

## **A comparison of black-white occupational income equity in public and private employment**

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### **ABSTRACT**

Although the wage gap between White and Black employees has narrowed substantially from about 50% in the late 1960's to about 17-23% (depending on sector of employment) at the time of this study, a considerable differential between the incomes of White and Black employees continues to exist. This study compares the median income of Black and White employees in nine standard occupations to determine the extent of pay equity in public and private employment. Results from the analysis of a sample estimate of approximately two and one-half million people taken during the period of 2009 to 2013 by the US Census Bureau's American Community Survey shows a large pay inequity between Black and White employees. A comparison of median income of Black employees and White employees among private and public sectors reveals that the Federal government pays Blacks more than White employees in the private sector and state and local governments; however, they pay Blacks less than Whites within the federal government. Although substantial income inequality was found within the nine different job categories and four employing sectors, those differences cannot be solely attributed to occupational choice, occupational skills, employment sector choice, or racial discrimination.

Keywords: income inequality, racial discrimination, income equity, black-white income, income differences

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## INTRODUCTION

With the passage of the Civil Rights Act of 1964, employers were forbidden from discriminating on the basis of race in employment, promotion, termination and compensation. Shortly after the passage of this law, the differential in weekly wages between Black and White males narrowed substantially. The weekly wage gap between Black and White male employees fell from 50% in 1967 to 30% in 1974, remained at that level through the end of the 1980s, and again declined in the 1990s, ending the decade at 27% (Couch and Daly, 2002). Although much of the policy debate about the effectiveness of anti-discrimination laws has centered on how relevant a factor discrimination is in explaining racial wage differences (Coleman, 2003), research on the racial equality of earnings, however, has generally been directed toward four basic causes of wage inequality: occupational distribution disparities, occupational skill deficiencies, choice of employers, and racial discrimination.

### **Income Inequality Due to Occupational Distribution Disparities**

Income inequalities caused by occupational distribution disparities occurs when Black employees are more prominent in lower paying jobs than in higher paying jobs. The importance that occupations have upon shaping employment experiences is well established (Grusky and Sorensen, 1998 and Kohn, 1997) and the relationship between occupations and earnings is strong (Featherman and Houser, 1978 and Stolzenberg, 1975). Thus, occupational distribution disparity research focuses on the importance that occupation has upon earnings (Hout, 1984). This research reveals that, historically, a disproportionate representation of Blacks had occurred in occupations of low status, skill, and earnings (Braddock and McPartland, 1987). While this practice was quite prevalent prior to the passage of the Civil Rights Act, by the 1990s an unprecedented number of Black men have been employed in high-level professional, managerial, and technical positions resulting in a significant decline in occupational distribution disparity (Farley, 1996). Despite these gains, earnings by Black males continued to fall short of the earnings of their White peers (Harrison and Bennett, 1995) suggesting that occupational placement, although a factor in income inequality between the races, is not the sole reason for income inequality between Black and White employees.

### **Income Inequality Due to Occupational Skill Deficiencies**

Another area of active research looks at deficiencies in occupational skills. The skill requirements of occupations has often been cited as a source of income inequality (England, et al. 1988 and Spenner, 1983). Heckman (1998) suggests that skills deficiencies and not racial discrimination is the prime reason for the gap in incomes between Black and White employees. Grodsky (2001) identifies three types of skill demands as possible sources of income inequality: cognitive skills, interpersonal skills, and manual skills. The changing work environment in the United States has led to a growth in white collar jobs that places a premium on intellectual aptitude and ability (Murnane, Willett, and Levy, 1995 and Murphy and Welch, 1994). In the 30-year period from 1968-1998, the percent of Blacks with “some college” and a “college degree” tripled while the percentage of Blacks in managerial and professional occupations doubled (Couch and Daly, 2002), suggesting the close relationship between cognitive skills and occupational choice. The US Department of Education (2015) reports that the educational

attainment of Blacks is improving: from 1990 to 2014 the percentage of 25 to 29 year olds who completed at least a high school education increased from 82% to 92% and the percentage who attained a bachelor's degree or higher went from 13% to 22%. Thus, a significant shift in the cognitive skills of Blacks, at least as measured by educational attainment, is occurring in the labor market.

