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Evidence for a Social Psychological View of the Status Attainment Process: Four Studies Compared^{*}

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ABSTRACT

Data from a fifteen-year panel study of males, age 17 in 1957 (N = 442) and age 32 in 1972 (N = 340), are adduced to examine a social psychological theory of the status attainment process. Estimates are compared with those based on conceptually similar though operationally nonidentical structural equation models reported in previous longitudinal research. The comparison generally provides strong evidence in support of the social psychological explanation. Research implications of the convergences and divergences of findings across studies are discussed as are the data requirements for more adequately specifying social psychological models of the status attainment process.

In *The American Occupational Structure* Blau and Duncan documented the extent of status transmission operating in contemporary U.S. society, i.e., son's socioeconomic achievements are not independent of family's relative standing in the prestige hierarchy. The classic study provided empirical support for widely held hypotheses about education as a mechanism for the selection and distribution of individuals within different social strata (Sorokin) and as an agent of socialization for inculcating societal values,

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norms and achievement orientations (Parsons). More recent efforts, especially those of Sewell et al. (a, b; Sewell and Hauser, a,b; see also Duncan et al.) have specified the socialization processes by which parental socioeconomic status is passed on to sons. This paper introduces panel data which closely parallel those analyzed by Sewell et al. (a, b; Sewell and Hauser, a, b) and Alexander et al. and provides independent corroboration of a social psychological theory of the status attainment process.

The elemental components of the social psychological explanation were first synthesized by Sewell et al. (a). The original model, applied to a cohort of 1957 Wisconsin high school seniors who were recontacted in 1964, took respondent's mental ability and his parents' socioeconomic statuses as exogenous variables. Respondent's academic performance appeared as the first endogenous variable followed by significant-other influences (with respect to college plans) and respondent's educational and occupational aspirations. Respondent's education followed by his occupational prestige, both indicating attainments through 1964, completed the specification. The original model has been revised and extended. Thus, for examples, composite indicators have been disaggregated and mental ability has been respecified as an endogenous variable (Sewell et al., b); and earnings has been specified as the final dependent variable (Sewell and Hauser, a, b: Alexander et al.).¹ With slight modifications this is the model we reexamine in the present analysis.

Our understanding of the present state of theory concerning the status attainment process is that parental SESs are transmitted to sons by way of social psychological mechanisms that sequentially involve the adolescent's academic ability and performance, his significant-other status indications (expectations of definers and exemplifications of models) and his status aspirations. Aspirations are seen as a central mechanism in the process. They are formed and modified in social interaction. The individual assesses his educational and occupational potential in light of his own demonstrated and recognized mental ability and academic performance. His self-reflection (Haller and Portes) is complemented by the reflexive activity of his significant-others who also assess his attributes and performance in communicating the expectations they hold for him (Woelfel and Haller). Given the structuring of interpersonal relations along status levels, significant-others-e.g., teachers and peers-tend to be drawn from socioeconomic positions somewhat similar to those of the youth's parents and provide encouragement from a similar value orientation. Formed early in the life course, aspirations influence attainments, the process being that education provides knowledge, skills and entree (certification) to jobs that provide earnings supporting a given life style. The explanatory and predictive power of the theoretical model has been documented by Sewell and Hauser (a, b). Alexander et al. have provided strong independent support for the theory based on analysis of a national sample.

The pattern of interrelationships among the multiple indicators of the theoretical concepts is, of course, much more complex as is evident in interpreting causal theories by examining total, direct, and indirect effects. We follow the explanatory conventions insofar as we interpret our data as estimates of population parameters. But our presentation of findings is also formulated from the perspective of testing hypotheses across data sets and we interpret the data not only as estimates of population parameters but as a further test of the social psychological theory of the achievement process.

The distinction between estimating population parameters and hypothesis testing is critical when cross-validations are employed, which is the present circumstance. In deference to the experimental tradition we observe a purist conception of replication and eschew use of the concept where differences in sampling procedure, measurement, or methods of analysis are apparent. Such differences, which abound especially with panel studies in survey research, virtually preclude replication in the rigorous sense common to experimental design (Fisher) and we prefer to think of the studies as cross-validations. In considering the nature of crossvalidations² it is useful to bear in mind what it is that one seeks to validate. If one seeks to reproduce estimates of population characteristics, then it is essential that one duplicate exactly the earlier methods of sampling, measurement and data analysis (i.e., literal replication); for alterations would obviously jeopardize the comparability of the data, which is the central concern. But from a theoretical perspective, more important than any datum per se is the implied interrelationship of concepts; and the strongest cross-validation, the most conservative test of the hypothesized relationship between two or more concepts, is a conceptual cross-validation.³ We emphasize the difference between theoretical concepts and empirical indicators. Assuming not parallel indicators but correspondence between theoretical concepts and operational indicators, we fully expect to confirm the theoretical relationships by conceptual cross-validations.⁴

The analysis is presented in two sections. First we present estimates from new data of a structural equations model that is conceptually comparable but not identical to the social psychological specification of Sewell and Hauser (b). Differences in method, sample, and specification are discussed below. Thereafter we compare our estimates to those reported by Sewell and Hauser (b) and Alexander et al. In the first section of the analysis, we present estimates of population parameters for an age cohort of Lenawee County, Michigan, high school students. In the second section, we assess the degree of convergence of social psychological theory and research across four independent studies.

Data, Variables, and Methods

Before estimating our variant of the theoretical model (hereafter referred to as the Lenawee County, Michigan, or LC analysis) and comparing it with estimates reported by Sewell and Hauser (hereafter referred to as the Wisconsin or WIS analysis) and Alexander et al. (hereafter designated as the Explorations in Equality of Opportunity or EEO analysis), it is useful to outline the comparability of the three data sets.

The three samples are similar in that each is a panel study of essentially the same high school age cohort. The WIS and LC samples are drawn from the same broad geographic region and were both first studied in 1957 when respondents were 17-year-old males enrolled in high school (LC) or were seniors (WIS). The EEO sample also consists of high school males but sophomores originally studied in 1955. The WIS and EEO samples are similar in that they are restricted to males of nonfarm origin. Both the LC and the EEO follow-up studies were executed after a fifteen-year interval, LC in 1972 and EEO in 1970.

There are also sample differences. The EEO sample is drawn from 42 schools in the 1955 Educational Testing Service national survey of high school students (N = 538); the WIS study is a state sample (N = 1,789); and the LC study is a county sample (N = 442). Both the WIS and EEO samples are restricted to respondents for whom data are present on all variables which, in the case of the Wisconsin sample, includes restriction to men in the civilian labor force in 1964, not in school, and for whom Social Security earnings were available in 1967. The LC estimates, by comparison, are based on bivariate data present cases. The interval between the original and follow-up studies also differs. The LC and EEO follow-ups were conducted fifteen years after the initial study, but the educational and occupational attainments of the WIS participants were reported after seven years and earnings were recorded after ten years.

