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ABSTRACT

Research in the area of student attrition in junior colleges is fairly limited; however, the findings of studies conducted at 4-year colleges, where more extensive research has been done, often have relevance for 2-year colleges. This survey of the literature from both areas points to several student-related and college-related factors that appear to influence discontinuance at junior colleges. The author indicates that recent research reports on student attrition have questioned academic aptitude as a predictor of perseverence in college, and thus other factors are sought to explain who drops out and why. Student-related factors involve an interplay of actual and perceived ability, family and school background, and motivation. College-related factors begin with the student's introduction to the school and depend on his adjustment to faculty, curriculum, and school mores. A closer link between community colleges and secondary schools would be an initial step in decreasing college dropout rates; student personnel programs and instructional preparation are other areas that need improvement. (RC)

THE HALF THAT LEAVES

A Limited Survey of Attrition in Community Colleges

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PREFACE

The following paper on student attrition in community colleges was originally prepared by Hugh J. Turner Jr. in conjunction with a class taught by James L. Wattenbarger on the community college. The bibliographical essay presents the research to date in this area in a form which may be helpful to those concerned with the junior college dropout.

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INTRODUCTION

Slightly over half of the freshmen entering junior colleges in 1966 as full-time students failed to re-enroll in the fall of 1967. Attrition in part-time freshmen was even higher, approaching two-thirds.[1] These rates are similar to those of the earlier years of the decade[2] despite an almost two-fold growth in the public institutions accompanied by intensive efforts to popularize this level of education.

Junior colleges are not alone in this experience. Four-year colleges and universities find, as they have for well over forty years, that half of their starting students do not graduate.[3] But it was partly to relieve and improve this situation that the community college came into being. The fact that it continues to suffer a comparable rate of loss naturally is of deep concern.

In contrast to the senior institutions there seem to be relatively few investigations of the reasons for dropout in the community colleges.[4] Although a vague pattern of information is beginning to emerge from numerous studies of the university predicament, material dealing specifically with the junior college is scanty and consists mainly of institutionally-generated inquiries of limited scope. In view of the great importance of the subject, and since no short overview seems to have been made, a brief survey of public junior college attrition would appear profitable.

A fruitful approach is suggested by the focus of the subject - the discontinuing student[5] himself. Since brevity demands boundaries this paper will be limited to the "who" and the "why" and of necessity will be confined to a sampling of the literature and to the full-time community college population. The latter restriction stems from two propositions, namely: this student presumably is the greatest loss to higher education; and secondly, this part of the student body has attracted more critical attention and appraisal.

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[1]Data taken from totals in Table II, "Summary by States - All Junior Colleges," Junior College Directory, 1968 and 1969, American Association of Junior Colleges, Washington, D. C.

[2]Thornton (1966), p. 155. Table II, Junior College Directory, 1962-64.

[3]Summerskill (1962), p. 631; Knoell (1964), p. 55.

[4]Thornton (1966), p. 155.

[5]Although the literature contains a vast variety of justifiable qualifications and distinctions, for purposes of clarity and simplicity in this paper all terms applying to the student who leaves college without securing a degree will be used synonomously.

THE NON-CONTINUING STUDENT

The more exhaustive studies of the non-continuing student usually have been pointed at problems of the four-year institution.[1] Its enrollees however have distinct differentia as compared with the student body of the public junior college.[2] As a whole, students entering the senior institution are much more carefully selected for academic promise, come from a higher socioeconomic background, and so have apparent advantages for continuing in college. Yet this group too encounters severe losses during the freshman and sophomore years. Since about three-quarters of the community college freshmen embark initially on a transfer program in which they are supposed to receive at least the equivalent of the lower division in the four-year institution, cautious examination of some of the findings on the non-continuer in the higher milieu may prove helpful to an understanding of his counterpart in the public junior college.

The Higher Institution

Investigations of the problem in four-year institutions have centered on two broad avenues of attack, student background and performance before coming to college, and what happens to him after he enters as a freshman. The first of these is of special interest in this section.

