

A BLUEPRINT FOR CAMPUS ACCOUNTABILITY
LESSONS FROM THE PACE UNIVERSITY EXPERIENCE

PACE
UNIVERSITY



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EXECUTIVE SUMMARY

A Blueprint for Campus Accountability: Lessons from the Pace University Experience

1. This report addresses the way a large, multicampus metropolitan university is improving its assessments of student learning in order to become more accountable for its academic results.
2. Assessment in higher education has drawn **increasing interest following the “No Child Left Behind” legislation** for elementary and secondary schools. The federal Commission on the Future of Higher Education made no secret of its sympathy for measuring higher education, perhaps with federally-mandated tests that parents and prospective students could use to compare institutions.
3. In the introduction, Pace University’s President, David A. Caputo, says the **federal role** should be
 - Insisting that colleges and universities have self-assessment plans, and
 - Providing financial incentives for developing appropriate assessment techniques that measure how well each institution meets its own goals for its students.
4. By presenting a variety of techniques for measuring just a few of the diverse teaching and learning activities in one institution, the report suggests the **fallacy of imposing oversimplified measures** on all.
5. The report focuses on **methods to measure actual learning**, not just the familiar inputs that often are used as proxies for it (size of the endowment, number of books in the library). Proxies are at the heart of rankings like those of *U.S. News & World Report* magazine.
6. The report defines assessment as different from course-by-course testing because it weighs cumulative results, gauges entire curriculums and programs, and probes **value added**: how well campuses build on the knowledge, learning habits, and socioeconomic status each student starts with.
7. The report describes Pace University’s decision, in the forefront of a national trend, to create a University-wide Assessment Committee of faculty and staff members, **minimizing the imposition of assessment** from the top down.
8. The report recounts the University’s insistence that **the primary goal of assessment should be the improvement of teaching and learning**.
9. A pillar of Pace’s self-assessment work has been its pioneering use of **two newly-developed learning measures**. One, the National Survey of Student Engagement (NSSE), ascertains how much an institution uses proven educational practices to engage students in academic work held to high standards. The other, the Collegiate Learning Assessment (CLA), measures multidisciplinary abilities like critical thinking, analytic reasoning, and written communication.
10. The report also presents some of Pace’s **other self-assessment techniques**, including faculty and student “portfolios” and the use of outside academic reviewers.
11. The report outlines two significant **results for students**: Increases in the active learning that the NSSE assesses, and improved analytic skills and understanding of connections across subjects.
12. The report makes clear that self-assessment is an **active and ongoing process**, yielding lessons that need communicating to faculty and staff members, students, and the community at large.

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INTRODUCTION: MONITORING THE MOSAIC

This report shows how one large, private, multicampus metropolitan university has taken the initiative to improve the way it assesses student learning so it can better hold itself accountable to its students and supporters for its academic results.

Assessment is increasingly “hot” amid the emphasis on measurement via “high-stakes testing” that is mandated for elementary and secondary schools by the federal “No Child Left Behind” legislation. Assessment is on the minds not only of responsible leaders in higher education, who have given it increasing research attention for the last two decades, but also of parents, college students, the general public, elected officials, and the federal Commission on the Future of Higher Education, scheduled to report in late 2006.

Pace University, with more than 14,000 undergraduate and graduate students and 1,130 full-time and adjunct faculty members, is celebrating its 100th anniversary during 2006. Its multicultural enrollment reflects all ages, colors, and cultures. (Undergraduates are approximately 52 percent non-Hispanic white, 13 percent Hispanic, 12 percent African-American, 12 percent Asian, 6 percent international students, and 5 percent “other.”) Pace students reflect diverse levels of preparation and experience, studying full and part time on campuses in both New York City and suburban Westchester County.

In short, Pace students represent a rough cross section of the mainstream of higher education in the United States today.

Measurement is far from the only ingredient in high quality education at Pace. Learning also takes academic freedom for professors with keen, original minds and the skill and heart to communicate their knowledge. Recruiting, developing, and retaining them remains one of Pace University’s glories, though one of the hardest to quantify.

In addition, over the last five years Pace has steadily supplemented tests and final exams, which measure students one by one and course by course, with a mix of other techniques to gauge individual students’ learning across courses and look at the overall impact the University has on groups of students. While such self-assessment has come more slowly to some parts of the University than others, our experience has shown that it helps keep us accountable to ourselves and others for meeting students’ needs as well as the needs of the larger society for a trained workforce and new ideas. We believe such accountability is essential as the size and cost—and value—of higher education grow to meet the demands of a global economy.

The best lesson from our self-assessment efforts has been that self-assessment is not a vehicle for keeping score, but for getting better.

We also have learned that:

- Meaningful measurement is not inexpensive.
- Self-assessment is not easily understood—or mandated.

- Assessment has to be spurred from within by a desire to improve outcomes for students, not imposed from without.
- Assessment must take into account the special values and aspirations for students that are held by each component of the institution, particularly its academic disciplines.

The last point illuminates the growing United States discussion of national testing. For higher education, uniform national testing would be neither practical nor desirable. Among other things, it would hurt students who are most at risk because their progress would be unfairly compared with that of students who have greater cultural or educational advantages. Given the great diversity of higher education institutions in this country, a one-size-fits-all approach would not yield meaningful results.

A better approach is for institutions in the mosaic of U.S. higher education to be judged by their particular goals for their students, whether they have comprehensive self-assessment plans to track their progress, and what those self-assessments say about the results. The federal government should:

- Insist that colleges and universities have an ongoing self-assessment process;
- Provide financial incentives for developing evaluation tools, to be selected institution by institution, that measure how well each institution meets its goals for the students it matriculates; and
- Encourage measurements of how well institutions improve (add value to) their students' educational achievements.

To encourage local variations and experimentation, federal funds should be administered by the states. Results should be used to guide improvements.

These measurements will further empower people's ability to make informed choices, which is the very essence of allowing the free marketplace to operate.

For students and parents choosing colleges, and for individuals and governments supporting them, the sanest quest has never been for some mythic campus that is best for everyone, but for the one that is best for the individual student. Making matches one by one takes more work than doing it by standardized formula, but having a wide range of choices is a lot like making a match for marriage—slightly unpredictable, but with higher odds of satisfaction in the long run. Few of us want assembly-line spouses—or alma maters.

We hope this Pace University case study will be useful to all those with a concern for the success of students in the colleges and universities of today and tomorrow.



David A. Caputo
President, Pace University

I. INNER- AND OUTER-DIRECTED MOTIVATIONS

*“Writing some 275 years ago in The Spectator, Joseph Addison observed,
‘Numbers are so much the measure of everything that is valuable
that it is not possible to demonstrate the success of any action,
or the prudence of any undertaking, without them.’”*
—Peter T. Ewell

“In America, if you can’t count it, it doesn’t count.”
—Daniel Patrick Moynihan

*“Everything that can be counted does not necessarily count;
everything that counts cannot necessarily be counted.”*
—Albert Einstein

*“Trying to measure what will influence a young person’s life
is like trying to predict the height of a redwood from the diameter
of its sapling, using a rubber band for a ruler.”*
—Educational Testing Service official

Pace University got off to an early start on academic self-evaluation in the 1990s and believes it is now one of the leading United States institutions of higher education in the comprehensiveness and scope of its self-assessment processes.

Almost all U.S. campuses make some efforts to assess their teaching and learning, but few apply as many techniques to as many parts of the university as Pace, starting at the top with assessments of the president and senior officers. After a review of assessment plans at many of its member campuses, the National Association of Independent Colleges and Universities wrote on its Web site that “Many schools seem to have an interest in accountability and/or assessment but tend to focus on one or two topics like financial assessment, student disclosure, ... innovations in college pricing, campus cost control, and collaboration initiatives.” “Few faculty as yet practice assessment as a part of their everyday work,” according to an essay by Peter T. Ewell, a political scientist who is vice president of the National Center for Higher Education Management Systems, in the 2002 book, *Building a Scholarship of Assessment*, edited by Trudy Banta.

By contrast, as of the spring of 2006, four out of Pace University’s five undergraduate schools had working self-assessment plans and the fifth was moving toward adopting one. Nearly 70 percent of the academic departments had plans, as did almost half of the administrative departments, where self-assessment plans relate their work to supporting “the learning and teaching environment.” The rest of the University’s departments had plans in various stages of development. (The University’s self-assessment Web site is at www.pace.edu/assessment.)