The original Lenawee County sample included 88 percent of the entire age cohort (N = 442). Twelve percent had taken full-time jobs and were no longer enrolled in high school in 1957.⁵ Data were gathered by questionnaires administered in the schols. Follow-up information was gathered on 340 of the original respondents by telephone interview⁶ (79% of the eligible⁷ 1957 participants). More detailed descriptions of the Lenawee County (Haller and Miller; Otto and Featherman), Wisconsin (Sewell and Hauser, b) and Explorations in Equality of Opportunity study (Alexander et al.) are available elsewhere.

In presenting the LC indicators we report important differences from the WIS and EEO variable operationalizations. We also report means where measures are parallel. *Father's Occupation*: The three samples employ the Duncan Socioeconomic Index (SEI) and in this respect are directly comparable. However, occupational data for the LC and WIS measures were taken in 1957 and the EEO measures were made retrospectively in 1970. The mean for father's SEI in the LC sample is 33.64, in the WIS sample is 33.63 and in the EEO sample is 43.35.

Father's Education: LC employs a compressed metric: scores range from 0 for less than 8 grades of schooling to 5 for a college degree. In the WIS and EEO samples the variable is coded into number of years of formal schooling completed. The WIS and EEO means are 10.31 and 10.36 years, respectively.

Mother's Education: Same as father's education. The WIS mean is 10.51 years and the EEO mean is 10.94.

The WIS and EEO studies also employ an economic status indicator. The WIS data includes parents' average income for all available years, 1957–1960 (coded in hundreds of dollars), which was retrieved from state income tax returns. The EEO researchers use a 13-item factor-weighted "acquisition" index of household possessions.

Mental Ability: Mental ability is measured in the LC study by the Cattell IPAT Test of G-Culture Free-Scale 3A. In the WIS study the indicator is the Henmon-Nelson Test of Mental Maturity which was transformed to a normalized centile rank. The EEO study employs a 20-item test administered by ETS.

Academic Performance: The LC measure is grade point average for the last full year of school prior to testing. It was based on a four point scale of grades in regular academic courses and was calculated from the student's transcript. The WIS study uses respondent's centile rank in his high school class which was obtained directly from school records. In the EEO study sophomore class standing was self-reported and is indicated in quartiles.

Parental Educational Encouragement: In the LC sample each respondent was asked to what extent his mother and father had given encouragement regarding educational attainments. Four fixed response alternatives ranged from 0 to "quit school and go to work" to 4 for "strongly encouraged me to continue." The respondent's score is the sum of scores on questions regarding both parents and ranges from 0 to 8. In the WIS sample the respondent was asked whether his parents had encouraged him to attend college and binary coding was used. The EEO study asked "To what extent have you discussed going to college with your parents?" Response categories were "not at all," "some," and "quite a lot."⁸

Peers Educational Plans: In the LC sample respondents were asked to name their five best friends and peers' educational plans were measured by taking the mean aspiration score of those best friends who appeared in the antiple. In the WIS study the respondent was asked to indicate whether most of his best friends" planned to attend college and binary coding was used. The EEO study employed an index summing responses to two items, one measuring the college plans of the most-liked friends and the other reporting the proportion of peers attending or planning to attend college. In addition the WIS and EEO studies include among the measures of significant-other influence an indicator of the educational encouragement his teachers provided. The WIS study employs a dichotomy to distinguish those who were encouraged to attend college from those who were not. The EEO study asked: "To what extent have you discussed going to college with teachers or guidance counselors (advisors) in your school?" The response categories were "not at all," "some" and "quite a lot."⁹

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Occupational Aspirations: In the LC sample respondents were assigned their raw scores on the eight-item Occupational Aspiration Scale (Haller and Miller). In the WIS sample the respondent was asked what occupation he hoped to enter in the future and his response was coded by assigning Duncan's Socioeonomic Index scores. In the EEO study occupational aspirations were originally coded into 90 occupational titles, which were subsequently assigned an SEI score.

Educational Aspiration: In the LC study respondents were assigned scores ranging from 0 to 4 depending upon whether they had no aspirations beyond high school to aspirations for seven or more years of college. In the WIS sample the respondent was asked whether he planned to continue his education in a degree granting college or university in the year following high school graduation. In the EEO study respondents were trichotomized into "college-goers," "possible college-goers" and "noncollege-goers."

Education: The three samples scored educational attainment as the number of formal years of education completed providing averages of 13.48 for LC, 13.30 for WIS and 14.72 for EEO. The LC and EEO measures were taken for 15 years after first being studied in high school and the WIS report is for seven years after high school graduation.

Occupation: The three samples use the Duncan Socioeconomic Index for coding respondent's occupation. Averages are 47.05, 43.30 and 53.52 for LC, WIS and EEO, respectively. Occupational attainment was measured at 15 years after the first interview in the LC and EEO studies and seven years after high school in the WIS study.

Earnings: Earnings for the LC sample refer to the respondent's report of personal income for the previous year, 1971. In the WIS study earnings

were retrieved from Social Security records for 1967. In the EEO study earnings refer to respondent's report of personal income for the previous year, 1969, and were assigned category midpoints.

In summary, the samples and indicators are similar but not identical. There is, then, an important qualification controlling the analysis: the comparative findings enable a conceptual cross-validation, not a literal or operational replication. We submit that the face validity of the LC indicators is comparable if not superior to those provided in the WIS and EEO studies. Zero-order correlations, means, and standard deviations for indicators used in the three studies are recorded in the Appendix.

Causal Structure Among Attainment Antecedents

Using the LC sample we first focus on the relationships among the common antecedents of the three attainment indicators (Table 1).

Whether because of test bias, differences in the social environment, or genetic transmission of test score performance, a positive association between performance on intelligence tests and SES is generally reported in the literature. Our analysis supports the expectation. Better educated mothers also stimulate sons' academic performance levels; but the paternal influence is indirect via mental ability. Apparently high status fathers influence their sons by providing a facilitating social context whereas the influence of mothers is direct.

The theory is that significant-others, especially parents and friends, bring the value orientation of the family's socioeconomic position to bear

Variables ^a	x ₄	× ₅	× ₆	×7	×8	۶×
X ₁ -FOCC	171*	042	135*	059	114*	038
X2-FED	073	-003	129*	-005	093*	105*
X3-MED	120*	176*	071	146*	051	031
X4-MA		431*	107*	186*	069	144*
5-AP			167 *	237*	321*	296*
6 ^{-PEDE}					221*	224≭
7 ^{-FEDP}					178*	171*
x ²	082	263	169	203	475	454

 Table 1.
 STANDARDIZED REGRESSION COEFFICIENTS AND COEFFICIENTS OF DETERMINATION

 FOR ANTECEDENTS OF SOCIOECONOMIC ATTAINMENTS (DECIMALS OMITTED).

 $^{a}\rm X_{1}$ father's occupation; $\rm X_{2}$ father's education; $\rm X_{3}$ mother's education; $\rm X_{4}$ mental ability; $\rm X_{5}$ academic performance; $\rm X_{6}$ parents' educational encouragement; $\rm X_{7}$ friends' educational plans; $\rm X_{8}$ educational aspirations; $\rm X_{9}$ occupational aspirations.

