RESEARCH REPORT

Black Women and Vulnerable Work

Occupational Crowding of Black Women Lowers Their Wages and Well-Being

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Executive Summary

Employment has grave implications for workers’ well-being. In this work, we explore how Black women are sorted into what we call “vulnerable work.” Vulnerable work includes work characteristics such as wages, hours, health insurance and retirement benefits, as well as work arrangements that often come with less security, predictability, and economic renumeration—namely independent contracting, contract work, temp agency work, and on-call/day work.

We use occupational crowding methodology (Bergmann 1974; Gibson, Darity, and Myers 1998; Hamilton 2006) to understand if Black women are under- or overrepresented in occupations that are more vulnerable, taking into account educational attainment and educational requirements of the work. We compare Black women’s representation with multiple groups, acknowledging marginalization at work across multiple identities (Crenshaw 1989): within race (compared with Black men), within gender (compared with white women), and across both race and gender (compared with white men).

A few findings are as follows:

- Black women are underrepresented in higher-paying occupations across both race and gender—in contrast to white men, white women, and Black men.
- Black women tended to be underrepresented in occupations with higher rates of employer-sponsored health insurance compared with white men but overrepresented in occupations with higher retirement coverage rates compared with white women.
- Black women are also overrepresented in occupations that have fewer hours compared with white men and Black men.
- Findings on alternative work are below:
  - As shares of independent contractors and contract workers in occupations rise, the representation of Black women falls significantly more compared with white men and Black men (and with white women as independent contractors). Large diversity exists in the types of work that independent contractors and contract workers perform, and future studies could examine these forms of employment.
  - The share of temp agency workers in occupations (an arrangement with the lowest benefit rates and pay) has a positive and significant relationship with crowding rates for Black women compared with white men.

These findings suggest the need for policies that prevent employer discrimination, boost collective bargaining, and provide a greater social safety net, regardless of connection to an employer.
Black Women and Vulnerable Work

This study investigates the impact of employment on the well-being of Black women, particularly their overrepresentation in "vulnerable work,” characterized by lower wages, security, and benefits. By employing occupational crowding methodology, we compare Black women's job placements with others of various demographics, highlighting the intersectional nature of workplace marginalization.

Defining Occupational Crowding

Occupational segregation measures the unequal distribution of groups across jobs in racialized patterns (Sullivan et al. 2019). While conventional economics would attribute occupational segregation to educational attainment or even worker preferences, stratification economics is a field that explains occupational segregation: hiring managers and employers aiming to maintain social hierarchies will preserve higher-paying roles for white workers and exclude qualified workers of color and women (Hamilton and Darity 2017). Exclusion of workers from higher paying roles could occur during the hiring or promotion process.

The result of discrimination in hiring and promotions is occupational crowding: groups of people who are crowded into or out of different roles, irrespective of their educational attainment. The occupational crowding theory was developed by economist Barbara Bergmann (1974), who hypothesized that even when Black people are qualified for high-paying occupational roles, given their educational attainment, they are excluded from these positions and left to assume low-paying roles due to employer discrimination (Bergmann 1974). This distribution creates a "crowding" effect where Black workers are overrepresented in low-paying occupations, even when they are qualified for higher-paying positions. Studies have found a high representation of Black workers in sales and office occupations; service occupations; and production, transportation, and material moving occupations, in contrast to management roles which are high paying (Hamilton and Darity 2012; Holder 2018). Occupational crowding, thus, measures how a group (e.g., Black women) is crowded in or crowded out of an occupation, given the group’s educational attainment and expected level of presentation in that occupation given requirements (Bergmann 1974; Hamilton 2013).

In this study, we use occupational crowding—and specifically the control for education—to examine Black women's representation in various forms of vulnerable work across multiple demographic groups.
Conceptualizing Worker Vulnerability

We characterize **vulnerable work** by both characteristics of the occupation (e.g., low pay, low benefits, few hours) and work arrangements (alternative or nonstandard work arrangements such as independent contractors, contract workers, temp agency workers, and on-call workers). A description of alternative work arrangements is in table 1.

