DOCUMENT RESUME

ED 113 425 UD 015 565

AUTHOR Hauser, Robert M.; Featherman, David L.
TITLE Equality of Access to Schooling: Trends and Prospects. Working Paper No. 75-17.
INSTITUTION Wisconsin Univ., Madison. Center for Demography and Ecology.
SPONS AGENCY National Inst. of Child Health and Human Development (NIH), Bethesda, Md.; National Science Foundation, Washington, D.C. RANN Program.; Wisconsin Univ., Madison. Inst. for Research on Poverty.
REPORT NO CDE-WP-75-17
PUB DATE 75
NOTE 61p.; Paper prepared for conference on "More Equality as a Goal of Public Policy" (Institute of Advanced Study, Princeton, New Jersey, 1975)

EDRS PRICE MF-$0.76 HC-$3.32 Plus Postage
DESCRIPTORS *Census Figures; *Demography; Economic Factors; Educational Background; *Educational Opportunities; Family Background; *Longitudinal Studies; Minority Groups; Multiple Regression Analysis; National Surveys; Racial Differences; *Social Differences; Social Factors; Socioeconomic Status; Statistical Analysis

ABSTRACT

This essay treats inequality in access to schooling in demographic perspective. In constructing a brief history of educational inequality in the U.S., the 1962 and 1973 surveys of "Occupational Changes in a Generation" are drawn on heavily. It is found that among men born in the U.S. during the first half of this century, inequality of schooling has declined sharply, even as educational attainment has increased to levels unprecedented elsewhere in the world. Not only has total inequality in the distribution of schooling declined, but both the variability in schooling which may be attributed to differences in social background and the variability which is independent of social background appear to have declined. Moreover, these increases in educational equality appear to have occurred within black and Spanish minority groups as much as in the majority population. There is a mixture of change and stability in the effects of social background characteristics on schooling. On the whole, social origins have become more favorable to high levels of schooling with minority groups, as in the majority population, but large differences in social origins persist among these groups, and in some instances the social origins of majority and minority populations have diverged. For cohorts of U.S. men born in this century, half or more of the variance in schooling must be attributed to the influence of family background. (Author/JM)

Center for Demography and Ecology

The University of Wisconsin-Madison

EQUALITY OF ACCESS TO SCHOOLING: TRENDS AND PROSPECTS

Robert M. Hauser
David L. Featherman

Working Paper 75-17

Prepared for a conference on "More Equality as a Goal of Public Policy," at the Institute for Advanced Study, Princeton, New Jersey. We wish to thank Peter J. Dickinson and Neil D. Fligstein for their assistance in computation. Ronald R. Rindfuss kindly let us use his unpublished tabulations of mother's education by race and year of birth from the Censuses of 1960 and 1970. This research was supported in part by the Division of Social Systems and Human Resources, RANN-NSF (Grant No. GI-31604X), by the Center for Demography and Ecology, University of Wisconsin-Madison, which has core support from the National Institute for Child Health and Human Development (Grant No. HD05876), and by the Institute for Research on Poverty at the University of Wisconsin-Madison, under funds granted by the Economic Opportunity Act of 1964, and administered by the Department of Health, Education and Welfare. The opinions expressed are those of the authors.

This essay treats inequality in access to schooling in demographic perspective. In populations, distributions of schooling are not only generated by normative, institutional, or economic arrangements, but also by the changing distribution of populations across social categories which vary in those arrangements. Social organization is also affected by population composition and distribution, but that will be of secondary concern here.

While formal schooling is subject to age-variation in its beginning and end-points, in duration, in intensity, and in content and quality, almost universally it is acquired and completed in an early segment of the life-cycle. The educational experiences of successive birth cohorts reflect prevailing social conditions at the time they were growing up. Because of differentials in marriage and fertility and the association of those processes with other social characteristics, cohort educational histories do not represent, or at most give a distorted representation of social conditions faced by adults and families in each historical period. In cross-section, the educational distribution of the adult population is an aggregate of the diverse histories of several cohorts, weighted by initial differences in cohort size and subsequent effects of mortality and migration.

Thus, the educational stock of the population in cross-section is not homogeneous in its historic origins. It is a complex agglomeration of personal biography and of the flow of persons through the

educational system over time. It reflects, but does not represent, prevalent modes of social organization in both the recent and not-so-recent past. In general, we shall argue, the effects of the demographic translation of past conditions to the present are both to smooth and to prolong processes of social change (Ryder, 1965). The smoothing effect occurs because past social conditions are not only represented in the present, but continue to have substantial social consequences. Social transformations are prolonged because of the empirical regularity with which the demographic translation of earlier social conditions into current population distributions gives disproportionate weight to social categories and arrangements which are either disadvantageous or diminishing in importance.

We would be pleased to see greater social equality in access to schooling and within the schools, and also greater equality in the outcomes of schooling. With these goals in mind, it is instructive to look at changes in the distributions of schooling and its social antecedents in the United States. As we have already argued, the cross-sectional distribution of schooling, even in recent cohorts; reflects the substantial prevalence of social conditions which are unfavorable to high levels of schooling. At the same time, the amount of schooling and the inequality of its distribution have changed dramatically across cohorts. To the extent that inter-period shifts in the education distribution and other relevant social conditions are not attenuated

by demographic processes, we may expect changes in expected and desired schooling distributions to continue for decades to come.

Further, there have been changes in the importance of specific sources of educational inequality. To be sure, great inequities persist, and some of these are likely to resist any forseeable alterations of social organization. Still, the fact that real changes have occurred in the incidence of educational inequality is at least encouraging in respect to the possibilities of future change. Other aspects of social stratification, e.g., occupational mobility across generations, appear to be less amenable to change (Hauser, et al., 1975a; 1975b). Temporal variation in the sources of educational inequality also places current problems in perspective. Though we appear to be in a period of pessimism and uncertainty, it is a fact that not all social problems persist. The perception of social inequalities as social problems is partly a function of their magnitude and not solely of our attention span.

There are numerous educational indicators in terms of which one might like to trace the recent history of educational inequality in the United States. Without attempting to be exhaustive, a list of such indicators might include measures of academic ability and achievement in several content areas; measures of motivation, aspiration, and attitudes toward a variety of social, economic and political matters; measures of the human, physical and financial resources invested in the schooling process; and measures of educational credentials, that is, of

the time spent in different types of schools. For the past ten years or so, there is a vast research literature which documents social inequalities in each of these areas. (For example, see Jencks, et al., Inequality, 1972.)

However, the temporal scope of our inquiry is longer, including all of the twentieth century. Moreover, we wish to be assured of the comparability of our measures across time and to represent the experience of the U. S. population and its major social, economic, locational, and ethnic subgroups. Under these conditions, we are restricted to one family of indicators, those derivable from years of schooling or educational attainment. Given the near universality of high school graduation in recent cohorts and the several pieces of evidence that levels of schooling are not homogeneous in their effects, we are tempted to piece together one social history of college attendance and graduation, another of high school completion, and perhaps a third on the diffusion of elementary schooling. At the risk of considerable oversimplification, and because the scope of those other tasks is unmanageably large, our investigation is limited to one variable, the number of school-years completed.

If our choice of educational indicators is dictated by necessity, neither is it entirely unfortunate. Educational attainment is expressed in a natural metric, years of schooling. We can think of no more

tangible representation of investment in education than the commitment of time to schooling. Educational attainment is relatively easy to measure accurately in surveys; only two questions need be asked: "What is the highest grade of school attended?" and "Was that grade completed?" Consequently, it is readily classified by other social characteristics of individuals. Because years of schooling are "cumulative and irreversible for the cohort, as for the individual" (B. Duncan, 1968:602), it is possible to assess trend by comparing educational histories across cohorts surveyed at different ages in a single population cross-section, provided the cohorts are old enough to have completed their schooling, and the effects of differential mortality and migration are not too large. Finally, other educational outcomes appear to affect adult achievements primarily by way of their influence on the length of schooling. For example, this appears to be the case for measured ability (Duncan, 1968; Jencks, et al., 1972), and much the same result has been found for high school grades and educational aspirations (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970; Sewell and Hauser, 1975).

