Criterion 3:
Student Learning and Effective Teaching

Criterion 3:
Student Learning
and Effective Teaching

The organization provides evidence of student learning and teaching effectiveness that demonstrates it is fulfilling its educational mission.

Since its inception in 1869 as a "normal school" for the preparation of teachers in this rural region, Southern Illinois University Carbondale (SIUC) has focused its resources, staff, and programs on effective teaching and its principal outcome, effective learning. This mission remains central, even though it has expanded over the years to include graduate and professional studies as well as undergraduate work in the many fields of inquiry characteristic of a comprehensive university. Notwithstanding SIUC's present size and scope as a large, public Carnegie-classified Research University (high research activity), the institution is steadfastly committed to its most basic educational function, that is, efficacious instruction.

The present chapter documents this complex activity, addressing each Core Component by offering evidence of SIUC's sustained efforts to promote student learning at all degree levels and throughout the entire university. The first section, Core Component 3.a, demonstrates how the institution defines and assesses expected student learning outcomes; Core Component 3.b shows how the university supports and rewards quality instruction; Core Component 3.c discusses the institution's varied and complex learning environments; and Core Component 3.d reviews the considerable resources applied to support teaching and learning. Where appropriate, this chapter emphasizes evidence of these developments since the university's last self-study for NCA accreditation review.

Core Component 3.a: The organization's goals for student learning outcomes are clearly stated for each educational program and make effective assessment possible.

Each degree program has developed clearly stated learning objectives and goals defined by the faculty responsible for delivering the relevant curriculum. The faculty themselves determine what they expect of their students at each level of achievement, even in

academic programs that do not lead to a degree, as required by the Illinois Board of Higher Education (IBHE) for each new degree submitted for approval under the terms of the Illinois Public Agenda. The University Core Curriculum, for example, posts its learning goals in the *Undergraduate Catalog* (p. 56) and on its website,[210] which also lists the specific learning objectives for each requirement and for each course in the program's inventory. The Office of Assessment and Program Review (OAPR) has on file the learning objectives and assessment plan of each degree program for all units on the Carbondale campus. The faculty is expected to teach to these objectives and to measure student learning outcomes based on them.

Assessment

Every degree program is expected to engage in formal assessment of student learning, a process overseen by the OAPR and the Campus-Wide Assessment Committee (CWAC). Created in 1996, the OAPR has a modest budget and reports through the Office of the Associate Provost for Academic Affairs. The OAPR director works closely with the associate provost to provide leadership and assistance to the faculty, including the regular review of assessment plans and reports for all undergraduate and graduate degree programs.[211] The CWAC, chaired by the director of the OAPR, consists of faculty representatives from each college. It oversees assessment activities in each department and school, offers help and expertise to those revising and implementing assessment plans, and hosts periodic faculty development workshops on different ways to measure student learning.

In 1996, shortly after the creation of the OAPR, departments and schools were required to file assessment plans for CWAC approval.[212] In keeping with best practices in higher education, the faculty in each academic unit was responsible for developing and measuring outcomes in the programs they deliver. Ninety-seven percent of graduate programs use research papers and projects, oral and written examinations, masters theses, and doctoral dissertations (along with at least nine direct and six indirect indicators) in their measurement of student learning outcomes. Learning in undergraduate programs is assessed by a more varied array of indicators, ranging from qualitative performance evaluations (60 percent) to undergraduate theses (5 percent).

The original assessment plans remain on file in the OAPR and many have been revised, frequently to meet changing degree-specific accreditation requirements. The tracking of these changes was simplified by the creation of a web-based reporting system for five years

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210 http://corecurriculum.siuc.edu.

211 http://assessment.siuc.edu.

212 Southern Illinois University Assessment Program, 1998, in the OAPR.

(2000-2005) on the OAPR's homepage.[213] Since then, more modest revisions have been reported in annual reports to the director of the OAPR. The result has been a selective but reasonable effort to administer the university's commitment to document and learn from its students' learning outcomes at the programmatic level.

Assessment continues across campus in nearly all academic programs. Some units have degree-specific accreditation requirements, such as the School of Medicine, the College of Engineering, and the College of Education and Human Services. There are fifty-six such assessment activities, which ensure a high level of faculty participation in outcome measurement and curricular revision.[214] Many disciplines that lack national accreditation processes have a tradition of successful self-assessment, such as the departments of history and anthropology. Despite less external oversight, these academic units take assessment seriously because their faculties have learned that scrupulous assessment is critical to improving programs. Moreover, non-degree programs, such as Athletics and University Housing, have maintained active assessment of student learning as part of their university mandate and effective operation.

Reports from November 2007 on file in the OAPR indicate that nearly all degree programs are engaged in some form of assessment, albeit with somewhat uneven implementation. Of the programs reporting, only four of 139 undergraduate and graduate degree programs do not have operational assessment plans (the exceptions are in development or substantive revision). Table 3-1 provides an example of a survey of assessment practices by the OAPR.

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213 http://assessment.siuc.edu.
214 www.irs.edu/webRoot/Accredit/Accredit.asp.

Table 3-1. Office of Assessment and Program Review survey, 2007.

Annual Survey and Report of Departmental Assessment Practices Undergraduate Program			
Assessment Plan	Yes	No	N/A
The department has an assessment plan for the associate/undergraduate program.	77	1	
The department has an assessment plan for the graduate program.			
The assessment plan(s) is/are linked to articulated outcome goals for your majors.	71	2	1

Assessment Process		Yes	No	N/A
Responsibility for assessment has been assumed by:	Individual:	51		1
	Chair	26		
	Tenured Faculty	34		
	Untenured Faculty	8		
	Continuing Term	2		
	Term	0		
	Academic Staff	0		
	Committee:	38		
Specially constituted to addresss assessment of student learning		31		
Part of the Curriculum Committee		12		
Part of the Executive Committee		6		
Part of the Undergraduate/Graduate Education Committee		12		

Please identify the types of tools in the assessment plan(s); if possible, indicate the academic years in which they have been or are intended to be employed.							
Tools used to directly assess student learning	Undergraduate Program	% of Total	Additional	Of the tools used to directly assess student learning, which provide the most useful information?	Of the tools used to directly assess student learning, which provide the least useful information?	Of the tools used to indirectly assess student learning, which provide the most useful information?	Of the tools used to indirectly assess student learning, which provide the least useful information?
a. Program accreditation date	39	51	3	3			
b. National exams	25	32		7	5		
c. Local exams	29	28		6	7		
d. Capstone courses	41	53		22	5	1	1

Please identify the types of tools in the assessment plan(s); if possible, indicate the academic years in which they have been or are intended to be employed.							
e. Embedded testing	44	57		12	7		
f. Student portfolios	32	42		6	7		
g. Thesis/ dissertation	5	6					
h. Performance evaluations	46	60		15	5	1	
i. Pre & post testing	31	40		8	7		2
j. Other (specify)	33	43	1	9	4	2	1
Tools used to indirectly assess student learning							
k. Student surveys	43	56	1	1		11	6
l. Exit surveys	44	57	11	4		17	4
m. Alumni surveys	40	52	2	1		8	7
n. Employer surveys	33	43	2	1		11	6
o. External reviews	42	55				8	6
p. Other (specify)	26	34		1	1	13	1

Indirect measures of student learning include rates of persistence and graduation (Table 3-2). For the past ten years, retention of first-year students into their third semester has ranged between 66 and 72 percent. In the same period, these students were graduated in six years at rates between 39 and 43 percent. On the other hand, more than half of all students finishing their undergraduate degrees at SIUC came as transfers from other institutions, mostly community colleges in Illinois. Despite increasing attention to these trends, the rates have remained relatively steady.

Table 3-2. Freshman persistence and graduation.[215]

Persistence and Graduation of On-Campus, New Full-Time Freshman Seeking a Baccalaureate Fall Semesters 2001-2007 (10th-day cohorts)									
Entering Fall Semester	Cohort Headcount	Continued to 2nd Yr.	Continued to 3rd Yr	Graduated within 4 Yrs	Continued to 5th Yr	Graduated within 5 Yrs	Continued to 6th Yr	Graduated within 6 Yrs	Continued to 7th Yr
2001	2085	78.1%	60.0%	24.0%	26.5%	41.0%	81.0%	45.7%	29.0%
2002	2328	70.2%	56.4%	23.6%	25.4%	40.0%	78.0%	45.2%	24.0%
2003	2478	70.2%	56.4%	23.9%	25.5%	39.9%	67.0%		
2004	2480	70.2%	57.2%	26.0%	24.8%				
2005	2315	67.4%	54.5%						
2006	2222	69.8%	58.5%						
2007	2488	69.1%							

Notes: Percents are cumulative rather than annual percents. Each graduation year contains all recorded graduations of students in a given cohort during December, May, and August. Each cohort consists of all new full-time freshmen entering SIUC in the respective summer and continuing into fall or entering in that fall semester for the first time. On-campus only degree-seeking students are included in each cohort. All 10th-day cohorts were tracked through Fall Semester 2008, and the status of the student is recorded before each fall semester following the fall semester as a new freshman: did the student graduate? Is the student still persisting? Or is the student a non-persister? Continued to 2nd Year, 3rd Year, etc. is defined as a student who returns for the Fall semester of that year. The cohort headcount for new, full-time freshemn will not match Factbook Table 2 because Table 2 includes associate degree-seeking and off-campus students as well as baccalaureate degree-seeking students. *Source:* Institutional Research and Studies Longitudinal Student History File and 10th-day student census files.

Another measure of student learning comes from responses to alumni surveys on satisfaction and employment. According to a 2005 survey of SIUC graduates in 1994, 2000, and 2003, alumni felt satisfied about the university and their degrees; more than 70 percent expressed positive and strongly positive attitudes.[216] This same survey also indicated that between 44 and 49 percent of responding alumni felt that their degrees had prepared them well or very well for their present jobs. Between 76 and 87 percent of them were employed full-time.

At the graduate level, SIUC collected data on time-to-degree for selected doctoral programs and provided them to an on-going study sponsored by the Council of Graduate Schools. National data are incomplete, but this study will inform the higher education community on an important topic. The National Research Council (NRC) Assessment of Research Doctorate Programs also has been collecting assessment-related data, but it is unclear

215   This table reproduces *Southern Illinois University Carbondale Factbook 2008-2009*, Table 26.

216   See Alumni Surveys in the Annual Performance Reports to the Illinois Board of Higher Education, archived in the Office of the Associate Provost for Academic Affairs.

when their analysis will be published.

Besides enrollments and surveys, other assessment activities suggest that many programs are engaged in the collection of meaningful learning data and use the information to improve outcomes. These efforts demonstrate a pervasive commitment on the part of faculty to enhance quality control in both undergraduate and graduate education at SIUC.

University Core Curriculum

In the late 1960s SIU instituted a curriculum for basic, university-wide educational requirements to replace the old distribution requirements. Several years of planning and system-wide discussion preceded the establishment of this General Studies curriculum common to both Carbondale and Edwardsville campuses. Organized into five content areas—physical sciences, social sciences, fine arts and literature, composition and rhetoric, and health and physical education—this structure served the university's desire for a "common core of knowledge"[217] and was headed by a dean of General Studies.

Over the years the program was adjusted to emerging institutional needs and new courses were added, resulting in "course proliferation" that threatened to undermine the integrity of the curriculum. The first of two major revisions of the general studies curriculum occurred in the 1970s, when the name was changed from General Studies to General Education, the dean was replaced with a director, and some courses were trimmed. The second occurred in the mid-1980s, when a major overhaul occurred within the same five-area framework. The curriculum was pruned to create a more manageable number of courses and to restore some coherence by developing a logical progression from broad 100-level introductory courses to more focused 200- and 300-level ones that would build on the students' experience. Nonetheless, some feeling remained that even this major editing of the course list was insufficient, necessitating a more thorough review of general education requirements. In the mid-1990s, a comprehensive review of the rationale, structure, and offerings of the curriculum was undertaken and led to creation of the present University Core Curriculum.

Since 1996 the University Core Curriculum (UCC)—the university's general studies program required of all its undergraduates—has engaged in assessment of student learning outcomes as a principal feature of its implementation.[218] With the assistance of a nine-member faculty committee, the Core Curriculum Executive Council (CCEC), the director

217   SIUC *1994-95 Undergraduate Catalog*, p. 92. This was the last catalog published before the present Core Curriculum was instituted.

218   http://corecurriculum.siuc.edu.

of the UCC oversees the regular collection of course portfolios. At least once every five semesters, instructors of each UCC course must provide the director and CCEC a dossier that includes a copy of the course syllabus (listing the learning objectives for the students taking the course), important supplementary handouts (such as writing assignments and laboratory exercises), final examinations or semester-end projects, and the results and analysis of the instructors' learning data, learning objective-by-learning objective, collected for the entire semester.

The dossiers are then reviewed by the CCEC and feedback is provided to the instructor on how the learning data might be used to improve learning the next time the course is taught. Each assessment includes the following items: (1) a comparison of the current course syllabus with the one approved by the (CCEC) to ensure that it contains the required elements of a Core course syllabus as well as to ensure consistency in course objectives, textbooks, and assignments; (2) a review of sample examinations given in the course, including the final exam, as well as samples of other types of assignments; and (3) an assessment chart that lists the assessment indicators used by the instructor, an explanation of how the indicators are related to the course objectives, the assessment data for each indicator, and a discussion of how the instructor plans to improve the course in light of the assessment. In short, the requirements for regular course review include the fundamentals of measuring the student learning outcomes in the Core, course by course. Details and sample materials can be found on the program's website.[219]

The UCC course dossier system ensures faculty attention to the effectiveness of their teaching as well as reminding academic units of their commitment to the learning of students who are not necessarily majors in their degree programs. The results of this assessment effort indicate that at least 75 percent of all students enrolled in any of the UCC's 125 courses meet or exceed expectations in their achievement of the stated learning objectives.[220] Because the system ensures that learning objectives for each course are directly related to the program's six major learning goals, as stated in the *Undergraduate Catalog 2009-10* and discussed in Core Component 4.b, the university can say with reasonable certainty that its students are developing the appropriate foundational skills (in English composition, speech, and math), disciplinary knowledge (in the physical and biological sciences, social sciences, humanities, fine arts, and human health), and integrative understanding of controversial issues (in multiculturalism and interdisciplinarity).[221]

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219 http://corecurriculum.siuc.edu/assessment.html.
220 See assessment dossiers in the Office of the University Core Curriculum.
221 Undergraduate Catalog 2009-10, p. 56.

