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Socioeconomic Achievement: The Case of the Working Poor

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ABSTRACT

In recent years a great deal of effort has gone into the specification of causal models describing the social mobility process, but virtually no effort has been made to specify a model for the poor, a segment of the population for which the issue of social mobility is particularly crucial. In the present study we ask whether the process of socioeconomic achievement for the poor can be described using the same model as for the non-poor, or whether a separate model is required for the poor; we conclude that a separate model for the poor is needed. The data used is a national cross-section panel study; respondents were interviewed once yearly for each of five consecutive years. In the present study, which is limited to male heads of household in the labor force, we find that such variables as father's education and father's occupational status have a stronger impact on the occupational status of the poor than on that of the non-poor. Education on the other hand has a stronger impact on the occupational status of the non-poor. These differences are summarized in separate path models for the poor and for the non-poor.

Causal modeling of the process of social mobility in recent years has become one of the most active areas in quantitative sociological analysis. This work can be directly traced to the efforts of Blau and Duncan (1967) who were the first to apply path analytic techniques to the investigation of a major aspect of social mobility, the process of socioeconomic achievement. In their path model they attempted to specify the main life-cycle events influencing an individual's socio-economic achievement. The model captures the causal flow linking family background factors to prestige of present occupation, with educational attainment and prestige of first occupation functioning as intervening variables. Duncan and his associates have subsequently extended this work in a number of respects, particularly by a comparative study of blacks and whites (Duncan, 1969) and the intro-duction of personality variables (Duncan et al., 1972: Featherman,1972).

This work was subsequently extended by Jencks et al. (1972) who by using data from several sources were able to incorporate into their

models measures of childhood and adult cognitive skills. The major
dependent variable in their analysis is respondent's total money
income. Rather than concentrating on the relative strength of the
various predictors, their analysis is primarily concerned with showing
how little variance is explained in such models.

A characteristic of these as well as most other studies in this
tradition is that the longitudinal process of social mobility is being
modeled on the basis of cross-sectional data. A case can be made that
longitudinal data affords an opportunity to extend the analysis.
This is well illustrated by Kelley (1973), who in an analysis based
on the longitudinal data from the Princeton Fertility Study, concludes
that socioeconomic achievement is better explained by a double chain,
one branch involving the occupational status and the other the income
level attained by the respondents at different life stages. Occupa-
tional prestige at each point, he found, is not dependent on income
of preceding periods.

Lane (1975) found in her cohort study that over a ten-year period
(1940-49) mean occupational status was virtually constant. Moreover,
the net effect of father's occupational status on his son's was
unchanging over the decade. The education effect shifted slightly,
but that was due, she suggests, to the change of educational quality
of new generations entering the labor force.

In the most recent efforts to model the process of socioeconomic
achievement (e.g., Sewell et al., 1976) the effect of education
continues to be a major focus. In one of the most comprehensive
longitudinal studies to date, Sewell and Hauser (1975) examine
earnings of high school graduates some ten years later. Their models
are only able to account for between 8% and 12% of the variance in
income, but they account for 43% of the variance in occupational status.

An important gap that presently exists in the literature on the
causal modeling of the process of socioeconomic achievement is that
there has been no effort to specify a model for the poor. Most of the
research has focused on modeling the process for white males. Some
attention has been given to blacks (Duncan, 1969) and to women (Suter
and Miller, 1973; Featherman and Hauser, 1976; McClendon, 1976), but
no attention has been given to the poor.

The present analysis is in the tradition referred to by Sorensen
(1975) as "status attainment research" as distinct from "mobility
research" because the focus is on levels of occupational status and
income achieved, rather than on achievement changes. In the present

study we ask whether the process of socioeconomic achievement for the
poor differs in significant ways from the process for the non-poor.
The comparison of results for the poor with those for the non-poor
will be of use in deciding whether there are grounds for specifying
separate models for each. This comparison should indicate if differences
exist and if so to what factors they can be attributed.

METHODOLOGY

   The scope of this paper is limited in regard to the number of
variables and the range of population studied. In fact, we have
considered only those variables most commonly used in this type of
research and samples are restricted to male household heads and un-
related individuals, aged 25 to 59 in the Spring 1968 who had been
in the labor force during the preceding year. There are advantages
in this procedure; it minimizes certain problems related to multi-
collinearily; it creates relatively homogenous samples (with respect
to age, sex, and employment status); and it makes it possible to
compare results with earlier studies which have been conducted with
similar variables and samples.

