



What Works in Student Retention?

Four-Year Public Colleges



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Acknowledgments

It has been quite some time since ACT has engaged in a comprehensive study of college student retention practices. This study would not have been possible however, had it not been for the earlier efforts of ACT staff members Lee Noel and Susan Cowart who conducted “What Works in Student Retention” studies and published results in 1980 and 1987, respectively. And, this study could not have been completed without the continuing support of Jon Erickson, ACT Vice President of Educational Services.

No study of this magnitude could be complete without efforts of a multitalented team. The staff of ACT’s Survey Research Area, directed by Michael Valiga, was the backbone of this team. This team was supportive, creative, thorough, and responsive. Specific thanks go to the following people:

- Peggy Loveless provided statistical analysis and responded promptly to requests for just one more data run.
- Vi Bitterman managed a multilevel, complex mailing and return strategy.
- Elizabeth McBride handled data entry and far more. Elizabeth had the magical ability to massage, manipulate, and mine the database to produce a never-ending stream of charts and tables.
- Randy McClanahan (co-author) served all phases of this study. She was instrumental in the design of the survey. She supervised the data collection. She wrote the review of the literature and assembled the bibliography. She critiqued the manuscript mercilessly, and necessarily. In an undertaking as major as this survey, one could simply not ask for a better colleague.

Deb Anderson is responsible for the production of the final manuscript. Whether interpreting my scribbled notes, gently suggesting changes that should have been obvious, adjusting the size and or tables, and producing unknown number of drafts, Deb has been unflappable and unerring. Deb has always been, and continues to be, my right arm.

Finally, I acknowledge the readers of this report, particularly those who recognize that there is much at stake if college students are to be successful. If this report, in some small way, provides the stimulus and creates a resolve to for you to enhance campus retention practices, then it will have served its purpose.

Wesley R. Habley, ACT

INTRODUCTION: Four-Year Public Colleges

This report reflects ACT's three-decade commitment to assist colleges and universities to better understand the impact of campus practices on college student retention and degree completion. During that time ACT has conducted many research projects that demonstrate that commitment. Below are selected examples of this effort.

Six National Surveys on Academic Advising Practices

ACT believes that academic advising plays a pivotal role in student retention. That belief is clearly borne out by the findings of the survey discussed in this report. Beginning in 1979 ACT, in collaboration with the National Academic Advising Association (NACADA), has conducted six national studies of campus practices in academic advising. The latest of these, *The Status of Academic Advising: Findings from the ACT Sixth National Survey*, is published in the NACADA monograph series. That monograph may be ordered through the NACADA website. www.nacada.ksu.edu.

What Works in Student Retention (1980)

The first *What Works in Student Retention* study (Beal and Noel, 1980) was a joint project of ACT and the National Center for Higher Education Management Systems (NCHEMS). Staff of NCHEMS and ACT developed and piloted the survey. In the complete study, surveys were sent to 2,459 two-year and four-year colleges with a response rate of 40.2%. As a part of this study, the authors collected information about 17 student characteristics and 10 institutional characteristics that contributed to attrition and retention. In addition, respondents were asked to select from a list of 20 action programs that had been implemented to improve retention. In the conclusions reached in the final report (now out of print), the authors cited the following three action program areas as critical to retention.

- *Academic stimulation and assistance*: challenge in and support for academic performance
- *Personal future building*: the identification and clarification of student goals and directions
- *Involvement experiences*: student participation/interaction with a wide variety of programs and services on the campus

ACT Dropout and Graduation Rate Tables (1983-2003)

In 1982, ACT began collecting institutional data on first to second year retention and on degree completion rates through the Institutional Data Questionnaire (IDQ). The IDQ is an annual survey of 2,500-2,800 colleges and universities. Each year since 1983 ACT has published the *ACT National Dropout and Degree Completion Tables*. The most recent reports can be found on ACT's website: www.act.org/path/postsec/index.html.

What Works in Student Retention (1987)

In what was essentially a content replication of the earlier survey, ACT collaborated with the American Association of State Colleges and Universities (AASCU) to produce the monograph *What Works in Student Retention in State Colleges and Universities* (Cowart, 1987). (Unfortunately, this monograph too is out of print.) The 370 members of AASCU were included in the survey population, and responses from 190 (51.7%) were included in the analyses. When asked about strategies employed to improve retention since 1980, the following groupings of practices were cited by more than 50% of the colleges: improvement/redevelopment of the academic advising program (72.1%), special orientation program (71.0%), establishment of early warning systems (65.6%), and curricular innovations in credit programs (61.7%).

The Role of Academic and Non-Academic Factors in Improving College Retention (2004)

This policy report (Lotkowski, Robbins, and Noeth, 2004) provides information from ACT's major technical study on the influence of non-academic factors alone and, combined with academic factors, on student performance and retention at four-year colleges and universities. It highlights examples of successful retention practices and concludes with four recommendations:

1. Determine student characteristics and needs, set priorities among these areas of need, identify available resources, evaluate a variety of successful programs, and implement a formal comprehensive retention program that best meets institutional needs.
2. Take an integrated approach in retention efforts that incorporates both academic and non-academic factors into the design and development of programs to create a socially inclusive and supportive academic environment that addresses the social, emotional, and academic needs of students.
3. Implement an early alert, assessment, and monitoring system based on HSGPA, ACT Assessment scores, course placement tests, first semester college GPA, socioeconomic information, attendance records, and non-academic information derived from formal colleges surveys and college student inventories to identify and build comprehensive profiles of students at risk of dropping out.
4. Determine the economic impact of college retention programs and student time to degree completion rates through a cost-benefit analysis of student dropout, persistence, assessment procedures, and intervention strategies to enable informed decision-making with respect to types of interventions required—academic and non-academic—including remediation and financial support.

