Limits of Theory and Practice in Student Attrition
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Source: *The Journal of Higher Education,* Vol. 53, No. 6 (Nov. - Dec., 1982), pp. 687-700
Published by: Ohio State University Press
Stable URL: http://www.jstor.org/stable/1981525
Accessed: 11/08/2011 08:25

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The field of student attrition has grown tremendously over the past two decades. The demographic characteristics of the population have induced us to consider how our institutions can more effectively serve their students and hopefully retain more of them until degree completion. As a result, studies of dropout and policy-oriented workshops concerned with prevention of attrition have become commonplace.

But as researchers and planners rush into the fray armed with increasingly more sophisticated tools for the study and treatment of student attrition, we should pause to consider the limits on our ability to understand and treat it. We should give thought to just how far and in what directions we should stretch our existing models of dropout. Despite recent progress, there remain a number of important areas of inquiry that have yet to be adequately explored in our attempts to understand the complex character of student disengagement. So too in the realm of action, it would be wise for us to examine the forces that constrain the development and implementation of policies designed to improve retention. We must ask how far we should go in seeking to reduce attrition. The question must be posed as to the types of policies that should be implemented to reduce dropout among given types of students in the general student population. There are a variety of dropout behaviors in higher education, not all of which equally merit our attention.

Theories of Dropout: What We Have Yet to Study

Before we can talk about what is needed in the way of theory and research, we need to recognize that there are important limits to current

social theory. Despite great expectations, we have yet to move into the realm of what Merton refers to as "grand theory." We remain in the middle range where our theoretical models serve to explain only a portion of the wide range of behaviors that constitute the universe of social interactions. This is the case whether we refer to disengagement behaviors in higher education or to other domains of social behavior in or out of schools.

Referring to my own model of dropout [20] as a case in point, what we took to be self-evident in its development has apparently proven not to be; namely, that the model was developed to explain certain, not all, modes or facets of dropout behavior that may occur in particular types of higher educational settings. It was primarily concerned with accounting for the differences, *within* academic institutions, between dropout as academic failure and as voluntary withdrawal. In so doing the model sought to highlight the complex manner in which social interactions within the formal and informal academic and social systems of the institution impinge upon student dropout. Although it took account of the attributes, skills, abilities, commitments, and value orientations of entering students, the model did not focus directly on those characteristics other than as they interfaced with the collective attributes and orientations of the academic and social systems of the institution in which individuals experience their educational careers. Nor did the model seek to directly address the impact of financial press or other forces external to the institution's immediate environment (e.g., external peer groups in an urban environment). Rather it sought to focus attention upon the impact the institution itself has, in both its formal and informal manifestations, upon the dropout behaviors of its own students. Although the model recognized the obvious fact that many students leave because of unwillingness to attend to the demands of higher education, it attempted to ask how institutions themselves are at least partially responsible for the dropout they now seek to remedy. By inference it posed the policy question of how institutions can change themselves to reduce that attrition.

To point this out is simply to recognize that current theory cannot do or explain everything. One must make often difficult choices as to what is to be explained. Researchers must also decide whether to strive for maximizing a model's ability to statistically account for variation in behaviors or its ability to clearly explain the origins of particular types of disengagement behaviors. The two are frequently mutually exclusive. Attempts to greatly increase a model's explanation of variance—for instance, through the inclusion of large numbers of variables [1]—often result in comparable loss in clarity of explanation. Given the limits of current theory, we

should not be surprised or chagrined when our models fail to account for a very large proportion of the statistical variance in measured dropout behaviors. Within reason, models such as my own and others [2, 3, 15] were not designed to account for all variations in student leaving behaviors. Rather they were designed to highlight in the clearest explanatory terms specific types of relationships between individuals and institutions that may account for particular types of dropout behavior.

Recognizing theoretical limits should not, however, constrain us from seeking to improve our existing models or replace them with better ones. Nor should it hinder us from exploring areas of inquiry not yet adequately studied. There are a number of ways in which existing theories can be improved and several very important questions regarding the character of dropout that have yet to be fully considered. As to my own model of student disengagement from higher education, several obvious shortcomings should be noted. First, the model does not give sufficient emphasis to the role of finances in student decisions concerning higher educational persistence. Second, it does not adequately distinguish between those behaviors that lead to institutional transfer and those that result in permanent withdrawal from higher education. Third, it fails to highlight the important differences in education careers that mark the experiences of students of different gender, race, and social status backgrounds. Finally, it is not very sensitive to forms of disengagement that occur within the two-year college sector.

