

# **ASSESSMENT PLAN: AN OVERVIEW OF EFFORTS TO UNDERSTAND INSTITUTIONAL EFFECTIVENESS AT THE COMMUNITY COLLEGE OF PHILADELPHIA**

## **Introduction**

The purpose of this report is to provide a conceptual overview of the approaches that the College has chosen to use to understand and describe institutional effectiveness. While efforts to understand and report on institutional effectiveness have been coordinated by the Office of Institutional Research, the collection of information and assessment of effectiveness is a College-wide effort. In addition to providing a description of the conceptual base from which the College's approaches to assessment have been developed, this report also summarizes the current strengths and deficiencies that exist with respect to the College's ability to describe and understand its effectiveness. While the primary purpose of this report is not to describe the institutional planning processes, the use of effectiveness data in institutional planning and management decision-making is described briefly.

## **Principles Which Have Guided the College's Effectiveness Assessment Process**

In a variety of institutional research studies over the past 15 years, the Office of Institutional Research has presented and advanced an approach that would be used to guide efforts to examine the College's effectiveness.<sup>1</sup> The following principles have served to guide institutional efforts to understand its effectiveness:

- (1) Effectiveness information will be presented in formats that easily support institutional planning and decision-making efforts. Where appropriate, reports and data have been prepared in a way that supports and informs current strategic

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<sup>1</sup> See Institutional Research Reports #42 (*Institutional Effectiveness Indicators: A Report on Institutional Effectiveness in the Areas of Student Academic Performance, Student Retention, and Student Progress to Goal Achievement (Summer, 1988)*) and #43 (*Institutional Effectiveness: A Three-Year (1985-88) Status Report – September 1988*).

planning priorities and facilitates decision-making with respect to key issues. The College's efforts to understand its effectiveness have been based upon the College's mission goals and current planning priorities.

- (2) Institutional effectiveness must be assessed within the context of student goals for enrolling at the institution. To the extent possible, the College has resisted applying global performance standards such as graduation and multi-year retention rates monolithically across all student cohorts. Effectiveness has been judged, in part, based upon the students' expectations and goals at the time they enrolled at the College, and whether or not these expectations and goals were achieved.
- (3) Where possible and desirable, institutional effectiveness studies have attempted to control for entering student abilities, both to understand and explain the differences in outcomes that are experienced by different student subpopulations, and also to understand the extent to which the College is able to successfully remediate the deficiencies with which students enter the College.
- (4) A commitment has been made to looking at effectiveness at both the institutional and campus level, as well as at the program, department and classroom level. Assessment strategies have been developed to respond to the information and research issues associated with each level within the organization. Assessment efforts at the institutional level have been coordinated with those taking place at the department and program level to ensure that complementary information focused on the most critical issues is collected.
- (5) In describing and assessing institutional effectiveness, both internal and external standards are utilized. The College has used a wide range of benchmarking strategies to develop an understanding of institutional effectiveness relative to peer institutions. At the same time, the use of well-designed longitudinal studies has allowed the College to assess the impact of programmatic and service-delivery changes over time and to easily monitor evolving patterns in institutional

effectiveness with respect to the many different subpopulations served by the College.

- (6) The College has a long history of rich databases to support institutional inquiry into its effectiveness. Wherever possible, the Office of Institutional Research has used existing databases. This has helped to ensure consistency of measurement over time. The Office has made cross-validation of findings a high priority. The reliability and validity of assessment outcomes are reviewed on an on-going basis.
- (7) A broad range of campus constituents has been involved in the process of data collection and interpretation in order to promote ownership of institutional effectiveness data and help to ensure the full use of effectiveness data in institutional decision-making. Through the use of such strategies as creating a Data Quality Task Force, an effort has been made to ensure that there is a College-wide commitment to consistent, accurate information in all key areas needed to assess effectiveness.
- (8) Multiple reporting formats are used to try to ensure broad-based institutional understanding of the effectiveness information and its potential implications for the College. In recent years, accessibility to institutional information has been enhanced through the utilization of on-line resources.
- (9) A continuing effort has been made to anticipate the institution's future information needs. For example, the College maintains an active environmental scan process which is intended to sensitize the College to emerging external issues that will require an institutional response and may alter the standards by which institutional effectiveness is judged.
- (10) The College has been committed to current technology in data collection and delivery. Through the evolving use of computer technologies, the College has been able to improve the efficiency and effectiveness of its limited Institutional

Research staff.

