

SPECIAL FEATURES/CONTRIBUTIONS SPÉCIALES

# Paying the Cost: Some Observations on the Problem of Postsecondary Student Attrition

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## INTRODUCTION

Student attrition has been an area of primary concern to university administrators for some time. Research indicates that attrition rates in the U.S. and Canada are quite high. Assessments show that rates for American universities have persisted at the 50% level during the first half of the 20th century and that these rates are holding constant at present (Terenzini & Pascarella, 1977; Pantages & Creedon, 1978; Tinto, 1982). A recent review of Canadian research on voluntary withdrawal suggests that the problem is no less severe in our universities (Pascal & Kanowich, 1979).

Attrition is not an insignificant problem given its magnitude and the costs incurred by students, by universities, and by society. Students who withdraw may suffer losses in three forms: 1) funds paid out for fees and residence, 2) employment earnings forgone as a consequence of inadequate certification, and 3) the potential acquisition of the negative self concept traditionally associated with failure to achieve. Financial losses are experienced by universities through the high initial admission costs and through the expenditures related to the planning and operation of programs for students who cease to attend. Finally, high dropout rates undermine the public's faith that universities can adequately meet the intellectual and vocational needs of their clientele (Pascal & Kanowich, 1979).

To remedy these problems, researchers have advocated the creation, refinement, and initiation of intervention programs designed to promote the retention of those who might, left to their own devices, drop out. Given existing constraints, it is important to carefully consider the extent to which strategies to reduce attrition can be effectively implemented. In reflecting upon this issue, recent research on student attrition is reviewed and factors relevant to the development and implementation of policies to improve retention are discussed.

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## A SELECTIVE REVIEW OF THE LITERATURE

Recent efforts in the study of attrition have been directed toward the construction of theoretical models (Spady, 1970; Tinto, 1975) and toward their testing, reformulation, and retesting (Spady, 1971; Terenzini & Pascarella, 1977; Bean, 1980; Pascarella & Terenzini, 1980, 1983; Munro, 1981; Pascarella, Duby, Miller, & Rasher, 1981; Aitken, 1982; Pascarella & Chapman, 1983(a), 1983(b); Pascarella, Duby, & Iverson, 1983).

The basic model is based upon the conception that the degree of fit between the student and the institutional environment is the crucial element in accounting for persistence or withdrawal. The student is viewed as coming to the institution possessing a variety of traits (ethnicity, secondary school achievement, academic aptitude, family support, financial status, etc.). These traits are seen as affecting the students' levels of initial commitments both to the goal of graduation and to the particular institution attended. Background traits and initial commitments are then perceived to affect academic and social interaction and subsequently to have impact upon the student's academic and social integration within the institution. The greater the degrees of social and academic integration, the greater are the resultant commitments to graduation and to the specific institution and consequently, the less likely the student is to withdraw (Tinto, 1975).

Test results from both commuter and residential universities generally confirm the utility of the model although the percentages of variance explained tend to be rather low (14%-20%) (Pascarella & Terenzini, 1980; Munro, 1981; Pascarella & Chapman, 1983(a)).

(1) *exogenous variables* Background characteristics (age, sex, parental education, family SES, ethnicity) explain only a small proportion of the variance in attrition. For residential samples, the effects of student characteristics are largely indirect mediated by college experience. For commuter students, background traits, in particular sex and academic aptitude, play a more direct role in accounting for withdrawal. College experience for commuters is a relatively powerless mediating force (Pascarella, Duby, & Iverson, 1983).

(2) *endogenous variables* For residential students particularly, the effects upon attrition of intervening variables (social and academic integration, institutional attachments, and goal commitments) are much stronger. These factors are, however, of lesser importance for the students of commuter institutions in that their involvement with peers and faculty is less than for students in residential institutions (Pascarella & Chapman, 1983(a); Pascarella, Duby & Iverson, 1983; Pascarella & Terenzini, 1983).

Academic integration includes both the extrinsic rewards of grades and the intrinsic rewards associated with a student's self perception of intellectual development. The impact of performance upon attrition is greater in the commuter setting where the effects of low grades are seldom offset by high degrees of social integration (Pascarella, Duby, & Iverson, 1983). Importantly, while low grades are somewhat predictive of attrition, the attainment of high grades by no means provides an assurance of persistence (Pantages & Creedon, 1978).

Social integration is viewed as a function of both formal and informal interaction with peers, and more importantly, with faculty. In particular, the importance of the impacts of faculty in both teaching and non-teaching roles upon the student both cognitively and affectively has been emphasized as crucial in the formation of decisions to withdraw or to persist (Pascarella & Terenzini, 1980; Tinto, 1982).

Most recently, a measure of intention to persist or to withdraw has been incorporated into the attrition model. The effects of initial intentions to remain at a particular institution or to leave it are strong and operate both directly and indirectly through their influence on institutional commitment (Bean, 1980; Pascarella, Duby, & Iverson, 1983).

