

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No 2)

DOCUMENT RESUME

ED 197 635

HE 013 350

AUTHOR Beal, Philip E.; Noel, Lee
 TITLE What Works in Student Retention: The Report of a Joint Project of the American College Testing Program and the National Center for Higher Education Management Systems.
 INSTITUTION American Coll. Testing Program, Iowa City, Iowa.; National Center for Higher Education Management Systems, Boulder, Colo.
 PUB DATE 80
 NOTE 142p.: For related document see ED 180 348. Light print may be marginally legible.
 AVAILABLE FROM American College Testing Program, P.O. Box 168, Iowa City, IA 52243.

EDRS PRICE MF01/PC06 Plus Postage.
 DESCRIPTORS *Academic Persistence: Adult Students: Ancillary School Services: *College Students: Comparative Analysis: *Dropout Prevention: Educational Counseling: Faculty Development: Females: Higher Education: Institutional Characteristics: National Surveys: *Nontraditional Students: Peer Teaching: Potential Dropouts: Questionnaires: *School Holding Power: School Orientation: Student College Relationship: Teacher Attitudes

ABSTRACT

Retention research and action programs are reviewed, and findings from the 1979 national survey entitled "What Works in Student Retention" (WWISR) are examined. The WWISR survey was designed to identify, analyze, and compile information about campus efforts to improve student retention in higher education. Questionnaires on retention were analyzed for 947 institutions, along with 1,024 activity report forms from these schools. Multiple-action programs were found to be the most successful. Three general areas of concern are identified: (1) academic stimulations and assistance; (2) personal future building by helping student to clarify their goals and directions; (3) involvement experiences directed at students. Among the types of retention activities, for which examples are provided, are the following: faculty awareness and development activities, career assistance programs, learning support centers and activities, expanded orientation activities, peer programs, and academic advising. Specific target groups to which action programs may be directed are high-risk and/or low academic performing students, new students, students who are undecided about majors and careers, and women and adult students. Suggestions are offered regarding administrative arrangements, agendas for action; research priorities, and programs for survey forms, and lists of positive and negative campus characteristics, potential dropout characteristics, and additional action program information. (SW)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

00171000

What Works in Student Retention

The Report of a Joint Project of
The American College Testing Program and the
National Center for Higher Education Management Systems

Philip E. Beal
Lee Noel

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

*American College
Testing Program*

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

ERIC U15 290

What Works in Student Retention

Contents

List of Tables	iii
Foreword	v
Acknowledgments	vii
Introduction	1
Part 1 Research on Retention—What Does It All Mean?	3
Part 2 Action Programs in the Literature	7
Specific Action Programs	9
General Comments and Recommendations	13
Part 3 General Findings from WWISR	15
Methodology	15
Findings	16
Retention Leaders	34
Examples of Successful Retention Programs	73
Part 4 Conclusions and Recommendations	89
Steps toward Improved Retention	90
Development of Activities and Programs	91
Specific Action Programs	94
Action Research Priorities	96
Focusing on Particular Target Groups	97

Specific Institutional Concerns	98
Summing Up	103
The Future of Student Retention	104
Appendixes	105
Bibliography	133

© 1980 by The American College Testing Program and the
National Center for Higher Education Management Systems. All rights reserved.

List of Tables

Table 1.	Titles of Respondents	36
Table 2.	Retention and Graduation Rates by Type of Institution	37
Table 3.	Retention and Graduation Rates by Selectivity and Type of Institution	38
Table 4.	Institutions Reporting Data Based on Actual Studies vs. Estimated Data	39
Table 5.	Differences in Retention and Graduation Rates (by Type of Institution) Based on Actual Study Data vs. Estimated Data	40
Table 6.	Retention and Graduation Rates by Church Affiliation of Institution	41
Table 7.	Campus Studies and Analyses by Type of Institution	42
Table 8.	Most Important Factors in Student Retention	43
Table 9.	Negative Campus Characteristics by Type of Institution	44
Table 10.	Positive Campus Characteristics by Type of Institution	45
Table 11.	Dropout-prone Characteristics by Type of Institution	45
Table 12.	Campus Organization for Retention by Type of Institution	46
Table 13.	Titles of Retention Coordinators	47
Table 14.	Initial Moving Force by Type of Institution	48
Table 15.	Factors Inhibiting Retention Efforts by Type of Institution	49
Table 16.	Action Programs Checked by Type of Institution	50
Table 17.	Action Programs Reported by Type of Institution	51

Table 18. Target Groups Reported by Type of Institution	52
Table 19. Success Indexes of Action Programs by Type of Institution	53
Table 20. Target Groups by Retention Index and General Index	54
Table 21. Action Programs by Retention Impact and General Impact	55
Table 22. Retention Impact of Action Programs on Target Groups	56
Table 23. General Impact of Action Programs on Target Groups	58
Table 24. Campus Studies and Analyses by Extent and Coordination of Effort	60
Table 25. Action Programs Checked by Extent and Coordination of Effort	61
Table 26. Action Programs Reported by Extent and Coordination of Effort	62
Table 27. Target Groups Reported by Extent and Coordination of Effort	63
Table 28. Success Indexes by Coordination of Effort and Reporting Line of Coordinator	64
Table 29. Action Programs Reported by Initiating Force behind Retention Efforts	65
Table 30. Target Groups Addressed by Initiating Force behind Retention Efforts	66
Table 31. Retention Leaders by Success Indexes	67
Table 32. Target Groups of Retention Leaders by Success Indexes	68
Table 33. Retention Leaders by Type of Institution and Success Indexes ...	69
Table 34. Target Groups of Retention Leaders by Type of Institution and Success Indexes	70
Table 35. Special Retention Leaders by Type of Institution	71
Table 36. Target Groups of Special Retention Leaders by Type of Institution	72

Foreword

This report is important for three reasons. First, it shifts the focus of 50 years of research from the negative to the positive—from why students leave college to how they can be encouraged to stay, from attrition to retention. Second, it focuses upon tractable variables. Too much research has been done on the effects of family size, social status, high school grade point average, intelligence, sibling order, sex, size of high school, religion, and similar "fixed" variables rather than on variables that colleges can do something about: orientation programs, counseling, financial aid, adequate information, and so on. And finally, the report suggests a broad range of actions that cut across many college activities and that could, with retention as the focal point, have a broad impact on institutional quality.

Early studies on retention (before World War II) were largely descriptive. We learned, among other things, that commuters, students with lower aptitudes, and students from small towns tended not to complete college. Then, after World War II, the emphasis in retention research shifted to prediction. Given commuting, certain scholastic test scores, and town size, what was the likelihood of completion? In the late 1950s, attention shifted to the "fit" between student and institution. In the 1960s, attention shifted to typologies of student dropouts and to the experiences students were having while in attendance.

It was not until the 1970s that serious consideration was given to the institutions themselves. Until a few years ago, the dominant assumption was that there was something wrong with the raw material when a degree was not in hand in four years. Only in about the last five years has the literature reported seriously on what institutions do to "discourage" completion. We have discovered millions of men and women who do a lot of stopping out and transferring as they seek more satisfying college and noncollegiate environments. But now, studies have begun to focus on the quality of faculty-student interaction, the types of degree programs available, the adequacy of student residences, the mix of financial aid, and so on. The emphasis has clearly shifted to improving the quality of higher education in order to retain the confidence of students.

Now, in the midst of the shift, Lee Noel and Phil Beal, with the resources of ACT and NCHEMS, have conducted the most comprehensive and practical study yet of institutional practices. *What Works in Student Retention* marks a welcome turning point at the close of a difficult decade.

Robert G. Cope
University of Washington
December 1979

Acknowledgments

The authors wish to acknowledge with special thanks and appreciation a number of persons who gave special assistance, time, and consideration to the project. First, appreciation goes to those persons at NCHEMS and ACT who served in an advisory capacity: from NCHEMS—Oscar T. Lenning and Sidney Micek; from ACT—David Crockett, Richard Ferguson, Patricia A. Gartland, and James Maxey.

Many other persons provided valuable assistance, including Kent Weldon, Kent Sauer, Mel Orwig, Wayne Kirshling, and Ben Lawrence from NCHEMS. Appreciation is extended to Kathy Beal for coding, to Penny Baskin for typing, and to Pat Spratt for assistance with coordination.

The authors expressly wish to commend the work of the ACT production team: Juliet Kaufmann and Kenneth Kekke, editing; Ron McClellan and Ginny York, graphic design; and Charles Hix and Elaine King, quality control.

Twenty educators assisted with pilot review and evaluation of the survey instrument:

Ms. Leahbeth Barnard, Arapahoe Community College
Dr. Ronald Beer, University of Nebraska-Omaha
Dr. William C. Cassell, College of Idaho
Dr. William Denman, College of Santa Fe
Dr. Ronald G. Eaglin, University of South Carolina-Spartanburg
Dr. William F. Elliott, Carnegie-Mellon University
Dr. John E. Farmer, Florida Junior College at Jacksonville
Dr. Edmund J. Gleazer, Jr., American Association of Community
and Junior Colleges
Dr. Robert E. Glennan, Jr., University of Nevada-Las Vegas
Dr. Everett Hadley, Drake University
Rev. Theodore M. Hesburgh, University of Notre Dame
Mr. Robert Husband, Arkansas College
Dr. James R. Jose, Lycoming College
Dr. John Newby, Spring Arbor College
Dr. Jerry W. Odom, Valencia Community College
Dr. James R. Schellhammer, Indiana University at Bloomington

Mr. Richard L. Schoenberger, Waukesha County Technical Institute
Dr. William A. Shoemaker, Council for the Advancement of Small
Colleges (CASC)
Mr. Lawrence N. Smith, Eastern Michigan University
Dr. Robert W. Spencer, Brigham-Young University

Introduction

Considerable attention in recent years has focused on the question "Who is attending higher education?" The emphasis has been on describing the nature and categories of matriculated students, with the "new student clientele"—including adults and minorities—making up an increasing percentage of student bodies. Now, however, a new question is frequently asked: "Who drops out and who graduates?" The current emphasis is on retaining students once they have matriculated.

In the days of large applicant pools, many schools were only mildly interested in rates of attrition and retention. New student admissions maintained or increased total enrollments, and hardly anyone asked "Where have all the students gone?" The situation is changing now, changing too rapidly for some schools. Admissions figures, though bolstered to a degree by "new" students, are showing the effects of the population decline. Retention has become the newest counterweight for sagging enrollment.

The idea is simple enough: if schools can retain more students once they are admitted, then enrollment will hold steady or decrease at a slower rate. It is no easy task, however, to understand all the variables involved in retention; and it is even more difficult to influence retention rates, which may be affected by numerous conditions and circumstances beyond institutional control.

Over the last 40 years, numerous research studies have been conducted and articles published on the topic of retention. Two major books appeared in 1975: Alexander Astin's *Preventing Students from Dropping Out* and *Revolving College Doors*, by Robert G. Cope and William Hannah. The bibliography of the latter contains more than 400 citations of retention-related research and materials that bear on student retention.

Part 1

Research on Retention— What Does It All Mean?

Despite many years of research, hundreds of publications, and many carefully controlled studies on factors contributing to attrition and retention, very few solutions to the complex problem have been identified. The main conclusion to draw from the research is that it is impossible to isolate a single cause for attrition—no simple solution exists. Still, general conclusions can be drawn from the research, which show that improved retention is possible and that action programs can be formulated to respond to circumstances on particular college campuses.

In *Attrition and Retention: Evidence for Action and Research* (1980), Lenning, Beal, and Sauer present an extended outline of basic characteristics that appear to be linked to attrition and retention. Their presentation defines four main student types: the *persister*, who continues enrollment without interruption; the *stop-out*, who leaves the institution for a period of time and then returns for additional study; the *attainer*, who drops out prior to graduation, but after attaining a particular goal; and the *drop-out*, who leaves the institution and does not return for additional study at any time.

The Lenning document describes the student characteristics, the environmental characteristics, and the interactions between student and institution that seem to relate positively to attrition and retention. The following outline summarizes the various characteristics that Lenning et al. see as negatively or positively related to retention. In each case, the relationship of the item to retention is indicated by a plus (+), a minus(-), an M (for mixed findings), or a zero (for no relationship).

i. Factors related to retention

A. Student characteristics

1. Academic factors

- | | |
|-----------------------------------|-----|
| a. High school GPA and class rank | (+) |
| b. Academic aptitude | (+) |
| c. Poor study habits | (-) |
| d. First semester grades | (+) |
| e. Academic rating of high school | (+) |

4 WHAT WORKS IN STUDENT RETENTION

2. Demographic factors
 - a. Age (0)
 - b. Sex (0)
 - c. Socioeconomic status (M)
 - d. Ethnicity (+)
 - e. Hometown location (M)
 3. Aspirations and Motivations. Research findings are mixed concerning the role of aspirations and motivations in retention. Nevertheless, a synthesis of the literature would seem to indicate some relationships do exist.
 - a. Level of degree aspiration (+)
 - b. Transfer plans (-)
 - c. Commitment to the college (+)
 - d. Peer group influence (+)
 - e. Vocational and occupational goals (M)
 - f. Satisfaction (+)
 4. Financial factors are commonly given as a reason for dropping out of college. The likelihood is that finances are secondary to other factors related to commitment and institutional fit. Nevertheless, some variables are found to operate in relating finances to retention.
 - a. Student concern about finances (-)
 - b. Scholarships and grants (+)
 - c. Loans (-)
 - d. Part-time employment (+)
 - e. Full-time employment (-)
 - f. Satisfaction with part-time employment (0)
- B. Environmental characteristics: Much attention in the research is devoted to students and their problems. Increasingly, attention is directed at the college environment as a major factor in retention.
1. Objective environment
 - a. High status or image (+)
 - b. Private schools (+)
 - c. Public schools (-)
 - d. Religious affiliation (+)
 - e. High cost (+)
 - f. On campus housing (+)
 - g. Counseling services (+)
 - h. Academic advising (+)
 - i. Orientation programs (+)
 - j. Learning/academic support services (+)
 - k. Special student services for retention (+)
 - l. Defined mission and role of the college (+)

2. Student involvement
 - a. Extracurricular activities (+)
 - b. Close friends (+)
 - c. Student/faculty relationships (+)
 - d. Special academic programs (Honors, foreign study, etc.) (+)
 - e. Academic life (participation and involvement in departments, tutoring, curricular design, etc.) (+)
 3. Policies. Research is lacking on the influence of policies and procedures on student persistence. The best conclusion seems to be that policies unrelated to the real needs of the college or that dehumanize the interactions between students and staff can have negative effects on retention.
- C. Interaction: Retention research today emphasizes the importance of the interaction between students and the institution. The degree of "fit" may determine the likelihood of students staying or leaving. Another term, which may describe it better, is "belonging." A student develops a sense of belonging as the result of many and varied interactions with the college and student environment. Such a feeling will enhance retention.
- II. Implications. Recent literature on student retention emphasizes a number of implications for colleges wishing to improve retention.
- A. Organization for retention
 1. Make a specific assignment of responsibility.
 2. Appoint an all-college committee or task force.
 - B. Study and analysis
 1. Determine the campus dropout rate.
 2. Determine local factors contributing to attrition/retention.
 - C. Implementation of intervention programs
 1. Devise and implement specific strategies related to identified areas of need.
 2. Evaluate results of such strategies.
 - D. Research and documentation. Maintain an ongoing research program that covers local factors related to retention including documentation of all efforts and strategies designed to improve retention.
- III. Conclusion: The research on student retention indicates that many variables affect whether the student decides to stay or leave, variables that are linked to the circumstances of a particular institution and its student body. Recent material on retention suggests that any given institution should 1) organize for the improvement of retention and 2) devise specific intervention strategies.

6 WHAT WORKS IN STUDENT RETENTION

The next section describes a few such action efforts, as reported in the research. Later sections concentrate on what specific strategies colleges are currently undertaking to improve retention, as reported in the recent survey, *What Works in Student Retention* (WWISR).

Part 2

Action Programs in the Literature

Over the last 40 years, there have been numerous reports and studies on attrition. Periodic literature reviews have also been conducted; a notable recent example is the work of Pantages and Creedon (1978).

A much smaller amount of field literature pertains to the action-oriented attempts of colleges and universities to improve their retention rates. Of course, many schools have attempted to address the problem; nevertheless, literature on intervention strategies is rather sparse. Some reports were found that illustrated intensive efforts to improve student retention underway at some schools. It is of considerable interest that community colleges have been much more active by far than have four-year institutions. In the case of NORCAL, the Northern California Cooperative Research Project, a highly sophisticated program was devised to analyze factors contributing to attrition, to develop a survey instrument for predicting the likelihood of student attrition, and to implement experimental programs designed to improve retention. Twenty-three community colleges were involved in the project, and eleven developed experimental action-oriented programs to test the effect of various retention programs. The community colleges involved in NORCAL (and several others mentioned in this section) have taken the problem seriously and have devised specific strategies for addressing it.

We have found only one example of a consortium of four-year colleges involved in a retention effort. The state colleges of Minnesota developed a "common market" approach that enabled students to move freely from one institution to another for up to a year at a time—in order to explore options not available at their original institution or simply to pursue an area of interest that might be available elsewhere (Mitau, 1968). In a few cases reported below, action programs were developed at four-year institutions.

The NORCAL project deserves extensive review as an example of a systematic and coordinated approach to the improvement of student retention.¹ As reported by

¹Reports of the NORCAL project should be standard reading for community college administrators who are interested in improving retention.

Dallas (1971), the project was divided into three phases. In Phase I, the characteristics associated with attrition among the junior college students were identified. Phase II saw the development and validation of a predictive model to identify attrition-prone students. Phase III included the development and testing of experimental programs to reduce the dropout rate at participating institutions. Student withdrawals in 22 participating community colleges were studied under Phase III. According to Kester (1971), 12 colleges conducted true experiments with definable treatment variables, 7 colleges conducted *post hoc* or quasi-experimental studies, and 9 colleges validated the NORCAL instrument further.

The intervention strategies of the 11 colleges fell into 5 different categories, with some overlap between programs at different schools. The categories included 1) group testing, counseling, and orientation, 2) individual counseling, 3) student peer counseling or tutoring, 4) basic skills approaches, and 5) college readiness programs. The term "attrition" ordinarily referred to students who dropped out of school during a term or semester, while "re-enrollment" referred to the return of students for a subsequent term or semester. In each of the 11 colleges, experimental designs were used in which experimental groups received special treatment and control groups received no special treatment. In all cases, positive results were found: students in the experimental groups had lower attrition rates (statistically significant in 6 of the 11 programs), and all of the programs showed higher re-enrollment from the experimental groups (8 of 12 were statistically significant). In 6 cases, students in the experimental groups earned higher grades than those in the control groups. All successful programs included some form of special counseling. It is very interesting to note that most community colleges have the potential for conducting retention programs within their existing courses and resources, without the need for additional funds or staff. According to Kester, "the problem of attacking attrition is clearly one of will, not means" (p. 19). According to MacMillan (1973), the chief project coordinator, "the value of counseling services to the potential dropout is clearly the most consistent experimental finding in the study" (p. 46). MacMillan also indicated that in the experimental phase of the study only a few colleges did anything substantially different than what they might have attempted previously, or than what was already available at the college. He pointed out that resources were already available in most cases—if only proper referral and access could be assured. MacMillan concluded that "the provision of special services and attention to the high risk student can cut attrition in half" (p. 47).

In 1973, Flannery et al. offered a useful definition of attrition that rather dramatically turns the focus of attention from the college and its graduation statistics to the student. Attrition, for Flannery, is "the discrepancy between student expectation and attainment" (p. 4). With this definition of attrition in mind, a retention study committee (reported by Flannery) recommended that acceptable levels of attrition should be devised at the class level, the department level, and the division level of a college. In so doing, the college would recognize that continued enrollment would not be in the best interest of many students and that

improvement in retention figures should only be expected up to certain estimated (but deliberately computed) levels. The effort reported by Flannery at Miami-Dade Community College was based on four assumptions: 1) the most important factor is student expectations, 2) these expectations can be measured, 3) a campus can take the necessary steps to measure them, and 4) students will frankly express their expectations and aspirations. It then follows, in Flannery's view, that it is the "responsibility and duty of the college to make every effort to help the student determine his educational goals and attain them" (p. 5).

Whatever definition of attrition is used by a given institution, a strong thread of optimism runs through the literature: retention rates can be improved and the cost, time, and effort may be considerably less than administrators fear. This optimism is based on the significant improvements in retention figures that follow even simple and unsophisticated retention-related programs.

Another common theme in the literature of retention programs is the importance of a student development philosophy or approach in devising retention efforts. In addition to individualized counseling, which stresses the self-development of the student and the pursuit of personal goals and aspirations, numerous programs have emphasized self-development, assessment of career and life goals, personal achievement and motivation, development of personal skills and competencies, and other dimensions of personal satisfaction and achievement.

Sheffield and Meskill (1974) reported on the work of an attrition study group at C. W. Post Center of Long Island University. The action points recommended by that study group included a strong student development component. After reviewing the freshman curriculum, they recommended that it be revised and reorganized from a typical content or survey orientation to a developmental approach. They recommended an ongoing freshman orientation program that would include a strong academic advising component. They suggested that counseling at all levels should be strengthened in the direction of support and developmental goals. They recommended focusing attention on the critical moments in a freshman's experience, especially in the first semester, and providing continuing training and evaluation opportunities for counselors of all groups to include sensitivity workshops, specific advising manuals, and so forth. Finally, and perhaps most importantly, they recommended fusing teaching/learning/advising and counseling. The goal of all programs was to be developmental rather than empirical in order to have a true impact on students and to encourage their continued enrollment.

Specific Action Programs

Special Courses

A number of institutions have devised special courses. Adams (1974) devised an experimental study with four groups, one of which was enrolled in a group guidance class called "Career Planning." The class incorporated a variety of

teaching techniques and covered a wide range of topics, including values clarification, occupational information, the researching of specific occupations or fields, and development of a personal resume. Participants in the class far outperformed the control group in terms of grade point average (2.52 to 2.09) and also developed significantly more positive attitudes toward college than did students in the control group or in another group with individual counseling. Other measures of academic success did not show significant differences, but according to Adams, the trends were clearly and consistently in favor of the Career Planning group. Adams implied that because academic success is closely related to retention, a program such as his would have beneficial aspects.

Reimanis (1973) showed, in the first place, that high-risk students who scored higher on achievement motivation had less tendency to drop out of school, and secondly, that students who were a part of a short course in achievement motivation showed better grade point averages, higher figures of transfer to other higher education institutions, and higher percentages of graduation than did students in a control group. In another project, Aarons (1975) established a foundations course which taught remedial reading, math, and English. The course, utilizing a team counseling approach, also emphasized the self-worth of the individual and the development of a positive self-image. Instruction was varied, with student involvement at various stages in the learning process. The course was for credit but not for grades, and resulted in improved levels of retention and grade point averages.

In three of the NORCAL projects, special counseling took place in experimental courses in psychology or in guidance. In one interesting situation at Ohlone College, the study was compromised when students in one of the experimental groups voluntarily enrolled in the guidance course that was mandatory for another experimental group. Nevertheless, students in both groups far outperformed students in the control groups.

Two of the colleges in the NORCAL project devised pre-college readiness workshops that included special counseling, group discussions, and assistance with reading, writing, and study skills. In both cases, retention figures of participants were higher than that of nonparticipants.

Group Counseling and Orientation

A number of programs centered around group counseling and orientation to higher education. These ranged from a self-development seminar reported by Silver (1978) where improvement in GPA, academic units completed, and re-enrollment for the next semester was so great that the institution was encouraged to conduct four to five seminars for the following fall and to secure special funding to offer the class to 75 freshmen per year for the next three years, with continued study of the participants versus nonparticipants. A program of weekly rap sessions was reported by Reimanis (1973), who also conducted early orientation efforts for

students with undecided educational goals, group counseling for high-anxiety nursing students, and encounter groups for improving student self-concept. In all groups, the program participants improved in academic performance and retention over students in control groups.

Seven of the institutions in the NORCAL project included group counseling or orientation sessions. The content of these courses included study skills, tutoring, and group counseling in general matters of concern. In all these programs, the retention rates of experimental groups improved over the rates of control groups.

Individual Counseling

Although all of the experimental programs in the NORCAL project and many other programs included aspects of individual counseling, two programs deserve special attention. In the first, Dallas (1971) reported on the program at Napa College, a member of the NORCAL project. The purpose of this project was to establish a "someone cares" atmosphere. The counselor took the initiative to request students to drop in for counseling and initiated outreach for those who did not drop in. The program emphasized immediate accessibility and included informal contact anywhere on the campus. The counselors directed interviews that explored life goals, abilities and interests, course and program requirements, time scheduling, course scheduling, and use of campus resources. Comparison with students in a control group showed that those with special counseling services had a lower attrition rate, a higher enrollment rate, a higher grade point average, and completed more units. In the process, the study also validated the NORCAL instrument as a tool for identifying dropout-prone students. Dallas raised the following question as a result of this study: "Is failure due not to ability, but to no one caring?" (p. 32).

In another NORCAL project, Sierra College sent special letters to a portion of the students identified as high-risk, and used the remaining high-risk students as a control group. As a follow-up to these letters, counselors conducted one to eight interviews with each of the students. The results were higher grade point averages and higher re-enrollment of the students in the experimental group. Several other schools in the NORCAL group also conducted variations on the individual counseling approach. In each case retention figures exceeded those of students in control groups, and the patterns of enrollment and academic performance persisted through subsequent semesters.

