This research report explored the extent to which occupational differences between whites and blacks are due to education (and other universalistic criteria) versus the extent to which they are due to outright racial discrimination in hiring and promotion practices. Previous research findings might be used to conclude that attempts to reduce racial inequality through expanded educational opportunity is a relatively poor and low-yielding investment. However, data from the Bureau of Labor Statistics were used to examine the possibilities of reducing white-nonwhite occupational differences through higher educational levels of minority groups. Findings suggested two policy implications: (1) Attempts to increase educational attainment should be focused at the college level, and (2) Direct enforcement of anti-discrimination should be focused on middle status jobs which are normally filled with high school graduates. (Author/DM)
RACE, EDUCATION, AND JOBS

TRENDS, 1960-1970

by Murray Milner*

(Paper presented at Eastern Sociological Society Meeting, New York City, April, 1971.)

The Problem

A great deal of emphasis has been placed in recent years on the importance of minority group members raising their level of education. Television commercials and bus and subway posters frequently emphasize the importance of "staying in school" and "getting a good education." Conventional wisdom advises the minority group member who wants to advance himself to "learn, baby, learn." Yet there are both activists and researchers who question the effectiveness of such a strategy of "getting ahead."

In discussing this issue it is necessary to distinguish between two questions. The first is whether higher levels of education will enable Negroes to secure better jobs, and the answer is obviously yes. The extent to which this is true can be seen in Bureau of Labor Statistics tabulations of color by education by occupation for any recent year. In March of 1970, sixty-five percent of nonwhite men with four or more years of college were professionals or technical workers, while only four percent of the high school graduates had such jobs.1 The pattern was similar for other levels

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of education and occupational status. For example, thirty-two percent of nonwhite men with one to three years of college had clerical or sales jobs while the figure was seventeen percent for high school graduates and seven percent for high school drop-outs.

The second and more important question focuses on the differences between the occupational attainment of whites and nonwhites with the same levels of education. The problem is to determine the extent to which occupational differences between whites and blacks are due to differences in education (and other universalistic criteria) versus the extent to which they are due to outright racial discrimination in hiring and promotion practices.

Previous Research

Siegel (1965) analyzed the relationship between color, age, education, and occupation using 1950 and 1960 census data. He found that when he controlled for education, occupational differences seemed to have decreased slightly between 1950 and 1960 for both intra- and inter-cohort comparisons. However, "the most basic pattern [was one] of white-nonwhite differentials persistent at least since 1940 . . . ." Moreover, for the younger age cohorts with four or more years of college there was even a slight increase in occupational differences between whites and
nonwhites from 1950 to 1960. Of special interest to our concern was his finding that as the level of education increased the amount of occupational segregation increased. That is, there was less difference in the occupational distribution of whites and nonwhites with low levels of education than for those with higher levels. The one exception is for those with four or more years of college.

Duncan (1969) attempted to estimate the relative influence of three factors on occupational differences between white and nonwhite males using a causal model derived from a path analysis of data collected in 1962. Scoring occupations according to his Socioeconomic Index for all occupations, he found that the mean occupational status score for whites was nearly twice as high as the score for nonwhites. About 28 percent of the white-nonwhite difference in mean scores was accounted for by differences in family background, i.e., the tendency of nonwhites to have fathers with a lower level of educational and occupational status than whites. About two percent of the difference was accounted for by the tendency of nonwhites to have more siblings. Another 20 percent of the occupational differences were accounted for by the tendency of nonwhites to have lower levels of education. Fifty percent of the difference remained unexplained. While some of this unexplained residual difference may be due to factors such as geographical region
and age, it seems quite plausible to infer that most is due to outright racial discrimination in hiring and promotion practices.

Policy Questions

These findings might be used to conclude that the attempt to reduce racial inequality through expansion of educational opportunities for blacks is a relatively poor investment which is likely to yield only small improvements. In large measure such a conclusion may be warranted. Despite the prevalent "learn, baby, learn" ideology the basic problem is still white racism and not black incompetence due to lower levels of education.

