



College of **Education**

STRATEGIC PLAN

2008/09 THROUGH 2012/13



**Building Pathways to Improve
Learning and Living in a
Changing World**

July 2008

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COLLEGE OF EDUCATION

STRATEGIC PLAN 2008/2009 THROUGH 2012/2013

Building Pathways to Improve Learning and Living in a Changing World

Prepared by the College of Education's Strategic Plan Steering Committee¹

Executive Summary

The College of Education's Strategic Plan for the period between 2008/2009 and 2012/2013 is the result of a thematically oriented and broadly participative planning process. We received invaluable assistance from the Office of Planning and Institutional Assessment and wish to express our appreciation.

Our report begins with a description of the planning process and then sets the context for the plan by describing trends within the College as well as within the field of education. We then provide an update on the results from our last plan, which covered the period 2004/2005 through 2007/2008.

The next major section of the report describes five signature endeavors that emerged from the planning process. This section presents our plans for making each theme a hallmark for the College in the future.

Next, we identify and discuss a number of crosscutting initiatives we will be pursuing simultaneously. Some comments about assessment and accountability issues then follow, and we conclude with a discussion about how we will fund this plan through recycling and new revenues.

We highlight here the following eight concrete next steps we will take to implement this plan:

- the creation of a new Center for the Applied Educational and Developmental Sciences (CAEDS);
- the creation of an Innovation Studio;
- a commitment to upgrade existing teaching laboratories;
- a decision to make a shift in the underlying funding strategy toward providing more base support for graduate students;

¹ Members include: M. Covington, J. Herbert, J. Kulikowich, S. Land, G. LeTendre, D. McNaughton, D. Monk, and R. Zbiek.

- the creation of a program of Intervention Studies Graduate Fellowships;
- a reaffirmation of the decision to strengthen the academic dimensions of the Office of Multicultural Programs;
- the conduct of a survey of recent graduates; and
- the creation of a college-wide assessment committee.

These eight concrete steps are discussed in greater detail in the body of the report along with a host of additional complementary steps.

We welcome comments on our plan and look forward to working with our colleagues throughout Penn State to make the plan a reality.

I. Introduction

The field of education is in the midst of an exciting period where research, particularly interdisciplinary research, is making possible significant and unprecedented improvements in educational practice. The College of Education at Penn State is fully engaged in both the conduct and utilization of this type of research and has been gaining national as well as international recognition for its progress. We are proud of our track record and look forward to building on these successes as we implement the strategic plan we describe in this document.

In our previous strategic plan covering the period 2004-2005 through 2007-2008, we articulated the following five fundamental commitments that undergird our life as a college:

1. the pursuit of excellence in teaching and advising for our students;
2. the conduct and utilization of rigorous research to improve professional practice;
3. the creation of a welcoming and supportive professional climate that fosters diversity;
4. the development of effective partnerships across disciplines as well as organizational units, both within and outside of Penn State; and
5. the bold use and evaluation of electronic technologies to enhance the quality of educational experiences.

We take this opportunity to reaffirm these commitments. We see them as logical outgrowths of our mission as a College to *deepen and extend knowledge about the formation and utilization of human capabilities*. Our efforts to *deepen* knowledge lie at the heart of our lives as researchers; our efforts to *extend* knowledge speak to our desire to teach and provide outstanding pre-service as well as in-service education for a wide range of professionals in the field. Our interest in the formation of human capabilities is perhaps best known given the substantial effort we devote to the preparation of teachers, counselors, and human service professionals. But, we are also deeply involved in helping society make the best possible use of human capabilities as evidenced by our programs and research in areas like career counseling, workforce education and development, and the broad social and economic impact of education on society.

The Planning Process

In contrast to previous strategic planning efforts where we placed emphasis on developing individual plans within each of our major department and budgetary units, we decided to adopt a more thematic and cross-disciplinary approach for the development of our next plan. We are always searching for ways to build bridges among various units and programs in the College. One of our great strengths is the wide range of disciplinary orientations, areas of interest, and philosophical perspectives that we as an academic unit possess. We include physical and biological scientists, mathematicians, humanists, and social scientists who make use of a wide variety of research methodologies. This great breadth can also be a challenge as we seek to work together and pursue interdisciplinary interests. We see the thematic and

crosscutting approach to planning as a valuable opportunity to build bridges and to better position ourselves to work with other colleges and units at Penn State on broad, interdisciplinary projects.

In developing this plan, we reached out to the University's Office of Planning and Institutional Assessment for assistance. Louise Sandmeyer and Michael Dooris provided invaluable assistance along the way as we developed what turned out to be a new and innovative approach to planning. During the spring of 2007, we held an informal meeting that was broadly representative of the College to put ideas and possible themes on the table for further discussion. We created a strategic planning Web site within the College (www.ed.psu.edu/educ/for-current-faculty-and-staff/strategic-plan-folder) to share the results of this meeting and subsequent planning efforts. During the fall of 2007, we convened a College-wide planning workshop which was co-led by Louise Sandmeyer and Michael Dooris and included representatives from all the College's departments and major planning units.

We also created a Steering Committee for the strategic planning process and constructed this committee so that it was also broadly representative of the College.² The Steering Committee accepted responsibility for developing our plan and used results from the workshop to identify the following 11 themes (in no particular order): Literacy and the Arts in Education; International Programming; the Role of Evidence in the Field of Education; Teacher Education; Ubiquitous Computing, Telecommunications, and the Science of Learning; Re-envisioning Intervention Research; Improving Operations; Science, Technology, Engineering, and Mathematics (STEM) Education; Professional Ethics; English Language Learning and World Language Acquisition; and School Psychology.

The themes vary along different dimensions. Some are topical (e.g., School Psychology, Teacher Education, and STEM Education); others are more crosscutting (e.g., the Role of Evidence in the Field of Education and Professional Ethics); while still others address how we function on a day-to-day basis (e.g., Improving Operations). The themes grew out of conversations at the workshop about what is important to us as a College in meeting challenges that exist now and in the future. We see them as useful starting points in developing our strategic plan.

A study team was created for each of the 11 themes and the Steering Committee identified a lead faculty member for each team. Much to our delight, each faculty member we invited to serve as a Study Team Leader agreed to accept the leadership role. This cooperation was an early and very welcome sign of how well the faculty and staff responded to this new planning approach. Table 1 lists the names of the teams and the Study Team Leaders.

² Members include Myrna Covington, James Herbert, Jonna Kulikowich, Susan Land, Gerald LeTendre, David McNaughton, David Monk, and Rose Zbiek.

Table 1
Study Team Faculty Leadership

• English Language Learning and World Language Acquisition	<i>Patrick Shannon</i>
• Improving Operations	<i>Judith Kolb</i>
• International Programming	<i>David Baker</i>
• Literacy and the Arts in Education	<i>Gail Boldt</i>
• Professional Ethics	<i>Paul Begley</i>
• Re-envisioning Intervention Research	<i>P. Karen Murphy</i>
• The Role of Evidence in the Field of Education	<i>Hoi Suen</i>
• School Psychology	<i>Robert Hendrickson</i>
• Science, Technology, Engineering, and Mathematics (STEM) Education	<i>Glendon Blume</i>
• Teacher Education	<i>James Nolan</i>
• Ubiquitous Computing, Telecommunications, and the Science of Learning	<i>Carla Zembal-Saul</i>

The Steering Committee developed a charge for each study team, and each team was encouraged to follow the Strategic Planning Guidelines provided by the Executive Vice President and Provost in his memorandum dated June 26, 2007. The study team leaders were also encouraged to recruit members throughout the College and beyond. The study teams established an electronic Web presence and each team held at least one public, face-to-face meeting to discuss its work. The charges to the study teams can be found within the Framework for Planning document on our Strategic Planning Web page (www.ed.psu.edu/educ/for-current-faculty-and-staff/strategic-plan-folder). The charge was intended to be suggestive and the Steering Committee has subsequently endeavored to be responsive to ideas that emerged from the work of the study teams. Each study team prepared a report and these are also available for review on the College's strategic planning Web page.

Once the study teams' reports were posted, efforts were made to distill the results into an integrated and coherent plan. We organized a second College-wide planning workshop this spring that was facilitated by Louise Sandmeyer. Steering Committee members attended this workshop, in addition to two representatives from each study team. Each team was asked to provide four or five major findings and recommendations. Poster sessions were conducted simultaneously and structured to allow individual participants to engage with a representative from each study team. The other members of the teams, along with the Steering Committee members, circulated to ask questions and to clarify the findings and recommendations. The workshop concluded with a plenary session where all participants discussed what was learned. Please see Appendix A for a list of the summary findings and recommendations from each study team.

The Steering Committee subsequently met and considered the individual reports along with the results of the workshop. The members worked to consolidate and prioritize the major themes for our plan. Subsequent meetings of the Steering Committee were held to further refine the plan. The plan went through many iterations, and each major draft was made available to faculty and staff throughout the College for reaction and comment.

The Steering Committee also worked to develop the overarching theme for our plan which is reflected in the plan's title:

Building Pathways to Improve Learning and Living
in a Changing World.

The “pathways” language appeals to us because it implicitly treats teaching as a means of achieving learning. Teaching is of interest to us as a College only to the extent that it gives rise to learning and understanding. Moreover, the “pathways” language does not privilege teaching over other educational phenomena such as counseling that concern us, although it is abundantly clear that we are deeply concerned with teaching.

We deliberately use the plural form of “pathways” because learners are highly varied and achieve the best results when multiple options are available. We recognize and embrace our responsibility to be concerned with learners from many backgrounds and with many attributes. In our previous strategic plans we discussed our commitment to learners who must overcome barriers of various kinds, including physical and mental disabilities, language barriers, as well as social and economic obstacles. We remain deeply interested in students who face these difficulties and recognize our responsibility as educators to reduce these barriers.

We stay focused on “learning” and its relation to “living” as a means of defining our niche within the University. As we mentioned earlier in our mission statement, our interests are centered around the formation and utilization of human capabilities. This focus is broad, but not boundless, and suits us well as we look to the future.

We also explicitly recognize the dynamic nature of our field and its global reach. Long gone are the days when we could count on stability and a narrow focus. The students our graduates will teach and interact with professionally will be increasingly diverse. We are in a period where a major war is being fought in the face of great uncertainty. Our longstanding presence and leadership in the field of Rehabilitation Services will surely be tested in new ways as greater numbers of soldiers return home and seek to function successfully within their families and the workplace. Many of these soldiers are dealing with war-related disabilities and are in need of assistance to promote personal, social, and vocational adjustment. We are also witnessing continued growth in the numbers of incarcerated persons and who are in need of educational and career services. These two populations pose great challenges for us as a society, and the College is well positioned to respond.

Technology is also changing at a rapid pace and will make classrooms of the future look very different from classrooms of the past. Technology is creating new tools that facilitate new ways to study physiological phenomena that bear on cognitive function. For example, several faculty members in the College are actively working with the Penn State Social Science Research

Institute in the use of MRI technology to study learning. New and relatively unobtrusive data collection methods are making it possible to study other biological phenomena from an education perspective. These are exciting new directions for the field of education.

The Steering Committee used the study team findings and recommendations to identify five signature endeavors we are resolved to pursue seriously over the next five years. We resisted identifying signature endeavors that are so broad that we are not really saying anything, and we also sought to avoid being so narrow that parts of the College would feel disconnected. We have also resisted the temptation of using the signature endeavors as a device to showcase all the activities taking place in the College. While it would be useful to have such an inventory, this is not the place. We see this plan as a report on the areas we are singling out for special attention over the next five years. We see these as the endeavors that will set us apart and that we wish to strengthen. We see these areas as our signatures for the future.

