SELF-STUDY REPORT

The Institutional Self-Study Report has been developed in preparation for the Middle States Commission on Higher Education 2008 decennial reaccreditation review. Over 200 Rutgers faculty, staff, and students have contributed to this project.

Educational Change at Rutgers: An Institutional Self-Study
[Available below as PDF files]

- Guide to the Self-Study (Executive Summary)
- Institutional Context
- Section I: Undergraduate Enrollment Management and Educational Progress
- Section II: Curricular, Co-curricular, and Extracurricular Services
- Section III: Undergraduate Educational Offerings and General Education
- Section IV: Related Educational Activities
- Section V: Using the Research and Graduate Context to Enhance
  Undergraduate Education
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- Section VIII: Community Engagement: Rutgers–New Brunswick and
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GUIDE TO THE SELF-STUDY

EDUCATIONAL CHANGE AT RUTGERS

JANUARY 25, 2008

Prepared for the
Middle States Commission on Higher Education • Reaccreditation 2008
FORWARD

This guide is an abstract of an introduction to the self-study for the Middle States Commission on Higher Education (MSCHE) and the members of the site visit Review Team. It was initially prepared to serve all members of the Rutgers community and our public constituencies as a pathway into our comprehensive self-study and its associated roadmap and documentation. The guide provides a brief explanation for the structure of the self-study, justification for our choice of related topics, and a mechanism to enable individuals to navigate the sections and locate components that might be of particular interest to them. It also includes a compendium of the salient findings from our intensive self-study process and a listing of the key recommendations that emerged from it.

STRUCTURE OF THE SELF-STUDY

Rutgers, The State University of New Jersey, has chosen the Selected Topics Option I model for its institutional self-study. For this option, we have focused on eight topics that we believe are representative of the broad accomplishments, stature, ambitions, and areas of limitation and concern in our complex and multifaceted institution. The centerpiece of these selected topics is undergraduate education, chosen both because it is our historic and most pervasive mission as a university and, also, as detailed below, because for the past four years the improvement of undergraduate education and its better integration with the two other principal missions, research and service, has been a primary goal on all three of our campuses. In this self-study, we also have addressed one topic carried over from the MSCHE Periodic Review Report of 2003, Intercampus Governance and Devolution.

Following the September 28, 2006, visit of our MSCHE liaison, Dr. Michael Kiphart, the final version of our Design for Institutional Self-Study was submitted to MSCHE on November 1, 2006, and approved by Dr. Kiphart on November 6, 2006. By focusing on undergraduate education, the self-study is intended to provide the Rutgers community with a document that offers perspective on the educational change occurring on all our campuses since our last full MSCHE reaccreditation. It has particular relevance to President McCormick’s inaugural challenge to all three of the university’s campuses to reconsider the structure and curriculum of undergraduate education in the context of the major research university that Rutgers has become. The self-study’s utility is also intended to last beyond the present, a time marked by intense activity intended to transform undergraduate education and its organizational structure, to serve as a guide for institutional planning, change, and growth over the course of the next 10 years. To help us achieve this latter outcome, several sections of this report go beyond discussion of undergraduate education to include the fuller range of teaching, research, and service envisioned in our mission.

Our self-study narrative was developed in draft reports by working groups and in some cases subgroups and then thematically unified and further developed by a self-study drafting committee. Reports prepared at the request of the Steering Committee by the faculty of Rutgers University Libraries and by the Office of Information Technology, among many others, served as additional valuable resources for the working groups.

For reference, the sections and MSCHE accreditation standards addressed are indicated in the chart below.
out clearly defined parameters to help assure the academic success of the student-athletes, their effective representation of the university on the field or court, and expectations for the integrity and financial balance of the programs. The Division I program produces an annual report relating various academic performance measures; in 2006 it completed a successful certification review by the NCAA. Important measures are the Academic Progress Rate (APR) and the Graduation Success Rate (GSR). Rutgers had a GSR that exceeded the federal rate in all but one sport for the 1996–1999 cohort and had eight teams in the top 10 to 20 percent of their sport by APR (2004–2005). Internally, the Division of Intercollegiate Athletics strives to achieve an all-sports grade point average that meets or exceeds the all-student average in New Brunswick. An exit survey provides a mechanism for students to provide feedback on the academic support programs. Recent successes in the athletics programs in New Brunswick, especially in football and women's basketball, have enhanced the recognition and popularity of the university on a national scale. The athletic programs in Camden and Newark have produced teams that are championship contenders in a number of sports. Student athletes regularly participate in assessment activities of both the programs and the athletic staff.

**Advising**

The Camden, New Brunswick, and Newark campuses each provide in-office, general advising. In New Brunswick, with its new single set of general education requirements, students obtain consistent advice, no matter which advising office they visit. Advising within the major is the responsibility of the academic department or program offering the major. The Newark Campus pioneered an online degree audit system a decade ago, while Camden was the first campus to introduce Degree Navigator, a flexible, online secure degree audit and academic advising system for undergraduate programs. As of July 2007, Degree Navigator is also available to all New Brunswick students and their advisers.

Assessment strategies are used to determine the success of academic advising on each of the campuses. For example, in New Brunswick, student satisfaction surveys, longitudinal data collection measuring rates of retention and graduation, the Noel-Levitz College Student inventory, anecdotal responses, and program attendance surveys are all used for assessment. In Camden, a campus survey uncovered a number of issues involving academic advising that required attention. Based on that feedback, the deans and provost reorganized advising so that it is now administered within the academic units.

**Libraries**

The goal of the Rutgers University Libraries is to support and enrich the instructional, research, and public service missions of the university through the stewardship of scholarly information and the delivery of information services.

The Rutgers Libraries serve approximately 2.5 million users a year in 26 integrated libraries, centers, and reading rooms universitywide. They serve many more remotely through their website. During 2005–2006, 23,837 students were taught in 1,040 classes scheduled by professors on all three campuses to inform their students of research methodologies in their fields. Rutgers continues to provide users with one of the most comprehensive research libraries in the nation. Its online search and publication download capability makes thousands of journal articles and other scholarly work accessible to students, faculty, and staff at all times.

Rutgers University Libraries use various assessment methods. For example, in spring 2005, the Libraries participated in an international assessment survey entitled LibQual+® and conducted multiple focus groups, surveys, and interviews in preparation for a new strategic plan. To evaluate success of undergraduates in learning information literacy competencies, the Rutgers Libraries participated in development of the Project SAILS (Standardization Assessment of Information
Literacy Skills) assessment instrument and offered a quiz within Searchpath, the Libraries’ online tutorial.

The university plans to undertake the development of an information literacy assessment plan that is integrally linked to the new School of Arts and Sciences core curriculum in New Brunswick, including learning outcomes, assessment measures and criteria, and an assessment schedule. The Rutgers University Libraries are playing a key role in the development of the new undergraduate core curriculum and, where appropriate, in new undergraduate initiatives such as learning communities, capstone courses, and the honors program in New Brunswick.

**Career Services**

Career Services provides an extensive and varied set of opportunities on all campuses for students to explore and refine career choices. Various surveys indicate that students are increasingly satisfied with its programs, as are prospective employers and recruiters.

**Health and Psychological Services**

A wide spectrum of fully accredited health services is available in Camden, New Brunswick, and Newark, including primary and specialized care as well as educational programs that encourage a healthy personal college lifestyle and community health. In academic year 2006–2007, there were 57,413 visits to all of the health centers. In New Brunswick, the services are fully accredited by the Joint Commission of Accreditation of Healthcare Organizations and student satisfaction has been maintained at a 95 percent level or better over the past several years. The Accreditation Association for Ambulatory Health Care accredits Rutgers–Camden and Rutgers–Newark Student Health Services.

A wide range of counseling services is available on all three campuses. The university has developed procedures and policies for identifying and responding to students with mental health issues. The new structure for undergraduate education in New Brunswick permitted some consolidation of service delivery points from a disparate set of programs offered by the individual colleges; consolidation and reassignments have created the critical mass of counselors needed to provide specialized counseling and adequate coverage.

**BASIC SKILLS SUPPORT SERVICES**

Rutgers offers a wide range of basic skills support services. Underprepared students are appropriately placed in a variety of noncredit and credit-bearing courses. To guide this process, all first-year and transfer students entering the university are required to complete placement testing except for students with otherwise demonstrated proficiencies. New Brunswick and Camden use the Rutgers University Placement Test, developed by our mathematics and English departments and administered by the Office of Institutional Research and Academic Planning. Newark uses the ACCUPLACER developed by the College Board. Both are reviewed periodically.

One of the university’s learning goals is proficiency in writing. Approximately 12 percent of the incoming students are placed into a basic skills writing course—either a one- or two-semester noncredit course or a credit-bearing course that offers supplementary assistance. Data developed by the Writing Program in New Brunswick indicate that the basic skills program successfully helps students to develop the writing proficiency required to succeed in college.

Another learning goal is that students develop their skills in problem solving through mathematical processes. Approximately 28 percent of entering students are placed into mathematics basic skills courses.
have been brought together from the four former liberal arts colleges to create one school. Faculty
affiliated with this unit will now play a far greater role in undergraduate education than in the past.

Transforming Undergraduate Education is also changing the way we think about education at
Rutgers, focusing on the research mission of the university. TUE reforms challenge students to take
an active role in working with faculty to access the richness of research resources available at
Rutgers. Development of a new core curriculum reflecting this ideal is among the highest current
priorities. To date, an interim set of core standards has been devised and put into effect. SAS now has
one set of admissions standards and academic expectations; its faculty are responsible for admissions,
general education, and graduation policies for its students. An interim curriculum committee,
comprised of faculty from SAS and from the professional schools, has developed this provisional
curriculum, designed as “a starting point for a campuswide discussion of the rationale for
undergraduate core distribution requirements.” This interim set of requirements is in effect for the
first-year classes entering Rutgers in 2007 and 2008.

But the crucial work lies ahead; SAS must develop and adopt a core curriculum that will define
what a Rutgers liberal arts degree is and thus what it means to be a Rutgers graduate. A “second
wave” Ad Hoc Core Curriculum Committee began meeting in spring 2007 to develop a set of core
requirements for first-year students entering in 2009 and into the future. The committee is creating a
new core curriculum, including clearly articulated learning goals for all SAS students, requirements to
meet those goals, methods of assessing the achievement of those goals, and a mechanism for regular
feedback of the results of assessment with constant improvement and reinvigoration of the courses.

An indicator of the scope and scale of changes made in undergraduate education, and a prime
example of the initiatives to help integrate our educational programs into our research and service
missions are the newly inaugurated first-year seminars. Taught in small enrollment sections by
tenured or tenure-track faculty, the seminars are providing hundreds of New Brunswick students with
an introduction to research as the foundation of their own education and as work to which they can
eventually contribute through their own participation. In the first academic year, about 120 seminars
are being offered.

Learning communities are also providing students with opportunities to interact with faculty in
cocurricular academic environments. In response to similar intellectual concerns, the professional
schools have also assessed their curricula and instituted reforms. Thus, this section also describes new
initiatives at the Ernest Mario School of Pharmacy, Mason Gross School of the Arts, and School of
Management and Labor Relations. Each of these units has devised ongoing ways to improve and
enhance its curricula for the benefit of undergraduate students.

The Newark and Camden campuses have also responded proactively to Middle States
recommendations and the university’s concerns about student participation in research and
improvement of undergraduate education. Newark faculty have launched new initiatives, including an
expanded Honors College, a new “Writing Across the Curriculum” program, and a process to
reevaluate the general education curriculum. Camden faculty have developed a new Freshman
Seminar Program and have revised general education requirements.

OVERVIEW OF UNDERGRADUATE EDUCATION

Each school at Rutgers has its own set of learning goals and objectives, within a universitywide
assessment plan and framework, and all departments either have or are working on
implementing/revising their individual learning goals and objectives. General education curricula,
while differing somewhat on the three campuses, also have common learning goals, in the areas of
oral and written communication, quantitative reasoning, critical analysis and reasoning, technical
competencies, and diversity/global understanding, and share a commitment to documentation, analyses, and feedback regarding learning goals and objectives.

Research and field experiences, strongly encouraged by TUE, give students opportunities to complement their academic programs through interaction with faculty outside of the classroom. The deep engagement of the faculty in the research community encourages students to follow this example and, increasingly, with faculty encouragement, to seek this deeper engagement in their academic careers.

This section includes a discussion of recent initiatives, including extensive programs provided by Rutgers University Libraries and by learning centers across the university, to support student learning. Information technology is playing an increasingly important role in enhancing communications and supporting the educational endeavor. Because of the importance of assessing quality, Section III also describes the university’s ongoing academic review process and provides a rationale for recent revisions in the process.

The process of reimagining undergraduate education across the university is addressing critical questions about educational offerings, including programs of study and their responsiveness to changing needs, curricular revisions, dual and joint degrees, and programs designed to encourage and support undergraduate research. Since the last reaccreditation in academic year 1997–1998, Rutgers has launched a total of 55 new degree programs. An extensive review process, from the department to senior administration within the university, ensures careful assessment of each proposed degree program.

Outstanding student achievement and faculty awards for excellence in teaching serve as indicators of Rutgers’ success in undergraduate education. Section III concludes with a discussion of these accomplishments.

SECTION IV: RELATED EDUCATIONAL ACTIVITIES

Consistent with its tripartite mission of teaching, research, and service, Rutgers brings its instructional resources out into the larger community through various programs or activities that Characteristics of Excellence in Higher Education (MSCHE, 2006) categorizes as Related Educational Activities. Section IV discusses those activities that pertain to Rutgers except for Basic Skills, addressed in Section II, and internships and study abroad, described in Section V.

OFF-CAMPUS AND DISTANCE LEARNING

Through off-campus and distance education the university meets the varied educational needs of New Jersey residents and others, reaches locations in the state underserved by senior public institutions, and provides a broad array of professional and life-long learning opportunities in response to the intellectual and vocational objectives of its constituencies.

Motivated by an interest to enhance access to their educational programs, faculty at each school at Rutgers determine what programs to offer off-campus or online. The Division of Continuous Education and Outreach (DCEO) supports the school-based activities and nontraditional students through its leadership role in oversight, communications, standards and technical support, training, and coordination.

As part of the self-study process, we surveyed all academic units offering undergraduate and graduate credit courses and credit-granting programs delivered through traditional classroom formats.
in off-campus locations and via distance/distributed systems to evaluate the accessibility and the quality of these programs. In each of the units, the processes and procedures used to select faculty, review syllabi, and evaluate courses are the same for off-campus sites, distance/distributed offerings, and on-campus programs. Online and off-campus courses are designed for smaller enrollments than their on-campus counterparts. The relatively low limit on class size in these offerings, despite obvious financial benefits from larger sections, speaks clearly to the emphasis academic units have placed on maintaining the quality of these learning experiences.

Students in off-campus locations and online programs receive advising services by phone, email, and at off-campus sites. Rutgers University Libraries provides services to off-campus and online students through online tutorials, access to electronic resources, and delivery of documents to students' desktop computers and to locations throughout New Jersey and neighboring states.

To help meet the need to provide for higher education opportunities in underserved areas in the state, Rutgers has formed partnerships with two community colleges. The Rutgers–Brookdale Community Partnership at the Western Monmouth Higher Education Center on the Freehold campus of Brookdale Community College makes it possible for students who complete the associate’s degree at Brookdale to finish the Rutgers' baccalaureate degree on-site. The Rutgers–Atlantic Cape Community College partnership allows students with the associate's degree to complete the Rutgers' baccalaureate at the ACCC–Mays Landing Campus. Five undergraduate degree completion programs are currently available at each location. Rutgers is currently exploring offering additional degree completion programs at both the undergraduate and graduate level at the Freehold and Mays Landing sites.

