University of South Carolina Columbia
Act 629 – Summary Reports on Institutional Effectiveness
Fiscal Year 2004-2005

This report includes Library Resources and Services, Majors/Concentrations, the Alumni Survey results, and Policies and procedures to ensure that academic programs support the economic development needs in the State by providing a technologically skilled workforce.

Alumni Survey

During the spring of 2005, we sent surveys to 1514 of our 2001-2002 graduates. Of these, 136 were returned due to bad addresses. By July, we had received 324 completed surveys, for a response rate of 23.5%.

Most students indicated they were satisfied with their experiences at USC. A summary of responses to the questions is available at: http://kudzu.ipr.sc.edu/effectiveness/accountability/alumni/.

Library Resources and Services

Access to information resources, in all formats, is vital to the educational and research needs of students, faculty, and staff at the University. USC Columbia intends to insure that the University community has comprehensive access to information essential to teaching, research, and outreach activities by determining usage of library materials through regular assessment of the quality and use of library resources and services.

Educational effectiveness goals and objectives include:
1. Understanding the expectations of those we serve and improving the services we provide;
2. Developing user-focused products and services and educating users in the most effective and productive use of those services;
3. Developing a team of motivated professionals who understand and practice a philosophy of public service that is focused on customer satisfaction;
4. Provide an exceptional workplace and environment that attracts, develops and encourages employees who are enthusiastic and will achieve high levels of productivity;
5. Making full use of available resources and aggressively pursue new ones;
6. Building and maintaining high quality support that increases the productivity of the entire University.

Multiple assessment methods used:
1. Facilitated strategic planning process involving all employees of the library at every level;
2. Establishment of measurable VCM Library Accountability Standards;
3. LibQual (Association of Research Libraries) survey conducted annually;
4. Building/user use survey conducted semi-annually;
5. Attendance by library staff at academic unit's faculty meetings to solicit input and raise profile of the libraries in service to the academic community;
6. Open meetings addressing specific areas of library service encouraging review from a variety of perspectives;
7. Quarterly meetings with members of student government to receive input from the students' perspective.

The assessment methods utilized are providing the library with the information necessary to adapt operations to improve both service and information delivery to students, faculty and staff. Especially important are the semi-annual building/user use survey and the LibQual survey which addresses the question: what is the library doing well and in what area does the library need to improve. Input from student government and the academic unit's faculty also provides important guidance for the library in adapting its services and resources to match user needs.

Results
The Library has a comprehensive strategic plan with measurable goals and objectives spelled out in detail. This is a rolling five year strategic planning process. The strategic plan contains a Unit Assessment Plan which details how attainment of goals will be measured and list criterion levels. The VCM Library Accountability Standards are measurable and library performance is compared with performance at peer institutions each year based on these standards. Since all library staff have input into both the strategic plan and the accountability standards, there is a strong commitment on the part of library staff to achieve the goals and objectives as outlined in the documents.

A few specific examples of improved service resulting from assessment activities:
1. State-wide web-based online catalog is being implemented to replace the outdated NOTIS system;
2. Increased full text access to multiple journals;
3. Reconfigured main floor to provide seating for additional 200 library users;
4. Initiated 24 hour library service during exam periods, one week before and the week of exams;
5. Three state-of-the-art microform reader/scanners placed in Government Documents;
6. Provided wireless access to the Library;
7. Library joined consortium of ASERL Libraries (Association of Southeastern Libraries) providing 2-3 day service on all interlibrary loan request between member libraries.

Innovative approach
While more libraries have started using trained facilitators, our use of facilitators for strategic planning and assessment is still innovative in its approach. The use of trained facilitators results in improved communications in meetings and clear methods to set directions and priorities. The involvement of all staff is crucial to obtaining comprehensive information, making informed decisions, and promoting commitment. Results of all annual and semi annual library surveys are disseminated to all staff and their comments and concerns are actively solicited.

Majors/Concentrations

Majors and concentrations provide students with specialized knowledge and skills. Primary responsibility for assessing the majors falls to academic departments and programs, and to external reporting agencies, where applicable.

In 2004-2005, program reviews in Public Health, Teacher Education, Computer Science, Engineering, Social Work, and Pharmacy were scheduled. Unfortunately, the South Carolina Commission on Higher Education (SCCHE) did not fund program review at the state level.

Public Health Administration
Students are expected to be able to apply an overview of health care policy and perspectives to the understanding of management in health care organizations, as well as be familiar with major issues in health services delivery and research. Students must also demonstrate proficiency in written, verbal, and oral communication skills. An understanding of the finance, economic, and human resource issues of

health care management is also expected. Students must also demonstrate their ability to integrate theory and practice via case studies, projects, and a residency placement.

