DOCUMENT RESUME

ED 049 679 HE 002 069

AUTHOR	Jaffe, A. J.; Adams, Walter
TITLE	Academic and Socio-Economic Factors Related to Entrance and Retention at Two- and Four-Year Colleges in the Late 1960s.
INSTITUTION	Columbia Univ., New York, N.Y. Bureau of Applied Social Research.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	[70]
NOTE	29p.
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	Academic Achievement, Compensatory Education Programs, *Disadvantaged Youth, *Dropout Rate, *Higher Education, *Problems, School Holding Power, Special Programs, Student Characteristics, *Universal Education

ABSTRACT

The demand for open, universal higher education is increasing, yet little is known about what happens to educationally disadvantaged youth who enter selective or even nonselective 2- or 4-year colleges, about the effectiveness of supplementary academic assistance, or the viability of compensatory programs. This study is based on a 1965 Census Bureau survey of a national sample of high school seniors. Information was obtained on post-high school plans, as well as personal and background data. The purpose of this study was to correlate eight variables with post-high school behavior, especially the dropout rate, and to make policy recommendations based on the findings. The variables were: (1) the student's high school curriculum, (2) student's estimate of his own brightness, (3) average high school grade, (4) the college entrant's estimate of his brightness relative to his college classmates, (5) the average college grade, (6) family income, (7) occupation of head of household, and (8) years of schooling completed by father. The findings indicated that the student's high school curriculum was the overriding factor not only for determining whether the student entered college or not, but also for the type of college entered, and for continuing or dropping out. The other academic and socioeconomic variables also had strong relationships to college entrance and, with the exception of family income, to choice of college and continuation in 4-year colleges. (AF)

Academic and Socio-Economic Factors Related to Entrance and Retention at Two- and Four-Year Colleges in the Late 1960s

A. J. Jaffe and Walter Adams,
Bureau of Applied Social Research
Columbia University

Introduction

Open Enrollment Plans and Programs

Today, as we enter the 1970s, controversy mounts over the question of more open enrollment in colleges, and especially so for traditionally selective 4-year ones. The students for whom increased access is sought by and large rank low on national test-score distributions, and include low proportions who follow college preparatory programs in high school.[1/] Until quite recently, most attempts to increase enrollment of such students in relatively prestigious colleges have been limited to small groups selected for presumed, but as yet unrealized, academic potential. Today, however, pressures have increased for extended, or even universal, open enrollment, and the pros and cons have been heatedly debated.

One critical question is what happens to the less able or poorly prepared high school graduate once he or she enters a relatively selective college, or even an unselective one. Would supplementary academic assistance at college prove effective, or would this aid be too little and/or too late? So far there is little reliable national data on the viability of remedial programs at the college level, and only time and careful evaluations will determine

*This note is part of a larger study in progress (A. J. Jaffe, Director), supported by the U.S. Office of Education. The interviews were conducted by the U.S. Census Bureau and the tabulations and analysis were made at the Bureau of Applied Social Research.

this point. Nevertheless, considerable recent information is available on college entrance, type of college entered, and duration of attendance for students with various academic and socio-economic characteristics. Nationally, the great majority of college entrants, whether more or less able or richer or poorer, have sunk or swum largely without benefit of extraordinary programs of academic assistance. Consequently, hard data on survival rates at the several types of colleges for the various types of entrants would yield insights into probable outcomes of more open enrollment programs, minus special assistance to the relevant students. From such data one could roughly gauge how essential such assistance would be (assuming its effectiveness) to assure the less promising entrant a reasonable chance for survival at college.

The Study Data

In the Fall of 1965 the Census Bureau interviewed a national sample of high school seniors as part of its Current Population Survey. Information was obtained on post-high school plans, as well as considerable personal and background information about the student. The seniors were followed up in late Fall 1968 to determine what they had actually done roughly two and a half years after high school graduation. For those who had graduated from high school it was possible to determine: (a) proportions entering college; (b) of the entrants, proportions who attended 2- and 4-year colleges; and (c) for all entrants, and for 2- and 4-year students separately, proportions still enrolled in Fall 1968. By that date a 1966 high school graduate entering college immediately (as most entrants in fact did) would normally be enrolled in his or her junior year. In Appendix Table A we summarize the various post-high school eventuations.

It was also possible to determine, for these various groups of high school graduates, relationships to a number of personal and background variables. In this article we discuss such relationships for the following eight variables: (a) the high school curriculum the student followed; (b) the student's estimate of his own brightness relative to his high school classmates; (c) the student's average high school grade; (d) the college entrant's estimate of his brightness relative to his college classmates; (e) the entrant's average college grade; (f) the student's family income; (g) the occupation of the head of the student's household; and (h) years of schooling completed by the student's father.

