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WHITER JOBS, HIGHER WAGES Occupational segregation and the lower wages of black men

BY DARRICK HAMILTON, ALGERNON AUSTIN, AND WILLIAM DARITY JR.

In 2008, the year of the election of the nation's first black president, black men earned only 71% of what white men earned. In this report we examine how occupational segregation based on race is related to this disparity. We find that even after taking educational attainment into account, black men are overrepresented in low-wage jobs and underrepresented in high-wage jobs. Neither hard skills, soft skills, nor black men's occupational interests provide convincing explanations for black male sorting into low-wage occupations.

The most plausible explanation we find is that labor market discrimination excludes many black men from high-wage jobs. Therefore, effectively combating employment discrimination will contribute significantly to closing the racial earnings gap and improving the socioeconomic position of black families and black communities.

The data we have examined for this report reveal that:

- After taking educational attainment into account, seven out of eight (87%) of U.S. occupations can be classified as racially segregated.
- Occupations with smaller shares of black men have higher wages. The average of the annual wages of occupations in which black men are overrepresented is \$37,005, compared with \$50,333 in occupations in which they are underrepresented.
- A \$10,000 increase in the average annual wage of an occupation is associated with a seven percentage-point decrease in the proportion of black men in that occupation.
- The racially uneven distribution of occupations does not result from racial differences in occupational preferences. This is especially true in the management and professional occupations.

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- The relative success black men have in finding work in occupations that require high levels of “soft skills” (also referred to as interpersonal skills or “people skills”) is inconsistent with the explanation that black male deficiencies in soft skills are a driving force in their subpar labor market outcomes.

The following section looks at categories of occupations and details the pattern of black male exclusion from high-paying occupations and concentration in low-paying occupations. The second section discusses some interesting anomalies across occupations that differ in their level of representation of black men (for example, firefighting supervisors vs. police supervisors).

Wages and the occupational representation of black men

In 2008, the median hourly wage for black male full-time workers was \$14.90, while the median for white male full-time workers was \$20.84, nearly \$6 higher (see **Table 1**). This wage disparity is not due primarily to differences in educational attainment between black and white men. Even when one looks at male full-time workers of the same educational level, one sees significant black-white wage disparities. Among workers with a high school diploma (or GED) or a bachelor’s degree, black men earned only 74% of what white men earned.

One possible explanation for this wage disparity is that black men tend to be crowded into lower-paying occupations—even when they have similar educational

attainment as white men. This theory of “occupational crowding” was put forth by Barbara Bergmann (1971) almost 40 years ago. She argued that black workers are denied employment in more desirable high-wage occupations and crowded into less-desirable low-wage occupations. The result is an oversupply of workers in the crowded occupations, which has the effect of lowering wages further in those jobs.

Bergmann states that employers’ refusal to hire qualified black workers in desirable jobs may stem from their distaste for associating with blacks, misperceptions concerning the productivity of black workers, or a fear of negative reactions from their customers or current nonblack employees if black employees are hired.¹ Even the black workers who are able to attain employment in white-dominant sectors receive relatively lower earnings than white workers because of the implicit threat that their only alternative is employment at even lower wages in sectors having an overrepresentation of black workers.

The analysis that follows uses data from the 2005-07 American Community Survey to explore the occupational crowding hypothesis. In order to estimate the occupational under- and overrepresentation of black males, we employ a method introduced by Bergmann (1971) and further elaborated by Gibson, Darity, and Myers (1998); Hamilton (2006); and Hamilton, Derryck, and Salandy (2007). The method computes occupational crowding scores by calculating the share of black workers expected in an occupation given the proportion of black workers who have the educational levels associated with that occupation. Only

TABLE 1

Median wage for full-time male workers 25 years old and older, 2008

	White, not Hispanic	Black, not Hispanic	Black/ white ratio
<i>All, 25 years old and older</i>	\$20.84	\$14.90	0.71
<i>Less than high school</i>	13.90	8.54	0.61
<i>High school diploma or GED</i>	17.96	13.30	0.74
<i>Some college or associate's degree</i>	19.86	14.66	0.74
<i>Bachelor's degree</i>	27.14	20.00	0.74
<i>Advanced degree</i>	31.97	26.45	0.83

SOURCE: Authors’ analysis of CPS ORG data.