Information about student performance is collected from departmental records and individual student transcripts. Quantitative data is also available from student course evaluations, exit questionnaires, and an alumni survey. These data are collected, managed, and analyzed by staff in the Office of Administration.

In order to be approved for graduation, students must successfully complete the required program of study, including a culminating experience (i.e. a dissertation or residency.) Results from the Alumni Survey indicated that students are, overall, satisfied with the program and their experiences within it.

Public Health General
Students in this program are expected to demonstrate skills in the varied areas of Public Health, including understanding epidemiology and its use in public health practice, understanding environmental health sciences and the earth, applying biostatistical methods to various data sets, and understanding the nature and operation of health care delivery systems in the United States. Students are also expected to participate in practical experiences to enrich their classroom learning.

Information about student performance is collected from departmental records and individual student transcripts. Quantitative data is also available from student course evaluations, exit questionnaires, and an alumni survey. These data are collected, managed, and analyzed by staff in the Office of Administration.

In order to be approved for graduation, each student must complete the required program of study, and a culminating experience in the form of a practicum. As the Master of Public Health – General is an interdisciplinary program, there are no unique student course evaluations or exit questionnaire results.

Environmental Health Sciences
Students in the Environment Health Sciences programs are expected to have a significant knowledge base in a specific area of the environmental health sciences, to be able to design, implement, and conduct research projects, and to analyze the results generated. The specific areas students may focus their studies on may include Environmental Quality, Industrial Hygiene, or Hazardous Materials Management.

Information about student performance is collected from departmental records and individual student transcripts. Quantitative data is also available from student course evaluations, exit questionnaires, and an alumni survey. These data are collected, managed, and analyzed by staff in the Office of Administration.

In order to be approved for graduation, each student must complete the required program of study for the program, including a culminating experience in the form of either a thesis or dissertation. Alumni Survey results indicated that most students are satisfied with how well the program prepared them for employment, with the average score being 3.2 on a 4 point scale. Because very few classes are unique to a single program, however, the student course evaluation data cannot be separated into the individual academic programs. Similarly, most questions on the exit questionnaire are common across the programs within a department. Furthermore, the number of respondents in a single year would typically be too small to allow for meaningful interpretation.

Physical Activity and Public Health
Students in this program must demonstrate research-based knowledge, a thorough understanding of the assessment, surveillance, policy and assurance aspects of physical activity and public health, and be able to evaluate the impact of physical inactivity on communities. Additionally, students are expected to

understand how social and behavioral theories are used to design programs, and to be able to synthesize concepts and to apply them in practical settings addressing physical activity in public health.

Assessment information is collected from individual student records as well as departmental records. Quantitative data is also available from student course evaluations, exit questionnaires, and an alumni survey. These data are collected, managed, and analyzed by staff in the Office of Administration.

This relatively new program is interdisciplinary in nature and, as such, there are no unique student course evaluations or exit questionnaire results. Because very few classes are unique to a single program, the student course evaluation data cannot be separated into individual academic programs. Similarly, most questions on the exit questionnaire are common across the programs within a department.

Minor adjustments were made to the curriculum in recognition that the two tracks should be reasonably balanced with respect to track-specific coursework. Policies and guidelines were implemented for the comprehensive exam and practicum experience based on student feedback.

Teacher Education

USC's Professional Education Unit, for which the College of Education acts as the hub, enjoyed its most successful visit from NCATE and the State during the Fall 2003 accreditation/state review visit. There were no formal areas of weakness cited from the review team, and all programs have received national recognition by professional associations across all disciplines. The Unit has been recognized by the State and NCATE for continuing accreditation status, with its next visit scheduled for Fall 2010.

Since the 2003 visit, the Unit continues to move in responsive, engaged, and collaborative ways. Overwhelming popularity of the Unit's three new undergraduate programs (beginning in Fall 2003) has brought hundreds of students to the College of Education and will make a significant impact on filling the needs of professional educators in the State and region. In addition, the Unit is leading the way University-wide with its well-defined system of assessment plan approval for all 60+ of its programs. The new Unit-wide committee called the Quality Assurance Committee has been working over the last two years to review program assessment plans and ensure that meaningful data are being collected, used for program improvement, and systematically maintained. In addition to reviewing program data, the committee will be reviewing data at the Unit-level to ensure quality on a broader scale. Also, the two active online programs within the Unit (MEd in Educational Administration and MLIS/SLIS/Cert in Library Science) have developed national attention and continue to grow each year.

The following program-specific information is taken from the external reviews received as part of the 2003 reaccredidation process.

