

FINANCIAL RESOURCES OF NEGRO COLLEGE STUDENTS: SURVEY¹ DESIGN AND PRELIMINARY RESULTS

Robert F. Boruch and Alan E. Bayer

American Council on Education

During the past few years, social scientists have focused increasing attention on the black student in American colleges and universities. Pressures to do so have been generated at the governmental and institutional levels along legal social and economic dimensions. Major studies of student admissions criteria, counseling and guidance strategies and evaluation of educational standards (see Astin, 1969) are increasing. A scarcity of normative data based on a national sample of black students has been evident, however. Previous research has been informative with respect to specific environments and rather restricted samples, but limited in generalizability and in the extent to which meaningful comparisons may be made.

In order to begin study of the progress and effects of changes in educational environments on a fairly representative freshman sample, and relative to the racial issues, we have compiled information available from the ACE Higher Educational Data Bank. The data should provide base level criteria for planned examination of trends in enrollment of black students (especially through special programs), racial composition of various college types, accomplishments and persistence in the educational enterprise by black students.

In the present paper, we restrict consideration to a few specific aspects of the black and nonblack college freshman population. It is of interest to know whether students at predominantly Negro colleges differ substantially in abilities (as reflected by high school achievements) from black and nonblack students at predominantly white institutions. The information is important because competitive recruitment of the more able black students to white institutions has increased. As a result, the quality of the Negro colleges' students may decline.

Also, we should like to examine the relative financial income across institutional and racial categories. Such data can be of assistance in development of policy about financial support allocation. Finally, we would like to characterize succinctly the dependence of major financial sources of support on biographic characteristics of the students, including achievements and parental income levels.

Research Design

The normative data for this report were compiled from the third annual survey of entering college freshmen, a part of the American Council on Education's Cooperative Institutional Research Program. These data were collected by administering a four page questionnaire to more than 243,000 freshmen entering 358 institutions. The institutional stratification system for sampling (Creager, 1968) is based on the type of college, institutional affluence, and selectivity. Estimated population parameters are computed on the basis of weights derived from numbers of students within strata of the sampling design and Office of Edu-

cation population counts within strata. Design specification and definitions are provided in Table 1.

Table 2 contains specification of sample racial composition and estimated distribution of population across institutional categories. Within these stratification levels, the number of black freshmen is markedly skewed. That is, one half of all colleges in the United States each enroll less than 2 percent black students among their freshmen. Eighty-eight percent have an enrollment of black students who comprise 10 percent or less of the entering class (Bayer and Boruch, 1969).

Financial Resources

Adequacy of financial aid has been a dominant theme in social science theorizing about black collegian problems. However, much of the recent information have been confined to within race and within institution descriptions. Black students are generally acknowledged to be poorer than white students, but documentation on sex differences, variation across institutional type and source of finances is rather scarce.

Consider the financial aid data for male and female students provided in Table 3. Substantial differences between racial categories within financial level are evident. Half the Negro parents' annual income level in less than \$6,000. Non-white students acknowledge the same income bracket in only 14 percent of the population. Although racial differences across college type are not substantial, they do suggest the impact which income level has on the choice of college. Across institutional categories, the Negro colleges appear to have students with the poorest families. Predominantly white two-year colleges include the next highest fraction of low income black students, followed by predominantly white four-year colleges and the universities. Some 17 percent of black students' families have an annual income of more than \$10,000, while 53 percent of the white students are in the same category.

The low parental income levels suggest, of course, that financial supplement is likely to be important in supporting the black students' education. In fact, some form of scholarship aid, grants or gifts is acknowledged to be a major source of income by a third of the black students. Seventeen percent of the nonblack students rely on such aid as major support. Across institutional categories, the percentages of black students with major support from scholarship funds decrease in the order that one might expect: predominantly white colleges, white universities, predominantly Negro institutions, and two-year colleges.

