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ABSTRACT

Results of a study on changes in campus policies and practices are presented, with the major focus on the issue of assessing student learning. Also considered are changes in faculty hiring and areas of curricular review, enrollment, and financial circumstances of colleges and universities. Results indicate that most administrators support the use of assessment, and many campuses have discussed possible assessment approaches. Ninety-five percent of administrators support assessment that is closely tied to instructional improvement efforts, and 7 in 10 administrators believe that assessment should be linked to institutional planning and budgeting. Almost all colleges have recently made changes in the curriculum or are currently doing so, especially to strengthen general education and to emphasize writing, mathematics, and other general competencies expected of college students. The overall budget, and the budget for educational and general expenses, increased for most institutions. However, 12% of colleges reported a decrease. Information was also collected on: types of information colleges collect, student retention efforts, changes in expenditures, tuition costs, and practices affecting faculty. The survey questionnaire is appended. (SW)

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Campus Trends, 1987

Elaine El-Khawas

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HIGHLIGHTS

Campus Trends, 1987 is the fourth in a series of surveys intended to provide timely information on changing policies and practices of American colleges and universities. The surveys are conducted by the American Council on Education, with support from the Lilly Endowment.

This year's report documents growing campus attention to student assessment as well as a widespread process of curriculum change, especially to strengthen general education and to emphasize writing, mathematics and other general competencies expected of college students. The report also describes changes in enrollment, in campus finances, and in faculty hiring practices. All results are reported by type and control of institution.

Highlights from the survey are as follows:

Assessment of Student Learning

- Most administrators (79 percent) expect that some form of assessment will be introduced in the next few years.
- Three out of four colleges have discussions taking place on assessment.
- 27 percent report that their state is requiring assessment procedures.
- Close to half of the colleges believe that "there is no clear sense of what to assess" and that "there are no good instruments suited to our programs."
- Seventy-two percent agree that "most campus officials have strong fears about misuse of effectiveness measures by external agencies."
- Fully 95 percent of administrators support assessment that is closely tied to efforts to improve instruction.
- Seven in ten administrators believe that assessment should be linked to institutional planning and budgeting.
- Seven in ten administrators believe that, as a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.

Information Currently Gathered

- One in three colleges currently assess the "higher-order" writing skills of all of their students.
- One in three colleges get ratings of the institution from all of their graduates.
- Eight in ten gather information on job placement rates of all or some of their graduates.
- Seven in ten have information (for some or all students) on the percentage of students going on for further education.
- Six in ten receive ratings of the institution from some or all of their graduates.

Curriculum Change

- Almost all colleges (95 percent) have recently made changes in the curriculum or are currently doing so.

- Forty-two percent of colleges had a curriculum review underway in 1987.
- Among the colleges and universities that have completed a curriculum review, three out of four have introduced new requirements in general education.
- Seventy-eight percent of these colleges have given greater attention to mathematical or computer-related skills.
- Seventy-four percent of the college that completed a curriculum review have placed greater emphasis on writing. Fifty-three percent have introduced changes focused on other competencies (communication, reading, etc.).
- About 4 in 10 institutions have given new attention to enhancing the freshman-year experience of students.

Enrollment Changes

- Thirty-nine percent of the nation's colleges and universities reported an increase in full-time equivalent (FTE) enrollment.
- Decreases in overall enrollment and in FTE enrollment occurred for 26 percent of institutions.
- Enrollment of first-time freshmen showed a mixed picture: 40 percent of institutions reported gains in first-time freshmen, but another 32 percent reported losses in first-time freshmen.
- Enrollment for master's-level study increased for 42 percent of four-year institutions.
- Doctoral students increased at one-third of universities.
- About 1 in 5 colleges reported increased enrollment of black students; 13 percent reported decreased black enrollment.
- Only 14 percent of colleges reported an increase in Hispanic students. Decreased enrollment of Hispanic students was reported by 9 percent of institutions.
- Twenty-one percent of institutions reported a gain in Asian students, with 7 percent reporting a loss.
- Enrollment of Native American students increased at 11 percent of institutions, but decreased at 8 percent of institutions.

Student Retention

- Today, almost all colleges and universities have special programs designed to increase student retention.
- Twenty percent reported gains in rates of student retention through to graduation; 11 percent reported gains in minority student retention.
- Twenty-seven percent reported that progress was made in reducing student attrition during the first year of college.
- Six in 10 institutions have special programs to increase minority student retention.

Financial Status

- The overall budget, and the budget for educational and general expenses, increased for most institutions. However, 12 percent of colleges reported a decrease.
- One in 5 public institutions reported a decline in revenues from state and local government.
- One in four institutions reported a decline in their overall indebtedness; 16 percent experienced an increased debt level.
- Six in ten institutions reported gains in alumni giving and/or gifts. This included 3 out of 4 independent institutions and one-half of the public institutions.
- Four in ten colleges, including half in the public sector, reported that the share of costs that must be paid by students and their parents had increased in the last few years.
- Only 40 percent of administrators rate their college's overall financial condition as excellent or very good.
- Only 3 in 10 administrators rate their levels of faculty compensation as excellent or very good.

Changes in Expenditures

- More than 8 in 10 institutions reported that expenditures for computing equipment and operations required a larger share of their budget.
- About 7 in 10 institutions reported that faculty salaries were taking an increased share of the budget.
- Institutionally-funded student aid required an increased share of the budget at 7 in 10 independent institutions and at 1 in 4 public institutions.
- Renovation and repair of existing facilities called for a larger share of the budget at 4 in 10 institutions.
- Construction of new facilities required a larger share of the budget for 3 in 10 institutions.

Tuition Costs

- The median category of likely change for 1987-88 was 6 to 7 percent. However, for 1988-89, the median increase was 4 to 5 percent.
- Eight in 10 independent institutions and 3 in 10 public institutions now allow tuition to be paid in installments over a year's time.
- Among factors in setting tuition:
 - "Catch-up" increases in faculty salaries were mentioned by 55 percent of all colleges.
 - New or expanding academic programs were mentioned by 43 percent of institutions.
 - Expanded student aid was mentioned by 4 in 10 institutions.
 - State mandates about tuition levels or the share of costs to be paid by students were cited by two-thirds of public institutions.
 - Reduced state or local funding was mentioned by 4 in 10 institutions (and by 51 percent of public institutions).

Practices Affecting Faculty

- Most colleges and universities made new faculty appointments during 1986-87.
- Forty-two percent reported net gains in the number of their full-time faculty.
- Twenty-five percent of institutions reported greater difficulty in the past year in getting top applicants to accept faculty positions.
- Thirteen percent of institutions reported that the quality of applicants for full-time faculty positions had declined in the past year.
- Twenty-two percent have retrenchment procedures underway.
- Procedures to retrain faculty were reported by close to half of institutions.
- About 4 in 10 institutions offer incentives for early retirement of faculty.
- Annual awards for outstanding teaching were offered by 48 percent of institutions.

Other Trends

- 3 in 10 institutions reported having a commission or committee on the status of minorities.
- More than half reported that competition between the public and independent sector had increased in seeking support from corporations and foundations.
- About 4 in 10 institutions reported that competition between the sectors had increased over financial support from state tax funds.
- More than half of the colleges reported increased competition between public and independent sectors for high-ability students.

INTRODUCTION

This report offers findings from the fourth in a series of surveys conducted by the American Council on Education. These surveys, supported by the Lilly Endowment, are designed to provide timely information on changes taking place in the policies and practices of American colleges and universities.

The survey was conducted through the Higher Education Panel, a survey research program of the American Council on Education. Administrators at a nationally representative sample of 456 colleges and universities were mailed a four-page questionnaire on February 23, 1987. By mid-June, 372 responses were received (82 percent). Responses are statistically adjusted to be generally representative of American colleges and universities that offer undergraduate instruction.

Respondents, primarily academic administrators, included: presidents, 12 percent; academic vice presidents, 54 percent; assistant or associate deans/vice presidents, 8 percent; and other, 25 percent. The results describe how these administrators view their institutions; as with all "self-report" studies, results are subject to some variability in how questions were interpreted.

For this report, major attention was given to campus actions on assessment and to the curricular changes that are prevalent today on the nation's campuses. The report also examined faculty hiring practices, perceptions about institutional status, changes in enrollment and finances, and factors in tuition-setting.

Several important themes emerge from the survey:

1. Curricular change is widespread during the 1980's. About half of the colleges have recently

completed a review of their curriculum, and most of the others are currently reviewing their curriculum.

2. Most colleges have focused on strengthening general education. This includes a new emphasis on writing, on math and computer-related skills, and on other general competencies expected of college students.
3. Most campuses expect to introduce some form of student assessment over the next few years. Three-quarters of the campuses reported that discussions about assessment are taking place.
4. Despite demographic predictions to the contrary, a substantial proportion of colleges reported increased enrollment last fall.
5. Only 40 percent of college administrators rate their college's financial condition as excellent or very good. Only 3 in 10 rate their levels of faculty compensation this highly. Computing costs (for equipment and operations) and faculty salaries are taking an increasing share of most college budgets.
6. Most colleges continue to make new faculty appointments. At the same time, 25 percent reported having greater difficulty in getting top applicants to accept new appointments.

Findings are organized by subject matter. Detailed tables, with results shown by type of institution, follow the text. For about half of the questions asked in this year's survey, previous Campus Trends surveys obtained comparable information.

FINDINGS

Student Assessment

Most Campuses are Discussing Assessment, and Most Expect To Introduce Some Form of Assessment

In the view of campus administrators responding to the survey, assessment seems to be an idea whose time has come.

- Most believe that college faculty would support the development of assessment procedures, and most (79 percent) expect that some form of assessment will be introduced in the next few years. (Table 1).
- Three out of four have discussions taking place on the subject. The discussions focus on "what" to assess more often than on "whether" to develop assessment procedures.
- Only 27 percent report that their state is requiring assessment procedures; thus, apart from the colleges facing a state mandate for assessment, a good many other colleges are also exploring approaches to assessment.

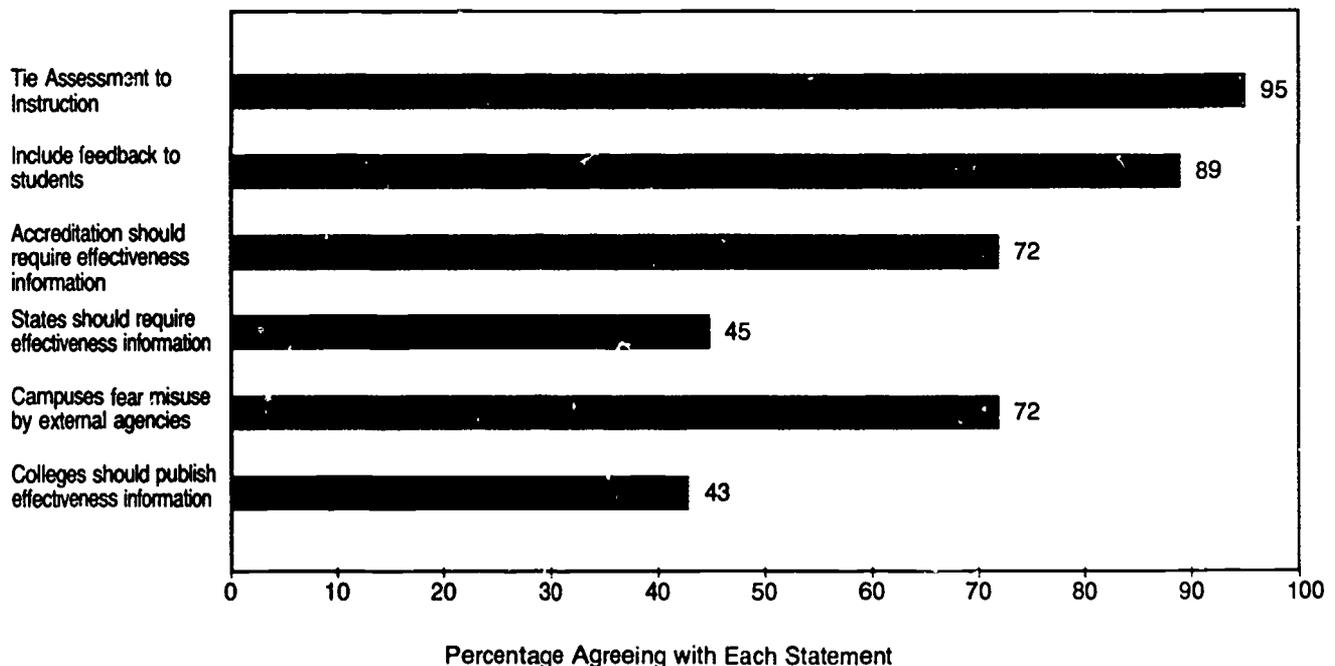
Administrator views about faculty support for assessment have shown some change since 1986. In 1987, 69 percent of administrators, overall, thought that faculty would support the concept, compared to 58 percent a year ago. Support is thought to be quite high at two-year colleges: 76 percent of administrators at two-year colleges felt that faculty would support the development of assessment.

Eight in ten institutions expect some form of assessment to be introduced in the next few years. This is a very high proportion, especially considering that some of those answering in the negative explained that they already have assessment methods in place.

Survey results also indicate that substantial problems remain before assessment becomes a reality.

- For 3 out of 4 institutions, discussions are taking place on fundamental issues of what outcomes should be assessed and what assessment methods should be used.
- Close to half of the colleges believe that "there is no clear sense of what to assess" and that "there are no good instruments suited to our programs."

Figure 1
Administrator Views on Assessment



A Basic Question: Will Assessment Be Internally Directed or Externally Determined?