This 30-page policy report is available at: www.act.org/research/policy/index.html

About This Study

When ACT study design staff began meeting in the summer of 2003, the intention was to replicate the surveys conducted in 1980 and 1987. That intention was soon abandoned. First, it was clear that the retention literature had grown exponentially since the first survey was constructed and that much more now was known about student characteristics and institutional characteristics that contribute to attrition. Also, far more institutional interventions contributed to student retention and degree completion. In view of this changed landscape, the design team conducted thorough analyses of the retention literature and, as a result, expanded the original list of institutional characteristics from 10 to 24 and the list of student characteristics from 17 to 20. But it was in the area of institutional interventions that the most significant expansion in number of items took place. Whereas the 1980 survey identified only 20 action programs as contributing to retention, after first brainstorming and then refining a list that included more than 100 interventions, the design team settled on 82 strategies that became the basis for Section D of the survey.

The design team also concluded that it was important to assess not only the prevalence of particular practices at colleges and universities but also the impact of those programs. Hence, Section D was constructed to include both of these measures. Three survey drafts were reviewed for content and structure and revised accordingly by staff of the Survey Research Department and the Office for the Enhancement of Educational Practices.

The first mailing associated with the survey was a pre-survey letter to chief academic officers at 2,995 colleges. This mailing included all accredited, degree-granting, two-year and four-year, public and private colleges. The purpose the letter was to announce the survey and to allow the chief academic officers to identify an individual (other than themselves) to whom the survey should be mailed. Response cards identifying such a person were received from 807 institutions.

The survey was then mailed to the 807 individuals identified through the postcards and to the chief academic officers at the remaining 2,188 colleges. Within a six-week period two additional survey mailings took place.

Table 1 provides an overview of the responses to the survey.

Table 1

SURVEY RESPONDENTS

Colleges	Surveys Mailed	Surveys Returned	Return Rate
All	2,995	1,061	35.4%
Two-year public	991	386	39.0%
Two-year private*	197	46	23.4%
Four-year public	536	228	42.5%
Four-year private	1,271	401	31.5%

*Note: Several responding institutions in this group could not be categorized as both two-year and private colleges. This factor, combined with a low response rate, precluded meaningful analysis of data. As a result, no additional analyses were conducted.

This document includes the following sections:

- Introduction
- Executive Summary
- Survey Section A: Campus Coordination and Retention/Completion Goals
- Survey Section B: Institutional Issues, Characteristics, and Services
- Survey Section C: Student Characteristics
- Survey Section D: Retention Practices
- Recommendations
- Appendices
 1. Review of the Retention Literature
 2. Bibliography
 3. The Survey

This report focuses only on the data provided by four-year public colleges. Reports for the other institutional types can be found on the ACT website: www.act.org/path/postsec/droptables/index.html

EXECUTIVE SUMMARY: Four-Year Public Colleges

In spite of the attention paid to college student retention:

- Only 48.7% of campuses have identified an individual responsible for coordinating retention strategies.
- Only 59.6% of campuses have established an improvement goal for retention of students from the first to second year.
- Only 45.6% of campuses have established a goal for improved degree completion.

Respondents from four-year public colleges are far more likely to attribute attrition to student characteristics than they are to attribute attrition to institutional characteristics.

- Of 24 institutional characteristics contributing to attrition, respondents identified only five factors that made a moderate or higher contribution: amount of student financial aid available, student-institution fit, student involvement in campus life, academic advising, and social environment.
- Of 20 student characteristics contributing to attrition respondents identified 16 factors that made a moderate or higher contribution. Student characteristics cited as having the greatest impact were inadequate financial resources, lack of motivation to succeed, inadequate preparation for college level work, poor study skills, and too many job demands.

Retention practices responsible for the greatest contribution to retention in four-year public colleges fall into three main categories:

- *Academic advising*: including advising interventions with selected student populations, increased advising staff, academic advising center, integration of academic advising with first-year transition programs and centers that combine advising and counseling with career/life planning
- *First-year programs*: including freshman seminar/university 101 for credit, non-credit freshman seminar/university 101, learning communities, and integration of academic advising with first-year programs
- *Learning support*: including supplemental instructions, a comprehensive learning assistance center/lab, reading center/lab, summer bridge program, and tutoring program

Several retention practices at high-performing (retention and degree completion) four-year public colleges differentiate those colleges from low-performing colleges. (See page 16 of the complete report for definitions of high-performing and low-performing colleges.) Those practices are:

- advising interventions with selected student populations,
- increased advising staff,
- comprehensive learning assistance center/lab,
- integration of advising with first-year programs,
- center that combines academic advising with career/life planning,
- summer bridge program,
- non-credit freshman seminar/university 101,
- recommended course placement testing,
- performance contracts for students in academic difficulty,
- residence hall programs, and
- extended freshman orientation for credit.

When asked to identify three campus retention practices that had the greatest impact on student retention, four-year public college respondents identified:

- freshman seminar/university 101 for credit (20.2%),
- learning communities (18.4%),
- advising interventions for selected student populations (12.3%), and

The remaining practices were cited by less than 10% of the colleges.

Recommendations:

- Designate a visible individual to coordinate a campus-wide planning team.
- Conduct a systematic analysis of the characteristics of your students.
- Focus on the nexus of student characteristics and institutional characteristics.
- Carefully review the high impact strategies identified in through the survey.
- Do not make first to second year retention strategies the sole focus of planning team efforts.
- Establish realistic short-term and long-term retention, progression, and completion goals
- Orchestrate the change process.
- Implement, measure, improve!

SECTION A: Four-Year Public Colleges

In this section of the survey, respondents were asked to provide information on the coordination of retention services and the goals (if any) the campus had set for both retention and degree completion. The questions from section A included the following.