The Analysis

For the various student groups we may ask a number of questions. First, is there any single variable with an especially strong overall relationship to post-high school behavior? If so, with what sorts of behavior (college entrance per se, type of college entered, or continuation in college) is it more and less associated? Second, which group of variables appears to be most significantly related to post-high school behavior, the academic or the socio-economic ones? Are relationships about equally strong for all of the variables comprising each of these two groups, or are there considerable differences between variables within each group? Once again, the detailed findings for the various forms of post-high school behavior may be spelled out. Next, can we determine, even inferentially, whether it is the economic or the social component of socio-economic status that is the stronger determinant of post-high school behavior, and especially of dropout? Finally, can we infer from the findings the likely fate at 2- and 4-year colleges for less academically promising and/or lower socio-economic students who might enter as a direct outcome of more open enrollment? Here we would base our inferences on one or the other of two assumptions:

(a) that large numbers of students under open enrollment programs would be admitted to relatively selective 4-year colleges and universities--students who would not have qualified for entrance in former years. This would involve relaxation of senior college admission policies in such areas as high school curriculum, or high school grades, or class rank, or test performance, or several or more of these at once. The alternative assumption (b) is that admission standards would remain largely unchanged at most 4-year colleges, but that less promising college applicants would have unlimited access to 2-year schools--and would moreover be encouraged and assisted to enroll in them far more frequently than at present.

Our main emphasis in the analysis will be upon college dropout, overall and at junior and senior college separately. In the context of the open enrollment controversy it is the survival rate at college that would largely determine success or failure for the students. Nevertheless, we shall also consider college entrance, since it determines the cast of players who struggle for survival on the academic stage. We are also interested in whether or not certain variables are not only strongly associated with college entrance, but also continue to exert influence upon the enrolled student. If there should be such variables, then open enrollment might well dissipate their relationship to entrance by simple fiat, but fail to weaken their relationship to dropout or continuation--assuming no radical changes were made in the colleges themselves, such as introduction of less demanding curricula.

We now turn to the analysis and refer the reader to the detailed appendix tables, B and C, which respectively cross-tabulate the five student academic characteristics and the three family background ones with post-high school behavior.

Findings

The High School Curriculum

Of the eight student characteristics in our analysis there is one, the high school curriculum the high school graduate had followed (the college preparatory or other programs), which is of overriding significance not only for entering or not entering college, but also for the type of college entered (2-year or 4-year) and for continuing or dropping at each type of school.[2/]

College entrance. By Fall 1968 about 53% of the high school graduates had entered college, about a third enrolling in 2-year schools and two-thirds in 4-year ones. Overall, about seventeen in twenty college preparatory students entered college, but only about five in twenty students who had followed other programs.

The college preparatory entrant tended to select senior colleges rather than junior ones. About seventeen in twenty entrants at senior colleges were college preparatory students. Nevertheless, this was the case for over half the students who entered 2-year schools. From another perspective, about sixteen in twenty college preparatory entrants selected senior colleges, but only about half of the small proportion of entrants who had followed other programs.

In sum, college preparatory students predominate among all college entrants. They are especially numerous at senior colleges, but they still represent the majority of students at 2-year schools. If open enrollment programs were to eliminate the high school program as a criterion for college entrance we might well expect radical changes in the college population for this variable, leading to significantly larger proportions of non-college preparatory entrants. Just how great the change would be is a moot point. Assuming substantial change, however, we may well ask about the probable effect on college dropout.

College dropout. Overall, about a third of all the college entrants had dropped from college by Fall 1968. Only about one in eight of the dropouts had firm plans for reentry, within a year or so at least. Additional students will drop, of course, subsequent to Fall 1968, and we may expect that the final dropout rate will approximate the long-term historical proportion of slightly less than half of all entrants.

By Fall 1968 about five in twenty college preparatory entrants had dropped, whereas this was the case for twelve in twenty entrants who had followed other programs.

Dropout was nearly three times as frequent at 2-year as at 4-year colleges, respectively representing thirteen in twenty versus less than five in twenty students. But it is also true that at 2-year and 4-year colleges alike, and to roughly the same extent as measured by percentage differences, the high school program was a strong determinant of dropout.

Under four in twenty college preparatory 4-year entrants dropped, whereas nearly nine in twenty non-preparatory ones had done so. About eleven in twenty college preparatory 2-year entrants had dropped, as compared with fifteen in twenty non-preparatory ones.

Implications of the above findings for open enrollment. If substantially larger proportions of non-preparatory students were to enter 4-year colleges under open enrollment programs we would expect nearly half of these students to drop within several years, basing our expected rate upon the observed one. The rate might be even higher if non-preparatory students who now enter 2-year colleges (presumably in considerable measure because these are the only colleges which will currently accept them) were to enter 4-year ones instead, once the admissions criteria were relaxed. We would not expect

them to fare better, or even as well, at academically more demanding schools.