“Assessment has become a word in everyone’s vocabulary,” even if campus skeptics do not always find the connotations positive, according to Barbara Pennipede, who directs self-assessment activities for the

University. After a month at Pace, a newly-hired associate provost commented that one of the first things he noticed when he arrived was the University’s “ethos of assessment.”

As a result, in the last few years Pace University faculty members and administrators have been invited to make presentations on accountability and self-assessment at conferences including those of the College Board, the American Association for Higher Education, the Association of American Colleges and Universities, the Association for Institutional Research, the National Assessment Institute, the Middle States Commission on Higher Education, and the Mid-Atlantic Association of College Business Administrators.

Seeds of change

Assessment is as old as human judgments of other humans... and final exams.

By and large, however, until the last 20 years higher education has been measured not by its outputs—how much it changes its students—but by inputs like the number of books in the library, the quality of students who are accepted, the presence of new campus buildings, the comparative salaries of professors, and the proportion of them who have achieved the final degree in their field, such as a PhD. The connection between inputs and outputs either was taken for granted (after all, don’t Ivy League institutions have a lot of graduates who became President?), or educators threw up their hands at the difficulties of separating the results of education from all the other influences on human beings.

The current trend is different because it uses newly sophisticated techniques for diagnosing what learning really goes on and how to improve it.

“Most campuses still do assessment because somebody tells them to,” according to Ewell. Pace University’s President Caputo, a social scientist with a PhD in political science from Yale, became convinced about the value of assessing teaching during his 26 years as a professor of political science at Purdue University. Using tests at midpoints in his courses as well as finals, he recalls that as a young instructor “several times I learned that something I was doing didn’t work and was able to change it before the class ended.”

By the time he came to Pace in 2000, after five years as president of Hunter College of the City University of New York, he had found many reasons for disenchantment with the traditional inputs model. He had developed a conviction that student learning had to be improved throughout higher education and an increasing concern that ill-conceived tests might be imposed by federal or state governments. His ideas were strengthened further by service as cochair of the New York State Regents’ Professional Standards and Practices Board, which establishes benchmarks for the education of elementary and secondary teachers, and as a participant in the early development of the Collegiate Learning Assessment (see page 15).

Promising seedbed

Caputo’s ideas about self-assessment went hand in hand with significant trends in business and nonprofit management toward program evaluation, scientific management, and systems thinking. A key concept for education was the idea of “value added,” notably promoted by Alexander Astin, a scholar of the field at

UCLA. Since incoming student ability has been found to be the largest predictor of any student outcome, this concept argues that however difficult it is in practice, institutions should be judged not by what Ewell calls “traditional markers like resources and reputation” but by what they do for the students they recruit after the students arrive.

At the same time, educational research was making professors and college administrators question traditional college teaching methods, especially the lecture, which came to be mocked as “the sage on the stage.” The research findings showed that active student participation helps learning more than just hours spent in class.

As Ewell writes, the last two decades have seen a revolution in undergraduate instruction, one that is “fundamentally altering the shape and content of undergraduate study.” The change, he says, stems from technology and from other teaching movements like “writing across the curriculum,” “learning communities,” “problem-based learning,” and “service learning” —all of them involving seminars, group work, and projects, often with practical outcomes.

Pace University had been attuned to pedagogical innovation since its birth in 1906 as a pioneer in systematic ways of teaching accounting. Moreover, Caputo was able to work with a team sympathetic both to change and to ways of weighing it.

- Provost and Executive Vice President for Academic Affairs Joseph Morreale, previously head of the University’s office of research, assessment, and academic support, is nationally recognized in the field of university assessment. It was he who developed the University-wide assessment program at Pace, establishing the University assessment committee and creating the University’s annual “scorecard” (see page 26). Most recently he coauthored *Post-Tenure Faculty Review and Renewal III*, an American Association for Higher Education report on how nine anonymous institutions handle tenured faculty members, based on more than 400 interviews and questionnaire responses from 1,600 faculty members.
- Barbara Pennipede, assistant vice president for planning, assessment, research, and academic budgeting, has more than 15 years of experience with assessment testing and analysis at Pace and at St. Peter’s College in Englewood Cliffs, New Jersey. She is a frequent peer evaluator on Middle States Commission accreditation teams that assess assessment at other campuses.
- Peter Seldin, a faculty member at the University’s Lubin School of Business, is the national leader of the exploding “teaching portfolio” movement (see page 22). In the portfolio process, professors work with non-competitive mentors from other departments to evaluate portfolios of their teaching and find areas for improvement.

By the time Caputo arrived at Pace, a critical mass of faculty members, including several influential faculty leaders, was already involved in improving teaching and learning. A Center for Instructional Technologies had been established in 1997 at about the same time a Center for Faculty Development was set up, both operated by faculty members compensated through released time or a stipend. The centers were well launched on their present program of finding promising teaching resources and sources of information, and of organizing seminars and other sessions, many of which emphasize self-assessment.

Public pressures

Pace's leaders were well aware of a national interest in stronger assessments for higher education. In recent years, parents, students, taxpayers, government officials, and private donors have shown increasing concern about college costs and increasing compassion for the financial burdens on students. The people paying for education want to make sure they get their money's worth, and campuses have looked for ways to show donors and legislators they are efficiently spending donations and appropriations. Meanwhile, competition for those resources has grown from other areas of society like older people and health care.

Added to these prods is a competitive higher education marketplace in which colleges and universities face rivals in other countries and among stripped-down profit-making institutions. Institutions determined to keep high prices from impeding access have turned to sophisticated management measurements to help them hold down costs. And colleges and universities have been trying to find substitutes for what they deem superficial measurements of their work, ranging from the much-criticized formulas of *U.S. News & World Report* magazine to the casual anecdotes and gossip on Web sites like RateMyProfessor.com. These issues have been refracted through the debates in Congress during 2005 and 2006 over reauthorizing the federal Higher Education Act.

But as the external pressures became more apparent, Pace University already had begun to move.

II. INTRODUCTORY STEPS

Self-assessment was strongly built in to Pace University's strategic plan, *Reaching New Heights*, which the trustees adopted in 2003.

The plan's core objectives frequently specify measurable outcomes.

- To "strengthen Pace's academic excellence and reputation," for instance, the plan specifies "four new faculty positions will be added each year with a total of 20 by 2008."
- To "reinforce Pace's commitment to being student-centered," the plan specifies improvements like "increase ... endowment funds available for scholarships... by one percent per year."
- To "strengthen Pace's financial situation," the plan calls for such measures as increasing the endowment by \$45 million by 2008.
- To "celebrate the University's Centennial," the plan urges activities to strengthen Pace's "standing and endowment."

And the plan says the University will "establish our accountability and evaluation efforts across the University as a national model."

The objectives for strengthening the financial situation and celebrating the Centennial do not play major roles in this report, since they are means to academic excellence but do not measure it. To be sure, they are essential, and Pace assiduously measures many of their components. (See appendix.)

Introduction tactics

Much of the progress on self-assessment at Pace has come through encouragement, not enforcement. Barbara Pennipede, who has taken on the lion's share of implementation, loses no opportunity to remind faculty and staff members that: "Assessment comes from the Latin, *ad+sedere*, to sit beside," and to insist that the emphasis be on student improvement, not faculty evaluation. Speaking of portfolio self-evaluation by faculty members, Sandra Flank, a professor of education and former coordinator of the University's Center for Faculty Development, says the initiative "came from the faculty but was supported by the administration."

Of course, encouragements for assessment at Pace have sharper teeth as well. For example, it is harder for faculty or staff members to dismiss a problem as atypical or a one-year fluke if data show it is widespread and recurs from year to year.

Moreover, planning and progress toward goals of the strategic plan are keys to individual evaluations on which raises are based. University committees, most of which include faculty members, recommend very few proposals that do not further the goals of the strategic plan and contain some idea of how success will be measured. In two separate forms, requests for new funds must specify which plan objectives the requests will help meet and how. Looming in the background are increasingly specific demands from accrediting agencies for self-assessments and the knowledge that loss of accreditation could hurt the lifeblood of any University—enrollment.

