The information that is currently collected on the nation's postsecondary institutions focuses primarily on quantity, addressing the need for descriptive information on students, faculty, and finances. This type of research, though necessary, is not sufficient for an understanding of the broader accountability issues emerging in the 1980's. Available data, when they do provide indices of student flow and outcomes, may grossly underestimate the institutional effectiveness of community, technical, and junior colleges. Many community colleges are attempting to gain a better understanding of their students by assessing: student educational objectives; the causes of student attrition and the extent to which it signifies student failure; and occupational and transfer outcomes. Sample research efforts in these four areas are briefly described in this review, including: (1) studies to determine student goals and intentions conducted at Glendale Community College (Glendale, Arizona) and Vista College (Berkeley, California); (2) follow-up studies of college dropouts conducted in the Los Rios Community College District (Sacramento, California) and at Butler County Community College (Butler, Pennsylvania) designed to disaggregate those who attained their goals from those who did not; (3) vocational follow-up research conducted at William Rainey Harper College (Palatine, Illinois) to determine vocational students' job attainment and the economic "rate of return" on vocational studies; and (4) transfer outcome assessments conducted in the San Mateo County Community College District (San Mateo, California) and at Piedmont Virginia Community College (Charlottesville, Virginia). (EJ)
Assessing Institutional Effectiveness:
Community College Case Studies

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Data collected on the nation’s postsecondary institutions focus primarily on quantity, addressing the need for descriptive information on students, faculty, and finances. There are good reasons for this. Accurate data on the number of colleges established, the number of students enrolled, the number of faculty and staff employed, expenditures per student, and other indicators of magnitude are requisite to fiscal accountability. Such data also provide benchmark measures of the growth of higher education after the Second World War.

But data collection efforts focusing on simple description, though necessary, are not sufficient for understanding the broader accountability issues emerging in the 1980s. College leaders are increasingly called upon to verify institutional effectiveness, particularly in the areas of student learning and goal attainment. Information related to student flow and outcomes must be added to data on how many students are enrolled or how much is spent on instruction. Are students adequately prepared to continue their education, should they decide to do so? What do college graduates learn as a consequence of their undergraduate education? Does the college experience adequately prepare students for the workplace and for career mobility? Such questions — which are essential to telling the community college story — require data that provide longer-term assessments of institutional effects.

Available data, when they do provide indices of student flow and outcomes, may grossly underestimate the institutional effectiveness of community, technical, and junior colleges. For example, degrees awarded are often used as the sole indicator of student outcomes. This reflects a bias toward four-year colleges and universities, where it is assumed that all enrolled students are matriculated into degree programs. At community colleges, on the other hand, experience has shown that many (perhaps most) students intend to fulfill vocational or transfer-related goals without earning a certificate or associate degree. A major challenge faced by community colleges, then, is to develop alternative measures of student progress and outcomes that more adequately reflect the varied educational goals of community college students.

This challenge places a heavy burden on community college institutional research offices. Each research question has its price tag, both in terms of cost and research expertise, and longitudinal questions on student outcomes are more difficult to address than cross-sectional questions on enrollment or the number of degrees awarded. Nonetheless, many community colleges attempt a better understanding of their students by:

- Assessing student educational objectives;
- Assessing student attrition — the causes of attrition and the extent to which attrition signifies student failure;
- Assessing occupational outcomes; and
- Assessing transfer outcomes.

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Sample research efforts in these four areas are described below. They are meant as illustrative (though not necessarily exemplary) case studies, showing how colleges have worked within the parameters of limited research budgets to assess student goals and outcomes.

Assessing Student Educational Objectives

The question of student goals is critical to community college research, because student outcomes are properly gauged in terms of student intentions. For example, transfer rates will be extremely low, probably less than five percent, when calculated as the percent of all community college students who go on to all baccalaureate-granting institutions. But higher transfer rates emerge when they are calculated as a percent of all students who enroll with the intention of preparing for transfer as opposed to preparation for a new job or fulfillment of a personal interest. Similarly, degree attainment rates will differ according to the method of calculation: either as the percent of all enrolled students who obtain associate degrees or as a percent of students who enroll with the intention of earning an associate degree.