### **Income Inequality Due to Choice of Employers**

The choice of employment between private and public sectors has also been cited as contributing to earning disparities by race. Since the public sector has long been regarded as the “vanguard of equal opportunity” (Krislov, 1967), wage gaps by race are shown to be substantially lower in the public sectors than in the private sector (Ehrenberg and Schwarz, 1986). A study in 2001 found significant differences in racial earnings across occupations in both the public and private sectors. Rewards for Black men employed in the public sector were found to be conferred primarily on the basis of individual qualifications, while less confidence was placed on meritocracy as the driving force in the earnings of Black men employed in the private sector (Grodsky and Pager, 2001).

### **Income Inequality Due to Racial Discrimination**

Coleman (2003) asserts that “contrary to Heckman’s assertions, blatant racial wage discrimination is an omnipresent problem in American labor markets, which are more responsible for wage differences than are human capital disparities....” Grodsky and Pager (2001) found that over one-half of the racial gap in earnings can be accounted for by individual skill differences, and an additional 20% is due to the differing placement of Blacks and Whites across occupational distributions. This still leaves a significant earning gap that could be explained by racial discrimination.

### **PURPOSE**

This study looks at wage inequities between Black and White employees within similar occupations that require similar skill sets, as well as within public and private sectors. That is, a comparison of the earning differences between Blacks and Whites in the same occupations and in the same employing sector is conducted, attempting to ascertain if racial discrimination is a major factor causing income disparities between Black and White employees. After 50 years of legal and social pressure on employers to eliminate all forms of racial discrimination in the workplace, in an ideal world one would expect that Black and White employees working within the same occupational groupings and within each major sector of employment would have similar incomes.

### **RESEARCH METHODOLOGY**

#### **American Community Survey**

Data used in this study was collected by the U.S. Census Bureau in their continuing American Community Survey (ACS). The ACS is a relatively new survey that uses a series

of monthly samples to produce annually updated estimates for the same small areas (census tracts and block groups) formerly surveyed with the decennial census long-form. Currently, the ACS publishes single-year estimates for all areas with populations greater than 65,000 people and 5-year estimates for all areas with a population of at least 20,000 individuals (US Census Bureau, ACS Design and Methodology, January 2014).

### Samples Used in this Study

This study uses the ACS five year Public Use Microdata Sample (PUMS) for the period 2009-2013. These 60 months of data include observations for all areas within the United States with a population of 20,000 or more. This newer method of sampling provides researchers with data profiles for a sample estimate of almost three and one-half million people over a five year period.

The data used in this study is restricted to individuals 18 years of age or older who worked 50-52 weeks, who worked at least 35 hours per week, who are employed in one of the nine federal occupation codes, and who identified themselves as only White or only Black. Median income over the five year period is adjusted to 2013 dollars. The size of the sample, by race and employing sector, used in this study is shown in Table 1 (Appendix). The category "Other" is used for all other racial groups, including mixed races.

As can be seen in Table 1 (Appendix), the distribution of employees in the private sector, across all races, is within one percentage point of the distribution of race within the total ACS sample. Thus the private sector's racial employment distribution very accurately reflects the overall racial distribution of the population.

Employment in all government sectors, however, shows a disproportionate distribution of employees by race. Federal employment shows a substantially higher proportion (4.9 percentage points) of Blacks compared to their distribution in the total ACS sample (14.8% vs 9.9%), while Whites are underrepresented by 5.2 percentage points (73.3% vs. 78.5%). In the State governments, employment of Blacks is higher by 4.4 percentage points (14.3% vs 9.9%). Similarly, in the Local government sector, employment of Blacks is higher by 3.1 percentage points (13.0% vs. 9.9%). Hence, the public sectors appear to favor the employment of Blacks at the expense of Whites.