*Coefficient is substantively significant.

upon the formation and adjustment of the youth's aspirations. Their expectations are further governed by their observations of the youth's ability and past performance. Our analysis indicates that the level of educational encouragement parents give their son is affected by their own SESs, and it is also affected by the youth's demonstrated levels of ability and performance. These findings are consistent with the hypothesis that parental educational expectations and encouragement are one of the social psychological mechanisms by which they assure their offspring of the advantages (or disadvantages) of ascribed status.

The same antecedents account for even more of the variance in peer influence, but the pattern of effects differs. Fathers have no direct influence on friends' educational plans. Mothers, however, exert a direct controlling influence on the peer models to which their sons are exposed, perhaps by influencing association patterns. The mean educational aspirations of the youth's friends have a significant relationship to his ability and grades. These findings support the hypothesis that status expectations or status exemplifications bearing on a youth's aspirations are influenced by his own measured ability and past performance in school.

The analyses reported thus far provide evidence for our theoretical specification of anticipated effects, but important questions concerning the antecedents of aspirations remain unanswered: Is there evidence that the youth also weighs his ability and past performance in forming his aspirations? Do the intervening processes fully mediate the effect of socio-economic origins on aspirations? Are aspirations formed and modified in interaction with others (a social psychological explanation) or might they be internally constructed (a psychological explanation) and largely unresponsive to social influences? The last two columns in Table 1 inform these queries.

First, the two stage process does not exhaust the mechanisms whereby background socioeconomic advantage is translated into educational and occupational aspirations. Significant positive and direct effects remain. This suggests that there are theoretical and empirical linkages which, though not formally identified, further assist the status transmission process [e.g., significant-other occupational expectations or exemplifications (Woelfel and Haller); allocation mechanisms (Kerckhoff)]. Second, our analysis reveals that the youth takes his own past academic performance into account in formulating his aspiration levels (betas = .321 and .296). He also assesses his mental ability (beta = .144) independently of the evidence of performance reflected in his grades. His past performance is made more salient through the evaluations given by those most influential to him. Finally, parents and friends have a positive direct role in molding the youth's aspirations, substantially increasing the variance accounted for in both educational and occupational aspirations. Thus, significant-others function as more than intermediaries in the process of status transmission.

They are also independent agents in the aspiration formation process.

In summary, this analysis provides strong support for crucial elements of the social psychological theory of the status attainment process. Son's aspirations are positively associated with family socioeconomic statuses. He reflects upon his mental ability and academic performance in formulating his educational and occupational aspirations. Significant-other expectations and exemplifications are positively related to the youth's SES and are influenced by his demonstrated ability and performance. The process helps to explain but does not fully explicate how background SESs influence levels of aspirations.¹⁰ Our main interest, however, is in explaining the process of status attainment, not that of aspiration formation. In the following discussion we analyze the operation of this structure of antecedents on education, occupation and income.

Education

That family position in the stratification order would be positively associated with level of educational attainment was expected and is supported by our data (Table 2). Family SESs alone account for 18 percent of the variance in the level of education achieved by the son 15 years after high school. Thirty-two percent of the effect of father's occupational prestige and 17 percent of father's and mother's educational influence is mediated by mental ability which increases the variance accounted for in educational attainment by another 10 percent ($R^2 = .281$). Similarly, academic performance, which may have direct effects or effects mediated by significantothers and/or aspirations, accounts for an additional 18 percent of the variance in education but does not explain the remaining direct influence of social origins: 57 percent of the effect of father's occupational prestige, 84 percent of the effect of father's education and 43 percent of the effect of mother's education.

The theory holds that an important link in the status transmission process consists of the status expectations held for the youth by his parents and teachers and the status aspirations exemplified by his best friends. With respect to each parental status indicator, significant-others mediate between 6 and 17 percent of the effect statistically controlling on all other antecedents. Significant-others add 5 percent to the predictive power of the education model. Lest the reader conclude that fathers have a direct effect on son's educational attainments but that mothers do not, the true nature of the parental relationships is unmasked when aspirations are introduced as the third explanatory mechanism. Similarly, the influence of significant-others is substantially moderated. Note that the direct effect of friends' plans is reduced by half and the influence of parental encouragement is effectively neutralized, which suggests the possibility that

Variables ^a							
		X	10 Educat	lon			
X1-FOC	176*	120*	100*	076*	030		
X7-FED	143*	120*	121*	112*	062		
X3-MED	223*	184#	097*	059	035		
X4-MA		325*	112*	062	012		· . ·
X5-AP			495 *	429*	266*		
X6-PEDE				075*	-041		
X7-FEDP				226*	135*		
Xg-EDASP					344*		
X ₉ -OCASP					178*		
R ²	184	281	461	513	619		
			X ₁₁ Occ	upation			
X1-F0C	242*	193*	174*	151*	122*	111*	
X ₂ -FED	060	039	040	029	-012	-035	
X3-MED	125*	091	012	-022	-039	-052	
X4-MA		287*	095*	050	003	-002	
X5-AP			448 ☆	387*	261*	160*	
X6-PEDE				090	-002	014	
X7-FEDP				190	118*	067	
X8-EDASP					166*	036	
Xo-OCASP					248*	181*	
X10-ED						378*	
R ²	118	194	341	383	449	503	
)	12 Earnin	gs	: 	
X1-FOC	060	038	034	017	006	002	-011
X2-FED	048	.038	039	030	016	007	011
X3-MED	185*	170#	. 152*	131*	125*	120 [±]	125*
X4-MA		130*	086	058	044	042	042
X5-AP			102	064	-022	-019	-037
X6-PEDE				074	244	050	049
X7-FEDP				108*	084	063	056
Xg~EDASP					073	020	016
Xg-OCASP					064	037	017
X10-ED						154*	113
X11-0CC							110
R ²	059	075	083	099	106	115	121

 Table 2.
 STANDARDIZED REGRESSION COEFFICIENTS AND COEFFICIENTS

 OF DETERMINATION FOR THE RECURSIVE STRUCTURAL MODELS OF EDUCATION, OCCUPATION
 AND EARNINGS (DECIMALS OMITTED)

 $^{a}X_{1}$ father's occupation; X₂ father's education; X₃ mother's education; X₄ mental ability; X₅ academic performance; X₆ parents' education encouragement; X₇ friends' educational plans; X₈ educational aspirations; X₉ occupational aspirations; X₁₀ education; X₁₁ occupation; X₁₂ earnings.

*Coefficient is substantively significant.

some youths may experience frustration in making career decisions arising from conflicting encouragement and exemplification communicated by significant-others.

In summary, educational attainment is positively related to background SESs; and that influence is largely mediated by the social psychological processes specified. Earlier we reported support for the thesis that youth's aspirations are adjusted by self-reflection and assessments communicated by significant-others. The present analysis demonstrates that aspirations have a substantial net effect on educational attainment, complementing a predictive model that accounts for 62 percent of the variance in educational attainments and explains most of the status transmission effect.¹¹

Occupation

Given that occupational prestige is the best summary indicator of SES (Blau and Duncan), the extent of status transmission operating in a population can be determined by the relationship between father's and son's occupational prestige, statistically controlling on other status antecedents. The effect is significant (beta = .111). It is enhanced by the effect of mother's education on son's occupational attainment. Parental socioeconomic position accounts for 12 percent of the variance in son's occupational attainments. Mental ability increases the variance accounted for by a third.

