

# **STRATEGIC PLAN**

***Building Excellence in Research, Graduate Programs and Economic Development at SIUC***

**Office of the Vice Chancellor for Research  
and Graduate Dean**

including the:

**Graduate School**

**Office of Research Development and Administration (ORDA)**

**Office of Economic and Regional Development (OERD)**

**Coal Research Center (CRC)**

**Cooperative Wildlife Research Laboratory (CWRL)**

**Fisheries and Illinois Aquaculture Center (FIAC)**

November 17, 2004



## Introduction

This 2004 Strategic Plan evolves from the Master Plan for the Graduate School of Southern Illinois University (SIUC) drafted in 2000. Since then, many of the original Plan's goals and objectives have been achieved and several major developments warrant its revision. The first of these developments was the creation of the Office of the Vice Chancellor for Research and Graduate Dean (OVCR/GD)—formerly Associate Vice Chancellor for Academic Affairs and Research and Dean of the Graduate School—in late 2001. The second was the creation, in 2002-2003, of a long range plan/vision for the University, **Southern at 150: Building Excellence Through Commitment**. Third, the reporting line for the Office of Economic and Regional Development was transferred to the OVCR/GD in Fall 2003.

The mission of the OVCR/GD is to lead the organization and administration of all graduate programming, research and creative activities, and economic development efforts (including technology transfer) of the University. The primary responsibilities of the OVCR/GD are to: support and integrate the research (including that done by undergraduate students), graduate education, and service missions of the University to promote academic excellence; facilitate the sharing of knowledge and expertise in order to enhance economic development—including that derived from University-based research—in the southern Illinois region and beyond; and promote responsibility in the conduct and administration of these activities.

The primary elements of this Strategic Plan derive from the aspirations of **Southern at 150**, the campus planning document that established the overall goal: *to articulate a series of commitments and actions that will place us among the top 75 public research universities by the year 2019, our 150<sup>th</sup> anniversary, while we continue to provide the foundation for academic, economic and social progress in Southern Illinois*. This document outlines, within the framework of **Southern at 150**, the OVCR/GD strategy for pursuit and achievement of excellence, based on *the highest national or international standards*, in graduate programming, research/scholarship, and economic development activities, in order to benefit our primary stakeholders: our students (both graduate and undergraduate), the University (including the faculty), and the citizens of Illinois.

## Background

At SIUC and most other universities, research is defined in the broadest sense as those activities that create new knowledge, ranging from scientific inquiry, to scholarship in the social sciences and the humanities, to creation of works of literature or art. Research, scholarly/creative activity, and research training (all hereafter referred to as "research/scholarship" for simplicity) are generally considered to be the most important determinants of the reputation of a research university. That reputation affects the success of virtually all aspects of the institution, including the ability to recruit and retain high quality students and faculty, and the ability to attract resources. These factors in turn influence the overall quality of the education that an institution can provide. Research excellence also provides manifold benefits to both graduate and undergraduate students, the university, and the region, as described in greater detail elsewhere (1, 2), through enhanced educational opportunities for students, budgetary enhancements for the university, and regional economic impact via new resources and business creation stimulated by research activity. As the only Carnegie Doctoral/Research-Extensive university in the southern half of Illinois, SIUC is in a unique position to provide these impacts to the southern Illinois region.

Faculty initiate and manage almost all of the research/scholarship conducted at SIUC. Excellent faculty in sufficient numbers are perhaps the most important component of research productivity, and therefore the reputation, of the University. The Washington Advisory Group's (WAG) evaluation of the SIUC research enterprise noted that "Undoubtedly, the single most important thing that SIUC will have to do to achieve its vision is to recruit outstanding researchers and build necessary critical mass," and that "recruiting outstanding faculty is the principal mechanism for assuring research quality, and the University must arrange its priorities so that it succeeds in this competition."

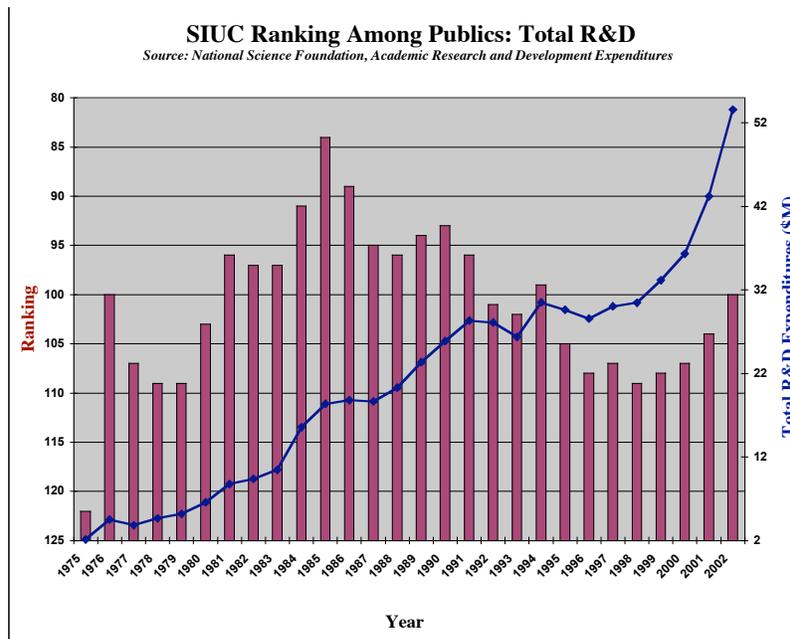
At the same time, in many disciplines the majority of research is conducted by graduate students, along with post-doctoral associates and research staff. Graduate students therefore contribute substantially to campus-wide research/scholarship productivity, as well as to the instruction and service missions of the University. Enhancement of research/scholarship on campus requires growth in our graduate programs, as also proposed in **Southern at 150**, targeting 6000 students by 2019. Further, graduate students are one of the important products of the University and provide societal benefits that extend far beyond their graduation date. The size of our graduate student body is significantly influenced by the total level of financial support available for graduate assistantships, as 55 percent of SIUC graduate students have such support (the percentage is generally higher at higher-ranked research universities) from one of three sources: teaching assistantships (TA), research assistantships (RA), and fellowships. Clearly, growth in our graduate student body will require growth in these sources of support.