Though some goals of the Pace strategic plan are broad enough so it is fairly easy to claim that proposals advance them, at the very least the need to go through the plan reinforces thinking about priorities. To improve academics, for instance, upgrades for accounting labs recently got priority treatment. So did streamlined student services, a major step toward being student centered. But new furniture for some offices and political poll-taking in foreign languages did not.

Whether a department has an internal strategic plan, with self-assessment components, is weighed when departments' requests for new or replacement faculty members are considered.

Starting at the top

The president of the University and the chair of its trustees, Aniello Bianco, set an early self-assessment example by insisting on evaluations of trustees and senior officers, including themselves. Each trustee knows he or she will be judged on attendance at board meetings and at University-wide events, participation in committees and conferences on University business, and dollars raised. At the president's request, senior officers must set and report progress on 6-, 12-, and 18-month goals.

More striking, in 2003 Pace became one of the first universities to invite, every spring, all staff and faculty members to rate the president, every officer at the vice presidential-level or above, and every academic dean. The rating considerations, worked out with a consultant, are well-accepted attributes of good leadership like articulating a mission, respecting differences, and leading on sensitive issues. "The use of an outside vendor made the assessment more acceptable because a third party does it," Provost Morreale says. Electronic privacy safeguards encourage candor and the results are sent directly to the consultant for tabulating. The project cost \$30,000 to start and takes \$18,000 a year to repeat.

Aggregate results (though not individual scores) are posted on the internal Web site for all to see. Each person rated gets his or her own data, plus open-ended comments. (Comments to Caputo have ranged from a grumpy "leave the University" to encouragement for pushing an academic integrity code and suggestions for more computer training and outreach to students.)

In the early years, administrators got their lowest marks for personal flexibility. This is important in a university that has set a core objective, as Pace has, of becoming more student-centered, and the survey corroborated nagging worries. As a result, the president made flexibility a priority in his annual performance reviews with his direct reports. While the cause and effect is hard to prove, flexibility ratings have since gone up. Another finding has been that administrators are viewed most positively by those who know them best, which has led to attempts to increase leaders' interactions with multiple groups around campus.

The rating technique is less probing than some forms of executive evaluation used in the corporate world, but inviting this kind of frankness is a major step in an academic culture that in theory and often in fact is based on collegiality.

Going beyond ratings, in 2005 Caputo insisted on more comprehensive 360-degree feedback sessions on his performance with every officer directly reporting to him, the results of which he shared with the trustees.

The payoff of leadership evaluation for students has been shown by studies at various locations confirming that improved work by senior staff members increases productivity for all.

The committee, the plans, and the ineffables

As these measures were being developed, in the spring of 2002 the president encouraged Morreale, then vice president for planning, assessment, research, and academic support, to create a University-Wide Assessment Committee, cochaired by a faculty member and Pennipede. Though charged with tracking progress under the strategic plan, its primary focus was academic. It included staff members, administrators and students, but was largely made up of faculty members from all of Pace's six schools. The committee has shaped and taken "ownership" of many self-assessment processes at Pace, and the committee, not just administrators, reports back to faculty meetings.

In the fall of 2004, the committee and administration announced a bold requirement: That every academic and staff department would have to prepare a self-assessment plan. The committee and the assessment office collaborated on multiple presentations of what would be involved and offered copious help and consultations by committee members, Pennipede, and her staff.

The heart of the request was a simple and permissive template with places for specifying one or two outcomes, and suggesting the use of timetables, measurements, and responsibilities assigned to specific people.

SELF-ASSESSMENT INGREDIENTS

Requirements for the self-assessment plans that all departments at Pace must prepare are far from rigid. Derived from the "template" originally developed by the Assessment Committee, the ingredients now are listed in the following follow-up questionnaire that the committee sends out once a year.

FOLLOW-UP QUESTIONNAIRE

As an effort to establish a "climate of assessment," the University-Wide Assessment Committee is interested in the progress you are making. While this is primarily an internal process for your department or unit that should be self-motivated and with results kept for your internal use, we would appreciate being kept apprised of your progress. Please send to bpennipede@pace.edu as an attachment.

DEPARTMENT OR UNIT _____

OUTCOME _____

1. This outcome is:

Fully met Ongoing More than 50% Less than 50% Not met

2. Who was affected by this outcome:

Faculty Staff Students Administration Other (explain)

3. How did you measure this outcome:

Collected data Anecdotal Other (Explain) _____

4. The timetable for this outcome was _____

Has been met Yes No If No, should be extended to _____

5. Work on this outcome was completed by

Chair Faculty committee Staff Students Administration

Other _____

If you choose, attach your evidence that this outcome has been met

How will you use this finding or evidence to further improve your department or unit?

Based on the above, what new goals will you develop and what outcomes will you establish?

What assessment instrument(s) will you use to measure this/these new outcomes?

Obstacles encountered and how we can be of help:

Submitted by _____ Date _____

Please feel free to call on the University-Wide Assessment Committee for any assistance you need or visit our Web site on the Pace home page (search under A for Assessment).

Since plans were requested, the administration has been sensitive to the fact that departments are at different stages of readiness to plan and have varying objectives. Schools like nursing and departments like accounting, used to preparing students for external certification exams in their professions, had more familiarity with measurement techniques and more techniques available to them than those teaching more theoretical subjects and the liberal arts and sciences.

The leaders of the self-assessment effort candidly asked for help in measuring what are known in assessment circles as “the ineffables” — characteristics such as leadership and ethics. At Pace, the committee firmly declared that:

Learning includes students growing in knowledge, in the application of that knowledge in their work and in meeting life’s other challenges, and in the continuous development of sensitivities, values, and the capacity to act in ways that benefit those immediately around them and, ultimately, all people. Because learning is a process of lifelong growth, learning at Pace can be seen as making a contribution to a life pattern that began before students became members of the Pace community and will continue long after they have moved on.

At the start, many departments felt imposed upon and worried about the costs in time and dollars. Though questions remain, some of that feeling has eased, according to Morreale, the provost, because of the focus on student learning and improvement instead of faculty evaluation, the acknowledgement that departments have different kinds of goals for their students, and the freedom the template allows for departments to devise their own systems. In addition, the University set up a series of town meetings and Q&A sessions to answer questions and dispel concerns.

Perhaps most important, the University provided significant resources. Presidential grants from Caputo supported faculty and student assessment using portfolios (see page 22), a handbook to help faculty make the most of classes organized as “learning communities” (page 17), and the development of specialized assessment tools. These grants continue to support further self-assessment projects. Funding was continued for the Center for Faculty Development and the Center for Teaching, Learning, and Technology. The centers now collaborate on a three-day Faculty Institute on teaching and self-assessment held each spring after the end of classes.

III: MEASURING ACTIVE LEARNING AND COMPREHENSIVE THINKING

Pace students who visit the University's assessment Web site learn that before they graduate they will participate in at least 12 institution-wide assessment activities.

One of the most significant is the National Survey of Student Engagement (NSSE), which measures how much students are engaged in active teaching techniques that promote their engagement. The other self-assessment tool is the Collegiate Learning Assessment (CLA), which probes students' ability to think about complex situations. (See boxes, pages 14 and 16.)

These tests are beginning to suggest that parents and students have other ways to size up the value of colleges and universities than the largely input-based rankings of *U.S. News & World Report* and its ilk.

The two instruments try to measure aspects of learning that often have been only guessed at in the past – how well the University uses techniques for engaged learning across all disciplines that research has shown produce high levels of success, and how well the University inculcates higher order skills of synthesis and analysis that are useful in all human activities, regardless of one's specialty.

Developed by nonprofit research institutions and assessment specialists with early and enthusiastic Pace participation, these instruments are “low-stakes” but “high value.” The stakes are low for students because institutions use aggregate results to assess internal issues, not to make decisions about individuals. The stakes are only somewhat higher for teachers, who find diagnoses—also in the aggregate—of factors that determine or demonstrate their success. The instruments have high value because they illuminate areas needing change far more specifically than generalized calls for better professors or more funding. (Some of the other instruments used at Pace are listed in the appendix.)