Learning Skills and Tutoring

Several programs emphasized study skills as one component of a counseling approach for a guidance course. In some cases, emphasis on learning skills constituted the major thrust of the program. For example, in the program reported by Carman (1976), tutoring was conducted in developmental math, and in the program reported by Wenrich (1971), academic counselors were briefed on the existing learning center and were encouraged to convince students identified by the NORCAL instrument as high-risk to enroll for one to two hours of credit.

Enrollment was voluntary, but 49 students did enroll and became the experimental group. The control group was made up of 49 other students, also from the high risk group, who were matched on the basis of sex, actual discriminant score on the NORCAL instrument, number of credit hours enrolled, and type of academic program. Programs offered through the learning center included academic counseling, a course in study skills, access to programmed learning materials, a reading lab, tutoring by student peer counselors, group meetings with peers and class instructors, and the availability of a comfortable study area. No time commitment was necessary, unless students desired credit for the course—in which case specific commitments were made.

The students in the experimental group achieved significant differences from the control group in terms of re-enrollment for the next semester and maintenance or improvement of grade point average from high school. Data trends seemed to favor the experimental group on completion of the first semester, completion of twelve hours of credit, and achievement of a 2.0 GPA or better.

On subjective standards, Wenrich reported that all of the students appeared apathetic and unresponsive at the outset of the project, with success, not failure, as a threat to the students. They gradually separated evaluation of themselves from the grades they had received, however, and took on an enthusiasm and vitality that set them apart from students in the control group. The center utilized tutoring by peer counselors and maintained flexibility according to the needs of the individual students. The most important aspect of the project for Wenrich was the integration of individualized academic services with a supportive psychological atmosphere and personal counseling.

According to MacMillan (1973), three other colleges in the NORCAL project included student peer counseling or tutoring. Even in those cases where true experimental designs were not incorporated, the colleges reported positive benefits from the tutoring and learning assistance given the students.

Attention to Policies and Procedures

The impact of institutional policies and procedures on student retention was studied by Vail (1966) and Roueche (1976). Vail reported on the situation at Riverside City College, which had three different policies for student withdrawal from class. Two of the policies imposed the penalty of a failing grade for late withdrawals, but the study indicated that students were more likely to finish the semester under the no-penalty system.

Roueche reviewed 16 institutional research reports to determine the kinds of efforts being made by junior colleges to reduce their attrition. Adjustment of institutional policies was one of the measures used by the schools, along with questionnaire studies and analyses of student characteristics. In a few examples that appeared in

the literature, policy reviews were instrumental in new retention programs. Roueche's review strongly implies that a total institutional approach should include a review of policies and procedures in order to make the college experience as comfortable as possible for students, without the unnecessary "hassle" and encumbrance caused by an insensitive bureaucracy.

The matter of institutional policies was directly addressed by the attrition committee at Miami-Dade Community College. The committee stated that "any policies and procedures which do not foster personalized education, contribute in some measure, to attrition. Therefore, the committee strongly urges the campus to conduct a searching review of all currently effective policies and procedures in order to determine which, if any, should be revised to provide an optimal environment for personalized education of students" (Flannery, et al., 1973, p. 13).

Faculty Development and Training

Corning Community College considered bringing faculty along in the retention effort (Reimanis, 1973). Among several different programs designed to influence student retention, the institution utilized an in-service faculty program to facilitate student-centered classrooms and also initiated faculty training in affective/confluent education principles for technical career faculty.

Flannery et al. (1973) also underlined the importance of faculty awareness in saying "it is the instructors who ultimately make the educational system effective and relevant, and they must accept the responsibility of using the resources of the college to help the students" (p. 6). Flannery emphasized that attrition cannot be viewed as an isolated event or occurrence, but rather must be interwoven with the overall campus philosophy and operation. Attempts to minimize attrition, he said, "must be viewed as a total effort and related to all personnel policies and procedures" (p. 11).

General Comments and Recommendations

Many of the programs referred to above included general comments and recommendations stemming from local conditions on particular campuses. In some cases, the suggestions are applicable to all institutions, such as those by Flannery et al. (1973), who urge a total institutional effort in the area of retention. Sheffield and Meskill (1974) emphasized that a school should formulate its institutional goals and objectives and incorporate them in programs clearly identified to the students. Sheffield also recommended an early alert system that would involve faculty, peers, and administrators. He suggested that all participants should be trained to "listen for those who don't talk, who sit in the back row, who take no notes, who resist advising, who show signs of hostility, withdrawal and anxiety, especially during the first eight weeks" (p. 42). Those involved should then be trained to go out of their way to support such students. Michlein (1977)

encouraged stressing the importance of attrition to faculty and staff through in-service training and workshops, and through making retention a school priority. He also encouraged the initiation of retention programs for all students, not just for potential dropouts. Flannery et al. (1973) encouraged establishing a student committee on attrition, designating an ombudsman for students, and educating the faculty to identify attrition and to intervene appropriately.

Vest and Spino (1975) discussed attrition strictly in terms of lost revenue at the University of Miami. He organized recommendations into three categories: they encouraged 1) academic administrators to improve advising, to include peer advising within departments, to develop tutorial and skill development sessions within departments, to generate student/faculty rap sessions, and to support school or department student governments and associations; 2) student affairs staff to develop new strategies for orientation, residence hall advising, reading and study skills development, and career development; and 3) financial aid administrators to administer financial aids more effectively. Possibly the most important observation he made about the University of Miami was that multiple offices were attempting similar programs to assist students, and student confusion was perhaps more prevalent than student assistance. He concluded that the keys to a successful and less confusing counseling program for students are communication, cooperation, consolidation, and coordination.

Finally, Silver (1978) cited a remark made by Carl Rogers that puts into perspective the need for new outlooks and strategies if retention of students is to be a viable alternative to decreasing enrollments.

We are in my view faced with an entirely new situation in education where the goal of education, if we are to survive, is the facilitation of change and learning. The only man who is educated is the man who has learned how to learn, the man who has learned to adapt and change, the man who has realized that no knowledge is secure.
(*The Freedom to Learn*, p. 104)

Part 3

General Findings from WWISR

A national survey entitled "What Works in Student Retention" (WWISR) was conducted in Spring 1979 by the American College Testing Program (ACT) and the National Center for Higher Education Management Systems (NCHEMS). The purpose of the survey (which is found in Appendix L) was to identify, analyze, and compile information about campus action programs and efforts for improving student retention in higher education. The general findings of the study are reported in this section.

Methodology

WWISR was designed to be descriptive in nature, utilizing self-report information from colleges and universities to document what they have done or are doing to improve retention and how they evaluate and perceive the results of their efforts. The intent of the study was to reach all two-year and four-year institutions in the country, not only to identify the number of institutions engaged in action programs, but also to determine the kinds of activities and programs that were underway. Although deriving information from a sample of institutions would have yielded valuable knowledge, the most desirable results were informational rather than statistical. That is, examples of specific retention programs were sought rather than a simple count of the number of institutions active in the field.

A pilot instrument was constructed during Winter 1978-79 and was reviewed by advisory boards from both ACT and NCHEMS. A draft of the survey instrument was field-tested by 20 institutions. A postcard survey was then sent to 2,459 institutions requesting that the president of each institution designate an individual who should receive and complete a questionnaire. The postcard survey also asked the president some basic questions about retention at his or her institution.

The survey instrument itself was designed to solicit information on institutional retention data regarding the degree to which analysis of attrition/retention had taken place on the campus, on the positive and negative characteristics of institutions that might relate to attrition or retention, on how campuses were organized

for retention efforts, and on assessment of the problem areas encountered by institutions engaged in retention efforts. Most important, the survey requested specific information about programs underway on each campus. In one section, respondents were given a list of institutional services and were asked to check the action programs (i.e., new or modified services or curricular offerings) that had been restructured or introduced on their campus with the specific aim of improving retention. In a separate section, information about action programs was solicited on an activity report form, which asked the respondent to describe each type of campus program and its impact on student retention. These forms requested information on the target group addressed, the nature of the retention activity, the impact on the target group, and the impact on the institution.

Returns were received from 1,600 presidents, and questionnaires were sent to the individuals they designated. Over 990 completed questionnaires were returned, of which 947 were usable in the study. Institutional data and other information not included on the questionnaire were retrieved from ACT Institutional Data Questionnaire files and matched with WWISR returns. Not all of the responding institutions included activity report forms with their completed questionnaires. A total of 1,024 report forms were received from 387 institutions. Thus, the survey resulted in the identification of a large number of separate and distinct efforts underway on college campuses for the purpose of improving student retention. It was found that a great many unpublicized efforts for improving retention are underway in the country.

Findings

The findings of the WWISR survey are presented in a series of 36 tables (pp.36-72). In this section we summarize the principle findings according to the major variables.

Respondents

Table 1 presents the titles of the respondents to the survey. Over 60 different titles were reported, the majority of which are combined to form the headings in the table. The combination of titles related to academic administration accounted for the highest percentage of respondents with 19, followed by the dean of students as respondent in 17 percent of the cases; these were followed by the director or assistant in institutional research and the director of admissions, with 11 percent each. A variety of positions within student affairs accounted for 10 percent, with directors of counseling or counselors making up another 6 percent. Student affairs and academic vice presidents accounted for 5 and 4 percent of the respondents. In 2 percent of the cases respondents filled positions as directors for retention, and in another 2 percent respondents coordinated academic advising.

In most cases, the respondent was the individual designated by the president to receive the survey. From various remarks written by respondents, it is known that some surveys were filled out by several persons.

Retention and Graduation Rates

Table 2 presents retention and graduation information by type of institution. The figures on retention represent the percentage of students who matriculated in a given year and were still enrolled in the same institution after one year. Other figures refer to students still enrolled in the same institution after two years, and graduation figures are given for three years and five years respectively. The highest retention figures are found in the four-year private nonsectarian institutions, and the lowest retention figures in two-year public institutions. The figures for graduation in five years indicate a somewhat higher rate of graduation than is typically found in the literature. Four-year public institutions indicated that 53 percent of their students graduated in five years, compared with 60 percent of those of four-year private schools. Again, four-year private nonsectarian institutions showed a somewhat higher graduation rate than did religious institutions. Retention figures after two years show rather close agreement between four-year public and four-year private institutions--about 56 percent.

Overall, the figures showed a drop of two percentage points in retention of freshmen at public institutions, a gain of two percentage points for two-year private schools, and a drop of one percentage point for four-year private schools. Among private schools, nonsectarian institutions show a slight gain in retention, while the private schools with a religious affiliation showed a drop in retention from 71 to 58 percent.

Table 3 presents retention and graduation figures based on the selectivity of the institution. A direct relationship was found between selectivity of institution and retention, where the most highly selective institutions showed retention of 88 and 89 percent of freshmen, while institutions with open admissions showed retention figures of 57 and 56 percent. In most cases, the private institutions showed higher retention than did the public institutions. No figures are given where fewer than five institutions responded to the questions on retention.

Table 4 indicates the percentage of schools that based their responses on actual data versus estimated data. Although a bit more than half (55 percent) of the responding schools used actual data, only 30 percent of the two-year public schools responded with actual data on attrition figures. For 47 percent of the two-year public schools, retention figures were based on actual data. Two-year private schools and four-year private schools had the highest number of responses based on actual data.

Table 5 presents retention data by type of institution, based on actual versus estimated data. In most cases, the estimated data showed lower retention rates

than did the actual data. The only exception was two-year public schools, where estimated retention was slightly higher than retention indicated by actual data. The actual figures for four-year private nonsectarian retention in two years were 64 and 62 percent for the two reporting years, while the estimated figures for these schools were only 49 and 52 percent. In short, although in most cases the estimated figures closely approximated actual data figures, the average estimated responses of some institutions were somewhat more conservative than their actual figures.

Retention figures by religious affiliation, illustrated in table 6, again showed somewhat lower retention for church-affiliated institutions than for nonsectarian schools. Nonsectarian institutions showed a slight increase in retention of freshmen and sophomores, while church-affiliated institutions showed a drop of three percentage points in their freshmen. Two-year retention favored secular institutions by a wider margin—62 and 61 percent compared to 55 and 54 percent in the church-affiliated schools for the two years reported. Graduation figures likewise favored the secular institutions for both three-year and five-year graduation.

Campus Studies and Analyses

The figures in table 7 show the nature of campus studies and analyses by type of institution. About three-fifths of the institutions have conducted one or more studies, with four-year institutions somewhat more likely to have done so than two-year institutions. About one-third of the institutions are now conducting a study of their retention, and slightly over 20 percent indicated they are planning to conduct a study. Very few institutions indicated that they had not conducted a study and had no plans to do so.

Almost three-fourths of the responding institutions had included a survey of one or more groups in their campus study. Two-year private institutions were the least likely to have surveyed groups.

The group of persons most likely to have been surveyed was dropouts, who were surveyed by 50 percent of the institutions. Dropouts were followed by current students, who were surveyed by 47 percent of the institutions. Low percentages of institutions surveyed the other groups indicated on the survey.

Factors in Student Retention

Table 8 summarizes the most important factors in student retention as indicated by the respondents. Tables 9, 10, and 11 present complete lists of the most important factors by type of institution. In each case, the tables present an average rating where respondents indicated on a scale of one to five the degree of importance for each item. Items that were negative at some institutions showed up in other institutions as most important positive campus characteristics. This was true in the case of academic advising, extracurricular offerings, student involvement in campus life, and financial aid.

In many instances the type of institution influenced which campus characteristics were seen as negative. Conflict between class and job was most important for two-year public schools, but was considerably less important for other types of institutions. Inadequate academic advising was most important for four-year public schools, of some importance for two-year public and four-year private schools, and of least importance for two-year private schools.

Inadequate financial aid was the most important negative campus characteristic for four-year private schools. Several of the items related to student-faculty involvement and interaction were rated highest as negative campus characteristics by four-year public schools. (These items included: inadequate academic support services, inadequate student-faculty contact, and lack of faculty care and concern.) One of the items rated highest by two-year private institutions, restrictive rules and regulations, ranked at the bottom for the other three types of schools. The highest-rated negative campus characteristic for two-year private schools was inadequate extracurricular programs. This item also received a high average rating from four-year private schools.

Different types of institutions identified similar campus characteristics as positive. Caring attitude of faculty and staff was considered most important by all four types of institutions. High-quality teaching was a strong second for most types of schools, followed by adequate financial aid. Two-year public institutions showed the highest average rating on high-quality teaching, high-quality advising, excellent counseling services, and excellent career planning services. Concern for student-institutional "fit" appeared to be greater at private schools rather than at public schools. Among the four types of schools, the four-year private institutions showed the lowest average rating of positive campus characteristics on four of the ten items, including adequate financial aid, high quality advising, counseling services, and early alert systems.

In rating the most important dropout-prone characteristics, different types of institutions were largely in agreement on the relative importance of each item. Low academic achievement and limited educational aspirations were the two most important dropout-prone characteristics.

Commuting was rated lowest by most types on institutions as a dropout-prone characteristic. In several cases, two-year private institutions showed lower average ratings for items than did the other three types of institutions.

In many instances, respondents wrote in characteristics they considered negative, positive, or dropout-prone. (For lists of these characteristics, see Appendixes A, B, and C.) As with the ratings described earlier, some characteristics are negative for one campus, but positive for another. These responses are numerous and varied, and accounted for strong ratings. It appears that respondents tended to rate more highly the items they added to the survey in the "other" category, as perhaps more directly relevant to their particular campuses.

Campus Organization for Retention

Table 12 presents figures on campus organization for retention by type of institution. A majority of the schools indicated that no one was assigned specific responsibility for retention coordination. The range for "no one assigned" covered 68 percent of the two-year public schools and 48 percent of the four-year private schools. The assignment of one specific staff person was most likely at four-year private schools and least likely at four-year public schools. Five percent or less of the institutions had created a new position to deal with retention. For schools with an existing staff person assigned responsibility for retention, the time commitment of that person averaged 32 percent of a full-time position. For schools with a new position, the time commitment averaged 27 percent.

The reporting line of the coordinator is also included in table 12. If a coordinator was assigned responsibility, he or she reported most often to the president, but in widely varying percentages—from 69 percent in the two-year private schools to 24 percent in the four-year public schools. The reporting line next went to the academic vice president, and then to the student affairs vice president. Again, wide variation occurred among the schools in reporting lines.

Fewer than one-third of the schools had a steering committee for student retention, with two-year private schools the least likely to have established such a committee. Of those that had steering committees, the members were most likely to include faculty, followed by student affairs administrators, academic affairs administrators, and general administrators. Students were included on steering committees in 52 percent of the reporting institutions. In most cases, faculty represented the largest group on the committees, with an average of 2.6 members per committee. For institutions with student membership, the average number of students per committee was 1.8, followed by student affairs administrators with 1.7.

Table 13 presents the various titles given retention coordinator, as indicated by the respondents. As with the titles of the respondents to the survey, over 60 different titles were mentioned. The dean of students was named retention coordinator in 20 percent of the institutions, followed by an academic administrator in 16 percent, and others on a student affairs staff in 15 percent. The director of admissions was named coordinator in 12 percent of the cases. In 5 percent of the cases, the coordinator was given the title of director of retention. Such a title was usually added to other responsibilities, and the commitment to retention activities was part-time. In a number of cases, respondents indicated that a new position had been created and assigned responsibility for retention. These institutions reported 27 different titles (see Appendix D).

The survey solicited information on the initial moving force behind retention efforts. In each case, more than one item could be checked in case more than one official or office was considered the initial moving force behind retention efforts.

Table 14 presents the findings on this item and shows that the president was checked as primarily responsible for retention efforts in 48 percent of the cases. Some variations occurred by type of institution, with the president indicated as the moving force in 64 percent of two-year private institutions and 40 percent of four-year public institutions. In 35 percent and 33 percent of the schools, respectively, the vice president for student affairs and the vice president for academic affairs were checked as being the initial moving force behind retention efforts. Admissions was checked more often by two-year private institutions, while counseling services was checked more often by two-year public institutions. The faculty and registrar were checked by 17 percent of the respondents. The office of financial aid did not play an active role in initiating retention efforts (except at two-year private schools, 15 percent of which checked the item). In 3 percent of the cases the vice president for business was indicated as the initial moving force behind retention efforts.

Respondents were asked to identify other moving forces besides those included in the survey. Appendix E presents a list of those added in the category "other." It includes, first, administrative offices or areas considered "other student services" that provided the initial impetus to retention efforts. (In some cases, the terms are similar to those included in the survey; in others, they are not.) Appendix E next lists external stimuli responsible for initiating retention efforts. (The number of responses here was low.) Finally, it includes the category "other": responses again varied—from a faculty union to student demand.

The problems encountered by institutions in their retention efforts are presented in table 15. Lack of time, data, staff, and funds were the problems most often cited. Two-thirds of the respondents indicated in open-ended comments that there existed on their campuses unique positive or negative conditions that affected retention or attrition.

Action Programs

Information about action programs was solicited by the survey in two ways. In one section, respondents were asked to check from a list of institutional services the action programs—new or modified services or curricular offerings—that were restructured or introduced on their campus in a specific effort to improve retention. As noted in table 16, only 17 percent of the institutions indicated that no special action programs were undertaken on their campuses. The action program cited most often was improvement of academic advising, which was checked by 53 percent of the responding institutions. The next most frequent action programs included special orientation activities, exit interviews, special counseling programs, early warning systems, and new academic support/learning services. Exit interviews and early warning systems appeared much more frequently at four-year private institutions than at other types of schools. Special counseling programs were somewhat more likely at four-year public schools. Students were somewhat more likely to be used as peer advisers and counselors at four-year

schools than at two-year schools. An average of 29 percent of the institutions noted curricular innovations for credit. Expanded placement services and extracurricular activities were somewhat more likely at four-year private schools. A wide variation by type of institution occurred for undeclared major services, with 31 percent of the four-year public schools and less than 20 percent of the other types of schools identifying these programs. Faculty instructional development was cited by 18 percent of the institutions as a retention-related activity.

Appendix F presents a complete list of target groups, including those not found frequently enough to represent a specific category. Nevertheless, programs directed at these groups were found to be effective in improving retention.

A variety of action programs were described that did not fall easily within the general categories. Appendix G lists those action programs, many of which are unique to individual campuses. Nevertheless, the programs exhibit some creative thinking and readily account for the high ranking of the "other" category in retention impact. They also illustrate, in the opinion of the authors, that applicable and appropriate action programs may take many different forms, depending upon local initiative. What works in improving student retention on some campuses must be adapted to fit local situations elsewhere.

Activity Forms and Action Programs

The second method for soliciting action-oriented retention information was the inclusion of a retention activity report form, on which the respondent was asked to describe in some detail the actual campus program and its impact on student retention.

Included in table 17 are the percentages of institutions that submitted activity forms. Forty-one percent of the schools returned action forms, with an average of 2.39 forms per submitting institution. Four-year public institutions had the highest average percentage of respondents who returned forms, and also returned the highest average number of forms returned per institution.

A total of 1,024 activity forms were returned from 387 institutions. Forty-seven different types of action programs were identified by respondents on the forms. These action programs were combined into the 15 categories in table 17. The most frequent type of program which appeared in 24 percent of the forms, dealt with learning skills and academic support systems. These programs were most likely to occur in four-year public institutions (33 percent), and least likely in four-year private institutions (18 percent). Programs in advising, orientation, and early warning systems were the next most frequent type of action programs. Different types of institutions had similar numbers of advising and orientation programs. But only 6 percent of four-year public institutions operated early warning systems, compared to a range of 13 to 18 percent in the other three types of institutions. The remaining action programs occurred in up to 6 percent of the cases.

A comparison of tables 16 and 17 indicates that they include similar types of action programs. Four of the top items in table 16 also appeared in table 17 as the most frequently offered types of action programs. However, two of the top six items in table 16—exit interviews and special counseling programs—appeared in only 4 percent (or less) of the action forms.

Target Groups

Approximately 40 different target groups were identified on the activity forms as receiving special attention through action programs. These target groups were combined into the 14 categories in table 18. "New students" (including both freshmen and transfers) was the target group most often addressed, followed by "all students." Similar overall percentages pertained to high-risk students, students with low academic performance, potential dropouts, and others. Two-year private schools showed the lowest percentage of programs directed to all students, (6 percent) but the highest percentage of programs directed toward high-risk students (26 percent). High-risk students were addressed by 9 percent of two-year public and 6 percent of four-year private schools. Programs directed at potential dropouts were more likely at two-year public and four-year private schools than at two-year private and four-year public schools. The remaining target groups were addressed by up to 6 percent of the institutions, with some minor variations by type of institution. It should be noted that while minority students were specifically cited as a target group by only 3 percent of the respondents, minority students were mentioned in a variety of cases as beneficiaries of action programs falling into other categories.

The categories "multiple action programs" and "multiple target groups" were devised for those action report forms on which the respondent listed more than one program, or specifically indicated that a multiple approach was attempted. These categories do not include cases where more than one activity form was submitted. The multiple programs and target groups included two or more of the general categories of programs. Appendixes H and I list examples of action programs and target groups that were combined in some fashion on different campuses. The high ranking of the multiple categories in retention impact attests to the value of approaching retention from a broad perspective, and of using more than one approach.

Indexes of Success

The action activity report forms included a rating scale for the institution's satisfaction with the program and a scale for the respondent to estimate the retention improvement resulting from the program. When coding the action forms, it was noted that wide variation existed between respondents' ratings of the indexes of satisfaction and retention estimate, and the written comments they included with their ratings. In some cases, respondents gave low ratings accompanied by very enthusiastic comments and figures about the success of the program. Others gave very high ratings with comments to the effect that no real basis existed for the high

ratings. Some were reluctant to rate highly a program that was only recently initiated, while other respondents said they rated highly on potential, but not on their actual experience with a given program. For these reasons, a general impact index and a retention impact index were devised (see Appendixes J and K). In each case, the index ranged from one to five, with five indicating superior impact.¹ A superior retention index indicates a state of improvement in retention of 10 or more percentage points from the previous date of analysis. Thus, if 55 percent of a target group enrolled for a second year prior to a new intervention program, and 65 percent or more enrolled for a second year after the intervention program, the program was given a retention impact index of five. An index of five was also used where the terminology expressed great improvement.

The general impact index reflects how a campus responded to the action program, beyond any consideration of retention improvement. It was apparent from the written comments on many forms that the campuses benefited in a variety of ways from having introduced new or modified programs. These benefits—often more immediate than retention improvement—sometimes led to new outlooks, new programs, or even improved morale on the campus; these, in turn, were thought to enhance retention. Thus, the general impact index illustrates attitudes and feelings on the campus as much as it illustrates tangible change. As with the retention index, low ratings usually indicate lack of information on results rather than poor results.

Table 19 presents the average ratings, according to several success indexes, by type of institution. On a scale of one to five, the average satisfaction with success of the program was 3.93 for all types of institutions, with four-year private schools somewhat more satisfied than others. In the case of estimated impact on retention, the four-year public schools were the most optimistic. On general impact, the returns were similar for the three types of institutions, with the lowest impact appearing at two-year public schools. On the retention impact index, the two-year private schools showed the highest apparent success, followed by four-year public schools, four-year private schools, and two-year public schools. Figures on general impact and retention impact appear both for all programs and for only those programs that provided enough information on which to base a rating. (A rating of one indicates no information.)