Effectiveness studies have been constructed within recognized theoretical constructs and frameworks. The Office of Institutional Research has encouraged the use of scholarly research from other settings to formulate the hypotheses and methods of inquiries that are employed by the College. The following section provides an overview of the theoretical models and methods that have guided the College's research efforts.

### **Theoretical Framework for Assessment Research**

The models that have shaped assessment research undertaken at the College have their roots in persistence models developed by Tinto, Bean, and Pascarella.<sup>2</sup> While the models were originally developed to understand persistence, they have been useful in understanding dynamics associated with a broad range of educational outcomes including student learning. Since the principle focus of these models is on the interaction between students and the college environment rather than student pre-entry characteristics, they imply that college practices and pedagogical methods can be influenced by educational institutions in directions that lead to improved achievement by students. This focus is congruent with the open access aspect of the community college mission.

Specifically, the theoretical framework that guides much of the assessment research at the College posits that student growth and development results from a longitudinal process of interaction between an individual with certain attributes, abilities, intentions, and commitments

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<sup>2</sup> IR Report # 77 (dated June, 1994), titled *A Review of the Higher Education Literature Related to Student Outcomes*, contains a detailed description of these models.

and other members of the academic and social systems of the college. Positive experiences lead to increased intellectual and social integration, which positively impact intentions and commitments to the learning process and the College. Conversely, negative experiences within the College lead to disengagement from the intellectual and social life resulting in reduced commitment to the learning process and the College.

This approach to assessment accommodates the College's diverse mission. This diversity is reflected in the College's heterogeneous student body, which is characterized by a wide range of educational and career objectives, educational backgrounds, college-readiness and personal backgrounds. In addition to contributing to a heterogeneous student body, the broad mission has resulted in an equally broad range of educational experiences carefully planned to respond to students' needs.

Assessing educational quality against this complex backdrop runs a risk of producing invalid conclusions if student pre-entry characteristics and educational experiences are not incorporated into assessments of student academic achievement. As a result, the assessment model used at the College is sensitive to differences among student groups and flexible enough to be applied across a diverse set of student and institutional interrelationships such as those possible at the College.

### **Indicators that Support Assessment Research**

A set of procedures has been developed to enable evaluation of the extent to which goals and objectives, both the institution's and the students', are being achieved. Information is

systematically gathered about students from the time they apply for admission to the College to nine months following their departure from the institution.

Institutional documents, such as *The CCP Mission Statement*, *The 2000-2004 Strategic Plan*, *The Facilities Master Plan*, and *The Academic Computing Plan*, have served as sources for defining appropriate measures of student learning and growth. Since outcome information is intended to address the goals and objectives of students, the *Student Goal Statement Survey* has served as an important source document for assessment information.

Outcome data that are routinely available for examining and assessing institutional effectiveness fit into five broad areas: 1) workforce development; 2) student achievement; 3) college transfer; 4) community outreach; and 5) college financial and operating effectiveness. Workforce development measures include job placement rates, starting salaries, license and certification pass rates of graduates, and student assessment of the preparation received for employment at the College. College transfer measures include: transfer rates, indicators of academic performance and persistence at transfer institutions, student assessment of transfer preparation, and transfer opportunities based on articulation agreements. Examples of student achievement measures include: GPA, grades in capstone courses, successful completion of a sequence of courses in a particular subject matter, graduation rates, short-term persistence rates, and student assessment of goal completion and personal growth. Community outreach measures include indicators of responsiveness to community needs and participation rates in the service area. Operational effectiveness includes measures in the areas of cost efficiency, and resource usage.

The measures that are presently part of the assessment process have evolved as a result of ongoing evaluation activities designed to ensure the quality of assessment findings. Some outcome measures have been custom designed in-house while others were purchased externally and standardized. In order to ensure reliability and validity, outcome information is represented by multiple measures gathered through multiple methods.