Family influences appear to have a predominant effect on whether a student persists. The educational attainment of parents has a decided role, fathers of dropouts being heavily represented among the lower educational groups and the mother's educational level being significantly related to staying in college.[3] Further, persistence is positively associated with family expectations for future success (Knop, 1967; Trent and Medsker, 1968). Somewhat surprisingly, family socioeconomic status is less conclusive with respect to remaining in college.[4] Nevertheless, it

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[1]For examples, see Chase (1965), Iffert (1965), Summerskill (1962), and Trent and Medsker (1968).

[2]See Cooley and Becker (1966), Cross (1968), Hoyt and Mundy (1966).

[3]See Chase (1965), Cross (1968), and Koelsche (1956).

[4]According to Summerskill (1962): "Research findings on this hypothesis are equivocal." Chase (1965) decided that lower socioeconomic origin does not necessarily correlate with discontinuing students. Trent and Medsker (1968) concluded that distinctions between persisters and non-persisters can not be made on the basis of differences in either socioeconomic status or native ability. On the other hand Panos (1967), in his study of 36,405 students entering 246 colleges in 1961, found that lower socioeconomic background was one of the characteristics of students not completing in four years.

seems reasonably clear that personal finances - mainly from parental sources - is one of the three principal factors that affect continuance in college.[1]

Trent and Medsker (1968) offer a succinct differentiation between the dropout and the persister:

> "Persisters were more selective in choosing their colleges and saw more reasons for attending. They studied harder and were less prone to allow social life to interfere with their studies. They tended to be more intellectual, self-reliant, and open-minded before entering college. . .None of these findings could be attributed to differences in ability or socioeconomic status to any major extent. Therefore, a tenable interpretation of the findings is that the persisters entered college with the necessary predispositions, . . ." (p. 126).

Perhaps the soundest predictors of persistence in the senior institution lie with high school performance and size. Several studies have indicated that grades in secondary school are definitely related to college persistence, and there is some evidence that products of larger high schools have an appreciably better chance to graduate from college.[2] While noting certain investigations which show scholastic aptitude tests to be lower for non-continuers, Summerskill (1962) observes that increased selectivity by the higher institutions means that most of their entrants have respectable test scores. He therefore questions[3] whether academic aptitude is a satisfactory predictor of perseverance.

The Community College

Wide-ranging looks at the non-persister are noticeably lacking in the community college literature. True, he has been included in a small number of comprehensive studies covering all college students, such as that by Trent and Medsker (1968), but without distinguishing him in any meaningful way. Some of the characteristics of the disappearing student have, however, been examined independently by a few public junior colleges and a degree of correspondence can be found among them.[4]

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[1]Lack of finances is probably third in importance. See Cowhig (1963), Iffert (1965), Knoell (1964), Panos (1967), and Summerskill (1962).

[2]See Forrest (1967), Gadzella and Bentall (1968), Iffert (1965), Montgomery (1964), and Summerskill (1962).

[3]Gekoski's study (1961), while observing considerable differences between withdrawals and persisters on the scholastic aptitude test, the reading test, and the social adjustment section of the personality test - withdrawals being lower - noted that scores were still sufficiently high that withdrawals could have been expected to succeed under optimum conditions.

[4]Matson (1965) considers institutionally-related research to be more profitable than general studies of dropouts.

While the typical student - and dropout - in the public two-year institution comes from the middle socioeconomic level,[1] Matson (1965) considers this factor as unimportant in a decision to leave college. Aiken (1968), in a more extensive study, could detect no significant demographic features which would discriminate between the continuer and the non-continuer. However, Hughes (1967?)found that those who quit college tend to come from families with about twelve years of schooling and a poor family orientation toward advanced education. Personal commitment to further education seems of great consequence to continuing (Lynch, 1959; Pearce, 1966).