Target Group Success

The impact of action programs on various target groups is presented in table 20. A rating of one again indicates insufficient information. Thus, the table includes only those programs that were rated as showing some impact on a range of two to five. In terms of retention improvement, the target groups that benefited the most from intervention programs were dropouts, resident students, high-risk students,

¹Three graduate students with experience in content analysis and coding read through all the action forms and assigned success indexes to the programs.

multiple target groups, and new students. For all target groups, varying degrees of retention improvement did take place.

In terms of general campus impact, the target group efforts that showed the greatest benefits were those directed at resident students, minority students, others, women and adults, and multiple target groups. Thus, action programs directed at these groups showed the greatest overall impact on the campus. Again, varying degrees of positive campus impact occurred with all the target groups.

Action Program Success

The success index of action programs for retention and for general campus impact is presented in table 21. Program emphasis on new policies and structures for retention showed the greatest improvement in retention, followed by new learning/academic support programs, orientation, early warning systems, and curricular developments. Although programs emphasizing student peer involvement ranked low on retention improvement (3.2), they ranked first in general campus impact. In several other cases, including career assistance programs and faculty/staff development, the campus impact appeared considerably greater than the retention impact. Exit interviews ranked lowest on both general campus impact and retention impact.

Retention and General Impact

The impact of specific action programs on specific target groups is presented in tables 22 and 23. Table 22 deals with the programs that had a Retention Impact Index of two or higher, and eliminates programs for which insufficient data made evaluation impossible. The table is presented in a matrix format to enable the reader to pinpoint any action program and its effect on any target group, or vice versa. In each case, the retention index is given along with the number of programs that fell into that category. To illustrate, 25 action programs were designed to apply learning and academic support services to students with low academic performance; the average retention index of the 25 programs was 3.32. These figures compare to 37 cases where learning and academic support services were applied to high-risk students with a retention index of 3.57. Thus, learning and academic support programs applied to high-risk students appeared to have a greater impact on improving retention than did learning and academic support programs applied to low academic performing students. Many programs, of course, were unranked, because there was insufficient data by which to evaluate them.

The material presented includes categories of effort that are represented by only a single case. In such instances, the index rating is indicative of one school's experience with a specific type of retention effort. One school, for example, found a significant improvement in student retention when new policies and structures for retention were applied to a target group of all new students. Similarly, one program designed around peer participation applied to women and adults resulted in a retention effort of 10 percentage points or better in that group (an index of five).

Table 23 illustrates the general impact on the campus of the action programs applied to target groups when the general impact index was two or higher. As with the previous table, the matrix illustrates the results of specific action programs designed for specific target groups. By way of illustration, learning and academic support services were applied to high-risk students in 59 institutions, with a general impact index of 3.88. The general impact was somewhat higher than learning and academic support services offered to low academic achievers, which showed a general impact index of 3.68. Again, the matrix includes cases with few institutional examples. Faculty-staff development was applied to all students in three cases with an average index of 4.00. In the case of faculty-staff development applied in the area of potential dropouts, with only one case represented, a significant impact was felt on the campus.

Action Programs and Target Groups

As explained above, each of the various action programs typically addressed a wide variety of target groups, with varying degrees of effectiveness. This section graphically describes four of the action programs and the target groups which they addressed. In each case, the diagrams show only the programs that were rated with a general impact or retention index of two or better. Programs that provided insufficient data for evaluating their effectiveness were eliminated.

Diagram 1 (p. 27) illustrates the impact of learning and academic support programs on different target groups. Under "general impact index" at the top of the diagram, the figures in the large circle indicate that 199 such programs received a general impact index in the range of two to five, with an average index of 3.83. The largest number of programs (59) addressed high-risk students, with an average general index of 3.88. The figures on the bottom half of the diagram refer to retention impact and indicate that 115 programs received a retention impact index of two to five, with an average index of 3.45. Again, the highest number of learning and academic support programs (37) addressed high-risk students, with an average retention index of 3.57. In the case of new students, 12 programs were rated with an index of two to five, with an average index of 3.42. Interestingly, although only a small number of learning and academic support programs addressed particular target groups, the actual retention index of these programs was quite high. Take "all students" as an example: while only four programs addressed the total student body, their average retention index was 4.25, indicating a significant improvement in retention among those who utilized the service.

Diagram 2 illustrates the target groups which retention programs in advising addressed. The target groups most often addressed by advising programs included new students, all students, other categories of students unique to the given campus, students with undecided majors and careers, and low skills students. The high general and retention indexes attached to the category "other" illustrates how important it might be on a given campus to identify carefully target populations appropriate for a special service.

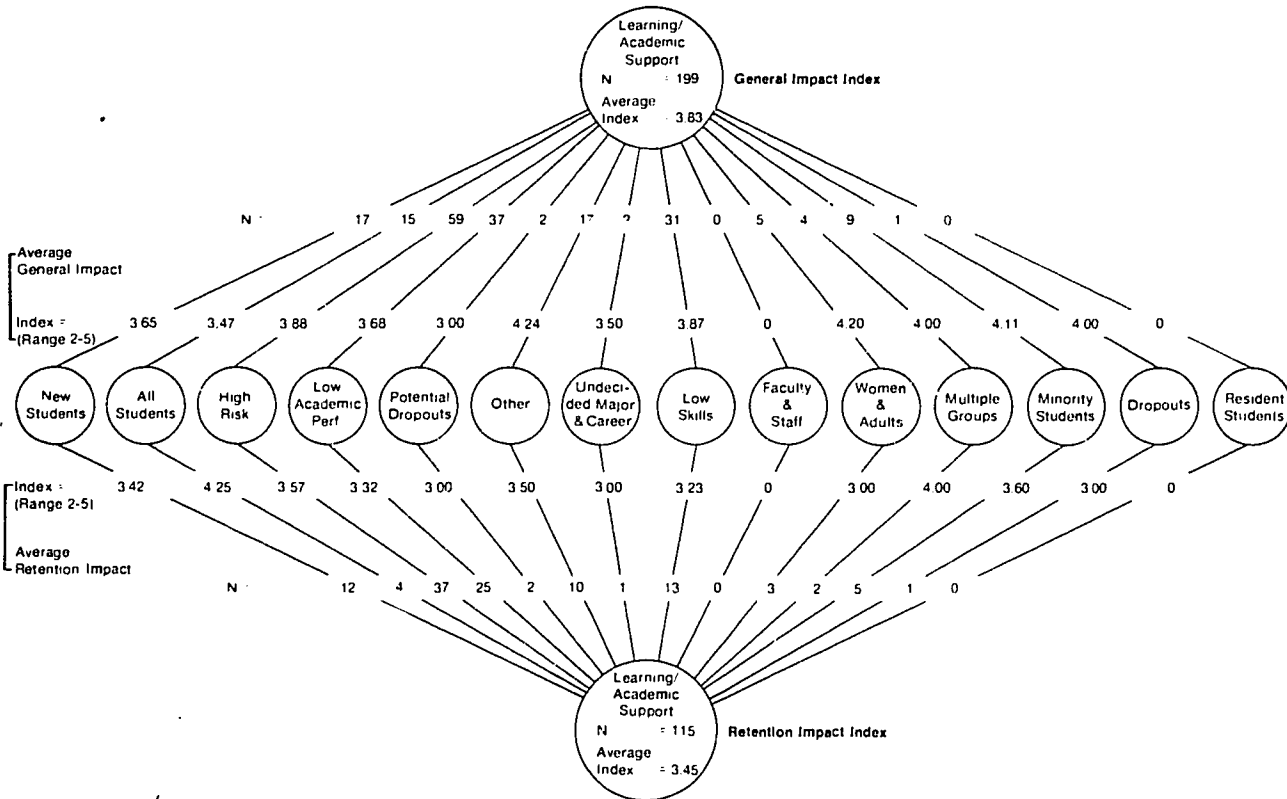


DIAGRAM 1

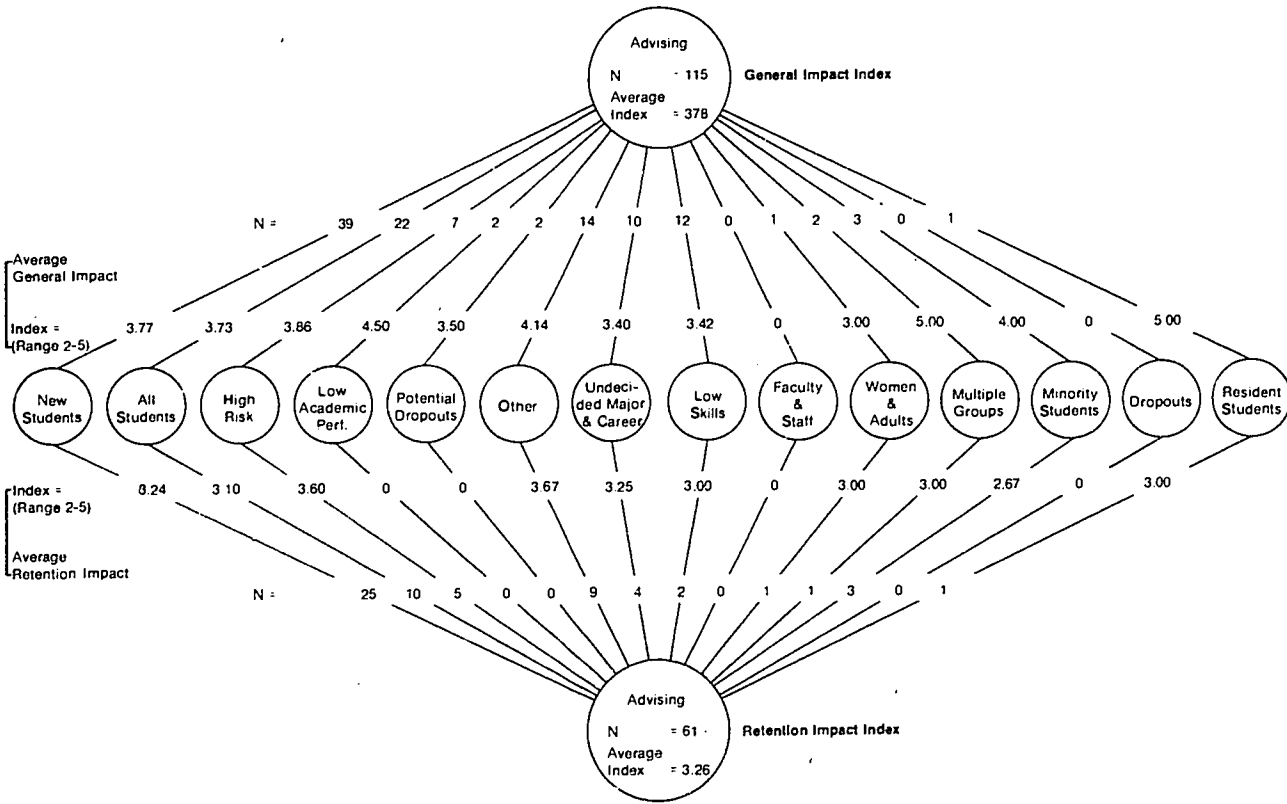


DIAGRAM 2 37

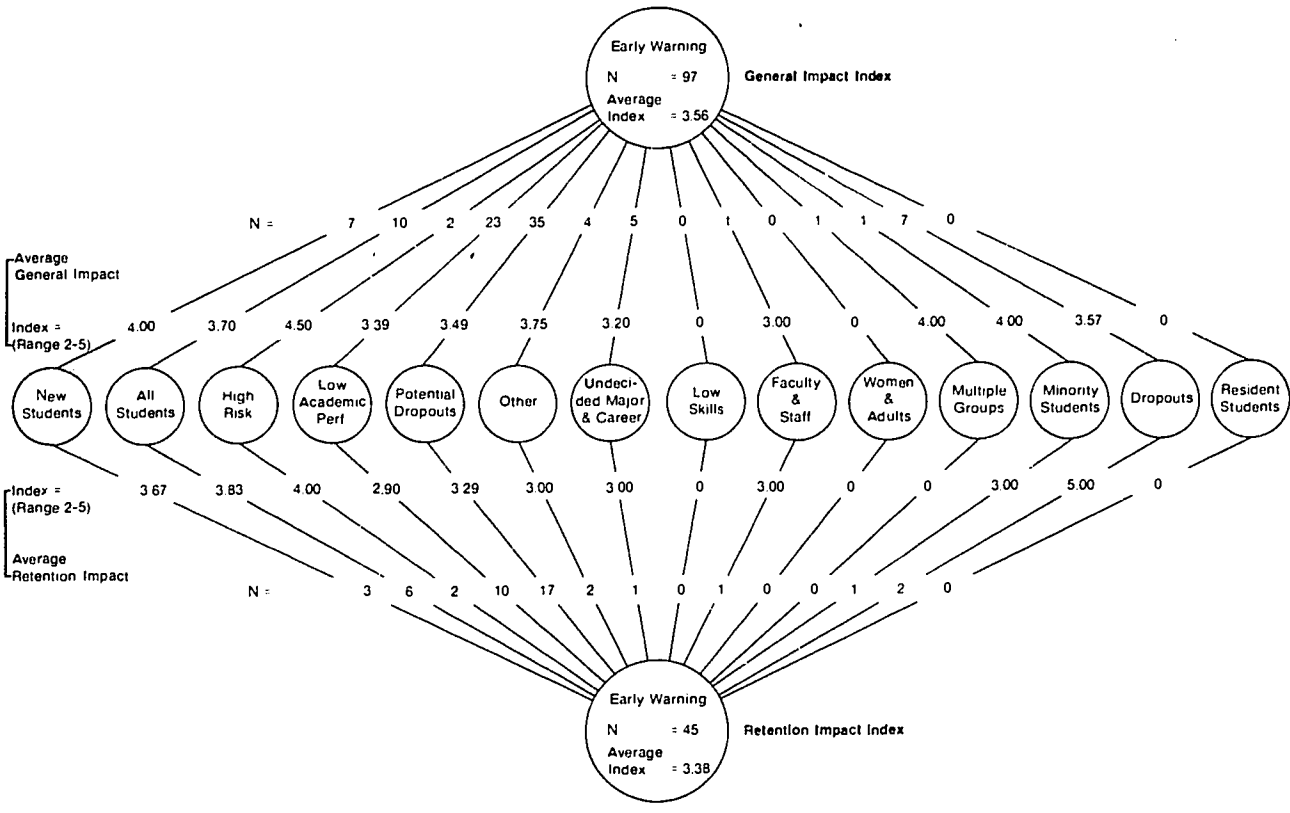


DIAGRAM 3

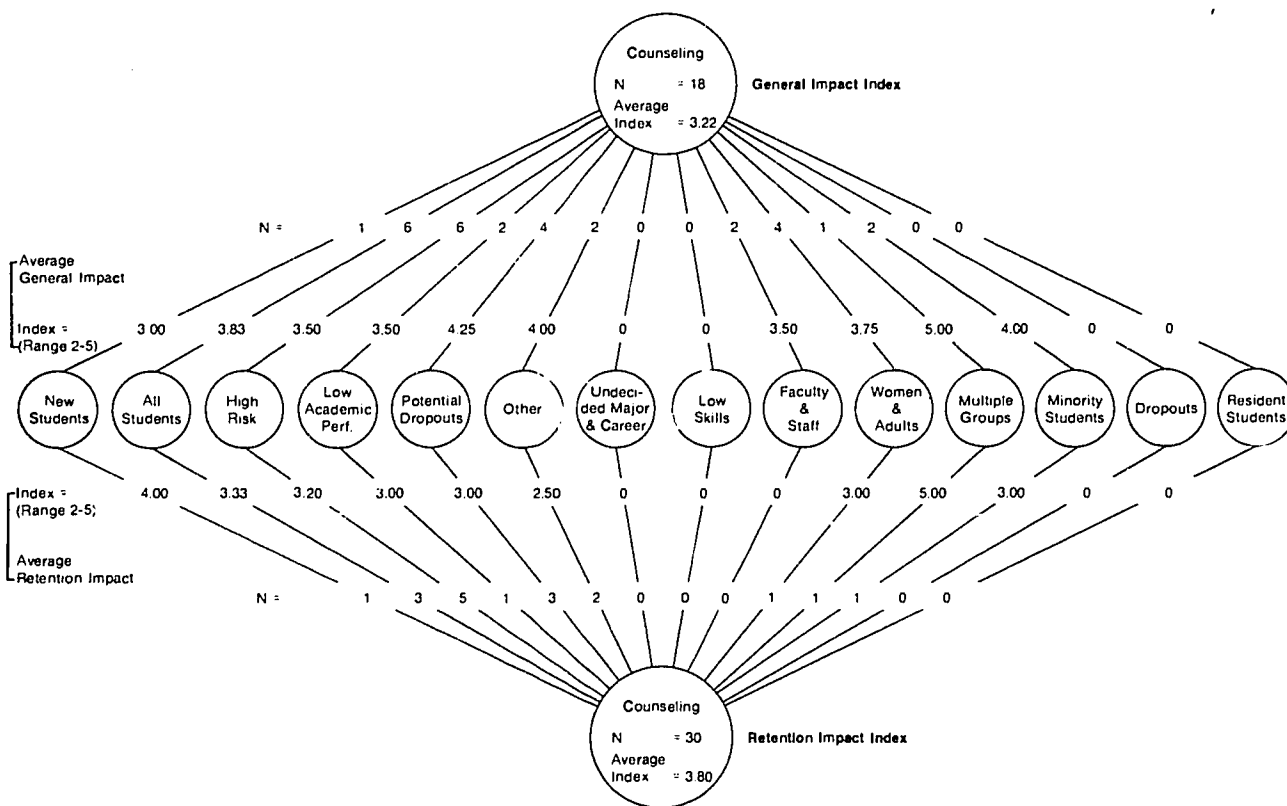


DIAGRAM 4

Diagrams 3 and 4 illustrate the target groups to which programs of early warning and counseling were addressed. In the case of counseling programs, the high average general index would seem to indicate that students feel considerable satisfaction with, and appreciation toward, special counseling efforts. The personal approach, in other words, was favorably received by most target groups—which, then, also showed improvements in retention.

It should be stressed that the diagrams do not indicate what the "best" programs might be for given target groups. Instead, they illustrate how successful retention efforts can be applied to a variety of target groups with reasonable expectations that retention will improve. The most important factor in every case will be how appropriate the intervention strategy is for a given campus and for the target group at which it is directed. Local conditions should always influence the course of action.

Organization for Retention and Results

The coordination of retention efforts was analyzed to see if it exerted any effect on the type of retention activity in which a school engaged.

Table 24 presents information on the status of campus studies and analyses by extent and coordination of effort. In terms of conducting analytical studies of attrition and retention, 54 percent of the institutions with no coordinator responded "yes," compared with 67 percent of institutions with an existing staff appointed as a coordinator and 60 percent of institutions where a new position had been created to coordinate retention. Sixty-nine percent of institutions that had steering committees had conducted studies. Twenty-nine percent with no coordinator were now conducting a study. However, over 40 percent of schools with coordinators or steering committees were currently conducting studies of attrition and retention. A little over half (55 percent) of schools with no coordinator had conducted a survey of one or more groups, while 73 percent and more of schools with coordinators and steering committees had done so.

Among the schools that had conducted surveys, the distribution of groups surveyed by extent and coordination of effort was rather even. A somewhat higher percentage of schools with no coordinator surveyed dropouts than did those where responsibility was assigned to several staff or to a new position. In the case of surveys of faculty, 9 percent of the schools with no coordinator conducted such surveys, as compared with 18 percent (or more) of schools with coordinators. Also, schools with no coordinators were less likely to survey administrators or staff than were schools with coordinators.

Table 25 presents information on the type of action programs checked by institutions by extent and coordination of effort. While 77 percent of the schools with no one assigned retention responsibility checked special action programs, over 90

percent of schools with coordinators checked had special action programs. Schools were more likely to be engaged in many of the individual action programs on the list if they had a coordinator. This was most evident in special orientation activities, early warning systems, new administrative structures, academic support and learning services, and exit interviews. Other programs that occurred more frequently when there was a retention coordinator include improvement of academic advising, special counseling programs, new extracurricular activities, undeclared major services, faculty instructional development, admissions geared toward student-institutional fit, and use of students as peer advisors and counselors. In some of these cases, assigning the responsibility for coordinating retention efforts to several staff members increased the likelihood of programs, while, in others, creating a new position to handle the specific responsibility seemed to make the difference.

Tables 26 and 27 present similar information: they compare the activity forms returned by institutions by the extent and coordination of effort existing on the campus. In terms of action programs, the likelihood of activity seemed evenly distributed across different types of efforts. Academic advising programs occurred most often at institutions with a newly assigned position for retention, while learning and academic support services occurred most frequently at schools with no assigned coordinator or with a new position assigned as coordinator (see table 26). The existence of a steering committee showed percentages similar to those for the other types of coordination.

In terms of target groups, the likelihood of addressing particular groups was evenly distributed by type of coordinating effort. Assignment of coordination to a new position resulted in somewhat fewer cases of programs directed to all students and somewhat more programs directed at high-risk students. Assignment of coordination to an existing staff person resulted in somewhat fewer programs for high-risk students and somewhat more programs for potential dropouts. Figures for use of steering committees are similar to those for other types of coordination.

In all cases, the institutions represented in tables 26 and 27 had submitted specific activity forms showing retention programs directed at specific target groups. In the opinion of the authors, this fact could contribute to the lack of variation by type of coordinating effort, in that all these schools were perhaps more actively engaged in retention programs than schools that did not submit activity forms.

Tables 26 and 27 also display the likelihood of retention programs by the existence of studies on the campuses. The variable of having conducted a study on the campus did not seem to change the distribution of action programs or target groups addressed.

Table 28 presents information on the success of programs reported on the activity forms by coordination of effort, reporting line of coordinator, and presence of

steering committee. In terms of general impact on the campus, the highest success rating (3.95) was at institutions with a new position created for retention. Having no coordinator assigned resulted in a rating of 3.76.

In terms of retention, the lowest rating was for "no one assigned," with higher ratings for specific coordinator responsibility. The items on program satisfaction and retention estimate both showed higher ratings with assignment of coordination than with no one assigned. (Each response category includes the number of activity forms on which the success index is based.)

The information by reporting line of coordinator is rank ordered by retention index. The highest retention indexes occurred when the coordinator reported to the academic vice president, president, some other individual specified, and the student affairs vice president, respectively. The numbers involved for the remainder of the coordinators' supervisors were very low in terms of retention impact. Programs reporting to the academic vice president showed the highest general index (3.92), followed by student affairs vice president (3.87), and president (3.73). Indexes for satisfaction with programs and estimate of retention followed similar patterns, although in the case of retention estimate, the director of admissions ranked at the top.

Programs undertaken on campuses with steering committees appeared to have a higher general impact and a lower retention impact than programs undertaken on campuses without steering committees. The indexes for satisfaction with programs and estimate of retention were both higher on campuses with committees than without.

Table 29 presents information on the types of action forms submitted by schools arranged according to the initiating force behind the retention efforts. Although types of offices or administrators who initiated retention efforts varied widely, the likelihood of specific action programs did not vary much by initiation of effort. When retention activity was initiated by the vice president for academic affairs, for example, 14 percent of the programs involved advising, and 28 percent, learning and academic support services. These percentages were similar to those for programs conducted when the initial impetus came from student affairs or from faculty.

Table 30 presents information on the target groups addressed by the initiating force behind retention efforts. Again, except for infrequent instances where administrative offices were the initiating force, the types of target groups addressed did not vary markedly. It would appear from this information that neither the target groups addressed nor the types of action programs implemented depended upon the location of the initiating force behind the retention effort.

Retention Leaders

Of particular interest to this study are the "Retention Leaders": *action programs that had the greatest general impact and the greatest retention impact on campuses*. Retention Leaders do not necessarily stand out as different or unique in comparison with the rest of the programs analyzed; rather, they are programs with enough specificity on the report forms to rank in the top categories in retention improvement and in general impact on the campus. In each case, they received a top index of five. In the case of retention, an index of 5 means that improvement in retention of ten or more percentage points (or "significant" improvement) took place as a result of the action programs (see Appendix J). A general impact index of five means that the program resulted in a specific new emphasis or program on the campus, was described as excellent or highly satisfactory, or contributed to multiple benefits showing broad impact and satisfaction (see Appendix K).

Table 31 presents the Retention Leaders that had success indexes of five only and those that had indexes of four or five. A total of 50 programs were given a retention index of five, while 149 programs had a general index of five. Learning and academic support services had the greatest success in both retention and general impact, followed by orientation programs and advising programs. In terms of impact on retention, early warning systems constituted 8 percent of the Retention Leaders.

Similar rankings were found when programs with a retention index of four or five were included. Using these figures, career assistance programs, for example, ranked as one of the top five programs at 6 percent of the institutions.

Table 31 illustrates that most types of action programs found in the study had a significant impact either on retention or on the campus in general. Only exit interviews and co-curricular activities showed a negligible effect on retention.

Table 32 presents the percentage figures of Retention Leaders by target group. Retention Leaders most frequently addressed new students, all students, high-risk students, and low academic achievers. When programs included an index of both four and five, potential dropouts emerged as the fourth most frequent target group to achieve improvement.

In terms of general impact, the top three target groups were new students, all students, and high-risk students. With all success indexes included, the target group "other" accounted for 11 to 13 percent of the successful retention programs. This suggests that a variety of programs, so specific or individualized as to fall outside the general categories, nevertheless had a significant impact on retention as well as on the campus in general.

