate barriers to participation related to childcare, transportation, and scheduling challenges. Employers can partner with secondary and postsecondary schools and other training providers to develop tailored programs to meet industry needs, even in nontraditional occupations and sectors, and commit to recruiting from equity-focused programs. In the midst of ongoing technological change and digitalization, digital literacy and technology access are essential elements of success for diverse students, workers, jobseekers, and entrepreneurs. The Covid-19 pandemic underscored the depth of the digital divide in the move to working and learning from home, but racial inequities in technology remain a critical challenge even as businesses and other institutions return to normal operations.

To ensure that more Nashville area residents have the skills and access they need to enter and succeed in the labor market, workforce service providers should partner with community-based organizations to integrate digital skills and learning pathways into existing training programs, and invest in mentorship and coaching resources to help participants deepen their skills and navigate the continuum from job training to the search, application, and placement processes. Primary and secondary schools as well as community colleges can provide important points of contact and digital access for students and their families, and should implement developmental pathways to support skills development. Employers can also invest in training and incentives for incumbent workers to support digital literacy and technological upskilling. Expanding access to technology—including computers and broadband internet—is another essential strategy for closing the digital divide. Tech companies, employers, and community-based organizations and affinity groups can partner to develop resources and outreach programs to ensure that people of color and residents of underserved neighborhoods have the technology and infrastructure they need to fully participate in the economy.

### Dismantle barriers to employment for people with criminal records.

Involvement with the criminal-legal system also presents significant barriers to workforce participation and advancement that disproportionately disadvantage people of color. 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, can help to alleviate the compounding inequities of over-policing and mass incarceration in communities of color. Similarly, occupational licensing agencies should examine and, where appropriate, revise or eliminate requirements that prohibit individuals with criminal records from holding professional licenses. Bonding and insurance programs can be used to mitigate perceived risks of employment of individuals who have been involved with the criminal-legal system. Workforce intermediaries and advocates can also partner directly with employers to help them understand the lasting impacts that criminal records can have for returning community members, as well as the policy and programmatic solutions that can mitigate those challenges. Employers should be engaged as key stakeholders in educating, training, and placing returning workers; lifting up success stories to change the narrative about people with criminal convictions; and advocating for sustainable policy change to reduce over-policing and build strong pipelines for reentry.

Workforce development programs can be a key point of support and connection for workers and jobseekers facing barriers to employment, including limited-English speakers, immigrants, and people with children, in addition to returning residents. To maximize the benefits of workforce programs for these populations and democratize access to good jobs, providers should be supported to build capacity and coordination, and to integrate critical supports (such as transportation and housing access) that make it possible for returning residents to participate in workforce training and job opportunities.

### The future of workforce equity in Nashville

An equitable labor market will be one in which racial income gaps have been eliminated, all jobs are good jobs, and everyone who wants to work has access to family-supporting employment. Achieving this vision will require high-impact, large-scale, cross-system efforts to dismantle barriers and cultivate racial equity in education and training, hiring and advancement, and the social determinants of work that support positive economic outcomes for workers and families. Now is the time to prioritize an equitable recovery, advancing targeted strategies to improve job quality and ensuring equitable access to safe and stable employment as the foundation for a thriving, inclusive economy.

# **12.0** 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 Lightcast 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," automation risk, and income/GDP gains with racial equity in the workforce. Unless otherwise noted, all data reflect the Nashville-Davidson-Murfreesboro, TN, Metropolitan Statistical Area, which includes Cannon, Cheatham, Davidson, Dickson, Hickman, Macon, Robertson, Rutherford, Smith, Sumner, Trousdale, Willamson, and Wilson counties in the state of Tennessee; for the analysis of good jobs, the economic recovery and automation risk, Hickman County is excluded and Maury County is added to the regional definition.

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 that includes a limited set of summary tabulations for a wide variety of geographies as well as a "microdata file" that includes individual-level responses for the survey and affords an analyst the flexibility to create custom tabulations. These files also come in both one-year and five-year versions, which cover about 1 and 5 percent of the US population, respectively. We used the five-year sample of the microdata to achieve a larger sample size, and we used 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-Latinx (excluding those who identify as Hispanic or Latinx), leaving all persons identifying as Hispanic or Latinx 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, whereas "immigrant" refers to all people who identify as being born in the ACS microdata was aggregated to the detailed occupation level and merged with data from Lightcast to conduct the "good jobs" and "automation risk" analyses that appear in the report.