TABLE 2

Share of occupations by the representation of black men and occupational category, 2005-07

Occupational category	Under-represented	Proportionally represented	Over-represented	Number of occupations
All	49%	13%	38%	468
Management, professional, and related	54	13	33	169
Service	28	17	55	53
Sales and office	27	6	67	67
Construction, extraction, and maintenance	81	12	7	67
Production, transportation, and material moving	43	18	40	101

NOTE: Farming, fishing, and forestry occupations and military occupations are omitted because of the small number of occupations (11 total). Black males are underrepresented in six of the seven farming, fishing, and forestry occupations, and overrepresented in each of the four military occupations.

SOURCE: Authors' analysis of 2005-07 American Community Survey data.

black males with educational degrees between the 25th and 90th percentiles of the educational attainment levels held by all persons currently in a particular occupation are treated as eligible for a job in a particular occupation. In addition, to avoid confounding factors attributable to school enrollment and retirement, we limit our sample to working individuals between the ages of 25 and 64.

We estimate the ratio of the black male employment share for a particular occupation relative to their share of the civilian population that meets the educational requirements described above. This ratio is the occupational crowding score. An occupational crowding score can be interpreted as an estimate of the percent of an occupation's share of qualified black males that is actually employed in that occupation. Thus, a crowding score of 0.70 can be understood to mean that a particular occupation employs only 70% of its share of the available qualified black males. A crowding score of 1.30 means that the occupation employs 130% of its share of the available qualified black males.

We categorize occupations with crowding scores less than 0.90 as having a deficit of 10% or more of the expected number of black males. These occupations are characterized as having an *underrepresentation* of black men. Occupations with a crowding score of more than 1.10 are categorized as having an excess of 10% or more of

the expected number of black males, and these occupations are characterized as having an *overrepresentation* of black men. The occupations with scores between 0.90 and 1.10 are defined as having *proportional representation*.²

Segregated workforces

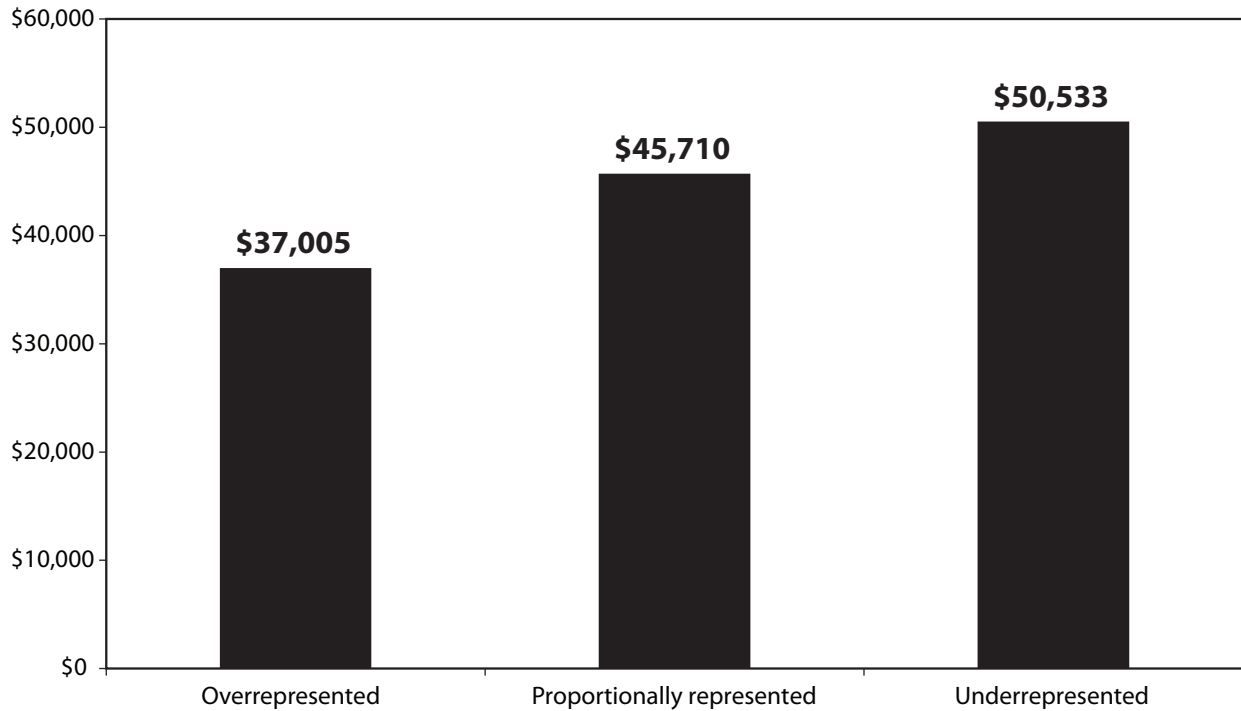
Table 2 shows that in only 13% of all occupations are black men proportionally represented, thus 87% of U.S. occupations can be classified as segregated for black men. Black men are overrepresented in 38% of occupations and underrepresented in 49% of occupations. **Figure A** shows that the average of the annual wages in occupations in which black men are underrepresented is \$50,533; the average in occupations in which they are overrepresented or occupationally crowded is \$37,005, more than \$13,000 less. Indeed, a statistical analysis reveals that a \$10,000 increase in the average annual wage of an occupation is associated with a seven percentage-point decrease in the proportion of black men in that occupation (see **Table 3**).³