Table 33 provides data on Retention Leaders by type of institution. Some new trends can be observed. All types of schools showed the greatest percentage of

retention success in learning support, orientation, and advising programs. With the exception of the two-year private institutions, which showed the fewest number of successful programs, each type of institution did have a number of highly rated programs. It would appear that each type of institution has the potential to implement action programs that might result in a retention improvement of 10 percentage points or more.

Table 34 presents information on target groups of Retention Leaders by type of institution. Two-year public institutions had successful retention programs directed toward 7 different target groups. Four-year private institutions directed 19 programs at 9 separate target groups. In general, the target groups of Retention Leaders seemed well distributed by type of institution; a possible exception is two-year private institutions, which appeared underrepresented. Most types of institutions appear to have achieved superior retention and general impact by addressing a variety of different target groups.

Table 35 presents Special Retention Leaders, programs that resulted in both a retention impact index and a general impact index of five. These programs included academic learning and academic support services, orientation, advising, and seven other action programs with at least one instance each. Each type of institution was represented by one or more Special Retention Leaders, with four-year schools accounting for about three-fourths of the programs.

Table 36 presents information on the target groups of the 27 Special Retention Leaders. The high-impact programs were most frequently directed at new students, low academic achievers, high-risk students, and those in the category "other." Nevertheless, most specific target groups were represented with at least one program.

TABLE 1

Titles of Respondents

Title	Percentage
Academic administrator	19
Dean of students	17
Director or assistant of institutional research	11
Director of admissions	11
Student affairs staff	10
Director of counseling or a counselor	6
Registrar	5
Student affairs vice president	5
Academic vice president	4
Coordinator for advising	2
Director for retention ¹	2
Other or no response	8

TABLE 2

Retention and Graduation Rates by Type of Institution

	Retention after 1 Year						Retention after 2 Years				Graduation			
	1975-76		1976-77		1977-78		1975-77		1976-78		In 3 Yrs.		In 5 Yrs.	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2-Year public	81	57	92	57	101	55					213	42		
2-Year private	28	61	30	64	31	63					48	61		
Secular	12	63	12	62	12	64					20	64		
Religious	16	60	18	65	19	62					28	60		
4-Year public	109	68	109	67	112	66	92	55	83	54			148	53
4-Year private	223	71	229	71	237	70	187	57	187	57			327	60
Secular	74	72	80	72	85	73	60	62	63	61			116	63
Religious	149	71	158	70	161	68	131	55	130	54			211	58
All	446	67	479	67	502	65	286	56	280	56			277	58

TABLE 3
Retention and Graduation Rates by Selectivity and Type of Institution

	Retention after 1 Year								Retention after 2 Years				Graduation			
	1975-76		1976-77		1977-78		1975-77		1976-78		In 3 Yrs.		In 5 Yrs.			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Highly selective	17	88	17	89	17	89	14	78	14	78	—	—	23	75		
4-Year public		2	80	2	79	2	80	2	70	2	66	—	—	4	64	
4-Year private		15	89	15	90	15	90	12	80	12	80	—	—	19	77	
Highly selective	69	62	79	69	78	68	78	58	63	59	63	—	—	86	64	
4-Year public		16	76	18	76	18	76	17	62	17	61	—	—	19	59	
4-Year private		46	80	51	79	50	79	41	64	42	63	1	92	67	65	
Additional	71	69	70	71	71	64	70	61	57	52	59	5	64	97	58	
2-Year private		1	95	1	95	1	95	—	—	—	—	3	65	—	—	
4-Year public		20	69	19	68	16	64	18	58	13	55	1	66	26	55	
4-Year private		48	70	51	72	47	71	43	57	39	59	1	60	71	63	
General	192	169	67	176	66	192	65	123	53	124	51	54	66	212	55	
2-Year public		5	70	5	69	5	64	—	—	—	—	7	55	—	—	
2-Year private		15	63	16	63	16	63	1	25	1	25	31	64	1	45	
4-Year public		48	67	49	67	55	66	38	54	36	52	4	45	58	56	
4-Year private		101	67	106	66	116	65	84	53	87	51	12	71	153	57	
General	161	129	57	146	57	161	56	30	45	31	45	229	43	59	48	
2-Year public		81	55	94	56	105	54	—	—	—	—	206	42	—	—	
2-Year private		12	57	13	62	14	60	—	—	—	—	14	54	1	60	
4-Year public		23	61	24	60	24	60	19	46	18	47	4	34	41	46	
4-Year private		13	63	15	58	18	52	11	43	13	43	5	52	17	52	
	502	446	67	479	67	502	65	286	56	280	56	289	47	477	58	

... 47

TABLE 4
**Institutions Reporting Data Based on Actual Studies
 vs. Estimated Data**
 (In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	276	51	205	363	925 ^a
Attrition					
Actual	30	61	60	70	55
Estimated	70	39	40	30	45
N =	131	41	157	283	636 ^b
Retention					
Actual	47	76	69	79	69
Estimated	43	24	20	16	23
Both	10	0	11	5	7

^aContains 30 cases not identified by type of institution.

^bContains 24 cases not identified by type of institution.

TABLE 5
**Differences in Retention by Type of Institution
 Based on Actual Study Data vs. Estimated Data**

	Retention									
	1 Year 75-76		1 Year 76-77		1 Year 77-78		2 Year 75-77		2 Year 76-78	
	N	%	N	%	N	%	N	%	N	%
2-Year Public	81	57	92	57	101	55	—	—	—	—
Actual	38	58	45	55	49	53	—	—	—	—
Estimated	33	58	36	59	40	57	—	—	—	—
2-Year Private	28	61	30	64	31	63	—	—	—	—
Actual	24	63	25	65	25	62	—	—	—	—
Not church affiliated	9	67	9	66	9	67	—	—	—	—
Church affiliated	15	60	16	65	16	59	—	—	—	—
Estimated	4	53	5	56	6	65	—	—	—	—
Not church affiliated	3	50	3	52	3	56	—	—	—	—
Church affiliated	1	60	2	63	3	74	—	—	—	—
4-Year Public	106	68	109	67	112	66	92	55	83	54
Actual	71	69	73	69	71	68	62	55	53	53
Estimated	24	67	23	66	25	65	19	57	18	58
4-Year Private	217	71	229	71	237	70	187	57	187	57
Actual	170	71	180	71	183	70	146	57	147	56
Not church affiliated	55	75	60	74	63	75	46	64	49	62
Church affiliated	115	70	120	69	120	68	100	54	98	53
Estimated	36	69	36	70	41	69	30	57	29	58
Not church affiliated	12	62	12	64	14	66	8	49	8	52
Church affiliated	24	73	24	74	27	71	22	60	21	60

TABLE 6

Retention and Graduation Rates by Church Affiliation of Institution

	Retention after 1 Year						Retention after 2 Years				Graduation			
	1975-76		1976-77		1977-78		1975-77		1976-78		In 3 Yrs.		In 5 Yrs.	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Not church affiliated	86	71	92	71	97	72	60	62	63	61	33	66	117	63
Church affiliated	166	70	177	70	180	67	133	55	131	54	34	60	213	58

TABLE 7

Campus Studies and Analyses by Type of Institution
(In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Have conducted study/studies	48	53	67	73	59
Now conducting study	31	29	42	34	38
Planning to conduct study	24	22	21	21	22
Need a study but have none	21	24	15	15	17
No study and no plans	3	5	3	5	2
Have surveyed groups	73	58	77	75	74
Groups surveyed:					
Dropouts	53	36	53	48	50
Current students	41	44	49	52	47
Alumni	17	20	13	12	14
Prospective students	9	11	15	15	13
Reenrollers	15	9	13	11	13
Faculty	7	11	5	11	9
Administrators	6	13	6	10	8
Others	9	4	8	5	7
Staff	4	11	4	8	7

51

E-1

TABLE 8
Most Important Factors in Student Retention
(In Rank Order)

Campus/Student Characteristic	Average Rating ^a
Negative	
Inadequate academic advising	3.03
Inadequate curricular offerings	2.81
Conflict between class schedule and job	2.80
Inadequate financial aid	2.63
Inadequate extracurricular offerings	2.61
Inadequate counseling support system	2.59
Positive	
Caring attitude of faculty and staff	4.29
High quality of teaching	3.90
Adequate financial aid	3.69
Student involvement in campus life	3.30
High quality of advising	3.23
Dropout-prone	
Low academic achievement	4.45
Limited educational aspirations	4.09
Indecision about major/career goal	3.93
Inadequate financial resources	3.65

^aOn a scale of one (low) to five (high).

TABLE 9
Negative Campus Characteristics by Type of Institution
(In Average Ratings)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Inadequate academic advising	2.93	2.33	3.58	2.93	3.03
Inadequate curricular offerings	2.69	2.60	2.91	2.91	2.81
Conflict between class/job	3.82	2.13	2.86	2.05	2.80
Inadequate financial aid	2.37	2.49	2.61	2.99	2.63
Inadequate extracurricular programs	2.49	2.88	2.34	2.58	2.61
Inadequate counseling-support system	2.56	2.29	2.76	2.82	2.59
Inadequate academic-support services	2.40	2.14	2.80	2.53	2.52
Inadequate cultural/social growth	2.40	2.13	2.52	2.63	2.51
Inadequate career-planning services	2.59	2.19	2.73	2.36	2.49
Inadequate student-faculty contact	2.37	1.61	2.97	2.06	2.33
Insufficient intellectual challenge	2.29	2.06	2.40	2.29	2.30
Inadequate part-time employment	2.38	2.10	2.45	2.12	2.27
Lack of faculty care and concern	2.29	1.59	2.86	2.00	2.26
Unsatisfactory living accommodations	2.01	2.28	2.25	2.41	2.25
Low quality of teaching	2.20	2.00	2.44	2.12	2.21
Lack of staff care and concern	2.23	1.71	2.51	2.07	2.20
Restrictive rules and regulations	1.35	2.62	1.58	2.09	1.78

Note. Ratings are on a scale of one (low) to five (high).

TABLE 10
Positive Campus Characteristics by Type of Institution
(In Average Ratings)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Caring attitude of faculty and staff	4.31	4.51	4.02	4.40	4.29
High quality of teaching	4.02	3.67	3.71	3.93	3.90
Adequate financial aid	3.81	3.53	3.82	3.52	3.69
Student involvement in campus	3.00	3.40	3.45	3.45	3.30
High quality of advising	3.43	3.28	3.22	3.08	3.23
Excellent counseling services	3.56	3.06	3.16	2.94	3.20
Excellent career-planning services	3.36	2.77	3.21	2.96	3.13
Concern for student/institutional fit	2.83	3.36	3.02	3.28	3.09
Admissions geared to graduation	2.54	3.14	3.06	3.15	2.95
Early-alert system	2.70	2.84	2.68	2.61	2.69

Note. Ratings are on a scale of one (low) to five (high).

TABLE 11
Dropout-prone Characteristics by Type of Institution
(In Average Ratings)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Low academic achievement	4.45	4.43	4.41	4.48	4.45
Limited educational aspirations	4.17	4.11	4.13	4.04	4.09
Indecision about major/career goal	4.03	3.69	3.95	3.90	3.93
Inadequate financial resources	3.59	3.54	3.53	3.79	3.65
Economically disadvantaged	3.40	2.89	3.28	3.07	3.21
First-generation student	2.70	2.81	2.65	2.35	2.55
Commuter	2.31	2.04	2.61	2.46	2.41

Note. Ratings are on a scale of one (low) to five (high).

TABLE 12
Campus Organization for Retention by Type of Institution
 (In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total					
<i>Retention Coordinator</i>										
N =	294	55	221	377	947					
No one assigned	68	66	67	48	60					
One existing staff assigned	18	22	17	37	24					
Existing staff from several areas	11	13	11	13	12					
New position created	2	0	4	5	4					
Percent of full-time position for existing staff assignment	27	38	26	36	32					
Percent of full-time position for new position	10	20	31	35	27					
<i>Reporting Line of Coordinator</i>										
N =	86	16	63	188	362					
President	55	69	24	46	44					
Academic vice president	10	6	35	26	22					
Student affairs vice president	13	0	21	13	14					
Other	10	12	14	13	12					
Director of admissions	6	12	0	1	2					
Director of counseling	5	0	2	0	1					
Registrar	1	0	2	1	1					
Director of institutional research	0	0	3	0	1					
<i>Steering Committees</i>										
	N	%	N	%	N	%	N	%	N	%
Institutions reporting	294		55		221		377			
Presence of steering committee	N = 89	30	10	18	73	33	128	34	300	32
Of schools with steering committee membership by average number of representatives (R) and percentage	R	%	R	%	R	%	R	%	R	%
Faculty	2.8	93	1.8	90	3.1	88	2.3	86	2.6	89
Student-affairs administrators	1.8	83	1.0	70	1.9	90	1.6	63	1.7	84
Academic administrators	1.5	58	1.0	60	1.5	81	1.4	70	1.4	69
General administrators	1.3	67	1.2	50	1.8	67	1.4	62	1.5	65
Students	1.5	49	2.0	40	2.0	56	2.0	52	1.8	52
Support staff	1.8	30	1.0	20	1.5	11	1.4	21	1.6	21
Others	1.3	17	1.0	10	1.5	21	1.0	10	1.3	15

Note: Some columns do not total 100% due to rounding

TABLE 13
Titles of Retention Coordinators

Title	Percentage
Dean of students	20
Academic administrator	16
Student affairs staff	15
Director of admissions	12
Director of counseling or a counselor	7
Director or assistant of institutional research	6
Academic vice president	5
Director of retention	5
Registrar	3
Student affairs vice president	3
Coordinator of advising	3

TABLE 14

Initial Moving Force by Type of Institution
(In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
President	43	64	40	55	48
Vice president for student affairs	40	27	32	32	35
Vice president for academic affairs	21	38	35	39	33
Admissions	23	49	26	33	29
Counseling services	34	25	25	15	23
Faculty	17	22	14	17	17
Registrar	11	24	16	18	17
Other	9	7	22	16	13
Other student services	9	2	13	9	9
Board of trustees	8	11	4	7	7
Academic departments	9	7	6	5	6
Financial aid	7	15	4	6	6
Career planning and placement	7	2	4	4	5
Federal statistics requirements	3	4	6	5	4
External stimulus	3	2	3	7	4
Vice president for business	2	5	2	5	3
Alumni	0	2	0	1	1

TABLE 15

Factors Inhibiting Retention Efforts by Type of Institution
(In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Lack of time	62	62	46	62	59
Insufficient data	52	49	52	51	51
Lack of staff	51	58	48	49	50
Lack of funds	38	36	36	33	36
Inadequate data-processing capability	29	29	23	34	29
Inadequate measurement-evaluation skills	28	36	15	27	25
Inadequate measurement instruments	25	40	19	27	25
Lack of faculty support	27	16	21	16	20
Resistance to new roles/responsibilities	24	24	21	15	20
Other	16	16	24	21	20
Lack of support from administration	16	4	14	10	13
Resistance to policy changes	13	13	11	13	13
Unique conditions	63	64	65	70	67

TABLE 16
Action Programs Checked by Type of Institution
(In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	294	55	221	377	947
Improvement of academic advising	48	53	56	54	53
Special orientation activities	49	47	55	49	49
Exit interviews	28	36	36	52	40
Special counseling programs	32	36	43	34	36
Early-warning system	27	35	26	43	33
New academic support/learning services	29	35	39	30	32
Students as peer advisers and counselors	24	20	34	33	30
Curricular innovations for credit	28	27	31	30	29
Expanded placement services	20	13	24	29	24
New extracurricular activities	14	22	16	26	20
Undeclared major services	13	0	31	18	18
Faculty/instructional development	21	16	15	18	18
Admissions for student-institution fit	15	11	17	17	16
Use of students in institutional decisions	14	13	17	18	16
New noncredit course offerings	22	18	17	10	16
Job-related training programs	15	7	14	15	14
New administrative structures	11	9	20	14	14
Adult student services	18	7	17	10	14
Advising in promotion and tenure	3	4	10	8	7
No special action programs	21	18	13	16	17

TABLE 17
Action Programs Reported by Type of Institution
(In Percentages)

	2-Year Public N = 247	2-Year Private 34	4-Year Public 299	4-Year Private 398	Total 1,024 ^a
Learning/academic support	22	26	33	18	24
Advising	13	15	17	12	14
Orientation	12	21	12	14	13
Early-warning systems	13	18	6	17	12
Career assistance	5	0	6	6	6
Counseling	6	0	3	4	4
Peer programs	3	3	3	4	4
Other	4	0	4	4	4
New policies and structure	3	3	2	5	4
Faculty/staff development	4	3	2	3	3
Multiple action programs	4	3	3	2	3
Exit interviews	4	0	3	3	3
Cocurricular activities	1	3	2	4	2
Curricular developments	2	6	2	2	2
Dropout studies	3	0	2	2	2
Submission of activity forms	38	40	45	42	41
Average number of forms	2.18	1.68	2.75	2.42	2.39

^aIncludes 46 with no type designation.

TABLE 18
Target Groups Reported by Type of Institution
(In Percentages)

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	247	34	299	398	1,024 ^a
New students	15	26	18	28	21
All students	15	6	10	17	14
High-risk	9	26	17	6	11
Other	12	3	10	10	10
Low academic performance	9	12	11	8	9
Potential dropouts	12	9	4	13	9
Undecided majors and careers	4	0	9	4	6
Faculty and staff	4	3	4	4	4
Skill deficiency	5	0	4	4	4
Women and adults	6	3	3	1	3
Multiple target groups	3	3	4	2	3
Minority students	1	0	4	2	3
Dropouts	4	0	2	2	2
Resident students	0	9	1	2	1

^aIncludes 46 with no type designation.

TABLE 19
**Success Indexes of Action Programs
 by Type of Institution**

	2-Year Public	2-Year Private	4-Year Public	4-Year Private	Total
N =	230	32	281	370	913
Satisfaction with program	3.84	3.70	3.92	3.96	3.93
Retention estimate	3.53	3.44	3.65	3.46	3.56
General impact					
All programs	3.00	3.26	3.26	3.27	3.23
Programs rated 2 or higher	3.69	3.75	3.88	3.80	3.81
Retention impact					
All programs	1.83	2.15	2.00	1.94	1.96
Programs rated 2 or higher	3.12	3.60	3.43	3.34	3.33

Note. Range of index is 1-5.

TABLE 20

Target Groups by Retention Index and General Index

	Retention Index		General Index	
	N		N	
Dropouts	9	3.67	16	3.44
Resident students	4	3.50	10	4.40
High risk	56	3.48	82	3.85
Multiple target groups	13	3.46	31	3.94
New students	102	3.44	182	3.88
Other	46	3.33	82	4.04
All students	48	3.31	112	3.79
Women and adults	8	3.25	24	4.00
Undecided majors and careers	16	3.25	39	3.74
Skill deficiency	17	3.24	38	3.79
Minority students	11	3.18	20	4.05
Low academic performance	39	3.18	70	3.60
Potential dropouts	42	3.07	71	3.49
Faculty and staff	9	3.00	34	3.74
All	420	3.33	811	3.81

Note. Range of index is 2-5.

TABLE 21

Action Programs by Retention Impact and General Impact

	<u>Retention Index</u>		<u>General Index</u>	
	N		N	
New policies, structures	11	3.64	26	3.92
Learning, academic support	115	3.45	199	3.83
Orientation	68	3.44	115	3.91
Early-warning systems	45	3.38	97	3.56
Curricular developments	6	3.33	13	3.92
Multiple-action programs	14	3.29	25	4.04
Advising	61	3.26	115	3.78
Career assistance	23	3.26	49	4.00
Counseling	18	3.22	30	3.80
Peer programs	9	3.22	31	4.13
Dropout studies	9	3.22	12	3.33
Faculty/staff development	10	3.20	25	4.00
Other	12	3.00	32	3.88
Cocurricular activities	4	2.75	20	3.70
Exit interviews	15	2.67	22	3.23
All	420	3.33	811	3.81

Note. Range of index is 2-5.

TABLE 22

Retention Impact of Action Programs on Target Groups
(Retention Index of 2 or Higher)

	New Students		All Students		High Risk		Low Academic Performance		Potential Dropouts		Other		Undecided Majors and Careers		Faculty and Staff	
	N		N		N		N		N		N		N		N	
Advising	3.24	25	3.10	10	3.60	5					3.67	9	3.25	4	3.00	2
Learning/academic support	3.42	12	4.25	4	3.57	37	3.32	25	3.00	2	3.50	10	3.00	1		
Orientation	3.57	51	3.00	2							3.00	8				
Career assistance	3.00	2	3.29	7			3.00	1			3.50	4	3.00	7		
Counseling	4.00	1	3.33	3	3.20	5	3.00	1	3.00	3	2.50	2				
Exit interviews									2.64	14	3.00	1				
Peer programs	3.00	1	3.00	2	3.00	1	3.00	1	3.00	1						
Early warning	3.67	3	3.83	6	4.00	2	2.90	10	3.29	17	3.00	2	3.00	1		
New policies	4.00	1	4.00	3					3.25	4	3.00	1	5.00	1		
Dropout studies	3.00	2	3.00	1												
Faculty-staff development			3.00	2					5.00	1					3.00	7
Co-curricular activities	3.00	2	2.67	3												
Curricular development	3.00	2	3.00	1	3.00	1					5.00	1				
Multiple programs	3.00	1	3.00	1	3.00	5	3.00	1			4.00	1	3.50	2		
Other	4.00	1	2.67	3							3.00	7				
Average index	3.44	102	3.31	48	3.48	56	3.18	39	3.07	41	3.33	46	3.25	16	3.00	8

(continued)

TABLE 22 (continued)

	Skill Deficiency		Women and Adults		Multiple Target Groups		Minority Students		Dropouts		Resident Students		Average Index	
		N		N		N		N		N		N		N
Advising			3.00	1	3.00	1	2.67	3			3.00	1	3.26	61
Learning/academic support	3.23	13	3.00	3	4.00	2	3.60	5	3.00	1			3.45	115
Orientation			3.00	1	3.20	5	3.00	1					3.44	68
Career assistance	4.00	1			4.00	1							3.26	23
Counseling			3.00	1	5.00	1	3.00	1					3.22	18
Exit interviews													2.67	15
Peer programs			5.00	1							3.00	2	3.22	9
Early warning	3.00	1					3.00	1	5.00	2			3.38	45
New policies					3.00	1							3.64	11
Dropout studies									3.33	6			3.22	9
Faculty-staff development													3.20	10
Cocurricular	3.00	1											2.75	4
Curricular development	3.00	1											3.33	6
Multiple programs					3.00	2					5.00	1	3.29	14
Other			3.00	1									3.00	12
Average index	3.24	17	3.25	8	3.46	13	3.18	11	3.67	9	3.50	4		

TABLE 23

General Impact of Action Programs on Target Groups
(General Index of 2 or Higher)

	New Students		All Students		High Risk		Low Academic Performance		Potential Dropouts		Other		Undecided Majors and Careers		Faculty and Staff	
		N		N		N		N		N		N		N		N
Advising	3.77	39	3.73	22	3.86	7	4.50	2	3.50	2	4.14	14	3.40	10	3.42	12
Learning/academic support	3.65	17	3.47	15	3.88	59	3.68	37	3.00	2	4.24	17	3.50	2		
Orientation	3.91	86	3.50	2	3.50	2					4.15	13				
Career assistance	4.00	7	4.17	12							4.12	8	3.94	17		
Counseling	3.00	1	3.83	6	3.50	6	3.50	2	4.25	4	4.00	2				
Exit interview			4.00	1					3.15	20	4.00	1				
Peer programs	4.30	10	4.17	6			3.33	3	4.00	2			4.00	1		
Early warning	4.00	7	3.70	10	4.50	2	3.39	23	3.49	35	3.75	4	3.20	5		
New policies	4.00	2	3.70	10			4.00	1	4.25	4	3.80	5	5.00	1	4.00	1
Dropout studies	3.00	2	4.00	2					3.00	1						
Faculty-staff development			4.00	3					5.00	1	3.00	1			4.00	20
Cocurricular activities	5.00	1	3.50	10									3.00	1		
Curricular development	4.00	2	4.00	3							3.75	4				
Multiple	4.00	2	5.00	1	3.83	6	4.00	2			3.00	1	5.00	2		
Other	4.17	6	3.78	9							3.92	12			2.00	1
Average index	3.88	182	3.79	112	3.85	82	3.60	70	3.49	71	4.04	82	3.74	39	3.74	34

(continued)

TABLE 23 (continued)

	Skill Deficiency		Women and Adults		Multiple Target Groups		Minority Students		Dropouts		Resident Students		Average Index	
		N		N		N		N		N		N		N
Advising			3.00	1	5.00	2	4.00	3			5.00	1	3.78	115
Learning: academic support	3.87	31	4.20	5	4.00	4	4.11	9	4.00	1			3.83	199
Orientation			4.50	2	3.75	8	4.00	1			3.00	1	3.91	115
Career assistance	3.00		4.00	1	3.67	3							4.00	49
Counseling	3.50	2	3.75	4	5.00	1	4.00	2					3.80	30
Exit interview													3.23	22
Peer programs	3.00	1	4.67	3	3.00	1	4.00	2			5.00	2	4.13	31
Early warning	3.00	1			4.00	1	4.00	1	3.57	7	4.00	1	3.56	97
New policies					5.00	1			3.00	1			3.92	26
Dropout studies									3.29	7			3.33	12
Faculty-staff development													4.00	25
Cocurricular activities	4.00	1	3.00	1	3.50	2	4.00	2			4.00	2	3.70	20
Curricular development	4.00	1	4.00	3									3.92	13
Multiple			3.00	1	3.88	8					5.00	2	4.04	25
Other			4.00	3							4.00	1	3.88	32
Average index	3.79	38	4.00	24	3.94	31	4.05	20	3.44	16	4.40	10		