After careful deliberation and discussion, the Steering Committee identified the following five signature endeavors for us as a College over the next five years:

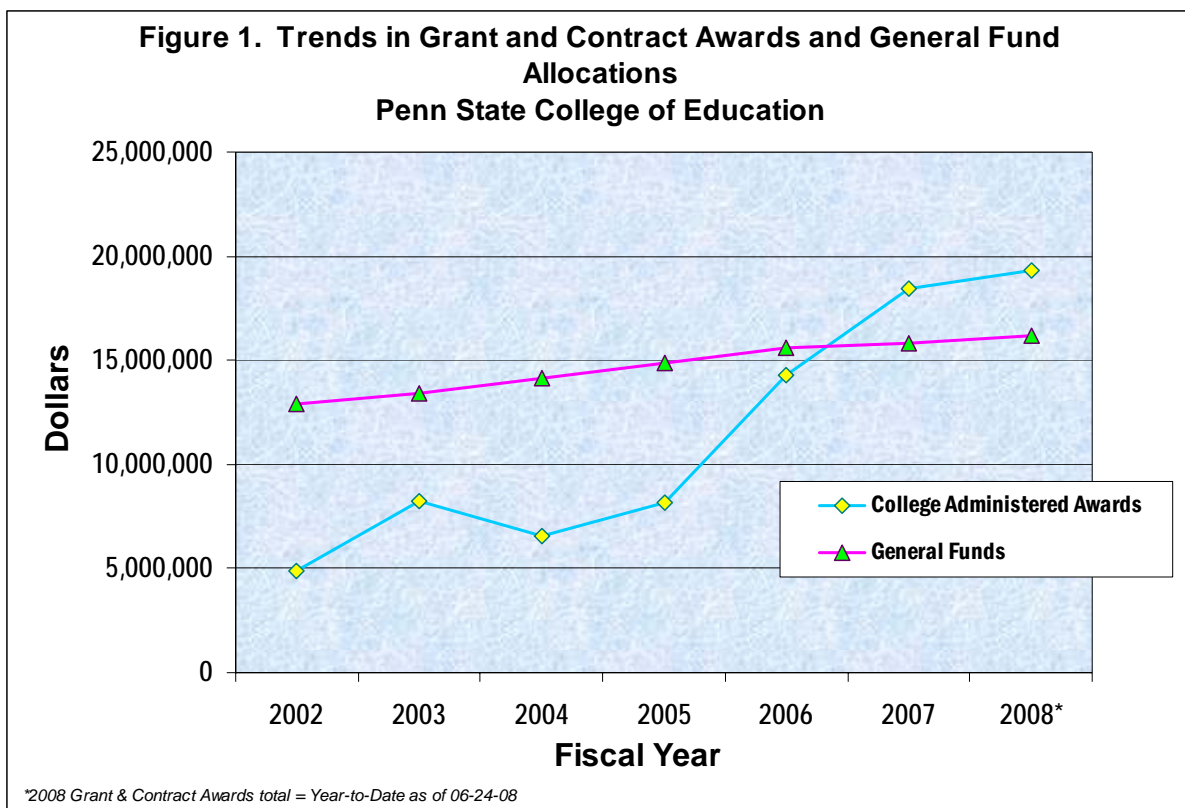
1. Interventions and their Impacts
2. Interdisciplinarity in the Preparation of Professionals for Practice
3. Science, Technology, Engineering, and Mathematics (STEM) Education
4. Language, Identity, and the Arts in Education
5. Technology and Learning in the 21st Century

We will have more to say about each of these signature endeavors in the following pages, but it is useful first to provide contextual information about the College and second to review the results of recent planning efforts in the College.

II. Context for Planning

A College in Transition

The College of Education has experienced unprecedented growth during the past five years in the level of research being conducted by its faculty. One manifestation of this increase is growth in the magnitude of grants and contracts awarded to faculty members in the College. Figure 1 illustrates this growth and demonstrates that since 2007 the dollar value of the grants and contract awards for the College has actually exceeded the general funds resources the College receives from the central University.³



³ Grants and contract awards are restricted funds that must be used to support particular projects. General fund allocations come to the College from the University's central administration and are derived from sources like tuition revenues and state appropriations.

A second manifestation of the College's growing presence as a center for research and scholarship is the recent significant growth in the number of prestigious academic journals that are based within the College. Table 2 provides a list of the scholarly journals that have moved or been located within the College during the past five years.

Table 2
Scholarly Journals Moving to the Penn State College of Education
2003-2008

Journal Title	Edited or Co-edited by
• <i>American Journal of Education</i>	William Boyd
• <i>Career Development Quarterly</i>	Jerry Trusty
• <i>Catalyst for Change</i>	Bernard Badiali
• <i>Comparative Education Review</i>	David Post
• <i>Education Finance and Policy</i>	David Monk
• <i>Journal of Counseling and Development</i>	Spencer Niles
• <i>Journal of Industrial Teacher Education</i>	Richard Walter
• <i>Journal for Research in Mathematics Education</i>	M. Kathleen Heid
• <i>Journal of Research in Rural Education</i>	Kai Schafft
• <i>Learning Disabilities Research and Practice</i>	Charles Hughes
• <i>Rehabilitation Education</i>	James Herbert
• <i>Review of Research in Education, Vols. 32 & 34</i>	Gregory Kelly
• <i>Science Education</i>	Gregory Kelly

In addition to these new journals, the College is significantly involved in editing more than 20 other scholarly journals.

The faculty's research productivity can also be seen in the high national rankings of our graduate programs. The most recent *U.S. News & World Report* rankings place six of our graduate programs in the top ten nationwide with another five programs in the top fifteen, as shown in Table 3. We are nationally ranked in at least the top 15 in every area where *U.S. News & World Report* conducts an evaluation.

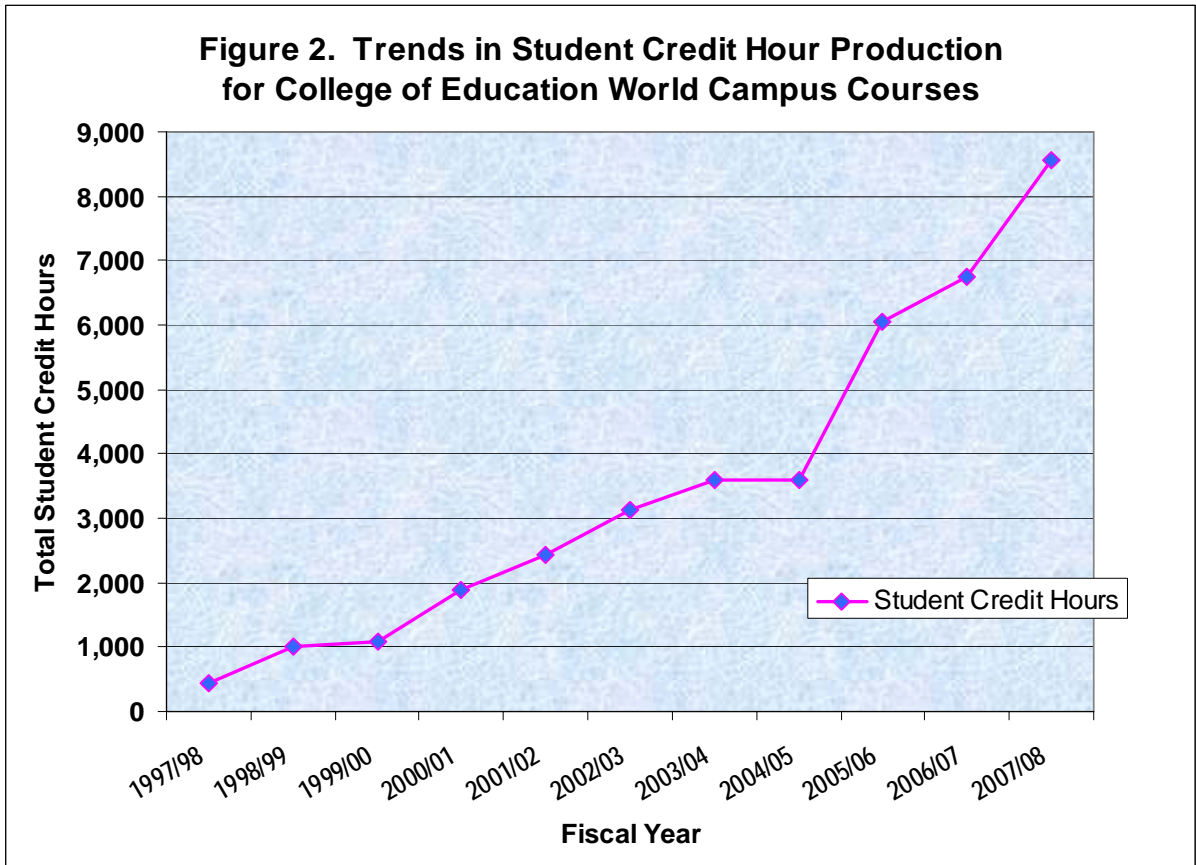
Table 3

2009 *U.S. News & World Report* Nationally Ranked Graduate Programs

- | |
|--|
| ▪ Counseling/Personnel Services — #10 |
| ▪ Curriculum & Instruction — #11 |
| ▫ Elementary Education — #15 |
| ▫ Secondary Education — #12 |
| ▪ Administration/Supervision — #4 |
| ▪ Education Policy — #8 |
| ▪ Educational Psychology — #12 |
| ▪ Higher Education Administration — #2 |
| ▪ Rehabilitation Counseling — #3 |
| ▪ Special Education — #12 |
| ▪ Technical Teacher Education (Workforce Education) — #2 |

The College has also increased its involvement in outreach, partly because of increasing pressures on practicing educators to upgrade their skills and partly because of new means of reaching distant audiences. The College of Education has been actively involved in the World Campus from its earliest days and was the first college at Penn State to offer an online master's degree. We have since broadened our portfolio and now offer no fewer than four master's degree and ten certificate programs. One of our most recent offerings, an online master's degree program in children's literature, has enjoyed remarkable success and attracted more than 400 enrollments during 2007-08.

Figure 2 shows the growth in the number of student credit hours we are generating within our World Campus programs. In addition to serving important constituencies, these programs generate valuable revenue streams for our academic programs.



Not all of our outreach programming involves the World Campus and distance education, and we continue to operate a significant number of highly successful conferences like the Autism Conference, the One-to-One Computing Conference, and the Ethics and Values Conference.

What makes the growth we are experiencing in both the research and outreach portions of our mission all the more remarkable is the fact that it is occurring in a period where there is no reduction in our responsibility to offer high-quality professional preparation programs to resident students. Penn State students remain highly interested in education as a career, and we already operate one of the largest teacher preparation programs of any research-oriented university in America. We see no indication of any reduction in student interest in our program. Indeed, we have tried to accommodate the undergraduate demand by working with our colleagues at other Penn State campuses to develop pre-service teacher preparation programs, and programs of this kind now exist at Penn State Abington, Penn State Altoona, Penn State Behrend, Penn State Berks, Penn State Brandywine, and Penn State Lehigh Valley/Allentown.

We also remain popular among students for our graduate programs, and continue to operate one of the largest graduate programs at Penn State. Our graduate enrollments have declined slightly in recent years, largely as a byproduct of our efforts to exercise greater selectivity in admissions. Our growth in research has been helping us support graduate students. However, several of our recent large grants cannot provide significant support for graduate students, and funding for graduate students is emerging as one of our greatest challenges for the future. The grim reality is that our offers of financial support for top graduate student recruits have not kept pace with other peer institutions. We need to reverse this trend.

Education as a field exists in a political milieu that can be quite challenging. We are subject to regulation from the Pennsylvania Department of Education (PDE) as well as from our national accrediting body, the National Council for Accreditation of Teacher Education (NCATE). While we must be in compliance with various regulations, we also have a responsibility for providing leadership in the field and take this responsibility quite seriously.

We also recognize our responsibility to conduct research that informs the development of public policy in a wide range of human service areas. We strive to be relevant and to provide rigorous analysis that is non-partisan and objective. Faculty members from the College serve actively on many state and national policy making boards and review panels. Our advice is actively and repeatedly sought by PDE and related state agencies, and we pride ourselves on working collaboratively with these regulatory bodies.

There are growing pressures on us to demonstrate the impact and efficacy of our programs, just as there is similar growing pressure on universities by regional accrediting agencies such as the Middle States Commission on Higher Education. We are deeply engaged in developing responses to these demands for accountability and expand on these later in this report. We have also been actively involved with Penn State's efforts to prepare for its next Middle States review where the University must also demonstrate progress toward documenting and assessing the impact of its programs.

Quite significant changes are being made in teacher and administrator certification requirements by PDE and complying with these requirements will call for new resources. We must find ways to meet these needs without compromising the progress we are making with our research and outreach agendas. Teacher preparation increasingly needs to be viewed as a university-wide priority and later in this plan we will articulate a number of steps Penn State could take as a university to move this agenda forward.

Finally, we are dealing with a highly competitive arena for grants and contracts where priorities are in considerable flux. The Bush administration has made major changes in how education research is being funded and has placed significant emphasis on the use of randomized experimental research designs. We have fared reasonably well in this shift given the growth we have seen in funding from federal sources, but it is clear that not all important research questions in education lend themselves to randomized trials. It is also clear that with a new administration in January 2009, there could be a shift in funding priorities as a result. We have deliberately maintained strength in a number of research methodology traditions and expect to be well positioned to compete for grants in the next administration.

Results from our Previous Strategic Plan

What follows is a sketch of the initiatives we enumerated in our last strategic plan covering the period 2004-2005 through 2007-2008 along with an update regarding each initiative's status. While we did not succeed at achieving all of our goals, we are pleased with the progress. This overview is organized around the five commitments that were a central feature of the previous plan.

(1) The Pursuit of Excellence in Teaching and Advising for our Students

Undergraduate Students

◆ Increase the diversity of the sites used for clinical experiences

We have expanded our Professional Development School model to include an inner-city Philadelphia elementary school. Our partnership with the Isaac Sheppard Elementary School makes extensive use of technology and provides a base for Penn State students with interests in urban education.