When this analysis is conducted within categories of occupations, we observe a pattern of black male exclusion from high-paying occupations and concentration in low-paying occupations. **Table 2** includes an analysis of five major occupational categories.

Black males experience the most severe underrepresentation in construction, extraction, and maintenance

FIGURE A

Average occupational annual wage by representation of black men, 2005-07



SOURCE: : Authors' analysis of 2005-07 American Community Survey data.

TABLE 3

Percentage-point decline in the share of black men for each \$10,000 increase in annual wages*

<i>Occupational category</i>	<i>Decline in share of black males</i>
<i>All</i>	-7%
<i>Management, professional, and related</i>	-9
<i>Service</i>	-14
<i>Sales and office</i>	-14
<i>Construction, extraction, and maintenance</i>	n.s.**
<i>Production, transportation, and material moving</i>	-17

* Regression coefficient.

** Not statistically significant.

SOURCE: Authors' analysis of 2005-07 American Community Survey data.

occupations. This occupational sector is composed of 67 precisely defined occupations, and 81% of them are characterized by black male underrepresentation. These occupations tend to be low-educational-credential occupations; however, their wages tend to be higher than the wages for service occupations. Some of the annual earnings in the construction, extraction, and maintenance occupations also exceed annual earnings in production, transportation, and material moving occupations (see **Figure B**). Hence, these occupations present relatively desirable jobs for low-credentialed workers. Although black males are overrepresented among the distribution of low-credentialed workers, they are underrepresented in 81% of this comparatively desirable occupational sector.

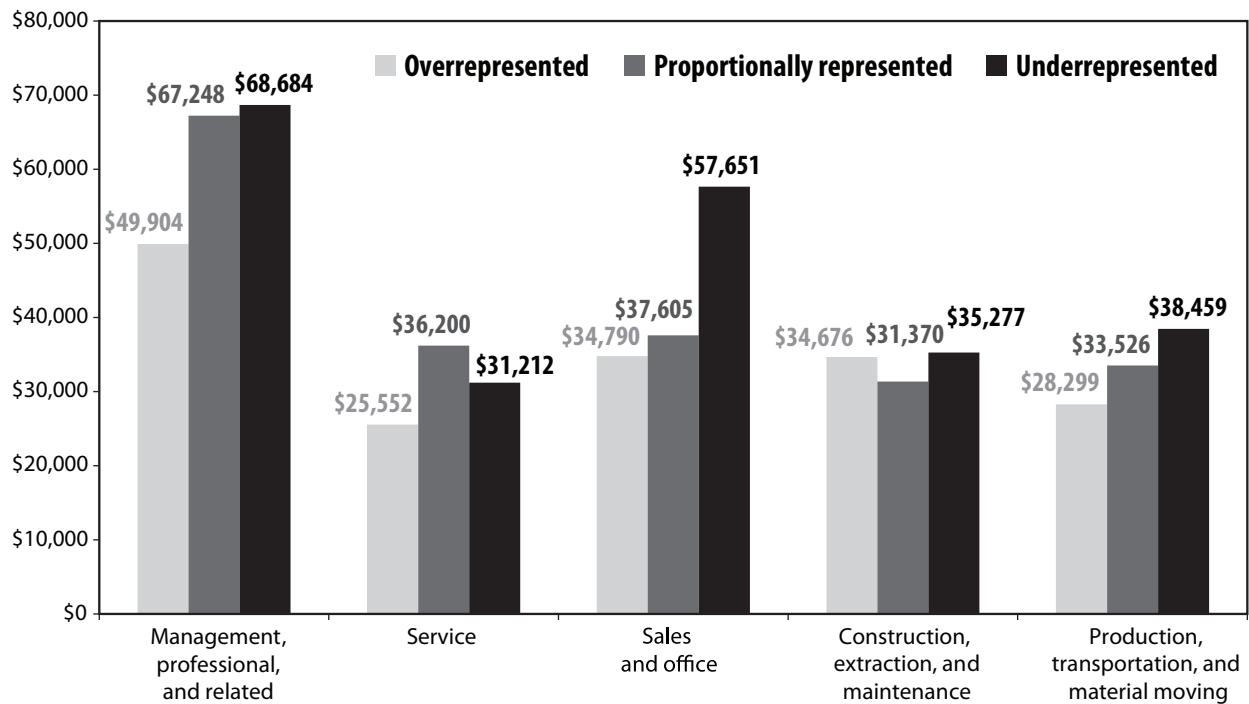
More than half (54%) of management, professional, and related occupations have an underrepresentation of black men. Management and professional occupations tend to require the highest educational credentials and offer the highest wages.