Administrator responses to several statements about assessment (Table 2) offer additional perspective on the "campus" view regarding development of assessment procedures.

- Seventy-two percent agree that "most campus officials have strong fears about misuse of effectiveness measures by external agencies." A year ago, 66 percent of *Campus Trends* respondents had agreed with this statement.
- Only about 4 in 10 believe that colleges should publish evidence of their institutional effectiveness (reflecting no change since last year).
- Only 45 percent agree that "states should require colleges to show evidence of institutional effectiveness" (with no change since last year).
- Half fear that the use of standardized tests risks distorting the educational process. This is an increase over a year ago, when 38 percent agreed with this statement.

All of these responses (see figure 1) reflect substantial campus opposition to external influences that might reorient their own programs and sense of priorities. Administrators at independent institutions express these concerns more often than their public-sector counterparts.

College Officials Support Internally-Focused Assessment Procedures

As other responses indicate, the concern is not with assessment itself. The key issue appears to be whether assessment will follow external dictates or, instead, whether assessment will be developed to serve internal academic purposes. Support is very strong for internally-focused approaches to assessment (Table 2).

- Fully 95 percent of administrators support assessment that is closely tied to efforts to improve instruction.
- Nine in ten administrators believe that assessment should include substantial feedback to students.
- Seven in ten administrators believe that assessment should be linked to institutional planning and budgeting.
- Seven in ten administrators believe that, as a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.

College administrators clearly support the use of assessment methods as part of the "accountability" measures that already are part of academic governance structures, including the use of assessment or effectiveness information as an accreditation requirement. In fact, there was little support (17 percent of administrators) for another survey statement that "accrediting agencies are exerting too much pressure for assessment of student learning."

Some differences of opinion can be noted by type of institution. At two-year colleges, administrators are more likely than others to expect assessment to be introduced, offer more support for an accrediting agency role in assessment, and show less concern over assessment tests and external uses of assessment results. At doctoral universities, in contrast, administrators are more likely than others to question the adequacy of available instruments, to express fears about external uses of assessment results, and are less ready to link assessment results to institutional planning and budgeting processes. There is, nevertheless, strong consensus across institutions on the need to tie assessment to instructional improvement.

Many Assessment Procedures Are Already in Place

The current assessment debate gives little recognition to the significant degree and diversity of approaches to assessment that already are in place on the nation's campuses (Table 3).

- One-third of colleges and universities already gather information on job placement rates for *all* of their graduates. Close to half of two-year colleges do so.
- One in three colleges currently assess the "higher-order" writing skills of *all* of their students in writing.
- One in three colleges get ratings of the institution from *all* of their graduates.

Many other institutions gather information from some of their students, sometimes in only certain fields or on a sampling basis. Combined results, showing activities directed to all students or to some students (see figure 2), include:

- Eighty percent gather information on job placement rates of all or some of their graduates.
- Seven in ten have information (for some or all students) on the percentage of students going on for further education.

- Six in ten receive ratings of the institution from some or all of their graduates.
- Two-thirds require demonstrations of proficiency in a major (apart from an exam) for some or all students.
- Six in ten require pre- and post-tests for students taking remedial courses.
- Six in ten assess the "higher-order" writing skills of some or all students.
- Five in ten assess the oral communications skills of some or all students.
- Five in ten gather information on the quality of performance on the job of some or all graduates.
- Five in ten obtain standardized test scores for graduates in professional programs.
- Five in ten administer tests of basic skills to some or all students.

Significant percentages of institutions gather other information on the performance of their students. Close to half, for example, have information on the long-term outcomes of (some or all) graduates. About 3 in 10 (and more than 50 percent of doctoral universities) administer comprehensive examinations to some of their graduates.

Such variation points to a key question in present-day discussions on the need for more attention to assessment: is it better for a large number of colleges to offer the same approaches to assessment or, instead, is it better for colleges to develop a variety of

approaches according to differing circumstances? At present, it appears that a good many procedures are in place to assess student performance, but with much variation in how such assessment takes place.

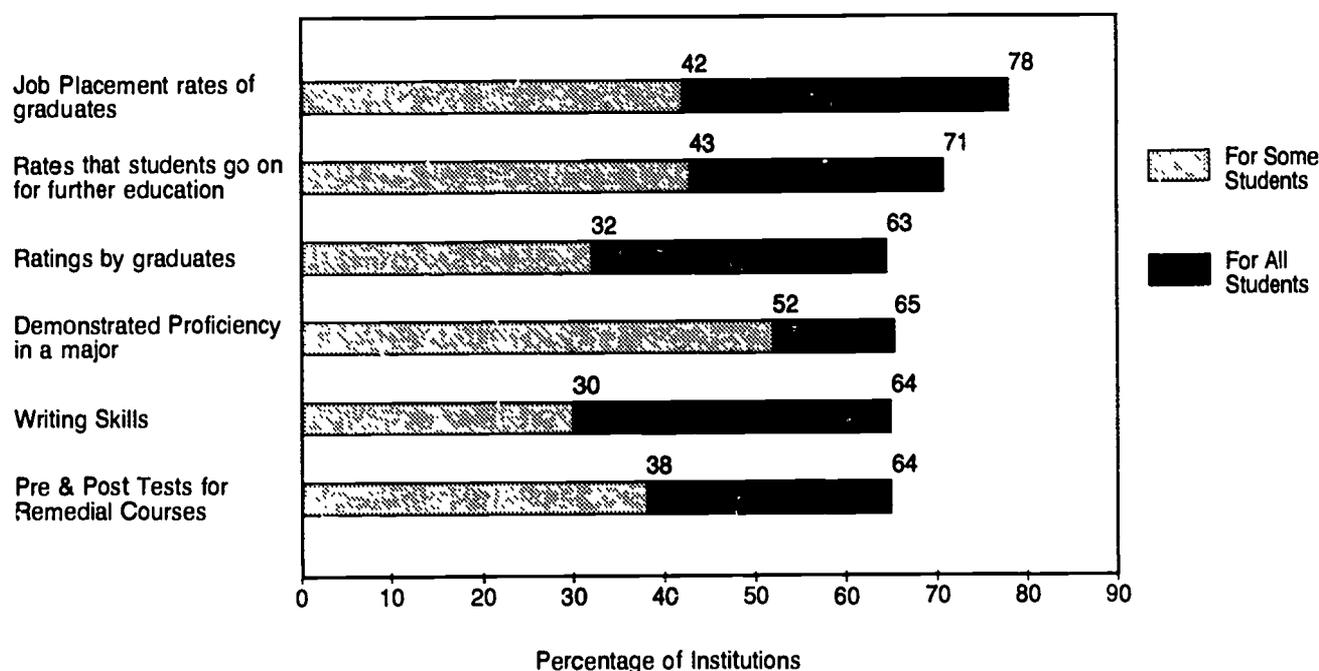
Curriculum

Curriculum Change Is Widespread

The 1980s clearly have been a decade of curriculum review for the nation's colleges and universities.

- Almost all (95 percent) have recently made changes in the curriculum or are currently doing so. This continues a pattern reported in previous Campus Trends reports, beginning in 1984 (Table 4).
- By 1987, half of the nation's colleges had completed a curriculum review; in earlier surveys, about one-third had done so.
- Forty-five percent of colleges had a curriculum review underway in 1987, a smaller percentage than found in earlier surveys.
- A majority of four-year institutions had completed a curriculum review; among 2-year colleges, the majority were still actively engaged in curriculum review.

Figure 2
Outcomes Assessment Already in Use by Colleges and Universities



New Requirements Have Been Introduced in General Education

A reaffirmation of requirements in general education is the main theme of recent curriculum change.

- Today, almost all four-year institutions (95 percent of baccalaureate colleges, 92 percent of comprehensive universities and 83 percent of doctoral universities) require that all students complete coursework in general education as part of their college study.
- Among two-year institutions, 7 in 10 have general education requirements for all students; another 22 percent have such requirements for some students.
- There has been only limited change in the proportion of colleges with general education requirements since 1984: 76 percent of all institutions had general education requirements for all students in 1984 (*Campus Trends 1984*) compared to 82 percent in 1987. This probably is a sizeable increase compared to a decade ago, however.

Important changes have been made in what is required to meet the general education component of college study. For all colleges that are making curriculum changes, 55 percent have already introduced new general education requirements (Table 5).

Among the colleges and universities that have completed a curriculum review (Table 6), three out of four have introduced new general education requirements. There are a good number of common elements reported by these institutions (see figure 3):

- Seventy-seven percent have given greater attention to mathematical or computer-related skills.
- Seventy-two percent have placed greater emphasis on writing.
- Sixty percent have introduced changes focused on other competencies (communication, reasoning, etc.).
- More than half (54 percent) have increased their course requirements.

Several Other Curricular Themes Are Receiving Attention

Colleges that are changing their curriculum reported a diversity of other themes as well (Table 5). Between one-third and one-half of these institutions also reported new attention to:

- The freshman year
- Career preparation
- Internships for students
- Issues in science and technology.

Notably, close to half of the nation's four-year institutions are introducing changes in their programs to prepare teachers, reflecting the attention and recommendations that have been made on this subject recently.

Among the colleges that have completed a curriculum review (Table 6), other themes also emerge, either among certain types of institutions or by small proportions of all colleges.

- Almost half of the doctoral universities that have completed a curriculum review have introduced more multidisciplinary or "theme" courses.
- Close to half of these four-year institutions have given increased attention to international matters as part of the curriculum.
- Forty-two percent of these doctoral universities have given greater emphasis to the foreign language proficiency of their students.
- Forty-two percent of these baccalaureate colleges and 43 percent of these doctoral universities have given new attention to values or ethics.
- Thirty-four percent of these two-year colleges have introduced changes offering flexibility for adult learners.
- Thirty-one percent of these two-year colleges have introduced new ways to enrich the major.

Current Reviews of Curriculum Are Taking Some New Directions

Other types of change can be expected in the future. Table 7 shows the areas being discussed by those institutions that are currently engaged in a curriculum review. Although many of the same topics appear, some interesting new areas are mentioned by at least 3 in 10 of these institutions. These "new" areas, not mentioned as frequently by those institutions that have completed curriculum reviews, include:

- Specifying desired outcomes for courses in the major
- Specifying desired outcomes for subject matter in general education
- Assessing "value-added"
- New attention to values or ethics
- More multidisciplinary or "theme" courses
- Greater flexibility for adult learners
- New ways to enrich the major.

Other "new" areas are receiving attention at certain types of institutions (Table 7). Four in 10 of these baccalaureate colleges and comprehensive universities are looking at possible changes in the senior-year experience of students, for example. Fifty-two percent of these universities are looking at new ways to involve students in research.

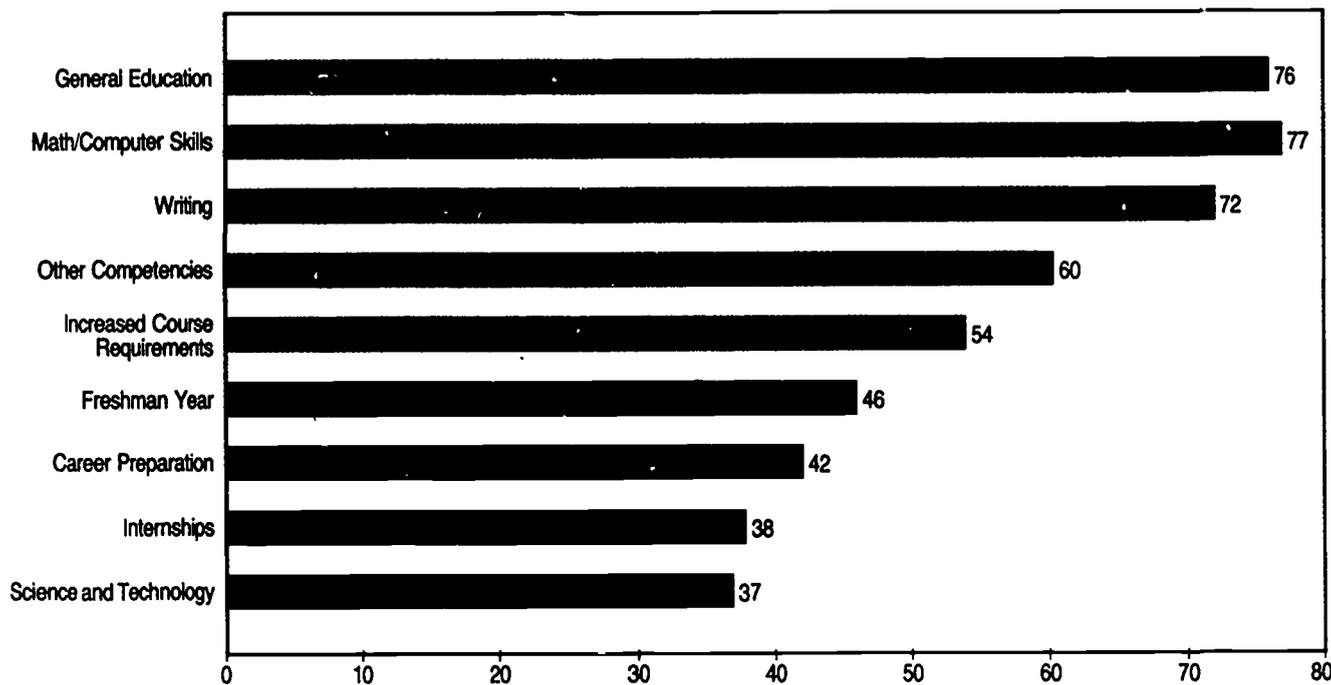
Curricular Change and National Reports: Some Common Themes Are Evident

Many themes found in recent national reports can be seen in some of these changes in curriculum. Among changes already made, the emphasis on the freshman year, the focus on academic competencies

and skills, new attention to teacher education, and greater opportunities for student internships all reflect recommendations of reports issued over the last few years.

