# Multiple-Race Identification and the Wages of Black Workers

By Philip N. Cohen

University of California, Irvine Irvine, CA 92697-5100 cohenp@uci.edu (949) 824-5041

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#### Abstract

This analysis tests for wage differences between multiple-race and single-race Black respondents in the 2000 Census. Because only 2% of non-Latino Black workers chose more than one race, this group represents a small fraction of those with any White or other-race ancestry. The analysis shows that wage advantages for Black/White workers are not significant once the higher level of education among multiple-race reporters is controlled. Given previous research showing that Black workers with lighter skin color gain a substantial earnings premium, it appears that multiracial identification in the 2000 Census does not differentiate workers based on appearance.

### Multiple-Race Identification and the Wages of Black Workers

Studies going back at least to 1918 have shown inequality by skin color among African Americans (Hill 2000; Hughes and Hertel 1990), and there is considerable evidence that this reflects persistent "colorist" racial discrimination (Hunter 2002). Using the assumption of skin-color discrimination, we can shed light on the meaning of multiple-race responses for African Americans in the 2000 Census. If Black workers who select more than once race are systematically identifiable by others, they should enjoy the benefits of colorist discrimination and show higher wages than Black-only workers. This question has important implications for researchers as well as policymakers, courts and activists who need to decide how to code the new data when considering questions of inequality (Harrison 2002).

Recent research suggests that discrimination in favor of Blacks with lighter skin color is pervasive. For example, Hill (Hill 2000) examines occupations listed on death certificates for children who were identified in the 1920 Census as "black" versus those identified as "mulatto." The "mulatto" children ended up in higher status occupations than the "black" children. Other studies, using survey data from the 1980s -- including the General Social Survey (Seltzer and Smith 1991) and the National Survey of Black Americans (Hughes and Hertel 1990; Hunter 1998; Hunter 2002; Keith and Herring 1991) -- also find that Black respondents viewed by interviewers as having lighter skin color had higher socioeconomic status. Each of these studies controls for at least some parental and background characteristics, supporting the explanation of color-based discrimination.

An unknown but large proportion of the American descendents of African slaves have some White ancestry. The Census Bureau estimated 75% in 1920, although census-takers only identified

15% as "mulatto" (Hill 2000). The 1982 GSS reported 18% of Blacks as having "light brown" skin (Seltzer and Smith 1991), compared to 17% coded as "light" or "very light" brown in the NSBA (Hughes and Hertel 1990). Of course, none of the recent studies suggests that skin color is a direct or reliable measure of the portion of White ancestry among those who are identified as Black under the "one-drop rule." That is, they are mostly concerned with discrimination based on appearance. Aside from a small minority -- e.g., Lynn (2002)<sup>2</sup> -- most social scientists believe such inequality results from the historical and contemporary behavior of others acting on the social meaning of race and skin color. Thus, appearance is perceived to matter more than actual parentage or ancestry.

# THE 2000 CENSUS

After eight censuses (1850-1920) that included the "mulatto" category in addition to "black," the census settled into a single-race scheme through 1990 (Nobles 2000). By that time, the U.S. racial/ethnic terrain had shifted substantially, driven by immigration and the growth of Latino and Asian populations (Bean and Bell-Rose 1999; Portes and Rumbaut 1990), spotty declines in residential segregation (Farley and Frey 1994; Iceland, Weinberg, and Steinmetz 2002), and changing norms for self-identification (Hirschman, Alba, and Farley 2000). Under pressure from "multiracial" organizations -- countered by civil rights groups opposed to a single "multi-race" category -- the federal government eventually made what Reynolds Farley (2002:33) calls "the greatest change in the measurement of race in the history of the United States." The 2000 census

<sup>&</sup>lt;sup>1</sup> Hill's (2002) analysis of data from the Multi-City Study of Urban Inequality shows that 13% of Black respondents were coded as having "light skin tone." However, White interviewers were more likely to see Black respondents as having darker skin color than were Black interviewers.

