Spotlight on Black STARs

Insights for Employers to Access the Skilled and Diverse Talent They've Been Missing

STARs
SKILLED THROUGH
ALTERNATIVE ROUTES

Presented by

Opportunity @Work

ONE TEN

Summary: Employers are missing out on Black STAR talent.

There are 70+ million U.S. workers who are Skilled Through Alternative Routes (STARs), like community college, military service, training programs, partial degree completion, skills bootcamps, and learning on the job — rather than a bachelor's degree. This includes 11 million Black STARs.

As employers seek to revitalize and diversify their talent pipelines, it is critical to understand who Black STARs are, where they work, and the skills they bring to the workforce. Here we share three key insights that every employer should know.

- **Almost two–thirds of Black workers are STARs.** Employers cannot find the diverse talent they need to meet emerging market needs without taking account of Black STARs.

- **Black STARs live in areas that historically offer them limited economic opportunity.** Talent strategies for Black STARs are key to a regionally competitive economy.

- **More than half of all Black STARs work in 25 jobs.** Effective sourcing of Black STAR talent requires attention to these jobs.

The structural inequities reflected in this data diminish the pool of talent for employers and undermine the economic mobility of Black STARs. However, the concentration of Black STARs into 25 jobs allows employers to focus with laser precision on this pool of talent. Employers can take concrete actions to build and broaden talent pipelines to increase the numbers of Black STARs in in–demand roles. Employers can:

- **Increase the number of Black STARs on promising job pathways** by sourcing from common entry–level jobs in health care, retail, and transportation that employ the most Black STARs.

- **Improve the movement of Black STARs across job pathways** by facilitating their transitions to gateway roles such as customer service representatives, licensed practical nurses, and supervisors of sales workers.

- **Create new pathways for Black STARs** in emerging fields like cyber security and IT support by intentionally designing pathways jobs to be inclusive of Black STARs.

There is much innovation, experimentation, and research to be done to improve our understanding and our practices. Here we bring a fresh perspective to how employers can begin to deploy talent strategies that expand the talent pool and increase Black STARs' mobility.

> **"We believe companies have overlooked Black talent at every level, at a high cost to Black communities, the American economy, and companies' bottom lines."**
>
> – Byron Auguste, CEO and Co–Founder, Opportunity@Work, and Maurice Jones, CEO, OneTen

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Insights

We offer three insights to inform employers' understanding of where to find Black talent and the skills that Black STARs can bring to their talent pipelines.

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Insight #1: Black STARs are the majority of Black workers.
Employers cannot diversify their talent pipelines without attention to Black STARs.

Insight #2: Black STARs live in areas that historically offer them limited economic opportunity.
Without a strategy for hiring Black STARs, employers cannot build a competitive regional presence.

Insight #3: Black STARs are concentrated in a small number of occupations.
Employers must look to these jobs to find Black talent.

#1 Black STARs are the majority of Black workers.

Employers cannot diversify their talent pipelines without attention to Black STARs.

Most Black workers are STARs.

Almost two–thirds of Black workers are STARs. This number has been stable for decades (64.4% in 2000, 64.6% in 2019). By comparison, 53.4% of all workers are STARs.

A growing share of STARs are Black.

In 2000, 11.4% of STARs were Black. By 2019, 14.3% of STARs were Black.

Black STARs are a growing share of the labor force.

As the labor market has expanded, from 2000 to 2019, the number of Black STARs in the labor force increased from 7.7 million (6.6%) to 11.0 million (7.6%). Even as the number of Black workers with bachelor's degrees has significantly increased over the past two decades (more than doubling from 2.3M to 4.8M from 2000 to 2019), the number of Black STARs has grown more.

ALMOST TWO THIRDS OF BLACK WORKERS ARE STARS

Active Labor Force	Bachelor's Degree or Higher	STARs	Less than a High School Diploma
17.1M	4.8M	11M	1.2M
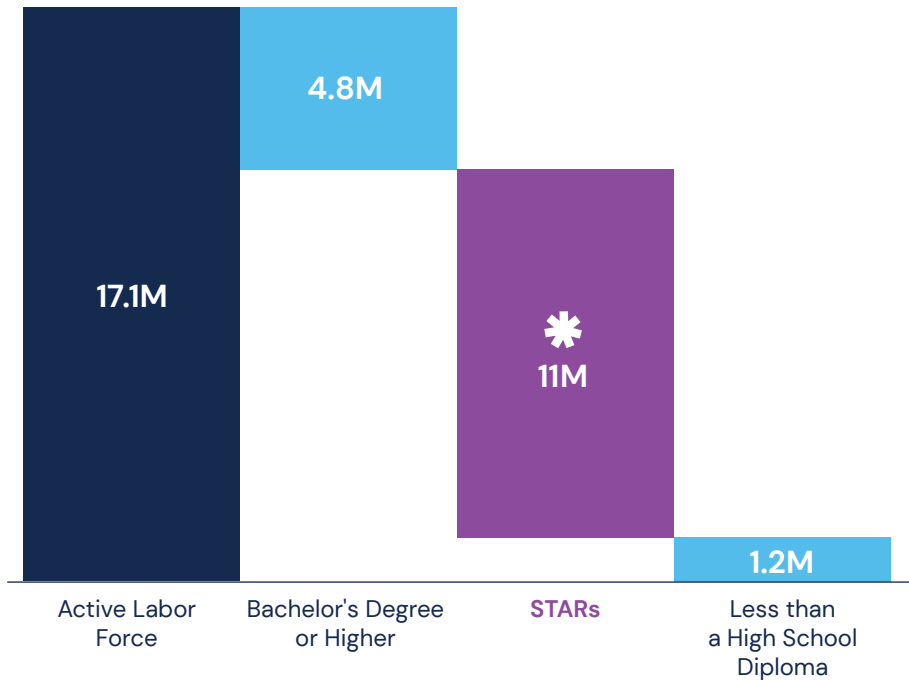
Source: Opportunity@Work analysis of the 2019 1–year ACS, IPUMS. See appendix for details.

#2 Black STARs live in areas that historically offer them limited economic opportunity.

### Without a strategy to hire Black STARs, employers cannot build a competitive regional presence.

Black STARs live across the U.S., but they are not evenly distributed.

We see the highest numbers of Black STARS in Texas, Florida, and Georgia. In terms of percentage of the overall workforce, Black STARS are highest across the Southeast. Black STARS are also concentrated in a number of metro areas, with large populations in New York, NY, Atlanta, GA, and Washington, D.C. and a high representation of Black STARS in Jackson, MS, Memphis, TN, and Montgomery, AL.

These areas are generally characterized by relatively low mobility for Black STARs.

