THE "DOUBLE GAP" AND THE BOTTOM LINE:

African American Women's Wage Gap and Corporate Profits

REPORT BY **MICHELLE HOLDER**
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Introduction

Over the last few decades, corporate profits in the US have been buoyed by increasing productivity coupled with stagnant wages. In 2018 alone, domestic corporate profits totaled over $2 trillion (Bureau of Economic Analysis 2019) while full-time workers' (median) annual salary or wages sat at $46,800 (Bureau of Labor Statistics "The Economics Daily," January 2020). Comparatively, total US GDP in 2018 was $20.5 trillion. The economic landscape has obviously changed, with the coronavirus pandemic and necessary response measures adding much uncertainty to America's outlook for productivity and growth. At some point, however, the American economy will have absorbed this significant shock. COVID-19's challenge to the American economy, therefore, also presents an opportunity for the private, for-profit sector to improve its treatment of workers, especially those it compensates the least—Black women.

The labor share of income, or the percent of total income in the US that comes from wages, has been on a downward trajectory for several decades as a result of globalization, technological change, and the declining bargaining power of workers (Jacobson and Occhino 2012). Notably, the declining labor income share in the US has not been accompanied by declining labor productivity; indeed, the average annual growth rate in labor productivity exceeded the average annual growth rate in wages from 1980 through 2007, leading to a widening "wage-productivity gap" (Jacobson and Occhino 2012; Kotz 2015, 92). Research suggests a direct relationship between a rising profit rate and a falling labor share of income (Giovannoni 2014). Thus, it can be argued that the decrease in the labor income share has allowed corporations to enjoy a rising profit rate since the early 1990s (Teller-Elsberg et al. 2006, 152), leaving workers with a lower rate of return on their productivity, as evidenced by stagnant wages. If corporate profit rates have been buoyed by increasing productivity and stagnant wages, then women in general, and African American women in particular, have likely transferred a disproportionate share of their productive capacities to the private, for-profit sector given the "gender wage gap" and the "racial wage gap."

Though African American women have historically had the highest labor force participation rate among major female demographic groups in the US, they face both the gender wage gap and the racial wage gap—a reinforcing confluence that I term the "double gap." Finnoff and Jayadev (2006), as well as Seguino and Braunstein (2017), have shown that both the share of women in the labor force and the crowding of women into low-wage jobs are negatively correlated with the labor income share.

Building on prior research, this paper attempts to quantify the contribution of African American women, given the gender and racial wage gaps, to cost savings in the private, for-profit sector in the US. Note, however, that this paper does not assert a *direct* link between the double gap and the declining labor share of income. Instead, this research's main goal is to quantify the double gap. Since profit is equal to revenue less expenditures, the implication is that the double gap faced by African American women has been beneficial for corporate profits. **Note that the term "double gap" is not meant to suggest a simple *additive* relationship between the gender wage gap and the racial wage gap that African American women experience**. **Rather, it is meant to convey that Black women are subject to at least two types of discrimination in wages—racial and gender.** Indeed, some researchers (Paul et al. 2018) have posited that the size of the wage gap African American women face is due to a *multiplicative* relationship between the gender and racial wage gaps.

The implication is that the double gap faced by African American women has been beneficial for corporate profits.

The methodologies employed in this paper will focus on aggregating occupational wage differentials between African American women and similarly educated white non-Latinx men. The approach of comparing African American women's occupational wages to white non-Latinx men was chosen based on the assumption that white non-Latinx men, as a demographic group, possess the best wage-bargaining power with employers, even in the climate of a declining labor share of income. Thus, wages paid to white non-Latinx men in a given occupation represent the upper bound in wages that private, for-profit corporations can pay African American women.

Based on three different quantitative methodologies that are outlined later in this paper, **I estimate that approximately $50 billion of involuntarily forfeited wages provided by African American women represented significant cost-savings to the private, for-profit sector in the US in 2017**. How these cost savings are deployed is difficult to ascertain: Does it accrue to the corporation, is it passed through to shareholders, or is it experienced as pure loss to Black women? Some researchers have argued that white male workers directly benefit from the underpayment of African American women (see, for example, Cotton 1988). This research does not necessarily dispute that; indeed, corporations are free to share with white male employees the pecuniary benefits resulting from cost savings attributable to the double gap. Nevertheless, the answer to the question of "who benefits" is unclear and should be explored in future research.

The Gender Wage Gap

Research conducted on the gender wage gap dates back as early as the 19th century; in 1892, economist and suffragist Millicent Garrett Fawcett undertook research to determine why women were paid less than men. The gender wage gap in the US, which American media intermittently touts as indicative of employer-based discrimination against women, is typically a straightforward formulation comparing total average (or median) full-time wages of women to those of men. Using this kind of formulation, according to the Institute for Women's Policy Research (IWPR), in 2018 women's median annual earnings were 81.6 percent of men's (Hegewisch and Tesfaselassie 2019, 1). However, this simple formulation masks complex factors that play a role in the gender wage gap: occupational crowding based on sex, gender socialization, employer bias, historical exclusionary practices on the part of unions, the "motherhood penalty" (see Wilde, Batchelder, and Ellwood 2010) and human capital disparities.

Researchers looking at gender-based "occupational crowding" (see Bergmann 1971 for a seminal model she created to measure occupational crowding) typically argue that women are crowded into low-wage occupations and crowded out of high-wage occupations. Any comparison of full-time wages between women and men, therefore, will be affected by women's overrepresentation in low-wage occupations. But why are women crowded into low-wage work? Neoclassical economics suggests that overrepresentation and underrepresentation of groups in occupations are the result of choice; if women are overrepresented in so-called "pink collar" occupations, it is because they choose to acquire human capital sufficient for only those jobs. "Human Capital Theory" (HCT) was neoclassical economic theory's response to economist William Darity Jr.'s (1982) critique of Gary Becker's (1957) "preference (or taste) for discrimination" model: Darity Jr. argued that discriminatory behavior by employers cannot be sustained in *perfectly* competitive markets because enterprising, non-biased employers will seize upon arbitrage opportunities created by racist and/or sexist bosses by hiring marginalized group members at, initially, lower wages. Thus, if Black workers and women workers are overrepresented in low-wage occupations, HCT posits that this is the result of inferior human capital skills on the part of these groups, rather than the result of employer bias.