A youth's past academic performance exerts a strong independent effect on his occupational prestige (the variance accounted for nearly doubles, $R^2 = .341$). The finding is consistent with the theory that youth's past performance guides him in setting his aspiration levels and provides essential input to significant-other assessments of the youth's potential which influences their communication of appropriate status expectations. Mental ability and academic performance mediate 28 percent of the effect of father's occupation and 90 percent of the effect of mother's education.

Eleven percent of the total proportion of variance accounted for in occupational attainment is contributed by significant-other status indications. Earlier analysis of the causal structure of attainment antecedents established a positive relationship between academic performance and significant-other influences which we interpreted as support for the theory that significant-others communicate status indications based in part on their assessments of the youth's academic performance. Significant-others collectively transmit 14 percent of the effect of scholastic performance on occupational attainment and, together with GPA, they mediate 83 percent of the influence of mental ability. Significant-other effects are, in turn, largely mediated by aspirations. Consider, for example, that all of the effect of parental expectations and 38 percent of the peer effect occurs by way of

aspirations. As predictors of occupational attainment, aspirations increase the variance accounted for by 17 percent ($R^2 = .449$). The fully specified model indicates that education is the principal mechanism for occupational status attainment, however. Independently of other processes, educational attainment explains an additional 11 percent of the total effect of father's occupation on son's occupational attainment.

We have estimated a model that accounts for 50 percent of the variance in occupational attainment. The model accounts for 54 percent of the effect of father's occupational prestige indicating that about half of son's occupational attainment is explained. The other half remains unexplained by the social psychological explanation of the occupational attainment process.

Income

Social psychological explanations have been least successful in accounting for the variance and specifying the mechanisms for the economic dimension of status, perhaps because the explanatory variables were selected for their relevance to educational and occupational attainment rather than to earnings (Sewell and Hauser, a).¹² In the LC data and those analyzed by Sewell and Hauser (a,b) and Alexander et al., the specification predicts no more than 12 percent of the variance in income.

There is little to inform expectations for our specification of the income process. Not only have earlier specifications been disappointing as predictions and explanations, but the LC data lack a family income indicator, which Sewell and Hauser (b) found to be strongly associated with son's earnings ten years after high school. In its absence our analyses indicate that mother's level of education has the most pronounced influence on son's income 15 years later. Further, most of that effect is direct. The social psychological processes that informed our understanding of educational and occupational attainments explain only 32 percent of the effect of mother's educational influence. The key linkages are academic performance and significant-other influences. About a third of the influence of education on income is mediated by occupational status. Most of the effect of education occurs within occupations.

In summary, our data provide a less than satisfactory specification for either predicting or explaining the income process early in one's career, although our specification does account for at least as much variance in income as do the WIS and EEO models. Social origins account for only 6 percent of the variance and only mother's educational level provides a total (and direct) effect. Mental ability, peer influence and education are the only other variables that display significant effects. There is evidence that the social psychological processes do function as mechanisms in the causal sequence culminating in income, although the effects are very modest. The fully specified model accounts for 12 percent of the variance in income.

In the following section we discuss our findings in the context of previous research and assess the accumulated evidence for the social psychological explanation of the status attainment process.

An Assessment of Theory and Research

We here compare the Lenawee County (LC) findings with our reanalyses of estimates previously reported for the Wisconsin (WIS) research (Sewell and Hauser, b) and the Explorations in Equality of Opportunity (EEO) study (Alexander et al.),¹³ also drawing occasionally upon findings reported by Wilson and Portes based on the Youth in Transition Project data (YTP). Our purpose is to assess the degree of convergence of social psychological theory and research on the status attainment process. Although these studies do not exhaust the relevant empirical literature, they are reasonably comparable and presuppose the same underlying social psychological orientation. Nonetheless, we observe the earlier qualifications: the studies are not exact replications but are, at best, conceptual crossvalidations.

The social psychological theory purports to be an explanation of the *process* of status attainment. The central question is: Does the multi-stage process explain the reality of status transmission? Status transmission is defined as the empirical association between origin SESs and destination statuses or attainments. Explanation is defined as a theoretical accounting for the mechanisms by which the effect of origin statuses is linked to or mediated by socioeconomic attainments. We take the proportion of the total effect explained by the process as the statistical indicator of the adequacy of the explanation.¹⁴ By decomposition we are also able to determine the relative explanatory power of the specific mechanisms within and between models, the indicator being the percentage of the total effect mediated by the measures of an intervening variable. The comparison does not depend on equivalent measurement metrics across studies, which generally do not appear in the data.

Table 3 provides a tabular comparison of the explanatory power of each theoretical mechanism and the complete process. The LC specification differs from the WIS and EEO models in that it does not provide a measure or proxy indicator of parental income and teacher educational encouragement. We therefore provide two sets of estimates for the LC data. The first is based on the specification and analysis reported above. The second assumes that the WIS zero-order relationships for the two missing indicators are reasonable approximations for the LC parameters. This expedient enables us to estimate a comparable specification.¹⁵ In comparing the two

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patterns of effects the largest difference concerns the proportion of effect of father's occupation mediated by significant-other influences (4 as opposed to 14 percent).¹⁶ Thus, respecifying the LC model does not greatly alter the estimates for the operation of the basic social psychological processes and, except where the respecification affects the estimates, our comparisons are based on the unaltered LC model.

The LC estimates for the explanatory power of the process tend to equal or exceed the estimates produced by the WIS research and to equal or approximate those produced in the EEO analysis. Of five possible LC and WIS comparisons (Table 3) the LC estimates explain more of the significant effects of background socioeconomic statuses in three cases and equal the WIS estimates in one case. Only with respect to explaining the effect of father's education on son's educational attainment does the power of the WIS estimate slightly exceed that of the LC estimate. Three LC-EEO comparisons are possible. In two of the three cases the EEO estimates are stronger than the LC estimates. In four of seven possible comparisons the EEO study produces stronger explanatory estimates than the WIS study. In the three possible comparisons of all three studies the EEO estimates are strongest in two (estimating the proportions of effect of father's education on son's education and father's occupation on son's occupation) and in one the LC estimate is strongest (estimating the proportion of the effect of father's occupation on son's education explained by the process). In summary, the EEO data generally provide the strongest estimates supporting the social psychological explanation of the status attainment process. This conclusion includes the relationship of father's occupation to son's, which Blau and Duncan define as the best indicator of the extent of status transmission. There is, however, a broad range in the proportion of the total effect of background socioeconomic indicators that is mediated to educational attainment. For example, the LC model mediates more than twice the effect of father's occupational prestige that is mediated by the EEO model (83 percent compared with 39 percent). Moreover, inconsistencies appear in the internal dynamics of the attainment process when comparisons are made across data sets. For example, mother's education has a strong effect on attainments in the LC study but the effect is absent in the EEO study; and the EEO study reveals significant effects of father's occupation and education on son's earnings, which do not appear in either the WIS or LC estimates. Inspection of the zero-order relationships (Appendix) supports the major conclusion that the relationships between social origins and attainments tend to be stronger in the EEO and LC studies.