In constructing a brief history of educational inequality in the U. S., we shall draw heavily on the 1962 and 1973 surveys of "Occupational Changes in a Generation" (OCG) which were carried out in conjunction with the March demographic supplement to the Current Population Survey (CPS) in those two years (Blau and Duncan, 1967; Featherman and

Hauser, 1975a). Other Census data might provide superior detail in respect to attainment differentials by sex, race or color, and geographic origin. However, with the exception of the two OCG surveys, no other data for the United States exist which are based on a large enough sample to withstand detailed age classification and which include retrospective measures of the socioeconomic characteristics of parents of persons old enough to have completed their schooling. The 1962 OCG survey had a response rate of 83 percent to a four-page questionnaire which was left behind by the CPS interviewer. More than 20,000 men in the civilian noninstitutional population responded. In 1973, the eight-page OCG questionnaire was mailed out six months after the March CPS and followed by mail, telephone, and personal call-backs. The respondents, comprising 88 percent of the target sample, included more than 33,500 men aged 20 to 65 in the civilian noninstitutional population. Also, in the 1973 sample, blacks and persons of Spanish origin were sampled at about twice the rate of whites, and almost half the black men were interviewed personally.

Unfortunately, in the OCG samples, women are represented only through their husbands. That is, socioeconomic background characteristics of women were ascertained only if they were married and living with their husbands. While we have made comparable tabulations for the male and female married, spouse-present populations (Featherman and Hauser, 1975b), we shall not present them here. The process of educational attainment appears to be similar for men and women in respect to the

influence of social background (Featherman and Hauser, 1975b; see also Treiman and Terrell, 1975; Sewell, 1971; Sewell and Shah, 1967; Alexander and Eckland, 1974). Indeed, with regard to occupational status - but not necessarily other aspects of jobs - the effects of social background and schooling are also similar for men and women. Women's achievements are somewhat less related to the characteristics of their families of origin, especially farm origin, than are men's attainments, and the net effect of educational attainment on occupational status is larger for wives than for their husbands. Only in respect to earnings and factors influencing earnings is there marked divergence between the sexes. In the present context we thought population coverage would be too scanty and variable by age to justify the presentation of data for women by age from the OCG surveys. It is unfortunate that there is no large national sample from which women's cohort educational histories may be reconstructed.

Table 1 describes gross changes in the distribution of educational attainment in cohorts of American men born during the first half of the twentieth century. The data are drawn from both OCG surveys, and the two panels are labeled by year of survey. Temporal change is represented by intercohort comparisons, obtained by reading down columns of the table. For example, mean educational attainment ranged from 11.78 years among 20 to 24 year old men in 1962 (born in 1937-1941) to 8.91 years among 60 to 64 year old men in the same year (born in 1897-1901). Cohorts

born between 1907 and 1941 are represented in both surveys, so in the middle rows of the table there are replicate measurements of the same educational experience. Obviously, there are differences between the two surveys; especially men in the same cohort reported higher levels of schooling in 1973 than in 1962. In the cohorts of 1937 to 1941 and, perhaps, 1932 to 1936, there may have been real change in the schooling distribution between 1962 and 1973, but elsewhere the differences between survey years for corresponding cohorts must be ascribed to over-reporting of schooling by older men (which is well-documented), to changes in survey coverage, and to differences of method between the two surveys. We believe the last two sources of change were minimal. In any event, the important comparisons in the table are those within the columns, and the availability of data from both the 1962 and 1973 surveys makes it possible to replicate those trends and to extend the time series beyond the 45-year span covered in each survey. Also, the availability of data from both survey years makes it evident that the experience of the youngest cohort in each survey year does not necessarily follow the trend, presumably because 20 to 25 year old men have not completed their schooling and because a substantial proportion of men in that age group have been in the military. Having stated these methodological caveats in respect to Table 1, we shall not dwell on them further.

Three substantial trends are evident in Table 1. First, as indicated

by mean years of schooling, levels of educational attainment have increased regularly and substantially across cohorts born in the first half of the twentieth century. The total increase in the average length of schooling is about four years, and that may be an underestimate because of age biases in reporting and because schooling is not yet complete in the youngest cohort covered in the 1973 survey. Differences in years of schooling completed probably understate the total change in exposure to regular schooling, for both the length of the school year and the average daily attendance (especially the latter) have increased in the same period. For example, between 1920 and 1968, the average school term increased from 162 to 179 days and the mean daily attendance from 121 to 163 days at the elementary and secondary level (U. S. Department of Health, Education and Welfare, 1972:28). Second, as indexed by the standard deviation, the variability of schooling has declined across cohorts. There is little more than half as much variance in educational attainment among men born during World War II as there was among men born at the time of the Spanish-American War. Third, as a consequence of these first two trends, inequality in the distribution of schooling has fallen rapidly from one cohort to the next. The coefficient of variation (standard deviation divided by the mean) of educational attainment dropped by half during the 50-year span covered by our time series.

As one might expect, the trend in schooling has given rise to

substantial disjunctures between levels of schooling obtained by men and their fathers. It is interesting that the report of the Panel on Youth of the President's Science Advisory Committee (1974:45) points to this as an important source of intergenerational conflict. Table 2 gives differences between the educational attainments of fathers and sons in the 1962 and 1973 OCG surveys. These measures of intergenerational educational mobility range between 2 and 4 years. Obviously, this does represent a substantial social change with immediate impact on the lives of large numbers of men. Among men covered in both surveys and aged 25 or more in 1962, the generational differences are about half a year larger in the later than in the earlier year. This is partly due to the higher levels of education reported by older men, but also older men reported lower levels of schooling for their fathers. It is not clear which series ought to be taken more seriously, but it does appear that most cohorts have experienced intergenerational educational mobility of at least three years of schooling. Our reading of both surveys is that the intergenerational differences in schooling peaked among men born shortly after World War I and has declined since then. If educational mobility is a source of generational conflict, it may not have been as great among the cohorts of the baby boom as among earlier, but smaller birth cohorts.

Table 3 shows changes in educational attainment between adjacent five-year age cohorts covered in the OCG surveys. The succession of cohorts gives a more direct picture of the way period educational

distributions change than do the intergenerational measures in Table 2. Of course, the shifts between adjacent cohorts are less than those between fathers and sons, in part because of the shorter length of time entering the intercohort comparisons. However, the average intergenerational differences are by no means determined by period differences between cohorts, for average differences between fathers and sons could be effected by differential fertility and changes in it when period educational distributions are constant.

The observed differences in mean educational attainment between successive five-year age cohorts show parallel patterns of decline over most of the period covered by both time series. Of course, the comparison between the two youngest cohorts in each series should not be taken seriously as an indication of trend. Still, the two time-series do suggest that the educational distribution may have been upgraded at a decelerating rate in recent periods.

To a substantial degree, the mean shifts in educational attainment between cohorts may be attributed to parallel changes in their social background composition. Suppose we assume the effects of several social background variables on schooling are constant across cohorts within each survey. Taking into account intercohort changes in father's educational attainment, father's occupational status, number of siblings, broken family, farm background, Southern birth, Spanish origin (1973 only), and race, the average shifts in educational

attainment between cohorts are shown in the "adjusted" columns of Table 3. Among cohorts older than 25 in both survey years the average observed intercohort shift is .41 years, and the average adjusted intercohort shift is .27 years. Thus, changes in social composition between cohorts account for about a third of the shifts in educational attainment. The remaining two-thirds of the temporal change represents true change in origin-specific levels of schooling, or, perhaps, the omission of relevant causal factors from our model. Moreover, like the observed intercohort shifts in schooling, the adjusted shifts also appear to be declining over time. At least in the series based on the 1973 survey, adjusted differences are falling at a faster rate than observed differences.

These findings suggest two broad conclusions. The first is that secular increases in educational attainment between cohorts may be decelerating, that in terms of recently prevailing social expectations the increase in the length of schooling is approaching its upper limit. Second, to a large and possibly increasing degree, the observed shifts in the educational distribution between successive cohorts may be traceable to changes in their social background, rather than to changing norms and practices regarding school attendance across social groups. We shall return at a later point to the question of whether these demographically induced shifts in social expectations are likely to persist in future decades.

In assessing inequalities of schooling, we are concerned not only with the total distribution of schooling and changes in it over time, but also with differentials in the length of schooling and their temporal variation. Table 4 gives a broad picture of social differentials in the length of schooling. Each column of the table gives the results of a regression equation estimated in the 1962 or 1973 data, and each row stands for a variable in that equation. The equations are estimated over all men in each year. The first two columns show regressions of educational attainment on four family background variables: father's educational attainment, father's occupational status on the Duncan (1961) scale when the respondent was about 16 years old, the respondent's number of siblings, and whether the respondent was living with both of his (socially defined) parents most of the time up to age 16.