### TABLE 1
**Alternative/Nonstandard Work**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent contractors</td>
<td>“Independent contractors, independent consultants, or freelance workers (self-employed or otherwise)”</td>
</tr>
<tr>
<td>Contract workers</td>
<td>“Workers who are employed by a company that provides them or their services to others under contract (usually customer/site)”</td>
</tr>
<tr>
<td>Temp agency workers</td>
<td>“Workers who are paid by a temporary help agency, whether or not their occupation is temporary”</td>
</tr>
<tr>
<td>On-call workers</td>
<td>“Workers who are called to work only as needed, although they can be scheduled to work for several days or weeks in a row”</td>
</tr>
</tbody>
</table>


**Impact of Low Wages, Benefits, Hours, and Alternative Work**

Low-paying work affects the ability of workers to accumulate wealth—both liquid assets and longer-term assets. Low paying occupations leave people vulnerable because workers may not have enough liquid assets to support their basic needs and address financial emergencies. Research on wealth (or net worth) shows that lower-wage workers have much less wealth than their same-race counterparts (McKernan et al. 2017). Rucks-Ahidiana and Kalu (2023) examined factors that contribute to wealth building, such as income and business ownership. They found a positive association between income and wealth for Black women, Black men, white women, and white men.¹

Workers in low-paying occupations also are less likely to have **health insurance and retirement benefits**,² which means potential negative impacts to their well-being in the short- and long-run. While there are other options for health care if workers are not covered (e.g., a health care marketplace), they may not be as accessible as states may not have expanded Medicaid coverage (Levy 2020). In terms of
Part-time work may represent an opportunity for workers to take care of other responsibilities, such as attending school, starting a business venture, or caring for family. But for workers who prefer something full-time (involuntary workers who are part-time), their security is compromised. Unlike voluntary part-time work where employees choose to go into part-time work for fewer hours, employees in involuntary part-time work have their hours constrained or reduced by the employer; they may prefer something more but are unable to find a full-time role (Choi and Marinescu 2022; Storer et al. 2021). Part-time workers earn less than full-time workers and are also less likely to qualify for and receive employer-sponsored health insurance and retirement benefits. They also are less likely to qualify for paid leave. Social Security benefits are tied to earnings; so workers who do not earn a lot of money, such as part-time employees, have limited ability to thrive in their older years.

Alternative or non-standard work can be more vulnerable than traditional work arrangements (for definitions of alternative work, see table 1). Often these arrangements involve lower pay and fewer benefits, as well as less predictability. However, these features vary by work arrangement. Temp workers often cannot access unemployment benefits because of earnings requirements and the unstable nature of employment (Yang et al. 2020). Similarly, just one-third of self-employed workers (independent contractors) have paid sick leave (Boyens, Raifman, and Werner 2020).4

Data from the 2017 Contingent Worker Survey5 show that, in terms of weekly median wages:

- Contract workers earn more than traditional workers on average ($1,077 compared with $884).
- Temporary help agency workers fare the worst, with weekly median wages ($521) that are 70 percent less than that of traditional workers.
- Racial and gender differences exist in alternative work earnings, with Black and Latinx workers earning less than white workers and Asian workers, and women earning less than men.
  - Among contract firm workers—the highest wage category—Black workers earn the least ($740), followed by Latinx workers ($964), Asian workers ($1,519), and white workers ($1,118) earn the most. In this category, men earn substantially more ($1,157) than women ($673).
  - Among temporary help agency workers—the alternative work category with the lowest wages—Asian workers earn the most ($1058), and the differences between Black ($520), Hispanic or Latinx ($492), and white workers ($511) are small.

Census data also show that some workers in alternative arrangements, such as an independent contract or temporary agency work, are far less likely to have employer-sponsored health insurance and retirement...
benefits than those in traditional work arrangements (Contingent Worker Survey 2017; Karpman, Loprest, and Hahn 2022).

**Prevalence of Vulnerable Work among Black Women**

Research on the prevalence of vulnerable work reveals that Black women are particularly susceptible in some instances, especially when comparing their representation with white men.

**WAGES**

Black women have historically been segregated into lower paying roles (Banks 2019). Using occupational crowding methodology, Urban researchers found that Black women are overrepresented in comparison to white men—considering educational attainment and educational requirements of roles—in occupations with lower wages (Biu et al. 2023). Further, other researchers have found that Black women earned less than 70 percent of white men’s earnings “in nearly all states” (Childers et al. 2021).

**PART-TIME STATUS**

The rate at which Black women work in voluntary part-time jobs is 7.8 percent, which is lower than women in other groups (between 14.3 percent and 15.9 percent). Moreover, the sectors in which Black women are distributed into have a high incidence of involuntary part-time employment such as leisure and hospitality (19.9 percent), retail trade (18.4 percent), and education and health services (13.6 percent; Choi and Marinescu 2022).

**MULTIPLE OCCUATIONAL CHARACTERISTICS RELATED TO VULNERABILITY**

Urban researchers created a combined job quality score based on eleven indicators, including those related to wages and benefits, as discussed above, but also adding scheduling, hours, job security, autonomy, safety, and workplace training (Biu et al 2023). They found that Black women tend to be overrepresented in occupations with lower overall job quality scores (such as office and administrative support workers) and underrepresented in occupations with higher job quality scores (such as supervisors of office and administrative support workers).