In the management and professional occupations, those jobs with an underrepresentation of black men have annual wages nearly \$20,000 higher than the ones with an overrepresentation of black men (\$68,684 versus \$49,904). For these occupations, every \$10,000 increase in occupational wages is associated with a nine percentage-point reduction in black male representation.

In contrast, black men are overrepresented in most of the service occupations. Similar to construction, extraction, and maintenance occupations, service occupations tend to have low degree requirements but, in contrast, they tend to offer low pay. Across all occupations the average occupational wage is \$44,719, while the average occupational wage across all service occupations is considerably lower, \$28,962. The average annual occupational wages in the 29 out of 53 (55%) service occupations in which blacks are overrepresented is only \$25,552. Moreover, within this sector, we estimate that each \$10,000 increase in the average occupational wage is

FIGURE B

Average occupational annual wage by the representation of black men



SOURCE: Authors' analysis of 2005-07 American Community Survey data.

associated with a 14 percentage-point reduction in black male representation.

Sales and office occupations tend to have higher degree requirements than service occupations, yet we estimate a 14 percentage-point reduction in black male representation for a \$10,000 increase in occupational wages for this sector as well. This pattern is vividly illustrated in Figure B. The 67% of sales and office occupations in which black males are overrepresented have average occupational wages that are \$22,861 less than the 27% of occupations in which they are underrepresented (\$34,790 versus \$57,651).

Lastly, production, transportation, and material moving occupations are moderately credentialed occupations with the lowest degree of racial segregation. Nonetheless, more than 80% of these occupations are still segregated according to our measure. Indeed, this occupational sector has the strongest relationship between occupational wages and crowding scores. We estimate a 17 percentage-point reduction in the representation of black males in this sector for every \$10,000 increase in the occupational wage.

Across occupational sectors, regardless of degree requirements, black males are underrepresented in high-wage occupations and overrepresented in low-wage occupations. We find a statistically significant correlation for this relationship for all occupations, and for all of the narrower occupational categories with the exception of the construction, extraction, and maintenance occupations. The lack of a relationship in the latter may be due to the low statistical power resulting from the high degree of exclusion of black men from these occupations in the first place. This issue is explored further in the following section.

Hard facts versus soft skills: the employment of black men in construction and service occupations

In addition to relatively low wages, black men also suffer from a low employment rate (Austin 2008). In recent years, scholars have argued that black men's supposed lack of soft skills is an important factor in explaining their difficulties in the labor market.

For example, William Julius Wilson argues that employers in service industries fail to hire black men because

black men “lack the soft skills that their jobs require: the tendency to maintain eye contact, the ability to carry on polite and friendly conversations with consumers, the inclination to smile and be responsive to consumer requests” (Wilson 2009, 77). Harry Holzer (2009) also puts forth weak soft skills as the culprit for limited upward mobility of black males, particularly young black males.

Service occupations, because they primarily involve serving customers, can be characterized as requiring relatively high levels of soft skills. In comparison, construction, extraction, and maintenance occupations, because they primarily involve working with materials and machinery, can be characterized as requiring relatively lower levels of soft skills.

Contrary to the arguments of Wilson, Holzer, and others, the empirical evidence put forth by Allegretto and Pitts (2010) and this current study does not support the soft-skills explanation for black male difficulties in the labor market. Allegretto and Pitts' analysis of the labor market by industry shows that black men are underrepresented in the construction and manufacturing industries but not in service industries. Thus, in service industries where soft skills are very important black men are well-represented or overrepresented. In construction and manufacturing industries, which have relatively low levels of soft-skill requirements, black men are underrepresented.

Our occupation-based analysis is consistent with Allegretto and Pitts' findings. The occupational category in which black men are most underrepresented is construction, extraction, and maintenance. On the other hand, the service occupations have the highest rate of occupational overrepresentation of, black men. Again, this evidence is inconsistent with claims by Wilson, Holzer, and others that deficiencies in soft skills play a large role in explaining racial differences in labor market outcomes.