However, once this is said, it would be foolish to ignore the possibilities for reducing white-nonwhite occupational differences through raising the educational levels of blacks and other minorities. We will now examine the data which is available from the Bureau of Labor Statistics to see if such a strategy might prove fruitful.

The Data

All data in this paper has been collected and cross tabulated by the U.S. Bureau of the Census. The data were derived from publications of either the Bureau of the Census
or the Bureau of Labor Statistics (see table source notes). With the exception of the figures for 1960, which were collected during the decennial census, the data were collected during the annual March Current Population Survey and are subject to the limitations and sampling error characteristic of this sample. The tabulations are for employed men by occupation, education and color—i.e., whites and nonwhites. Consequently this paper is, technically speaking, about color (rather than race), education, and jobs.

The Analysis

The first question with which we are concerned is whether the degree of occupational segregation has changed in recent years. The data relevant to this question is presented in line one of Table 1 which shows the index of dissimilarity for the white and nonwhite occupational distributions for selected years from 1960 to 1970. The index of dissimilarity represents the percentage of individuals that would have to change from one occupational category to another in order for the whites and nonwhites to have the same occupational distribution. For example, in 1970 36.4 percent of the nonwhites (or whites or a combination) would have had to
change occupations—moving to higher status categories—for nonwhites to have the same distribution as whites.

What the index shows is that since 1966 there has been a slow decrease in the dissimilarity between whites and nonwhites.3 Approximately one fourth of the gap that existed in 1966 was eliminated by 1970, that is, the 1970 value of the index was approximately 25 percent lower than the 1966 figure.

The next question is how much of this decrease is due to increases in the educational level of nonwhites and how much is due to other factors such as job discrimination, family background, geographical region, etc. Line two of Table 1 shows a dissimilarity index that has been standardized to eliminate the effects of all factors except differences in the years of schooling between whites and nonwhites. This was done by taking the actual number of nonwhites at a given level of education and then distributing them among the occupational categories according to the percentages for the whites at that level of education. When this is done for all levels of education and the results are summed for each occupational category across all levels of education, we have an occupational distribution of nonwhites that would be expected if their treatment in the job market were the same as whites with comparable levels of education. A dissimilarity index is then calculated between the expected nonwhite and the actual white distributions.
When we examine this index over the eleven year period there is no strongly discernable trend though there does appear to be a very slight decrease in occupational segregation due to education since 1967.

Of more interest, however, is the influence of education relative to all other factors. This is shown in line three which is a ratio between the actual and the standardized indices in lines one and two. These ratios represent the percentage of the actual occupational dissimilarity that is due to nonwhites having less education than whites.4

The surprising finding is that the relative effect of education has increased. This means that increasingly the differences in occupational distribution have been due to differences in the years of schooling between blacks and whites. The most plausible interpretation of this finding is that discrimination in hiring and promotion practices has been decreasing at a faster rate than the gap between white and nonwhite levels of education has been closing.

It should be kept in mind that, like the estimates by Duncan, the figures in Table 1 are averages across all levels of education. Consequently the next question which needs to be considered is whether differential effects of lower education and other factors—primarily discrimination in the job market—varies for different levels of education. That is, when differences in occupational distribution of
nonwhites and whites having a college education are compared to differences for those with, e.g., a high school education, is the amount of dissimilarities (presumed to be primarily discrimination) greater, less, or the same? Another way of conceptualizing the issue is to ask whether the differences in white and nonwhite "exchange rates" between education and occupational status vary for different levels of education.