- | | | |
|---|---|--|
| <p>1. Is there an individual designated to coordinate retention activities on your campus?
Yes <input type="checkbox"/> (Go to item 2.)
No <input type="checkbox"/> (Skip to item 3.)</p> | <p>4. Based on your current first to second year retention rate, what percentage increase have you established as your retention goal?
_____ %</p> | <p>7. Assuming a 6-year timeframe for 4-year institutions and a 3-year timeframe for 2-year institutions, what percentage increase have you established as your student degree completion goal?
_____ %</p> |
| <p>2. What is this individual's title?
_____</p> | <p>5. In how many years do you intend to reach this retention goal?
_____ # of year(s)</p> | <p>8. In how many years do you intend to reach this student degree completion goal?
_____ # of year(s)</p> |
| <p>3. Have you established a goal for the retention of students from the first to second year?
Yes <input type="checkbox"/> (Go to item 4.)
No <input type="checkbox"/> (Skip to item 6.)</p> | <p>6. Have you established a goal for student degree completion at your institution?
Yes <input type="checkbox"/> (Go to item 7.)
No <input type="checkbox"/> (Skip to Section B.)</p> | |

A summary of responses to items 1, 2, 3, and 6 for four-year public colleges is provided below. Unfortunately, an analysis of the ranges of responses to items 4 and 5 (retention goal) and 7 and 8 (degree completion goal) yielded confounding results. Some survey participants responded to the request for *percentage increase* (items 4 and 5) by reporting an overall retention or degree completion goal. Some of the survey participants answered “Yes” to items 3 and/or 6, but did not answer items 4 and/or 7. And finally, some survey participants responded to items 4 and/or 7, but did not respond to items 5 and/or 8. As a result of these inconsistencies, it was inappropriate to include these data in the final report.

Coordination of Retention Activities

Of the 228 four-year public college responses, 111 (48.7%) indicated that there was an individual designated to coordinate campus retention activities. 97 different titles were identified, the most common of which was Director of Enrollment Management (3). A review of the various titles of individuals responsible for coordination of retention efforts resulted in the following.

- At 38 colleges (34.2%), the terms Director, Coordinator, or Executive Director were included in the title.
- At 20 colleges (18.0%), the terms Associate Provost, Associate Vice President, or Associate Vice Chancellor were included in the title.
- At 13 colleges (11.7%), the terms Provost, Vice President, or Vice Chancellor were included in the title.
- At 9 colleges (8.1%), the term Dean was included in the title.

- At 6 colleges (5.4%), the term Associate Dean was included in the title.
- At 5 colleges (2.7%), the terms Assistant Provost, Assistant Vice President, or Assistant Vice Chancellor were used.
- At 23 colleges (20.7%), the term retention was included in the title.
- At 23 colleges (20.7%), the term enrollment was included in the title.
- At 20 colleges (18.0%), the terms student affairs, student services, student development, or student success were included in the title.

Retention and Degree Completion Goals

Of the 228 four-year public colleges responding to the survey:

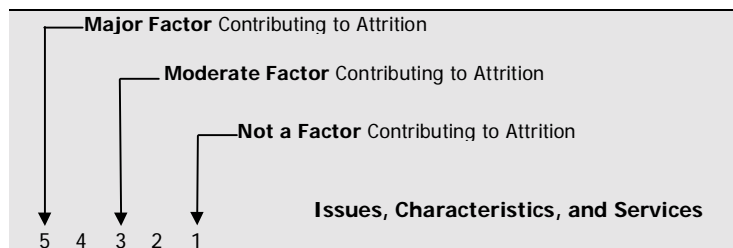
- 136 colleges (59.6%) reported that they had established a goal for improvement in the first to second year retention rate.
- 104 colleges (45.6%) reported that they had established a goal for improvement in the five-year degree completion rate.

SECTION B: Institutional Issues, Characteristics, and Services in Four-Year Public Colleges

In Section B of the Survey, respondents were asked to the following question.

*To what degree is each of the following **institutional** issues, characteristics, or services a factor **contributing to attrition** on your campus?*

Respondents were asked to rate each of 24 characteristics according to the following five-response scale.



Means for each of the 24 items were calculated by awarding values of 5 (major factor), 4 (between major and moderate factor), 3 (moderate factor), 2 (between moderate factor and not a factor), and 1 (not a factor).

See Summary Table B (page 11) for mean scores for all 24 institutional issues, characteristics, and services.

Table 2

**INSTITUTIONAL FACTORS MAKING THE GREATEST CONTRIBUTION TO ATTRITION
FOUR-YEAR PUBLIC COLLEGES**

Institutional Issues, Characteristics, and Services (Item Number)	Mean for Factor
Amount of Financial Aid Available to Students (18)	3.45
Student-Institution Fit (9)	3.30
Student Involvement in Campus Life (12)	3.18
Academic Advising (5)	3.12
Social Environment (21)	3.12

Table 3

**INSTITUTIONAL FACTORS MAKING THE LEAST CONTRIBUTION TO ATTRITION
FOUR-YEAR PUBLIC COLLEGES**

Institutional Issues, Characteristics, and Services (item Number)	Mean for Factor
Other On-Campus Housing (18)	1.87
Rules and Regulations Governing Student Behavior (16)	2.00
Personal Counseling Services (10)	2.15
Career Exploration Services (11)	2.22
Extracurricular Programs (2)	2.32
Quality of Teaching (4)	2.37
Attitude of Staff Toward Students (14)	2.46

Summary Table B

INSTITUTIONAL ISSUES, CHARACTERISTICS, AND SERVICES

Survey Question: To what degree is each of the following institutional issues, characteristics, or services a factor contributing to attrition on your campus?

	Mean*	Mean Rating
	All Colleges	4-Yr Public
1. Student employment opportunities	2.67	2.84
2. Extracurricular programs	2.10	2.32
3. Curriculum issues	2.86	2.99
4. Quality of teaching	2.25	2.37
5. Academic advising	2.79	3.12
6. Amount of financial aid available to students	3.46	3.45
7. Financial aid services	2.73	2.66
8. Admissions practices/requirements	2.30	2.45
9. Student-institution “fit”	3.13	3.30
10. Personal counseling services	2.21	2.15
11. Career exploration services	2.31	2.22
12. Student involvement in campus life	2.96	3.18
13. Attitude of faculty toward students	2.46	2.66
14. Attitude of staff toward students	2.42	2.46
15. Academic support services (learning centers, similar resources)	2.55	2.52
16. Rules and regulations governing student behavior	2.23	2.00
17. Residence halls	2.30	2.67
18. Other on-campus housing	1.60	1.87
19. Personal contact between students and faculty	2.51	2.75
20. Cultural environment	2.69	2.87
21. Social environment	2.92	3.12
22. Intellectual stimulation or challenge	2.54	2.61
23. Student engagement in classroom (active learning)	2.72	2.90
24. The number and variety of courses offered	2.84	2.83

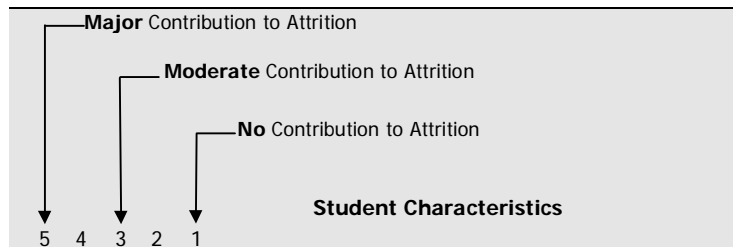
*Note: Mean excludes two-year private colleges.