Several studies indicate the disappearing student is more apt to be older and married,[2] and possibly has enrolled more for social than for academic reasons (Hilleary, 1963). The non-continuer appears to be strongly attuned to the world of work and is likely to carry a heavy work load in addition to his college studies.[3] He often has signaled his dissatisfactions through spotty attendance and slow academic progress (Hughes, 1967?).

The worth of measurements of native academic ability is in dispute for the non-persisting community college student. Numerous investigations find him with appreciably lower aptitude scores and grade point average both in high school and in college.[4] Others, however, consider the evidence as inconclusive. Aiken (1968) and Matson (1965) both hold that there is no discernible difference in ability between the continuer and the non-continuer, while Roueche (1967) suggests that aptitude scores are of no value in predicting junior college dropouts. In their comprehensive study Trent and Medsker (1968) agree with Roueche and propose motivation for college as the most evident feature in continuing.

REASONS FOR LEAVING COLLEGE

Many aspects of the college experience have been examined in various attempts to isolate elements contributing to student attrition. Some critics maintain that the insttitution's procedures beginning with the first welcoming session are faulty and generate disillusion and discouragement. Others

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[1]See Cooley and Becker (1966), Cross (1968), and Hakanson (1967).

[2]Hughes (1967?); Aiken (1968). But as Summerskill (1962) stresses: "Results attributing a higher attrition to the older age group should be interpreted with care...The general conclusion to be drawn is that... older undergraduates may encounter more obstacles to graduation." (p.631).

[3]Hilleary (1963); Hughes (1967?); Lynch (1959); Matson (1965).

[4]See Anderson (1967), Cross (1968), Hoyt and Mundy (1966), Lynch (1959), and Sensor (1967).

consider environmental effects as mainly responsible for adverse reactions and ultimate withdrawal. Still others call attention to the large number of discontinuances apparently attributable to low academic achievement and challenge the view that poor grades only mirror deeper problems, such as unsatisfactory work habits, attitudes, and motivation. A number of investigators deny the validity of studies based on questionnaires, holding that responses may well reflect rationalizations and disguise of real reasons for discontinuing.[1] The fact that no solid pattern has yet emerged on why students leave college testifies both to the complexity of the subject[2] and to a likelihood that unidentified and possibly unmeasurable factors are involved.

Once again it is the senior institution that has explored more extensively into the situation, particularly with regard to student attitudes and to campus conditions. Despite their rigorous entrance criteria they are disturbed by their loss rate and so raise questions on their methods and efficiency.

The Higher Institution

Experts agree that attrition is normally due to a cluster of reasons springing from personal characteristics, match between student and institution, environmental factors, and outside forces (Knoell, 1964). At the same time they acknowledge the probability that a single professed event may trigger the decision to discontinue. Cause and effect are exceptionally difficult to separate. Nevertheless, some dimensions of the subject can be sketched.

The likely dropout from the higher institution usually displays certain identifiable traits while there (Montgomery, 1964). According to Koelsche (1956), the potential withdrawee shows a pattern of disinterest and non-involvement in college affairs. He is frequently doubtful of his vocational goals and tends toward deficiencies in assertiveness, initiative, and independence.[3] The discontinuer is inclined to be rigid in his attitudes and intolerant toward conformity yet paradoxically dependent and fearful of change, to be anxiety-prone, and to be socially introverted.[4] As Chase (1965) summarizes, the future dropout is quite apt to be a passive actor in the campus scene and often reflects a basic want for support and direction. In contrast, the persister is marked by conformity and adaptation and so is able to make a more satisfactory personal adjustment (Knop, 1967).

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[1]See Aiken (1968), Demos (1968), Marsh (1966), and Samenow (1967).

[2]Demos (1968); Knoell (1964); Marsh (1966).

[3]See Chase (1965) and Marsh (1966).

[4]Marsh (1966); Rose (1965). Vaughan (1968) concurs for academic losses.