Indeed, the underrepresentation of black men in construction, extraction, and maintenance occupations is extreme. There are 18 occupations in that category, and 27% have crowding scores below 0.50 (very high underrepresentation), but only 2–3% have crowding scores above 1.50 (very high overrepresentation). In contrast, in the service occupations only three occupations or 6% have scores under 0.50, but 20, or 38%, have scores over 1.50. While the highest crowding score in the construc-

tion, extraction, and maintenance occupations is 1.78 for hazardous materials removal workers, the highest in the service occupations is 3.64 for residential advisors, a position that presumably requires a strong set of soft skills. Thus, for construction, extraction, and maintenance occupations *in general*, there is a low representation of black men, while the opposite is true for service occupations.

These data do not suggest that a lack of soft skills is responsible for black men's difficulties in the labor market. Black men have more success finding work in high soft-skills occupations like service work and sales and office occupations than in low soft-skills occupations like construction, extraction, and maintenance occupations and production, transportation, and material moving occupations.

Furthermore, Figure B demonstrates that if black men were to move from the service sector occupations in which they are overrepresented to the construction, extraction, and maintenance occupations or the production, transportation, and material moving occupations, their wages would generally increase. Thus, rather than focusing on policies that promote the development of black male soft-skills, a more effective policy strategy might be aimed at moving blacks from lower-paying high-soft-skill service occupations to higher-paying low-soft-skill construction occupations.

Ultimately, it does not appear that either hard skills like educational attainment or soft skills explain the massive racial labor market disparities.

Do black and white men have different occupational interests?

Given the relationship between black male representation and occupational wages across very different occupational categories, it seems unlikely that our results are driven by differences in the occupational preferences between black and white men. If, for example, black men prefer more physical work, which is more commonly found in the production, transportation, and material moving sector, and white men prefer less physical work, which is more commonly found in management, professional, and related occupations, then this might explain our findings across *all* occupations. After all, management, professional, and related occupations pay higher wages than production, transportation, and material moving occupations. But what would explain the results *within* occupational

categories? Why would black men prefer lower wages within a given occupational sector?

We offer a brief examination of racial differences in career choices to address the popular perception that bad career choices are basically responsible for racial differences in pay.⁴ Using college majors as an indicator of career preferences, we compare the college majors of black and white men. Although people often do not work in their major field of study, and college-degree recipients make up only a fraction of the entire labor force, we expect that, if there are big differences in black and white men's desired careers, they would manifest themselves in choices of majors.

Table 4 shows the major fields of study for black and white men who obtained bachelor's degrees in 1992, the earliest available year in which the *Digest of Education* publishes these statistics online. Most of the men surveyed in 1992 would be in their mid-thirties at the time the 2005-07 American Community Survey data were collected. The table lists majors in descending order based on popularity among white men. Overall, black and white men have a nearly identical distribution of college majors. The third column presents the percentage-point difference in college majors between them. For 26 out of 34 majors, the difference is less than one percentage point. For the other eight majors, the differences are also trivial, with the largest being three percentage points. These findings illustrate that black and white men are basically equal in their distributions for major field of study.

Our examination of racial differences in college majors does not suggest that black male career choices are driving them to work in low-paying occupations. If left solely to their own desires, we would expect black and white men to have similar distributions of employment across and within occupational categories. This is especially true for management, professional, and related occupations, since these occupations typically require at least some college. Table 4 indicates almost identical choices in terms of majors, which presumably are related to career choice aspirations. Nonetheless, black males with relatively high educational attainment are disproportionately distributed into lower-paying managerial and professional occupations within this occupational sector.