SECTION C: Student Characteristics in Four-Year Public Colleges

In Section C of the Survey, respondents were asked the following question.

To what degree do each of the student characteristics below contribute to attrition on your campus?

Respondents were asked to rate each of 20 characteristics according to the following five-response scale:



Means for each of the 20 items were calculated by awarding values of 5 (major contribution), 4 (between major and moderate contribution), 3 (moderate contribution), 2 (between moderate contribution and no contribution), and 1 (no contribution).

See Summary Table C (page 13) for mean scores for all 20 Institutional Issues, Characteristics, and Services.

Table 4

STUDENT CHARACTERISTICS MAKING THE GREATEST CONTRIBUTION TO STUDENT ATTRITION FOUR-YEAR PUBLIC COLLEGES

Student Characteristics (Item Number)	Mean Contribution
Inadequate Financial Resources (8)	4.08
Lack of Motivation to Succeed (10)	4.08
Inadequate Preparation for College Level Work (1)	3.81
Poor Study Skills (19)	3.65
Too Many Job Demands (15)	3.46
Lack of Educational Aspirations and Goals (2)	3.28
Poor Academic Integration (17)	3.27

Table 5

**STUDENT CHARACTERISTICS MAKING THE LEAST CONTRIBUTION TO STUDENT ATTRITION
FOUR-YEAR PUBLIC COLLEGES**

Student Characteristics (Item Number)	Mean Contribution
Physical Health Problems (11)	2.08
Distance from Permanent Home (18)	2.23
Mental or Emotional Health Problems (12)	2.42
Lack of Support from Significant Others (13)	2.71
Poor Social Integration (16)	3.00
Indecision About a Major (6)	3.02
Commuting/Living Off-Campus (4)	3.08
Inadequate Personal Coping Skills (20)	3.08
Weak Commitment to Earning a Degree (9)	3.12

Summary Table C

**STUDENT CHARACTERISTICS
FOUR-YEAR PUBLIC COLLEGES**

Survey Question: To what degree do each of the student characteristics below contribute to attrition on your campus?

	Mean*	Mean Rating
	All Colleges	4-Yr Public
1. Inadequate preparation for college-level work	3.85	3.81
2. Lack of educational aspirations and goals	3.31	3.28
3. First-generation to attend college	3.16	3.22
4. Commuting/living off campus	2.71	3.08
5. Socio-economic disadvantage	3.21	3.21
6. Indecision about major	3.00	3.02
7. Indecision about career goal	3.02	3.05
8. Inadequate financial resources	4.17	4.08
9. Weak commitment to earning a degree	3.18	3.12
10. Lack of motivation to succeed	4.17	4.08
11. Physical health problems	2.30	2.08
12. Mental or emotional health problems	2.48	2.42
13. Lack of support from significant others (e.g., spouse, parents, peers)	2.78	2.71
14. Too many family demands	2.96	3.14
15. Too many job demands	3.27	3.46
16. Poor social integration (peer group interaction, extracurricular activities)	2.85	3.00
17. Poor academic integration	3.12	3.27
18. Distance from permanent home	2.17	2.23
19. Poor study skills	3.67	3.65
20. Inadequate personal coping skills	3.18	3.08

*Note: Mean excludes two-year private colleges.

SECTION D: Retention Practices in Four-Year Public Colleges

In Section D, respondents were given the following instructions.

*Listed below is a series of programs, services, curricular offerings, and interventions that may make a **contribution to retention on your campus**. First indicate if the feature is or is not offered on your campus. Then, if a feature is offered, indicate the degree to which you think it contributes to retention on your campus.*

The format of Section D items follows.

Programs, Services, Curricular Offerings, Interventions	Offered at Your Institution?	
	<p>No Yes</p> <p>(If yes, how much of a contribution to campus retention?)</p>	

Section D included 82 on-campus practices. See Summary Table D (pages 18-20) for a breakdown of all 82 practices at four-year public colleges.

Table 6

MOST COMMON RETENTION PRACTICES FOUR-YEAR PUBLIC COLLEGES

Programs, Services, Curricular Offerings, Interventions (Item Number)	Percentage of Campuses Reporting the Practice
Academic Clubs (67)	93%
Pre-enrollment Orientation (1)	92
Individual Career Counseling Services (28)	92
Recreation/Intramurals (66)	92
Internships (26)	91
Cultural Activities Program (68)	91
Tutoring Program (41)	87
Career Development Workshops or Courses (25)	87
Instructional Use of Technology (55)	86
Residence Hall Programs (64)	86
Writing Center/Lab (38)	81
Program for Honors Students (75)	81
Classroom Assessment (14)	78
Programs for Racial/Ethnic Minorities (74)	78
Computer-assisted Career Guidance (29)	77
Course Placement Testing (mandated) (15)	77

Table 7

**LEAST COMMON RETENTION PRACTICES AT
FOUR-YEAR PUBLIC COLLEGES**

Programs, Services, Curricular Offerings, Interventions (Item Number)	Percentage of Campuses reporting the practice
Community Member Mentoring (52)	8%
Freshman Seminar/University 101 (non-credit) (4)	11
Degree Guarantee Program (46)	13
Motivation Assessment (20)	17
Social Skills Course/Program (42)	20
Parent Advisory Group (61)	24
Enhanced/Modified Faculty Reward System (58)	24
Freshman Interest Groups (FIGS) (62)	27
Assessing Student Performance (54)	27
Centers that Combine Advising and Career/Life Planning (11)	27
Motivation and Goal-Setting Workshop/Program (82)	28

Means for each of the 82 items were calculated by awarding values of 5 (major contribution to retention), 4 (between major and moderate contribution to retention), 3 (moderate contribution to retention), 2 (between moderate and no contribution to retention), and 1 (no contribution to retention).