Except for an anomalously high coefficient of father's occupational status in 1962, the regression findings are similar in the two years. (On the basis of evidence not presented here, we think a substantive interpretation of the differences in the coefficients of father's occupation between surveys is unwarranted.) The four background variables account for about 30 percent of the variance in the length of schooling in both surveys, and the errors of estimate (standard deviation of observed attainment levels about the regression line) are also similar. With the exception already noted, a year of father's schooling, 10 points of father's occupational status, and

an additional sibling each produce about a one-quarter year shift in schooling. On the average, having a father who graduated from college rather than high school, who was a bank manager rather than the service manager in a garage, who was a postmaster rather than a construction foreman, who was a policeman rather than a porter, or who had two children rather than six, each was worth about a year of additional schooling to a young man growing up in the United States. Men who were raised in a broken family were handicapped by .7 or .8 years of schooling, relative to men who grew up with both parents. We have not shown any standardized regression coefficients; some readers may be interested to know that in virtually every subpopulation we have looked at, father's education is relatively more important than any other background variable. As an aside, we note that "father's" occupation and education actually refer to occupation and education of the (male or female) family head among men who did not live with their fathers while they were growing up.

In the second panel of Table 4, we take into account two geographic factors of social background, being raised on a farm and being born in the South. Excepting a reduction of about 20 percent in the coefficient of father's occupational status (due to the introduction of farm background, which is defined in terms of father's occupation), these two variables do not strongly affect the coefficients already described. However, the geographic variables do have substantial

effects. On the average, farm background cost American men a full year of schooling, and Southern birth somewhere between .4 and .8 years of schooling. The difference between the effects of Southern background in the two surveys is not an artifact like that of father's occupational status. At least in part, it reflects a change in the influence of regional origin.

In the third panel of Table 4, we add two more variables reflecting minority status, Spanish origin (defined in terms of the original nationality of one's family on the father's side) and race (black vs. other). Excepting a modest reduction in the coefficients of broken family in both years and that of Southern birth in the 1962 survey, the substantial effects of these two variables are not heavily confounded with those already described. Spanish origin (measured only in the 1973 survey) was responsible for a handicap of 1.3 years of schooling among men who were otherwise similar in respect to family background and geographic origin. Being black cost a man 1.3 years of schooling in 1962 and almost half a year of schooling in 1973. The difference in the effect of race between the two surveys reflects a real social change, to which we shall later give greater attention.

Finally, the last panel of Table 4 adds a variable representing membership in a particular birth cohort to those already in the equation. The coefficients for birth cohorts are simply a rearrangement

of the adjusted intercohort shifts discussed in connection with Table 3. With two exceptions, the effects of social background are not heavily confounded with temporal variations in schooling. About 20 percent of the handicap imposed by farm background is explicable in terms of the greater prevalence of farm origins in cohorts which obtained lower levels of schooling. Further, failure to take account of the changing fraction of blacks and men of Spanish origin in different cohorts leads to an underestimate of the handicap of minority status. Comparing the first and last panels of Table 4, we see that the effects of the four family background variables are not highly confounded with those of the several other background characteristics we have examined. No more than about 20 percent of their effects are attributable to handicaps or advantages of geographic origin, minority status, or the time of one's birth.

In sum, the several factors we have examined account for a little more than a third of the variance in the length of schooling. Thus, there are substantial inequalities of educational attainment which cannot be attributed to factors of social background of the kind usually associated with inequality of educational opportunity. This is not to say we cannot explain more of the variance in schooling with readily measured variables. Knowledge of measured ability alone would substantially increase the predictive power of equations like those estimated here and would substantially reduce the estimated

direct effects of social background variables. With a little more academic and social psychological data, it is possible to account for 55 or 60 percent of the variance in the length of schooling (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970; Hauser, 1972). However, these possible elaborations of the model, while relevant to discussions of overall inequality, are not pertinent to a specification of the extent of inequality which may be traced to social and economic origins. Later, we shall take up an alternative and broader specification of inequality of opportunity.

How have cohorts of U. S. men changed in their social origins during this century? Table 5 displays means and standard deviations of the four background variables by five-year age cohorts in the 1962 and 1973 OCG surveys. Again, there appear to be methodological effects of the surveys, but these do not preclude an assessment of trend. Mean levels of father's education have increased regularly across cohorts, increasing from about seven years to almost eleven years between cohorts born at the turn of the century and those born just after World War II. These changes obviously reflect period socioeconomic fertility levels and differentials and possible variations in them as well as the secular increase in men's schooling. For example, there is virtually no change over cohorts in the variance of father's educational attainment, which is always greater than that among sons in the same cohort; recall that the variability of

period schooling distributions has declined markedly over time.

Mean levels of father's occupational status increased across cohorts, and its variance also increased. Both these phenomena are doubtless attributable in part to the declining numerical importance of farming as an occupational category, but the socioeconomic status of the occupational distribution has also increased in other respects (Duncan, 1965; Hauser and Featherman, 1973; Hauser and Featherman, 1974). Mean numbers of siblings have gradually declined over time. Most of the two time series show only irregular shifts in the incidence of broken families, but the 1973 data suggest a recent decline in the incidence of broken families. Again, it is worth recalling that these data do refer to the conditions of upbringing of cohorts of youngsters, not to characteristics of families in any period.

Table 6 shows the changing composition of cohorts with respect to geographic origin and minority status. About a third of U. S. men have been Southern-born throughout this century. The percentages of blacks and of the Spanish-origin population have gradually increased over time. The latter increase is no doubt attributable to immigration as well as to differential fertility. Perhaps the most important single change in the social composition of U. S. birth cohorts during this century is the declining proportion with farm origins. Among men born at the turn of the century, more than 40 percent were

raised on farms, and of men born just after the end of World War II, only about 10 percent were raised on farms.

Overall, as we saw in Table 3, the effects of the changing social composition of cohorts has been favorable to increasing levels of schooling. However, because of differential fertility, each new cohort gives disproportionate representation to conditions of upbringing which are unfavorable to high levels of schooling. Moreover, the aggregate change in the social composition of cohorts is a mixture of the positive effects (with regard to schooling) of changes in father's educational and occupational status, numbers of siblings, and farm background, and the negative effects (with regard to schooling) of larger proportions of men with black skin or Spanish heritage.

So far, we have examined trends in inequality of the total educational distribution and changes in the social composition of U. S. birth cohorts, and we have looked at average effects of social background on educational attainment. With this as background, we now take a less aggregated look at the effect of social background, examining its influence within each cohort in the 1973 OCG survey. For the sake of brevity, we shall not present findings from the 1962 survey at this level of detail. There is greater sampling variability in the 1962 series, and they do not permit the same detailed classification by minority status. However, we have examined comparable regressions from the 1962 survey, and they are not

inconsistent with the conclusions drawn here. Intercohort comparisons from the 1962 survey have been presented by Beverly Duncan (1965, 1967).

In Table 7, we present regressions of educational attainment on eight social background variables in each of the nine five-year age cohorts covered in the 1973 OCG survey. It is with some misgivings that we present results for the youngest cohort, that aged 21 to 25 in 1973. We caution readers against interpreting the attenuated effects of social background in that cohort as evidence of trend. It is clear from our comparison of 1962 and 1973 data that effects of social background on the attainments of the youngest cohort may be expected to increase as that cohort ages. This caution pertains to all of the following analyses.

Even disregarding our findings in the youngest cohort, there is some evidence that the influence of social background on educational attainment has declined in this century. Certainly there is no evidence that it has increased. The proportions of variance in schooling explained by the eight background variables decline irregularly from about .35 to about .28. Further, the absolute deviations of educational attainment about the predicted values decline across cohorts. Among men aged 26 to 30 in 1973 (born in 1942-1946) there was only 60 percent as much variance in schooling, conditional on social background, as there was among men aged 61 to 65 in 1973 (born in 1907-1911). We interpret both of these trends, declines in

proportions of variance explained and in the scatter of observations about the regression plane, as evidence of greater equality of access to schooling. The first finding says that schooling is relatively less dependent on social background in more recent cohorts, that inequality of opportunity has declined. The second finding says that inequality of schooling has declined among persons who are similar in respect to their social origins. Thus, both between and within significant social categories, inequality of access to schooling appears to have declined.

The same argument can be made more directly in respect to absolute components of the variance in schooling. In the metric of years of schooling (squared) both the variance about the regression of schooling on social background and the variance in schooling attributable to social background have declined over time. Moreover, the latter component of variance has grown smaller relative to the former, as indicated by the irregular decline in coefficients of determination (R^2). For example, among men aged 26 to 30 in 1973 the component of variance in schooling attributable to scatter about the regression plane was 5.48 years squared, and the component attributable to social background was 2.14 years squared. At ages 61 to 65, the first component was 9.18 and the second 4.51. We have already noted that the variance about the regression plane fell by 40 percent across these eight cohorts; further, across the same cohorts,

the variance in schooling attributable to social background declined by more than half.