> *Art*
> As a member of NASAD, the institution is responsible for participating in all revisions and additions to the standards as well as maintaining curricular programs in the visual arts current with NASAD standards as these are developed. The Commission commended the University for its thorough and conscientious efforts to ensure its programs are within NASAD accreditation standards.

> *Business Education*
> The State Department of Education asked for additional documentation for the state standards but cited that the University was to be commended for the two reading courses that reveal special emphasis on career development in the MAT in Business Education. The self study, and consequently the program, were approved by the State Department in Spring 2003 after review of the additional material.

Early Childhood/Elementary Education
Early Childhood - External reviewers from NAEYC concluded the program was grounded in an appropriate conceptual framework of beliefs, values, and knowledge with eleven identified outcomes. They noted that the assessment system gathers a variety of internal and external data, and that the assessment plan includes appropriate steps to ensure the measures are valid, reliable, fair, and accurate.

Elementary - ACEI reviewers' assessment of this program indicated that program quality was high. Additionally, faculty were commended for their extensive planning in continuing to assess outcomes, and for their use of the results gathered through existing assessments.

English
NCTE reviewers noted the program's strengths as its major emphasis on research, the performance data and strong assessment, and the number of well-conceived courses and activities.

Foreign Languages
While the State Department of Education reviewers noted that additional information regarding certain standards would help make success clearer, they also stated that opportunities for students to demonstrate the skills and knowledge related to planning, management, and evaluation of instruction were evident throughout the program.

Health Education
Although the CAAHEP reviewers noted that a course in evaluation would strengthen the program, they noted excellent coverage in teaching methods and curriculum development. Additionally, the practical components of the program were praised, as was overall content coverage.

Mathematics
This program was commended for using a structured developmental framework. Also, NSTM reviewers noted that the included test and exam items helped to provide evidence of successful attainment of outcomes. Some course syllabi, however, needed to be more fully explained to show how outcomes were being met.

Music
The Commission commended the institution and this program for its excellent community outreach programs, especially its elementary and secondary string education programs and the ways in which these address the region's minority population.

Physical Education
This program was commended by NASPE reviewers for the descriptions of how specific classes and experiences help students to reach the desired outcomes and standards. The reviewers also noted a strong emphasis on planning, assessment, and reflection throughout the program.

Science
While the program met five standards, the NSTA reviewers noted that the program could strengthen its formal performance assessment plan.

Social Studies
While noting that the assessment of classroom performance needed strengthening, the NCSS reviewers asserted that the analysis of candidate content knowledge was exceptionally thorough.

Special Education
The CEC reviewers commented that the student teaching model was very strong and

comprehensive. They also stated that expectations for field experiences were clear and tied to both Council for Exceptional Children standards and state guidelines.

Theatre
The Commission expressed concern about the name of the program but acknowledged that the department was limited in its flexibility with this issue. They noted that a clear description of the intent and content of the program in future catalogs would help to alleviate concerns.

Chemical Engineering
Students in this program are expected to understand chemical engineering science fundamentals and apply knowledge of mathematics, chemistry, and engineering in chemical engineering practice. Students must be able to design and conduct laboratory experiments, and analyze and interpret data. Students are also required to demonstrate their written and oral communication skills, and work both independently and in multi-functional teams. Students are expected to understand professional and ethical responsibility, and to be aware of economic, social, and political issues.

Information about student performance is collected in a variety of ways. The advisement process facilitates the monitoring of students' progress through the program. In addition, the Student Services Office monitors student progress by enforcement of the College's progression requirements and the University's academic standards. At least once a year, the Chemical Engineering faculty hold a "Course Review" meeting, where they review the course syllabi, exchange ideas on teaching innovations, and review the performance of students overall in the course. Additional information is collected from students in a Senior Exit Interview and an Alumni Survey.

Student comments during advising sessions illuminated a need for a more flexible undergraduate curriculum, especially with regards to coursework, co-op and research opportunities, and, as a result of this information, faculty revised the curriculum to ensure flexibility while still maintaining national standards. An Undergraduate Curriculum committee is in place to research each issue, and provide data and a recommendation to the entire faculty.

Civil Engineering
Students in these degree programs are expected to apply knowledge of mathematics, science, and engineering, as well as to design and conduct experiments, and analyze and interpret data. Students also are expected to work on interdisciplinary teams, to communicate effectively, and to demonstrate understanding of professional and ethical responsibility. Additionally, students are expected to understand the impact of engineering solutions in a global, economic, environmental, and societal context. Completing the program, students should also have knowledge of contemporary issues, and the ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Information about students' progress towards the goals and objectives is collected in a variety of ways. The college uses a standardized course survey and a senior exit survey. These assessment instruments are reviewed regularly, and changes are made as necessary. The college administered an alumni survey in 2004, feedback was solicited from employers through a survey and focus group.