So too, several of the "new" areas now receiving attention—more emphasis on the major on multidisciplinary approaches, and on values—were recommendations of the Carnegie Foundation study and of the report by the Association of American Colleges. Assessment of "value added," a major recommendation of the NIE report, is receiving attention by 36 percent of colleges currently reviewing their curriculum. Another recommendation of the NIE report, stressing the value of measuring actual "outcomes" for students, is reflected in several "new" areas currently receiving attention.

Figure 3
Major Areas of Curriculum Change*



Percentage of Institutions

*Colleges That Have Recently Completed Curriculum Review

Particularly striking is the new emphasis on “outcomes” or “value-added” approaches (see figure 4). Among the institutions that have completed a curriculum review, only 9 percent gave attention to so-called “value-added” methods that look at changes in students over the college years. In contrast, among the institutions that are currently reviewing their curriculum, 36 percent are looking at “value-added” approaches. The pattern is similar for changes that emphasize desired outcomes of college study: about 4 in 10 of the institutions currently reviewing their curriculum are exploring such approaches; fewer had done so in previous years. All of these responses speak to recommendations about the need for “assessment” of student learning found in several recent national reports, including the recommendations issued in 1986 by the National Governors Association about ways to increase college quality.

- For 43 percent of institutions, headcount enrollment increased last year. In last year’s report (*Campus Trends 1986*), 35 percent had reported an increase.
- With FTE enrollment, 39 percent of institutions reported an increase. Forty-one percent of two-year institutions and baccalaureate colleges reported increases in full-time-equivalent enrollment.
- Declines in overall enrollment and FTE enrollment occurred for 26 percent of institutions. Fewer than 1 in 10 doctoral universities reported such decreases, but 3 in 10 baccalaureate colleges had a decline in FTE enrollment.
- Enrollment of first-time freshmen also showed a mixed picture: fully 40 percent of institutions reported gains in first-time freshmen, but another 32 percent reported losses in first-time freshmen. Among baccalaureate colleges, 36 percent reported such a loss.

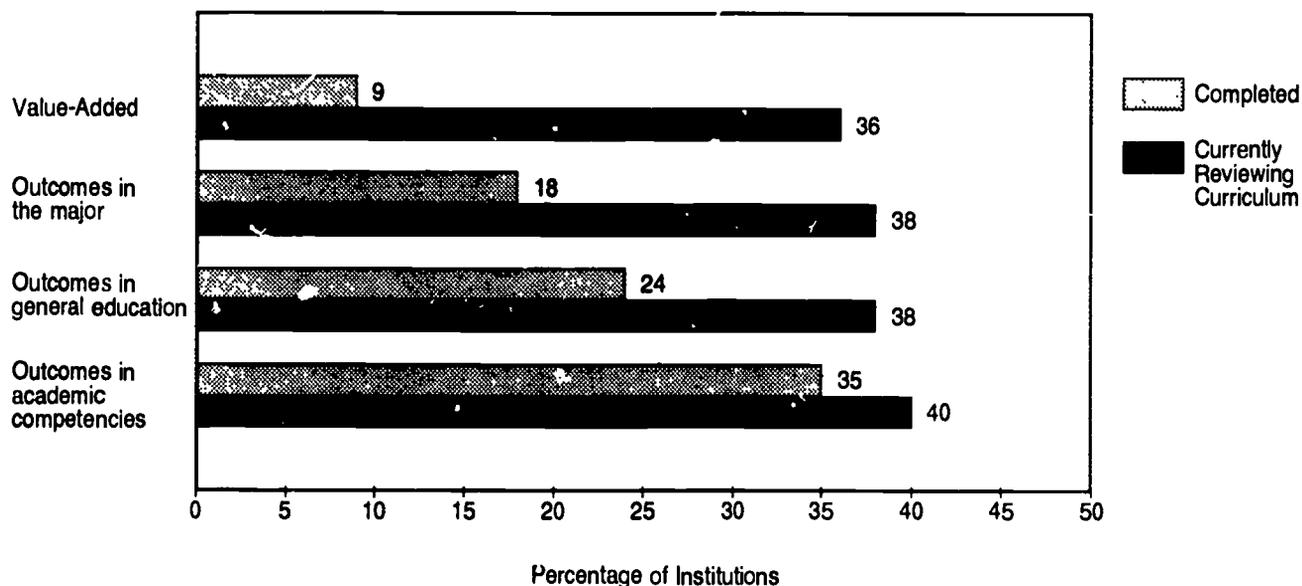
Enrollment and Retention

Some Enrollment Gains Continue but There Are Important Decreases

A large number of colleges and universities reported increases (of two percent or more) in headcount enrollment in the last year. However, a number of colleges had enrollment decreases, especially in full-time-equivalent enrollment and in enrollment of first-time freshmen (Table 8).

These results—based on institutional reports rather than student counts—suggest that there are both “winners” and “losers” in the current enrollment picture. In aggregate terms, this picture has been considered to be surprisingly strong, keeping ahead of predicted demographic changes. Yet, despite overall gains and the positive experience of 4 in 10 colleges, a significant number of other institutions are facing declining enrollment. The information from the one-third of institutions reporting fewer first-time enrollments is particularly troubling if it indicates the direction of future enrollment change.

Figure 4
Attention to Outcome Measures:
Colleges That Completed or Currently Have a Curriculum Review



Notably, several specific components of enrollment have shown change. This year, as with last year's report (*Campus Trends, 1986*), enrollment for master's-level study increased for 42 percent of institutions. One-half of comprehensive universities reported such an increase. Doctoral students increased at one-third of universities.

Enrollment of transfer students increased at one in four colleges; one in three baccalaureate colleges and comprehensive universities reported this type of increase. Noncredit enrollment in remedial coursework showed an increase at one-third of institutions, primarily among two-year colleges.

Some regional differences in enrollment patterns can be noted, based on an analysis of the survey data.

- Increases in overall enrollment and full-time-equivalent enrollment were reported by more colleges in the West (58 percent) than in other parts of the country.
- The Northeast had the most institutions (55 percent) reporting no change in their full-time-equivalent enrollments. Only 15 percent of colleges in the West reported no change in FTE enrollment.
- Increased enrollment at the master's level was reported more often in the West (73 percent) than in other parts of the country. Twenty percent of Southern colleges reported a drop in master's-level enrollment.
- In contrast, enrollment for doctoral study was most often reported in the South (by 41 percent of institutions). Only 17 percent of colleges in the Northeast reported such increases.
- Colleges and universities in the West were more likely than others to have increased enrollment of Hispanic students, Asian students, and Native American students (reported by 27 percent, 39 percent, and 18 percent of Western institutions, respectively).
- Although 21 percent of Southern institutions reported increases in black enrollment, another 21 percent in the region reported decreased black enrollment. There were no other regional differences in enrollment of black students.

Regarding patterns of minority student enrollment, it appears that most institutions are holding steady; very few are reporting increases in minority enrollment.

- About 1 in 5 colleges reported increased enrollment of black students; 13 percent of institutions reported decreases in black enrollment.
- Only 14 percent of colleges reported an increase in Hispanic students. Gains were reported by 22 percent of universities but by only 14 percent of two-year colleges and 9 percent of baccalaureate col-

leges. Decreased enrollment of Hispanic students occurred for 9 percent of institutions.

- For Native American students, 11 percent of institutions reported gains; 8 percent reported enrolling fewer students of Native American origin.
- Regarding Asian students, 21 percent of institutions reported a gain, with 7 percent reporting a loss. Much of the increase is accounted for by doctoral universities (45 percent reported an increase).
- Among two-year colleges, 13 percent reported a gain in Asian students that was largely offset by a drop in Asian enrollment for another 8 percent of two-year colleges.

The overall picture, then, is one of little or no change in minority representation at American colleges and universities.

A number of questions were asked about gains in student retention, reflecting recent interest in improving the likelihood that students complete their studies. Some encouraging results appear.

- Twenty percent of institutions reported gains in rates of student retention through to graduation.
- Eleven percent reported gains in minority student retention.
- At least 27 percent reported that progress was made in reducing student attrition during the first year of college. In fact, 33 percent of baccalaureate colleges reported such progress.

Survey responses suggest that improvements in minority student retention are related to having special programs to encourage retention among minority students (see Table 14). The colleges that increased minority retention were more likely than others (85 percent versus 60 percent) to have developed special programs to encourage such retention; they were also more likely to have a college committee or commission examining the status of minorities (50 percent versus 26 percent).

College Finances

Colleges Face Continuing Financial Pressures

Survey results reflect the continuing pressures faced by colleges and universities today.

- The overall budget, and the budget for educational and general expenses, increased for most institutions, although 12 percent reported a decrease (Table 9).

- Among public institutions, 17 percent reported a decreased budget. In the independent sector, 6 percent of institutions reported a decreased budget.
- Just over half (55 percent) of public institutions reported an increase in revenues from state and local government sources. Eighteen percent of public institutions reported a decline in revenues from this, their primary source of revenue.
- Among independent institutions, 1 in 4 reported a gain in state or local funding, although 10 percent had a loss in state or local funds.
- Three in ten institutions reported a gain in federal student aid funds. Conversely, one in six institutions reported a drop in such funds. Among comprehensive universities, 23 percent had a loss in federal student aid funds.
- Increases continue in institutional funding of student aid. Three out of four independent institutions and one-third of public institutions reported that they increased their budgets for student aid from the institution's own funds.
- One in four institutions reported a decline in their overall indebtedness, a figure partly offset by the 16 percent that experienced an increased debt level. Among independent institutions, 3 in 10 had decreased their debt levels, although another 20 percent increased their indebtedness.

Income from two sources—endowment and gifts/alumni giving—provided additional assistance for many institutions.

- Close to half of the colleges reported gains in income from endowment. This included 6 in 10 independent institutions and 4 in 10 public institutions.
- Six in ten institutions reported gains in alumni giving and/or gifts. This included 3 out of 4 independent institutions and one-half of the public institutions.

One indication of the net result of these various changes is shown in responses to another question, regarding the share of total costs for college study that students and parents pay. Forty-four percent of colleges, including half in the public sector, reported that the family's share of costs had increased.

Additional analysis of the survey data reveals some distinctive regional differences in the financial status of colleges:

- Increases in the overall budget and in the budget for educational and general expenses were reported more often in the Northeast and Midwest (87 percent and 77 percent, respectively) than in the South or West (65 percent and 67 percent, respectively).
- Increases in state or local funding were also reported more often by colleges in the Northeast and Midwest

(52 percent and 46 percent, respectively) than in the South or West (36 percent and 39 percent, respectively). Colleges in the South were the most likely to report a drop in state or local funding (reported by 31 percent of Southern institutions).

- Increases in endowment income were reported by only 40 percent of institutions in the Northeast but by about half of institutions in other parts of the country.
- Increases in institutional indebtedness were more often reported by colleges in the Northeast and Midwest (24 percent and 20 percent, respectively) than by colleges in the South and West (11 percent and 8 percent, respectively).

Computer Needs, Faculty Salaries, and Student Aid put Pressure on College Budgets

Table 10 shows responses on a question about whether certain categories of expenditure were requiring a larger or smaller share of the college's budget, compared to a few years earlier. Responses identify both new and long-standing pressures on academic institutions (see figure 5).

- The most frequently cited expenditure involved computing. More than 8 in 10 institutions reported that expenditures for computing equipment and operations required a larger share of their budget.
- About 7 in 10 institutions reported that faculty salaries were taking an increased share of the budget.
- Institutionally-funded student aid required an increased share of the budget at 46 percent of institutions. Seven in ten independent institutions reported this increase.
- Renovation and repair of existing facilities called for a larger share of the budget at 4 in 10 institutions.
- Construction of new facilities required a larger share of the budget for 3 in 10 institutions. Conversely, 2 in 10 reported that construction now required a smaller share of their budget.
- Administrative and instructional programs were calling for an expanded share of the budget for a good many colleges, including admissions (59 percent), development (43 percent), undergraduate programs (36 percent), and student support services (33 percent).
- Support of graduate programs was reported as taking a larger share of the budget by 31 percent of institutions (including 36 percent of baccalaureate colleges).

Relatively few institutions cited any of these categories as receiving a decreased share of the budget. Assuming that the primary types of expenditure are reflected here, the lack of choices about decreases may suggest that decreases have been gradual and "across the board," thus not creating a specific area of cutback. It is also true that the question did not distinguish the relative size of any increase or decrease.

Paying for College: Rising Fees, Greater Flexibility

College tuition charges will outpace inflation for the next year, according to the survey's respondents. The median category of change expected for 1987-88 was 6 to 7 percent. For 1988-89, however, the median change was 4 to 5 percent, a level that may be even with changes in inflation.