Penn State began to participate in the Philadelphia Urban Seminar in May 2007. Nineteen Penn State education students (18 elementary education and 1 secondary education) participated in the two-week experience, observing and teaching in the Philadelphia public schools. Penn State students joined over 300 pre-service teachers from across the state in this urban teaching experience. In addition to spending time in a classroom, students participated in seminars and lectures from guest speakers and teachers and administrators from the Philadelphia School District. Topics included Youth United for Change, foster care children and achievement in Philadelphia Public Schools, stories of success for urban learners, and new teacher experiences and teacher recruitment in Philadelphia. Students also engaged in community service projects and participated in touring the Philadelphia Museum of Art, the National Constitution Center, and other must-see places in the city.

The experience was offered for a second time in May 2008. Thirty-nine students participated. Penn State student Rachel Mountz logged her daily experience on a blog, found at: live.psu.edu/story/30930.

◆ Strengthen the Puerto Rico Partnership

During summer 2007, the College of Education began to offer a two-week seminar for education students in collaboration with the University of Puerto Rico at Mayaguez. The purpose of the seminar is to provide opportunities for students to learn more about the Puerto Rican culture and school system, as well as the island's relationship with the United States. Students spent the first week learning about Puerto Rican culture, language, and history at the university, and then they spent a second week visiting public schools in the Mayaguez area. Students also participated in local cultural events.

The seminar will become part of our regular course offerings. There is strong interest from the Ana Mendez University System to offer a similar seminar as well as student teaching experiences. We are currently exploring these possibilities and expect that we will be able to strategically and thoughtfully expand our relationship with schools and universities in Puerto Rico through these experiences.

- ◆ Refine the curriculum to better prepare students to meet the needs of the increasingly diverse educational settings they will encounter as educational professionals

Table 4 provides information about the US and IL courses offered in the College of Education.⁴

Table 4
College of Education US/IL Courses

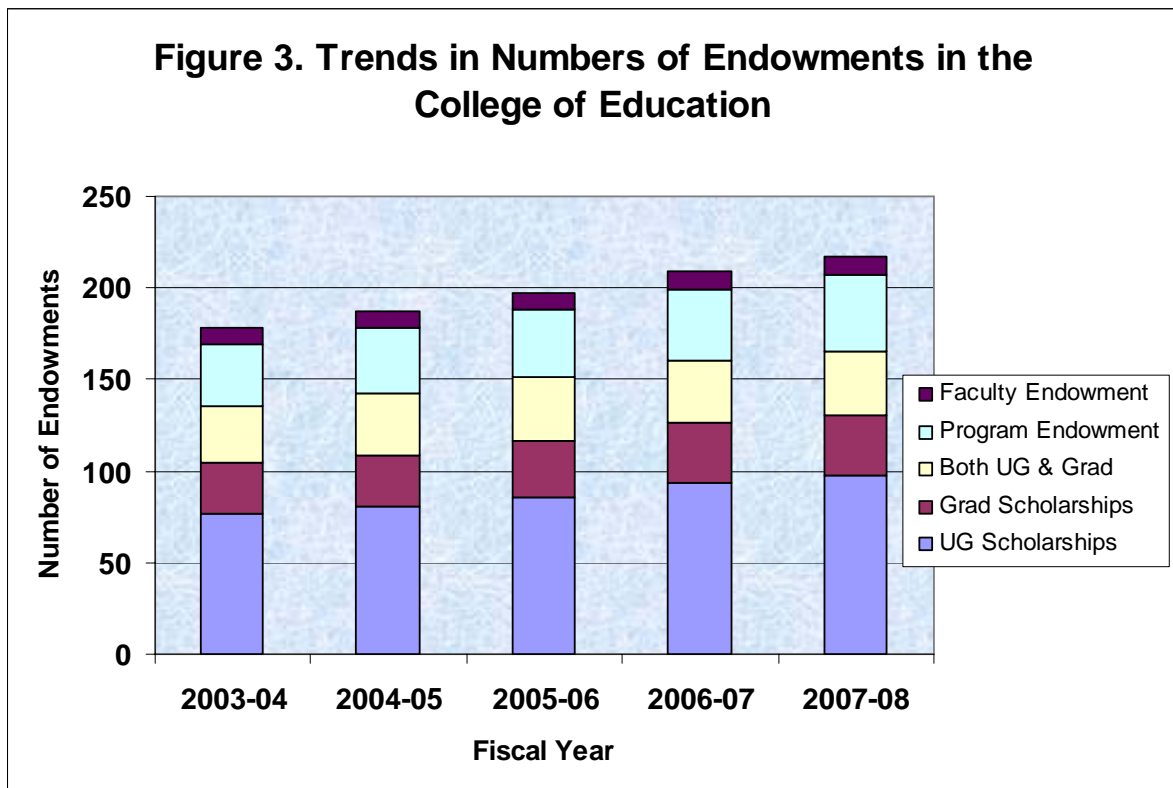
Course Number	Designation
CI ED 401 (cross listed w/ EDTHP 401) Introduction to Comparative Education	IL
CNPSY 254 Understanding Discrimination: An Educational and Employment Perspective	US
EDTHP 115 Education in American Society	US
EDTHP 401 (cross listed w/ CI ED 401) Introduction to Comparative Education	IL
EDTHP 411 Ethnic Minorities and Schools in the United States	US
EDTHP 416 Sociology of Education	US
INSYS 100 World Technologies and Learning	IL

Many of our students exceed the six-credit University-wide General Education requirements related to International Cultures (IL) or United States Cultures (US) designated courses. A diverse learners requirement is included in the 80+ hours of experience requirement for our teacher education candidates and many of our students complete significant hours of experience with special needs learners and/or with children and youth from diverse backgrounds. Our First Year Seminar and introductory field experience course for teacher education candidates (CI 295) also offer a diversity component that includes Penn State's Race Relations Project.

⁴ United States Cultures (US) and International Cultures (IL) courses provide opportunities to increase understanding of the relationship between people of different cultures and widen international perspective.

◆ Increase scholarship support

Of the 217 total endowment funds within the College, 98 are for undergraduate scholarships and 35 can be awarded to either undergraduate or graduate students. In 2004-2005, we operated 175 total endowment funds with 77 earmarked for undergraduate student scholarship and with 30 available to support either undergraduate or graduate students. The growth revealed in Figure 3 where we report on trends in the counts of our endowments is welcome but not sufficient to meet the growing needs of our students.



We have also made significant changes in the process we employ to match students with their scholarships. The awards are made in a much more timely fashion, and we are achieving better matches with donor and College priorities.

◆ Provide increased levels of academic support

We relocated and enhanced our Office of Multicultural Programs so that it is better able to provide support for students. The Office is providing increased level of academic support to increasingly large numbers of students.

◆ Improve the quality of advising

Our Advising Center, in collaboration with the faculty, has developed a new Semester-by-Semester Academic Planning tool kit that is designed to assist prospective and current students as well as advisors at all campuses in reviewing alternative approaches toward meeting the academic as well as certification requirements of our various undergraduate majors. The tool kit can be viewed at: www.ed.psu.edu/educ/current-students/undergraduate/majors-and-minors/curriculum-checksheets

We are also in the midst of reviewing the design of our Advising Center. Certification requirements are increasingly complex and involve teachers as well as administrators. In addition, students need to be advised about their academic programs. We have more to say about this possible re-design in the Crosscutting Initiatives section of this plan.

◆ Foster the ability of students to secure dual certification

Dual certification has not been a popular option for students in the past largely because each previously existing certificate prepared students for a wide variety of roles. This situation is changing quite significantly as the Commonwealth is dividing the elementary certificate into a Pre-K through 4th grade certificate and a 4th - 8th grade certificate. In addition, students earning the Special Education certificate will be required to also earn a certificate in either elementary or secondary education. We are in the process of making major changes in our teacher preparation programs to accommodate these new state regulations and describe the change in the Crosscutting Initiatives section of this plan.

We did succeed at creating a minor in Special Education which makes it possible for students earning elementary or secondary certificates to gain additional preparation in special education.

◆ Address enrollment management issues

Our Rehabilitation Services major has been redesigned and renamed Rehabilitation and Human Services. This recent change came as a result of a two-year effort that engaged various stakeholders, including current students, alumni, employers, and program faculty within and outside of the Department. The Faculty Senate approved the redesigned major in May 2008, and new students will be entering the major during the summer of 2008. This program area is one where the College has some excess capacity and would welcome additional majors. For example, we have engaged in discussions with program faculty and advisors in Crime, Law, and Justice as they have need to decrease undergraduate enrollment for students interested in corrections rehabilitation. We have developed new coursework in this area that should accommodate this interest. Given federal funding to improve rehabilitation outcomes of this population as well as that pertaining to Iraq and Afghanistan war veterans and their families, it is clear that the demand for effective rehabilitation

services for these persons and other individuals with disabilities will occur. The diversity of clientele with disabilities which this major addresses should be an attractive feature for students interested in the human services field.

There are some early signs that the redesign is stimulating additional student interest. Our projected enrollments in Rehabilitation and Human Services for fall 2008 are 120, up from 95.

As part of our effort to reduce enrollment pressure on our undergraduate teacher education majors, we have developed a new undergraduate major called Education and Public Policy which is designed for students interested in studying educational phenomena but who do not see themselves pursuing careers as certified teachers. The major was approved in spring 2008 and will begin admitting students this fall.

Graduate Students

- ◆ Develop a master's degree in educational technology

A master's degree in educational technology was developed in the 2003-2004 academic year. It has since accounted for 960 enrollments. We also created master's degrees in Children's Literature and Teacher Leadership.

In addition, our Applied Behavioral Analysis, Reading in Special Education, and Autism certificate programs in Special Education have been very popular and attract students who earn graduate level credits. These programs have generated more than 1,800 enrollments since they were moved to the World Campus from Statewide Programs in the 2005-2006 academic year.

- ◆ Develop a master's degree in Curriculum and Instruction with a science education emphasis in the Philadelphia Region

This initiative was not pursued, largely because of uncertainty surrounding certification requirements.

- ◆ Create a blended Principal Certification Program

Discussions about this initiative are still under way and involve collaborations with the Penn State Harrisburg and Penn State Great Valley campuses. The Education Leadership faculty has been deeply engaged in a redesign of our principal certification program in light of the changes in State regulations.

- ◆ Create a new graduate option in Curriculum and Instruction with the merger of Social Studies Education and Language and Literacy Education

This merger has been accomplished, and the new option area is known as Language, Culture, and Society.

◆ Identify new sources of support for graduate students

There are a total of 32 endowed scholarships exclusively for graduate students and, as we indicated earlier, 35 scholarships that can be awarded to graduate or undergraduates. The largest funds providing the greatest impact are graduate fellowships, of which we have nine (the Geraldine Brush Graduate Assistantship, the Eva Diefenderfer Graduate Fellowship, the Conrad Frank Graduate Fellowship, the Burdett Larson Graduate Fellowship, the Lunetta Fellowship in Science Education, the Lavanda Muller Graduate Fellowship, the David Nicholson Graduate Fellowship in Adult Education, the Jay Smink Graduate Fellowship, and the Turner Distinguished Graduate Fellowship).

We have also been steering the increases in our revenue sharing dollars toward the support of graduate students. Grants and contracts are also increasing and constitute resources for graduate students, although, as we indicated earlier, some of our recent larger contracts could not be structured to support students.

◆ Introduce EDTXT course mnemonic for continuing education

We investigated this option and decided instead to use EDOUT (for Education Outreach) as the designation for courses that span academic programs and/or are designed for practitioners in the field. We discovered that no formal action is required to create a course with this prefix and we are prepared to use it when the need arises.

◆ Develop a program for Special Education Teachers in Mathematics

We have struggled in our efforts to develop this program in part because of changes in the expectations from PDE regarding the requirements for dual certification in mathematics education and special education. These are both quite distinct bodies of knowledge with relatively little overlap. It is clear to us that a program like this would require graduate-level study, but PDE remains hopeful that a program could be handled within a four-year baccalaureate program. Discussions are continuing and are part of our larger effort to come into compliance with the new PDE teacher certification requirements.

One development in our graduate program that we did not anticipate in our previous plan is the creation of collaborative master's degree programs with the Dickinson School of Law. We are now operating four professional master's degree programs with Dickinson in the areas of college student affairs, higher education, educational leadership, and education theory and policy. The last three programs also offer joint law and education doctoral degrees.

There were several other significant initiatives in graduate education that we did not anticipate in our earlier plan. Both initiatives involved distance education and a collaboration with the World Campus. In particular, we developed an innovative Institutional Research Certification program for practicing officials in higher education who seek to enhance their research skills. This program is offered entirely online, and our program was one of only five in

the nation selected to receive funding from the Association for Institutional Research (AIR). The program has attracted high-quality students and in each of the last two years 12 of our students were awarded AIR fellowships.

In addition, within our Curriculum and Instruction graduate program we developed a new online master's degree in children's literature. This program is now in its fourth year and has enjoyed great success. During the 2007-2008 academic year, the program attracted more than 400 enrollments along with 26 master's degrees and 7 certificates. There are 112 students enrolled in the master's program. Recently, *Instructor Magazine* named the program as the highest ranked online children's literature program worldwide.