Our **STAR Mobility Index** allows us to compare Black STARS' opportunities for economic mobility across regions, using measures of economic mobility, equity, and security. We see that the areas that present the most opportunity for Black STARS are those where Black STARS live in lower numbers, while many areas with a higher share of Black STARS offer them less mobility.

BLACK STARS ARE GEOGRAPHICALLY CONCENTRATED

# of Black STARs
<100k
100–300k
300–500k
500K+
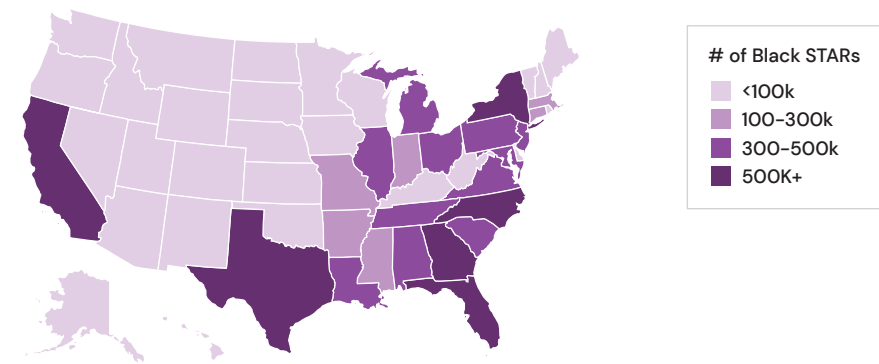
Source: Opportunity@Work analysis of the 2019 1-year ACS, IPUMS. See appendix for details.

DISTRIBUTION OF BLACK STARS BY METRO AREA AND BLACK STAR MOBILITY INDEX SCORE

# of Black STARs
<75k
75–100k
100–300k
300k+
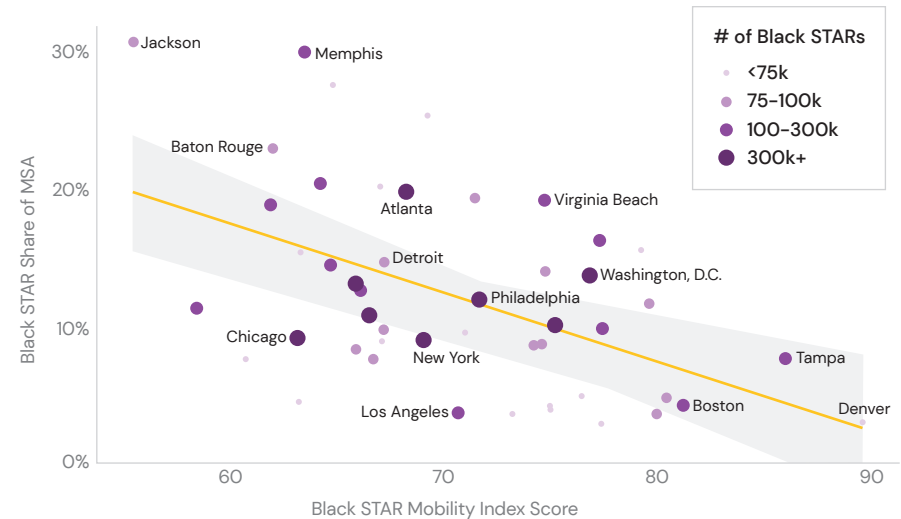
Source: Opportunity@Work analysis of the 2019 1-year ACS and 2017–2021 CPS-ASEC, IPUMS. See appendix for details.

#3 Black STARs are concentrated in a small number of occupations.

Employers must look to these jobs to find Black talent.

Over 50% of Black STARs work in 25 occupations.

These 25 jobs are primarily low-wage; only two pay above the national median wage. By comparison, 50% of white STARs work across 38 occupations, ten of which pay above the national median wage.
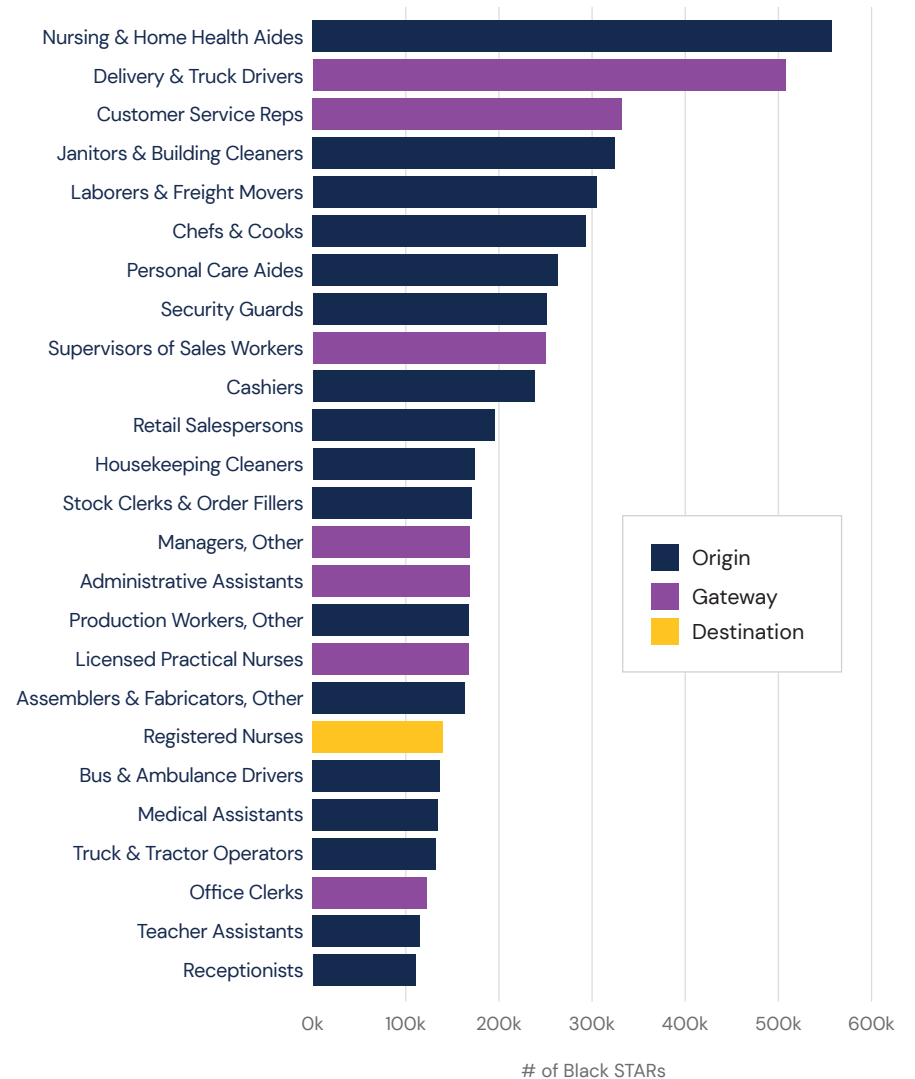
This small set of jobs restricts mobility opportunities for Black STARs.