The predictions of neoclassical economic theory regarding persistent gender discrimination fall short. With regard to choice, the implication is that women have complete individual agency; this omits and obscures important early societal influences that impacted women's entrée into the American labor force. In a seminal paper, Heidi Hartmann (1976) argued that, far from possessing complete individual agency, women are socialized to pursue work

that is deemed gender-appropriate, and that the capitalist system of production inherited the patriarchal system of the family and wider society. With the rise of industrialization, the kinds of occupations women pursued outside of the home were characterized by work that society considered suitable for women. Similarly, Marilyn Power (1983) posited that the capitalist system of production eroded the amount of time women were needed to labor in the household, which freed them up to join the ranks of the "latent reserve army of labor." In the 1970s, these women would then enter the workforce in larger numbers initially as low-wage clerical workers, partly because women who were former housewives typically did not possess high-level skills.

With regard to economic theory's prediction that discriminatory behavior on the part of employers eventually disappears in competitive markets, Darity Jr. (2005) has countered this in his formulation of the subfield of "stratification economics." Two important tenets are relevant here: (1) Privileged groups have a *material interest* in maintaining sexism and racism because benefits accrue to advantaged groups as a whole (though not necessarily for all individual members of the privileged group at all times), and; (2) Discrimination *can and does* persist in market-based economies, and only policy intervention can correct that (though policy intervention can be difficult to accomplish if the privileged group dominates the political system). Darity Jr. noted (2005, p. 145) an example of effective policy intervention: The greatest decline in "measured" discrimination against African Americans occurred during the period 1960–1980, after the passage of the 1964 Civil Rights Act.

Earlier contours of women's status in the US workforce continue to influence which occupations they are overrepresented in today. Current research and data confirm that women are overrepresented in so-called "pink collar" occupations; the three occupations that employ the largest number of women in the US are administrative assistants/secretaries, teachers (excluding college professors, where men predominate), and nurses, and in each of these occupations, 80 percent of the workers are women (Hegewisch and Tesfaselassie 2019, 4).

African American Women and the Gender Wage Gap

African American women have held a uniquely entrenched yet peculiar place in the American labor force since the first enslaved African woman was brought to the American colonies. During the antebellum period, Black women provided involuntary, unpaid productive labor within and outside of white households; their reproductive abilities were taken from them, and they suffered both sexual violations and the enslavement of (and separation from) their children. After emancipation, Black women toiled, along with Black men, as sharecroppers in an economic system only marginally better than the slave system, with the critically important difference that after emancipation these women were "free." After the decline of the sharecropping system, and the subsequent "Great Migration" of Blacks in the beginning of the 20th century, African American women continued to labor as primarily agricultural or domestic workers—occupations excluded from President Franklin D. Roosevelt's New Deal policies establishing Social Security and other important benefits for workers.

Even after the tragic treatment of their productive and reproductive capabilities, African American women managed to maintain a strong, and long-standing, attachment to the American labor force, as evidenced by higher relative labor force participation rates compared to other major female demographic groups (most notably white women, as seen in Chart 1). As workers' rights have increasingly come under attack in recent decades, African American women—with their unique labor history—have been particularly vulnerable to globalized corporate attempts to cut costs and boost revenue. Given that the largest cost facing many for-profit corporations is payroll, corporate America has, arguably, benefited directly from wage disparities among workers—in particular, the wage gaps between men and women and between whites and Blacks.

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LABOR FORCE PARTICIPATION RATE OF WOMEN

20-60 YEARS OLD BY RACE IN THE U.S., 1969-2019

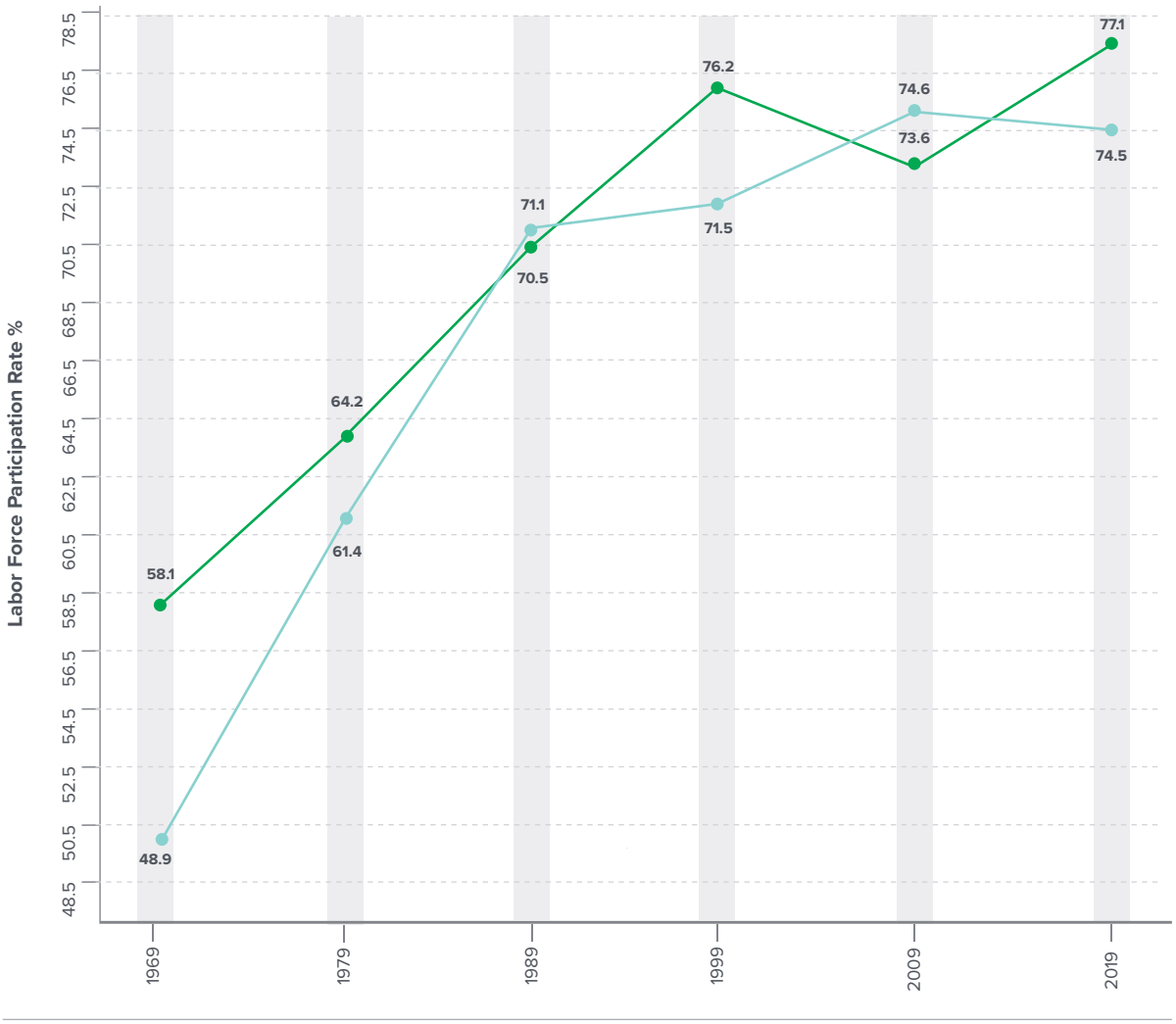

FIGURE 1 *Source: For the years 1969, 1979, 1989, and 1999 Chinhui Juhn and Simon Potter, 2006, "Changes in Labor Force Participation in the United States. "Journal of Economic Perspectives 20(3): 33; for the years 2009 and 2019 Bureau of Labor Statistics Current Population Survey.*