The Role of Finances in Student Disengagement

It seems self-evident that finances can be critically important to individual higher educational careers; but their effect on dropout can be long-term or short-term and direct or indirect in nature. Much of the impact of finances occurs at the point of entry into the higher educational system [5, 6, 13]. They influence decisions as to attendance per se and serve thereafter to mold choices as to the specific institution into which initial entry is gained. In this manner the effect of finances upon dropout may be long-term and indirect in character as it may induce persons to enter institutions that may increase or decrease the likelihood of their dropping out of college.

Beyond entry, finances may influence dropout directly through short-term fluctuations in financial need. Such effects occur, however, at the margin of decision making and are only part of the general weighting of the costs and benefits of higher educational attendance [13]. Although there undoubtedly are many students for whom finances are central to continuance (e.g., those from economically disadvantaged backgrounds),

for most students the question of financial costs occurs within the broader context of costs generally and the character of their educational experiences within a specific institution in particular. When students' experiences are positive, they are more likely to accept greater financial burdens in order to continue attendance than when experiences are unsatisfactory. Although students will frequently cite financial concerns as reasons for their departure, these will often reflect the end product rather than the origin of the decision to drop out.

It is also the case that financial needs will have a greater impact upon dropout early in the educational career when the degree goal is still quite distant, rather than when completion is only a semester or two away. As one approaches the completion of the college degree, the costs of that completion decline relative to the potential benefits. Past costs are dismissed from subsequent decisions regarding persistence.

All this is simply to suggest that researchers carefully fine-tune their models of dropout to take account of the different decision points at which finances may influence persistence. They must be aware that finances are but one component of a much larger matrix of factors that affect a person's determination of the total costs and benefits of continued attendance. Decisions regarding continuance or disengagement also mirror individual perceptions as to the relative costs and benefits of other forms of activities, education or otherwise, in which the individual may also participate.

Dropout as Transfer between Institutions

The inclusion of relative costs among institutions may also help us to determine how transfer behaviors differ from those that result in permanent withdrawal from higher education. It is here that our prior theoretical work has been so lacking. Although our current models can be extended to deal with transfer from the institutional perspective, they are not suited to the study of transfer from the system point of view. While we can conceivably modify our institutional models to distinguish between those forces that lead persons to leave one institution for another from those that result in permanent withdrawal, we have yet to develop system-wide models that would permit us to examine the variety of interinstitutional transfers that occur in higher education. What are needed are models of student interinstitutional movement that would permit the assessment of the comparative interactive effects of differing institutional and system attributes upon the decisions of individuals to persist at a given institution, to transfer within state to other institutions of varying kinds, to transfer out-of-state, or to leave higher education altogether.

At the moment no models exist for this purpose. Nevertheless, there are theoretical models that have been employed in analogous situations that may guide our efforts in the study of dropout. For instance, models of migration have been developed to study the interplay of "push" and "pull" factors that lead to individual migration [12, 14]. In the educational context such models may allow us to assess the interactive effects of external educational opportunities (pull) upon the dropout/transfer decisions of persons currently experiencing higher education in specific institutional settings (push). One could also refer to existing theories of labor mobility, theories that call attention to the role of wage and work opportunities in the movement of persons between places of work [4]. Since finances in the higher educational context have the equivalent meaning of wages in the labor setting, models employed in the latter area may be useful guides for our thinking. Such analogues may be especially valuable at the state and national levels where relative cost structures can be utilized to influence the flow of students between and within the public and private sectors of the higher educational system.