**ALTERNATIVE WORK**

Black women’s prevalence in alternative work (as defined in table 1) varies by category. Black women are a small percentage of all independent contractors (4 percent), contract workers (5 percent), and on-call workers (6 percent; Contingent Worker Survey 2017; see table 2). As noted above, contract workers tend to have higher pay than traditional workers on average. In contrast, the prevalence of Black women as temp
agency workers—one of the alternative arrangements with the lowest pay and benefits—is almost three times their rates as independent contractors and contract workers (12 percent).

**TABLE 2**

**Prevalence of Black Women in Alternative Work**

<table>
<thead>
<tr>
<th>Percent</th>
<th>Share of independent contractors</th>
<th>Share of contract workers</th>
<th>Share of temp agency workers</th>
<th>Share of on-call or day workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black women</td>
<td>0.04</td>
<td>0.05</td>
<td>0.12</td>
<td>0.06</td>
</tr>
<tr>
<td>Black men</td>
<td>0.05</td>
<td>0.05</td>
<td>0.13</td>
<td>0.06</td>
</tr>
<tr>
<td>White women</td>
<td>0.25</td>
<td>0.13</td>
<td>0.17</td>
<td>0.30</td>
</tr>
<tr>
<td>White men</td>
<td>0.44</td>
<td>0.35</td>
<td>0.20</td>
<td>0.30</td>
</tr>
</tbody>
</table>

**Source:** Contingent Worker Survey (2017), IPUMS-CPS, University of Minnesota.

**Notes:** “Share of” data refers to the share of that type of worker (e.g., independent contractor) that consists of the relevant race/gender group. For instance, 4 percent of independent contractors are Black women.

In later sections, we empirically examine Black women’s prevalence in vulnerable work in terms of characteristics like wages, benefits, and hours—as well as alternative work—using occupational crowding which takes education into account.

**Methodology**

**Vulnerability Characteristics**

To understand worker vulnerability, as defined by occupation characteristics and work arrangements, we used the variables shown in table 3. To understand how these variables differed by occupation, we used detailed Census occupation codes to link occupations across different data sources to the populations of interest.

We ended with 426 occupations that represented all 26 major occupation groups. Only 308 had sufficient observations to examine Black women’s crowding by most occupation characteristics (e.g., wages, health insurance, part-time status) and there were 240 occupations available for retirement coverage. There were 219 occupations with sufficient observations to examine Black women’s crowding and alternative work.8
<table>
<thead>
<tr>
<th>Domain</th>
<th>Definition</th>
<th>Number of occupations</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wages</strong></td>
<td>Median annual wages among workers in an occupation</td>
<td>426,308 with sufficient Black women for analysis</td>
<td>American Community Survey (ACS) 2020</td>
</tr>
<tr>
<td><strong>Health insurance</strong></td>
<td>Share of workers in an occupation directly covered by the employer’s health insurance plan</td>
<td>426,308 with sufficient Black women for analysis</td>
<td>American Community Survey (ACS) 2020</td>
</tr>
<tr>
<td><strong>Part-time work</strong></td>
<td>Share of workers in an occupation who regularly work less than 35 hours per week</td>
<td>426,308 with sufficient Black women for analysis</td>
<td>American Community Survey (ACS) 2020</td>
</tr>
<tr>
<td>Work Arrangement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Independent contractors</strong></td>
<td>Share of workers in an occupation who are “independent contractors, independent consultants, or freelance workers (self-employed or otherwise)”</td>
<td>246,219 with sufficient Black women for analysis</td>
<td>Current Population Survey (CPS) Contingent Worker Survey (CWS) 2017</td>
</tr>
<tr>
<td><strong>Contract workers</strong></td>
<td>Share of workers in an occupation who are “employed by a company that provides them or their services to others under contract (usually customer/ site)”</td>
<td>246,219 with sufficient Black women for analysis</td>
<td>Current Population Survey (CPS) Contingent Worker Survey (CWS) 2017</td>
</tr>
<tr>
<td><strong>Temp agency workers</strong></td>
<td>Share of workers in an occupation who are “paid by a temporary help agency, whether or not their occupation is temporary”</td>
<td>246,219 with sufficient Black women for analysis</td>
<td>Current Population Survey (CPS) Contingent Worker Survey (CWS) 2017</td>
</tr>
<tr>
<td><strong>On-call workers</strong></td>
<td>Share of workers in an occupation who are “called to work only as needed, although they can be scheduled to work for several days or weeks in a row”</td>
<td>246,219 with sufficient Black women for analysis</td>
<td>Current Population Survey (CPS) Contingent Worker Survey (CWS) 2017</td>
</tr>
</tbody>
</table>


**Occupational Crowding Methodology**

Occupational crowding measures the degree to which a group is over-, under-, or proportionally represented in an occupation, considering their educational attainment and the educational requirement for the role (see box 1). We examined occupational crowding in each of those occupations among the following race and gender groups ages 25 to 64: Black women, Black men, white women, and white men. We use the
methodology updated by Gibson, Darity, and Myers 1998 (e.g., Hamilton 2006 and Hamilton and Darity 2012).  

