DOCUMENT RESUME

ED 054 485 CG 006 616
AUTHOR Rehberg, Richard A.; Hotchkiss, Lawrence
TITLE Educational Decision Maker: Antecedents and Consequences of Career Advice from the Guidance Counselor in the Process of Social Mobility.
INSTITUTION State Univ. of New York, Binghamton.
SPONS AGENCY National Science Foundation, Washington, D.C.; State Univ. of New York Research Foundation, Fredonia.
PUB DATE 71
NOTE 49p.; Paper presented at American Sociological Association convention, Denver, Colo., August 30 - September 2, 1971

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Career Choice; *Career Planning; Counseling; *Counseling Effectiveness; *Counselor Attitudes; Counselor Performance; *Decision Making; Guidance Personnel; Noncollege Preparatory Students; Pupil Personnel Services; *Secondary School Counselors; *Secondary School Students

ABSTRACT

Three questions regarding the secondary school guidance counselor are addressed: (1) do counselors devote more time to students predisposed toward higher education; (2) to what extent is the counselor's advice dependent on such predisposing variables as status, intelligence, parental encouragement, etc.; and (3) does the counselor have an incremental effect on students' educational expectations independent of these predisposing variables. Correlational and path analyses with longitudinal data from 1171 males and 1105 females surveyed at the end of their freshman and sophomore years reveal that (1) if anything, counselors have more contact with students less disposed to higher education; (2) the student's educational goals and intelligence exert a direct effect on counselor advice, but students status exerts only indirect effects; and (3) the counselor does have an incremental effect on students' educational expectations independent of the influences of the predisposing variables included in the analysis. The critical role of "early" educational expectations on subsequent expectations is discussed in the text. (Author/TL)

EDUCATIONAL DECISION MAKER: ANTECEDENTS AND CONSEQUENCES OF CAREER ADVICE FROM THE GUIDANCE COUNSELOR IN THE PROCESS OF SOCIAL MOBILITY

by:

Richard A. Rehberg

and

Lawrence Hotchkiss

Department of Sociology
State University of New York at Binghamton
Binghamton, New York

The research reported herein was supported by an initial grant from the State University of New York Research Foundation (40-220-A), a subsequent grant from the National Science Foundation (GS-1950), and a current grant from the National Institute of Mental Health (MH 1925-02)

INTRODUCTION[1]

In his Social Foundations of Educational Guidance, Carl Weinberg critically notes that:

> Despite the facts that educational research has greatly expanded with the support of Federal grants and that general sociological interest in educational phenomena is on the increase, research on the process and function of counseling and guidance has not taken a sociological turn (1969:190).

In this paper it is the guidance function which constitutes the focal point of a sociological analysis. Our primary objective is to assess the influence of the secondary school counselor in the formation of educational goals among adolescents.

Selection of the counselor for study as a potential source of influence in adolescent educational goal formation is a logical extension of mobility research not only because, as Grant (1954) has reported, students look to the counselor as the primary source of assistance and advice for educational planning, but also because the changing structure of society and the school has elevated the import of the counselor's actions. For, in a progressively certificated society, the secondary school bears increasing responsibility for sorting and differentiating its raw material while the concomitant bureaucratization of secondary

educational has given added weight to the consequences of the counselor's decisions as a major career gate keeper (Cicourel and Kitsuse, 1963; Weinberg, 1969; Wittes, 1970).

PREVIOUS RESEARCH

Central to the concern of sociologists interested in the process of interpersonal influence on the formation of adolescent educational goals has been the study of parent and peer influence. Only peripheral concern has been accorded the study of teacher and counselor influence.

Parents, Peers, and Teachers

In the analysis of the parent--adolescent relationship, the key concept has been that of parental educational pressure (Kahl, 1953); stress (Bordua, 1960), or encouragement (Rehberg and Westby, 1967; Sewell and Shah, 1967; Rehberg, Sinclair, and Schafer, 1970). Each of these studies provides substantiation for the proposition that the more pressure, stress, or encouragement toward higher education the adolescent reports as receiving from his parents, the more likely is the adolescent himself to express a definite intention to pursue some form of higher education.

Similarly, a number of studies have shown a moderately strong relationship between the educational intentions of the respondent and those of his peers (Alexander and Campbell, 1964; Duncan, Haller and

Portes, 1968; Sewell, Haller and Portes, 1969). In the opinion of the senior author however, the theoretical and methodological complexities of peer-respondent influence make it exceedingly difficult to apportion this empirical association into its selection and its socialization components.[2]

At least two investigations have extended the network of interpersonal influence beyond that of the family and the peers to include the teacher. From their study of lower-class youth already enrolled in a high prestige West coast university, Ellis and Lane found that 85 percent of their sample "mentioned a high school teacher as having played an important part in helping them decide upon college and 33 percent nominated a high school teacher as the person chiefly influencing that decision" (1963:754). Sewell, Haller, and Portes, using data from a farm-background segment of the longitudinal Wisconsin study constructed an index consisting of the respondent's reported educational influence from his parents, the reported educational plans of his friends, and his reported educational encouragement from teachers. Each of these three components was moderately inter-correlated with the other (circa .30) and the index itself displayed very respectable correlations both with the level of educational aspiration the respondent expressed while a senior in high school ($r = .59$) and with his actual educational attainment ($r = .57$).

The Counselor

Research pertinent to the influence of the counselor on adolescent mobility intentions, though limited in quantity, has addressed itself to variables affecting the frequency with which students are exposed to career counseling, to the content or level of advice given during such exposure, and to the effect of that exposure and content on ability-goal discrepancies and career knowledgeability.

Exposure to the counselor for career advice, (to be distinguished from exposure for psycho-social adjustment counseling) has been studied by Weinberg and Skager (1966) and by Cicourel and Kitsuse (1963). The former, in their investigation of a random sample of classes from eight high schools, found a positive relationship between amount of career guidance time and student visability, i.e., the extent of the student's participation in such valued extra-curricular activities as sports, student government, honor clubs, etc. The present authors have been able to replicate Weinberg and Skager's datum using sports as the valued activity but find that the relationship between frequency of exposure and visability all but vanishes when controls are introduced for status, intelligence, but especially for the earlier educational expectations of the adolescent (Rehberg and Charner, 1970). Cicourel and Kitsuse, in their extensive study of the counseling function at "Lakeshore High,"

a 3600 student comprehensive secondary school serving a predominantly high income suburb of a large metropolitan area, contend (but provide little evidence to the effect) that since:

> the major criterion of the effectiveness of the high school's program for the development of talent is the proportion of its graduates who are admitted to colleges ... counselors will tend to devote more of their time and activities to those students who plan and are most likely to go to college and whose parents actively support their plans and make frequent inquiries at the school about their progress--namely, the students from the middle and upper social class (1963:144-45).

With respect to the content of the counselor-student exposure, Cicourel and Kitsuse report that in advising a student on his educational future, counselors consider achievement and ability test scores, the educational aspirations of the parents for the adolescent, the adolescent's own educational goals, and information from the student's cumulative school record (his "paper shadow") as well as comments, written or verbal, from teachers and administrators (1963:74).