Sample Design

   The data were obtained from a study conducted by the Survey Research
Center (1972) at the University of Michigan which is referred to as "A
Panel Study of Income Dynamics" (PSID). Their sample is based on
respondents drawn from two sources. The first group was chosen from a
sample of 30,000 families interviewed in 1966 and 1967 by the Bureau
of Census as part of the Survey for Economic Opportunity (SEO). All
families in this group had incomes in 1966 equal to or below the
federal poverty line, at that time. The second group is a cross-
section of dwelling units in the United States, selected from the
Survey Research Center's master sampling frame. It includes people at
all levels of income.

   The total number of families interviewed by the SRC in the Spring of
1968 (the first year of the PSID) was 4,802 with 1,872 from the SEO
group and 2,930 from the cross-section. Weights were computed in order
to make the combined set a representative national cross-section sample
of families. In 1972, eighty-two percent of the families successfully
interviewed in 1968 were still in the panel. But the total number of
interviews rose to 5,060 in 1972 since new families formed by members

of the panel's previous families had also been introduced into the
sample as new units. In the present study we consider only those
heads of household and unrelated individuals who were in households
for which the heads did not change over the five year period considered
(3,568 respondents). Among them, we chose those aged 25 to 59 in
1968 (2,700 respondents) who had been in the labor force during the
preceding year (2,438).

    Table 1 contrasts this PSID sample with Current Population Report
(CPR) estimates. Although the groups are not completely matched for
comparison, the table does suggest the general characteristics of our
sample. There is an over-representation of non-whites in the PSID
near poverty group (40.3% as compared with 22.2% for the CPR "below
poverty" level). On the other hand there is an under-representation
of unrelated individuals in poverty (10.1% in the PSID vs. 26.9%
in the CPR). This may in part be due to differences in age limits
(CPR samples persons 14 years old and over, while PSID is restricted
to people between 25 and 59).

    Only the male sample (1,963 respondents) will be analyzed here-
after. Our two samples were obtained by dividing that group along
levels of total family money income in 1967. The sample of the poor
(N = 402) contains those male heads of household and unrelated
individuals whose family money income was equal to or less than the
corresponding "near-poverty line" for 1967. The sample of the non-
poor (N = 1,561) includes the remaining respondents. "Near-poverty
lines" are higher than the standard "poverty lines" by about one
third. Both were computed by the Social Security Administration and
reflect the differing consumption requirements of families based on
size, age of head, and whether residence is farm or non-farm.[1]

Description of Variables

    Since the focus of our study is on the working poor, the first
measure of socioeconomic status is head's total labor income in 1967.
This allows for comparisons with other models which use a measure
of income as the major dependent variable. Head's labor income is,
by and large, the most important source of both total income and
family income. The inclusion of other types of income (e.g. transfer
income) would have been less appropriate for research on the individual's
ability to translate background social advantages and educational
attainment into income differentials.

Table 1 : Comparison of PSID sample with Some Current Population

   Report Estimates for 1968[a]

	C P R		P S I D	
	Total	Below Poverty	All	Near-Poverty
Race of heads & unrltd ind[b]				
Whites	89.9%	76.8%	87.4%	59.7%
Non-whites	10.1%	22.2%	12.6%	40.3%
Percent in poverty among[c]				
Male heads of household	**	8.7%	**	8.4%
Male unrelated individ	**	26.9%	**	10.1%
Median family income[d]				
Heads of household	$8,651	*	$9,620	$3,276
Unrelated individuals	$3,999	*	$5,600	$1,200
Median years of school completed[e]				
White heads of household	12.3	8.9	12.3	9.8
Nonwhite heads of hdhold	9.9	8.2	10.0	7.2
Occupation[f]				
Professional techn & kdd	13.8%	2.2%	16.5%	2.7%
Managers, offcls & proprtrs	14.7%	3.5%	11.1%	1.8%
Clerical & sales wkrs	13.0%	4.9%	13.1%	5.8%
Crafts, foremen & kdd	20.6%	4.1%	21.7%	8.2%
Operatives & kdd wkrs	19.4%	7.5%	16.3%	11.0%
Farmers & farm mangrs	4.4%	24.7%	3.6%	26.5%