The increasing availability of repayable loans at minimal interest rates has been an impressive educational development during the past few years. Use of loans occurs in nearly one quarter of the population of Negro freshmen. Women receive loans somewhat more frequently in both the black and

nonblack groups. The largest percentage of students who indicated that this is a major source of income occurs in the predominantly Negro institutions.

Parental or family aid is a major source of support much more frequently for the nonblack students. The difference is consistent across all institutional categories except in the case of Negro institutions. Reliance on personal savings or employment is more frequently acknowledged to be a major source of funds by nonblack students.

In summary, the black-nonblack income differences are more evident than intrarace differences. Substantial numbers of black students come from families with little money. The most affluent of the black as well as the white students appear at the universities. The poorest black students enroll at the Negro institutions and (secondarily) in the junior colleges. Financial supplements rather than family aid are relied on by a majority of black students, in contrast to the nonblack. Scholarships and grants are more frequently cited by blacks as being a major source of income than any other type of aid. Non-black students rely most frequently on parental aid.

Achievements

Black students' achievement levels have been subject to much controversy and discussion. Confusion has resulted because definition of "achievements" has been confined to high school grades and grades are not entirely comparable for the black and nonblack groups. Data are presented in Table 4 and concern a variety of achievements, including grades, and relative to stratification level. The proportion of white students having A grades is about twice the fraction of black students within any institutional type. Black students in Negro colleges are not as likely to have had high secondary school grades as black students in predominantly white four-year colleges. The universities appear to be most successful in attracting larger proportions of black students in the high grade category. Junior colleges enroll only about 2 percent of black students from this grade bracket, in contrast to the 7 to 9 percent at other types of institutions. Note that grade level comparisons are tenuous to the extent that the high schools from which students graduated differ in quality, and in predominance of a racial group. These variables are confounded with the type of institution selected by the student.

Other secondary school achievements of the freshmen are a reasonable basis for judgments of ability levels. Perhaps contrary to some expectations, a smaller percentage of black students had obtained a varsity letter in sports than the proportion of nonblack students. Larger proportions of black students had participated in National Science Foundation Summer programs, and won state or regional science contests. They were more likely to have had a major role in a play, to have received acclaim in a state or regional speech contest, or to have been elected president of a student organization. In fact, with the exception of membership in a scholastic honor society and the receipt of a varsity letter or National Merit recognition, the proportions in the various achievement categories are higher

for black than nonblack students.

Differences across institutional categories are complex. Relative to black students in other institutions, higher proportions of those in the Negro colleges obtained localized recognition--winning state or regional contests; being elected to head student organizations. Within the white four-year colleges and universities, more nationally popular forms of recognition were evident, e.g. National Merit awards, varsity sports acclaim. These differences are, of course, suggestive of the admissions policies evident at most colleges: they are oriented toward rather standardized achievement modes based on the white rather than on the black student population. Systematic emphasis on multiple achievement criteria, rather than on tests alone, is warranted insofar as equitable distribution of students among colleges is an objective of the current government and educational effort.

Regression Analyses

We have used stepwise regression analyses in order to assay the extent to which the mode of students' major financial aid is dependent on other observable factors. Immediate requirements are largely descriptive and very simplistic: specification of the nature of the relation, and of the moderating effect of stratification factors on functional relationships.

An intermediate objective is to assess the extent to which regression (commonly used in the educational literature) is affected by measurement error. Lacking estimates of reliability for each variable, a cross validation technique (Wolins, 1967) is used to strengthen the credibility of the computed multiple correlation. An original (validation) sample comprises the basis for specification of predictor variables in the linear function. A second (cross validation) sample and the previously specified predictor variables, are used to compute an unbiased $R^2_{y\hat{y}}$, conditional on the second example (Wherry, 1931).

Four dependent variables, and not mutually exclusive, are considered: personal savings, parental aid, loans and scholarships (Appendix I). Each is scored on the basis of student acknowledgment that the particular income is a major source of support, a minor source, or not a source of support at all. In addition to parental income and student achievements, other independent (dummy) variables have been introduced: parental educational levels, aspirations and past behavior. Samples (approximately 1,000 students each) were systematically drawn for the categories of Negro men and women. The samples were further categorized by institutional type.