Several investigators have suggested a mismatch between the perceived image of the college and actual student needs as a causal factor (Pervin, 1967; Taylor, 1967), with a resulting lack of relevance between student expectations and existing college opportunities.[1] Panos (1967) determined that two-thirds of the dropouts in his large-scale study indicated problems with peer relationships, participation in college activities, perceptions of faculty interest, and with administrative policies. Williams (1967) has hypothesized that for many students success is measured in different terms from those commonly assumed by the academic community of the higher institution of learning.

Demos (1968) emphasizes the weight given by clinicians to emotional reasons for leaving college, a finding widely supported by other evidence that stimulative and adjustment factors are more critical than more obvious causes for departure.[2] Summerskill (1962) considers lack of motivation as the number one reason for dropout, followed by study problems and financial difficulties.[3]

Discrepancies have been noted between these observable tendencies and the explanations actually given by students for their withdrawal. One examination of manifest as opposed to covert reasons casts considerable doubt on the validity of student statements in this regard (Demos, 1968). Review of the findings of five large-scale studies[4] based on student responses shows wide variations in classification and priority of declared reasons for quitting college. Knoell (1964) suspects that the decision to leave is often imposed by outside forces, perhaps in half the cases. There seems to be a general belief that since all students have personal problems to some extent, and since all in the senior institutions should be at least minimally capable of college work, something more than test-measured factors is involved in most failures to continue.[5]

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[1]Reed (1968). Gekoski (1961) found that twice as many non-persisters, compared with continuers, felt their courses inadequately prepared them for their vocational objectives. They tended to rate faculty as poor and were disinclined to give good evaluations to extra-curricula activities.

[2]Knoell (1964). Also: Chambers (1961); Chase (1965); Trent and Medsker (1968); and Vaughan (1968).

[3]Summerskill (1962) notes however that success or failure in college does not correlate with part-or full-time employment. There are, he says, no clear relationships between self-support and either grades or attrition.

[4]Chase (1965); Demos (1968); Goetz (1967); Iffert (1965); Koelsche (1956).

[5]See Chase (1965), Demos (1968), Goetz (1967), and Knoell (1964).

The Community College

Studies of the discontinuing student in the community college have followed lines of inquiry similar to those for the senior colleges but have been more narrowly conceived and more inner-directed. While acknowledging handicaps and resistance, Roueche and Boggs (1968) stress the need for far more investigations and urge added effort. Still, despite quantitative and qualitative inadequacies, published material is sufficient to provide a number of useful observations.

In the community college, as in the four-year institution, discontinuance appears to result from multiple factors (Lynch, 1959). Like his mate in the senior institution the junior college dropout is more resistant to authority and dislikes abstractions (Hughes, 1967?). Roueche (1967) cites a finding at Mira Costra College that the non-persister has an unrealistic image of college life. Hakanson (1967) points to loss of interest by occupational students after encountering college requirements for general education courses. Some studies assert that low grades seem to be the main stimulus for withdrawing.[1] Financial concerns have been identified as an important reason for non-continuance at several public junior colleges,[2] but Cross (1968) appears to doubt whether this factor is overly significant in most instances.

Inadequate adjustment and motivation receive much attention in the community college literature. Several sources conclude that the non-continuer lacks a sense of belonging and of identification with the college environment.[3] Failure to relate personally with the institution, in this view, gives rise to dissatisfaction and to feelings of irrelevancy in aims and endeavors.

Pearce (1966) refers to inadequate progress, unsatisfactory attendance, family problems, and absence of interest as commonly associated with dropouts. Unrealistic goals have been cited as a cause of eventual discontent,[4] and both Jones (1969) and Cross (1968) have suggested that to the community college student success has referents unlike those of the attendee at the senior institution. This concept may at least partly explain the observations of Aiken (1968) and Cooper (1968) that in many respects the student who quits is much like the one who continues. In his survey of sixteen research reports Roueche (1967) deduces the existence of non-intellectual differences between those who stay and those who leave.