The National Survey of Student Engagement: Good learning is active

The spring of 2006 marked the fifth consecutive year of Pace participation in the six-year-old, nationwide instrument known as NSSE or “Nessie.” It measures good educational practices, validated by years of research, that can be viewed as proxies for high-quality learning, but that are much more tightly linked to it than the size of the endowment. The research has shown that students learn most when they find their academic work challenging, actively collaborate on learning activities, and interact with faculty members and diverse peers inside and outside the classroom. Working with others in solving problems or mastering difficult materials, says a brochure from the center that administers the surveys, prepares students to deal with “the messy, unscripted problems they will encounter daily, during and after college.”

Both paper and Web questionnaires are sent to random samples of first-year and senior students at participating colleges and universities by the Center for Post-Secondary Education, based at the University of Indiana at Bloomington. NSSE is funded by foundations, the federal Fund for the Improvement of Post Secondary Education, and fees from users. At Pace, it is supplemented by two parallel surveys—the Faculty Survey of Student Engagement, which asks faculty members to reflect on the importance they place on key educational practices, and the Law School Survey of Student Engagement, which provides insights into law school educational practices and environments.

What It's Like to Take the NSSE: Reporting the Academic Activities that Really Give You an Education

Taking students about 15 minutes, the National Survey of Student Engagement (NSSE) asks students to report on formal and informal academic matters that are the heart of memorable learning. For instance, it asks students how much they:

- Write papers longer than five pages
- Take courses that emphasize synthesizing and organizing ideas
- Discuss ideas from reading and classes with faculty members outside of class
- Talk about career plans with a faculty member or adviser
- Work with a faculty member on a research project
- Work with other students on class projects
- Talk with students from different races or ethnicities or who hold different religious beliefs and political opinions
- Participate in internships or field experiences and community service work
- Use electronic technology to discuss or complete assignments
- Participate in cocurricular activities
- Participate in a culminating senior experience.

Students also rate factors like

- The quality of their relationships with other students, faculty members, and administrative and office personnel, and
- Whether the campus environment encourages spending significant time on studying and academic work.

The NSSE survey of first-year students and seniors at Pace in 2004 produced good news and bad. (The 2005 administration was done by Pace rather than the Center for Post-Secondary Education in order to provide separate results for each of Pace's schools. Tabulation was nearing completion by late spring of 2006.) Compared with previous years, the 2004 survey showed that Pace seniors had increased their frequency of class presentations, work with classmates, use of electronic technology, internships and field experiences, foreign language course work, and cocurricular activities. First year students reported strong levels of some of these activities, and of working with faculty members on activities other than course work, participating in a community-based project as part of a regular course and in community service/volunteer work. Significant numbers also said the institution "helps you cope with your non-academic responsibilities."

In other good news, the NSSE found large numbers of students having serious conversations with fellow students of a different race or ethnicity. This finding corroborated one from a survey Pace created and administered during the 2003–2004 academic year. Asked to say if they agreed or disagreed with the statement "I feel I need to hide some characteristics of my racial and ethnic culture in order to fit in at Pace," only 10 percent of both undergraduate and graduate students agreed.

On the other hand, the NSSE showed seniors seeming to lag behind their peers in comparable institutions on their number of written assignments over five pages, how often they got prompt feedback from faculty members on their academic performance, and how highly they rated the quality of their relationships with other students. First-year students reported somewhat low levels of preparing for class and of course work emphasizing the application of theories and concepts.

Results like these have provided support for a number of initiatives to increase active learning, some of them already getting underway as use of NSSE began. They have included first-year learning communities, increased faculty emphasis on different modes of learning, and greater development of senior capstone experiences.

To increase civic engagement, for example, in 2003 the University became one of 10 campus founders of Project Pericles, a consortium funded by the philanthropist Eugene Lang to start students on a lifelong commitment to participating in democratic processes. At Pace, Periclean activities have gone hand in hand with a core requirement that students take at least one course with a component of community service and a chance to analyze and reflect in class on why the service is needed. Students now serve in and analyze a myriad of institutions from museums to social service agencies, governments, and nonprofit media organizations.

Not surprisingly, the number of courses with civic engagement components increased from 10 the first year to more than 40 in 2005–2006. Project Pericles also coordinates cocurricular civic programs open to the entire Pace community, many along thematic lines (Democracy in Action, Political Action Week for Human Rights, Global Citizenship Week). In the same period, the number of people attending events sponsored with help from the project rose from 228 to more than 1,600.

NSSE results showed that students did not report talking much with faculty members or advisers about career plans and that only slightly more than half credited Pace with a “supportive campus environment.” Even allowing for some students’ cynicism this was troubling, because research shows that interaction with faculty members not only promotes learning, but is the single most important factor in retaining students. Among many venues, the results were presented at a one-day faculty conference. As one result, conference participants report that they now are increasing the pizza parties and cups of coffee they have with students, and more important, are more often involving students in research projects and maintaining greater contact with their first-year advisees. In one upper-level marketing course, the professor ramped up her occasional reviews of seniors’ résumés, making a one-on-one session part of the course for every student.

The Collegiate Learning Assessment: Good learning connects the dots

The second innovative, nationwide evaluation tool getting serious attention at Pace, the Collegiate Learning Assessment, also was developed by the Council for Aid to Education with the RAND Corporation. It is one of the first standardized measures to gauge college-level critical thinking, analytic reasoning and written communication. Pace participated in the pilot phases of this assessment in 2002 and in its first official administration for freshmen and juniors in the fall of 2004 and for seniors in the spring of 2005.

What It's Like to Take the CLA: Would You Buy this Airplane... or this Argument?

The Collegiate Learning Assessment takes 90 minutes on a computer. It has two kinds of exercises. The first is a “real life” activity like preparing a memo or policy recommendation. An illustrative example:

You advise Pat Williams, the president of DynaTech, a company that makes precision electronic instruments and navigational equipment. Sally Evans, a member of DynaTech's sales force, recommended that DynaTech buy a small private plane (a SwiftAir 235) that she and other members of the sales force could use to visit customers. Pat was about to approve the purchase when there was an accident involving a SwiftAir 235. Your document library [on the test-taker's computer] contains the following materials:

1. Newspaper article about the accident
2. Federal Accident Report on in-flight breakups in single-engine planes
3. Internal Correspondence (Pat's e-mail to you and Sally's e-mail to Pat)
4. Charts relating to SwiftAir's performance characteristics
5. Excerpt from magazine article comparing SwiftAir 235 to similar planes
6. Pictures and descriptions of SwiftAir models 180 and 235.

Sample questions: do the available data tend to support or refute the claim that the type of wing on the SwiftAir 235 leads to more in-flight breakups? What is the basis for your conclusion? What other factors might have contributed to the accident and should be taken into account? What is your preliminary recommendation about whether or not DynaTech should buy the plane and what is the basis for this recommendation?

The test preparers say these kinds of exercises “require students to marshal evidence from different sources; distinguish rational from emotional arguments and fact from opinion; understand data in tables and figures; deal with inadequate, ambiguous and/or conflicting information; spot deception and holes in the arguments made by others; recognize information that is and is not relevant to the task at hand; identify additional information that would help to resolve issues; and weigh, organize, and synthesize information from several sources.”

A second CLA exercise involves analytic writing, asking students to make an argument (for example, why they agree or disagree that “there is no such thing as ‘truth’ in the media. The one true thing about the information media is that it exists only to entertain.”). Other exercises ask for a critique of an argument, such as the justification given by the principal of an elementary school where students are obese for his opposition to fast food restaurants nearby.

These exercises “measure a student's ability to articulate complex ideas, examine claims and evidence, support ideas with relevant reasons and examples, sustain a coherent discussion, and use standard written English.”

Interim reports from early trials of the CLA are still awaiting a meeting of researchers from participating campuses in the summer of 2006 that will sort out results and how to interpret them. But like NSSE, the CLA is likely to boost the momentum behind another significant movement at Pace—encouraging a more coherent, less fragmented college experience in which students evaluate information, apply it to complex

problems, and “connect the dots” between ideas. As time goes on, many of these programs are expected to produce improved scores on the CLA. Two examples of programs for which the CLA should provide feedback include learning communities and a recently installed core curriculum.

Learning communities. Coherent learning at Pace is embodied in a student’s early years in multidisciplinary courses where paired professors teach in “learning communities,” groups of students who take both subjects together and get to know one another.

The Pace faculty made learning community courses a central part of the required core curriculum in the fall of 2003 after a pilot test in 2002–2003. Students are strongly encouraged to take at least one learning community in their first year.