The UCC uses its learning data to address serious, on-going concerns in undergraduate education. Among recent initiatives are efforts to introduce a common text—*The Narrative of the Life of Frederick Douglass*, and, more recently, T*he Naked Roommate: And 107 Other Issues You Might Run Into in College*—for students to read in English Composition, Speech Communication, and orientation to assist in knowledge and skill transfer from one UCC course to another and from the UCC to the major. This issue arose from the learning data collected from students as part of a major grant from the William and Flora Hewlett Foundation to fund a problem-based learning integration of the entire UCC curriculum (2001-04). Similarly, the UCC is partnering with the College of Liberal Arts to sponsor workshops on Writing Across the Curriculum with an eye to supporting faculty interest in teaching students to write more effectively in their own courses. And finally, the UCC has worked with University Housing to create living-learning communities—residential groups of students sharing the same undergraduate major—whose learning objectives were framed by a university-wide committee of faculty and staff in keeping with learning data collected in the UCC as well as in Student Affairs. The most ambitious community to date is the one created by the College of Engineering, with funding from the National Science Foundation, to enrich student learning in three entire residence halls.

Despite this commitment to assessment, the UCC has been unable to come to grips with program review as distinct from course review. It has been extremely difficult to establish suitable assessment protocols for either the program as a whole or for its constituent sub-curricula, even though the goals are clear and well-articulated.[222] The reasons for this appear to be rooted in a deep-seated culture at SIUC that makes consistent cooperation across departmental boundaries very difficult. At least two elements contribute to this departmental balkanization, both stemming from the university's chronic funding difficulties. First, the budget is a zero-sum game. This is true everywhere, but most universities have gone through periods of growth, especially during the 1990s, that mitigated that hard fact. At SIUC, enrollments have fluctuated within a narrow range for the past four decades while state support has dwindled and a variety of pressures have worked against raising tuition charges. The result has been a budget that has been in slow decline in terms of real dollars (see chapter on Criterion 2). This decline has led departments to be very defensive about any changes that might conceivably result in a relative net loss to their respective budgets. This defensive attitude manifests itself in many ways, even outside the budgetary arena.

Second, the culture that has pervaded SIUC for decades is one that values procedure over outcomes and emphasizes compliance over assessment. Whereas departments and
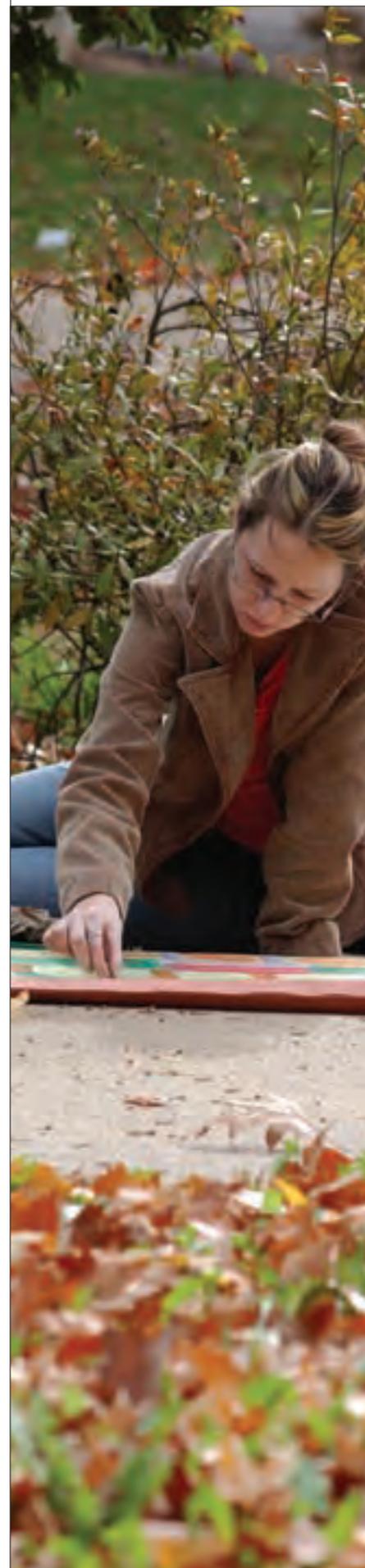
individual faculty are quite clear about goals and outcomes in their courses, they tend to see larger programmatic goals, especially in a university-level endeavor like the UCC, as being externally imposed and they treat the assessment of outcomes in terms of those goals as largely a reporting function that demands their compliance with these "external rules." When assessment attempts to move beyond the level of the department's own courses, faculty tend to lose interest and fail to see its relevance to their efforts.[223] Assessment efforts for degree programs within departments do not encounter the same degree of resistance/indifference as has programmatic assessment of the UCC.

One notable recent development in the university's commitment to the assessment of student learning is SIUC's participation in the Higher Learning Commission (HLC)'s Assessment Academy. In October 2009 the university applied to the Academy and the following month was officially invited to join. Accordingly, a team of five faculty and staff members attended the roundtable hosted by the HLC in Lisle, Illinois, for two full days of mapping out a strategic plan for developing a culture of transformative inquiry on the Carbondale campus. This plan's initial focus is on learning in the Saluki First Year (SFY) as a model for faculty and staff members in other programs to consider adapting to their particular needs, drawing on the pervasive buy-in from colleagues in the SFY, which affects a large number of undergraduate programs in the university. The idea is thus to build on this success in order to interest others in the same process of empowering colleagues to use assessment data to improve their curricula and to enhance the student learning that arises from them.[224]

Undergraduate Education: Examples

The Department of History submitted an assessment plan in 1996 that proved almost immediately fruitful to its faculty in revising the undergraduate major. After examining the research papers graduating seniors had written in the required senior seminar (History 499), the department discovered that many majors were unable to survey the historiographical literature relevant to their topics, to distinguish between primary and secondary sources, to construct an historical argument, or to document their work so that a reader could verify the sources used. Consequently, the department modified the major to require a seminar on research methods, History 392, that introduced these basic concepts to all students in the major. The new course was inserted into the curriculum between the introductory surveys

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223 For faculty who have been at SIUC for more than a decade, this attitude may be partly a continuation of frustration with the ever-shifting demands of state higher-education authorities, which failed to bring about any visibly relevant or positive outcomes for the institution.

224 For more information about the university's participation in the Assessment Academy, see the application proposal and the pre-roundtable materials, available in the OAPR.

of American and Western/World History and the upper-division courses on special topics. The result was a dramatic improvement in the research papers that graduating students produced in the senior seminar. Faculty remain concerned with the difficulty of teaching History 392, however, and the department's Curriculum Committee is now reviewing this course to propose revisions in light of the most recent assessment data in that course and in the major.[225]

The Teacher Education Program (TEP) in the College of Education and Human Services (COEHS), in response to the last National Council for Accreditation of Teacher Education (NCATE) self-study in 2003, has implemented a new assessment plan. The TEP now requires all students to subscribe to the e-portfolio service provided by LiveText, a powerful software package that also provides courseware and assessment capacity, and to present his or her portfolio to a faculty panel. Working from standards mandated by both NCATE and the Illinois Board of Higher Education, COEHS faculty defined student learning outcomes for the program and are using the evidence students place in their portfolios to measure achievement in a systematic and comprehensive way. As a result, faculty are now positioned to modify rubrics, course requirements, and preparations for state-wide teacher certification examinations to improve the TEP. Use of the full power of the LiveText system is still in the implementation stage and requires further faculty development workshops on its use, both in the COEHS and in content programs elsewhere on campus. In keeping with the best practices promoted by NCATE, the accreditation deadline for TEP's completed self-study is scheduled for spring 2010.

Assessment in the Department of Civil and Environmental Engineering (CEE) has produced similar enhancement of student learning in its undergraduate degree programs.[226] Thanks in large part to the department's active participation in the College of Engineering's self-study for re-accreditation by the Accreditation Board for Engineering and Technology (now ABET Inc.) in 2004, the CEE faculty undertook a major review of its undergraduate degree learning outcomes. Faculty modeled their learning objectives on ABET's "a through k" list of criteria, including specific objectives that students needed to achieve from their work in the University Core Curriculum (UCC). The associate dean of the college and the director of the UCC carefully reviewed the learning objectives of courses required of civil and environmental engineering students, such as Microbiology 202 in the Human Health area of the UCC, with an eye to collecting learning data and using them to revise the undergraduate curriculum in CEE. This effort was rewarded with a special mention by the ABET site visitors in 2008, noting effective integration of this program's College of

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225   History Assessment Report, 2007, in the Office of Undergraduate Studies, Department of History.
226   ABET Self-Study, 2008, in the Office of the Associate Provost for Academic Affairs.

Engineering and UCC curricula.[227]

One last example of shrewd assessment is the Didactic Program in Dietetics (DPD) in the Department of Animal Science, Food and Nutrition of the College of Agricultural Sciences, which is accredited by the American Dietetic Association. The DPD obtains feedback from internal and external constituents to guide course revisions and curriculum development in a sustained and organized fashion. Undergraduate student learning, for example, is measured by the placement rate in supervised practice and in volunteer and paid dietetics-related work. The program carefully monitors its graduates' performance on the Registered Dietician (R.D.) examination administered by ACT. Each year, ACT provides a report of the graduates' pass rate. The program's accrediting agency, the Commission on Accreditation for Dietetics Education (CADE) provides an annual report of the rolling five-year pass rate. Alumni are surveyed every three years concerning their examination pass rates and their post-baccalaureate education or employment. Each year, employers of all graduates, including those with a master's degree, are surveyed to evaluate former students' professional characteristics. The results of these activities are analyzed to determine appropriate changes in the curriculum. An advisory committee of faculty teaching in the DPD meets each semester to review the placement and examination pass rates and the alumni and employer surveys, results that inform modifications of specific courses. On the basis of assessment feedback from the 81 percent of graduates still in the field, the program has moved courses from sophomore to senior year, changed a course from self-instruction to lecture format, and revised the content of the Service Organization and Management course (FN 461) to improve the coverage of material on which graduates are examined for licensure.[228]

Graduate Education: Examples

In response to the national movement to develop future faculty, the Graduate School initiated a teacher-training program for all interested graduate students. With a director and budget administered by the Graduate School beginning in 2002, the Center for Graduate Teaching Excellence (CGTE) offers pre-semester workshops for graduate students whose programs do not have a teacher-training unit of their own.[229] The CGTE annually circulates a call for proposals from academic units seeking to enhance the training of their graduate assistants for classroom work. The assessment of learning objectives for

227 ABET Self-Study Report for the Civil Engineering Program at SIUC, July 1, 2008, in the Office of the Associate Provost for Academic Affairs.

228 Dietetics Assessment Summary. 2009, in the Office of the Coordinating Counselor, Dietetics Program, Department of Animal Science, Food and Nutrition.

229 http://www.cgte.siuc.edu/.

these advanced students includes both direct and indirect indicators, such as performance evaluations by their faculty supervisors and focus groups of graduate assistants during both departmental and university workshops (both cases had outcome measures for each learning objective). One consequence of the assessment data was the creation of separate training for research assistants and advanced training for second-year assistants. Although budget cuts have reduced the funding of departmental proposals, the measurement of learning outcomes remains central to the CGTE efforts to improve graduate training and undergraduate instruction.

In the COEHS, the master's and doctoral programs in rehabilitation, accredited by the Council of Rehabilitation Education (CORE), complement classroom instruction with individualized clinical experience and student research documented in a thesis, paper, or project. Student learning is assessed primarily in performance evaluations and examination of research products by faculty using criteria established by the Rehabilitation Institute. Besides learning outcome data, the changing discipline in rehabilitation dictates changes in curriculum and instruction. For example, the graduate programs now include specializations in substance abuse, counseling, gerontology, and gambling addiction. In 2004 the Doctor of Rehabilitation (Rh.D.) degree was changed to Doctor of Philosophy (Ph.D.) to better reflect national practice. In 2006 the Ph.D. program was revamped to address the two career trajectories of the program's graduates: one path continues preparation for credentialed practice, the other prepares students to enter academe. Under a new curricular structure, doctoral students enroll in a series of seminars on best clinical practices as defined by empirical evidence, thus combining the worlds of practice and research. Thanks in no small part to its assessment efforts, the counseling program in the Rehabilitation Institute has consistently maintained national ranking by *U.S. News & World Report* magazine.

In the Department of Chemistry and Biochemistry, assessment of the graduate programs (M.S. and Ph.D.) is charged to the Graduate Advisement and Curriculum Committee (GACC), a standing faculty committee. The graduate programs have ten educational goals, which include knowledge across the sub-disciplines, oral and written communication skills, research skills, teaching ability, and so on. The GACC typically meets at least once per semester to review individual graduate student performance (particularly during the first year), review graduate programs, devise possible programmatic changes (in light of these reviews), suggest such changes for a vote of the entire department, and oversee the changes' implementation. Success in meeting these goals on individual and program-wide bases is assessed using various inputs and tools, at numerous times across a graduate student's career. For the student, these begin with an entrance exam: during orientation week, all

incoming graduate students take four of five exams designed by the American Chemical Society (ACS). Students who perform poorly on a given exam (scoring beneath the 50th percentile) are directed by the GACC (with input from the student) to take a corresponding 400-level (senior undergraduate) course—helping ensure that the goal of sub-disciplinary knowledge is met for each student. Students are required to take certain distributed course requirements in and outside of their major sub-disciplinary interest in chemistry/biochemistry, as well as seminars that range from introductory professionalization (safety training, ethics, etc.) to more specialized materials. Ph.D. students are required to take four cumulative examinations covering their major sub-discipline. Formal outcomes assessment is performed at three stages in each graduate student's career by his/her advisory committee: independent proposal defense (Ph.D. only), thesis/dissertation defense, and upon the student's first employment following graduation. Over the years, the assessment findings led to the formation of the current composition of the GACC, changes in course distribution requirements, and changes in course offerings, particularly in the area of biochemistry. Some potential changes are being considered for the future, including requiring (rather than simply expecting) student publications, carrying out exit interviews, and developing required introductory courses for first-year graduate students. [230]

The Department of Anthropology takes seriously the assessment of its graduate programs, master's and doctoral. Its doctoral assessment protocol specifying eight learning objectives was submitted to the OAPR in 1997, giving the department more than a decade of data for comparative analysis and evaluation at various junctures. For example, aspects of program assessment are discussed in at least one faculty meeting per year, the most recent addressing whether the department's five graduate core courses adequately fulfill Assessment Objective 1 (preparation to teach a four-field introductory course). Prior to that meeting, subcommittees focusing on each core course met several times to examine available data and prepare recommendations. The outcome was a decision to modify the syllabi of two of the core courses. Additional discussion of the doctoral program occurs during the department-wide annual review of graduate student performance at the end of spring semester, after which each student is provided a written evaluation of his/her progress in the degree program. Although this meeting focuses on the performance of students, discussion also considers whether formal or informal aspects of the program have contributed to student difficulties. These meetings may identify ways to improve student success outside of formal program requirements, such as easing international students into our academic culture, reducing time-to-degree, and so on. Formal doctoral

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230   Email from B. Goodson, 10/9/09, from Department of Chemistry and Biochemistry Self-Study for Program Review, in the OAPR.

program assessment is based on forms filled out by members of each student's doctoral committee as the student moves stepwise toward completion. Thus, forms exist to evaluate the dissertation proposal, the public presentation of that proposal, the candidacy exam, the dissertation, and the dissertation defense. Each form provides an overall evaluation/summary, as well as an assessment of particular aspects of the student's performance (clarity of prose, appropriateness of analytical method, significance of topic, etc.). The original forms are kept in the student's dossier and data are entered into an Excel spreadsheet to enable quantitative analysis. Perhaps the best testimony to the effectiveness of doctoral student learning is that since 1998, six dissertations in anthropology have won the annual SIUC campus-wide Outstanding Dissertation Award (in 1998, 2001, 2002, 2003, 2006, 2008) and two earned honorable mention (2004 and 2005). In addition, four anthropology students have won the annual "Outstanding Teaching Assistant in the Core Curriculum Award."