Based on this data, it appears that some degree of preferential employment of Blacks is taking place in the public sector. Although the lack of statistical parity in the utilization of minority group members has been sufficient evidence to make a *prima facie* case for discrimination against minority complainants (Kogut and Short, 2007), the authors could not find any cases where statistical parity evidence was supported for cases involving discrimination against non-minority complainants. As a matter of fact, the DC Circuit Court in 1993 held that because racial discrimination against White persons is so rare, in order to establish the necessary inference of discrimination, White plaintiffs must prove circumstances that support the suspicion that the defendant is an employer who discriminates against the majority. This can be done by showing that the plaintiff was better qualified than the minority applicant whom the employer selected (US Department of the Interior, 2016). Although statistical disparity can be used to prove discrimination against Black employees, it cannot be used to support discrimination against White employees.

## Major Occupational Groupings

To better compare racial income gaps within occupations and across employing sectors, the ACS sample was divided into occupational categories. The Federal Government provides guidance in classifying employees into nine Federal Sector occupation groups. The guidance lists every General Schedule and Salary Grade code currently in use by the Office of Personnel Management (OPM) for federal occupations and places them in broad, nine-category occupational classifications. (A small number of occupations are restricted for use by designated Agencies only. Employees classified into codes that OPM has rendered inactive are not shown.) The nine categories are as follows:

1. Officials and Managers.
2. Professional Workers.
3. Technical Workers and Technologists.
4. Sales Workers. (For most Federal Agencies, this column will not apply).
5. Administrative Support Workers.
6. Skilled Craft and Repair Workers.
7. Operative and Transportation Operative Workers.
8. Laborers.
9. Service Workers.

The major occupations in the federal sector can be matched to similar occupations in state governments, local governments, and the private sector. In this study the matching provided by the United States Equal Employment Opportunity Commission (US EEOC 2013) is used.

Absolute racial equality of income would occur when the median incomes of Black employees in all occupations were identical with White employees in the same occupations. Since the probability of this ever happening is essentially zero, this study uses a decision rule that income equality has been accomplished when the median income of Black employees is within 5% of the median income of White employees .

## ANALYSIS AND FINDINGS

Table 2 (Appendix) shows the median income of Black and White employees in the private and public sectors. If one assumes that salary income equality is obtained when Black employees are paid the same as White employees, Table 2 (Appendix) suggests that salary income equality has not been accomplished in either the private or public sectors. Even though the racial distribution of employees in the private sector accurately reflects the overall racial distribution in the nation, Black employees in the private sector are paid 22.5% less than White employees. In all three of the public sectors, Black employees are paid about 17-18% less than their White counterparts. As previously presented, this study investigates why these considerable salary gaps continue to exist. Can these income gaps be explained by an employee's choice of employer, by his/her choice of occupation, by his/her skill deficiencies, or is it due to continued discrimination?

## **Impact of Choice of Employer on Median Income of Black and White Employees**

The argument that choice of employment impacts income is apparent. Table 2 (Appendix) clearly shows that the overall median incomes for both White and Black employees is higher in the government sectors than in the private sector and that median income is highest for those employed by the Federal government. Although Black Federal employees earn less than White Federal employees, Black federal employees earn more than White employees in the private and other public sectors. Black employees in the private sector earn less than their Black counterparts in the public sector. Thus, it appears that a significant portion of overall income inequality in the United States can be explained by a person's choice of employer. In particular, public sector employment provides Black employees with a higher median income level when compared to private sector Black employees.

An interesting question arises as to why governments pay employees more than employees in the private sector. In the Federal sector, the legal principle of comparability requires that "federal pay rates be comparable with private sector pay rates for the same levels of work" (Venti, p. 147, 1987). The Office of Personnel Management (OPM) develops Government-wide pay policies to ensure compliance with federal law. Each Federal agency is responsible for complying with the law and regulations and following OPM's policies and guidance to administer pay policies and programs for its own employees (US Office of Personnel Management, 2015).