<sup>&</sup>lt;sup>2</sup> For a refutation of Lynn's analysis and conclusions, see Hill (2002).

allowed respondents to self-identify with as many races as they wanted (Perlmann and Waters 2002).

According to Roderick Harrison, the previous system of single-race self identification provided information adequate to study and combat racial inequality, because it generally matched what potential discriminators saw. However, "this assumption breaks down when one tries to define multiple-race populations solely on the basis of self-identification, precisely because large portions of the population who can reasonably be defined as multiracial by observers or by parentage and ancestry self-identify with a single race" (Harrison 2002:158). Testing before the 2000 census suggested that respondents are most likely to choose multiple races when their own parents have different racial identities (Anderson 2002), but this is certainly not universal. An unknown proportion choose more than one race in reference to more distant ancestors, and many children who do have parents of different races choose (or have chosen for them) only one race. Thus, Harrison concludes that the new multi-race data is primarily about self-identification, not about either parentage or characteristics that can be identified by others, and therefore is not reliable for questions of discrimination.

In this analysis of wages in the 2000 census, I test whether those who identify as Black and at least one other race experience the benefits associated with lighter skin color in previous research. A multiple-race advantage might appear, for example, if respondents who would have coded themselves as Black on a single-race scheme choose more than one race because they have lighter skin color and are accustomed to being perceived as of mixed-race ancestry by others. On the other hand, if there is no multiple-race wage advantage, Harrison may be correct that the new scheme measures a self-identification preference rather than identifying a discernible multiple-race population. That is, the multiple-race data may be interesting for research on the "changing"

formation of racial identity," but remain of "dubious validity" for constructing indicators of racial or color-based inequality (Harrison 2002:139).

With multiple-race reporting now permitted, there are 71 race combinations reported in the 2000 Census microdata. Possibilities for analysis are therefore endless. But identifying the descendents of African slaves and measuring the effects of their continued subordination is of unique significance because of their central role in America's racial and ethnic history, and in the history of the demography of race (Anderson 2002; Anderson and Feinberg 1999). Therefore, in this early analysis of the new data I focus on the question of multiple-race reporting for Black workers. The analysis helps answer whether Black workers who choose multiple races are different from those who select only Black in ways that color-conscious Americans can discern and act upon.

### DATA AND METHODS

To identify the potential wage effects of multiple-race identification for Black workers, I use data from the 1% Public Use Microdata Sample of the 2000 Census. The Office of Management and Budget (OMB) has announced that, for civil rights purposes, those reporting multiple races will be counted as members of the largest minority group with which they identify (Goldstein and Morning 2002). I follow that convention here, counting all those reporting Black and any other race as Black, and comparing those who select multiple races with those who identify themselves as White alone and Black alone. Because multiple-race reporting is complicated by

<sup>&</sup>lt;sup>3</sup> Harrison (2002:147) reports that some 25% of respondents who chose Black and White in the 1993-1995 National Health Interview Survey indicated that White was their primary racial identification. In my sample of workers a tiny fraction (.74%) of those who chose Black-only also

ethnic (Anderson 2002) and national origin differences (Nobles 2000), I limit the analysis to U.S.-born workers who did not identify themselves as Latino.<sup>4</sup> Respondents are included if they worked at all in 1999 and earned between \$1 and \$250 per hour over the course of the year. To minimize early- and late-career effects, I limit the sample to those ages 25 to 59 (Cohn and Fossett 1995).

The resulting sample includes 890,397 individuals, 11.3% of whom identified themselves as Black.<sup>5</sup>

Table 1 shows the racial breakdown of the worker sample. Just 2% of Black workers also chose more than one race, with almost half of those choosing Black and White, the most popular combination. Among those selecting multiple races, I privilege White, so that those who selected three "races" -- Black, White and "some other race," or Black, White and American Indian -- are all

specified a non-Spanish European or former Soviet ancestry; I did not recode these respondents to a multiple-race category.