National Assessment Initiatives

In the past ten years SIUC has participated in three national efforts to assess student learning outcomes. These projects include Pennsylvania State University's "Parsing the First Year of College," which is collecting learning data from thirty-seven universities and colleges to document institutional support of first-year students in their difficult transition to higher education. With generous funding from the Spencer Foundation and the American College Testing Corporation, the principal investigators at Penn State provided advice on the administration of the National Survey of Student Engagement (NSSE), the Collegiate Assessment of Academic Performance (CAAP), a nationally normed, standardized instrument, and their own surveys of the faculty and administration at SIUC in spring 2007.

Although the integrated analysis of the data is not complete, preliminary results from the CAAP can be set in the context of course-specific learning data collected in English

composition over the past decade at SIUC. These findings suggest the following trends in our students' development of analytical thinking and writing skills.[231] It is apparent that although SIUC's first-year students are not particularly well prepared for college-level work and are not always properly placed in the most appropriate composition courses, they are well within the range of statistical error in the data on the achievement of all first-year students taking the CAAP in 2007. SIUC students maintained roughly the same percentile rankings in writing skills (as measured by the CAAP) that they had in English when they took the ACT their junior year in high school.[232] Although they may have fallen slightly below the national norm on the CAAP, they made statistically measurable progress in their writing skills during their first year of college.

SIUC is using these data as part of a new first-year experience program to address more effectively our students' learning needs at the beginning of their college career. In spring 2008, directors of the Saluki First Year were named and began to create this program by coordinating the efforts of both Academic Affairs and Student Affairs, and bringing resources from these two administrative areas to bear on this important undertaking. This effort was also coordinated with University Housing, Pre-Major Advisement, the Center for Academic Success, the University Honors Program, and the University Core Curriculum in the Offices of the Provost and Vice Chancellor and of the Vice Chancellor for Student Affairs to ensure that the effective learning of entry-level students is the principal reason for their improved retention. To that end, the directors oversaw the university's application to the Foundations for Excellence at The National Policy Center for the First-Year Experience. SIUC was a member of the 2008-2009 cohort.

The National Research Council Assessment of Research Doctorate Programs has reviewed twenty-one of SIUC's thirty doctoral degree programs. In 2006 the university provided the NRC with a comprehensive list of graduate faculty in each program, who were then surveyed by the NRC including uploaded copies of their curriculum vitae. Data were also collected from the institution, individual programs, doctoral candidates in the Departments of English and Economics, and faculty rankings of programs in their discipline. Results of the NRC study have been anticipated for at least a year, but their appearance continues to be delayed. Ultimately, participating universities and programs will have access to the NRC database for their own purposes, but also to make comparisons with their peers elsewhere in the country.

Since 2000, SIUC has participated in the Cooperative Institutional Research Program

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231 www.ed.psu.edu/cshe/Parsing/home.html.
232 Report in the OAPR.

(CIRP), a survey administered to more than 400,000 first-year college students across the nation. The Office of the Vice Chancellor for Student Affairs administers this instrument to SIUC freshmen each fall, allowing the office to review characteristics, behaviors, and perceptions of SIUC students who have just arrived and to compare the SIUC data over time to comparable data from other public universities. The latest data from fall 2007 show that SIUC undergraduates tend to be more artistically oriented than their peers at other institutions; they are clearly attracted by programs in the School of Art and Design and the College of Mass Communication and Media Arts. On the other hand, they are also more pragmatic about their studies, that is, they are concerned about the utilitarian value of their education. This instrumentalist orientation is reflected in the pre-professional programs in which they major.[233] The survey results have been especially useful in academic advisement for pre-major and remedial students and in the assessment of their learning outcomes in the first year at SIUC.

Non-Degree Program Learning

Many programs on campus, not just those leading to academic degrees, contribute to student learning. In the Graduate School, for example, non-declared students may take a course for personal enrichment; others may have applied to a program too late to be admitted but take classes during the admissions process; still others are enrolled in courses for teacher in-service training. Those graduate students who demonstrate promise without the requisite undergraduate grade point average (GPA) may also take courses until such time that they become admissible. "Non-degree learning" is thus a complex term.

One of the more important non-degree learning opportunities comes through University Housing (UH), which exists to provide a high quality, affordable living/learning environment that fosters personal development and academic success. University Housing created an Assessment Committee that actively investigates learning outcomes for residential life programs: Learning-Living Communities (LLCs), Freshman Interest Groups (FIGs), the Faculty/University Associate program (FUA), and Peer Mentoring. LLCs and FIGs are residential groups of students having the same major or semester schedule of classes. The FUA program brings faculty and staff into the residence halls to offer students informal guidance and mentoring through participation in dining and planned students' social activities. Additionally, Peer Mentoring pairs younger and older students with mutual interests to help newcomers transition to a new institution.

For the 2001-2005 cohorts in the FIGs, for example, a comparison of student GPAs

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233 CIRP Summary, 2008, in the Office of the Vice Chancellor for Student Affairs.

between participants and non-participants suggests a "FIG effect": participant GPAs were higher than non-participant GPAs during the first two semesters of school, even though differences between the groups decreased during the second semester (following completion of the FIG) and virtually disappeared beyond the second semester (Figure 3-1). Moreover, persistence rates (through the sixth year) for FIG students were higher than those for the SIUC student body. Among the three programs (FIGs, LLCs, and a combination of the FIGs/LLCs), the highest mean GPAs were the students participating in the combination FIGs/LLCs, followed by the FIG students, then the LLC students; a comparison/control group had a lower mean GPA than the three program groups.[234]
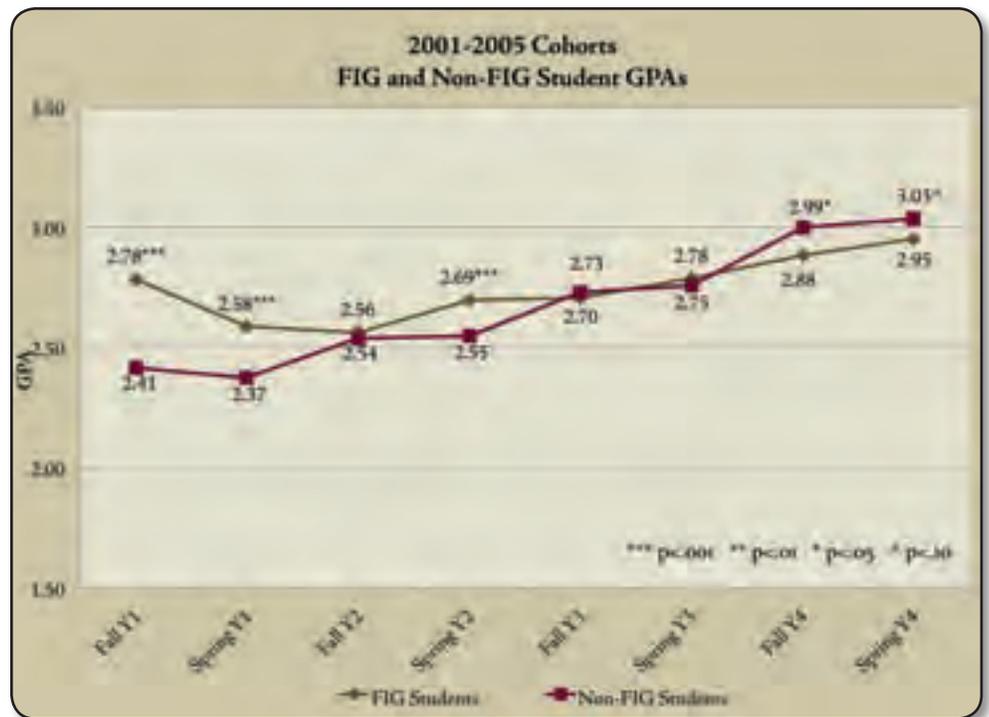
Figure 3-1. Freshman Interest Group (FIG) & Non-FIG Student GPAs.[235]

The Counseling Center, which provides psychological services for students, has also documented learning outcomes for its clients.[236] The results of its studies support the positive impact of counseling on graduation and retention rates. Counseled students enjoy a 25 percent graduation/retention advantage over students who did not receive counseling. Specifically, students who received thirteen or more sessions had a 36 percent retention advantage over non-counseled students. Similarly, a Learning Outcomes Survey provides feedback on twenty-four learning outcomes to determine what the Counseling Center is doing well (e.g., "As a result of counseling, I learned one or more strategies to

234 Report on the Residential FIG Experience, 2006, in the Office of Academic Initiatives, University Housing.

235 Eric Davis et al., "Freshman Interest Groups: The Solid Foundation to a Successful College Career" (2006) PowerPoint Presentation, Office of Academic Initiatives, University Housing.

236 Counseling Center Report, 2007, in the Office of the Counseling Center.

solve or cope with problems," was endorsed as strongly agree or agree by 87 percent of respondents); what it is doing only well (e.g., "As a result of counseling, I am more likely to continue my education at SIUC" was endorsed as strongly agree or agree by 77 percent of respondents); and what it can do much better (e.g., "As a result of counseling I learned about other helpful campus resources" endorsed as strongly agree or agree by only 58 percent of respondents).

The Supplemental Instruction Program (SI) in Student Affairs supports student retention and academic achievement by providing small-group tutoring for challenging entry-level courses. The SI coordinator targets certain courses on the basis of the number of Ds, Fs, and Ws earned (25 percent or higher), enrollments of over 100 students, and whether it is designated as a gatekeeper or UCC course. In such courses, faculty members are asked to provide names of outstanding students who might potentially serve as SI leaders who are then trained in keeping with certification by the College Reading and Learning Association. The SI leaders then attend the targeted courses and facilitate two study sessions per week throughout the semester. In order to assure quality control, the coordinator implements the following assessment strategies:

- Faculty survey (asking faculty members to evaluate SI leader performance in class);
- End-of-term evaluation (for participants to evaluate the SI sessions and SI leaders);
- Session observations (for the SI coordinator and peer supervisors to evaluate individual SI leaders while they are actually conducting study sessions);
- Training evaluation (for the SI leaders to evaluate the effectiveness of their training, along with the support and supervision of the SI office staff);
- Semester grade report (simple descriptive statistics to report participation rates and mean GPAs of SI participants; t-tests to compare the mean GPAs of SI participants with non-participants from the same course).

On the basis of the semester grade reports, the SI coordinator and advisory board members explore how to improve student attendance, motivation, and performance. Through this exploration, many faculty members have come to realize that the closer they work with the SI leaders, the greater the attendance and usually the greater the difference between participants' and non-participants' GPAs. Thus, the data have influenced both the faculty members and the student leaders to change their behaviors and attend to the needs and motivations of students enrolled in the targeted courses.[237]

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237 SI Assessment Report, 2008, in the Office of Supplemental Instruction and Student Affairs Assessment.

The Writing Center (WC) at SIUC approximates a teaching-and-learning center, serving both faculty and students. The WC has three campus locations, including two in the residence halls, and its main office is prominently featured in the remodeled Morris Library. It also has a presence on the internet.[238] The staff of faculty, graduate assistants, and well-trained student tutors provides vital support for writing activities in courses in every academic program, especially those in the College of Liberal Arts and the College of Applied Sciences and Arts, which have a Writing-Across-the-Curriculum requirement for undergraduate degrees. Graduate and undergraduate students in search of help with their writing assignments may consult the WC staff. Faculty needing advice about the best ways to teach writing may arrange for class visits and outreach workshops, all run by the WC. The WC has been the principal locus for university-wide conversations about writing, even though its mission remains much more circumscribed: to help faculty teach and students write more effectively. In spring 2007, for example, all thirty-five students enrolled in Black American Studies 215 participated in the WC's outreach and improved the quality of their writing, according to the instructor.[239]

Core Component 3.b: The organization values and supports effective teaching.

The importance of excellent teaching at SIUC is inscribed in its mission statement:

> *Southern Illinois University, now in its second century, is a major public higher education institution dedicated to quality academic endeavors in teaching.*[240]

Faculty members are hired, tenured, promoted, and rewarded not solely on their achievement as creators of new knowledge, but also on their expertise as instructors of the next generation of society's leaders and life-long learners. That the university takes seriously its commitment to its students' learning is clearly shown by its promotion and support of effective teaching.

The university meets this commitment in varied ways, not least of which is close attention to class size. By contract with its principal faculty bargaining unit, the Faculty Association, SIUC has committed itself to a student/faculty ratio of no more than twenty-six students per full-time faculty member.[241] In fall 2008, the FTE Student/Full-time Tenured and

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238 http://write.siuc.edu.

239 Summary of Assessment for the Spring 2007, Writing Center, Morris Library.

240 *Undergraduate Catalog 2009-10*, p. 3.

241 *Agreement between the Board of Trustees of Southern Illinois University and the SIUC Faculty Association, IEA/NEA*, Sec. 9.07.b.

