

OCCUPATIONS BY RACE AND GENDER IN MISSISSIPPI

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Editor's note: The Insight Center's style guide calls for capitalizing "Black" and keeping "white" lowercased when referring to racial groups. A full explanation of why can be found at: <https://medium.com/@InsightCCED/spell-it-with-a-capital-b-9eab112d759a>. Out of respect to some of our co-authors who do not subscribe to this philosophy, we broke from our style guide for this report.

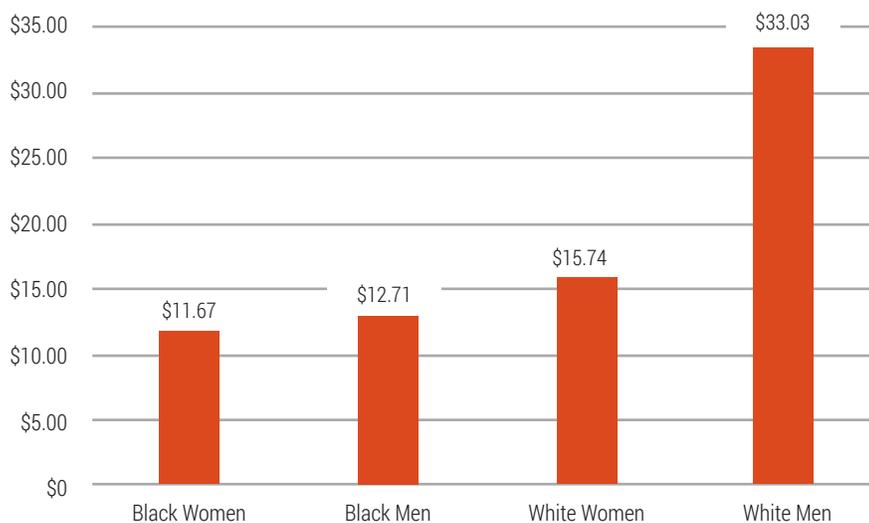
INTRODUCTION

Occupational crowding, sometimes called occupational segregation, measures the degree to which a demographic group is over-, under-, or proportionally represented in an occupation given their educational attainment and the educational requirement for occupations.¹ This report lays out the key findings from an occupational crowding analysis in the Mississippi labor market that demonstrates which groups are largely excluded from the most desirable and best paying occupations and crowded into occupations with the lowest wages by race and gender. It shows that the occupations Mississippians have access to are largely dependent on factors outside of their control, such as racism and sexism.

FINDING 1: BLACK PEOPLE IN MISSISSIPPI ARE UNDERREPRESENTED IN THE LOWEST-PAYING OCCUPATIONS AND LOCKED OUT OF THE BEST OCCUPATIONS

In Mississippi, a worker's race and gender are perhaps the most important indicators of the type of occupation a worker can access. Figure 1 shows the typical hourly wage for the occupations in which demographic groups are most overrepresented. The chart reveals that while Black workers of both genders and White women are crowded into low-paying occupations, White men are crowded into much higher-wage occupations. Looking specifically at the types of occupations in which groups are overrepresented, White men are crowded into occupations that pay nearly three times more than occupations in which Black women are crowded.

Figure 1: Average Wages in Top Five Overrepresented Occupations by Race and Gender

