

THE ECONOMIC STATUS OF BLACK AMERICANS: WHAT CAN WE DO ABOUT IT?[†]

Trends in Relative Black–White Earnings Revisited

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The narrowing of the black–white earnings gap between 1960 and the mid-1970's represents one of the most significant episodes of relative progress for African Americans in U.S. history. After two decades of analysis, however, there is still controversy over the relative importance of government policy—specifically the Civil Rights Act of 1964—in engendering the gains of the 1960's and early 1970's. At issue is the exact timing of improvements in black workers' relative earnings. The effect of the Civil Rights Act should have been concentrated after 1965. In contrast, other factors such as more and better schooling for black workers should have led to steady improvements throughout the period. Furthermore, civil-rights legislation should have affected workers of all ages, whereas changes in school quality and quantity should only have affected newly entering cohorts.

This paper uses longitudinal Social Security earnings data from 1957 to 1974 to reexamine the precise timing of changes in the earnings differentials between black and white male workers. Following the recent literature on wage dispersion we make use of several different measures of the racial disparity in earnings. This type of analysis has been infeasible in the past because Current Population Survey (CPS) micro data sets are unavailable before 1964 and because published tabulations lack sufficient detail to follow particular cohorts over time.

Our analysis of cohort-level earnings reveals a discrete break in the upward trend in black men's relative wages after 1964. This finding is consistent with the important role many researchers have attached to the Civil Rights Act of 1964 (e.g., Richard B. Freeman, 1973; Wayne Vroman, 1974; John J. Donohue and James J. Heckman, 1991). On the other hand, we find evidence of an upward trend in black workers' relative earnings prior to 1965 (particularly for Southern workers), suggesting that other factors also contributed to the economic progress of black men between 1960 and 1975.

I. Decade-Long Trends

Table 1 summarizes trends in the black-to-white ratio of various measures of annual earnings using data from the Decennial Censuses and March CPS.¹ As is well known, the ratio of *mean* earnings of blacks relative to whites increased substantially between 1960 and 1980 and then stagnated in the 1980's. Between 1960 and 1970, for example, the black–white ratio of average earnings for men aged 20–59 increased by 7 percentage points. It grew another 6 percentage points between 1970 and 1980, but was constant over the 1980's. Similar results hold for a comparison of median earnings (denoted p50/p50).

If there are economy-wide changes in the distribution of earnings over time, however, Chinhui Juhn et al. (1991) have argued that a better measure of racial earnings disparity is one that compares the median black

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¹Because 1990 Census data are not yet available, the 1990 data are derived from the 1990 and 1991 March CPS files.

TABLE 1—BLACK-WHITE EARNINGS RATIOS
FOR MEN AGED 20–59 BY COHORT:
COMPARISONS OF SELECTED PERCENTILES
AND ARITHMETIC MEANS

Birth Cohort	p50/p50	p50/p25	Mean
A. 1960:			
1900–1909	0.52	0.77	0.51
1910–1919	0.57	0.75	0.54
1920–1929	0.56	0.75	0.56
1930–1939	0.56	1.00	0.63
1940–1949	—	—	—
1950–1959	—	—	—
1960–1969	—	—	—
All, aged 20–59	0.54	0.85	0.56
B. 1970:			
1900–1909	—	—	—
1910–1919	0.60	0.83	0.56
1920–1929	0.65	0.84	0.58
1930–1939	0.67	0.88	0.63
1940–1949	0.70	1.39	0.77
1950–1959	—	—	—
1960–1969	—	—	—
All, aged 20–59	0.63	0.96	0.63
C. 1980:			
1900–1909	—	—	—
1910–1919	—	—	—
1920–1929	0.68	1.00	0.65
1930–1939	0.70	1.00	0.67
1940–1949	0.72	1.02	0.72
1950–1959	0.76	1.33	0.76
1960–1969	—	—	—
All, aged 20–59	0.69	1.10	0.69
D. 1990:			
1900–1909	—	—	—
1910–1919	—	—	—
1920–1929	—	—	—
1930–1939	0.66	1.10	0.69
1940–1949	0.66	1.05	0.68
1950–1959	0.67	1.06	0.68
1960–1969	0.76	1.31	0.76
All, aged 20–59	0.69	1.19	0.69

Notes: Entries are ratios of percentiles or arithmetic means of black and white men's annual earnings. The column labeled "p50/p50" gives the ratio of median black earnings to median white earnings. The column labeled "p50/p25" gives the ratio of median black earnings to the 25th percentile of white earnings. The column labeled "Means" gives the ratio of mean black earnings to mean white earnings.