Table 8 reports on-campus retention practices receiving the highest mean ratings, and Table 9 reports on-campus retention practices with the lowest mean ratings.

Table 8

**PRACTICES WITH HIGHEST MEAN CONTRIBUTIONS TO RETENTION
FOUR-YEAR PUBLIC COLLEGES**

Programs, Services, Curricular Offerings, Interventions (Item Number)	Mean Contribution
Advising Interventions with selected student populations (6)	4.0
Increased Advising Staff (8)	4.0
Academic Advising Centers (10)	3.9
Supplemental Instruction (32)	3.9
Comprehensive Learning Assistance Center/Lab (36)	3.9
Reading Center/Lab (39)	3.9
Program for Honors Students (75)	3.9
Integration of Advising with First Year Transition Program (9)	3.8
Freshman Seminar/University 101 (credit) (5)	3.8
Freshman Seminar/University 101 (non-credit) (4)	3.8
Centers that Combine Advising and Counseling with Career/Life Planning (11)	3.8
Internships (26)	3.8
Learning Communities (31)	3.8
Summer Bridge Program (33)	3.8
Tutoring Program (41)	3.8

Table 9

**PRACTICES WITH LOWEST MEAN CONTRIBUTIONS TO RETENTION
FOUR-YEAR PUBLIC COLLEGES**

Programs, Services, Curricular Offerings, Interventions (Item Number)	Mean Contribution
Personality Tests (24)	2.7
Degree Guarantee Program (46)	2.7
Vocational Aptitude Tests (23)	2.8
Outcomes Assessment (17)	2.9
Interest Inventories (22)	2.9
Learning Styles Inventories (19)	2.9
Values Inventories (21)	2.9
Library Orientation, Workshop, and/or Course (81)	2.9

Definition of High-Performing and Low-Performing Four-Year Public Colleges

Data to determine high-performing and low-performing campuses were drawn from ACT's 2003 Institutional Data Questionnaire (IDQ). ACT annually requests information from all two-year and four-year public and private institutions through its IDQ. Institutions are asked to provide first to second year attrition rates and five-year degree completion rates for all Bachelor's Degree seeking students. In 2003, 2,530 colleges and universities returned the IDQ and provided data on attrition and degree completion rates. Of these colleges, 554 were four-year public colleges.

The data for four-year public colleges were then broken into two groups: 1) those performing in the top quartile in both retention and degree completion rates (hereinafter called High-Performing Campuses); and 2) those performing in the bottom quartile in both retention and degree completion rates (hereinafter called Low-Performing Campuses). Of the 228 four-year public colleges responding to the survey, 33 were identified as high-performing and 24 were identified as low-performing.

Table 10 combines two variables: 1. on-campus practices where the percentage of high-performing four-year public college campuses reporting the use of the practice exceeds the percentage of low-performing campuses reporting the use of the practice by 10% or more and 2. the institutional type contribution mean is reported at 3.5 or higher.

Table 10

**DIFFERENTIAL PRACTICES IN HIGH-PERFORMING VS. LOW-PERFORMING CAMPUSES
FOUR-YEAR PUBLIC COLLEGES**

Programs, Services, Curricular Offerings, Interventions (Item Number)	Institutional Mean	Percent of High- Performing Campuses Reporting Use of This Practice	Percent of Low- Performing Campuses Reporting Use of This Practice
Advising Interventions with Selected Student Populations (6)	4.0	94%	68%
Increased Advising Staff (8)	4.0	46	36
Comprehensive Learning Assistance Center/Lab (36)	3.9	72	62
Integration of Advising with First Year Transition Programs (9)	3.8	62	52
Centers that Combine Advising and Counseling and Career/Life Planning (11)	3.8	36	23
Summer Bridge Program (33)	3.8	68	48
Freshman Seminar/University 101 (non-credit) (4)	3.8	26	16
Course Placement Testing (recommended) (16)	3.5	47	27
Performance Contracts for Students in Academic Difficulty (45)	3.5	61	42
Residence Hall Programs (64)	3.5	100	81
Extended Freshman Orientation (credit) (3)	3.5	56	40

Summary Table D

**RETENTION PRACTICES
FOUR-YEAR PUBLIC COLLEGES**

Survey Question: Of the programs, services, curricular offerings, and interventions that may make a contribution to retention on your campus, indicate if the feature is or is not offered on your campus. Then, if a feature is offered, indicate the degree to which you think it contributes to retention on your campus. (Response scale: 5=major contribution to 1=no contribution.)

	All Survey Colleges		4-Year Public Colleges			
	% Report	Mean*	% Report	Mean Contribution	% High-Performing	% Low-Performing
First-Year Programs						
1. Pre-enrollment orientation	82	3.5	92	3.6	94	92
2. Extended freshman orientation (non-credit)	27	3.6	34	3.5	56	40
3. Extended freshman orientation (credit)	26	3.6	31	3.7	24	25
4. Freshman seminar/university 101 (non-credit)	8	3.5	11	3.8	26	16
5. Freshman seminar/university 101 (credit)	51	3.8	68	3.8	74	72
Academic Advising Program						
6. Advising interventions with selected student populations	75	3.8	81	4.0	97	68
7. Advisor training	70	3.4	73	3.4	82	58
8. Increased advising staff	30	3.8	41	4.0	46	36
9. Integration of advising with first-year transition programs	41	3.8	55	3.8	63	52
10. Academic advising centers	47	3.8	68	3.9	72	68
11. Centers that combine advisement and counseling with career planning and placement	33	3.7	27	3.8	36	23
12. Advisor manual/handbook	56	2.9	58	3.0	64	54
13. Application of technology to advising	58	3.2	68	3.3	82	64
Assessment Programs						
14. Classroom assessment	77	3.1	78	3.1	89	85
15. Course placement testing (mandated)	76	3.6	77	3.5	76	84
16. Course placement testing (recommended)	30	3.3	33	3.2	47	27
17. Outcomes assessment	66	3.0	68	2.9	65	69
18. Diagnostic academic skills test(s)	46	3.2	46	3.2	58	46
19. Learning styles inventory(ies)	37	2.9	39	2.9	41	36
20. Motivation assessment(s)	12	3.0	17	3.0	15	11
21. Values inventory(ies)	24	2.9	30	2.9	33	27
22. Interest inventory(ies)	50	2.9	56	2.9	52	54
23. Vocational aptitude test(s)	34	2.9	38	2.8	58	15
24. Personality test(s)	32	2.8	36	2.7	36	27

*Note: Mean excludes two-year private colleges.