Rutgers' participation in the New Jersey Coastal Communiversity in Monmouth County on the Brookdale Community College campus in Wall is another response to the need for new and extended resources off-campus. In June 2007, Rutgers opened another off-campus site; the university launched the Rutgers School of Public Affairs and Administration's Executive Master of Public Administration program on-site in Newark City Hall for city employees and professionals in other public and nonprofit organizations.

Online educational programming at Rutgers is modest, but continues to grow. Three complete graduate degree programs are available, but it is not yet possible to complete an undergraduate degree online.

Electronic course management systems support classroom and online courses. In addition to Rutgers Online with its eCollege management system, the Blackboard course management system is available on the Newark campus. Sakai, a collaboration tool and potential management system, is available universitywide. Hybrid courses that use a course management system to support classroom instruction with web technology are the preferred format for an increasing number of university classes. Academic units using blended courses that supplement classroom with online resources provide a foundation for those units to move into distance learning in the near future.

**NONCREDIT OFFERINGS**

At Rutgers, over 30 different financially independent and self-supporting administrative units provide noncredit continuous education. The Division of Continuous Education and Outreach, which coordinates and supports their efforts both on-site (on- and off-campus) and online, has almost 95,000 enrollments each year. Through its reporting system, DCEO also monitors financial elements of activities connected with their noncredit continuing education programs. Faculty in each school are fully responsible for content and academic oversight.
established requirements set by the appropriate specialized accreditng body. The goals and methods used for general education development and assessment on each of the three campuses are discussed in this section. The previous structure of the liberal arts colleges made the development of uniform learning outcome assessment tools very difficult. The new collegiate structure in New Brunswick, created as a result of the implementation of the Task Force on Undergraduate Education recommendations, will help the university do a better job of assessment in this area. This part of Section VI also describes the changes being implemented in New Brunswick for the core curriculum and its assessment. An overview of assessment practices in the Writing Program is presented as an example of general education assessment.

**Departmental and Program Learning Outcome Assessment Practices**

The results of an Assessment Inventory, conducted in October 2006, are described in Section VI. A few departmental learning outcome assessment plans are presented as examples of best practices to date. These include in New Brunswick, Environmental Science, Food Science, Cell Biology and Neuroscience, Mechanical Engineering, and the Graduate School; in Newark, the Teacher Education Program and the College of Nursing; in Camden, the School of Business—Camden; and universityside, a critical supporting unit for learning outcomes, Rutgers University Libraries.

**WHERE WE ARE NOW**

The university is actively involved in a wide range of assessment activities—including pilot testing some of the national instruments, such as NSSE and CLA; devising our own assessment tools; strengthening our own institutional resources to bring concepts into practice; and encouraging the development of a widespread understanding of the functions of assessment universitywide. The transformation of our undergraduate core curricula is also stimulating assessment initiatives; changes in general education and in education in the undergraduate major are all being designed with significant built-in assessment components. Over the next few years these features will become more deeply embedded in Rutgers’ culture.

We have already evaluated all of our academic departments to determine what kinds of learning outcomes assessment they now employ. University offices responsible for assessment and institutional research are taking on more responsibility for encouraging rapid development of effective assessment measures and realistic timelines for implementation are in place. The university’s central administration is strongly committed to this sea change; budget and planning decisions—previously loosely coupled with assessment data—are now increasingly dependent on these data. This change is supported by all-funds budgeting, a data-driven budgeting process that allows deans to more closely integrate institutional resources with accomplishment of their schools’ academic priorities. The relationship between resources and assessment will be strengthened as the culture of assessment increasingly pervades the way we do business at Rutgers. We have established a number of key universitywide strategic planning committees, including an Executive Committee on Assessment, to oversee, coordinate, and support the development and integration of thoughtful and useful assessment practices, and we are committed to going forward.

**MOVING FORWARD**

The changing nature of expectations of higher education coupled with the availability of new technologies that bring vast quantities and varieties of information to everyone is changing the standards that we are expected to meet with regard to measures of the academy’s success. These new expectations necessitate new institutional structures within higher education and within the university that better document and make transparent the success of our students. More than ever, we recognize the importance of being able to codify our learning goals, prove the extent to which we achieve them,
and demonstrate how matriculation at Rutgers makes a difference for those who earn a Rutgers degree.

To this end, the university has reorganized the Center for Teaching Advancement and Assessment Research (CTAAR), previously known as the Center for the Advancement of Teaching, with an expanded mission to invigorate and coordinate assessment activities and to bring energy, resources, and visibility to new and innovative assessment activities throughout the university. CTAAR will provide the means for the university to communicate with the state and the nation through publications, websites, and open workshops and presentations on topics in assessment. Through the center’s programs, the university will cooperate with other institutions of higher education throughout New Jersey to learn from each other about best practices, and to share the results of pilot projects and new initiatives. Rutgers is approaching learning outcomes assessment, for both general education and for departments and programs, as a continuous and long-term process, based on sound research principles that can be a model for institutions in the state of New Jersey and the nation. As an administratively sanctioned, highly visible, respected, and experienced central resource to promote and implement effective assessment strategies across the university, CTAAR will be a key resource in transforming faculty interest and commitment to assessment.

Over the next five years, CTAAR’s broad mandate includes a review of assessment practices in all facets of university function that affect student life and learning. CTAAR’s leader, who now holds the new title of associate vice president of academic affairs for teaching and assessment research, will bring a unified vision to assessment practices while still providing for the diversity necessary to enable varied disciplines and operations to design effectiveness measures that meet their specific missions. The university’s new assessment mechanisms will utilize and build on the many successful practices and programs on which it has relied for years.

Section VI describes the new universitywide structure and procedures for learning outcome assessment, including the Assessment Advisory Committees for each school; the Assessment Council to oversee the four-year reporting and feedback cycle for all departmental processes for learning outcome assessment across the university; and the Executive Council for Assessment, the strategic planning body for learning outcome assessment in the university. The Executive Assessment Council, chaired by the executive vice president for academic affairs, is a forum for senior university leadership to develop the university’s assessment strategy, enhance the culture of assessment, and develop and sustain linkages among planning, assessment and continuous improvement throughout the university.

This section also outlines new learning outcome assessment initiatives, begun in 2007. These include a longitudinal assessment of the communication learning goal; assessment of the information literacy learning goal with the help of the Rutgers University Libraries; pilot projects for student learning portfolios, using the Online Student Portfolio software in Sakai; a pilot of the Collegiate Assessment of Academic Proficiency exam; piloting the Collegiate Learning Assessment instruments for first year students and seniors; and another cycle of the National Survey of Student Engagement.

SECTION VII: EDUCATION AND RESEARCH IN AN URBAN SETTING: RUTGERS–NEWARK

Section VII focuses on the urban mission of Rutgers–Newark and assesses it from three main vantage points: student characteristics, educational offerings, and faculty engagement. The self-study provided
• Accounting, internal control, and audit
• University level promotion and tenure review
• Management of the library system
• Management of facilities construction
• Debt management
• Universitywide budgeting.

The president, the executive vice president for academic affairs, the senior vice president for administration and chief financial officer, the secretary of the university, the vice president and general counsel, the provost–Camden and the provost–Newark are identified in Rutgers University policies as the seven principal university officers and these policies specify their responsibilities.

The uniform financial profile of the university makes it clear that for purposes of financial reporting the Camden, Newark, and New Brunswick campuses are not separate entities. They do not independently issue debt or borrow money. In contrast, the new system of all-funds budgeting is an example of devolution. Implemented beginning in AY 2003–2004, this new budgeting process for the first time allocates a fixed percentage of tuition revenues to the units that generate the revenue, increases the return of grant overhead to the units that receive the grants, encourages entrepreneurship by deans and provosts, and increases rates of return of net proceeds from various other revenue sources, thus allowing deans to more closely integrate institutional resources with accomplishment of their schools’ academic priorities.

In areas under the senior vice president of administration and chief financial officer, significant examples of devolution include:
• Authority of the director of purchasing–Newark to approve purchases, purchase orders, contracts, and agreements that have a total value up to $250,000
• Establishment of Newark Computing Services, Camden Computing Services, and New Brunswick Computing Services as part of the Office of Information Technology’s Campus Computing Services unit
• Devolution of responsibility for most aspects of post-award grant administration on the Newark Campus to the Newark Grant and Contract Accounting office.

In areas under the executive vice president for academic affairs, significant examples of devolution include:
• July 2003 shift of operating budgets and line personnel for the Camden and Newark admissions offices to the campus provosts
• 2003 restructuring of the Office of Financial Aid which resulted in the campus director at Newark reporting to the Newark vice provost and the campus director at Camden reporting directly to the Camden associate provost for enrollment management
• Responsibility of the Camden and Newark provosts for their campus Registrar’s Offices
• Responsibility of the admissions offices on the Camden and Newark campuses to their respective provosts
• Authorization by the university for both the Rutgers–Newark Office of Sponsored Research and the Rutgers–Camden Office of Sponsored Research to serve as pre-award grant administration units
• 2003 restructuring of Rutgers University Health Services that resulted in three student health services, each operating and accredited independently, reporting to a campus official, and maintaining independent budgets.

This section also summarizes key governance issues, including academic standards, labor relations, faculty and staff personnel policies, governance and policy for the Rutgers University Libraries, as well as the recent establishment of an online university policy library.

This section contains no current recommendations. It concludes by noting that absent any discernible movement toward revisiting the restructuring proposals by the state and governor, the system of strategic devolution we have in place has, on balance, served us well. It will continue to be refined and improved, and the university is committed to an ongoing process of addressing any remaining issues and those which will inevitably arise in the future.
RECOMMENDATIONS

SECTION I: UNDERGRADUATE ENROLLMENT MANAGEMENT
AND EDUCATIONAL PROGRESS

1. Refine and implement undergraduate enrollment management plans and initiatives on all campuses while enhancing systems and programs to strengthen quality, retention, and graduation rates.

   Primary responsibility: Vice president for enrollment management
   Assessment: Monitor outcomes and revise plans and programs as appropriate.

2. Develop a comprehensive strategic plan for increasing merit and need-based financial aid and designate resources to sustain or enhance university enrollment, diversity, access, opportunity, and equality goals.

   Primary responsibility: Vice president for student affairs
   Assessment: Document and disseminate plan, and monitor enrollment, quality, diversity, access, opportunity, equality, and goals for enhancement of financial aid resources outcomes.

SECTION II: CURRICULAR, COCURRICULAR, AND EXTRACURRICULAR SERVICES

1. Continue to develop, enhance, and implement programs that bridge academic and student life-based learning in line with TUE report in New Brunswick and respective initiatives in Newark and Camden.

   Primary responsibility: Executive vice president for academic affairs
   Assessment: Track outcomes and progress universitywide and by campus, and in comparison to peer institutions.

2. Improve coordination between and among academic support units, oversee collection of learning outcomes data for these units.

   Primary responsibility: Vice president for undergraduate education, provosts
   Assessment: Track outcomes and progress relative to effectiveness of learning support programs.

3. Enhance student life services and programs to strengthen students’ engagement with the university and the quality of the student life experience.

   Primary responsibility: Vice president for undergraduate education, vice president for student affairs, provosts
   Assessment: Track and monitor outcomes and progress in development of programs to strengthen student engagement and enhance quality of student life.
### SECTION III: UNDERGRADUATE EDUCATIONAL OFFERINGS AND GENERAL EDUCATION

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<td><strong>1.</strong></td>
<td>Complete the development and approval of a New Brunswick core curriculum for all liberal arts students and the components of the core that are part of the curricula of the professional schools; continue to develop educational programs on all campuses that broaden students' educational opportunities.</td>
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<td><strong>Primary responsibility:</strong></td>
<td>Executive vice president for academic affairs</td>
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<td><strong>Assessment:</strong></td>
<td>Develop a portfolio of program evaluation and learning outcome measurement tools to document outcomes, monitor progress over time, and promote the use of outcomes information in planning and improvement efforts.</td>
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<td><strong>2.</strong></td>
<td>Promote and provide expanded opportunities and access for study abroad while developing new and strengthened academic initiatives in global and international studies.</td>
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<td><strong>Primary responsibility:</strong></td>
<td>Dean, Rutgers Study Abroad and provosts</td>
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<tr>
<td><strong>Assessment:</strong></td>
<td>Monitor outcomes, including participation in study abroad programs; monitor approval and promotion of new majors, minors, and certificate programs in global and international studies.</td>
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<td><strong>3.</strong></td>
<td>Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.</td>
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<tr>
<td><strong>Primary responsibility:</strong></td>
<td>University librarian, vice president of information technology, and vice president for continuous education and outreach</td>
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<td><strong>Assessment:</strong></td>
<td>Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.</td>
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**SECTION IV: RELATED EDUCATIONAL ACTIVITIES**

1. Continue to develop strategic partnerships that foster high quality programs for the educationally underserved residents of the state, including adult/nontraditional students.

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<th>Primary responsibility:</th>
<th>Dean of University College Community, provosts</th>
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<td>Assessment:</td>
<td>Assess outcomes and progress in addressing needs of adult/nontraditional students, both on- and off-campus.</td>
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2. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

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<tr>
<td>Assessment:</td>
<td>Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.</td>
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3. Building on existing strengths, develop new cooperative education programs that broaden experiential learning opportunities for undergraduate liberal arts and science and professional school students in Camden, Newark, and New Brunswick.

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<th>Executive vice president for academic affairs and provosts</th>
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<td>Assessment:</td>
<td>Monitor outcomes and progress on plans and goals.</td>
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4. Work with departments, programs and schools across the university to develop a portfolio of certificate programs for undergraduates and graduate students; develop mechanisms to fully inform the university community of these opportunities.

<table>
<thead>
<tr>
<th>Primary responsibility:</th>
<th>Executive vice president for academic affairs and provosts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment:</td>
<td>Monitor progress in developing new programs and track the effectiveness of communication efforts.</td>
</tr>
</tbody>
</table>
INSTITUTIONAL CONTEXT
Section I

UNDERGRADUATE ENROLLMENT MANAGEMENT AND EDUCATIONAL PROGRESS

Standard 8 and Aspects of Standard 11
Section II

CURRICULAR,
COCURRICULAR, AND
EXTRACURRICULAR SERVICES

Standard 9 and Aspects of Standard 13
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In 2005–2006 on the New Brunswick Campus, there were 100,365 office visits made by students to the Career Services locations. Website visitors numbered 615,422, career counseling session attendees were 5,009, résumé critiques were 3,233, career-day attendees were 10,502, and seminar attendees were 19,100. On the Newark Campus, there were 2,567 visits by clients to the Career Development Center in 2005–2006. In addition, the center conducted 94 group sessions in collaboration with different departments such as EOF, athletics, the Honors College, and an array of student clubs and organizations. Website visits increased 38 percent from the previous year to 458,417. Newark career fairs, both on and off campus, brought together 518 employers with 5,191 job candidates. A total of 15,570 internship and employment leads were developed/posted on the office’s different online programs. The number of credit-bearing and paid internships continues to rise as additional departments collaborate with the center on placement sites. The Career Center in Camden provides a special for-credit internship course supervised and taught by a staff member. The course offers either elective or major credit to students in career-related internships.