In FY02, the OVCR/GD area sponsored a RAMP proposal to increase graduate assistantship stipends by 10 percent. This proposal was approved by the Graduate Council and included in the FY03 RAMP document as the campus' highest priority. Subsequently, graduate assistantship stipends have tracked the salary increases of the current faculty contract. Continuation of this practice will lead to compounded increases totaling 8 percent beginning in FY06. The OVCR/GD area also sponsored a \$1.2M RAMP proposal in FY03 to increase the *number* of teaching assistantships on campus by 10 percent. In FY03, the Chancellor committed \$1.2M of new tuition dollars to graduate assistantships. Although budget cuts in the colleges in FY03 offset this increase, the Chancellor has challenged Academic Affairs to reallocate funds so that assistantship levels are increased by ~\$1.2M over FY03 levels beginning in FY05. In FY05, these two proposals were combined into a \$1.7M proposal with roughly equal halves intended for stipend increases, and for increasing assistantship numbers; this request remains in the FY06 RAMP document.

The overall goal of the OVCR/GD is to promote campus-wide excellence in research/scholarship, graduate programs, and economic development for the region. This goal is clearly intertwined with the **Southern at 150** goal of achieving top 75 public research university status, along with that for providing the foundation for academic, economic and social progress in Southern Illinois. The most reliable measure of a university's research ranking is based on its annual research and development expenditures, and particularly on its federal R&D expenditures (3).

As shown in the following graph, SIUC's total R&D expenditures languished in the 1990s, causing this ranking to degrade from a high of 84 in 1985, to 109 in 1998. Federal R&D expenditures mirrored this trend, although the ranking approached 150, indicating a lower level of success with federal R&D than is typical of research universities. Also shown in the graph are

data for 1999 forward, indicating a significant growth in total R&D expenditures, and as a result, steady improvement of SIUC's ranking to 100 in 2002.



In addition to R&D expenditures, other measures of research competitiveness include endowment assets, annual giving, national academy membership, faculty awards, doctorates awarded, postdoctoral appointees, SAT scores and national merit and achievement scholars (3). Where applicable, the OVCR area must promote enhanced success in these areas, as well.

### Preliminary Planning Efforts

To assist with planning toward the top-75 goal of **Southern at 150**, in FY03 the OVCR/GD contracted the Washington Advisory Group (WAG) to provide evaluation and guidance regarding the research enterprise at SIUC, particularly as related to the sciences and engineering. Among the recommendations of WAG were: 1) strategic planning, 2) hiring “hundreds of [additional] research productive faculty,” 3) focusing “efforts on a limited number of interdisciplinary research areas or thrusts and attempt to achieve demonstrable excellence in those rather than try to spread its limited resources broadly across the institution,” 4) addressing research space and infrastructure needs, and 5) conducting a successful development campaign, not only to compensate for reductions in state support, “but also to build faculty quality and research infrastructure.” On the basis of this feedback, current areas of research emphasis include biotechnology, energy and environment, materials, and neuroscience. Other focus areas may emerge, such as those related to the Mississippi Delta initiative, or from other studies currently planned.

To complement the WAG report, a study of the arts, humanities, and social sciences was completed in the summer of 2004. Among the recommendations of this group were to: 1) have units engage in strategic planning, 2) provide dedicated research support at the college level, 3) hire internationally-renowned, research-active faculty at the full professor level, and 4) improve communication with the colleges regarding the goals of **Southern at 150**.

During AY2004, the Graduate Council discussed the WAG report and subsequently passed a resolution urging the administration to develop a long-range plan for hiring additional faculty and graduate students. A plan proposing commitment of \$1M/year in new funds for ten years to a faculty hiring initiative was developed and approved by the Chancellor. This plan is intended to provide sufficient funds to create 150 new faculty lines, which would be augmented by an additional 50 lines generated from comprehensive campaign activities. Implementation of this plan will have a transforming impact on the University and its efforts to achieve the goals of **Southern at 150**. Initiation of this implementation began in the fall of 2004.

In terms of the four focus areas outlined above, research centers are important in promoting interdisciplinary research and exist for several of these areas. The Coal Research Center (CRC), Fisheries and Illinois Aquaculture Center (FIAC), and Cooperative Wildlife Research Laboratory (CWRL) reporting to the OVCR/GD fit within the energy and environment rubric. The Materials Technology Center and the Center for Advanced Friction Studies focus on the materials area, and it is anticipated that the pending Applied Physics Ph.D. program will provide further critical mass. The Cancer Center and the Center for Soybean Research, Teaching, and Outreach impact the biotechnology area. Currently, no research center directly relates to neuroscience, but the OVCR/GD is supporting efforts to establish a center for cognitive neuroscience research. As other interdisciplinary focus areas emerge, research centers can provide an important mechanism to achieve national prominence in those areas.