<sup>&</sup>lt;sup>4</sup> If a Cuban respondent of African descent selected Black on the race question, but also "Some other race" and wrote in "Cuban," she would be classified as multiracial. However, if a White respondent selected White on the race question and wrote "Irish" under "Some other race," she would not be classified as multiple race. This is why more than 90% of those identified as "some other race" are Latino (Anderson 2002).

<sup>&</sup>lt;sup>5</sup> The history of slavery and the South insured that the issue of mixed-race ancestry for Blacks principally revolved around Black-White combinations (Russell, Wilson, and Hall 1992). Further, the Black/White combination is the only Black combination that OMB originally recommended tabulating (Anderson 2002). So it is necessary to separate Black/White multiple race reporters from others in the analysis. However, I leave the other (smaller) Black combinations in the analysis for comparison.

counted as Black/White. Those who reported additional combinations of three or more races -- which are not detailed on the 1% PUMS file -- are dropped from the analysis. These adjustments affect a very small number of cases.

#### RESULTS

Table 2 shows the average hourly wages for men and women by race. Among men, all groups of Black workers have lower average wages than Whites, while Black/White and Black/Indian men earn more than those choosing Black alone. Among women, only Black-alone and Black/White workers earn less than Whites, and the only significant difference among Blacks is the higher wages for Black/Indian women.

Means for the variables used in the multivariate analysis are presented in Table 3, which shows the results of t-tests for differences between Black/White workers and White and Black workers (all differences between Black-alone and White workers are significant). Of particular concern here are the differences between Black/White and Black-alone workers. Geographically, consistent with early Census Bureau reports (Brewer and Suchan 2001), Black/White workers are much less concentrated in the South; in fact, the plurality live in the West region, where the fewest Black-alone workers live. Black/White workers are also more urban than Whites and (among men) Black-alone workers. Black/White workers are less likely to be divorced or to have ever married. This pattern may reflect the significantly younger ages of Black/White workers compared to both Black-alone and White workers, which is consistent with existing research on multiple-race identification (Anderson 2002).

The most significant differences between Black/White and Black workers may be their education levels, which are uniformly higher for Black/White workers, among men and women. In

fact, 66% of Black/White men, and 72% of Black/White women have attended at least some college, 11 and 16 percentage points higher than their male and female counterparts respectively, and roughly matching White levels. One consequence of the younger age and higher education of Black/White workers compared to Black-alone workers is that the former have had fewer years in the labor force. This is indicated by their lower average potential experience -- calculated by subtracting (years-of-education+5) from their age. Finally, Black/White men and women fall between Black-alone and White workers in their rates of reporting employment disabilities. These differences could help explain why, despite greater education, Black/White women do not earn significantly more per hour than Black-alone women. To explore the sources of these wage gaps, I turn next to the multivariate analysis, shown in Table 4 for men and Table 5 for women.

The first model in each table, serving as a baseline, reflects the unadjusted wage differences shown in Table 2. In the subsequent models I add one block of variables at a time, with the final model including all variables. The most salient conclusion is that, for both men and women, no multiple-race group has wages significantly different from Black-alone workers (indicated by the superscript *b*) after education differences are controlled. In most models the multiple race workers are predicted to have higher wages than Black-alone workers, but the differences are not significant after Model 3. Therefore, there is not sufficient evidence to conclude that Black workers with multiple-race identities earn wages that differ significantly from those of those who identify as Black alone.

On the other hand, at least among men, the largest groups of multiple-race Black workers do earn significantly less than White workers, even with all controls in the model. Among women the picture is more mixed. Black/White and Black-alone workers earn less than White women, but these differences are not robust to the introduction of controls for family status and education

levels. And in the full model, Black-alone -- but not multiple-race -- women are shown to earn more than White women.