Results indicated employers feel students have "strong to very strong" competence in the areas of knowledge of engineering terms and theories, problem solving, and being cognizant of professional and ethical responsibilities. Responses also indicated that employers perceived students to be "weaker" in the area of oral and written communication skills. Responses on the alumni survey indicated that students generally feel prepared for an engineering career by their education at USC. A slight decline in "satisfied" responses on the Senior Exit survey is most likely attributable to a reduction in funding for laboratory operations and maintenance.

Course portfolios are used to ensure that courses are addressing the necessary outcomes. Appropriate

advising and analysis of student transcripts show that students are completing the requirements and mastering the necessary skills.

Computer Engineering, Computer Science, Computer Information Systems
Students in these degree programs are expected to demonstrate proficiency in logic and mathematics, in software design and development, operating systems, programming languages, theory of computation, and computer architecture. Additionally, students must successfully apply computing principles and practices to a variety of problems, demonstrate the ability to communicate effectively, and work with others on multi-disciplinary teams. Students in the Bachelor of Science in Engineering – Major in Computer Engineering program must also demonstrate proficiency in physics, electronics, and digital system design. Students in the Bachelor of Computer Science program need to demonstrate proficiency in a clearly identified application area such as accounting, aerospace studies, chemistry, economics, or English. Students in the Bachelor of Science – Major in Computer Information Systems program must demonstrate proficiency in business application of computing. Additionally, all students are expected to realize the need to continuously develop their computing knowledge and skills and learn to use new tools and processes.

Information about these abilities is collected in a variety of ways. Faculty members complete an End of Course Objective Evaluation, and students complete teaching evaluations each semester. Additionally, seniors are asked to complete a Senior Survey as part of their capstone project course (CSCE 492). Overall student performance is also assessed and used to determine possible problems with the courses and course sequencing. Faculty recommendations are also solicited to help ensure course objectives are being reached. Information is also collected through an Alumni survey. Exit interviews with students, and focus groups with employers have been used in the past, and the department has implemented changes indicated from these assessment activities. As such, these methods are not currently used to collect information.

Results indicated that students, generally, are meeting departmental expectations. A review of the curriculum of the course in Discrete Mathematics, however, revealed that the content of the course varied greatly depending on the instructor. Working with the Mathematics department, this course has been replaced, and the Undergraduate Committee reviewed the syllabus and text to ensure the proper material was being taught and that computing applications were being used as examples in the course.

Results from the Senior Survey over the past year indicated that students feel there is a match between perceived importance of a skill and its emphasis in the curriculum relating to their abilities to identify, formulate, and solve problems, to design a system component or process to meet desired needs and quality, and to write software to solve a problem or provide needed functionality. Students also indicated satisfaction with their level of competency in these areas. Over 70% of students indicated, over the past year on the Senior Survey, that they were satisfied with their level of competency in written and oral communication. Faculty have also noted that, as the capstone course has evolved, students' performance on the required presentations has become more formal and complete.

A question on the Alumni Survey addressed students' preparedness to engage in life-long learning. The mean score of students responding was 2.1, with 5 being Not Prepared At All and 1 being Very Prepared. Faculty have noted that they continue to change the tools used in classes (even when the class itself does not change much) as the technology advances. In general, students appear to be demonstrating the expected proficiencies and also appear satisfied with their experiences.

Electrical Engineering
Electrical Engineering students are expected to apply knowledge of mathematics, science, and engineering. They also should be able to design and conduct experiments, including analyzing and interpreting data. Students are also expected to develop problem solving skills, as well as their oral and written communication skills. They must also demonstrate an understanding of professional and ethical

responsibility.

Many assessments of student progress are performed directly in various courses since courses represent the most common opportunity to observe student behavior and abilities. These are augmented with other assessment methods, including a Senior Survey. Assessment is heaviest at the end of the course, particularly in capstone design course (ELCT 402) since this course gives the best opportunity to assess the students' accumulated skills.

Student progress is monitored at the departmental and at the college level. At the departmental level, progress is assessed during the meeting between the student and advisor. The faculty advisor has access to the full student records and can assess progress and identify any problems. At the college level, personnel in the Student Services Office review applications for upper-division status to determine that lower-division courses were satisfactorily completed.