Research facilities are being addressed in several manners. Altgeld Hall (music) has just been renovated. Morris Library is in the final planning stages for a \$40M+ renovation. Funds for renovation of the Glove Factory facility (studio arts) have become available, including \$175,000 committed through the OVCR. A \$13M proposal to NIH for renovation of Life Science II was developed by ORDA, Physical Plant, College of Science, College of Liberal Arts, and School of Medicine staff. Approval of \$40M in state funding for the Transportation Education Center has been announced; it is anticipated that this center will include facilities for transportation-related research. The Communications Building, the Agriculture Building, and the Neckers Science Building are priorities on the capital RAMP list; the inclusion of additions to the Agriculture and Neckers Buildings will help address space needs that will arise upon implementation of the ten year strategic faculty hires initiative. We must also pursue support from other sources to address these space and related needs required to support a nationally competitive research faculty. A second tenant building is being planned for the Southern Illinois Research Park.

On the basis of this background and **Southern at 150** goals, commitments, and targets, priorities for the OCVR/GD area are to develop and implement plans and actions that will:

- promote campus-wide excellence in research/scholarship based on national/international standards,
- lead to growth in total and federal R&D expenditures in line with **Southern at 150** targets. These efforts will necessarily include emphasis on interdisciplinary focus areas and partnerships, the development of more effective and/or new research centers in those areas, and on federal sources of external support,
- increase the number of nationally/internationally research-competitive faculty campus-wide,
- retain nationally/internationally research-competitive faculty campus-wide,

- increase the number and quality of graduate students across campus, including increasing the numbers and stipend levels of available graduate assistantships and fellowships,
- encourage continuous evolution of our graduate portfolio in order to insure offering of progressive graduate education that will attract top students and address important state and national needs,
- insure that research facilities meet the needs of cutting-edge and growing research enterprise,
- enhance regional economic development, including that resulting from research/scholarship activities conducted on the campus.

Various principles support these priorities, many of which were outlined elsewhere. At SIUC, efforts to enhance the research culture campus-wide have been ongoing, but must continue. Nationally, it is well known that interdisciplinary research is generally the most competitive. Efforts to build interdisciplinary collaborations on campus (e.g., by strengthening current research centers or building new ones), and off campus (e.g., through partnerships such as the recently established Upper Mississippi Cooperative Ecosystems Study Unit, or the developing Delta Initiative) are one means for the OVCR to assist in this area, along with developing a greater statewide and national presence for SIUC in research-related organizations. Greater incorporation of research into undergraduate activities is critical to that educational process (see, e.g., the Boyer report), as well as for continued growth of graduate programs and workforce needs.

Adherence to our principles of diversity within our student populations and enhancement of the diversity of our faculty body will not only provide the educational and research benefits that accrue in a diverse environment, but will also insure that SIUC continues its rich tradition of providing higher education opportunities for underrepresented groups. SIUC has a long history for promoting/nurturing diversity in our graduate student population, from the status of the Graduate School as one of a handful of universities to be recognized with the Council of Graduate Schools' Peterson's Award for Innovation in Minority Graduate Programming, to more recent establishment of a McNair Postbaccalaureate Achievement Program through support from the U.S. Department of Education, and SIUC's selection by NSF to be the site for the Louis Stokes Alliance for Minority Participation "Bridge to the Doctorate" Program in Illinois. The time appears ripe for the development of greater focus in this area so that we may leverage even greater resources for the benefit of our minority and disadvantaged students.

The many units within the OVCR/GD provide services that must be delivered in the most effective and user-friendly manner possible, while adhering to the highest standards and regulatory/compliance codes. These services should posture our students, faculty and the citizens of southern Illinois for success. As citizens, as faculty members, and as parents of graduate students, we expect nothing less.

In concert with the overall goal of **Southern at 150** and these priorities, the units within the OVCR/GD area have developed specific strategies focused on the next five years, as outlined on the following pages. Except where indicated, the targets and strategies are general ones for the entire OVCR/GD unit, including ORDA.

1. J. A. Koropchak, P. M. Rice, J. Mead and D. Wilson, 2003, "Reinventing the Mid-level Research University," *J. Higher Education Strategists*, 1[1].
2. J. A. Koropchak, presentation to the SIU Board of Trustees, October 2004; see <http://www.siu.edu/~ovcr/news.html>.
3. J. V. Lombardi, D. D. Craig, E. D. Capaldi, D. S. Gater, and S. L. Mendonca, 2001, *The Top American Research Universities*. Gainesville, FL: The Center at the University of Florida.

---

## *Southern at 150* Commitment 1: **SEEK AND CELEBRATE FACULTY EXCELLENCE**

---

### **Aspiration:** Recruit and Retain High-Quality Faculty

*Target:* Maintain a minimum 70 percent of all faculty members with full-time status and in continuing faculty appointments

*Target:* Offer strong hiring packages

- OVCR: Continue to contribute to start-up costs
- CWRL: Recruit a new Director with a national reputation for academic and research excellence
- CWRL: Support research start-up of new staff
- CWRL: Commit overhead recovery funds to supplement start-up and travel to meetings and conferences

*Target:* Passionately recruit candidates for faculty positions from diverse backgrounds

*Target:* Retain faculty members

*Target:* Maintain student/faculty ratios, appropriate to each discipline, that are equivalent to or better than our peer institutions