The assessment measures are not static. In order to ensure a measure's internal

consistency with the mission and present institutional direction as specified in the Strategic Plan, the decision to include it as part of the assessment process has generally been a participatory exercise involving representative faculty members, administrators and, at times, students and members of community organizations and the business community. Measures are reviewed routinely to determine if they are effectively measuring the achievement of college goals and objectives. Based upon this review, measures are accordingly eliminated, changed and added.

### **Data Collection Approaches That Support Assessment Activities**

Qualitative and quantitative data collection methods have informed assessments at the College. Focus groups have typically been used to explore new areas of inquiry that may contribute to student learning and growth. They have also been helpful in the design of questions that subsequently have been included on student questionnaires. Survey techniques rely heavily on mailed questionnaires but have occasionally included telephone interviews.

Annual surveys of graduates and non-graduates elicit from former students' information concerning their short-term transfer and career experiences and their judgments of the efficacy of their educational experience at the College in helping them to achieve their educational goals. In order to be able to assess change over time, similar methods have been used to gather the annual survey of graduates and former students from year to year and a core set of questions have been asked consistently. The survey process is flexible and has been adapted to address newly emerging critical issues.

In addition to using surveys to gather information concerning students' post-CCP experiences, surveys are used to gather data from students at the front end of their college experience. Students complete two questionnaires at the start of their first semester, *The Student Goal Statement Questionnaire* and *Student Data Form*, both of which are valuable sources of assessment measures.

There are many other institutional data sources that contain a rich assortment of measures useful for assessment purposes. Examples include: grade distribution, transcripts, admissions application, placement test, budget and financial records, and transcript requests. Examples of

external data sources that have been used for assessment purposes include the U.S. Census, State System of Higher Education transfer information, Pennsylvania Commission for Community Colleges, NACUBO CFS data, and National Student Clearinghouse databases.

In order to efficiently respond to assessment requests, most of the student information described in the preceding paragraphs has been merged into a generalized assessment database. The file structure, which is longitudinal, contains records that track students through their enrollment at the College. It is possible to supplement student records on this file with additional assessment information from internal and external databases to create a student record that can track a student from entry to the College to nine months after departure. In addition to accommodating whole-institution assessments, the file can easily be adapted to meet the data needs for programmatic assessments.

The extensive historical information that is available on this longitudinal database provides reference points for assessing student change over time. Additionally, access to external databases provides a means to assess the College's performance relative to peer institutions.

### **The Nature and Scope of Assessment**

Several dimensions of institutional effectiveness are reflected in the College's assessment efforts. The following aspects of effectiveness are routinely assessed at CCP.

- Educational effectiveness based on institutional expectations. These assessment efforts focus on institutional standards for student academic performance and persistence while at the College and the post-CCP transfer and career outcomes of the College's graduates and former students.
- Educational effectiveness based on student expectations. These assessments attempt to incorporate the student's educational objectives into the analysis of the institution's effectiveness. These assessment efforts focus on the degree to

which students leaving the College have achieved the educational and personal goals the set for themselves while enrolled at the College, their level of usage and satisfaction with academic and student support services, and satisfaction with institutional processes and facilities.

- Financial and operating effectiveness based on cost efficiency, resource usage and resource development.
- Enrollment effectiveness based on the College's ability to achieve enrollment targets and the extent to which constituencies in the service area has easy access to the opportunities provided by the College.
- Community impact based on the College's economic impact and contribution to work force development in the service area.

Assessment efforts at the College are far-reaching and are integrated throughout the campus environment. The following list represents key initiatives undertaken by the College as a foundation for self-study, planning, the assessment of institutional effectiveness and institutional improvement.

- Office of Institutional Research Initiatives
- Academic Program Audit Process
- Financial and Operating Effectiveness
- Classroom Based Assessment

### **Office of Institutional Research**

Much of the assessment research undertaken by the Office of Institutional Research is intended to improve instruction and learning; facilitate the achievement of the institution's

mission; and demonstrate the educational and economic impact of the College in the service area. Key institutional documents, such as the Strategic Plan, Mission Statement, President's Vision, and Annual Divisional and Departmental Goals/Objectives, shape the research agenda for the Office. The expectations and needs of external constituencies, such as Middle States, State and National Departments of Education, specialized accreditors and funding sources, also provide direction concerning research priorities for the Office.