Table 5 contains some results of the regression analyses; independent variables are presented in rank order of standard regression weight size. Generally, the percentage sums of squares accounted for in the cross validation sample is larger for men than for women. Decrements in the estimated population parameter,³ from validation to cross validation, suggest somewhat higher measurement error in the data on women. The absolute magnitudes of the $R^2_{y\hat{y}}$ are rather unimpressive, but they are a bit higher than results typically obtained in this type of research.

The differences between the regression

equations across sex and institutional categories implies, of course, that stratification attributes ought to be recognized in such analyses. The variation of the R^2_{yy} with in sex and type college is fairly stable across all categories considered.

Consider now the predictor variables with higher regression coefficients. Substantial reliance on personal savings (variable 15) is associated with older students for both sexes and within universities and Negro colleges. The choice of colleges, and for black men in predominantly white universities. Achievement variables enter negatively in most cases so one can infer that little or no reliance on personal savings is associated with academic achievements of various types.

Students' dependence on parental aid (16) is a function of age and parental income for all institutions and sexes: younger students from more affluent families acknowledge this type of support. The mother's education appears to be associated with men's acknowledgement of this source of support, and father's education is a determinant for women, at the Negro colleges and universities. Achievement variables are weighted negatively, suggesting that lower achievers of the type of award considered here are relying more heavily on their parent's income.

The extent to which we can explain loan usage (17) as a function of other variables used here is markedly limited. The relatively low R^2_{yy} may be explicable in terms of the nonuniformity of banking practices and in the extent to which students investigate this source of income. Loan usage is associated with lower family incomes. Lower costs of college are a determinant of the responses for men and women within the universities, but not for the other categories. Younger students appear to be relying on loans.

Student acknowledgement of major dependence on scholarship aid (18) is somewhat more predictable than either reliance on loans or on personal savings. Within the Negro colleges, parental aid is weighted negatively for both men and women, suggesting that poorer students are receiving such support. For men, the variable is a function of mother's education and high school grades; athletic scholarships are probably substantial since winning a sports letter and choosing a college on the basis of athletic program are predictor variables. Important independent variables within the women's category include high school rank and the affirmation that choice of college was based on its academic reputation. For men at the universities, major reliance on grants is largely a function of better high school grades and awards, and coming from low income families in which mother's education is low. For university women, the important predictors are family income and various achieve-

ment and study habit variables--- art or science recognition, National Merit recognition. Within the white 4 year colleges, men and women relying on scholarship aid come from families with smaller incomes. Achievement predictors include membership in an honorary society and art recognition (men), and awards in regional science contest, high school rank, having a major part in a high school play.

These findings represent a caricature of the financial and achievement attributes of the of the Negrofreshmen population. Forms of financial support are predicatable in varying degrees from biographical data. The major reliance on scholarship aid and parental support is associated with plausible and well defined student attributes but the extent to which we can predict is not impressive. Further scrutiny of these data will clarify the meaning of the associations among variables, and may provide information for enhancing our ability to predict the dependent variables.

Footnotes

1. This paper was supported, in part, by National Science Foundation Grant, GR-57.
2. During the summer of 1969, the popular press frequently reported that banks and loan companies are curtailing or eliminating student loan programs. It appears that black college students will be adversely affected by these measures, unless other sources of income are made available.
3. $R^2_{yy} = 1 - (1 - R^2_{yy}) \frac{(N - 1)}{(N - m - 1)}$

References

1. Astin, A.W. Racial considerations in college admissions. The Campus and the Racial Crises, Washington: American Council on Education, 1969 (in press).
2. Bayer, A.E. and Boruch, R.F. Black Student in American Colleges. ACE Research Reports. Vol. 4, No. 2, 1969. Washington, D.C.: American Council on Education, 1968.
3. Creager, J.A. General purpose sampling in the domain of higher education. ACE Research Reports, Vol.3, No. 2, 1968.
4. Wherry, R.J. A new formula for predicting the shrinkage of multiple correlation. Annals of Mathematical Statistics. 1931, 2, 440-451.
5. Wolins, Leroy. The use of multiple regression procedures when the prediction variables are psychological tests. Educational and Psychological Measurements, 1967, 27, 821-828.