* Not available
** Not applicable

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Table 1 (cont.)

a. Demographic data refer to 1968; income data to 1967. CPR data
    include persons 14 years of age and over, except if otherwise
    stated. PSID data, male and female heads and unrelated
    individuals, in the 25 to 59 age range, who were in the labor
    force in 1967, and whose family status was unchanged over the
    five-year period (1968-1972).

b. Sources: for "Total" (U.S. Bureau of the Census, 1969b: Table 4).
              for "Below poverty" (U.S. Bureau of the Census,1969c:
              Table 1).

c. Source: (U.S. Bureau of the Census, 1969c, Table 1).

d. Source: (U.S. Bureau of the Census, 1969a: Table 6). Data
             refer to people in the labor force in 1967.

e. Source: (U.S. Bureau of the Census, 1970: 1). These CPR
             data were not available for 1968. They refer to
             1969 heads of household (not to unrelated individuals)
             25 years of age and over.

f. Sources: for "Total" (U.S. Bureau of the Census, 1969a: Table 6);
              for "Below poverty" (U.S. Bureau of the Census, 1969c:
              Table 5). Data refer to heads of household in the labor
              force in 1967. Only the directly comparable categories
              are included.

    The second dimension of socioeconomic achievement will be
occupational status. The nine categories offered in the PSID for
occupational variables have been assigned scores on the basis of the
occupational prestige scale devised by Hodge, Siegel, and Rossi,
at the National Opinion Research Center (1972: 87-104).

    The following are the variables employed in the present study,
detailed descriptions of each are available (SRC, 1972):

    Head's total labor income in 1971 (income in 71)

    Head's occupational status in 1971 (occupation in 71)

    Head's total labor income in 1967 (income in 67)

    Head's total labor income in 1967 (income in 67)

Head's occupational status in 1967 (occupation in 67)

Status of head's first occupation (first occupation); it
    refers to the first full-time regular job.

Sentence completion test (test); this is a thirteen item
    test taken from the verbal part of the Lorge-Thorndike
    intelligence test. It has been used as a proxy for IQ.

Head's educational attainment (education)

Number of head's brothers and sisters (number of siblings)

Father's occupational status (father's occupation)

Father's educational attainment (father's education)

Majority status (majority); race of head, recoded as a dummy
    variable (1 = white; 0 = other).

    For the purpose of this paper majority status, father's
education, and father's occupation will be referred to as parental
background variables, Number of siblings, education, test, and first
occupation will be called early age variables. They represent either
individual characteristics or personal conditions in the early stages
of the respondent's life.

RESULTS

    Our objective is to compare the structures of socioeconomic
achievement for the poor and the non-poor. Let us look first at the
zero-order correlation between our seven standard predictors and
the respondent's total labor income in 1967. These are provided in
the upper left section of Table 2. Coefficients for the poor show
unusually low values; such values suggest the possible presence of
distorting factors. In fact, no substantive conclusions should be
drawn from them for the following reasons. The poverty lines drawn
to define the sample borders were established according to levels of
total family money income. But the dependent variable, labor income,
constitutes the main source of family money income for the working
poor. Therefore, when studying the poor, we are limiting ourselves
to a reduced range of family money income and to a restricted
variability for labor income. This means that whenever we compute
a correlation between poor's labor income and any other variable, we

are artificially keeping the first within a limited range while
allowing the other to move freely along its whole range of variation.
That will generally reduce the size of the correlation coefficient
and make it very sensitive to "extreme" values of the second variable.[2]
In summary, correlation coefficients regarding income in 1967 are of
little use to us.

We must therefore find a suitable alternative indicator of socio-
economic status for our analysis. Occupational prestige, which has
been used by Blau and Duncan (1967) and others, provides an alternative
without the constriction to which income is subjected for the poor.
In the upper right section of Table 2 correlations between occupational
prestige in 1967 and the seven standard predictors are presented for
both samples.

The correlations for the poor differ from those for the non-poor:
for the parental background variables (majority status, father's
education, father's occupation) they are consistently larger and for
the early age variables (number of siblings, education, test, first
occupation) consistently smaller than the corresponding values for the
non-poor. This suggests that the poor's occupational prestige is more
determined by father's socioeconomic status than is the case for the
non-poor.