TABLE 24

Campus Studies and Analyses by Extent and Coordination of Effort

	No One Assigned		One Existing Staff		Several Staff		New Position		Steering Committee	
	N	%	N	%	N	%	N	%	N	%
N =	575		233		110		35		303	
Have conducted study/studies	309	54	156	67	69	63	21	60	109	69
Now conducting study	164	29	100	43	51	46	15	43	135	45
Planning to conduct study	132	23	37	16	28	25	11	31	72	24
Need a study but none done	132	23	26	11	8	7	3	9	20	7
No study and no plans	16	3	1	1	—	—	—	—	1	1
Have surveyed groups	316	55	169	73	87	79	26	74	235	78
Groups surveyed: N =	316		169		87		26		235	
Dropouts	263	83	132	78	61	70	19	73	188	80
Current students	227	72	132	78	68	78	20	77	183	78
Reenrollers	63	20	37	22	16	18	7	27	48	20
Alumni	69	22	42	25	24	28	4	15	51	22
Prospective students	64	20	32	19	22	25	2	8	49	21
Faculty	28	9	31	18	17	20	6	23	42	18
Administrators	26	8	29	17	16	18	6	23	42	18
Staff	19	6	18	11	12	14	5	19	26	11
Others	31	10	21	12	8	9	3	12	29	12
Steering committee	113	20	112	48	56	51	18	51		

TABLE 25

Action Programs Checked by Extent and Coordination of Effort
(In Percentages)

	No One Assigned	Existing Staff	Several Staff	New Position
N =	575	233	110	35
Special action programs	77	91	93	97
Special orientation activities	46	56	59	71
Improvement of academic advising	47	57	71	54
Curricular innovations for credit	26	29	39	34
New noncredit course offerings	15	15	16	20
Early-warning systems	26	44	46	60
Special counseling programs	33	38	48	37
New administrative structures	9	21	22	29
New extracurricular activities	16	23	27	23
New academic support/learning services	28	33	45	46
Undeclared major services	16	21	16	31
Expanded placement services	22	29	24	29
Job-related training programs	13	17	15	20
Faculty/instructional development	15	23	26	17
Advising in promotion and tenure	5	10	7	6
Admissions for student-institutional fit	13	18	24	23
Exit interviews	32	52	51	54
Students as peer advisors and counselors	26	38	34	29
Use of students in institutional decisions	15	17	22	20
Adult student services	13	14	18	14
Other	16	24	24	34
Other	5	6	9	9
Other	1	4	4	3

TABLE 26
Action Programs Reported by Extent and Coordination of Effort
(In Percentages)

	No One Assigned	Existing Staff	Several Staff	New Position	Steering Committee	Conducted Studies
N =	467	297	128	51	349	
Advising	13	11	15	26	13	13
Learning/academic support	30	18	19	28	19	23
Orientation	14	12	15	18	17	13
Career assistance	6	6	3	4	6	6
Counseling	6	2	6	0	4	5
Exit interviews	3	3	3	2	3	3
Peer programs	3	5	8	0	3	4
Early-warning systems	11	16	12	8	12	12
New policies and structures	2	6	5	0	5	4
Dropout studies	1	3	2	2	3	2
Faculty-staff development	2	3	4	2	4	3
Cocurricular activities	2	3	2	4	3	3
Curricular developments	3	1	2	0	2	2
Multiple action programs	2	4	4	2	4	3
Other	3	6	2	6	4	5

71

TABLE 27
Target Groups Reported by Extent and Coordination of Effort
(In Percentages)

	No One Assigned	Existing Staff	Several Staff	New Position	Steering Committee	Conducted Studies
N =	467	297	128	51	349	
New students	22	20	21	22	22	21
All students	12	18	16	8	16	13
Undecided majors and careers	6	5	4	4	5	6
Low academic performance	11	8	11	4	10	10
High risk	14	5	11	16	10	10
Skill deficiency	4	3	4	4	3	4
Minority students	2	3	2	4	1	2
Women and adults	4	1	4	4	2	3
Faculty and staff	3	3	7	2	5	4
Potential dropouts	7	14	9	4	8	10
Resident students	1	1	3	0	1	1
Multiple targets	3	4	2	2	3	3
Dropouts	2	3	1	0	2	2
Other	10	9	6	28	12	11

TABLE 28
Success Indexes by Coordination of Effort and Reporting Line of Coordinator

	General Index ^a		Retention Index ^b		Satisfaction		Retention Estimate	
	N		N		N		N	
Coordination of effort								
No one assigned	359	3.76	191	3.24	373	3.85	336	3.53
One existing staff assigned	243	3.81	105	3.29	245	3.97	203	3.54
Existing staff from several areas	105	3.73	59	3.36	112	3.82	101	3.56
New position created	44	3.95	26	3.35	46	4.10	45	3.67
Reporting line of coordinator								
Academic vice president (provost)	90	3.92	36	3.53	94	4.06	81	3.65
President	130	3.73	60	3.30	130	3.83	110	3.37
Specify	70	3.90	34	3.29	71	4.11	58	3.76
Student affairs vice president	61	3.87	40	3.28	67	4.04	60	3.71
Director of admissions	7	3.57	3	3.00	6	3.83	5	3.80
Director of counseling	1	4.00	1	3.00	1	3.00	—	—
Director of institutional research	6	3.50	1	3.00	6	3.50	5	3.20
Registrar	7	3.71	3	2.33	7	4.29	4	3.25
Presence of steering committee								
Yes	280	3.81	150	3.19	284	3.95	249	3.64
No	454	3.75	219	3.31	475	3.87	415	3.47

^aRange of index is 2-5.

^bRange of index is 2-5.

73

TABLE 29

**Action Programs Reported by Initiating Force behind Retention Efforts
(In Percentages)**

	Advising	Learning/ Academic Support	Orientation	Career Assistance	Counseling	Exit Interviews	Peer Programs	Early- Warning Systems	New Policies Structures	Dropout Studies	Faculty- Staff Development	Cocurricular Activities	Curricular Developments	Multiple Action Programs	Other
Board of trustees	9	34	14	4	8	—	5	8	1	—	2	8	4	1	4
President	14	23	14	5	4	3	4	13	4	2	3	3	2	4	3
Vice president for business	15	11	9	9	4	2	4	9	11	4	—	9	2	4	6
Vice president for academic affairs	14	28	11	5	2	3	4	12	4	2	3	3	2	3	4
Vice president for student affairs	15	24	14	6	5	4	3	12	4	3	2	2	1	3	3
Faculty	16	22	14	3	2	2	3	18	2	2	2	4	2	3	3
Admissions	14	18	13	7	4	4	4	15	4	3	3	3	2	2	5
Registrar	13	21	16	9	3	1	4	14	2	2	4	3	2	3	3
Academic departments	16	29	9	7	3	3	—	10	—	2	2	3	4	7	4
Counseling services	14	22	14	6	7	—	5	11	2	2	3	2	3	4	4
Alumni	—	11	11	11	11	—	11	—	22	—	—	—	22	—	—
Financial aids	11	21	13	10	8	1	2	10	3	1	4	1	4	4	4
Career planning and placement	7	15	13	13	11	1	2	12	4	2	7	1	5	4	4
Federal statistics requirements	8	25	21	5	3	3	6	5	5	2	2	5	3	8	—
Other student services	17	25	12	7	7	1	8	7	5	—	3	3	1	3	4
External stimulus	9	18	18	4	2	4	7	16	2	4	2	7	2	2	2
Other	16	22	14	5	2	1	2	12	5	2	2	3	4	4	5

74

TABLE 30 Target Groups Addressed by Initiating Force behind Retention Efforts
(In Percentages)

	New Students	All Students	Undecided Majors and Careers	Low Academic Performance	High Risk	Skill Deficiency	Minority Students	Women and Adults	Faculty and Staff	Potential Dropouts	Resident Students	Multiple Targets	Dropouts	Other
Board of trustees	15	21	1	6	19	8	2	1	4	4	1	2	2	12
President	22	15	4	9	9	3	2	3	4	9	2	4	2	12
Vice president for business	13	28	9	6	2	2	2	—	—	11	4	2	4	15
Vice president for academic affairs	18	13	6	9	12	4	2	3	4	10	1	3	2	14
Vice president for student affairs	20	16	5	9	10	5	2	3	3	11	1	4	2	11
Faculty	23	17	6	12	7	5	1	2	3	11	1	1	4	7
Admissions	22	14	8	8	8	4	3	2	4	11	1	3	3	9
Registrar	22	9	9	10	9	4	2	3	5	10	2	4	2	8
Academic departments	18	18	6	7	12	7	2	2	3	7	3	3	2	12
Counseling services	19	16	3	10	13	5	2	4	5	7	1	5	2	10
Alumni	22	56	—	—	—	—	—	—	—	—	—	—	—	22
Financial aids	27	18	2	8	7	4	1	4	7	3	—	2	—	17
Career planning and placement	21	20	2	9	8	4	2	5	8	2	—	2	1	14
Federal statistics requirements	22	11	3	3	14	5	6	5	3	5	2	6	—	14
Other student services	19	11	6	10	16	5	4	4	5	5	1	8	1	8
External stimulus	18	13	4	7	7	4	7	4	4	16	—	2	2	11
Other	20	17	8	8	10	1	2	2	4	5	1	4	5	13

TABLE 31
Retention Leaders by Success Indexes

	Retention Index = 5		General Index = 5		Retention Index = 4 & 5		General Index = 4 & 5	
	N ^a = 50		149		110		531	
	N	%	N	%	N	%	N	%
Advising	7	14	25	17	15	14	69	13
Learning/academic support	22	44	35	24	34	31	132	25
Orientation	10	20	22	15	22	20	84	16
Career assistance	0	0	12	8	6	6	37	7
Counseling	1	2	3	2	4	4	21	4
Exit interviews	0	0	0	0	0	0	5	1
Peer program	1	2	12	8	1	1	23	4
Early-warning systems	4	8	9	6	14	13	52	10
New policies and structures	2	4	5	3	5	4	19	4
Dropout studies	0	0	1	1	3	3	5	1
Faculty-staff development	1	2	8	5	1	1	18	3
Cocurricular activities	0	0	1	1	0	1	13	2
Curricular developments	1	2	3	2	1	1	10	2
Multiple action programs	1	2	9	6	3	3	18	3
Other	0	0	4	3	1	1	25	5

^aN = total number of programs within a particular index category.

TABLE 32
 Target Groups of Retention Leaders by Success Indexes

	Retention Index = 5		General Index = 5		Retention Index = 4 & 5		General Index = 4 & 5	
	N ^a = 50		149		110		531	
	N	%	N	%	N	%	N	%
New students	14	28	36	24	36	33	126	24
All students	4	8	18	12	14	13	71	13
Undecided majors and careers	2	4	8	5	3	3	23	4
Low academic performance	4	8	7	5	4	4	38	7
High risk	9	18	14	9	19	17	57	11
Skill deficiency	2	4	6	4	3	3	25	5
Minority students	1	2	5	3	2	2	16	3
Women and adults	1	2	6	4	1	1	18	3
Faculty and staff	0	0	7	5	0	0	20	4
Potential dropouts	2	4	7	5	6	6	32	6
Resident students	1	2	5	3	1	1	9	2
Multiple targets	2	4	8	5	4	4	21	4
Dropouts	2	4	3	2	5	4	6	1
Other	6	12	19	13	12	11	69	13

^aN = number of retention successes.

TABLE 33

Retention Leaders by Type of Institution and Success Indexes
(In Percentages)

	2-Year Public		2-Year Private		4-Year Public		4-Year Private		Total	
	R ^a	G ^b	R	G	R	G	R	G	R	G
N =	7	28	3	3	19	48	19	62	48	141
Advising	14	14	—	—	21	21	10	16	14	17
Learning/academic support	43	18	67	67	53	35	37	16	46	24
Orientation	—	4	33	—	5	10	37	24	19	15
Career assistance	—	18	—	—	—	4	—	8	—	8
Counseling	—	7	—	—	5	2	—	—	2	2
Exit interviews	—	—	—	—	—	—	—	—	—	—
Peer programs	14	11	—	33	—	2	—	11	2	9
Early/warning systems	14	7	—	—	—	2	10	8	6	6
New policies and structures	—	4	—	—	10	2	—	3	4	3
Dropout studies	—	—	—	—	—	2	—	—	—	1
Faculty-staff development	14	7	—	—	—	4	—	5	2	5
Cocurricular activities	—	—	—	—	—	—	—	2	—	1
Curricular developments	—	4	—	—	5	2	—	2	2	2
Multiple action programs	—	7	—	—	—	8	5	3	2	6
Other	—	—	—	—	—	4	—	2	—	2

^aR = Retention Index of 5.

^bG = General Index of 5.

TABLE 34
 Target Groups of Retention Leaders by Type of Institution and Success Indexes
 (In Percentages)

	2-Year Public		2-Year Private		4-Year Public		4-Year Private		Total	
	R ^a	G ^b	R	G	R	G	R	G	R	G
N =	7	28	3	3	19	48	19	62	48	141
New students	—	4	33	33	21	21	42	39	27	24
All students	14	21	—	—	10	4	5	13	8	12
Undecided majors and careers	—	4	—	—	—	8	5	3	4	5
Low academic performance	—	—	33	33	5	10	10	2	8	5
High risk	14	4	33	—	26	12	10	10	19	9
Skill deficiency	14	7	—	—	—	4	5	3	4	4
Minority students	—	4	—	—	5	4	—	3	2	3
Women and adults	14	14	—	—	—	2	—	—	2	4
Faculty and staff	—	4	—	—	—	4	—	6	—	5
Potential dropouts	14	14	—	—	—	—	5	5	4	5
Resident students	—	—	—	33	—	2	5	5	2	3
Multiple targets	—	7	—	—	10	6	—	5	4	5
Dropouts	14	4	—	—	—	2	—	—	2	2
Other	14	14	—	—	16	19	10	6	12	13

^aR = Retention Index of 5.

^bG = General Index of 5.

TABLE 35
Special Retention Leaders by Type of Institution

	2-Year Public		2-Year Private		4-Year Public		4-Year Private		Total	
	N	%	N	%	N	%	N	%	N	%
	5		1		11		10		27	
Advising	1	20	—	—	3	26	1	10	5	18
Learning/academic support	1	20	1	100	4	36	3	30	9	32
Orientation	—	—	—	—	1	9	5	50	6	21
Career assistance	—	—	—	—	—	—	—	—	—	—
Counseling	—	—	—	—	1	9	—	—	1	4
Exit interviews	—	—	—	—	—	—	—	—	—	—
Peer programs	1	20	—	—	—	—	—	—	1	4
Early-warning systems	1	20	—	—	—	—	—	—	1	4
New policies and structures	—	—	—	—	1	9	—	—	1	4
Dropout studies	—	—	—	—	—	—	—	—	—	—
Faculty-staff development	1	20	—	—	—	—	—	—	1	4
Cocurricular activities	—	—	—	—	—	—	—	—	—	—
Curricular developments	—	—	—	—	1	9	—	—	1	4
Multiple action programs	—	—	—	—	—	—	1	10	1	4
Other	—	—	—	—	—	—	—	—	—	—

Note. Action programs with retention and general indexes of five.

TABLE 36

Target Groups of Special Retention Leaders by Type of Institution

	2-Year Public		2-Year Private		4-Year Public		4-Year Private		Total	
	N	%	N	%	N	%	N	%	N	%
New students	—	—	—	—	2	18	6	60	8	29
All students	—	—	—	—	1	9	—	—	1	4
Undecided majors and careers	—	—	—	—	1	9	—	—	1	4
Low academic performance	—	—	1	100	1	9	1	10	3	11
High risk	1	20	—	—	1	9	—	—	2	7
Skill deficiency	—	—	—	—	—	—	—	—	—	—
Minority students	—	—	—	—	1	9	—	—	1	4
Women and adults	1	20	—	—	—	—	—	—	1	4
Faculty and staff	—	—	—	—	—	—	—	—	—	—
Potential dropouts	1	20	—	—	—	—	—	—	1	4
Resident students	—	—	—	—	—	—	1	10	1	4
Multiple targets	—	—	—	—	1	9	—	—	1	4
Dropouts	1	20	—	—	—	—	—	—	1	4
Other	1	20	—	—	3	27	2	20	6	21

Note. Action programs with retention and general indexes of five.

Examples of Successful Retention Programs

As indicated above, Special Retention Leaders were found for all target groups, all types of programs, and all types of institutions. Examples of programs that produced the greatest results are included in the following section, with the information presented exactly as supplied by the respondents to WWISR. The target group and its description appear in the left two columns; the action program and its description appear in the right two columns. The first section includes only action programs that were rated as Special Retention Leaders—that is, those with both a general impact index and a retention impact index of five. The second section—“Programs of Special Interest”—includes a selection of programs that were deemed unique or noticeably different in comparison to the majority of programs, although they received somewhat lower impact ratings.

Special Retention Leaders

Target Group	Description	Description	Action Program
All freshmen	Freshmen only	<ol style="list-style-type: none"> 1. Four-day orientation activities in groups of 10 with a faculty and peer facilitator 2. Ten weeks of planned sessions (total 56 hours), e.g., goal-setting, self-assessment activities 3. Follow-up activities throughout year 	Combination of orientation programs
All students	All students (consisting primarily of four-year residential students)	"Alert cards" for potential dropout communications Career counseling service Student status committee concerned with retention	Early warning and counseling
Other, including combination	All potential dropouts in all four academic classes	During the 1977-78 school year, about 120 faculty, administrators, staff, and students worked in 12 different task forces in a joint effort to develop opportunities and circumstances which would make many phases of campus life more satisfying and rewarding for students. Underlying this effort was the assumption that the student retention rate would improve.	New policies, procedures, schedules, structure for retention, leaves of absence, etc.

83

Target Group	Description	Description	Action Program
Other/parents	Entire institution	Series of nine weekly retention discussions, focusing on different aspects of the institution as related to retention: i.e., admissions, orientation, academic advising. Participants in retention committee, faculty/staff members in area of discussion; open to all faculty/staff and students.	Faculty and staff development, including retention
All freshmen	Volunteers, new freshmen	They meet with trained peer/faculty teams in groups of approximately 15 new students to discuss such things as services on campus, programs, study skills, career planning information, and to develop a peer group relationship with the faculty member and student leader to promote more involvement on campus.	Preschool sessions
New students (freshmen and transfers)	All new students (since 1975), especially freshmen	Peer counseling (Psyc 330) is studied in a special course by 30 selected upperclassmen. These peer counselors then conduct orientation (Orin 100) course for all new students. Orin 100 consists of ten required meetings. Local peer counseling handbook used by peer counselors.	Special peer programs

Target Group	Description	Description	Action Program
Multiple target groups	Variety of target groups: Total student body/ Non-traditional and special need students/ Commuters/ Older students/ Handicapped/ Black students/ Faculty—provide information and assistance and improve delivery of services.	Creation of a Department of Special Services with a primary responsibility to coordinate campus retention activities and assist with new program development in the area of retention activities.	New policies, procedures, schedules, structure for retention, leaves of absence, etc.
Dropouts	Students who attended school in fall '77 but who did not return in spring '78	Questionnaires were mailed to 4200 students. Students were queried about their reasons for not returning. Students with problems, questions, or comments were followed up by Student Services professional staff.	Follow-up of dropouts and campus studies
Maintenance and clerical staff	All secretarial, clerical, and maintenance staff	A coffee hour and training session to help them understand their impact on students they encounter in their work	Faculty and staff development
Other, including combination of target groups	Marginally qualified students Students who are planning to attend in the fall who have marginal admission scores on the ACT test or high school average	This program is a specialized summer employment and education program which is available to students prior to the first semester. Students are given instruction in noncredit-bearing reading, mathematics, and study skills courses while maintaining employment at a variety of university-based settings.	Multiple approaches: advising counseling financial aid special classes workshops student advocacy peer counseling career planning

Target Group	Description	Description	Action Program
Low high school GPA	First-time, full-time freshman students ranking in the bottom fourth of their high school graduating class	Academic assessment advising session; course selection for the student's first semester in school, and tutoring and periodic advising sessions during the semester.	New advising program
Other/parents	Students who have decided to attend college in the spring prior to their fall entry	Early entry program—volunteer faculty members work with groups of 10 to 20 new students during the spring. Faculty invite students on varied days and at varied times and create their own schedule. The five basic elements of the program are: introduction, diagnosis of skills and interests, interaction with services and resource people, registration, and relationship building.	New advising program
Special curriculum students	Incoming freshmen, transfer students at all levels, and other students wanting to begin a mathematics series of courses	Placement and diagnostic testing for developmental mathematics courses including the beginning calculus series and the courses prior to the calculus series	Special testing
Freshmen and sophomores	All freshman students and undeclared sophomores	Establishment of a University College to provide advising and special programs for the target population	Advising center

Target Group	Description	Description	Action Program
All freshmen	All new freshmen during the fourth week of classes	As part of the orientation program, all freshmen are asked to answer a questionnaire designed to identify academic and/or personal problems. Counseling and/or tutoring are provided for students in need of such service.	Counseling/tutoring in basic skills, study skills
All students	Program is designed to serve all students—both the very bright, able learners and students with potential academic problems. Students recognizing deficiencies in their study habits and attitudes and volunteering to enroll in a student-to-student Improvement of Learning Skills course	Education 1201, Improvement of Learning Skills—2 semester hours, pass/not pass elective course taught by peer counselors receiving core skills training from Director of Counseling and job specific skills training from Director of Retention. Counselors are enrolled in Education 2301—Peer Advisor-Counselor Training, 3 semester hours, elective graded course.	Credit course—skill training, basic skills
Low semester grades/also on probation	Academically weak students Approximately 50 enrolled in program. It is a voluntary program.	A semester-long program which deals with study skills and the improvement of self concept as it relates to achievement. Provides at least 5 hours of group and/or individual counseling each week. Called Guided Studies Program.	Full range of academic support services

Target Group	Description	Description	Action Program
Handicapped	Handicapped individuals—full- or part-time students	Special admission materials and enrollment assistance; support services designed to assist in retention; special services to improve institutional-student fit, such as help with adapting class presentation to accommodate the handicapped, provision of readers, sign interpreters, mobility aids, special devices, etc.	Full range of academic support services
Minority students/foreign/native American	All full-time minority students	"Intercultural Services" consisting of special admissions information, special orientation program, work-skills development program, special tutoring program, special counseling for low academic achievers.	Full range of academic support services
Other, including combination of target groups	High-risk, first semester freshmen, both young graduates from high school and older, returning students (200 per semester)	Formation of the Individual Needs Program—a comprehensive supportive services strategy involving intensive academic/vocational counseling, tutoring, block programming, performance monitoring, study skills training, and personal attention to bureaucratic problems for the students' first semester at the college.	Full range of academic support services

Target Group	Description	Description	Action Program
All freshmen	All first-time freshmen. Participation is required. Students receive 3 credits.	Mentor Program—A semester-long program with a student-faculty mentor team directing 1½ hour weekly sessions. Additional dimensions include a career week, diagnostic testing, and a special 10-hour skills development seminar for each student.	Credit courses—ongoing
New students (freshmen and transfers)	New students to campus	New Student Colloquium—Extended orientation for new students—one hour session weekly—learn about out-of-class offerings, programs, library, career development, etc.	Growth sessions, classes (noncredit)
All freshmen	First-time, full-time freshmen. Participation strongly encouraged during preregistration.	Voluntary 1½ day on-campus orientation program conducted in small groups by student-faculty co-leader teams; includes meeting with adviser, familiarization with campus resources, screening for academic difficulties, socializing	Combination orientation and advising with faculty involvement
All freshmen	Freshmen	Orientation program designed to evaluate each student's entry skill levels and to openly address questions concerning career expectations as they relate to their college experience	Combination of orientation and advising

Target Group	Description	Description	Action Program
Women and adults (nontraditional) evening/high school seniors	Nontraditional-age students	Social organization for older students. The "Drop Ins" eat lunch together each week; sponsor speakers, workshops, and other activities for themselves; and, generally provide support for each other.	Special peer programs
Undecided majors	The ACT Class Profile Service Report shows that over 50 percent of the students entering were requesting assistance in career and major choice. Many students become disillusioned with their initial major choice. Administrative and program provisions were needed to reduce attrition of these students.	General Registration was established in 1974 as a nondegree granting college to facilitate program development to retain attrition-prone undecided students. An Advisement Center, career planning classes (one-credit) and various workshops help students examine their interests, abilities, major and career choices.	New policies, procedures, schedules, structure for retention, leaves of absence, etc.
Other, including combination of target groups	All students at the college, but especially the student who appears to be headed for dropping out because of personal problems, lack of ability, or indecision about his/her educational goals	A "Retention-Attrition-Recruitment" program, spearheaded by the director, involving all members of the college faculty and staff—to create awareness and identify specific things to do to improve retention. Special meetings and portions of faculty meetings were used for information-sharing purposes and for identifying methods that had worked in retaining students.	Faculty and staff development