Glendale Community College
Glendale, Arizona

Glendale Community College assesses the educational objectives of its students with a simple, eight-item questionnaire. In addition to soliciting information on student gender, age, ethnicity, and need for special assistance, financial or otherwise, the questionnaire asks:

- Do you have work experience in your major field of study?
  - Yes
  - No

- What is your primary educational goal in attending this college?
  - Improvement of existing job skills
  - Preparation for a job to be obtained
  - University transfer credit
  - Personal interest

- How do you expect to accomplish this goal?
  - Selected courses only
  - Certificate — less than one year
  - Certificate — one year
  - Certificate — two years
  - Associate degree
  - Complete apprenticeship requirements
  - Other

- If you are pursuing a formal program of study, what proportion of it do you expect to have completed by the end of this term?
  - All
  - More than half
  - About half
  - Less than half

- Do you plan to enroll in this college in the future?
  - Yes
  - No
When this survey was administered to a sample of 3,352 students in 1985, the college found that a minority of respondents — 27 percent — had enrolled with the primary intention of earning university transfer credit; 51 percent had enrolled to fulfill a job-related goal (either to improve skills for a current job or to prepare for a future one), and an additional 20 percent said that they had enrolled to fulfill a personal interest. Over half, 54 percent, indicated that they had work experience in their major fields of study, and 52 percent indicated that they would fulfill their goals by taking selected classes only without earning a credential.

These findings have important implications for outcomes assessment. For example, the college might expect low overall transfer rates, given the small percentage of students indicating university credit as their primary goal. In addition, the large proportion of students with work experience in their fields of study indicates that vocational outcomes should be assessed in terms of job or career advancement, not simply in terms of the percent of graduates holding jobs. For more information, see the full survey report by Montemayor and others, 1985, cited in accompanying bibliography.

Vista College
Berkeley, California

On a smaller scale, faculty and administrators at Vista College have used a short, seven-item student goals questionnaire to gather information needed to assess the college’s environmental energy technology program. Administered to program students over a five-semester period, the questionnaire asked students if they were currently employed in an energy-related industry and if they intended to complete a degree or certificate. Because the number of students filling out the questionnaire was small — just those enrolled in a specific program — open-ended questions were used as well. For example, one item simply asked, “What is your employment goal in the energy field?”

The student profile emerging from the survey responses showed that only 30 percent of the students were employed in an energy-related occupation. Most were preparing for new jobs in the field, and almost all indicated that they would complete a degree or certificate. The college, which advocates the use of short student goals questionnaires as low-cost tools for improving institutional effectiveness, drew upon the findings to alter the environmental energy program in ways that made it more responsive to student needs. For more information, see the full study report by Freeman and others, 1986, cited in the accompanying bibliography.

Assessing Student Attrition

When is a dropout a failure? Because formal education is often viewed as a linear pipeline leading to a credential, student attrition is viewed negatively in terms of the failure to complete a degree or certificate. But many students do not intend to earn a credential, a point well documented in research on student goals. In light of this problem, attrition studies at community colleges usually take the form of follow-up surveys designed to disaggregate successful from unsuccessful leavers.
Los Rios Community College District
Sacramento, California

In Spring 1984, the Los Rios Community College District surveyed former students, both graduates and nongraduates, who had attended one of the district’s three colleges in Fall 1982 or Spring 1983. The study sought information on the former students’ characteristics, primary educational goals, major programs of study, employment status, and reasons for not re-enrolling. One of the questionnaire items asked:

What was your PRIMARY reason for not re-enrolling at our college this semester?

- Completed associate degree or certificate
- Completed desired courses
- Transferred to another college
- Found or seeking employment
- Job hours conflict with school
- Moved out of area/transportation problem
- College was too expensive
- Availability of courses was inadequate
- Grade problems
- Dissatisfaction with quality of instruction
- Dissatisfaction with content of courses
- Personal/family reasons
- Other

Findings, based on a 51 percent response rate, revealed that most respondents could not be considered failures; their primary reason for not re-enrolling was that they had completed the program or courses they desired. This may be an artifact, however, of the low response rate, a problem that plagues most follow-up studies. Nonrespondents may have included larger proportions of students who left because of grade problems or dissatisfaction with the college experience. For more information, see the full study report by Lee, 1985, cited in the accompanying bibliography.

Butler County Community College
Butler, Pennsylvania

Butler County Community College provides another example of attrition research designed to assess the reasons students have for leaving. BCCC researchers surveyed the 188 full-time students who were enrolled in Fall 1984, Spring 1985, or Fall 1985 but who did not return in the following semester. Among other items, the questionnaire asked (in an open-ended format):

- What was your original reason/goal for enrolling at BCCC?
- Did you complete this goal?
  - Yes
  - No
    - If no, why?