It would appear that education is the most important predictor
when we consider the possibility of social intervention. First of all,
education is more readily accessible to planned intervention than the
other variables under consideration; secondly, it yields the highest
correlations with occupational status for both the poor (.46) and
the non-poor (.59); and finally for the poor the high correlation of
father's education (.41) suggests that there will be substantial long
range effects.

Since PSID data are provided for five consecutive years, we can
follow the same group of people longitudinally. Table 2, in the lower
sections, shows the correction coefficients between the dependent
variables (income and occupational status) and our seven standard
predictors, for the year 1971. They refer to the same people studied
with 1967 data. This procedure presents two advantages. First, we
will be certain of having respondents who were from 30 to 64 years
old in 1972 and were in the labor force in 1967 and 1971. Second the
restriction imposed upon the variability of poor's income is removed
for 1971; that is, there is no requirement that those who were poor
in 1967 continue to have incomes below the poverty line in 1971.

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Table 2 : Zero-order Correlation of Income and Occupation (in 1967 and 1971) With Seven Predictors of Socioeconomic Status, for the Poor and the Non-poor.

	INCOME IN 1967		OCCUPATION IN 1967	
	Poor	Non-poor	Poor	Non-poor
Parental Background				
Majority	.177*	.097*	.338*	.179*
F. Edctn	-.021	.194*	.410*	.267*
F. Occptn	.080	.078*	.212*	.175*
Early Age Variables				
N. Siblings	.076	-.206*	-.018	-.258*
Education	.227*	.410*	.463*	.588*
Test	.191*	.292*	.281*	.333*
1st Occptn	-.068	.224*	.358*	.427*

	INCOME IN 1971		OCCUPATION IN 1971	
	Poor	Non-poor	Poor	Non-poor
Parental Background				
Majority	.132*	.077*	.342*	.186*
F. Edctn	.012	.212*	.342*	.269*
F. Occptn	-.097*	.088*	.375*	.148*
Early Age Variables				
N. Siblings	-.058	-.201*	-.158*	-.243*
Education	.327*	.438*	.448*	.597*
Test	.147*	.308*	.272*	.347*
1st Occptn	.021	.255*	.469*	.391*

* Significant at .05 level.

This will allow for possible shifts of coefficients, which would
help to clarify the long range influence of background and early
age variables on the history of the poor's socioeconomic achievement.
The five-year interval is too short for a complete evaluation of the
role each variable plays in that life-time process. Its use never-
theless represents a considerable advancement over the typical cross-
sectional studies. It is important to bear in mind that we are not
attempting to account for change in income or occupational status
over this short five year period.

   The data in the lower left section of Table 2 indicate that
there is considerable stability in the correlations over the
five-year period. We find the corelations with 1971 income for
those who were poor in 1967 are still low (except in regard to
education). This indicates that the effect of the 1967 income
constriction is still having its effect. This outcome was not
entirely unexpected, but the similarity to the coefficients for
1967 is noteworthy. For occupational prestige in 1971 (the lower
right section of Table 2) we obtain the same patterns of correlations
found in the 1967 data: coefficients pertaining to parental back-
ground variables are larger for poor than for non-poor, the inverse
being true for education.

   From the data presented in Table 2 it is clear that the income
criterion used to define the poor limits the utility of both 1967
and 1971 incomes as measures of socioeconomic achievement. For
this reason in the multivariate analysis to which we now turn,
occupational status is used as the major dependent variable.

   So far we have considered only the bivariate relationships
between our various predictors and occupational status. For a
comparison of the relative effects of each controlling for the others,
it is useful to consider the beta weights (standardized regression
coefficients) for the appropriate multiple regression; these data
are presented in Table 3.

   For the poor the beta weights are .10 or larger for five of the
seven predictors when 1967 occupation is the dependent variable
and again for five of the seven when 1971 occupation is the dependent
variable. In contrast for the non-poor only two of the predictors
are greater than .10, education and first occupation. The parental
background variables tend (with the exception of father's occupation
for the 1967 model) to be stronger predictors for the poor and
education tends to be a stronger predictor for the non-poor.
Education is an important predictor for the poor too, but it does
not stand out relative to the other predictors as in the case of
the non-poor.