Dropout among Different Groups of Students

It is also clear that we have yet to give sufficient attention to the development of group-specific models of student disengagement. We need to know to what degree and in what fashion the process of dropping out differs among persons of different gender, race, age, and social status backgrounds. As demonstrated by numerous studies of educational and occupational achievement, the attainment process of blacks and females can differ substantially from those of whites and males [12, 16]. From the point of theory and method, these differences are such as to require separate analyses of group-specific behaviors and therefore separate models of student behavior. It is, for example, insufficient to include race and gender as two variables in a regression equation as a means of studying the racial and sexual character of dropout. Such inclusions do not capture the multitude of quantitative and qualitative differences in effect and interaction terms that race and gender produce in individual behavior. As a result, aggregate models of dropout tend to underestimate and even distort the character of dropout among various groups of students, especially those from disadvantaged backgrounds.

In seeking to develop group-specific models of dropout, researchers would be well advised to review the extensive literature on the educational and occupational attainment of different groups and on the impact of compensatory educational programs on the careers of minority students. Regarding the former, it is becoming increasingly evident that

value orientations and social skills are central to the success of individuals from minority backgrounds [12]. Regarding the latter, it is apparent that effective programs are those that are able to integrate individuals into the mainstream of the academic and social life of the institution in which those programs are housed [19]. Individuals or programs that are marginal are rarely successful. The concept of "integration" as an essential element in educational persistence seems to apply equally well to individuals and to programs that serve individuals [20].

Work on group-specific models of dropout can have important policy implications. Studies of dropout among specific groups of students, especially among the disadvantaged, may aid in the development of institution and system policies designed and targeted to assist the educational continuance of particular subpopulations within the student body. As currently constituted, our models do not permit the fine-tuning of attention and therefore are not as policy relevant as they might otherwise be.

Other Issues in the Study of Student Disengagement

Other areas in need of further study should also be noted here. These pertain to the character of attrition among two-year colleges, the study of the variable character of dropout over time, and the comparative analysis of attrition among different institutions. Regarding the latter, although our current models have proven to be of some value in understanding institutional-specific roots of dropout [7, 9, 10, 11], we have yet to determine the relative effect of different institutional attributes upon those behaviors. Nor have we been able to assess for which groups of students such effects may be greatest or smallest. For instance, we could and should explore to what degree varying dropout behaviors among differing groups of students are influenced by various models of academic organization, forms of social organization, modes of informal organization relating students and faculty, and patterns of financial aid packaging. While the slow accumulation of studies of attrition at individual institutions will aid us in this inquiry, they are insufficient for the task at hand. What is required are sets of carefully matched multi-institutional studies in which institutions and individuals are sampled in specific ways to highlight particular types of comparisons (e.g., dropout of minority students in black versus white institutions).

Comparative studies need to also take account of the longitudinal character of dropout. Although this appears to be self-evident in most studies, we have yet to ask to what degree different types of dropout behavior vary over time. Past studies of dropout, with very few exceptions, have taken a quite limited time perspective. Most often they consider only two points

in time: the point of entry, and some later time when dropout or persistence is determined [18]. Yet we have reasons to believe that the forces that lead to dropout in the early stages of the academic career can be quite different from those that influence dropout later, and these may differ for different types of students. At best our current efforts provide but a very rough measure of the influence of varying factors upon dropout behavior without indicating the process by which they lead to dropout over time.

However structured, our analyses of attrition should also be broad enough to encompass the forms of dropout that take place within the two-year sector. These are more likely to take the form of attendance for very limited periods of time for quite limited goals (e.g., in order to boost skills in a specific area related to work) and lead to transfer to four-year institutions. Although my own model can be easily modified to take account of these dropout behaviors (which are not perceived of as dropout from the individual's perspective), it is not readily suited to the study of attrition at commuting institutions where forms of institutional communities are tenuous at best. The notions of academic and social integration are not as appropriate in these settings as in four-year residential institutions where those communities are essential elements of individuals' educational experiences.

Policies on Dropout: The Limits of Practice

However refined we become in the study of student disengagement from higher education, the question remains as to what we should reasonably expect of our ability to reduce dropout both at the national and institutional levels of practice. As we rush into the field ready to do battle with the problem of attrition, we need to pause and consider some very simple yet revealing facts about the character of dropout in higher education over time.

The Problem of Dropout at the National Level

The unavoidable fact is that dropout and persistence are both reflections of the functioning of the higher educational system. As a national phenomenon, attrition has been a surprisingly stable feature of the higher educational enterprise. It is unlikely to be significantly altered without some massive changes in both the structure and functioning of higher education in the United States.