- Public institutions varied widely in their 1987-88 estimates. Forty-six percent—primarily two-year colleges—expected increases of 3 percent or less. Thirteen percent of public institutions, however, expected that increases would be 10 percent or more.
- Among independent institutions, most expected tuition increases of 6 to 7 percent for 1986-87. All but 16 percent expected increases of between 4 and 9 percent.
- For the 1988-89 academic year, public institutions are anticipating modest tuition increases. More

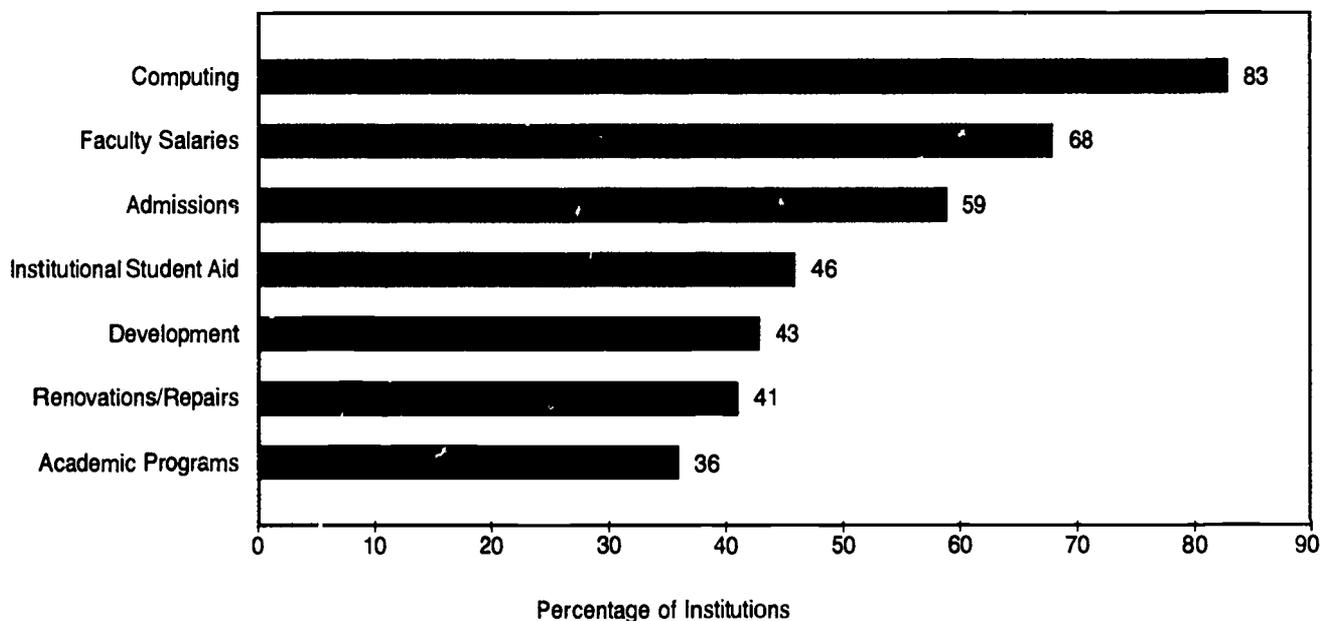
than half estimated increases at 3 percent or less. Most others estimated a 4 to 5 percent increase to occur.

- For independent institutions, the 1988-89 academic year was expected to be much the same as 1987-88. Most expected tuition increases of 6 to 7 percent.

In view of such increases, there has been much debate over ways to help families pay for college costs. New sources of loan funding, methods to prepay tuition or to stretch out payments, or new scholarship resources have all been suggested in recent years. Survey results report on institutional experiences with four types of innovative financing options.

- Merit scholarships, awarded without regard to financial circumstances, are now prevalent in higher education. Eight in 10 institutions have such scholarships, including athletic and other special-purpose scholarships.
- Eight in 10 independent institutions and 3 in 10 public institutions now allow students (or parents) to pay tuition in installments over a year's time.
- Long-term, below-market loans for parents or students are offered by 1 in 4 independent institutions. Only 14 percent of public institutions offer loan programs of this type.
- Prepayment of tuition at the start of college study is an option offered by only a few institutions (10 percent, overall). Among independent institutions, 17 percent offer such an option.

Figure 5
College Expenses Requiring a Larger Share of the Budget



Factors in Setting Tuition Vary by Type of Institution

A variety of factors affect decisions about tuition charges of colleges and universities. For public institutions, key decisions about tuition are made by state officials. For both public and independent institutions, tuition charges cover only a portion of full educational costs. As Table 11 shows, no single factor accounted for recent decisions about tuition levels.

Several themes were cited:

- "Catch up" increases in faculty salaries (mentioned by 55 percent of all colleges and by 8 in 10 independent institutions)
- New or expanding academic programs (mentioned by 43 percent of institutions)
- Expanded student aid (mentioned by 4 in 10 institutions and by 7 in 10 independent institutions)
- State mandates about tuition or share of costs to be paid by students (mentioned by two-thirds of public institutions)
- Reduced state/local funding (mentioned by 4 in 10 institutions and by 51 percent of public institutions).

Public and independent institutions have very different experiences in this matter (see figure 6). For public institutions, the key factors were state mandates and reduced levels of state or local funding.

Among independent institutions, the two primary factors in tuition setting were "catch-up" increases in faculty salaries and expanded student aid programs.

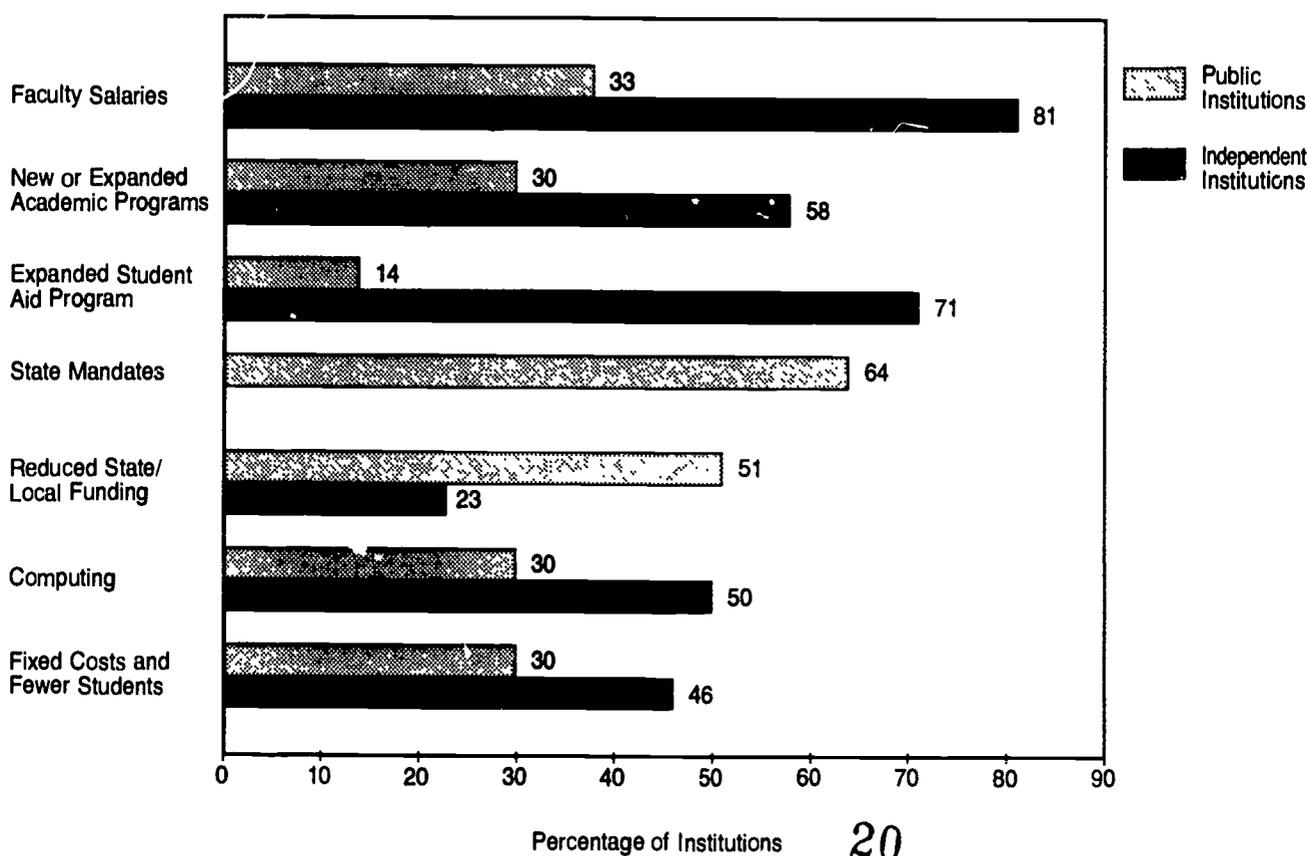
Practices Affecting Faculty

Faculty Hiring Continues

Most colleges and universities made new faculty appointments during 1986-87. A significant proportion—42 percent—also reported net gains in the number of their full-time faculty. Only one-third of two-year colleges had a net gain (Table 13).

These figures on net gain in number of faculty represent an increase from a year earlier. In *Campus Trends 1986*, 37 percent of colleges had reported a net gain in full-time faculty. The most notable gain is found among baccalaureate colleges: in 1986, 40 percent had increased the number of their full-time faculty; in 1987, 55 percent reported that they had such an increase. These gains may reflect the expansion of

Figure 6
Factors in Setting Tuition Levels



academic programs cited earlier as a factor in tuition setting.

In contrast, one in five institutions reported a net loss in full-time faculty. This proportion has remained the same over the last two years. Notably, 28 percent of public institutions reported a net loss in full-time faculty.

As might be expected, enrollment losses are related to these faculty cutbacks. According to an analysis of the survey data, 42 percent of those with decreased full-time-equivalent enrollment last year also had a net loss in full-time faculty; a net loss in part-time faculty was reported by 39 percent of these institutions.

A potential new concern for colleges over the next decade arises from projections of a faculty shortage, at least in certain academic specialties. Based on questions asked for the first time in this year's Campus Trends survey, it appears that some campuses are already experiencing difficulty in recruiting faculty (Table 12).

- Twenty-five percent of institutions reported greater difficulty in the past year in getting top applicants to accept faculty positions.
- About 1 in 3 public institutions reported this difficulty.
- Among independent institutions, 17 percent reported such problems.
- The colleges that experienced an enrollment decline in the last year were somewhat more likely than

others (34 percent versus 25 percent) to report difficulty in recruiting faculty.

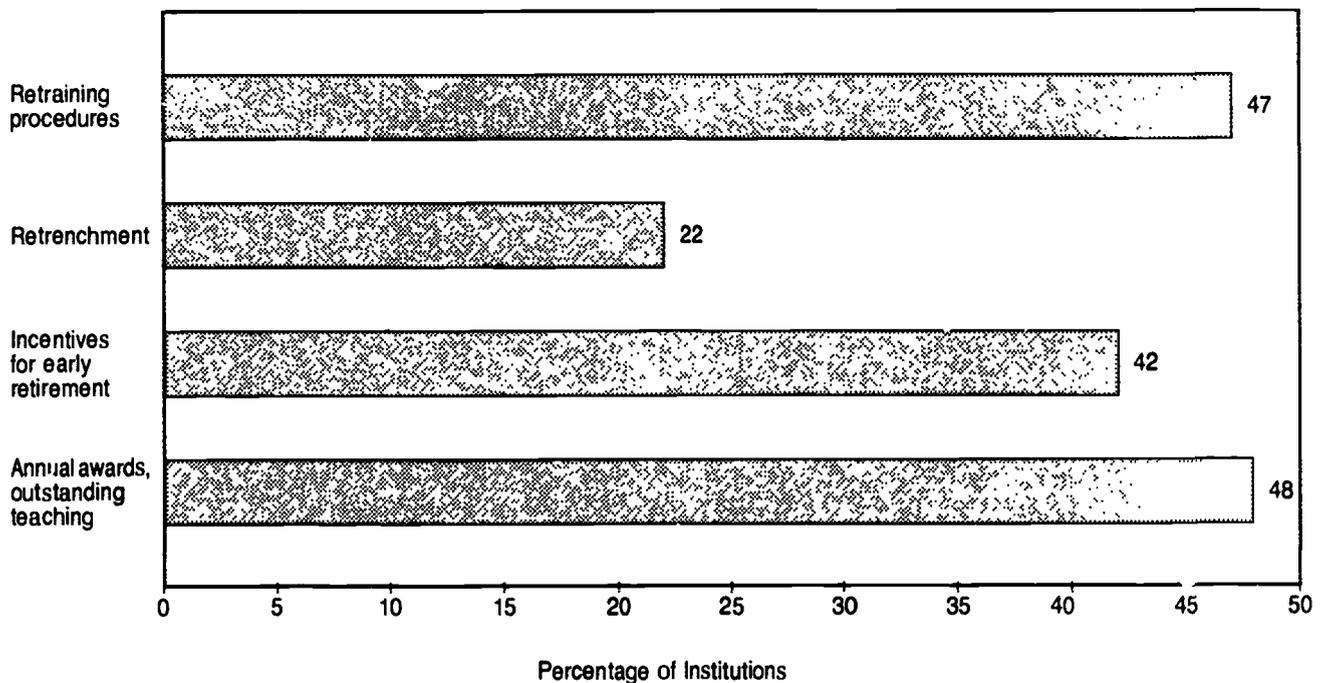
- Thirteen percent of institutions reported that the quality of applicants for full-time faculty positions had declined in the past year. Hardly any doctoral institutions reported this difficulty. Most instances appeared among two-year and baccalaureate colleges.

These questions appear on the survey in order to offer a baseline for comparisons with campus situations over the next decade. If projections prove right, it is expected that such problems will occur with increasing frequency over the next few years.

Other survey responses point to substantial differences among colleges in their faculty personnel policies (see figure 7):

- Twenty-two percent have retrenchment procedures underway to cut back on the number of faculty. This figure is somewhat lower than the 28 percent that was reported by colleges in the Campus Trends 1985 survey.
- Procedures to retrain faculty were reported by close to half of institutions. Two-year colleges were most likely to have such procedures. Responses to this question probably reflect both formalized procedures and informal agreements for retraining.
- Close to half of colleges and universities offer incentives for early retirement of faculty. These incentives were reported most often by doctoral universities.