In short, we would expect any large increase in non-preparatory entrants at senior colleges to raise the dropout rate sharply, with whatever effects on the stability and academic climates of the colleges. For the dropouts, benefits from a brief stay in a 4-year college (often less than a year) would seem extremely doubtful.[3/]

If substantially larger proportions of non-preparatory students were to enter 2-year colleges under open enrollment programs, we would simply expect about three in four to drop without transferring to a senior school or completing the 2-year associate of arts program.[4/] The net effect would be to raise the already high overall dropout rate at these schools (64% currently) to appreciably more than two in three of all entrants.

We are not at all certain whether or not, or to what extent, a brief stay at a 2-year college benefits the student. It is very possible that a student enrolled in a technical or vocational program can learn the fundamentals required for a reasonably good entry job within two or three terms. If such were the case, and if this sort of job were what the students desired, dropout would be essentially reasonable behavior. But if the index of return from attendance at 2-year colleges should be completing at least the full two year program, then it would seem that few non-preparatory students under open enrollment plans would be likely to benefit.

Other Variables and Junior College Dropout

We found the very high dropout rate for non-college preparatory students at 2-year colleges rather surprising. Presumably these colleges are designed to salvage just this type of student. We therefore asked whether

non-preparatory dropouts possessed other unfavorable academic characteristics which might lead to dropout--or does dropout relate to financial or other components of socio-economic status? Very briefly, none of the seven other student characteristics we tabulated, whether academic or socio-economic, had a statistically significant (chi square) relationship to 2-year dropout. The closest approaches to significance were the weak apparent associations in the expected directions for family income, occupation of the household head, and the father's educational attainment. For grade and academic self-image in high school and college there was virtually no apparent association with 2-year dropout. In contrast, the high school curriculum was associated with 2-year college dropout at the .01 (chi square) probability level--a very strong relationship, given the small size of the sample.

We infer, then, that high school curricular choice, though of course considerably related to ability and class, nevertheless reflects underlying personality attributes or predispositions, quite apart from income, class, and ability.

We further speculate that both the non-college preparatory and college preparatory 2-year entrant, but especially the former, rather closely resembles the high school graduate who fails to enter college--resembles him, that is, in terms of psychological correlates of academic aspiration and motivation. We hypothesize that for this psychological dimension the non-college preparatory 4-year entrant more nearly resembles his college preparatory classmate than the non-preparatory 2-year entrant. We are aware, of course, of the further possibility of differential effects of the 2- and 4-year college environments upon the respective student populations.

Grade and Academic Self-image Relative to Classmates in High School and College

Overall, grades in high school and college and the student's estimate of his own brightness relative to high school and college classmates are strongly and positively related to all aspects of post-high school behavior--college entrance, type of college entered, and continuation at 4-year colleges--with the exception of continuation at 2-year colleges. The student with poor marks at a 2-year college, for example, is about as likely to remain enrolled as a student with good marks.

College Entrance. The grade and self-image variables are far less related to college entrance, however, than is the high school curriculum. College preparatory students are about three and a half times as likely to enter college as non-preparatory ones. Students who think they are brighter than average in high school are about twice as likely as the pessimists to enter college. Students with better high school grades are about a third again as likely to enter college as students with poorer grades. Quite clearly the self-image variable is a stronger determinant of college entrance than grades, and we attribute this finding in large measure to increasing availability of liberal access colleges.[5/]

Type of college entered and 4-year college dropout. For type of college entered, however, and for 4-year college continuation rates, high school grades and relative academic self-image in high school present roughly equal degrees of association. It is also true that though the high school curriculum is a considerably stronger determinant than self-image or grades of type of college entered and of 4-year college continuation, nevertheless these differences are considerably slighter than in the instance of college entrance per se.

Implications of the above findings. Presumably many of the types of students for whom open enrollment programs are designed receive poor grades in high school. Most such students would tend to have low self-images as well. Of all the college entrants in the sample, eight in ten with better grades had better self-images, and seven in ten with poorer grades had poorer self-images. Since the self-image variable is far more strongly related to college entrance or failure to enter than the grade variable, it would appear that liberalized access to college for students with poorer grades might yield only modest increases in proportions entering college. The major increases would probably stem from efforts to raise the confidence level of the academically poorer high school graduate, whether by means of counselling in high school, encouragement from colleges for potential entrants to apply, media emphasis on the desirability of going to college, or other measures.