African American Women and the Racial Wage Gap

The overall gender wage gap takes into account all women working in the US irrespective of race, ethnicity, and other non-gender-related variables. When Black women are included in gender wage gap analyses, the typical approach is to compare Black women to white women to capture the effect of race, or to compare Black women to Black men to capture the effect of gender. The analysis herein, however, uses the atypical approach of comparing Black women directly to white men. Drilling down on the gender wage gap by race shows that the gap widens when the analysis is restricted to Black women; 2017 and 2018 estimates suggest that Black women working full-time earn 61 cents for every dollar that white men working full-time earn (National Partnership for Women and Families 2019 "Black Women and the Wage Gap" Fact Sheet).

In examining Black women's pay inequality vis-à-vis whites, including white men, analysis must include the roles of both gender and race. Neoclassical economic theory suggests that the racial wage gap is the result, primarily, of human capital deficiencies on the part of African Americans. However, empirical research—which controls for human capital and other variables that could contribute to differential wages by race—concludes that "unexplained residuals" in regression analyses are attributable to employer discrimination (Darity Jr. 1982; Darity Jr. and Mason 1998, Wilson and Rodgers III 2016). These conclusions are supported by audit studies which show that employers routinely discriminate against African American applicants (see Bertrand and Mullainathan 2004, Pager and Western 2005).

Black women, in line with women generally in the US workforce, are crowded into low-wage occupations, in part due to the kinds of occupations that were historically open to African American women. This, of course, has an influence on the magnitude of wage gaps African American women face in the workforce. Conrad (2005) noted that, prior to the passage of the 1964 Civil Rights Act—particularly Title VII, which prohibited race- and gender-based discrimination in employment—the occupation with the highest share of Black women in the US was private-household (i.e., domestic servants, 38 percent in 1960). Conrad pointed out that by 1980, the occupation with the highest share of Black women had changed from private-household to clerical (also see Albelda 1985 for more on this change). Indeed, in 2015, about one in five African American women worked in office and administrative support occupations, and an additional 17 percent worked in health care practitioner and health care support occupations, which include jobs such as nurses, nursing assistants, medical records technicians, home health aides, and medical assistants (Author analysis of American Community Survey data for 2017 obtained from IPUMS USA).

IS THERE A ROLE FOR NETWORKS IN THE DOUBLE GAP?

It has been estimated that about half of jobs in the US are filled through social contacts (Granovetter 1995). One potential explanation for this is that such a process for filling jobs can be beneficial for employers at no added human resource cost; Fernandez, Castilla, and Moore (2000) conceptualized the "richer pool" theory, which indicates that, by tapping its employees for referrals, employers obtain a better and larger pool of candidates for job openings. Employers can reap other benefits from hiring individuals who were referred to the firm by incumbent employees: Incumbents place their "reputation on the line," provide other information about candidates not easily assessed during the hiring process, and help acclimate referral hires to their new work environment (Elliot 2001; Fernandez, Castilla, and Moore 2000; Granovetter 2005). In addition, other research posits that African Americans tend to rely on formal routes in employment (Holzer 1987, Elliot 2001). Holzer (1987) argues that Black applicants are more likely to rely on these formal routes because it is harder for ascriptive characteristics to play an outsize role in hiring, given the professionalization of the human resources occupation. Importantly, other researchers (Stainback 2008) have pointed out that networks can serve to maintain racially (or gender, for that matter) segregated labor markets since job information is shared through homogeneous networks, leading employers to draw from homogeneous pools. The point here is that, given the long-standing exclusions of all women and Black men from equal competition in the American labor market, white male networks in the workforce have a potent and historical reach. Presumably, not only is job vacancy information shared through homogenous white male networks, but salary information is as well.

Data Sets

The main data set to be used is the 2017 American Community Survey (ACS). The ACS will be used to determine occupational and wage distributions of African American women and white non-Latinx[1] men, as well as the estimated number of African American women employed in major occupational categories. The ACS data set has the important advantage of a large sample size (over 3 million observations) compared to other commonly used data sets for labor market estimates; sample size is of importance to this research since highly specified demographic constraints will be applied in data mining.

[1] While the ACS uses the term "Hispanic," this paper uses "Latinx," a gender-neutral neologism that refers to people of Latin American descent.

Data Set Restrictions and Filters

Each of the 22 major occupational groups will be examined for wage and occupation distributions of African American women and white non-Latinx men. The restrictions of the 2017 ACS sample will be as follows:

1. Only employed persons working at least 35 hours per week will be included.
2. Only employed persons who reported working at least 48 weeks in the prior year will be included.
3. Persons working at any level in the government sector, or who report receiving wages/salaries from the public sector, will be excluded.
4. Persons reporting wages or salaries from nonprofit organizations will be excluded.
5. Self-employed persons will be excluded.
6. Only non-Latinx persons will be included.
7. Only US citizens or residents will be included.

First Methodology

The first methodology that will be used to aggregate wage differentials between African American women and similarly educated white non-Latinx men in the US workforce is designed to be understood by laypersons as well as economists. The methodology will seem similar to how most laypersons understand the calculations of the gender wage gap and racial wage gap, but it will be more nuanced due to an occupational breakdown of the aggregate total. Thus, as a more accessible approach for broader audiences, the first methodology will not employ common regression techniques. However, in order to address the critique that this approach only controls for educational differences as an explanatory variable contributing to wage differentials between African American women and white non-Latinx men, a secondary approach using regression analysis will be employed; it controls for a host of other variables that may contribute to the double-gap (see the section "Second Methodology" below).