### **Aspiration:** Support and Foster Faculty Excellence

*Target:* Create 50 endowed chairs and 100 endowed professorships

- CRC: Establish an endowed chair in coal/energy by 2009
  - \* Establish and update a listing of leading scholars in coal and energy areas
  - \* Develop and implement a legacy plan for the Clean Coal Review Board Program that includes appropriate provisions for support of research faculty
  - \* Collaborate with Institutional Advancement in developing corporate relationships that enhance large gift potential

*Target:* Create a new category of faculty, contract faculty

*Target:* Identify new sources of support for a well-funded system of faculty professional development opportunities

*Target:* Faculty should increase and enhance collaborative and cooperative initiatives across disciplines

- Encourage the development of interdisciplinary research centers on campus
- Initiate an internal Interdisciplinary Grant program
- Encourage far greater use of courtesy appointments of faculty in related departments in order to encourage interdisciplinarity through facilitated access to students, teaching, seminar presentations, equipment, and other resources
- Take greater advantage of Organization for Tropical Studies and similar existing affiliations
- Make the Promotion and Tenure system more friendly to interdisciplinary research
- Initiate informal social gatherings of faculty from multiple colleges to discuss research
- Hold meetings of all Directors of centers to exchange information on activities, equipment, etc. and promote interdisciplinary collaborations
- CWRL: Maintain and increase involvement in the recently developed Center of Ecology

- CWRL: Explore desirability and feasibility of collaboration in establishing an SIUC Center of Natural Resources
- CWRL: Increase staff participation in interdisciplinary research proposals to 20% of all proposals (5 yr)
- CWRL: Refine and resubmit the cross-disciplinary IGERT proposal

**Target:** Award outstanding faculty the title Distinguished University Professor

**Target:** 90 percent of our faculty should teach at both the graduate and undergraduate levels

### **Aspiration:** Construct Excellent Faculty Reward Systems

**Target:** Establish faculty salaries comparable to those of our peer and aspirational peer institutions

- Develop a procedure for rigorous review of the productivity of full professors, who suffer serious salary compression, in order to award them out-of-season salary increases

**Target:** Maintain high standards for tenure

**Target:** Develop merit systems

- Develop an awards program – the Vice Chancellor’s Prize, perhaps \$1000 -- that increases the visibility and recognition of research success
- Have an annual research recognition ceremonies and banquet to honor productive faculty, along with those who were awarded patents
- Establish some version of a “Millionaire’s Club”
- Develop policies for reduced teaching loads for grant-active faculty
- Guarantee travel funds to match travel funded by a grant
- Provide more matching funds for proposals (e.g., travel funds even if not required)

### **Aspiration:** Establish a Center for Teaching Excellence

**Target:** Cultivate an environment of learning where high-quality teaching forms the standard

**Target:** Pursue federal, state, and private support for the Center

**Target:** Become a national model in the preparation and training of faculty and graduate assistants; the Center for Graduate Teaching Excellence (CGTE) will

- Work with other initiatives on campus
- Continue to expand activities throughout the year
- Develop a mentoring program as a part of teaching assistant training
- Revise the annual summer workshop
- Work closely with departments that have extensive teaching assistant training programs to improve and enhance these programs
- Encourage departments without systematic training programs to develop them
- Work with the Center for English as a Second Language to improve further teaching skills of international students
- Consider creating a localized Preparing Future Faculty program in conjunction with local community colleges and regional four-year institutions as a part of the center’s activities
- CWRL create a 2-3 week intensive summer course, Advanced Techniques in Field Research, at an off-campus location (5 yr)

**Target:** Foster a strong peer relationship between faculty and graduate assistants to encourage Collaboration

- CWRL: Modify Z588 (wildlife seminar) format to enhance GA and faculty interaction and collaboration; include mechanism to promote informal interaction component

**Target:** Establish a core curriculum that is nationally known for instructional innovation

***Target:*** Promote internationalization of the undergraduate and graduate curricula

---

## *Southern at 150* Commitment 2:

### **LEAD IN RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES**

---

#### **Aspiration:** Top 75 Public Research University

- ORDA: Improve internal and University procedures and web-based information exchange services for PIs
  - \* Implement electronic form routing and signatures
  - \* Implement electronic grants management software
  - \* Improve account set-up procedures, particularly the process for setting up advance accounts (perhaps make it automatic for continuing grants)
  - \* Equipment –no one knows what is here or the kinds of analyses that colleagues might be able to help with. Make a list of available multi-user equipment list on the web or in a brochure.
  - \* Also, create a list of equipment to be surplused
  - \* Help with costs of service contracts for equipment (especially if it is available campus-wide)
  - \* Prepare institutional boilerplate for big proposals
  - \* Software and databases – widely disseminate the IT list of available software and databases, etc., that the University has that are licensed for sharing
  - \* Encourage Morris Library to provide more full-text on-line journals
  - \* To foster interdisciplinary research, promote awareness of colleagues’ activities through a searchable “research clearinghouse” on the web
  - \* Have a column in *Research Matters* and on the web that is a “Call for Collaborators” for PI to list projects that need interdisciplinary collaboration
  - \* Move at least part of RPFM to ORDA
  - \* Meet periodically with the travel, personnel, and accounting to streamline procedures
  - \* Improve research-related compliances in all areas, including training programs
  - \* Update all research-related policies regularly according to best practices[All this might mean we need a full-time web person in ORDA and a shared ORDA/GS web programmer]
- ORDA: Develop new kinds of internal funding opportunities
  - \* Interdisciplinary grants program (see above)
  - \* A Faculty Development Fund - for travel to funding agencies, publication subventions, page charges, cost of color illustrations, catalog publication, rental of recital halls, and other research/creative activity-related expenditures
  - \* An internal “New Investigator” or “CAREER” grant modeled after the NSF programs.
  - \* Competitive summer salary grants (one-month, from overhead returns) for faculty developing proposals, as we do for faculty developing new courses
- FIAC: Be widely recognized as a top-10 fisheries program in nation
  - \* Recruit outstanding faculty, postdocs, and graduate students
  - \* Be one of the most highly visible universities within relevant professional societies (AFS, SETAC, WAS)
  - \* Place graduates and postdocs in prestigious positions