Target Group	Description	Description	Action Program
Special curriculum students	Geology 100 students—approximately 90 students each semester	Major curriculum revision accomplished by changing course from lecture format to a completely self-paced format	Curricular development and changes, including honors
Resident students	Freshmen (residential) instituted fall 1977	Mentor-peer adviser orientation on-going orientation early warning exit interview retention officer guidance counselor	Multiple approaches: advising counseling financial aid special classes workshops student advocacy peer counseling career planning
<p>(The next two programs conclude this section and also provide an appropriate bridge to the next section, "Programs of Special Interest." Of all the action programs submitted, only these two both received retention and general impact indexes of five and were considered significantly different from the majority of retention programs. In other words, they belong in both categories.)</p>			
All freshmen	Incoming full-time freshmen	Design and implementation of a semester-long orientation program involving trained upperclassmen as peer counselors. Called "Freshman Seminar," this program has been in existence for six years.	Growth sessions, classes (noncredit)
Freshmen	Freshmen direct from high school who had a standard composite score of 18 or less on the ACT Assessment and/or were in the lower one-half of their high school graduating class were invited to participate in an IMPACT program fall semester 1978.	Two-day workshop prior to the beginning of the 1978 fall semester and weekly group meetings (10-12 students) with a peer adviser during the first nine weeks of the semester. Focus was on helping freshmen with immediate concerns, academic adjustment, and study skills.	Full range of academic support services

Programs of Special Interest

Target Group	Description	Description	Action Program
New students (freshmen and transfers)	New freshmen and transfer students	Series of orientation programs with students and parents. Held in spring semester and summer months. Seminars on financial aid process, scheduling, etc.	Combination of orientation programs
Disadvantaged (including minority with need)	Trio Special Services students. Students are from a deprived educational, cultural, or economic background, or have physical handicaps or limited speaking ability.	Activities include personal counseling, classes in study skills and career planning, information services, tutoring, and academic advising. A helping attitude by the staff is the key factor in the program. This is exhibited through personal contact.	Full range of academic support services
Freshmen	Freshmen with a high potential for dropping out after one year of college	Administer the <i>Significant Other</i> instrument. Then provide opportunities for the students to participate in small group activities which create a sense of belonging and togetherness.	Many absences

Target Group	Description	Description	Action Program
New students (freshmen and transfers)	New freshmen and transfer students	"Significant Other" groups: regularly meeting coffee break conversation groups comprised of one or two faculty members and a group (4-6) of randomly chosen students. Goal was to foster community and give new students someone to relate to if they needed such a person.	Special assignment of faculty and faculty contact
All freshmen	All freshmen in weekday college (We also have a weekend college program.)	Academic advising: full-time professional advisers were hired to work individually with freshmen in helping to establish a sense of belonging and direction. Peer advisers were also assigned to all new students. Two seminars were established—Freshman Seminar for first semester and Preprofessional for second semester.	New advising program (structure), including frequency, advising day
Freshmen	All freshmen and lower achieving third of incoming freshmen	Regular meetings with faculty advisers specially trained as freshman mentors. First adviser/advisee meeting has to occur within five days of student arrival on campus (not to include initial scheduling conference). Advisers were trained, evaluated, and rewarded.	Training for advisors

Target Group	Description	Description	Action Program
New students (freshmen and transfers)	All students with less than 30 hours earned All undeclared majors All transfers with less than 15 hours earned	Central advising center staffed with 25 volunteer faculty members. Must approve course selections for target group. Advisers are trained to advise in all majors. Career counseling is integral part of program.	Advising Center
Transfers	In the fall of 1972 the Student Transfer Center was opened to assist students transferring into and out of the college. The center is staffed by two student co-directors with assistance from volunteers.	To assist new transfer students in finding housing, selecting courses, adjusting to a new campus, and to serve as referral agents. Students transferring out of or within the institution are also assisted.	Advising Center
All freshmen	All freshmen enrolled on full-time basis	Compulsory freshman seminars as one of four first-term courses. Instructors recruited from faculty and trained as academic advisers. Among the purposes of the seminars, continuing academic orientation, improved faculty-student relationships, and improved advising of freshmen.	Credit course—skill training, basic skills
New students (freshmen and transfers)	New students—freshmen and transfers	Personal contact network based on personal goals worksheets used in orientation.	Combination of learning support services

Target Group	Description
New students (freshmen and transfers)	Incoming students freshmen and
All freshmen	New freshmen involved—a semester orientation scheduling program
All freshmen	All first semester were required participate.
Women and adults (nontraditional) evening/ high school seniors	Students who college more than years after graduation from high school Objective is to anxiety and provide support services the first few weeks classes.

n	Description	Action Program
- sfers	Three-day (prior to "Opening Day" on campus) camping/mountain climbing session with interested freshmen and transfer students; program led by student government leaders and members of the faculty and administration.	Preschool sessions
were fresh- d istration	Deposited freshmen brought on campus during one week in late April to get dorm assignment, meet roommate, have ID photo taken, schedule fall-term classes and be introduced to academic support services.	Preschool sessions
eshmen	A class entitled "Learning Resources" was taught by 10 selected faculty members. These faculty were also nonmajor advisers for the students in their class. The class explored the purpose of the liberal arts and the resources in the college.	Credit courses—ongoing
ive ng come ring of	Formation of an organization of students with similar experiences. Support services are provided by Student Services and the Learning Resource Center. Student leaders named their organization "Student to Student."	Special peer programs

95

Target Group	Description	Description	Action Program
Other, including combinations of target groups	Any student evidencing personal, academic, spiritual or physical problems or expressing an intention to drop out of college	"Early warning" cards were distributed to all staff and faculty. Sessions were held to discuss use of cards, importance of faculty and staff in both improving retention and diagnosing potential withdrawals. Cards are sent to Director of Student Affairs.	Follow-up by Student Affairs, counselors
Faculty and staff: advisers all faculty volunteers counseling staff	Faculty	A special faculty development session was designed to delineate for faculty the characteristics of our student body and the statistics on retention at our college. A follow-up session was conducted to explore the relationship between advising/counseling and student retention. Both sessions were prepared and implemented by the Assistant Directors for Academic Affairs and Student Services.	Faculty and staff development, including retention
Faculty and staff: advisers all faculty volunteers counseling staff	Faculty development —full-time —part-time —credit —noncredit	Develop on-going faculty instruction development program, consisting of: seminars and workshops faculty development library materials newsletter	Faculty and staff development, including retention
All students	College student community	Adoption of the Eco-system Model for analysis of the campus environment with a mapping of the campus and information fed back to significant persons and groups	Follow-up of dropouts and campus studies

PART 4

Conclusions and Recommendations

Conclusions and Recommendations

In this chapter we will discuss the data that have been presented in the preceding chapters. We will both summarize the findings and draw general conclusions based on what we know to be significant. Above all, we want to bring attention to what really works and to focus on the matters that colleges can do the most about. We also want to go beyond the general guidelines mentioned earlier in the discussion of the work of Astin, Cope and Hannah, Noel, and Pantages and Creedon. We now have the information and experience to be more definitive.

We recognize that each institution is unique and calls for unique measures. But it is important to remember that retention problems can seem more complex than they really are. Retention efforts should, after all, not even attempt to achieve 100-percent success. There are many sound and valid reasons why individual students should transfer, interrupt their formal education for a period of time, or pursue endeavors better suited to their particular needs and interests. Colleges and universities can assist these students to leave on the basis of better information; in so doing, they can increase the students' awareness of available alternatives. Attempts to retain all such students at any cost would be misguided and would justifiably fail.

How should colleges view attrition?

Colleges have traditionally assumed that better and more motivated students will remain, while others, particularly those who are experiencing academic difficulty are better off to leave and should not be encouraged to stay.

The current concern regarding attrition, however, reflects the awareness that an undetermined number of students may be leaving for the wrong reasons. Some colleges have feared that they would undermine their academic integrity by assisting such students and influencing them to remain in school. It is helpful to remember that even a slight percentage change in retention rate can have budget implications and make retention programs cost-effective.

Various writers in the field of retention have cautioned against "gimmick" approaches to influencing retention rates, or approaches that make improvement in retention a goal, *per se*, of the institution. Institutions should instead aim for improved services and programs—and these will naturally lead to better retention. Students will not respond to shallow attempts to earn their favor, with consumerism on the rise, they will think twice before continuing to pay for an education that does not meet their needs.

Steps toward Improved Retention

How can retention be improved?

Our indexes of program success are highest when a position is created to coordinate the retention effort. The title "Retention Coordinator," for example, makes the effort visible and demonstrates its importance. The next most effective approach is surely to assign an individual from the existing staff the responsibility of coordinating retention efforts. In both instances, staff from several areas must be brought together to form a central team.

Perhaps the most critical aspect is the priority assigned to retention by the president and other chief administrators. Retention efforts are apt to fail if they have not first achieved a directive and significant support from the president of the institution. A retention program that is truly institution-wide will require joint action from more than one administrative area, and inevitably will draw from institutional funds otherwise utilized by one vested interest group or another. It is inconceivable that the president should not be vitally concerned with admissions and with the drawing power of the institution. The president should likewise be intimately involved and concerned with the institution's retention power.

The reporting line of the retention effort needs to be placed very carefully in the administrative area most likely to produce results. Under most conditions, the retention coordinator should probably report to the president, who will act on all recommendations and issue encouragement, support, and directives regarding implementation of specific programs. Short of direct presidential involvement, the reporting line should go to the next highest college administrator perceived as appropriate and most likely to take action. A strong case can be made for the academic vice president or provost. The rationale would follow the "greatest need" concept, in that much of the institutional effort influencing retention takes place in the academic arena: from classroom teaching to academic advising to student performance and ultimate satisfaction with the institution. Also, it is a fact of life on many campuses that academic administrators are most likely to carry the clout that is necessary to effect institutional change in areas involving the faculty.

On those campuses where a vice president for student affairs carries responsibility for advising, and is otherwise perceived and accepted as an institutional change agent, the retention effort could appropriately be placed under his or her direction. Whether based in academic affairs or student affairs, the retention effort must clearly involve joint concerns and a joint commitment to action in all institutional areas where improvement is deemed necessary.

Finally, the organizational structure we consider most effective should include a steering committee charged with the responsibility of giving ongoing direction to the analysis of attrition/retention on the campus and to the formulation of intervention strategies. Various campus constituencies—academic affairs, faculty, and students—should be represented on this committee.

Diagram 5 illustrates the preferred administrative structure for this effort. As indicated, the reporting line for the retention coordinator may go in one of three directions.

Institutional research should be represented on the committee, but it is not usually the appropriate office to head up the effort. Research is ordinarily used as a back-up for action rather than as the area where such action originates.

Development of Activities and Programs

The most successful programs, by far, set out initially to take many forms of action. We identify these as multiple-action programs in table 21. The many forms of action that can take place, however, fall under three general areas of concern that we have extrapolated from this study. The three areas of action are illustrated in diagram 6.

Academic stimulation and assistance is the focal point around which the entire institution revolves, and it must receive primary emphasis. A wide variety of programs that have been shown to have great potential for improving student retention have been devised under these headings.

Personal future building emphasizes the identification and clarification of student goals and directions. The various programs in this area might overlap, of course, but the ultimate thrust has to involve assisting students in clarifying their personal needs and interests and learning how the college experience can contribute to their development.

Involvement experiences. The WWISR project identified efforts and programs in which colleges are engaged. It did not identify areas (as yet inadequately understood) that research and experience indicate would be productive areas for student retention. The single term best describing this areas is "student involvement." Subareas of involvement that should be available are outlined in diagram 6.

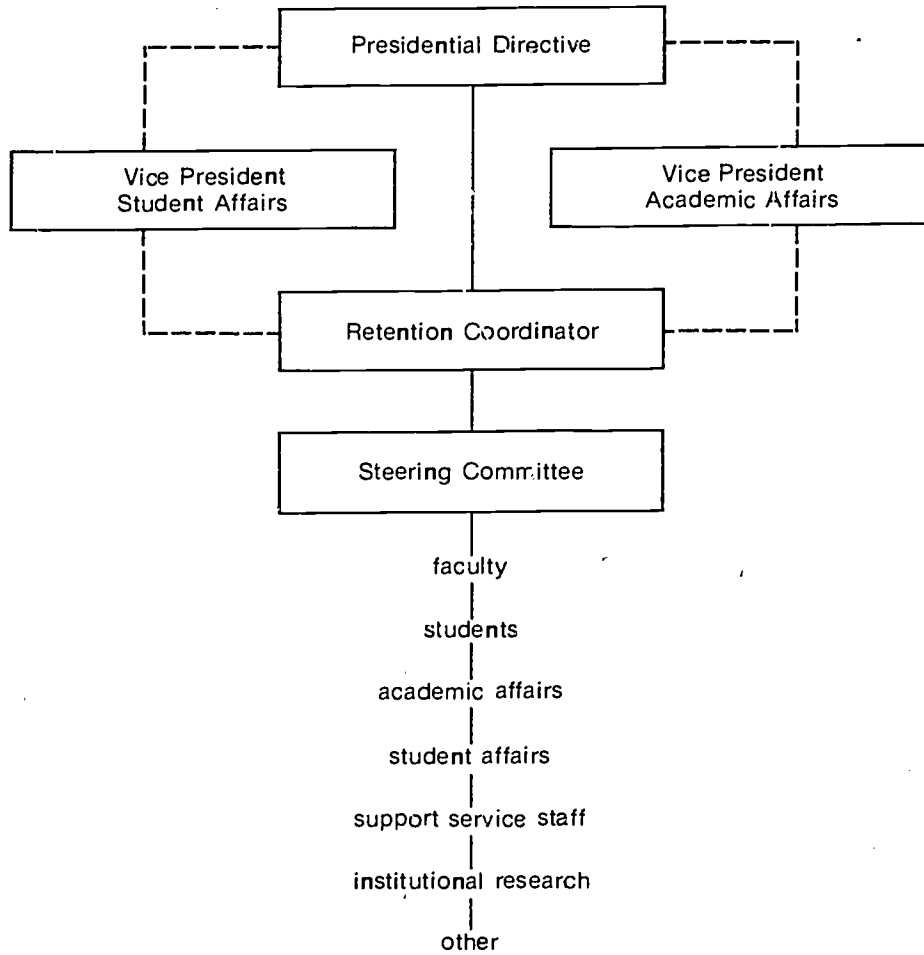


DIAGRAM 5

All-Campus Student Retention Effort

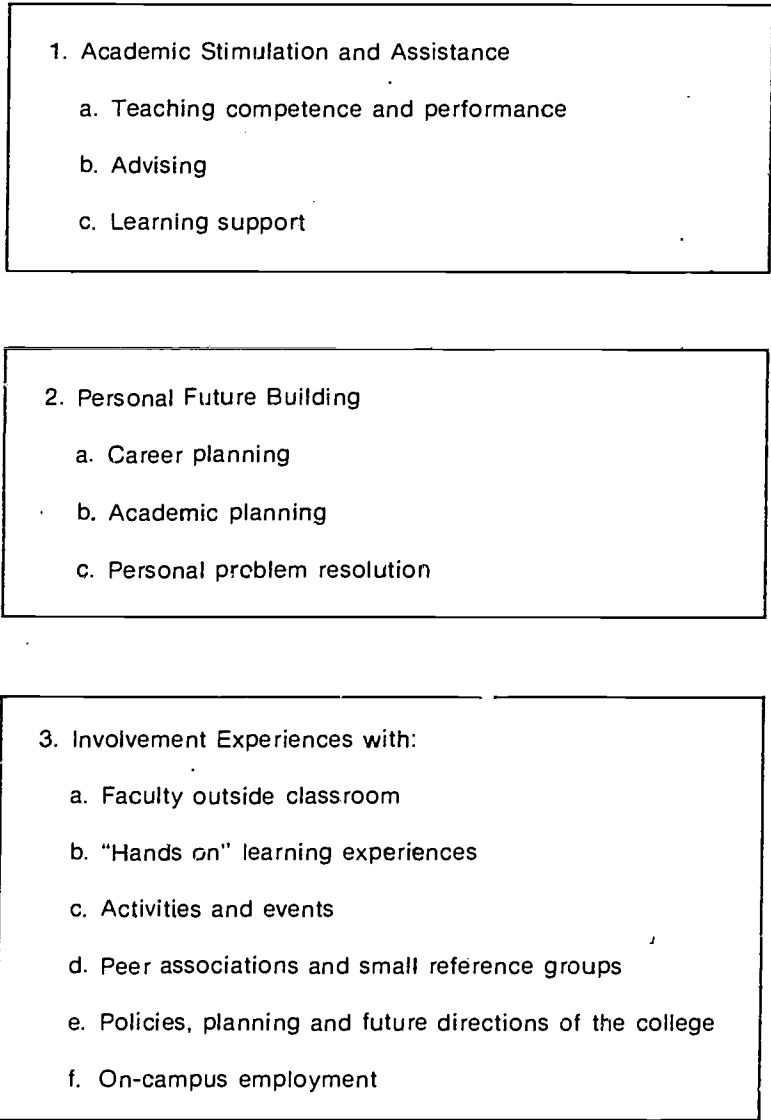


DIAGRAM 6

Action Areas for Retention

If *interaction* is a key to improved retention, specific opportunities in the above three dimensions need to be not only available, but emphasized, fostered, and made visible to students as they proceed through college. The passive offering of student services, programs, and opportunities is not enough, in most cases, to meet the needs of students. An active, dynamic approach is necessary to reach the students who might otherwise leave without ever bothering to consult a college faculty member or official, without finding the answers that could have made a difference.

Specific Action Programs

Retention activity can take many forms. One institution submitted report forms on 14 separate and distinct retention-related activities in which it was engaged. Multiple-action programs were listed as a separate category in table 21.

Among the many possible retention activities, we would emphasize the following, with examples taken from WWISR:

1. Faculty awareness and development activities

Examples:

- a. Campus-wide review and evaluation of advising
- b. "Let's talk teaching," a monthly faculty forum discussing teaching excellence and improvement of instruction
- c. A seminar in college teaching available for graduate credit for faculty
- d. Improvement of instruction grants
- e. All-college seminars on retention-attrition-recruitment
- f. Faculty advising workshops relating advising to retention
- g. Semester-long workshops to identify students with characteristics of dropouts
- h. Week-long faculty workshop for retention and advisement
- i. Kellogg faculty development program
- j. Ongoing faculty instruction development program consisting of seminars, workshops, a faculty development library, and a newsletter
- k. Two day preschool workshop for faculty on effective teaching and evaluation of teaching

2. "Significant other" peer programs

Examples:

- a. Credit course on orientation conducted by peer counselors who previously studied peer counseling in a special course
- b. Freshman seminar meeting once a week for a semester facilitated by selected student leaders
- c. Use of undergraduate upperclass students as peer advisors in center for minority student affairs
- d. Student-to-student program designed for adults entering college five years or more after high school

3. Career assistance programs

Examples:

- a. Workshop for freshmen covering career planning, study skills, leadership, and assertiveness
- b. Summer workshops on college and career planning
- c. Development of "career pathfinder guide" for assistance with students in career planning
- d. Noncredit 14 hour course on "Where do I go from here with my life?"

4. Learning support centers and activities

Examples:

- a. Education 1201: Improvement of Learning Skills. A two-semester-hour elective course taught by peer counselors who receive course skills training
- b. Two-day workshop prior to fall semester, and weekly group meetings with peer advisors, during the first nine weeks of semester, to cover basic skills
- c. Individual needs program with comprehensive support services
- d. Academic assistance including mini-courses, reading lab, personal counseling, and student orientation
- e. Creation of study skills program, opportunities for individualized help, and workshops
- f. Supplemental class instruction through a student learning center
- g. Establishment of a learning center offering orientation, peer-tutoring, mini-courses, and learning lab
- h. Individual academic tutoring in 22 department subject areas
- i. Learning lab for developmental English and reading courses, one credit hour

5. Expanded orientation activities

Examples:

- a. Mentor programs: a semester long program with a student-faculty team in weekly sessions, one-and-a-half hours in length
- b. Special orientations designed for transfer students
- c. A class entitled "Learning Resources," which explores the purpose of the liberal arts and the resources in the college
- d. Summer orientation, testing, and placement followed up by freshman studies course sequence
- e. Freshman overnight experience in a quasi-wilderness environment
- f. New student colloquium—one-hour-per-week sessions
- g. Special workshops for nontraditional students, including motivation, values clarification, self-esteem, shyness
- h. Summer orientation for beginning freshmen and parents
- i. A series of life-skills workshops to assist students who live independently in off-campus apartments

6. Effective academic advising

Examples:

- a. A restructured academic advisement program, involving intensive work with faculty
- b. A new advising/counseling procedure to follow up all students with low midterms
- c. A central advising center staffed with 25 volunteer faculty members
- d. A student academic advisement manual combined with a handbook for advisors
- e. Faculty advising with a peer advisor to assist the faculty member
- f. Establishment of a university college to provide advising and special programs
- g. Establishment of 12 undergraduate advisement centers (one for each college)
- h. Academic exploration program and a decentralized advising system
- i. Establishment of a student advisement center for undecided freshmen and all students with academic questions
- j. Faculty advisors specially trained to counsel freshmen
- k. New assignment of senior faculty members to honor students

Action Research Priorities

Any campus, regardless of its organizational structure for addressing retention, will need to determine the most appropriate direction for its retention effort to take. Implementation of any intervention strategy on a college campus should follow some prior assessment that has indicated that the strategy selected will in fact meet a given need or will at least be appropriate to existing circumstances. The only way to verify need or appropriateness is through research on the campus. Such research involves two basic steps:

1. Obtaining basic retention information

What institutional data on retention are available? What information should be made available for decision making? An ongoing method of tracking the past and future retention of students in specific categories must be set up. The system can be simple or sophisticated, as long as it shows how many specific students, identified by name, remain at the institution through various terms or semesters—and who graduate after a given number of semesters or years.

2. Following up

It is also important to conduct follow-up studies on all primary categories of students: those who have left campus, those who are still enrolled, and those who have graduated. There are many methods of gathering this type of information: researchers can use commercial instruments, localized surveys, and questionnaires, interview schedules, and so forth. Four specific aids are:

- a. The several follow-up studies reported in *Revolving College Doors*, by Cope and Hannah (1975).

- b. The ACT Evaluation/Survey Service currently offers three instruments, including a student opinion survey, a withdrawing/non-returning student survey, and an alumni survey. Scoring services are available for these instruments. Subgroup analysis may be requested, and local items can be added to the questionnaires.
- c. The National Center for Higher Education Management Systems offers the "Student Outcomes Information Services." This service provides computer processing and analysis of surveys for five different populations: entering students, continuing students, former students, graduating students, and recent alumni. Local items may be added to the questionnaires.
- d. Finally, the Council for the Advancement of Small Colleges offers a data service for student attrition, which provides questionnaires and a scoring service.

By conducting follow-up studies, the institution will no doubt document problems that are already known. In addition, it will obtain new information. Such documentation often provides leverage for action and leads for future programs. We do not mean to suggest that the institution's future should be directed by student comments or complaints. We are suggesting, however, that when seen from the perspective of student retention, many features of the life and climate of a campus can be learned through research on students. Also, this research can play an important role in decisions regarding institutional development.

A follow-up study may be the first encouraging evidence to a student that the college is, in fact, interested and concerned about student welfare. The follow-up itself may even bring students back to the college or influence them to stay. Students often respond to follow-up surveys with comments such as "I didn't really know you cared," "Thanks for the chance to respond to your inquiry," or "Yes, I do hope to return."

Focusing on Particular Target Groups

Particular target groups are best aided by particular action programs. Once again, the programs must be designed to fit local needs. Nevertheless, the findings of WWISR seem to support the application of specific action programs or groups of programs to specific target groups. We have selected some concrete examples.

1. High-risk and/or low academic performance

The high-risk and/or low academic performance target groups are most likely to be positively affected by learning and academic support programs, followed by early warning programs, advising, counseling, and multiple-action programs. These can be interconnected as in diagram 7.

2. New Students

In rank order of effectiveness in retaining new students, orientation programs rank first, learning and academic support services second, and advising third. Numerous other programs were applied in smaller numbers, and some other

individually designed programs ("other") were sometimes rated quite high. Diagram 8 illustrates how programs for improving retention might be directed toward new students.

3. Undecided majors and careers

For students undecided about majors and careers, the action programs recommended by WWISR would include advising, career assistance, and orientation programs (see diagram 9).

4. Women and adults

Among action programs designed to aid returning women and adults, we can recommend with a high degree of confidence special orientation programs, peer programs, and career assistance programs. In some cases, faculty-staff development will be necessary in order to alert the campus to the special needs and concerns of adult students, whose adjustment to academic and other demands on campus may be difficult (see diagram 10).

Specific Institutional Concerns

Our discussion of retention activity would not be complete without commenting on what we have observed about the types of colleges included in the study. We believe that the advice given so far about administrative arrangements, agendas for action, and programs related to particular target populations will be generally useful for all postsecondary institutions. Unfortunately, we find the particular problems associated with specific types of institutions more difficult to remedy. For example, public four-year institutions know they are likely to lose students who are not satisfied about either their academic advising or their contacts with faculty. Yet these institutions are often "locked into" higher student-faculty ratios and research activities. What can they do? There is no easy answer.