The declining influence of social background reflects changes both in the variance of social background characteristics, which we have already described, and in their effects on schooling. For example, the disadvantage associated with farm background declines gradually from about one year in the cohort born in 1912 to 1916 to about .8 years in the cohort born in the mid-1930s, and then it drops abruptly to insignificant levels. The handicap of Southern birth falls irregularly from half to three-quarters of a year in the older cohorts to less than a fifth of a year in the cohort of 1942 to 1946. The effect of Spanish origin remains large even among 26 to 30 year old men, who have a net handicap of a full year of schooling, but in older cohorts, Spanish origin was associated with a disadvantage greater than two years of schooling.

The changing influence of race on educational attainment is even more dramatic because net racial differences in the length of schooling have virtually disappeared among young men. Other things being equal (and they weren't), a black man born during World War I obtained a year and a half less schooling than his white age-peer, but there were essentially no net racial differences in schooling between black and white men born between the late depression years and the end of World War II. Of course, this is not to say that black men obtained

as much schooling as whites, only that the observed differences between the races in the later period were explicable in terms of the other social disadvantages of blacks.

We shall take one further step in disaggregating the recent history of educational inequality in the United States. Specifically, we look at intercohort trends in educational inequality and in the effects of social background on schooling within subgroups of the male population defined by minority status in three mutually exclusive subgroups: blacks (except of Spanish origin), men of Spanish origin, and other men (the white majority, and nonwhites other than blacks, except of Spanish origin). In order to retain reasonable sample sizes in the minority groups, we have collapsed the eight oldest five-year age cohorts into four ten-year cohorts. Still, some cells have rather small numbers of observations, and readers may wish to exercise greater caution in interpreting these results and pay more attention to the standard errors than in the case of the earlier tables. For example, in the oldest cohort of men of Spanish origin, our estimates of some correlations are based on as few as 200 sample cases.

Table 8 displays indicators of educational attainment and inequality among black, Spanish, and other men. We have already seen that levels of educational attainment in all of these groups have increased over time and that they are showing signs of convergence. Moreover, Table 8 shows that patterns of declining educational in-

equality among all men are replicated within each of the three population subgroups. That is, among black and Spanish men and in the majority population the total variability in schooling is declining, and inequality in the distribution of schooling is declining. Along with these parallel trends, there are persistent differences in the inequality of schooling among the three groups of men. In every cohort, the variability of schooling and the inequality of schooling are greater among Spanish than among black men and greater among black than among majority men. These differentials are large enough to suggest to us that a serious interest in the reduction of social inequality demands attention to the extent of inequality within minority groups as well as to differentials between majority and minority populations.

In Table 9, we present measures of the family background of minority and majority cohorts. Other than minority status per se, members of minority groups face large and persistent disadvantages of family background. In all three population subgroups, more recent cohorts had substantially higher levels of father's educational attainment. In all but the oldest cohort, the educational background of black men was superior to that of Spanish men. Some of the differentials between minority and majority groups are striking in magnitude. For example, among men born after the end of World War II

the fathers of black men had levels of schooling as low as those of the fathers of white men born 10 to 25 years earlier. Even the post-World War II cohort of Spanish men had fathers who averaged less exposure to schooling than the fathers of majority men born just after the turn of the century.

As in the case of father's education, there were gradual improvements in the status of father's occupations in all three groups. However, the occupational standing of the fathers of Spanish men, unlike their educational attainment, was higher than that of the fathers of black men. This differential between black and Spanish men does not reflect differences in proportions of men of farm background, but it could be effected in part by the greater incidence of broken families among black men. While occupational origins improved among all three subpopulations, there was a divergence between the occupational origins of majority and minority men. In the oldest cohort there was a five point difference on the Duncan scale between the occupational standing of fathers of Spanish and majority men, and there was a twelve point difference in status between the fathers of black and majority men. In the cohort born just after World War II, these differences had increased to fifteen points between Spanish and majority men and nineteen points between black and majority men.

The numbers of siblings of both black and Spanish men declined

over the period of our survey from just over five to just under five, while the numbers of siblings of majority men decreased substantially, from about 4.5 in the oldest cohort to about three in the youngest. Thus, as in the case of father's occupational status, differences between majority and minority groups in numbers of siblings increased during this century.

About a third of black men in every cohort were raised in broken families, compared with 20 to 28 percent of men of Spanish origin, and 10 to 16 percent of majority men. Moreover, the incidence of broken families has declined with some regularity among both Spanish and majority men, but not at all among blacks. Thus, the persistence of family instability in the upbringing of black men increasingly separates their experience from that of Spanish or majority men. However, we shall see that this continuing handicap is mitigated to some degree by declines in the effect of family instability on the educational attainments of black men.

The percentages of minority and majority men with farm background and of Southern birth are shown in Table 10. Among all three sub-populations, the prevalence of farm background has fallen dramatically in this century, from 60 percent to 16 percent among black men, from 47 to 22 percent among Spanish men, and from 34 to 10 percent among majority men. These figures serve as strong reminder that the U. S. population is not far removed from its rural origins. About a quarter

of Spanish men and majority men were born in the South throughout this century, but very high, if decreasing proportions, of black men were born in the South. Shortly after the turn of the century, nine out of ten black men were Southern-born, and even in cohorts completing their schooling in the recent past, nearly three-quarters of black men were born in the South.

Overall, with the important exception of the prevalence of broken families among black men, the social backgrounds of minority and of majority men have become more favorable to high levels of schooling during this century. However, these changes have occurred more rapidly in some background characteristics than in others and more rapidly in some subpopulations than in others. Majority and minority groups have become more similar in the prevalence of farm background and of Southern birth, but a large gap still separates blacks from other men in the latter respect. Majority and Spanish populations have converged in the prevalence of broken families, but both have diverged from the black population in this respect. The majority population has diverged from those of black and of Spanish men in respect both to levels of father's occupational status and of numbers of siblings. Clearly, differences in social composition between majority and minority populations continue to work against the equalization of their educational distributions. Only a lessening of the handicaps imposed by social background, as well as in the direct effects of minority status, could substantially reduce the educational differentials between majority and minority populations.

We have already presented some evidence that factors of family and geographic origin, as well as the fact of minority status per se, have become less important during this century in differentiating the educational attainments of U. S. men. However, those findings on social background characteristics other than minority status ignore trends and differentials in the effects of social background among the black, Spanish and majority subpopulations. Table 11 presents regression analyses of educational attainment by broad age cohorts within these three subpopulations.

The overall correlation between social background and educational attainment, given by the coefficients of determination (R^2), is less among black than among majority men and less among majority men than in the Spanish-origin population. There is no clear trend in these coefficients in the black or Spanish populations; again, recall that coefficients for the youngest cohort are best ignored in this context. In the majority population, the coefficients show the same slight downward trend which we earlier observed among all men.

Among black and Spanish men, as among majority men, there has been a reduction during this century in the extent of educational inequality net of social origins. From the cohort of 1907 to 1916 to that of 1937 to 1946, the variance about the regression of schooling on social background fell by 54 percent among black men, by 44 percent

among Spanish men, and by 35 percent among majority men. As in the total population, the variance in schooling attributable to social background declined absolutely, by nearly half, between the cohorts of 1907 to 1916 and those of 1937 to 1946. Moreover, the data suggest that similar declines in the influence of social background occurred in the black and Spanish populations. Among black men, the variance in schooling attributable to social background was less in the oldest ten-year cohort than in its immediate successor, but it declined from the cohort of 1917 to 1926 to that of 1937 to 1946 by more than 60 percent. Even between the cohorts of 1907 to 1916 and 1937 to 1946, the variance in schooling attributable to the social backgrounds of black men fell by 45 percent. Among Spanish men, the variance in educational attainment attributable to social background was virtually constant across the three older cohorts, but in the cohort of 1937 to 1946, that variance declined by nearly 40 percent of its value in the previous cohort. Thus, our analysis of subpopulations defined by minority status replicates that of all U. S. men in respect to the sources of increasing equality in the distribution of schooling. Within each of the minority status groups, the variance in schooling attributable to social background has declined, and within each of the groups, the variance in schooling not attributable to social background has declined.