**Target:** Increase the total R&D expenditures by 11 percent per year. Increase the federal R&D expenditures by 13 percent per year

- CRC: Become the highest funded U.S. university in coal research
  - \* Implement the revised proposal and project support activities begun in FY04
  - \* Establish an initiative to increase department and college capabilities in proposal development.
  - \* Enlarge the faculty briefing program to use the most effective electronic communications as well as periodic campus meetings
  - \* Establish a continuing presence in Washington, DC with full-time staff dedicated to research funding.
  - \* Establish a nationally recognized conference series that attracts leading government and industry

- decision makers. Place faculty in high profile roles in the conference series
- \* Place faculty in reviewer and advisor positions in key federal programs
- \* Establish proposal and project review for all externally funded coal and energy activities.
- CWRL: Increase number of RAs supported by contracts/grants to minimum 20 on campus; maintain graduate student support of 25-30, with an appropriate proportion of doctoral students; staff should maintain long-term annual average of support for 4-6 students
- CWRL: Increase staff effort to acquire federal grants
- CWRL: Maintain an average of 2-3 publications per PI per year
- FIAC: Meet or exceed goal using CY02 as baseline

**Target:** Identify, pursue, and obtain new sources of external grant and contract funding

- AVCR visit all colleges and centers to discuss research, COS, etc.
- Apply for more federal equipment and infrastructure grants
- Increase the total R&D expenditures by 11% per year - Be in the top 95 publics by 2009; top 85 by 2014; top 75 by 2019
- Increase the federal R&D expenditures by 13% per year - Be in the top 100 by 2009; top 85 by 2014; top 75 by 2019
- Target new faculty opportunities especially; e.g., CAREER awards
- Encourage pursuit of external funding sources for supplemental sabbatical salary
- VCR (and AVCR?) travel more frequently to federal agencies and Congresspeople in order to increase federal earmarked funding
- Hold intensive workshops on proposal writing
- CRC: Expand the funding base for coal research
  - \* Establish a continuing presence in Washington, DC with full time staff dedicated to research funding
  - \* Establish research consortia with top universities, national laboratories and other research institutions  
Such collaborations should take advantage of SIUC's comprehensive approach to coal R&D and attract participants that may be somewhat isolated in other institutions
  - \* Provide a continuing travel fund pool for faculty
- CWRL: explore avenues of greater participation in the Delta Regional Authority leading to partnerships and new funding opportunities
  - \* Support reauthorization of the Delta Regional Authority Act of 2000
  - \* Lobby for a new subtitle to create a Federal Grant program that prioritizes environmental and natural resources issues
- CWRL: Lobby Illinois congressional delegation to reauthorize legislation and add an appropriate subtitle. Work through NASULGC (CFERR) to develop partnerships
- CWRL: Use current internal resources to begin support of M.S. or Ph.D. students, then encourage them to write and submit their own grant proposals in an effort to increase external grant funding as well as develop student grant-writing abilities (5 yr)
- CWRL: Explore the potential for acquiring funding from individuals interested in environmental research (5 yr)
- FIAC: Add at least one new source of funding each year
- FIAC: Develop a brochure highlighting research capabilities

**Target:** Develop incentive-based reward systems to encourage faculty to secure external grant funding

- FIAC: Award merit primarily based on grantsmanship and research productivity

**Aspiration:** Enhance the Culture of Research and Scholarship

- Hold annual "Town Meetings" about research and graduate education activities and accomplishments
- Hold a "Roles and Responsibilities" workshop for Faculty Chairs about research
- Develop an internal, university-wide, faculty advisory group for research
- Provide research familiarization tours to Board of Trustees

- Increase pages and information in the *Annual Research Profile*
- Strengthen collaborative relationships with OERD, SouthernTECH, the Southern Illinois Entrepreneurship Center, and the Research Park
- Provide a more intellectually stimulating orientation program for new faculty that focuses on academic life and research/scholarly/creative activity
- Sponsor – or encourage faculty in a certain area, such as a listserv, to organize – research retreats, where lab gives brief reports, invites guests, has lunch or dinner, etc.
- Initiate a Vice Chancellor for Research Laureate Lecture Series

**Target:** Enhance and develop existing and new centers of research, scholarship, and creative activity excellence, consistent with our academic aspirations