The Senior Report – Class of 2006, a voluntary survey completed by graduating seniors in New Brunswick to assess their experience with Career Services, indicated that 83 percent of the respondents rated Career Services “excellent” or “good,” up from 74 percent in 2004. Ratings for individual career counseling sessions and seminars are also consistently high. The Career Development Center in Newark utilizes feedback surveys after each client visit. The results reveal a better than 90 percent satisfaction rate with client/staff interactions. The 2005–2006 Senior Survey in Newark revealed positive ratings reported by more than 80 percent of graduating seniors with regard to their overall experiences with the center. The Class of 2006 outcomes report for Camden found that 94 percent of business majors and 67 percent of arts and sciences majors were employed as of six months after graduation. In addition, 7 percent of business majors and 30 percent of arts and sciences majors were entering graduate school. Based on assessments, the center in Camden has introduced many technological innovations over the last several years, including an interactive conference room with teleconferencing and webinar capabilities, an interactive interview preparation program that allows students to send in a taped mock interview for critique, and online résumé creation tools and email feedback opportunities.

Methods to strengthen career services at Rutgers include increasing counselors’ time of direct contact with students, building stronger ties with faculty and academic departments in order to increase credit-bearing internship opportunities, and introducing new technologies to improve data collection and services.

LIBRARIES

The goal of the Rutgers University Libraries (RUL) is to support and enrich the instructional, research, and public service missions of the university through the stewardship of scholarly information and the delivery of information services.

The Rutgers Libraries serve approximately 2.5 million users a year in 26 integrated libraries, centers, and reading rooms universitywide. They serve many more remotely through their website. During 2005–2006, 23,837 students were taught in 1,040 classes scheduled by professors on all three campuses to inform their students of research methodologies in their fields. In addition, over 5,000 individuals used the Searchpath tutorial. Rutgers continues to provide users with one of the most comprehensive research libraries in the nation. Its online search and publication download capability makes thousands of journal articles and other scholarly work accessible to students, faculty, and staff at all times. Physical access to the multiple collections of books and periodicals is extensive with some university libraries open until 2:00 a.m. most days.
Information Literacy Competency Standards for Higher Education (2000) have been adopted as the learning goals for the Rutgers University Libraries. These standards were developed by the Association of College and Research Libraries and have been endorsed by the Middle States Commission on Higher Education.

RUL uses various assessment methods. For example, in spring 2005, they participated in an international survey assessing libraries entitled LibQual+® and conducted multiple focus groups, surveys, and interviews in preparation for a new strategic plan. To evaluate success of undergraduates in learning information literacy competencies, RUL participated in development of the Project SAILS (Standardization Assessment of Information Literacy Skills) assessment instrument and offered a quiz within Searchpath, the Libraries’ online tutorial.

The university plans to undertake the development of an information literacy assessment plan that is integrally linked to the new School of Arts and Sciences core curriculum in New Brunswick, including learning outcomes, assessment measures and criteria, and an assessment schedule. RUL is playing a key role in the development of the new undergraduate core curriculum and, where appropriate, in new undergraduate initiatives such as learning communities, capstone courses, and the honors program in New Brunswick.

The Libraries need to update existing facilities and construct new ones to meet the changing requirements of 21st-century library services and resources. They are currently developing facility-needs plans in conjunction with the upcoming university capital campaign. They also are committed to providing the social and cultural gathering spaces that enrich academic dialog and create community. Group study rooms, for example, are needed across the library system to support new teaching methodologies that require collaborative work and new styles of student learning. Students persistently ask for group space and frequently rearrange furniture to accommodate this need. Separate group study rooms will meet this need and preserve other spaces for quiet study.

HEALTH SERVICES

The primary goal of Rutgers University Health Services in New Brunswick is to provide health care, psychological services, and health education that meet the needs of all university students. The three health services facilities in New Brunswick and Piscataway provide comprehensive ambulatory health care, psychological services, and student education. In 2006, the three health centers saw 13,693 patients in 40,262 visits. A wide range of services is provided, including general primary care, gynecological care, psychiatric services and psychological counseling, alcohol and substance abuse treatment, immunizations, allergy injections, laboratory tests, physical examinations, sexually transmitted infection testing, tuberculosis testing, and travel immunizations.

The health education component provides training experiences that encourage both a healthy college lifestyle and community health. Professional health educators train groups of students who in turn provide a wide range of programs throughout campus. The students become experts in a health-related area and are frequent presenters at residence hall programs, orientations, student staff training, and other events for student groups.

Health center staff include physicians, advanced practice nurses, registered nurses, pharmacists, psychiatrists, licensed clinical alcohol and drug counselors, licensed psychologists, and college health educators. When the health centers are closed, a telephonic Advice Nurse Line provides students with assistance in making informed health care decisions.

The Rutgers University Health Services in New Brunswick uses information obtained through assessment of services and collected health care data to maintain a standard of high-quality care and improve performance. On-site surveys, random email surveys, on-site comment boxes at each of the
WEBSITES REFERENCED IN SECTION II

Student Services Retreat report 2003-2004
http://oira.rutgers.edu/reports/MSA2008/Self-Study-Reports/StudentServicesRetreat03-04.pdf

Student Services Retreat Implementation report 2003-2004

Task Force on Undergraduate Education
http://ur.rutgers.edu/transform_ru/

Student Affairs Update
http://oira.rutgers.edu/reports/MSA2008/Self-Study-Reports/SA-Updates06-07.pdf

Rutgers University Calendar of Events
http://ruevents.rutgers.edu/events/

University Student Centers
http://getinvolved.rutgers.edu/

On-Campus Promotion Resources
http://ruinfo.rutgers.edu/promos/

Rutgers Recreation
http://recreation.rutgers.edu/

Annual Report on Intercollegiate Athletics

Rutgers College Retention Assessment, 2004-2005

Tutoring Methodologies

Tutoring Technology

Tutoring Methodologies by Center

Tutoring Usage Statistics

Additional Tutoring Usage Statistics

Career Services - Senior Report - Class of 2006

Rutgers Universities Libraries – Searchpath
http://searchpath.libraries.rutgers.edu/

American Library Association - Information Literacy Competency Standards for Higher Education
http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.cfm

State of NJ - CHE - Educational Opportunity Fund
http://www.nj.gov/highereducation/EOP/
Section III

UNDERGRADUATE EDUCATIONAL OFFERINGS AND GENERAL EDUCATION

Standards 11 and 12
SECTION III UNDERGRADUATE EDUCATIONAL OFFERINGS AND GENERAL EDUCATION
(STANDARDS 11 AND 12)

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placement, students move through a series of courses that conclude with the student’s ability to read and use independent research to analyze a topic and to review arguments in order to produce an analytical essay that engages with a text and involves substantial research. All of these courses meet in small sections to permit instructors to hold conferences with students, schedule library-learning sessions, hold peer discussion groups, discuss student writing in class, and design assignments that encourage students to remain engaged in their work.

The New Brunswick Writing Program’s Business and Technical Writing Program offers a series of courses that help students develop an ability to conduct research and use information to develop viable plans of action, skills that are essential to success in the information and technology economy. Courses may be taken for research writing credit, elective credit, and credit toward writing certificates. Students are required to develop, research, and revise an independent project. Courses include Scientific and Technical Writing, Writing for Business and Professions, Writing for Biology, Writing Grant Proposals, Writing for Engineers, Science Writing, and Writing as a Naturalist. Newark, as noted above, has completely revised its Writing Program: it is now a stand-alone unit that focuses on Writing Across the Curriculum. (See Section VII for more information about the Writing Program in Newark.)

Camden also has a strong Writing Program that helps to support the writing requirement of the general education curriculum. Students must take 12 credits of “language skills,” including six in English composition, three in a foreign language at the 102 level or higher, and three credits of a writing intensive course.

LIBRARY SUPPORT

Educational offerings for students at Rutgers are significantly enhanced by library services that support instruction and educational programs. The Rutgers University Libraries promote the use of information and learning resources and services accessible through its website, including point-of-need assistance for selecting and using appropriate resources and services. (For a complete listing of these features, see the Rutgers University Libraries Report.)

Librarians collaborate closely with faculty to provide customized face-to-face synchronous library research instruction to help integrate information literacy into a course or curriculum and develop class- or curriculum-specific materials. From 2003–2006, librarians provided an average of 995 library research instruction class sessions, reaching an average of 21,155 individuals per year. Each of the major libraries in New Brunswick and their branches (Alexander, Douglass, Kelmer, Science and Medicine), the Dana Library in Newark, and the Robeson Library in Camden has a program coordinator to facilitate this instruction. Collaborations in New Brunswick have involved the Department of English Writing Program and the Douglass mission course, Shaping a Life. In Newark, Dana Library has a long-standing collaboration with the Academic Foundations Center’s Summer Program, which teaches at-risk students the basics of library use and research using general web resources. In Camden, the Robeson Library incorporates sequential library research instruction sessions into the English general education courses. Librarians also collaborate with faculty on digital projects that make information accessible to students in specific courses through the use of such specialized resources as the English Advice Manuals Online at Rutgers (E-AMOR), Early English Books Online (EEBO), and Italy’s People.

The libraries’ leadership in issues related to instructional literacy has been demonstrated in a number of initiatives, including the following:

- Its report, A Learning Framework for Information Literacy and Library Instruction Programs at Rutgers University Libraries (August 2003), and its recommendations for “Information Literacy Competencies at Rutgers,” outlined the standards,
performance indicators, and learning outcomes for library research instruction and information literacy at Rutgers. This report led to a symposium in May 2004 that sought to identify issues most applicable to the first two years of undergraduate education; subsequently, a faculty and library staff literacy advisory group was formed to discuss library information literacy initiatives.

- The online information literacy tutorial for undergraduates, Searchpath, was released in spring 2005, to teach students basic library and research skills. This six-module program works as both a stand-alone tool and as a supplemental tool to library research instruction sessions. Preliminary quantitative and qualitative assessment of the tutorial, in the form of written feedback, module quiz results, and interviews with students, has been incorporated in the process from the start.
- All six major libraries have computer lab classrooms equipped with an instructor PC with NetOps classroom control software as well as projection equipment for providing library research instruction sections. Wireless laptops are available across the libraries to permit research sessions in other facilities across the campuses.
- Approximately 313 public access computers are available for general information use across the libraries.
- Videoconference equipment is available in Alexander, Douglass, and Kilmer in New Brunswick; Dana in Newark; and Robeson in Camden.

By remaining central players in the national conversation on information literacy through involvement in the Association of College and Research Libraries and other major organizations, and by working closely with Rutgers faculty and students in identifying needs and opportunities, the libraries have been able to develop programs and initiatives, based on best practices across the country, that enhance the educational offerings across the three campuses. (For more information on the Rutgers University Libraries, see Section II.)

APPLYING INFORMATION TECHNOLOGY TO EDUCATION

The overarching educational philosophy exemplified in the learning goals of information literacy and technological innovation requires that information technology serve as a critical element of undergraduate instruction. The University’s Office of Information Technology (OIRT) provides coordination for use of information technology throughout Rutgers in support of instruction and research. Smart classrooms, including internet connections, video projectors, and CD/DVD plays, etc., are distributed across all campuses and widely used in introductory courses that fulfill general education requirements. Lists of electronic classrooms are provided online for Camden, Newark, and New Brunswick.

Increased development and use of web-enhanced curricula span all campuses. One example of a strong, web-enhanced curriculum was developed by the Department of Sociology, Anthropology and Criminal Justice in Camden, which requires all graduates to complete their studies with strong computer and internet-based skills. Use of this web-enhanced curriculum provides resources for student research and group work and facilitates communication among students and faculty in specific courses by providing online opportunities for discussion, questions, assignments, readings, etc.

In line with national trends, communication within and outside of the classroom continues to grow. Email has been adopted widely as a supplemental instructional device. The Office of Instructional and Research Technology now provides class mailing lists. Increasingly, lectures are being podcast, and many introductory courses use personal response systems, or clickers, which
enable interaction among faculty and students in a large lecture setting. Jabber, the Rutgers Instant Messaging System, is an open-source service that provides secure, encrypted communication with others logged into the Rutgers central IM server.

Course management systems are widely used across all three campuses; Blackboard, eCompanion, eCourse, and WebCT are the primary ones. A collaborative website, Digitclass, designed by Rutgers students, faculty, and instructors to complement the commercial course delivery systems provides an easy-to-update repository of instructional materials. OIRT conducted a survey of course management system usage in 2006.

In addition, Sakai is a major educational support technology for the New Brunswick Campus. A higher education community project to develop and support a new collaboration and learning environment, the Sakai system serves as a potential alternative to systems such as Blackboard and WebCT and is intended to facilitate collaboration in research, administration, and service, as well as in courses. No knowledge of html is necessary and, because it is web-based, it can use any operating system (i.e., Mac or PC) and be accessed at any time. OIRT conducted a survey of Sakai usage in 2005. See Section IV for additional details on the extent of usage and the increase in course management systems and information technology since the periodic review and the last reaccreditation visit.

For each of the past three years, the university has committed approximately $500,000 to help restore some of the “smart” classrooms and upgrade others. These funds are in addition to the university’s $15 million commitment to upgrade all classrooms to make them technologically “smart” and to refurbish all classrooms with improved lighting, seating, and other technical features. That investment, which will involve a major renovation of classrooms on the university’s three campuses, is derived from recommendations in the TUE report. The renovation project will be conducted over a period of three to five years, with most of the construction scheduled during the summer breaks. A classroom renovation committee made up of faculty, students, and staff will set priorities, select specific classrooms for renovation, and establish a standard for future classroom design.

Equally important as the use of information technology in the classroom is its usage in reference materials in the university libraries. Although librarians conduct some library research sessions in labs and classrooms across the campuses, the majority of their programs take place in the libraries’ instructional rooms, so the statistics for library research instruction sessions roughly reflect the usage of these rooms. The Rutgers University Libraries Report for the Middle States Reaccreditation Self-Study provides usage tables that detail the striking increase in the libraries database usage over the last several years. What and how use is counted varies among the databases depending on the technology used. Usage of the libraries’ website is captured automatically monthly, daily, and hourly; is graphed; and lists the top 10 pages used. Additional usage statistics are available for digital services such as Ask a Librarian, electronic reserves, and intralibrary and interlibrary loan.

A compilation of materials describing information technology support details how the university is meeting the ongoing challenges to the smooth integration of rapidly developing new technologies for educational instruction. The report includes a discussion of progress, challenges, opportunities, and short- and long-term plans.

SUPPORT FOR ACHIEVING LEARNING GOALS

Rutgers is a large and diverse university, welcoming and educating thousands of students from communities throughout New Jersey, the U.S. and abroad. In order to enhance the learning experiences of students with varying levels of preparation in mathematics, sciences, and language arts, Rutgers has developed a set of learning centers across its campuses. These centers include:
affairs offices of corporations, public interest groups, state associations, political campaigns, and
lobbying firms.

The SAS Department of History is closely associated with several research programs, including
the Thomas A. Edison Papers Project, the Rutgers Oral History Archives of World War II, and the
Elizabeth Cady Stanton and Susan B. Anthony Papers Project. The Edison Project is a comprehensive
20-year study of the famous inventor’s personal research materials. The Oral History Archives is an
alumni-funded project that records the life stories of Rutgers alumni who lived through the WWII era
or who are war veterans. The Stanton and Anthony Papers Project is publishing six volumes of
writings of the two leading figures of the women’s suffrage movement. All of these projects have
enriched the history curriculum at Rutgers. Undergraduates may earn credits as they serve as interns
on any of these projects.