To make this point, let us consider some rather straightforward data on the aggregate rates of degree completion (and therefore dropout) in postsecondary schooling in America over the past 100 years. Figure 1
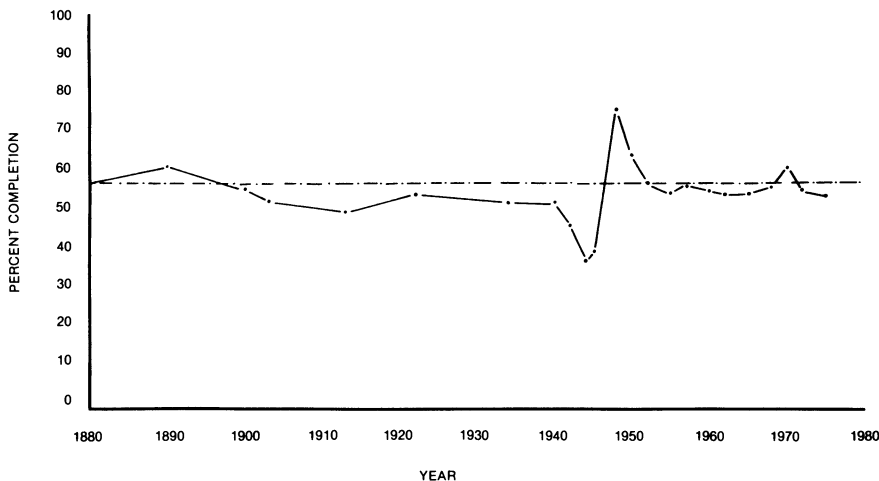
FIG. 1. BA Completion Rates in Higher Education, 1880–1980 (with Estimated Regression Line), Where: Percent Completion = No. of BAs or First Professional Degrees/ No. of First-time Degree Enrollment Four Years Earlier

provides data on the overall rates of first degree completion of students in higher education since 1880. Degree completion rates are calculated by the ratio of the number of BAs or first professional degrees given in any year to the number of first-time degree enrollments four years earlier.[1]

It is quite evident that rates of dropout from higher education have remained strikingly constant over the past 100 years. With the exception of the period during and immediately following World War II when the GI Bill was in effect, rates of dropout have remained at about 45 percent;[2] and it has remained stable despite the marked growth and alteration in the character of the higher educational system. Since 1880 higher education has grown from a very loose-knit agglomeration of largely private colleges enrolling less than eighty thousand first-time students to a massive "system" of predominantly public institutions enrolling nearly two million first-time degree students, approximately half of whom enter via the

[1]The time-span of four years (or five years) is arbitrary. Its choice has no effect upon the question of stability. A choice of five years may lead to somewhat lower estimate of dropout rates without altering its time-dependent variations. For periods prior to 1930, some estimation of completion rates are involved.

[2]These data, during the period 1940–50, reflect the combined impact of World War II and the GI Bill upon higher education. After an understandable decline in completion rates during the war, large numbers of veterans apparently took advantage of the GI Bill to reenter higher education after the war. Interestingly, the average rate of completion over that period is about 52 percent or nearly the same as for periods before and after the war years. Thus, one can posit that the GI Bill served primarily to assist persons to complete programs interrupted by the war and did not influence individuals to enter anew.

two-year sector. And whereas public intervention in education was less significant at the turn of the century, over the past several decades we have witnessed the investment of literally billions of dollars in educational programs designed to enhance the likelihood that individuals would enter and persist within the higher educational system.

Besides raising questions as to the efficacy of past educational programs, these data suggest that we should be much more conservative in our projections regarding our ability to significantly reduce dropout in higher education at the national level.[3] It seems unlikely that we will be able to greatly reduce dropout without some very massive and far-reaching changes in the higher educational system, changes that go beyond the mere surface restructuring and institutional differentiation that has marked past higher educational changes.