Since the last Middle States self- study, a significant amount of research has focused on assessing institutional effectiveness. These evaluations have been both summative and formative and have included longitudinal and cross-sectional analyses. Effectiveness evaluations have been based on comparisons across time, across subgroups of students within the College, and against benchmarks.

A number of assessments are systematic undertakings that are part of the annual goals for the Institutional Research Office while other assessments based on ad hoc requests occur sporadically and are less formal. An annual undertaking for the Institutional Research Office is a College- wide Institutional Effectiveness study which serves as a report card for the College. The study, which directly supports Strategic Planning Principle IV, *to provide documented quality, innovation and effectiveness in the delivery of programs and services*, contains a set of institutionally sanctioned performance indicators related to five areas of institutional effectiveness: 1) workforce development; 2) transfer preparation; 3) student persistence; 4) community outreach; 5) cost efficiency, resource usage and resource development. Effectiveness indicators are monitored overtime in order to identify areas of strength and weakness. In some cases, comparative measures for peer institutions are available thereby providing another basis for evaluation.

On a parallel track, a set of performance measures has been developed by the IR office to inform programmatic assessments. These indicators include measures related to enrollment, student demographics, graduation rates, academic performance, and persistence. Performance measures, which are presented as time series data, are updated annually for each of the academic programs at the College. This allows program assessments across time and/or across peer

programs.

*The Annual Statistical Compendium/Fact Book* provides a snapshot of institutional operating characteristics. This resource, along with the performance measures and the *Institutional Report Card* provide a fairly broad set of assessment information for the College, as a whole and for academic programs.

The annual survey of graduates is an assessment strategy that has a long history at the College. The Institutional Research Office also conducts a similar survey of non-graduating, former students approximately every three years. The results of these surveys are used extensively. They inform program audits and have been used to assess institutional progress related to Strategic Planning objectives focused on strengthening the College's higher education partnerships; supporting workforce development in the City; improving the quality of alternative course delivery options; and incorporating computer technology into instructional programs. Several reports on transfer and career outcomes; student progress along a variety of general education dimensions; and student satisfaction with in- class and out-of- class experiences, are issued annually by the IR office.

In addition to providing a coherent foundation for college transfer and employment, the Mission Statement includes a commitment to providing *access to higher education* to all residents of Philadelphia *who may benefit*. A Strategic Planning objective *to develop and expand the use of alternative course-delivery strategies* supports this aspect of the Mission. As alternative strategies for teaching courses are developed and implemented, they are assessed along several dimensions of effectiveness. In recent years, the IR office has issued several reports related to television courses and, as on-line courses have been introduced, they too have been assessed. Less formal studies of 10 week courses and courses with once a week meeting schedules have also been the focus of assessment research conducted by the IR office.

Since the last self- study, a large amount of institutional research has examined aspects of student persistence. Comparative studies of persistence rates have been made over time, across programs and special projects, across students with degree intentions and those without, and

across Pennsylvania community colleges. Graduates have been asked to describe personal and institutional barriers they perceived to interfere with their progress toward earning a degree at the institution. Former students have been asked to describe the circumstances surrounding their decision to discontinue their enrollment at the College. Current students have identified administrative barriers they encountered during the enrollment process that had the potential to interfere with their eventual enrollment at the College. The impact of the College's course cancellation policy on short-term persistence has been explored as well as the association between when a student registers for a course and their persistence in the course. The most compelling findings from these studies were the basis for a comprehensive persistence report recently issued by the IR office<sup>3</sup>.

Beyond the benefits that the College provides to the many individuals it serves is the economic impact that the College has on the City and the region as a whole. The IR office documented some direct and indirect economic benefits that accrue to the City and to the State as a result of the College's educational programs and economic activities. In addition to issuing a report that highlighted the economic outcomes of the College's operations as a whole, the IR office also compiled a report that documented the impact of the College's nine Allied Health programs on the Philadelphia region.

The assessment of student services is not as straightforward as academic program evaluation since goals for student support services are not as well articulated as program goals. Nevertheless, since the last self-study there have been a number of evaluation activities associated with the services provided by the Student Affairs Office.