Another example is provided by the Center for Discrete Mathematics and Computer Science
(DIMACS), with National Science Foundation sponsorship. DIMACS has offered a Research
Experiences for Undergraduates (REU) program since 1992. There are now four associated REU
programs: the DIMACS REU program offers projects mentored by DIMACS members; the
DIMACS/DIMATIA REU program offers projects mentored by DIMACS members and is extended
by two weeks to include time spent at the sister Center for Discrete Mathematics and Theoretical
Informatics and Applications (DIMATIA) site at Charles University in Prague, Czech Republic; the
Department of Mathematics Program offers projects mentored by math department faculty; and the
Homeland Security Center for Dynamic Data Analysis (DyDAn) REU program offers projects related
to homeland security mentored by DyDAn researchers.

Science laboratories provide another type of research opportunity. Students work closely with a
faculty member in a lab in challenging and demanding situations in which they learn how scientific
research is conducted and what it means to be a scholar and independent researcher. For example, an
undergraduate in the Department of Physics in New Brunswick recently participated in a project in
the Rutgers-led Center of Excellence for Radioactive Ion Beam Studies for Stewardship Science, a
consortium of university and other laboratories. Based at Oak Ridge National Laboratory for a
summer, he helped to test prototype detectors for a new array of silicon detectors for nuclear physics
experiments with radioactive beams. A student in the School of Engineering’s Slade Scholars
program is working in a nanomaterial self-assembly lab where he is creating 2-D self-assembling
arrays of nanocrystals and nanopolymers using a fluid forming process. Another student participated
in research with a faculty member who is a member of the National Academy of Sciences and spent
the summer of 2007 in Juneau, Alaska, working on a watershed monitoring project. This student also
received a Goldwater Fellowship this year, one of a number of undergraduates at Rutgers who
successfully competed for national awards such as the Fulbright and Goldwater. Given that a well-
designed research proposal is a central element of these highly competitive national award
applications, it is clear that students’ varied research experiences are a major component in their
ability to write nationally competitive applications.

ORAL AND WRITTEN COMMUNICATION

The general education curriculum also addresses undergraduate writing. In particular, oral and
written communication skills are developed through the requirements in the Rutgers University
Writing Programs.

In New Brunswick alone, the Writing Program provides instruction to more than 11,000 students
annually. Students must fulfill the undergraduate writing requirement by passing or receiving credit
for Expository Writing 101. Students must demonstrate a mastery of the literacy skills that reside at
the core of higher education: critical reading and critical writing. Through careful testing and
RECOMMENDATIONS

1. Complete the development and approval of a New Brunswick core curriculum for all liberal arts students and the components of the core that are part of the curricula of the professional schools; continue to develop educational programs on all campuses that broaden students' educational opportunities.

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<tr>
<th>Primary responsibility:</th>
<th>Executive vice president for academic affairs</th>
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<tr>
<td>Assessment:</td>
<td>Develop a portfolio of program evaluation and learning outcome measurement tools to document outcomes, monitor progress over time, and promote the use of outcomes information in planning and improvement efforts.</td>
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2. Promote and provide expanded opportunities and access for study abroad while developing new and strengthened academic initiatives in global and international studies.

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<tr>
<th>Primary responsibility:</th>
<th>Dean, Rutgers Study Abroad and provosts</th>
</tr>
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<tbody>
<tr>
<td>Assessment:</td>
<td>Monitor outcomes, including participation in study abroad programs; monitor approval and promotion of new majors, minors, and certificate programs in global and international studies.</td>
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</tbody>
</table>

3. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

<table>
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<tr>
<th>Primary responsibility:</th>
<th>University librarian, vice president of information technology, and vice president for continuous education and outreach</th>
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</thead>
<tbody>
<tr>
<td>Assessment:</td>
<td>Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.</td>
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</table>
WEBSITES REFERENCED IN SECTION III

Assessing Our Vision for Excellence – Volume 1

Rutgers Dialogues: A Curriculum for Critical Awareness

Transforming Undergraduate Education

Transforming Undergraduate Education Website
http://ur.rutgers.edu/transform_ru/

Report of the Committee on Assessment of Undergraduate Programs –
Faculty of Arts and Sciences 2005–2006
http://chemistry.rutgers.edu/uac/

School of Arts and Sciences
http://sas.rutgers.edu/

Liberal Arts Distribution Requirements Report of Committee on Interim Core Curriculum for SAS

Bylaws of the School of Arts and Sciences –
Rutgers, The State University of New Jersey – Ratified: December 14, 2006

SEBS – The Transition from Cook to SEBS
http://sebs.rutgers.edu/about/transition.asp

School of Environmental and Biological Sciences Policy Regarding Interim (2007–2009) Core Requirements
http://sebs.rutgers.edu/academics/sebs-core-policy.pdf

SEBS Core Curriculum Report

Rutgers University Undergraduate Enrollment by Major

Rutgers–New Brunswick/Piscataway Undergraduate 2005–2007 Catalog
http://catalogs.rutgers.edu/generated/nb-ug_0507/index.html

Rutgers University Learning Goals
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/LearningGoals.pdf

Report on Degree Distribution Requirements
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/MiddleStatesUGdegreq-5.pdf

Report on Certification of Distribution Requirements
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/UndergraduateDegreeVerificationRequirements.pdf

Koobi Fora Field School
http://www.rcki.rutgers.edu/~kffs/

The Rutgers University Libraries Report
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/MiddleStatesReportfromtheLibrariesWithCharts.pdf
Rutgers Universities Libraries – Searchpath
http://searchpath.libraries.rutgers.edu/

Camden Computing Services – Smart Classrooms
http://smartclassrooms.camden.rutgers.edu/locations.php

Rutgers–Newark – Smart Classrooms
http://oat.newark.rutgers.edu/smartclassinfo.html

Rutgers-NB/Piscataway – Enhanced Classroom Support
http://classrooms.rutgers.edu/

Department of Sociology, Anthropology, and Criminal Justice - Web-Enhanced Curriculum
http://sociology.camden.rutgers.edu/curriculum/index.htm

Jabber
http://jabber.rutgers.edu/

Digiclass
http://digiclass.rutgers.edu/index.html

Data from Course Management System Survey
http://oirt.rutgers.edu/docs/cmsdata.pdf

Data from Sakai Survey
http://oirt.rutgers.edu/docs/sakaisurvey.pdf

Report of the Rutgers University Office of Information Technology
http://oit.rutgers.edu/middlestates.html

Rutgers-Camden Learning Center
http://learn.camden.rutgers.edu/

Rutgers–Newark Learning Center
http://lc.newark.rutgers.edu/

Rutgers-New Brunswick Learning Centers
http://rlc.rutgers.edu/

Math and Science Learning Center
http://mslc.rutgers.edu/

External Review History

Policy on Cluster Reviews

Committee on Academic Planning and Review Membership

All-Funds Budgeting
http://oirap.rutgers.edu/msa/Documents/AFBv3.pdf

New Program Approval Process


Dual and Joint Degree Programs
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/Dual-JointDegreePrograms.pdf
Section IV

**RELATED EDUCATIONAL ACTIVITIES**

Standard 13
smaller enrollments than their on-campus counterparts. The limit on small class size in these offerings, despite financial incentives to create larger sections, speaks clearly to the emphasis academic units have placed on maintaining the quality of these learning experiences.

As with on-campus programs, off-campus programs may become nonviable over time, generally because of significantly declining enrollments. As the university phases out such offerings, careful planning ensures that every enrolled student has ample opportunity to take the courses needed for the completion of that degree program. This is consistent with university practice regarding discontinuation or suspension of any degree programs.

Student Services

Offices serving students in off-campus locations and online programs are keenly aware of the need for adequate advising, technology support, library, and other services, a need that is possibly even greater than for students who attend full-time programs on campus. Staff provide advising services by phone, email, and at the off-campus sites. All distance education programs provide extensive technical support to their students as well as orientation tutorials.

The Rutgers University Libraries play a key role in providing library services to off-campus and online students. The libraries developed and offer several online library tutorials, including Searchpath, an online library resources tutorial course on accessing electronic resources and conducting basic research and several other useful library online tutorials. The library also provides support to off-campus students through online log-ins for access to electronic resources, document delivery to library users' desktop computers, delivery of materials to dozens of locations throughout the state, and cooperative agreements for delivery to libraries in New Jersey, New York, and Pennsylvania.

PARTNERSHIPS FOR OFF-CAMPUS PROGRAMS

In 1998, the New Jersey Commission on Higher Education (NJCHE) published a study entitled, The Capacity of New Jersey's Higher Education System that documented an increasing need for higher education opportunities for the citizens of New Jersey. The commission recommended partnerships between four-year and two-year institutions as a means of addressing underserved areas of the state and burgeoning numbers of high school graduates who would seek a college education. The agency suggested that four-year colleges and universities could extend their resources effectively by developing upper division, baccalaureate degree-completion undergraduate programs for graduates of two-year institutions. The report recommended that programs be offered in areas of the state that had been underserved by higher education.

In response to this report, and on the basis of its own research on student needs, Rutgers has worked closely with community colleges to enhance educational opportunities. For example, Rutgers assisted in the establishment of NJ Transfer, an extensive online resource that helps community college students select lower division courses that will transfer to four-year institutions and that will fulfill requirements for particular majors. (See Section I for more information about the role of NJ Transfer in enhancing access to Rutgers.)

Formal partnerships with other higher education institutions are an even more direct means to bring Rutgers resources to the larger community. Such arrangements use joint facilities and, to some extent, shared resources to provide off-campus, credit programs to meet general education and high-demand workforce needs in areas underserved by four-year higher education institutions.

Rutgers is a founding partner of two successful centers in Monmouth County. The Rutgers—Brookdale Partnership at the Western Monmouth Higher Education Center is located on the Freehold
The table below provides an overview of the facilities and support services offered at the Freehold and Mays Landing sites.

### TABLE 4.8. FACILITIES AND SUPPORT SERVICES: OFF-CAMPUS SITES IN FREEHOLD AND MAYS LANDING

<table>
<thead>
<tr>
<th></th>
<th>Western Monmouth Campus of Brookdale Community College in Freehold, NJ</th>
<th>Mays Landing Campus of Atlantic Cape Community College in Mays Landing, NJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>Leased space in existing building</td>
<td>Temporary modular classrooms and offices</td>
</tr>
<tr>
<td>Classrooms</td>
<td>5 ADA-compliant rooms, including 2 &quot;smart&quot; rooms, 2 interactive TV rooms, 1 standard classroom; 1 computer lab, and additional classrooms on space available basis</td>
<td>3 ADA-compliant “smart” rooms plus additional classrooms on space available basis</td>
</tr>
<tr>
<td>Faculty</td>
<td>Tenured and adjunct professionals</td>
<td>Tenured and adjunct professionals</td>
</tr>
<tr>
<td>Student Services</td>
<td>Online academic advising and registration services</td>
<td>Online academic advising and registration services</td>
</tr>
<tr>
<td></td>
<td>Online access to Rutgers libraries plus document delivery service</td>
<td>Online access to Rutgers libraries plus document delivery service</td>
</tr>
<tr>
<td></td>
<td>Online and phone access to Rutgers Financial Aid and eligibility for assistance</td>
<td>Online and phone access to Rutgers Financial Aid and eligibility for financial assistance</td>
</tr>
<tr>
<td></td>
<td>Videoconferencing to enable EOF students to communicate with counselors</td>
<td>Videoconferencing to enable EOF students to communicate with counselors</td>
</tr>
<tr>
<td></td>
<td>Eligibility for disabilities services</td>
<td>Eligibility for disabilities services</td>
</tr>
<tr>
<td></td>
<td>On-site writing tutor for Rutgers courses and BCC tutors for lower division courses</td>
<td>On-site ACCC tutors</td>
</tr>
<tr>
<td></td>
<td>Online access to Rutgers Career Services</td>
<td>Online access to Rutgers Career Services</td>
</tr>
<tr>
<td></td>
<td>On-site production of RU IDs</td>
<td>On-site production of RU IDs</td>
</tr>
<tr>
<td></td>
<td>On-site bookstore services</td>
<td></td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>Full-time manager of academic programs and part-time secretarial assistant</td>
<td>Full-time manager of academic programs and part-time secretarial assistant</td>
</tr>
<tr>
<td>Offices</td>
<td>1 administrative office with 2 workstations, 3 faculty offices, and storage space</td>
<td>3 administrative offices, 4 workstations, equipment, and storage space</td>
</tr>
</tbody>
</table>
RECOMMENDATIONS

1. Continue to develop strategic partnerships that foster high quality programs for the educationally underserved residents of the state, including adult/nontraditional students.

   **Primary responsibility:** Dean of University College Community, provosts
   **Assessment:** Assess outcomes and progress in addressing needs of adult/nontraditional students, both on- and off-campus.

2. Develop a long-term strategic plan to improve coordination in the availability and use of instructional support technology throughout the university, on and off-campus.

   **Primary responsibility:** University librarian, vice president of information technology, and vice president for continuous education and outreach
   **Assessment:** Develop a portfolio of measures to monitor and document outcomes and progress in the use and enhancement of instructional technology.

3. Building on existing strengths, develop new cooperative education programs that broaden experiential learning opportunities for undergraduate liberal arts and science and professional school students in Camden, Newark, and New Brunswick.

   **Primary responsibility:** Executive vice president for academic affairs and provosts
   **Assessment:** Monitor outcomes and progress on plans and goals.

4. Work with departments, programs and schools across the university to develop a portfolio of certificate programs for undergraduates and graduate students; develop mechanisms to fully inform the university community of these opportunities.

   **Primary responsibility:** Executive vice president for academic affairs and provosts
   **Assessment:** Monitor progress in developing new programs and track the effectiveness of communication efforts.
WEBSITES REFERENCED IN SECTION IV

TFNS Final Report

Rutgers University Division of Continuous Education and Outreach
http://ce1766.rutgers.edu/

Off-Campus/ Distance Education Survey

September 2007 Middle States Commission on Higher Education Statement of Accreditation Status

Searchpath, Libraries
http://searchpath.libraries.rutgers.edu/

Online Tutorials, Libraries
http://www.libraries.rutgers.edu/rul/lib_instruct/instruct_tutorials.shtml

The Capacity of New Jersey's Higher Education System
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/capweb.pdf

Off-Campus and Distance/Distributed Learning Programs and Locations
http://oirap.rutgers.edu/reports/MSA2008/Self-Study-Reports/DistanceEd-SummaryTable.pdf

Blackboard Website
http://blackboardinfo.newark.rutgers.edu/

Sakai @ Rutgers
https://sakai.rutgers.edu/portal

RutgersOnline, Division of Continuous Education and Outreach
http://www.rutgersonline.net/

eCollege/eCompanion Course Management System
https://ecompanion.rutgers.edu/

Continuing Education Departments at Rutgers
http://ce1766.rutgers.edu/departments.jsp

NJAES en Español
http://njaes.rutgers.edu/espanol/

Cooperative Education Program at the School of Environmental and Biological Sciences
http://sebs.rutgers.edu/co-op/

Student Guide to Engineering Cooperative Education
http://careerservices.rutgers.edu/student_engcoop.html

Report by the Committee on Service Learning and Engaged Scholarship

Thomas Edison State College, Mission and Purpose
http://www.tesc.edu/aboutus/529.php
Section V

Using the Research and Graduate Context to Enhance Undergraduate Education

Standards 1, 11, and 13
RESEARCH OPPORTUNITIES
FOR RUTGERS UNDERGRADUATE STUDENTS

As part of the restructuring of undergraduate education, Rutgers is focusing attention on increasing the number and visibility of the research opportunities it provides for undergraduate students. Summary information about levels of student participation, some examples of the types of programs available, and descriptions of the campuswide initiatives designed to increase participation are presented below.