The courses’ intellectual sparkle often makes adults wish they could come back to college and sign up. “Writing, Computing and the Human Condition” is based on the insight that “Like writing, computing is as much about structure as it is about creative and critical thinking”; “The Hudson River and the American Tide,” with field trips on the river and to historical places on the banks, covers the river as an economic corridor, the birthplace of artistic movements, and a subject of ecological policy debates. Some course titles are self-explanatory and highly topical, like “Scandal in the Boardroom: Business, Ethics and Information Technology.”

In addition to improved learning, students who take learning community courses their first semester come back at a rate nearly six percent higher than students who do not. Student comments, collected by evaluation questionnaires, help explain why. One student wrote: “Other classes are simply memorization and busy work.” Said another: “When a student takes five different courses and has to switch his or her frame of thought often to accommodate the subjects, it is nice to know that two of those classes have something to do with each other. It is much easier to focus on the class when there’s a common theme.”

Initially, these courses were driven by promising experiments elsewhere and faculty members’ personal belief in them. Although the entering class of 2003, the first to experience them, was only finishing its third year by the spring of 2006, the value of learning communities has been tentatively borne out by early self-assessments that Pace faculty members developed. Thus spurred, the number of learning community courses grew from 15 to more than 100 and annual enrollment increased from 200 to more than 1,200 in the 2005–2006 academic year. Pace, a sponsoring member of the Atlantic Conference on Learning Communities, is hosting the conference’s Learning Community Open House, with workshops for nearly 100 educators on topics like developing learning communities and, of course, assessing them.

Core curriculum. Self-assessment of the trend toward more integrated learning broadened in the winter of 2006 as a Learning Assessment Grant from President Caputo’s office provided small stipends, materials and meals at meetings for 15 Assessment Fellows from the faculty of the University’s Dyson College of Arts and Sciences, where many of the learning community courses are taught. A respected faculty leader receives a one-course reduction in her required teaching load to work with the fellows on identifying outcomes and assessment tools (see box, next page) that move beyond the learning communities and try to measure three of the 12 skills specified as goals of the University’s Core Curriculum—communication, analysis, and civic engagement.

The Six Pillars of Assessing Core Courses

The faculty members who are Pace's Assessment Fellows have developed and are now testing six basic questions for evaluating courses in the University's core curriculum. The questions apply to all disciplines. In this example, the illustrative answers involve reference skills.

1. What general outcome are you seeking?

For example, students will be able to find secondary sources of information on one of the course topics.

2. How would you know it (the outcome) if you saw it? What will the student know or be able to do?

For example, students will be able to locate and retrieve a scholarly journal article on a selected topic using one of the library's research databases.

3. How will you help the students learn it? (in class or out of class)

For example, students will be given an introduction to appropriate library research databases, and will be instructed on how to create effective search statements.

4. How could you measure each of the desired behaviors listed in #2?

For example, students will submit an annotated bibliography of sources with their research project, in which the students will evaluate each source on its usefulness for their purposes, and will describe how they retrieved each item.

5. What are the assessment findings?

6. Based on assessment findings, what improvements might be made?

IV. OTHER MARKERS OF ENGAGED, CONNECTED LEARNING

In addition to a core that stresses active and interdisciplinary learning, other academic areas at Pace have increased their linkages between subject areas.

Multidisciplinary courses. Some new academic programs have cross-disciplinary titles—“Information Assurance in the Criminal Justice System,” a minor in computer science for finance majors and a finance minor for computer science majors, an MS in financial computing, and a certificate in Latin American Studies. Other topics have married across disciplines without changing their names. Not counting learning communities, between 2002–2003 and 2005–2006 interdisciplinary courses grew from 16 to 90.

Department-wide evaluations. In the departments where self-evaluations are most advanced, professors have found themselves working harder to make sure the courses in a major relate to each other and give students a comprehensive view of their field as well as the more familiar detailed introductions to specific areas. Systematically comparing notes while preparing the self-assessment plan, computer science professors discovered that different sections of basic courses were defining key terms differently, so upper-level instructors could not be sure what had been covered. The result was common definitions and more uniform instruction.

The Biology Department Finds Good News about Analytical Thinking

Assessment has been particularly thorough for a new undergraduate biology curriculum developed by Richard B. Schlesinger, the biologist who chairs the Department of Biology and Health Sciences, and his colleagues. The new course of study increases emphasis on analytical and integrative skills. Previously, majors were tested with traditional examinations that required memorization of facts. Now, exams in the major biology core courses include more questions designed to encourage students to integrate concepts across disciplines in biology, and between biology and related scientific fields.

As a check on how well such thinking is taking root, at the start of the junior year, students who finished two years of biology core courses in the new curriculum were challenged with a standardized assessment examination (the Educational Testing Service’s Major Field Test) that usually is used as an exit exam for seniors who have finished the biology major. The test was given in the fall so the faculty could pinpoint and address deficiencies in the students’ background knowledge as they began the specific advanced tracks in the curriculum.

The results were encouraging. While confirming that some additional courses may be needed in areas where students tended to be weak (the courses will be added over several semesters) and suggesting improvements in advising, the results also showed that with three semesters still ahead, almost all the students already were close to the national norm for seniors near graduation. Students in the new biology curriculum performed better than those who were “grandfathered” to use the old curriculum.

Perhaps most encouraging, the examination clearly showed that in “analytical skills,” beginning juniors in the new curriculum outperformed seniors who were finishing the old one.

Intensified writing. The cross-disciplinary essential of good writing is now assessed more consistently and taught more intensively than it has been in the past. Starting in the summer of 2006, all incoming students take a writing placement test asking them to read a short paragraph and write a brief essay evaluating it. Students are assigned to one of three introductory writing courses based on criteria the English faculty has agreed on (see box, below). As the term goes on students are required to keep their written work, including marked papers, in a portfolio. At the end of the term, they submit the portfolio with a “reflective statement” on their growth as a writer and two of their essays, one of which must cite research. The portfolio is designed to let both students and professors concretely see progress—and since, famously, “writing is rewriting,” papers in the portfolio can get high marks for showing good revisions.

In other subjects, growing numbers of courses are now “writing enhanced,” with required essays. Here too, Pace faculty members are beginning to agree on common criteria, sometimes called rubrics, for assessing how students are doing and what kinds of additional writing instruction they may need.

Better writing also has been an unplanned consequence of courses in which professors and students communicate online. Richard Velayo, a Pace psychologist, has published research showing that students who communicated outside of class via a keyboard were significantly more likely than students who attended class in person to organize their writing well and use good grammar.

Dickens? Wolfe? No, But Not a Bad Start for a Business Memo

Greatness in literature always will be judged subjectively, but the basics of good practical writing can be specified. Here is what students are told about the writing placement exam that Pace is requiring of all entering students starting in 2006.

Faculty will evaluate your exam for evidence of the following criteria:

- A clear thesis (statement of your position or opinion) responding to one of two short statements or questions
- Individual paragraphs that are organized around a central idea, in support of your thesis
- Good use of evidence to develop individual paragraphs
- Logical placement of all paragraphs
- Sentences that flow smoothly and demonstrate a variety of patterns
- Adherence to Standard American English use of words, punctuation, sentence structure, and grammar.

(Adapted from the University of Baltimore Academic Resource Center grading criteria archive for writing assignments.)

Life planning. In recent years, the University has found itself losing an unacceptable number of students between sophomore and junior years. Research studies elsewhere showed that sophomores can get lost and become disengaged from college if they do not see a purpose or practical goal for themselves. Combined with the NSSE data on students talking about career plans with faculty members or advisers, this information led to a new course, being pilot tested in 2005–2006, to help students who are undecided

about their majors do personal assessments of their possible career interests while being introduced to the careers to which majors lead.

Senior capstone courses. An expansion of the idea behind the traditional senior thesis, these are projects designed to integrate most of the learning objectives in a major. The number of students completing capstones has grown steadily, to well over 70 percent of the senior class, and the University hopes soon to make them universal.

In the Lubin School of Business, for example, capstone seminars now require skills from management, marketing, accounting and finance, often in a team project. While surveys have found that some faculty members' opinions of capstone projects are mixed because of the undeniable extra supervision required, professors also say capstone students understand connections between materials better than those without capstone experiences.