Figure 7
Policies Affecting Faculty



- Annual awards for outstanding teaching were offered by 48 percent of institutions. Such awards were offered by almost all doctoral universities.
- Salary increases linked to outstanding teaching were reported by 51 percent of institutions. Almost all doctoral universities reported such policies. Responses here might reflect formal evaluation criteria that include teaching performance, rather than procedures that exclusively focus on teaching.

Institutional Status

Enrollment, Finances and Other Problems Continue To Concern Administrators

Responses shown in Table 13 offer a capsule view, perhaps, of some of the problems facing colleges and universities today.

- Only 40 percent of administrators rate their college's overall financial condition as excellent or very good. This figure shows some improvement over results given a year ago, when 36 percent gave such ratings to their financial condition.
- Only 3 in 10 administrators rated their levels of faculty compensation as excellent or very good. Only 2 in 10 baccalaureate colleges gave this rating.
- Six in ten administrators gave their institutions good marks on their ability to attract and hold good faculty. Two-thirds of independent institutions rated themselves highly in this regard, compared to 53 percent of public institutions.
- Preparation levels of students continue to be seen as too low. Only 22 percent of administrators felt that preparation levels were excellent or very good. This is a gain over last year, when 17 percent of administrators felt that student preparation was excellent or very good.
- Relatively few administrators gave their institutions high ratings on their ability to attract good students. Responses differed considerably by type of institution, with administrators at universities offering the highest ratings of their students.
- Very few administrators (19 percent) considered their institution's ability to attract minority students to be excellent or very good. There were very few differences by type of institution.
- A favorable viewpoint emerged regarding job prospects for the college's degree recipients: 55 percent of administrators felt that job prospects were excel-

lent or very good. This is a gain over responses of a year ago, when 49 percent offered this view.

Other responses underscore the fact that problems of enrollment planning occupy considerable attention at most campuses (Table 14).

- About 8 in 10 institutions have conducted analyses of their projected enrollment over the next few years.
- Almost all institutions have special programs designed to increase student retention.
- Six in 10 institutions have special programs to increase minority student retention. Almost all doctoral universities reported such programs.

The nature of the campus "climate" is increasingly seen as relevant to issues of minority retention. One limited aspect of campus climate was raised on the survey, whether campuses had a commission or committee charged with giving attention to the status of women or minorities on campus (Table 14).

- Overall, very few institutions (about 3 in 10) reported having a commission or committee on the status of minorities.
- Committees on the status of minorities appeared primarily at doctoral universities (74 percent).
- In contrast, only one in five baccalaureate colleges and 4 in 10 of the comprehensive institutions have a committee looking at the status of minorities.
- Results were similar regarding committees or commissions on the status of women. Seven in ten doctoral institutions had commissions, with much lower percentages reported by other types of institutions.

Table 14 also reflects a variety of pressures facing colleges and universities today on problems that affect all of American society.

- Most campuses today have formal policies on drug use. Eight in 10 independent institutions and 2 in 3 public institutions have policies on drug use.
- Even higher proportions—9 in 10 independent institutions and 72 percent of public institutions—have policies about alcohol use.
- More than half of doctoral universities have developed policies on AIDS; most other types of institutions do not currently have policies in place.
- Policies governing treatment of hazardous waste are in place among most universities, but are reported by only half of the two-year colleges and by about 1 in 3 baccalaureate colleges.

Competition Between the Public and Independent Sectors

Several signs are evident (Table 15) of continuing strains between public and independent sectors in higher education:

- More than half reported that competition between the public and independent sectors had increased in obtaining support from corporations and foundations.
- About 4 in 10 institutions reported that competition between the sectors had increased over finan-

cial support from state tax funds. Two-year colleges were especially likely to report this view.

- More than half of the colleges reported increased competition between public and independent colleges for high-ability students.

In contrast, hardly any respondents felt that competition between the sectors had decreased in the past year. At best, only 10 percent of public-sector respondents (primarily at two-year institutions) reported a decrease in competition over support from state tax funds.

SUMMARY

This report points to a number of favorable trends affecting the nation's colleges and universities today. A widespread process of curricular revitalization is taking place. More attention is being paid to student accomplishments in math skills, writing and other competencies. Systematic approaches to student assessment are being discussed on many campuses.

Despite predictions of declining enrollment, a large percentage of colleges reported an enrollment increase for the last year. Some colleges have been able to increase their rates of student retention. There is evidence too that almost all colleges are preparing themselves for the future by conducting analyses of likely enrollment patterns for the next few years.

At the same time, three broad issues are revealed by the survey's responses:

- Many administrators are concerned that the present-day move toward more systematic assessment procedures will be shaped primarily by external mandates. As survey responses clearly indicate, the campus perspective toward assessment is one that stresses its internal role in improving instruction. Whether an internal or an external view of assessment prevails is likely to have very different consequences for the academic community.
- A small but significant proportion of colleges appear to be facing hard times. Twenty-six percent reported a decrease in full-time equivalent enrollment. Thirty-two percent had a decrease in their first-time

freshmen enrollment. One in five reported a loss in the number of full-time faculty and twenty-two percent have retrenchment procedures underway. Twelve percent reported a decrease in their overall budget. One in five public institutions received reduced funding from state or local government sources.

- Close to half of all colleges reported an increase in the share of costs that parents and students must pay for college study. As colleges face cuts from several key sources of revenues, other sources have not filled the gap, leaving students to take on greater burden. Fully half of the public institutions—which enroll close to 80 percent of all students—cited reduced state or local funding as a factor in recent tuition rates set for their institutions.

The 1980s appear to be a time of difficult management challenges for college administrators. There are some positive signs—in curriculum reform, enrollment management, gains in alumni giving, and progress in adjusting faculty salaries—but numerous challenges remain, both continuing and new. One in four have begun to have difficulty in recruiting well-qualified faculty, for example. Half of the colleges reported increased competition between public and independent sectors for high-ability students and for corporate or foundation support. In sum, the survey results point to a diverse set of continuing pressures facing colleges and universities.

REFERENCES

- Association of American Colleges. *Integrity in the Classroom: A Report to the Academic Community*. Washington, D.C.: Association of American Colleges, 1985.
- Boyer, Ernest L. *College: The Undergraduate Experience in America*. New York: Harper and Row, 1987.
- El-Khawas, Elaine. *Campus Trends*, 1984. Washington, D.C.: American Council on Education, February 1985.
- _____. *Campus Trends*, 1985. Washington, D.C.: American Council on Education, February 1986.
- _____. *Campus Trends*, 1986. Washington, D.C.: American Council on Education, August 1986.
- National Institute of Education. *Involvement in Learning: Realizing the Potential of American Higher Education*. Washington, D.C.: Department of Education, 1984. (The NIE Report)
- National Governors Association. *Time for Results: Toward the Year 1991*. Washington, D.C.: National Governors Association, 1986.

DETAILED STATISTICAL TABLES

**TABLE 1—Current Status of Student Assessment
(Percentage reporting "yes" for each statement)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
Most faculty would support the development of assessment procedures.	76	63	63	41	69	71	66
Some form of assessment is likely to be introduced in the next few years.	85	78	74	53	79	85	73
Our state is requiring assessment procedures.	29	22	29	25	27	35	17
There is no clear sense of what to assess.	35	57	59	64	47	40	55
There are no good instruments suited to our programs.	38	47	41	57	42	39	47
Discussions are taking place on: whether to develop assessment procedures.	53	62	53	52	56	57	54
whether assessment should focus on programs or on students.	56	58	47	41	54	58	50
what outcomes should be assessed.	72	79	74	69	74	78	69
what assessment methods might be used.	69	76	71	62	71	76	66
how to tie assessment to program evaluation.	69	67	63	52	67	70	62
how to tie assessment to instruction.	70	69	62	59	68	72	62
Methods to assess student outcomes are being developed for:							
individual courses	55	42	33	33	47	49	44
major fields of study	41	48	44	35	43	45	40
general education knowledge	43	52	40	43	45	48	42
general academic competencies	53	52	48	38	51	56	44
the entire curriculum	40	38	24	13	36	39	31

Source: *Campus Trends*, 1987. American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 2—Attitudes on Student Assessment
(Percentage agreeing with each statement)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
Use of nationally standardized tests for purposes of student assessment risks distorting the educational process.	39	60	59	59	50	45	55
Student assessment should be closely tied to efforts to improve instruction.	96	96	94	91	95	96	94
Student assessment should include substantial feedback to students.	90	90	89	79	89	90	89
Student assessment should be linked to institutional planning and budgeting.	74	73	68	56	72	77	65
All colleges and universities should develop and publish evidence of their institutional effectiveness.	51	36	33	31	43	52	33
As a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.	79	67	61	62	72	79	64
States should require colleges to show evidence of institutional effectiveness.	56	36	34	23	45	55	34
Most campus officials have strong fears about misuse of effectiveness measures by external agencies.	71	72	71	87	72	72	72
Accrediting agencies are exerting too much pressure for assessment of student learning.	10	25	23	21	17	16	19

Source: Campus Trends, 1987, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 3—Assessment Procedures Now Used by Colleges and Universities
(Percentages)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
For All Students:							
Tests of basic college-level skills (e.g., minimum competency or "rising junior" tests)	23	20	20	9	21	24	17
Knowledge testing on general education subjects	19	14	10	5	15	16	15
Comprehensive exams in a major	8	9	8	4	8	6	11
Other demonstrated proficiency in a major (projects; thesis; performance)	14	14	6	8	13	5	22
Attainment of higher-order skills in:							
critical thinking	7	9	8	12	8	7	9
quantitative problem-solving	11	11	11	16	11	11	12
oral communication	20	22	14	12	19	16	23
writing	30	41	35	27	34	29	40
"Value-added" measures of student gains while in college	3	7	7	2	4	4	5
Standardized test scores of graduates in professional programs	6	6	11	14	7	10	5
Percent of students going on for further education	29	32	20	19	28	24	33
Job placement rates of graduates (by field)	44	32	27	16	36	31	43
Quality of graduates' performance on the job	26	11	3	2	17	14	20
Ratings of the institution by graduates	43	25	12	15	31	32	30
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	17	18	9	9	16	13	19
Changes in student values and attitudes	13	13	16	5	13	13	13
Pre- and post-tests for:							
remedial courses	35	18	14	13	26	32	18
general education outcomes	10	10	7	2	9	10	8
knowledge in a major	7	6	4	0	6	5	6

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 3 (continued)—Assessment Procedures Now Used by Colleges and Universities
(Percentages)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
For Some Students:							
Tests of basic college-level skills (e.g., minimum competency or "rising junior" tests)	30	28	31	18	29	33	24
Knowledge testing on general education subjects	17	29	27	15	22	25	18
Comprehensive exams in a major	18	35	49	58	30	28	32
Other demonstrated proficiency in a major (projects; thesis; performance)	28	70	82	75	52	46	58
Attainment of higher-order skills in:							
critical thinking	32	36	37	37	34	36	32
quantitative problem-solving	35	42	42	36	38	39	37
oral communication	30	38	37	38	34	30	38
writing	30	26	35	39	30	33	26
"Value-added" measures of student gains while in college	13	17	15	12	14	12	16
Standardized test scores of graduates in professional programs	29	50	62	58	43	43	44
Percent of students going on for further education	39	43	53	46	43	48	37
Job placement rates of graduates (by field)	37	45	48	62	42	47	37
Quality of graduates' performance on the job	36	30	36	35	34	47	19
Ratings of the institution by graduates	25	30	50	49	32	34	29
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	23	35	38	39	30	29	30
Changes in student values and attitudes	18	24	31	30	23	21	24
Pre- and post-tests for:							
remedial courses	45	25	42	30	38	42	32
general education outcomes	17	16	19	11	17	19	14
knowledge in a major	22	24	33	18	24	25	23

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 4—Changes in the Curriculum
(Percentages)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
A. Do you have requirements that students complete coursework in general education?							
Yes, for all students	71	95	92	83	82	79	84
Yes, for some students	22	4	7	13	14	18	9
No	7	1	1	3	4	2	7
B. Is a review of curriculum underway or has one recently been completed?							
Yes, completed within the last few years	42	63	52	50	50	47	53
Yes, currently underway	54	33	41	40	45	48	42
No	5	4	7	9	5	4	5

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 5—Changes Made in the Curriculum: All Colleges with a Current or Recent Curriculum Review
(Percentages)
(n = 353)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
New general education requirements	50	60	59	58	55	55	55
Greater emphasis on writing	51	61	64	61	56	53	60
Greater emphasis on other competencies (communication, reasoning, etc.)	49	49	47	37	48	48	48
Increased course requirements	38	41	45	29	39	37	42
Greater flexibility for adult learners	28	23	14	14	24	27	20
Increased attention to international matters	11	37	39	44	25	18	33
New attention to issues in science and technology	27	30	38	30	30	31	28
Greater attention to career preparation	43	34	12	11	34	31	37
Greater emphasis on mathematical or computer-related skills	67	65	53	54	63	61	66
More multidisciplinary or "theme" courses	13	26	36	31	22	20	24
New attention to values or ethics	10	36	25	24	20	10	33
New approaches to teacher education	12	47	48	36	29	20	39
New ways to enrich the major	22	31	14	15	23	16	30
New attention to:							
the freshman year	29	47	52	30	37	31	46
the senior year	0	15	10	7	8	4	14
scholarship on women	6	8	11	18	8	6	11
American history	1	5	6	5	3	1	6
World civilization	5	14	21	7	10	6	15
Greater emphasis on foreign language proficiency	14	21	25	34	19	18	19
Methods of assessing "value-added"	6	14	9	7	8	8	9
New ways to involve students in:							
research	4	28	25	29	15	8	24
community service	15	21	12	19	16	9	25
internships	22	48	39	40	33	22	47
Methods of specifying desired outcomes for:							
courses in the major	13	19	15	7	14	14	15
writing and other competencies	29	32	33	22	30	31	29
subject matter in general education	18	21	23	20	19	16	23