Tenure-Track Faculty Ratio was 20.5:1 (Figures 3-2, 3-3).[242] Similarly, class size in the 125 courses of the University Core Curriculum, including all break-out sections for discussion, recitation, and laboratory, averages just twenty-five students; the size of all classes at registration, excluding break-out sections, is forty-nine. These numbers are low given SIUC's profile as a large, public, research university. The average Core class at Michigan State University, for example, is 348.[243]
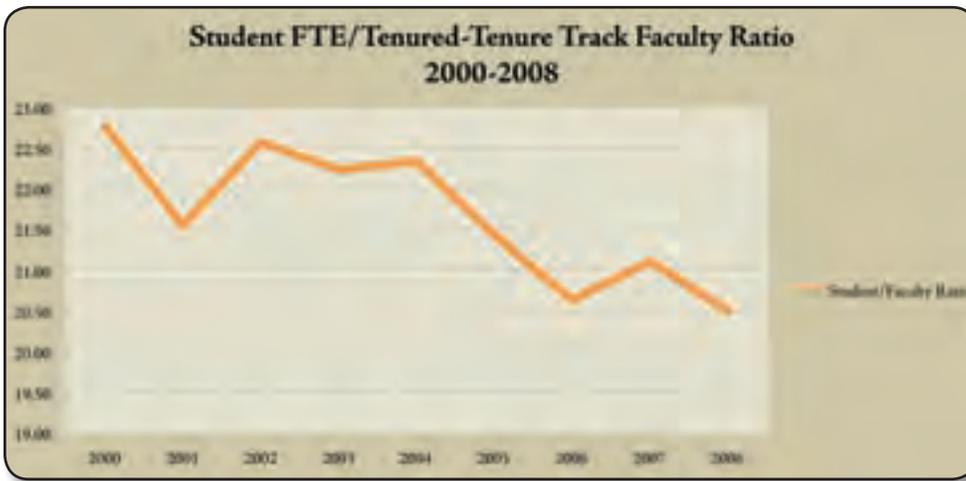

Figure 3-2. Trend in SIUC student/faculty ratio.
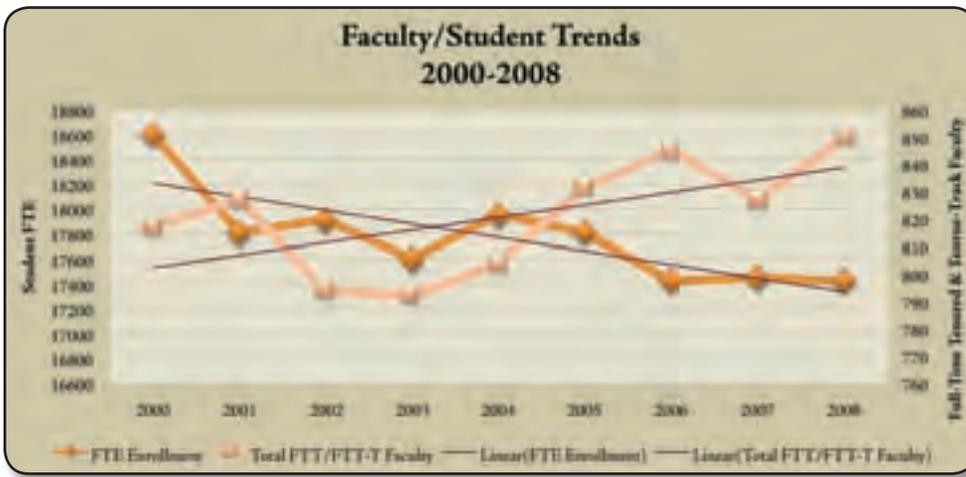
Figure 3-3. Trends in student FTE vs. full-time tenured and tenure-track faculty.[244]

A Qualified and Diverse Faculty

As at comparable institutions, the faculty at SIUC is responsible for curriculum and instruction. The operating paper of each academic unit, stipulated by SIUC's first contract

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242 The Student/Faculty Ratio was derived using data from the *Southern Illinois University Carbondale Factbook 2008-2009*, Table 1 and Table 20.

243 www.businessweek.com/bschools/undergraduate/06profiles/michstate2.htm.

244 Figures 3-2 and 3-3 are derived from data in Southern Illinois University Carbondale Factbooks 2004-2005, Table 16; 2005-2006, Table 16; 2006-2007, Table 17; 2007-2008, Table 20; and 2008-2009, Tables 1 and 20.

with the Faculty Association of the Illinois Educational Association/National Educational Association (IEA/NEA) in 1998, defines the roles of tenured and tenure-track faculty in determining workloads, including teaching assignments and curricular review. Similarly, each college has faculty review committees for curriculum, tenure, and promotion. For the university, undergraduate educational policy, such as admissions, grading, and graduation, is set by the Faculty Senate, and graduate educational policy with a comparable purview in the Graduate School is established by the Graduate Council. Other instructional responsibilities are defined by recent contracts with the Non-Tenure-Track Faculty Association in 2007 and the Graduate Assistants United (GAU) in 2008, both also of the IEA/NEA. The GAU contract is unusual in that it covers all graduate students holding assistantships, including teaching, research, and administrative positions. Most graduate assistant labor agreements exclude the latter two categories.

A principal indicator of quality teaching is a qualified instructional faculty. Eighty-four percent of the faculty in fall 2008 were full-time. Eighty-two percent of the full-time instructional faculty holds doctorates, professional degrees, or other terminal degrees in their disciplines. These percentages are typical of an institution classified in the Carnegie system as Research University (high research activity), such as SIUC. Since 1991 there has been a very slight downward trend in the percentage of full-time faculty and a corresponding increase in part-time faculty (Figure 3-4).
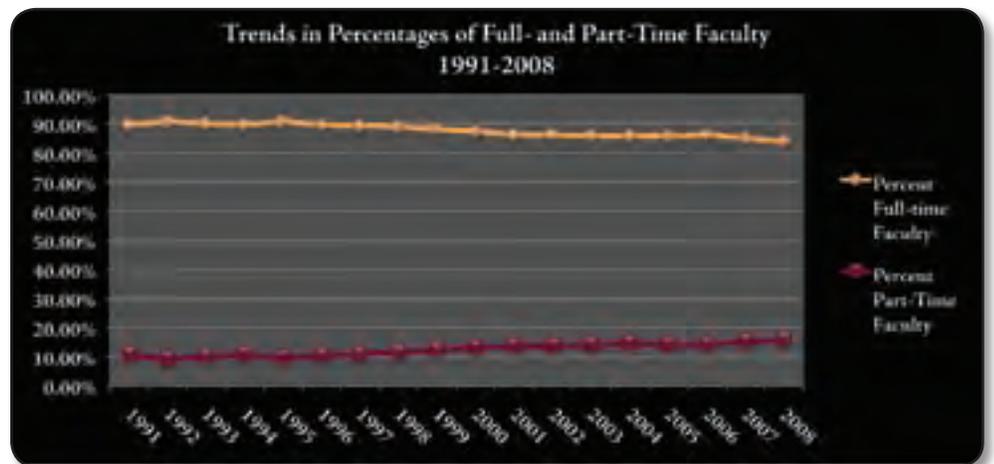

Figure 3-4. Trends in percentages of full- and part-time faculty.

As a matter of university policy, every course has an instructor of record who is ultimately responsible for the instruction leading to the issuing of grades that appear on student transcripts. Where enrollments justify the use of Graduate Teaching Assistants (GTAs) to lead discussion, laboratory, and recitation sections, such as forty courses in the University Core Curriculum, the instructor of record is also responsible for the training, supervision, and

"Your work enhances the reputation of the University, helps attract students to our campus and brings considerable funding from many, valued partners."

Remarks of Chancellor Samuel Goldman, Research Town Meeting & Fair. April 14, 2009

evaluation of the GTAs. In addition, the CGTE is working with departments to implement mandated reviews in the GAU contract. Each academic unit has its own procedures for student evaluation of instructors and their courses each semester; Instructional Support Services (ISS) in Library Affairs supplies and scores the most widely used, standardized, machine-readable Instructor and Course Evaluation (ICE) forms for this purpose, though many degree programs have their own. Departments often use the ICE reports to monitor instructional quality.

The mix of full-time/part-time, tenure-line/non-tenure, and GTAs in the undergraduate classroom is reasonable for an institution of SIUC's complex mission, size, and scope of programs. In fall 2008, there were 1,382 full-time faculty members, 850 (61.5 percent) of whom were tenured or on the tenure-track and 532 on term appointment. Another 262 faculty members worked part-time. In fall 2009, 888 faculty members are part of the Graduate Faculty on the basis of criteria established by the Graduate Council.[245] Only members of the Graduate Faculty may teach graduate-level courses and advise graduate students.

Similarly, 907 of the 1688 (53.7 percent) graduate assistants in the Graduate School had instructional responsibilities, such as grading, leading discussion sections, and assisting with undergraduate laboratory exercises, under the supervision of the faculty. From a well-defined pool of properly qualified, trained, and supervised instructors, the faculty members of each academic unit, with the concurrence of the appropriate college dean, determine who shall teach which courses each semester. Advanced doctoral students on occasion teach independent sections of lower-division courses under close faculty supervision. Although some may look askance at this practice, for the doctoral students in question it provides invaluable experiential learning and is a highly attractive feature of their curriculum vitaes as they seek employment in academia. Such teaching is a degree requirement in the Department of Anthropology, for example.

One component of quality instruction is a diverse faculty (see Core Component 1.b). SIUC's commitment to affirmative action in hiring, tenuring, and promoting minority faculty is under the purview of the associate chancellor for institutional diversity. In 2001 the Office of the Chancellor funded a revolving budget of $1 million specifically for minority hires; deans can borrow salary lines against this fund for up to three years to recruit and retain faculty from under-represented groups. Similarly, all search committees operating under the purview of the Office of the Provost and Vice Chancellor are required

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245 http://www.siu.edu/gradschl/index.htm. See the Operating Paper of the Graduate School, Sec. I.A.1 for the criteria for appointment to Graduate Faculty status.

to view a locally produced video and to discuss the *Handbook on Hiring Diversity* to ensure strong applicant pools for all faculty/staff openings. Since 2004, SIUC's Affirmative Action Policy statement has been officially reaffirmed in both the *Undergraduate Catalog* and the *Graduate Catalog*.

These on-going efforts have maintained SIUC's faculty's diverse demographic profile. In fall 2008, 20.6 percent of full-time faculty members were either minority or international: more than nine percent were Asian-American, 5.6 percent were Black/Non-Hispanic, 2.5% were Hispanic, and 2.8 percent were international.[246] Since 2003, the ratio of men to women among the full-time faculty has been just slightly below 60:40. Among undergraduate students the comparable ratio has been approximately 55:45.[247] The majority of graduate students are female: in fall 2009, 53 percent (2,154 of 4,051 students were female). Whereas the overall proportion of minority faculty has closely tracked the overall enrollment of minority students (Figure 3-5), the same cannot be said of the largest minority among the student body: Black, Non-Hispanic students who, in fall 2008, made up more than 16 percent of the student body while Black, Non-Hispanic full-time faculty were less than 6 percent (Figure 3-6). Although minority professionals are unevenly represented across disciplines—the disciplines in science, technology, engineering, and medicine, in particular, are disproportionately international and male—their presence in growing numbers allows them to serve as role models to their students, who see an instructional faculty like themselves. Overall, the demographic profile of the faculty is very similar to that of the students (~21 percent minority; ~45 percent female) (Figure 3-5).

"By establishing partnerships and embracing innovative approaches, we create new opportunities to serve more students. At the same time, we also underscore our commitments to accessibility, outreach, and economic development."

"State of the University" speech delivered by Chancellor Samuel Goldman. September 2009

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246 These percentages were derived from the *Southern Illinois University Carbondale Factbook 2008-2009*, Table 20. Nationally, 14 percent of full-time faculty are racial/ethnic minorities with 6 percent Asian/Pacific Islanders, and 5 percent African-American, 3 percent Hispanic, and less than 1 percent Native American (Peter D. Eckel and Jacqueline E. King, *An Overview of Higher Education in the United States: Diversity, Access, and the Role of the Marketplace* [Washington, D.C., American Council on Higher Education, 2008], p. 10, citing figures from W. B. Harvey, "Minorities in Higher Education: Annual Status Report" [Washington, D.C., American Council on Education, 2003]).

247 *Southern Illinois University Carbondale Factbook 2008-2009*, Table 7 and Figure 9. Nationally, women make up about 46 percent of full-time faculty (Eckel and King, op. cit. [note 37], p. 10).
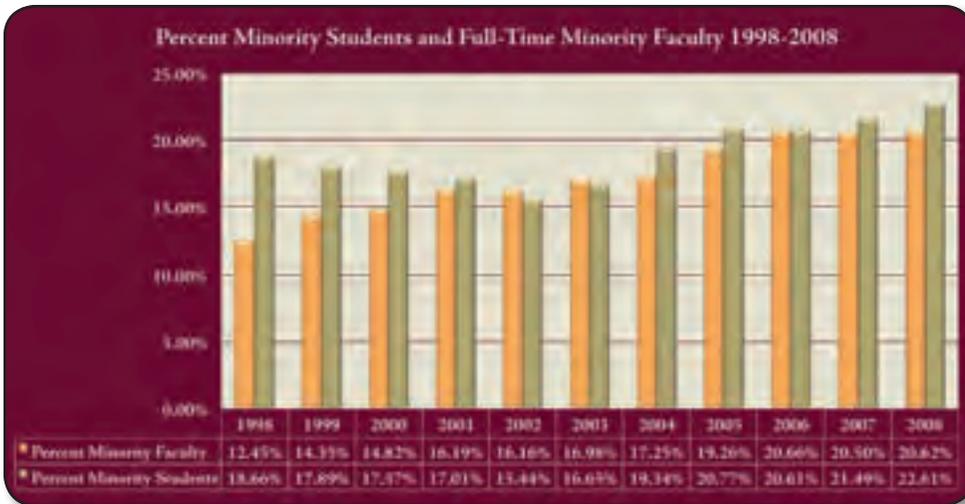
Figure 3-5. Minority students and faculty.[248]
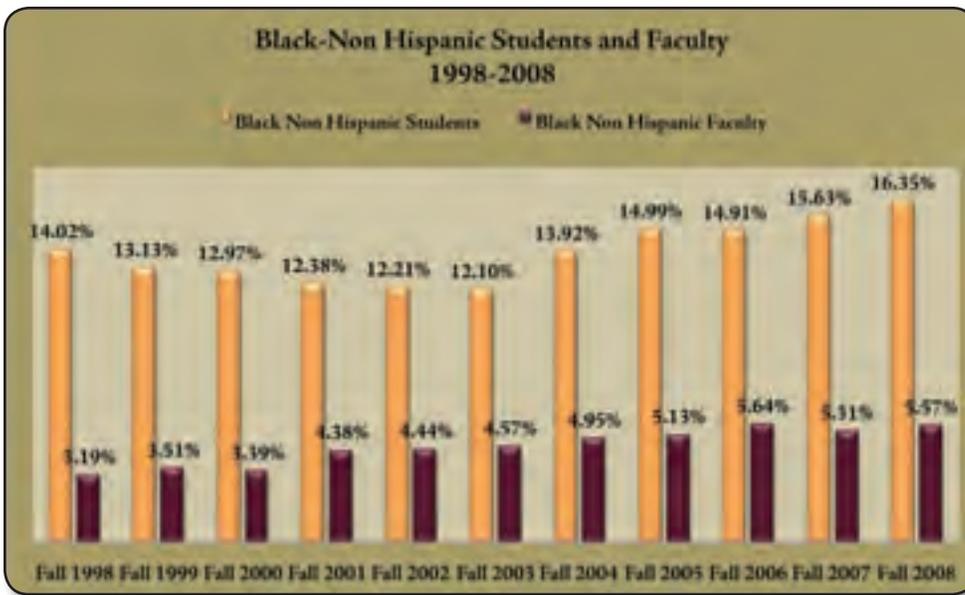
Figure 3-6. Black, non-Hispanic students and faculty.[249]

248 Source: for students: *Southern Illinois Carbondale Factbook 2008-2009*, and *2007-2008*, Table 4; for full-time faculty: *Southern Illinois: University Carbondale Factbook, 2008-2009*, Table 20, *2006-2007*, Table 17, and *2002-2003*, Table 16.