The proprietary data from Lightcast is based on job postings by collecting data from close to 50,000 online job boards, newspapers, and employer sites daily. Lightcast then de-duplicates postings for the same job, whether it is posted multiple times on the same site or across multiple sites. Finally, Lightcast 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 ACS (employment and average salary), Lightcast data models (typical education requirements advertised on job postings and metropolitan-area occupational employment projections), and the automation risk associated with each occupation from the 2013 paper, *The Future of Employment: How Susceptible Are Jobs to Computerisation* by Frey and Osborne.<sup>28</sup>

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 years 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 restricted it to the working-age population (ages 25–64 years). 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 years or older) that we would expect if there were racial equity in income for just the population ages 25–64 years.

# **13.0** NOTES

- 1 Abbie Langston, Sarah Treuhaft, Justin Scoggins, Joel Simon, and Matthew Walsh, *Race, Risk, and Workforce Equity in the Coronavirus Economy* (Oakland and Los Angeles, CA and Boston, MA: PolicyLink, USC Program for Environmental and Regional Equity, Lightcast, June 2020), <u>https://nationalequityatlas.org/research/</u> COVID-workforce.
- 2 Abbie Langston, Justin Scoggins, and Matthew Walsh, *Race and the Work of the Future: Advancing Workforce Equity in the United States* (Oakland and Los Angeles, CA and Boston, MA: PolicyLink, USC Program for Environmental and Regional Equity, Lightcast, November 2020), <a href="https://www.policylink.org/sites/default/files/Race\_and\_the\_Work\_of\_the\_Future\_United\_States\_FINAL.pdf">https://www.policylink.org/sites/default/files/Race\_and\_the\_Work\_of\_the\_Future\_United\_States\_FINAL.pdf</a>.
- 3 FRED Economic Data, "Total Real Gross Domestic Product for Nashville-Davidson-Murfreesboro-Franklin, TN (MSA)," June 2021, https://fred.stlouisfed.org/series/RGMP34980.
- 4 Geert De Lombaerde, "Area GDP Growth Topped 6% in '18," *Nashville Post*, December 13, 2019, <u>https://www.nashvillepost.</u> <u>com/business/economic-development/article/21106336/</u> <u>area-gdp-growth-topped-6-in-18.</u>
- 5 Greg Isaacson, "Sun Belt Boomtowns Ride Out the Pandemic," *Commercial Property Executive*, May 11, 2021, <u>https://www.commercialsearch.com/news/sun-belt-boomtowns-ride-out-the-pandemic/.</u>
- 6 Scott Beyer, "Nashville And Memphis: An Economic Growth Disparity," *Market Urbanism Report*, November 7, 20218, <u>https://marketurbanismreport.com/blog/nashville-and-memphis-an-economic-growth-disparity</u>.
- 7 National Equity Atlas, "Race Ethnicity, 1980–2050" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, https://nationalequityatlas.org/indicators/Race-ethnicity#/.
- 8 National Equity Atlas, "Wages: Median, 2019" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, <u>https://</u>nationalequityatlas.org/indicators/Wages\_Median#/.
- 9 National Equity Atlas, "Unemployment, 2019" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, https:// nationalequityatlas.org/indicators/Unemployment#/; National Equity Atlas, "Homeownership, 2019" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, https:// nationalequityatlas.org/indicators/Homeownership#/; National Equity Atlas, "Housing Burden, 2019" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, https:// nationalequityatlas.org/indicators/Homeownership#/; National Equity Research Institute, accessed June 16, 2021, https:// nationalequityatlas.org/indicators/Housing\_burden#/.
- 10 National Equity Atlas, "Poverty, 1980–2019" PolicyLink and the USC Equity Research Institute, accessed June 16, 2021, <u>https://nationalequityatlas.org/indicators/poverty#/</u>.