Because BCCC was working with a relatively small group of students and employed telephone follow-ups to reach nonrespondents, 80 percent of the students were contacted. The findings were mixed; while many students met their goals, others did not, citing reasons such as pregnancy or a move to a different location. In these latter cases, attrition was the result of personal problems or life changes, not academic failure. For more information, see the full study report by Olszak-McClaine, 1986, cited in the accompanying bibliography.
Assessing Occupational Outcomes

Vocational programs are often evaluated against two student outcome measures. One measure is the percent of graduates who find employment in areas for which they were trained. Researchers using this measure use follow-up surveys of graduates or program “leavers.” The second measure is the “rate of return” to investment in the vocational program. Studies utilizing this measure analyze estimated lifetime earnings to determine the added income students can expect to enjoy as a result of the investment of tuition and foregone earnings during the training program.

Both measures have considerable limitations. While most surveys of vocational program graduates indicate positive job-related outcomes, these studies rarely determine the extent to which career outcomes can be attributed to vocational studies as opposed to the student's prior employment experience. Also, most surveys are conducted on a one-shot basis too soon after graduation to provide a long-term view of the students' career lives. As for rate-of-return analyses, they are based on questionable estimates of lifetime earnings and do not often consider nonpecuniary benefits that accrue to students. But as the following example shows, some colleges have developed meaningful indicators of vocational outcomes by relying on simple, straightforward methodologies.

**William Rainey Harper College**

Palatine, Illinois

Researchers at William Rainey Harper College have successfully utilized student follow-up surveys to provide indicators of vocational outcomes both in terms of job obtainment and the “rate of return” to vocational studies. In a 1984 follow-up study of former vocational students (both program completers and noncompleters), the college determined that more than half of the students who were employed found their jobs either before coming to WRHC or while they were enrolled. For a number of students, then, job obtainment could not be attributed solely to the successful completion of a vocational program. As for the monetary benefits enjoyed by the students, the college found that those respondents who were employed in fields related to their programs of study earned an average of $1.60 per hour more than those students who were not employed in jobs related to their college programs. This is an admittedly rough but nonetheless valid indicator of the economic benefits accrued to those who take community college vocational classes. For more information, see the study report by Lucas. 1984, cited in the accompanying bibliography.

Assessing Transfer Outcomes

Community college effectiveness is often judged in terms of transfer rates to four-year colleges and the subsequent academic progress made by former community college students at baccalaureate-granting institutions. While many colleges employ follow-up surveys to determine the number of former students who have continued their education and to assess their progress toward the bachelor’s degree, other colleges have successfully relied on data supplied by neighboring four-year colleges and universities.
San Mateo County Community College District
San Mateo, California

In 1984, a study was conducted at the San Mateo County Community College District to assess the district's effectiveness in transfer education. Besides surveying their students to determine the proportion who planned to transfer to four-year colleges and universities, data from other sources were gathered and examined with respect to:

- The flow of district transfers to the University of California (UC) and to the California State University (CSU) system;
- Comparison of the declining number of San Mateo County high school seniors with declines in the number of SMCCCD transfers to UC and CSU;
- Comparison of the ethnicity of district transfers with the ethnicity of district freshmen who are 19 or younger; and
- First-year academic performance of district transfers to UC and CSU.

Thus, the district's study was informed not only by indicators of student flow to four-year colleges, but by an assessment of factors that affect that flow, such as the rise and fall of the pool of available high school graduates. For more information, see the full study report by Young, 1985, cited in the accompanying bibliography.

Piedmont Virginia Community College
Charlottesville, Virginia

At Piedmont Virginia Community College, researchers utilized a value-added approach to assess the college's effectiveness in preparing students for transfer to the University of Virginia. The academic performance of 500 community college transfers was compared with the academic performance of native University of Virginia students. The study found that the transfer students performed comparably with the native students in terms of upper-division grades and graduation rates. But the researchers also compared the two groups in terms of academic ability at the time of freshman matriculation, finding that the transfer students initially came to college with significantly lower SAT scores and high school grades. The conclusion: "Community college transfer students travelled a greater distance on their collegiate journey than did their university counterparts. Somewhere along the way, these students overcame their lower test scores so that they performed well, not only at the community college, but after transferring to the university." For more information, see the study cited below.
Bibliography


Young, F. *Transfer Education: San Mateo County Community College District*. San Mateo, Calif.: San Mateo County Community College District, 1985 (ERIC Document ED 266 813)