Table 1: 1968 ACE Sample

<u>Stratification Cell^a</u>	<u>Institutions</u>	
	Popu- lation	Used in Norms
<u>Universities</u>		
Selectivity:		
Less than 500	30	10
500-549	39	15
550-599	45	15
600 or more	50	25
Unknown	130	11
<u>Public Colleges (4 year)</u>		
Selectivity:		
Less than 450 and Unknown	154	10
450-499	67	9
500 or more	73	14
<u>Private Non-sectarian (4 year)</u>		
Selectivity:		
Less than 500 and unknown	197	24
500-574	44	7
575-649	54	18
650 or more	48	27
<u>Roman Catholic (4 year)</u>		
Selectivity:		
Less than 500 and unknown	111	15
500-574	75	13
575 or more	42	15
<u>Protestant (4 year)</u>		
Selectivity:		
Less than 450 and unknown	119	14
450-499	54	7
500-574	68	13
575 or more	48	14
<u>Two Year Colleges</u>		
Selectivity less than 400	87	4
Selectivity 400-499	63	11
Selectivity 450 or more	57	8
Expenditures /less than \$1000	192	12
Expenditures /\$1000-\$1249	39	4
Expenditures /\$1250 or more	52	7
Selectivity or Expenditures unknown	272	17
<u>Negro Colleges</u>		
Public	38	7
Private	55	12

^aIn addition to the specifications by the U.S. Office of Education of level and type of control, the stratification design includes institutional per-student expenditures (for students who completed the National Merit Scholarship Qualifying Test).

Table 2: Number of Institutions and Students Used in Computing Norms

Norm Group	Number of Institu- tions in Norms	Number of Students in Norms		Weighted Number of Students	Percent of Weighted Total Who are Men		
		Black	Nonblack		Black	Nonblack	
All Institutions	358	12,300	230,582	84,058	1,386,369	46.0	57.2
Two-Year Colleges	63	1,535	34,342	19,093	426,337	55.4	61.2
White Four-Year Colleges	200	1,996	75,820	15,373	536,680	45.1	53.0
Negro Four-Year Colleges	19	5,384	349	36,071	2,560	42.5	69.0
Universities	76	3,385	120,071	13,521	420,792	42.9	58.4