Table 3 : Occupation (in 1967 and 1971) as Predicted by Parental

Background and Early Age Variables: Standardized

Regression Coefficients (beta weights)

	OCCUPATION IN 1967		OCCUPATION IN 1971	
	Poor	Non-Poor	Poor	Non-Poor
Parental Background				
Majority	.154*	.078*	.171*	.086*
F. Edctn	.257*	.005	.127*	.017
F. Occptn	.021	.048*	.176*	.020
Early Age Variables				
N. Siblings	.206*	-.035	.061	-.013
Education	.285*	.443*	.226*	.471*
Test	.033	.062*	.006	.076*
1st Occptn	.228*	.213*	.299*	.167*
R^2	.369	.402	.390	.397

* Significant at .05 level.

These results lend further support to our earlier conclusions
with respect to the greater importance of parental background
variables in predicting socioeconomic attainment for the poor. Using
the language associated with path analysis we can conclude that the
long range "direct effects" of background variables on the respondent's

achievement is relatively more important for the poor than for the
non-poor. For the latter, it is education that plays a major role
in the prediction. In short, a case is beginning to emerge for
the conclusion that basic differences exist between the dynamics of
socioeconomic achievement for these two groups. To further sub-
stantiate this argument we turn to path analysis and the construction
of causal models. [3]

In our preliminary path models majority status, father's education,
and father's occupation were assumed to be causally prior to all
other variables in the model. Number of siblings is next in causal
order followed by education, test, and first occupation. In our
final models (Figures 1 and 2) we have suppressed arrows corresponding
to paths which were not both significant at the .05 level and at
least .10 in magnitude.

As would be expected on the basis of the multiple regression
results presented in Table 3, we find that the parental background
factors have substantial direct effects on occupational status for
the poor (Figure 1), but not for the non-poor (Figure 2). Similarly
there is a very substantial direct effect of education on occupational
status for the non-poor (Figure 2), but the corresponding effect
for the poor (Figure 1) is considerably weaker. These data further
support the argument that there are fundamental differences in the
process of socioeconomic achievement for the poor and the non-poor;
these differences are of sufficient magnitude to call for the
specification of separate models for each group.

One of the advantages of path analysis is that it allows us to
partitition the zero-order correlation between two variables into
various components. The total nonspurious effect to which we now
turn is equal to the direct effect (as measured by the beta weight
in the appropriate regression equation) plus the nonspurious indirect
effects. In Table 4 the total nonspurious effects on occupational
status in 1971 are presented. Both standardized and unstandardized
values are given because the former are most appropriate for comparisons
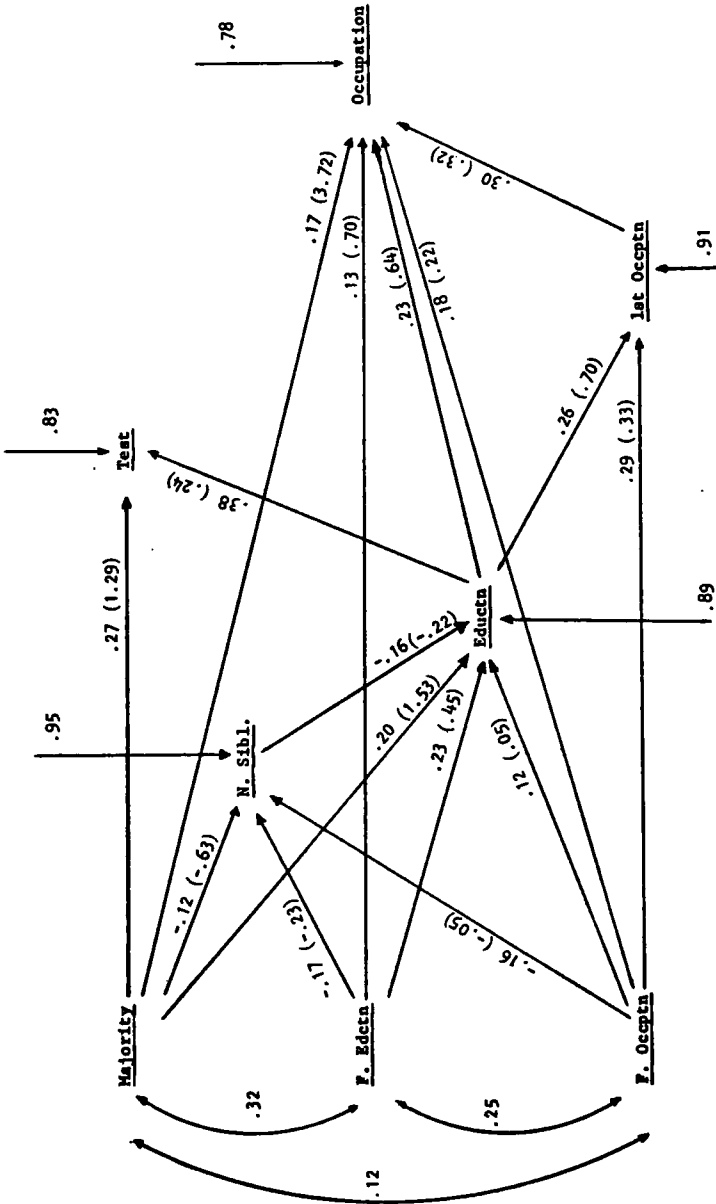within each sample and the latter are most appropriate for comparions
across samples. [4]