Among these 25 jobs, only eight of them are gateway or destination jobs — jobs that open opportunities for higher wages. About 28% of all Black STARs work in gateway jobs — middle-wage jobs that are accessible from common entry-level origin jobs and offer access to other higher-paying jobs. Another 19% of Black STARs are in jobs we call destination jobs — jobs that are typically found at the end of a series of transitions that yield higher wages.

More than half of Black STARs are at risk of being stranded in low-wage jobs.

The remaining 53% of Black STARs are in low-wage origin jobs. They demonstrate skills in these jobs that could position them for higher-wage work, but employer action is needed to open access to gateway and destination jobs.

25 OCCUPATIONS SHAPE BLACK STARS' ECONOMIC OPPORTUNITIES

Legend:
- Origin (dark navy)
- Gateway (purple)
- Destination (yellow)

X-axis: # of Black STARs (0k – 600k)

Occupations (top to bottom):
- Nursing & Home Health Aides
- Delivery & Truck Drivers
- Customer Service Reps
- Janitors & Building Cleaners
- Laborers & Freight Movers
- Chefs & Cooks
- Personal Care Aides
- Security Guards
- Supervisors of Sales Workers
- Cashiers
- Retail Salespersons
- Housekeeping Cleaners
- Stock Clerks & Order Fillers
- Managers, Other
- Administrative Assistants
- Production Workers, Other
- Licensed Practical Nurses
- Assemblers & Fabricators, Other
- Registered Nurses
- Bus & Ambulance Drivers
- Medical Assistants
- Truck & Tractor Operators
- Office Clerks
- Teacher Assistants
- Receptionists

Source: Opportunity@Work analysis of the 2019 1-year ACS, IPUMS. See appendix for details.

Implications for Employers

The concentration of Black STARs geographically and occupationally, while troubling, indicates a clear way forward. The 25 most common jobs for Black STARs tell us where Black STARs are working as well as where they could go next. By analyzing the transitions that workers make in and out of these 25 jobs, we can identify job pathways that workers typically traverse. This has implications for how employers can source and develop talent.

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Implication #1: Employers should increase the numbers of Black STARs across established pathways.
These are pathways that Black STARs are traveling at relatively healthy rates. They can be leveraged to create more opportunities for Black STARs.

Implication #2: Employers should increase access for Black STARs to jobs across high-potential pathways.
These are pathways where Black STARs have a foothold but are not traversing them in numbers proportionate to their representation. They can be broadened to increase job opportunities.

Implication #3: Employers should build new opportunities for Black STARs on emerging pathways.
These are pathways with new-to-world jobs where the pathways are not fully constructed. These pathways present a unique opportunity to build inclusive pathways from the ground up.
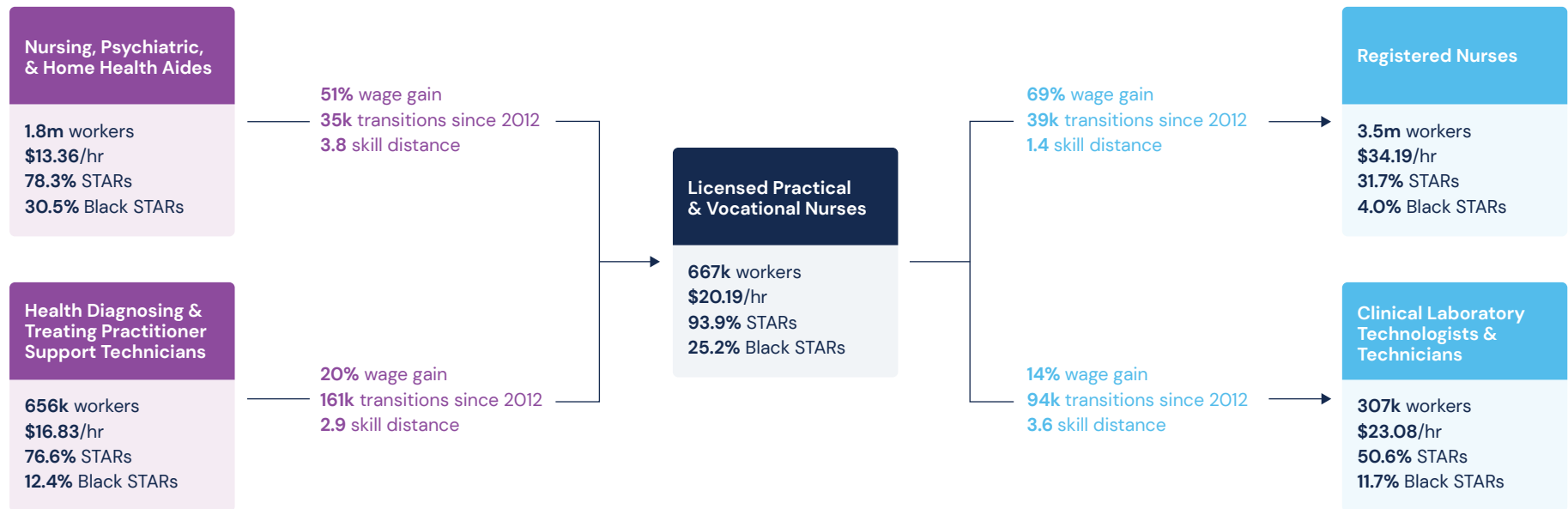
#1 Employers should increase the numbers of Black STARs across established pathways.

Consider a common pathway for workers who work in **healthcare support** jobs. It is relatively well understood by employers and workers alike. This is a pathway that has historically provided mobility for STARs as STARs are employed in high numbers and regularly move across these jobs. This volume includes a significant number of Black

STARs. There are other pathways like this one that we call established pathways that are working relatively well for Black STARs but could still be improved. If employers hired more Black STARs across all jobs on **established pathways**, they would expand the pool of talent for in-demand jobs.