One approach the IR office has used for the evaluation of student services has focused on quantifying the level of student usage and general student satisfaction with a variety of services provided by the Office of Student Affairs. Additionally, focus groups of new students have been convened to identify institutional barriers encountered by students as they work through the course registration process at the College.

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<sup>3</sup> See *Institutional Research Report # 120 titled Student attrition at CCP – When students leave, why they leave, and their academic success at departure (June 2001)*.

Another approach to assess student affairs involved a detailed process assessment of all enrollment activities from point-of-inquiry through the payment process. Representatives from all College offices and departments involved in the processes participated in the discussions which focused on describing current activities; assessing weaknesses; and brainstorming ways to improve the process. Another study explored the relationship between the time of issue of financial aid balance checks and student academic performance and persistence.

Several market research studies have been conducted in support of enrollment management and the development of a marketing plan for the College. Penetration studies have helped to determine geographic areas and subpopulations within the service area that are presently underserved by the College. An extensive data set containing 1990 and 2000 Census data related to demographics and socio-economic information for each City zip code has been assembled and is being used to assess program access strategies in the City's neighborhoods and develop cost-effective approaches to communicate with and enroll current and potential students.

The Office of Institutional Research works closely with directors of grant-funded special projects to develop assessment models that address the specific objectives of the projects. Among others these projects have included a welfare-to-work initiative; partnerships with area four-year colleges and universities to encourage minority enrollments in math and the sciences; a partnership with the Archdiocese of Philadelphia to educate elementary school students of the value of good nutrition; a project designed to encourage low-income, first generation college students to persist to achievement of the baccalaureate degree. These customized assessments have resulted in the availability of information that demonstrates the strengths and weaknesses of these special projects. In addition to providing project directors with a sense of the extent to which project objectives are being achieved, the information from these assessments frequently satisfy the funding sources accountability expectations.

### **Academic Program Audit Process**

Institutional effectiveness data at the program level are essential to making informed

decisions about institutional priorities. Institutional research studies, such as alumni surveys, the Annual Statistical Compendium, program performance indicators, and the program audit process have contributed to an understanding of programmatic strength and weakness.

The assessment of the relative effectiveness of degree programs can be accomplished in a relatively straightforward fashion. Guidelines exist for conducting program feasibility studies and course and program development and revision. These guidelines require the articulation of philosophy and goals for the courses and programs and the explanation of the relationship of the program goals to the College's Mission.

Academic deans oversee the audit process to ensure that institutional as well as programmatic perspectives are maintained during the evaluation and that the final product reflects a realistic assessment of programmatic strengths and need for the next several years. The goals and principles upon which the programs are established provide the framework within which program assessment occurs. Faculty and staff within a programmatic area address each of the following: curriculum history; course coherence; instructional methodologies and facilities; description of faculty credentials and accomplishments; enrollment, retention, and academic performance measures; student transfer and career outcomes; demand and need for program; operating cost and efficiency; and findings and recommendations for improvement.

### **Financial and Operating Effectiveness**

Maintaining a low cost per student and making effective and efficient use of available resources are critical goals for the College. Half of the College's credit students do not receive any form of direct financial aid. For these students keeping costs and therefore tuition and fees as low as possible is essential. Funding from the State is low relative to national standards for community colleges adding to the pressure to make optimal use of available resources.

The College has tracked and assessed its financial and operational effectiveness using two

key methodologies: tracking key internal resource usage measures over time, and benchmarking college performance to external standards, e.g. those in place at similarly sized two-year colleges. Examples of internal measures that are tracked range from average class size and faculty productivity measures to facility and capital use measures to program and discipline cost data. Many of these key indicators are reported in the Annual Statistical Compendium and annual financial reports. Others are reported in Institutional Research reports, are available in the College's facility planning databases and/or are reported in the College's planning reports.

The College has availed itself of a wide-range of informational opportunities that permit benchmarking with public two –year colleges and other representative organizations. The Pennsylvania Community College Commission Data Base Task Force publishes an annual fact book with a wide range of information on operating characteristics of each of the Pennsylvania Community Colleges. The college participates in NACUBO's Comparative financial Statistics Project and for several years was a participant in NACUBO's Benchmarking Project. National standards developed by the Association of Higher Education facility Officers as well as local building owners (BOMA) are used to assess facility costs and operations. KPMG has developed financial ratios and standards, which are used as a tool to assess the college's financial health. Key business partners such as Marsh (insurance broker) provide helpful resources for assessing the College relative to industry and regional standards.