Summary Table D, cont.

**ON-CAMPUS PRACTICES
FOUR-YEAR PUBLIC COLLEGES**

	All Survey Colleges		4-Year Public Colleges			
	% Report	Mean*	% Report	Mean Contribution	% High-Performing	% Low-Performing
Career Planning and Placement Programs						
25. Career development workshops or courses	76	3.1	87	3.1	97	81
26. Internships	82	3.6	91	3.8	100	88
27. Cooperative education	43	3.5	58	3.7	62	65
28. Individual career counseling services	83	3.3	92	3.3	100	88
29. Computer-assisted career guidance	67	3.0	77	3.0	85	54
30. Job shadowing	32	3.1	38	3.1	44	31
Learning Assistance/Academic						
31. Learning communities	34	3.7	59	3.8	69	69
32. Supplemental instruction	51	3.7	57	3.9	68	72
33. Summer bridge program	27	3.6	45	3.8	66	46
34. Remedial/developmental coursework (required)	69	3.7	73	3.6	47	96
35. Remedial/developmental coursework (recommended)	35	3.5	36	3.4	33	46
36. Comprehensive learning assistance center/lab	57	3.9	55	3.9	72	62
37. Mathematics center/lab	54	3.6	66	3.6	76	69
38. Writing center/lab	68	3.6	81	3.6	89	88
39. Reading center/lab	31	3.8	30	3.9	24	69
40. Foreign language center/lab	30	3.1	46	3.0	62	46
41. Tutoring program	87	3.8	87	3.8	94	96
42. Study skills course, program, or center	70	3.6	68	3.6	82	81
43. Early warning system	61	3.5	59	3.4	57	65
44. Mid-term progress reports	64	3.3	61	3.3	72	58
45. Performance contracts for students in academic difficulty	38	3.4	43	3.5	61	42
46. Degree guarantee program	10	2.7	13	2.7	30	0
47. Organized student study groups	13	3.5	33	3.6	44	46
48. Service learning programs	41	3.2	51	3.4	69	48
Mentoring Programs						
49. Peer mentoring	42	3.5	57	3.5	74	65
50. Faculty mentoring	43	3.6	40	3.5	53	31
51. Staff mentoring	22	3.5	29	3.4	33	31
52. Community member mentoring	8	3.3	8	3.3	3	16
Faculty Development Programs						
53. Teaching techniques	62	3.4	67	3.3	86	64
54. Assessing student performance	30	3.4	27	3.3	79	73
55. Instructional use of technology	83	3.2	86	3.2	97	80
56. Writing across the curriculum	50	3.2	52	3.2	68	60
57. Interdisciplinary courses	48	3.1	75	3.0	86	76
58. Enhanced/modified faculty reward system	31	3.0	24	3.0	38	29

*Note: Mean excludes two-year private colleges.

Summary Table D, cont.

**ON-CAMPUS PRACTICES
FOUR-YEAR PUBLIC COLLEGES**

	All Survey Colleges		4-Year Public Colleges			
	% Report	Mean*	% Report	Mean Contribution	% High-Performing	% Low-Performing
Parent Programs						
59. Parent newsletter	20	2.8	32	2.9	54	27
60. Parent orientation	52	3.1	75	3.1	86	58
61. Advisory group	22	2.9	24	3.0	43	23
Campus Programs						
62. Freshman interest groups (FIGS)	11	3.6	27	3.7	42	35
63. Diversity information/training	50	3.0	68	3.1	91	65
64. Residence hall programs	59	3.4	86	3.5	100	81
65. Fraternities/sororities	31	3.1	72	3.0	89	62
66. Recreation/intramurals	78	3.1	92	3.2	100	92
67. Academic clubs	84	3.2	93	3.3	100	96
68. Cultural activities program	78	3.1	91	3.1	97	92
69. Leadership development	72	3.4	82	3.4	97	77
Programs for Sub-populations						
70. Adult students	38	3.3	45	3.2	30	46
71. Commuter students	28	3.2	36	3.0	45	38
72. Gay/lesbian/bisexual/transgender students	29	3.0	52	3.1	79	35
73. Women	39	3.2	58	3.2	81	68
74. Racial/ethnic minorities	56	3.4	78	3.4	91	84
75. Honor students	64	3.7	81	3.9	85	88
Additional Activities						
76. Time management course/program	46	3.2	55	3.2	62	58
77. Health and wellness course/program	58	2.9	72	3.0	82	77
78. Personal coping skills course/program	33	3.1	39	3.2	48	35
79. Social skills course/program	17	3.1	20	3.1	27	31
80. Required on-campus housing for freshmen	35	3.6	40	3.6	27	21
81. Library orientation, workshop, and/or course	73	2.9	76	2.9	82	81
82. Motivation and goal setting workshop/program	29	3.2	28	3.3	34	31

*Note: Mean excludes two-year private colleges.

SECTION E: Programs with Greatest Impact on Retention

In this section, respondents were asked to review all 82 retention programs, services, curricular offerings, and interventions and to identify the 3 practices having the greatest impact on student retention. Reported below are the percentage of campus respondents who identified a particular practice among those three choices.