One way of estimating this is by calculating a separate occupational dissimilarity index for each level of education. The results of this procedure are shown in Table 2.5

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<th>Table 2 About Here</th>
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Not surprisingly, the general pattern of change over time is very similar to the pattern in Table 1, since this is simply another way of looking at the same trend data. Of more interest are the variations that occur between levels of education. Siegel found that the amount of discrimination increased as the level of education rose until Negroes had a college degree at which point it decreased significantly. (This is not to say that Negroes with higher levels of education were worse off than those with less education, only that they were farther behind whites with comparable education.)
If this situation still existed it would mean that each increment of increase in education would bring an increasingly small increment in occupational status, at least up to the point of receiving a college degree. In this sense, investments in education would produce a decreasing rate of return at the higher levels. However, this pattern seems to have changed significantly. Since 1960, with the exception of 1965, the greatest amount of dissimilarity has occurred not at the level of "some college," i.e., one to three years, but for high school graduates or high school dropouts. Consequently, not only do Negroes who complete one or more years of college receive better jobs than those with less education, but they also come closer to having jobs similar to whites with the same levels of education, i.e., a higher "job market exchange rate." This is even more true for nonwhites who receive college degrees.

Interpretation

A comment is in order about the curvilinear relationship between discrimination and level of education (Table 2). Two possible interpretations come to mind, and probably both are partially true.

The first might be called the "middle class respectability hypothesis." It hinges on two assumptions. First, individuals who have the power to hire, fire and promote are
for the most part members of the white middle class. Secondly, when they hire people, the higher the status of the position the more they are concerned about the middle class respectability of the applicants.

Consequently, at the lower levels of the occupational structure the employer does not pay too much attention to race since respectability is not very salient. At the middle levels the saliency of respectability increases significantly, and the positive influence of a higher level of education (some high school or a high school graduate) does not offset the negative influence of race. However, entering college and especially obtaining a college degree is an important symbol of middle class respectability. If a Negro has obtained this credential, he has from the point of view of whites, made a qualitative increment in his social status. The black man is not only made more acceptable to prejudiced whites, but the latter are given a rationale for treating that Negro as "an exception." Such Negroes can no longer be screened on the basis of social class criteria since they have the appropriate class credentials. Consequently, if discrimination continues, race instead of "merit" becomes the explicit reason. Rather than suffer the full impact of such an obvious conflict between ideology and actions, whites find it easier to accept such blacks at least on a somewhat more equal basis.
The second interpretation hinges on the distribution of blacks according to level of education. The modal categories are high school dropouts and graduates, depending on age, and these are the categories which suffer the greatest discrimination. As the number of Negroes at higher levels of education increases, the level of discrimination may tend to increase to cope with the competition such educational change poses for the white population. In light of the pressures toward greater equality it seems unlikely that any such tendency would fully offset gains based on other social processes, such as the "middle-class respectability" phenomenon suggested in the first interpretation. My own data and analysis do not allow a test of these interpretations. While there was a debate in the literature five years ago which was at least indirectly relevant to the questions, the discussion was largely inconclusive (see Hodge and Hodge, 1965; and Taeuber, Taeuber, and Cain, 1966).

**Policy Implications**

Very briefly these findings would tend to suggest two policy implications. First, if we are interested in rapid reductions in occupational inequality, attempts to increase educational attainment should be focused at the college level. That is, since there is least discrimination
against Negro college graduates we should get the greatest amount of rapid assimilation by getting high school graduates into and out of college. However, two qualifications are necessary. If the cost and difficulty proved to be much greater than the cost of increasing attainment at other levels of education, the suggested strategy would be considerably less appealing. Secondly, in order to get greater numbers of blacks into college we obviously must continue to get large numbers through high school. Consequently an outright neglect of lower levels of education in order to increase the proportion of blacks who receive higher education is necessarily self-defeating in the long run.

A second implication is that attempts at direct enforcement of anti-discrimination should be focused on middle status jobs which are normally filled with high school graduates. For if the residual differences are a valid measure of outright discrimination, these middle levels are where discrimination is greatest.