Using data from the American Community Survey (ACS), we identify education requirements based on the universe of all employed and unemployed workers in each occupation in the 20th and 80th percentiles of education. In determining crowding by occupation, we used the methodology described in Hamilton and colleagues (2021) and compared Black women, Black men, and white women with white men. When analyzing crowding for white men, we examined their sorting in comparison with everyone in the economy (see King’s “access model” as cited in Hamilton et al. 2021). Black women have additional crowding analyses as they face disadvantages due to marginalized identities within race (compared with Black men), within gender (compared with white women), and across both race and gender (compared with white men) (Crenshaw 1989). To understand occupational crowding, we divide the actual share of each race gender group in each occupation by their expected share to find a crowding score. Each comparison group will have an occupational crowding score for each occupation (see box 1).

**BOX 1**

**Occupational Crowding Definitions**

Occupational crowding measures the degree to which a group is over-, under-, or proportionally represented in an occupation considering their educational attainment and the educational requirement for the occupation:

- **Educational requirements:** We use all employed and unemployed workers in each occupation in the 20th and 80th percentiles of education of those currently in roles. For instance, for engineering technicians, the 20th percentile is a high school degree or high school equivalency and the 80th percentile is a Bachelor of Arts degree. Those who are considered qualified then, have education that ranges between those levels.

- **Proportional representation:** Occupations where the expected number of the relevant group does not exceed nor is less than 10 percent (crowding score between 0.9 to 1.1).

- **Underrepresentation ("crowded out"):** Occupations with less than 10 percent of the expected number of the relevant group (crowding score of less than 0.9).

- **Overrepresentation ("crowded in"):** Occupations composed of more than 10 percent of the expected number of the group (crowding score of more than 1.1).

We then observed linear relationships between that occupational crowding score and various occupation characteristics (e.g., pay, benefits rates, and share of part-time workers) and shares of workers who fit into alternative work arrangements. A positive relationship suggests that as the concentration of one group increases, so does that work characteristic or arrangement. For example, as shown in a later section, among Black women, there is a positive relationship between the crowding scores and the share of workers in occupations who are in temp agency work. This suggests Black women may be overrepresented in temp agency work.

Limitations

There are some limitations to our methodology for understanding occupational vulnerability for Black women. The data on alternative work arrangements comes from an older survey—the Contingent Worker Survey of 2017, which some researchers have estimated undercounts alternative workers (Krueger and Katz and 2019). A new release is expected soon. We used the Current Population Survey Annual Social and Economic Supplement (ASEC) to assess retirement coverage so that we could link this benefit to occupations. The CPS sample size is much smaller than the ACS and some analysts believe retirement participation is significantly underreported in the CPS (Dushi and Brad Trenkamp 2021).

In addition, we are unable to sort out the nuances of alternative work, for example some contract work, such as contracting in a tech company or working in a tech occupation, is likely to pay significantly more than other forms, such as contracting for a cleaning company and working as a cleaner. Our definition of vulnerability also may not fully reflect workers’ needs and preferences. For example, independent contract work is considered “vulnerable” but most independent contractors who answered the 2017 Contingent Worker Survey expressed a preference for self-employment (91 percent overall with no significant differences in this preference for Black women, Black men, and white women as compared with white men) (Contingent Worker Survey 2017). On the other hand, temp agency workers are more likely to prefer traditional jobs (46 percent). As with alternative work, we are unable to sort out the nuances of part-time work—the findings would be enhanced if we could examine how groups were sorted into involuntary part-time work as opposed to part-time work overall.

To understand how Black women are sorted into vulnerable forms of work beyond wages, we found the share of workers who are in alternative work arrangements in occupations using the Contingent Worker Survey and linked this data to the larger ACS dataset. We then observed linear relationships to suggest that if an occupation has a higher share of—for example—temp agency workers and Black women are crowded into that occupation, they may be overrepresented in temp agency work. However, these rates may not reflect how the actual groups are sorted.
Analysis of Occupational Crowding and Vulnerability

In this section, we present our findings on occupational crowding and earnings, benefits, hours, and alternative work. As noted earlier, all groups were compared with white men, and white men were compared with the economy. In addition to comparing Black women with white men, we compared Black women with Black men and white women. More details on these findings in each occupation and group are in the technical appendix.