What the effect of exposure to counselor advice is on the student's own educational intentions is a question about which research has said little. Coleman, et.al. did find that "those seeing a counselor more often have a better fit, measured by a higher correlation, between

ability and college plans" (1966:531). A null datum on counselor effect is reported by Weinberg and Skager who were unable to find any relationship between the student's knowledgeability about his chosen occupation and the amount of time he spent in career counseling. Finally, the authors have been unable to locate published literature concerning what effect, if any, the level of educational advice offered the student by the counselor has on the student's own educational intentions.

In summary, then, existing research on the educational counseling function of secondary school guidance personnel indicates that both exposure to the counselor and the content of that which transpires during exposure may well be associated with the socio-economic status of the student, the attitude of his parents toward continued education, the student's own level of intelligence and educational expectation, and with information, written and verbal, available to the counselor from school records and teacher or administrator comments. And, although one effect of such exposure may be to reduce a discrepancy between ability and educational goals, little is known regarding whether the overall impact of the counselor's substantive advice is to increase the student's educational goal level or leave it basically unchanged.

THE RESEARCH PROBLEM

Within the context both of existing literature and our own research schemata, we direct the analyses in this paper to three questions:

1. To what degree is frequency of student exposure to educational counseling associated with the socio-economic status, parental educational orientation, and measured intelligence of the student as well as with his own educational expectations?
2. To what degree do these same variables, as well as the educational advice accorded the student by his teachers, influence the level of educational advice which the student reports as receiving from the counselor?
3. To what degree does the counselor's educational advice affect the student's own expectation level for education beyond high school, net of the cumulative influences of status, intelligence, parental educational orientation, and his "earlier" educational expectations as well as the educational career influence from teachers?

PROCEDURE AND VARIABLES

Design and Procedure

In April and May of 1967, an hour long questionnaire was administered to the 2793 freshman-year students in attendance in seven urban and suburban, public and parochial, school systems located in the southern tier region of New York State. Again in April and May of 1968, a similar instrument was administered to the students--then in their sophomore

year. The viable data existing for the 2276 respondents who participated in both of the two waves (81 percent of the freshman-only wave) constitute the base for our analyses. Comparisons on relevant parameters of data from the two-wave set with those from the freshman-only wave set do not suggest serious biases resulting from the 19 percent attrition. By way of example: the mean Hollingshead (1957) two factor Index of Social Position status score for the freshman-only wave is 40 for each sex, for the freshman and sophomore wave the mean score for each sex is also 40. Mean measured intelligence for the freshman-only wave is 110 for males and females, for the freshman and sophomore set mean I.Q. is 111 for males, 110 for females. For the analyses of these data we employ procedures ranging from bi-variate percentages through bi-and-multivariate partial and multiple correlation to path analysis for linear, additive, recursive systems. (Duncan, 1966; Land, Heise, and Duncan in Borgatta, 1969; Boyle, 1970).

Variables

Level of respondent's educational expectation (realistic rather than idealistic educational goal) is measured in both panels with a structured item[3] providing categories ranging from "graduate or professional school" to "tenth or eleventh grade." In the analyses, these categories are coded as per the seven-level education scale from the Hollingshead Index of Social Position. Counselor and teacher

level of educational advice was operationalized (sophomore panel only) by asking the respondent: "When you talk with the GUIDANCE COUNSELOR /YOUR TEACHERS/, what does he /they/ suggest or encourage you to do?" Seven response categories were provided, ranging from "go on to a four year college" through "go for business or commercial training" to "get a job after I get our of high school" and "other."[4] Frequency of contact with the counselor was measured by asking the respondent: "During your sophomore year, how often have you actually talked with your GUIDANCE COUNSELOR about whether or not to continue your education after high school?" Eight categories were available ranging from "several times a week or more" to "not even once a year." In the instrument format, the frequency question immediately preceded the level of advice item with those items for teachers separated from those for the counselor by six pages of the questionnaire. Perceived parental educational encouragement (our indicator of parental orientation toward the respondent's continuation of education beyond high school) was probed during the freshman panel by asking the respondent to indicate on a 1 - 4 scale of "never" to "almost constantly" how often each parent urged him to continue his education beyond high school. An index of encouragement with seven levels was computed by adding together the score for each parent. Measured intelligence scores are from the Otis and California Test of Mental Maturity instruments administered by the

school systems during the early part of the freshman year. Socio-economic status is operationalized with the Hollingshead Two Factor Index of Social Position based on a weighted sum score of the respondent's reported educational and occupational attainment of the head of the household. Each variable has had the score reflected where necessary so that correlation signs are substantively meaningful. Although some of the score ranges are collapsed for tabular analyses, the full-range score for each has been used for all correlations.

COUNSELOR - STUDENT CONTACT FREQUENCY AND ANTECEDENT VARIABLES

Cicourel and Kitsuse, as we noted earlier, believe that inasmuch as

> the major criterion of the effectiveness of the high school's program for the development of talent is the proportion of its graduates who are admitted to colleges ... counselors will tend to devote more of their time and activities to those students who plan and are most likely to go to college and whose parents actively support their plans and make frequent inquiries at the school about their progress--namely, the students from the middle and upper social classes. (1963:144-45).

While our data are limited to the freshman and sophomore years of secondary school and while we lack measures of <u>time</u> in minutes or

hours spent in student--counselor encounters, we do have a respondent-reported measure of the number of occasions during the sophomore year that the counselor has discussed with the student his educational intentions.

Table 1 presents the percentage of students reporting specified frequencies of educational conversations with the counselor during the sophomore year. For both males and females, the modal category is

Table 1 about here

"once or twice this school year" -- 45 percent of the males and 51 percent of the females. Only a small percentage report no educational conversations with the counselor (13 percent of the males and 10 percent of the females), a sharp contrast with the 36 percent of either sex who report having no educational conversations with their teachers.

Consistent with Cicourel and Kitsuse's argument, we have selected as plausible sources of variation in frequency of contact the student's socio-economic status level, intelligence, freshman year expectation level, and, reported parental educational encouragement.

Table 2 about here

Contrary to Cicourel and Kitsuse, little evidence is found in Table 2 to suggest that more frequent educational conversations transpire between counselors and those students who are more predisposed toward four years of college than those less disposed. In fact--while the

correlations are small, the data suggest just the opposite; namely, counselors talk more frequently about educational plans with students from lower status backgrounds (r = -.06 males, -.08 females), with students of lower I.Q. levels (r = -.15 males, -.22 females), and with students not expecting to enroll in college (r = -.11 males, -.15 females for freshman expectation level, -.13 males, -.16 females for sophomore expectation level). Apparently, there is virtually no association between frequency of counselor contact and our indicator of parental educational interest (encouragement), i.e., r = .05 males, .04 females.[5]

Summarizing, then, we find almost no support for the proposition that counselors invest more of their energies with students predisposed toward college than with those not so predisposed, at least when that investment is measured as the frequency of educational planning conversations with the counselor during the sophomore year reported by the students themselves and when "predisposition" is measured with such variables as socio-economic level, intelligence, and freshman expectation level.