In summary, pre-enrolment traits are found to be less important in explaining withdrawal decisions than are post-enrolment experiences. In addition, these background variables are not particularly amenable to manipulation for the achievement of policy goals. The intervening institutional variables explain more variance and are more readily altered. Consequently, institutional responsibility for student attrition has been highlighted in the search for policy alternatives which might increase retention. However, while institutional innovations may be possible in theory, their implementation may be less easily accomplished in reality.

### POLICY IMPLICATIONS

Strategies for improving retention which emerge from the research generally involve taking into account either background traits or institutional characteristics. The first tactic, which emphasizes background traits, has two variants. Once salient predictors of dropout are identified, students may, on the basis of their particular configuration of characteristics, be rejected for admission in the first place or 2) once admitted, they may be channelled into remediation programs designed to promote their retention.

Admission of only a "low risk" subpopulation of applicants is problematic in at least two respects. Where the selection criteria include two of the best predictors, high achievement and sex, they are likely to be interpreted by some groups as evidence of elitism or gender discrimination. With faculty, students, the media, and some segments of the public having already expressed to provincial governments their grave concerns over the issue of accessibility, adding to this furore might prove unacceptable. The introduction of remedial programs for those admitted and subsequently tagged 'at risk' is perhaps a more viable tactic but shares with the selection strategy the problem that differences between persisters and those who withdraw are not definitive. Pre-enrolment characteristics, the research indicates, explain only small proportions of variance in attrition and hence, programs based upon their identification might only minimally reduce dropout rates. Both variants of the identification strategy, however, do have certain advantages over the manipulation of institutional variables. Programs screening applicants for admission and/or providing remediation in the form of

orientation, counselling, and the like are likely to be comparatively less expensive and to meet with less institutional resistance upon implementation.

Research has highlighted two closely related areas in which institutional change might effectively reduce attrition – quality of education and faculty-student interaction. Research undertaken by Bean (1980), for example, demonstrates that a student's perception of the quality of his or her education has a significant impact upon commitment to a particular institution. Improvements in the quality of instruction are subsequently called for as means of reducing attrition (Bean, 1980; Tinto, 1982). Specific recommendations include assigning the most effective instructors to courses containing large numbers of first year students (among whom attrition is by far the highest), organizing classes in such a way as to ensure that professors rather than teaching assistants instruct students in settings more conducive to personal contact, and encouraging faculty to provide consistent and frequent advice to students on a formal basis.

Also endorsed are programs which encourage faculty to interact with students regularly on an informal basis. These recommendations include the presentation of lecture series, the creation of student-faculty centres, the organization of special dinners, and the like. In addition, it has been suggested that universities should promote more realistic expectations regarding university life when marketing their programs to potential recruits thus avoiding subsequent disillusionment among many students. Advocated as well are steps to reduce the social trauma experienced by many students in making the leap from the secondary school milieu to the often more impersonal and bureaucratic university frequently located many miles from home.

Improving the quality of faculty-student interaction and concomitantly the quality of education are likely to be neither simple nor inexpensive. Revitalizing existing faculty and recruiting additional faculty for their teaching expertise and interpersonal skills would necessitate a restructuring of faculty reward systems to support an emphasis on teaching. Such undertakings would be both costly and representative of a contravention of long standing academic norms.

## CONCLUSION

There is little doubt that the ranks of those unsuited for postsecondary education have been swelled by the recent mass entry policies adopted by many North American universities. This doctrine promotes the idea that higher education is for everyone. Perhaps it is not. Even among those who meet the basic eligibility requirements, students clearly differ with regard to competence, interest, motivation, and drive to finish. Many of those who drop out may be ill equipped for university in the first place. Perhaps it is in the best interests of the student, the university, and the tax paying public if those unsuited to higher learning are discouraged from continuing provided that distinguishing criteria involve performance factors (skills, interest, motivation, etc.) and not discriminatory mechanisms based upon extra-educational characteristics (class, gender, ethnicity, etc.). Students lacking in ability, interest, and motivation and who drop out as

a consequence need not be the targets of retention programs. The appropriate thrust, as Tinto (1982) points out, should not be aimed at reducing attrition overall but rather at increasing the retention of certain types of students.

Even among those students possessing the academic and social characteristics necessary for degree completion, the dropout rate is substantial. Among those in this group who withdraw are students who are frequently more able and more creative than those who persist. It is this type of student at which efforts to increase retention through academic and social intergration are properly directed. Improvements in the quality of university education might well result in retention of larger numbers of better qualified students. Universities with higher quality programs might also attract a greater share of such students in future years (Tinto, 1982). Altering the nature of the postsecondary educational enterprise along the lines suggested by the attrition research would, in our opinion, represent re-emphasizing the fundamental purposes and intentions of the postsecondary educational enterprise – providing students with the highest quality learning environment possible.

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