A more concrete outcome is that several capstone projects have turned into Fulbright applications, helping raise the number of Pace students who won the prestigious postgraduate fellowships for work and study abroad to 16 since 2002. Fulbright fellows from Pace have gone to Nicaragua to investigate empowering women through civic engagement, to the Czech Republic to look into ownership, control, and firm value in emerging market privatizations, and to Canada to study the role of "RB" in cell differentiation.

V: BEYOND DATA

Pace University is far from fixated on hard data for self-assessment. Other self-assessment techniques follow.

Teaching portfolios

In 1997 a professor of management at Pace's Lubin School of Business, Peter Seldin, published *The Teaching Portfolio*, a book that is widely credited with accelerating the use of portfolio techniques for faculty self-evaluation. In 1999, Pace's newly-created Center for Faculty Improvement took an early lead in offering the technique to Pace professors.

Faculty members now sign up to work with a faculty mentor, from a department other than the one where the participant teaches, for about half their time during the first week of summer vacation. The mentor encourages the professor to follow a protocol for setting forth what he or she wants to teach, how it is structured, and how the results are measured, and for assembling a portfolio of concrete examples and results. Because the mentors do not influence mentees' salaries or promotions, the process encourages candid reflection.

At the very least, participants say the resulting insights have reduced the number of mutually-frustrating conversations like:

Professor: "The test will be heavily based on the textbook."

Student: "But you taught us material that's completely different and didn't assign those chapters."

Beyond that, Seldin's research shows that professors who put themselves through the process broaden their range of teaching techniques. Their students consistently report higher levels of satisfaction with them than with others, saying their professors are more engaged in teaching, more willing to experiment in class and more interested in reflecting on what has gone well and what has not.

Participation is voluntary, and Pace professors who administer the program acknowledge that it may not always reach the faculty members who most need it. Still, deans and department chairs encourage attendance by faculty members who are up for tenure or having teaching problems. Professors know that the descriptions of each candidate's dossier that are published by the provost specifically mention a candidate's teaching portfolio if one has been submitted.

Since 2001 about 300 Pace University faculty members have participated in 15 portfolio workshops of 20 people each and the process has acquired "a certain cachet," according to Linda Anstendig and Constance Knapp, respectively former and current codirectors of the faculty development center. In 1990, Pace and approximately 10 other campuses were using the technique; by the middle of 2006, Seldin reported it in use at more than 2,000 institutions in the United States and many abroad.

Classroom assessments

At the other end of the complexity scale, "the muddiest point" and "the one-minute paper" are among simple techniques that have been spreading at Pace to help professors gauge how they are doing week by week. At the end of a day's class, professors are asking students to describe the muddy point they had the hardest time "getting," or to take no more than a minute to summarize the most important lesson they are taking away. Such techniques are summarized in a 1993 book, *Classroom Assessment Techniques*, by K. Patricia Cross and Thomas Angelo.

A Pace philosophy professor, Harold Brown, has logic and ethics students who want extra credit work through the principles he is teaching by applying them to everyday occurrences and practices. They illustrate their understanding by finding examples of arguments in editorials and comic strips, and Brown modifies his subsequent teaching according to what they turn in.

Focus groups

In the fall of 2005, faculty and staff members sat down with students to discuss a perception that students were confused about the 12 objectives of the University's required core curriculum (including skills such as effective citizenship, global, national, and international perspectives, valuing, aesthetic response and information literacy and research). The students said they did not know the objectives and would like to; some said they wanted to know which objectives were being sought in each of their classes. As a result, improved methods for communicating the objectives are now being planned for the next semester.

Similar sessions including focus groups run by The Pace Poll, the University's survey research organization, have proved useful in exploring issues related to the campus climate for learning stressed by the NSSE as well as more-practical issues like retention.

Benchmark comparisons: Eye-openers for Eeyores

Before the start of Pace's strategic planning process five years ago, University teams identified 12 universities to use as benchmarks for Pace's progress (see list in appendix). Since then, formal and informal comparisons have been made in numerous areas. For instance, Patrick Love, an associate provost assigned to improve counseling and advising for students, took on the University's inevitable nay-sayers with a list of 20 features of Pace that he thought people could be proud of, ranging from learning communities to the honors college, Model UN teams, a common hour for student activities, and online chats with the president. He then hired two graduate students part-time to research how often a set of comparison institutions, some from the benchmark list and others chosen as "competitors," had similar features.

The result was an eye-opener for those with the cast of mind of Eeyore, the gloomy donkey in A.A. Milne's *Winnie-the-Pooh*: Love found that only three of the benchmark institutions seemed to offer even half of the programs Pace provides. He since has presented his findings to multiple campus groups, using the comparison to argue that the further changes he believes are needed have to start with the evidence that "Pace is doing a lot of good work" and has a strong "ethos of contributing to the success of our students."

Outside reviewers

Since 2001, Pace has brought in professors from other institutions to evaluate its academic departments. Two outside reviewers spend at least one day in each department every five years, a cycle that annually reaches 20 percent of the departments. The cost per department is approximately \$3,000. Though some reviewers have been criticized for being "too soft" and overly sympathetic to departmental thinking, at their best they break the inevitable provincialism that sets in at departments everywhere, not just on campuses.

VI. TRADITIONAL INPUTS AND OUTCOMES

For all its measures of “outputs,” Pace still measures a number of inputs that traditionally are related to learning, assembling them in close juxtaposition in several report formats. (A partial listing of its financial metrics is in the appendix.) Recent reports have shown the following.

Students and professors. Average SAT scores rose from 1055 in 2002–2003 to 1081 in 2005–2006; students in the honors college increased from 115 to 198; Pace became more selective as the percentage of accepted students declined from 76 in 2001 to 70 in 2004; full-time professors teaching first year students increased, and the University met or exceeded the strategic plan’s goal of four new faculty positions per year.

International Programs. The number of Pace students studying abroad tripled between 2001–2002 and 2004–2005, though so far they comprise only four percent of the student body. In a report to the assessment office, the School of Law noted that it established a student exchange program with two universities in Latin America’s largest country, Brazil, is cosponsoring a three day conference of international lawyers and law professors discussing the enforcement of international environmental laws (fall 2006), led the expansion of the world’s largest moot court competition (in Vienna) to include a three-day Hong Kong “Moot East,” and expanded its International Commercial Law Database.

Research centers and laboratories that intensified their international focus in the last four years included those in nursing research, clinical practice and international affairs, formal computing methods, information technology intelligent agents, pervasive computing, distance education, telecommunications and learning, international business development, global finance, financial reporting in global markets, securities markets, and autism.

One-stop student services. Several NSSE findings confirmed widespread student dissatisfaction with Pace’s registrar and financial aid offices. This helped catalyze long-simmering ideas for merging the offices and data systems and cross-training staff people so they can be more responsive.

Predictable costs. In 2003, Pace University pioneered two programs that help parents and students plan their college finances. Pace guarantees that the tuition a student pays the first year will not change for up to five years of attendance in good standing. The Pace Promise guarantees to make classes available so students who pick a major in their sophomore year can graduate in four years. Three Pace undergraduate classes are now paying guaranteed, level tuitions and the number of students has grown who are picking majors promptly.

These cost-planning programs seemed to help increase retention, holding down recruiting costs and thus helping hold down tuition increases. Preliminary estimates are that since 2002–2003, first-year retention has gone up 2 percent and the six-year graduation rate has increased 6 percent.

Drug, alcohol, and healthy lifestyle programs multiplied during the last three years from 44 to 97, and in the same period reported alcohol and drug violations dropped from 36 to 18. In one year, people attending fire safety programs went up from 282 to 368.

Athletics. Assessment data in the 1990s eventually led to construction of a recreation and fitness center with a pool. This in turn has led not only to an intercollegiate swim team, but to increased interactions between students, who now have an additional place to meet.

Validation by outside groups. In recent years the University gained national professional accreditation for the first time for its education school (from the National Council for Accreditation of Teacher Education), and for its accounting program (from AACSB International). It earned renewal of accreditation, which requires self-study and a several-day visit by a team of examiners from other campuses, for the business school (from AACSB International), the psychology department (from the American Psychological Association), the Physicians Assistant program (from the Accreditation Review Commission on Education for the Physician Assistant, Inc.), and for the nursing school (from the American Association of Colleges of Nursing's Commission on Collegiate Nursing Education). The U.S. Department of Defense declared the Seidenberg School of Computer Science and Information Systems a National Center of Academic Excellence in information security.