Table 3: Weighted Percentages For Entering College Freshmen

MEN	<u>Predominantly White Two-year Colleges</u>		<u>Predominantly White Four-year Colleges</u>		<u>Negro Four-year Colleges</u>		<u>Predominantly White Universities</u>	
	Black	Nonblack	Black	Nonblack	Black	Nonblack	Black	Nonblack
ESTIMATED PARENTAL INCOME								
LESS THAN \$4,000	25.9	16.1	25.2	4.2	37.2		19.0	3.5
\$4,000 - \$5,999	30.8	12.6	24.6	8.9	25.1		21.8	7.0
\$6,000 - \$7,999	18.2	19.6	18.9	15.3	14.2		21.4	12.5
\$8,000 - \$9,999	10.9	19.3	10.1	18.2	9.2		14.2	16.3
\$10,000 - \$14,999	9.8	26.7	13.2	29.0	8.8		15.3	29.9
\$15,000 - \$19,999	3.7	8.7	4.0	11.6	3.4		5.2	13.2
\$20,000 - \$24,999	0.3	3.4	1.6	5.1	1.0		1.3	6.8
\$25,000 - \$29,999	0.1	1.3	1.1	2.7	0.4		0.6	3.4
\$30,000 OR MORE	0.3	2.3	1.2	5.0	0.7		1.2	7.4
MAJOR SOURCES OF SUPPORT								
PERSONAL SVGS OR EMPLOYMENT	32.2	46.1	17.5	30.1	18.8		19.3	30.4
PARENTAL OR FAMILY AID	21.9	37.1	21.3	46.9	28.0		33.3	55.7
REPAYABLE LOAN	15.0	7.9	28.6	16.4	29.0		16.5	10.5
SCHOLARSHIP/GRANT/OR OTHER GIFT	32.8	10.9	49.8	22.2	35.1		42.5	17.9
WOMEN								
ESTIMATED PARENTAL INCOME								
LESS THAN \$4,000	29.4	7.4	27.8	4.7	38.0		22.1	3.3
\$4,000 - \$5,999	26.3	13.1	19.9	8.5	24.2		24.5	7.0
\$6,000 - \$7,999	19.9	18.7	18.5	14.5	14.1		20.2	11.5
\$8,000 - \$9,999	9.8	18.1	12.1	16.2	9.2		12.8	14.7
\$10,000 - \$14,999	9.5	24.9	14.3	28.1	8.4		13.2	29.7
\$15,000 - \$19,999	2.9	9.8	4.8	12.7	3.3		4.5	14.7
\$20,000 - \$24,999	1.7	3.7	1.3	6.3	1.9		1.5	8.2
\$25,000 - \$29,999	0.0	1.8	0.4	3.2	0.6		0.7	3.9
\$30,000 OR MORE	0.5	2.7	0.9	5.8	0.4		0.5	6.9
MAJOR SOURCES OF SUPPORT								
PERSONAL SVGS OR EMPLOYMENT	30.4	27.7	12.7	15.3	10.7		13.3	15.4
PARENTAL OR FAMILY AID	29.6	55.8	31.7	62.1	34.5		43.7	69.9
REPAYABLE LOAN	13.0	10.0	27.6	18.8	37.4		18.2	11.6
SCHOLARSHIP/GRANT/OR OTHER GIFT	24.0	11.2	54.4	21.5	29.4		37.4	16.9

Table 4: Weighted Percentages For Entering College Freshmen

MEN	Predominantly White <u>Two-year Colleges</u>		Predominantly White <u>Four-year Colleges</u>		Negro <u>Colleges</u>	Predominantly White <u>Universities</u>	
	Black	Nonblack	Black	Nonblack	Black	Black	Nonblack
AVERAGE GRADE IN HIGH SCHOOL							
A OR A+	0.3	0.4	0.6	3.9	1.0	1.9	6.3
A-	0.8	1.3	3.2	7.7	3.0	5.5	10.9
B+	6.7	4.7	10.7	15.2	11.1	13.9	18.1
B	11.7	14.4	18.4	22.6	19.2	21.3	23.5
B-	11.0	15.3	16.7	17.7	16.3	19.0	16.5
C+	27.4	26.4	26.3	18.1	27.1	23.8	14.4
C	38.9	34.7	22.1	14.0	21.4	14.0	9.8
D	3.4	2.8	2.0	0.8	0.9	0.6	0.6
SECONDARY SCHOOL ACHIEVEMENTS							
ELECTED PRESIDENT STDT	14.7	12.1	27.6	22.7	32.4	28.0	24.5
HIGH RATING STATE MUSIC	6.7	6.2	9.9	8.5	12.1	11.1	9.9
STATE/REGIONAL SPEECH CONTEST	1.7	2.9	5.7	5.4	7.8	6.8	6.7
MAJOR PART IN A PLAY	15.5	12.6	19.7	17.6	34.5	19.4	16.9
VARSITY LETTER (SPORTS)	53.3	40.5	58.3	50.8	42.0	45.0	44.2
AWARD IN ART COMPETITION	7.2	4.9	7.9	4.2	7.8	7.3	4.1
EDITED SCHOOL PAPER	3.4	4.8	9.1	9.1	11.2	10.3	10.0
HAD ORIGINAL WRITING PUBLISHED	5.7	7.1	18.3	14.7	9.7	14.7	16.3
NSF SUMMER PROGRAM	1.4	0.4	1.7	1.0	2.3	2.1	1.6
ST/REGIONAL SCIENCE CONTEST	1.6	1.4	3.1	2.5	6.7	5.0	3.5
SCHOLASTIC HONOR SOCIETY	3.9	4.4	15.0	23.0	17.1	22.7	31.0
NATIONAL MERIT RECOGNITION	2.6	1.6	8.6	8.1	5.1	10.6	12.3

Table 4: Weighted Percentages For Entering College Freshmen (cont'd.)