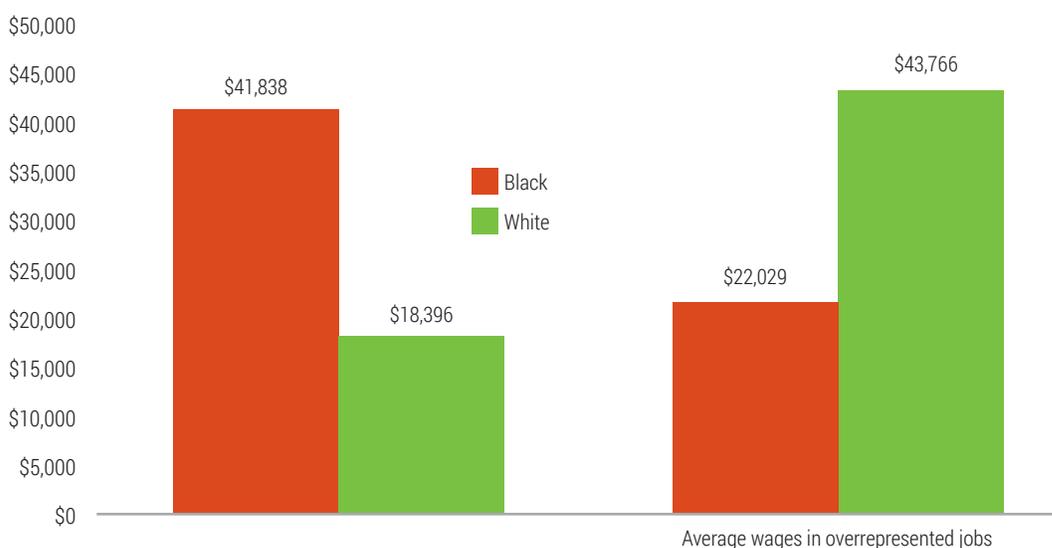


*Note: Data based on the median of the average wage among the top five overrepresented occupations
Source: Bui, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.²*

Black workers are largely excluded from higher-wage occupations and crowded into low-wage work. Black workers in Mississippi are overrepresented in just 12 percent of occupations and underrepresented in 62 percent of occupations. Such disparities in occupational representation demonstrate that Black workers cannot access occupations for which they are qualified and that racial discrimination is the mostly likely explanation. Figure 2 shows the average wages for under- and overrepresented occupations by race. The analysis reveals that the occupations that Black workers are crowded into pay extremely low-wages, with an average annual wage of just \$22,000. In contrast, the average wage across the occupations that Black workers are crowded out of is more than 80 percent higher, paying more than \$40,000 a year. Black people in Mississippi face structural barriers in accessing the kinds of occupations that build economic security.

White workers, on the other hand, experience the labor market in sharp contrast to Black workers. White workers are underrepresented in 24 percent of occupations (compared to 62 percent for Black workers), indicating that they are excluded from far fewer occupations. At the same time, White workers are overrepresented in 62 percent of occupations, holding more positions than their levels of education alone can explain. Figure 2 shows that White workers are more likely to be crowded out of low-wage occupations, where the average annual wage is just \$18,396. On the flip side, White workers are crowded into occupations that pay higher wages. For the occupations in which White workers are overrepresented, the average annual wage is 137 percent higher (with a yearly income of more than \$43,000) than the occupations they are crowded out of – roughly equivalent to the median household income in Mississippi.

Figure 2: Average Wages for Under and Overrepresented Occupations by Race



Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Race and gender identity dictate the type of occupations available to a worker. For Black women, Black men, and White women as compared to White men, this typically leads to crowding into lower-paying occupations. Table 1 shows that White men are the group least likely to be crowded out of occupations. White men are the only group that is overrepresented in occupations that pay more than the occupations in which they are underrepresented. The privilege that White men are afforded in Mississippi’s labor market is in sharp contrast to the marginalization of Black women, who are crowded out of the most occupations and overrepresented in those occupations with the lowest average wages.

Table 1: Percent of Under and Overrepresented Occupations for Workers Aged 25-64 and Average Wages by Race and Gender

Race and Gender	Percent of occupations underrepresented	Average wages in underrepresented occupations	Percent of occupations overrepresented	Average wages in overrepresented occupations
Black	62%	\$41,838	26%	\$22,029
Black women	62%	\$40,803	28%	\$23,525
Black men	53%	\$37,772	35%	\$32,791
White	24%	\$18,396	61%	\$43,766
White women	53%	\$37,341	33%	\$31,247
White men	34%	\$22,000	57%	\$44,412

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*
 Note: *White men are compared to all workers in the economy. Black women, White women, and White men are compared to White men.*

Black women are crowded out of 62 percent of all occupations. This demonstrates that Black women are underrepresented in positions they should have access to based on their educational attainment. Black women are overrepresented in occupations that pay on average just \$23,000, significantly less than the \$40,000 in the occupations in which Black women are underrepresented. While Black men have access to more occupations than Black women, they are still crowded out of a majority of occupations. Black men are underrepresented in 53 percent of occupations and overrepresented in 35 percent. The occupations that Black men are crowded into pay 13 percent less than the occupations in which they are underrepresented.