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[1]Aiken (1968); Lynch (1959); Sensor (1966).

[2]Matson (1965); Lynch (1959).

[3]See Eells (1956), Ellish (1969), Lynch (1959), and Matson (1965).

[4]See Lynch (1959), Roueche (1967), Roueche and Sims (1968), and Thornton (1966).

TOWARD AN IMPROVEMENT

Causative agents in dropout for both the community college and the four year institution can be grouped as self-related and as college-related. Although this schema is adopted for convenience, it should not be concluded that Knoell's "outside impinging forces" can be ignored. They are merely set aside as influences over which neither the student nor the institution can exert much control.

Self-related factors involve actual and perceived student ability, background, and motivation for college, all being interdependent in some degree. Native ability appears inconclusive as a determinant of persistence while perceived ability seems bound up in motivation. Family influences and expectations and previous school experience quite evidently are of decided importance for continuing at any institution. As Trent and Medsker sum it up: "In a variety of ways the data indicate that, aside from adequate intelligence, the factor most related to entrance and persistence in college is motivation. The signs also are that this motivation is formed early in life, probably largely in response to parental influence and early school experience."[1]

College-related factors are those influences which bear on the student after he arrives on campus. Being a composite of interactions between self and peer groups, faculty, curriculum, and institutional practices and mores, in which expectations are tightly interwoven, they are far more difficult to evaluate. Here the persister and the non-persister are mainly distinguished by respective success in adapting to the situation, in establishing satisfactory personal relationships, and in adjusting goals in light of realities.[2] Continued motivation toward a degree again seems to be the essential ingredient.

While ability and family background must be accepted as preconditions beyond the effective reach of the community college, there is no such foreclosure with regard to educational incentive and stimulation. Gleazer voices dismay at the absence of a continuum between high school and the public junior college, and toward the resulting hindrances in the student's path to higher education.[3] Based on evidence that the intention to attend college is formed well in advance, perhaps as early as junior high, a number of educators suggest that the community college actively seek a far closer relationship with secondary schools. In doing so the object would be to aid in increasing student awareness of further educational opportunities, to help spur motivation, and to assist in forming realistic goals and expectations.[4] In this way many misconceptions could be avoided or erased and more effective judgements arrived at, to the ultimate benefit of the individual and society.

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[1]Trent and Medsker (1968), p. 260.

[2]See Reed (1968).

[3]Quoted and paraphrased in the Gainesville Sun, October 29, 1969, p.1.

[4]Bard (1967); Cooper (1967); Knoell (1969); Roueche (1968).

If there is validity in Lynch's (1959) assertion that the large majority of reasons for dropout lie in areas over which the community college assumes responsibility and control, then each institution is morally bound to make the most searching kind of self-analysis. Enough of these studies have in fact been made to disclose a pattern of desirable improvements.

Loud and clear sounds the call for a marked upgrading of the college's counseling services,[1] with emphasis on the application - not just availability - of these services immediately upon matriculation, and founded on a sensitively prepared orientation. This effort ideally is a coordinated, campus-wide, and continuing program involving the entire instructional staff as well as the professional guidance personnel.[2] Coupled with this concept is an idea for a common core curriculum for each student for his first term, thus allowing time for counseling to be effective and for screening for a major course sequence to follow.[3] Roueche and Sims (1968) even propose institutional prerogatives to place students in course structures considered suitable for them.

Knoell (1968) and O'Banion (1969) identify numerous barriers to entrance and to continuing which have been erected by the institutions and consider that many of these are artificial and serve little if any useful purpose. Imaginative and energetic dismantling of these obstacles would go far, they believe, toward making the student feel welcome and at home in the institution. In this connection, it has been especially urged that a hard look be given to discouraging features of grading and evaluation practices (Aiken, 1968; O'Banion, 1969).