(2) The conduct and Utilization of Rigorous Research to Improve Professional Practice

- ◆ Create a thematically organized Research Initiative with the help of the Children, Youth, and Families Consortium (CYFC)

A faculty taskforce that was jointly appointed by the CYFC and the College of Education worked on the design of this initiative. We have taken some additional time to identify the funds for moving forward and for identifying the necessary leadership, and we are now prepared to act. Tom Farmer and Karen Murphy have agreed to serve as the co-directors of a new center that we anticipate calling the Center for Applied Educational and Developmental Research. The new Center will be co-funded by the College of Education and the CYFC and we expect it to begin operating in the summer of 2008. We have more to say about the new Center and its design under the Interventions and their Impacts Signature Endeavor later in the report.

- ◆ Develop a 1-to-1 Computing Initiative with Apple

We have continued our work with Apple Computer on two strategic fronts, our partnership with the Sheppard School in Philadelphia, and our own "EDUCATE" (Exploring Directions in Ubiquitous Computing And Teacher Education) initiative, which involves requiring all of our future elementary education teachers to obtain a laptop computer that meets our specifications as they enter the teacher preparation program. Our faculty members are engaged with Apple in mutually beneficial ways, which include advising Apple on teacher preparation and products for the education marketplace and working with prototype products before they are released to the general public and in return Apple provides our teacher preparation program with professional development programming that benefits our faculty and the teachers we are preparing.

- ◆ Support the Educational System Design (ESD) Project

The "Educational Systems Design Project" referred to on our last Strategic Plan has evolved into the 21st Century Skills Assessment Project. We are working with the International Society for Technology in Education and approximately 30 scholars and other professionals across the nation to move this forward. This will be the

focal point of a \$2 million proposal to the U.S. Department of Education and corporate and philanthropic partners as well.

(3) Creation of a Welcoming and Supportive Professional Climate that Fosters Diversity

- ◆ Develop climate committees at the department level

These committees are all now in place. We are now working to develop the interface between the department committees and the College Committee for Diversity and Community Enhancement.

What follows is a sample of accomplishments within each of our departments. Additional information about our progress can be found in the College's most recent progress report on our efforts to support Penn State's Framework to Foster Diversity (www.ed.psu.edu/educ/for-current-faculty-and-staff/diversity-community).

Counselor Education, Counseling Psychology, and Rehabilitation Services (CECPR) — CECPR developed a series of engaged training programs for faculty, staff, and students regarding issues of race, disability and sexual orientation. As part of each fall's graduate program orientation, students, faculty, and staff in this Department participate in programs that explore power and privilege dynamics. This fall's workshop is titled: Adjusting Our Lens: Exploring Power, Privilege, and Difference.

Curriculum and Instruction (C & I) — The Curriculum and Instruction Diversity and Community Enhancement committee took a number of initiatives to improve the well being of the faculty, students, and staff. This committee initiated a research-in-progress presentation series for faculty members to share research and build community. These were organized through the academic year and were open to all members of the College community. There were a number of gatherings for staff, students, and faculty to mingle to help promote mutual respect and interaction. The committee is working to enhance community by making more transparent the departmental grievance procedures process for faculty, staff, and students. In addition, through a series of faculty hires and the ongoing relationship with Xavier University and University of Puerto Rico Mayaguez, the Department has begun to diversify the teacher education faculty and bring new perspectives and knowledge to the mission of preparing teachers. The committee was actively involved in recruiting these new faculty members and graduate students.

Education Policy Studies (EPS) — The EPS Department initiated a study of student adjustment to the Department and identified significant issues facing international students. The faculty discussed ways to better integrate international students in classes. Most recently, the committee solicited positive experiences with diversity from faculty to demonstrate how diversity enhances our working lives.

Educational Psychology, School Psychology, and Special Education (ESPSE) — The ESPSE Climate Committee took on new members this year and then continued their work with the Department survey. The committee completed analysis of data from the first survey and developed the content of the next stage to be delivered in the fall.

Learning and Performance Systems (LPS) — Diversity and community enhancement in LPS has included a series of team-building initiatives and workshops with the administrative assistants and professors in charge (PIC) of the Department's three graduate programs in Adult Education, Instructional Systems, and Workforce Education & Development. In addition, the Department is conducting the following initiatives: an annual diversity workshop for new public school teachers in career and technical education, an undergraduate course (WFED 450: Diversity in the Workplace), an annual faculty retreat, and a picnic with graduate students to promote a welcoming climate and *esprit de corps*.

◆ Improve mentoring and professional development opportunities

We are participating in a new collaboration with the Center for Counseling and Psychological Services (CAPS) and WPSU that is being funded by the President's Future Fund and that will develop University-wide professional development programs for faculty and staff members who are dealing with troubled students. The goal is to help educate faculty and staff about what can and should be done when a student behaves in worrisome ways. We expect this resource to be available to faculty and staff in August 2008.

We are also enhancing the online training program for Penn State faculty (Project Opportunity and Access) so that they can better provide academic accommodations required for students with disabilities.

◆ Infuse the Humphrey Fellows Program into the College and University

We have succeeded at identifying space for the Humphrey Fellows within Chambers Building so that it is now possible to house the Fellows on campus. The Humphrey Fellows program is now very well known within the College, and numerous faculty and staff members work directly with the Fellows.

The Humphrey Fellows now make significant contributions to courses and other discussions in our Comparative and International Education program, and also to many neighboring school districts when they visit to explain their cultures and educational systems. Their physical presence makes numerous casual conversations possible and significantly enhances the educational experience for the Fellows as well as for our domestic and international students.

- ◆ Strengthen partnerships with HBCUs and HSIs

Currently we have six Ph.D. students enrolled in the College of Education from Xavier University. Two Ph.D. students are currently enrolled from the University of Puerto Rico Mayaguez. These partnerships have been developing over time and involve master's degree candidates at these institutions coming to Penn State for their doctoral work. Three students have now completed their doctoral degrees, one from Xavier and two from the University of Puerto Rico.

- ◆ One development that we did not anticipate in our previous plan was the creation of a new Center for American Indian Education research. The Center was created in April 2007 and is designed to improve the preparation of researchers with interests in the education of indigenous peoples, particularly American Indians. John Tippeconnic and Susan Faircloth are serving as the co-directors of the Center.

(4) Development of Effective Partnerships across Disciplines as well as with Organizational Units, both within and outside of Penn State

- ◆ Collaborative programs with Penn State campuses

We regularly convene educational representatives from all campus locations to discuss program changes, courses that are taught across campuses, and advising issues. In addition, faculty members in the elementary education program meet monthly using technology to facilitate participation from campus programs. This group of faculty also holds regular retreats where all faculty, including faculty members from the campuses, meet in person to discuss programmatic issues.

- ◆ Continue to strengthen the new Center for Science and the Schools (CSATS)

The University just completed a review of CSATS after its first few years of operation and the findings are quite favorable. The deans of the STEM colleges are working collaboratively with us to build on CSATS' early successes.

- ◆ Build parallel efforts in other content areas

We have not made much progress toward building centers that are similar in spirit to CSATS in other content areas. Our current planning efforts have identified Language, Identity, and the Arts in Education as an important future area for the College to pursue. The CSATS model could be helpful to us as we seek to strengthen this area. We have more to say about these possibilities later in this report.

- ◆ Expand the Professional Development School (PDS) Model

We have enjoyed great success with our PDS model and its joint development with the State College Area School District. We also succeeded at expanding the model to a new and quite different site – namely, the Isaac Sheppard School, an inner-city

elementary school in Philadelphia. The Sheppard School PDS is significantly oriented around the use of technology, in part out of necessity given the physical distance between the school and University Park. We are still at an early stage of developing this partnership, but it is proving to be quite successful, and Penn State students are eager to become involved.

We also succeeded at expanding the PDS collaborative model to involve new areas of the field – namely, school psychology. Beginning in the fall of 2007, the State College Area School District and the College jointly funded a multiyear, fixed-term position in school psychology. We are strengthening connections between local school districts and our school psychology program and see this as a very desirable extension of the PDS model.

◆ Revitalize the American Center for the Study of Distance Education

We remain very interested in studying distance education and see the revitalized American Center as an important mechanism, in collaboration with Penn State Outreach, to conduct the relevant studies. We have not made much progress toward achieving this goal during the past five years but remain committed to the goal.

◆ Maintain the College's leadership in Family Literacy

We faced some significant transition in this area at the beginning of the planning period given a key retirement, and we have since succeeded at recruiting a new faculty member who is serving as the academic director of our outreach and research efforts. We continue to assign a high priority to family literacy.

◆ We mentioned earlier our joint graduate degree programs with the Dickinson School of Law. In addition, we have been working with Dickinson on some continuing education initiatives. For example, this summer we are offering a redesigned version of the Law and Education Institute. More than 60 participants are registered for the Institute which will be taught by faculty from the College of Education and the Dickinson School of Law.

(5) The Bold Use and Evaluation of Electronic Technologies to Enhance the Quality of Educational Experiences

◆ Become the nation's leader in the application of technology to preparation of professionals in the field of education

We recognize an important distinction between the application of technology toward the preparation of teachers and other professionals and the application of technology to the improvement of teaching and learning in particular content areas. We aspire to excel in both areas and can already point to an impressive track record in both areas.

Our ongoing 1-to-1 laptop initiative speaks to the role technology can and should play in the preparation of teachers. We have now launched our EDUCATE initiative. We have more to say about this ongoing initiative and our future plans for it later in this report.

We also recognize the importance of content-specific teaching and learning through the use of technology and can point to programs of research designed to test and evaluate various technology-rich interventions. A good example is the research being conducted by our National Science Foundation (NSF)-funded Mid-Atlantic Center for Mathematics Teaching and Learning.

◆ Fully fund the life cycle costs of technology

Although we cannot claim to have fully funded the life cycle costs of technology, we did succeed at receiving a major gift that will name the Eugene and Irene Carrara Education Technology Center and create an Education Technology Center Endowment that will provide a new revenue stream to support the work of our technology center. We anticipate this to be fully funded in the 2008-2009 academic year.

◆ Strengthen the technological sophistication of our student teacher supervisors

All supervisors as well as our academic advisors have laptop computers that will allow them to communicate with their student teachers. The elementary supervisors and those secondary supervisors overseeing English student teachers have Macintosh notebook computers with the minimum specifications required by EDUCATE. The elementary supervisors are all using the Task Stream software which is designed to make detailed records of classroom experiences. The secondary supervisors will begin to use Task Stream in fall 2008.

◆ Provide more effective technology support throughout the College

Our Education Technology Center has kept pace with technological developments and is making increasing use of remote diagnostic and support software. The Center also provides support for the adoption of Penn State's Content Management System (CMS) which has now become the backbone of our Web presence. We are in the progress of migrating our old Web sites to the new CMS and see this as a significant enhancement to our ability to keep information up to date and accessible to electronic visitors.

◆ Develop a comprehensive data collection and assessment system

As we prepare for the next site visit in 2011 from our national accreditation body (NCATE) as well as program review from PDE, we are developing new data collection and assessment systems. In particular, we are making use of a commercially available software package known as Task Stream. Beginning fall 2008, our teacher preparation programs in Elementary and Secondary Education,

including elementary education programs at the campus locations as well as our principal program in Educational Leadership will be using Task Stream to make links between experiences our students have had in the pre-service program and results that are observed in the schools during student teaching and internship experiences.

III. Five Signature Endeavors for the Next Five Years

We turn next to the five signature endeavors we have identified for special attention over the life of this strategic plan:

1. Interventions and their Impacts;
2. Interdisciplinarity in the Preparation of Professionals for Practice;
3. Science, Technology, Engineering, and Mathematics (STEM) Education;
4. Language, Identity, and the Arts in Education; and
5. Technology and Learning in the 21st Century.

For each signature endeavor, we provide background information and then focus on our plans for implementation. We are sensitive to the need for good metrics to measure impact and will be attentive to measurement issues throughout the planning period.

SIGNATURE ENDEAVOR #1: INTERVENTIONS AND THEIR IMPACTS

Background

A powerful theme that emerged from our planning efforts is centered on the idea of intervention and the assessment of impacts over time. Converging and convincing evidence is beginning to emerge surrounding longstanding questions about what kinds of interventions have what kinds of effects, particularly for young learners and particularly in the area of reading. We are already significantly involved in this kind of research with special emphasis on interventions that have cumulative and interlocking impacts over time.⁵ We are eager to continue working with young learners' acquisition of reading capabilities and we also seek to broaden the agenda to include multiple content areas and learners across the age span. Our interest in learning more about powerful interventions goes beyond traditional school settings and includes community organizations, the workplace, and a wide range of human service delivery systems.

This signature permits us to re-frame the longstanding College of Education commitment to early childhood education. Rather than think of early childhood education as a separate graduate area of emphasis where we have historically devoted two tenure track faculty lines, we are thinking of it more as a crosscutting area of research that is tied to multiple disciplinary orientations like educational psychology, counseling psychology, and special education, in addition to content areas like social studies education and mathematics education. We have already moved in this direction and can point to eleven tenure line faculty hires within the past several years with significant interests in early childhood education.