The occupational crowding analysis shows that White workers have access to more types of occupations and occupations that pay higher wages. White men benefit from this access more than White women. White women are crowded out of 53 percent of occupations, and overrepresented in 33 percent. The occupations in which White women are overrepresented pay 16 percent less than the occupations in which they are underrepresented. White men, on the other hand, are only underrepresented in 34 percent of occupations. These occupations pay 101 percent more than the occupations in which they are underrepresented. This suggests that White men, more than any other group, are able to choose the occupations that they prefer and can avoid many low-paying occupations regardless of their level of education.

FINDING 2: BLACK WOMEN HAVE THE LOWEST-PAYING OCCUPATION OPPORTUNITIES OF ANY GROUP IN THE STATE

Black women have been historically packed into low-wage and precarious occupations that lack employer benefits, such as retirement accounts, health insurance, and paid sick leave.³ Since Black women are crowded into low-paying occupations in the service sector that lack legal protections by design, they experience more economic precarity than other groups. Black women have firsthand experience in how quickly a family's economic fortunes can unravel when wage income is cut. An analysis of the occupations Black women are crowded into and out of reveals a strict racial and gender hierarchy that limits Black women in Mississippi to low-wage work.

Black women are overrepresented in occupations like home health aides, counselors, and food processing workers. Most of these occupations have average annual wages that are less than \$20,000 a year. In fact, the average hourly wage in the top five occupations in which Black women are overrepresented is just \$11.67, not nearly enough to provide for a family. Black women are both crowded out of occupations that are perceived as men's work, such as construction occupations and other occupations requiring physical labor, and – in comparison to White women – pushed out of higher wage occupations that have disproportionately female workforces such as nursing. Those occupations, which have higher wages and more benefits, are often reserved for White women. Instead, Black women can be found in the lowest-paying service and health occupations. In the healthcare sector, Black women are crowded into the occupational classification of nursing, psychiatric, and home health aide, where they comprise most of the workers and have an hourly wage of just \$9.50. In some parts of Mississippi, Black women make up as much as 90 percent of home health aides.

Table 2: Top 5 Occupations in which Black Women are Overrepresented and Average Annual Wages, 2018

Overrepresented Occupations for Black Women as compared to White Men		
Occupation	Average Annual Wage	Occupation Share
Nursing, Psychiatric, and Home Health Aides	\$17,395	55%
Counselors, Social Workers, and Other Community and Social Service Specialists	\$32,882	49%
Other Education, Training, and Library Occupations	\$17,654	35%
Communications Equipment Operators	\$21,857	35%
Food Processing Workers	\$16,420	31%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Table 3: Top 5 Occupations in which Black Women Aged 25-64 are Underrepresented and Average Annual Wages

Underrepresented Occupations for Black Women as compared to White Men		
Occupation	Average Annual Wage	Occupation Share
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	\$33,849	0.23%
Extraction Workers	\$65,625	0.25%
Supervisors, Construction and Extraction Workers	\$56,325	0.26%
Engineers	\$76,683	0.65%
Media and Communication Equipment Workers	\$20,221	0.69%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Note: There are no subgroup observations for Black women aged 25-64 in six occupations, which also indicates lack of representation. These occupations include: Architects, Surveyors, and Cartographers; Fire Fighting and Prevention Workers; Helpers, Construction Trades; Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Member; Rail Transportation Workers; and Water Transportation Workers

FINDING 3: BLACK MEN HAVE VERY FEW EMPLOYMENT OPTIONS AND ARE FORCED INTO LOW-PAYING OCCUPATIONS

In Mississippi, Black men are restricted to low-wage work with limited advancement opportunities. Black men do benefit from traditional perceptions of what qualifies as “men’s work,” allowing them access to some higher-paying occupations such as motor vehicle operators and construction occupations. While the occupations that Black men are overrepresented in are largely low-paying, they are better paid than the occupations Black women are crowded into. Among the five occupations in which Black men are the most overrepresented, one pays more than \$40,000 a year (more than any occupation in which Black or White women are overrepresented). Yet, three of the occupations in which Black men are the most overrepresented pay \$21,000 a year or less, and two pay less than \$11,000 a year. Among the occupations they are crowded into, the average wage is \$12.70 an hour, not nearly enough to support a family in Mississippi.