249 Source for students: *Southern Illinois University Carbondale Factbook 2008-2009*, and *2007-2008*, Table 4; for faculty: *Southern Illinois University Carbondale Factbook 2008-2009*, Table 20, *2006-2007*, Table 17, and *2002-2003*, Table 16.
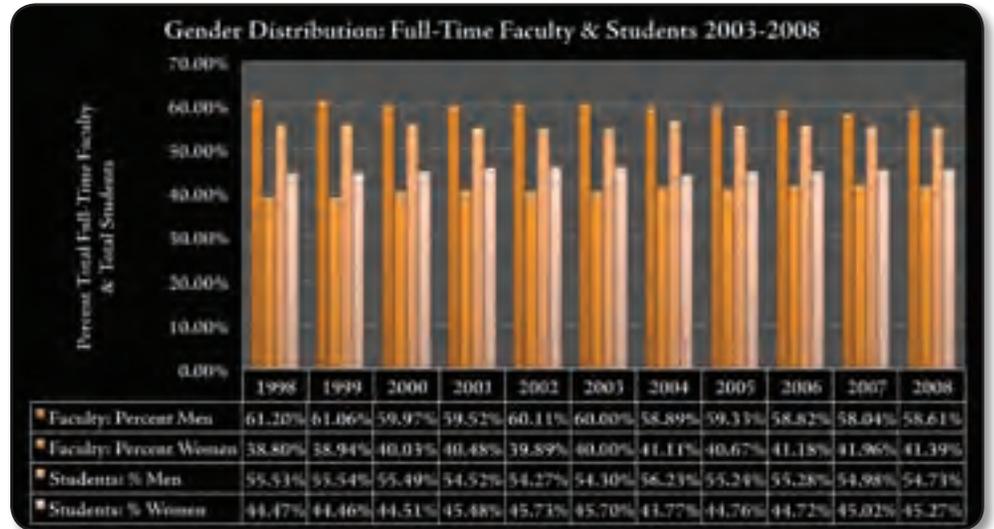
Figure 3-7. Faculty and student gender distribution. [250]

Professional Development and Teaching Support

SIUC has long recognized the contribution of faculty development opportunities to foster effective teaching. In addition to initiatives in the Office of the Provost and Vice Chancellor—especially for those teaching in the UCC—each college provides instructional faculty workshops and travel money to explore best practices in post-secondary pedagogy. The provost's office also sponsors Commitment to Excellence Teaching Fellowships for up to ten faculty members each year. Fellowships are granted on the basis of the applicants' proposals to create new or to revise old courses whose impact on student learning can be demonstrated. A university-wide committee of faculty members, appointed by the deans, reviews and ranks the proposals.

Among the most widely used university resources, by far, is Instructional Support Services (ISS), the same office responsible for distributing and scoring ICEs each semester. ISS helps instructional faculty enhance their pedagogy through the internet. The Blackboard course management system provides a virtual learning environment in which instructors can post course materials online for students to access anytime, anywhere. More than 600 instructors are served each academic year. Thanks to ISS, nearly half of all SIUC courses in the UCC and 1,000 courses overall now deploy the World Wide Web to reinforce student learning in and out of class.

The Office of the Provost and Vice Chancellor administers the development of web-based distance education through the Division of Continuing Education (DCE) in the Office of

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250 Source for students, *Southern Illinois University Carbondale Factbook 2008-2009*, Table 7; for faculty: *Southern Illinois University Carbondale Factbook 2008-2009*, Table 20, *2006-2007*, Table 17, and *2002-2003*, Table 16.

the Associate Provost for Academic Affairs. DCE instructors receive a half-month's pay to develop a new online course. Much of this web-work is also done in close consultation with ISS, which makes available to faculty members the use of teleconferencing rooms in Morris Library, Pulliam Hall, and elsewhere on campus with the cooperation of the Office of Information Technology.

Similarly, since its inception, the UCC has actively encouraged its participating faculty to improve their pedagogies. The UCC director has taken a leading role in leveraging the program's budget to raise additional funds from college deans and external sources such as the William and Flora Hewlett Foundation (2001-03) to promote problem-based learning, and the U.S. Department of Agriculture's Education Challenge Grant program (2003-05) to develop inquiry-based course webpages. Through the UCC's auspices, the provost's office established a Writing-Across-the-Curriculum (WAC) program (2000-04), the director of which helped the faculty define writing-intensive course requirements and use writing as a pedagogical tool in the classroom. Recent campus concern with plagiarism and academic misconduct, aroused by a few highly publicized cases, has led to increased faculty interest in teaching writing in the disciplines. This interest has enabled the effective application of increased funding since 2007 by the UCC and the College of Liberal Arts for WAC courses and professional development for teachers in those courses.

With support from the associate dean and director of the Graduate School and a $200,000 appropriation from the state of Illinois, in 2000 the CGTE was established to further focus, systematize, and professionalize the graduate teaching assistant training program in place since the early 1990s. The CGTE has also worked closely with the Center for English as a Second Language (CESL) to offer a free course in which international teaching assistants (and some faculty members) can learn to reduce their accents and increase their fluency in English. As a consequence of all these initiatives, instruction—in the sciences in particular—has improved. Attendance and performance has improved markedly in courses that entry-level students find challenging, such as Chemistry 200, required of all science majors. The Graduate School has also supported and funded the use of new technologies, such as instant polling devices, or "clickers," where they are appropriate and feasible.[251]

CHEM 200, "Introduction to Chemical Principles," is a requirement for many degrees offered in the College of Science (Biological Sciences, Chemistry and Biochemistry, Geology, Microbiology, Physics, Physiology, Plant Biology, and Zoology) and the College of Engineering (Civil and Environmental Engineering, Mechanical Engineering, and

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251 "An Assessment of the Impact… of the Classroom Performance System," 2008, in the Office of the Center for Graduate Teaching Excellence.

Mining Engineering). Enrollments in this course average 600 students per academic year (AY). Historically, however, student performance in CHEM 200 has been extremely poor with only 45-55 percent of the students routinely achieving a passing grade of "C" or better. In an initial trial, a two-phase approach to address this problem was implemented in the three sections of CHEM 200 in fall 2007 (304 registered students) and the two sections of CHEM 200 in spring 2008 (269 registered students). The elements of this two-phase approach hinged on (1) the use of an in-class response system (eInstruction Classroom Performance System or CPS, otherwise known as the "clicker") and (2) student assignment in Structured Learning Workshops (SLWs) proctored by GTAs and utilizing a computerized homework delivery system (ARIS) provided by the textbook publisher, McGraw-Hill.

Overall student performance improved substantially from the AY06-07 fall and spring semesters to the AY07-08 fall and spring semesters (see Figure 3-8). The overall distribution of grades shifted higher and the overall student passing rate (grade of "C" or better) increased from 52.0 percent to 60.2 percent. For a typical year in which 600 students register for CHEM 200, this increase translates into nearly fifty additional students passing the class. Furthermore, withdrawals decreased from 12.7 percent to 8.6 percent, a reduction that translates into twenty-five more students completing the class. Importantly, these improvements in outcomes were achieved without any substantive changes in student performance expectations. The overall conclusion is that the use of the CPS and SLW systems in the CHEM 200 class has substantially improved student performance. The final student grades, mastery of the material as reflected in exam performance, and overall student attitudes reflect an undeniably positive impact on student outcomes of the implementation of two new teaching systems in AY07-08.
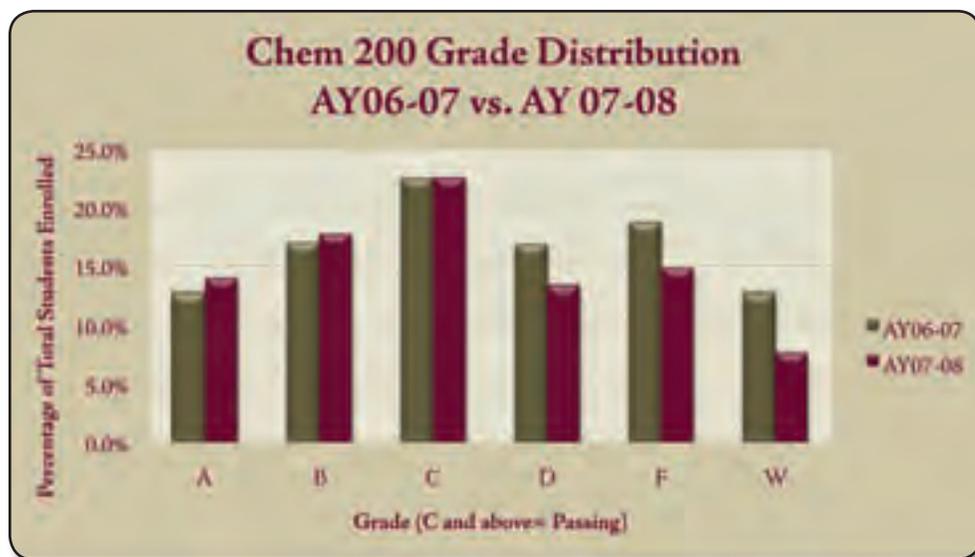
Figure 3-8. Chem 200 performance improvement.

A change in teaching approach has also shown dividends in Math 108: College Algebra, which may be used to fulfill the three credit-hour mathematics requirement for the University Core Curriculum.[252] This course is often taken by students with deficient mathematical preparation who wish to pursue majors in which they will need more advanced mathematics—at least to the level of calculus—but they frequently have some difficulty with it. In spring 2007, the mathematics department introduced some sections with labs taught by specially trained graduate assistants and instructors who could work with the students in small groups. The success of this trial encouraged a considerably expanded effort in fall 2008. The results were dramatic, as illustrated in Figure 3-9.

| Math 108 Final Exam Scores Fall 2008				
	Below 90 - Failing	90-109 - D	110-134 - C	135-159 - B	160-200 - A
Lab	16.3%	12.2%	22.4%	32.7%	16.3%
Non-Lab	55.2%	15.1%	13.8%	9.5%	6.5%
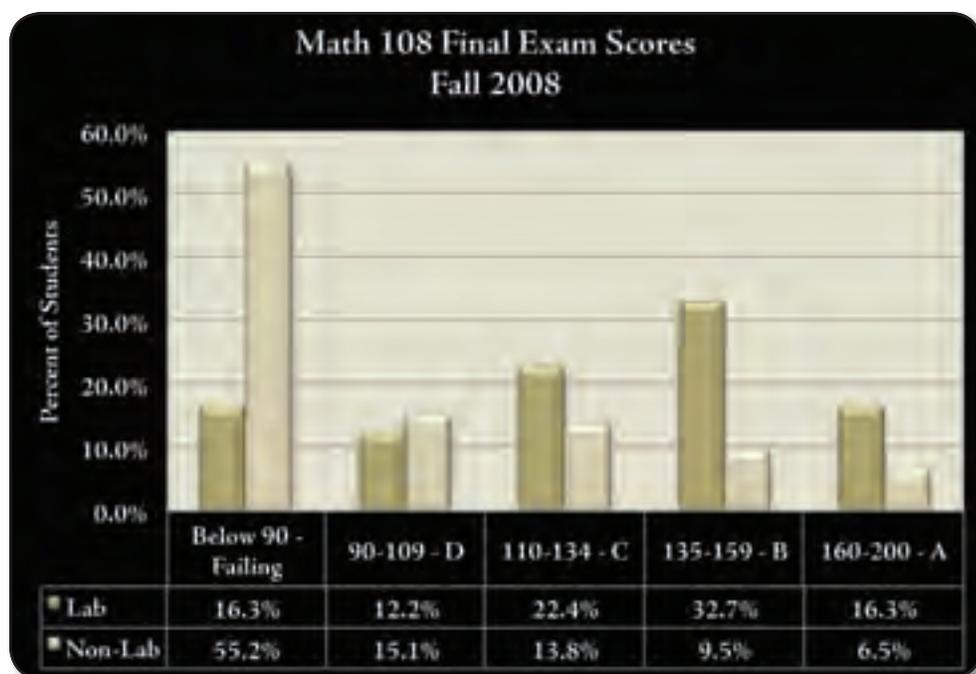
Figure 3-9. Math 108 lab vs. non-lab scores.

Innovative teaching at the university is also fostered by other-than-salary (OTS) incentives provided by the University Honors Program (UHP). The average incentive grant is $4,700 in OTS funds that the faculty member can expend as he or she chooses within the university guidelines for OTS expenditures. Since 2006, each fall semester the UHP circulates a call for proposals from faculty members to develop an undergraduate seminar especially for Honors students. Each course is intended to satisfy one or more requirements in the UCC. Each year fifteen faculty members are chosen to participate in the UHP, teaching their proposed undergraduate seminars. These classes are all restricted to fifteen or fewer students engaged in active learning experiences ranging from problem-based learning approaches to the interdisciplinary study of water (fall 2005) to field trips to the Mississippi valley to examine geological formations (spring 2007) to a course dealing with musical theater from opera to Broadway (spring 2009).[253]

Finally, for two years (2006-07), the associate chancellor for diversity convened a coordinating committee of faculty and staff committed to teaching a more diverse student body. Each spring these colleagues host plenary speakers and a series of closely related workshops on teaching multiculturalism and first-generation college students. These efforts were furthered by the training of GTAs in English Composition and Speech Communication to teach a common text (for some years this was Frederick Douglass' autobiography; in fall 2009 it was *The Naked Roommate: And 107 Other Issues You Might Run Into in College*) effectively to first-year students. During the week before classes in August and then at

253 http://honors.siuc.edu.

workshops during the fall semester, faculty members with special expertise in this text shared their insights with more than 100 interested instructors.

Rewards and Awards

Merit pay, tenure, and promotion of faculty depend on clear evidence of effective teaching. Each academic unit defines its own criteria, but as a matter of course the standards are applied in light of the university's educational mission. No single measure suffices. Rather, the quality of teaching is documented by ICE scores, peer observations, new course materials, workshops, conferences, and awards, all of which play a role in calculating the merit component according to the department's approved operating paper, under the terms of contracts negotiated by the Faculty Association and the Non-Tenure-Track Faculty Association (NTTFA). Like the NTTFA, Graduate Assistants United bargained for required performance reviews at least once during the term of their contract. Evidence of effective teaching is required for tenure and promotion dossiers, which can now include publications in the scholarship of teaching and documentation from other institutions.