Toward the other end of the age span, programs such as our nationally ranked Workforce Education and Development specialize in learning interventions with individual adults as well as organizational learning and change efforts with organizations. Part of the

⁵ For examples, see: **Boldt** (2006); **Edmondson** and **Shannon** (2003); Harris, Graham, and **Mason** (2006); Liang and **Johnson** (1999); **Morgan** and Fuchs (2007); and **Sperling** (2003). College of Education faculty members' names are in **bold**.

appeal of the intervention theme is that it fits so well with our interests in working with learners across the entire age span.

A focus on intervention studies also plays to our considerable strengths in teacher education. Interventions typically involve a change in teaching practice and the breadth of our expertise in teaching and teacher education (we offer preparation in 21 distinct fields) positions us well to participate in the design, implementation, and evaluation of interventions and also for the subsequent infusion of what we know works well into the preparation of future teachers as well as the ongoing professional development of practicing teachers.

An intervention theme also permits us to bring into the foreground our longstanding interests in learners with special needs. Interventions are developed in response to difficulties and are intended to lower barriers to successful learning and living outcomes. Many of our faculty members who work in the areas of Special Education, Rehabilitation and Human Services, and School Counseling have well-established interests in studying interventions that have direct impact on human service practice. Their experience and expertise is invaluable to us as we seek to strengthen this aspect of the College. Indeed, one of the byproducts of identifying intervention research as one of our signature endeavors will be the opportunity to strengthen the special education and rehabilitation services areas of the College.

The intervention theme also surfaced quite prominently in the recent review we conducted of our School Psychology graduate program. The School Psychology Study Team was charged with assessing the viability of an integrated, interventionist approach to the study of school psychology at Penn State and invited outside experts to review the program and assess the pros and cons of moving in this direction. The external reviewers as well as the Study Team recommended that Penn State pursue this approach and progress has been made. We are searching for a new faculty member in School Psychology who will have these interests and have entered into a new partnership with the State College Area School District to co-fund a position that will link the College with the School District in new ways.

The intervention theme has a number of important and interconnected dimensions that are all relevant for us. These include:

Design. Interventions need to be carefully designed and this work draws on basic knowledge and understanding about educational phenomena. The work requires creativity and a willingness to think boldly and in new directions. We are already well positioned for this work given the strengths we have in our Instructional Systems graduate program along with our emerging strength in the learning sciences. By strengthening links among programs like Instructional Systems, Educational Psychology, Workforce Education and Development, and the various content-knowledge specializations (e.g., mathematics education and science education), we will position ourselves for leadership roles in the design of new and promising interventions.

Implementation. Numerous practical administrative questions surround a serious effort to intervene. Scaling decisions need to be made and resources need to be identified. Interventions also need to be implemented in ways that make it possible to assess and understand impact. We recognize a need for researchers to be connected to the implementation of intervention initiatives.

Evaluation. Our interest in evaluation includes discerning impacts on learning as well as living. We are interested in outcome measures such as standardized test scores, but we recognize also that test results sometimes miss important outcomes. We embrace the research methods that are needed to capture the full range of impact. Our interest in the impact of interventions on living in addition to learning opens the door on a wide range of outcome measures.

We are also interested in whether the impact is cost-effective and whether it has beneficial effects for the broader society. In other words, we are interested in the social impact of skills and capabilities that are generated because of the intervention. We are also interested in interventions designed to make better use of existing skills and capabilities. For example, career assessment and counseling can be a powerful intervention that increases one's self-efficacy, self-esteem, and career satisfaction.

We note that our interest in intervention studies maps quite well onto the research agenda for the Institute of Education Sciences (IES), the research arm of the U.S. Department of Education and the National Institute of Mental Health (NIMH). IES and NIMH are seriously committed to testing the impact and efficacy of major interventions and funding is available for the necessary field studies.

Modern interventions sometimes cut across existing service delivery mechanisms and provide opportunities for collaborations of scholars across separately organized parts of the university. For example, there is exciting new work that makes connections between the health and education sectors of government and there is great potential for interdisciplinary work. The theme also makes it possible to address counseling interventions that are all too often disconnected from other parts of schooling experiences.

Plans for the Immediate Future

- Create the Applied Educational and Developmental Sciences Research Center, in collaboration with CYFC

As we indicated earlier, we have been in discussion for several years with the CYFC about the possibility of creating a new center that would be designed to enhance research capacity within the College. We are now prepared to move forward with this initiative and our Intervention Studies Study Team developed a design for the new center that we anticipate calling the Center for Applied Educational and Developmental Sciences.

The Center will conceive of interventions broadly and will assist faculty members in their efforts to assemble interdisciplinary teams, navigate funding opportunities, strengthen methodological designs (with special emphasis on developing strong, mixed-method research strategies), and take advantage of technical support such as statistical and survey research consulting services available at Penn State.

At the outset, the Center will focus on three areas of research: (1) the learning sciences; (2) teacher education; and (3) bio-behavioral education research. All three of these areas emerged from the Strategic Planning process as high priorities for the College.

The Center will have the following goals and aims:

- 1) Submitted and Funded Proposals – The aim for each of the next three academic years, 2008-2011, is to support the submission of three to five high-quality proposals. Our strategy will be to identify and support investigators or teams of investigators who have ideas, interests, background, and preparation that enhances their probability of success. A related aim is to link new investigators with previously successful investigators. We must take care not to force relationships or activities that are not welcomed by the prospective participants. But a goal is to support and promote new investigators who have a high probability of future independent success.
 - 2) Web Site Presence – Create an external presence that communicates to funding agencies and reviewers that the College of Education is establishing a strong research infrastructure and has a vibrant and diverse cadre of researchers and research resources. Likewise create an internal Web site (password protected) that includes grant preparation resources and information (e.g., boiler plate information for the College of Education and university research resources, measure bank, models of funded proposals for different goals and review panels, and school and consultant contact banks).
 - 3) External Advocacy – Identify and build upon faculty links with funding agencies. These links should include increasing the involvement of faculty on review boards of relevant agencies (e.g., IES or NSF), increasing faculty involvement in the development of research RFAs and educational policy guidelines, and continuing and establishing new avenues for faculty consultation with program officers at key agencies. A key component in external advocacy will be the submission of successful proposals as recently-funded researchers generally serve as a pool for review panel selection.
 - 4) Collaboration and Intellectual Exchange – Faculty have consistently indicated a need for better communication and understanding of the research of colleagues. Establish mechanisms for faculty interchange including colloquia, brief in-house research reports, and support for faculty generated ideas and activities to foster research collaboration and the salience of an intellectual community. These activities will be advertised through a calendar on the Center Web site as well as relevant listservs.
- Establish a program of Intervention Studies Graduate Fellowships

We are acutely aware of our need to become more competitive in the market for the top graduate students entering the field of education each year. We plan to create a new graduate student fellowship program and will use the term “intervention studies” to

characterize it on the grounds that the idea of intervention is relevant to all of our programs given our common commitment to the improvement of practice in the field. We will make our Intervention Studies Graduate Fellowships a prominent feature of our fund-raising efforts over the next five years.

SIGNATURE ENDEAVOR #2. INTERDISCIPLINARITY IN THE PREPARATION OF PROFESSIONALS FOR PRACTICE

Background

We see ourselves taking the interdisciplinarity theme quite seriously in the future in all of our endeavors. But, it is here, in our work to prepare and sustain professionals in the changing world of practice, that we see particular relevance as well as an opportunity to explain explicitly how we are approaching interdisciplinarity in our thinking and work. We hasten to point out that research undergirds our approach to the preparation of professionals for the field. There are innumerable interesting research questions, and the lines of research are somewhat nuanced. For example, an important distinction needs to be maintained between research dealing with the preparation of teachers and research dealing with the preparation of teacher educators. Or, to put the matter more succinctly, teacher education is related to, but different from teacher *educator* education. We are concerned with both and plan to put increasing emphasis on teacher *educator* education in the years to come.

A similar distinction can be drawn in the other areas of professional practice that we address within the college. For example, we are concerned with counselor education but also recognize the importance of counselor *educator* education. Perhaps even less obvious but no less important are issues surrounding the preparation of those who train professionals in non-education fields like law, medicine, and engineering. Within our Center for the Study of Higher Education, research is under way that focuses explicitly on the training of lawyers and physicians and is highly interdisciplinary. This focus on the educational needs of those who will be preparing future generations of professionals within as well as outside the field of education sets us apart from most other schools and colleges of education.

Moreover, we see an emphasis on interdisciplinarity fitting well with the “changing world” part of our overarching theme. A changing world presents challenges and opportunities that reside between and across the traditional boundaries on fields of inquiry. For example, we now know that the classical distinction between subject matter knowledge and pedagogical knowledge is artificial and problematic. We also know that the subject matter understandings needed by teachers are different from the subject matter understandings needed by professionals in other fields. It is no longer sufficient, for example, to have aspiring teachers study a subject like mathematics in isolation from the relevant teaching and learning issues associated with that content area or to study mathematics without learning challenging mathematics in ways needed for their professional work. Mathematicians and mathematics educators need to work together closely to infuse these related but conceptually quite distinct areas of knowledge into a cohesive program of study.

Similar arguments can be made for each content area as well as for the need of aspiring teachers to know and understand teaching and learning issues at various stages of human development. Thus, interdisciplinarity encompasses boundaries between subject matter knowledge and pedagogy as well as boundaries among different age levels in knowledge about human development. There are resulting depth and breadth trade offs to ponder, and a major challenge for the field of education is to figure out how best to prepare teachers of young learners where teachers typically have responsibility for multiple subject areas and where teachers are prepared to teach students across a wide range of ages (e.g., many states certify elementary teachers for grades K-6 or sometimes even K-8).

Interdisciplinarity is particularly relevant to addressing the formidable challenges facing marginalized students. We recognize, for example, that students with disabilities incur a greater likelihood of not completing secondary and post-secondary education. These outcomes result in serious vocational handicaps that ultimately result in higher rates of unemployment and underemployment than any other demographic group in the nation. We are in a unique position to address these outcomes through the combined expertise of our teacher preparation, educational leadership, counselor education, counseling psychology, rehabilitation and human service, and workforce education faculty members. To access this expertise, however, we must recognize that collaborative partnerships across these parts of the field are necessary. Increasing rates of school violence, academic underachievement, alcohol and drug abuse, teenage pregnancy, and student mental health problems are stark indicators that demand efforts to take interdisciplinarity seriously in our future work.

Within the field of school counseling, there is a new emphasis on placing school counselors in significant roles within school reform efforts. Counselors coming out of this new tradition are leading efforts for more equitable policies and practices to close achievement and opportunity gaps. In the “new vision” of school counseling, school counselors are responsible for providing a supportive educational environment for all students concerning their academic, career, and social development. We applaud this “new vision” of school counseling and will be pursuing efforts to infuse it into our counselor preparation programs. We also recognize a need to do more to integrate an understanding of the increasingly important role being played by counselors into our preparation programs for teachers and administrators. This is not an easy task given the myriad of additional demands on these programs for coverage, but we recognize its importance and see its pursuit as an additional means of strengthening interdisciplinarity in the College.

We have made some, albeit limited, progress toward building collaborative efforts along these lines. There are increasing numbers of interdisciplinary research projects and, as explained below, we envision the creation of a new initiative within the Center for Applied Educational and Developmental Sciences that will focus explicitly on collaborative and interdisciplinary approaches to the study of teacher education.

Also, there is progress regarding the design of our professional preparation programs where we are joining with our colleagues in the content areas to refine and improve our programs, particularly in teacher education. However, in too many cases the links are weak and we operate quite independently from one another. There is quite a bit of rhetoric surrounding the idea that teacher education is the responsibility of the entire university. We embrace this assertion and hope over the next five years to make it more of the reality at Penn State.

Plans for the Immediate Future

- Strengthen Teacher Education and Teacher Educator Education Research

Our Teacher Education Study Team recommended the creation of a new research center that would be focused on these interdisciplinarity and professional practice issues as they apply particularly to teacher education. Rather than create a separate new center, we think it will be preferable to ask the new Center for Applied Educational and Developmental Sciences to make teacher education an explicit area of focus. The new Center's deep commitment to interdisciplinarity, collaboration, and mix-method approaches to research will work to the advantage of those researchers in the College who wish to focus on issues in teacher education.

- Establish Teacher Education as an Area of Emphasis at the Graduate Level

We believe it is time to formalize opportunities for our students to study the phenomenon of teacher *educator* education. Many of our graduate students, particularly in programs like Curriculum and Instruction and Special Education, will be pursuing careers as teacher educators and they need a deep understanding of the phenomena. We envision a crosscutting emphasis area that would draw students from a wide variety of fields like mathematics education, social studies education, and special education, to name just a few. We also envision the study being oriented around the professional practice approach we have developed within our Professional Development School program. The Carnegie Foundation for the Advancement of Teaching has invited a number of universities to develop innovative new approaches to the study of professional practice at the doctoral level and Penn State is actively involved in this effort. We are using our involvement as an opportunity to think deeply about what this kind of study can and should entail and plan to implement the results over the next five years.