Further, as in respect to total variance and inequality in the

educational distributions of black, Spanish and majority men, there are differences among the groups in the variability of schooling attributable to social background and independent of social background. As shown by the errors of estimate in Table 11, the variability of schooling net of social background is consistently greater in the black and Spanish populations than in the majority population. From internal evidence of the reliability of education reports in the 1973 data, we believe these differences are too large to be explained by differences in data quality between the subpopulations. Also, education reports are, if anything, less reliable in younger than in older cohorts, so our earlier findings about trend in the variance of schooling net of social background may be understated. However, because of differential reliability and the small sample sizes involved we do not think that comparison of the errors of estimate between the black and Spanish populations is warranted.

If differences in data quality between the majority and minority populations might lead to overstatement of the differences in educational inequality between the populations which are not attributable to social background, the opposite is the case in respect to the variance in schooling explained by social background. That is, if data are of lower reliability for minorities, we would expect less variation in schooling to be attributable to social background in the minority populations than among the majority. However, there is a

marked contrast in the effects of social background between the Spanish and the black or majority populations. Within the Spanish population, the variance in schooling attributable to social background is about twice as large in every cohort as in the black or majority populations. Again, we think our findings suggest the importance of patterns of inequality within minority populations as well as of inequity between minority and majority populations.

As the preceding overview suggests, there are trends in the influence of social background variables on educational attainment. The effects of father's education and father's occupational status are either stable or vary irregularly across cohorts; these may have declined slightly in the majority population. The effect of farm background has clearly declined within the black and the majority populations. Among blacks, the handicap of farm background fell by half, from about 1.8 years to .9 years of schooling between the cohorts of 1907 to 1916 and of 1937 to 1946. Among the majority, the shift in the coefficient between those two cohorts was more than a year, and men with farm background had a significant net advantage in schooling in the younger of those cohorts. The influence of growing up in a broken family clearly declined in the majority population, and it may have declined in cohorts of black men born between 1917 and 1946. In the majority population and even more strongly among blacks the obstacle to schooling posed by birth in the South has

declined in this century. Since Southern origins are defined here in terms of place of birth, rather than place of upbringing, we are unable to determine the extent to which this change reflects changing social conditions in the South rather than migration out of the South.

Finally, there are differentials between minority and majority populations in the importance of specific social background characteristics. Father's educational attainment appears to have greater influence and father's occupational status appears to have less influence on educational attainment among men of Spanish origin than in the black or majority populations. Farm background is clearly a greater handicap to minority than to majority men, and at least in the older cohorts, Southern origin is a greater handicap to minority than to majority men.

We have become increasingly mired in detail as we have tried to specify the sources of trends in inequality in schooling. Thus, it may be well to summarize the results of our analysis at a very general level. Among men born in the United States during the first half of this century, inequality of schooling has declined sharply, even as educational attainment has increased to levels which are unprecedented elsewhere in the world. On the average, cohorts of U. S. men have experienced intergenerational educational mobility of about three years of schooling more than their fathers. However,

intercohort increases in educational attainment may be reaching an upper limit, and increasingly these may be explained by the gradual upgrading of the social origins of successive cohorts of men. Not only has total inequality in the distribution of schooling declined, but both the variability in schooling which may be attributed to differences in social background and the variability which is independent of social background appear to have declined. Moreover, these increases in educational equality appear to have occurred within black and Spanish minority groups as in the majority population. There is a mixture of change and stability in the effects of social background characteristics on schooling. On the whole, social origins have become more favorable to high levels of schooling within minority populations, as in the majority group, but large differences in social origins persist among these groups, and in some instances the social origins of majority and minority populations have diverged. The specific handicaps of minority status, of farm background, of Southern birth, and of broken families appear to have declined in their impact, but there remains a set of family socioeconomic conditions - father's education, father's occupation, and number of siblings - whose effect has been stable across time.

Of course, one is free to ask whether these increases in educational inequality are likely to have continued in cohorts born after the mid-point of the century. A trend is not a law, and we are under

no illusion to the contrary. In our view, the evidence we have seen on school enrollment and continuation from high school to college does not suggest any reversal of these trends in younger cohorts. However, we are unlikely to have definitive evidence on later cohorts until after they have completed their schooling.

Thus far, our interest has focused on specific aspects of socioeconomic background, family structure, geographic origin, and minority status, which we believe are widely recognized as contributing to educational inequality. It is instructive to take a broader, if less specific view, and consider the extent to which families, in their totality, affect the distribution of schooling. It has long been known, but little heeded, that family origin and not merely social location is the decisive factor effecting the stratification of social opportunities. As Charles Horton Cooley wrote more than half a century ago, "there is a certain opposition between the ideal of equal opportunity and that of family responsibility" (1918:80).

Both the 1962 and 1973 OCG surveys asked men about the educational attainments of their oldest brother who survived past the age of 25. In most cases the educational attainments of men and their oldest brothers were ascertained independently, from different respondents and with some separation in time. Throughout these analyses we have used CPS reports of educational attainment, which are usually supplied by wives, and we know that the vast majority of

OCG schedules were completed by the intended male respondent. As an aside, we might note that all of the analyses reported herein were replicated within the 1973 data using a second report of schooling in the OCG schedule. There were no substantial differences between the results based on CPS and OCG reports of schooling, and we used the CPS series here because they are more strictly comparable to the 1962 CPS and OCG data.

Table 12 shows statistics relating to the correlations between the educational attainments of men and their oldest brothers for five-year cohorts of men in the 1973 OCG survey. The observed correlations from the 1962 survey are virtually identical to those shown in the first column of Table 12. The correlations between the educational attainments of brothers may properly be interpreted as proportions of the variance in schooling which are attributable to families. That is, for cohorts of U. S. men born in this century, half or more of the variance in schooling must be attributed to the influence of family background, broadly construed to include the set of social background characteristics which we have treated in detail and, also, family differences in ability, socialization practices, levels of expectation, and anything else which affects the length of schooling.

The differences between families are understated to the extent that education reports for men and their brothers are subject to random reporting error and to the extent that men in the same family

belong to different birth cohorts. With a rather simple, but strong set of assumptions, we can produce a reasonable upper-bound estimate of the effect of family on educational attainment. We suppose there is strictly random reporting error in both the CPS and OCG reports of educational attainment, and the OCG reports of brother's schooling are equal in quality to the OCG reports of own schooling. Under these assumptions, the correlations between the schooling of brothers are shown in the second column of Table 12. As much as two-thirds of the variance in the length of schooling of U. S. men may be attributable to family influences. These are proportionate measures of effect, so both the observed and corrected time-series say that the effects of families are declining in absolute magnitude.

Is there a trend in the relative importance of family background? We are not sure. We mistrust the results for men in the cohort of 1947 to 1951 as indicators of trend. Excluding the observations on that cohort, both the observed and corrected series of correlations suggest a possible decline in the relative importance of family background in the next two most recent cohorts. Perhaps it is sufficient to conclude that families contribute a large share of the inequality in schooling, and that the size of that component of inequality has declined in absolute magnitude between cohorts born at the beginning of this century and at its midpoint.

To what extent do the specific sources of social inequality which we have measured account for the total effects of family background

on schooling? The last column of Table 12 gives the proportions of the correlation between the schooling of brothers which can be explained by the eight social background characteristics which we have discussed: father's education, father's occupational status, number of siblings, broken family, farm origin, Southern birth, Spanish origin, and race. About 55 percent of the effect of family on schooling is explicable in terms of these factors of social background; the figures are slightly lower in the two oldest cohorts. It is not clear precisely what the remaining 45 percent of the family effect represents, and we think this is fertile ground for investigation.

The large effect of family background per se and the extent to which its effects are not merely those of specifiable factors of social background raise in a trenchant way the question of how much equality is enough. We believe it would be desirable to reduce the effects of the specific social characteristics we have discussed, but how much of the remaining family influence represents real inequity, and how much does it represent socially desirable, or at least acceptable, forms of social differentiation? At present, we are unable to describe these other family influences, let alone assess their social desirability. However, we expect that the extent to which the other family effects on schooling are undesirable is subject to debate on much the same terms as the effects of ability on schooling, and of course there is empirical overlap between the two issues.

To what degree do our findings about inequality and opportunity for educational attainment apply to other outcomes of schooling? We are unable to say. Our inclination is to believe that other outcomes of schooling have followed the temporal pattern of variations in educational attainment for many of the same reasons that we think years of schooling is a valid indicator of the education of populations. Obviously, we would like to see time-series of social differentials in other outcomes of schooling, if they could be assembled. We wonder, for example, what policy implications might be drawn if it were possible to assemble nationally representative statistics on schools and students like those presented in the Coleman Report, but for the years 1925, 1935 or 1945.