REPORTED COUNSELOR EDUCATIONAL ADVICE AND SPECIFIED CHARACTERISTICS OF THE STUDENT

Although our preceding analysis reveals that counselors tend not to be strongly or evenly moderately influenced by such respondent characteristics as family status, parental encouragement, intelligence, or

the student's own educational expectation in their frequency of contact with the adolescent, inspection of Tables 3 and 4 suggests that such characteristics do influence, and sometimes strongly so, the content or level of educational advice counselors are reported as giving the students during career planning contacts.

Displayed in Table 3 are the percentages of respondents reporting that during their sophomore year they have been advised by the counselor to enroll in a four-year college for each of four variables: freshman expectation level, parental educational encouragement, measured intelligence, and socio-economic level. Correlation coefficients are presented at the base of each column.

It is quite apparent, at the zero order level of analysis, that moderate to strong associations exist between reported counselor advice and: (1) teacher advice with an r of .60 for males and .62 for females; (2) freshman expectations with an r of .40 for males and .45 for females; (3) parental encouragement with respective r's of .21 and .23; (4) intelligence with respective r's of .33 and .43; and, (5) socio-economic status with an r of .18 for males and .21 for females.

Table 3 about here

Of the five associations, that between reported counselor's advice and reported teacher's advice is strongest with an r of .60 for males and .62 for females. To some degree, this association reflects the

use by the counselor and the teacher of similar information and cues such as the student's own educational expectations, knowledge of parental educational preference, and the ability and status levels of the student. Indeed, as Table 4 reveals, removing the influence of

Table 4 about here

these variables does reduce the correlation between counselor and teacher advice from .60 for males to .41, and for females from .62 to .44. The zero-order and fourth-order correlations between counselor and teacher advice indicates that these two variables are not only dependent to a degree upon similar antecedent variables but are also associated with each other for other reasons, including, we conjecture, the availability to the teacher and the counselor of the student's "paper shadow" and the formal and informal communication of the teacher to the counselor with respect to the personal and academic qualifications of the student. (See, for example, Cicourel and Kitsuse, 1963:73-75, 120-121).

Counselor's advice is also moderately associated with freshman-year expectation level (r = .40 males, .45 females).[6] Partialing out the influence of the other system variables, however, reduces considerably this relationship, i.e., fourth-order partial correlations are .14 for males and .20 for females. The persistence of an association between counselor advice and freshman expectations, we suggest, reflects the influence of the student's own educational goals on the counselor, an

influence which, as we have previously noted, was observed by Cicourel and Kitsuse.

Weaker than freshman expectations in its zero-order association with counselor advice but almost as strong in its fourth-order association is measured intelligence, i.e., respective coefficients for males are .33 and .10, for females .43 and .18. Of interest is the relatively stronger relationship between these two variables for females than for males--suggesting that counselors may rely more upon the "ability" of females than males when proferring educational advice--possibly because the counselor views college as less critical for the career of a girl than for a boy and/or that the counselor is aware of the allegedly higher college admission standards for females than for males and thus are more "selective" vis a vis ability for females (Kinney, 1971; Walster, Cleary, and Clifford, 1971).

Finally, while counselor's advice is moderately associated with parental encouragement and status at the zero-order level (c. .20 for each variable and sex), controls for the other four variables virtually wash out these associations (c. .03 to .07 for each variable and sex). The lack of any meaningful counselor-status relationship replicates a finding reported by Cicourel and Kitsuse and suggests that the counselor is only slightly, if at all, influenced by the ascriptive criterion of the student's family status background.

Summarizing, based on partial correlations, our analysis of sources of variation in reported counselor educational advice yields results rather similar to those reported by Cicourel and Kitsuse. In arriving at a decision as to what level of education he or she believes the student should pursue, the counselor is influenced by teacher reports on the student (indexed only indirectly and crudely in our study), by the student's own educational goals, and by the student's potential ability manifested in his I.Q. score. And, we have found little evidence indicating that the counselor is directly influenced by the socio-economic level of the student, although as a comparison of the zero-and-fourth-order correlations indicates, status does influence the counselor indirectly via the association of status with intelligence, freshman expectation level, and teacher's advice.

COUNSELOR'S INFLUENCE ON THE SOPHOMORE EXPECTATION LEVEL OF THE STUDENT AND THE CRITICAL FUNCTION OF "EARLY" EXPECTATIONS

Counselor's Influence on Student Expectation Level

From Table 2 a moderately strong relationship between counselor's advice and sophomore expectation level is evident, with a correlation of .46 for males and .54 for females.[7]

As we have noted in the preceding section, however, the level of counselor's advice is itself positvely related not only to the student's

own expectation level as a freshman but to parental encouragement, intelligence, and status, variables which themselves influence adolescent educational goals. Consequently, the zero-order correlation between sophomore expectations and counselor's advice may reflect not only whatever "effect" the counselor has upon the student's own educational expectation but the effects of the other system variables as well.

Our first approach to estimating the counselor's influence on student expectation level, independent of the influence of teacher's advice, freshman expectation level, parental encouragement, intelligence, and status is via partial correlation. For males, the fifth-order association between sophomore expectation and counselor's advice is .17, for females, .23. (See Table 5)

Table 5 about here

Further reference to Table 5 reveals that when the fifth-order partial correlations of sophomore expectations with each of the six predictor variables are ranked in order of magnitude, counselor advice has the third highest coefficient for males (.17) and the second highest for females (.23). For both sexes, freshman expectations is first in rank order (.56 males, .40 females) followed by intelligence which ranks second for males (.19) and third for females (.16). The influence of the teacher on sophomore expectations is minimal, i.e., .07 for males, .08 for females. Finally, both parental encouragement and status exert but

minimal influence on sophomore expectation level with respective sets of partial r's of .04 males, .10 females; .09 males, .09 females.

The second approach we employ to estimate the influence of the counselor (and of the other system variables as well) on sophomore expectations is path analysis (Duncan, 1966; Heise, 1969; Land, 1969; Boyle, 1970). For a linear, recursive, additive system, a path coefficient is a beta weight, that is, a standardized partial regression coefficient. As such, it provides an estimate of the proportion of a standard deviation a dependent variable changes, given a one standard deviation change in a predictor variable, other system variables "held constant."

Since no temporal assumption other than that sophomore expectations is consequent in time to the six system variables is necessary in computing the paths into sophomore expectations, we shall discuss that particular set of paths first.

In Figure 1, we have displayed for each sex both the path coefficients and, for ease of reference, the zero-order correlations, in parentheses. The total effect of a predictor variable on sophomore expectations is its zero-order correlation with expectations. The direct effect of a predictor variable on sophomore expectations (its effect independent of the influence of the other predictor variables) is its path coefficient. The difference between the total and the direct effects is referred to as a total indirect

effect (Land, 1969) and is a composite of, in Lazarsfeld's terminology, "explanatory" and "interpretative" components, the former referring to the influence of those variables temporally antecedent to the predictor, the latter to the influence of those variables temporally consequent to the predictor.