Because of limitations in the data set, specifically the unavailability of a "length of work experience" variable from the data source (IPUMS), only African American women in the upper half—50th to 99th percentile—of the educational attainment distribution in each

occupation will be included in the analysis. In this way, I hope to capture wages of the most highly educated African American women in each occupation. Once the 50th and 99th percentile educational attainment levels of African American women in each major occupation are determined, these educational attainment levels will then become the upper and lower bounds for educational attainment for white non-Latinx male workers in matching occupations; thereafter, median annual wages will be calculated for both demographic groups in j_i occupation. Thus, if the 50th and 99th percentile educational attainment levels of African American female workers in j_1 occupation are an associate's degree and a master's degree, respectively, then the median annual wage of all white non-Latinx men in j_1 occupation who possess an associate's degree or greater, not exceeding a master's degree, will be determined and compared to the analogous median annual wage for j_1 occupation for African American women holding an associate's degree or greater, not exceeding a master's degree. Assuming that the median annual wage for white non-Latinx men in each major occupation will exceed that of similarly educated African American women in the same occupation (when data are available for both demographics), the differential in median annual wages between African American women and white non-Latinx men in j_i occupation will be multiplied by the estimated number of African American women employed in j_i occupation (by applying the appropriate weights to the ACS data) in order to derive an overall estimate of non-remunerated productivity, as expressed by wages, borne by African American women in each major occupational category. This estimate will be an approximate indication of the magnitude of productivity, again as expressed as wages, that African American women involuntarily forfeit annually—which is absorbed by, and benefits, the private, for-profit sector in the US.

An equation to represent the aggregation of wage differentials by occupation between similarly educated African American women and white non-Latinx men for a given year might be expressed as follows:

$$\sum BWij\ (pWMij - pBWij)$$

where BW_{ij} indicates all African American women who possess the i^{th} educational attainment in the j^{th} occupation, pWM_{ij} is the median annual wage for all white non-Latinx men who possess the i^{th} educational attainment level in the j^{th} occupation, and pBW_{ij} is the median annual wage for all African American women who possess the ith educational attainment level in the j^{th} occupation. Note that the i^{th} educational attainment level for the j^{th} occupation represents a range (e.g., bachelor's degree to master's degree) rather than just a singular level (e.g., bachelor's degree only). Data results from this approach appear in Table 1. All tables can be found in the appendix.

POTENTIAL CRITIQUES OF FIRST METHODOLOGY

Three potential critiques of the first methodological approach in this research are that (1) some of the occupational wage differential identified between African American women and white non-Latinx men might be attributed to more years on the job for the men compared to the women; (2) some of the wage differentials identified could be due to white non-Latinx male overrepresentation, and African American female underrepresentation, in higher-paying sub-occupations; and (3) some of the wage differentials may be due to differences in worker characteristics other than educational attainment. In order to address each of these critiques, this research will employ a second and third methodology to aggregate the double gap, as follows.

Second Methodology

The second methodology to aggregate the double gap will employ regression analysis that will allow me to control for several other variables besides educational attainment, which likely contribute to both the racial and gender wage gaps. The same data restrictions applied in the first methodology will also be applied in this approach.

The regression model used, "Model 1," appears as follows:

$$\textbf{Occupational Earnings} = \alpha + \beta 1\textbf{education} + \beta 2\textbf{age} + \beta 3\textbf{maritalstatus} + \beta 4\textbf{numberchildren} + \beta 5\textbf{numberchildren<5} + \beta 6\textbf{region} + \beta 7\textbf{metroarea} + \beta 8\textbf{black} + \beta 9\textbf{female} + \beta 10(\textbf{black} * \textbf{female}) + \varepsilon$$

where "numberchildren" is the number of children the worker has, "numberchildren<5" is the number of (small) children under the age of five the worker has, "region" is the region the worker lives in, "metroarea" indicates whether the worker lives in a central city, outside the central city in a metro area, or does not live in a metro area, "black" is a dummy variable for race, "female" is a dummy variable for gender, and (black * female) is an interaction variable of the two dummy variables in the model.

To determine the magnitude of the double gap for each major occupational category, the coefficients for both dummy variables and the interaction variable are summed. Note that the interpretation of the interaction variable coefficient is that it represents the change to the sum of the dummy variables to isolate the wage gap faced specifically by African American women in each major occupational category. All coefficients for both dummy variables and the interaction variable are statistically significant at the 1 percent level for

each occupation, and R squareds range from .078 (8 percent) to .289 (29 percent) for Model 1's result for each occupation. Data results from this approach appear in Table 2.

Third Methodology

Thomas Masterson, research scholar and director of applied micromodeling at the Levy Economics Institute of Bard College, was enlisted by the author to conduct a third analysis of the aggregate wage differential between African American women within the 50th and 99th educational attainment percentiles in each major occupational category and similarly educated white non-Latinx men, using the same sample restrictions. His findings are in Table 3. Below is the methodology he used:

> The data used for the analysis is the 2017 American Community Survey IPUMS file (Ruggles et al. 2019). The complete file contains information for 3,190,040 individuals. Imposing the limitations described above reduces the number of observations to 709,832 observations, representing 77,735,213 individuals. This pool was used to determine the 50th and 99th percentile educational attainment using the detailed education variable (*educd*) supplied in the dataset for each of the major and minor occupational categories. For the remainder of the analysis, only white men (289,138 observations representing 28,504,062 individuals) and Black women (29,437 observations representing 4,266,065 individuals) in the sample are used. First, I calculated the 50th and 99th percentile for each category of major occupational groups. Next, using those ranges I identified the white non-Hispanic men and African American women working in each of those sets of occupations. I multiplied the gap in median earnings between white non-Hispanic men and African American women within the educational range by the number of African American women employed and within the educational range by major occupational category. Finally, I moved on to perform a hot-decking procedure to estimate what African American women would actually earn if they were a white non-Hispanic man with similar characteristics.
> I performed the hot-decking simulation using the affinity score method (Cranmer and Gill 2013). For each African American woman (recipient) I compared a set of characteristics with all of the white non-Hispanic men also working in the same occupational category. For each comparison variable a match added an amount to the affinity score between the recipient and the potential donor. I weighted matching variables differently, according to the importance of each for a good match. The variables used, in descending order by the weights assigned for the match, were:

industry of employment, detailed educational attainment, marital status, age, relation to household head, indicator for living in a metropolitan area, census region, number of children, and number of children under 5. The detailed educational variable and age were counted as a match if the potential donor's value was within plus or minus one half of a standard deviation (calculated for each occupational group) of the recipient's value. For all other variables, only exact matches were counted. Once the affinity scores were calculated for all potential donors all but those with the highest affinity score were discarded. From the remaining pool of potential donors, five matches were randomly chosen with replacement. The annual earnings from each match were then assigned to the recipient. This process was repeated for all the recipients within both major and minor occupational groups. With the resulting imputed annual earnings, I repeated the calculation of contribution used on the actual earnings gaps.