Black Women Are Crowded into Lower Paying Work

We find that occupations where Black women are overrepresented as compared to white men pay less than those where Black women are underrepresented ($65,140 compared to $42,589; table 4). Overall, the findings reflect previous research (e.g., Biu et al. 2023; Hamilton 2012, 2021). This was also the case for Black men and white women. The reverse was true for white men compared to the economy—there tends to be an overrepresentation of white men—taking education into account—in occupations with higher wages.

We also compared Black women’s representation with Black men and white women (table 4). In these instances, Black women also tended to be underrepresented in higher paying occupations as compared with both Black men and white women. For instance, where Black women were underrepresented as compared with Black men, average wages in occupations were $60,548; where they were overrepresented, average wages in occupations were $45,102. Similarly, compared with white women, wages were higher where Black women were underrepresented ($61,767) than where they were overrepresented ($44,655).

We also observed the relationship between crowding scores and the average wages in occupations using simple linear regression (table 5). As average wages increase in an occupation, the representation of Black women, Black men, and white women significantly declines in comparison with white men. Higher paying occupations tend to have more white men. Notably Black women significantly become less represented in occupations as wages rise in comparison to all three groups—white men, Black men, and white women.

Black Women Receive Lower Wages than Counterparts in the Same Occupations

Black women, Black men, and white women earn less than average compared with white men, and it is even more stark in occupations where they are underrepresented. Black women earned the least on average (just 71 percent of average wages where they were underrepresented as compared with white men and 82 percent in occupations where they were overrepresented).
Black women notably earned the lowest share of average wages as compared with white men (71 percent where underrepresented and 82 percent where overrepresented), followed by Black men, and white women (table 4).

**TABLE 4**

**Occupational Crowding in Occupations**

<table>
<thead>
<tr>
<th></th>
<th>Black women vs.</th>
<th></th>
<th>Black men</th>
<th>White men</th>
<th>White men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White men</td>
<td>Black men</td>
<td>White men</td>
<td>Black men</td>
<td>White men</td>
</tr>
<tr>
<td><strong>Underrepresented occupations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of occupations underrepresented</td>
<td>47.7</td>
<td>48.5</td>
<td>45.9</td>
<td>47.8</td>
<td>53.8</td>
</tr>
<tr>
<td>Number of occupations</td>
<td>147</td>
<td>146</td>
<td>141</td>
<td>185</td>
<td>221</td>
</tr>
<tr>
<td>Average annual wages in occupations</td>
<td>$65,140</td>
<td>$60,548</td>
<td>$61,767</td>
<td>$65,596</td>
<td>$62,225</td>
</tr>
<tr>
<td>Percent of average wages worker receives</td>
<td>71</td>
<td>87</td>
<td>95</td>
<td>82</td>
<td>81</td>
</tr>
<tr>
<td><strong>Overrepresented occupations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of occupations overrepresented</td>
<td>45.8</td>
<td>39.2</td>
<td>37.5</td>
<td>40.1</td>
<td>35.3</td>
</tr>
<tr>
<td>Number of occupations</td>
<td>141</td>
<td>118</td>
<td>115</td>
<td>155</td>
<td>145</td>
</tr>
<tr>
<td>Average annual wages in occupations</td>
<td>$42,589</td>
<td>$45,102</td>
<td>$44,655</td>
<td>$41,101</td>
<td>$45,656</td>
</tr>
<tr>
<td>Percent of average wages worker receives</td>
<td>82</td>
<td>94</td>
<td>97</td>
<td>88</td>
<td>91</td>
</tr>
</tbody>
</table>


Notes: Average wages in occupations are from the ACS and reflect all workers in the economy ages 25–64.

**TABLE 5**

**Relationship between Crowding and Average Annual Wages for Occupations**

<table>
<thead>
<tr>
<th>Comparison group</th>
<th>Direction of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black women</td>
<td>-***</td>
</tr>
<tr>
<td>vs. white men</td>
<td>-***</td>
</tr>
<tr>
<td>vs. Black men</td>
<td>-***</td>
</tr>
<tr>
<td>vs. white women</td>
<td>-***</td>
</tr>
<tr>
<td>Black men</td>
<td>-***</td>
</tr>
<tr>
<td>White women</td>
<td>-***</td>
</tr>
<tr>
<td>White men</td>
<td>-***</td>
</tr>
</tbody>
</table>


Notes: Occupational crowding for Black men and white women is in comparison to white men and white men are shown in comparison to the economy. Black women are shown in three comparisons: to white men, Black men, and white women. A negative sign (-) denotes a negative relationship between crowding and the variable indicated and a positive sign (+) indicates a positive relationship. Blank cells indicate no significant relationships. Significance level: 0.10*, 0.05**, 0.01***.
Benefits and Hours and Occupational Crowding

Benefits and hours also contribute to economic well-being. We measured the direction of the relationship between crowding scores and other characteristics of occupations, including health insurance, retirement rates, and shares of workers who are part-time. Significant findings are summarized below and in table 6.