Reference to Figure 1 reveals the counselor to have a moderate effect on the sophomore expectation level of students. For males the path is .15 which, when compared with the correlation of .46 indicates that the direct effect of counselor's advice on male sophomore expectations is some 33 percent of its total effect. For females, the direct effect of counselor's advice is greater than that for males, both absolutely (path = .25) and relative to its total effect (46 percent). By comparison, the influence of the teacher is minimal for males (path = .05) and for females (path = .07). Also, of minimal importance are the effects on sophomore expectations of status (path for males = .06 which is 18 percent of its total effect, for females the path is .06, percent of total effect is 23); and parental encouragement (path for males = .03, 10 percent of its total effect, path for females = .08, 27 percent of its total effect). Measured intelligence, although its total effect on sophomore expectations is attenuated, continues to exert a moderate influence with a direct effect of .15 for males (33 percent of its total effect), and .13 (30 percent of its total effect)

for females. Most critical in its effect on sophomore expectations is freshman expectation level, with a direct effect of .55 for males (76 percent of its total effect of .72) and .37 for females (61 percent of its total effect).

"Early" Expectations: A Critical Variable

A consideration of "early expectations" requires a causal ordering of the system which, at minimum, is plausible theoretically.

As portrayed in Figure 1, we have assumed that sophomore expectations is the "ultimate" dependent variable, most proximately influenced by counselor's educational advice. In turn, counselor's advice is represented as dependent upon teacher's educational advice, freshman expectation level, parental encouragement, status, and intelligence. Since the ordering of freshman expectation level and its antecedent variables is isomorphic with the similar but not necessarily identical models of Duncan, Featherman, and Duncan (1968), and Sewell, et.al. (1967, 69), there is little reason to present an elaborate causal rationale other than that freshman expectation level is seen as influenced by parental encouragement, intelligence, and status;[8] that parental encouragement is seen as dependent upon both intelligence and status as per Sewell et.al.:

> We expect that significant others with whom the youth interacts base their expectations for his educational ... attainment in part upon his demonstrated abilities. (1969:85)

and, finally, that intelligence and status are considered as correlated exogenous variables.

Finally, given that one year separated the survey which measured sophomore expectations, teacher's and counselor's advice, from the survey which measured the other system variables and that each advice question was in an item sequence referring specifically to the sophomore year, it appears reasonable to display the sophomore set as temporally consequent to the freshman item set.

Within the sophomore set, however, two variables do pose a serious problem of temporal ordering: counselor's and teacher's advice. Before sequencing these two variables, we discussed in some detail the issue with several of the guidance personnel from the schools particpating in the study. According to the guidance personnel, conversations between counselor and teacher vis a vis educational advice to a student usually result from a counselor inquiry to a teacher rather than vice-versa with the resulting flow of influence being from the teacher to the counselor. Thus, our ordering of counselor's advice as consequent to teacher's advice rests upon the assumption of a flow of influence which is basically asymmetrical, i.e., from the teacher to the counselor. A correlative assumption is that available to the counselor are student records which include teacher comments and grades.

With the system variables so ordered, we find the most critical

variable to be freshman expectation level. On the one hand, this variable is a major intervening construct, linking as dependent variables sophomore expectations, counselor's and teacher's advice, with the independent variables of parental encouragement, status, and intelligence. And, on the other hand, freshman expectations itself is a primary source of variation in sophomore expectations, counselor's and teacher's advice.

As an intervening variable, we find:

1. With counselor's advice as the dependent variable; for males:
   a. Some 22 percent of the total effect of status is "transmitted" through freshman expectations alone while another 22 percent is transmitted through freshman expectations and teacher's advice jointly, for a total of 44 percent of the total effect of status on counselor's advice *via* freshman expectations, freshman expectations and teacher's advice. Respective percentages for females are 14, 05, total of 19.
   b. Some 12 percent of the total effect of intelligence on counselor's advice is transmitted through freshman expectations alone, some 15 percent *via* freshman expectations and teacher's advice jointly, for a total of 27 percent of the total effect of intelligence on counselor's advice *via* freshman expectations, freshman expectations and teacher's advice. Respective percentages for females are 14, 7, and 21.

c. Some 19 percent of the total effect of parental encouragement on counselor's advice is *via* freshman expectations alone, 19 percent *via* freshman expectations and teacher's advice jointly, for a total of 38 percent. Respective percentages for females are 26, 13, and 39.

2. With sophomore expectations as the dependent variable; for males:

a. Almost half (45 percent) of the total effect of status on sophomore expectations is attributable to freshman expectations as an intervening variable. Female percentage is 23.

b. Some 40 percent of the total effect of intelligence on sophomore expectations is *via* freshman expectations. Female percentage is 30.

c. Slightly more than half (55 percent) of the total effect of parental encouragement comes about *via* freshman expectations. Female percentage is 37.

As an independent variable, *per se*, freshman expectation level is a major determinant of counselor's advice and of sophomore expectation level. A fourth-order partial *r* of .14 for males and .20 for females places freshman expectation level second only to teacher's educational advice as a source of variation in counselor's advice. Both the fifth-order partial *r*'s of .56 for males and .40 for females and the respective paths of .55 and .37 indicate that an "early" expectation level constitutes

a most critical "determinant" of "later" expectation levels.

"Early" expectation, then, appears to be critical in a double sense. First--it represents a partial "end product," as it were, of the student's ability and such family influences as status and whatever preference the parents have for the continued education of the adolescent. And, it is through this product that approximately half (as per our data) of the effects of ability and family influence continue to operate as determinants of the adolescent's subsequent educational intentions and, ultimately, of his actual educational behavior.

Secondly--our data suggest that "early" expectation level itself constitutes an important determinant both of the degree of mobility sponsorship such others as the counselor and the teacher accord the student and of the student's own subsequent educational intentions.

SUMMARY AND DISCUSSION

From an analysis of two-wave longitudinal panel data collected from 2276 students in April and May of the their freshman and sophomore years, several findings have emerged pertinent to the function of the guidance counselor in the formation of adolescent educational goals.

First: during the sophomore year counselors do not invest more time--measured by respondent reported frequency of contact with the counselor--in students already highly predisposed toward a college

education than they do with other students. In fact, the data suggest that just the reverse may be true--the less predisposed the student toward higher education the greater the number of educationally relevant contacts between the counselor and the student.

Second: counselors are influenced in the educational advice they give the student not only by information they receive from teachers, but also by the student's own level of educational expectation and by the student's measured intelligence. Noteworthy is the virtual elimination of an association betwen counselor advice and the student's socio-economic level when freshman expectation, parental encouragement, and intelligence were controlled, suggesting that advice and status are related only indirectly because students of higher status are also students with higher levels of measured intelligence and educational expectations.

Third: we have found that the counselor does exert an incremental effect on the educational expectations of students even though the counselor tends to advise college enrollment to those students who are likely to pursue higher education anyway by virtue of their family status, intelligence, parental concern for education, and their own educational goals prior to counseling in the sophomore year.

Fourth and finally: our data indicate that the single greatest influence on adolescent expectations subsequent to the freshman year

of secondary school may well be the expectations of the student which have coalesced during or prior to the freshman year. In this vein we have found that approximately half of the effect which such variables as parental encouragement, socio-economic status, and intelligence have upon "later" expectations is attributable to their influence on "early" expectations.