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

TABLE 6—Changes Made in the Curriculum: Colleges that Recently Completed a Curriculum Review
(Percentages)
 (n = 186)

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
New general education requirements	77	73	79	83	76	79	73
Greater emphasis on writing	69	72	76	80	72	70	74
Greater emphasis on other competencies (communication, reasoning, etc.)	61	58	62	56	60	66	53
Increased course requirements	49	59	59	42	54	48	60
Greater flexibility for adult learners	34	29	10	26	28	34	21
Increased attention to international matters	17	40	47	51	32	26	39
New attention to issues in science and technology	36	33	45	45	37	42	32
Greater attention to career preparation	54	45	13	20	42	39	45
Greater emphasis on mathematical or computer-related skills	84	76	63	71	77	75	78
More multidisciplinary or "theme" courses	18	28	43	47	28	25	31
New attention to values or ethics	15	42	28	43	28	13	45
New approaches to teacher education	17	44	48	37	33	26	40
New ways to enrich the major	31	30	17	17	27	23	32
New attention to:							
the freshman year	37	55	53	39	46	40	54
the senior year	0	15	11	10	12	6	19
scholarship on women	9	12	14	20	12	8	15
American history	2	7	6	7	5	0	10
World civilization	5	19	24	7	13	5	22
Greater emphasis on foreign language proficiency	13	27	37	42	24	23	24
Methods of assessing "value-added"	6	13	11	9	9	8	11
New ways to involve students in:							
research	8	30	33	42	22	13	32
community service	11	26	15	29	18	10	27
internships	28	45	44	49	38	28	49
Methods of specifying desired outcomes for:							
courses in the major	19	17	17	10	18	22	13
writing and other competencies	35	32	40	36	35	41	29
subject matter in general education	26	20	27	30	24	26	23

Source: Campus Trends, 1987, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

TABLE 7—Changes in the Curriculum that are Currently Being Discussed
(Percentages)
(n = 167)

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
New general education requirements	42	55	60	75	49	51	47
Greater emphasis on writing	40	37	53	66	43	47	37
Greater emphasis on other competencies (communication, reasoning, etc.)	44	57	55	75	50	54	45
Increased course requirements	35	49	37	62	39	40	38
Greater flexibility for adult learners	37	34	36	26	36	38	32
Increased attention to international matters	24	38	47	44	31	37	23
New attention to issues in science and technology	20	40	47	55	30	34	25
Greater attention to career preparation	27	31	39	21	29	30	27
Greater emphasis on mathematical or computer-related skills	29	41	49	59	36	39	33
More multidisciplinary or "theme" courses	26	44	41	51	33	33	34
New attention to values or ethics	23	49	51	51	34	29	41
New approaches to teacher education	9	24	44	47	19	22	14
New ways to enrich the major	26	33	45	35	30	28	34
New attention to:							
the freshman year	15	34	29	58	23	24	22
the senior year	0	40	40	11	16	11	23
scholarship on women	11	36	22	32	19	17	21
American history	10	30	18	11	15	10	22
World civilization	12	33	28	19	19	12	28
Greater emphasis on foreign language proficiency	18	41	54	36	29	28	29
Methods of assessing "value-added"	28	47	56	27	36	35	38
New ways to involve students in:							
research	13	33	39	52	23	23	24
community service	15	39	31	33	23	22	25
internships	26	31	31	45	29	31	26
Methods of specifying desired outcomes for:							
courses in the major	39	24	58	19	38	39	35
writing and other competencies	36	40	56	42	40	41	39
subject matter in general education	32	44	59	35	38	40	36

Source: Campus Trends, 1987, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

TABLE 8—Changes in Enrollment (1986–87 vs 1985–86)
*(Percentage of Institutions Reporting a Change)**

	Two-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctorate Universities		All Institutions		All Public		All Independent	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Overall (headcount) enrollment	47	26	43	31	37	24	30	6	43	36	51	23	33	29
Total FTE enrollment	41	27	41	29	30	22	26	8	39	26	44	25	32	26
First-time freshmen	43	32	38	36	40	27	32	25	40	32	48	27	32	37
Enrollment of transfer students	20	15	31	15	30	25	18	21	25	17	27	19	22	15
Enrollment for master's degrees	0	0	35	10	50	18	34	2	42	12	46	12	38	12
Enrollment for doctoral degrees	0	0	0	10	30	9	34	0	27	6	41	6	11	5
Black students	16	13	19	9	25	17	16	18	18	13	21	18	15	7
Hispanic students	14	8	9	8	22	10	22	8	14	9	16	9	12	8
Asian students	13	8	26	4	28	9	45	2	21	7	20	9	22	4
Native American students	12	8	9	2	11	13	20	13	11	8	11	8	11	7
Enrollment in non-credit remedial courses	45	8	16	3	18	10	12	10	32	7	42	5	18	10
Attrition during the first year	8	25	5	33	4	26	0	19	6	27	4	20	9	35
Retention rates to graduation	20	12	21	7	19	2	20	4	20	9	18	4	24	14
Rates of minority student retention	11	2	9	1	12	5	18	3	11	2	14	2	8	3

*Percentage reporting "no change" is not shown.

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

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TABLE 9—Changes in College Finances FY86 to FY87
*(Percentage of Institutions Reporting a Change)**

	Two-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctorate Universities		All Institutions		All Public		All Independent	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Institution's overall budget	63	15	87	7	79	10	80	11	73	12	65	17	83	6
Budget for educational & general expenses	64	14	81	8	79	10	78	9	72	12	65	17	80	6
Budget for institutional student aid	36	9	77	3	67	8	69	5	55	7	36	12	76	1
Income from endowment	33	10	60	4	49	8	75	8	47	8	38	10	57	6
Income from gifts & alumni giving	47	5	72	8	72	5	77	3	61	6	50	5	74	6
Revenues from state and local government	48	15	28	12	48	17	52	16	43	15	55	18	25	10
Total federal student aid (excluding GSL)	28	13	27	15	35	23	31	15	29	15	30	14	28	17
Share of costs that students and parents pay	42	8	45	3	47	0	41	6	44	5	49	6	38	4
Institutional indebtedness	14	19	17	45	13	20	28	8	16	26	11	19	20	33

*Percentage reporting "no change" is not shown.

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

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TABLE 10—Changes in the Share of Budget Required by Various Expenses
(Percentage of Institutions Reporting a Change)*

	Two-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctorate Universities		All Institutions		All Public		All Independent	
	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller
Faculty salaries	69	2	68	6	67	10	71	2	68	4	69	5	67	4
Books and periodicals	21	15	32	15	36	19	38	11	27	15	24	16	31	14
Computing equipment and operations	86	3	81	0	77	6	80	3	83	3	83	3	82	3
Instructional & research equipment	30	13	17	13	35	14	43	11	28	13	33	13	22	14
Construction of new facilities	28	23	32	15	36	13	40	17	31	19	24	21	40	16
Renovation & repair of existing facilities	38	13	49	9	40	10	36	13	41	11	37	14	46	8
Physical plant operations	33	9	29	20	31	21	17	33	31	15	29	17	33	13
Institutionally-funded student aid	33	12	66	5	47	9	45	10	46	9	26	13	68	6
Academic programs, undergraduate	34	3	42	8	37	7	20	9	36	6	32	6	41	5
Academic programs, graduate	0	0	36	0	29	8	24	4	31	4	26	5	35	3
Student support services	35	5	35	5	31	9	16	16	33	7	26	7	42	6
Admissions & recruitment	53	3	72	0	57	5	44	2	59	2	44	4	75	0
Development	33	9	52	7	51	8	54	2	43	8	33	9	54	6

*Percentage reporting "no change" is not shown.

Source: Campus Trends, 1987. American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 11—College Actions on College Tuition
(Percentages)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
The institution offers:							
Merit (no-need) scholarships.	72	89	86	76	79	77	81
Long-term, below-market loans for parents or students.	10	25	29	31	19	14	25
Students and parents are allowed to:							
Prepay several years' tuition at a fixed price.	10	6	11	21	10	3	17
Pay tuition in installments over a year's time.	40	74	48	61	52	29	80
Expected tuition increase for fall 1987:							
10 percent or higher	10	11	15	18	12	13	10
8-9 percent	10	27	15	12	15	7	25
6-7 percent	16	35	27	43	25	12	40
4-5 percent	22	19	20	15	20	22	19
3 percent or less	42	8	23	12	28	46	6
Expected tuition increase for fall 1988:							
10 percent or higher	5	6	6	5	5	6	5
8-9 percent	12	10	14	11	12	6	19
6-7 percent	15	49	34	41	29	16	44
4-5 percent	22	19	20	27	21	21	21
3 percent or less	47	15	26	16	33	52	11
Important factors in tuition decisions:							
Reduced state/local funding	37	39	39	42	38	51	23
Costs for computer facilities & services	37	38	45	48	39	30	50
State mandates about tuition levels and/or share of costs to be paid by students	60*	67*	73*	69*	64*	64	0
Need to pay for construction/ renovation	29	31	33	33	31	15	48
"Catch-up" increases in faculty salaries	49	71	46	59	55	33	81
Expanded student aid program	28	61	45	42	41	14	71
Need to support new or expanding academic programs	40	51	39	36	43	30	58
Fixed costs allocated across fewer students	43	41	25	9	37	30	46

*Public institutions only.

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 12—Patterns of Faculty Hiring
(Percentage of Institutions)**

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
Full-time faculty were hired in:							
Tenure-track positions	53	83	97	98	72	78	64
Term or contract positions	78	73	93	92	80	83	77
Number of full-time faculty, 1986-87 versus 1985-86:							
Net gain	34	55	45	52	42	40	46
No net change	43	32	30	37	38	33	43
Net loss	23	14	24	11	20	28	11
Number of part-time faculty, 1986-87 versus 1985-86:							
Net gain	45	44	46	33	44	43	46
No net change	34	41	33	47	37	37	37
Net loss	21	15	21	20	19	21	18
Do you have procedures to retrain faculty for changing program needs?	51	39	43	33	47	55	37
Do you have retrenchment procedures underway (to cut back on the number of faculty)?	25	17	20	21	22	29	13
Do you reward outstanding teaching through:							
annual awards?	38	45	71	93	48	49	48
salary increases?	40	50	72	92	51	47	57
Do you offer incentives for early retirement of faculty?	35	37	61	74	42	50	33
Has the quality of applicants for (full-time) faculty positions declined in the past year?	17	13	7	2	13	18	8
Have you had greater difficulty in getting top applicants to accept faculty positions in the past year?	21	29	30	26	25	32	17

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

TABLE 13—Administrator Views on Institutional Status
(Percentage rating own institution as excellent/very good)

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
General level of preparation of entering students	8	29	41	54	22	16	29
Job prospects for degree recipients	49	57	66	65	55	48	64
Ability to attract and hold good faculty	62	56	59	56	60	53	67
Adequacy of faculty compensation	34	22	37	38	32	39	23
Overall financial condition of the institution	36	43	49	38	40	36	44
Ability to attract good students	13	35	40	58	26	19	34
Ability to attract minority students	20	18	18	22	19	20	19

Source: Campus Trends, 1987, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

TABLE 14—Institutional Policies and Practices
(Percentage of Institutions)

	Two-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctorate Universities	All Institutions	All Public	All Independent
This institution has:							
A formal policy on drug use/abuse	65	79	84	78	73	66	80
A formal policy on alcohol use/abuse	70	88	91	84	79	72	88
A formal policy on AIDS	8	18	40	55	19	19	19
Guidelines for treatment of hazardous waste	55	36	82	93	56	69	41
Special program(s) to increase student retention	91	84	81	84	87	89	85
Special program(s) to increase minority student retention	61	42	77	95	60	68	52
Analyses of projected enrollment over the next few years	70	85	86	93	78	75	83
A commission or committee on the:							
status of women	20	25	40	68	28	34	21
status of minorities	22	19	49	74	28	35	21

Source: Campus Trends, 1987, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

**TABLE 15—Competition between Public and Independent Institutions
(Percentage of Institutions Reporting a Change)***

	Two-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctorate Universities		All Institutions		All Public		All Independent	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
High ability students	52	1	66	1	41	2	43	0	54	1	50	1	58	1
Support from state tax funds	51	11	41	1	26	4	30	2	43	6	41	10	45	1
Support from corporations and foundations	54	2	59	0	46	3	49	0	4	1	50	1	59	2

*Percentage reporting "no change" is not shown

Source: *Campus Trends, 1987*, American Council on Education.

Weighted survey data (82 percent response) received from 372 institutions (136 two-year colleges, 70 baccalaureate colleges, 104 comprehensive universities, and 62 doctoral universities).

APPENDIX A: SURVEY QUESTIONNAIRE

AMERICAN COUNCIL ON EDUCATION

Higher Education Panel

February 23, 1987

Dear Higher Education Panel Representative:

Attached is Higher Education Panel Survey No. 75 sponsored by the American Council on Education and supported in part by a grant from the Lilly Endowment. This is the fourth in a series of annual surveys designed to obtain general information on campus trends.

This questionnaire asks questions about curricular changes and institutional practices, and seeks opinions on several academic issues. It should be completed by the academic vice president, if at all possible.

Please understand that your institution's responses will be held in strict confidence. As with all of our surveys, the data you provide will be reported in summary fashion only and will not be identified with your institution.

Please return the completed questionnaire by March 27, 1987. A preaddressed envelope is enclosed for your convenience. If you have any questions or problems, please do not hesitate to telephone us collect at (202) 939-9445.