- Develop new centers, such as: Latin American Studies; Nanotechnology/Sol-Gels; Energy; Ecology; Neuroscience; Gerontology; Wetlands (the new environmental station on the Miss. R); Documentary Center; Center for southern Illinois regional heritage; School or Center for Natural Resources
- Enhance existing centers and support facilities: meet infrastructural needs for new space, equipment, etc.
- Closely monitor cycle for major center grants, like Keck, NSF, etc.
- CRC: Establish The Center for Energy Systems of the Future. (2009)
  - \* Further refine plans for the Center for Energy Systems of the future as needed to obtain congressional action and USDOE support
  - \* Initiate proposal and negotiations needed to be awarded the Center for Energy Systems of the Future from the federal government, including the development of research consortia
  - \* Secure continued funding through federal, industry, international and state sources.
- CRC: Build a Coal Development Park facility that will meet the needs of a national coal and energy center and project the stature of a top 75 university. (2014)
  - \* Conduct an evaluation of facility capability and needs. Identify alternatives to the present location if necessary
  - \* Develop a detailed strategic plan for new and expanded facilities. Coordinate this plan with local and regional economic development aspirations where possible
  - \* Revise the current property use agreement with the federal government
  - \* Place facility needs in the RAMP process and other long-lead-time funding sources
  - \* Secure funding through state, federal and corporate contributions. Coordinate private gift campaign through Institutional Advancement
- FIAC: Develop “Campus Lake Initiative”
- FIAC: Develop Touch of Nature/Little Grassy Lake field station
- FIAC: Assist in developing Middle Mississippi River Wetland field station

**Target:** Develop interdisciplinary, interuniversity, and University-industry partnerships; increase Funding 200 percent

- FIAC: Maintain one or more university-industry partnerships
- FIAC: Be an active member of the “Middle Mississippi Partnership”
- FIAC: Obtain new research dollars through the CESU

**Target:** Commit to marketing the intellectual property of our faculty; increase licensing by 1,000 percent

- Work closely with SouthernTECH and the Entrepreneurship Center on start-ups
- Hold more frequent workshops on patenting, licensing, and start-up issues
- Encourage collaboration, internships for students, and related activities with the College of Business, School of Law, and other University units
- Increase participation in the NCIIA programs and involve Engineering, Science, Law, Business, Economics

- Develop interdisciplinary, inter-University, and University-industry partnerships; increase funding from such partnerships by 200%
- Seek more NSF-PFI grants
- Seek more SBIR/STTR grants
- Develop a computer-based tracking, management, and reporting system
- Increase inventor recognition
- Set goals and objectives with primary and secondary success measures
- FIAC: Obtain one or more patents and one or more licenses for each

**Target:** Seek new domestic and international training grants

- Encourage more NSF training grants
- Work with Colleges of Science, Engineering, Education, and Applied Sciences and Arts
- CRC: Become recognized world-wide as the most innovative center for coal industry training
  - \* Evaluate marketing and instructional technology trends in collaboration with relevant University departments
  - \* Develop a comprehensive plan for updating and expanding the current industry training program. Integrate CRC training with campus academic programs where appropriate
  - \* Phase in new instructional technology

**Aspiration:** Become the Best Student-Responsive Public Research University in Illinois

**Target:** Increase the number of internship opportunities

- Create a central office for internship coordination
- Become a member (if we are not already) of the national Cooperative Education and Internships Association
- CWRL: Explore the potential of creating an undergraduate internship program for the IDNR or alternative state, federal, or NGOs and agencies (5 yr)
- CWRL: Provide faculty mentoring and academic credit (Undergraduate Assistantships, Honors Research, Independent Research, ZOOL 393) for undergraduate interns
- CWRL: Implement an undergraduate intern program that would provide seasonal help to state and local conservation agencies and NGOs. Respond to agencies' needs by recruiting, screening, training, and administering payroll for participating students (including arrangement for overhead recovery)

**Target:** Increase research-focused scholarships; increase funding for student workers

**Target:** Develop new and enhance existing programs to incorporate research into undergraduate academics; increase by 100 percent the undergraduate research opportunities for minority and female students

- Hire a staff person to run the undergraduate research program (REACH)
- Improve the Honors Program
- Integrate research into the Core Curriculum
- Develop a scholarship/research program like SIUE Chancellor's Scholarships
- Participate actively in CUR and NCUR, with student papers and posters at meetings, etc.
- Increase the visibility of the Undergraduate Research Forum – get more judges; make a video of it; schedule it to coincide with Board of Trustee meetings; keep winning posters and set them up whenever there is a BOT meeting on campus, also at Open Houses for student recruitment, and at Parents Weekend
- Apply for GAANN grants
- Visit local/regional science fairs, history fairs, etc.; participate in the Junior Scientist Forum
- Send undergraduate researchers to high schools to discuss their experiences
- Enhance the McNair program

- Encourage service learning projects that incorporate research
- Work with Continuing Education to develop summer research camps for high school students as an aid to recruiting these students
- FIAC: Expand opportunities for undergraduates by 50 percent
- FIAC: Expand opportunities for minority and female undergraduates by 100 percent
- FIAC: One or more faculty will participate in the Honors Program

**Target:** Create a thesis and dissertation grant program

- Create an internal thesis and dissertation grant program for one-time expenses

**Aspiration:** Increase Giving to Support Research, Scholarship, and Creative Endeavors

**Target:** Target fundraising for specific research-related enhancements

- CWRL: Explore potential of acquiring funding from individuals interested in environmental research (5 yr)
- CWRL: Enlist services of SIUC Foundation staff to support a waterfowl/wetland research initiative
- CWRL: Use Klimstra Fellowship as a significant cost-share component (>\$16,00/yr) to maximize grant support from outside funding sources

---

## *Southern at 150* Commitment 3:

### **OFFER PROGRESSIVE GRADUATE EDUCATION**

---

#### **Aspiration:** Achieve Excellence in Graduate and Professional Programs

**Target:** Provide additional resources to enhance and/or develop an array of graduate programs at the master's level

- Develop new master's programs in areas of high demand, gerontology for example
- Support bachelor's programs that need to transition to master's level programming to maintain licensure requirements for their students
- Encourage the development of five-year bachelor's/master's programs