Sources: 1960, 1970, and 1980 data are drawn from public-use samples of Decennial Censuses; 1990 data are from the March 1990 and March 1991 Current Population Surveys.

worker to a white worker in a similar position in the *overall* earnings distribution. Juhn et al. note that the median black male earns about as much as the 25th-percentile white male. Consequently, Table 1 also reports the ratio of median black male earnings to the 25th percentile of white male earnings (denoted p50/p25). Interestingly, this ratio shows a greater secular increase than the others in Table 1: a gain of 34 percentage points between 1960 and 1990. Unlike the other relative earnings measures, this ratio continued to increase between 1980 and 1990.

Table 1 also contains relative earnings ratios for ten-year birth cohorts. Between 1960 and 1970 the ratios of mean earnings show only small increases for each of the three continuing cohorts. Similar findings led Gregory J. Duncan and Saul D. Hoffman (1983), James P. Smith and Finis Welch (1989), and Card and Krueger (1992) to conclude that virtually all of the reduction in the overall black-white earnings gap in the 1960's resulted from the entry of younger cohorts (with smaller racial wage gaps) and the exit of older cohorts (with larger racial wage gaps). On the other hand, the ratios of medians show larger increases within cohorts, especially for younger workers. The p50/p25 ratio increased for the two older cohorts, but declined substantially for the youngest continuing cohort. A comparison with trends over the 1970's and 1980's suggest that it is typical for the median black worker to lose ground relative to the 25th-percentile white worker as a cohort ages from its 20's to its 30's. Moreover, the decline in the p50/p25 ratio between 1960 and 1970 (–0.12) is smaller than the decline for the 1940's cohort between 1970 and 1989 (–0.37) or the decline for the 1950's cohort between 1980 and 1990 (–0.27).

An important conclusion from Table 1 is that trends in relative earnings are sensitive to the earnings measure used in the analysis. In part, past studies may have reached different conclusions about the size of within-cohort gains in black men's relative earnings because they focused on different summary measures.

II. Social Security Earnings Records

We created a new source of data on black-white earnings trends by pooling data from the 1973 and 1978 linked Current Population Survey and Social Security Earnings Records (CPS-SER) files. Our pooled CPS-SER file contains administrative earnings data for a sample of 61,707 black and white men each year between 1957 and 1974. Unfortunately, the Social Security tax ceiling creates a problem of censored earnings for many workers. In some years, the Social Security maximum is below the earnings of the median white male. Another problem with Social Security data is incomplete coverage, although Wendy Alvey and Cynthia Cobleigh (1980) estimate that 90 percent of workers were covered by Social Security in 1973.²

To assess the reliability of the Social Security data Figure 1 compares trends in the aggregate black-white earnings ratio based on our CPS-SER file and on CPS data. We report CPS-SER results for the whole country, and separately for workers who lived in the South in 1973 or 1978. The CPS-SER figures are for an evolving sample of all men aged 20–59 in any particular year.³ The CPS data pertain to all men age 14 or older in any year. The CPS series represents the ratio in median black earnings to median white earnings. Because of censoring, we report CPS-SER data on the ratio of the 40th percentiles of earnings.⁴ The figure illustrates comparable patterns in the alternative earnings series, although the Social

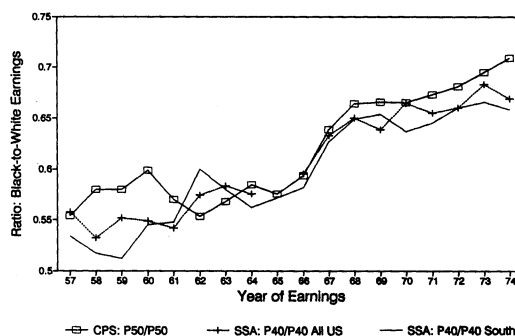


FIGURE 1. RATIOS OF BLACK AND WHITE EARNINGS

Security data display a stronger trend prior to 1965, especially in the South.

To summarize the trends in Figure 1 we regressed the black-white earnings ratio on a constant, a linear time trend, and a post-1964 trend. For the CPS series, these regressions indicate a narrowing of the gap by 0.14 percentage points per year before 1965, with a significantly greater rate of convergence after 1965 (a total of 1.36 points per year). Using the nationwide Social Security data, however, the regressions indicate a 0.92-percentage-point annual rate of convergence before 1965, with an insignificant increase of 0.21 percentage points per year in the trend after 1965.⁵

Figure 2 presents comparisons of the median black worker to the 25th-percentile white worker. In addition to avoiding censoring problems in the white earnings distribution, the p50/p25 comparison has the advantage of crudely controlling for any economy-wide changes in the shape of the earnings distribution. The estimates are based on an evolving sample of workers between the ages of 20 and 59 each year. As would be expected from Table 1, the p50/p25 ratio displays a greater increase

²Although the Social Security earnings histories are far from ideal, we note that changes in the design of the CPS in 1966 cloud time-series analyses based on that data set (see Orley Ashenfelter, 1970).