It is instructive to compare the operation of the social psychological mechanisms within and between the three data sets. In the three models where the estimates of the operation of mechanisms are comparable, mental ability and academic performance combine to mediate an average of 25 percent of the total effects of socioeconomic origins in the WIS data,

Table 3. PROPORTION OF TOTAL EFFECTS EXPLAINED (BACKGROUND SOCIOECONOMIC STATUS INDICATORS ON SOCIOECONOMIC ATTAINMENTS) BY INTERVENING VARIABLES IN THE WISCONSIN, EQUALITY OF EDUCATIONAL OPPORTUNITY AND LENAWEE COUNTY SAMPLES* (PERCENTAGE SIGNS OMITTED)

		Dependent Varlables											
		Edu	cation			Occu	upation		Earnings				
Independent Variables	WIS	EEO	LC	(LC) [†]	WIS	EEO	LC	(LC)†	WIS	EE0	LC	(LC) [†]	
Fathers Occupation via:													
mental ability	15	07	32	(36)	11	05	20	(20)	-	-01	-	-	
academic performance	07	-01	11	(19)	05	-01	08	(11)	-	00		-	
significant other influence	29	21	14	(04)	17	19	10	(04)	-	12	-	-	
aspirations	12	12	26	(29)	07	13	12	(11)	-	02	-	· -	
education					16	25	05	(03)	-	15	-	-	
occupation						-	-			11			
Total Indirect Effects	62	39	83	(89)	54	61	54	(49)		38	-	-	
Father's Education via:													
mental ability	39	48	16	(16)	43	30	-	-	-	÷08	-	_	
academic performance	-02	20	+01	2001	-02	16	-	-	_	03	-	· · _	
significant other influence	18	02	06	(02)	16	02	_	_	_	01		-	
	07	04	30	(27)	07	02	-	· _	-	01	-	_	
aduation	07	V 4		(377	22	10		_	-	05	_	-	
					~~	10	-			09	_	-	
Total Indirect Efforts	62	76	17	755	86	20						<u> </u>	
Total Indiffect Lifetts	05	77 .	21	(90)	00	60	-	-	-		-	-	
Mother's Education via:			_										
mental ability	26	· -	18	(17)	31	-	27	(28)	-	-	08	(08)	
academic performance	06 -	-	39	(41)	07	-	63	(68)	-	-	10	(11)	
significant other influence	25	-	17	(14)	24	-	27	(24)	-	-	11	(12)	
aspirations	15	-	11	(11)	12	-	14	(14)	*	· ·	03 -	(04)	
education	-				18	-	10	(12)	-	-	03	(03)	
occupation											-03	(-03)	
Total Indirect Effects	72	-	-84	(83)	92		142	(144)	.		32	(34)	
Family income via:													
mental ability	23	41	÷.	(17)	25	53	+	(19)	07	-06	+	(07)	
nerical ability	12	14	ŧ	(-00)	02	19	ŧ	6111	01	. 02	ŧ	(-02)	
academic performance	24	24	÷	(26)	21	1.2	i	(10)	02	12	÷.	(1.7)	
significant other influence	30	24 0F	÷	(16)	12	72		(16)	02	15	÷		
aspirations		05	•	(10)	13	10	1	(10)	04	02	÷	(07)	
education					61	12	· •	(20)	02	_02	1	(02)	
occupation				7			<u> </u>	(01)	_01	-03	÷	(04)	
Total Indirect Effects	78	85	Ŧ	(59)	84	132	Ŧ	. (84)	17	09	1	(34)	

*Estimates are made following the procedure proposed by Alwin and Hauser for interpreting causal theories in sociology. Zero-order correlations for the Wisconsin data are reported in Sewell and Hauser (b:93). Zero-order correlations for the Quality of Educational Opportunity data were kindly provided by Karl Alexander of Johns Hopkins University.

†Modified Lenawee County estimates which assume the Wisconsin associations for family income and teacher education encouragement.

‡Indicates that the relationships do not appear in the Lenawee County data.

-Indicates that the total effect is not statistically significant, therefore indirect effects are not calculated.

26 percent in the EEO data and 29 percent in the LC data. The average proportion of effects mediated by significant-other influences is 21 percent for WIS, 12 percent for EEO, and 10 percent for LC. Thus, the EEO and LC data partially support the Wilson and Portes suggestion that the mediating influence of significant-others may be overestimated in the WIS data. (This finding is discussed in detail and qualified below.) Comparison of the average mediating influence of aspirations across models reveals that the net effect of aspirations is to mediate 9 percent of the effect of the origin statuses in the WIS data, 10 percent in the EEO data and 24 percent in the LC data. The average proportion of effects explained in the WIS models is 60 percent, 58 percent in the EEO models and 65 percent in the LC models. In summary, the social psychological mechanisms operate approximately consistently across comparable models estimated for the three data sets.

There are differences in estimates across samples that are noteworthy. For example, the WIS and LC studies are comparable in that, unlike the EEO study, mother's education has a significant effect on educational and occupational attainment; and the WIS and EEO findings are similar in that, unlike the LC estimates, father's education has a significant effect on son's occupational attainment. These differences suggest caution with respect to the generalizability of Hauser's finding that background socioeconomic indicators operate unidimensionally with respect to achievement aspirations and educational attainment. The finding does not hold for either the EEO or the LC data.

In their analysis of the Youth in Transition Project data Wilson and Portes report that significant-other educational influences emerge as a much weaker variable than earlier research suggests. The present analysis, which includes estimates for occupational attainment and earnings, invites more detailed inspection of the role of significant-other educational influences than was possible by Wilson and Portes, whose data were limited to educational attainment. Close inspection of Table 3 reveals that the EEO and LC estimates for significant-other influences as mediators of origin effects on educational attainment are indeed lower than the WIS estimates, but also that the EEO and LC estimates of the mediating effects of significant-other influences on occupational attainments and earnings are as strong or stronger than the WIS estimates. This analysis suggests an important qualification for the Wilson-Portes hypothesis: institutional evaluations may affect educational attainment more than was anticipated, but there is no evidence for a corresponding attenuation of the individual decision process with respect to occupational attainments and earnings. Our analyses also tend to support the YTP findings in attributing a somewhat stronger effect to mental ability and academic performance than was suggested by earlier findings.