The basic concept of pay comparability implies that in the private sector, operating in a free market economy, the laws of supply and demand for labor will establish the appropriate pay for employees. Federal law (and most States' laws) require that government employees be paid salaries comparable to employees in the private sector. Even a cursory review of Table 2 (Appendix) shows that government salaries greatly exceed salaries in the private sector. The median income of Federal employees is about \$20,000 higher than their counterparts in the private sector. Employees of State and Local governments also have median incomes higher than their counterparts in the private sector, but not to the extreme seen in the Federal government.

The reasons for this considerable discrepancy in income comparability between the private and public sectors may be found in the different environments in which the public and private sectors operate. In the United States, the private sector operates in a free market environment and must match the costs with the benefits of labor in a competitive marketplace. The public sector, however, operates in a political environment and must consider the political implications of salary decisions. In addition, although the Federal government and most state governments require pay comparability with the private sector salaries, the administration of this requirement rests with public sector employees. These public sector employees make subjective decisions of pay comparability, which appear to be in sharp contrast to the salary decisions made in the private sector that must follow the laws of supply and demand. The result of this process is shown in Table 2 (Appendix); the median income of government employees is much higher than the median income of private sector employees.

## **Impact of Choice of Occupation on Median Income of Black and White Employees**

Table 3 (Appendix) shows the percent of Blacks employed in specific occupations by sector of employment. As can be seen in Table 3 (Appendix), Blacks are fairly well

represented in almost all occupations across all four sectors of employment. In the private sector, three occupations appear to be underrepresented by Black employees when compared with the 9.0% employment of Black employees working in that sector, namely officials and managers (6.0%), professional workers (6.5%), and craft workers (5.7%). In the public sector, some occupations are underrepresented by Black employees, but only when compared with the distribution of Black employment in each government sector. When Black employment in the public sector is compared with their distribution in the general population (9.9%), the employment of Blacks exceeds their representation in the general population in all occupations in all government sectors with only one slight exception (i.e., only 9.7% of craft workers are Black in State governments). Thus, it appears that, with only the exception of three occupations in the private sector, Black employees have good access to employment in any occupation of their choice.

Table 4 (Appendix) shows the percentage difference (i.e., median income gap) between the median income of Black and White employees by sector of employment and occupational grouping. Focusing on the overall gap first, one can see that income inequality between Black and White employees is high, but similar, with Black employees earning 16.8% less in Federal and Local government employment, 18.1% less in State government employment, and 22.5% less in Private employment.

The similarity of income disparities among the four employing sectors disappears when the data is analyzed by occupational grouping. Theory suggests that income inequalities are caused by occupational distribution disparities because Blacks are more prominent in lower paying jobs than in higher paying jobs. As shown previously in Table 3 (Appendix), Black employees are fairly well represented in all occupations across all four sectors of employment. Thus, the proposition that income inequality is caused by occupational disparities cannot be supported.

As can be seen in Table 4 (Appendix), the income gap between Black and White employees is substantial in most occupational categories. Using the 5% decision rule, substantial income gaps between Black and White employees are evident in all occupational categories in the Federal and State governments, in all occupational categories in the private sector except Service Workers, and in all occupational categories in local governments except Officials/Managers and Administrative Support. Interestingly, occupational categories with high income disparities are not the same across all sectors of employment. For example, the median income of Black employees in professional and manager positions is 24.3% less than White employees in the private sector, 8.6% less in the Federal government, 11.4% less in State governments, and only 2.4% less in Local governments. The median income gap between Black and White employees in operative positions ranges from 13.6% in the private sector to 20.0% in the Federal government, 27.0% in State governments, and 7.2% in Local governments.

Since most occupations have income disparities, the argument that income inequality between Black and White employees can be explained by the specific choice of occupation cannot be supported. It is evident that income inequality between Black and White employees has more to do with something else than just choice of occupation.