ESTABLISHED PATHWAY: HEALTHCARE SUPPORT TO NURSING AND LAB TECHNICIANS

Nursing, Psychiatric, & Home Health Aides

1.8m workers
$13.36/hr
78.3% STARs
30.5% Black STARs

51% wage gain
35k transitions since 2012
3.8 skill distance

Health Diagnosing & Treating Practitioner Support Technicians

656k workers
$16.83/hr
76.6% STARs
12.4% Black STARs

20% wage gain
161k transitions since 2012
2.9 skill distance

Licensed Practical & Vocational Nurses

667k workers
$20.19/hr
93.9% STARs
25.2% Black STARs

69% wage gain
39k transitions since 2012
1.4 skill distance

14% wage gain
94k transitions since 2012
3.6 skill distance

Registered Nurses

3.5m workers
$34.19/hr
31.7% STARs
4.0% Black STARs

Clinical Laboratory Technologists & Technicians

307k workers
$23.08/hr
50.6% STARs
11.7% Black STARs

Source: Opportunity@Work analysis of the O*NET 25.3, 2019 1-year ACS and 2012–2021 CPS-ASEC, IPUMS. See appendix for details.
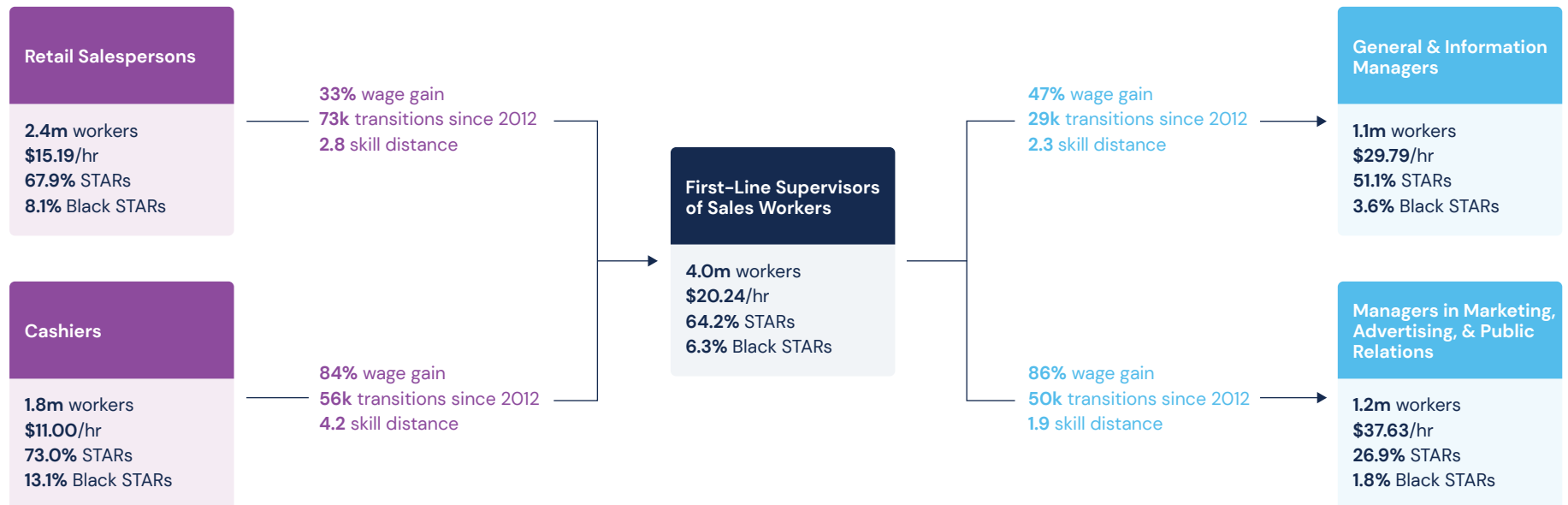
#2 Employers should increase access for Black STARs to jobs across high-potential pathways.

Even as established pathways show opportunities for STARs, we see disparities for Black STARs as they navigate common career pathways. For example, the **retail sales** industry employs STARs in several of the top 25 jobs. Transitions across retail sales and marketing jobs have provided mobility for STARs but less reliably than on the established pathway. Black STARs, in particular, are not moving across these pathways in proportion to their representation in the entry-level jobs. We call pathways like this **high-potential pathways** because with intentional efforts they could improve access to gateway and destination jobs for Black STARs and create more opportunity.

HIGH-POTENTIAL PATHWAY: RETAIL SALES TO MANAGEMENT

Retail Salespersons

2.4m workers
$15.19/hr
67.9% STARs
8.1% Black STARs

33% wage gain
73k transitions since 2012
2.8 skill distance

Cashiers

1.8m workers
$11.00/hr
73.0% STARs
13.1% Black STARs

84% wage gain
56k transitions since 2012
4.2 skill distance

First-Line Supervisors of Sales Workers

4.0m workers
$20.24/hr
64.2% STARs
6.3% Black STARs

47% wage gain
29k transitions since 2012
2.3 skill distance

86% wage gain
50k transitions since 2012
1.9 skill distance

General & Information Managers

1.1m workers
$29.79/hr
51.1% STARs
3.6% Black STARs

Managers in Marketing, Advertising, & Public Relations

1.2m workers
$37.63/hr
26.9% STARs
1.8% Black STARs

Source: Opportunity@Work analysis of the O*NET 25.3, 2019 1-year ACS and 2012-2021 CPS-ASEC, IPUMS. See appendix for details.
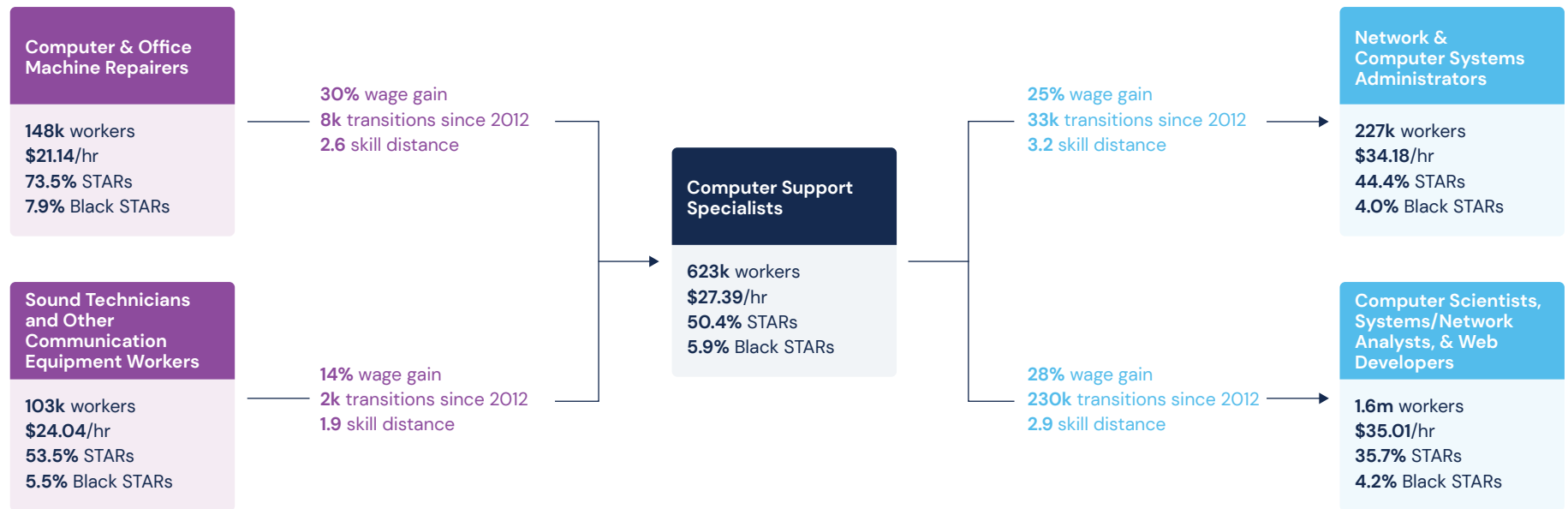
#3 Employers should build new opportunities for Black STARs on emerging pathways.