TABLE 4

Male bachelor's degrees obtained by major field of study, 1992

	Black	White	Black-white*
<i>Business</i>	26.6%	26.4%	0.1%
<i>Social sciences and history</i>	14.8	14.3	0.4
<i>Engineering</i>	6.1	9.1	-3.0
<i>Education</i>	4.7	4.7	0.0
<i>Communications</i>	4.9	4.3	0.6
<i>English</i>	2.6	3.9	-1.3
<i>Biological/life sciences</i>	2.8	3.8	-1.0
<i>Visual and performing arts</i>	2.6	3.5	-0.9
<i>Psychology</i>	3.7	3.3	0.4
<i>Computer and information sciences</i>	4.2	3.0	1.2
<i>Engineering-related technologies</i>	3.5	2.8	0.6
<i>Liberal arts and sciences</i>	3.7	2.5	1.2
<i>Physical sciences</i>	1.5	2.3	-0.8
<i>Protective services</i>	4.8	2.2	2.6
<i>Agriculture and natural resources</i>	0.8	2.1	-1.3
<i>Health professions</i>	2.0	2.0	0.1
<i>Multi/interdisciplinary studies</i>	1.9	1.6	0.3
<i>Mathematics</i>	1.4	1.5	-0.1
<i>Architecture</i>	0.8	1.1	-0.3
<i>Philosophy and religion</i>	0.7	1.0	-0.2
<i>Parks, recreation, leisure, and fitness studies</i>	0.9	0.9	0.1
<i>Foreign languages and literatures</i>	0.4	0.8	-0.4
<i>Theological studies/religious vocations</i>	0.5	0.7	-0.3
<i>Transportation and material moving</i>	0.5	0.7	-0.1
<i>Public administration and services</i>	1.9	0.6	1.3
<i>Home economics</i>	0.4	0.3	0.1
<i>Area, ethnic, and cultural studies</i>	0.7	0.3	0.4
<i>Law and legal studies</i>	0.1	0.1	0.0
<i>Communications technologies</i>	0.2	0.1	0.1
<i>Precision production trades</i>	0.1	0.1	0.1
<i>R.O.T.C. and military sciences</i>	0.1	0.0	0.0
<i>Mechanics and repairers</i>	0.0	0.0	0.0
<i>Construction trades</i>	0.0	0.0	0.0
<i>Library science</i>	0.0	0.0	0.0

*"Black-white" percentage-point differences may appear larger or smaller than expected due to rounding.

SOURCE: Authors' analysis of *Digest of Education Statistics* (1995), Table 258.

Discrimination and occupational crowding into low-wage jobs

Given the above evidence, Bergmann's occupational crowding hypothesis appears to be a more plausible explanation for the systematic underrepresentation of black men in high-paying jobs and overrepresentation in low-wage jobs than the argument that black men simply make poor career choices or do not have the right hard or soft skills. Even after accounting for distributional differences in educational attainment, we estimate an inverse relationship between occupational wages and black male representation across various occupational categories regardless of the particular skills used in those categories. For instance, the relationship exists in white-collar, blue-collar, and service occupations. Data based on black and white men's college major choices is not consistent with the two groups having dissimilar career aspirations. Moreover, it is not apparent why black men would be any less financially motivated than white men. After considering differences in educational attainment, occupational skill, and career interests, we are left with labor market discrimination as the key explanation for a racially segregated labor market that systematically crowds black men into low-paying, less-desirable jobs and out of *high-paying, more-desirable jobs*.

The findings in this study fit well with other recent research. Pager, Western, and Bonikowski (2009) find that employers are more likely to steer black job applicants than white applicants to lower-paying positions. In contrast, the authors find that white job applicants are sometimes steered to higher-paying jobs. This dynamic would produce both wage and occupational disparities like the ones found in this study.

Acs and Loprest (2009), using the 2007 Survey of Employers in the Low-Skill Labor Market, find that, after taking into account individual, job, and employer characteristics, black workers earn 12% less than white workers. Tomaskovic-Devey, Thomas, and Johnson (2005, 83) conclude that part of the reason for blacks' lower wages is "because the human capital they do possess is devalued in the labor market."

America not only has segregated schools (both between and within) and neighborhoods, it also has segregated occupations. Black men are disproportionately confined

in lower-paying occupations. Until we more effectively combat labor market discrimination, black men will continue to earn less than white men. As a consequence, black families and black communities are likely to continue to maintain a subaltern status in our society.

Occupational contrasts

In this section, we highlight some interesting contrasts across occupations within broadly defined occupational sectors that differ in their level of representation of black men. In particular, we compare occupational categories that have similar credential requirements but vary in their access to black male workers.

Managers: CEOs and legislators versus middle managers

Chief executive officers and legislators have the second-highest average wage of all of the occupations analyzed in the American Community Survey. **Table 5** shows that black men are very underrepresented as chief executives and legislators; they are employed at only 32% of their expected level of employment in these occupations. In contrast, black men tend to be at least proportionally represented in a variety of managerial-type occupations.

That black men have the skills needed to be financial managers, human resource managers, public relations managers, and a variety of other types of managers suggests they also have the skills needed to be chief executives and legislators, since these two positions draw on many of the skills needed in these other management fields. Furthermore, the educational profile of CEOs and legislators is basically the same as for the selected management fields. Thus, neither education nor skills are plausible explanations for the underrepresentation of black men as chief executives and legislators.