Instructor preparation and attitudes are regarded as crucial to holding more students in the community college. The literature is permeated with the underlying conviction that because of their very direct influence teachers must be devoted to the philosophic spirit of the public junior college, and particularly to the thesis of student-centered and relevant instruction.[4]

Several studies recommend much greater attention to financial assistance and job placement services in light of demonstrated student difficulties in obtaining sufficient funds and in view of their preoccupation with the world of work.[5] Others stress the need to improve the quality and attraction of co-curricula activities

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[1]Hakanson (1967); Hilleary (1963); O'Brian (1967).

[2]Chambers (1961) suggests that faculty be chosen not only for ability to teach but also for the capability to act as effective student advisors. Wolf strongly recommends teacher involvement with the guidance and personal direction of students (remarks follow Stoop's address in Stoops, 1965).

[3]Chambers (1961).

[4]Stoops (1965), supported in subsequent discussion by Rollins.

[5]Anderson (1967); O'Brian (1967).

so as to enhance student satisfaction and identification with the institution (McGeever, 1965; O'Brian, 1967). Carefully planned programs to better the individual's interpersonal relationships with faculty and peers are regarded as quite helpful in encouraging students to remain in college (Eells, 1956; Matson, 1965).

CONCLUDING OBSERVATIONS

The conclusion is unmistakable that community colleges are losing far more full-time students than they should and that the situation is remedial, at least in part. While demanding in thought, time, and effort, ameliorative actions are feasible and within the capabilities of the institution. Indeed, they are among its philosophic obligations.

A clear locus of action lies in the area of student personnel services. Evidence of the critical influences exerted by these activities is overwhelming. Yet the large majority of all junior colleges in the country are seriously deficient in these programs (Raines, 1966). Obviously it is high time for words to be converted into deeds and for intent to be translated into practice.

If the public junior college is to fully fulfill its envisioned role it must discard outworn shibboleths and actively seek out new concepts and methods. Its claims to uniqueness and to commitment to service can nowhere be better substantiated than in recasting the present pattern of student dropout. Tools to do so, although inadequate, are at hand; others await imaginative discovery. There is little doubt that one of the community college's greatest challenges for the future, and a very real measure of its effectiveness, will lie with its success in recapturing a large proportion of "the half that leaves."

BIBLIOGRAPHY

1. Abe, Clifford and John L. Holland. "A Description of College Freshmen: I. Students With Different Choices of Major Field," ACT Research Report No. 3, American College Testing Program, Iowa City, Iowa, May 1965.

2. Aiken, James. A Comparison of Junior College Withdrawees, University of Missouri, 1968 (ERIC ED 023 389).

3. Anderson, Bert D. Comparison of Enrolled and Non-Enrolled Applicants for Modesto Junior College, Fall 1966, Modesto Junior College, California, September 1967 (ERIC ED 014 303).

4. Bard, Harry, Leon L. Lerner, and Leona S. Morris. "Operation: Collegiate Horizons in Baltimore," Junior College Journal, September 1967.

5. Carey, James T. Why Students Drop Out, Center for the Study of Liberal Education for Adults, Chicago, Illinois, 1953.

6. Chambers, Frank M. "A College Admission Policy to Reduce Attrition," Junior College Journal, January 1961.

7. Chase, Clinton T. The University Freshman Dropout, Report CRP-S-D38, Indiana University, Bloomington, Illinois, 1965 (ERIC ED 003 672).

8. Cooley, William W. and Susan Becker. "The Junior College Student," The Personnel and Guidance Journal, January 1966 (ERIC ED 012 609).

9. Cooper, Leland R. "The Difficulty of Identifying the Real Transfer Student," Junior College Journal, December 1967-January 1968.

10. Cowhig, James D. "Why Do They Leave College?" The School Review, Autumn 1963.

11. Cross, K. Patricia. "Higher Education's Newest Student," Junior College Journal, September 1968.

12. Demos, George D. "Analysis of College Dropouts - Some Manifest and Covert Reasons," Personnel and Guidance Journal, March 1968.