Established and high potential pathways are not enough. A history of occupational segregation has created barriers to mobility for Black STARs that will require a significant effort to undo. As new jobs emerge in the labor market, employers have the opportunity to build new pathways that are not encumbered by past biases. This is especially true in information technology professions where new roles are created to meet new process and skills needs.

Consider, for example, the Salesforce administrator role, which did not exist a decade ago and needed to be filled with workers with no Salesforce experience but a relevant set of skills. Jobs in **computer support** provided a pipeline. **Emerging pathways** are pathways where new roles are being created to meet new process and skills needs. They represent a chance to build accessible, equitable pathways from the ground up.

EMERGING PATHWAY: TECHNICAL SUPPORT TO NETWORK AND SYSTEMS ADMINISTRATION

Computer & Office Machine Repairers

148k workers
$21.14/hr
73.5% STARs
7.9% Black STARs

30% wage gain
8k transitions since 2012
2.6 skill distance

Sound Technicians and Other Communication Equipment Workers

103k workers
$24.04/hr
53.5% STARs
5.5% Black STARs

14% wage gain
2k transitions since 2012
1.9 skill distance

Computer Support Specialists

623k workers
$27.39/hr
50.4% STARs
5.9% Black STARs

25% wage gain
33k transitions since 2012
3.2 skill distance

Network & Computer Systems Administrators

227k workers
$34.18/hr
44.4% STARs
4.0% Black STARs

28% wage gain
230k transitions since 2012
2.9 skill distance

Computer Scientists, Systems/Network Analysts, & Web Developers

1.6m workers
$35.01/hr
35.7% STARs
4.2% Black STARs

Source: Opportunity@Work analysis of the O*NET 25.3, 2019 1-year ACS and 2012–2021 CPS-ASEC, IPUMS. See appendix for details.

Summary: Pathway Framework for Accessing Skilled and Diverse Talent

The pathway examples provided above offer a framework for matching Black STAR talent to in-demand jobs. Employers can improve their access to reliable sources of Black STAR talent by identifying the pathways from the top 25 jobs for Black STARs to the jobs in their organizations.

Expand established pathways. Increase the number of Black STARs on promising job pathways by sourcing from common entry-level jobs that employ the most Black STARs.	• Actively pursue Black STARs in the 25 jobs for target roles • Improve direct marketing to Black STARs through partnerships with organizations that can reach them
Broaden high-potential pathways. Improve the movement of Black STARs across job pathways by facilitating their transitions to gateway roles and destination roles.	• Prioritize internal mobility for Black STARs across jobs on the pathway • Build partnerships across employers with entry-level, gateway and destination jobs on the pathway
Build new pathways. Design new-to-world jobs and pathways to be inclusive of Black STARs.	• Design new jobs with a focus on the 25 top jobs for Black STARs as origin occupations • Support talent developer programs to meet needs of these roles

Conclusion

Build stronger, more diverse talent pipelines by hiring from 25 jobs.

The concentration of Black STARs allows employers to focus their talent strategies with precision to build more diverse, inclusive businesses. Sourcing intentionally from the 25 jobs that employ over half of Black STARs will bring new talent into pipelines and open opportunities for millions of Black workers. See Appendix Table 1 for a detailed list of these 25 jobs. This meaningful change will require a shift in mindset.

Think expansively and creatively about the skills needed for a job.

Sometimes jobs that appear quite different actually require many of the same skills. A comparison of skills may reveal similar jobs in unexpected places, especially across industry. This is especially relevant to new-to-world jobs where clear skills-based transitions are not yet evident. See Appendix Tables 2 and 3 for examples of some of the pathways to higher wages that Black STARs already take and the pathways that skills-based hiring could open up for Black STARs.

Consider geography as a core part of your Black STARs strategy.

The geographic concentration of Black STARs requires a regional and local focus. Businesses may examine where they locate facilities to access new sources of talent. Remote work opportunities can also open possibilities. See Appendix Table 4 to develop a better understanding of the mobility opportunities Black STARs have experienced in the 50 metropolitan areas with the most Black workers.
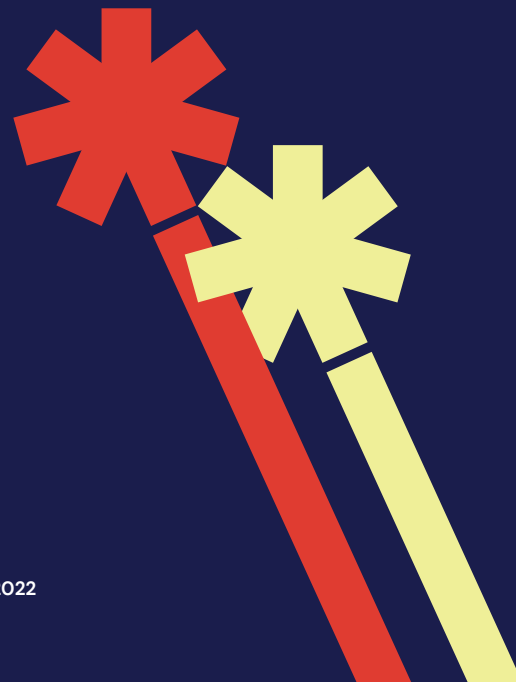
Engage proactively with the local ecosystem to shape the local talent pool.

Employers must collaborate with each other as well as with local talent developers to strengthen pathways. Businesses can work together to facilitate STARs' transitions from common local entry jobs to in-demand gateway and destination jobs. And because some skilling intervention will be needed, employers must partner with programs that teach the specific skills for the high-volume, in-demand roles. This may include work-based learning models, including internships and apprenticeships.