Perhaps the glass ceiling effects that limit career trajectories for women, particularly nonwhite women, are also relevant for black men. Black men may be blocked from becoming CEOs for similar reasons as minority women. A survey by Catalyst (1999) indicates that nonwhite women are stymied in the advancement of their professional careers because they do not have influential mentors, they are excluded from informal networking with colleagues, and they are not given high-profile

TABLE 5

Black male representation among CEOs and legislators vs. middle managers

Occupation	25th percentile education level	90th percentile education level	Crowding score	Average wage
Underrepresented				
<i>Chief executives and legislators</i>	+1 year college	MA degree	0.32	\$143,930
Proportionally represented				
<i>Financial managers</i>	BA degree	MA degree	0.91	\$108,923
<i>Human resources managers</i>	+1 year college	MA degree	0.94	76,101
<i>Public relations managers</i>	Associate	MA degree	1.01	85,264
Overrepresented				
<i>Medical and health services managers</i>	Associate	Prof. degree	1.41	\$88,509
<i>Social and community service managers</i>	Associate	MA degree	1.61	63,432
<i>Agents and business managers of artists, performers, and athletes</i>	< 1 year college	MA degree	1.72	67,014

SOURCE: Authors' analysis of 2005-07 American Community Survey data.

assignments. In addition, Livingston and Pearce (2009) suggest that black men suffer limited upward mobility because of their perceived threatening physique and mannerisms based on racial stereotypes.

Hamilton's (2006) research suggests that black men may be more successful at becoming legislators (crowding score 0.72) than CEOs (crowding score 0.24), but they are still less successful than one would expect given their educational attainment. Hence, the low 0.32 crowding score calculated in the current analysis that aggregates the CEO and legislator occupational categories together is primarily the result of their gross underrepresentation as CEOs. Their relatively higher success as legislators, although still underrepresented in this occupation, may result from voting rights laws and the existence of majority black districts. Whether black men are equally successful at becoming legislators in majority black districts and majority white districts is an entirely different question, however, and one that is beyond the scope of this study.

Firefighting supervisors versus police supervisors

First-line supervisors in fire departments and first-line supervisors in police departments have the same level of formal education. At the 25th percentile, workers in both occupations have some college education; at the 90th percentile they have bachelor's degrees. Both

occupations entail serving and protecting the public. They also have similar average annual pay—both in the low \$50,000s, which ranks as the highest pay among the service occupations.

One way these occupations differ, however, is in the representation of black men. With a representation level of 105%, black men are proportionally represented as first-line supervisors of police departments. In contrast, black men are significantly underrepresented as first-line supervisors of fire departments: they reach only 67% of their expected representation level. If black men can be successful at obtaining supervisory positions in police departments, why can't they do the same in fire departments?

In 2009, the issue of black underemployment as firefighters received a great deal of attention because of the *Ricci v. DeStefano* (2009) Supreme Court case. The case centered on whether the city of New Haven, Conn., discriminated against 17 white and two Hispanic firefighters by disregarding a firefighter promotion exam on which they—but no black firefighters—had scored high enough to be eligible for promotion. The city disregarded the results out of a concern that the exam ran afoul of federal affirmative action laws because the exam had a disparate impact on a protected minority group.

Although the black pass rate was lower than the white rate, four blacks could have been eligible for promotion had the test scores been rounded to the

nearest whole number. Judge Richard Posner, a noted legal writer, has referred to this rounding of scores, called “banding,” as “a universal and normally an unquestioned method of simplifying scoring by eliminating meaningless gradations (of scores that differ by less than the margin of error)” (*DeStefano et al.* 2009). Guiner and Sturm (2009) illustrate other testing design changes that could have led to even more blacks being eligible for promotion as well.

Nonetheless, in a narrow 5-4 vote the Supreme Court rejected the consideration of these alternatives, reversed a lower court’s decision, and ruled in favor of the New Haven firefighter plaintiffs. In contrast, in a less publicized case involving the promotion of New York City firefighters to supervisory positions, the Federal District Court determined that New York City used “examinations [that] unfairly excluded hundreds of qualified people of color from the opportunity to serve as New York City firefighters” (Baker 2010).

High-paying sales versus lower-paying office occupations

Within the category of sales and office occupations, sales occupations tend to have higher average wages than office occupations. This is especially the case in sales occupations where blacks are proportionally underrepresented. Of the

eight sales and office occupations listed in **Table 6**, the sales occupations in which blacks are underrepresented have significantly higher wages than the other occupations in which they are not. Yet, there is significant overlap in the educational profile of these occupations regardless of whether blacks are under- or overrepresented. Interviewers, receptionists, cashiers, telemarketers, and individuals who conduct sales outdoors (i.e., door-to-door salespeople and street vendors) have similar educational attainment as higher-paid sales workers. It seems likely that some of the blacks in these lower-paid occupations would qualify for the higher-paid sales positions in which they are underrepresented.