13. Eells, Watler C. "Student Mortality in Junior Colleges," Junior College Journal, November 1956.

14. Ellish, Arthur D. "The Effects of Attitude on Academic Achievement," Junior College Journal, March 1969.

15. Forrest, Donald V. "High School Underachievers in College," The Journal of Educational Research, December 1967.

16. Gadzella, Bernadette M. and Grace Bentall. "Differences in High School Academic Achievements and Mental Abilities of College Graduates and College Drop-Outs," College and University, Spring 1967.

17. Gekoski, Norman and Solomon Schwartz. "Student Mortality and Related Factors," Journal of Educational Research, January 1961.

18. Gleazer, Edmund J. Jr. "Junior Colleges Told: 'Woo Disappearing Dropouts'," Gainesville Sun, October 29, 1969, pp. 1-2.

19. Goetz, Walter and Donald Leach. "The Disappearing Student," Personnel and Guidance Journal, May 1967.

20. Hakanson, John W. Selected Characteristics, Socioeconomic Status, and Levels of Attainment of Students in Public Junior College Occupation-Centered Education, University of California - Berkeley, School of Education, April 30, 1967 (ERIC ED013 644).

21. Hilleary, Helena. A Comparative Study of Official and Unofficial Withdrawals at Los Angeles Valley College, Evening Division, Spring Semester 1963, Los Angeles Valley College, Van Nuys, California. December 3, 1963 (ERIC ED 012 187).

22. Hoyt, Donald P. and Leo Mundy. "Academic Description and Prediction in Junior Colleges," Report ACT-RR-10, American Testing Service, Iowa City, Iowa, 1966 (ERIC ED 011 196).

23. Hughes, Harold G. et al. A Follow-Up Study on Discontinuing Students at Grossmont College, Grossmont College, El Cajon, California, undated (1967?) (ERIC ED 019 085).

24. Hurkamp, Rosemary C. "Differences in Some Initial Attitudes of Students Who Complete and Students Who Drop Out in the Wellesley, Massachusetts Adult Education Program," Report RR-7-8073, Office of Education, U. S. Department of Health, Education, and Welfare, January 10, 1968.

25. Iffert, Robert E. and Betty S. Clarke. College Applicants Entrants Dropouts, OE-54034, Office of Education, U. S. Department of Health, Education, and Welfare, Washington, D. C., 1965.

26. Jones, Emmett L. Results of a Study of Aid in Defining "Success" for Students at the Southeast Branch of the Chicago City College, February 1969 (ERIC ED 028 777).

27. Knoell, Dorothy M. "Needed Research on College Dropouts," Part 2 in James R. Montgomery, Proceedings of the Research Conference on College Dropouts, University of Tennessee, Knoxville, 1964 (ERIC ED 033 420).

28. _____. "Are Our Colleges Really Acessible To The Poor?", Junior College Journal, October 1968.

29. Knoell, Dorothy M. "Who Goes To College In the Cities?," Junior College Journal, September 1969.

30. Knop, Ed. "From a Symbolic-Interactionist Perspective: Some Notes on College Dropouts," Journal of Educational Research, July-August 1967.

31. Koelsche, Charles L. "A Study of the Student Drop-Out Problem at Indiana University," Journal of Educational Research, January 1956.

32. Lombardi, John. "A Comment on 'Student Mortality in Junior Colleges'," Junior College Journal, February 1957.

33. Lynch, Donald F. An Analysis of Drop-Outs in Selected Public Junior Colleges of Florida, The Pennsylvania State University (Unpublished doctoral dissertation - Microfilm), August 1959.

34. Marsh, Lee M. "College Dropouts - A Review," Personnel and Guidance Journal, January 1966.

35. Matson, Jane E. Characteristics of Students Who Withdrew from a Public Junior College, Stanford University (Unpublished doctoral dissertation - Microfilm), June 1965.