REPORTS FROM DEPARTMENTS AND FACULTY
ON UNDERGRADUATE RESEARCH INVOLVEMENT

To provide a universitywide picture of the extent of undergraduate research participation at Rutgers, 84 academic departments and programs were surveyed as part of the self-study process in January 2007: 14 in Camden, 14 in Newark, and 56 in New Brunswick. The survey questions and responses are summarized in the Departmental Learning Outcomes Assessment Survey and Summary of Results.

Almost all (86 percent) of the departments responding to the survey reported that they have undergraduate students engaged in independent research projects. In many of the departments (68 percent), these independent research projects serve as a basis for the students’ departmental (57 percent) or college (68 percent) honors theses. The percentage of students engaged in independent research ranges from less than 10 percent in some humanities and social sciences departments to 100 percent in some science departments, where independent research is a requirement for completion of the major. More than half of the departments (57 percent) report that their undergraduate students are participating in grant-related research, with about one-fifth of these reporting funding from the National Science Foundation. Other sources of grant funding for undergraduate research are the National Institutes of Health, the U.S. Department of Agriculture, the U.S. Department of Defense, and in the recent past the Howard Hughes Medical Institute. These grant-funded efforts complement departmental and college funds supporting undergraduate research, such as the Areysty Research Center programs (see description below).

Librarians were also asked about their participation in research opportunities for undergraduates. Their involvement in assisting undergraduates with research projects is considerable: 67 percent report involvement with students in independent research studies, 48 percent in college honors theses, 41 percent in departmental honors theses, 30 percent help students in research assistantships, and 26 percent report work on grant-related activities (grant-funded and not funded), 19 percent report participation in collaborative research programs, and 19 percent report involvement in research experiences supervised by graduate students or postdoctoral students.

The Office of Institutional Research and Academic Planning conducted an earlier survey on undergraduate research participation during the summer of 2006. This survey was directed to faculty members; 120 responded. Despite the low response rate, the examples provided of research opportunities and the responses about how information is disseminated are useful. The survey revealed that the majority of faculty members identify students for research opportunities through word of mouth (76 percent) or through referrals from other faculty members (71 percent). Some opportunities, faculty reported, are offered for credit (36 percent), while some are paid (11 percent), and some offer both credit and pay (25 percent). Some opportunities offer credit and some form of
Peer advisers, most of whom have been RAs, are responsible for facilitating the small group sessions, the goal of which is to make RAs feel more comfortable discussing any problems that they might encounter in the development of their research projects or their relationships with faculty mentors. An attempt is made to group RAs by discipline, department, or research topic. Students are required to keep journals of their activities, which are collected and monitored, but not graded, by the peer advisers, and to present their work at the Annual Undergraduate Research Symposium. Figures for participation in the Research Assistant Program are presented in Table 5.2.

**Table 5.2. Aresty Research Assistant Program, 2005–2006 and 2006–2007**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Applicants</td>
<td>110</td>
<td>221</td>
</tr>
<tr>
<td>Number Accepted</td>
<td>38</td>
<td>82</td>
</tr>
<tr>
<td>Rate of Acceptance</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Amount of Stipend per Student</td>
<td>$750</td>
<td>$1,000</td>
</tr>
<tr>
<td>Program Cost (stipends only)</td>
<td>$28,500</td>
<td>$82,000</td>
</tr>
<tr>
<td>Number of Students Continuing Research with the Same Mentor</td>
<td>5</td>
<td>N/A</td>
</tr>
<tr>
<td>Number of Students Doing Other Research</td>
<td>6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Follow-up with those participating in the Research Assistant Program indicates that the experience is a positive one for faculty and students alike. A sampling of comments from faculty participants follows:

- "The Aresty program is extremely well-managed and a valuable tool for educating students. Kudos to you and your colleagues!"
- "L. is doing great...I threw her into a complex problem, doing real research (which most of my colleagues don't even understand), but she's holding her own. She's generating solid data now, and we should be able to put together a nice abstract for the symposium. I'm quite happy with her progress."
- "It is a pleasure to work with J., and she is discovering both the joys and difficulties of primary research. I am very pleased that I will finally be able to incorporate discussions of German women's rights into my work on the women's rights movement in the U.S., a project I have long had on the backburner. The Aresty research program finally makes it possible to move forward!"

Formal faculty assessments of the program have not yet been conducted because of its limited time in effect, but center staff remain in close contact with mentors and seek their informal assessments of the program on an ongoing basis. Some problems expressed by faculty include difficulty finding time to meet with students, mismatched expectations (some faculty do not provide sufficient structure at the outset of the year, and thus find that the students take some time to "get up to speed"), and too little meeting time (in some disciplines more than others). To address these issues, the center has instituted an annual faculty orientation to help faculty mentors set more realistic expectations for their students. The session includes discussion about where undergraduate students are developmentally, how to challenge students, and how to set boundaries for a student project. Faculty mentors from the previous year attend the orientation and speak to their colleagues about their experiences. The orientation is continually reviewed in order to improve the session each year.
Overall, students are positive about the experience. When formal assessments were conducted and analyzed by center staff, three positive effects of the program emerged consistently: (1) students improved their time management skills, (2) students visited the library more often and became better acquainted with its resources, and (3) students felt that they had developed a meaningful academic relationship with a faculty member.

Student attitudes toward research as a career were largely unchanged, however. Many students felt only slightly more confident to pursue a research project of their own. The center hopes to address this aspect of the program by requiring reflective journaling again next year, so that students think more critically about the process of research. In the peer adviser training sessions, staff trainers have placed emphasis on asking students to step back and be more reflective about the research process as a whole, rather than just reporting their individual experiences.

A third center initiative is the Annual Undergraduate Research Symposium. The center holds a universitywide Undergraduate Research Symposium each year. In February, the center distributes a call for abstracts to all undergraduates enrolled in undergraduate research courses in either the fall or spring semester. To support the application process, a workshop on successful abstract writing is held at the Rutgers Student Center and open to all students who wish to develop their skills.

The center’s Faculty Advisory Committee, which consists of research-active faculty from a variety of disciplines, reviews all abstracts. Most are accepted, although some require revision. The center notifies students of their acceptance immediately following the spring break, and invites accepted students to attend a workshop on successful poster development and presentation skills in preparation for their presentations in April.

In 2006, 147 students (an increase from 92 in 2005) submitted abstracts for consideration. On April 21, 2006, 104 students (up from 54) presented posters during two 2-hour sessions and 39 students (up from 38) presented papers throughout the day at panel sessions moderated by faculty. Student feedback is almost uniformly positive:

I wanted to thank you once again for choosing me to participate in the Symposium. I have framed my certificate, as it will always be a reminder that, "age is irrelevant, when you go for new goals." THANK YOU!

Firstly, I want to thank you for the wonderful opportunity to present my research findings at the Aresty Research Center for Undergraduate Research Symposium. ...I am thrilled beyond words can say for this special recognition. It will be my honor to have my ... presentation posted online. I concur with those who think that this is an excellent event in which undergraduates benefit greatly.

Thank you for working so hard to put the symposium together. I really enjoyed myself, and I'm very glad I got the chance to do it. Presenting my poster was a great way to put together the results of my work over the past two semesters, and I felt very accomplished by the end of the day. Overall, I think the symposium really encourages undergraduates to do research because it allowed us to receive recognition ... from others.

The symposium was fun and I'd definitely do it again! I made new friends and got to explore some interesting non-science related research for a change. I didn't know that Rutgers was involved in so many other fields of research.

One common criticism made by students is that the venue for the symposium is too cramped. Still, awareness about the symposium is limited, even though the center has made efforts to improve publicity, initiating multiple direct email notices and other publicity. Designating a particular week of the year as "Celebration of Undergraduate Research Week" and coordinating with academic departments would help to draw attention to the center symposium, as well as to other events on
campus that occur during this time. For a number of years, Rutgers–New Brunswick hosted a formal Undergraduate Research Week, during which undergraduates had a several different venues in which to present their research projects and receive recognition. This should be reinstated.

A fourth center initiative is the Summer Science Research Program. From discussions with faculty and administrators in 2005, the center determined that faculty would benefit from students gaining lab work experience earlier in their college careers. As a result, the center initiated a summer program that targets interested students who have minimal previous research experience and who are finishing their first year of college.

In 2005, seven faculty members in the life sciences were selected to pilot the program, and in 2006, the program was expanded to include 17 faculty members in the life sciences, chemistry, and physics. Thirty-one students applied to the 2005 program; faculty interviewed the candidates, and eight students were selected. In 2006, 50 students competed for 18 spaces in labs across the sciences. Each student was awarded a $3,000 stipend and was also provided with housing for the summer. Table 5.3 summarizes program participation in the first two years.

<table>
<thead>
<tr>
<th>Program Year</th>
<th>Number of applicants</th>
<th>Number accepted</th>
<th>Acceptance rate</th>
<th>Number continuing research with the same mentor</th>
<th>Number doing other research</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>30</td>
<td>8</td>
<td>27%</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>53</td>
<td>18</td>
<td>34%</td>
<td>11</td>
<td>3</td>
</tr>
</tbody>
</table>

Selected students participate in a program orientation that includes a library research skills workshop, workshops on abstract writing, poster/presentation skills, interview skills, and field trips to meet representatives from industry. Aside from the research experience itself, one highlight of the program in 2005 was the opportunity to visit Johnson & Johnson Pharmaceutical Research & Development in Raritan, New Jersey. The visit involved a full day of lab tours, discussions with industry scientists, and an overview of the company and its drug delivery process. In 2006, the students took a field trip to Bristol-Meyers Squibb and the Princeton Plasma Physics Lab. Students reacted positively to this aspect of the program, as illustrated by the following participant comments:

I believe all of us felt that this experience was invaluable and it thoroughly showed us all aspects of the profession as a pharmaceutical scientist. We felt honored to have been exposed to not only the academic world but also the professional world of life sciences.

It got me to think a lot about my future and question it too, especially in the industry/research area that I haven’t thought much about before. Though I might be even more confused now as to what to major in, I definitely know more information now to make a better-informed decision, whatever it will be.

In both years, the center asked participants in the summer program to complete a short assessment at the end of the program. A majority of the students “strongly agreed” that they had
Carnegie Academy for the Scholarship of Teaching and Learning (CASTL)
TAP, in collaboration with Rutgers’ Center for Teaching Advancement and Assessment Research, was selected in June 2006 by the Carnegie Foundation to participate as a leadership institution in CASTL, a major initiative to develop a conception of teaching as scholarly work. As part of this three-year program, Rutgers is required to commit resources to advance scholarship related to teaching. Rutgers’ goal in this multinational effort is to expand the institutional ethos and commitment to the scholarship of teaching and learning at Rutgers by strengthening the relationships between all stakeholders involved in the advancement of teaching—faculty, graduate students, postdoctoral students, part-time (adjunct) lecturers, and administrators—and undergraduates. Goals for graduate students include exposure to and deeper understanding of teaching methodologies. They will also benefit from plans to strengthen campuswide assessment to identify and document the outcomes of initiatives related to pedagogy.

Assessment
TAP has been and continues to be committed to assessing its programs and utilizing feedback from participants to improve its offerings. The development of Introduction to College Teaching I resulted from ideas and perspectives gathered from focus groups of TAs. College Teaching II is planned for fall 2007 with advanced TAs who identified a need for a teaching course that would assist them as they became independent instructors. As the direct result of student evaluations, orientation programs have been redesigned. As it progresses, the CASTL initiative will provide the opportunity to significantly expand assessment.

TA Training in Newark
The Newark Campus provides a two-day formal TA training program for graduate students, offered annually by the Graduate School–Newark. This is the only mandatory training that occurs at the campus level for all TAs. The program focuses equally on research ethics and on teaching. See the 2006 Ethics in Teaching and Research Conference agenda as a sample program. There also is a two-week program conducted by the International Student Services Office and the Program in American Language Studies for non-American TAs. Most departments also have their own training sessions.

TA Training in Camden
Rutgers–Camden has a relatively small number of TAs but provides them with intensive preparation. For example, the English department offers nine teaching assistantships to students in its graduate program. Teaching orientations begin in August. TAs receive one week of instruction in teaching techniques, library instruction, how to review student essays, grading rubrics, MyCompLab (online accompaniment to the required writing manual), sample lesson plans, office hours role-play, and available health services, including how to identify students with mental health problems or trouble managing college.

Teacher training continues throughout the fall and spring with a series of workshops led by the campus writing director on discussion leading, responding to student writing, using technology in the writing classroom, and professional development. In addition, many individual conferences between the writing director and each TA occur, focusing on specific classroom issues or teaching methodologies. Each TA is observed in the classroom by a faculty member at least once in the fall and once in the spring, and ongoing monitoring of each TA’s student essay review and exam grading takes place.
Additional opportunities for joint degrees are offered in cooperation with the University of Medicine and Dentistry of New Jersey (UMDNJ) and New Jersey Institute of Technology (NJIT). These include a B.A. in biological sciences/M.S. in physician assistant, a B.A. or B.S./M.D. and a B.A. or B.S./D.M.D. (with UMDNJ), and a B.A. or B.S./M.P.H. (with UMDNJ and NJIT).

UNDERGRADUATE INTEREST IN AND KNOWLEDGE OF RESEARCH OPPORTUNITIES

Throughout the spring semester 2007, the self-study Working Group responsible for this topic organized and led focus groups comprised of undergraduates representing diverse majors and years of study. In total, seven focus group sessions were conducted with 71 undergraduate student respondents. Student participants were drawn from both large, introductory classes with large numbers of freshmen and sophomores and small, upper-level seminars geared toward juniors and seniors. Students were asked questions probing their course-related research experiences and assignments, research opportunities outside the classroom, interactions with graduate student instructors and lab supervisors, and their perceptions of learning at a research university.

Most juniors and seniors reported that they had notable research assignments or experiences sometime during their studies at Rutgers, such as a term paper that required them to use library resources, analyze data sets, conduct research in a science lab, engage in ethnographic methods or participant observation, or another significant quantitative or qualitative form of research.

While evaluations of specific research assignments and experiences varied, nearly all of these students felt that this research component of their coursework enhanced their studies and job preparation. As one junior explained, “I really liked having a chance to go after something that really interested me.” Another student shared that she “looked at the readings differently after doing some research, because it made me think about where they get their evidence.”

Several of these juniors and seniors said they wished they had had significant research experiences earlier (these particular students explained that they did not have a notable research assignment until the fall of their junior year). Others observed that only a few classes required research. Consistent with these observations, the vast majority of freshmen and sophomores reported having no major research assignment or experience in their courses, although most reported having at least some exposure in lectures, discussions, or readings to distinct research approaches or findings.

Among freshmen and sophomores, all but a handful of students said that they knew very little about opportunities for research outside of the classroom. Notable exceptions included three honors students (one freshman and two sophomores) who not only were well-informed about research opportunities, but were actively involved in research with a professor. One of these students was a participant in the Aresty Research Center’s Research Assistant Program, and she spoke with great enthusiasm and sophistication about how the experience enriched her educational experience at Rutgers.