- Strengthen Professional Preparation Program Collaborations

There are missed opportunities even within the College of Education to make links across areas of professional preparation. We draw upon expertise in educational psychology to prepare teachers, but we do relatively little to tap into the expertise of our colleagues in areas like Counselor Education, Counseling Psychology, and Rehabilitation and Human Services. How well are teachers prepared to address the needs of students with physical disabilities and what is their understanding of making accommodations in the classroom? What is their understanding of the role that school counselors play in addressing school and related problems? How well are teachers prepared to recognize initial signs of child abuse, sexual abuse, or substance abuse? We do a better job at making links between Special Education and the preparation of classroom teachers, but even here there are missed opportunities.

The field of early childhood education is evolving quite substantially and there are lively ongoing debates about the appropriateness of making pre-K experiences more school-

like in their nature. We have operated a largely self-contained early childhood graduate emphasis area within our Curriculum and Instruction Department and will be facing the challenge of making sensible connections between this area of scholarship and our parallel research and professional preparation endeavors dealing with elementary age children.

We will also work at strengthening connections with other colleges and academic units at the University Park campus. The obvious and logical points of contact here are with the content departments. These collaborations are at various stages of development, and we will seek to accelerate their growth.

We also recognize the importance of strengthening collaboration with all Penn State campuses that are involved in the preparation of education professionals. This is an area where we have been making progress and feel we have a good track record to build upon. In the future, we will work to strengthen faculty-to-faculty connections as well as to improve connections among students across campus programs in education. These efforts will include but not be limited to the creation of (1) asynchronous discussion forums to share experiences and projects; (2) iChat or other online forums to share experiences in different public school classrooms; and (3) informal networks across campus to enhance “communities of practice” related to shared interests and concerns, including environmental awareness and responsibility and teaching students with special needs.

SIGNATURE ENDEAVOR #3. SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) EDUCATION

Background

From the earliest days of the University, STEM has been an area of strength for Penn State. Today, there are growing concerns over the future supply of scientists, engineers, technologists, and mathematicians, particularly coming out of U.S. secondary schools. Career opportunities continue to be excellent for students who develop STEM interests and skills and these opportunities exist for those who pursue baccalaureate degrees as well as post-secondary technical education. For these and related reasons, STEM education has been a high priority for us as a College, particularly in recent years.

We can point to several specific initiatives that have resulted from this strategic decision, including the decision to earmark the Waterbury Chair in Secondary Education for STEM education and the successful appointment effective in August 2008 of Dr. Richard Duschl, a prominent science educator to the Waterbury Chair. The Waterbury Chair is the most generously funded faculty endowment in the College of Education. Dr. Duschl will be devoting the resources of the Chair to the support of STEM education at Penn State and beyond.

In addition, we worked with the Kahn family to focus the new Kahn Professorship in the direction of STEM education. Dr. Carla Zembal-Saul, who specializes in science education, was recently appointed the Kahn Professor of STEM Education.

We have already noted the creation of the Center for Science and the Schools (CSATS) and the success it has enjoyed during its first four years of operation. CSATS was instrumental in securing the \$27 million NASA Aerospace Education Services Project for Penn State in addition to a series of other STEM-related projects. Our Mid-Atlantic Center for Mathematics Teaching and Learning—the first and only refunded NSF Center for Learning and Teaching—is further evidence of our success in research in STEM teaching and learning and the preparation of the next generation of STEM education researchers and STEM educators.

We have also been increasing the number of tenure-line faculty in mathematics and science education. In 1999 the number of tenure-line faculty members in these two program areas was nine. By the fall of 2009, this number will have grown to twelve, although we should note that this count includes the current Department Head for Curriculum and Instruction, who is a science educator.

STEM education at Penn State goes well beyond the teacher preparation programs we operate in science and mathematics education. For example, the Center for the Study of Higher Education (CSHE) is deeply involved in the study of engineering education and has conducted a major assessment of learning outcomes in engineering education. The CSHE was engaged by the Accreditation Board for Engineering and Technology (ABET) to conduct an evaluation of accreditation practices in the field of engineering with emphasis on assessing the success of ABET's efforts to focus accreditation standards on learning outcomes rather than inputs. Faculty members from the College have also served actively on advisory boards for organizations such as the National Science Foundation, the National Science Board, the American Association for the Advancement of Science, the National Council of Teachers of Mathematics, the National Association of Research in Science Teaching, and the National Research Council.

STEM education has proven to be a major source of external funding for the College. In addition to the NASA AESP grant, we are receiving major funding from the National Science Foundation, the U.S. Department of Education, and the Knowles Foundation.

Two major STEM education journals are now located within the College at Penn State, the *Journal for Research in Mathematics Education* edited by M. Kathleen Heid and the *Science Education* journal edited by Gregory Kelly. Moreover, we have been giving visibility to our STEM education efforts in various College publications, including our annual thematic publication in the fall of 2006 and a mailing that will be distributed in the fall of 2008 announcing our new faculty hires in this area.

One of the great advantages of a STEM education signature for us is the potential for making strong connections with other parts of Penn State. The STEM colleges at Penn State have demonstrated interest in working collaboratively with the College of Education. The CSATS initiative is based on strong and growing collaborations, and we are building co-curricular programs with several STEM colleges.

Given the strengths of the STEM colleges at Penn State, it makes good sense for us to work hard at maintaining and even enhancing complementary efforts in STEM education. We see this as an important and enduring priority for us as a College.

Plans for the Immediate Future

- Build on the momentum that already exists
 - Take full advantage of the resources coming from the Waterbury Chair, including the creation of Waterbury Forums to promote STEM education scholarship
 - Identify productive STEM education research areas or key problems and seek internal and external support for that research being sure to take advantage of the new Center for Applied Educational and Developmental Sciences
 - Identify and disseminate existing STEM education initiatives in the College and identify STEM activities in other entities within the University
 - Expand our reach to develop STEM educators who understand the local, national, and international nature and needs of STEM education and are better prepared for teaching in settings involving diverse learners
 - Generate STEM-focused fellowships and assistantships to enlarge the pool and diversity of high-quality STEM education graduate students, including the new Intervention Studies Graduate Fellowships

- Strengthen career and technical aspects of STEM education

Discussions about STEM education, particularly in research-oriented universities like Penn State, tend to focus on STEM education at the baccalaureate and graduate levels. There are important parallel and sometimes overlooked aspects of STEM education that involve career and technical education in community colleges and other post-secondary educational settings. There are also important school-to-work issues surrounding technical education at the secondary level. We are actively involved in these issues, largely thanks to our program in Workforce Education and Development, and we believe it will be mutually beneficial for our colleagues in career and technical education to work more closely with our colleagues in mathematics and science education. We also recognize the potential for stronger and more productive ties to be made with our colleagues in outreach and continuing education who are working to improve workforce development in the Commonwealth of Pennsylvania and beyond.

- Enhance opportunities for students with disabilities to become involved in STEM fields

Students with disabilities are sometimes unaware of career opportunities in STEM fields and may be denied access to the accommodations they are entitled to receive

under federal law. These missed opportunities can be significant given the high returns associated with STEM abilities and interests. As a College we are well and in some ways uniquely positioned to address these issues and will seek to pursue this agenda as part of our STEM signature endeavor.

SIGNATURE ENDEAVOR #4. LANGUAGE, IDENTITY, AND THE ARTS IN EDUCATION

Background

The College has longstanding interests in language and literacy education and is resolved to broaden its focus to address questions of identity and the arts in the context of language development and utilization. We see language as lying at the heart of communication in a society that is growing ever more diverse as we move further into the 21st century. We also recognize the importance of what are being referred to as the “new literacies” which typically involve modern telecommunication and computing technologies. Young learners are increasingly oriented around new methods of communication, and it behooves educators to find ways to harness these interests and capabilities in ways that enhance learning and the ability to function effectively as citizens in a global society. The ability to communicate effectively in the 21st century will require more than conventional fluency in one or more languages. The utilization of symbols and images is taking us to places that were unimaginable even a short time ago.

Given our existing strengths in language and literacy education, we see this area as the logical starting point for this endeavor, and we have already begun taking steps to strengthen our offerings. In particular, we successfully completed a number of faculty searches during the past two years with an explicit focus on language and literacy. We have or will be welcoming six new tenure-line faculty members with interests focused on reading, the role of language in cultural identity, the new literacies, and children’s literature.

We also made a very deliberate decision to re-staff our program in World Languages education (World Languages education used to be known as Foreign Language education) and to broaden this offering with a new tenure-line faculty position in English Language Learning. We believe it is imperative for a major college of education like ours to provide national leadership in the areas of World Language and English Language Learning. We also see these as highly complementary efforts since it is important for native English speakers to learn and appreciate other languages and cultures (and we see language as a key avenue toward understanding cultural identities), just as it is so vitally important for learners of all ages in this country to learn English. The Penn State students we are preparing to be teachers will be in classrooms with linguistically diverse students. Our graduates need to be able to function effectively in these environments, and we see our investments in World Language Education and English Language Learning as key steps toward better preparing future teachers.

The College has a long history of being involved with indigenous peoples with particular emphasis on American Indians and Alaska Natives thanks to our American Indian Leadership Program and the new American Indian Education Research Center. These

endeavors, along with our emerging collaborative work with other colleges around the indigenous peoples theme, are enduring priorities for us and fit well with the Language, Identity, and the Arts in Education signature endeavor.

This signature endeavor also aligns well with Penn State's growing emphasis on International Studies and the creation of the new School of International Affairs. The College of Education has maintained interest in international studies for many years, primarily through its dual-title graduate degree in comparative and international education as well as through our partnerships with numerous universities and our student teaching exchange programs in Sweden, England, the Netherlands, and Norway. More recently we have strengthened the international dimension of the College by serving as the host for Penn State's Humphrey Fellows Program. We see the Humphrey Fellows program as a rich resource for helping us understand language and communication issues around the globe as well as for helping us promote the study of transnational education issues. This interest will continue, but we hope to use our growing interest in Language, Identity, and the Arts in Education as a mechanism for broadening the international reach of the College.

We also see and are already taking advantage of the obvious collaboration possibilities with our colleagues in the College of the Liberal Arts. The Department of Applied Linguistics has been an active partner with us as we have moved to strengthen the World Languages and English Language Learning areas of the College. We look forward to strengthening these relationships in the years to come.

Language learning will also be the focus of our Thematic Innovation Fund (TIF) work with Penn State Outreach. We will continue the discussions that are underway to solve the problems faced by school districts that would like to offer instruction in "high priority languages" such as Chinese and Arabic. Currently school districts can't find certified teachers, and often need to share teachers across large geographic regions. The College of Education will lead an effort that will use Penn State's strengths in teacher certification to develop a new streamlined certification pathway for native speakers of these languages and will use its expertise in technologies and distance learning to help school districts develop ways to import instruction to regions where no certified teachers live.

The decision to include the arts as part of this signature theme is quite deliberate and reflects our overarching belief in the importance of the arts as a means of developing cultural as well as individual identity. As educators we have a responsibility for going beyond the use of schooling as a means of mastering discrete sets of skills. Education can and should play a key role in the development of a sense of self as well as one's humanity. Collectively, these identities give rise to culture, and education plays a key role here as well. We also see the arts as a means by which we can assist students in understanding and appreciating their own individual as well as cultural identities in addition to the cultural identities of others.

We have discussed an arts-in-education theme in previous strategic plans and have stressed the idea that we need to view the arts as being relevant to all educators, regardless of the specific area of interest or specialization. Although it is possible and desirable for an educator to specialize in an area like art education, this focus is just one part of the role the arts can and should play in educational contexts. We have been taking active steps to strengthen the role of the arts, especially in our elementary education teacher preparation program. Our

colleagues in art and music education within the College of Arts and Architecture have been very helpful, and we also succeeded at creating a joint tenure-line faculty position between Art Education and Curriculum and Instruction. We look forward to adding strength to these joint efforts.

Plans for the Immediate Future

- **Build on Existing Momentum**

We have hired a significant number of new faculty members who will be working in this area. We need to make sure they understand the approach we are developing and remain open to the new ideas and interests they will be bringing to the College and University. We also need to keep the growing collaboration with the Applied Linguistics program in the College of the Liberal Arts strong.

- **Pursue New Curricular Initiatives**

- Contribute to the creation of a new undergraduate minor in Teaching English to Speakers of Other Languages (TESOL)
- Strengthen the joint Teaching English as a Second Language Certificate for both pre-service and in-service teachers
- Recruit heritage speakers of less commonly taught languages

- **Strengthen the Visibility of International Programs and Opportunities**

- Start a college advisory and coordination group for all international activities within the College
- Identify ongoing international (non-US) projects within the College and build and maintain a list with descriptions
- Generate a list of faculty members interested in expanding their work to include international research and/or training
- Strengthen support for graduate students from abroad given existing and growing competition
- Continue to support the Humphrey Fellows Program and the School of International Affairs.