- 11 Sandy Mazza and Jamie McGee, "Bracing for Recession, Nashville Economy Enters Survival Mode," *Tennessean*, March 18, 2020, <u>https://www.tennessean.com/story/money/2020/03/19/</u> <u>coronavirus-bracing-recession-nashville-economy-enters-survival-</u> mode/2865987001/.
- 12 Metro Public Health Department, "Davidson County COVID-19 Dashboard," accessed June 16, 2021, <u>https://nashville.maps.arcgis.</u> <u>com/apps/MapSeries/index.html?appid=30dd8aa876164e05ad6c</u> 0a1726fc77a4.
- 13 ProPublica, "Nashville-Davidson County School District," Miseducation Database, October 2018, <u>https://projects.propublica.org/</u> miseducation/district/4703180.
- 14 Darrell R. Walsh, *Racial Disparities in Homeownership in Tennessee Cities* (Chattanooga, TN: University of Tennessee at Chattanooga, 2020), <u>https://scholar.utc.edu/cgi/viewcontent.cgi?article=1386&</u> <u>context=research-dialogues.</u>
- 15 Dylan Aycock, "How Real Estate Redlining Shaped Nashville," *Community Impact Newspaper*, July 31, 2020, <u>https://</u> <u>communityimpact.com/nashville/southwest-nashville/housing-</u> <u>real-estate/2020/07/31/how-real-estate-redlining-shaped-</u> <u>nashville/</u>.
- 16 Alex Apple, "50 Years Later, Black Nashvillians Still Fight to Overcome Effects of "Redlining," *Fox* 17, July 30 2020, <u>https://fox17.com/</u> <u>news/local/50-years-later-black-nashvillians-still-fight-to-overcome</u> effects-of-redlining.
- 17 National Equity Atlas, "Wages: Median, 2019."
- 18 Nik Theodore, Bethany Boggess, Jackie Cornejo, and Emily Timm, Build a Better South: Construction Working Conditions in The Southern U.S. (Chicago, IL and Oakland, CA: Urban Planning and Policy College Urban Planning and Public Affairs, Workers Defense Project, Partnerships for Working Families, 2017), <u>https://www. forworkingfamilies.org/sites/default/files/publications/BBS%20</u> Full%20Report.pdf.
- 19 Theodore et al., *Build a Better South: Construction Working Conditions in The Southern U.S.*
- 20 Mike Reicher, "Racial Disparities in Arrests: How Does Nashville Compare?" *Tennessean*, July 28, 2016, <u>https://www.tennessean</u>. <u>com/story/news/crime/2016/07/28/racial-disparities-arrests-</u> how-does-nashville-compare/87622542/.
- 21 Fumiko Hayashi and Sabrina Minhas, "Who Are the Unbanked? Characteristics Beyond Income," *The Federal Reserve Bank of Kansas City Economic Review*, June 21, 2018, <u>https://doi.org/10.18651/</u> <u>ER/2Q18HayashiMinhas</u>.

- 22 Kathleen Jacob, "63% of African American Metro Workers Make Below Median Salary," *Fox* 17, July 23, 2020, <u>https://fox17.com/news/local/63-of-african-american-metro-workers-make-below-median-salary-nashville-only-38-percent-white-workers-make-under-median.</u>
- 23 Amy K. Glasmeier and the Masschusetts Institute of Technology, "Living Wage Calculation for Nashville-Dividson—Murfreesboro— Franklin, TN," Living Wage Calculator, accessed June 2022, <u>https://</u> livingwage.mit.edu/metros/34980.
- 24 Glasmeier and MIT, "Living Wage Calculation."
- 25 Carl Benedikt Frey and Michael A. Osborne, "The Future of Employment: How Susceptible Are Jobs to Computerisation?" (Oxford, UK: Oxford Martin School, September 17, 2013), <u>https://www.oxfordmartin.ox.ac.uk/downloads/academic/The\_Future\_of\_</u> Employment.pdf.
- 26 James Manyika, Susan Lund, Michael Chui, Jacques Bughin, Jonathan Woetzel, Parul Batra, Ryan Ko, Saurabh Sanghvi, Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation (San Francisco, CA: McKinsey Global Institute, December 2017), https://www.mckinsey.com/~/media/McKinsey/Industries/ Public%20and%20Social%20Sector/Our%20Insights/What%20 the%20future%20of%20work%20will%20mean%20for%20 jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Executive-summary-December-6-2017.pdf.
- 27 Manyika et al., *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation.* It is important to note that automation scores are not a probability that a given job will actually be automated. Because a job or task can technically be done by a computer does not mean that it will be. A range of legal, logistical, business, financial, political, and social factors could lower the real rate at which businesses and employers adopt technology and automate functions.
- 28 Frey and Osborne, "The Future of Employment: How Susceptible Are Jobs to Computerisation?"

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