To identify possible sample-size effects and interaction effects, I performed several additional tests (not shown, available upon request). First, I pooled all four multiple-race groups and re-estimated the final models. Because most multiple-race groups showed smaller wage penalties than Black-alone workers, it was plausible that, when pooled, the differences would be significant. However, this was not the case. For men, the pooled multiple-race workers showed a smaller wage penalty, but the difference from Black-alone workers was not significant (p = .14, two-tailed test). For women, the difference did not approach significance. Next, I tested for differences in the effects of the control variables for Black/White (the largest multiple-race group) versus Black-alone workers. These tests produced few significant results.  $^6$ 

### CONCLUSIONS

As Harrison (2002) notes, arriving at an interpretation of multiple-race responses in the 2000 Census is more urgent for questions relating to Native Hawaiian/Pacific Islander, Asian and American Indian populations, much greater proportions of whom select multiple races (Anderson 2002). Similarly, because multiple-race respondents are much more likely to be under age 18

Among men, Black/White workers pay a smaller penalty for not having finished high school than do Black-alone workers, and Black/White workers show a negative effect for children in the household, while Black-alone workers show no effect. Among women, Black/White workers show no significant effect for working more hours per week, and also do not show the positive effects of being or having been married seen among both Black-alone and White women. None of these results cast doubt on the central findings.

(Jones and Smith 2001), their impact on studies of labor market outcomes appears limited. However, as intermarriage rates increase, and those with multiple-race identities age, effects of multiple-race reporting may become more pronounced (Edmonston and Passel 2002).

Previous research has shown that respondents offering both Black and White ancestries in the 1990 Census are economically more similar to Blacks than to Whites (Goldstein and Morning 2002). My findings are consistent with those results, although more clearly for men than for women. These results also support the concerns raised by Harrison (2002), who argues that multiple-race responses do not delineate distinct, recognizable populations, but rather represent those who choose for unknown reasons to identify with multiple-race ancestors.

Clearly, further research is needed to sort out the implications of multiple-race reporting for studies of labor market inequality. For example, Black/White workers may have higher levels of education in part because of advantages -- including residential location or wealth (Oliver and Shapiro 1995) -- gained by their White parents. Current data sources do not permit investigation of such background questions, although we will know more as multiple-race reporting becomes standard in the Federal system.

However, these results suggest that, in most cases, excluding multiple-race respondents from the Black population is not warranted. Reasons to examine these groups as separate populations may yet emerge, but they are not apparent in the present analysis. For the present, then, researchers concerned with labor market inequality should follow the OMB guideline to combine multiple-race Black workers with those who identify as Black-only.

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Table 1. Workers Identified as Black, by Multiple-Race Selection

Note: Sample includes U.S.-born, non-Hispanic workers ages 25-59, with wages between \$1 and \$250 in 1999.

<sup>&</sup>lt;sup>1</sup> Includes those who selected White and "some other race," and those who selected White and American Indian.

<sup>&</sup>lt;sup>2</sup> Includes those who selected three or more races not specified by the Census Bureau ("all other race combinations").

Table 2. Hourly Wages: Black and White Workers, Ages 25-59

Note: Sample includes U.S.-born, non-Hispanic workers, with wages between \$1 and \$250 in 1999.

<sup>&</sup>lt;sup>w</sup> Log-wage differs significantly from White log-wage (p < .05)

<sup>&</sup>lt;sup>b</sup> Log-wage differs significantly from Black-only log-wage (p < .05)

Table 3. White, Black, and Black/White Workers: 2000

		Men								
	White	Black only	Black/White	W	b	White	Black only	Black/White	W	b
Geography										
South	.33	.60	.26	*	*	.33	.61	.28	*	*
Northeast	.20	.13	.22		*	.21	.13	.21		*
Midwest	.28	.17	.22	*	*	.28	.17	.20	*	
West	.19	.10	.31	*	*	.18	.08	.30	*	*
Metro	.95	.95	.98	*	*	.95	.96	.97	*	
Family										
Never married	.16	.29	.35	*	*	.13	.33	.36	*	
Married	.69	.47	.47	*		.66	.36	.34	*	
Formerly married	.15	.24	.19	*	*	.21	.31	.30	*	
Number of children	.83	.75	.80			.80	.93	.93	*	
Education										
Less than high school	.09	.19	.11		*	.06	.14	.08		*
High school graduate	.30	.35	.23	*	*	.29	.30	.20	*	*
Some college	.31	.31	.38	*	*	.35	.37	.45	*	*
College degree	.20	.10	.17		*	.20	.13	.18		*
Advanced degree	.11	.04	.11		*	.11	.06	.09		*
Age	41.54	40.00	36.91	*	*	41.52	39.86	36.54	*	*
Potential experience	22.91	22.40	18.27	*	*	22.80	21.86	17.94	*	*
Hours worked	45.23	42.22	43.43	*	*	37.87	38.83	38.40		
Disability	.09	.18	.14	*	*	.08	.17	.12	*	*