SIGNATURE ENDEAVOR #5. TECHNOLOGY AND LEARNING IN THE 21ST CENTURY

Background

It is relatively common these days for colleges of education to place emphasis on technology and its applications to education phenomena, and technology is clearly important for us as the College of Education at Penn State. Indeed, the “bold use of electronic technologies” was and is one of our fundamental commitments as a College. However, what we think can truly set us apart is a commitment to doing the research that needs to undergird the application of technology to educational phenomena. Moreover, we see ourselves excelling in three areas of application: the conduct of instruction; the pre-service preparation of education professionals; and the management of information, including safety and privacy issues.

Conduct of instruction. Computing and telecommunication technologies make it easier to gain access to and manipulate information. These technologies raise exciting questions about the design of instructional space and the interface between teachers and students. For example, we are accustomed to thinking that content knowledge needs to emanate from the proximate teacher, and we may be entering a period where we can become less dependent on this arguably limited and quite expensive means of infusing content knowledge into instructional settings. Instructional technology is opening the door on new ideas about what it means to establish learning communities. There are powerful digital tools that make it possible to enhance communication in all directions: teachers to learners, learners to teachers, teachers to teachers, and learners to learners. There are other powerful digital tools that give students and teachers access to content and support learning in multiple curriculum areas. We need to know more about the fundamental properties of human learning in these evolving settings and recognize that these properties are likely to vary across different curriculum content areas.

Pre-service preparation of education professionals. We are already recognized as a college for our pioneering work regarding the use of electronic portfolios as a powerful means of allowing aspiring teachers to reflect meaningfully on practice and its improvement. The new EDUCATE initiative promises to take even greater advantage of the power offered by notebook computing technology. There are parallel opportunities in other areas of our professional preparation programs. For example, the use of digitized records of interactions between counselors and psychologists and their clients in the CEDAR clinic will make it possible to pinpoint key elements of a session with unprecedented ease and accuracy.

Information management. The ability to monitor and evaluate pupil progress through the use of unobtrusively collected data is making it possible to individualize teaching and learning experiences of students of all ages. We can look forward to the day when teachers have instant access to the information needed to make decisions about the best next steps to take, learner by learner. Research is under way in the College to make connections between resource allocation decisions being made by administrators and decisions teachers make about how to distribute resources within classrooms. Moreover, as the 21st Century Skills Assessment Project is demonstrating, this kind of information can be used to tailor programs to meet both individual and group learner needs.

We also see Technology and Learning in the 21st Century as an area where we can work strategically with our colleagues in outreach and distance education. The PSU Online Steering Committee included the following two goals in its May 19th description of its strategic goals:

- 1) Deepen the UNDERSTANDING of online learning throughout Penn State by pursuing active RESEARCH AND TRAINING agendas for faculty, students, and staff
- 2) Establish an AGENDA FOR EXPERIMENTATION that allows the University to effectively explore the multiple evolving dimensions of online learning

Given the long history of our involvement in the practice and study of distance education through the American Center for the Study of Distance Education, we are well positioned to work with our colleagues in Outreach to conduct the necessary research, training, and experimentation.

As great and impressive as these technological capabilities are, there are dangers to consider, and this also is an area where the College can provide leadership for the field. In particular, there are safety issues for teachers, students, and parents. There are closely related security issues that also warrant attention—including identity theft and the misuse of technology, as well as the possible existence of badly designed technology. The potential for technology to be misused speaks to the importance of impartial research so that consumers are protected. It is clear that research needs to be at the core of any initiative we pursue, and we have an impressive research record to build upon.

We must also be attentive to the interface between technological advances and the needs of learners with disabilities. For example, students with sensory disabilities (blind, deaf, and hard-of-hearing) and cognitive disabilities (learning disabilities, head injuries, and mental retardation) often require adaptations to take advantage of technology. Fortunately, technologies are available to meet these needs, and as a College we are very well positioned to be attentive to this part of the technology agenda in the field of education.

Plans for the Immediate Future

- Transform existing teaching laboratories into cutting-edge learning environments to support innovative instructional practices and research on learning and teaching in technology-rich settings.
- Create an Innovation Studio to support the building of capacity among faculty to use technology in support of research, teaching and learning, and outreach.
 - The Innovation Studio will be a place where faculty can go to receive support for pedagogical innovations that involve technology, be introduced to and/or become skilled at using emerging technologies, and explore technology tools for advancing their research.

- The Studio will expand current efforts associated with the EDUCATE initiative to all Departments of the College. Examples of projects that could be supported through the Studio include:
 - Supporting solutions for storing, streaming, and coding video associated with research in classrooms as well as in non-classroom settings.
 - Assisting faculty in using desktop conferencing to enhance resident instruction courses or research group communications.
 - Identifying powerful tools and systems for communicating with students who graduate from our programs.
 - Interacting with school partners in urban settings to create opportunities for our students to participate in real-time observations of diverse classroom communities.
- Continue to build the EDUCATE initiative and encourage its expansion to additional teacher education majors.
- Raise new funds to support students facing financial difficulties as they seek to comply with the new notebook computer requirements.

IV. Crosscutting Initiatives

In addition to the pursuit of these five signature endeavors, we will be assigning a high priority to improving basic operations in the College. These are crosscutting kinds of improvements that will complement the five signatures and will benefit the entire College.

(1) Scholarship Support for Students

As tuition rises, it is becoming imperative for us to provide additional scholarship support for both our undergraduate and graduate students. Scholarship support for students is a prominent feature of the new Penn State fund-raising campaign and we will be assigning a high priority to steering future gifts in this direction.

At the undergraduate level, the University has developed an innovative Trustee Matching Scholarship program. We will be emphasizing this program as we work with donors who wish to support undergraduate students.

We have already mentioned our plan to develop a program of Intervention Studies graduate fellowships that will be designed to make us more competitive in our efforts to recruit the top graduate students coming into the field of education. We will make this program a prominent part of our effort to secure financial support for graduate students.

We are also reaching the point where it makes sense to switch away from our current funding model where our emphasis has been on investing resources in the tenure line faculty in favor of steering some additional support toward graduate students. We must become more competitive with our peer institutions in our ability to support graduate students and we have more to say about this change in strategy in the Recycling section of this plan.

We recognize that the need for student support is especially critical in areas with chronic shortages of personnel like STEM Education and Special Education.

(2) Undergraduate Curriculum Development

◆ Implement the new and redesigned undergraduate majors

As indicated, we have made significant changes in what is now known as our Rehabilitation and Human Services undergraduate major. The program needs to be implemented and fine tuned.

Our new major is called Education and Public Policy, and we will begin admitting students in fall 2008. There are implications for new courses and re-designs of existing courses, and these changes will be phased in over the next few years.

◆ Achieve Compliance with new PDE Teacher Preparation Regulations

The new teacher certification regulations coming from the PDE are prompting major changes in the design of our teacher preparation programs. We are developing a new major that will replace the existing elementary and kindergarten education major. We are developing new options for Pre-K through 4th grade certification and 4th through 8th grade certification. The existing Secondary Education major will continue to prepare students for certification in 7th through 12th grade. These cut points correspond to the new certificates that will be issued by PDE.

The second major change in regulation for our existing elementary and kindergarten major involves new requirements for meeting the needs of students with disabilities. There is a growing national awareness of society's responsibility for supporting improved educational outcomes for individuals with disabilities. More than one in five individuals with a disability live in poverty, twice the national average, and the new regulations reflect a new and welcome resolve on the part of the Commonwealth to address these needs. The new state standards will require *all* students preparing to be certified teachers to take nine credits of course work to prepare them to work with students with disabilities, and this will make enormous new demands on our Special Education faculty. Likewise, all students preparing to be special educators will be required to take additional course work designed to strengthen their knowledge of the subject areas in which they teach (e.g., mathematics, reading, or science).

These new requirements will involve additional time for our students and additional resources from us as we seek to provide the relevant courses. We expect to see a substantial increase in the number of dual certificates being sought by our students. Beginning in 2013, all special education candidates will need to complete dual certification in grades PK-4, 4-8, 7-12, or as a reading specialist.

◆ Strengthen International Aspects of Teacher Preparation

The International Programs Study Team recommended the creation of a task force to develop a conceptual framework and operational plan for enhancing international study as a component of teacher education programs. We have enjoyed good success with our international placements for practicum experiences and hope to expand these, particularly in Puerto Rico where our students can gain valuable experience in a Spanish speaking culture. We are also in conversation with officials from the Instituto de Educação Superior in Brazil about developing a program that would support residential programs in Brazil for Penn State students. We expect our new Director of International Programs to play a key role in moving us forward in our efforts to internationalize our teacher preparation programs.

- ◆ Minor in Teaching English to Speakers of Other Languages (TESOL)

As previously indicated, we will be working closely with our colleagues in the College of the Liberal Arts to establish and support this minor. In addition, we plan to expand the joint Teaching English as a Second Language Certificate for pre-service teachers.

(3) Graduate Curriculum Development

- ◆ Create a New Graduate Emphasis Area in Teacher Education

We discussed this initiative as part of Signature Endeavor #2 in the area of Interdisciplinarity in the Preparation of Professionals for Practice.

- ◆ Continue to Explore the Feasibility of an Online Professional Doctorate

At the invitation of the Senior Vice President for Research and the Dean of the Graduate School, we have been working with our colleagues at Penn State Harrisburg and Penn State Great Valley to explore the possibility of offering an online version of Penn State's professional doctorate in education. A representative task force has been at work on this exploration, and we expect to have a report during fall 2008.

- ◆ Achieve Compliance with new Pennsylvania Department of Education Regulations in the area of Administrator Preparation

There are new regulations governing the certification of administrative personnel in Pennsylvania's public schools, and professional ethics has been recognized as a high priority that needs to be strengthened throughout the Commonwealth. We are very well positioned to respond to this new challenge at Penn State because of the extensive engagement of the faculty here, both within and outside of the College, with these issues. The University Council on Educational Administration located its Center for the Study of Leadership and Ethics at Penn State and named it in honor of long-time College of Education faculty member Donald J. Willower. The Willower Center works closely in collaboration with Penn State's Rock Ethics Institute which is based in the College of the Liberal Arts. We are actively engaged in advising PDE about the new requirements, and will be modifying our program to achieve compliance.

We also see professional ethics as an area of priority for us in the future and hope to secure external support to gain further strength in this area of scholarship.

(4) Green Initiative in the College of Education

Students, faculty, and staff in the College of Education are concerned with and committed to environmental stewardship. There are several important initiatives at Penn State and in the surrounding community related to these commitments and these

are leading to opportunities for College of Education members to become involved in learning about and contributing to the environment, ecological literacies, and sustainability. These efforts require us to work in interdisciplinary and thoughtful ways with future and current teachers, students, and the community.

In the short term, Drs. Madhu Prakash and Jacqueline Edmondson will coordinate activities in the College of Education with leadership from undergraduate as well as graduate students to do the following:

1. Raise awareness among educators about issues of sustainability and the environment, both in matters of curriculum and daily life;
2. Learn about and connect with environmental efforts that are ongoing at Penn State and the Centre region; and
3. Take action to live in a more environmentally conscious way in the College of Education and elsewhere (for example, turn off lights and computers when not in use, minimize/eliminate use of bottled water, reduce use/waste of materials and food, and contribute to composting and recycling, among other things).

In the long term, we expect the College to become a leader and role model in areas of environmental stewardship and the education of educators regarding these matters.

(5) Advising Services

The academic advising unit in the College faces different demands than it did just a few years ago. In addition to dealing with the unique characteristics of millennials and their parents, there are new and different demands related to changes in teacher certification, accreditation and program review, uses of technology, demands for data, new majors, and relationships with campuses.

In order to better understand these complex and new demands and the ways in which the College can meet them, we will conduct a self-study of the advising and certification services. The self-study will provide an opportunity to revisit the vision, mission, and goals of the Advising Center, and to recommend adjustments and changes that, coupled with strengthened faculty advising of students, will enhance the quality of advising and student services in the College.

In addition, the Evidence Study Team identified the need for graduate students to receive training across the various research methodologies and called for improved advising, including the development of a clear overview of available courses. We plan to conduct an inventory of what courses are available for which types of data analysis and which types of data collection designs and hope to create a Web-based resource that will be available for all students.

(6) Technology Support

Our plan to create an Innovation Studio opens the door on some new thinking about the nature of technical support we provide in the College. Our Education Technology

Center (ETC) is responsible for providing technical support for the more than 600 work stations that exist in the College. In addition, ETC oversees the operation of our network and works closely with ITS to provide the necessary security safeguards.

The Innovation Studio we are planning to create (see Signature Endeavor #5) will place new demands for technical support on ETC and may also have implications for the utilization of space within the ETC footprint. In addition, the new endowment we have received that names our Technology Center provides a good opportunity to consider ways to expand and strengthen the role of technology support within the College. We will be actively exploring these opportunities over the next five years.