Fig. 1 : Path Model for Occupational Prestige of the Poor in 1971 [a]

a Path coefficients smaller than .10 and/or not significant at .05 level have been suppressed. For each path in the above model the unstandardized coefficient is within parentheses and the standardized coefficient is outside the parentheses.

Fig. 2 : Path Model for Occupational Prestige of the Non-poor in 1971 [a]

a Path coefficients smaller than .10 and/or not significant at .05 level have been suppressed. For each path in the above model the unstandardized coefficient is within parentheses and the standardized coefficient is outside the parentheses.
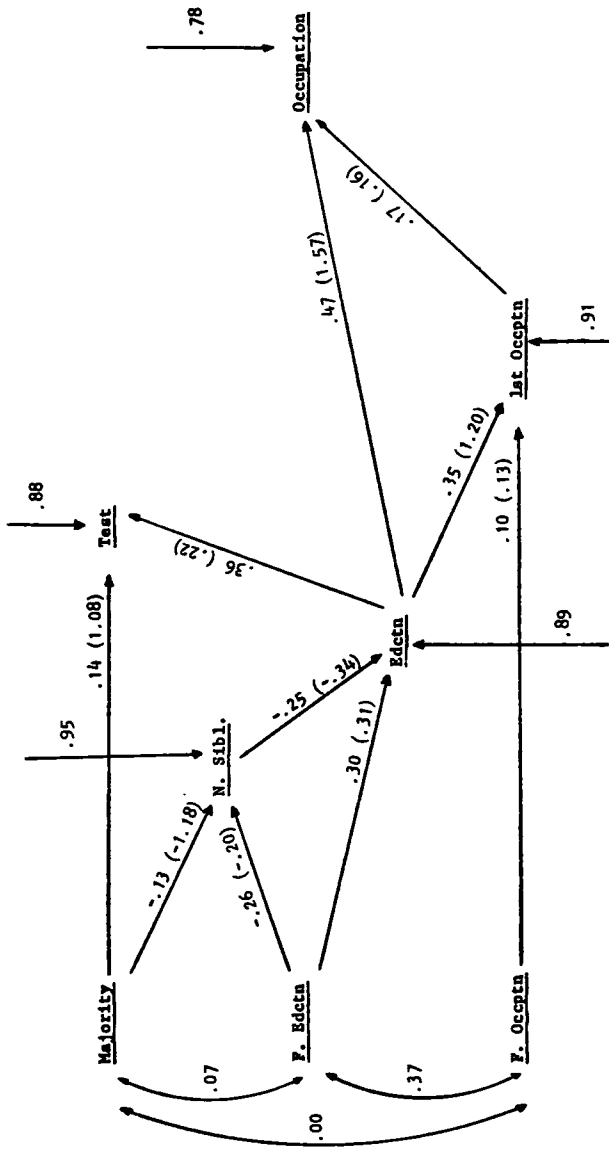
Table 4 : "Total Non-spurious Effects" of Parental Background and
Early Age Variables on Occupation in 1971 [a]

	Poor		Non-poor	
	Stdzd	Unstdzd	Stdzd	Unstdzd
Parental Background				
Majority	.245*	5.33*	.169*	7.03*
F. Edctn	.191*	1.05*	.235*	.82*
F. Occptn	.297*	.36*	.060*	.07*
Early Age Variables				
N. Siblings	-.000	-.00	-.163*	-.74*
Education	.296*	.84*	.558*	1.86*
Test	-.020	-.09	.080*	.44*
1st Occptn	.299*	.32*	.167*	.16*

* Significant at the .05 level.

a For a discussion of how these coefficients are computed see
Alwin and Hauser (1975) particularly their treatment of total
effects.