Within the framework of an optimum allocation of human resources model and the criteria of universalism and efficiency relevant therein, it is our belief that our findings are relevant to broad questions of social interpretation and policy formulation.

Given the strain toward universalism characteristic of American society, the relative independence of the frequency with which the counselor accords educational advice to students from such student characteristics as family status, intelligence, and the student's own educational expectation can indeed be regarded as salutary. Similarly, the lack of any substantial direct effect between level of counselor's advice and the family status of the student can be viewed as congruent with the norm of universalism. Cognizance should not be lost, however, of the indirect effects of status on counselor's advice.

Less sanguine when viewed against the criterion of universalism and efficiency are the remaining two findings; namely, the apparent redundancy of counselor--student educational advice and the seeming

stability of adolescent educational expectations.

The moderately high correlation between counselor's advice, sophomore year, and student expectation, freshman year, and the fact that a considerable proportion of the difference between the direct and indirect effect of this association can be traced to teacher's advice, suggests a considerable amount of redundancy in counselor--student educational communication. While it is gratifying to learn that in the bureaucracy of the secondary school the personal preference of the student is taken into account by the counselor it is disturbing to find data suggesting that the counselor advises the student to do that which he intends to do anyway. If much of the counseling relationship is but self-confirming, then, certainly, counselors, administrators, and taxpayers alike have reason to re-examine the cost/benefit ratio of the career guidance function in the secondary school. In a similar vein, given that college is a normative "good" in American society, the encouraging finding that the direct counselor effect is to increment student expectations by .15 of a standard deviation for males and .25 for females is somewhat tempered when that increment is translated into approximate school-year equivalents. With a standard deviation of .94 Hollingshead scale units for males and .87 for females, and with each scale unit equivalent to about two years of schooling, the net effect of the counselor comes to a little less than a third of a year for males

and to something less than one half a year for females. Though we recognize that incrementing the educational careers of students is but one of the several functions of counseling, the cost/benefit criterion is in order: to what extent does the cost of counseling justify a benefit of less than one half a year increment in student educational goal levels?

Finally, counselors, educators, and sociologists alike may do well to reflect upon what implications are posed for optimal human resource allocation when evidence is accumulating to suggest that educational goals are formed early in life, that they tend to remain relatively stable during adolescence, and that the contribution of our educational institutions may well be not that of a catalyst but rather that of a fixer of social mobility.[9] Appropos of this issue is a comparison of the sum of the direct effects on sophomore expectations of "extra" and "intra" school influences. For males, the "extra" school influences of status (path = .06), intelligence (.15), parental encouragement (.03) and freshman expectations (.55) sum to .79 while the "intra" school influences of teachers' and counselors' advice (.05 and .15 respectively) sum to .20, for a ratio of approximately four to one. For females, the respective sums are .64 and .32, for a ratio of two to one. Although these computations are included more for illustrative than substantive

purposes, excluding as they do senior-freshman comparisons as well as direct measures of elementary school performance and such in-school variables as peer influence, teacher quality, physical facilities, classroom size, etc., and while they suggest an interesting sex differential in extra/intra school influence, they are, nonetheless, congruent with an observation made by Parsons more than a decade ago:

> ... though, of course, actual entry into college does not come until after graduation from high school, the main dividing line is between those who are and are not enrolled in the college preparatory course in high school; there is only a small amount of shifting either way after about the ninth grade when the decision is normally made. Furthermore, the evidence seems to be that by far the most important criterion of selection is the record of school performance in elementary school. These records are evaluated by teachers and principals, and there are few cases of entering the college preparatory course against their advice. It is therefore not stretching the evidence too far to say broadly that the primary selective process occurs through differential school performance in elementary school, and the "seal" is put put on it in junior high school (1959).

In conclusion, we may paraphrase Coleman's criterion of judging the success of the schools (1966) by stating that

> the counseling function is successful only insofar as it reduces the dependence of a child's opportunities upon his social origins.

By this standard our data suggest that counselors are somewhat successful, but only minimally so, a judgment that is probably applicable as well as to the schools in which the counselors serve.

Table 1

PERCENTAGE OF RESPONDENTS REPORTING SPECIFIED FREQUENCIES OF EDUCATIONAL CONVERSATIONS WITH COUNSELORS AND TEACHERS DURING THE SOPHOMORE YEAR

Frequency	Educational Conversations with: Counselors		Teachers	
	Males	Females	Males	Females
Several times a week or more	1	0	0	1
About once a week	1	1	1	1
Several times a month	4	4	3	1
About once a month	7	5	4	3
About once every two or three months	11	10	3	2
Several times this school year	18	18	13	11
Once or twice this school year	45	51	40	45
Not even once this school year	13	10	36	36
No Response	1	1	0	0
Total	101 (1171)	100 (1105)	100 (1171)	100 (1105)

Table 2

ZERO-ORDER CORRELATIONS FOR SPECIFIED VARIABLES

(Male r's above, female r's below the diagonal, decimals omitted)

Variables		X_1	X_2	X_3	X_8	X_9	X_{10}	X_{11}	X_{12}	X_4	X_5	X_6	X_7
Educ. Exp. Soph. Yr.	X_1		46	45	-13	05	26	28	41	72	29	45	33
Cnslr. Educ. Adv.	X_2	54		60	-07	00	22	20	26	40	21	33	18
Tchr. Educ. Adv.	X_3	43	62	.	-07	11	20	21	23	43	26	38	18
Freq. of Cnslr. Educ. Adv.	X_8	-16	-09	-12		25	-04	-03	-06	-11	05	-15	-06
Freq. of Tchr. Educ. Adv.	X_9	04	00	10	29		06	07	08	06	11	-05	-07
Behv. Rep. of Stud. Fr. Yr.	X_{10}	17	08	14	-09	03		50	50	24	16	16	06
Behv. Rep. of Stud. Sph. Yr.	X_{11}	23	18	21	-03	10	50		40	25	10	17	08
Acad. Rep. of Stud. Fr. Yr.	X_{12}	33	25	28	-12	00	49	38		38	18	23	10
Educ. Exp. Fr. Yr.	X_4	61	45	36	-15	01	15	11	30		36	40	37
Par. Educ. Enc.	X_5	30	23	18	04	12	11	09	15	36		09	15
Measured Intelligence	X_6	44	43	38	-22	03	15	12	27	42	08		17
Socio-economic level	X_7	26	21	16	-08	-06	04	02	08	28	14	21	

Table 3

PERCENTAGE OF RESPONDENTS REPORTING COUNSELOR ADVICE TO ENROLL IN A FOUR-YEAR COLLEGE BY SPECIFIED PREDICTOR VARIABLES, FOR MALES AND FEMALES[a]

Level of Predictor Variable	Predictor Variables									
	Status[b]		Intelligence[c]		Par. Educ. Enc.[d]		Fr. Educ. Exp.[e]		Tchr. Educ.Adv.[f]	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
High										
1	64	65	75	73	69	59	64	62	79	80
2	56	48	72	73	55	61	20	21	08	07
3	47	39	33	28	57	53	14	08	15	21
4	41	33	17	14	45	41				
5					35	38				
6					40	21				
7					21	15				
Low										
r	.18	.21	.33	.43	.21	.23	.40	.45	.60	.62

[a]No responses omitted

[b]Levels are: Upper middle, lower middle; upper working, lower working

[c]Levels are: Highest to lowest quartile. Median I.Q. for the sample is 110.5

[d]Levels are: Scale scores from a high of 1 to a low of 7, an additive combination of paternal and maternal encouragemen

[e]Levels are: 1 = Four or more years of college, 2 = two years of college, 3 = graduate from high school

[f]Levels are: 1 = Four or more years of college, 2 = two years of college or equivalent, 3 = graduate from high school and get a job, go into the military, or "other." See substantive footnote four.