Just as small liberal arts colleges lose students because of limited curricular offerings, community colleges often lose students because of job demands. It is not unusual when more than half of the students do not return for a second year; in fact, 30 to 40 percent usually do not return after the first term. Many of them sample what the college has to offer, but leave after only one brief experience. Many students with adequate academic aptitudes and skills lack a serious commitment to college. Many such students attend community colleges today (especially in the urban areas), show up to get their Veterans benefits or Basic Grants, and then disappear when they get a job; should the job be lost, they might reappear.

Obviously, in neither of these instances is the primary reason for attrition easily remedied.

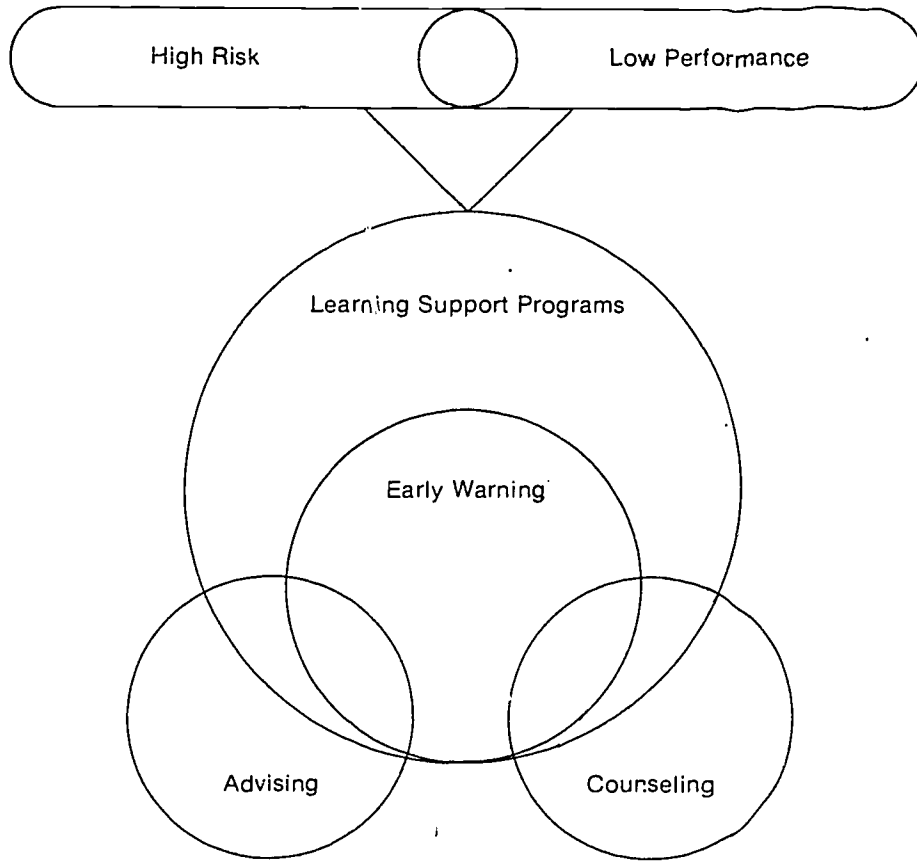


DIAGRAM 7

107

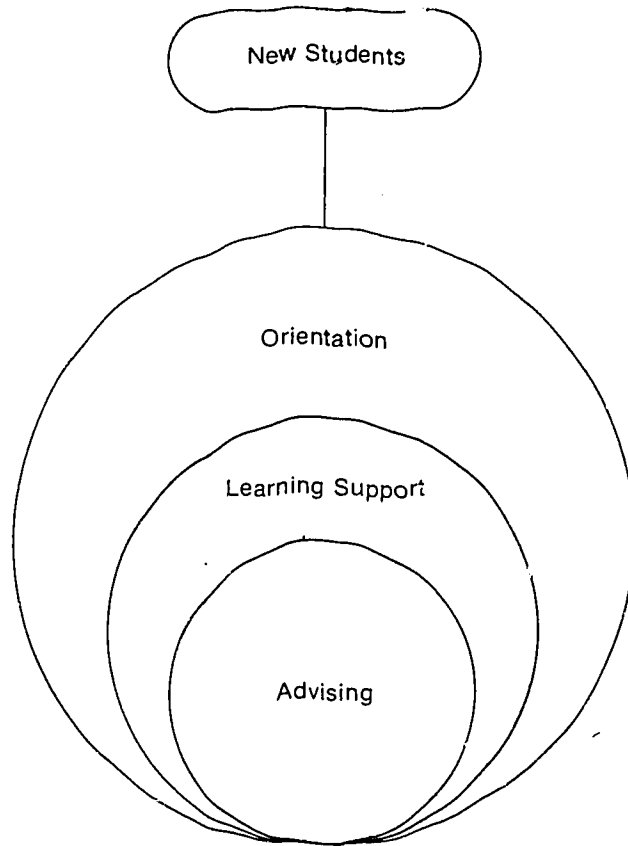


DIAGRAM 8

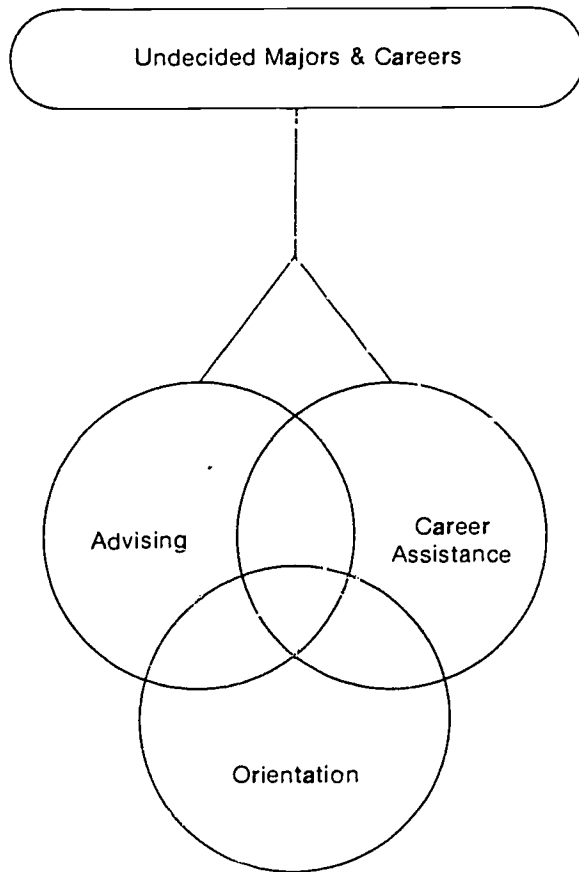


DIAGRAM 9

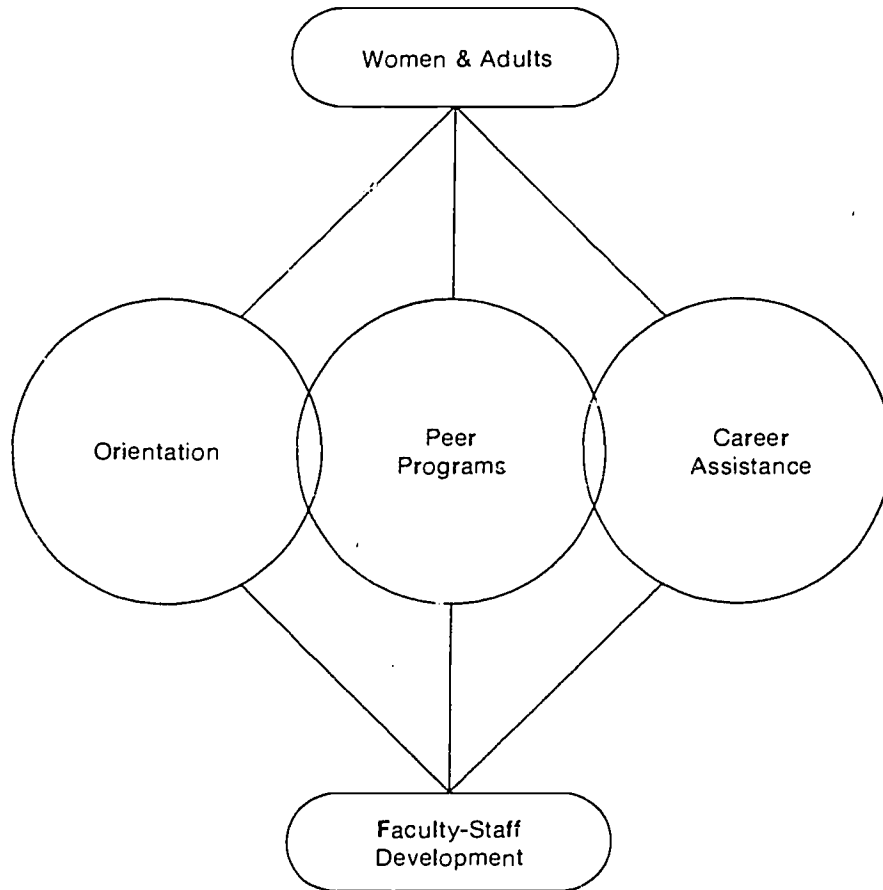


DIAGRAM 10

110

When we began this study, we were especially sensitive to the need for institutions to adopt practices and programs suited to their particular circumstances. Now, at the end of the study, we are less certain that uniqueness is the critical factor. In fact, the table in which we found the greatest agreement across data categories was the one that illustrated dropout-prone characteristics by type of institution. (Table 11 shows no rank-order differences by type of institution and very little average rating difference across types.) Even the problems encountered in retention effort by different types of institutions seem quite comparable. (See table 15.)

More significant than differences across institutional types was the discovery that the greatest number of problems was encountered in the "unique conditions" category. This clearly suggests the importance of *particular* conditions on *particular* campuses—independent of type. (See the bottom line of table 15.)¹

Summing Up

Before concluding, we want to raise a topic that is not easy to categorize, but is nonetheless significant for understanding "irrational" student behavior.

We find that many students transfer—or sometimes drop out—simply because they do not know that a particular course of study is available at their college, or because they think they cannot have a particular option in their program of studies. It is very common for students to want to take a term off, perhaps to travel or live with a relative somewhere, or to have any number of growth experiences. Frequently, these students simply withdraw rather than ask for a leave of absence. If they had taken a leave of absence however, they would be more likely to return.

In instances such as these, it is largely a matter of informing students that the college has what they want (information on all course options) or has procedures for accommodating changed needs. College faculty and staff may know what options the college has to offer, but even today's more inquisitive students often lack important information.

We are not referring here to the effects of spontaneity—to the impulses that lead young people to withdraw without notice. We refer instead to the currently pervasive reluctance on the part of students to make commitments or feel obligated to an institution. As David Riesman has pointed out, students often attend college with their metaphorical bags packed. The point is that, despite our best efforts, many students will not feel the need to make reciprocal commitments. Thus, there may be little we can do to retain a portion of any student group, no matter how well we perform the essential tasks of admission, advising, and instruction.

¹For institutions with unique circumstances, we recommend our companion document, *Reducing the Dropout Rate: Campus-level Retention Strategies and Action Programs*, which illustrates selected retention programs and activities. Institutions interested in more information should contact the persons indicated in that document.

The Future of Student Retention

The directors of the project "What Works in Student Retention" started with the premise that higher education has an adequate library of research on factors and indicators related to retention, but inadequate information about successful strategies for changing the statistical picture. Another premise was that improved institutional services can lead to improved student retention. We have not produced a definitive profile of what a given institution should do to improve student retention. We do hope, however, that we have compiled and analyzed a comprehensive catalog of intervention strategies currently under way at colleges and universities that are convinced that student retention can be improved.

Ron Lippett, the president of Human Resource Development Associates, aptly expressed the goal of the WWISR project in a student retention workshop in 1979. "Our challenge," he said, "is one of adaptation vs. adoption." The information and innovations described through WWISR are not presented for uncritical adoption on individual campuses; rather, they are presented so that they might be adapted to local conditions in order to make a positive impact on student retention. The beneficiaries will be the institutions, the students who stay, and the students who leave: all will be exposed to a more vital and more personal educational experience.

Appendix A

Other Negative Campus Characteristics

1. High Cost
2. Programs Not Offered (Health, Women's, Minority) Intramural Sports, Lack of Student Development Programming
3. Location/Transportation/Weather
4. Mission, Role, Scope (Purpose of School) (Lack of Perceived Spiritual Leadership)
5. Inadequate Facilities, Environment, Size, Social Life, Food Service, Class Size, Recreation Facilities/Small Departments/Lack of Information on Students, Lack of Housing/Unstable Atmosphere
6. Open Door Policy/Open Enrollment
7. Student Body/Single-Sex School, Male/Female Ratio, Greek Emphasis/Quality of Students
8. Difficult Curriculum and Expectations/Lack of Structure in Curricular Requirements
9. Publicity/Publications
10. Availability of Good Jobs
11. Transferability
12. Lack of Day Care Center
13. Early Withdrawal Tuition Refund
14. Availability of Scheduling/Time Classes Are Scheduled
15. Admission—Oversell/Faculty Information/Admitting Unprepared Students
16. Community Image
17. Campus Communication
18. Reputation
19. Problems with Red Tape Procedures/Bureaucratic Hassle/Systemwide Procedures

20. Parking
21. Poor System
22. Must Live on Campus
23. Too Many Part-Time Faculty
24. Selectivity
25. No Placement Testing or Prerequisite Requirements/Preadmission Counseling
26. Lack of Coordination for Support Systems
27. Secondary/Postsecondary Articulation/Articulation between 2- and 4-Year College
28. Lack of Attention to the Problems/Belief that we had no Problem/Lack of Priority for Retention
29. Young College
30. Academic Calendar
31. Registration Process
32. Billing Process
33. Budget Inflexibility
34. Low GPA College
35. Encouragement to Come for Only 1 Year
36. Integrity of College (Too Many False Announcements)
37. High Computer Utilization
38. Inadequate College Funding
39. Rotating and Permanent Work Shift Changes
40. University System Support (As Opposed to College and Department)
41. Students Oversold on "Value" of Education
42. Mass Recruitment
43. Problems with Program Procedures
44. Inconsistent Rules Enforcement
45. Inadequate Recruiting
46. Lack of Money for Support Services
47. (Institutional) Inadequate Self-Esteem

Appendix B

Other Positive Campus Characteristics

1. Low Cost
2. Excellent Curriculum and Variety
3. Location
4. Housing
5. Special Programs, Student Development, Research Assistance Programs/Spiritual Life Programs, Tutorial Assistance/Survival Seminar Intramural Programs/Faculty Advising, Peer Counseling/Possibility of Receiving Credit for Prior Learning, Pre-freshman Counseling/Crisis Intervention, Special Advisors (for Freshmen and Undeclared Sophomores), Placement Testing/Orientation (Day) Early Enrollment, Student Advocate, Good Orientation and Registration/Improvement of Advertisement
6. Small Classes, Size of College
7. Athletics
8. Atmosphere, Personal Contact with Student Life Staff, Friendliness, Contact with Faculty, Environment, Individualized Attention, Adequate Facilities, Availability of Faculty, Food Service, Social Activities, Membership in Fraternity or Sorority, New Campus-Modern Equipment, Faculty/Student Ratio
9. Open Admission
10. Financial Assistance Including Part-Time Jobs/Work Placement
11. Religious Life
12. Saturday Morning Classes/Weekend College Timeframe/Evening Scheduling
13. Campus Based Radio Station
14. Reputation
15. Single Sex College
16. Parking
17. 100% Placement/Job Placement
18. Transferability of Courses

19. Student Involvement in Course Scheduling
20. Flexible Class Scheduling
21. Employment Relatedness of Major/Career Opportunities
22. Secondary/Postsecondary Articulation
23. Required by Family to Live at Home
24. Single Purpose Institution
25. Student Commitment to Vocational Goal
26. Use of Strong-Campbell Interest Inventory
27. Care in Accuracy of Literature
28. Bus Service
29. Quality Students and Faculty
30. Faculty Support for Diploma Nursing Education
31. Adequate Budget
32. Well-Organized Support System
33. Getting Faculty/Staff to Accept Retention as Important
34. Supportive Parents
35. Acceptance of Mission and Objectives of the College

Appendix C

Other Dropout-prone Characteristics

1. Significant Employment
2. Low Commitment
3. Low Ability, Preparation
4. Friends Elsewhere
5. Non-traditional Status/Marriage/Women/Minorities/Out-of-State/Preprofessional Students/Older Students
6. Emotional Problems/Personal Problems, Alcohol Abuse, Outside Responsibilities/Sense of Values, Apprehensive About Communication Goals
7. Family Problems
8. Lack of Fit and Involvement/Boredom, Absence of "Significant Other" Relationships/Cultural Problems, Excessive Social Activity
9. Moved, Spouse Transferred
10. Transportation/No Car on Campus
11. Finished What They Wanted/Transferred/Never Intended to Stay
12. Our College Not First Choice
13. Poor Community Support
14. Score on Alexander Astin's Worksheet for Predicting Chances of Dropping Out
15. Special Programs Which Preclude Graduation
16. Unrealistic Expectations of College Life
17. Last Minute Applicants
18. Didn't Get What They Thought
19. Home State
20. Education/Career Goals Not Met by Our Single Major (Bible School)
21. Change in Vocational Goals/Inadequate Pre-admission Knowledge of Career Goals
22. Peer Counseling
23. Dissatisfaction
24. Distance from Graduation
25. Needed Temporary Break
26. Frequency in Use of Academic and Vocational Advising
27. Financial Problems

Appendix D

Title of New Position for Retention

1. Project Intercept Coordinator
2. Special Services Grant—3 Persons
3. Coordinator of Student Retention Services
4. Director, Student Administrative Services
5. Student Retention Officer
6. Title III Coordinator on Campus
7. Director of Special Services
8. Director of Student Life
9. Coordinator (plus one part-time data analyst)
10. Director of Retention (Title III)
11. Chairperson of Retention Committee
12. Assistant Dean of Students
13. Academic Advising Associate
14. Director of Recruitment and Retention
15. Vice President for Public Relations, Recruitment and Retention
16. Director, Retention Studies and Academic Advising
17. Vice President for Student Affairs
18. Director, University College
19. Director of Enrollment Planning
20. Director of Student Development
21. Retention Committee
22. Assistant (Secretary) to the Student Retention Officer
23. Freshman Counselor
24. Research Assistant
25. Dean of Undergraduate Studies
26. Dean of Admissions and Retention
27. Director for Academic Achievement

Appendix E

Initial Moving Force behind Retention Efforts

Other Student Services

1. Dean of Students
2. Student Personnel Staff (Testing Center)/Director Minority Affairs/Director of Counseling, Assistant Dean of Students, Housing, Special Services, Study Skills, Learning Center
3. Program Development and Evaluation
4. Academic Advising Office/Academic Advising and Orientation Skills Center/Special Services Project (Academic Tutoring) Coordinator of Advising (Admissions)
5. Student Educational Assistance Program
6. Director of Admissions and Student Services
7. Development Education Faculty
8. Public Information
9. Office of Community Outreach
10. Undergraduate Student Organization
11. Women's Resource Center Director

External Stimuli

1. State Agency/FTE State Reimbursement
2. ACT Seminar or Other Seminar
3. Federal Grant (Congress through its General Accounting Office)
4. Regional Accrediting Agency/Accreditation Self-Study

5. Associations

New England Association of Schools and Colleges
Council for the Advancement and Support of Education (CASE)
Small Colleges Consortium IDP
Middle States Association
Conference of Small Private Colleges
Community College System Office
System Central Office

6. Consulting Services—Enrollment Analysis Inc.

7. State University Reports

Others Specified

1. Academic Dean/Associate
2. Faculty Member(s)
3. Grant
4. History and Tradition
5. Equal Employment or Affirmative Action Officer (EOPS, Dean)
6. Business—Management Staff
7. Executive Vice President/Dean/Assistant to President
8. Institutional Research/Education Research
9. Retention Committee/Office
10. Dean of College, Dean of School of Science and Engineering
11. Public Information Officer/Public Relations
12. Director of Planning
13. Recruitment Committee Admissions
14. Director of Academic Advising/Assistant Dean for Academic Development
15. Provost
16. Chancellor/Chancellor's Council
17. Committee of Faculty and Administration
18. Vice President Planning and Development/Vice President Administration and Planning/Planning and Research Departments with Planning Group/Institution Planning Commission/Planning and Development/Analytic Studies Team (major)/Vice President Policy/Planning Development/Director of Central Planning (Planning Commission)/Program Development

19. Vice President for the Community College System and Staff
20. Executive Council
21. Dean of Junior College
22. Vice President for Administrative Affairs/Dean and Administrative Staff
23. Second Echelon Administrators
24. Long-Range Steering Commission/Planning Commission
25. Student Demand
26. Advisement Center
27. Vice President Resources
28. Admission and Retention—Commission of Faculty Council
29. Commission Named by President
30. University Commission and Some Academic Advisers
31. Dean of College
32. Assistant Vice President/Academic Support Services
33. Professional Interest and Concern
34. Faculty Union
35. Commission on Student Progress
36. ARP Coordinator Reports to Dean of Humanistic, Social, and Managerial Studies
37. Council of Deans
38. Coordinator of Freshman Program
39. Administrative Staff

Appendix F Target Groups

1. All Freshmen
2. Freshmen and Sophomores
3. New Students (Freshmen and Transfers)
4. All Students
5. Transfers
6. Special Curriculum Students
7. Sophomores
8. Undecided Majors
9. Undecided Careers

Low Academic Performance

10. Low Midterm Grades
11. Low Semester Grades/Also on Probation
12. Former Flunk-outs
13. Other, Including Combination

High Risk

14. Disadvantaged (Including Minority with Need)
15. Low High School GPA
16. Low Predicted GPA
17. Low Scores
18. Low Skills
19. Other, Including Combination

20. Skill Deficiency
 - English
 - Reading
 - Writing
 - Math
 - Science
 - Study Skills
 - Test Taking
 - Other, Including Combination
 21. Minority Students/Foreign/Native American
 22. Women and Adults (nontraditional) Evening/High School Seniors
 23. Faculty and Staff
 - Advisors
 - All Faculty
 - Volunteers
 - Counseling Staff
 24. Maintenance and Clerical Staff
 25. Financial Aid Recipients
- Potential Dropouts
26. Requesting Transcripts
 27. Not Planning to Return
 28. Behavior
 29. Many Absences
 30. Withdrawing
 31. Not Re-registered/Classes or Housing
 32. Other, Including Combination
 33. High Potential/High Students
 34. Handicapped
 35. Commuters
 36. Resident Students
 37. Multiple Target Groups
 38. Other/Parents
 39. Dropouts

Appendix G

Action Programs

Advising Effort

1. Special Assignment of Faculty and Faculty Contact
2. New Advising Program (structure), Including Frequency, Advising Day
3. Special Testing
4. Training for Advisors
5. Advising Center—by That Name
6. Combination
7. Learning Center—Where Center is Specifically Mentioned

Learning Assistance

8. Counseling/Tutoring in Basic Skills, Study Skills
9. Credit Course—Skill Training, Basic Skills
10. Help Sessions, Classes, Labs (noncredit)
11. Learning Contracts
12. Full-Range Academic Support Services
13. Other

Orientation

14. Preschool Sessions
15. Credit Courses—Ongoing
16. Growth Sessions, Classes (noncredit)
17. Summer

18. Combination with Advising/Faculty Involvement
19. In Academic Departments
20. Special Testing
21. Combination of Above

Career Emphasis (Including Major Decisions)

22. Personal Counseling/Contact
23. Group Courses—Credit
24. Group Courses—Noncredit
25. Work Experiences—Internships
26. Workshops—Career Day
27. Combination

Counseling

28. General
29. Special Purpose, Including Courses, Group Sessions, Anxiety and Stress, Coping, and so forth
30. Exit Interviews
31. Special Peer Programs

Early Warning and Follow-up

32. Special Attention from Advisors/Faculty
33. Low Performance Mid-Term, Probation, Invitations for Special Interviews, Letters, etc., High Risk
34. Questionnaires
35. Follow-up by Student Affairs, Counselors
36. Absence Reports and Follow-up

General (Other)

38. New Policies, Procedures, Schedules, Structure for Retention, Leaves of Absence, etc.
39. Follow-up of Dropouts and Campus Studies
40. Faculty and Staff Development, including Retention
41. Cocurricular Emphasis—Student Involvement, Peer Programs
42. Curricular Development and Changes, Including Honors
43. Financial Aid
44. Multiple Approach
 - Advising
 - Counseling
 - Financial Aid
 - Special Classes
 - Workshops
 - Student Advocacy
 - Peer Counseling
 - Career Planning
45. Promotion of University Resources
46. Other

126

Appendix H

Multiple-Action Programs

1. Advising Effort
2. Learning Center
3. Learning Assistance
4. Orientation
5. Career Emphasis
6. Counseling
7. Early Warning
8. Financial Aid
9. Peer Counseling
10. Student Advocacy
11. Faculty—Staff Development
12. New Policies
13. Follow-up Studies
14. Cocurricular Programs
15. Curricular Developments and Changes, Including Honors
16. Special Classes
17. Brochures for Majors
18. Meetings with School Counselors
19. Letters to Majors
20. Employment and Study Skills
21. Exit Interview
22. Retention Officer
23. "Returning Student News"—3 Issues
24. Lunch Hour for Returning Students
25. Job Development
26. Internships

Appendix I

Multiple Target Groups

1. New Students
2. Transfers
3. Special Curriculum (Departments)
4. Undecided Majors
5. Undecided Careers (or both)
6. Low Academic Achievement
7. High-Risk
8. Skill Deficiency
9. Minority
10. Women and Adults
11. Faculty and Staff
12. Potential Dropouts
13. Part-time
14. Commuters
15. Resident Students
16. Parents
17. Faculty
18. All Students
19. Disadvantaged
20. Handicapped
21. Absences
22. Liberal Arts Major
23. Self-Designed Major
24. Current Student Body and Area High School Students

Appendix J

Impact on Retention

The purpose of the coding below is to identify the relative impact in improving retention that results from the action program described on the action form. We are looking for **improvement** in retention, as indicated by percentage figures or written statements. Even though an action program might have been very successful in other terms, the key for this coding is retention improvement.