For the past thirty years, the university has made awards to instructional faculty to recognize their outstanding teaching. Many academic units, each college, and the chancellor's office honor the best teachers on campus each year. In 2005 these were all combined, along with parallel awards in other areas of achievement, into the Chancellor's Excellence through Commitment (ETC) Awards, which are delivered at a banquet and recognize outstanding teachers in each college, in the UCC, among the non-tenure track faculty, and among the graduate assistants. The awards were also dramatically increased in value: the university's Outstanding Teacher is awarded a $7,500 honorarium and a $7,500 stipend for other-than-salary purchases appropriate for continued outstanding teaching (Figure 3-10). As a result, the competition for this ETC recognition is especially keen.

"I would like to share with you some of the terms used to describe these talented individuals in various nomination letters: force for positive charge, wonderful mentor, shtrong advocate for SIUC, self-starter, problem solver, go-to person, role model."

Remarks by Chancellor Samuel Goldman at the Excellence Through Commitment Awards Banquet.
April 22, 2008

Figure 3-10. Agribusiness Economics Professor Kim Harris, right, receiving the 2009 Outstanding Teaching Award.

Core Component 3.c: The organization creates effective learning environments.

Learning occurs in varied spaces not limited to the traditional classroom, although classes remain the primary site for effective instruction at SIUC. Art studios, science labs, computer labs, rehearsal halls, faculty offices, campus grounds, study rooms, and the like represent appropriate venues for specialized teaching and learning activities. Locations further afield, such as crop plots on the university farm, office sites for service learning in the community, and hangars at the university airport, serve much the same purpose. As it is, the university extends its activities to classrooms at local community colleges affiliated with the Southern Illinois Community College Market (SICCM), the College of Lake County north of Chicago, more than a dozen different military bases in the U.S., and civilian sites in the state of Illinois and outside the state. Distance learning in the Office of Distance Education means that almost any place on earth with access to the World Wide Web will suffice for course delivery.

The most striking commitment to improving learning space on campus is the re-construction of Morris Library from a traditional on-site depository for publications to a contemporary point of access to knowledge anywhere in the world. The $62 million project has completely gutted the old structure and added another 51,627 square feet to provide new space for

computers, study groups, and offices critical to the retrieval of information on campus, from the iShare system of Illinois libraries through the interlibrary loan network across the country, and on the internet everywhere databases are maintained. The library is now home to student learning facilitated by the Writing Center and the University Honors Program as well as to faculty teaching enhanced by Instructional Support Services. Collaborative learning is facilitated by a café and group study rooms where library patrons can continue working by themselves or with others in a much less constrained environment.

Two other campus buildings saw similar, sweeping improvements. Altgeld Hall, the home of SIUC's School of Music, was completely remodeled and expanded in 2005 to include another 18,545 square feet of classrooms, recital halls, and faculty offices. This state-of-the art facility has transformed the music performance programs by attracting better faculty and students to make use of it.[254] Also, in 2004 the 10,000 square foot Troutt-Wittmann Fitness and Academic Center was added to Lingle Hall, where athletes can study as well as train (Figure 3-11). The academic center provides 5,010 square feet devoted to computing and study groups, underscoring a substantial commitment to the learning and academic success of the university's students engaged in intercollegiate athletics. This new facility was a major feature of the athletic department's NCAA re-certification in 2007.[255]

Figure 3-11. Trout-Wittmann Center.

Another university commitment to student learning and effective teaching is the upgrading of lecture halls and classrooms in almost every building on campus, the first such effort since 1993. In 2003 SIUC dedicated $2 million to improving the spaces where students and faculty formally interact for academic credit. Twenty-one large lecture halls in Lawson (Figure 3-12), Parkinson, Neckers, Pulliam, and Wham Halls were first given new instructional technology, lighting, seating, and access for students with disabilities.

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254   School of Music Report, 2008, in the Office of the Director, School of Music.

255   NCAA Self-Study at http://siusalukis.cstv.com/auto_pdf/p_hotos/s_chools/silu/genrel/auto_pdf/ Certification.

The next two years saw another $2 million to retrofit eleven additional classrooms with new furniture, podiums, overhead projectors, screens, and window shades. Cost-sharing with academic units made possible the remodeling of fifteen more learning spaces, including laboratories and studios.[256] Individual colleges have also undertaken renovation of classroom spaces in various ways. For example, the College of Education and Human Services updated classrooms under its control to allow wireless internet connections for students with laptops. In addition to lecture hall and classroom upgrades, the university has completed more than $12 million in projects to comply with the Americans with Disabilities Act.

Figure 3-12. Renovated classroom in Lawson Hall.

These classroom updates were accomplished with the collaboration of the Office of Information Technology (IT). For example, to ensure that instructors had only one protocol to learn no matter which lecture hall or classroom they were using, IT and ISS teamed up to standardize all instructional technology. IT provides a wide range of technology services to SIUC students, faculty, and staff. IT's Computer Support Center provides call-desk, walk-in technical, and e-mail support; its staff members assist faculty, staff, and students with their personal laptop configurations by appointment. The VCR/GD has worked with IT and other units to increase broadband access to the campus at the Gb/sec level.

In 2001, the SIU Board of Trustees approved a technology surcharge and in 2007 a fee, which all enrolled students pay each semester. This recurring money has been used by IT to update both hardware and software in computer labs and selected academic programs, like Writing Studies in the Department of English, which applied to IT for laptop and desktop computers to equip a dedicated classroom in Faner Hall. Similarly, the College of Business found corporate and alumni donors to endow two classrooms with the latest technology for substantially improved instruction in accounting and investment finance. The College of Mass Communication and Media Arts converted all their media equipment

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256 ISS report, 2008, in the Office of Instructional Support Services, Morris Library.

for instructional purposes to digital format, requiring a major budgetary outlay for three years (2003-06). All these initiatives were completed within the last five years.

Although only indirectly related to the learning environment, a newly implemented Facility Maintenance Fee will play an important role in classroom improvements, given that the campus infrastructure supports the educational facilities. The influx of money to address the increasing deferred maintenance situation throughout campus (at $450 million in 2009) will provide more stable facilities, thereby improving the learning environment.

Learning-Living Communities

For the past ten years, University Housing (UH) has worked diligently to transform the residence halls into places to learn as well as to live. The variety of learning-living communities includes Freshman Interest Groups, scholarship halls, and, most recently, the College of Engineering's residential college for most of its majors. Moreover, UH has expanded its programming in the residence halls, recruiting faculty and staff as associates, organizing study sessions, and hosting gatherings of students to meet with experts about subjects of mutual interest. UH has also begun close cooperation with the Office of the Provost and Vice Chancellor in the Early Success System, now part of the Saluki First Year program, to intervene proactively with first-year students who fail to regularly attend their English composition or speech communication classes.[257] In short, UH has enlarged considerably the learning space of the university.

A supporting dynamic to UH's learning-living community is the commitment to improving the health, life, and safety of the students, faculty, and staff. Renovations in campus residence areas include a $6.5 million sprinkler system installation at the East Campus high rise dormitories, $650,000 for fire alarm systems and egress issues at Small Group Housing, and $7.75 million for installation of automatic sprinkler systems in the Thompson Point and University Hall residential facilities along with related upgrades to the water distribution and fire alarm systems. UH is also installing security cameras and access control systems plus $1.7 million in electrical upgrades at Thompson Point.

In 2005 the National Science Foundation provided funding for the College of Engineering (CoE) to develop, among other retention initiatives, residential communities for its students. All first-year engineering students are required to live in one of three residence halls near the CoE's classrooms, laboratories, and faculty offices, some of which have been moved to where the students live. Upper-division students in residence serve as peer mentors,

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257 Early Success System report, 2008, in the Office of the University Core Curriculum.

tutors, and study-group leaders. Students needing additional attention are invited to begin their first semester on campus the summer before fall enrollment in a bridge program to help them to develop basic skills in math and science as well as to begin assimilating the academic culture of the college. Preliminary data indicate that participating engineering students are making a successful transition to the university and persisting in their chosen program of study.[258] The CoE project is a valuable model for other undergraduate programs considering the creation of comprehensive learning environments.

Other learning communities exist outside the residence halls. Since 2001 the university has begun coordinating the Service Learning curriculum that takes students into the community as a type of experiential laboratory. With an inventory of fifty-eight courses, Service Learning is featured in several different programs on campus.[259] The UCC's Multicultural Applied Experience Option provides students an alternative opportunity to satisfy their multicultural requirement; all students in Dental Hygiene, for example, can now work in the Community Dental Center (DH 417), which serves hundreds of indigent patients in the Carbondale area. In keeping with the service mission of SIU's School of Law, law students staff the Law Clinic to provide free legal counsel to area residents. Service Learning activities in Recreation, the original community service program, continue to operate the Special Olympics on campus each year.

Highlights of student volunteer service during the 2008-09 academic year include:

- A total of 6,002 students contributed over 39,812 hours in community service to more than sixty non-profit organizations in the region;
- Twenty-four students received the Presidential Volunteer Service Award for completing 100 plus hours of service in the previous twelve months;
- In 2006, SIUC and The Women's Center Inc. received the Jimmy and Rosalynn Carter Award for exemplary campus-community partnership (SIUC and The Women's Center each received $7,500 for the award; the SIUC portion of the award went to Student Development, which authored the competitive application and coordinates civic/volunteer programs); and
- SIUC is now in the fourteenth year of participating in Land of Lincoln AmeriCorps (all thirteen members completed over ninety hours of training and professional development to assist more than 500 children in four school districts and the Boys and Girls Club; in total they contributed over 10,000 hours of tutoring and mentoring).[260]

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258 College of Engineering report, 2008, in the Office of the Associate Dean, College of Engineering.
259 SL trifold, 2007, in the Office of the University Core Curriculum.
260 Mythili Rundblad, "Student Development: Volunteerism and Service-Learning" (2009) in the Office of Student Development.

The Division of Continuing Education (DCE) also moves learning well beyond the traditional campus. Its mission is to extend the university's educational, cultural, and physical resources through both credit and non-credit programs. In 2007 the DCE provided 2,932 off-campus students access to 108 courses in individualized learning and online semester formats. The division also administers off-campus programs for academic units with partners in business, industry, and community colleges at twenty-seven locations in the country. Responsibility for planning, implementation, and evaluation of credit-free continuing education and training activities—329 of them for 16,783 clients in 2007—falls to the DCE, as well. Although numbers of conferences and professional meetings arranged by DCE remain stable, enrollments in distance education have fallen slightly, primarily because of the military deployments for the wars in Iraq and Afghanistan, just as other distance education programs have experienced state-wide.[261]

The Office of Military Programs, administered through the associate provost for academic affairs, which coordinates the university's military base outreach efforts, constitutes a learning-living community of another sort. At eighteen different locations across the U.S., Military Programs offers bachelor degree programs in three colleges: Applied Sciences and Arts, Education and Human Services, and Engineering. The director and staff ensure that the off-site course work meets the same standards as on-campus counterparts. Despite the disparate locations, students on military bases are made to feel a part of the Carbondale campus, including their own advisement staff and graduation ceremonies led by SIUC officials.[262]

University Honors Program

The University Honors Program (UHP) represents a special learning environment for SIUC's very best undergraduate students. Because of the important contribution it makes to the climate of teaching and learning, the UHP has undergone a major transformation in the past three years. The retirement of the program's longtime director in 2006 created an opportunity to refashion its curriculum, instruction, and requirements in keeping with national best practices, and also to improve the program's recruitment, advisement, and recognition of outstanding students. In light of a program review in 2003 and the recommendations of external consultants in 2007, the UHP is now a very different operation under vigorous new leadership in a new location.[263]

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261 See www.ivc.illinois.edu/pubs/enroll_archive.asp.

262 www.siu.edu/~asaocap.

263 External Consultants' Recommendations and Provost's memo, 2007, Office of the University Honors Program. See http://honors.siuc.edu.

Previously comprising an entirely voluntary menu of opportunities available for students to take or leave as they wished, the UHP has become a fully developed program of engagement with effective requirements and commensurate benefits. Students must now be enrolled in an Honors course each semester in order to remain in the UHP and to graduate with either a degree with Honors (twenty-four credit hours plus a senior thesis) or a certificate in Honors (fifteen credit hours). The range of courses that students can take is now much larger and more varied; there are freshman seminars (English 120H), different course offerings in the UCC each semester (UHON 351), and an Honors track in a student's chosen major, including special sections of required courses, internships, study abroad options, and graduate courses, where appropriate. Although many academic units have not yet created an Honors curriculum in the major – fewer than a dozen to date – their students may contract with a faculty member to tailor an appropriate learning experience just for them.

Implementation of these changes resulted in a predictable decline in passive participation in the UHP. From approximately 225 students taking an Honors course in any semester and only fifteen per year finishing with a degree in Honors, the program now has 150 active students taking Honors courses every term with twenty-five annually completing their Honors degree or certificate. For their investment in the program students receive first choice of university housing and course registration; they are eligible for four scholarships, two of which were added in 2007; and their work in the program is recognized at graduation and on their transcripts. Additional staffing in the UHP, including new assistant and associate directors, has meant much better advisement and mentoring. The UHP's Office of Major Scholarship Advisement continues to prepare the very best UHP students for nationally competitive awards like the Goldwater, Udall, and Marshall scholarships. In the past five years, eight UHP students have won one or more of these prestigious scholarships; their pictures are prominently featured in the Student Center.[264]

Joe Batir
2008 Morris K. Udall Scholar
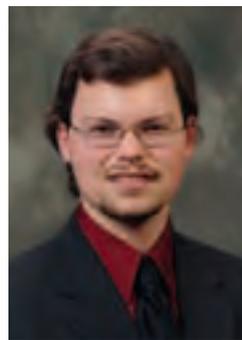
Jared Burde
2007 Barry M. Goldwater Scholar

Kathleen Lask
2006 Barry M. Goldwater Scholar

264 See http://majorscholarships.siuc.edu.
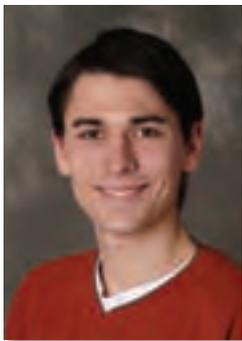
Austin Mohr
2006 Barry M. Goldwater Scholar
2007 NSF Graduate Research
   Fellowship, Honorable Mention
2005 Barry M. Goldwater Nominee

Fahran Robb
2005 Morris K. Udall,
   Honorable Mention
2006 Morris K. Udall,
   Honorable Mention
2006 USA Today All-USA College
   Academic Team
2007 USA today All-USA College
   Academic Team Honorable Mention
2007 Marshall Scholar Nomiee
2007 Rhodes Scholar Nominee

Erin Shanle
2007 Barry M. Goldwater
   Scholar

University Supportive Services

The university has a wide variety of programs, offices, organizations, and facilities that support student learning. Some are available to all students, some to students with special needs, and still others exist to help students at critical stages in their adjustment to university life and learning.