WOMEN	Predominantly White Two-year Colleges		Predominantly White Four-year Colleges		Negro Colleges	Predominantly White Universities	
	Black	Nonblack	Black	Nonblack	Black	Black	Nonblack
AVERAGE GRADE IN HIGH SCHOOL							
A OR A+	0.8	1.9	2.5	7.2	2.0	2.5	10.1
A-	2.7	4.3	7.1	13.8	7.0	7.9	16.7
B+	11.3	11.9	17.6	23.7	20.9	18.0	24.0
B	21.8	26.9	23.5	28.5	25.4	25.9	25.6
B-	17.2	17.9	18.9	13.0	15.5	16.1	11.4
C+	22.5	19.1	18.4	9.1	17.6	17.8	7.9
C	22.5	17.4	11.8	4.6	11.2	11.6	4.3
D	1.3	0.5	0.2	0.1	0.4	0.2	0.1
SECONDARY SCHOOL ACHIEVEMENTS							
ELECTED PRESIDENT STDT ORGNZ	12.7	13.7	24.9	22.5	31.8	23.4	23.2
HIGH RATING STATE MUSIC	6.0	8.7	10.7	13.0	12.0	10.4	14.7
STATE/REGIONAL SPEECH CONTEST	6.9	4.3	7.6	6.6	8.9	6.8	7.7
MAJOR PART IN A PLAY	17.0	13.1	20.6	18.5	34.3	17.5	18.4
VARSITY LETTER (SPORTS)	13.4	13.1	12.0	14.1	9.8	9.5	12.7
AWARD IN ART COMPETITION	4.2	5.7	6.0	6.6	4.4	4.8	7.1
EDITED SCHOOL PAPER	8.1	10.1	15.7	17.3	16.1	13.1	17.7
HAD ORIGINAL WRITING PUBLISHED	10.2	13.7	20.2	22.3	14.0	18.5	22.9
NSF SUMMER PORGRAM	0.4	0.2	2.3	0.6	1.5	1.3	0.8
ST/REGIONAL SCIENCE CONTEST	2.4	1.2	5.4	2.1	7.2	3.0	2.6
SCHOLASTIC HONOR SOCIETY	11.5	13.7	33.1	38.8	31.9	30.1	45.1
NATIONAL MERIT RECOGNITION	2.9	2.7	11.7	8.5	6.5	11.1	10.8