Fellowships. In addition to its record number of Fulbright fellowship winners, 12 students won Jeannette K. Watson Fellowships for three summers of internships and mentoring in government service, work in nonprofit organizations or private enterprise; 10 won Rockefeller Brothers Fund Fellowships for Students of Color Entering the Teaching Profession; four students earned summer research fellowships in science from sources like the National Science Foundation; and one student, who earlier won a Fulbright to probe how German land use laws might be applied to help reduce sprawl in the United States, won a Robert Bosch Foundation Fellowship for an executive internship in Germany.

Professional licensing exams showed improved pass rates—nursing rose from 85 percent in 2002–2003 to 95 percent in 2005–2006; graduates of the Physicians Assistant program increased their rate from 88 to 100 percent.

Jobs. Every spring the University's office of Co-op and Career Services, the largest optional program of its kind in the New York metropolitan area, queries employers to find out how Pace students did who worked for them. The results are not statistically tabulated, but are actively relayed to academic departments, which frequently use them to revise their curriculums as Pace's school of computing did when use of Excel spreadsheets grew faster than it anticipated. (The office also queries students on how much employers let them learn on the job, and confidentially uses the information to advise future students.)

VII. NEXT STEPS

Pace subscribes fully to the idea that self-assessment and self-improvement should be continuous. Pace's work to date has prompted ideas for a number of next steps. Many will be incorporated into two major University wide efforts getting underway in the 2006–2007 academic year—developing a successor to the current five-year strategic plan, and preparing the extensive information required for the next review of the University in fall 2008 by its regional accrediting agency, the Middle States Commission on Higher Education.* Plans and ideas for the future include the following.

Support grassroots assessments

- As the culture of assessment spreads, a number of departments have increased or started their own assessment projects. In the department of Computer Science, for example, faculty members became dissatisfied with existing “field tests” of knowledge and skills and started pilot testing their own in the spring of 2006. The assessment office has acquired software for creating survey questionnaires and reporting results, making it available to departments and programs that ask to incorporate surveys in their assessment plans.

Refine presentation formats

- Starting in 1997–1998, the University started experimenting with ways of compiling and sifting large amounts of the data it was gathering.

The effort began with a “scorecard,” an attempt at setting up performance indicators to track Pace's progress on the flawed but influential measures used by *U.S. News & World Report* in its annual college rankings. Seven years later, the “scorecard” is still presented to the board each year.

In addition, a much broader overall assessment format has been developed. Informally termed the “assessment matrix” and prepared by the office of assessment, it is a spreadsheet compiling progress on all the goals of the Pace strategic plan.

Analyze and use the data

- Increase responses from units with self-assessments about their results and how they use or plan to use them for improvement.
- Expand feedback loops that let the findings of academic self-assessments be accessed and used by the relevant departments and schools.
- Continue to share University self-assessments through the faculty and staff councils, including the Faculty Institute and other faculty development programs.

*The Middle States Commission on Higher Education can be reached at 3624 Market Street, Philadelphia, PA 19104-2680, telephone (267) 284-5000.

- Identify ways to share specialized self-assessments like those for the library and information technology with the people providing those services and other interested community members.
- Incorporate more self-assessment results into the budgeting process.

Increase participation

- Follow-up with departments that do not yet have self-assessment plans to help them with plan development.
- Identify ways to more fully involve students in the self-assessment process.
- Identify obstacles to self-assessment and using the results.
- Increase the numbers of people involved in evaluating the data and making recommendations based on it.
- Foster receptivity to sharing “best practices.”

Build awareness

- Continue educating faculty members on the need and value of self-assessment in the teaching and learning process.
- Keep the University community informed about the accountability issue in higher education and the need to demonstrate accountability through self-assessment.
- Keep educating faculty members on the great variety of self-assessment methods and emphasize that faculty members are not locked into one test or method.

Refine objectives

- Start formal faculty discussions on what skills, knowledge, and abilities should be assessed on an institutional level and what tools might be used; what characterizes a Pace graduate? Begin compiling a list of expected student learning outcomes for each program (these will be required by the Middle States Association’s accreditation review), and identify assessment practices for each program.

Support change financially

- Identify more ways to support changes suggested by self-assessment findings, perhaps by expanding the scope of presidential grants.

Gauge value added

- An ultimate test of the new self-assessment systems at Pace will be developing the ability to assess value added. Simply administering instruments like the CLA longitudinally, assessing students when they arrive and again when they leave, will be a start. The overall effort is getting underway. David Caputo, the president, has said: “We know that institutions that start with the better students will likely end up with very high test results. But what is more important is learning what we add to a student’s education.”

VIII. LESSONS FOR THE FUTURE

Selecting from national self-assessment resources and drawing on its own, Pace University has tried to avoid many evaluation pitfalls. As Peter Ewell of the National Center for Higher Education Management Systems summarizes the most notable ones, the dangers are that “standardized examinations founded on well-established psychometric principles, designed to produce summary performance statistics quickly and efficiently,” nonetheless can be “excessively mechanistic,” encourage “teaching to the test,” and reduce students to “products” and learning to a “merely additive” process. He says such testing, sometimes reflecting “no child left behind” models, can ignore a growing consensus that “paths of student development should not be seen as linear and additive but rather as organic and transformational.” How do you measure appreciation of a poem or creative flashes of entrepreneurship?

Other observers on the national scene have worried that standardized, nationwide college assessment could siphon money from poor colleges to rich ones by rewarding the good results that prestige institutions get instead of bolstering institutions lower on the pecking order that could be most helped by more resources. In public schools, evidence is mounting that the high-stakes testing movement has driven people away from low-performing schools to alternatives, making the low-performing schools worse. Such an outcome could, consciously or not, perpetuate the status of “advantaged” groups.

The reality of these concerns and others, including worries that testing will put money into the testing industry that could be better spent on instruction and research, deserves continuing scrutiny.

Pace University estimates that it spends about \$250,000 a year on self-assessment, for instruments developed and scored by outside organizations, external reviewers for academic departments, and faculty and staff time. In the University’s total budget of \$270 million, this is about the cost of 250 desktop computers

The game seems well worth the candle. As the Middle States Commission on Higher Education recently noted, “The cost of not engaging in assessment may be even higher than the cost of doing so.... Institutions that do not ... use outcomes information are less able to examine student development and are not able to provide an adequate rationale for modifying existing programs or curricula....”

So far at Pace, self-assessment has been a lever for encouraging more active and coherent learning, improved scores on professional exams, a rising level of overall quality, and increased striving for continuous improvement.

Pace administrators stress that adapting self-assessment to the particular vision of their own institution has been particularly valuable. As Pennipede puts it, “Not all campuses value service learning, community connections and civic engagement as much as Pace does. Pace and all institutions have special qualities that standardized measures cannot deal with—but that the universities and colleges can measure for themselves.”

Provost Morreale says, “The key ingredients in the success of a self-assessment program are connecting assessment strategies to the mission and goals of the university, and departmental and school control of tools and techniques to measure outcomes.”

Summing up, Caputo declares, “While there is no substitute for faculty members with rigorous minds and empathic hearts, student assessments and evaluations provide the most important information for those who want to be sure their students are learning. If they are not done comprehensively and systematically, the quality of education has to suffer. Without measurable outcomes and information, no matter how gifted the professors, teaching evaluation and effectiveness will remain an art when it needs to be blended with well crafted science. I expect the Pace model to move us toward the science.”

A good chance exists that higher education can manage self-assessment and accountability better than elementary and secondary schools have, balancing standardized tests with more subtle and humanistic techniques. In the ongoing discussion, Pace will be happy to share its hard-won knowledge.

Appendix: Other Self-Assessment Techniques at Pace University

Benchmarks

At the start of work on its current strategic plan, the University's planning committee selected a set that still is in use of 12 benchmark institutions that Pace sees as peers or "targets of aspiration." In the New York metropolitan area they are Fordham University, Hofstra University, New York University, Seton Hall University, and St. John's University, and across the country, American University, George Washington University, Northeastern University, Temple University, the University of Miami (Florida), University of Pittsburgh, and the University of Southern California.