**Target:** Maintain an appropriate balance of Ph.D. programs

- CWRL: Maintain a 1:4 ratio of Ph.D. to M.S. students
- CWRL: Maintain funding for 1-2 Post-doc researchers (5 yr)

**Target:** Increase by 100 percent the number of qualified applicants for graduate study

- Increase the number of graduate students in master's programs by at least 50 percent over the next ten years
- Work with doctoral programs to increase enrollments by 20 percent to maintain a Ph.D. to master's ratio of 1 to 4
- Increase the number of undergraduate students close to graduation taking courses for graduate credit; work with departments to identify students suitable for such a program
- Support ORDA's initiatives to enhance the number of undergraduate students engaged in research
- Continue to work with Peterson's and/or equivalent organizations to increase the pool of highly qualified applicants
- Create a fund to assist departments to bring in outstanding graduate student candidates for campus visits
- Continually monitor and improve our web presence
- CWRL: Increase number of graduate students in the program to ca. 30, with a goal of 4-6 per faculty

**Target:** Continually assess the academic strength and reputation of the graduate and professional program inventory as a whole

- Continually assess in conjunction with the Graduate Council the strengths and weaknesses of existing programs
- Identify weak programs and either find resources to strengthen these programs or take appropriate steps to eliminate such programs
- Reward outstanding master's programs
- Strengthen existing Ph.D. programs across campus
- Work closely with doctoral programs selected to participate in the National Research Council doctoral review study
- Reward Ph.D. programs with high national rankings
- Support departments that wish to develop new certificate programs, especially encouraging interdisciplinary initiatives that cut across department and college boundaries
- Work with colleges to create additional Ph.D. programs in Agriculture, Engineering, and the Sciences in high demand areas with a focus on interdisciplinary initiatives
- Decrease time-to-degree of graduate students in doctoral programs; in the past decade the time-to-degree for many programs has increased at an alarming rate
  - \* Pay close attention to and participate in national studies to find ways to reverse this trend

**Target:** Communicate the value of graduate and professional education, and the successes of our

students

- Identify and communicate the accomplishments of outstanding students and graduate faculty to a wider community
- Demonstrate the value of graduate education to the economic development of the region and the State
- Explore ways to educate the legislature and the community on the value of research and graduate education
- Create an outstanding graduate alumni award to be presented to a doctoral recipient who has achieved national prominence; present the award during the May graduation ceremony
- CWRL: Create an Outstanding Wildlife Student of the Year award
- CWRL: Increase the number of student presentations at regional and national meetings
- CWRL: Increase the number of student-authored papers in peer-reviewed literature
- CWRL: Publicly recognize major personal and professional events for graduate students: grants received, papers published or presented, etc.

### **Aspiration:** Acquire Funding to Recruit and Retain Graduate Students

- Continue to improve the support services provided by the Graduate School to departments and colleges
  - \* Have a fully functional web-based electronic application in place during FY05
  - \* Continue to expand web-based registration for graduate students and consider how to reorganize the registration office
  - \* Improve advising for nondeclared students
  - \* Find resources to assist departments to keep graduate program information current on their web sites
  - \* Continue to assist programs with recruiting activities, attend appropriate regional fairs, and work on international recruiting
- Maintain and enhance programs designed to recruit high quality students from underrepresented groups for our graduate programs
  - \* Double the resources for the PROMPT program and increase the number of Graduate Dean's Fellowships from 6 to 10 over the next five years
  - \* Continue to administer the state-wide IMGIP/ICEOP Fellowship program and to provide IMGIP/ICEOP fellows on this campus with a 25% teaching assistantship in their second year; work closely with these programs to attract outstanding graduates to apply for faculty positions on the SIUC campus
- Recruit high quality international students to participate in our graduate programs
  - \* Work with programs to identify outstanding international students to bring to campus
  - \* Work with International Programs and Services to assist with the orientation and transition to campus life for international graduate students
- CWRL: Take greater advantage of the PROMPT and other graduate minority recruitment programs

**Target:** Secure funding so that a minimum 75 percent of our full-time graduate and professional students are on graduate assistantships or fellowships

- Increase the number of Research Assistantships by 750 over the next ten years; encourage (require?) faculty applying for federal research grants to include tuition and fees for students when permissible in addition to stipend dollars
- Add at least 500 new teaching assistantship lines to colleges over the next ten years
- Increase TA and RA stipend rates to the level of our peers over the next ten years
- Increase the number of university-wide master's fellowships from 25 to 50 over the next ten years
- Increase the number of university-wide doctoral fellowships from 20 to 25 within the next ten years
- Find the means—perhaps through the capital campaign—to provide each Ph.D. program with one doctoral fellowship per year within ten years
- Increase the number of Morris Fellowships to five per year with a five-year commitment and increase the stipend level to \$25,000 within the next five years with funds from the capital campaign
- Enhance funding for dissertation research awards to provide a minimum of two awards to each college and increase the total number of awards by 10 within the next five years
- FIAC: Fund all graduate students in program for a minimum 2 years for MS and 4 years for PH.D. with graduate assistantship, fellowship, or other comparable employment