All of these first- and second-year students, save two, expressed a strong interest in knowing more about research opportunities, and roughly half said they hoped to, as one student put it, “get a research job or have a chance to work with a professor.” The juniors and seniors said they had received some information about research opportunities, but most added that they were too busy to pursue them. A small number of these upper-level students indicated that they, at some time during their Rutgers studies, had a research job or internship, worked closely with a professor on a research
project, or were completing a senior honors thesis. This select group was strongly favorable about the quality and significance of these experiences.

Among the majority of juniors and seniors who did not have these sorts of experiences, several students shared that external work demands made these opportunities nearly impossible. Nearly all of the students said that web sources and email announcements would be the best way to get the word out regarding research opportunities. Some said information sessions would also be useful, and a few favored pamphlets or fliers distributed to undergraduates in the fall.

In addition to conducting focus groups, the self-study Working Group distributed targeted surveys over the course of the spring 2007 semester to ascertain some general sense of undergraduates' interest in and experience participating in research activities, as well as their knowledge of opportunities to do so. Students were also asked to express their views regarding the advantages and disadvantages of attending a research university like Rutgers.

In New Brunswick, faculty on the Working Group surveyed students in classes; classes of different levels and disciplines were included. In all, surveys were distributed in 15 New Brunswick classes and yielded responses from 761 undergraduates. In Newark, surveys were distributed throughout three floors of an upper-level dormitory and in the commuter student lounge, yielding 51 responses. Camden undergraduates were asked to respond to an online survey; 77 responses were received.

The survey data confirm the findings of the focus groups. Upper-division New Brunswick students across disciplines are more aware of and involved in independent research than lower division students. A large percentage of science students (over 80 percent) are interested in doing research as undergraduates; many science concentrations include a research component as a requirement for graduation. Roughly half of the upper-class science students surveyed are already doing research and only a quarter of the upper-class science students indicated that they are not aware of research opportunities.

About 60 percent of the nonscience students surveyed expressed interest in participating in research. About 40 percent of the nonscience students responded that they had done research; however, upon closer inspection, it became clear that students were responding to this question in very general terms (e.g., including library research and internet searches associated with writing class papers). Science students, on the other hand, reported research experience only if they had done independent research in a lab. Only about one-third of the nonscience students reported that they were aware of opportunities to participate in research with a faculty member.

New Brunswick students most frequently become aware of different research opportunities by searching for information on departmental and faculty websites. Roughly one quarter of the students surveyed learned of research opportunities through professors in their classes or recitations and discussion with their departmental advisers, while a smaller percentage (about one-fifth) learned about research opportunities from other students. Students also learned of research opportunities through the Aresty Research Center, career counseling, honors programs, (a science program for female students), and fliers and advertisements in the student newspaper, the Daily Targum.

Many of the New Brunswick students surveyed reported that gaining research experience for jobs and graduate school was an advantage of a large research university. Students also pointed out that a research university provides a large number of options in a variety of different research labs. Upper-class science students reported that laboratory experience was beneficial in helping them in their coursework. Survey respondents reported that the disadvantages of attending a large research university are the large class sizes and the competition with other students to find places in research.
Section VI

ASSESSMENT OF
STUDENT LEARNING

Standard 14
### SECTION VI: ASSESSMENT OF STUDENT LEARNING
(Stanard 14)

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programs are doing a thorough and careful job of assessing student learning outcomes, but some are not yet meeting those standards and are targeted for improvement.

The examples described below—writing programs on each campus, arts and sciences programs, professional school programs, and programs developed by Rutgers University Libraries—illustrate the range of existing assessment plans and methods

**Campus Writing Programs**

Writing programs help undergraduates in Camden, Newark, and New Brunswick learn to write clearly and effectively, to read critically and to learn to use sources appropriately. Programs on all three campuses also offer remedial services to enable students to succeed in college-level writing courses. The centers focus on ongoing learning assessments; they make expectations clear and regularly assess students’ progress. The writing programs also regularly assess the effectiveness of their own courses in meeting learning objectives.

**Camden**

The Writing Program at Rutgers—Camden includes seminar courses with a focus on writing skills that liberal arts students will need in upper level courses. Each course features a theme and a series of crossdisciplinary readings. Students use this theme in a sequence of assignments that build skills and allow ample opportunity for revision and incorporation of peer and instructor feedback. Continual revision, as well as a combination of informal and formal writing, allows instructors to continually assess student progress and determine whether students have mastered editorial and critical reading skills. Courses are designed to develop the student’s autonomy in selecting writing topics, drafting and revising, and conducting research. Early in the semester, instructors set goals for each student; throughout the course, they provide students with detailed written and oral responses on their work.

In 2002, the Camden Faculty Senate passed a resolution requiring students to complete a writing-intensive course, taken after the composition sequence. Students typically complete this requirement through a course in their major program.

**Newark**

The Newark Writing Program emphasizes the importance of writing accurately, analytically, and in accordance with the conventions of standard English. Students are expected to demonstrate competence in critical thinking based on careful analysis of texts, develop writing strategies appropriate to given academic tasks, utilize appropriate grammar and mechanics of standard English, and strengthen their research skills. These goals constitute the basis for the assessment indicators for this program.

Writing Program courses require students to strengthen their reading skills, write effectively about what they read, and learn to edit and revise their work. Essays are based on text assignments and are evaluated for their insight, development, and language use. The Grading Guide, used by Writing Program instructors, is available to all writing students either as a classroom handout or on Blackboard. In some courses students are asked to keep a portfolio and, at the end of the semester, to evaluate their own work. For a more comprehensive discussion of the Newark Writing Program, see Section VII.

**New Brunswick**

The Writing Program provides instruction to more than 11,000 students every year in courses ranging from Composition Skills for beginning writers, to Expository Writing required for graduation, to Writing for Business and Professions, an elective course for students wishing to hone their business writing skills. Courses are taught by full-time instructors, part-time lecturers, teaching assistants from disciplines across the Arts and Sciences, and the Writing Program directors. The program offers more
<table>
<thead>
<tr>
<th>University Learning Goals</th>
<th>Writing Program Learning Goals</th>
</tr>
</thead>
</table>
| **Reasoning and Analysis**  
Students will develop their skills in analyzing and interpreting texts, and in reasoning and problem solving through the use of evidence and engaging styles of writing. | **Students learn to:**  
- pay particular attention to moments when the writer is citing someone else  
- understand how the writer's mind works on a problem  
- know what the writer thinks counts as evidence  
- follow the model for how the writer engages with other writers. |
| **Social and Ethical Awareness**  
Students will develop their skills in analyzing and interpreting texts, and in reasoning and problem solving through the use of evidence and engaging styles of writing. | **Students learn:**  
- how to be committed to the highest ethical and professional standards  
- that plagiarism means understanding the boundaries between your ideas and the ideas of others, knowing where your ideas end and theirs start. |
| **Information and Computer Literacy**  
Students will develop their skills in gathering, accessing, analyzing, and interpreting information, in part through using the tools of modern computer technology. | **Students learn:**  
- to utilize library and online information sources and evaluate the reliability of obtained information. |

The Writing Program also provides an extensive support system for underprepared students, with non-credit courses designed to prepare them for demanding college-level work. The program carefully monitors the achieved grades in all of its offerings, including developmental courses. For example, a recent study indicated that those students who completed the developmental course, English 098, in fall 2005 actually had a passing rate that was higher than all other students in English 100 in spring 2006 (82 percent for students who completed English 098 versus 80 percent for graduates of English 100). Students who completed English 100R successfully had a completion rate of 90.9 percent when they took English 101 the following semester. They did better than those English 100 students who were not required to take English 099 (89.7 percent), and also better than students who were not required to take any prerequisites (86.7 percent). The program makes curricular adjustments in response to statistically significant changes in aggregate student performance.

**Departmental and School-Based Assessment Practices**

Departments and schools within Rutgers have a wide range of assessment plans and use a broad array of assessment tools. Several examples are provided in this section.

**Major in Environmental Sciences**

The undergraduate program in environmental sciences provides a good illustration of a well-developed assessment program. This major is offered by the Department of Environmental Sciences in the School of Environmental and Biological Sciences which also offers bachelor of science degrees in meteorology and bioenvironmental engineering, and master's and doctoral degrees in
environmental sciences and atmospheric science. Goals and outcomes for each program are approved by the departmental faculty. Table 6.4 identifies goals and objectives for the environmental sciences program and shows their correspondence to university learning goals.

**Table 6.4. Environmental Sciences Undergraduate Major**

<table>
<thead>
<tr>
<th>University Learning Goals and Objectives</th>
<th>Environmental Sciences Learning Goals and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical thinking</strong></td>
<td>Students will be able to evaluate environmental problems, assess environmental risk, and propose appropriate remediation actions.</td>
</tr>
<tr>
<td>Students will develop their ability to engage in logical thinking and complex critical analysis.</td>
<td></td>
</tr>
<tr>
<td><strong>Information and computer literacy</strong></td>
<td>Students will be able to utilize library and online information sources and evaluate the reliability of obtained information.</td>
</tr>
<tr>
<td>Students will develop their skills in gathering, accessing, analyzing, and interpreting information, in part through using the tools of modern computer technology.</td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Students will demonstrate competency in oral and written communication skills.</td>
</tr>
<tr>
<td>Students will develop their skills in expressing complex ideas through written and oral communication.</td>
<td></td>
</tr>
<tr>
<td><strong>Mathematical reasoning and analysis</strong></td>
<td>Students will demonstrate competency in computational and data analysis procedures.</td>
</tr>
<tr>
<td>Students will develop their skills in analyzing and interpreting numerical data, and in reasoning and problem solving through mathematical processes.</td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Students will work effectively in group projects.</td>
</tr>
<tr>
<td>Students will develop their skills in expressing complex ideas through written and oral communication.</td>
<td></td>
</tr>
<tr>
<td><strong>Communication; scientific inquiry</strong></td>
<td>Students will be able to present individual and group research in graphical and other visual formats; students will demonstrate an understanding of scientific methods of inquiry.</td>
</tr>
<tr>
<td>Students will develop their skills in expressing complex ideas through written and oral communication; their understanding of scientific methods of inquiry, including the use of observation and experimentation to answer questions and generate new knowledge.</td>
<td></td>
</tr>
<tr>
<td><strong>Critical thinking</strong></td>
<td>Students will demonstrate the skills and commitment necessary for lifelong learning.</td>
</tr>
<tr>
<td>Students will develop their ability to engage in logical thinking and complex critical analysis.</td>
<td></td>
</tr>
<tr>
<td><strong>Information and computer literacy</strong></td>
<td>Students will demonstrate the skills in current technologies and their underlying principles to adapt to changing technical and educational demands of their profession.</td>
</tr>
<tr>
<td>Students will develop their skills in gathering, accessing, analyzing, and interpreting information, in part through using the tools of modern computer technology.</td>
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</tr>
</tbody>
</table>
The following list identifies more specifically the skills that graduates of the environmental sciences program are expected to develop. They will be able to:

1. Evaluate environmental problems, assess environmental risk and propose appropriate remediation; they will be able to apply basic concepts of biological, chemical, and physical processes to understanding damaged environments, and risks to human and environmental health

2. Apply principles of chemical and biological analysis to evaluating contaminants in air, water, and soil/sediment samples including knowledge of current analytical methods and techniques

3. Apply principles of experimental design, analytical, numerical, and statistical techniques to data collection and data interpretation

4. Work effectively in group projects; demonstrate competency in oral and written communication; and develop, interpret, and present data clearly in graphical or tabular form

5. Utilize library and primary source literature competently, be able to evaluate online information resources critically, demonstrate skills for lifelong learning, adapt to changing technical and educational needs of their profession, and demonstrate high ethical and professional standards

6. Obtain employment upon graduation in the environmental sciences or related fields or enter a graduate program in environmental sciences or a related field.

Faculty members review and track student performance by reviewing student achievement in courses; mastery of skills demonstrated in posters, team projects, and capstone courses are all used to measure the effectiveness of learning activities. These data are used by the faculty advisers and curriculum committee for program assessment. Faculty continually review outcomes and measurement goals in an ongoing and dynamic process that is discussed frequently at faculty meetings.

For learning outcomes 1, 2, and 3, completion of the required courses demonstrates the individual's success at mastering the principles, content, and understanding of the subject matter. In addition to hands-on experimental labs in the required basic chemistry, biology, and physics courses, laboratory courses specific to chemical, physical, and microbiological analyses of environmental samples are part of the curriculum, and directly address outcomes 2 and 3 in detail. All students also take a capstone course in their junior or senior year. Learning outcomes 4 and 5 are measured in all required courses to a large extent and in particular in the required core courses. For example, in Chemical Principles of Environmental Sciences, students do all their calculations and problem solving in groups both in and out of class; in Biological Principles of Environmental Sciences, posters are presented by students working in pairs and posters are evaluated and critiqued by the other students in the class. This is a particularly useful skill in the environmental sciences since problem solving in the environmental consulting industry is always through interactions with a multidisciplinary team. Outcome 6 is measured by advisers and the curriculum coordinator. A new project in the department to identify and establish contact with alumni is an outcome of this approach.
careers. Table 6.8. lists the indices used to assess student learning at Rutgers School of Business–Camden.

**Table 6.8. Assessment of Student Acquisition of AACSB Required Knowledge and Abilities**

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>BS</th>
<th>MBA</th>
</tr>
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<tbody>
<tr>
<td>Admissions requirements ensure that students have appropriate general knowledge and abilities as a condition for entry</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Basic skills courses are required for entry to make up deficiencies in general knowledge</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><strong>Curriculum Content</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General education requirements contribute to student acquisition of general knowledge and abilities</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>The course matrix documents contributions of individual School of Business courses to student acquisition of general knowledge and abilities</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>The course matrix documents contributions of individual School of Business courses to student acquisition of management-specific knowledge and abilities.</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Articulation agreements are used to ensure that credits transferred in fulfillment of degree requirements match the quality of the coursework given at RSB–C</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Course syllabi are regularly collected</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Survey Instruments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students complete Graduating Student Exit Survey</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Employers are regularly surveyed</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Employers rate the work of student interns</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Demonstration of Performance</strong></td>
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<td></td>
</tr>
<tr>
<td>Placement Statistics demonstrate quality of the program</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Samples of student work products demonstrate student performance</td>
<td>x</td>
<td>x</td>
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</table>

**Rutgers University Libraries**

The mission of the Rutgers University Libraries (RUL) is to support and enrich the instructional, research, and public service missions of the university through the stewardship of scholarly information and the delivery of information services. The libraries aspire to provide outstanding information resources and services that advance research and learning, support the university’s goal to be among the top public AAU institutions in the country, and serve as an essential information resource for the state and beyond.

RUL has been an institutional leader in assessment and improvement efforts. Its current five-year strategic plan, for example, responds to information gathered from Rutgers students, faculty, staff, and administrators through a year-long planning process that included the participation in the Center
for Organizational Development and Leadership (ODL) Excellence in Higher Education (EHE) assessment program LibQual+™ survey, a communications audit, numerous focus group discussions, and departmental surveys.