Data results from this approach appear in Table 3.

Results for the Three Methodologies

Table 1 contains results using the first methodology, and shows median annual wages by occupation for: (1) African American women working full-time who fall between the 50th and 99th percentile educational attainment levels of all full-time African American women in the occupation; (2) white non-Latinx men of the same educational attainment levels in the same occupations, and; (3) estimates of the cost savings achieved by private, for-profit employers in each occupation due to the unknown, and thus involuntary, forfeiture of equal pay borne by African American women. As noted in the "Methodology" section, due to limitations in the data set, specifically the lack of a variable for length of work experience, analyses of African American women were restricted to those in the upper half of the educational attainment percentile—the 50th to 99th—to capture the most-educated African American women in each occupation. Once the higher and lower educational attainment bounds were determined for African American women in each occupation, these educational attainment parameters were applied to white non-Latinx men in the same occupation, and medians were determined for both groups in each occupation. The wage differential for each occupation was multiplied by the estimated number of African American women within the 50th to 99th percentile in each occupation using ACS data.

As indicated in Table 1, results of the first methodology indicate that the aggregate wage differential between African American women and similarly educated white non-Latinx

men in major occupational categories in the US in 2017 was $50.9 billion. Note that this figure only reflects wages, and excludes benefits normally associated with full-time employment (such as health insurance and retirement plans).

Even though the largest share of employed African American women work in "office and administrative" occupations, this occupation is not where African American women involuntarily forfeited the largest amount in unpaid wages; this dubious distinction belongs to "sales" occupations, where African American women are underpaid to the tune of an estimated $9.1 billion. Previous research (Pager and Western 2005; Holder 2017, 53), along with a 2018 lawsuit against Saks Fifth Avenue in New York City (Ortiz 2018), underscores the difficulties that African Americans face in sales jobs. In their audit study, Pager and Western (2005) found that among equally qualified white and Black male job applicants for sales positions, the latter group was regularly "channeled down" into less visible jobs. In addition, African American women in the sales occupation are crowded into "retail sales" jobs, while their similarly educated white non-Latinx male counterparts predominantly hold "sales representative" jobs, which often offer commission opportunities not afforded to retail sales workers. The occupation with the lowest wage gap was "farming, fishing, and forestry," which also has the lowest number of African American female workers of all major occupational groups.

Table 2 contains results from the second methodology used, based on Model 1, and shows that African American women involuntarily forfeited an estimated $58.1 billion in wages. While the largest earnings gap was in the sales occupation for the first methodology, the largest gap for this methodology is in the "health practitioners" occupation. Using Model 1, the estimated annual wage gap for this occupation was 50 percent higher ($49,683) compared to the analogous gap in the first methodology ($33,000). The large aggregate wage gap in the health practitioners occupation may be attributable in part to the overrepresentation of African American women in the nursing sub-occupation, a mid-wage job predominantly consisting of female workers, but one in which men earn more than women (US Department of Labor, Bureau of Labor Statistics, Table "Median Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex, 2019"). In addition, research from the American Association of University Women (AAUW) and other sources (see, for example, Miller and Vagins 2018, Dickler 2018, and Dishman 2017) suggest that the largest absolute pay gap between men and women exists in the "physician and surgeons" sub-occupational category.

As in the first methodology, the smallest aggregate wage gap according to the second method is in the farming, fishing, and forestry occupation.

Table 3 contains results from the third methodology and shows both the estimated

aggregate *mean* ($49.3 billion) and aggregate *median* ($25.6 billion) wage gap between African American women and similarly educated white non-Latinx men at the *minor* occupational level. This approach addresses the potential critique that a portion of the wage gap between African American women and white non-Latinx men might be explained by Black women's overrepresentation in, and white men's underrepresentation in, lower-wage sub-occupations in each major occupational category. In addition, as in the second methodology, several other potential explanatory variables (such as age, marital status, number of children, region, etc.) are controlled for along with educational attainment. Note that this methodology approximates the difference between what African American women *actually* earned in minor-level occupations versus what this group *would've* earned if they had been white non-Latinx men with the same characteristics as the ones they (African American women in the occupation) already possessed. As can be seen in Table 3, the largest aggregate gap in annual mean wages is in the "health diagnosing and treating practitioners" sub-occupational field, while the largest aggregate gap in annual median wages is in "other management occupations."

Conclusion

How the private, for-profit sector deploys cost savings due to gender and wage gaps experienced by African American women in the workforce cannot be ascertained with certainty, although it has been argued (see end of "Introduction") that the involuntary losses in wages to African American women as a result of the double gap redound in direct gains to white male workers. Nevertheless, such corporate savings are significant and recurring—and are a significant, recurring loss to working African American women every year. As the American economy currently grapples with the onslaught of the coronavirus, the main work-related challenges currently confronting Black women are reductions in work hours or job loss. But if and when the US economy recovers, African American women will once again face the double gap.

In this research, I compare similarly qualified African American female and white non-Latinx male workers within major occupational categories. **Based on the three quantitative methodologies employed in this research, I estimate that the aggregate double gap in wages borne by African American women was approximately $50 billion in 2017.**

Attributing that gap to African American women's inability to successfully negotiate fair salaries is faulty thinking that:

1. Overlooks research showing that when Black workers and applicants attempt to assertively bargain for fair salaries, they are perceived as aggressive, and risk either losing employment offers or being offered lower salaries for violating employer's expectations, when compared to their white male counterparts engaging in the same behavior (see Hernandez et al. 2019);
2. Disregards inequitable outcomes based on gender as a result of requesting previous salary histories from job applicants (in the 2018 Ninth Circuit Court of Appeals case *Rizo v. Yovino*, which was subsequently vacated by the US Supreme Court on a technicality, this practice was found to be discriminatory against women);
3. Ignores research showing that even when women engage in the same salary negotiating strategies as men, their returns are lower (see Gerhart and Rynes 1991; Crothers et al. 2010), and;
4. Neglects research that sheds light on the role of networks in inequitable labor market outcomes for African Americans and women.

The findings from this research suggest that African American women's labor power is largely undercompensated by employers, with tangible implications for income and asset-building in the Black community.