Several administrative departments have engaged in assessment activities since the last Middle States self-study. One of the most extensive self-evaluation processes was undertaken by the Facilities Management Department. The evaluation of the College's facilities operation was made in relation to the criteria and guidelines of APPA's (The Association of Higher Education Facilities Officers) Facilities Management Evaluation Program. The Facilities Management

Department was evaluated with respect to its clarity and adequacy in the following areas:

- Purpose and Goals
- Organization and Resources
- Policies, Procedures, and Processes
- Personnel Training and Development
- Fiscal Planning and Management
- Campus Condition and Appearance
- Communications and Quality of Relationships
- Campus Planning

In addition, the department's key functional services areas were reviewed with respect to their operation and their support of the department's primary role and responsibilities. A team of senior facilities management professionals who visited the College provided insights as to the strengths of the institution and, when appropriate, offered suggestions and recommendations for improvement of performance.

As part of the Strategic Plan, an institution-wide effort is underway to create quality assessment plans in all areas of the College. Each plan is to start with a careful statement of the mission and goals for each organizational unit and the development of quality standards to address achievement of organizational unit goals. The quality assessment model is intended to create an expectation of accountability and a commitment to institutional and organizational unit effectiveness. This assessment effort figures prominently into the self-study process.

### **Classroom-Based Assessment**

Course assessment is built into several ongoing institutional processes. The current

process for developing a new course or revising an existing course, which is outlined in the document titled *Guidelines for Course Development and Revision at Community College of Philadelphia*, requires a course description and rationale and examples of course activities that demonstrate how students are actively involved in the learning process. The course development model encourages activities that assist students to analyze and interpret course materials and enable them to participate in academic and professional discussions. As part of the evaluation plan to assess course effectiveness, which is also part of the model, faculty are encouraged to include strategies for determining the impact of assignments and exams on student learning outcomes and for determining the effectiveness of the course design. Methods that are suggested for this purpose include ethnographic approaches; peer observation; standardized instruments; and inter-team critiquing.

Existing courses are reviewed through program audits that are undertaken every five years. The audit requires the articulation of philosophy and goals for the courses and an explanation of the relationship of course goals to program goals. Descriptions of instructional methods used by faculty are also part of this process. Many existing courses use apprenticeships, portfolios, field placements, and clinical training to promote and assess the level of student involvement in the learning process. New State standards for courses, effective for the 1997-98 year, have resulted in the College developing new standards and procedures for course evaluation.

Recently, course assessment plans have been systematically included as part of the grant proposal process. Several courses that have been developed under the auspices of grant funded projects have formalized assessment plans in place which include the systematic collection of pre- and post- measures to evaluate the nature and extent of student change throughout the semester.

Course assessment also occurs independent of these formal institutional processes. Many faculty routinely engage in course assessment activities of their own design. A recent faculty roundtable explored the impact of classroom based technological instructional approaches on student learning. Much of the described course assessment has been formative so that instructional approaches can be shifted if deemed by faculty to be ineffective in promoting

student learning. Faculty members employ a variety of assessment approaches including oral and written student feedback, observations, case studies, and quasi-experimental designs to determine student's mastery of course content.

Additionally, course and program guidance and validation are provided by specialized program accreditation and Program Advisory Committees that are comprised of representative external constituencies with broad-based knowledge and backgrounds in related program areas.

### **Continuing Challenges in Assessing Institutional Effectiveness**

While the College has built a solid foundation for a comprehensive and meaningful institutional assessment program, there are deficiencies with respect to the College's ability to describe and understand its effectiveness. The following challenges need to be resolved to ensure the successful implementation of an institutional effectiveness assessment effort.

- College-wide commitment to complete and accurate data as a standard by-product of administrative processes.
- Continuing to strengthen effective incorporation of data in institutional decision-making.
- A general education outcomes assessment model.
- College-wide commitment to administrative-area evaluations.
- Development of institution-wide data related to employer assessment of student preparation for the workforce.
- Successful implementation of Chapter 335 procedures for credit and non-credit course evaluations.