Table 5

College Type/Sex	y	Rv	Rcv	\hat{R}_{yy}	d.f.	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄
Negro	15	.34	.31	.10	418	1	-37	-29	38	36	13	-24	-40	8	-4				
4-year/	16	.52	.43	.17	419	21	20	-1	-23	12	-48	-25	5	38					
Negro	17	.34	.31	.10	420	-21	-7	-1	-20	-32	40	-26	-13						
Men	18	.42	.41	.15	418	-20	2	37	-38	50	-21	7	43	-24	32				
Negro	15	.24	.21	.03	595	1	12	48	25	38	3	-27	-8						
4-year/	16	.45	.41	.15	592	21	19	-3	-43	-12	-24	-34	-1	-22	25	49			
Negro	17	.40	.27	.06	592	-21	34	-20	-14	26	-4	37	30	-32	-1				
Women	18	.42	.37	.12	591	23	39	-21	48	3	36	37	33	29	22	2	5		
White	15	.49	.26	.04	299	38	-7	40	1	-6	-26	14	47	-46					
Univer/	16	.58	.49	.22	299	21	-1	29	20	-46	47	33	-44	52					
Negro	17	.42	.21	.02	298	-46	47	4	-1	-38	-21	35	6	36	54				
Men	18	.55	.46	.18	296	-21	-38	2	-20	-6	53	-29	13	52	51	39	-47		
White	15	.32	.20	.02	356	-25	-11	1	21	34	-36	27							
Univer/	16	.54	.43	.17	336	21	-31	-1	-13	-8	-14	44							
Negro	17	.38	.24	.02	331	-38	46	-21	23	-27	6	-13	-7	54	53	29	-10		
Women	18	.48	.35	.10	332	-21	13	-44	32	5	-46	-26	34	14	8	-12			
White	15	.49	.35	.08	166	-3	48	8	-4	-54	-10	-24	33						
4-year/	16	.68	.38	.10	167	21	19	-22	-41	34	-7	-35							
Negro	17	.47	.22	.01	167	-51	49	-21	-1	-3	-25	34							
Men	18	.54	.49	.19	163	-21	13	-36	52	-48	34	-8	-19	9	26	49			
White	15	.49	.21	.00	195	38	-43	54	-46	44	-26	-11	27	-21	-24				
4-year/	16	.66	.48	.19	194	21	-4	-8	-1	-31	-11	-38	48	-5	27	-53			
Negro	17	.49	.36	.08	193	-21	48	8	35	-42	45	-12	46	-25	34	1	-38		
Women	18	.57	.44	.14	192	-21	23	51	-12	11	-6	35	-41	40	34	36	-48	-24	

Appendix I
Variables Included in Regression*

- | | | | |
|----|-------------------------------------|----|---|
| 1 | Age (Lo : Hi :: 1:9) | 29 | Played musical instrument |
| 2 | High school grades (Lo : Hi :: 1:8) | 30 | Anti-war protest |
| 3 | Elected president stdnt organ | 31 | Racial protest |
| 4 | Hi rating music contest | 32 | Administrative policy protest |
| 5 | Part in state speech contest | 33 | Extra reading for course |
| 6 | Major part in play | 34 | Teacher recommended college |
| 7 | Won varsity letter | 35 | Graduate rep recommended college |
| 8 | Won art award | 36 | Professional counselling recommended college |
| 9 | Edited school paper | 37 | Athletic program reason for college choice |
| 10 | Published poem, essay | 38 | Low cost reason for college choice |
| 11 | NSF summer program | 39 | Academic reputation reason for college
(Aspirations) |
| 12 | Placed in state science contest | 40 | Become accomplished in performing arts |
| 13 | Member of honorary society | 41 | Become authority on specified subjects |
| 14 | Won certificate of merit (NMSQT) | 42 | Attain recognition for contributions |
| 15 | <u>Personal savings</u> | 43 | Become expert musician |
| 16 | <u>Parental aid</u> | 44 | Become expert in finance |
| 17 | <u>Repayable loan</u> | 45 | Have admin. responsibility |
| 18 | <u>Grant/gift</u> | 46 | To be well off financially |
| 19 | Father's education (Lo : Hi :: 1:6) | 47 | Aspire to help others |
| 20 | Mother's education (Lo : Hi :: 1:6) | 48 | To be in organization such as Peace Corps |
| 21 | Parent's income (Lo : Hi :: 1:9) | 49 | Become outstanding athlete |
| 22 | Religious preference | 50 | Become community leader |
| 23 | Academic rank in graduate class | 51 | Make theoret. contribution |
| 24 | Outlined reading assignment | 52 | To write original work |
| 25 | Memorized without understanding | 53 | To create artistic work |
| 26 | Shared notes with students | 54 | To be success in business of own |
| 27 | Extra credit work | | |
| 28 | Tests for practice | | |
- * Dichotomous variables scored 2 (yes) or 1 (no). Variables 15, 16, 17, 18 scored 3 (major dependence), 2 (minor dependence), 1 (not at all) on sources of support indicated.