³One minor difficulty is that men included in our CPS-SER sample of earners in 1959 (for example) must have been alive in 1973 or 1978. We have examined the age and earnings distributions in the CPS-SER data and believe that the biases induced by nonrandom mortality are small.

⁴The 40th percentile of white earnings for the whole United States is above the taxable maximum in 1965, leading to a gap in Figure 1.

⁵In contrast, Vroman (1991) also analyzes nationwide Social Security earnings data and finds that the post-1965 trend is greater than the pre-1965 trend. However, it is unclear how censoring is handled in Vroman's data, and the Social Security maximum increased considerably after 1965.

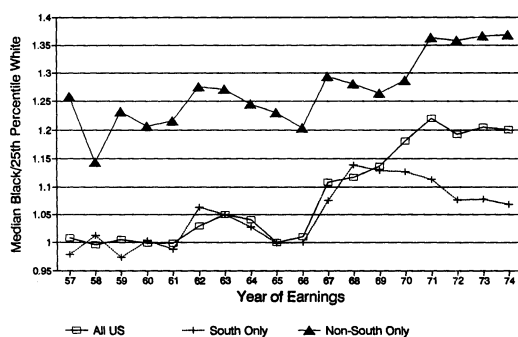


FIGURE 2. RATIOS OF BLACK AND WHITE SSA EARNINGS: MEDIAN BLACK/25TH PERCENTILE WHITE, BY REGION

than the ratio of medians or 40th percentiles. Interestingly, the figure indicates that black workers suffered a relative earnings decline between 1962 and 1965. After 1965, however, there was sustained improvement in black workers' relative earnings until the early 1970's.

Judging from Figure 2, the median black worker in the South gained almost 15 percentage points relative to the 25th-percentile white worker between 1966 and 1968. The Social Security earnings data also show a sizable increase in relative earnings for blacks outside the South, although the growth took place more slowly. Perhaps surprisingly, Figure 2 suggests that the relative position of blacks in the South began to decline in the late 1960's, while it continued to increase outside the South. One should bear in mind, however, that the regional breakdowns are based on individual residence in 1973 or 1978 (rather than place of residence in the year of earnings) and may be biased by selective migration.

III. Within-Cohort Analysis Based on Social Security Earnings

The CPS-SER earnings histories enable us to examine trends in relative earnings for given cohorts over time. By examining the time-series patterns of black-white relative earnings for fixed cohorts, we can assess

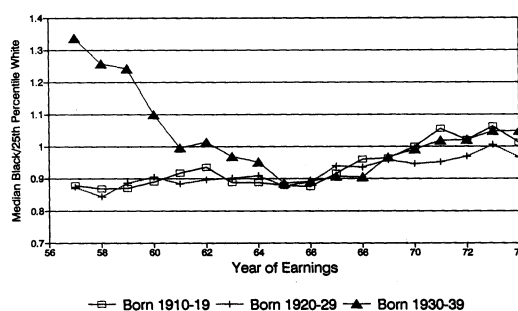


FIGURE 3. RATIOS OF BLACK AND WHITE SSA EARNINGS: MEDIAN BLACK/25TH PERCENTILE WHITE, BY COHORT

alternative explanations for the improvement in the economic position of workers between 1960 and 1970. Most importantly, if changes in schooling are the primary explanation for black workers' relative gains, we would not expect to find an increase in the black-white earnings ratio within cohorts. On the other hand, if the Civil Rights Act led to an increase in economic opportunities for black workers, we would expect to find an upturn in black-white earnings ratios after 1965 within cohorts. Finally, if secular factors such as northern migration contributed to black workers' economic progress, we would expect to find an upward trend in the black-white earnings ratio for given cohorts prior to 1965.

Figure 3 displays the ratio of median black earnings to the 25th percentile of white earnings for three cohorts of workers in each year between 1957 and 1974. Remarkably, the figure shows an upturn in black workers' earnings for each cohort after 1965.⁶ To summarize these time-series relationships, we again regressed the black relative earnings ratio on a constant, a time

⁶Following specific birth cohorts over time with March CPS data, John Bound and Richard Freeman (1989 pp. 41-45) find an upward trend in black workers' earnings relative to white workers, but they are unable to examine within-cohort trends prior to 1963.