Finally, let me repeat again that the basic problem for blacks is still racism and discrimination, not lack of education. But this seems to be changing, and it would indeed be tragic if in the future we found ourselves unprepared to take advantage of the equality of opportunity for which blacks have sought so long.
Table 1. Actual indices of occupational dissimilarity between whites and nonwhites compared to indices obtained when populations are standardized for education: selected years since 1960

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</thead>
<tbody>
<tr>
<td>a. Actual</td>
<td>36.4</td>
<td>39.0</td>
<td>36.0</td>
<td>37.6*</td>
<td>33.4</td>
<td>34.5</td>
<td>29.7*</td>
<td>28.3*</td>
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<tr>
<td>b. Standardized</td>
<td>12.3</td>
<td>11.4</td>
<td>10.9</td>
<td>12.6*</td>
<td>12.8</td>
<td>11.1</td>
<td>11.7*</td>
<td>11.5*</td>
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<tr>
<td>c. Ratio (b + a)</td>
<td>33.8</td>
<td>29.2</td>
<td>30.3</td>
<td>33.5</td>
<td>38.3</td>
<td>32.2</td>
<td>39.4</td>
<td>40.6</td>
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</table>

*Not strictly comparable with other years; based on eight occupational categories, while tabulations for other years used nine categories

Table 2. Index of dissimilarity for major occupations for whites and nonwhites by level of education for employed males aged 18 and over: selected years since 1960

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<td>College</td>
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<tr>
<td>4 or more</td>
<td>14.7</td>
<td>16.3</td>
<td>29.3</td>
<td>20.7</td>
<td>17.7</td>
<td>14.0</td>
<td>12.7</td>
<td>10.2</td>
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<tr>
<td>1 to 3</td>
<td>27.3</td>
<td>29.1</td>
<td>43.0</td>
<td>33.9</td>
<td>24.2</td>
<td>22.7</td>
<td>20.0</td>
<td>20.9</td>
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<td>High School</td>
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<td>4</td>
<td>31.9</td>
<td>35.4</td>
<td>34.1</td>
<td>34.8</td>
<td>38.1</td>
<td>34.0</td>
<td>28.6</td>
<td>27.2</td>
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<tr>
<td>1 to 3</td>
<td>32.2</td>
<td>34.6</td>
<td>30.5</td>
<td>31.5</td>
<td>30.2</td>
<td>28.5</td>
<td>26.8</td>
<td>26.5</td>
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<tr>
<td>Elementary</td>
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<td>8</td>
<td>31.0</td>
<td>32.9</td>
<td>31.4</td>
<td>28.4</td>
<td>26.2</td>
<td>27.8</td>
<td>25.6</td>
<td>23.1</td>
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<tr>
<td>Less than 8</td>
<td>27.4</td>
<td>31.0</td>
<td>28.9</td>
<td>26.7</td>
<td>22.4</td>
<td>24.1</td>
<td>21.3</td>
<td>18.0</td>
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</tbody>
</table>

*Not strictly comparable with other years; based on eight occupational categories while tabulations for other years used nine categories

FOOTNOTES

1 See section on "The Data" for source of these figures.

2 This index is calculated by subtracting the percentage of nonwhites in each occupational category from the percentage of whites in the same category, and summing only the positive (or only the negative) differences across all occupational categories.

3 The indices for 1966, 1969, and 1970 are not strictly comparable with the other years since for these years the tabulations contained only eight occupational categories while in the other years there were nine categories. This fewer number of categories tends to slightly depress the index. Usually the difference is not more than one to three percentage points. For example, in 1968 the nine category index was 34.5 while an eight category index for the same data was 32.6.

   This limitation in comparability means that the decrease from 1968 to 1969 and 1970 is probably about half of that indicated. That is, a nine category index would probably be about 30.0 for 1970.

4 Incidentally, these ratios eliminate the non-comparability of the data for 1966, 1969, and 1970 since both the actual and the standardized indices are more or less equally affected by the different number of occupational categories.

5 As with Table 1 the data for 1966, 1969, and 1970 is not strictly comparable with the other years.

6 That is, the gap between whites and blacks with the same amount of education.
CITATIONS

Duncan, Otis Dudley


Hodge, Robert W. and Patricia Hodge


Siegel, Paul M.


Taeuber, Alma F., Karl E. Taeuber, and Glen G. Cain


U.S. Bureau of the Census


U.S. Department of Labor