It is useful to compare the standardized coefficients in Table 4 with the corresponding coefficients in the right hand portion of Table 3 when making comparisons within samples. For the poor the coefficients in Table 4 tend to be larger, but the trend in relative magnitude remains the same. However, for the non-poor there are some important changes. In particular the total nonspurious effects for father's education and number of siblings are much larger (.235 and -.163) than would have been expected on the basis of the direct effects (.017 and .013) presented in Table 3.

For making comparisons across samples, that is when comparing the poor with the non-poor, it is useful to compare the unstandardized coefficients in Table 4. Had we compared the standardized coefficients, we might have concluded that Father's education is a stronger predictor for the non-poor than for the poor, but on the basis of the unstandardized coefficients we see that the reverse is true. A similar reversal occurs with the majority status variable. We had originally concluded that the parental background variables were stronger predictors for the poor than for the non-poor. We must now add the qualification that majority status has a somewhat stronger total nonspurious effect for the non-poor than for the poor.

CONCLUSION

We have examined the process by which parental background and early age variables affect later socioeconomic success. Our data support the conclusion that in a number of respects the process is different for the poor and the non-poor. In view of this we have specified separate models for each group.

One of the major differences lies in the role played by parental background variables, particularly father's education and father's occupation. There is a consistently stronger relationship between these variables and occupational status for the poor than for the non-poor. On the other hand when it comes to such early age variables as number of siblings and amount of education, the effects are greater for the non-poor than for the poor. We have found no evidence supporting a family planning strategy for dealing with intergenerational social mobility for the poor.

Using a line of reasoning similar to that taken by Jencks et al. (1972) it would be possible to argue on the basis of our data that education offers little hope of intergenerational social mobility for poor. However, an alternative interpretation is also possible. While the impact of education is consistently stronger for the non-poor than for the poor, this is not to suggest that education is less important to the poor. Our evidence indicates that education

is one of the strongest predictors of occupational status for the poor. In addition it suggests that any improvement in educational attainment among the poor will have a long range effect since the effect of father's education is also substantial. Finally the education variable is one of the most accessible to planned social intervention. However, there is no getting around the conclusion that the poor are going to need a lot more than additional formal education to achieve any reasonable degree of equality of opportunity.

The present analysis has of necessity been restricted to males; there were too few poor female respondents meeting our other sampling criteria to permit an independent replication for women. Sample size was also an important consideration in our decision not to attempt separate analyses for whites and blacks. In previous studies of a cross-section of the population evidence has been found suggesting that race and sex can have important implications for the process of socioeconomic achievement. In view of this we would suggest that efforts to further specify our model for poor women versus poor men and for poor blacks versus poor whites might well prove to be a fruitful line of investigation. It could also be of considerable vaue to replicate our findings on longer term panel data.

FOOTNOTES

1. We have used weighted samples throughout our analysis. The original weighting factor supplied by SRC inflates sample size to the point of making standard tests of significance useless. Our weighting factors were computed by dividing the SRC weighting factors by an appropriate constant such that the newly weighted samples for the poor and the non-poor retain their original number of units.

2. Note that the upper limit of the poor's income varies according to the family size, but that does not change the argument. Labor income for the non-poor is also restricted in its lower limit, but this should not affect the correlation coefficients very much since the much larger upper income range is available.

3. We are assuming that the reader is familiar with the strengths and the limitations of path analysis as well as the various simplifying assumptions which must be made in constructing path models. As Kim and Kohout (1975:383) point out, the interpretation of the various effect estimates must be made entirely within the context of the model to which they refer. The generalizability of the results is a direct function of our success in translating the complexity of the social world into a simplified mathematical model.

4. For more elaboration on how these coefficients are computed see Alwin and Hauser (1975).

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