Assessment results and feedback are utilized through the Continuous Quality Improvement form. These forms are records of each course that show any problems identified, a proposed solution to the problem, a rationale for the proposed solution, and a statement of when and in what form the proposed solution or change was implemented. Examples include new ways to present information when student performance on tests indicated poor understanding of a topic, items that should be updated in course content, web sites, or handouts from semester to semester, and new concepts for course content to keep the course up-to-date.

Mechanical Engineering, Nuclear Engineering
Students are expected to be able to analyze, design, and realize mechanical and thermal systems, using contemporary computational techniques and tools. They are also expected to be able to design experiments and interpret data. Graduates should also be able to perform analyses, and plan and execute projects. They need to be able to demonstrate effective oral and written communication skills. Additionally, they must also demonstrate an understanding of professional and ethical responsibility.

Students' mastery of material in every course is evaluated by graded performance. Program area assessment teams discuss performance criteria for the courses. Portfolios contain examples of graded student work as well as course syllabi that define performance standards. Additional information is collected through Senior Exit Surveys and Alumni Surveys. Course surveys are also administered regularly to ensure effectiveness, and the department administers a survey every semester to determine the effectiveness of the faculty advisors.

Results from the graduating Senior Exit Survey indicated a high level of satisfaction with achievement of desired program outcomes. In general, less than 15% of students each semester indicated that they were dissatisfied with their level of competence in any area. Where areas of concern are identified, faculty meet to discuss possible solutions.

In the Fall of 2004, 67% of students, on the Advisor Survey, were either satisfied or very satisfied. In the Spring of 2005, 39% of students were satisfied or very satisfied. As a result, the department chair contacted individual students for their inputs for further actions. During the discussions, it appeared that, in general, students were satisfied with the advisement procedure. Some concerns about availability were mentioned and, as a result, the department now encourages faculty to post times for advisement sessions for that students can sign up.

Social Work
Social Work students, in all curriculum areas, overwhelmingly earned grades of "B" or better. Performance in research courses was better than in the previous year, but mean grades still indicated that students, generally, find these courses to be more difficult than other curriculum areas.

Specific learning objectives are developed for each required course in the curriculum, and, at the end of each term, students are asked to report on how well the course contributed to their meeting the learning objectives. During the reporting year, 174 objectives in 31 courses were scored. For 128 of the objectives, at least 80% of the students rated the course contribution at level 4 or 5 ("good" or "excellent.")

The College administers an Alumni Survey. On the most recent survey, 78% of graduates indicated they were currently employed in social work related positions. Over 60% of the respondents reported that their MSW degree prepared them well for their job. Faculty, courses, and field placements were the three most often noted strengths of the program. Requests for additional content, help preparing for the licensure exam, and more electives were the three most often indicated areas for improvement.

Pharmacy/Pharmaceutical Sciences
Students in these programs are expected to demonstrate effective communication skills, knowledge of drug action, and effective clinical reasoning skills. Additionally, students are expected to demonstrate professionalism and practice management skills.

Information is collected via an exit interview, preceptor survey, and employer survey. Additionally, faculty meet to discuss how well, as a group, students are meeting the objectives of the program, especially in the areas of written and oral communication.

Students reported adequate drug knowledge skills but were concerned with their knowledge of drug interactions. In response, a drug interaction elective course was added to the curriculum.

The overall first-pass rate for all students who have finished their Pharm D at USC is 99.8% compared to the national average of 89%. USC students also score at or above the national average on individual test results.

Title II of the Federal Higher Education Act of 1998

Information regarding Title II is not yet available from the State Department of Education. When the information is released to the University, it will be available at: www.ed.sc.edu.

Policies and Procedures to Ensure that Academic Programs Support the Economic Development Needs in the State by Providing a Technologically Skilled Workforce

As part of its mission, the University is resolved to enhance the industrial, economic, and cultural potential of the state so that South Carolina and the University can prosper together. All USC campuses play a vital role in the economy of South Carolina. A study by the Division of Research in the Moore School of Business that quantifies this economic impact can be found at http://kudzu.ipr.sc.edu/effectiveness/uscimpact.pdf

Since 1993, the University has included a technology and computer use goal in its *Eleven General Education Goals* that were established by the Provost's Assessment Advisory Committee. The goal states that students will be able to use computers and other technology to perform tasks appropriate to their major fields. Each college is responsible for establishing minimum standards that students must meet before graduation, outlining the courses offered that help students learn these skills, and how the skills are assessed. This information is available at http://kudzu.ipr.sc.edu/assessment/compskills. To reach the goal, students are expected to use computers to create, edit, and revise written texts, analyze quantitative data, access information and databases, integrate graphical, visual, and statistical information into written presentations, and send and receive electronic communication.