Note: Sample includes U.S.-born, non-Hispanic workers ages 25-59, with wages between \$1 and \$250 in 1999.

All differences between White and Black-only means are significant (p < .05, two-tailed tests).

w = Black/White mean differs from White mean (p < .05, two-tailed tests).

b = Black/White mean differs from Black-only mean (p < .05, two-tailed tests).

Table 4. OLS Regression Coefficients for Hourly Wages (ln): Men Ages 25-59

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	2.833***	2.561***	2.60***	2.642***	2.615***
Races					
(White alone)	 272***	240***	212***	170***	112***
Black alone	273***	249*** 172***b	213***	172*** 1.42***	113 <sup>***</sup>
Black/White	146****b 176****b	1 / Z 102***	079 <sup>*b</sup> 112 <sup>**b</sup>	143*** 145***	066 <sup>*</sup> 116 <sup>**</sup>
Black/Amer. Indian	176 188 <sup>**</sup>	193*** 216**	11 <i>Z</i>		
Black/other race	188 244 <sup>*</sup>	216 278**	115	116 198 <sup>*</sup>	046
Black/Asian	244	278	147	198	067
Geography					
(South)					
Northeast		.127***			.103***
Midwest		.027***			.030
West		.137***			.091***
Metro area		.226***			.172***
Family					
(Never married)					
Married			.316***		.226***
Was Married			.078***		.061***
Number of children			.006***		.023***
Education					
Less than high school				159***	157***
(High school diploma)					
Some college				.143***	.144***
College degree				445	478****
Advanced degree				.700***	.704***
Disability					064 <sup>***</sup>
Potential experience					.030
Potential experience <sup>2</sup>					0004***
Hours (ln)					208***
R-square	.013	.026	.050	.137	.199

Note: Sample includes U.S.-born, non-Hispanic workers, with wages between \$1 and \$250 in 1999. 
\* p < .05; \*\*\* p < .01; \*\*\*\* p < .001 (two-tailed tests). 
b Log-wage differs significantly from Black-only log-wage (p < .05)

Table 5. OLS Regression Coefficients for Hourly Wages (ln): Women Ages 25-59

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	2.533***	2.260***	2.555***	2.298***	1.912***
Races					
(White alone)					
Black alone	089***	065***	073***	012***	.026***
Black/White	057*	081**	041	051	018
Black/Amer. Indian	.043 <sup>b</sup>	$.024^{\rm b}$	.054 <sup>b</sup>	.025	.022
Black/other race	015	047	002	.070	.093
Black/Asian	.038	.004	.056	.058	.076
Geography					
(South)					
Northeast		.149***			.111***
Midwest		.003			.010***
West		.150***			097***
Metro area		.226***			.172***
Family					
(Never married)					
Married			.027***		.023***
Was Married			024***		017***
Number of children			044***		029***
Education					
Less than high school				171***	161***
(High school diploma)					
Some college				.194***	.200***
College degree				.501	529***
Advanced degree				.736***	.749***
Disability					048***
Potential experience					.022
Potential experience <sup>2</sup>					0004***
Hours (ln)					030***
R-square	.002	.020	.007	.151	.174

Note: Sample includes U.S.-born, non-Hispanic workers, with wages between \$1 and \$250 in 1999. 
\* p < .05; \*\*\* p < .01; \*\*\*\* p < .001 (two-tailed tests). 
b Log-wage differs significantly from Black-only log-wage (p < .05)