If we really have moved toward greater equality in the distribution of years of schooling, is there some point at which we ought to stop? It seems unlikely that greater equality of schooling will be achieved in future cohorts by a reduction in the proportion of persons with experience in post-secondary schooling, that is, by truncating the top of the educational distribution. If this be the case, at some time, perhaps already reached, we will reach a point of diminishing returns in efforts to decrease the difference between the bottom of the schooling distribution and its upper reaches. When should personal preferences for continued schooling be given free rein? When do further reductions of inequality in the schooling distribution become

oppressive to those who supposedly benefit by spending more time in school? Perhaps we should conclude that we have reached or are approaching an upper limit in equality of the distribution of school-years. Future cohorts might be better off if we took the resources now devoted to increasing the length of schooling and allocated them instead to novel forms of socialization and social differentiation of youth. This strategy appears to be encouraged by the report of the Panel on Youth of the PSAC (1974).

In spite of such questions and suggestions we think it likely that there will be continued pressure for years to come to increase both the length of schooling and the equality of its distribution. We shall present two pieces of evidence which we think are suggestive in this respect. First, primarily as a consequence of the secular rise in educational attainment, successive cohorts of young persons have distributions of social background which are gradually becoming more favorable to high levels of schooling. For example, Table 13 shows educational attainment distributions of the mothers of black and white cohorts born between 1945 and 1965. These were constructed from classifications of children by age and mother's educational attainment in the 1960 and 1970 Censuses, and their validity depends on the assumption that children live with their mothers, that the schooling of mothers is fixed, and that the mortality of children is low. There have been substantial upward shifts in the educational

backgrounds of children born after the end of our OCG time-series. Unless there is a substantial change in the prevailing norms for intergenerational educational mobility, we must anticipate that expected levels of schooling will rise in the future. For example, from 1945 to 1965, the proportion of white children whose mothers had an elementary school education or less fell from 31 percent to 11 percent, and the proportion whose mothers had some college experience increased from 14 percent to 20 percent. Even over this recent period, the proportion of mothers of white children with exactly a high school education increased from one third to nearly one half. Changes among the mothers of black children are even more impressive. In 1945, 61 percent of black children were borne by mothers with an elementary school education or less, and fewer than 20 percent of the black children born in 1965 were so handicapped. The percentage of black children whose mothers had exactly a high school education increased from 12 percent to 33 percent over the twenty year period, and the share of children whose mothers had college experience rose from 4 percent in 1945 to 9 percent in 1965. Surely such changes in social background will give rise to demand for more schooling.

Second, because of the baby-boom of the mid-1940s to the mid-1950s and the subsequent rapid decline in fertility, the age-structure of the U.S. population will be favorable to an increase in the length of schooling between now and the end of the century. At the present time youth are in great supply, and the consequent labor market

squeeze, compounded by pressures for labor market equality between the sexes and recessionary economic conditions, has probably increased school enrollment, even if it is only the least undesirable way of spending time. Between now and the 1990s, the ratio of the population aged 14 to 24 to that aged 25 to 64 will fall from .449 to .332, not primarily because of the future trend of fertility, but because of variations in the size of cohorts already born (Panel on Youth of the PSAC, 1974:46-47). The labor market situation for young people may improve, and that could be powerful inducement to leave school earlier. However, that tendency may be counterbalanced by continuing increases in the labor force participation of women. In any event, the low rates of youth dependency in the 1980s and 1990s present a substantial opportunity for investment in the socialization of youth. In a sense, such investments may be the least we owe these youthful cohorts, for they will ultimately bear the burden of old age and dependency in the cohorts of the baby boom.

REFERENCES

Alexander, Karl L., and Bruce K. Eckland.

1974 "Sex Differences in the Educational Attainment Process," American Sociological Review 39 (October):668-682.

Blau, Peter M. and Otis Dudley Duncan.

1967 The American Occupational Structure. New York: John Wiley and Sons.

Cooley, Charles Horton.

1918 Social Process. New York: Charles Scribner's Sons.

Duncan, Beverly.

1965 Family Factors and School Dropout: 1920-1960, Cooperative Research Project No. 2258, Office of Education. Ann Arbor, Michigan: The University of Michigan.

1967 "Education and Social Background," American Journal of Sociology 72 (January):363-372.

1968 "Trends in Output and Distribution of Schooling," in Eleanor B. Sheldon and Wilbert E. Moore (eds.), Indicators of Social Change. New York: Russell Sage Foundation.

Duncan, Otis Dudley.

1961 "A Socioeconomic Index for All Occupations," in Albert J. Reiss, Jr., et al., Occupations and Social Status. Glencoe: Free Press.

1965 "The Trend of Occupational Mobility in the United States," American Sociological Review 30 (August):491-498.

1968 "Ability and Achievement," Eugenics Quarterly 15 (March): 1-11.

Featherman, David L. and Robert M. Hauser.

1975a "Design for a Replicate Study of Social Mobility in the United States," in K. C. Land and S. Spilerman (eds.), Social Indicator Models. New York: Russell Sage Foundation.

1975b "Sexual Inequalities and Socioeconomic Achievement in the U. S. , 1962-1973," Center for Demography and Ecology Working Paper 75-10, The University of Wisconsin-Madison.

Jencks, Christopher S., Marshall Smith, Henry Acland, Mary Jo Bane, David Cohen, Herbert Gintis, Barbara Heyns and Stephan Michelson.

1972 Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books.

Hauser, Robert M.

1972 "Disaggregating a Social-Psychological Model of Educational Attainment," Social Science Research 1 (June):159-188.

Hauser, Robert M. and David L. Featherman.

1973 "Trends in the Occupational Mobility of U. S. Men, 1962-1970," American Sociological Review 38 (June):302-310.

1974 "Socioeconomic Achievements of U. S. Men, 1962-1972," Science (26 July):325-331.

Hauser, Robert M., John N. Koffel, Harry P. Travis and Peter J. Dickinson.

1975a "Temporal Change in Occupational Mobility: Evidence for Men in the United States," American Sociological Review 40 (June).

Hauser, Robert M., Peter J. Dickinson, Harry P. Travis and John N. Koffel.

1975b "Structural Changes in Occupational Mobility Among Men in the United States," American Sociological Review, forthcoming.

Panel on Youth of the President's Science Advisory Committee.

1974 Youth, Transition to Adulthood. Chicago: The University of Chicago Press.

Ryder, Norman B.

1965 "The Cohort in the Study of Social Change," American Sociological Review 30 (December):843-861.

Sewell, William H.

1971 "Inequality of Opportunity for Higher Education," American Sociological Review 36 (October):793-809.

Sewell, William H., Archibald O. Haller and George W. Ohlendorf.

1970 "The Educational and Early Occupational Status Attainment Process: Replication and Revision," American Sociological Review 35 (December):1014-1027.

Sewell, William H., Archibald O. Haller and Alejandro Portes.

1969 "The Educational and Early Occupational Attainment Process," American Sociological Review 34 (February):82-92.

Sewell, William H. and Robert M. Hauser.

1975 Education, Occupation, and Earnings: Achievement in the Early Career. New York: Academic Press, Inc.

Sewell, William H. and Vimal P. Shah.

1967 "Socioeconomic Status, Intelligence, and the Attainment of Higher Education," Sociology of Education 40 (Winter):1-23.

Treiman, Donald J. and Kermit Terrell.

1975 "Sex and the Process of Status Attainment: A Comparison of Working Women and Men," American Sociological Review 40 (April):174-200.

U. S. Department of Health, Education and Welfare, Office of Education.

1972 Digest of Educational Statistics, 1971. Washington, DC: U. S. Government Printing Office.

Table 1.--Educational attainment of U.S. male civilian noninstitutional population in March 1962 and March 1973 by year of birth.

Year of birth	1962			1973		
	Mean	Std. dev.	Coef. of var.	Mean	Std. dev.	Coef. of var.
1947-1951	--	--	--	12.81	2.38	.186
1942-1946	--	--	--	12.76	2.76	.216
1937-1941	11.78	2.63	.223	12.40	3.01	.243
1932-1936	11.75	3.20	.272	12.02	3.31	.275
1927-1931	11.57	3.35	.290	11.72	3.39	.289
1922-1926	11.19	3.56	.318	11.46	3.38	.295
1917-1921	10.80	3.47	.321	11.03	3.42	.310
1912-1916	10.40	3.48	.335	10.55	3.50	.332
1907-1911	9.86	3.73	.378	9.87	3.74	.379
1902-1906	9.22	3.91	.424	--	--	--
1897-1901	8.91	3.76	.422	--	--	--

Table 2.--Intergenerational shifts in average educational attainment (father to son): U.S. male civilian noninstitutional population in 1962 and 1973 by year of birth.