Table 4: Top 5 Occupations in which Black Men Aged 25-64 are Overrepresented and Average Annual Wages

Overrepresented Occupations for Black Men		
Overrepresented	Average Annual Wage	Occupation Share
First-Line Supervisors/Managers, Protective Service Workers	\$41,668	43%
Motor Vehicle Operators	\$32,103	37%
Material Moving Workers	\$20,562	36%
Grounds Maintenance Workers	\$10,998	34%
Helpers, Construction Trades	\$10,354	36%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Table 5: Top 5 Occupations in which Black Men Aged 25-64 are Underrepresented and Average Annual Wages

Underrepresented Occupations for Black Men		
Underrepresented	Average Annual Wage	Occupation Share
Secretaries and Administrative Assistants	\$26,139	0.1%
Legal Support Workers	\$35,489	1%
Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members	\$20,385	1%
Other Healthcare Support Occupations	\$21,251	1%
Financial Clerks	\$25,525	2%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Note: There are no subgroup observations for Black men aged 25-64 in the following occupation, which also indicates lack of representation: Occupational and Physical Therapist Assistants and Aides.

FINDING 4: WHITE WOMEN ARE CROWDED INTO LOW-PAYING OCCUPATIONS THAT STILL PAY MORE THAN THEIR BLACK PEERS

White women also face economic hurdles due to their gender. While being White in Mississippi is a clear indicator of having a better than average level of economic security, being a woman of any race often means being relegated to low-wage occupations. An occupational crowding analysis shows that – in comparison to White men – White women are crowded into occupations that are traditionally viewed as “women’s work,” such as secretaries, support staff, and health technicians. They dominate these occupations, making up 50 percent or more of all workers in these occupations. While these occupations pay low-wages, with an average wage of just \$15.74 an hour in the top five occupations in which White women are overrepresented, they pay considerably more than the occupations that Black women are crowded into. While Black men and women are restricted to the lowest-paying occupations, White women have access to better quality occupations with low barriers of entry, such as administrative assistant

positions. These occupations typically have better pay than the retail and food service occupations that constitute much of Mississippi's economy.

In addition, the five occupations White women are most crowded into include two that pay above \$30,000 a year, which amounts to a middle-class wage in Mississippi. While gender clearly limits access to some occupations, White women still receive economic benefits due to their race.

Table 6: Top 5 Occupations in which White Women Aged 25-64 are Overrepresented and Average Annual Wages

Overrepresented Occupations for White Women		
Occupations	Average Annual Wage	Occupation Share
Secretaries and Administrative Assistants	\$26,139	70%
Legal Support Workers	\$35,489	67%
Financial Clerks	\$25,525	60%
Health Technologists and Technicians	\$33,257	51%
Other Office and Administrative Support Workers	\$22,783	50%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Table 7: Top 5 Occupations in which White Women Aged 25-64 are Underrepresented and Average Annual Wages

Underrepresented Occupations for White Women		
Occupations	Average Annual Wage	Occupation Share
Extraction Workers	\$65,625	1%
Other Construction and Related Workers	\$34,095	1%
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	\$33,849	1%
Other Installation, Maintenance, and Repair Occupations	\$35,047	2%
Plant and System Operators	\$53,397	2%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Note: There are no subgroup observations for White women aged 25-64 in two occupations, which also indicates lack of representation. These occupations are as follows: Rail Transportation Workers and Water Transportation Workers.

FINDING 5: WHITE MEN ARE GIVEN PATHWAYS TO THE HIGHEST-WAGE OCCUPATIONS

White men experience a dramatically more privileged labor market position relative to any of the other groups considered in this analysis. Since White men can access occupations regardless of their quality or compensation, they occupy positions within the lowest and highest paid occupations. However, our findings demonstrate that White men are vastly overrepresented in occupations with the highest wages. The top five occupations in which White men are overrepresented pay an average wage of \$60,124 a year, double the wage of overrepresented occupations for White women and triple that of Black men and women. The occupations in which White men are overrepresented are overwhelmingly managerial and technical occupations, such as engineers and supervisors. White men are crowded into these kinds of occupations, holding 67 percent or more of the occupations. Conversely, White men are underrepresented in either low-wage occupations or occupations that are perceived as “women’s work,” such as nursing.