The federal Equal Pay Act of 1963 expressly prohibits unequal pay for equal work based on race or gender. Some states have banned "pay secrecy" practices on the part of employers, which either explicitly or implicitly disallow employees from sharing pay information (in violation of the Fair Labor Standards Act of 1938, as economist Marlene Kim [2015] has pointed out). Kim (2015) has found that in states where pay secrecy practices are banned, the gender wage gap is lower among highly educated women. However, most private sector employers are not required to publicize current employees' wages and salaries, and compensation trajectories are heavily influenced by pay negotiation before prospective employees are onboarded, when job candidates don't have extensive access to current employees to discuss prevailing wages.

The findings from this research suggest that African American women's labor power is largely undercompensated by employers, with tangible implications for income and asset-building in the Black community—as well as significant cost savings, in the tens of billions of dollars annually, for the private, for-profit sector in the US. While policy proposals to address the double gap were outside the primary scope of this paper, **the results of this research suggest that during salary and promotion negotiations, Black women should regularly ask for higher compensation than they assume, or that they are told, their labor is worth.** The issue of reparations for African Americans has recently regained traction in American political discourse. If not addressed and remedied, the double gap could arguably form the substance of calls for reparations for Black women in the future.

Appendix: Tables

TABLE 1

ESTIMATED ANNUAL WAGE GAPS BETWEEN AFRICAN AMERICAN WOMEN IN 50TH-99TH EDUCATION ATTAINMENT PERCENTILE IN MAJOR OCCUPATIONAL GROUPS & SIMILARLY EDUCATED WHITE NON-HISPANIC MEN

Major Occupational Catergory	Median Annual FT Wage of White non-Hispanic Men with Similar Education as African American Women between 50th and 99th Educational Attainment of All FT African American Women in Occupation	Median Annual FT Wage of African American Women Who Possess Between 50th and 99th Percentile Educational Attainment of All FT African American Women in Occupation	Difference (Wage of White non-Hispanic Men minus Wage of African American Women	Number of FT African American Women in Occupation within 50th and 99th Percentile Educational Level of All FT African American Women in Occupation	Aggregate Difference
Management	$110,000	$66,000	$44,000	176,308	$7,757,552,000
Business Operations Specialists	$85,000	$59,000	$26,000	73,006	$1,898,156,000
Financial Specialists	$92,000	$60,000	$32,000	65,152	$2,084,864,000
Computer & Mathematical	$99,000	$75,000	$24,000	42,034	$1,008,816,000
Architecture & Engineering	$93,000	$70,000	$23,000	12,226	$281,198,000
Life, Physical & Social Science	$84,000	$58,000	$26,000	12,345	$320,970,000
Community & Social Services	$50,000	$45,000	$5,000	45,209	$226,045,000
Legal	$150,000	$70,000	$80,000	17,419	$1,393,520,000
Education, Training & Library	$58,000	$40,000	$18,000	81,552	$1,467,936,000
Arts, Design, Entertainment, Sports & Media	$65,000	$48,000	$17,000	21,551	$366,367,000
Healthcare Practicioners & Technical	$93,000	$60,000	$33,000	245,839	$8,112,687,000
Healthcare Support	$35,000	$28,000	$7,000	183,894	$1,287,258,000
Protective Service	$38,000	$27,000	$11,000	33,912	$373,032,000
Food Prep & Serving	$25,000	$20,000	$5,000	169,239	$846,195,000
Building & Grounds Cleaning & Maintenance	$35,000	$21,900	$13,100	99,336	$1,301,301,600
Personal Care & Service	$40,000	$24,000	$16,000	94,254	$1,508,064,000
Sales & Related	$70,000	$32,000	$38,000	240,201	$9,127,638,000
Office & Administrative Support	$46,000	$35,000	$11,000	538,849	$5,927,339,000
Farming, Fishing & Forestry	$32,000	$21,150	$10,850	2,897	$31,432,450
Construction & Extraction	$50,000	$38,000	$12,000	6,511	$78,132,000
Installation & Repair	$54,000	$48,500	$5,500	11,240	$61,820,000
Production	$45,800	$30,000	$15,800	250,017	$3,950,268,600
Transportation & Material Moving	$45,000	$28,000	$17,000	88,293	$1,500,981,000
Total					**$50,911,572,650**

TABLE 1 *Source: For wage data author analysis of American Community Survey (ACS) data for 2017 obtained from Steven Ruggles, Sarah Flood, Ronald Goekin, Josiah Glover, Erin Meyer, Jose Pacas and Matthew Sabek. IPUMS USA. Version 9.0 (dataset). Minneanapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0.*

TABLE 2

ESTIMATED ANNUAL WAGE GAPS BETWEEN AFRICAN AMERICAN WOMEN IN 50TH-99TH EDUCATIONAL PERCENTILE IN MAJOR OCCUPATIONAL GROUPS & SIMILARLY EDUCATED WHITE NON-HISPANIC MEN 2017

Major Occupational Category	Model 1's Annual Wage Difference between FT African American Women within 50th to 99th Percentile Educational Attainment Level and Similarly Educated White non-Hispanic Men	Number of FT African American Women in Occupation within 50th & 99th Percentile Educational Level of All FT African American Women	Aggregate Difference
Management	$43,162	176,308	$7,609,728,320
Business Operations Specialists	$30,032	73,006	$2,192,535,904
Financial Specialists	$50,581	66,152	$3,295,428,554
Computer & Mathematical	$28,099	42,034	$1,181,098,234
Architecture & Engineering	$17,278	12,226	$211,245,718
Life, Physical & Social Science	$21,503	12,345	$265,449,720
Community & Social Services	$5,768	45,209	$260,786,760
Legal	$44,911	17,419	$782,302,967
Education, Training & Library	$20,612	81,552	$1,680,936,776
Arts, Design, Entertainment, Sports & Media	$17,439	21,551	$375,817,976
Healthcare Practicioners & Technical	$49,683	245,839	$12,214,033,787
Healthcare Support	$14,074	183,894	$2,588,092,894
Protective Service	$7,275	33,912	$246,705,731
Food Prep & Serving	$7,866	169,239	$1,331,235,666
Building & Grounds Cleaning & Maintenance	$13,651	99,336	$1,356,003,948
Personal Care & Service	$12,445	94,254	$1,172,974,064
Sales & Related	$29,557	140,201	$7,099,647,379
Office & Administrative Support	$16,200	538,849	$8,729,111,318
Farming, Fishing & Forestry	$14,046	2,897	$40,690,393
Construction & Extraction	$14,481	6,511	$94,283,577
Installation & Repair	$9,060	11,240	$101,839,008
Production	$16,256	250,017	$4,064,261,351
Transportation & Material Moving	$13,983	88,293	$1,234,613,380
Total			**$58,128,823,427**