Labor market discrimination is a plausible explanation that is consistent with the strong evidence from audit studies related to the racial occupational sorting that we find in sales occupations. Pager, Western, and Bonikowski (2009) present direct evidence of labor market discrimination in sales positions. Their study design involved sending equivalently qualified paired black and white male “testers” to apply for similar jobs. The results indicate that black male testers are much more likely to be steered to lower-paying occupations. There were examples of black testers being steered away from sales and into maintenance and stock boy positions, despite having equivalent qualifications as their white tester peers, who were not steered away from these more desirable sales positions.

TABLE 6

Representation in sales versus similar occupations

Occupation	25th percentile education level	90th percentile education level	Crowding score	Average wage
Underrepresented				
<i>Sales representatives, services, all other</i>	+1 year college	BA degree	0.58	\$73,818
<i>Sales and related workers, all other</i>	< 1 year college	MA degree	0.72	60,117
<i>Retail salespersons</i>	High school/GED	BA degree	0.81	38,882
Overrepresented				
<i>Interviewers, except eligibility and loan</i>	< 1 year college	MA degree	1.80	\$25,821
<i>Receptionists and information clerks</i>	High school/GED	BA degree	1.54	25,479
<i>Cashiers</i>	High school/GED	BA degree	1.23	22,191
<i>Telemarketers</i>	High school/GED	BA degree	2.30	20,247
<i>Door-to-door sales workers, news and street vendors, and related workers</i>	High school/GED	BA degree	1.16	18,153

SOURCE: Authors’ analysis of 2005-07 American Community Survey data.

Bertrand and Mullainathan (2004), using a similar matched-pair study design, also found direct evidence of labor market discrimination for black males in sales occupations. However, their study avoided the potential criticism that “testers” actors may have inadvertently signaled skills to the employers in a manner that led them to prefer the white applicants. The authors implicitly used a double-blind strategy that avoided the use of human testers and instead attached fictitious black- and white-sounding names to similarly credentialed paired resumes. They found that resumes with white-sounding names sent to potential employers in sales occupations received a 50% higher call-back rate than comparably skilled resumes with black-sounding names.

Moreover, they found that even “better” quality resumes with black-sounding names solicited proportionally fewer callbacks than “lower” quality resumes with white-sounding names. This result is inconsistent with the notion that employers use race as an additional signal of skills, because of their perceived notions of different racial distributions of skills that are not always apparent at the interview and application stages of employment (i.e., statistical discrimination). Yet, even in the case when employers were primed with better-quality black resumes, they still tended to prefer lower-quality white applicants.

Conclusion

America is still racially segregated in the workplace. Even after accounting for educational attainment, black males are crowded into low-wage occupations and crowded out of high-wage occupations. We examined if these racial differences resulted from differences in occupational preferences, and whether they resulted from racial differences in the distribution of soft skills that are not captured by traditional measures of educational attainment. In neither case were we able to generate any substantial evidence that explained the disparate pattern of racial occupational sorting. In contrast, our analysis presents considerable evidence that is consistent with the finding, born out by audit study research, that identifies labor market discrimination as a mechanism for this sorting.

Much has been accomplished in the 40-plus years since the publication of Barbara Bergmann’s (1971) seminal work on occupational segregation and the landmark passage of U.S. civil rights legislation. Blacks have held the highest positions in virtually every occupation in America, including president. Nonetheless, the nation still remains challenged by a racially segregated workforce and labor market discrimination, albeit less blatant than in our Jim Crow past.

Endnotes

1. Moss and Tilly's (2001, 94) survey data find support for many of these motivations.
2. Our statistical analysis includes 468 of the 469 American Community Survey-defined occupations at the three-digit coding level. The audiologist category, which appears to be grossly underrepresented with black men (there were 67 respondents in this category and not one black), did not generate any black observations for the years we examine to permit us to compute estimates for this occupation.
3. The statistic is based on a simple binary regression that specifies crowding scores as the dependent variable and average occupational wage as the independent variable.
4. This analysis was initially conducted to address a *St. Louis Post-Dispatch* blog post about Austin's (2009) article, "Among College-Educated, African Americans Hardest Hit by Unemployment." Several comments about the blog post assumed that black college graduates were disadvantaged because they made poor choices of majors.

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