Year of birth	1962	1973
1947-1951	--	2.13
1942-1946	--	2.87
1937-1941	2.14	3.22
1932-1936	2.93	3.56
1927-1931	3.16	3.72
1922-1926	3.28	3.77
1917-1921	3.07	3.68
1912-1916	3.03	3.44
1907-1911	2.47	2.97
1902-1906	2.06	--
1897-1901	1.98	--

Table 3.--Intercohort shifts in educational attainment of U.S. men: observed and adjusted for changes in social background.

Earlier cohort	Later cohort	1962		1973	
		Observed	Adjusted[a]	Observed	Adjusted[a]
1942-1946	1947-1951	--	--	.05	-.20
1937-1941	1942-1946	--	--	.36	.03
1932-1936	1937-1941	.03	-.32	.38	.11
1927-1931	1932-1936	.18	.12	.30	.18
1922-1926	1927-1931	.38	.13	.26	.16
1917-1921	1922-1926	.39	.26	.43	.25
1912-1916	1917-1921	.40	.19	.48	.42
1907-1911	1912-1916	.54	.55	.68	.56
1902-1906	1907-1911	.64	.46	--	--
1897-1901	1902-1906	.31	.33	--	--

[a]Adjusted for effects of father's education, father's occupation, number of siblings, broken family, farm background, Southern birth, Spanish origin (1973 only), and race.

Table 4.--Regression analysis of educational attainment: U. S. civilian noninstitutional male population aged 20 to 64 in March 1962 and aged 21 to 65 in March 1973.

Variable	1962	1973	1962	1973	1962	1973	1962	1973
Father's education	.251 (.009)	.254 (.005)[b]	.241 (.009)	.241 (.006)	.238 (.008)	.232 (.006)	.219 (.008)	.206 (.006)
Father's occupation	.384 (.016)	.258 (.010)	.296 (.017)	.198 (.010)	.281 (.017)	.196 (.010)	.298 (.016)	.207 (.010)
Number of siblings	-.261 (.011)	-.247 (.007)	-.222 (.011)	-.217 (.008)	-.217 (.011)	-.207 (.008)	-.193 (.011)	-.191 (.007)
Broken family	-.896 (.078)	-.798 (.051)	-.853 (.077)	-.807 (.051)	-.743 (.077)	-.735 (.051)	-.709 (.075)	-.684 (.050)
Farm background			-.960 (.072)	-.927 (.049)	-.960 (.071)	-.911 (.049)	-.767 (.070)	-.744 (.049)
Southern birth			-.767 (.065)	-.443 (.041)	-.526 (.067)	-.409 (.043)	-.622 (.066)	-.480 (.042)
Spanish origin					[c]	-1.268 (.093)	[c]	-1.518 (.093)
Race					-1.276 (.107)	-.456 (.069)	-1.348 (.105)	-.550 (.068)
Cohort: 1947-1951							--	.245[a]
1942-1946							--	.446
1937-1941							.362	.417
1932-1936							.687	.309
1927-1931							.564	.130
1922-1926							.434	-.029
1917-1921							.177	-.274
1912-1916							-.009	-.697
1907-1912							-.556	-1.252
1902-1906							-1.021	--
1897-1901							-1.355	--
R^2	.305	.312	.329	.329	.338	.336	.369	.356
Error of estimate	2.99	2.73	2.94	2.70	2.92	2.68	2.85	2.64

[a] Deviation from grand mean in year of survey.

[b] Approximate standard error.

[c] Not computed.

Table 5.--Means and standard deviations of family background variables: U. S. civilian men by year of birth, 1962 and 1973.

Year of birth	Father's education		Father's occupation		Number of siblings		Broken family	
	1962	1973	1962	1973	1962	1973	1962	1973
1947-1951	--	10.68 (3.78)	--	36.72 (25.23)	--	3.32 (2.37)	--	.1326 (.3392)
1942-1946	--	9.89 (3.88)	--	33.55 (23.94)	--	3.28 (2.48)	--	.1405 (.3476)
1937-1941	9.64 (3.78)	9.18 (3.96)	31.86 (23.30)	30.50 (23.24)	3.40 (2.56)	3.51 (2.64)	.1710 (.3767)	.1694 (.3752)
1932-1936	8.82 (3.90)	8.46 (3.92)	28.74 (21.06)	28.75 (22.16)	3.67 (2.75)	3.71 (2.74)	.1693 (.3752)	.1650 (.3713)
1927-1931	8.41 (3.71)	8.00 (3.90)	29.71 (21.91)	27.86 (21.55)	3.71 (2.74)	3.84 (2.75)	.1560 (.3630)	.1690 (.3748)
1922-1926	7.91 (3.94)	7.69 (3.99)	28.22 (22.01)	27.14 (21.07)	3.97 (2.76)	3.92 (2.71)	.1707 (.3763)	.1684 (.3743)
1917-1921	7.73 (3.90)	7.35 (3.95)	26.83 (20.79)	25.41 (20.73)	4.16 (2.72)	4.16 (2.75)	.1652 (.3715)	.1845 (.3880)
1912-1916	7.37 (3.87)	7.11 (3.94)	25.45 (19.98)	25.83 (20.78)	4.44 (2.72)	4.40 (2.78)	.1865 (.3897)	.1724 (.3778)
1907-1911	7.39 (4.05)	6.90 (3.95)	25.87 (20.32)	24.41 (19.87)	4.50 (2.76)	4.61 (2.77)	.1702 (.3760)	.1772 (.3820)
1902-1906	7.16 (4.06)	--	25.01 (20.19)	--	4.80 (2.79)	--	.1688 (.3747)	--
1897-1901	6.93 (3.97)	--	24.63 (19.72)	--	4.76 (2.77)	--	.1714 (.3770)	--

Table 6.--Percentage of U. S. men with farm background, born in the South, of Spanish origin, and black by year of birth, 1962 and 1973.

Year of birth	Farm background		Southern born		Spanish	Black	
	1962	1973	1962	1973	1973	1962	1973
1947-1951	--	10.6	--	31.0	4.7	--	10.4
1942-1946	--	13.6	--	32.1	5.0	--	9.4
1937-1941	15.5	19.0	32.7	34.8	5.0	11.1	9.7
1932-1936	20.8	23.8	32.4	33.6	5.7	9.7	9.8
1927-1931	24.0	24.6	30.7	32.2	5.0	8.7	9.0
1922-1926	28.1	28.1	30.7	34.4	3.5	8.6	9.0
1917-1921	31.2	34.2	29.2	31.5	3.2	9.4	8.8
1912-1916	33.4	33.6	31.0	31.6	2.7	8.8	7.8
1907-1911	36.2	40.1	29.9	33.0	2.2	8.6	8.2
1902-1906	40.4	--	30.6	--	--	9.1	--
1897-1901	42.4	--	27.5	--	--	7.4	--

Table 7.--Regression analysis of educational attainment on social background variables: U. S. men in 1973 by year of birth.

Year of birth	Father's education	Father's occupation	Farm background	Number of siblings	Broken family	Southern origin	Spanish origin	Race	R^2	Error of estimate
1947-1951	.161	.162	.014	-.186	-.541	-.276	-.734	.147	.262	2.05
	(.013)[a]	(.019)	(.130)	(.017)	(.114)	(.087)	(.183)	(.136)		
1942-1946	.203	.187	.008	-.202	-.587	-.165	-1.038	.081	.283	2.34
	(.014)	(.023)	(.137)	(.019)	(.128)	(.100)	(.210)	(.162)		
1937-1941	.189	.231	-.089	-.211	-.594	-.281	-1.419	-.053	.287	2.55
	(.017)	(.028)	(.147)	(.022)	(.142)	(.119)	(.248)	(.191)		
1932-1936	.207	.237	-.794	-.210	-.709	-.629	-1.793	-.377	.337	2.70
	(.018)	(.032)	(.150)	(.023)	(.157)	(.129)	(.254)	(.206)		
1927-1931	.207	.274	-.749	-.210	-.677	-.369	-1.879	-.717	.320	2.80
	(.018)	(.033)	(.151)	(.023)	(.157)	(.135)	(.275)	(.219)		
1922-1926	.225	.229	-.892	-.160	-.754	-.691	-2.573	-1.045	.344	2.74
	(.017)	(.033)	(.143)	(.023)	(.153)	(.130)	(.313)	(.212)		
1917-1921	.222	.261	-.919	-.178	-.812	-.755	-2.162	-1.252	.350	2.77
	(.018)	(.036)	(.142)	(.023)	(.155)	(.141)	(.341)	(.229)		
1912-1916	.210	.260	-1.097	-.201	-.685	-.497	-1.842	-1.592	.328	2.87
	(.020)	(.040)	(.161)	(.025)	(.180)	(.159)	(.417)	(.270)		
1907-1911	.274	.317	-.799	-.187	-.773	-.752	-2.018	-1.351	.346	3.03
	(.022)	(.048)	(.181)	(.029)	(.204)	(.183)	(.521)	(.305)		

[a] Approximate standard errors in parentheses.