- **Employer-sponsored health insurance:** On average, 69 percent of workers ages 25–64 have health insurance from an employer. Examples of occupations with high employer-sponsored health insurance rates include Architectural and Engineering Managers, Locomotive Engineers and Operators, Chemical Engineers, and Actuaries, with over 90 percent of workers in these occupations reporting coverage. Occupations with very low rates—30 percent or less—include Barbers; Massage Therapists; Hairdressers, Hairstylists, and Cosmetologists; and Personal Appearance Workers.
  
  As the share of workers with employer-sponsored health insurance in an occupation rises, there are fewer Black women, Black men, and white women (all as compared with white men). There was no significant relationship for Black women as compared with Black men and white women. There was a positive relationship between health insurance coverage rates in occupations and crowding among white men as compared to the economy.

- **Retirement coverage:** Retirement coverage rates are relatively low, with an average of 37 percent reporting being in an employer’s plan (author’s calculation of CPS data). Examples of occupations with high retirement coverage rates include First-Line Supervisors of Police and Detectives (90 percent have retirement coverage), Tax Examiners (77 percent), and Firefighters (74 percent). Occupations with very low retirement coverage (less than 10 percent) are Bartenders; Drywall Installers; Hairdressers, Hairstylists, and Cosmetologists; and Host and Hostesses.
  
  As retirement coverage rates in occupations increase, the representation of Black women significantly increases as compared to white women. For Black men as compared with white men, the relationship was negative. Occupations with higher retirement coverage rates tend to have more white men.

- **Part-time status:** The average share of workers, by occupation, who are part-time and working less than 35 hours per week was 15 percent. Examples of occupations with high shares of part-time workers include occupations that are relatively low wage (such as Maids and Housekeepers at 43 percent and Waiters and Waitresses at 49 percent), as well as relatively higher-paying occupations (such as Psychologists at 22 percent and Dentists at 24 percent).
  
  Examples of occupations with lower rates of part-time workers and thus workers with more hours: Power Plant Operators, Distributors, and Dispatchers and Tire Builders, with 15 percent
or less working part-time. Occupations with more part-time workers include Massage Therapists; Models, Demonstrators, and Product Promoters; and Ushers, Lobby Attendants, and Ticket Takers—with more than 60 percent of these workers reporting part-time status.

As the share of workers who are part-time in occupations rises, there is more overrepresentation for Black women as compared with white men and Black men. This is also true for Black men and white women compared to white men. In contrast, occupations with more part-time workers tend to have fewer white men.

**TABLE 6**

<table>
<thead>
<tr>
<th>Significant Relationships between Benefits, Hours, Work Arrangements, and Occupational Crowding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer health insurance (% with benefit)</td>
</tr>
<tr>
<td>Black women vs. white men</td>
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<tr>
<td>vs. Black men</td>
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<tr>
<td>vs. white women</td>
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<tr>
<td>Black men vs. white women</td>
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<tr>
<td>White women vs. Black men</td>
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<tr>
<td>White men vs. white women</td>
</tr>
</tbody>
</table>


Notes: Occupational crowding for Black men and white women is in comparison to white men and white men are shown in comparison to the economy. Black women are shown in three comparisons: to white men, Black men, and white women. A negative sign (-) denotes a negative relationship between crowding and the variable indicated and a positive sign (+) indicates a positive relationship. Blank cells indicate no significant relationships. Significance levels: 0.10*, 0.05**, 0.01***.

**Alternative Work and Occupational Crowding**

Alternative work can sometimes leave workers vulnerable due to at times lower pay, benefits, security, and predictability. We analyzed the share of workers in each occupation who are in the following alternative work arrangements: independent contractors, contract workers, temp agency workers, and on-call workers. We then noted the direction of the relationship between crowding scores and the share of workers in occupations generally who are in each of those alternative work arrangements. Findings are summarized below and in table 7.

- **Independent contractors**: Using data from the Contingent Worker Survey, we find that just 7 percent of workers across occupations are independent contractors. Occupations with large shares of independent contractors include a mix of high- and low-paying roles. For instance, occupations in the top 25 percent of independent contractors include relatively high-paying roles such as Chief Executives and Legislators, Dentists, Psychologists, and Computer Programmers. Low-paying
positions with large shares of independent contractors are Taxi Drivers and Chauffeurs, Barbers, and Maids and House Keepers. Many of the occupations are male-dominated, such as Carpet, Floor, and Tile Installers; Construction Laborers; Drywall Installers/Ceiling Tile Installers; Painters; and Roofers.