**Target:** Double the number and dollar amount of graduate student stipends

**Target:** Match peer institutions in major external scholarships awarded to our students

**Target:** Allocate a portion of all increases in graduate tuition to graduate student scholarships

- Create a fund to assist students with one-time special expenses for their thesis/dissertation project
- Enhance travel support for graduate students making presentations at professional meetings

---

## *Southern at 150* Commitment 8:

### **SERVE OTHERS**

---

#### **Aspiration:** Reaching Out

**Target:** Provide both traditional and continuing education opportunities for professionals, evolving employment sectors, and for students

- CWRL: Update the Lab website to better explain our mission and include an entirely new outreach program focusing on educating the public about wildlife and showcasing SIUC's capabilities
- CWRL: Assess the feasibility of developing or hosting topical workshops or short courses for regional biologists at the state and federal levels
- CWRL: Increase undergraduate involvement in research
- Provide annual workshops for regional resource managers (5 yr)
- CWRL: Develop web-based environmental education resources (5 yr)

**Target:** Offer education and training activities for a variety of pre-adult age groups

**Target:** Coordinate and expand our major cultural outreach programs

**Target:** Facilitate campus use by nontraditional enrollees

**Target:** Provide medical, dental, and social services to at-risk populations through service-learning and outreach activities

#### **Aspiration:** Economic Development in the Region Driven by Our Research and Scholarship

**Target:** Add new buildings, jobs, payroll, and an \$80M economic impact in the Southern Illinois Research Park (SIRP)

- OERD: Add 60,000 square feet of new buildings, 300 knowledge-based jobs, a \$10 million payroll and a \$20 million economic impact in the Southern Illinois Research Park by 2009

**Target:** Establish a center for global interaction and development

**Target:** Develop and market cultural, scholarly, and research activities; sustain partnerships with business and industry

- OERD: Implement Southern Illinois Research Park "affiliates" program
- OERD: Utilize SouthernTECH to "spinoff" university research and technology startup companies

**Target:** Lead in development of regional human and financial capital needed for economic and business development

- OERD: Market the services of the Southern Illinois Entrepreneurship Center to the region
- OERD: Lead in development of new financing programs; establish regional (southern Illinois) equity fund and increase new business startups.

#### **Aspiration:** Leadership in Regional Development

**Target:** Lead in research, development, and promotion of the retirement industry for the region

- OERD: Take leadership in establishing regional retirement industry promotion and marketing working groups in the region. Enroll key healthcare, university and regional leaders in the group

- OERD: Assist local developers in research, planning and financing of at least four (4) new retirement facilities in the region

**Target:** Support the enhancement of medical services

- OERD: Utilize OERD and CRHSSD to conduct at least three (3) research or feasibility projects related to regional healthcare expansion
- OERD: Explore the feasibility of a regional “healthcare alliance” to coordinate efforts to retain and expand healthcare services in the region

**Target:** Utilize key university programs and resources to assist in the development of the coal, energy, and manufacturing sectors in the region

- CRC: Establish the Coal Development Park as an anchor to regional economic development. (2014)
  - \* Integrate CRC planning into University land-use plans for Williamson County holdings
  - \* Identify possible land needs for CRC activities
  - \* Develop capabilities to support economic development through the establishment of a technology park on the unused Carterville campus. Reallocate space to support this effort (with revision of federal property use agreement)
- OERD: Work with the SIUC Coal Research Center to conduct research and analysis in support of FutureGen, the Energy Center of the Future and “other” major energy-related projects with potential for significant positive economic impact in the region
- OERD: Work with IMEC to maintain and/or expand IMEC’s technical assistance outreach services to regional manufacturers
- CWRL: Collaborate with CRC to ensure environmentally responsible development of energy resources
  - \* Outline and develop a proposal for inventory and assessment of sensitive natural resources (wetlands, unique habitats) that occur within potential coal/energy/industrial development zones in the region
  - \* Identify future wetland mitigation and buffer zones required for mitigation of proposed energy and economic development and infrastructure in southern Illinois

**Target:** Research, develop, and promote unique opportunities for tourism and travel development in southern Illinois

### **Aspiration:** Shape Cooperative Ventures

**Target:** Expand and increase co-op and intern placement programs

**Target:** Continue to build partnerships with community colleges

**Target:** Solidify the relationships among the entities that comprise SICCM and SIHEC

**Target:** Develop consortia with the private sector

**Target:** Partner with community developers

### **Aspiration:** Infuse University Pride Throughout the External Environment

**Target:** Establish a central communications and marketing office

**Target:** Communicate the image and perception of SIUC as a student-responsive residential research Institution

- CWRL: Explore feasibility of establishing a multidisciplinary wildlife monitoring program for the SIUC campus
- CWRL: Work with Media communications to encourage campus and local newspapers (with our assistance) to publish stories on research projects that are of interest to general public

**Target:** Communicate the value of, and the University’s role in, graduate and professional education and research

- ORDA: Work with WSIU to create 60-second news bits on student/faculty research activities and to develop some research-related intellectual content for public relations film that is shown on TV in connection with sports events: e.g., basketball tournaments
- ORDA: Develop better communication so as to improve community-wide understanding of the SIUC research mission, its integration with education, and its regional economic importance – probably through print media
- Make sure that the region’s local, state, and federal elected officials understand the importance of **Southern at 150** plan and goals

*Target:* Information about the campus should be accurate, timely and easily accessible

- Maintain up-to-date and easily accessible information about research activity and productivity (e.g., grants data) on the ORDA website and in print publications

*Target:* Foster Saluki Pride by expanding existing and creating new networks with alumni regionally, nationally, and internationally