I am not advocating that we should so alter our higher educational system, only that we have to face that possibility if we seek to substantially reduce dropout. There is much to be said for a system of education, not schooling, that serves to distinguish between those with the competence or interest, motivation, and drive to finish given courses of study and those who, for a variety of reasons, do not or simply will not seek to complete their programs. This is not to say that we should not seek out and eliminate whenever possible instances of unjust application of standards—quite the contrary. Nevertheless, there is some value to being discriminating in our educational judgments without being discriminatory in the manner in which we make them. And as long as we are so discriminating, there will be dropout in higher education.

It could also be observed that any cultural good, of which higher education is surely one, will always appeal to only a portion of the population of eligible individuals. In a society as culturally heterogeneous as our own, one should expect that appeal to mirror that diversity even in the absence of social constraints. Although it is conceivable that we could make higher education appealing to all who enter, I strongly suspect that in doing so we would make that education of little value to anyone who obtains it. One is tempted to point out that although we have attempted to do precisely this in secondary schooling, the high school dropout rate has leveled off and remained stable at approximately 23 percent of the age

[3]This is not to say that certain subgroups of the population have not benefited from those programs. Quite the contrary. A number of minority groups, most noticeably black Americans, have shown marked improvements in the rates of entry to and completion of higher educational programs. Nevertheless, for the entire population—that is for all groups considered together—there has been no significant alteration in rates of college completion. The obvious then follows, namely, that rates of completion for some groups have actually declined somewhat over the past decade.

cohort over the past twenty-five years. In the process, as some observers complain, we have weakened the quality of that schooling to a point where minimum standards are now being applied as a requirement of graduation.

There is very little one can do at the national level to substantially reduce dropout from higher education without also altering the character of that education. Of course, we can and should act to reduce dropout among certain subgroups of the population where evidence supports the claim that those groups are being unjustly constrained from the completion of higher education. Thus the need, noted earlier, for group-specific studies of student disengagement from higher education.

The Problem of Dropout at the Institutional Level

Discussion of the stability and permanence of dropout at the national level does not rule out the possibility that individual institutions can do much to influence the rate of dropout among their own students. It is obvious that institutions can and should, within reason, seek to increase the likelihood that persons who enter the institution can, if they so wish, complete their degree programs within a reasonable period of time. But here too there are limits.

People enter institutions of higher education with a great variety of interests, skills, values, and commitments to the goals of higher education and to the specific institution into which entry is gained. It is not elitist to recognize that not all those who enter are equally equipped either in skills (academic, social, or otherwise) and/or intellectual capacities to finish a given course of study. Nor are all students with given abilities and skills equally interested in, committed to, and/or motivated to finish a course of study once begun. Some students simply do not care enough to finish their college degree programs.

It is apparent—to this observer at least—that not all of these naturally occurring differences, which understandably influence the likelihood of college completion, should be objects of our concern and therefore targets of institutional policy. Although we may be justified in trying to complement the skills of some individuals who, because of prior experiences, are not adequately prepared for college work, one should question the wisdom of becoming significantly involved in attempting to modify peoples' value orientations as to the worth of higher education. The simple fact is that higher education of any form is not for everyone, even among those who enter the higher educational system. However constructed, there will always be some portion of entering students who soon discover that higher education is not for them either in general or in the particular

institution into which initial entry occurs. This is a discovery which is, for a number of students, in their own best interests. Attempts to broaden the appeal of higher education which results in a diminishment of quality will only lead to driving out the more able and perceptive students who come to realize the diminished worth of the offerings. At the expense of losing some students, we are probably better served by improving the quality of our educational offerings. In the long-run, it is program quality, rather than general appeal, which is the key to their effectiveness.

The proper question is not whether we can or should strive to reduce dropout; rather, one should ask for which types of students should specific policies be developed. Besides able persons of disadvantaged backgrounds, the proper object of our concern should be students who enter the institution with the skills, abilities, interests, and commitment to complete a given program of study. Among such students, one finds that they are more likely to withdraw voluntarily than fail academically and to transfer to another institution rather than leave higher education altogether. Not infrequently one also finds that such persons are somewhat more able and creative than the majority of students who stay behind [20]. For many institutions, voluntary withdrawal represents a form of "brain drain"—a situation which is hardly desirable, especially for those institutions seeking to better themselves.