Sincerely yours,

Elaine El-Khawas

Elaine El-Khawas
Vice President for
Policy Analysis and Research

CAMPUS TRENDS, 1987

This questionnaire asks a series of general questions and seeks your opinions about policies and practices at your institution. All questions refer to 1986-87.

Please circle an answer for each question. If not applicable, please write in N/A.

I. ENROLLMENT AND FINANCES

A. How did your institution's enrollment change for 1986-87 compared to 1985-86:

	Increase (2% or more)	No Change	Decrease (2% or more)
Overall (headcount) enrollment	3	2	1
Total FTE enrollment	3	2	1
First-time freshmen	3	2	1
Enrollment of transfer students	3	2	1
Enrollment for master's degrees	3	2	1
Enrollment for doctoral degrees	3	2	1
Black students	3	2	1
Hispanic students	3	2	1
Asian students	3	2	1
Native American students	3	2	1
Enrollment in non-credit remedial courses	3	2	1
Attrition during the first year	3	2	1
Retention rates to graduation	3	2	1
Rates of minority student retention	3	2	1

B. How did your institution's finances change for 1986-87 compared to 1985-86:

	Increase (2% or more)	No Change	Decrease (2% or more)
Institution's overall budget	3	2	1
Budget for educational & general expenses	3	2	1
Budget for institutional student aid	3	2	1
Income from endowment	3	2	1
Income from gifts & alumni giving	3	2	1
Revenues from state and local government	3	2	1
Total federal student aid (excluding GSL)	3	2	1
Share of costs that students and parents pay	3	2	1
Institutional indebtedness	3	2	1

C. Which of the following have taken a larger or a smaller share of the annual budget over the last few years?

	Larger Share	No Change	Smaller Share
Faculty salaries	3	2	1
Books and periodicals	3	2	1
Computing equipment and operations	3	2	1
Instructional & research equipment	3	2	1
Construction of new facilities	3	2	1
Renovation & repair of existing facilities	3	2	1
Physical plant operations	3	2	1
Institutionally-funded student aid	3	2	1
Academic programs, undergraduate	3	2	1
Academic programs, graduate	3	2	1
Student support services	3	2	1
Admissions & recruitment	3	2	1
Development	3	2	1

D. Does your institution offer:

	Yes	No
Merit (no-need) scholarships	2	1
Long-term, below-market loans for parents or students	2	1

E. Do you allow students and parents to:

	Yes	No
Prepay several years' tuition at a fixed price.	2	1
Pay tuition in installments over a year's time.	2	1

F. What is your best guess about your college's level of tuition increase for fall 1987 and 1988? (Circle one in each column.)

	1987	1988
10 percent or higher	5	5
8-9 percent	4	4
6-7 percent	3	3
4-5 percent	2	2
3 percent or less	1	1

G. Which of the following are important factors in recent decisions about your institution's tuition levels?

	Yes	No
Reduced state/local funding	2	1
Costs for computer facilities & services	2	1
State mandates about tuition levels and/or share of costs to be paid by students	2	1
Need to pay for construction/renovation	2	1
"Catch-up" increases in faculty salaries	2	1
Expanded student aid program	2	1
Need to support new or expanding academic programs	2	1
Fixed costs allocated across fewer students	2	1

II. FACULTY

A. Were any full-time faculty hired for academic year 1986-87 in:

	Yes	No
Tenure-track positions	2	1
Term or contract positions	2	1

B. Compared to a year earlier, did your institution have any net change in the number of:

	Net Gain	No Net Change	Net Loss
Full-time faculty	3	2	1
Part-time faculty	3	2	1

C. Do you have procedures to retrain faculty for changing program needs?

Yes	No
2	1

D. Do you have retrenchment procedures underway (to cut back on the number of faculty)?

Yes	No
2	1

E. Do you reward outstanding teaching through:

Yes	No
2	1

annual awards?

Yes	No
2	1

salary increases?

Yes	No
2	1

F. Do you offer incentives for early retirement of faculty?

Yes	No
2	1

G. Has the quality of applicants for (full-time) faculty positions declined in the past year?

Yes	No
2	1

H. Have you had greater difficulty in getting top applicants to accept faculty positions in the past year?

Yes	No
2	1

III. INSTITUTIONAL STATUS

A. Please rate your institution on each of the following:

	Excellent	Very Good	Good	Fair	Poor
General level of preparation of entering students	5	4	3	2	1
Job prospects for degree recipients	5	4	3	2	1
Ability to attract and hold good faculty	5	4	3	2	1
Adequacy of faculty compensation	5	4	3	2	1
Overall financial condition of the institution	5	4	3	2	1
Ability to attract good students	5	4	3	2	1
Ability to attract minority students	5	4	3	2	1

B. During the past year, has there been a change in the extent of competition between public and independent institutions in your state for:

	Increased	No Change	Decreased
High ability students	3	2	1
Support from state tax funds	3	2	1
Support from corporations and foundations	3	2	1

C. Does your institution have:

	Yes	No
A formal policy on drug use/abuse	2	1
A formal policy on alcohol use/abuse	2	1
A formal policy on AIDS	2	1
Guidelines for treatment of hazardous waste	2	1
Special program(s) to increase student retention	2	1
Special program(s) to increase minority student retention	2	1
Analyses of projected enrollment over the next few years	2	1
A commission or committee on the:		
status of women	2	1
status of minorities	2	1

IV. STUDENT ASSESSMENT

A. New methods of assessing student learning (other than traditional end-of-course grading) are being discussed currently. Which of the following is true of your institution's status on assessment of student learning:

	Yes	No
Most faculty would support the development of assessment procedures.	2	1
Some form of assessment is likely to be introduced in the next few years.	2	1
Our state is requiring assessment procedures.	2	1
There is no clear sense of what to assess.	2	1
There are no good instruments suited to our programs	2	1
Discussions are taking place on:		
whether to develop assessment procedures.	2	1
whether assessment should focus on programs or on students	2	1
what outcomes should be assessed.	2	1
what assessment methods might be used.	2	1
how to tie assessment to program evaluation.	2	1
how to tie assessment to instruction.	2	1
Methods to assess student outcomes are being developed for:		
individual courses	2	1
major fields of study	2	1
general education knowledge	2	1
general academic competencies	2	1
the entire curriculum	2	1

B. Which of the following are *now used* at your institution to assess students:

	For All Students	For Some Students	Not Used
Tests of basic college-level skills (e.g., minimum competency or "rising junior" tests)	3	2	1
Knowledge testing on general education subjects	3	2	1
Comprehensive exams in a major	3	2	1
Other demonstrated proficiency in a major (projects; thesis; performance)	3	2	1
Attainment of higher-order skills in:			
critical thinking	3	2	1
quantitative problem-solving	3	2	1
oral communication	3	2	1
writing	3	2	1
"Value-added" measures of student gains while in college	3	2	1
Standardized test scores of graduates in professional programs	3	2	1
Percent of students going on for further education	3	2	1
Job placement rates of graduates (by field)	3	2	1
Quality of graduates' performance on the job	3	2	1
Ratings of the institution by graduates	3	2	1
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	3	2	1
Changes in student values and attitudes	3	2	1
Pre- and post-tests for:			
remedial courses	3	2	1
general education outcomes	3	2	1
knowledge in a major	3	2	1

C. Please indicate your own views on each of the following:

	Agree	Disagree	Uncertain
Use of nationally standardized tests for purposes of student assessment risks distorting the educational process.	3	2	1
Student assessment should be closely tied to efforts to improve instruction.	3	2	1
Student assessment should include substantial feedback to students.	3	2	1
Student assessment should be linked to institutional planning and budgeting.	3	2	1
All colleges and universities should develop and publish evidence of their institutional effectiveness.	3	2	1
As a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.	3	2	1
States should require colleges to show evidence of institutional effectiveness.	3	2	1
Most campus officials have strong fears about misuse of effectiveness measures by external agencies.	3	2	1
Accrediting agencies are exerting too much pressure for assessment of student learning.	3	2	1

V. CURRICULUM

A. Do you have requirements that students complete coursework in general education?

- 3 Yes, for all students
2 Yes, for some students
1 No

B. Is a review of curriculum underway or has one recently been completed?

- 3 Yes, completed within the last few years
2 Yes, currently underway
1 No

If yes, what changes in curriculum have been made?

What changes are being discussed?

(Please circle all that apply in each column.)

	Changes Made	Being Discussed
New general education requirements	1	1
Greater emphasis on writing	1	1
Greater emphasis on other competencies (communication, reasoning, etc.)	1	1
Increased course requirements	1	1
Greater flexibility for adult learners	1	1
Increased attention to international matters	1	1
New attention to issues in science and technology	1	1
Greater attention to career preparation	1	1
Greater emphasis on mathematical or computer-related skills	1	1
More multidisciplinary or "theme" courses	1	1
New attention to values or ethics	1	1
New approaches to teacher education	1	1
New ways to enrich the major	1	1
New attention to:		
the freshman year	1	1
the senior year	1	1
scholarship on women	1	1
American history	1	1
World civilization	1	1
Greater emphasis on foreign language proficiency	1	1
Methods of assessing "value-added"	1	1
New ways to involve students in:		
research	1	1
community service	1	1
internships	1	1
Methods of specifying desired outcomes for:		
courses in the major	1	1
writing and other competencies	1	1
subject matter in general education	1	1

VI. EVALUATION

A. With support from the Lilly Endowment, the Campus Trends project has completed three years of operation (1984, 1985, 1986). To what extent are you familiar with the Campus Trends reports?

	Yes	No
I have read all the reports.	2	1
I have read at least one of the reports.	2	1
I have read summaries of or seen references to the reports (e.g., <i>Chronicle</i>).	2	1
I have seen none of the reports or summaries.	2	1

B. Please indicate your own views on each of the following statements.

	Agree	Disagree	Uncertain
The Campus Trends reports:			
offer a basic reference point for trends in higher education.	3	2	1
are an effective way to monitor changing policies and practices on the nation's campuses.	3	2	1
are an effective way to determine the relative magnitude of a problem.	3	2	1
are an effective way to determine what types of institutions are most affected by certain changes.	3	2	1
have provided your campus with useful data for planning.	3	2	1
have been a source of new program ideas for your campus.	3	2	1
have provided an early "alert" about problems which might emerge on your campus.	3	2	1
have broadened the perspective of faculty members on your campus.	3	2	1
should be continued for the foreseeable future.	3	2	1

In the space below, please suggest ways in which the quality of information obtained from the Campus Trends project could be improved.

Thank you for your cooperation.

Please return this form by **March 27, 1987**, to:

Higher Education Panel
American Council on Education
One Dupont Circle, N.W.
Washington D.C. 20036

Please keep a copy of this survey for your records.

Name of Respondent _____

Title _____

Department _____

Telephone () _____

If you have any questions concerning this survey, please call the HEP staff collect at (202) 939-9445.

APPENDIX B: TECHNICAL NOTES

This survey was conducted through the Higher Education Panel, which forms the basis of an ongoing survey research program created in 1971 by the American Council on Education. Its purpose is to conduct specialized surveys on topics of current policy interest to the higher education community.

The Panel is a disproportionate stratified sample of 1,040 colleges and universities, divided into two half-samples of 520 institutions each. The sample was drawn from the more than 3,200 colleges and universities listed in the *Education Directory, Colleges and Universities* issued by the U.S. Department of Education. The Panel's stratification design is based primarily upon institution type, control, and size. For any given survey, either the entire Panel, a half-sample or an appropriate subgroup is used.

The survey operates through a network of campus representatives who, through their presidents, have agreed to participate. The representatives receive the Panel questionnaires and direct them to the most appropriate campus official for response.

The sample for this study consisted of 456 institutions in one of the half-samples, excluding specialized institutions (e.g., rabbinical seminaries and schools of art) and those institutions that offer no undergraduate instruction. The half-sample used for this survey has also been used in all previous Campus Trends surveys.

The questionnaire (see Appendix A) was mailed on February 23, 1987 with the request that it be completed by the academic vice-president. The questionnaire is designed to provide timely information on a broad range of subjects, and does not cover any subject in depth. The survey questions, similarly, are designed to facilitate quick turnaround, i.e., comprising items where respondents can readily provide answers without stopping to look up information.

After mail and telephone followups, 372 responses were received by mid-June (82 percent of those surveyed). Actual respondents included: provosts, deans, or academic vice presidents, 54 percent; associate deans or provosts, 8 percent; presidents, 12 percent; and other, 25 percent.

Data from responding institutions were statistically adjusted to represent 2,618 colleges and universities. The stratification design is shown in Table B-1. The weighting technique, used with all Panel surveys, adjusts the data for institutional nonresponse within each stratification cell. Institutional weights are applied to bring the Panel data up to estimates that are representative of the national population of colleges and universities.

TABLE B-1—Stratification Design

Cell	Type of Institution	Enrollment	Population	Respondents
	Total		2,618	372
1	Large public doctorate-granting	a	104	43
2	Large private doctorate-granting	a	58	19
3	Large public comprehensive	a	92	40
4	Large independent comprehensive	a	26	8
7	Large public two-year	a	43	17
8	Public comprehensive	5,500–8,999	56	16
9	Public comprehensive	<5,500	108	19
10	Independent comprehensive	<9,000	126	21
11	Public baccalaureate	<9,000	127	19
12	Independent baccalaureate	1,350–8,999	166	25
13	Independent baccalaureate	<1,350	446	26
17	Public 2-year academic/comprehensive	6,000–8,999	55	17
18	Public 2-year academic/comprehensive	4,000–5,999	72	17
19	Public 2-year academic/comprehensive	2,000–3,999	155	20
20	Public 2-year academic/comprehensive	<2,000	332	18
21	Independent 2-year academic/comprehensive	<9,000	129	11
22	Public two-year occupational	2,500–8,999	63	13
23	Public two-year occupational	<2,500	221	14
24	Independent two-year occupational	<9,000	239	9

*Institutions that meet one or more of the three following criteria. (a) total full-time equivalent (FTE) 1981 enrollment greater than 8,999. (b) FTE 1981 graduate enrollment greater than 749; (c) FY 1979 educational and general expenditures of \$35 million or more.