Our comparisons also reveal notable differences between the YTP findings and those based on the WIS, EEO and LC analyses. Indeed, the

YTP differences are so substantial that on their account one might question the validity of the social psychological explanation of the status attainment process. Thus, for example, Wilson and Portes report that "significantother influences fail to mediate effects of parental socioeconomic level on educational attainment" (353). This finding is not confirmed in either the WIS, EEO or LC data, all of which demonstrate a net mediating effect ranging from 14 percent to 29 percent of the effect of father's occupation.17 Similarly, Wilson and Portes report that "aspirations are not an efficient mediator of the effects of background . . ." (354). Table 3, however, reveals that in the LC estimates aspirations mediate at least 17 percent and as much as 26 percent of the effects of father's occupation and father's and mother's education on son's education, net of that mediated by earlier processes. These two examples will suffice to indicate that there are major discrepancies in the YTP findings which appear to contradict those reported in the WIS, EEO and LC analyses. Apart from signaling the magnitude of the differences in the YTP findings, we suggest that the evidence from the WIS, EEO and LC samples favoring a social psychological explanation is sufficiently consistent and strong that in our judgment the Wilson-Portes conclusions are best held inabeyance until the YTP six-item composite socioeconomic background indicator is disaggregated¹⁸ and a common calculus is used for estimating and interpreting the causal theories implicit in the social psychological model.¹⁹

Conclusions and Discussion

Analysis of the Lenawee County data provides independent corroboration of the social psychological theory of the status attainment process. The findings support the theory both with respect to the separate and additive effects of the theoretical linkages. The LC estimates of the explanatory power of the process(es) tend to equal or surpass those previously reported in the literature. Likewise, as a predictive model the Lenawee County estimates accounted for as much or more variance than those previously reported in the WIS and EEO research. Taken together the WIS, EEO and LC studies provide strong support for the social psychological explanation of the status attainment process. The consistency of the evidence is the more notable in that it is based on conceptual cross-validations, not literal replications.

Precise specification of how the lack of parallel samples and methods affects the comparability and generalizability of findings is beyond the scope of the present study. There is the need to approximate more closely the experimental ideal of literal replications, which may include recoding responses into more parallel indicators. Only by minimizing the possibility of conceptual invalidity can the probability of sampling differences be af-

firmed. This is not to gainsay the possibility that a more thorough and rigorous reanalysis of the WIS, EEO and LC data might also add some increment to understanding the dynamics of the status attainment process. Such an analysis might determine, for example, whether the stronger aspiration effect observed in the LC sample is due to using more refined measures than those employed in the WIS and EEO studies. We invite methodological exposure to the substantive implications of these nonparallel methodologies.

There are other lines of research which would further improve our capacity to assess and extend status attainment theory. First, there remains the possibility that the differences observed in the operation of social psychological processes are due not to methodological artifacts but to sampling differences, in which case it is necessary to identify the conditions under which the social psychological processes operate. This can only be accomplished by systematically replicating the estimates for the hypothesized relationships across samples.

Second, more adequate data sets need to be developed for fully specifying models of the theoretical processes implicit in the social psychological explanation of the status attainment process. Haller and Portes reason that a data set fully capable of expressing the theory requiresin addition to background socioeconomic indicators, mental ability and academic performance-valid and reliable indicators for each of 12 statusrelated variables formed by cross-classifying the three types of statuseducation, occupational prestige and income-by four types of status "isomorphs": (1) status exemplifications presented by one's models, (2) status expectations of one's definers, (3) the individual's pre-attainment status aspirations, and (4) the objective status he attains. Moreover, each of the objective statuses should be measured at the time of maximum status differentiation for a cohort. In contemporary U.S. society this would be about age 25 for educational status, perhaps age 35 for occupational prestige and about age 45 for income status (Haller et al.).²⁰ None of the extant data sets include well-measured indicators of more than half of these theo-

	R ²								
Status Variables*	LC	WIS.	EEO						
Education	. 62	. 54	. 45						
Occupation	.51	. 43	. 42						
Earnings	.12	.08	.12						

 Table 4.
 COEFFICIENTS OF DETERMINATION FOR SOCIOECONOMIC ATTAINMENTS IN THE

 LENAWEE COUNTY, WISCONSIN, AND EQUALITY OF OPPORTUNITY SAMPLES

*See Table 1 and the section on Data, Variables, and Methods for a description of the regressors. Education is included among the regressors when occupation is the dependent variable and both education and occupation are included as regressors for earnings.

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retical constructs. In none have the dependent variables been measured any later than age 32. It is well known that the accuracy of estimates of population parameters produced by structural equation models is in part a function of the adequacy of appropriate indicators for all theoretical constructs. Therefore, until appropriate indicators are produced that correspond to the fully specified theoretical model, it will be impossible to adequately test the social psychological position. There remains the additional problem of measurement error and differential reliability within and between data sets (Blalock et al.; Bohrnstedt and Carter; Heise). Analysis of the LC data (Otto, a, b) reveals that statistical adjustment for measurement error increases the coefficients of determination (predictive power) and reduces the direct effects of exogenous variables (explanatory power) only marginally. Thus, it appears that unless researchers posit a rather high degree of random variation (indeterminancy) in this sector of human behavior a more complete explanation and prediction depends more on theoretical extension than measurement refinement; but this issue requires further attention.

Third, in the analyses we have compared, efforts to account for the variance in income have been the least successful. Sewell and Hauser (a) have reasoned that this is due in part to the lack of income-specific antecedent variables. Additionally, there is evidence that income differentials may be unstable among the men studied. Featherman; Kelley; and Haller et al. have shown that the effects of education and occupation on income are much greater among middle-aged men than among those who are younger. Alternatively, the income variable might be better conceptualized and operationalized by income curves inasmuch as occupations differ with respect to the stage at which they yield peak earnings. For example, manual workers may have highest earnings in their early careers whereas professionals may experience greater earning power at a later stage (Otto, b). All three directions-theoretical specification of income-specific predictors, measuring earning power at middle age rather than during the more unstable early years, and conceptualizing the dependent variable in terms of income curves-are likely to yield increased predictive and explanatory power for the income status dimension.

Fourth, it is increasingly important that status attainment researchers more clearly distinguish between prediction and process, between variance accounted for and explanation. At issue is the distinction between the objectives of analysis by multiple regression, which endeavors to predict relative effects and variability in dependent variables, and analysis by structural equation models, which seeks to determine how efficiently total effects are mediated via theoretically specified networks of direct and indirect effects. The social psychological theory explains status transmission by explicating the theoretical mechanisms through which origin statuses affect attainments. The goal is to provide empirical disconfirmation (or

support) for a theory of effect patterns which essentially reduce the direct effects of social origin statuses on attainments to zero. Two issues must be distinguished. First, complete explanation of the process may require other than social psychological mechanisms—i.e., estimates of the mediating role of social psychological linkages (indirect effects) may never fully transrole of social psychological linkages (indirect effects) may never fully trans-mit the total effects of exogenous variables on dependent variables (see Kerckhoff). Second, a complete explanation of the process (indicated by effectively reducing total effects to zero) is not to be equated with perfect prediction (i.e., $R^2 = 1$.). The former seeks to identify the linkages whereby background socioeconomic statuses influence attainments (the social psy-chological theory explains how social interaction affects that process and structural equations provide estimates of the efficiency or power of the explanation). The latter seeks to predict early career attainments which, while requiring identification of predictor variables, does not require an explication of the process of status attainment.