Academic Advisement

One of the most important supportive services for student learning on campus is academic advisement. Beginning with course registration their first semester at SIUC, undergraduate students must confer with an academic adviser on a regular basis to ensure that they are meeting the requirements for their degrees in a timely fashion. Upper-class students in good standing may self-advise on the university's completely revamped student information system operated on Sungard's Banner. This upgrade cost $16 million over a two-year transition period, with the entire conversion to be completed by the end of 2009. SalukiNet, as it is called, makes it possible for both students and the university staff serving them to access student records in financial aid, bursar, registration, and advisement offices.

Student Orientation and Registration

Student Orientation and Registration (SOAR), a day-long program required of all first-year students since 2003, generally includes a half-hour of one-on-one academic advising that covers topics like the UCC requirements, selection of a major, placement testing, and career planning.[265] Most students are advised in the academic units offering their major, but fully one-third of all entering students are helped by Pre-Major Advisement until they decide upon a major. Similarly, all students who have been admitted provisionally to the university are advised by the Center for Academic Success during their first year at SIUC. Most undergraduate advisement is thus accomplished through a combination of online access and person-to-person meetings with faculty, professional administrative advisors, and civil service staff, depending on the student's program of study.

Disability Support Services

The mission of Disability Support Services (DSS) is to ensure the full inclusion of students with disabilities in academic pursuits. In addition, through effective education and advocacy, Disability Support Services staff generates an enlightened and inclusive campus that accommodates individuals with disabilities in all programs and services.[266] These services include helping disabled students access course lectures, read textbooks, learn subject matter, make better grades, and increase knowledge of other disability services on campus. For nearly all DSS students, this support is what enables them to persist and graduate at rates above the institutional average. Analysis of the data on 345 students with disabilities who received accommodations and were registered between 2001 and 2005 reveals that they maintained a mean Grade Point Average of 2.691; in the same period, 54 percent of them were graduated.

Counseling Center

Another support service for SIUC students is the Counseling Center.[267] For the past ten years, students who seek services at the Counseling Center complete two inventories that assess their mental health functioning and needs. The Personality Assessment Inventory (PAI) and the Symptom Checklist (SCL-90-R) provide clinicians with data on a student's mental health. A third assessment is the Client Characteristic Survey concerning the presenting issues, diagnosis, and significant historical events which typically affect mental health functioning. Similarly, students' behavior and day-to-day functioning are tracked over

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265 http://soar.siu.edu.
266 See http://disabilityservices.siuc.edu.
267 See http://counselingcenter.siuc.edu.

the course of treatment. Significant reductions in self-destructive behavior and increases in effective coping and problem-solving have been documented for our Dialectical Behaviors Therapy program. A second program addresses the growing need for Learning Disability/ Attention Deficit Hyperactivity Disorder (LD/ADHD) assessment for SIUC students. If students meet criteria for a diagnosis of LD or ADHD, they are provided appropriate accommodations through the Office of Disability Support Services.

University Housing

All first-year students are required to live in university housing for one year unless they are commuters or older than twenty-four years. Besides living-learning communities and residential programming, the residential hall staff provides the principal resources for the Early Success System, which monitors the attendance of students enrolled in English Composition or Speech Communication. UH staff contacts all students who have problems getting to class during the first half of their first-semester on campus. Students are also advised to take University 101, a three-credit course to introduce first-year students to the university and its resources, study skills, time management, and choice of career and major. Further assistance is offered by Career Placement where students learn how best to choose a career, write a résumé, and search and interview for a professional job.[268]

Academic Support Programs

Transfer credits from other colleges and universities are monitored and certified by Academic Support Programs (ASP) in the Office of Records and Registration.[269] Because more than half of SIUC's graduating seniors are transfer students, mostly from community colleges, ASP supports the degree aspirations of a large number of students who are well served by the IBHE's i-Transfer Program facilitating the transfer of credits from one Illinois school to another, especially in the state's General Education Core Curriculum. All students finishing an Associate of Arts or Sciences degree in the state have automatically completed SIUC's UCC requirements and may begin work toward their major for the bachelor's degree. Articulation of other degrees, like the Associate of Arts in Teaching, is also handled through ASP as part of the university's Community College Curriculum Articulation Committee, chaired by the UCC director in the provost's office.

Undergraduate Assistantship Program

Since 2003, the Office of Financial Aid has administered the Undergraduate Assistantship

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268 See www.housing.siu.edu.
269 See http://registrar.siu.edu/eval/transfer.htm.

Program (UAP) and the Office of Research Development and Administration (ORDA) has operated the campus' undergraduate research opportunities program (REACH). These two programs contribute directly to the success of undergraduate students with well-defined interests in their major. The UAP provides funding for part-time work—between ten and twenty hours per week at $10 per hour—under the direct supervision of a member of the faculty or an administrative professional. In this way, more than 125 students each year are given the opportunity to apply the expertise they are developing in their major—many working in research projects with a mentor. Another twenty-five students are awarded undergraduate assistantships as part of REACH awards (see the chapter on Criterion 4) to conduct original research under the direction of a faculty mentor. Each April these and other research-active undergraduate students, including those in the McNair Scholars Program, are invited to present the results of their work to the university community at the Undergraduate Research Forum, a gathering for posters and oral presentations (Figure 3-13).

Figure 3-13. Jane Pivovarnik, a Fashion Design and Manufacturing major, presents her research poster and historical costume sample at the REACH Research Forum in March 2009.[270]

Academic Support for Student Athletes

Student athletes are provided a comprehensive system of support in their academic work. The assistant director of Athletics is responsible for overseeing peer mentoring, advisement, registration, and studies of all students on athletic scholarships. Using the sophisticated software provided by GradesFirst, Athletics carefully monitors student-athletes' attendance and performance in their classes. When any of them indicate that they need help, the assistant director makes sure they receive additional attention by tutors, study groups, or closer supervision of their time management. As a result, student-athletes have higher grade point averages and higher average persistence and six-year graduation rates than the rest of the SIUC undergraduates. Teams with the highest grade point averages, like those

270 http://www.siu.edu/~reach/forum.html.

in swimming and tennis, are given special recognition to encourage others to see them as model student-athletes.[271]

Supplemental Instruction Program

The mission of the Supplemental Instruction (SI) program, discussed earlier, is to support student retention and academic achievement by creating and maintaining a dynamic, interactive learning environment on campus. The SI coordinator appoints SI leaders who attend the targeted courses and facilitate two study sessions per week throughout the semester. The results indicate a predictable improvement in the performance of participating students by as much as a full letter grade.[272]

Supporting Diversity

Leadership for campus diversity is provided by the associate chancellor for institutional diversity (ACID). Besides the ACID's input on student, staff, and faculty recruitment policy, his/her staff in the Office of Equal Opportunity Employment and Affirmative Action (OEOE/AA) is responsible for overseeing its implementation. All advertisements and descriptions for open positions on campus are carefully screened and applicants are closely tracked to see that minority candidates are included in as many job searches as possible. In cooperation with Student Affairs and the appropriate academic programs, the ACID and the OEOE/AA support the monthly celebrations of various important campus groups, like the heritage of Asian-Americans, African-Americans, Hispanics, Native-Americans, Women, and the Gay, Lesbian, Bisexual, and Transgendered. The ACID is also active in the operation of the Center for Academic Success for undergraduate students admitted conditionally, even though this program is not ethnically or minority based.

In the last five years, SIUC has added three ethnic studies programs of interest to a diverse student population: Native American Studies, Latino and Latin American Studies, and International Studies minors. These programs join those in Black-American Studies and Women's Studies (which also has a graduate certificate). Similarly, since 2004, the Office of Research Development and Administration has received federal funding for the Ronald E. McNair Postbaccalaureate Achievement Program for college students from underserved backgrounds who are interested in academic and research careers. These students have also been well served by REACH and the undergraduate assistantships, which have provided additional funding for under-represented groups in need of financial aid. Thanks to these programs, diversity continues to be a highly visible university commitment.

"During 2008–09, our student-athletes excelled in the classroom, achieving an overall grade point average of 3.02."

"State of the University" speech delivered by Chancellor Samuel Goldman. September 2009

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271 See tables in NCAA Self-Study, 2007, see note 255.
272 SI report, 2008, in the Office of Supplemental Instruction and Student Affairs Assessment.

A wide variety of study abroad programs are available to students.[273] These include short-term summer and intersession courses usually led by SIUC faculty.[274] Fuller immersion in another culture is available through opportunities to participate in exchange programs with universities abroad.[275] During the year from summer 2008 through spring 2009, 227 students participated in various short-term programs, sixteen in exchange programs, and thirty-four in semester/year-long programs. This certainly undercounts actual participation as the above figures reflect only participants in SIUC programs and those who go through the Study Abroad Office in International Programs and Services. Students are required to go through International Programs only if they want to process financial aid, for example when a student might take part in a summer program offered by another university and transfer credit back to SIUC when they return to campus. In that case, the transcript would be no different than if they took any other regular summer class elsewhere.[276]

Core Component 3.d: The organization's learning resources support student learning and effective teaching.

One source of support is the university's instructional budget. In FY06, SIUC's appropriated and general revenue budget was $247.2 million, of which 73 percent, or $180.1 million, supported direct and indirect instruction of undergraduate and graduate students, according to the Illinois Board of Higher Education's Cost Study (June 2007). These figures do not include the SIU School of Medicine's instructional costs, figured separately in its FY06 operating budget of $43,988,700.

The most basic resource in support of student learning and effective teaching is the classroom. According to the Scheduling Office, which is responsible for assigning and maintaining classroom space, there are a variety of different kinds of rooms with a general classroom seating capacity of 7,130 students (Table 3-3):

Table 3-3. Types and numbers of classrooms and other teaching/learning space.

Lecture Halls	26 holding 80 students or more (largest has 324 seats)
General-use Classrooms	95 (average 35 seats)
Computer Labs	4
Special-use Classrooms	100
Labs, studios, etc.	140 (computer and science labs, art studios, rehearsal halls)
Conference rooms	40

Source: SIUC Scheduling Office.

273 For a full listing see http://www.ips.siu.edu/SA/.

274 http://www.ips.siu.edu/SA/shortterm.html.

275 http://www.ips.siu.edu/SA/exchanges.html.

276 Information and data provided by Thomas A. Saville, Associate Director for Study Abroad, International Programs and Services, in an email dated April 1, 2008.

In keeping with the university's *Southern at 150: Building Excellence through Commitment* planning, educational classrooms, laboratories, and studios were evaluated by the Classroom Initiatives Committee. The outcome was a prioritized list of critical upgrades to the university's educational areas. The priorities focused on the areas having the greatest impact on the education of the students. From FY03 through FY09, the university implemented the projects listed in Table 3-4.

Table 3-4. Improvements to SIUC's educational facilities, FY03 – FY09.

FY2003: $1,549,427
Remove seating, flooring, and repair roof at Lawson Hall
Install technology equipment in auditoriums in Faner, Neckers, Lawson, Wham, Quigley, Agriculture, Pulliam, Lindgren, and Parkinson buildings.
Install A/C, fume hoods, and ventilation at Pulliam Industrial Wing
Replace roof at Wildlife Annex
Environmental controls to fix cooling problems at Neckers
ADA accessibility improvements
FY2004: $1,917,809
Install smart boards in Communications, LSII, Quigley, Allyn, Agriculture and Faner classrooms
Renovate the Foundry
ADA accessibility improvements
FY2005: $1,153,786
Complete 2-year upgrade of Lawson Hall auditoriums
Install lighting system and ceiling at Quigley
Complete 2-year renovation of Browne Auditorium (Parkinson Building)
ADA accessibility improvements
FY2006: $1,119,336
Renovate Van Lente Auditorium and Young Auditorium in the Neckers building
Complete 2-year renovation of Mukelroy Auditorium (Agriculture)
Complete 2-year renovation of Davis auditorium (Wham)
ADA accessibility improvements
FY2007: $295,000
Renovate Neckers auditoriums
Provide new furniture for Faner Hall classrooms
Wireless internet access in Lawson Hall
Maintenance on classroom initiative equipment
Renovate Engineering room A219
Renovate Faner Room 4436 (Geography)
FY2007: $220,000
Faner, Agriculture, General – ceiling, floor, wall repair

Funding for these projects has come from the Chancellor's Office, Physical Plant's deferred maintenance budget, Office of the Vice-Chancellor for Research, and through individual departmental cost sharing. Future funding will rely on the Facility Maintenance Fee assessed to the students.

Continued Support

Although a significant number of projects have been completed, many tasks remain on the list. These include items such as fixed seating in five auditoriums and "loose seating" (i.e., typical unanchored classroom desks) in thirty classrooms at an estimated $1.6 million; lighting upgrades and general renovations in six auditoriums (costs range from $250,000 to $500,000 each); smart technology installed in an estimated five classrooms with new requests arriving daily; and approximately fifty classrooms in need of general upgrades and renovations. Wet and dry laboratories, estimated at $250,000-$500,000, need new technology, fixed and movable equipment, and general renovations. Some equipment purchased new in FY03 already needs replacement, such as thirty-three projectors at an estimated $70,000 plus replacement lamps at approximately $30,000 per year.

A short tour of campus facilities will tell the story of current conditions and the fact that we have not turned the corner on our renovation projects. Lindegren Hall's French Auditorium still makes do with its original 1953 seating, obvious water marks from years of a leaking roof, and barely functional flooring. The labs and classrooms in Agriculture C wing show the effects of age and lack of resources. Nearly every room confirms the need for a new roof and interior renovations. The disastrous storm that struck southern Illinois on May 8, 2009, with sustained winds of 80+ mph and gusts measured up to 125 mph, changed some of these problems from chronic to acute. The cost of the storm—from uprooting 1000 trees to damaging roofs—is estimated at roughly $10 million, not all of which will assuredly be covered by insurance or FEMA.[277] All across campus the conditions of the general and departmental classrooms remains a critical concern.

Tight financial resources have affected the status of many classroom improvements. As this is written in October 2009, funding for the classroom initiatives projects is still suspended due to lack of funds, although recent passage of the state's "Capital Bill" will allow for some renovations. Classroom upkeep is no longer a simple question of keeping the floors swept and chalk in the trays. The "smart" classrooms are especially vulnerable to reduced availability of maintenance funds because of their periodic need for such relatively expensive items as software upgrades and computer projector bulbs, as well as other regular

277 Source: Director, Plant and Service Operations, 10/20/09.

maintenance to remain functional. Lack of funding has had considerable impact on these valuable facilities. In the present economic and political climate, it is entirely possible that full funding for all needed classroom initiatives could remain "on hold" for some time. If this proves to be the case, campus learning facilities will continue to deteriorate. Annual emergency maintenance funding for FY10 is estimated to be $200,000. The university obviously finds itself in a very unsettled situation in the fall of 2009.