Once enrolled in a 4-year college, however, both variables are about equally related to continuation. This would seem reasonable, since the enrolled student is under pressure to earn at least reasonably adequate marks or else to drop or to transfer. Open enrollment programs, accordingly, though they might well induce students with poor marks or poor academic self-images to enter colleges formerly unavailable to them, might well find that large proportions of such students would drop after a brief stay. We argue as follows:

About half of all the students had consistent grades and self-images in high school and college. Of this half, those with poorer grades and/or self-images were particularly likely to drop from 4-year schools. For the other half of the entrants, grades and/or self-images changed between high school and college, and the strong tendency was for depreciation rather than

appreciation for both variables--but especially for self-image. Of all grade changes 63% were unfavorable, but of all self-image changes 86% were unfavorable. Presumably a student faces stronger competition, by and large, in college than in high school. Though some might manage to maintain acceptable grades by working harder than in high school, it would seem plausible that academic self-esteem would nevertheless suffer. Accordingly, we are not sanguine about the chances for survival in a 4-year school for less able or less confident entrants facing strong classroom competition.

At the 2-year college the lack of relevance of either high school or college grades or self-images--relevance to dropout or continuation, that is--is itself not too relevant, given the extent of dropout at these schools, for whatever reasons.

Socio-economic Variables

College entrance. For college entrance all three socio-economic variables have strong and roughly equal positive relationships, but this relationship is not nearly as strong as that of the high school curriculum, or even academic self-image in high school. For example, the difference in college entrance rates between students with family incomes of $7,500 and over and those with incomes of under $7,500 is 25 percentage points, whereas it is 38 percentage points between students with better and poorer self-images in high school, and 60 percentage points between college preparatory and non-preparatory students. Clearly, the academic variables are more significant than the economic one for college entrance.

Further findings for family income. Apart from college entrance, family income has no apparent relationship at all to the type of college

entered, and no statistically significant relationship to retention at either 2- or 4-year colleges. It would seem that once the initial sorting of entrants and non-entrants by family income is completed, most of those who do enter, whether affluent or poor, can contrive to stay in college, and dropout or continuation are determined by other non-financial factors.[6/] This inference is supported by the testimony of the dropouts themselves. When asked for the chief reason for leaving college, only about one in five of 2-year college dropouts and one in seven of 4-year ones cited financial problems. Apparently, then, continuation of increased numbers of low income high school graduates entering college, the likely entrants under open enrollment, would not be seriously threatened by student inability to meet their college expenses.

Occupation of head of the student's household and educational attainment of the student's father. It is important to note, however, that non-financial aspects of socio-economic status not only have statistically significant, and indeed strong, relationships to college entrance rates, but also to the type of college entered and to the dropout rate at 4-year colleges. As we have already observed, there is no statistically significant relationship for these variables to dropout from 2-year schools. Here the 2-year college appears to have realized its equalitarian aspirations.

The occupation of the head of the student's household predicts college entrance about as well as family income. Roughly seven in ten white collar high school graduates entered college, whereas this was the case for only four in ten graduates from blue collar backgrounds, or homes where the head was unemployed or not in the labor force. For both occupation of head and attainment of father there are statistically significant relationships both

to type of college entered and to continuation or dropout at 4-year colleges, in sharp contrast to the absence of such relationships for family income.

In sum, financial and non-financial indicators of socio-economic status are about equally and positively related to entering college, but only the non-financial elements have a significant positive relationship to entering a 4-year rather than a 2-year school, and to continuation in a senior college. We suggest that the presumed financial indicator, family income, in fact reflects social class and associated differences in educational commitment.

Further remarks on the father's educational attainment. For all of the eight independent variables except father's education, relationships to college entrance, type of college entered, and dropout status were parallel--parallel in the sense that the significant categories for each variable were identical for all types of post-high school behavior. Also, for each variable a simple and uniform dichotomy, whatever the behavior under consideration, yielded the essential relationships. For example, no matter what the type of behavior, high school programs other than college preparatory ones (commercial, general, vocational, etc.) led to identical outcomes.

For the father's educational attainment, however, tabulating a simple dichotomy was not sufficient, since different groupings of attainment categories were significantly associated with different forms of post-high school behavior. For example, the incidence of college entrance rises as the father's attainment rises at each of the four educational levels we tabulated. On the other hand, entering a 4-year rather than a 2-year college is strongly associated with having a college graduate father, but there are no significant differences for type of college entered between the three lower levels of

parental educational attainment. This latter finding also pertains for continuation or dropout from a 4-year college. It appears that there is an intergenerational educational tradition leading sons of college graduate fathers to duplicate the parental experience. To the limited extent that dropout and continuation at 2-year colleges are related to parental education, we note this same intergenerational tradition. If the father attended college, and especially if he graduated, the son was very likely to remain enrolled in a 2-year school, but there were no appreciable differences in dropout rates for sons of fathers who did or did not complete high school. Also, sons of "part-college" fathers were more likely than sons of both college graduate and high school graduate fathers to enter a 2-year college, yielding a bimodal distribution for this particular tabulation.