Table 8.--Educational attainment of U. S. men by minority status and year of birth, 1973.

Year of birth	Black[a]			Spanish			Other		
	Mean	Std. dev.	Coef. of var.	Mean	Std. dev.	Coef. of var.	Mean	Std. dev.	Coef. of var.
1947-1951	11.90	2.41	.203	11.04	2.92	.264	13.01	2.29	.176
1937-1946	11.43	2.77	.242	10.14	3.76	.371	12.86	2.73	.212
1927-1936	10.05	3.38	.336	8.90	4.52	.508	12.23	3.11	.254
1917-1926	8.61	3.77	.438	7.87	4.39	.558	11.64	3.12	.268
1907-1916	7.14	3.87	.542	7.55	4.82	.638	10.57	3.40	.322

[a] Except Spanish origin.

Table 9.--Means and standard deviations of family background variables: U. S. men by minority status and year of birth, 1973.

Year of birth	Father's education			Father's occupation			Number of siblings			Broken family		
	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other
1947-1951	8.70	7.17	11.10	20.21	23.71	39.13	4.90	4.89	3.06	.357	.180	.104
	(3.59)[b]	(4.80)	(3.57)	(17.05)	(20.12)	(25.32)	(2.77)	(2.74)	(2.19)	(.480)	(.385)	(.305)
1937-1946	7.66	5.88	9.99	17.53	22.80	34.23	5.05	5.19	3.10	.339	.213	.131
	(3.71)	(4.71)	(3.73)	(15.45)	(20.61)	(23.89)	(2.93)	(3.00)	(2.37)	(.474)	(.410)	(.338)
1927-1936	6.53	5.22	8.56	15.47	19.38	30.08	5.01	5.18	3.55	.325	.230	.148
	(3.65)	(4.65)	(3.76)	(12.95)	(17.60)	(22.19)	(3.01)	(2.88)	(2.65)	(.469)	(.422)	(.355)
1917-1926	5.41	4.44	7.86	13.95	21.11	27.72	5.09	5.20	3.89	.339	.252	.159
	(3.76)	(4.78)	(3.85)	(11.38)	(19.45)	(21.27)	(2.92)	(2.79)	(2.68)	(.474)	(.436)	(.366)
1907-1916	4.65	4.89	7.27	13.93	21.12	26.23	5.35	5.04	4.40	.373	.284	.157
	(3.55)	(4.47)	(3.87)	(10.48)	(18.86)	(20.76)	(3.04)	(2.82)	(2.74)	(.484)	(.453)	(.364)

[a] Except Spanish origin. [b] Standard deviations in parentheses.

Table 10.--Percentage of U.S. men with farm background and born in the South by minority status and year of birth, 1973.

Year of birth	Farm background			Southern born		
	Black[a]	Spanish	Other	Black[a]	Spanish	Other
1947-1951	15.5	21.9	9.6	72.5	22.5	26.4
1937-1946	25.8	34.4	13.9	77.4	23.4	28.8
1927-1936	39.1	41.9	21.6	81.5	20.9	29.3
1917-1926	52.2	48.7	28.5	86.5	25.4	27.9
1907-1916	59.0	47.4	34.4	90.4	27.3	27.2

[a]Except Spanish origin.

Table 11.--Regression analysis of educational attainment: U. S. men by minority status and year of birth, 1973.

Year of birth	Father's education			Father's occupation			Farm background			Number of siblings		
	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other
1947-1951	.101	.212	.160	.051	.035	.178	-.472	-1.656	.351	-.105	-.020	-.197
	(.041)[b]	(.039)	(.014)	(.080)	(.093)	(.021)	(.342)	(.403)	(.139)	(.045)	(.059)	(.019)
1937-1946	.186	.326	.175	.205	.075	.222	-.929	-1.547	.245	-.077	-.119	-.250
	(.033)	(.040)	(.012)	(.076)	(.093)	(.019)	(.248)	(.357)	(.110)	(.036)	(.055)	(.016)
1927-1936	.231	.311	.192	.121	.222	.266	-1.551	-2.007	-.527	-.102	-.281	-.224
	(.042)	(.047)	(.013)	(.111)	(.124)	(.024)	(.309)	(.427)	(.116)	(.047)	(.065)	(.018)
1917-1926	.325	.247	.199	.162	.257	.261	-1.702	-2.490	-.782	-.136	-.114	-.197
	(.043)	(.062)	(.013)	(.140)	(.161)	(.025)	(.327)	(.544)	(.109)	(.054)	(.088)	(.017)
1907-1916	.207	.434	.238	.288	.062	.283	-1.770	-1.765	-.953	-.051	.029	-.226
	(.060)	(.100)	(.016)	(.190)	(.252)	(.032)	(.431)	(.860)	(.132)	(.068)	(.133)	(.021)

THIS TABLE CONTINUED ON NEXT PAGE

Table 11.--continued.

Year of birth	Broken family			Southern origin			R^2			Error of estimate		
	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other	Black[a]	Spanish	Other
1947-1951	-.437	-.685	-.592	-.042	-.112	-.359	.080	.302	.234	2.23	2.33	1.98
	(.255)	(.439)	(.142)	(.281)	(.372)	(.091)						
1937-1946	-.389	-1.093	-.535	-.163	.805	-.213	.191	.327	.251	2.47	3.17	2.33
	(.220)	(.418)	(.113)	(.267)	(.351)	(.080)						
1927-1936	-.799	-.698	-.627	-.773	-1.182	-.468	.219	.363	.279	3.06	3.68	2.61
	(.302)	(.491)	(.133)	(.380)	(.441)	(.097)						
1917-1926	-1.091	-1.536	-.741	-1.215	-.821	-.639	.269	.375	.284	3.35	3.58	2.63
	(.329)	(.580)	(.131)	(.482)	(.507)	(.099)						
1907-1916	-.361	-1.019	-.898	-1.783	-1.800	-.475	.179	.315	.305	3.64	4.24	2.88
	(.423)	(.821)	(.160)	(.675)	(.831)	(.126)						

[a] Except Spanish origin. [b] Approximate standard errors in parentheses.

Table 12.--Correlations between educational attainments of men and their oldest brothers: U. S. men by year of birth, 1973.

Year of birth	Observed correlation	Corrected correlation	Explained by social background
1947-1951	.525	.674	54.7%
1942-1946	.515	.621	53.7
1937-1941	.551	.639	55.1
1932-1936	.590	.670	55.8
1927-1931	.570	.651	54.4
1922-1926	.570	.664	56.8
1917-1921	.582	.699	55.2
1912-1916	.570	.685	52.5
1907-1911	.589	.686	52.0

Note: see text for explanation.

Table 13.--Mother's educational attainment by race and year of birth: selected U. S. birth cohorts, 1945 to 1965.

Race and year	Educational attainment (years)						
	0-4	5-8	9-11	12	13-15	16 +	Total
White							
1945	4.2	26.5	22.8	32.3	9.1	5.1	100.0
1950	3.1	19.6	23.2	38.4	10.4	5.4	100.0
1955	2.3	14.5	22.8	42.8	11.0	6.5	100.0
1960	2.0	10.9	21.7	46.5	11.5	7.5	100.0
1965	1.7	9.4	21.2	47.6	11.9	8.2	100.0
Black							
1945	14.9	46.2	23.1	11.7	2.9	1.2	100.0
1950	10.6	38.3	29.1	16.5	3.9	1.7	100.0
1955	7.0	30.5	34.1	21.3	4.7	2.3	100.0
1960	4.3	22.5	37.5	27.4	5.4	2.9	100.0
1965	3.1	17.4	37.4	32.9	6.2	3.0	100.0

Source: U. S. Bureau of the Census, Public Use Sample Tapes (1 in 100), 1960 and 1970.