5 = Superior impact in improving retention

Programs in the category will show documentation of improved retention of 10 percent or more **and**

The ratings of effectiveness in improving retention must be 4 or 5

4 = Good impact in improving retention

Improvement of 4 percent or more **or**

Rating of no less than 3 **and**

Very strong, enthusiastic language about the impact on retention (*definite improvement; much; significant; etc.*)

3 = Some impact in improving retention

Improvement of 1 to 3 percent **or**

The writer thinks improvement took place **or**

Wording is positive toward the actual or potential results

122 WHAT WORKS IN STUDENT RETENTION

2 = *No impact on retention*

Documented results show no change or improvement in retention

Statement that retention did not improve

1 = *No improvement information*

No data or information

Too early to say

Current figures on retention are given, but without figures from previous years for comparison

No reference to retention, even though "satisfaction" and "use" might be well documented

Appendix K

General Impact Index

The general impact index is intended to identify the relative degree of impact on the institution of each specific action program **but separate from the retention improvement**. The comments will refer to faculty or student morale, the general attitude on the campus, the establishment of a new program or emphasis as a result of the initial action effort, etc. The comments will respond to the question, "Apart from retention, what impact did the program have on the campus?"

Key in first on boxes for "Impact on Institution" and "Satisfaction with Success of Program." You may then have to look over the box "Impact on Target Group." Ignore the rating by the author on "Satisfaction with Success of Program."

5 = *Definite, positive, strong impact on the campus*

Has resulted in a specific new emphasis or program.

Strong terminology dealing with response of faculty, staff, or students, showing much enthusiasm towards it—such as:

Excellent response . . .
 Highly satisfactory . . .
 Much improvement in attitude, morale . . .
 Definite improvement . . .

A multiple enumeration of benefits showing broad impact and satisfaction.

4 = *Moderate, but positive impact on the campus*

Positive attitudes shown, but not with vigorous language.

Statements that program was beneficial to the campus:

Better service . . .
 More awareness . . .
 Fewer problems . . .
 Good response . . .

124 WHAT WORKS IN STUDENT RETENTION

3 = *Some impact*

Satisfactory, but needs more time . . .
We liked it, but needs improvement . . .
It was OK . . .
Program was useful . . .

2 = *Failure, bomb, or worse*

Statement that the program failed.
Negative attitudes expressed toward the program.

1 = *No impact*

No language endorsing the value of the program
A simple, matter-of-fact explanation or description with no embellishment
No explanation or comment
Too early to tell

Appendix L The WWISR Survey Instrument

WWISR What Works in Student Retention?

Most colleges and universities are concerned with the problem of student attrition and retention. We have sent this questionnaire to you because your president has designated you as the person best able to help us identify action programs underway on your campus to improve student retention. We will treat all responses confidentially.

A promise was made to your president that a summary of our nationwide study would be sent to each institution that completes this questionnaire.

Your name _____
Title _____
Institution _____
Address _____
City _____ State _____ Zip _____
Phone (_____) _____
Area Code

PART A

YOUR CAMPUS AND THE GENERAL PROBLEM

An important goal of this project is to determine the nature and extent of student withdrawals during the early years of college.

1. What percentage of your full-time entering freshmen are on the average not enrolled one year later?

- 1 ___ 0-5%
- 2 ___ 6-10%
- 3 ___ 11-15%
- 4 ___ 16-20%
- 5 ___ 21-25%
- 6 ___ 26-30%
- 7 ___ 31-35%
- 8 ___ 36-40%
- 9 ___ 41-45%
- 10 ___ 46-50%
- 11 ___ 51-55%
- 12 ___ 56-60%
- 13 ___ 61-65%
- 14 ___ 66-70%
- 15 ___ 71-75%
- 16 ___ 76% or more

2. The above response is based on: Check one.

- 1 ___ Actual data
- 2 ___ Estimates

3. If you have enrollment and retention data readily available, provide the figures for the years indicated.

	1975	1976	1977	1978
Number of new freshmen (full-time only)	1 _____	1 _____	1 _____	1 _____
Percent of above freshman students enrolled 1 year later	2 _____	2 _____	2 _____	2 _____
Four-year institutions only: Percent of above freshman students enrolled 2 years later	3 _____	3 _____	3 _____	3 _____
Total number of full-time students	4 _____	4 _____	4 _____	4 _____

4. The above responses are based on: Check one.

- 1 ___ Actual data
- 2 ___ Estimates

PART B

ANALYSES ON YOUR CAMPUS

Many colleges have collected attrition and retention data for a number of years; others have also conducted systematic analytical studies of the subject. In this section, we would like to know whether your institution has engaged in such studies. (We are also asking you to rate the importance you attribute to indicators of attrition, indicators of retention, and characteristics of dropout prone students on your campus.)

5. Which of the following describe(s) your institution? Check all that apply.

- 1 ___ We have conducted one or more analytical studies of attrition and retention.
- 2 ___ We are now conducting such a study.
- 3 ___ We are planning to conduct such a study.
- 4 ___ We see the need for a study, but have not acted on it.
- 5 ___ We have not conducted such a study and have no plans to do so.

6. Has your analytical study included a survey of one or more groups?

- 1 ___ Yes
- 2 ___ No. Go to question 8.

7. Which of the following groups did (or will) you survey? Check all that apply: then go to question 9.

- 1 ___ Prospective students
- 2 ___ Current students
- 3 ___ Former students who did not graduate
- 4 ___ Reenrollers (stopouts who have reenrolled)
- 5 ___ Alumni
- 6 ___ Faculty
- 7 ___ Administrators
- 8 ___ Staff
- 9 ___ Others (Specify _____)

8. Why didn't you include a survey in your study? Check all that apply.

- 1 ___ Did not think a survey would provide helpful information
- 2 ___ Could not locate suitable instruments
- 3 ___ Too expensive
- 4 ___ Available instruments not flexible enough
- 5 ___ Insufficient time to prepare and administer the survey
- 6 ___ Staff unavailable to prepare and administer the survey
- 7 ___ Local staff unable to develop a suitable instrument
- 8 ___ Difficulties in identifying an appropriate sample
- 9 ___ Difficulties associated with scoring and analyzing data
- 10 ___ Other (Specify _____)

9. Previous research has linked attrition to certain *negative* campus characteristics. (Attrition here refers to students leaving the institution before graduation and not returning for additional study.) Commonly mentioned negative characteristics are listed below. Rate each of them in importance to attrition on your campus by circling the appropriate number. Scale: 1—low importance to 5—high importance.

	Importance	
	Low	High
1. Lack of faculty care and concern for students	1	2 3 4 5
2. Lack of staff care and concern for students	1	2 3 4 5
3. Quality of teaching not consistently high	1	2 3 4 5
4. Inadequate academic advising	1	2 3 4 5
5. Inadequate counseling support system	1	2 3 4 5
6. Inadequate academic support services, learning centers, and similar resources	1	2 3 4 5
7. Inadequate financial aid	1	2 3 4 5
8. Inadequate part-time employment opportunities	1	2 3 4 5
9. Inadequate career planning services	1	2 3 4 5
10. Inadequate extracurricular programs	1	2 3 4 5
11. Inadequate curricular offerings	1	2 3 4 5
12. Restrictive rules and regulations governing student behavior	1	2 3 4 5
13. Unsatisfactory living accommodations	1	2 3 4 5
14. Inadequate personal contact between students and faculty	1	2 3 4 5
15. Inadequate opportunity for cultural and social growth	1	2 3 4 5
16. Insufficient intellectual stimulation or challenge	1	2 3 4 5
17. Conflict between class schedule and job	1	2 3 4 5
Other characteristics you consider important:		
18. _____	1	2 3 4 5
19. _____	1	2 3 4 5
20. _____	1	2 3 4 5

10. From the characteristics you rated "important" (4 or 5), select and rank up to five that you consider to be most important. Enter their numbers below.

- 1 ___ Most important
- 2 ___ Second most important
- 3 ___ Third most important
- 4 ___ Fourth most important
- 5 ___ Fifth most important

11. The *positive* characteristics of a campus may contribute directly to retention. Commonly mentioned positive characteristics are listed below. Rate each of them in importance to retention on your campus by circling the appropriate number. Scale: 1—low importance to 5—high importance.

	Importance	
	Low	High
1. Caring attitude of faculty and staff	1	2 3 4 5
2. Consistent high quality of teaching	1	2 3 4 5
3. Consistent high quality of academic advising	1	2 3 4 5
4. Adequate financial aid programs	1	2 3 4 5
5. Admissions practices geared to recruiting students likely to persist to graduation	1	2 3 4 5
6. Overall concern for student-institutional congruence or "fit"	1	2 3 4 5
7. Excellent counseling services	1	2 3 4 5
8. Excellent career planning services	1	2 3 4 5
9. System for identifying potential dropouts (early alert system)	1	2 3 4 5
10. Encouragement of student involvement in campus life	1	2 3 4 5
Other characteristics you consider important:		
11. _____	1	2 3 4 5
12. _____	1	2 3 4 5
13. _____	1	2 3 4 5

12. From the characteristics you rated "important" (4 or 5), select and rank up to five that you consider to be most important. Enter their numbers below.

- 1 ___ Most important
- 2 ___ Second most important
- 3 ___ Third most important
- 4 ___ Fourth most important
- 5 ___ Fifth most important

13. Some schools have attempted to identify students considered to be "dropout prone." Drawing on your experience on your campus, rate each of the following student characteristics in terms of the relationship each bears to a student's likelihood of dropping out. Circle the appropriate number. Scale: 1—low potential for dropping out to 5—high potential for dropping out.

	Relationship to dropout potential						
	Low	High	1	2	3	4	5
1. Low academic achievement			1	2	3	4	5
2. Limited educational aspirations			1	2	3	4	5
3. First-generation college student			1	2	3	4	5
4. Commuter			1	2	3	4	5
5. Economically disadvantaged status			1	2	3	4	5
6. Indecision about major or career goal			1	2	3	4	5
7. Inadequate financial resources			1	2	3	4	5
Other characteristics you consider important:							
8. _____			1	2	3	4	5
9. _____			1	2	3	4	5
10. _____			1	2	3	4	5

14. From the characteristics which you rated as having a "high relationship to dropout potential" (4 or 5), select and rank up to five that you consider to be highest in dropout potential. Enter their numbers below.

- 1 ___ Most important
- 2 ___ Second most important
- 3 ___ Third most important
- 4 ___ Fourth most important
- 5 ___ Fifth most important

PART C

CAMPUS ORGANIZATION FOR RETENTION

The degree to which a campus is organized to deal with student retention probably helps determine the success of retention efforts. In this section, we are interested in learning how your campus has addressed the issue of organization.

15. Please indicate whether your college has assigned a specific individual to coordinate overall retention activities.

- 1 ___ No one assigned. Go to question 17.
- 2 ___ One existing staff assigned (Position/Title _____)
 - a ___ Released time (Percentage of full-time position: _____)
 - b ___ Overload (added to previous responsibility)
- 3 ___ Existing staff from several areas assigned
 - a ___ Released time (Percentage of full-time position: _____)
 - b ___ Overload (added to previous responsibility)
- 4 ___ New position created (Title _____)
 - a ___ Part time
 - b ___ Full time

16. To whom does the retention coordinator report?

- 1 ___ We have no coordinator.
- 2 ___ President
- 3 ___ Academic Vice President (Provost)
- 4 ___ Student Affairs Vice President
- 5 ___ Registrar
- 6 ___ Director of Institutional Research
- 7 ___ Director of Counseling
- 8 ___ Director of Admissions
- 9 ___ Specify _____)

17. Have you had a retention steering committee?

- 1 ___ No. Go to question 19.
- 2 ___ Yes

18. Who has served on your steering committee; Indicate the number serving from each of the following categories.

- 1 ___ Faculty
- 2 ___ Students
- 3 ___ Administration—General
- 4 ___ Administration—Academic Affairs
- 5 ___ Administration—Student Affairs
- 6 ___ Support service staff (that is, food service, library, housekeeping, secretarial staff, and so forth)
- 7 ___ Other (Specify _____)

19. Who was the initial moving force behind your retention efforts? Check all that apply.

- 1 ___ Board of Trustees
- 2 ___ President
- 3 ___ Vice President for Business
- 4 ___ Vice President for Academic Affairs
- 5 ___ Vice President for Student Affairs
- 6 ___ Faculty
- 7 ___ Admissions
- 8 ___ Registrar
- 9 ___ Academic departments
- 10 ___ Counseling services
- 11 ___ Alumni
- 12 ___ Financial aids
- 13 ___ Career planning and placement
- 14 ___ Federal statistical or reporting requirements
- 15 ___ Other student services
(Specify _____)
- 16 ___ External stimulus
(Specify _____)
- 17 ___ Other (Specify _____)

Other problems you encountered.

- 12 ___ _____
- 13 ___ _____
- 14 ___ _____

21. From the above list, select up to five major problems. Enter their numbers below and explain the problems in some detail.

- 1 ___ _____

- 2 ___ _____

- 3 ___ _____

- 4 ___ _____

- 5 ___ _____

**PART D
EVALUATION**

Your answers to the following questions may help others anticipate and avoid some of the problems that plague retention efforts.

20. Which of the following problems did your retention efforts encounter? Check all that apply.

- 1 ___ Lack of funds
- 2 ___ Lack of staff
- 3 ___ Lack of time
- 4 ___ Lack of support from faculty
- 5 ___ Lack of support from administration
- 6 ___ Actual resistance to policy changes
- 7 ___ Actual resistance to acceptance of new roles or responsibilities
- 8 ___ Insufficient data
- 9 ___ Inadequate measurement—evaluation expertise
- 10 ___ Inadequate measurement instruments
- 11 ___ Inadequate data-processing capabilities

22. To help us analyze your responses, please describe unique conditions at your institution that may positively or negatively affect student retention.

PART C
ACTION PROGRAMS

The questions in Part E get at the heart of our survey. We are looking for examples of action programs that have been implemented on campus to improve student retention. We want to know what is happening even if a program has not been totally successful.

23. Other than analytical studies of attrition and retention, what specific attempts has your campus made to provide action programs—new or modified services or curricular offerings—to improve retention on your campus? Check only those activities that have been restructured or introduced in a specific effort to improve retention.

- 1 ___ No special action program
 - 2 ___ Special orientation activities
 - 3 ___ Improvement or redevelopment of academic advising program
 - 4 ___ Curricular innovations in credit programs
 - 5 ___ New noncredit course offerings
 - 6 ___ Establishment of early warning systems for identifying and communicating with potential drop-outs or stopouts
 - 7 ___ Special counseling programs
 - 8 ___ New administrative structures
 - 9 ___ New or revitalized extracurricular activities
 - 10 ___ Expanded academic support/enrichment/learning services
 - 11 ___ Special or required services for students who have not declared a major
 - 12 ___ Expanded placement services
 - 13 ___ Job-related training programs
 - 14 ___ Faculty/instructional development programs
 - 15 ___ Formal inclusion of advising effectiveness in faculty promotion and tenure decisions
 - 16 ___ Special admissions materials and procedures designed to improve student-institutional "fit"
 - 17 ___ Exit interviews conducted
 - 18 ___ Use of students as peer advisers and counselors
 - 19 ___ Involvement of students in administration, curricular design, other traditionally "nonstudent" activities
 - 20 ___ Special and significant services designed to retain adult learners
- Other attempts to improve retention.

- 21 ___ _____
- 22 ___ _____
- 23 ___ _____

The information you provide in the next item will be crucial to our project. Using the form provided, please list and describe specific action programs and activities your institution has initiated to improve student retention. Some definitions are provided to assist you. Please use a separate form

for each activity or program. (Make extra copies of the form if necessary.) A sample form is provided for illustrative purposes.

24. Please type your responses. If you give permission, photocopies of your responses may be incorporated into a monograph or otherwise be made available to others. Be certain to include those campus action programs, activities, or models that may be of widespread interest. We hope to highlight these efforts nationally.

Definitions:

Target Group. The student group for whom a particular action program was designed. The group(s) to which a program was applied; for example, all freshmen, commuters, full-time minority students, high-risk students, undeclared majors. If there is more than one target group, please list each one separately.

Retention Activity. A specific intervention strategy implemented on behalf of a particular group or groups of students, at least partly to improve the rate of student retention (or return) from that group or groups; for example, learning assistance centers or programs, special required counseling or advising efforts, orientation classes for credit, early "alert" strategies, prewithdrawal interviews, special training for faculty advisers.

Impact on Target Group. The concrete, observable, documented effects of the action program on the group of students for whom it was implemented; for example, greater satisfaction, attendance, performance, participation. Quantify results, if possible.

Impact on Institution. New college policies, procedures, attitudes, behavior of faculty and staff that resulted from the action programs; for example, new registration procedures, new policies regarding deadline for withdrawals, new core requirements for freshmen, new expectations for faculty advising, documented changes in attitudes or perceptions.

Thank you very much for responding to this survey. We know the demand on your time was significant. Please feel free to share with us any general comments you might have on the survey or on the topic of retention.

You will receive a summary report of the results of this study.

Return completed questionnaire to:

WWISR
NCHEMS
Dr. Philip Beal
P.O. Drawer P
Boulder CO 80302

Study Directors

Lee G. Noel, PhD Regional Director ACT	Philip E. Beal, PhD Visiting Scholar NCHEMS
--	---

Retention Activity Report Form

Please type. Use separate form for each program. Please make copies, if necessary.

Target Group	Retention Activity
Sophomore undeclared majors. Participation was strongly encouraged.	Special week for individual and group counseling during winter term.
Sample	

Impact on Target Group	Impact on Institution
50% decided on major; 30% designed a decision making plan; 10% no results; 10% no show. Of attendees, average rating of help received was 8.9 on a 10-point scale of satisfaction.	Better class section planning in several major disciplines, more faculty-student contact on course offerings; more knowledgeable major decisions and fewer schedule changes in next term. Some faculty complained about the extra work load.

<p>Satisfaction with success of program Low 1 2 3 ④ 5 High</p> <p>Please explain: The response of students was excellent (90% participated), the faculty understood student perceptions and problems better, and integration with other services was facilitated (counseling office, career planning, financial aid). In several cases, erroneous information was corrected.</p>
<p>Estimated effectiveness of program in improving retention Low 1 ② 3 4 5 High</p> <p>Please explain: In next year, 75% of the total sophomores returned compared with 71% the year before; 65% of the undeclared major sophomores returned. No comparable data existed on year before. Too early to attribute improvement to the program alone. (85% of the no shows failed to return for the next year.)</p>

May the contents of this form be shared? Yes ___ No ___

Name of person to contact for more information _____

Title _____ Institution _____

Address _____

City _____ State _____ Zip _____

Bibliography

- Aarons, Howell. "An Evaluation of an Individualized Interpersonal and Interdisciplinary Team Approach to Remediation at Mohegan Community College." EdD Research Project, Nova University, 1975. (ERIC Document Reproduction Service No. ED 115341.)
- Adams, Glenn A. "'Preventative' Career Counseling—Proving that It Works." *Journal of College Placement*, Spring 1974, 34, 3, 26-33.
- American College Testing Program, The. *ACT Evaluation/Survey Service*. Iowa City, Iowa: Author, 1979.
- Astin, Alexander W. *Preventing Students from Dropping Out*. San Francisco: Jossey-Bass, 1975.
- Carman, Robert A. *A Long-Term Study of the Effort of Tutoring in Developmental Mathematics*. Santa Barbara, Calif.: Santa Barbara City College, 1975. (ERIC Document Reproduction Service No. ED 112983.)
- Cope, Robert G. "Why Students Stay, Why They Leave." In Lee Noel (Ed.), *Reducing the Drop Out Rate*, pp. 1-11. *New Directions for Student Services*, no. 3. San Francisco: Jossey-Bass, 1978.
- Cope, Robert G., and Hannah, William. *Revolving College Doors*. New York: John Wiley & Sons, 1975.
- Dallas, Gladys E. *Attrition Prevention through Counseling among Community College Students: NORCAL Phase III*. NAPA College, California, 1971. (ERIC Document Reproduction Service No. ED 075012 and JC 30082.)
- Flannery, John, and Others. *Final Report from the Ad Hoc Committee to Study Attrition at Miami-Dade Community College, North Campus*. Miami-Dade Junior College, Fla., May, 1973. (ERIC Document Reproduction Service No. ED 085052 and JC 40003.)

Iffert, R. E. *Retention and Withdrawal of College Students*. Bulletin 1958, no. 1. Washington D.C.: Government Printing Office, 1957.

Kester, Donald L. *California Community College Stopouts: A Comparison of the Three NORCAL-CCHE Follow-up Studies*. Report of a research study conducted jointly by the California State Coordinating Council for Higher Education, Sacramento, and the Northern California Community College Research Group. Washington D.C.: Office of Education, Division of Academic Facilities, 1971. (ERIC Document Reproduction Service No. ED 057771 and JC 720007.)

Kester, Donald L. *Descriptive Data Base for the Three-Year NORCAL Attrition Study, Phase I-III*. May, 1972. (ERIC Document Reproduction Service No. ED 063922 and JC 720153.)

Kester, Donald L. *The Lesson from the Three-Year NORCAL Attrition Study: Many of the Potential Dropouts Can Be Helped*. Phase III, final report, 1972. (ERIC Document Reproduction Service No. ED 057779 and JC 720015.)

Lenning, Oscar T. "An Optimistic Alternative: Keeping Enrollment Up." Paper presented at the annual convention of the American Association for Higher Education, Chicago, March 1978.

Lenning, Oscar T., Beal, Philip E., and Sauer, Ken. *Attrition and Retention: Evidence for Action and Research*. Boulder, Colo.: National Center for Higher Education Management Systems, 1980.

Macmillan, Thomas F., and Kester, Donald L. "Promises to Keep: NORCAL Impact on Student Attrition." *Community and Junior College Journal*, February 1973, 43, 45-46.

Michlein, Michael G. *Student Attrition in the Wisconsin VTAE System--Phase II, Final Report*. Wausau, Wisc.: North Central Technical Institute, June 1977. (ERIC Document Reproduction Service No. ED 146421.)

Michlein, Michael G., and Others. *Student Attrition in the Wisconsin VTAE System Phase I Final Report*. Wausau, Wisc.: North Central Technical Institute, June 1976. (ERIC Document Reproduction Service No. ED 136012.)

Middleton, Lorenzo. "With Freshmen Scarcer, Emphasis Shifts to Keeping Present Students." *The Chronicle of Higher Education*, October 1978, 30, 1.

Mitau, Theodore G. *A Proposal by the Chancellor for a "Common Market"*. St. Paul, Minn.: Minnesota State College Board, 1968. (ERIC Document Reproduction Service No. ED 025195.)

- Noel, Lee, ED. *Reducing the Drop Out Rate*. New Directions for Student Services, no. 3. San Francisco: Jossey-Bass, 1978.
- Pantages, Timothy J., and Creedon, Carol F. "Studies of College Attrition: 1950-1975." *Review of Educational Research*, Winter 1978, 48, 49-101.
- Reimanis, Gunars. "Student Attrition and Program Effectiveness." Paper presented at the Annual Forum of the Association for Institutional Research, British Columbia, 1973. (ERIC Document Reproduction Service No. ED 132988.)
- Roueche, John E. *Research Studies of the Junior College Dropout*. Washington D.C.: American Association of Junior Colleges, October 1976. (ERIC Document Reproduction Service No. ED 013659.)
- Sheffield, Wesley, and Meskill, Victor P. "What Can Colleges Do about Student Attrition?" *College Student Journal*, February/March 1974, 8, 37-45.
- Silver, Jane H. "The Effect of a Self-Development Seminar on Freshman Learning as Measured by Grade Point Averages, Units Completed and Retention." EdD Practicum, Nova University, January 29, 1978. (ERIC Document Reproduction Service No. ED 152357.)
- Student Attrition Manual*. Washington, D.C.: Planning and Data System, The Council for the Advancement of Small Colleges, 1978.
- Student Outcomes Information Services*. Boulder, Colo.: National Center for Higher Education Management Systems, 1979.
- Vail, Evan. *Retention of Students over a Three-Year Period (Fall Semesters, 1962, 63, and 64) under Three Different Drop Policies*. Riverside City College, California, 1966. (ERIC Document Reproduction Service No. ED 014286.)
- Vest, Thomas J., and Spino, William D. "The Survival Game—Academic Affairs and Student Personnel." Paper presented at the Annual Convention of the American College Personnel Association, Atlanta, Georgia, March 7, 1975. (ERIC Document Reproduction Service No. ED 112303.)
- Wenrich, J. William, and Others. *Keeping Dropouts In: Retention of Students Identified as High Probability Dropouts*. Washington, D.C.: Department of Health, Education, and Welfare, 1971. (ERIC Document Reproduction Service No. ED 047684 and JC 710072.)