A key objective in the Libraries Strategic Plan, 2005-2011, which was developed after broad consultation with the Rutgers community, is to “address information competency standards for students through information literacy materials, services, and programs in partnership with the teaching faculty.” This objective supports the strategic goal to “improve the quality of scholarly resources and information services that support the advancement of academic excellence at Rutgers.” The libraries ascribe to the information literacy competency standards developed by the Association of College and Research Libraries, the premier division of the American Library Association for libraries serving higher education. The standards are supported by a number of higher education organizations, including the Middle States Commission on Higher Education. The five standards specify that the information literate student:

- Determines the nature and extent of the information needed.
- Accesses needed information effectively and efficiently.
- Evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.
- Uses information effectively, individually or as a member of a group, to accomplish a specific purpose.
- Understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

During academic year 2003–2004, the Libraries Instructional Services Committee met with a representative group of teaching faculty from across the university for two in-depth discussions about information literacy. These sessions were held in conjunction with Information Literacy and Student Learning at Rutgers: Standards, Competencies, and the Search for Strategies, a symposium developed by the libraries and cosponsored by the executive vice president for academic affairs, the provosts of the Camden and Newark campuses, the vice president for continuous education and outreach, the vice president for undergraduate education, the Faculty of Arts and Sciences—New Brunswick, and the libraries. Faculty heard nationally recognized speakers address the meaning of information literacy in the context of Middle States Commission on Higher Education criteria for excellence and a practical application of how a complex, multicampus institution is infusing its curriculum with information competence. The results of this information literacy initiative are presented in the Committee’s final report.

In spring 2005, the libraries released an online information literacy tutorial for undergraduates called Searchpath. This interactive web-based tutorial is designed to teach students basic library and research skills and covers the research process from initial topic selection to citation styles and the issues of copyright and plagiarism. Each of the six modules—Starting Smart, Choosing a Topic, Using IRIS, Finding Articles, Using the Web, and Citing Sources—includes learning outcomes towards building information literacy skills for effectively searching, selecting, and evaluating information sources. The tutorial is intended as a stand-alone tool and as a supplemental tool for library research instruction sessions. Preliminary quantitative and qualitative assessment of the Searchpath tutorial has been underway since its introduction, primarily in the form of written feedback from students, module quiz results, and interviews with students. A number of instructors in New Brunswick Writing Program courses have incorporated the tutorial into their sections. The Libraries Instructional Services Committee oversees Searchpath, which also has a reports function from which analyses are developed for tutorial improvement and for informing instruction planning.
discussions with academic faculty. Individual student quiz scores and system profiles are evaluated and used as the basis for improvement in the manner in which the program is promoted and used.

During academic year 2005–2006, RUL participated along with 69 other academic institutions in the development of the Project for the Standardized Assessment of Information Literacy Skills (Project SAILS). While the pilot included only a limited number of students, participation provided valuable experience for understanding and playing a part in the development of a national measure, as well as in the analysis of and thinking through possible follow-ups of gaps in learning. (See the RUL Final Project Report.) Based on these efforts, a series of literacy goals and outcome expectations have been articulated, as shown in Table 6.9.

**TABLE 6.9. RUTGERS UNIVERSITY LIBRARIES INFORMATION LITERACY OUTCOME EXPECTATIONS**

<table>
<thead>
<tr>
<th>General Goal</th>
<th>Department Goals and Objectives</th>
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</table>
| Students will determine the nature and extent of the information needed. | Define and articulate the need for information.  
- Identify key concepts and terms that describe the information need.  
- Identify a variety of types and formats of potential sources for information.  
- Know how information is formally and informally produced, organized and disseminated.  
- Recognize that knowledge can be organized into disciplines that influence the way information is accessed.  
- Identify the value and differences of potential resources in a variety of formats (e.g., multimedia, database, website, data set, audio/visual, books).  
- Reevaluate the nature and extent of the information need.  
- Review the initial information need to clarify, revise, or refine the question. |
| Students will access needed information effectively and efficiently. | Select the most appropriate investigative methods or information retrieval systems for accessing the needed information.  
- Identify appropriate investigative methods (e.g. laboratory experiment, simulation, fieldwork).  
- Construct and implement effectively-designed search strategies.  
- Develop a research plan appropriate to the investigatory method.  
- Identify keywords, synonyms and related terms for the information needed.  
- Select controlled vocabulary specific to the discipline or information retrieval source.  
- Construct a search strategy using appropriate commands for the information retrieval system selected (e.g., Boolean operators, truncations, and proximity for search engines; internal organizers such as indexes for books). |
<table>
<thead>
<tr>
<th>General Goal</th>
<th>Department Goals and Objectives</th>
</tr>
</thead>
</table>
| Students will access needed information effectively and efficiently. Cont.’d | Retrieve information online or in person using a variety of methods.  
- Use specialized online or in person services available at the institution to retrieve information needed (e.g., interlibrary loan/document delivery, professional associations, institutional research offices, communication resources, experts and practitioners).  
- Refine the search strategy if necessary.  
- Assess the quantity, quality, and relevance of the search result to determine whether alternative information retrieval systems or investigative methods should be utilized.  
- Identify gaps in the information retrieved and determine if the search strategy should be revised.  
- Repeat the search using the revised strategy as necessary.  
- Extract, record, and manage the information and its sources.  
- Differentiate among the types of sources cited and understand elements and correct syntax of a citation for a wide range of resources.  
- Record all pertinent citation information for future reference. |
| Students will evaluate information and its sources critically and incorporate selected information into their knowledge base and value system. | Articulate and apply initial criteria for evaluating both the information and its sources.  
- Determine whether the initial query should be revised.  
- Determine if original information need has been satisfied or if additional information is needed.  
- Review search strategy and incorporate additional concepts as necessary.  
- Review information retrieval sources used and expand to include others as needed. |
| Students will, individually or as members of a group, use information effectively to accomplish a specific purpose. | [This standard is primarily the province of the teaching faculty. Librarians can assist with this effort, but not address it independently with existing programs.] |
| Students will understand many of the economic, legal, and social issues surrounding the use of information and will access and use information ethically and legally. | Understand many of the ethical, legal and socio-economic issues surrounding information and information technology.  
- Demonstrate an understanding of intellectual property, copyright, and fair use of copyrighted material.  
- Acknowledge the use of information sources in communicating the product or performance.  
- Select an appropriate documentation style and use it consistently to cite sources. |
As we move forward in consolidating and coordinating our assessment efforts, the libraries, with units located on all campuses, will be instrumental in working with other offices to enhance our programs. The current work that is being done by the faculty on the review and reframing of the undergraduate curriculum throughout the university offers opportunities to achieve these goals. Many of the performance indicators and outcomes derived from the Association of College and Research Libraries standards are within the province of the teaching faculty, so a collaboration of teaching and library faculty is essential. The general and departmental goals listed in Table 6.9. include just those standards, indicators, and outcomes that pertain to independent library teaching, and because of this, RUL has recommended that the university undertake the development of an information literacy assessment plan that is integrally linked to the new curriculum and that includes detailed learning outcomes expectations, assessment measures and criteria, as well as an assessment schedule.

GRADUATE EDUCATION

The Graduate School—New Brunswick has been among the national leaders in collecting both institutional and comparative data about graduate education, in addition to applying the traditional mechanisms of assessment associated with academic graduate degrees.

Graduate programs throughout Rutgers, as in all U.S. universities, have always had formal processes of assessment. Master’s degrees have a culminating experience, in almost all cases a comprehensive examination, usually conducted either as a formal written examination based on the master’s curriculum or as an oral examination in conjunction with the defense of the master’s thesis. Receipt of the degree depends on success in this examination. In recent years the traditional forms of the examination have evolved in programs based in some professional areas, particularly engineering fields, so that defense of a culminating paper or project may be substituted. In all cases, however, success requires approval of at least three members of the faculty and cannot be based simply on achieving satisfactory grades in coursework.

In Ph.D. programs at Rutgers the requirements are parallel but significantly more demanding. The student must pass a qualifying examination (written or oral) conducted by at least four members of the program faculty. In some fields the student may submit extended essays, sometimes called “field statements,” in lieu of a more traditional examination, but in all cases success at this stage is assessed by at least four members of the program faculty and is required before the student may advance to candidacy for the Ph.D. and formally begin his or her dissertation research. The content of these examinations or statements typically goes beyond prior coursework and includes more general knowledge of the literature of the field, of experimental methods needed for further research, and, often, includes defense of a formal proposal for the dissertation. Upon completion of the dissertation the student must defend it before a committee of at least four faculty members, at least one of whom comes from outside the student’s program of study. Generally, the graduate programs requires that the dissertation work will be either already published in part or at least potentially publishable. This, in effect, broadens the basis of assessment, since it entails the expectation that peer reviewers for scholarly journals or books will also find the work meritorious and worthy of broader dissemination.

At Rutgers, most Ph.D. students are also expected to teach during the course of their training and the university’s universal program of teaching assessment provides feedback from undergraduate students regarding their effectiveness. Many programs are in place to assist graduate students with their teaching skills and each of these in turn provides assessments of progress. Graduate students
The Assessment Council will augment the unit-specific programs with selective use of pilot tests used on other campuses. Information gleaned from Rutgers' participation in standardized national tests will help to inform future developments of universitywide and discipline-specific outcomes assessment tools.

The activities of the Assessment Council will be monitored by an Executive Council for Assessment (ECA), the strategic planning body for learning outcome assessment in the university. ECA, chaired by the executive vice president for academic affairs, includes the associate vice president of academic affairs for teaching and assessment research, the director of institutional research, representatives from the offices of the vice presidents for undergraduate and graduate education, and teaching has one representative each from the offices of the provost in Newark and Camden, the vice president for undergraduate education, the vice president for research and graduate and professional education, plus two deans' appointees. This group provides a forum for senior university leadership to develop the university's assessment strategy and to determine to what extent Rutgers should participate in national comparative programs, such as the Voluntary System of Accountability, recently endorsed by the National Association of State Universities and Land-Grant Colleges and American Association of State Colleges and Universities. For example, the university is now piloting the Collegiate Learning Assessment test to determine whether it will further student learning outcomes assessment goals.

Additionally, CTAAR and the Assessment Council are working with appropriate governing bodies to refine and review the university's learning goals as the new School of Arts and Sciences develops a general education curriculum in collaboration with the professional schools in New Brunswick. Following is a brief list of assessment initiatives planned for academic year 2007–2008.

- The School of Arts and Sciences will do a direct longitudinal assessment of the communications learning goal. Student placement essays and their writing projects from an identified capstone course will be assessed with a specific evaluative rubric for 200-300 students.

- Rutgers University Libraries will work with the School of Arts and Sciences to create and implement a rubric that will identify the extent to which students are meeting the learning goals pertaining to information literacy.

- The School of Environmental and Biological Sciences is designing and will administer an assessment tool for seniors to identify what students found most useful about their education and to learn the extent to which students believe they learned what the faculty intended them to learn.

- Using the Sakai Information Management System, several units are collaborating on the development of e-portfolios. Student learning portfolios will be instituted at the Graduate School of Education, the School of Communications, Information and Library Studies, the New Brunswick Honors Program, the Edward J. Bloustein School of Policy and Planning, and the Douglass Residential College. Each student portfolio will include a grid matrix with nine skill categories (communication-oral, communication-written, creativity, critical and analytical thinking, leadership, project development, research, social responsibility, and technology) and five experiential categories (coursework, internships and jobs, life experiences, memberships and activities, and service and volunteer work). Students will have the option to include samples of their work and accomplishments in each "box" of their grid and also reflect on the skills that they have developed. During academic year 2007-2008 selected undergraduate and graduate students will participate in a pilot portfolio project.
Section VII

EDUCATION AND RESEARCH IN AN URBAN SETTING: RUTGERS—NEWARK

Aspects of Standards 1, 8, 9, 10, 11, 12, 13, and 14
The Paul Robeson Galleries present exhibitions and educational programs to Rutgers University and Greater Newark audiences. Exhibitions champion regional artists who employ scholarly and multidisciplinary approaches to the investigation of exhibition topics. Educational programs include ArtReach, an outreach program bringing arts, arts education, and arts therapy to communities and audiences that do not have ready access to the arts. Art in Society, a gallery and off-site arts education program for regional high school students—in partnership with Newark Public Schools—stresses skills in critical thinking through visual literacy and multidisciplinary approaches to the study and the making of art, through free interactive tours and workshops. Teacher Professional Development Workshops are also offered in partnership with Newark Public Schools and the Department of Urban Education.

Dana Library serves as the primary library for the Newark Campus, with a collection of about 300,000 books, 100,000 bound periodicals, 200,000 federal and state publications, 600,000 pieces of microform, and 15,000 audiovisual items. As part of the Rutgers University Libraries, the Dana Library also provides access to over 100,000 electronic books and government documents, as well as more than 25,000 electronic journals in all academic disciplines. This enables Dana to serve students and residents in northern New Jersey who visit the Newark Campus.

Dana Library has also developed a collection of Newark-related material. Complementing the 400 physical items in the collection are two extensive annotated web-based bibliographies by Dana librarians, “The Newark Experience” and “Newark by the Numbers.” Dana now has over 1,000 titles in Portuguese; support from the Camões Institute of Lisbon, Portugal, accounted for over half of this collection, which covers subjects ranging from history and culture to literature and Lusophone studies. Dana librarians also provide instructional sessions to groups of students from local public schools (e.g., Central High School, North Star Academy, and Westside High School) and to campus-sponsored programs (e.g., the Prudential/Rutgers Future Business Computer Institute). In collaboration with the New Jersey Small Business Development Center, Dana librarians offer counseling services and teach workshops to entrepreneurs, especially in developing business and marketing plans.

The Dana Library hosts a lunchtime concert series. Six concerts, all free and open to the public, were held in 2006–2007. Dana has an active series of art exhibitions, featuring artists and artisans from New Jersey and at Rutgers. Librarians and staff of the Institute of Jazz Studies host the weekly radio program, Jazz from the Archives, which has aired on Newark's NPR-affiliate WBGO-FM since 1979. The institute also conducts the monthly Jazz Research Round Table, which is open to the public.

GRADUATE AND PROFESSIONAL EDUCATION

Rutgers–Newark supports the university’s mission of creating new knowledge, providing top-quality education to its students, and sharing our academic and intellectual resources with the state's citizens. To accomplish that mission, Rutgers–Newark has established a variety of research centers where our faculty are involved in cutting-edge research and where faculty and students are actively engaged in community outreach. The centers provide students with interactive, experiential learning opportunities to complement more traditional academic experiences.

The Newark Campus of Rutgers ranks 12th in the nation among Small Research Universities, according to the Faculty Scholarly Productivity Index, which ranked 61 universities with fewer than
scholars at Rutgers and beyond. In 2004–2005, Rutgers, through the efforts of the institute, brought the Teachers As Scholars Program to Newark. The program is a national initiative in professional development that involves K–12 teachers in lifelong learning through ongoing interaction with university scholars. In 2005–2006, nearly 300 Newark public school teachers spent two days on the Newark Campus in seminars that explored the arts, humanities, social sciences, education, and law. In a unique program in 2004 requested by the New Jersey state attorney general, the institute mounted several cultural awareness sessions for all 2,700 members of the New Jersey State Police.

INSTITUTE OF JAZZ STUDIES

The Institute of Jazz Studies is the largest and most comprehensive archive of jazz and jazz-related materials in the world. Its mission is to promote, preserve, and extend the heritage of this unique American art form. Housed at Rutgers–Newark since 1966, the institute is an unmatched resource for students, teachers, scholars, authors, independent researchers, musicians, the media, record companies, libraries and other archives, and arts agencies.