### **Impact of Employees' Skill on Median Income of Black and White Employees**

The skill requirement of occupations has often been cited as a major source of income inequality, suggesting that skill deficiencies and not racial discrimination is the prime reason for the gap in incomes between Black and White employees. Since the Census data used in this study provides only a limited indication of skill level (e.g., education and age), one is forced to assume that an employer selects employees who are qualified for a particular job. That is, only qualified accountants and engineers would be employed to work as accountants and engineers and only qualified carpenters and automotive mechanics would be employed to do carpentry and automotive work. Thus, the assumption is made that all employees, both Black and White, have the basic skills necessary to perform their jobs. One cannot assume, however, that each employee has the same level of skills. The inherent differences in human beings suggest that some employees will perform their jobs better than other employees, thus, possibly resulting in higher incomes. The median incomes used in this study is the mid-point of a range of incomes for all persons in that category. That is, one-half of the employees in this occupational category have incomes higher and one-half have incomes lower than the median. Thus, many factors may impact the income of an employee. Only a cursory glance at Table 4 (Appendix) shows a wide income gap between Black and White employees within the same occupations, but an in-depth study would also reveal significant wage gaps between White employees and between Black employees. This study cannot produce any evidence that either supports or denies the proposition that different skill levels between Black and White employees are the contributing factor for income inequality.

### **Impact of Racial Discrimination on Median Income of Black and White Employees**

As shown in Table 2 (Appendix), a big difference between the median income levels of Black and White employees exists, and this difference is often attributed to racial discrimination. A close examination of this data, however, does not verify claims of rampant racial discrimination. Black employees have median incomes below White employees in the Federal government, but Black Federal employees have median incomes above White employees in State and Local governments and in the private sector. Table 4 (Appendix) also shows a wide income gap between Black and White employees in almost every occupation across all sectors of employment. Many factors can affect an employee's salary; for example, employers often pay employees more for increased skills levels, better performance, years of experience, increased levels of responsibility, better interpersonal skills, etc. Cost of living differences among the various geographic areas in the United States often lead to differing wage levels for the same jobs in different states. Although racial discrimination may contribute to the continued disparity between Black and White incomes, one cannot conclude that different income levels are solely a matter of racial discrimination.

### **SUMMARY AND CONCLUSIONS**

Since the passage of the Civil Rights Act of 1964, the wage gap between Black and White employees has narrowed substantially. The weekly wage gap between Black and White male employees fell noticeably from 50% in 1967 to 27% in the late 1990s (Couch and Daly,

2002). This study found the median income gap to be, depending on sector of employment, between 16.8% and 22.5%. Although the narrowing wage gap amounts to a significant accomplishment in the struggle for wage equality, the authors believe that much of the current income inequality between Black and White incomes cannot be simply labeled as racial discrimination.

Income inequality between Black and White employees is often explained in four ways; where you work, the job you have, the skills you possess, or who you are. Analysis of the American Community Survey data of 1,890,143 White employees and 239,092 Black employees in nine different occupational categories working in four sectors of the economy discloses some interesting findings. A person's choice of employment has a significant impact on income regardless of race. Although the overall median income of White employees is substantially higher than Black employees within an employing sector, the overall median income of Black employees in the Federal government is higher than the overall median income of White employees in the private sector and State and Local governments. Thus, choice of employers appears to have a substantial impact on a person's income.

The choice of occupation also impacts the income of employees, with higher skilled occupations paying more than lower skilled jobs. The income gap between Black and White employees, however, is not easily explained by examining an employee's occupation. For example, the income gap between Black and White employees in officials/managerial positions in the private sector is 24.3% but it is only 2.4% in local governments. The income gap in laborers/helpers in the private sector is less than 6% while it is over 13% in local governments. No logical pattern was discernable that would explain the income inequalities between Black and White employees based on their distribution by job category. Since most occupations have income disparities, income inequality between Black and White employees cannot be explained solely by racial discrimination. Thus, income inequality between Black and White employees is more complicated than just choice of occupation.

The skills an employee brings to the job has often been cited as a major source of income inequality. If one assumes that everyone employed in a particular occupation category has the basic qualifications for the job, then the conclusion must be made that the differing incomes in a particular occupation are based on something other than the basic skills required to enter the occupation. Since these factors are almost enumerable, it is possible that racial bias may influence income differences, but the extent of that influence is almost impossible to prove with the type of analysis conducted for this study.