» Occupations with higher shares of workers who are independent contractors tend to have fewer Black women as compared with all three other groups—white men, Black men, and white women. The same could be said for Black men. There were no significant findings for the other groups.

- **Contract workers**: Just .07 percent of workers across occupations are contract workers who are employed by one company and contracted to work with another. Occupations with large shares of contract workers include a mix of high- and low-paying roles. For instance, occupations in the top 25 percent of contract workers include Chief Executives and Legislators; Computer and Information Systems Managers; Physicians and Surgeons; and several types of engineers, including Aerospace, Civil, Computer Hardware, and Electrical and Electronics. There are also relatively low-paying occupations with large shares of contract workers, such as Janitors; Nursing, Psychiatric, and Home Health Aides; and Packers and Packagers.

» Occupations with higher shares of workers who are contract workers tend to have fewer Black women (as compared with white men and Black men only). There was a negative relationship between shares of workers who are contract workers and the concentration of white women and a positive one for white men.

- **Temp agency workers**: According to the contingent worker survey, the average share of workers who work for a temp agency across occupations is .08 percent. Occupations with higher shares of temp agency workers—between 10–11 percent—are File Clerks; Packers and Packagers; and Word Processors and Typists.

» Occupations with more temp agency workers, tend to have more Black women as compared with white men and white women. This was also the case for Black men. Occupations with more temp agency workers have fewer white men.

- **On-call workers**: There were no significant relationships between crowding and this work arrangement.
TABLE 7
Significant Relationships between Alternative Work and Occupational Crowding
Share of workers in alternative work arrangements

<table>
<thead>
<tr>
<th>Comparison group</th>
<th>Independent contractors</th>
<th>Contract workers</th>
<th>Temp agency workers</th>
<th>On-call workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black women</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vs. white men</td>
<td>-***</td>
<td>-***</td>
<td>+*</td>
<td></td>
</tr>
<tr>
<td>vs. Black men</td>
<td>-***</td>
<td>-***</td>
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<td>vs. white women</td>
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<td>-***</td>
<td>+***</td>
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<tr>
<td>Black men</td>
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<tr>
<td>White women</td>
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<tr>
<td>White men</td>
<td></td>
<td>+***</td>
<td></td>
<td>-**</td>
</tr>
</tbody>
</table>

Source: Occupational crowding data, health insurance, and part-time data from American Community Survey 2020 5-Year Estimates. Minneapolis, MN: IPUMS, 2023. Alternative work arrangement data is from the Contingent Worker Survey (2017), IPUMS-CPS, University of Minnesota. Notes: Occupational crowding for Black men and white women is in comparison to white men and white men are shown in comparison to the economy. Black women are show in three comparisons: to white men, Black men, and white women. A negative sign (-) denotes a negative relationship between crowding and the topic indicated and a positive sign (+) indicates a positive relationship. Blank cells indicate no significant relationships. Significance levels: 0.10*, 0.05**, 0.01***.

Conclusion and Recommendations

In this study, we examined how Black women are represented in occupations that may be more vulnerable, due to several factors: pay, benefits, hours, and work arrangements. We then assessed the relationship between occupational crowding and these indicators. Occupational crowding considers the educational requirements of occupations and educational attainment of various groups. While conventional economics would attribute occupational segregation to educational attainment, occupational crowding controls for it—when groups are crowded out of more desirable roles, discrimination is likely a factor (Bergmann 1974).

Existing research on occupational crowding has found that women and people of color are crowded out of better-paying occupations while white men are crowded in (e.g., Hamilton 2012, 2021). In this study, we observed similar trends. Notably, Black women are underrepresented in higher paying roles across both race and gender—in contrast to white men, white women, and Black men. In examining other work characteristics, we found that Black women, tended to be underrepresented in occupations with higher rates of employer-sponsored health insurance as compared with white men but more overrepresented in occupations with higher retirement coverage rates in comparison with white women. Black women are also overrepresented in occupations that have fewer hours, and we found this was the case compared with white men and Black men.

We also examined work arrangements, and there were varying results. In alternative work, we found that as shares of independent contractors and contract workers in occupations rise, the representation of Black women falls significantly as compared with white men and Black men (and to white women as
independent contractors). There is large diversity in the types of work that independent contractors and contract workers perform; most independent contractors—including Black women—prefer self-employment. Future study could further examine these forms of employment and workers’ preferences. Notably the share of temp agency workers in occupations (an arrangement with the lowest benefit rates and pay) have a positive and significant relationship with crowding rates for Black women as compared with white men.