Table 11

PERCENTAGE OF RESPONDENTS IDENTIFYING RETENTION PRACTICES AMONG THE TOP THREE CHOICES FOUR-YEAR PUBLIC COLLEGES

Programs, Services, Curricular Offerings, Interventions (Item Number)	Percentage of Campuses
Freshman Seminar/University 101 (credit) (5)	20.2%
Learning Communities (31)	18.4
Advising Interventions with Selected Student Populations (6)	12.3
Academic Advising Center (10)	9.6
Tutoring Program (41)	9.2
Course Placement Testing (mandated) (15)	7.0
Remedial/Developmental Coursework (required) (34)	7.0
Pre-enrollment Orientation (1)	6.6
Supplemental Instruction (32)	6.6
Program for Honors Students (75)	6.6

RECOMMENDATIONS: Four-Year Public Colleges

The recommendations for enhancing student retention practices discussed in this section include several that are obvious and affirm the “common wisdom” on retention practices, but nevertheless warrant careful consideration by campus practitioners. Several other recommendations, however, may not be as obvious to the casual reviewer of the data and also deserve careful attention by campus practitioners. While each of these recommendations reflects the opinions of the author, many are supported by survey data.

1. Designate a visible individual to coordinate a campus-wide planning team.

Considering the fact that student retention and degree completion have been touted as critical elements in institutional effectiveness and accountability, it is disheartening to note that only half of all four-year public colleges (49.1%) in the survey have designated an individual to coordinate retention activities. Of further concern are the findings on the levels and titles of the individuals identified as coordinating retention activities. Only 18.9% of all four-year public colleges assign coordination at the Dean level or higher, and a mere 10.2% of all colleges include the term “retention” in the title of that individual. When focusing only on those colleges that have appointed an individual to coordinate retention efforts, those percentages rise to 37.8% and 20.7%, respectively. The position level and title of the individual responsible for coordinating campus retention practices send a message to the entire campus community about how high a priority campus leaders place on retention issues.

Equally important is the appointment of a campus-wide retention planning team. Each college is unique in its history and precedents, and its culture is owned by all and controlled by all. While it may be true that everyone on the campus is responsible for retention, relying on each individual to independently determine the scope, direction, and intensity of that contribution is unsystematic and potentially counterproductive. No single individual or small group of individuals can bring about lasting enhancements in retention programs. Given that everyone on campus is responsible for retention, it follows that a broad-based campus planning team should engage in the study of student needs and the development of recommendations to enhance retention—as well as in the implementation and assessment of those recommendations.

2. Conduct a systematic analysis of the characteristics of your students.

Though most campuses have access to data on student characteristics, many campuses could be characterized as data rich and information poor. Although attrition decisions involve the complex interplay of many variables, two fundamental questions must be addressed for a college to design effective strategies to improve student persistence:

- *Who are our students?*
- *What differentiates students who stay from students who leave?*

To answer the first question, the retention planning team should review student data in the following areas.

- *Demographics:* including, but not limited to, sex, race/ethnicity, age, size of high school, parental level of education, socioeconomic status, etc.
- *Academic performance:* including, but not limited to, admission test scores, high school rank and grade point average, placement test scores, etc.
- *Academic plans:* including, but not limited to, choice of major, level of highest degree aspiration, etc.
- *Non-academic variables:* including, but not limited to, academic goals, achievement motivation, self-concept, social involvement, interest patterns, etc.
- *Self-reported needs:* including, but not limited to, expressed need for instructional support (writing, math, reading, study skills, etc.) and expressed need for non-instructional support (choice of major, disability support, personal counseling, co-curricular involvement, etc.)
- *Student opinions and attitudes:* including a broad-based assessment of student opinions and attitudes on instructional and non-instructional programs, services, and policies

Even though data in many of these categories are already collected through the admission, orientation, and course placement processes on the campus, it may be necessary for the planning team to recommend the use of additional sources to complete the data set. It is also recommended that, whenever possible, the data be disaggregated by student characteristics (e.g. undecided, at-risk, race/ethnicity) and by existing program interventions (e.g. supplemental instruction, first-year seminar, learning community).

Answering the second question is merely an extension of answering the first. Many of the data elements required for the answer reside in the campus database (e.g., demographics, admission test scores, high school academic performance). As a result, these variables can be studied almost immediately by separating last year's first-year students into two groups, those who persisted to a second year and those who did not—and studying the differences between them. Data on student involvement, opinions, and attitudes however, must be collected while

students are enrolled in the first year and, thus, cannot be completely analyzed until the following fall.

3. Focus on the nexus of student characteristics and institutional characteristics.

Although it is inappropriate and counter-productive to lay the blame for student attrition at the feet of either the students or the institution, respondents to this survey are far more likely to cite student characteristics as causal factors in student attrition than they are to cite institutional factors. Of the 24 institutional characteristics that contribute to attrition, respondents identified five as making a moderate or higher contribution: amount of financial aid available, student-institution fit, student involvement in campus life, academic advising, and social environment. Yet, of the 20 student characteristics contributing to attrition, respondents identified 16 factors that made a moderate or higher contribution. Student characteristics cited as having the greatest impact were lack of motivation to succeed, inadequate financial resources, inadequate preparation for college, too many job demands, and poor study skills. Although the nexus between student characteristics and institutional characteristics (retention interventions) on each campus will most certainly vary from the results of this survey, the planning team must recognize that improvements to student retention will accrue only if enhanced or new interventions are undertaken. Improved retention evolves from quality programs and services to students.

4. Carefully review high-impact strategies identified through the survey.

This survey provides three significant insights into retention practices that make a difference. First, the survey does clearly identify retention practices that work. Second, it is important to note that virtually *none* of the most common retention practices cited by survey respondents are among those cited as having the greatest impact on retention. This phenomenon suggests that few gains in student retention result from conducting business as usual. Finally, survey results strongly suggest that campus efforts should focus on high-impact, value-added retention interventions. Of the 82 retention interventions included in our survey, strategies cited by respondents as making the greatest contribution to retention fall into three main categories.