Fifth, a distinction has been made here and elsewhere (Woelfel and Haller) between the exemplification and expectation role of significant-others. In this paper both forms of influence have been referred to as status others. In this paper both forms of influence have been referred to as status indications. The theory holds that significant-others are a mechanism in the status transmission process, but their mode of influence, whether as models who exemplify appropriate statuses or as definers who communi-cate specific expectations, has not been differentiated.²¹ Future research might profitably attend to the processes whereby significant-other influ-ences operate. Further, future research should begin to identify and to separate the status transmission components which are due to modeling, to the cognitive skills a status variable provides for attainment, and to the resources status on a given dimension provides for other attainments. Kerckhoff argues that measures of allocation mechanisms should also be developed developed.

developed. Sixth, current evidence shows that the transmitted component of status is relatively small, the arguments of Bowles and Gintis about the inheritance of financial status notwithstanding. Indeed, some of the social psychological variables (definers' status expectations and youths' aspira-tions) are far more influential than are parents' statuses. But social psycho-logical variables do not come into being in and of themselves. The factors accounting for their variations must be identified if we are to further develop a complete explanation for status attainment differentials. There would seem to be at least two possible directions to search. One would be to look for non-status origins for the social psychological antecedents of status. No one has yet made any serious proposals as to what such variables might be. The other would be to reconceptualize the question of status origins to include the statuses of all of the individuals' significant others, not just the statuses of parents (see Haller and Portes). Of the two possibilities, the latter seems the more promising. First, it

suggests variables that can be specified and measured without initiating new research. Second, it offers the possibility of recasting the whole question of status origins in such a way that all status attainments might be viewed from the perspective of status transmission, which would be consistent with what is already known about the social psychology of status attainment. From this perspective the mean statuses of all the person's models and definers are taken as estimates of his status origins. It hypothesizes that, for any specific status variable, the mean status expectation level of one's definers is a consequence of the mean status levels of those who are his models and definers. This includes the existing hypothesis that one's own aspiration level regarding a status variable is strongly influenced by the means of the corresponding statuses of his models, the mean of the corresponding status expectations of his definers, and that one's attainment status is strongly influenced by his corresponding status aspiration level. Moreover, this view accepts the related hypotheses that once formed, statuses attained earlier have strong effects, independent of the relevant psychological status indications, on statuses which are attained later. For example, net of occupational status indications, attainment regarding education has a large effect on occupational status attainment. Note that this holds that in shifting the status origin referent from only the status of parents to all of one's significant others, we can again admit for serious consideration the hypotheses that all or most status attainment variance is due to the transmission of status origins. This would focus attention on a new problem: explaining why certain individuals are selected as one's models and/or definers.

The other alternative appears less promising. It suggests that we attend only to non-status variables to explain the large nontransmitted components of status, but it gives no hint as to what such variables might be. In any case, one of the most important and complex unsolved problems in status attainment research is to identify variables which are capable of explaining and predicting the differences in status indications. If this could be done, it would greatly assist explaining the nontransmitted component in status attainment.

Finally, it should be recalled that major stratification theorists including Marx, Weber, Sorokin and a host of contemporary writers have posited status dimensions other than education, occupational prestige and income. Most are more inclusive. For example, income is often regarded as part of an economic dimension. Moreover, each includes (under various labels) a dimension which might be called political influence or power, a reminder that status attainment researchers have yet to examine the full dimensionality of their dependent variable.

Notes

1. Additional theoretical respecifications of psychological processes operative during adolescence have been offered by Haller and Portes and Woelfel and Haller. To date these have been estimated only on cross-sectional data and the long-term consequences have not been assessed.

2. It is useful to distinguish between different methods of cross-validation. Lykken informs our perspective from the experimental tradition arguing that there are three different methods of replication. *Literal replications* require exact duplication of sampling procedures, experimental conditions, measuring techniques, and methods of analysis, the objective being to confirm a fact or finding. *Operational replications* imitate only the sampling and experimental procedures, the purpose being to test whether the investigator's conditions and procedures produce identical results under another's administration. *Constructive replications* deliberately avoid duplicating the earlier methods. Given a clear statement of an empirical relationship, the replicator develops his own methods of sampling, measurement, and data analysis for validating the finding.

3. If one cannot confirm the relationship by conceptual cross-validations, then there is reasonable question about the alleged association of concepts, which is the theoretical issue. In such a circumstance the researcher could, of course, retreat to an operational replication. But the point is that in doing so he is documenting the reliability of his indicators and validating the estimates of his population parameters, which ought not be confused with validating the relationship between theoretical concepts.

4. It must be noted, however, that attempts at conceptual cross-validation may fail for several reasons: sample differences, lack of correspondence between theoretical and operational definitions, differential measurement error or because the theoretical relationship does not obtain. Further, it may be impossible to determine the reason for the failure of a conceptual cross-validation without more precise specification of the issues. Therefore, the process of verification necessarily proceeds by multiple corroboration of the conceptual relationships under varying operationalizations.

5. Jarrett and Haller report that most of the dropouts were sons of farmers. Thus, the data do not truly represent the entire 17-year-old male cohort living in Lenawee County in 1957.

6. Data gathering and coding was executed under contract with the Wisconsin Survey Research Laboratory, Harry Sharp, Director.

7. Twelve of the original respondents were known to be deceased at the time of follow-up lowering the sample size of eligible participants to a maximum of 430.

8. There is doubt that this indicator is a good proxy for parental encouragement.

9. There is some question whether "extent . . . discussed going to college" (EEO) is a good proxy for "encouraged to attend college" (WIS).

10. With respect to father's occupational prestige 51 percent of the effect on educational aspirations and 25 percent of the effect on occupational aspirations remains unexplained; with respect to father's education 66 percent of the effect on educational and occupational aspirations is unmediated; and with respect to mother's education 26 percent of the effect on educational aspirations is not educational aspirations and 17 percent of the effect on occupational aspirations is not explained by the model.

11. Of the total effects of father's occupation and father's and mother's education, all but 17, 43 and 16 percent are explained by the social psychological mechanisms.

12. None of the data sets, for example, includes indication of youth's aspirations and significant-others expectations or exemplifications for income attainments which are central to the social psychological theory applied to income attainment (Haller and Portes).

13. We are grateful to Karl Alexander for providing the zero-order correlation matrix on which these comparisons are based.

14. For technical distinctions between associations and effects, and for a discussion of the decomposition of *total* effects into *direct* and *indirect* components, see Alwin and Hauser.

15. We expected that the procedure would moderate the effect of other variables, particularly that of mother's education which is extraordinarily strong in the LC study and has a large unmediated total and direct effect on earnings; but, in fact, the addition, together with that of teacher's educational encouragement, made little difference. It hardly influenced the effects of father's and mother's education, barely influenced the proportion of effects explained by the model, increased the variances accounted for in dependent variables by no more than six-

tenths of one percent, and with one exception did not alter the pattern of causal process. Incorporating a family income indicator did attenuate the effect of father's occupation on son's education, which suggests (not unexpectedly) that in its absence the indicator of father's occupation carried the parental income effect.

16. This particular relationship involves both of the theoretical concepts that were altered by incorporating the WIS estimates for family income and teacher educational encouragement, which undoubtedly accounts for this singular deviation.

17. The proportion of effects of father's education and son's education mediated by significantothers is 6 to 18 percent in the WIS, EEO and LC studies; the proportion of effects of mother's education mediated by significant-others ranges from 17 to 25 percent in the LC and WIS studies; and the proportion of effects of family income mediated by significant-others ranges from 24 to 36 percent in the EEO and WIS studies.