TABLE 2 *Source: For wage data author analysis of American Community Survey (ACS) data for 2017 obtained from Steven Ruggles, Sarah Flood, Ronald Goekin, Josiah Glover, Erin Meyer, Jose Pacas and Matthew Sabek. IPUMS USA. Version 9.0 (dataset). Minneanapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0.*

TABLE 3

MINOR OCCUPATION	MEAN EARNINGS				MEDIAN EARNINGS			
	Reassigned	Actual	Gap	Contribution	Reassigned	Actual	Gap	Contribution
Top Executives	$171.666	$116,866	$54,800	$580,662,495	$117,800	$65,000	$52,800	$559,468,800
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	$131,666	$92,981	$38,685	$492,726,578	$106,000	$72,000	$34,000	$433,058,000
Operations Specialties Managers	$145,064	$83,895	$61,169	$2,731,870,853	$108,200	$75,000	$33,200	$1,482,745,200
Other Management Occupations	$111,646	$73,750	$37,896	$3,823,357,668	$86,000	$60,000	$26,000	$2,623,166,000
Business Operations Specialists	$97,950	$65,421	$32,529	$2,401,692,172	$75,000	$56,000	$19,000	$1,402,827,000
Financial Specialists	$115,102	$67,081	$48,021	$3,139,960,962	$82,000	$59,000	$23,000	$1,503,901,000
Computer Occupations	$95,695	77,306	18,389	$749,957,649	$88,200	75,000	13,200	$538,335,600
Mathematical Science Occupations	$73,950	70,073	3,877	$5,668,250	$77,400	55,000	22,400	$32,748,800
Architects, Surveyors, and Cartographers	$107,767	64,540	43,226	$24,812,000	$66,200	65,000	1,200	$688,800
Engineers	$95,676	$83,279	$12,397	$126,696,001	$86,400	$75,000	$11,400	$116,508,000
Drafters, Engineering Technicians, and Mapping Technicians	$50,557	$43,769	$6,788	$41,264,927	$52,000	$40,000	$12,000	$72,948,000
Life Scientists	$133,340	$76,696	$56,644	$114,463,753	$128,000	$77,000	$51,000	$102,969,000
Physical Scientists	$83,820	$65,865	$17,955	$64,727,025	$70,000	$53,000	$17,000	$61,285,000
Social Scientists and Related Workers	$80,965	$100,444	$(19,479)	$(32,782,898)	$75,000	$75,000	$ -	$ -
Life, Physical, and Special Science Technicians	$64,502	$43,707	$20,795	$83,596,700	$58,400	$34,200	$24,200	$97,284,000
Counselors, Social Workers, and Other Community/Social Service Specialists	$55,247	$47,301	$7,946	$359,805,676	$50,400	$45,000	$5,400	$244,528,200
Religious Workers	$65,179	$48,525	$16,654	$6,978,000	$64,000	$50,000	$14,000	$5,866,000
Lawyers, Judges, and Related Workers	$183,231	$157,966	$25,265	$191,102,418	$140,500	$100,000	$40,500	$306,342,000
Legal Support Workers	$70,124	$60,980	$9,144	$114,034,200	$65,400	$47,000	$18,400	$229,466,400
Postsecondary Teachers	$78,406	$60,016	$18,391	$166,436,070	$60,000	$56,000	$4,000	$36,200,000
Preschool, Primary, Secondary, and Special Education School Teachers	$48,156	$39,568	$8,588	$458,205,486	$45,200	$36,000	$9,200	$490,856,800
Other Teachers and Instructors	$69,404	$47,283	$22,121	$239,013,256	$61,200	$45,000	$16,200	$175,041,000
Librarians, Curators, and Archivists	$59,470	$52,207	$7,263	$10,683,849	$66,200	$60,000	$6,200	$9,120,200
Other Education, Training, and Library Occupations	$39,737	$26,706	$13,031	$155,471,346	$34,800	$22,700	$12,100	$144,365,100
Art and Design Workers	$70,978	$47,036	$23,942	$150,162,901	$61,400	$50,000	$11,400	$71,500,800
Entertainers and Performers, Sports and Related Workers	$73,181	$50,396	$22,785	$116,135,599	$61,400	$42,000	$19,400	$98,881,800
Media and Communication Workers	$76,978	$62,9125	$14,053	$144,084,199	$57,400	$58,000	(600)	(6,151,800)
Media and Communication Equipment Workers	$57,682	$34,311	$23,371	$22,062,249	$50,000	$33,000	$17,000	$16,048,000
Health Diagnosing and Treating Practicioners	$147,513	$83,758	$63,755	$8,220,233,777	$88,800	$70,000	$18,800	$2,423,978,000
Health Technologists and Technicians	$50,450	$43,064	$7,386	$997,071,930	$41,560	$39,700	$1,860	$251,100,000
Other Healthcare Practicioners and Technical Occupations	$86,431	$61,000	$25,431	$89,287,700	$67,000	$75,000	(8,000)	(28,088,0000)
Occupation Therapy and Physical Therapist Assistants and Aides	$71,951	$44,250	$27,700	$41,079,750	$72,800	$45,000	$27,800	$41,227,400

TABLE 3 (CONTINUED)