Implications of the above findings. Very simply, if would seem that financial liberalization of access to college for lower income high school graduates might lead to some increase in proportions enrolling, though we doubt if the increase would be very large. For the less affluent entrant, however, increased student aid would not be likely to reduce the dropout rate appreciably. It would seem that it is the non-financial aspect of socio-economic status, including the intergenerational tradition handed on from father to son, that most relates to continuation or dropout. To what extent open enrollment programs could develop effective means of countering the relationship between lower social class and a high incidence of college dropout we do not know, but it is nevertheless clear that the problem is a more complex one than if lack of money were the principal socio-economic determinant of dropout. Once again, assuring continuation in college appears appreciably more complex and difficult than inducing more high school graduates to enter.

Interrelationships between the Eight Academic and Socio-economic Variables

There is considerable evidence that the eight student variables we have considered separately for relationships to post-high school behavior are themselves strongly, though far from perfectly, interrelated.[7/] Several or more of these variables in combination also prove to be better predictors of post-high school behavior than any one variable alone. For example, as we have seen, about three in four students were consistently high or consistently low for both high school grades and academic self-image. Nevertheless, differences found in 4-year college dropout rates were appreciably greater for both variables in combination than for either one alone, as follows:

Percent of 4-year college entrants dropping by Fall 1968

	%		%		%
High grades and high self-image	16	High self-image	18	High grades	18
Low grades and high self-image	24				
High grades and low self-image	30				
Low grades and low self-image	40	Low self-image	37	Low grades	34

For each of the two academic variables separately, dropout was roughly double for students with unfavorable, as compared with favorable, attributes. For the two variables in combination the difference was about half again as great. Those who were favorable on one and unfavorable on the other lay between the two extremes. Given enough cases for consideration of three or more of the relevant variables in combination, one could develop a more

precise typology of post-high school eventuations than is possible with the present small sample.

Summary of Findings and Policy Implications

Summary of Findings

1. Of the eight variables we studied, the high school curriculum a student followed has by far the strongest relationship to college entrance, type of college entered, and continuation or dropout in both 2- and 4-year colleges.

2. The remaining academic variables, and the socio-economic ones as well, all have strong relationships to college entrance.

3. These same variables, with the exception of family income, are significantly related to choice between a 2- and 4-year college.

4. These same variables, once again with the exception of family income, are significantly related to continuation at 4-year colleges.

5. With the exception of the high school curriculum, none of the variables studied yield a statistically significant relationship to continuation in 2-year colleges, though the three socio-economic variables do have a consistent weak relationship, in the expected direction, to dropout or continuation.

6. For academic variables other than the high school curriculum, the student's estimate of his own brightness relative to his classmates seems to bear a stronger relationship than his high school marks to college entrance or failure to enter, and these two variables have about equal relationships to type of college entered and to continuation or dropout from 4-year colleges.

7. The student's academic self-image is considerably more related to college entrance than any of the socio-economic variables.

8. Overall, the academic variables appear to be better predictors of post-high school behavior than the socio-economic ones. The educational "track" a student entered early in high school and his own self-assessment, whether correct or not, appear to be more important than his actual academic performance. Presumably this indicates that educational aspiration and commitment are determined quite early in life, are relatively stable over the years, are based as much or more upon subjective or psychological determinants as objective ones, and would be difficult to change at the time of high school graduation or later.

9. Both the student's marks and his academic self-image, but especially the latter, tend to deteriorate between high school and college, and such deterioration is associated with 4-year college dropout. For academically weaker entrants to senior colleges under open enrollment programs, such deterioration (presumably associated with increased academic demands and classroom competition), should be especially frequent.

10. To the extent that socio-economic variables influence post-high school behavior, it is the social rather than the financial dimension that seems most important. Money appears to be related to college entrance only, and even here we suspect that class differences associated with different levels of affluence are the principal determinants.

11. Our basic conclusion is that more open enrollment of generally less promising students would face very high dropout rates for these college entrants, and particularly so for the ones likely to enter 2-year colleges. We also conclude that the apparent primacy of psychological and social determinants of dropout would make it far more difficult to reduce such dropout than if objective factors were the principal ones.

Policy Implications

Educators and educational officials appear to have considerable awareness of the pivotal role of curricular choice for college entrance and for the type of college entered, but less awareness of its relationship to continuation or dropout from college. Nor do they seem to be aware of our inferential finding that it is not only the curriculum per se that determines post-high school behavior, but also, and perhaps more significantly, less understood and enduring social and psychological correlates of the curricular decision in the student's early teens.[8/]

Recent proposals for innovations in secondary education include elimination of separate high school programs of study, college preparatory and otherwise, and substitution of a single program leading to the possibility of college entrance. The rationale for such proposals seems to proceed from the premise that the course of study itself, plus the preference of college admissions personnel for the college preparatory applicant, so labeled, determine the close relationship between the high school curriculum and college entrance. Our findings suggest that this is only partially the case, and that the kind of student who currently enters non-college preparatory curricula would be the student least likely to enter college, if left to his own devices, whatever the course of study he followed--or if he were induced to enter, least likely to remain enrolled. The problem is one of too simplistic an approach to a complex question of educational commitment.