Table 8: Top 5 Occupations in which White Men Aged 25-64 are Overrepresented and Average Annual Wages

Overrepresented Occupations for White Men		
Overrepresented	Average Annual Wage	Occupation Share
Supervisors, Construction and Extraction Workers	\$56,325	77%
Engineers	\$76,683	76%
Plant and System Operators	\$53,397	72%
Water Transportation Workers	\$57,214	70%
Supervisors of Installation, Maintenance, and Repair Workers	\$56,999	67%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Table 9: Top 5 Occupations in which White Men Aged 25-64 are Underrepresented and Average Annual Wages

Underrepresented Occupations for White Men		
Underrepresented	Average Annual Wage	Occupation Share
Nursing, Psychiatric, and Home Health Aides	\$17,395	2%
Other Food Preparation and Serving Related Workers	\$7,721	2%
Secretaries and Administrative Assistants	\$26,139	3%
Other Education, Training, and Library Occupations	\$17,654	3%
Communications Equipment Operators	\$21,857	4%

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database. Note: There was at least one observation of White men in all eligible occupations*

FINDING 6: YOUNG BLACK WORKERS HAVE FEWER OCCUPATION OPPORTUNITIES

Before COVID-19, more than 20 million young people in the United States were employed.⁴ The unemployment rate for young workers was at 9.1 percent, the lowest unemployment rate for young people since the 1960s. Yet for young Black people, the unemployment rate was over 14 percent. Black young people have a harder time securing employment than their White counterparts – and when they do, the occupations are often of a lower quality. Education is also no guarantee of quality employment. Research has shown that the wage gap between college-educated White and Black men who are entering the workforce has widened in recent years. In 1980, the wage gap between college educated Black and White men entering the workforce was less than 10 percent, but by 2014 that gap had widened to 18 percent.⁵ In Mississippi, the data reveals an uneven labor market, where young Black workers are excluded from a larger share of occupations than their White peers and are crowded into poorer quality occupations with lower wages.

Black working people between the ages of 16 and 29 are underrepresented in more occupations than their White counterparts. Table 11 shows that, overall, young Black people are overrepresented in just 21 percent of occupations, which paid an average wage of only \$21,581 a year. The occupations that Black workers are crowded out of, on the other hand, pay an average wage that is over \$17,000 more. We also find that *Black men between the ages of 16 and 29 are underrepresented in 74 percent of occupations, more than any other demographic group in Mississippi.*

Table 11 also makes clear that young Black women are severely underrepresented in occupations that pay relatively high wages and overrepresented in low-wage roles. Black women between the ages of 16 and 29 are overrepresented in occupations that pay 46 percent less than occupations in which they are underrepresented. Young Black men are crowded into occupations that pay on average 28 percent less than occupations in which they are underrepresented.

Table 11: Percent of Under and Overrepresented Occupations for Workers Aged 16-29 and Average Wages by Race and Gender

Race and Gender	Percent of occupations underrepresented	Average wages in underrepresented occupations	Percent of occupations overrepresented	Average wages in overrepresented occupations
Black	76%	\$39,263	21%	\$21,581
Black women	68%	\$39,233	20%	\$21,231
Black men	74%	\$37,196	23%	\$26,738
White	48%	\$41,478	41%	\$29,812
White women	64%	\$38,799	29%	\$26,960
White men	44%	\$37,351	51%	\$34,169

Source: *Biu, Famighetti, and Hamilton analysis of American Community Survey 2012-2016 5-year sample drawn from the IPUMS-USA database.*

Note: *White men are compared to all workers in the economy. Black women, White women, and White men are compared to White men.*

Note: We were unable to calculate the crowding index in several occupations where there were no subgroup observations under 30 as follows: Black women: 17 occupations; Black men: 10 occupations; White women: 7 occupations; White men: 3 occupations.

The findings featured in Table 11 demonstrate that young White workers in Mississippi have access to many more occupations than their Black peers. White workers between the ages of 16 and 29 are underrepresented in 48 percent of occupations and overrepresented in 41 percent. While young White workers have access to more occupations, the occupations they are underrepresented in pay higher average wages than the occupations in which they are overrepresented. Young White women face a similar gendered barrier to employment as their older counterparts. While young White men are underrepresented in 44 percent of occupations, young White women are underrepresented in 64 percent of occupations.