TABLE 2—SUMMARY OF TIME-SERIES PATTERN OF RELATIVE EARNINGS WITHIN COHORTS

Variable	Cohort		
	1910–1919	1920–1929	1930–1939
Constant	0.88 (0.02)	0.87 (0.01)	1.39 (0.03)
Trend (÷ 100)	0.03 (0.36)	0.40 (0.23)	–6.35 (0.44)
Years since 1964 (÷ 100)	1.65 (0.54)	0.49 (0.34)	8.09 (0.66)
R ²	0.83	0.83	0.94

Notes: Standard errors are shown in parentheses. The dependent variable is the ratio of median black earnings to the 25th percentile of white earnings. The means (and standard deviations) of the dependent variables are: 0.937 (0.066) in column 1; 0.918 (0.042) in column 2; and 1.029 (0.129) in column 3. The sample size is 18.

trend, and a post-1964 time trend. The results are reported in Table 2. The regressions confirm the visual impression of an acceleration in black–white earnings convergence after 1965. The 1910–1919 cohort closed the racial gap in earnings by 1.68 points per year after 1965, while the 1920–1929 cohort closed the gap by 0.89 points per year after 1965. For both of these cohorts there was an upward trend in blacks' earnings relative to whites prior to 1965, but the post-1964 trend is significantly steeper.

The pattern displayed by the 1930–1939 cohort is especially noteworthy. Between 1957 and 1964, the median black worker in this cohort lost substantial ground relative to the 25th-percentile white worker. However, this decline in the black workers' position was arrested in 1965, and between 1965 and 1974 the median black worker gained 12 percentage points on the 25th-percentile white worker.

We have performed a similar analysis on the subsample of men living in the South in 1973 or 1978. These results lead to qualitatively similar conclusions, although the pre-1965 trend is greater for the 1910–1919 cohort in the South than for the same cohort nationwide, whereas the post-1964 trend is greater for the 1920–1929 cohort in

the South than for the same cohort nationwide.

IV. Further Analysis of the Within-Cohort Gains

To gain a better understanding of the convergence illustrated in Figure 3 we used Decennial Census data to investigate the average characteristics of workers who earned within 2.5 percent of the median or 25th-percentile worker in their race and cohort. Within each birth cohort, black workers near the median black earner have lower education than white workers near the 25th-percentile white worker. For example, in 1960 black workers near the median black worker have an average of 7.5 years of education, whereas white workers near the lower-quartile white worker have an average of 9.5 years of education. These figures are hardly different in 1970. By 1980, however, the gap in education between the median black worker and the lower quartile white worker fell to about half a year. Black men with earnings close to the median black earner are also far more likely to live in the South than are white men with earnings close to the 25th-percentile white earner. We conclude that the relative earnings gains documented in Figure 3 and Table 2 occurred for poorly educated Southern black workers.

Lastly, we used the CPS-SER data to examine participation rates of black and white workers. One explanation for the closing of the black–white earnings gap in the 1960's is that lower-earning black workers were led to withdraw from the labor market by the increasing generosity of social-welfare programs (Richard Butler and Heckman, 1977).⁷ The fact that overall labor-force participation rates declined more for black men than for white men between 1960 and 1970 is consistent with this view.

⁷Charles Brown (1984) and Finis Welch (1990) present evidence suggesting that racial differences in labor-market dropouts do not have a significant impact on the narrowing of the black–white earnings gap.

Here, we measure participation by the probability of employment in the covered sector within a calendar year. For each ten-year birth cohort, we calculated the fraction of the population with earnings from covered employment by race and year. An examination of the black-white ratios of covered employment rates indicates no discrete change after 1965. If anything, black workers' covered employment rates *increased* relative to those of whites in the mid-1960's. This pattern suggests that selective labor-force withdrawal cannot account for the trend-shift in the rate of convergence of black-white relative earnings after 1965.

V. Conclusions

We have assembled a new micro data base to reexamine trends in black-white relative earnings for specific cohorts of male workers between 1957 and 1974. To control for possible changes in the overall distribution of earnings, we focus on the ratio of median black earnings to the 25th percentile of white earnings. The results show a uniform increase in the trend toward equality for black workers relative to whites after 1965. In Card and Krueger (1992) we concluded that about one-fifth of the reduction of the black-white earnings gap between 1960 and 1980 can be attributed to changes in measured school quality for black workers. Improvements in school quality would not be expected to generate a discrete change in the black-white earnings gap for a cohort after it entered the labor market. Coupled with micro studies of affirmative-action programs (see Jonathan S. Leonard [1990] for a survey) and previous time-series studies of CPS and Social Security earnings data, our within-cohort analysis suggests that civil-rights legislation played a significant role in the narrowing of the black-white earnings gap in the 1960's.

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