Other Healthcare Support Occupations	$35,676	$31,047	$4,629	$853,056,793	$26,120	$28,000	(1,880)	(346,476,480)
Supervisors of Protective Service Workers	$59,538	$36,753	$22,785	$25,405,500	$47,400	$30,600	$16,800	$18,732,000
Fire Fighting and Prevention Workers	$39.596	$49,736	(10,140)	(2,301,750)	$41,000	$20,000	$21,000	$4,767,000
Law Enforcement Workers	$48,191	$39,632	$8,558	$8,310,000	$60,000	$40,000	$20,000	$19,420,000
Other Protective Service Workers	$36,690	$34,685	$2,005	$63,931,352	$29,600	$26,000	$3,600	$114,771,600
Cooks and Food Preparation Workers	$29,722	$23,887	$5,836	$582,777,231	$25,200	$21,000	$4,200	$419,437,200
Food and Beverage Serving Workers	$28,954	$22,352	$6,601	$241,363,113	$25,400	$20,000	$5,400	$197,440,200
Other Food Preparation and Serving Related Workers	$21,986	$22,385	(398)	(4,176,354)	$18,400	$19,000	(600)	(6,289,800)
Building Cleaning and Pest Control Workers	$32,644	$23,720	$8,924	$912,802,105	$27,180	$21,500	$5,680	$580,961,760
Supervisors of Personal Care and Service Workers	$59,407	$37,949	$21,458	$41,778,901	$53,400	$38,000	$15,400	$29,983,800
Animal Care and Service Workers	$29,233	$44,490	(15,257)	(4,363,500)	$31,600	$30,000	$1,600	$457,600
Entertainment Attendants and Related Workers	$39,567	$28,940	$10,627	$61,723,475	$37,400	$28,000	$9,400	$54,595,200
Funeral Service Workers	$67,981	$43,237	$24,744	$14,277,000	$65,000	$68,000	(3,000)	(1,731,000)
Personal Appearance Workers	$41,573	$29,537	$12,036	$148,173,768	$37,400	$25,000	$12,400	$152,656,400
Other Personal Care and Service Workers	$36,052	$26,802	$9,250	$679,289,609	$28,000	$23,450	$4,550	$334,133,800
Retail Sales Workers	$51,080	$27,834	$23,246	$2,502,561,695	$30,000	$24,000	$6,000	$645,930,000
Sales Representatives, Services	$100,662	$58,687	$41,975	$1,391,638,454	$68,000	$42,000	$26,000	$862,004,000
Other Sales and Related Workers	$72,950	$44,034	$28,916	$3,078,498,438	$50,000	$35,000	$15,000	$1,596,960,000
Communications Equipment Operators	$39,251	$30,162	$9,089	$26,868,098	$28,800	$25,000	$3,800	$11,232,800
Financial Clerks	$65,801	$39,303	$26,498	$2,331,717,667	$44,380	$35,000	$9,380	$825,411,860
Information and Record Clerks	$48,504	$34,405	$14,099	$2,811,414,743	$36,920	$31,000	$5,920	$1,180,471,680
Material Recording, Scheduling, Dispatching, and Distributing Workers	$39,177	$33,178	$6,000	$350,633,746	$30,400	$30,000	$400	$23,377,200
Other Office and Administrative Support Workers	$61,306	$41,985	$19,321	$3,967,600,055	$49,600	$37,000	$12,600	$2,587,447,800
Agricultural Workers	$22,005	$22,410	(405)	(1,098,126)	$21,360	$20,000	$1,360	$3,686,960
Forest, Conservation, and Logging Workers	$50,000	$34,000	$16,000	$2,976,000	$50,000	$34,000	$16,000	$2,976,000
Construction Trades Workers	$63,894	$57,365	$6,528	$32,902,173	$76,600	$50,000	$26,600	$134,064,000
Other Construction and Related Workers	$55,049	$40,163	$14,886	$22,343,800	$53,600	$31,600	$22,000	$33,022,000
Extraction Workers	$43,750	$15,000	$28,750	$948,750	$42,000	$15,000	$27,000	$891,000
Electrical and Electronic Equipment Mechanics, Installers, and Repairers	$60,722	$69,454	(8,732)	(34,299,398)	$54,400	$57,000	(2,600)	$10,212,800
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	$36,804	$41,049	(4,244)	(6,582,650)	$32,400	$36,600	(4,200)	(6,514,200)
Other Installation, Maintenance, and Repair Occupations	$50,003	$48,883	$1,120	$4,645,399	$49,000	$35,000	$14,000	$59,086,000

TABLE 3 (CONTINUED)

Assemblers and Fabricators	$41,418	$34,442	$6,976	$435,220,321	$35,000	$30,500	$4,500	$280,741,500
Food Processing Workers	$36,840	$27,333	$9,507	$230,216,306	$34,600	$24,000	$10,600	$256,689,600
Metal Workers and Plastic Workers	$48,461	$33,516	$14,945	$383,090,569	$44,800	$32,000	$12,800	$328,115,200
Textile, Apparel, and Furnishings Workers	$31,371	$25,453	$5,918	$133,275,917	$26,000	$24,000	$2,000	$45,044,000
Woodworkers	$36,527	$29,503	$7,024	$5,127,600	$39,400	$22,000	$17,400	$12,702,000
Plant and System Operators	$79,015	$117,541	(38,525)	(36,136,499)	$86,000	$109,000	(23,000)	(21,574,000)
Other Production Occupations	$52,442	$37,061	$15,380	$1,048,277,902	$44,600	$31,000	$13,600	$926,935,200
Supervisors of Transportation and Material Moving Workers	$75,898	$50,442	$25,456	$87,849,550	$45,480	$48,000	(2,520)	(8,696,520)
Air Transportation Workers	$115,207	$48,413	$66,795	$260,499,221	$76,200	$40,000	$36,200	$141,180,000
Motor Vehicle Operators	$45,789	$38,583	$7,206	$221,617,731	$38,320	$32,000	$6,320	$194,371,600
Rail Transportation Workers	$78,150	$46,438	$31,712	$13,477,750	$77,000	$36,000	$41,000	$17,425,000
Water Transportation Workers	$53,551	$82,085	(28,535)	(12,355,500)	$35,000	$110,000	(75,000)	(32,475,000)
Other Transportation Workers	$43,000	$29,549	$13,804	$46,065,400	$33,200	$27,000	$6,200	$20,689,400
Material Moving Workers	$36,220	$29,273	$6,947	$533,605,292	$30,000	$25,000	$5,000	$384,050,000
Total				**$49,285,070,185**				**$25,605,106,660**

TABLE 3 *Source: For wage data author analysis of American Community Survey (ACS) data for 2017 obtained from Steven Ruggles, Sarah Flood, Ronald Goekin, Josiah Glover, Erin Meyer, Jose Pacas and Matthew Sabek. IPUMS USA. Version 9.0 (dataset). Minneanapolis, MN: IPUMS, 2019. https://doi.org/10.18128/D010.V9.0.*

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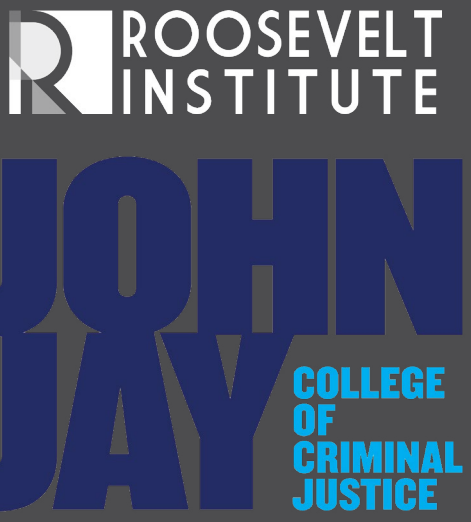
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