CONCLUSION

Black people in Mississippi are excluded from a majority of occupations in the state and are paid less than a living wage in nearly every occupation that they can access. Simply put, Black workers in Mississippi are forced into the worst occupations with the fewest opportunities. Black women, more than any other group, deal with the most severe aspects of this economic inequity. A complicated network of laws, policies, and practices ensures that Black people – regardless of their education – cannot reach the privileged economic position of their White counterparts.

OCCUPATIONAL CROWDING METHODOLOGY

Occupational crowding measures the degree to which a group is over-, under-, or proportionally represented in an occupation given their educational attainment and the educational requirement for occupations. Bergmann's crowding theory held that Black workers face discrimination in the labor market which crowds them *into* lower paying occupations and *out* of higher-paying occupations.⁶ Bergman's study found that of 29 occupations studied, Black workers were overrepresented in eight occupations and underrepresented in the remaining 18. The 18 occupations with an undersupply of Black workers paid more than the occupations where Black workers were overrepresented.

This report uses an update to Bergmann's method as described in Hamilton.⁷ This method more explicitly controls for education. For example, in measuring crowding among all Black workers relative to White workers, only Black individuals with a consistent educational attainment held by *all persons* in a particular occupation, between the 20th and 80th percentiles, are considered eligible for the relevant occupation.

As noted in our findings, we calculate a crowding index for various worker groups in Mississippi, namely Black, Whites, Black women, Black men, White women, and White men between the ages of 25-64 and 16-29.

To estimate crowding, we compare all race/gender groups to White men, reflecting Mary King's "access model" that posits White men have the most access to desirable occupations. For this reason, we compare White men to the entire economy.

Occupations composed of more than 10 percent of the expected number of the group are considered to be cases of overrepresentation (having a crowding score of more than 1.1) while occupations with less than 10 percent of the expected number of the relevant group are considered to be cases of underrepresentation (having a crowding score of less than .9). Occupations where the expected number of the relevant group does not exceed nor is less than 10 percent (that is, between .9 to 1.1) are considered proportionally represented.

$$CROWD_INDEX_X^i = \left\{ \frac{Actual\ Share_X^i}{Expected\ Share_X^i} \right\} = \left\{ \frac{\frac{X^i}{Y^i}}{\frac{X^{k^i}}{Y^{k^i}}} \right\}$$

ENDNOTES

- 1 For example, in measuring crowding among Black workers, only Black individuals with educational attainment equivalent to that held by all persons in a particular occupation, between the 20th and 80th percentiles of the educational distribution, are considered eligible for the relevant occupation. 2 Steven R., Flood, S., Goeken, R., Grover, J., Meyer, E., Pacas, J. and Sobek, M. *IPUMS USA: Version 10.0 [American Community Survey 2016 5 Year]*. Minneapolis, MN: IPUMS, 2018. <https://doi.org/10.18128/D010.V10.0>
- 2 Banks, N. (2019, February 19). *Black women’s labor market history reveals deep-seated race and gender discrimination*. Economic Policy Institute. <https://www.epi.org/blog/black-womens-labor-market-history-reveals-deep-seated-race-and-gender-discrimination/>
- 3 Bureau of Labor Statistics. (2019, August 16). *EMPLOYMENT AND UNEMPLOYMENT AMONG YOUTH – SUMMER 2019* [Press release]. <https://www.bls.gov/news.release/pdf/youth.pdf>
- 4 Wilson, V. (2016, September). *Black-white wage gaps expand with rising wage inequality*. Economic Policy Institute. <https://www.epi.org/publication/black-white-wage-gaps-expand-with-rising-wage-inequality/>
- 5 Bergmann, B. R. (1971). The effect on white incomes of discrimination in employment. *Journal of Political Economy* 29(2), 294–313.
- 6 Hamilton, D. (2013). Occupational crowding. In Patrick Mason (Ed.), *International Encyclopedia of Race and Racism, Second Edition*. New York, NY: Macmillan Reference USA.