Future research could disaggregate results by marital status. White women are more likely to be married and thus may be more able to take on work with fewer benefits and lower pay. Black women are often the primary breadwinner and economic support in their households, more often than white women and Latinx women (Glynn 2016).

For more detailed analysis, researchers and policymakers need better data on alternative work arrangements. As noted earlier, the prevalence of alternative work has been debated. The US Government Accountability Office (GAO)11 has made recommendations on improving data on alternative work, including standardizing definitions of each form of alternative work across agencies and better “coordination” to enhance “data quality” and reduce “fragmentation.”

To ensure Black women have access to the work they want involves creating equitable systems that make prosperity the goal, regardless of employment status. Here are our policy recommendations to achieve this:

1. **End Employment Discrimination:** This research sheds light on the importance of ensuring Black women’s equitable access to more secure employment, whether in the application or promotion stage. Researchers have suggested that the Equal Employment Opportunity Commission (EEOC) take on a proactive audit of employers to assess discrimination in the hiring stage rather than only waiting for complaints to be filed (Hamilton and Dixon 2022).

2. **Expand Collective Bargaining:** Greater union coverage tends to increase wages, benefits, and the reliability of schedules.12 However, union coverage has fallen in recent decades13 and the need to bolster union power is apparent. The National Black Worker Center, in its Black Worker Bill of Rights, calls for all Black workers to have the right to organize.14 Further many workers in alternative arrangements, particularly independent contractors (AFL-CIO and Economic Policy Institute n.d.) do not have access to collective labor unions. Other organizations are making efforts to organize alternative workers, such as the Drivers Union, which represents drivers in app-based services (Berlin and Biu 2023).

3. **Improve Social Safety Net and Work Opportunities for Traditional and Alternative/Nonstandard Workers:** There is a need to ensure protections for workers regardless of employment status, hours
worked, connection to an employer, or participation in a collective bargaining organization. Here are some additional recommendations:

a. **Improve retirement savings access for traditional and alternative workers, including Black women.** The SECURE Act of 2022 expands retirement coverage by mandating that employers let part-time workers who have worked for an employer for an extended time join a 401k plan. For workers not connected to an employer, there could be more portable retirement benefits schemes (Berlin and Biu 2023).

b. **Strengthen and protect social security to ensure that all workers, and especially Black women, can experience wellness and financial security in retirement.** Black women are less likely to work in occupations that offer pension plans or 401k retirement plans, and a greater share of Black workers depend on Social Security benefits for most of their retirement (Viceisza 2022).

c. **Expand medical coverage (such as Medicaid or universal single-payer health insurance; Bozarth, Western and Jones 2020) to enhance health protections for Black women and play a role in reducing medial debt.**

d. **Increase the minimum wage to boost the wage floor for workers who are currently in lower-paying work,** including tipped work (Acs et al. 2022).

e. **Consider support for a federal jobs guarantee policy.** Academics and advocates have also called for a federal jobs guarantee to ensure anyone who wants a well-paying job with security and benefits—but can't find one—can have one (Paul, Darity, and Hamilton 2017). Such a program would also serve as “competition” to improve pay and benefits, giving workers a livable wage and opportunities they could not access otherwise.

f. **Consider guaranteed income to support individuals and families regardless of employment status.** Guaranteed income programs have been piloted throughout the country and provide support so people—employed and not employed—can better manage life expenses (Berlin and Biu 2023), achieve housing and food security (Bogle et al. 2023) and engage with their communities (Fung et al. 2024).
Notes


We included occupations for Black women if there were at least 30 Black women in an occupation and at least 100 workers in the comparison group (for example 100 Black women and white men in an occupation). For alternative work and determining the prevalence of each type of work arrangement in an occupation using the Contingent Worker Survey, we only included occupations with at least 30 observations. Bergmann's methodology controlled for educational attainment by analyzing occupations that only required a high school education (Bergmann 1974). In this methodology, the crowding of Black men in an occupation was
determined by calculating the expected share of Black men by the share of Black men in the population without a high school education. However, by investigating beyond high school educational attainment and blue-collar occupations, Gibson, Darity, and Myers (1998) calculated the expected occupation share of Black workers based on the share of Black workers with educational credentials for that occupation.

The methodology used by Gibson, Darity, and Myers (1998) introduces a crowding index or score, where the ratio is the proportion of an occupation's share of Black workers (in the numerator) to the proportion of the occupation's working-age population that consists of Black workers with the required educational credentials for that occupation (in the denominator). Most current studies use the methodology developed by Gibson, Darity, and Myers (e.g., Hamilton 2006 and Hamilton and Darity 2012).

In previous research one of the authors (Biu 2021) examined crowding within the Contingent Worker Survey and found some similar trends—particularly with temp agency work; however, the smaller sample size in that survey is again a drawback to the analysis.


References


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