CAMÕES INSTITUTE CENTER FOR PORTUGUESE LANGUAGE AND CULTURE

Founded in 2001 in association with the Camões Institute of Lisbon, Portugal, this center at the Dana Library on the Newark Campus, houses over 2,000 volumes and other rich source materials on Portuguese literature, history, and culture. The archive includes over 100 oral histories gathered by Rutgers–Newark students, recording the life histories of Portuguese and Brazilian immigrants in northern New Jersey.

INSTITUTE ON EDUCATION LAW AND POLICY

Founded in 2000, the Institute on Education Law and Policy at the School of Law is New Jersey’s premier center for interdisciplinary research and innovative thinking on education policy. The institute holds invitational meetings and conferences to improve public understanding of complex educational issues. Recent projects have included School Choice—A Closer Look at Public School Choice in New Jersey, Education Funding—Toward a Rational New Jersey Policy on School Funding and Accountability, and Excellent Schools—Pockets of Educational Excellence.

JOSEPH C. CORNWALL CENTER FOR METROPOLITAN STUDIES

Also established in 2000, the Joseph C. Cornwall Center for Metropolitan Studies promotes research and interchange among scholars of urban and metropolitan life, government leaders, businesses, community-based organizations, and private citizens. The center advances analysis and research of complex issues facing urban areas, in particular metropolitan Newark and northern New Jersey, concentrating on such topics as housing, social justice, education, health, and community and economic development. Recent research projects include the Greater Newark Health Systems Survey, Greater Essex Council of Child Welfare Collaboratives, Project Evaluation for the St. Matthews NIDA, Program Evaluation of the Newark Literacy Campaign, and Program Evaluation for the Stella Wright HOPE VI Project.

RUTGERS BUSINESS SCHOOL PROGRAMS

Rutgers Business School sponsors a series of programs and centers that advise and assist local area businesses.

- The M.B.A. Interfunctional Team Consulting Program brings the knowledge and experience of seasoned M.B.A. students to bear on a challenge or problem identified
Section VIII

COMMUNITY ENGAGEMENT: RUTGERS—NEW BRUNSWICK AND RUTGERS—CAMDEN

Aspects of Standards 1, 11, and 13
Section IX

INTERCAMPUS GOVERNANCE AND DEVOLUTION

Aspects of Standard 4
Certain key areas of academic and administrative affairs have been devolved to the campuses. Examples are described in detail later in this document. As will be clear, some functions have devolved to all three campuses; others have been devolved to only one campus with the other two sharing a centralized function (one size does not always fit all, for reasons to be given). The university has determined that other areas of responsibility will be held centrally, for the reasons noted above. Examples include:

- Central board-level governance
- Legal counsel
- State and federal relations
- University-level public affairs
- Fundraising oversight and support
- Labor relations and union negotiations
- Accounting, internal control, and audit
- University-level promotion and tenure review
- Management of the library system
- Management of facilities construction
- Debt management
- Universitywide budgeting

The balance between central control and devolution is under constant review and, in some instances, remains a work in progress. The goal is to achieve the president's mandate for appropriate devolution.

**GOVERNANCE**

**BOARD OF GOVERNORS AND BOARD OF TRUSTEES**

The Board of Trustees was the governing body of the university from the time of its founding as Queen's College in 1766 until the university was reorganized as the state university under the Chapter 61 Laws of 1956. The 1956 state law created a Board of Governors as the governing body of the university, which formulates regulations and policies. It also provided for the continuation of the Board of Trustees in an advisory capacity, with certain fiduciary responsibilities over assets of the university in existence before 1956.

The Board of Governors consists of 11 members, six appointed by New Jersey’s governor (with the approval of the legislature) and five appointed through the Board of Trustees, plus non-voting faculty and student representatives.
The Board of Trustees – Continued

Alvin J. Rockoff, Emeritus, Rutgers College, B.S., 1949
John F. Russo Sr.
Patrick M. Ryan
Kenneth M. Schmidt, Rutgers College, B.A., 1967
Daniel H. Schulman
Marijane Singer, Emerita
Susan Stabile, College of Nursing, B.S., 1984
Dorothy M. Stanaitis, University College–Camden, B.A., 1982
Robert L. Stevenson, School of Engineering, B.S., B.A., 1965
Sandy J. Stewart, Camden College of Arts and Sciences, B.A., 1981; Graduate School–Camden, M.S., 1987

Abram J. Suydam Jr., Rutgers College of Agriculture, 1951
Arthur L. Taub, Emeritus, College of Pharmacy, B.S., 1951
Anne M. Thomas, Emerita
Michael R. Tuosto, Emeritus, School of Business, B.S., 1962; Graduate School of Management–Newark, M.B.A., 1965
Laurel A. Van Leer, Cook College, B.S., 1982
Lucas J. Visconti, Cook College, B.S., 1982
Mark C. Vodak, Faculty Representative–2008
John E. Wade
Mary Vivian Fu Wells, Emerita
Curtis M. Williams II, Camden College of Arts and Sciences, B.A., 2007
George R. Zoffinger

PRINCIPAL UNIVERSITY OFFICERS

Rutgers Policy Sections: 50.1.3, revised 7/14/2006, and 50.1.5, revised 2/13/04, identify the seven principal officers of the university as well as their responsibilities as follows:

President

The President shall be the chief executive officer of the university as provided in the Charter and in the Bylaws of the Board of Governors and is clothed with corresponding authority. All assignments of duties to other officers in these Regulations shall be subject to the President’s interpretation and decision as shall the interpretation, within applicable law, of any regulation, policy, or practice of this university. The President shall have oversight of the relations of the university with governmental, community, philanthropic, and business institutions, the programs of public information throughout the university and official, non-academic university publications. The President also shall be responsible for providing policy direction and oversight to the university Division of Intercollegiate Athletics on the New Brunswick/Piscataway campus.

Executive Vice President for Academic Affairs

Under the President, the Executive Vice President for Academic Affairs shall be the Chief Academic Officer, Budget Officer, and the President’s deputy and principal adviser on all matters affecting the educational and academic operations of the university. The Executive Vice President for Academic Affairs shall be responsible for the formulation and administration of university academic policy, in consultation with the Provost–Newark and the Provost–Camden (see policy 50.1.5, Campus Officers). In fulfillment of that role, this officer shall identify general goals and objectives for the overall academic programs of the university and shall advise, and act as the representative of, the President on academic matters affecting the several faculties and campuses of the university. Furthermore, this officer shall have direct oversight of undergraduate and graduate education, research, university budgeting, land-grant programs, libraries, enrollment management, financial aid,
student affairs, institutional research, continuing education, and schools, faculties, centers, and institutes on the New Brunswick/Piscataway campus.

**Senior Vice President for Administration and Chief Financial Officer**

Under the President, the Senior Vice President for Administration and Chief Financial Officer shall be the Chief Administrative and Financial Officer and shall have responsibility for the direction of the administrative and financial management of the university as distinct from its educational and academic administration. To this end, and in consultation with the Executive Vice President for Academic Affairs, this officer shall exercise the principal coordinating role in the day-by-day management of all administrative and financial matters affecting the university, insuring that the operations of the university are conducted in accordance with university policy. In addition, this officer shall administer the provisions of public laws and shall formulate and administer internal policies and procedures which apply to all persons employed by the university, shall direct the provision of diverse employee services, and shall designate individuals to represent the interests of the university in collective negotiations with organized staff employee groups. Furthermore, this officer shall have direct oversight of public safety, human resources, facilities management, capital projects, computing, and business services. This officer also shall be responsible for the financial management of the university including the controller’s operations, the treasury operations, risk management and insurance, and, for administrative purposes only, internal audit.

**Secretary of the University**

Under the president, the secretary of the university shall be responsible for supporting the activities of the Rutgers’ Board of Governors and Board of Trustees; coordinating university commencement and the honorary degrees nomination process; maintaining the University Policy Library; serving as the university’s custodian of records to ensure compliance with the New Jersey Public Access to Government Records Law, accepting service of legal process on the university’s behalf and forwarding legal documents to general counsel; directing the use of the university seal and attesting to the signatures of university official documents, preparing letters of introduction, directing the procedure for lowering flags to half-staff, and reporting the passing of a Rutgers community member.

**Vice President and General Counsel**

Under the president, the vice president and general counsel shall serve as the general legal officer to the Board of Governors, the president, and to other administrative officers of the university. The Office of the Vice President and General Council shall manage and supervise all legal affairs for the university; provide legal advice to the president, Board of Governors, and administration on a broad array of legal issues; and represent the university in all legal proceedings. The Office of Vice President and General Counsel strives to advance the mission of the university and its complex constituency by providing timely advice toward sound decision making in all issues that face a modern, public research university.

**The Provost—Camden**

The Camden provost shall be the principal university officer for the Camden campus in respect of academic affairs, student life, business management, campus security, and physical plant operations. The provost shall provide overall policy direction for the deans of the several schools, colleges, and faculties and for the directors of the aforementioned administrative departments on the Camden campus; shall administer personnel policies and procedures concerning both faculty and staff of those units and shall have responsibility for the proper maintenance of their personnel records; shall direct, with the advice of deans and directors, the planning and budgeting process for the campus as a whole; shall allocate resources among the several academic units and administrative departments; and shall
units that receive the grants and has eliminated the universitywide practice of negotiated "special deals" between investigators and central administration and replaced it with uniform rates of return to units and local control of future distribution. Similarly, rates of return of net proceeds from summer and winter sessions, off-campus programs, and other revenue sources have been increased and made uniform across the university.

A key feature of the budgeting process has also been the closer integration of institutional resources with accomplishment of academic priorities. To increase transparency, broad categorical budget data (tuition income, state allocation, research funding, indirect cost recovery, etc.) are provided to all the deans for all university units annually, and each school is required to have a budget advisory committee to review and provide advice to the dean on resource allocation. Although this budgeting process has been fully implemented through only two fiscal year cycles (with a third one in process), most of our schools have adapted extremely well to the system, focused attention on more effective allocation of their resources, and greatly increased attention to the sources of this funding and the development of additional academically driven support. This new budgeting system has resulted in some increased and more uniform distributions for each school. At the same time, each school has been given responsibility for building its academic programs using this increased funding.

Inevitably, however, there have been disagreements and tensions resulting from the implementation of this system. First, change itself causes anxiety. Even though the previous system was universally criticized for its opacity, inconsistency, and lack of local input or control, it was familiar. Second, transferring responsibilities for more effective management of resources, along with the additional support to local units, has raised institutional expectations of administrative and staff performance. Third, while consistency and uniformity were widely lauded as a great advance, there remains a residual culture of seeking special arrangements or deals. Finally, some members of the community naturally expected (or hoped) that the new budgets would release vast new resources to support new programs (in spite of many communications to the contrary), or would correct real or perceived slights and neglect that had accumulated over a long period of time. While the reallocation of resources during implementation of all-funds budgeting purposefully held every unit initially harmless and resulted in at least some additional funding for all units, the fact is that there was little flexibility in the budget prior to or after the shift to the new system. This misapprehension was exacerbated by the fact that the past two years have been the most difficult for the university in terms of state support.

Nevertheless, each year we seek to refine and improve all-funds budgeting and, with our newly acquired experience, increase comfort with the system. Conversations among the three campus leaders remain constructive and new suggestions for budgeting refinements are being addressed on a case-by-case basis.

The all-funds model as first introduced dealt only with the academic units. An administrative all-funds model is still in development. One complexity is that some administrative functions are provided by the Newark and Camden campuses, and others are provided universitywide. In addition, the law schools in Newark and Camden operate their own libraries, and the law and business schools operate their own admissions offices. How to incorporate these needs into the budget system without violating basic principles of consistency, uniformity, and transparency has not yet been resolved, although some accommodations have already been made. These and other issues are being addressed in the administrative all-funds model that is being developed.
• The Office of Risk Management and Insurance supervises the student health insurance and occupational health programs in New Brunswick and provides consultation and support for the Newark and Camden occupational health and student health insurance services.

• Each campus health service separately pursues accreditation from an appropriate agency based upon the components of each health service.

• Each campus health service provides mental health and psychological services to its campus.

As a result of devolution, each campus receives a proportionate share of the student health fee and state support based on enrollment figures. Following a two-year transition period, certain services that were provided centrally, such as laboratory services, central administrative services, and health education materials, are now supplied and paid for locally on each campus.

There continues to be regular collaboration on issues that cut across all campuses. For example, a cross-campus committee is now examining options for a revised student health insurance plan with additional coverage options.

GOVERNANCE AND POLICYMAKING
IN THE RUTGERS UNIVERSITY LIBRARIES

The Rutgers University Libraries are organized as a system across the three university campuses in Camden, Newark, and New Brunswick, all reporting to the university librarian, who, in turn, reports to the executive vice president for academic affairs. The libraries in Camden and Newark are headed by campus directors who share dual reporting relationships to their campus provosts. In New Brunswick, the university librarian heads the campus libraries. Associate university librarians, based in New Brunswick, serve as program officers coordinating assigned areas across the system and providing support to the university librarian.

The campus library directors administer the library operations on the campus, represent their library and the library system to their campus constituency, represent the interests of the campus to the libraries as a whole, and contribute their expertise to the development of the library system in support of the campus and university missions. Campus directors have authority to hire staff; library faculty positions need the approval of the university librarian because their tenure resides in the Rutgers University Libraries and not at the campus level.

The libraries' success in these endeavors depends on the ability to address both local and systemwide needs effectively. Because each of the campuses has distinct priorities, missions, and needs, each campus director works closely with his or her provost to support those needs. Each director sits on the Council of Deans on the respective campus. The university librarian also works closely with each provost to assure that there is sufficient input for planning and collaborative efforts. There is a universitywide Libraries Advisory Committee that includes faculty representatives from all the campuses, the mission of which is to provide direct faculty input into library directions. In addition, two of the campuses have Faculty Council library committees that provide advice to the campus and to the library system. The libraries have liaisons to all academic departments on all campuses to assure there is sufficient input to library activities.
Associate university librarians in the areas of research and instructional services, technical services, and collection development each manage a universitywide council for public services, collection development, or technical services. The councils include appointed and elected library faculty and staff members from all campuses and are charged with coordinating and developing policies and programs in their areas.

The University Librarian’s Cabinet, the most senior administrative and coordinating group in the libraries, is responsible for determining programs and policies for the libraries. Membership includes the campus directors and the associate university librarians.

Budget allocations are made taking the needs of all campuses into consideration, and all campuses share responsibility for decisions about expenditures.

CONCLUSION

Absent any discernible movement toward revisiting the restructuring proposals by the state and governor, the system of strategic devolution we have in place has, on balance, served us well. It will continue to be refined and improved, and the university is committed to an ongoing process of addressing any remaining issues and those which will inevitably arise in the future.
Rutgers, The State University of New Jersey

2008

Dashboard Indicators
Rutgers, The State University of New Jersey: Dashboard Indicators 2008

OPERATIONS and FINANCE: To improve the efficiency and effectiveness of university operations and enhance fiscal and capital resources.

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Graph 1: Ratio of Executive/Administrative/Managerial (EAM) to Faculty

- Rutgers - Universitywide
- Public AAU Average
- AAU Aspirants Average
- Public AAU with Medical School Average
- Public AAU without Medical School Average

Graph 2: Faculty per 100 Student FTEs

- Rutgers - Universitywide
- Public AAU Average
- AAU Aspirants Average
- Public AAU with Medical School Average
- Public AAU without Medical School Average

Graph 3: Total Library Volumes

Graph 4: Total Library Expenditures

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Rutgers - Universitywide

Operations and Finance