As to the causes of leaving, evidence continues to mount that students' decisions to withdraw are significantly affected by the degree of their intellectual and social integration into the life of the institution [7, 11]. And of the various factors which appear to influence those forms of integration, informal interaction with other students and with the faculty outside the classroom seem to be particularly important [9, 10, 22]. Simply put, the more time faculty give to their students, and students to each other, the more likely are students to complete their education. Both academically and socially, such informal contacts appear to be essential components in the process of social and intellectual development of individuals and in the rewards they seek in entering higher education.

The policy implications of such research findings appear quite clear—namely that institutions should encourage those contacts whenever and wherever possible. In several respects this involves nothing more than what common sense would tell us, that is, that the more effort institutions put into the education, not merely schooling, of their students, the more they will retain. What is required, however, is not only the simple inducing of faculty to be more available to their students. Institutions also need to structure and regularize student-faculty interactions so that the less aggressive students will also come into contact with other students and

faculty. The use of living-in centers and informal teas and dinners where faculty come to student dining halls are possible avenues to heightened student-faculty interaction. The construction and planned utilization of university student centers for this purpose and for the housing of lecture series is one way of both regularizing and centralizing both social and academic interactions between students and faculty. However, one should not forget a few of the more mundane interventions: organizing classes so that faculty rather than teaching assistants teach students in settings more amenable to personal contact (e.g., smaller units) and providing consistent and frequent advisement, especially in the first year [8].

There are other less direct approaches to the problem of attrition, especially among the broader student population. Since it is the case that dropout is highest in the first year of college and often involves students who discover that their expectations about the academic and social life of the institution were quite unrealistic, there is much to be gained from having institutions present or market themselves in more realistic and accurate ways. Several recent changes in marketing strategies have apparently had considerable impact upon student attrition in the first year of college [21]. It also appears desirable for institutions to invite incoming freshmen to visit the institution not only to meet the faculty but also to meet future peers. The social trauma of moving from the relatively secure social environment of a local high school to that of an unknown and possibly distant college environment can be lessened considerably.

All this does not mean that institutions of higher education can totally eliminate dropout. It would be foolhardy and counterproductive to believe that this is possible. Rather, it does imply that institutions can act to reduce, within reason, dropout among certain groups of students in the general student population. The difficult question, of course, is the net cost and benefit of such efforts. In pondering this question, one should note that those institutions that act to improve the total quality of their educational activities are more likely not only to retain more of their abler students but also to attract a greater share of students during the next two decades.

Concluding Comments

There is much we have yet to do in the study of attrition in higher education. In both theory and research we are just beginning to map out the domain of student persistence and withdrawal from institutions of higher education. As a result we should not be discouraged when our

existing models prove insufficient to the task of accounting for the variety of dropout behaviors which take place in the great diversity of settings that characterize higher education in the United States. As we do more, we will learn more. And as we learn more, our models will become increasingly more effective in pinpointing the multiple roots of student disengagement from higher education.

In the meantime, we have sufficient evidence to suggest that certain policy initiatives can be effective, within reason, in dealing with particular forms of dropout among specific subpopulations within higher education. But in saying this, we need to also recognize that there are deep-rooted limits to what we can do to reduce dropout both at the national and institutional levels of practice. The unavoidable fact is that dropout is as much a reflection of the merits (and weaknesses) of the educational system as is persistence. As a result, we need ask not whether we should eliminate dropout (since that is not possible) but for which types of students in which types of settings we should act to reduce it. At the same time, since much of dropout is student transfer among institutions, we need to also consider to what degree we should encourage those movements as a means of more finely tuning the higher educational system to better meet student needs.

However constructed or designed, no program to reduce attrition is better than its implementation and management within the institution. It is one thing to conceive of, even design, an institutional retention effort; it is another to implement and manage one within the often rigid maze of institutional structures. Here several concluding observations are called for. First, successful retention programs are most frequently longitudinal in character. Second, they are almost always integrally tied into the admission process. Third, their implementation generally involves a wide range of institutional actors. Not infrequently, successful retention programs become opportunities for institutional self-renewal, an outcome which, in the long-run, may be more beneficial to the institution's well-being than the simple reduction of dropout rates.

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