Table 4

ZERO AND FOURTH ORDER PARTIAL CORRELATIONS OF COUNSELOR'S EDUCATIONAL ADVICE WITH SPECIFIED PREDICTOR VARIABLES: FOR MALES AND FEMALES

Variables		Correlations:			
		Zero order		Fourth order	
Predictor	Control	Males	Females	Males	Females
Tchr. Educ. Adv.	Fr. Educ. Exps, Par. Educ. Enc., I.Q., and Status	60	62	41	44
Fr. Educ. Exps.	Tchr. Educ. Adv., Par. Educ. Enc., I.Q., and Status	40	45	14	20
Par. Educ. Enc.	Tchr. Educ. Adv., Fr. Educ. Exp., I.Q., and Status	21	23	03	07
Intelligence	Tchr. Educ. Adv., Fr. Educ. Exp., Par. Educ. Enc., Status	33	43	10	18
Status	Tchr. Educ. Adv., Fr. Educ. Exp., Par. Educ. Enc., I.Q.	18	21	03	05

Table 5

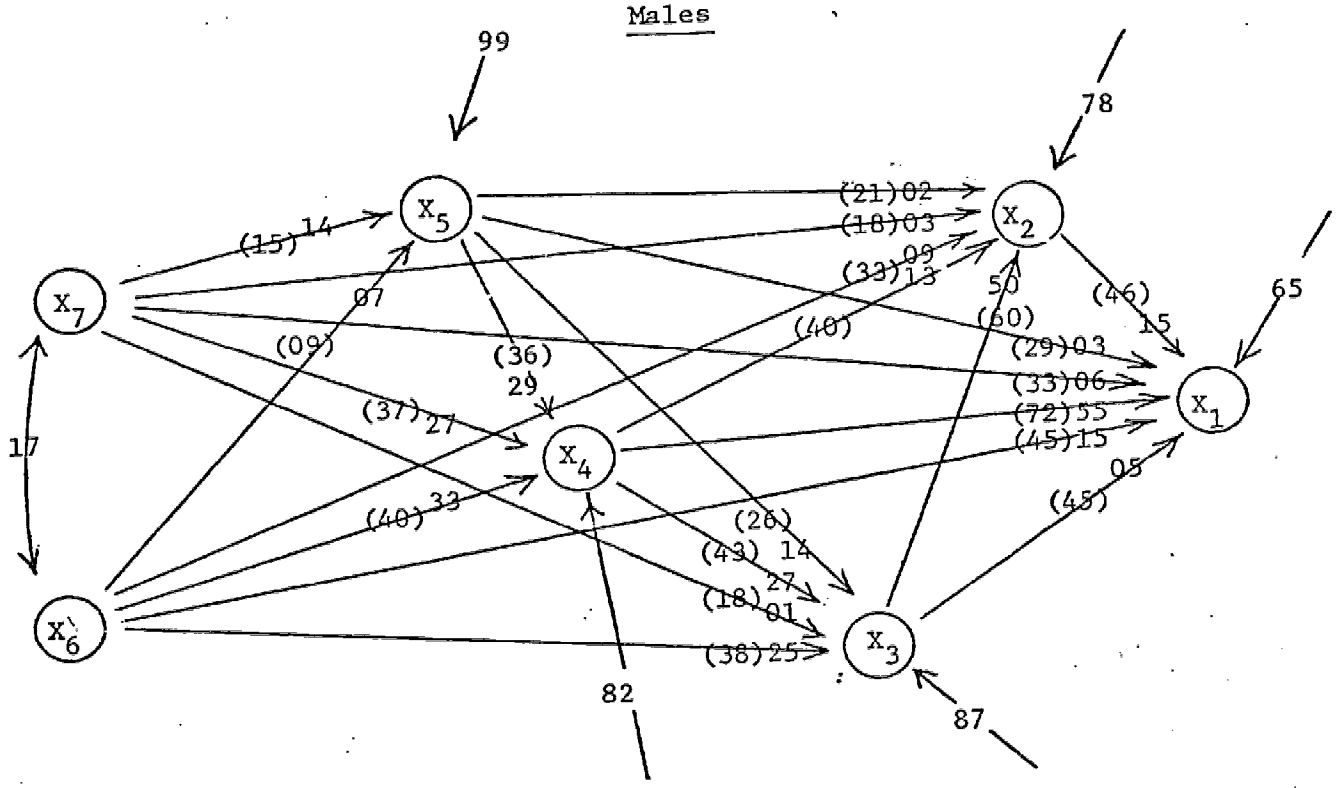
ZERO AND FIFTH-ORDER PARTIAL CORRELATIONS OF SOPHOMORE EDUCATIONAL EXPECTATION LEVEL WITH SPECIFIED PREDICTOR VARIABLES: FOR MALES AND FEMALES

Variables		Correlations:			
		Zero order		Fifth order	
Predictor	Control	Males	Females	Males	Females
Cnslr. Educ. Advice	Tchr. Educ. Adv., Fr. Educ. Exp., Par. Educ. Enc., I.Q. and Status	46	54	17	23
Tchr. Educ. Advice	Cnslr. Educ. Adv., Fr. Educ. Exp., Par. Educ. Enc., I.Q. and Status	45	43	07	08
Fr. Educ. Exp.	Cnslr. Educ. Adv., Tchr. Educ. Adv., Fr. Educ. Exp., I.Q. and Status	72	61	56	40
Par. Educ. Enc.	Cnslr. Educ. Adv., Tchr. Educ. Adv., Fr. Educ. Exp., I.Q. and Status	29	30	04	10
Intelligence	Cnslr. Educ. Adv., Tchr. Educ. Adv., Par. Educ. Enc., Status	45	44	19	16
Status	Cnslr. Educ. Adv., Tchr. Educ. Adv., Fr. Educ. Exp., Par. Educ. Enc., I.Q.	33	26	09	09