The mediating role of significant-others in the occupational attainment process is also clear: from 10 to 19 percent of the effect of father's education is mediated by significant-others in the three studies compared; from 2 to 16 percent of the effect of father's education is mediated by significant-others in the EEO and WIS studies; from 24 to 27 percent of the effect of mother's education is mediated by significant-others in the WIS and LC studies; and from 31 to 42 percent of the effect of family income is mediated by significant-others in the WIS and EEO studies.

With respect to earnings 12 percent of the effect of father's occupation, 1 percent of the effect of father's education, 11 percent of the effect of mother's education, and from 2 to 13 percent of the effect of family income is mediated by significant-others in estimates from the WIS, EEO and LC analyses.

18. Whether or not the six items operate unidimensionally in the status attainment process is an empirical question, not an assumption to be made. Past research documents the utility of disaggregating indicators of status dimensions in order to reveal rather than conceal the pattern of relationships between each component and variables of interest (Duncan et al.; Hauser; Hauser et al.).

19. We, like Sewell and Hauser (b) and Alexander et al. follow the conventions suggested by Alwin and Hauser.

20. The Haller–Portes extension of the theory holds that the strongest relationship will obtain between each objective status dimension and its corresponding status isomorphic antecedents (significant-others exemplifications and expectations and ego's aspirations and attained statuses) and, within attainments, between education and occupational prestige and income.

21. There are undoubtedly other processes by which significant-others also exert their influence. Parental status is likely to be a factor governing differential access to status attainment resources. Better educated parents may more effectively arrange educational opportunities for their children and may teach cognitive skills that facilitate a youth's educational attainment. Parents in high prestige occupations may (wittingly or unwittingly) teach their children how to best take advantage of occupational opportunities, or they may be more effective in contriving high status occupational alternatives for their children. Wealthier parents may communicate skills and knowledge regarding the management of finances and they may be able to provide the advantages of accumulated capital. By virtue of ranking high on one status dimension a parent may have resources that enhance a son's attainment on another dimension. Thus, for example, to some extent money can buy an education. Also, better educated parents may have a better understanding and/or be able to better communicate knowledge and information about launching a successful career. While these processes undoubtedly operate, their separate and additive net effects are likely to be small, for Table 3 reveals that the unexplained direct effects of parental significant-other influence on attainments are effectively zero.

Appendix. ZERO-ORDER CORRELATIONS, MEANS AND STANDARD DEVIATIONS FOR INDICATORS* USED IN ESTIMATING STRUCTURAL EQUATION MODELS IN THE WISCONSIN, EXPLORATIONS IN EQUALITY OF OPPORTUNITY AND LENAWEE COUNTY STUDIES (DECIMALS OMITTED IN CORRELATIONS)

Variablest	Х _а	Хþ	×c	xd	×e	Xf	×g	х _h	x	xj	Xk	x1	×m	x _n
	<u>.</u>	·.				······································	Wisc	onsin ¹				· · ·		
Xa-FOCC														
Xb-FED	439													
Xc-MED	287 ·	520				÷								
Xd-PINC	448	321	247											
Xe-MA	181	246	205	178										
X _€ -AP	131	154	140	121	557		•.							
Xg-TEDE	154	150	140	173	347	415								
Xh-PEDE	261	248	231	241	345	315	437							
X;-FEDE	219	237	210	233	288	307.	339	398						
X -EDASP	266	270	257	275	426	450	447	522	493				•	
X -OCASP	242	227	227	238	428	460	399	477	455	755				
X1-ED	290	306	273	273	446	512	406	472	474	656	580			
x _m -occ	268	252	-215	231	376	414	331	358	360	473	476	623		
X _n ≁EARN	083	082	064	173	163	159	113	121	091	178 _	190	204	211	
x	33.63	10.31	10.51	6500.00	100.67	96.01	.444	.608	. 361	.387	49.38	13.30	43.30	757
S.D.	22.54	3.02	2.88	3158.50	14.54	13.64	- 497	. 488	.480	. 487	26.51	1.72	23.41	260

Variablest	Xa	Хь	xc	Xd	Xe	Xf	× a	x _b	Xi	×i	Xk	XI		Xn	
						1		1:1	. 2			· · · · · · · · · · · · · · · · · · ·			
XF0CC		-			<u></u>	xploratio	ns in Equa	LITTA OF OF	portunity-	-					
XL-FED	438														
X _c -MED	-														
Xd-PINC	410	466	392												
x _e -MA	206	317	204	317											
X _f -AP	138	229	104	228	471										
Xg-TEDE	130	154	131	190	107	218									
X _h -PEDE	268	263	216	354	250	354	377								
X1-FEDE	273	251	211	314	260	305	305	436							
Xj-EDASP	284	307	267	343	303	391	292	488	521						
Xk-OCASP	289	232	137	249	281	371	235	389	350	442					
X}~ED	324	348	260	346	480	505	221	377	418	485	393				
x _m -000	294	296	172	253	351	394	219	309	366	386	364	610			
X _n -EARN	212	243	180	251	071	091	075	196	122	158	117	212	228		
x	43.35	10.36	10.94	.1097	7.81	2.72	1.68	2.30	5.10	2.02	59.88	14.72	53.52	11303	
S.D.	20.23	3.71	2.88	. 8529	3.95	. 86	.60	.65	1.60	.83	24.98	2.66	23.53	4554	
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Status Attainment / 911

Appendix.	CONTINUE	0										·		
Variablest	Xa	Хb	Xc	xd	×e	×f	xg	×h	x1	×i	×k	x ₁	X _{a1}	x _n
			•••••				Lewa	nee County					···	<u> </u>
x _a -FOCC														
xb-FED	461									•				
Xc-MED	311	547												
X _d -PINC	t	· †	t											
Xe-MA	241	217	212				· -							
Xf-AP	199	206	279	t	478									
X ₉ -TEDE	†	t	t	1 t	t	t								
x _h -PEDE	276	288	253	t	263	292	t							
X;-FEDE	194	192	267	· †	343	377	t	341						. •
X - EDASP	349	353	345	†	400	542	t	465	452					
xOCASP	285	329	315	t	441	532 ·	t t	455	444	679				
X;-ED	311	346	356	t	419	621	t	361	487	700	639			
x000	308	240	233	+	362	539	t	325	413	554	570	658		
Xn-EARN	140	177	230	†	183	200	t	191	221	255	248	291	265	
x	32.64	2.27	2.56	t	20.68	2.03	† _	6.37	2.50	1.15	36.19	13.48	47.05	1255
S.D.	21.78	1.35	1.25	. †	5.14	. 84	t	1.72	1.96	1.26	12.56	2.50	25.21	543

*We use the indicators in a generic sense and do not imply identical operationalizations.

[†]FOCC ~ father's occupation; FED - father's education; MED - mother's education; PINC - parental income; MA - mental ability; AP - academic performance; TEDE - teacher's education encouragement; PEDE - parents' education encouragement; FEDE friends' educational plans; EDASP - educational aspirations; OCASP - occupational aspirations; ED - education; OCC - occupation; EARN - earnings.

¹Wisconsin correlations, means and standard deviations are reported in Sewell and Hauser (b, 93).

²Explorations in Equality of Opportunity correlations, means and standard deviations were kindly provided by Karl Alexander.

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