Appendix

Appendix: Data and Methods

Insight #1: Black STARs are the majority of Black workers.

Using the U.S. Census Bureau 2000 Decennial Census and the 2019 1-year American Community Survey (ACS), both accessed through the University of Minnesota Integrated Public Use Microdata Series (IPUMS), we can observe how the labor force has changed over the past 19 years by race and educational attainment.

Our study population is limited to adults aged 25 and older in the civilian, non-institutionalized labor force. This excludes active-duty military, residents of nursing homes or correctional facilities, and individuals who are not currently working or looking for work. This population includes 144 million people, of which 77 million, or 53%, are STARs.

Reach for the STARs defined the talent pool of workers who are skilled through alternative routes (STARs). STARs have graduated high school or earned a GED equivalency and may have attended college, technical schools, or earned associate degrees or technical certifications, however, they have not completed a bachelor's degree.

We use the term "Black" to represent the population of workers who identified their race as Black alone and their ethnicity as non-Hispanic. This population includes 17 million people, of which 11 million, or 65% are STARs. This definition excludes 526k workers who identified as Black and Hispanic and another 1.2 million workers who identified as Black and another race (most often white).

Insight #2: Black STARs are concentrated geographically in regions with lower economic mobility for Black STARs.

Building on the STAR Mobility Index established in our previous report, *Rise with the STARs*, the Black STAR Mobility Index compares occupational mobility for Black STARs in the 50 U.S. Metropolitan Statistical Areas (MSAs) with the most Black workers. This measure accounts for three dimensions of economic opportunity:

1. **Mobility:** to measure the extent that Black STARs have been able to transition into higher wage occupations, we calculate the percentage of Black STARs in a given metro area who made a year-to-year change in occupation where the median national wage in the worker's current job was at least 10% higher than the job held in the prior year. Estimates are derived from the 2017 to 2021 Current Population Survey (CPS), Annual Social and Economic Supplement (ASEC), Integrated Public Use Microdata Sample (IPUMS).

2. **Equity:** to measure the wage penalty faced by Black STARs compared to workers with a bachelor's degree in the same occupation, we calculate the ratio of Black STAR median hourly wages to median wages for workers with at least a bachelor's degree within 422 occupational groups. These occupation specific ratios are then weighted by the number of Black STARs working in each occupation, providing the average wage penalty faced by Black STARs in a given metro. Estimates are derived from the 2019 1-year ACS.

3. **Security:** to measure how accessible high-wage occupations are to Black STARs, we calculate the percentage of employed Black STARs within a metro area who work in occupations where national wages within that occupation are above the overall national median wage. The national median hourly wage for workers aged 25 and older in 2019 was $21.63. Estimates are derived from the 2019 1-year ACS.

See the appendix in Rise with the STARs for a more detailed methodology about the STAR Mobility Index.

Insight #3: Black STARs are concentrated in a small number of occupations.

Occupational categories are based on the 2010 Integrated Public Use Microdata Series harmonized occupation coding scheme. Job titles included in tables and figures may be abbreviated due to space constraints, but the full occupation titles can be found in Appendix Table 3.

In our previous report, *Navigating with the STARs*, we identified 292 destination occupations which led STARs to earn at least 9.5% higher wages than their previous occupation and which moved STARs from a low-wage occupation into a middle-wage occupation or from a mid-wage occupation into a high-wage occupation. Among these 292 Destination jobs, we identified 51 jobs that we termed gateway occupations because they open a pathway to upward mobility for STARs by offering a significant wage increase from multiple origin jobs and opening pathways to multiple higher wage destination jobs.

See the appendix in *Navigating with the STARs*, for a more detailed methodology.

Implications for Employers

For each occupation included in the example pathways, we use the 2019 1-year ACS to calculate the total number of workers, median hourly wages, and the share of that role filled by STARs and Black STARs. For each occupation-to-occupation transition, we identify three additional pieces of information:

1. The percent wage gain is estimated as the percent change in the occupation median hourly wages using the 2019 1-year ACS.

2. The number of transitions is calculated using the 2012 to 2021 CPS ASEC. Although the CPS ASEC is not designed to capture a representative sample of cross-occupational transitions, by pooling 10 years worth of data, we are able to evaluate the relative strength of specific skills-based pathways.

3. The skill distance is calculated using data from the Occupational Information Network (O*NET) 25.3 Database on the importance of 35 job-related skills. After merging the O*NET skill ratings to the 2019 1-year ACS, we calculate the skill distance between any pair of occupations using the Euclidean distance between their 35-dimensional skill vectors. For more information about skill distance as a measure of job similarity, see the NBER paper, "Skills, Degrees, and Labor Market Inequality" (Blair, Debroy, and Heck 2021). Among the transitions observed in the 2012 to 2021 CPS ASEC, the median skill distance was 2.6. Although the maximum skill distance for an observed transition was 9.3, 95% of the observed transitions had a skill distance less than 5.2.

APPENDIX TABLE 1: TOP 25 JOBS FOR BLACK STARS

Occupation	# of Black STAR (k)	% Black STARs	% Women	Median Hourly Wages
Nursing, Psychiatric, & Home Health Aides	557.7	30.5%	88.5%	$13.35
Driver/Sales Workers & Truck Drivers	507.6	14.2%	6.9%	$18.27
Customer Service Representatives	331.8	14.2%	68.3%	$16.83
Janitors & Building Cleaners	324.4	13.8%	36.5%	$13.46
Laborers & Freight, Stock, & Material Movers, Hand	304.7	15.9%	23.2%	$14.42
Chefs & Cooks	293.5	12.9%	42.1%	$12.02
Personal Care Aides	263.6	19.6%	83.5%	$11.73
Security Guards & Gaming Surveillance Officers	251.2	27.9%	24.7%	$14.97
First–Line Supervisors Of Sales Workers	250.1	6.3%	43.7%	$20.24
Cashiers	238.2	13.1%	77.0%	$11.00
Retail Salespersons	195.7	8.1%	48.0%	$15.19
Maids & Housekeeping Cleaners	173.9	11.8%	89.4%	$11.30
Stock Clerks & Order Fillers	171.4	14.6%	40.4%	$12.98
Managers, nec (Including Postmasters)	168.8	3.3%	37.8%	$35.71
Secretaries & Administrative Assistants	168.6	6.3%	94.5%	$19.23

(continued)