The final reason for income inequality examined in this study is "who you are." That is, does race play a primary role in determining income? Recalling the data presented in Table 2 (Appendix), although the median income of Black employees in the Federal Government is higher than the median income of Black employees in the Private sector and State and Local governments, it is surprising that Black median income is lower than the median income of White employees in the Federal government. Since the Federal government has led the fight for equality of opportunity, not only in employment but also in the fight for pay equity, one would expect significant accomplishments in ensuring pay equality among the races within the Federal government. The authors find it implausible that with the constant spotlight shone upon EEO in the Federal government that the large income gap between Black and White employees shown in Table 2 (Appendix) is simply the result of racial discrimination.

Although the wage gap between Black and White employees from the 1960's to the 1990's declined, when comparing median income levels for Blacks and Whites from 2009 to 2013, one can see that a difference exists. This study showed that the difference cannot be solely attributed to occupational choice, occupational skills, employment sector choice, or racial discrimination.

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**APPENDIX**

Table 1  
Sample Sizes of Data Used in Study

	<u>White</u>	<u>Black</u>	<u>Other</u>	<u>Total</u>
ACS Sample				
Number	1,890,143	239,092	279,348	2,408,583
Row Percent	78.5%	9.9%	11.6%	100.0%
Private Employees				
Number	1,542,669	175,510	232,318	1,950,497
Row Percent	79.1%	9.0%	11.9%	100.0%
Federal Employees				
Number	91,234	18,412	14,853	124,499
Row Percent	73.3%	14.8%	11.9%	100.0%
State Employees				
Number	108,535	20,176	12,835	141,546
Row Percent	76.7%	14.3%	9.0%	100.0%
Local Govt. Employees				
Number	147,705	24,994	19,342	192,041
Row Percent	76.9%	13.0%	10.1%	100.0%

Table 2  
 Median Income of Black and White Full-Time Employees  
 By Employing Sector  
 2009-2013

<u>Employer</u>	<u>White</u>	<u>Black</u>	<u>Difference</u>	<u>Gap</u>
Private Employers				
Median Income	\$43,418	\$33,649	\$ 9,769	22.5%
Federal Government				
Median Income	\$66,617	\$55,415	\$11,202	16.8%
State Governments				
Median Income	\$46,347	\$37,966	\$ 8,381	18.1%
Local Governments				
Median Income	\$47,457	\$42,333	\$ 5,124	16.8%

Table 3  
 Percent of Black Full-Time Employees  
 By Sector of Employment and Occupation  
 2009-2013

<u>Occupation</u>	<u>Private</u>	<u>Federal</u>	<u>State</u>	<u>Local</u>
Officials and managers	6.0%	15.5%	11.6%	11.5%
Professional workers	6.5%	11.2%	11.6%	12.5%
Technicians	10.5%	12.3%	13.6%	14.2%
Sales workers	9.7%	26.1%	20.0%	21.2%
Admin support	9.2%	21.1%	14.3%	12.5%
Craft workers	5.7%	11.3%	9.7%	10.4%
Operatives	11.1%	16.9%	16.8%	18.5%
Laborers/helpers	9.3%	20.2%	14.9%	14.7%
Service workers	17.2%	16.7%	19.3%	14.0%
Overall	9.0%	14.8%	14.3%	13.0%

Table 4  
 Median Income Gap of Black and White Full-Time Employees  
 By Sector of Employment and Occupation  
 2009-2013

<u>Occupation</u>	<u>Private</u>	<u>Federal</u>	<u>State</u>	<u>Local</u>
Officials and managers	24.3%	8.6%	11.4%	2.4%
Professional workers	19.1	15.2	15.1	6.3
Technicians	10.2	18.9	7.2	7.1
Sales workers	25.9	26.7	18.5	11.2
Admin support	5.9	5.9	6.4	+3.1
Craft workers	10.9	5.4	13.4	8.0
Operatives	13.6	20.0	27.0	7.2
Laborers/helpers	5.9	8.4	14.8	13.6
Service workers	2.3	21.9	21.0	23.4
Overall	22.5%	16.8%	18.1%	16.8%