It also appears to be true that advocates of limited access to senior colleges, but open enrollment at junior ones, are overly optimistic in their presumed belief that large proportions of non-college preparatory type students would survive at 2-year schools. At 4-year colleges such students

would be even less likely to survive. Furthermore, since at 2-year colleges academic performance and academic self-confidence bear virtually no relationship to retention or dropout, there is no particular reason to believe that supplementary or remedial assistance would appreciably reduce the dropout rate from these schools. There is more reason to believe that dropout might be reduced appreciably at 4-year colleges by supplementary academic assistance, since 4-year college retention appears to have a significant relationship to academic variables other than the high school curriculum.

In sum, we suggest that advocates of more open enrollment in college must face the no doubt unpleasant possibility that the college careers of many, perhaps most, of the target students would be brief. If open enrollment programs were to proceed apace without a fuller appraisal of this possibility, and without effective measures to assure continuation, disappointment and frustration consequent to widespread dropout might outweigh benefits for the students who would survive and graduate.

We suggest the advisability of open enrollment programs of limited size for the years immediately ahead, with extensive evaluation as an essential feature of their design, and with options retained to modify such pilot programs, or even abandon them, should they fail to realize their objectives. Once widely adopted, an educational innovation such as open enrollment would be difficult to reverse, irrespective of its outcome for students and their colleges. Once conferred, it is politically awkward to withdraw equalitarian measures, which tend to be viewed almost immediately as inalienable rights.

We conclude that the equalitarian impulse alone, however admirable, is insufficient justification for radical change in higher education, and that open enrollment should stand or fall on the basis of demonstrable effects upon colleges and students.

1/ For extensive cross-tabulations of personal, academic, and background characteristics (including post-high school plans) of a national sample of over 90,000 high school seniors, see A. J. Jaffe and Walter Adams, American Higher Education in Transition, Bureau of Applied Social Research, Columbia University, New York, 1969.

2/ The primary significance of the high school curriculum for college entrance has been documented in earlier studies as well. For example, a 1960 Census Bureau follow-up of a national sample of 1959-60 high school seniors found that (if we except the essentially tautological variable, "college plans") the high school curriculum was the most highly correlated of thirteen variables examined for relationships to college entrance. (See Charles B. Nam and James D. Cowhig, Factors Related to College Entrance of Farm and Nonfarm High School Graduates: 1960, Bureau of the Census, Series Census-ERS (P-27), No. 32, p. 17, Table 16, Washington, D.C., June 15, 1962.) This study, however, did not compare the variables for their relationship to college dropout, as we attempt to do with the present data.

3/ For the college entrants in our sample who dropped from college duration of attendance was as follows:

Attended for not more than one academic year (two semesters or less)	Attended for more than one academic year (three semesters or more)	All dropouts
49%	51%	100%

4/ Of all the students who entered a 2-year college, but who were no longer enrolled in a college in Fall 1968, only 12% were students who graduated from the 2-year institution, but failed to transfer to a 4-year one.

5/ For a fuller analysis of grades, academic self-image and post-high school behavior, see Walter Adams, "Student Grade and Academic Self-Image--Relation-

ships to College Entrance and Retention," The New York Statistician, Vol. 21, No. 2, November-December 1969, pp. 3-6.

6/ It would seem that the financial variable has been decreasingly relevant for college plans and entrance since the late 1950s. Op. cit., footnote 1. See also Walter Adams, "Financial and Non-financial Factors Affecting Post-High School Plans and Eventuations, 1939-1965," paper presented at the Annual Meeting of the American Statistical Association, New York, August 1969, and published in Proceedings of the American Statistical Association for 1969.

7/ Op. cit., footnote 1.

8/ For a study of determinants of the high school curricular decision, and especially the role of guidance counselling, in a single large "progressive" California high school, see A. V. Cicourel and J. I. Kitsuse, The Educational Decision Makers, Advanced Studies in Sociology Series, The Bobbs-Merrill Company, Indianapolis, Indiana, 1963.