Occupation	# of Black STAR (k)	% Black STARs	% Women	Median Hourly Wages
Other Production Workers Including Semiconductor Processors & Cooling & Freezing Equipment Operators	168	14.2%	31.2%	$16.83
Licensed Practical & Licensed Vocational Nurses	167.8	25.2%	88.5%	$20.19
Assemblers & Fabricators, nec	163.2	17.2%	38.9%	$15.62
Registered Nurses	140	4.0%	87.8%	$34.19
Bus & Ambulance Drivers & Attendants	136.8	22.8%	46.0%	$16.03
Medical Assistants & Other Healthcare Support Occupations, nec	134.9	15.2%	84.8%	$15.87
Industrial Truck & Tractor Operators	132.5	21.8%	8.2%	$15.87
Office Clerks, General	122.7	10.8%	84.3%	$16.35
Teacher Assistants	115.5	9.9%	85.8%	$12.82
Receptionists & Information Clerks	110.4	10.5%	91.5%	$14.42

APPENDIX TABLE 2: EXAMPLES OF TRANSITIONS FROM ORIGIN TO GATEWAY OCCUPATIONS

Gateway occupations open pathways to upward mobility for STARs, in part, because they are middle-wage occupations that are accessible from many common entry-level origin jobs. The table below highlights five entry-level origin occupations in which a significant number of Black STARs currently work. For each origin occupation, we highlight three gateway occupations for which a high volume of transitions from the origin to gateway occupation has been observed in the last ten years of the CPS ASEC. These examples represent known pathways that workers already take to reach gateway occupations. Additionally, we highlight three gateway occupations which require a similar set of skills as measured using skill distance (as explained under Implications for Employers in the Data and Methods section of the appendix). Although transitions to these jobs may not have occurred as frequently, they represent the potential that skills-based hiring offers to improve the mobility of Black STARs.

Origin Occupation	# of Black STARs (k)	Gateway Occupations with High Volume of Transitions	Gateway Occupations with High Skill Overlap
Nursing, Psychiatric, And Home Health Aides	**557.7**	Licensed Practical & Licensed Vocational Nurses Secretaries & Administrative Assistants Driver/Sales Workers & Truck Drivers	Customer Service Representatives Office Clerks, General File Clerks
Chefs and Cooks	**293.5**	First-Line Supervisors Of Sales Workers Customer Service Representatives Driver/Sales Workers & Truck Drivers	Couriers & Messengers Inspectors, Testers, Sorters, Samplers, & Weighers Office Clerks, General
Retail Salespersons	**195.7**	Sales Representatives, Wholesale & Manufacturing Real Estate Brokers & Sales Agents Insurance Sales Agents	Advertising Sales Agents Customer Service Representatives Sales Representatives, Services, All Other
Stock Clerks & Order Fillers	**171.4**	Secretaries & Administrative Assistants Office Clerks, General Driver/Sales Workers & Truck Drivers	Bookkeeping, Accounting, & Auditing Clerks Customer Service Representatives Sales and Related Workers, All Other
Receptionists & Information Clerks	**110.4**	Customer Service Representatives Bookkeeping, Accounting, & Auditing Clerks Couriers & Messengers	Office Clerks, General Secretaries & Administrative Assistants Human Resources, Training, & Labor Relations Specialists

APPENDIX TABLE 3: EXAMPLES OF TRANSITIONS FROM GATEWAY TO DESTINATION OCCUPATIONS

Gateway occupations open pathways to upward mobility for STARs, in part, because they position STARs to transition to even higher-wage jobs we term destination jobs. The table below highlights five gateway occupations in which a significant number of Black STARs currently work. For each gateway occupation, we highlight three destination occupations for which a high volume of transitions from the gateway to destination occupation has been observed in the last ten years of the CPS ASEC. These examples represent known pathways that workers already take to reach destination occupations. Additionally, we highlight three destination occupations which require a similar set of skills as measured using skill distance (as explained under Implications for Employers in the Data and Methods section of the appendix). Although transitions to these jobs may not have occurred as frequently, they represent the potential that skills-based hiring offers to improve the mobility of Black STARs.

Gateway Occupation	# of Black STARs (k)	Destination Occupations with High Volume of Transitions	Destination Occupations with High Skill Overlap
Driver/Sales Workers & Truck Drivers	507.6	Crane & Tower Operators Locomotive Engineers & Operators Railroad Conductors & Yardmasters	Pumping Station Operators Transportation Workers, nec Construction Equipment Operators Except Paving, Surfacing, & Tamping Equipment Operators
Customer Service Representatives	331.8	Dispatchers Loan Interviewers & Clerks Financial Clerks, nec	Human Resources Assistants, Except Payroll & Timekeeping Insurance Claims & Policy Processing Clerks Court, Municipal, & License Clerks
First-line Supervisors of Sales Workers	250.1	Managers In Marketing, Advertising, & Public Relations General & Operations Managers Property, Real Estate, & Community Association Managers	Purchasing Managers Administrative Services Managers Other Business Operations & Management Specialists
Secretaries & Administrative Assistants	168.6	Production, Planning, & Expediting Clerks Personal Financial Advisors Property, Real Estate, & Community Association Managers	Paralegals & Legal Assistants Media & Communication Workers, nec Payroll & Timekeeping Clerks
Licensed Practical & Licensed Vocational Nurses	167.8	Clinical Laboratory Technologists & Technicians Diagnostic Related Technologists & Technicians Dental Hygienists	Registered Nurses Healthcare Practitioners & Technical Occupations, nec Health Diagnosing & Treating Practitioners, nec

APPENDIX TABLE 4: STAR MOBILITY INDEX – MEASURING MOBILITY FOR BLACK STARS

Metropolitan Statistical Area	# of Black STARs (k)	% Black STARs	Black STAR Mobility Index			
			Black STAR Earnings Ratio	Black STARs Above Median Wage	Upwardly Mobile Black STARs	Tier
Atlanta–Sandy Springs–Roswell, GA	549.2	19.9%	83.3%	24.6%	5.0%	Average
Augusta–Richmond County, GA–SC	57.3	25.4%	80.7%	22.8%	6.4%	Average
Austin–Round Rock, TX	49.9	4.4%	85.3%	23.9%	3.1%	Below Average
Baltimore–Columbia–Towson, MD	210.7	16.3%	87.7%	25.7%	7.4%	Above Average
Baton Rouge, LA	79.9	23.1%	72.0%	21.8%	5.3%	Below Average
Birmingham–Hoover, AL	94.0	19.4%	84.8%	19.0%	8.2%	Average
Boston–Cambridge–Newton, MA–NH	102.0	4.2%	85.4%	26.2%	9.0%	Above Average
Charleston–North Charleston, SC	57.6	15.6%	75.2%	26.6%	9.5%	Above Average
Charlotte–Concord–Gastonia, NC–SC	178.3	14.5%	82.6%	21.5%	5.0%	Below Average
Chicago–Naperville–Elgin, IL–IN–WI	400.8	9.1%	85.3%	21.2%	4.1%	Below Average
Cincinnati, OH–KY–IN	72.9	7.6%	85.3%	22.2%	2.8%	Below Average
Cleveland–Elyria, OH	115.2	12.6%	83.8%	20.8%	5.6%	Average
Columbia, SC	70.8	20.2%	91.9%	20.5%	5.0%	Average
Columbus, OH	92.4	9.7%w	82.3%	23.1%	5.3%	Average
Dallas–Fort Worth–Arlington, TX	346.9	10.1%	88.9%	22.7%	7.6%	Above Average
Denver–Aurora–Lakewood, CO	45.8	3.0%	85.4%	25.5%	12.4%	Exceptional
Detroit–Warren–Dearborn, MI	272.6	14.5%	85.6%	19.4%	6.3%	Average