36. McGeever, John and R. L. Burton. A Survey of Drop-Outs and Discontinuing Students and Their Attitudes Toward Selected Aspects of the Junior College Program, Palomar College, San Marcos, California, May 1965 (ERIC ED 013 642).

37. Montgomery, James R. Proceedings of the Research Conference on College Dropouts, University of Tennessee, Knoxville, 1964 (ERIC ED 003 420).

38. O'Banion, Terry. "Rules and Regulations: Philosophy and Practice," Junior College Journal, April 1969.

39. O'Brian, W. E. A Study of Student Levels of Satisfaction With Community College and Senior College Instruction and Services, Northern Illinois University (Unpublished doctoral dissertation - Microfilm), September 1967.

40. Office of Education, "Why Do College Freshmen Drop Out?" American Education, U. S. Department of Health, Education, and Welfare, May 1967.

41. Panos, Robert J. and Alexander W. Astin. "Attrition Among College Students," ACE Research Report Vol. 2 No. 4, American Council on Education, Washington, D. C., 1967 (ERIC ED 014 113).

42. Pearce, Frank C. Dropout Rates, Modesto Junior College, California, January 14, 1966 (ERIC ED 011 356).

43. Pervin, L. A. Dissatisfaction With College and the College Dropout: A Transactional Approach, Princeton University, OE-BR-6-8421, Office of Education, U. S. Department of Health, Education and Welfare, August 1967 (ERIC ED 021 335).

44. Raines, Max R. "The Student Personnel Situation," Junior College Journal, February 1966.

45. Reed, Horace B. "College Students' Motivations Related to Voluntary Dropout and Under-Overachievement," Journal of Educational Research, May-June 1968.

46. Rose, Harriett A. "Prediction and Prevention of Freshman Attrition," Journal of Counseling Psychology, Winter 1965.

47. Roueche, John E. "Open-Door College: The Problem of the Low Achiever," The Journal of Higher Education, November 1968.

48. _____. "Research Studies of the Junior College Dropout," Junior College Research Review, American Association of Junior Colleges, Washington, D. C., October 1967 (ERIC ED 013 659).

49. _____ and John A. Boggs. Junior College Institutional Research: The State of the Art, American Association of Junior Colleges, Washington, D. C., 1968.

50. _____ and David M. Sims. "Open Door Colleges or Open Door Curriculums?", Junior College Journal, February 1968.

51. Samenow, Stanton E. "Studying the College Dropout," Teachers College Record, May 1967.

52. San Jose City College. Students Who Were Enrolled Fall 1967 and Did Not Return for Spring 1968, San Jose City College, California, 1968 (ERIC ED 022 463).

53. Sensor, Phyllis. Follow-Up of 1965 Freshmen Who Did Not Return For Fall Semester, 1966, Riverside City College, California, May 1967 (ERIC ED 014 987).

54. Stoops, John A. "Teachers for the Community College," in John A. Stoops (Ed.), The Community College in Higher Education, Lehigh University, Bethlehem, Pennsylvania, 1965.

55. Suczek, Robert F. and Elizabeth Alfert. Personality Characteristics of College Drop-Outs, University of California - Berkeley, 1966 (ERIC ED 010 101).

56. Summerskill, John. "Dropouts From Colleges," in N. Sanford (Ed.), College and Character, John Wiley & Sons, Inc., New York, 1962.

57. Taylor, Ronald G. et. al. "Interest Patterns of Successful and Non-Successful Male Collegiate Technician Students," Journal of Educational Research, May-June 1967.

58. Thornton, James W. Jr. The Community Junior College, Second Edition, John Wiley and Sons, Inc., New York, 1966.

59. Trent, James W. and Leland L. Medsker. Beyond High School, Jossey Bass, Inc., San Francisco, 1968.

60. Vaughan, Richard P. "College Dropouts: Dismissed vs. Withdrew," Personnel and Guidance Journal, March 1968.

61. Williams, Vernon. "The College Dropout: Qualities of His Environment," Personnel and Guidance Journal, May 1967.