TABLE A

Year of entry into school or college*

	1966	1967	1968	Year of entry n.a.	Total
	No.	No.	No.	No.	No.
Attended a 2-year college only:	109	20	11	8	148
Enrolled, Fall 1968	32	6	3	3	44
Not enrolled, Fall 1968	77	14	8	5	104
Attended a 4-year college only:	385	29	11	5	430
Enrolled, Fall 1968	303	18	11	2	334
Not enrolled, Fall 1968	82	11	-	3	96
Attended a 2-year and then a 4-year college:	46	2	-	-	48
Enrolled, Fall 1968	42	2	-	-	44
Not enrolled, Fall 1968	4	-	-	-	4
Attended a 4-year and then a 2-year college:	21	1	2	-	24
Enrolled, Fall 1968	16	-	2	-	18
Not enrolled, Fall 1968	5	1	-	-	6
Attended a college and then a non-collegiate school:	12	-	-	-	12
Enrolled, Fall 1968	9	-	-	-	9
Not enrolled, Fall 1968	3	-	-	-	3
Attended a college, type n.a.:	n.a.	n.a.	n.a.	16	16
Enrolled, Fall 1968	n.a.	n.a.	n.a.	5	5
Not enrolled, Fall 1968	n.a.	n.a.	n.a.	11	11
Attended a non-collegiate school only:	34	1	3	6	44
Enrolled, Fall 1968	7	-	2	2	11
Not enrolled, Fall 1968	27	1	1	4	33
All school and college entrants**:	607	53	27	19	706
Enrolled, Fall 1968	409	26	18	7	460
Not enrolled, Fall 1968	198	27	9	12	246
Graduated from high school, no further schooling					549
Did not graduate from high school					62
All with no post-high school training					611
TOTAL SAMPLE					1,333

*Entry into initial or only school or college.
**Excludes "attended a college, type n.a."

Explanatory note for Table A: In Table A we present detailed post-high school behavior patterns, including the small groups of students who attended several types of institutions. Given the fact that there were too few of the latter students for statistically significant findings, in our analysis we incorporated these students with ones who attended a single type of school, 2-year or 4-year. We categorized students who attended two types of colleges by the type of school they eventually reached. The rationale was that it is the last college entered that is the relevant one for dropout or continuation.

Since all except four of the 48 students who transferred from 2- to 4-year schools (and who were classified as 4-year rather than 2-year students in our analysis) were still enrolled in college in Fall 1968, the net effect was to raise somewhat the apparent incidence of 2-year college dropout. If these transfer students are considered 2-year college students, 2-year college dropout is 55%, but if they are considered 4-year students, 2-year dropout is 64%, the figure we use in the text of the present article. Transfers from 4- to 2-year colleges are infrequent, and however they are classified have little effect upon dropout rates.

TABLE B

Post-high school behavior of 1965-1966 high school seniors who graduated from high school, a

Academic characteristics	All high school graduates		Post-high school behavior: All college entrants	All college non-entrants	All college entrants	4-year college*	2-year college**	All college entrants	Cont'd
	No.	%	%	%	No.	%	%	No.	%	%
High school curriculum:										
College prep.	599	100	84	16	501	100	81	19	501	100	74
All other	637	100	24	76	153	100	50	50	153	100	41
All curr.	1236	100	53	47	654	100	74	26	654	100	67
Chi square	p=<.001				p=<.001				p=<.001		
Relative brightness in high school:										
Above average	505	100	75	25	380	100	83	17	380	100	76
Av. or below	741	100	37	63	277	100	61	39	273	100	55
All levels	1246	100	53	47	657	100	74	26	653	100	67
Chi square	p=<.001				p=<.001				p=<.001		
Average grade in high school:										
A or B	546	100	62	38	340	100	87	13	340	100	77
Less than B	701	100	46	54	319	100	60	40	319	100	55
All grades	1247	100	53	47	659	100	74	26	659	100	67
Chi square	p= .001				p=<.001				p=<.001		

TABLE B

who graduated from high school, as of Fall 1963, by academic characteristics of senior

Post-high school behavior

ar ge*	2-year college**	All college entrants		Cont'd	Dropped	All 4-year entrants*		Cont'd	Dropped	All 2-year entrants**		Cont'd	Dropped
	%	No.	%	%	%	No.	%	%	%	No.	%	%	%
1	19	501	100	74	26	405	100	81	19	96	100	45	55
0	50	153	100	41	59	77	100	57	43	76	100	25	75
4	26	654	100	67	33	482	100	77	23	~~172~~ 172	100	36	64
		p=<.001				p=<.001				p=<.01			
3	17	380	100	76	24	317	100	84	16	63	100	38	62
1	39	273	100	55	45	169	100	66	34	108	100	35	65
4	26	653	100	67	33	486	100	77	23	171	100	36	64
		p=<.001				p=<.001				Not significant, no clear direction			
7	13	340	100	77	23	296	100	84	16	44	100	34	66
0	40	319	100	55	45	191	100	68	32	128	100	37	63
4	26	659	100	67	33	487	100	77	23	172	100	36	64
		p=<.001				p=<.001				Not significant, no clear direction			