Survey of student attitudes, expectations, and behaviors

■ **The CIRP (Cooperative Institutional Research Program Incoming Freshman Survey).** This survey was developed in the 1970s by the Higher Education Research Institute at UCLA. It provides baseline data for incoming students and allows for trend analyses. At Pace it has provided information to help the admissions department assess its marketing and recruiting, and to help administrators of first-year programs know what kinds of services incoming students expect. **The College Student Survey** is the CIRP counterpart for seniors.

Surveys of factors influencing retention

■ **Your First College Year.** A companion of the CIRP Incoming Freshman Survey but given at the end of that year, this has been used by Pace find out what students in the honors program thought of their college experience. An important finding was that 93 percent of respondents planned to attend Pace in the subsequent fall semester, which provided reinforcement for decisions to continue and expand the program.

Surveys of fundamental educational processes

- **Higher Education Research Institute Faculty Survey.** Provides information about faculty attitudes, experiences, concerns, job satisfaction, workload, teaching practices, and professional activities. At the request of institutions belonging to Campus Compact, including Pace, the 2004-2005 survey put special emphasis on civic engagement.
- **Educause Center of Applied Research Technology Survey.** Just starting to be used at Pace with first year students and seniors, this study's goal is to gain an understanding of how students use information technologies and to compare Pace students with those at similar institutions. The survey is expected to peg students' technical skills, the extent to which they use instructional technologies, their ability to use information technology to solve problems, and the degree to which they are technologically prepared for graduate school or the workplace. Pace University also uses its own surveys to measure the faculty's use of information technology.
- **LibQUAL+ Library Service Quality Survey.** As a result of the 2003 assessment and other user feedback tools, the library on Pace's downtown campus was rearranged to separate quiet areas from areas for group study, computers were upgraded, and computer authentication systems and the Web site were redesigned to overcome student difficulties when working from a residence hall or home.
- **Senior Outcomes Survey.** A survey developed by Pace's office of Co-op and Career Services, this is mailed to seniors just after graduation and asks whether they have been accepted in graduate schools or found jobs.

Pace also uses surveys of its own design to measure the outcomes of learning communities and courses incorporating "service learning."

Note: Because it is not being tested in New York State, Pace is not participating in pilot tests of the new instrument developed by the National Center for Public Policy and Higher Education that is being considered by the National Commission on the Future of Higher Education. Because of Pace's previous commitment to pilot testing the Collegiate Learning Assessment, the University had to decline to use a test of writing and critical thinking recently developed by the Educational Testing Service.

Locally-developed departmental tests

Many departments at Pace develop their own instruments, often with help from Pennipede. Dissatisfied with existing “summative” tests of knowledge in computer science, faculty members in that field at Pace’s Seidenberg School of Computer Science and Information Systems recently designed their own. Covering subjects from Coding Constructs and Operating Systems to Data Structures and Complexity Analysis, a trial version was administered in the spring of 2006. It was to be evaluated at the school’s first Assessment Day, a 9:00 a.m. to 4:00 p.m. event designed to help faculty members evaluate all assessments completed during the year and recommend improvements.

Admissions/enrollment/marketing surveys

Like admissions departments everywhere, Pace uses various measures to track the kinds of applicants it gets and loses to competitors. Marketing surveys are used less regularly, but look into perceptions of the University’s value among potential students and donors.

Centennial assessments

Though the Centennial was barely underway as of spring 2006, activities are being monitored for numbers of participants, breadth of constituencies being reached, and media coverage.

Financial measures

Financial indicators ultimately are ways of tracking means to the end of learning. Those interested in more detail are invited to write the Executive Vice President for Finance and Administration. Measures currently in use at Pace are:

Expendable Net Assets—unrestricted and temporarily restricted net assets minus fixed assets less long-term debt

Liquidity Ratio—investments (excluding endowment funds) against long-term debt outstanding

Adjusted Viability Ratio—expendable net assets, adjusted for the postretirement benefit accrual divided/long-term debt

Adjusted Primary Reserve Ratio—expendable net assets/ total expenses

Debt Service Ratio—debt service/total revenues

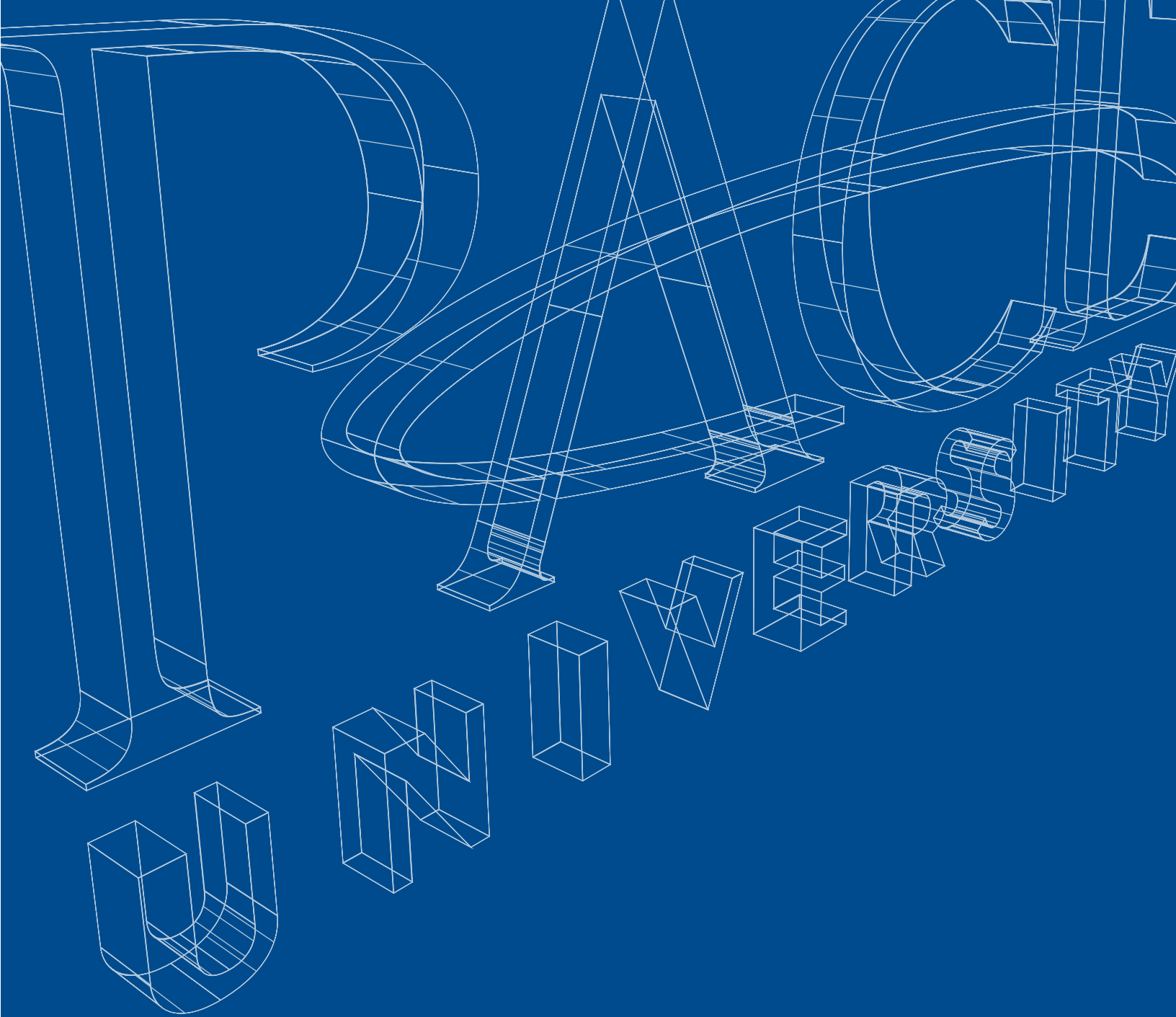
Maximum Annual Debt Service Ratio—highest level of annual debt service payable during the life of the bonds/current year total unrestricted revenues

Total Debt/Total Capitalization Ratio—total short and long term debt/total debt plus total net assets

Return on Net Assets Ratio—net growth in assets/net assets at beginning of year

Other Sources of Information

The Pace University assessment Web site, under “A” at www.pace.edu, has extensive annotated bibliographies and links to sources ranging from books to professional and accreditation organizations.



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