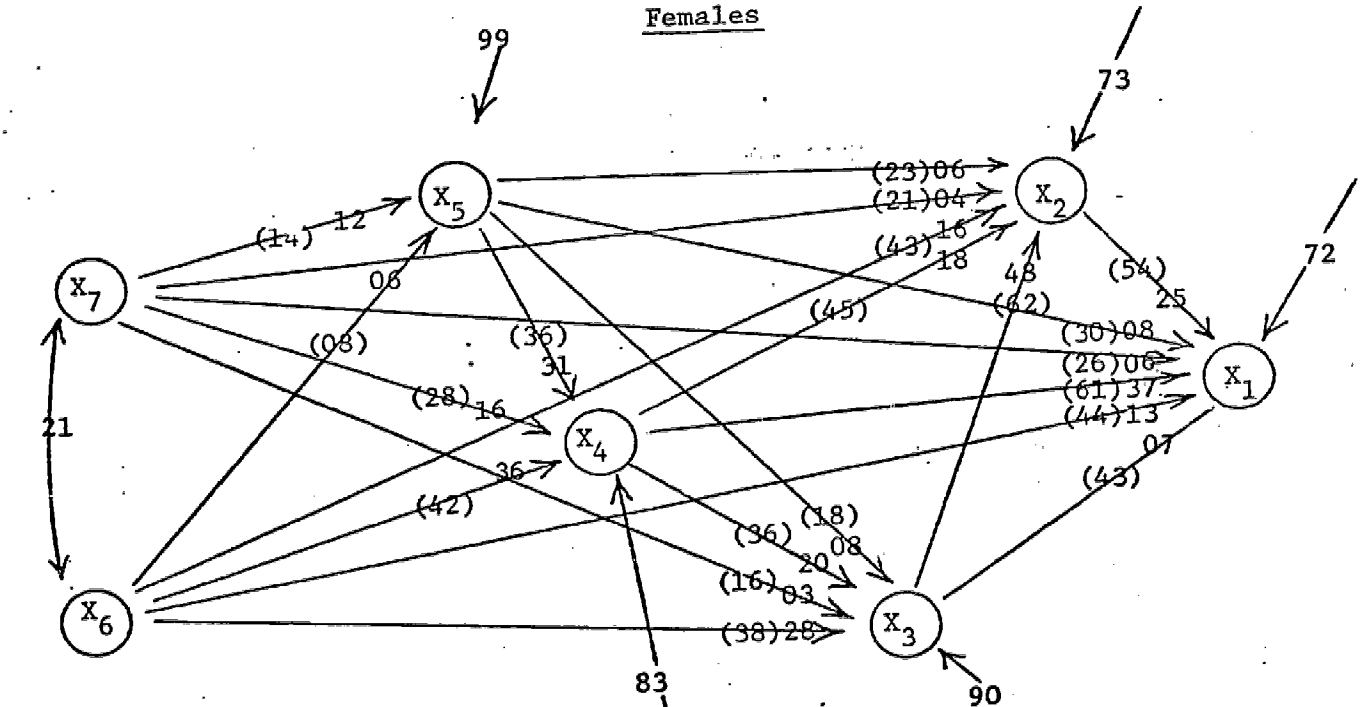
Figure 1

PATH PRESENTATION OF COUNSELOR INFLUENCE MODEL

Males



Females



LEGEND:

X1 = educ. exp. soph. yr.
X2 = cnslr. educ. adv.
X3 = tchr. educ. adv.
X4 = educ. exp. fr. yr.
X5 = par. educ. enc.
X6 = i.q.
X7 = ses

REFERENCES

1. This research is sponsored under an initial grant from the State University of New York Research Foundation (40-220-A), a subsequent grant from the National Science Foundation (GS-1950), and a current grant from the National Institute of Mental Health (MH 1925-02). The authors wish to express their appreciation to Miss Reva Weiskopf, undergraduate research assistant, for the contributions she made to an earlier draft of this paper.

2. As Duncan, Haller, and Portes (1969) have indicated, partitioning the relationship between respondent and peer career orientations into its selection and socialization components is a task of inordinate difficulty, requiring, at minimum, longitudinal panel data. We are approaching this task in a subsequent paper with longitudinal panel data as well as with responses secured from the third-wave, senior-year, questionnaire to two items: "/Please/ indicate which ONE of the following statements best describes your own situation from the freshman to the senior year with respect to your post-high school educational expectations." Eight response categories follow the question, ranging from "My own educational expectations as a senior differ from those I had as a freshman--a change due not at all to the influence of my friends.," to "My educational expectations as a senior are the same as those I had as a freshman--a consistency due not at all to the influence of my friends." All

All combinations of "differ," "same," "not at all," and "entirely," are provided the respondent in the eight alternatives. The second item ascertains the extent to which the respondent bases his choice of friends on the similarity of their educational goals with his.

3. The item read: "CONSIDERING your abilities, grades, financial resources, et., how far do you actually EXPECT TO go in school?"

4. Inclusion of the "other" category results in a minor degree of curvilinearity in the career advice variables for females (but not for males). For females, r^2 = .38 and eta squared = 44 for a significant F ratio (.01 level) or 18. While the effect of such curvilinearity is to attenuate the linear Pearsonian r for females (r = .62, eta = 66), it is the judgment of the authors that the difference is but minimal and thus does not alter substantially the inferences derived from the linear analysis of the data for females. For males, r^2 = .36 and eta squared equals .37. The F ratio is 2.82 and is not significant at the .05 level.

5. Even though the item measuring frequency of counselor--student contact specified conversations for educational reasons, it is possible that the inverse association of counselor--student contact with freshman expectation level, status, and intelligence results from a "contamination" of educational with disciplinary conversations. And, as Table 2 reveals, our two indicators of student deportment, i.e., self-reported behavior reputation with teachers, freshman and sophomore

year, are positvely correlated with sophomore expectations, with freshman expectations, with intelligence, and with status. The slight negative correlation of these two self-reported behavior reputation measures with frequency of counselor contact (-03, -04, freshman and sophomore years, respectively, for males) however, lends little credbility to the education--deportment contamination hypothesis.

6. While we are unable to dismiss completely the alternative hypothesis that some portion of the positive association between counselor's advice and freshman expectation level may be reflective of nothing more than a tendency for the student to project his own educational goal onto the counselor, the possibility that such a mechanism seriously contaminates that association is diminished by the one-year interval between the freshman and the sophomore surveys.

7. The positioning of sophomore expectations as temporally consequent to counselor's advice is based on the assumption that such advice may have been accorded the student at any time during the entire sophomore year while his expression of educational goals occurred at the end (April and May) of that year, i.e., the two months during which the survey was conducted.

8. To the extent that end-of-the-year sophomore expectations is dependent upon advice from the counselor or teacher during the sophomore year, by analogy end-of-the-year freshman expectations may be dependent upon

advice from the counselor or teacher during the freshman year. And, the inclusion of these two additional significant other variables might well alter significantly the values of the paths in the entire system. To assess this possibility, we executed a path analysis which included the two additional freshman-year significant-other variables. As a comparison of the paths (males) in the matrix below with those displayed in Figure 1 reveals, the inclusion of these two variables leaves virtually unchanged the coefficients presented in Figure 1. We have decided not to incorporate these two variables in Figure 1 because we are rather skeptical of the operational procedure used to measure each. In the freshman-wave questionnaire, a 9 x 8 item matrix was presented to the students--the rows designating nine significant others (teachers, neighbors, counselor, brothers and sisters, principal, clergyman, etc.), the columns containing response levels "never," "sometimes," "often," "almost constantly" for the question: How often have each of these people (1) encouraged, (2) discouraged your continuing your education beyond high school? The authors suspect that the visual complexity of the matrix and its probable susceptibility to a consistency response set essentially invalidated the data so obtained--which is one reason why the sophomore year questionnaire secured data on significant other influence via single-item questions.