Table B-2 compares survey respondents and non-respondents on several variables. Response rates were at least 65 percent for all types of institutions. Higher-than average response rates were recorded for public comprehensive universities and for public baccalaureate institutions. Response rates for independent colleges were lower than average; the lowest rate of response was for independent doctoral universities, at 65.5 percent.

Data are reported for institutional categories developed by the U.S. Department of Education. It should be noted that comprehensive and doctoral institutions are shown separately in this report; in previous reports, their combined results were shown under a single designation of "university."

**TABLE B-2—Comparison of Respondents and Nonrespondents
(In percentages)**

Control and Type of Institution	Respondents (N = 372)	Nonrespondents (N = 84)	Response Rate
Total	100.0	100.0	81.6
Control			
Public	68.0	59.5	83.5
Independent	32.0	40.5	77.8
Type and Control			
Public Doctoral University	11.6	10.7	82.7
Independent Doctoral University	5.1	11.9	65.5
Public Comprehensive University	20.2	13.1	87.2
Independent Comprehensive University	7.8	8.3	80.6
Public Baccalaureate	5.1	3.6	86.4
Independent Baccalaureate	13.7	15.5	79.7
Public Two-Year	31.2	32.1	81.1
Independent Two-Year	5.4	4.7	83.3
Enrollment Size (FTE)			
Less than 1,000	15.6	29.8	69.9
1,000 to 4,999	40.9	33.3	84.4
5,000 to 9,999	23.1	16.7	86.0
10,000 + above	20.4	20.2	81.7

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Campus Trends, 1987 is the fourth in a series of surveys intended to provide timely information on changing policies and practices of American colleges and universities. The surveys are conducted by the American Council on Education, with support from the Lilly Endowment.

This year's report documents growing campus attention to student assessment as well as a widespread process of curriculum change, especially to strengthen general education and to emphasize writing, mathematics and other general competencies expected of college students. The report also describes changes in enrollment, in campus finances, and in faculty hiring practices. All results are reported by type and control of institution.

Highlights from the survey are as follows:

Assessment of Student Learning

- Most administrators (79 percent) expect that some form of assessment will be introduced in the next few years.
- Three out of four colleges have discussions taking place on assessment.
- 27 percent report that their state is requiring assessment procedures.
- Close to half of the colleges believe that "there is no clear sense of what to assess" and that "there are no good instruments suited to our programs."
- Seventy-two percent agree that "most campus officials have strong fears about misuse of effectiveness measures by external agencies."
- Fully 95 percent of administrators support assessment that is closely tied to efforts to improve instruction.
- Seven in ten administrators believe that assessment should be linked to institutional planning and budgeting.
- Seven in ten administrators believe that, as a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.

Information Currently Gathered

- One in three colleges currently assess the "higher-order" writing skills of all of their students.
- One in three colleges get ratings of the institution from all of their graduates.
- Eight in ten gather information on job placement rates of all or some of their graduates.
- Seven in ten have information (for some or all students) on the percentage of students going on for further education.
- Six in ten receive ratings of the institution from some or all of their graduates.

Curriculum Change

- Almost all colleges (95 percent) have recently made changes in the curriculum or are currently doing so.

- Forty-two percent of colleges had a curriculum review underway in 1987.
- Among the colleges and universities that have completed a curriculum review, three out of four have introduced new requirements in general education.
- Seventy-eight percent of these colleges have given greater attention to mathematical or computer-related skills.
- Seventy-four percent of the college that completed a curriculum review have placed greater emphasis on writing. Fifty-three percent have introduced changes focused on other competencies (communication, reading, etc.).
- About 4 in 10 institutions have given new attention to enhancing the freshman-year experience of students.

Enrollment Changes

- Thirty-nine percent of the nation's colleges and universities reported an increase in full-time equivalent (FTE) enrollment.
- Decreases in overall enrollment and in FTE enrollment occurred for 26 percent of institutions.
- Enrollment of first-time freshmen showed a mixed picture: 40 percent of institutions reported gains in first-time freshmen, but another 32 percent reported losses in first-time freshmen.
- Enrollment for master's-level study increased for 42 percent of four-year institutions.
- Doctoral students increased at one-third of universities.
- About 1 in 5 colleges reported increased enrollment of black students; 13 percent reported decreased black enrollment.
- Only 14 percent of colleges reported an increase in Hispanic students. Decreased enrollment of Hispanic students was reported by 9 percent of institutions.
- Twenty-one percent of institutions reported a gain in Asian students, with 7 percent reporting a loss.

- Enrollment of Native American students increased at 11 percent of institutions, but decreased at 8 percent of institutions.

Student Retention

- Today, almost all colleges and universities have special programs designed to increase student retention.
- Twenty percent reported gains in rates of student retention through to graduation; 11 percent reported gains in minority student retention.
- Twenty-seven percent reported that progress was made in reducing student attrition during the first year of college.
- Six in 10 institutions have special programs to increase minority student retention.

Financial Status

- The overall budget, and the budget for educational and general expenses, increased for most institutions. However, 12 percent of colleges reported a decrease.
- One in 5 public institutions reported a decline in revenues from state and local government.
- One in four institutions reported a decline in their overall indebtedness; 16 percent experienced an increased debt level.
- Six in ten institutions reported gains in alumni giving and/or gifts. This included 3 out of 4 independent institutions and one-half of the public institutions.
- Four in ten colleges, including half in the public sector, reported that the share of costs that must be paid by students and their parents had increased in the last few years.
- Only 40 percent of administrators rate their college's overall financial condition as excellent or very good.
- Only 3 in 10 administrators rate their levels of faculty compensation as excellent or very good.

Changes in Expenditures

- More than 8 in 10 institutions reported that expenditures for computing equipment and operations required a larger share of their budget.
- About 7 in 10 institutions reported that faculty salaries were taking an increased share of the budget.
- Institutionally-funded student aid required an increased share of the budget at 7 in 10 independent institutions and at 1 in 4 public institutions.
- Renovation and repair of existing facilities called for a larger share of the budget at 4 in 10 institutions.
- Construction of new facilities required a larger share of the budget for 3 in 10 institutions.

Tuition Costs

- The median category of likely change for 1987-88 was 6 to 7 percent. However, for 1988-89, the median increase was 4 to 5 percent.
- Eight in 10 independent institutions and 3 in 10 public institutions now allow tuition to be paid in installments over a year's time.
- Among factors in setting tuition:
 - "Catch-up" increases in faculty salaries were mentioned by 55 percent of all colleges.
 - New or expanding academic programs were mentioned by 43 percent of institutions.
 - Expanded student aid was mentioned by 4 in 10 institutions.
 - State mandates about tuition levels or the share of costs to be paid by students were cited by two-thirds of public institutions.
 - Reduced state or local funding was mentioned by 4 in 10 institutions (and by 51 percent of public institutions).

Practices Affecting Faculty

- Most colleges and universities made new faculty appointments during 1986-87.
- Forty-two percent reported net gains in the number of their full-time faculty.
- Twenty-five percent of institutions reported greater difficulty in the past year in getting top applicants to accept faculty positions.
- Thirteen percent of institutions reported that the quality of applicants for full-time faculty positions had declined in the past year.
- Twenty-two percent have retrenchment procedures underway.
- Procedures to retrain faculty were reported by close to half of institutions.
- About 4 in 10 institutions offer incentives for early retirement of faculty.
- Annual awards for outstanding teaching were offered by 48 percent of institutions.

Other Trends

- 3 in 10 institutions reported having a commission or committee on the status of minorities.
- More than half reported that competition between the public and independent sector had increased in seeking support from corporations and foundations.
- About 4 in 10 institutions reported that competition between the sectors had increased over financial support from state tax funds.
- More than half of the colleges reported increased competition between public and independent sectors for high-ability students.

Campus Trends 1987 is available by ordering from: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle N.W., Washington, D.C. 20036. Copies are \$5 for ACE members, \$8 for nonmembers (Prepaid orders only).

Other Reports of the Higher Education Panel American Council on Education

- Gomberg, Irene L. and Atelsek, Frank J. **The Institutional Share of Undergraduate Financial Assistance, 1976-77.** Higher Education Panel Report, No. 42, May, 1979
- Atelsek, Frank J. and Gomberg, Irene L. **Young Doctoral Faculty in Science and Engineering: Trends in Composition and Research Activity.** Higher Education Panel Report, No. 43, February, 1979.
- Atelsek, Frank J. and Gomberg, Irene L. **Shared Use of Scientific Equipment at Colleges and Universities, Fall 1978.** Higher Education Panel Report, No. 44, November, 1979.
- Gomberg, Irene L. and Atelsek, Frank J. **Newly Qualified Elementary and Secondary School Teachers, 1977-78 and 1978-79.** Higher Education Panel Report, No. 45, February, 1980.
- Atelsek, Frank J. and Gomberg, Irene L. **Refund Policies and Practices of Colleges and Universities.** Higher Education Panel Report, No. 46, February, 1980.
- Gomberg, Irene L. and Atelsek, Frank J. **Expenditures for Scientific Research Equipment at Ph.D.-Granting Institutions, FY 1978.** Higher Education Panel Report, No. 47, March, 1980.
- Atelsek, Frank J. and Gomberg, Irene L. **Tenure Practices at Four-Year Colleges and Universities.** Higher Education Panel Report, No. 48, July, 1980.
- Gomberg, Irene L. and Atelsek, Frank J. **Trends in Financial Indicators of Colleges and Universities.** Higher Education Panel Report, No. 49, April, 1981.
- Atelsek, Frank J. and Gomberg, Irene L. **An Analysis of Travel by Academic Scientists and Engineers to International Scientific Meetings in 1979-80.** Higher Education Panel Report, No. 50, February, 1981.
- Atelsek, Frank J. and Gomberg, Irene L. **Selected Characteristics of Full-Time Humanities Faculty, Fall 1979.** Higher Education Panel Report, No. 51, August, 1981
- Atelsek, Frank J. and Gomberg, Irene L. **Recruitment and Retention of Full-Time Engineering Faculty, Fall 1980.** Higher Education Panel Report, No. 52, October, 1981.
- Andersen, Charles J. and Atelsek, Frank J. **Sabbatical and Research Leaves in Colleges and Universities.** Higher Education Panel Report, No. 53, February, 1982.
- Atelsek, Frank J. and Andersen, Charles J. **Undergraduate Student Credit Hours in Science, Engineering, and the Humanities, Fall 1980.** Higher Education Panel Report, No. 54, June, 1982.
- Andersen, Charles J. and Atelsek, Frank J. **An Assessment of College Student Housing and Physical Plant.** Higher Education Panel Report, No. 55, October, 1982.
- Gomberg, Irene L. and Atelsek, Frank J. **Financial Support for the Humanities: A Special Methodological Report.** Higher Education Panel Report, No. 56, January, 1983.
- Gomberg, Irene L. and Atelsek, Frank J. **Neuroscience Personnel and Training.** Higher Education Panel Report, No. 57, June, 1983.
- Atelsek, Frank J. **Student Quality in the Sciences and Engineering: Opinions of Senior Academic Officials.** Higher Education Panel Report, No. 58, February, 1984.
- Andersen, Charles J. **Student Quality in the Humanities: Opinions of Senior Academic Officials.** Higher Education Panel Report, No. 59, February, 1984.
- Andersen, Charles J. **Financial Aid For Full-Time Undergraduates.** Higher Education Panel Report, No. 60, April, 1984.
- Gomberg, Irene L. and Atelsek, Frank J. **Full-time Humanities Faculty, Fall 1982.** Higher Education Panel Report, No. 61, August 1984
- Andersen, Charles J. **Plant Biology Personnel and Training at Doctorate-granting Institutions.** Higher Education Panel Report, No. 62, November, 1984.
- Andersen, Charles J. **Conditions Affecting College and University Financial Strength.** Higher Education Panel Report No. 63, October 1985.
- Holmstrom, Engin Inel and Petrovich, Janice. **Engineering Programs in Emerging Areas, 1983-84.** Higher Education Panel Report No. 64, November 1985
- El-Khawas, Elaine. **Campus Trends, 1984.** Higher Education Panel Report No. 65, February, 1985.
- Suntewick, Nancy and El-Khawas, Elaine. **General Education Requirements in the Humanities.** Higher Education Panel Report No. 66, October, 1985.
- Holmstrom, Engin Inel. **Recent Changes in Teacher Education Programs.** Higher Education Panel Report No. 67, November 1985
- Andersen, Charles J. **Student Financial Aid to Full-time Undergraduates, Fall 1984.** Higher Education Panel Report No. 68, January 1986
- Holmstrom, Engin Inel. **Access to Supercomputers.** Higher Education Panel Report No. 69, January 1986
- Composition of Governing Boards, 1985.** Higher Education Panel Report No. 70, January 1986
- El-Khawas, Elaine. **Campus Trends, 1985.** Higher Education Panel Report No. 71, February 1986
- Hexter, Holly and Andersen, Charles J. **Admission and Credit Policies for Adult Learners.** Higher Education Panel Report No. 72, December 1986.
- El-Khawas, Elaine. **Campus Trends, 1986.** Higher Education Panel Report No. 73, August 1986.
- Andersen, Charles J. **Survey of Accreditation Issues, 1986.** Higher Education Panel Report No. 74, April 1987