The classroom upgrade initiative between 2003 and 2006 transformed many of the classrooms and auditoriums on campus by renovating the spaces and installing state of the art technology. However, we live in an age of rapid technological change and technological advances are quickly outpacing the majority of our facilities. The gap will continue to widen if we do not actively pursue the renovation of our learning environments. As the campus continues to face declining or stagnant enrollment, it is imperative that SIUC continue to provide up-to-date classrooms, laboratories, and studios that are functional and adaptable to technological advancements to attract and retain quality students, faculty, and staff.

Many of these vital resources for teaching and learning include laboratories, Morris Library, Information Technology, the University Museum, and performance spaces such as Shryock Auditorium and McLeod Theater. The overlap between the instructional and research/creative activities in these facilities is precisely one of the strengths of a major public research university like SIUC, where the synergies of teaching and scholarship enrich the education of our undergraduate as well as our graduate students.

Summary: Strengths and Priorities for Improvement

The university's strengths in teaching and learning are considerable and everywhere evident. Typical of a major public research institution, SIUC's programs are effectively designed, well staffed, and well supported, though the financial situation is more constrained than would

be ideal. Program reviews mandated by the Illinois Board of Higher Education every eight years detail the achievements of the faculty and students in the classroom and other places where teaching and learning occur. Despite the limited financial resources often mentioned in this study, there have been some large and important advances. SIUC's investment infrastructure alone, especially in its new Morris Library, as well as the modernization and upgrading of major campus buildings discussed earlier, demonstrates the university's commitment to an up-to-date, functional, and attractive learning environment. Innovative programs, a highly qualified and intellectually active faculty, and attractive physical facilities provide a wide variety of learning opportunities. As this chapter has documented comprehensively and in detail, the university is meeting its central commitment to provide effective teaching leading to student learning.

These assurances do not preclude an ample scope for, and a continuing commitment to, improvement at SIUC. The following recommendations are intended to provoke thought and promote discussion of certain challenges that have emerged from the investigations undertaken for this chapter and to suggest ways the university is responding, and can respond, to them:

First, the university needs to recommit itself to the assessment of student learning in the 127 academic programs that do not have degree-specific accreditation. Although all programs have assessment plans, about a fifth of them are not being used rigorously. There is not yet an institutional culture of transformative inquiry to ensure the continued quality enhancements in academic and non-academic programs. To address this issue, the provost has appointed an interim director of Assessment and Program Review to lead a campus-wide effort to revive this critically important activity in the review of curricula and instruction, and ultimately of student learning. The university's participation in the Higher Learning Commission's Assessment Academy is a four-year commitment to focus on this particular indicator of institutional quality, that is, the measures of its student learning.

In addition, the university needs to expand the purview of the Writing Center to include other teaching and learning outreach activities besides writing, perhaps by transforming it into a comprehensive Center for Teaching and Learning Excellence. The addition of other services, such as coordinating teaching workshops and tutoring activities, complement the efforts of Instructional Support Services in Library Affairs, Supplemental Instruction in Student Affairs, the Center for Graduate Teaching Excellence in the Graduate School, and the University Core Curriculum in the Office of the Associate Provost for Academic Affairs. External funding for a more fully developed center, as outlined in the preliminary

application to the U.S. Department of Education Title III grant, will help defray the costs.[278]

Attention to the deferred maintenance and delayed upgrading of teaching and learning spaces on campus needs to be continued and intensified. This focus should include more than just the physical space of classrooms, studios, laboratories, and the like. The endeavor should attend to the recurring and continuing enhancements of technology essential to teaching and learning in the twenty-first century, both on and off campus. SIUC has undertaken a strong beginning to address this challenge of deferred maintenance. The $100 million commitment to the refurbishment of classroom and office buildings and the plans in Saluki Way for a new student services building will go a long way toward strengthening the university's commitment to its central mission.

Finally, the university needs to coordinate better its considerable resources as a large public research university in support of undergraduate education. Some progress towards this end is evident in the planning for and implementation of the Saluki First Year. With its addition of a required freshman seminar, based on the learning objectives of University 101, this program is the first step in the creation of a university college, a concept called for by Chancellor Goldman in his 2009 State of the University speech. Further campus-wide consideration of this proposal is planned for 2010.

Campus Climate Survey, 2008: Criterion 3 - Student Learning and Effective Teaching.

The organization provides evidence of student learning and teaching effectiveness that demonstrates it is fulfilling its educational mission.

Southern at 150 highlighted the need to clearly state goals for student learning. Elevated goals for student learning outcomes are contingent upon effective instruction as well as effective learning environments.

Perceptions that the university supports effective instruction are supported by surveys completed by recent SIUC alumni. More than 90 percent of 2006 graduates felt that the faculty in their major was good or very good.[279] More than 90 percent of the same sample indicated that the faculty effectively communicated subject material.[280] These opinions are

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278 See Preliminary Title III Grant report, 2006, in the Office of the Vice Chancellor for Student Affairs.

279 Executive Summary of SIUC Survey of Graduates After Graduation: 2006 Graduates One Year Out. *Institutional Research and Studies*, Southern Illinois University Carbondale.

280 Ibid.

also apparent in surveys of earlier alumni from 2000 and 2003.[281] Alumni survey data further indicate that nearly 80 percent of respondents felt that faculty were available outside of class, expected cooperative group-work, used appropriate teaching methods, and had high expectations for student work.

The 2008 Campus Climate Survey assessed perceptions of student learning and effective teaching (see Resource Center for a complete report of this survey). Of the six principal subscales derived from the survey items, "Student Opportunities" assessed the extent to which faculty, staff, and students perceived that the university provides students with adequate resources for professional growth, supports their academic development, and provides adequate service learning and community service opportunities. Average scores for this subscale, in which responses were recorded on scales ranging from 1 (strongly disagree) to 7 (strongly agree), were 5.19 (SD=1.19) for students; 4.95 (SD=1.32) faculty; 4.92 (SD=1.13) for civil service staff; and 4.87 (SD=1.23) for A/P staff. The results indicate consistent agreement that the university provides adequate opportunities for student development. In addition, a number of items assessed relevant issues regarding student learning and effective teaching. The percentage agreement with these items is provided in Table 3-5.

Table 3-5. Percentage agreement with the 2008 Campus Climate Survey items addressing student learning and effective teaching.

Item	Faculty	A/P	Civil Service	Students
The University has a commitment to excellent teaching. (Students: This University has a strong commitment to good teaching.)	58%	63%	64%	68%
The University supports the continuous improvement of academic endeavors. (Students: This University attempts to continuously improve the quality of its academic endeavors).	53%	63%	60%	64%
Most students are treated like "numbers in a book" at this university.	23%	28%	29%	38%
I frequently mentor students. (Students: I have been mentored by a faculty member).	82%	67%	63%	56%
This University takes responsibility for educating under-prepared students.	58%	58%	42%	44%
Faculty care about students.	87%	74%	71%	77%

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281 B. Ebelhar, and L. Schilling. Survey of 2000 Graduates Five Years after Graduation. *Institutional Research and Studies*, Southern Illinois University Carbondale (2002). SIUC Survey of Graduates after Graduation: 2003 Graduates One Year Out. *Institutional Research and Studies*, Southern Illinois University Carbondale (2005).

Item	Faculty	A/P	Civil Service	Students
Staff care about students	—	86%	81%	72%
Administrators care about students.	—	73%	64%	—
The University has a collegial atmosphere for students	58%	59%	67%	—
This University is a place where students, faculty, and staff work together to increase student learning.	66%	67%	63%	—
The University commits adequate financial resources to carry out its commitment to effective teaching.	29%	37%	39%	—
On-campus living-learning communities adequately facilitate student engagement in academic life.*	38%	49%	38%	—
Academic assessment at this University is effectively used to improve students' learning. (Students: Academic assessment at this University contributes to better education).	38%	—	—	70%
Most classes I teach are an appropriate size for effective teaching (Students: Most classes are an appropriate size for effective teaching).	72%	—	—	77%
My department has sufficient faculty to carry out its basic teaching mission.	37%	—	—	—
My department has sufficient resources, other than faculty, to carry out its teaching mission.	28%	—	—	—
This University increases appreciation and respect for diversity through courses and majors offered.	—	—	—	74%
This University provides adequate resources for academic growth.	—	—	—	75%
Faculty members of this University contribute to my academic and professional growth.	—	—	—	81%
There are sufficient programs and/or organizations available to contribute to the academic growth and success of students.	—	—	—	71%
There are sufficient programs and/or organizations available to contribute to the professional growth and success of students.	—	—	—	70%
This University provides excellent services for incoming students.	—	—	—	62%

Item	Faculty	A/P	Civil Service	Students
Conducting research with faculty members is an important aspect of academic and professional growth.	—	—	—	79%
University policies adequately protect freedom of inquiry in the classroom.	—	—	—	69%
This University promotes excellence in its undergraduate program.	—	—	—	61%
Faculty at this University treat all students equally.	—	—	—	65%
Faculty at this University are available outside of class.	—	—	—	81%
Faculty at this University provide adequate instruction.	—	—	—	79%
This University offers effective academic advisement.	—	—	—	62%
This University improves the well-being of others through its academic endeavors.	—	—	—	67%

* A very high percentage of respondents marked "neither agree nor disagree" (midpoint) to this item. Because there was no "not applicable" option on the survey, respondents may have used the midpoint when they had insufficient information to respond to the item. *Source:* 2008 Campus Climate Survey, Southern Illinois University Carbondale. Empty cells indicate that the item was not assessed in the survey for the relevant constituency group.

There is fairly strong agreement and consensus across the constituency groups that students are mentored; that faculty, staff and administrators care about students; that class sizes are appropriate for effective teaching; and that SIUC is a place where students, faculty, and staff work together to increase student learning. In addition to the data from the 2008 survey, these assertions are further substantiated by the qualitative analysis of students in Freshman Interest Groups (FIGs).[282] Analyses of focus groups with students in FIGs in the years 2006 and 2007 indicated that faculty have concern for students and that class sizes are conducive to learning.[283] Furthermore, there is moderate agreement that the university is committed to excellent teaching, that the atmosphere for students is collegial, and that the university supports the continuous improvement of academic endeavors. Most constituents, including students, disagreed that students are treated like "numbers in a book." There is less consistent agreement that the university takes responsibility for educating underprepared students and constituents tended to disagree that the university commits adequate financial resources to carry out its commitment to effective teaching. Although faculty and staff agreed that the living-learning communities were beneficial in facilitating engagement in academic life, the focus groups indicated otherwise. Participants

282 C. Briggs, "Executive Summaries of 2005, 2006, and 2007 Focus Groups with Students in Freshman Interest Groups (FIG)." *Academic Initiatives*, Southern Illinois University Carbondale.

283 Ibid.

indicated instead that the on-campus living-learning communities allowed them to build a social-support network, which enabled students to "keep tabs" on one another and provide each other with motivation and support.[284]

Students tended to agree that the university helps students learn and has effective teaching. In particular, students agreed that the faculty contribute to their professional growth, provide adequate instruction, and are available to students outside of class. The professional growth of students is evident by employment figures of the alumni of 2005. In 2006, 80 percent of the alumni from 2005 were employed full time.[285] Furthermore, 94 percent of applicable respondents indicated that their undergraduate education adequately prepared them for graduate studies.[286] Faculty availability outside of class was also a theme present in the focus groups with students in FIGs.[287] Students in the FIG focus groups indicated that their professors were easily reached and were often available outside of class. Further support of effective teaching was apparent in surveys of alumni. In a 2005 sample of alumni from 2000, 89 percent of respondents indicated that instructors were good or very good.[288] In a sample of 2003 alumni, 94 percent of respondents indicated that faculty in their major were very good instructors.[289] In addition, students felt that conducting research with faculty was an important aspect of their academic and professional growth, and that the university provides adequate resources for their academic growth. In general, it appears that students are satisfied with the academic climate at SIUC.
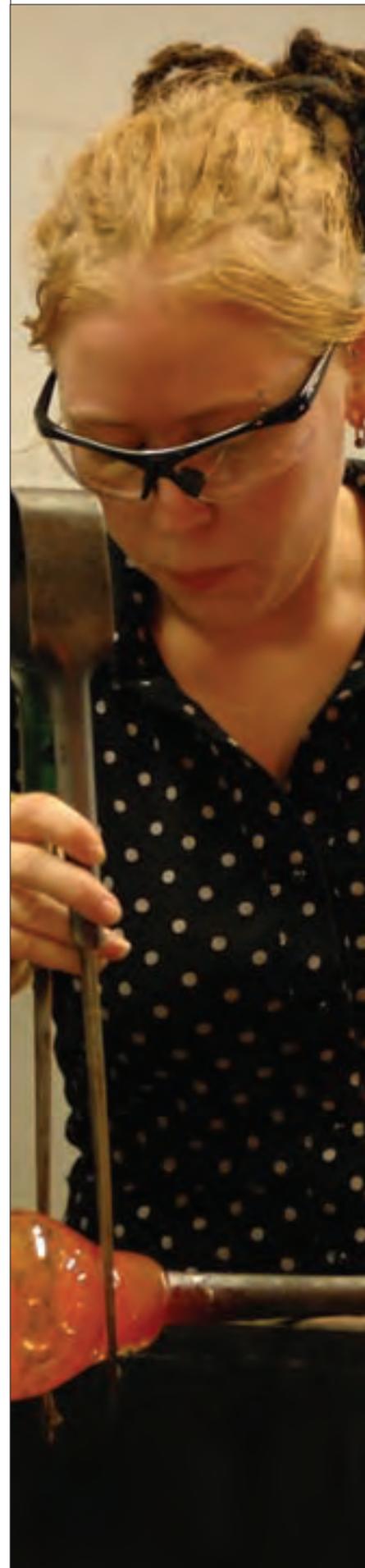
284 Ibid.

285 Bonnie Ebelhar, "SIUC Survey of Graduates after Graduation: 2005 Graduates One Year Out," *Institutional Research and Studies*, Southern Illinois University Carbondale (2007).

286 Ibid.

287 Briggs, op. cit. [in note 282].

288 Ebelhar and Schilling, op. cit. [in note 281].

289 Bonnie Ebelhar, "SIUC Survey of Graduates after Graduation: 2003 Graduates One Year Out," *Institutional Research and Studies*, Southern Illinois University Carbondale (2005).