(continued)

Metropolitan Statistical Area	# of Black STARs (k)	% Black STARs	Black STAR Mobility Index			
			Black STAR Earnings Ratio	Black STARs Above Median Wage	Upwardly Mobile Black STARs	Tier
Greensboro–High Point, NC	52.8	15.4%	90.2%	18.7%	4.5%	Below Average
Houston–The Woodlands–Sugar Land, TX	337.4	10.8%	82.5%	27.1%	3.5%	Average
Indianapolis–Carmel–Anderson, IN	81.7	8.7%	83.8%	20.3%	9.1%	Above Average
Jackson, MS	80.0	30.8%	84.9%	21.7%	1.1%	Below Average
Jacksonville, FL	94.8	13.9%	85.3%	22.1%	8.1%	Above Average
Kansas City, MO–KS	77.4	7.6%	84.3%	20.4%	5.9%	Average
Las Vegas–Henderson–Paradise, NV	83.3	8.3%	90.7%	18.8%	5.4%	Average
Little Rock–North Little Rock–Conway, AR	43.7	14.5%	92.9%	18.0%	4.8%	Below Average
Los Angeles–Long Beach–Anaheim, CA	224.9	3.6%	88.9%	28.7%	3.6%	Average
Louisville/Jefferson County, KY–IN	50.5	8.9%	86.6%	23.9%	4.4%	Average
Memphis, TN–MS–AR	163.7	30.1%	84.8%	21.3%	4.3%	Below Average
Miami–Fort Lauderdale–West Palm Beach, FL	373.8	13.0%	90.3%	21.4%	4.4%	Average
Milwaukee–Waukesha–West Allis, WI	67.9	9.4%	82.2%	21.5%	7.4%	Average
Minneapolis–St. Paul–Bloomington, MN–WI	86.8	4.8%	90.2%	21.5%	9.9%	Above Average
Montgomery, AL	42.0	27.7%	85.0%	17.0%	6.4%	Below Average
Nashville-Davidson--Murfreesboro--Franklin, TN	84.9	8.6%	86.8%	20.5%	8.4%	Above Average
New Orleans–Metairie, LA	116.7	20.4%	83.2%	20.5%	5.1%	Below Average
New York–Newark–Jersey City, NY–NJ–PA	842.0	9.0%	88.6%	25.1%	4.4%	Average

Metropolitan Statistical Area	# of Black STARs (k)	% Black STARs	Black STAR Mobility Index			
			Black STAR Earnings Ratio	Black STARs Above Median Wage	Upwardly Mobile Black STARs	Tier
Orlando–Kissimmee–Sanford, FL	114.7	9.8%	89.1%	22.6%	8.5%	Above Average
Philadelphia–Camden–Wilmington, PA–NJ–DE–MD	339.1	11.9%	83.8%	27.2%	5.2%	Average
Phoenix–Mesa–Scottsdale, AZ	74.0	3.5%	83.6%	25.8%	6.4%	Above Average
Pittsburgh, PA	51.0	4.9%	92.8%	23.6%	7.2%	Above Average
Raleigh, NC	79.2	11.6%	88.1%	24.4%	8.7%	Above Average
Richmond, VA	113.4	18.9%	88.2%	19.9%	3.8%	Below Average
Riverside–San Bernardino–Ontario, CA	80.1	4.3%	88.5%	23.6%	5.6%	Average
San Antonio–New Braunfels, TX	43.8	4.1%	88.0%	20.9%	8.3%	Above Average
San Diego–Carlsbad, CA	43.2	2.8%	82.6%	29.4%	6.7%	Above Average
San Francisco–Oakland–Hayward, CA	84.1	3.5%	83.8%	26.4%	8.6%	Above Average
Seattle–Tacoma–Bellevue, WA	73.9	3.8%	87.9%	18.4%	9.3%	Above Average
St. Louis, MO–IL	144.5	11.3%	84.4%	17.3%	4.0%	Below Average
Tampa–St. Petersburg–Clearwater, FL	106.7	7.6%	91.2%	26.7%	9.8%	Exceptional
Virginia Beach–Norfolk–Newport News, VA–NC	142.5	19.2%	85.1%	23.9%	7.5%	Above Average
Washington–Arlington–Alexandria, DC–VA–MD–WV	422.6	13.7%	87.3%	32.0%	4.8%	Above Average

APPENDIX TABLE 5: CHANGING DEMOGRAPHICS OF THE LABOR FORCE

	STARs			Bachelor's Degree or Higher		
	2000	2019	Change	2000	2019	Change
Total	67.2M	76.9M	9.7M	34.6M	55.4M	20.8M
% Women	48.3%	46.2%	−2.1%	45.6%	50.8%	5.2%
% Black	11.4%	14.3%	2.9%	6.5%	8.7%	2.2%
% White	75.9%	61.5%	−14.4%	80.9%	69.4%	−11.5%
Median hourly wages, 2019 dollars	$18.61	$18.27	−$0.34	$29.03	$31.25	$2.22

Opportunity @Work

About Opportunity@Work

Opportunity@Work is a nonprofit social enterprise with a mission to increase career opportunities for the more than 70 million adults in the U.S. who do not have a bachelor's degree but are Skilled Through Alternative Routes (STARs). For STARs, the American Dream has been fading due in part to an "opportunity gap," in which access to the good jobs required for upward mobility often depends less on people's skills and more on whether and where they went to college, who they know professionally and socially, or even how they look. We envision a future in which employers hire people based on skills rather than their pedigree. We are uniting companies, workforce development organizations, and philanthropists in a movement to restore the American Dream so that every STAR can work, learn, and earn to their full potential.

Visit us at www.opportunityatwork.org.