- *First-year programs*: including freshman seminar/university 101 for credit, non-credit freshman seminar/university 101, learning communities, and integration of academic advising with first-year programs
- *Academic advising*: including advising interventions with selected student populations, increased advising staff, integration of advising with first-year programs, academic advising centers, and centers that combine academic advising and career-life planning
- *Learning support*: including supplemental instruction, a comprehensive learning assistance center/lab, reading center/lab, summer bridge program and tutoring program

These three categories also characterized the practices that differentiate high-performing (retention and degree completion) from low-performing four-year public colleges. Finally, when asked to identify the three strategies (of 82) that made the greatest contribution to retention, only three practices were cited by more than 10% of the respondents: (1) freshman seminar/university 101 for credit, (2) learning communities, and (3) advising interventions with selected student populations.

Since programs in each of these three categories exist to some degree at every college, the planning team should first focus on assessing the degree to which these interventions address identified student needs. In some situations this assessment will lead to recommendations for

minor changes in the definition and delivery of these interventions. In other cases, however, significant program changes or realignments may be indicated. One of the primary reasons for having a retention planning team is to provide broad-based campus support for some of the more significant program changes or realignment that may be needed.

5. Do not make first to second-year retention strategies the sole focus of planning team efforts.

While it is true that the majority of student departures occur between the beginning of the first year and the beginning of the second year, significant attrition does occur after students enter the second year. It is also true that many campuses have deployed a front-loading strategy that commits significant resources to first to second year retention interventions only to experience no concomitant increase in degree completion rates. In fact, only 19% of the four-year public college campuses participating in this survey were identified as high-performing institutions in both first to second year retention *and* in degree completion rates. Certainly students must survive to the second year to complete a degree, but first to second year survival is simply the first benchmark in a continuous process that leads to degree completion. The second benchmark is progression rate. Progression is defined as the percentage of first-time, full-time students who are retained for a second year *and* have achieved academic standing as second year (sophomore) students. Students who are retained, but fail to progress in academic standing are far more likely to drop out during the second and subsequent years. Progression rates for the third and subsequent years should also be studied. And the final benchmark is degree completion rate. If a campus is to improve on these three benchmarks, it is necessary that retention interventions be sustained throughout a student's enrollment and that those interventions be systematically applied to all facets of the student experience.

6. Establish realistic short-term and long-term retention, progression, and completion goals.

Success or failure in retention, progression, and degree completion often rests on the establishment of realistic short-term and long-term goals. Short-term goals that are set too high often result in frustrated faculty and staff, and goals that are set too low may be achieved but result in nothing more than blips on the data radar screen. Short-term goals for retention, progression, and degree completion should focus on incremental but meaningful improvement.

Setting long-term goals can be a slippery slope for a number of reasons. First, although the conventional wisdom suggests that about one-third of all first-year students fail to return for a second year, establishing an institutional goal to beat that figure is as inappropriate for an open-admissions community college as it is for a highly selective private college. Second, though it is tempting to establish long-term goals based on national averages, there is a problem with citing national averages when determining goals for retention, progression, and degree completion. On some campuses, being "above average" provides a convenient rationale for maintaining the status quo; on "below average" campuses, getting to "average" may prove unrealistic.

Comparisons with peer institutions may provide more realistic benchmarks. Yet, these comparisons may not reflect the nexus of student characteristics and institutional characteristics that exist on a specific campus. The goal should not be to be "average," for even if all campuses miraculously improved retention, progression, and degree completion rates, "below average" campuses would still exist. The goal to stay above average is really not a goal at all; long-term goals should be improvement goals.

Where possible, institutional goals should include target goals for selected programs and for selected student groups. For example, within an overall institutional goal to improve first to second year retention, the planning team might establish sub-goals for at-risk students, undecided students, or students who participate in supplemental instruction. Or, as the result of the implementation of a particular program strategy, the planning team might establish a target goal for students who participate in that program strategy.

A corollary to setting realistic goals is to allow ample time for interventions to have an impact on student retention. It is unreasonable to assume that a new or enhanced retention strategy will be flawlessly implemented in its first incarnation. It is equally unreasonable to assume that a retention intervention will meet or exceed its retention goal in the first year of implementation. Program adjustments will most assuredly need to be undertaken. Because of these factors, patience is counseled. Goals for first to second year retention and progression are not likely to be achieved for at least two years or, in some cases, longer. The impact on degree completion may not be fully realized for five to seven years.

7. Orchestrate the change process.

The planning team may encounter resistance to some and perhaps all of its recommendations. Accomplishing change on a college campus is not easy. It involves changing attitudes and opinions of multiple constituencies because it is unlikely that all constituencies will immediately and uncritically embrace the recommendations of the planning team. For some individuals, change poses a threat to status, to notions of competency, to routines, and to both formal and informal influence among colleagues. While there is no surefire formula for gaining constituent buy-in, several strategies such as the following may be helpful.

- Carefully consider the composition of the planning team. In addition to broad-based involvement discussed in the first recommendation, care should be taken to include individuals from all levels of the campus hierarchy. These individuals bring important insights and perspectives that are often excluded from the discussion. Although it might be tempting to populate the planning team with proponents for change, it is imperative that the planning team include skeptics and critics. These individuals may slow the process somewhat, but their support for team recommendations is essential to gaining campus-wide acceptance.
- Provide frequent reports to and structured opportunities for input from the entire campus community. Regardless of its size and scope, a planning team that operates in a closed environment over a period of time is likely to encounter significant resistance when its recommendations, no matter how thoughtful, are finally unveiled to the campus community.
- Be ready to provide *proof of concept* in support of planning team recommendations. Proof of concept provides evidence that the recommendations are likely to succeed. It may be established through the literature and research or result from site visits to peer institutions that have successfully implemented a particular intervention. If significant resources or a major shift in normative behavior are involved, persuasive proof of concept may be gained only through a pilot program.

8. Implement, measure, improve!

Designing and implementing retention strategies is not a process with a clear beginning and a clear end. It is a complex and continuous process that involves analysis, implementation, and assessment. And assessment, in turn, leads to new strategies, implementation, and further assessment. While it is not possible to achieve perfection (if such a condition exists) in student retention, progression, and completion, it is always possible to improve.