TABLE B (continu

Academic characteristics	All high school graduates		All college entrants	All college non-entrants	Post-high school be						
					All college entrants		4-year college*	2-year college**	All college entrants		Co
	No.	%	%	%	No.	%	%	%	No.	%	%
Relative brightness in college:											
Above average					224	100	81	19	224	100	8
Av. or below					431	100	70	30	431	100	6
	Not applicable				655	100	74	26	655	100	6
Chi square					p=<.01				p=<.001		
Average grade in college:											
A or B					284	100	81	19	284	100	8
Less than B					362	100	70	30	362	100	7
All grades	Not applicable				646	100	74	26	646	100	6
Chi square					p=<.01				p=<.001		

*Includes students who attended a 4-year college only and those who t

**Includes students who attended a 2-year college only and those who t

TABLE B (continued)

Post-high school behavior

ear lege* %	2-year college** %	All college entrants No.	%	Cont'd %	Dropped %	All 4-year entrants* No.	%	Cont'd %	Dropped %	All 2-year entrants** No.	%	Cont'd %	Dropped %
81	19	224	100	80	20	182	100	89	11	42	100	40	60
70	30	431	100	60	40	303	100	71	29	128	100	35	65
74	26	655	100	67	33	485	100	78	22	170	100	36	64
		p=<.001				p=<.001				Not significant, no clear direction			
81	19	284	100	80	20	229	100	89	11	55	100	40	60
70	30	362	100	58	42	252	100	68	32	110	100	36	64
74	26	646	100	68	32	481	100	78	22	165	100	38	62
		p=<.001				p=<.001				Not significant, no clear direction			

ar college only and those who transferred to a 4-year college from a 2-year one.

ar college only and those who transferred to a 2-year college from a 4-year one.

TABLE C

Post-high school behavior of 1965-66 high school seniors who graduated from high school,

Socio-economic characteristics	All high school graduates		All college entrants	All college non-entrants	All college entrants		4-year college*	2-year college**	All college entrants		Con
	No.	%	%	%	No.	%	%	%	No.	%	
Respondent's family income:											
$7500 & over	547	100	65	35	358	100	75	25	358	100	
Under $7500	615	100	40	60	246	100	73	27	246	100	
All incomes	1162	100	52	48	604	100	74	26	604	100	
Chi square		p=<.001			Not significant, no clear direction					p=<.05	
Occupation of head of household:											
White collar	495	100	69	31	340	100	81	19	340	100	
All other	746	100	42	58	314	100	66	34	314	100	
All occupations	1241	100	53	47	654	100	~~77~~ 74	26	654	100	
Chi square		p=<.001				p=<.001				p=<.001	
Father's education:											
College grad.	147	100	86	14	125	100	86	14	125	100	
Some college	134	100	72	28	97	100	69	31	97	100	
H.S. grad.	338	100	59	41	199	100	74	26	199	100	
Less than H.S. grad.	507	100	35	65	178	100	66	34	178	100	
All levels	1126	100	53	47	599	100	74	26	599	100	
Chi square		p=<.001				p=<.001				p=<.001	

Post-high school behavior

*Includes students who attended a 4-year college only and those who transferred to a 4-
**Includes students who attended a 2-year college only and those who transferred to a 2-

TABLE C

o graduated from high school, as of late Fall 1968, by socio-economic characteristics of senior

Post-high school behavior

ar ege* %	2-year college** %	All college entrants No.	%	Cont'd %	Dropped %	All 4-year entrants* No.	%	Cont'd %	Dropped %	All 2-year entrants** No.	%	Cont'd %	Dropped %
75	25	358	100	69	31	268	100	79	21	90	100	39	61
73	27	246	100	60	40	179	100	73	27	67	100	25	75
74	26	604	100	66	34	447	100	75	25	157	100	33	67
t, no clear tion			p=<.05			Not significant, in expected direction				Almost .05, in expected direction			
81	19	340	100	75	25	274	100	83	17	66	100	42	58
66	34	314	100	57	43	208	100	70	30	106	100	32	68
74	26	654	100	67	33	482	100	77	23	172	100	36	64
			p=<.001				p=<.001			Not significant, in expected direction			
86	14	125	100	82	18	108	100	86	14	17	100	59	41
69	31	97	100	63	37	67	100	72	28	30	100	43	57
74	26	199	100	64	36	147	100	76	24	52	100	29	71
66	34	178	100	56	44	118	100	71	29	60	100	28	72
74	26	599	100	65	35	440	100	77	23	159	100	35	65
			p=<.001				p=<.05			Not significant, in expected direction			

l those who transferred to a 4-year college from a 2-year one.
l those who transferred to a 2-year college from a 4-year one.