PATH MATRIX INCLUDING AS VARIABLES FRESHMAN YEAR CAREER ADVICE*
FROM COUNSELORS AND TEACHERS: MALES
(decimals omitted)

	I.Q.	PEE	TEA_{t1}	CEA_{t1}	EE_{t1}	TEA_{t2}	CEA_{t2}	EE_{t2}
Status	17	14	03	-04	27	02	03	06
I.Q.		07	05	04	33	25	09	15
Par.Educ.Enc.			20	17	28	13	01	02
TchrAdvFrYr.				35	07	01	02	02
CnslrAdvFrYr.					-04	01	05	01
EducExpFrYr.						26	13	55
TchrAdvSophYr.							50	05
CnslrAdvSophYr								15

*In this analysis, counselor advice was displayed as antecedent to freshman expectations, teacher advice as antecedent to counselor advice and both sources of advice as consequent to parental encouragement, intelligence, and socioeconomic status.

9. In his provocative essay, "educational Premises and Practices," Frymier, in a sub-section entitled, "Questions that Need Answering," asks the question:

> If we know that basic patterns of academic achievement are fairly well fixed by grade three, that academic motivations derive more from personality structure and value commitment learned at home rather than at school, why attempt to motivate students with grades, honor rolls, or fear of punishment? (Frymier in Strom, 1971).

BIBLIOGRAPHY

Alexander, C. Norman and Ernest Q. Campbell.

1964 "Peer Influences On Adolescent Educational Aspirations and Attainments." American Sociological Review (August): 568-575.

Blau, Peter M. and Otis Dudley Duncan.

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

Bordua, David J.

1960 "Educational Aspirations and Parental Stress On College." Social Forces (March):262-269.

Boyle, Richard P.

1970 "Path Analysis and Ordinal Data." American Journal of Sociology 75(January):461-480.

Cicourel, Aaron V. and John I. Kitsuse.

1963 The Educational Decision Makers. Indianapolis: Bobbs-Merrill Company.

Coleman, James S.

1966 "Equal Schools or Equal Students?" Public Interest (Summer).

Coleman, James S.

1966 Equality of Educational Opportunity. U.S. Government Printing Office, Washington, D.C.

Duncan, Otis Dudley.

1966 "Path Analysis: Sociological Examples." American Journal of Sociology 72(July):1-16.

Duncan, Otis Dudley, Archibald O. Haller, and Alejandro Portes.

1968 "Peer Influences On Aspirations: A Reinterpretation." American Journal of Sociology 74(September):119-137.

Duncan, Otis Dudley, D.L. Featherman, and B. Duncan.

1968. Socioeconomic Background and Occupation Achievement: Extensions of a Basic Model. Final report, Project no. 5-0074 (EO-191), Bureau of Research, Office of Education, U.S. Department of Health, Education, and Welfare. Ann Arbor: University of Michigan.

Duncan, Otis Dudley.

1969 "Contingencies in Constructing Causal Models." in Edgar F. Borgatta (ed.) Sociological Methodology. San Francisco: Jossey-Bass, Inc. pp. 74-112.

Ellis, Robert A. and W. Clayton Lane.

1963 "Structural Supports for Upward Mobility." American Sociological Review 28(October):743-756.

Grant, Claude W.

1954 "How Students Perceive the Counselor's Role." Personnel and Guidance Journal (March):386-388.

Haller, A. O. and C. E. Butterworth.

1960 "Peer Influences On Levels of Occupational and Educational Aspiration." Social Forces 38(May):289-295.

Heise, David R.

1969 "Problems in Path Analysis and Causal Inference." in Edgar F. Borgatta (ed.) Sociological Methodology. San Francisco: Jossey-Bass, Inc.

Hollingshead, August B.

1957 The Two Factor Index of Social Position. New Haven: Yale University.

Kahl, Joseph A.

1953 "Educational and Occupational Aspirations of 'Common-Man' Boys." Harvard Educational Review (Summer).

Land, Kenneth C.

1969 "Principles of Path Analysis." in Edgar F. Borgatta (ed.) Sociological Methodology. San Francisco: Jossey-Bass, Inc. pp. 3-37.

Lazarsfeld, Paul F.

1955 "Interpretation of Statistical Operations As A Research Operation." in Paul F. Lazarsfeld and Morris Rosenberg (eds.) The Language of Social Research. Glencoe: The Free Press.

Parsons, Talcott.

1959 "The School Class as a Social System: Some of Its Functions in American Society." Harvard Educational Review (Fall) 29:297-318.

Rehberg, Richard A. and David L. Westby.

1967 "Parental Encouragement, Occupation, Education, and Family Size: Artifactual or Independent Determinants of Adolescent Educational Expectations?" Social Forces (March):362-374.

Rehberg, Richard A., Walter E. Schafer, and Judie Sinclair.

1970 "Toward A Temporal Sequence of Adolescent Achievement Variables." American Sociological Review (February):34-48.

Rehberg, Richard A., Judie Sinclair, and Walter E. Schafer.

1970 "Adolescent Achievement Behavior, Family Authority Structure, and Parental Socialization Practices." American Journal of Sociology (August):1-27.

Rehberg, Richard A., Ivan Charner, and Jerome Harris.

1970 "Some Antecedents and Consequences of Participation in High School Interscholastic Athletics: An Empirical Inquiry." (Mimeograph).

Rosenberg, Morris.

1968 The Logic of Survey Analysis. New York: Basic Books, Inc.

Sewell, William H. and Vimal P. Shah.

1967 "Social Class, Parental Encouragement, and Educational Aspirations." American Journal of Sociology (August):1-27.

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

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

Spady, William G.

1970 "Simple Techniques For Multivariate Analysis." (mimeograph).

Strom, Robert D.

1971 Teachers and the Learning Process. Englewood Cliffs: Prentice-Hall.

Turner, Ralph H.

1960 "Sponsored and Contest Mobility and the Social System." American Sociological Review 25(December):855-867.

Walster, Elaine T., Anne Cleary, and Margaret M. Clifford.

1970 "The Effect of Race and Sex on College Admission." Sociology of Education 44(Spring):237-244.

Weinberg, Carl.

1969 Social Foundations of Educational Guidance. New York: The Free Press.

Weinberg, Carl and Rodney Skager.

1966 "Social Status and Guidance Involvement." Personnel and Guidance Journal 44(February):586-590.

Wittes, Simon.

1970 People and Power: A Study of Crisis on Secondary Schools. Center for Research on Utilization of Scientific Knowledge. Institute for Social Research. The University of Michigan, Ann Arbor, Michigan.

Woelfel, Joseph.

1967 "A Paradigm for Research on Significant Others." Paper presented at the Joint Session of the Society for the Study of Social Problems and the American Sociological Association, San Francisco (unpublished).