(7) Partnerships with Key Constituencies

Within the University

- ◆ With other Penn State Campuses — As we indicated earlier under Signature Endeavor #2, the College has made a concerted effort to build strong collaboration with campus locations through regular meetings and ongoing conversations related to programs. As these collaborations strengthen and relationships among faculty members become more developed, there is wonderful potential for cross-campus research related to teacher education, teacher *educator* education, and further interdisciplinary work.
- ◆ CYFC/SSRI — We continue to see great value in our collaborative work with CYFC/SSRI and will be working to build even stronger ties. The new Center for Applied Educational and Developmental Sciences is designed explicitly to achieve this goal.
- ◆ STEM Colleges — Signature Endeavor #3 (STEM Education) is built around the presumption that linkages with the STEM Colleges will continue to grow and become stronger.
- ◆ College of the Liberal Arts and the College of Arts and Architecture — There will be new opportunities to work more closely with both colleges as we pursue our Language, Identity, and the Arts signature endeavor.

With External Groups

- ◆ State College Area School District — Our Professional Development School initiatives remain strong, and we will be seeking to work with the district to expand the model into other areas of practice, like school psychology, counseling, and educational administration.
- ◆ Other School Districts — We interact with other Pennsylvania school districts in many ways, and one of the most important is the role they play in providing sites for practice for our students. We recently redesigned the Field Placement Office for our largest teacher preparation programs and foresee stronger connections between

theory and practice as a consequence. In addition, the new Center for Applied Educational and Developmental Sciences along with parallel efforts from established entities like the Center for Science and the Schools and the Pennsylvania School Study Council will be working to improve relations among researchers and school districts. We will also be continuing to work closely with our colleagues in Outreach to make sure the programs we are developing meet the real needs of practitioners in the field.

- ◆ Literacy Councils — Our Institute for the Study of Adult Literacy along with the Goodling Institute for Research in Family Literacy will continue to work closely with the Literacy Councils in Pennsylvania. We have a long tradition of being deeply involved in research and outreach efforts focused around family literacy and remain deeply committed to this work.
- ◆ City of Philadelphia — As we have indicated, the Sheppard School initiative is an outgrowth of our Professional Development School work with the State College Area School District. We are still in the early stages of developing these programs, but the early signs are positive, and we will be building on the momentum. Conversations are in progress about making a stronger connection between our PEPP Program in Philadelphia and the Sheppard School.⁶
- ◆ World Universities Network (WUN) — Conversations are taking place about having the College play a leadership role in developing research collaborations among WUN members that include peer research-oriented universities from around the world.

(8) Outreach and Continuing Education

In the coming five years, the College of Education at Penn State will move with the University from current practice, which might be described as numerous outreach and service projects, to the next level characterized by "engagement." In the national outreach community the term "engagement" is reserved for true partnerships in which collaborating organizations collaboratively identify problems, design solutions, implement solutions, and evaluate the quality of their processes and products.

The College currently has two projects that exemplify engagement, the Professional Development School and the Sheppard School Partnership. In the coming years we will expand this list, adding the Thematic Innovation Fund collaboration on language learning, a series of initiatives in the area of Workforce Education and Development, and partnerships in the area of STEM education, as outlined under Signature Endeavor #3.

⁶ PEPP is an acronym for the Penn State Educational Partnership Program. The College of Education operates PEPP programs at three locations: McKeesport, Reading, and Philadelphia. The program offers a wide variety of educational services for high school and middle school students in these locations and is designed to raise educational aspirations.

In addition to the large-scale engagement projects mentioned above, the College will expand its efforts in online teaching through the World Campus and continue to expand its work with Conferences and Institutes, Continuing Education, and WPSU.

(9) Office of Multicultural Programs

We are in the process of strengthening the academic dimensions of our Office of Multicultural Programs. This is part of the diversity agenda we are pursuing in the larger effort to implement Penn State's Framework to Foster Diversity. The Office is playing an increasingly important role with respect to the provision of tutoring and support services for students as well as assistance to faculty members who are seeking to strengthen multicultural aspects of the courses they teach. As part of this effort, and in keeping with the feedback we received from the Provost's Office regarding the most Progress Report we submitted (please see www.ed.psu.edu/educ/for-current-faculty-and-staff/diversity-community/dcec-progress-report06/view for a copy), we are in the process of turning the director's position into an assistant dean position within the College. A number of other colleges at Penn State have moved in this direction, and we see it as a logical next step in the development of this office.

(10) Links with Alumni

In keeping with the recommendations we have received from our Operations Study Team and the College's Alumni Society Board of Directors, we are planning to conduct a survey of recent graduates for the purpose, in part, of gaining a better understanding of the impact of our professional preparation programs, both undergraduate and graduate. This survey will also be relevant for our NCATE accreditation review.

The Operations Study Team made a number of additional quite specific recommendations about steps we can take to strengthen our ties with alumni and we will be reviewing these carefully in conjunction with the College's Alumni Society Board of Directors.

(11) Publications and Visibility

The College has made striking progress within the past few years in refining and improving its publications, both electronic and print, as well as its ability to interact effectively with external constituencies like prospective students and the media. For example, within the past few months we have added digital signage to each of the College's four buildings. We are still experimenting with how best to make use of this new communication technology, but the initial feedback has been quite positive, and we are impressed with the power of the signs at conveying information quickly and easily.

We are also in the process of migrating all of our Web pages over to the new content management system that we have implemented in collaboration with our colleagues in Information Technology Services. We have been pleased with the results but also a bit overwhelmed by how large the task is to make such a sweeping change. However, the new content management system is much easier to use, and we are confident that we

will be doing a much better job at keeping information up to date and readily available than has been the case in the past.

Our goal has been to create a bright and positive image for the College and to provide better service for two vitally important groups in particular: (1) current faculty, staff, and students; and (2) prospective students and faculty members, employers, media, and alumni. We know the Web is an increasingly important source of information for prospective students at both the undergraduate and graduate levels. We recognize our responsibility to make our Web pages as well-designed and inviting as possible.

Please see Appendix B for a more detailed statement about our plans for improving communications.

(12) Organizational Structure for the College

The School Psychology Study Team recommends achieving better connections across programs in the areas of educational psychology, school psychology, and counseling. We will be exploring various ways of accomplishing this goal.

V. Assessment and Accountability Issues

The College of Education has a long history of documenting learning outcomes for external accrediting bodies and professional agencies. Academic programs are approved by the Pennsylvania Department of Education ([PDE](#)) and accredited nationally by organizations such as The American Psychological Association ([APA](#)), the Council for Counseling and Related Educational Programs ([CACREP](#)), the Council on Rehabilitation Education ([CORE](#)), and the National Council for Accreditation of Teacher Education ([NCATE](#)).

Our curricula also reflect preparation guidelines of national learned societies and groups such as the: American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD), Association for Childhood Education International (ACEI), Association for Education Communications and Technology (AECT), Commission on Rehabilitation Counselor Certification (CRCC), Council for Exceptional Children (CEC), Holmes Partnership, International Reading Association (IRA), Interstate New Teacher Assessment and Support Consortium (INTASC), International Society for Technology in Education (ISTE), International Technology Education Association/Council on Technology Teacher Education (ITEA/CTTE), National Association for the Education of Young Children (NAEYC), National Association of School Psychologists (NASP), National Board for Professional Teaching Standards (NBPTS), National Council of Teachers of Social Studies (NCSS), National Council of Teachers of English (NCTE), National Council of Teachers of Mathematics (NCTM), and the National Science Teachers Association (NSTA).

In addition to collecting data and evidence of learning for external reviewers, the College of Education is making strides in collecting and analyzing data for ongoing internal review and continuous program improvement. Beginning in fall 2008, an assessment committee consisting of faculty and students will meet regularly to discuss currently available program data, including PRAXIS exam scores, survey data, post-graduation activity, focus group data, and more. This committee will make decisions about data dissemination to faculty and students, and determine where additional data are needed. Discussions about program data will be facilitated in ways that result in ongoing analysis of programs.

The College, through the Center for the Study of Higher Education, has also been actively involved in evaluating and improving the use of performance data for purposes of accountability in several fields, most notably the field of engineering. Given our history with having to demonstrate our impact as well as the knowledge gained through the study of other fields, we are in a good position to serve as a resource to Penn State as the University works to develop its own methods for demonstrating impact on students. This is an increasingly important part of the Middle States Accreditation review for the University, and faculty members from the College have been actively involved in the University's planning efforts for the next Middle States review.

VI. Recycling Plans and Requests for New Funding

Past Recycling

Faculty and staff positions that become vacant in the College of Education continue to revert to the Dean's Office for redesign and possible reallocation across the Departments. This practice provides major opportunities to make shifts in emphasis within the College. Even in cases where a position remains in a given area, we are careful to align the responsibilities for the position with emerging opportunities in the field.

In response to past budget pressures, each Department in the College was asked to absorb a reduction of two tenure line faculty positions over a period of several years. We have gradually implemented this reduction as retirements and departures for other reasons have taken place. Our Departments made these reductions with the understanding that the College would absorb the 1% recycling charge that has been imposed for the past several years by the University's central administration. As a consequence, the size of our tenure-line faculty has declined, and we reached a point where programs, particularly in our largest teacher preparation areas, began to show signs of stress. Steps have been taken to strengthen the faculty in these areas, and we made substantial progress in our hiring efforts during the 2007-2008 recruitment period.

Enrollment growth, particularly in areas like secondary social studies education, is creating major challenges for us as we seek to find field placement sites that are reasonably close to the University Park campus. For the capstone student teaching experience, we can place students throughout the Commonwealth and beyond, but for the earlier practicum experiences, the students are still based at University Park and need to travel to the schools. Given the sparsely settled nature of our geography, the distances traveled can become large and the rising price of fuel is creating new cost pressures, both for the College and for our students.

Future Recycling

As we look to the future we anticipate making a change in our recycling practices. For the past ten years, we have assigned our highest priority to expanding and strengthening the faculty, particularly the tenure-line faculty, in strategically important areas. Our reasoning has been that by hiring and retaining the best possible faculty, we will enhance the quality of our programs and provide better support for our graduate students thanks to resulting increases in grants and contracts in the College. We have been remarkably successful at pursuing this strategy. We are routinely able to hire our first choices when we search for faculty members. Grants and contracts have been growing at an impressive rate. And, we have been quite successful at retaining faculty and staff.

However, we are increasingly conscious of the fact that we are not keeping pace with peer institutions with respect to the level of support we are offering graduate students. The growth in our grants and contracts helps to provide this support, but these funds are unevenly distributed across the College, and we need to guard against becoming a College where significant support is only available in well-funded areas of the field. We are therefore planning

to make a shift in our priorities so that we will devote more base funding toward the support of graduate students. As dollars become available to us because of retirements or resignations, we will be shifting a portion of the funds toward the support of graduate students. We do not plan to make a major or abrupt shift, but over the next five years we will move in this direction even if it means that we will be hiring fewer new faculty members. The strongest candidates for our faculty positions expect to find institutional support for graduate students that is supplemented by support coming from grants and contracts. Thus, over time we believe our new strategy will make us even more competitive for the top faculty candidates. The shift in strategy should also make us more immediately competitive for the top graduate student candidates.

We will also be making changes in how we make use of the revenue sharing dollars that are being generated by our Outreach programs. In the past, 75% of the revenues coming back to the College have been distributed back to the departments with 25% retained by the Office of the Associate Dean for Outreach. We plan to move toward a 50-50 funding model with the understanding that the increased share of funds being held centrally by the College will be used to help fund the new initiatives identified in this plan.

The College has worked hard to protect the departments and other units from permanent budget reductions due to the recycling funds that need to be returned each year to the central University. Our department budgets already have very modest allotment allocations, so if this kind of reduction were imposed on department budgets, there would be a direct reduction in the level of support for graduate students and staff. Although we have succeeded with this strategy in the past, we cannot guarantee the ability to do so in the future, particularly if the recycling percentage were to increase or if the financial position of the College were to worsen.

Requests for New Funding

As our attention turns to the implementation of our plan, we recognize the need to pool resources from several sources. The changes we expect to make in our internal recycling practices along with the shift we are planning to make in how we utilize revenue sharing dollars from Outreach will permit us to set aside a modest amount of funding for the College to contribute. We will also be diligent in seeking support from other sources including the central University through the Provost's Office, the Children Youth and Families Consortium and the Social Science Research Institute, other Penn State Colleges, local school districts, and other sources such as foundations, corporations, and government funding agencies. The balance of this section is devoted to a sketch of how we plan to use funding from these sources.

(1) Provost's Office

Our primary request to the Provost's Office is for assistance at covering the costs of the new faculty members we will need to hire in order to be in compliance with the new regulations coming from the Pennsylvania Department of Education. There are three areas where we must strengthen the faculty in order to be in compliance: Childhood Education (at both the early and the middle (i.e., adolescent) levels), Special Education, and Educational Leadership. Our Childhood Education and Special Education needs are at the undergraduate level where student interest remains quite high, while the

Educational Leadership need is at the graduate level where student interest is also high. We provided information about the specific changes in PDE regulation in the Crosscutting Initiatives section of this report; we can provide additional information, if this would be useful. We see this as an opportunity for the University to make progress with its goal to become more student centered given the fact that these programs are popular among students and prepare them for meaningful professional careers.

We also request support for improvements in our physical plant through the Facility Resource Committee with particular emphasis on our plans for upgrading our teaching laboratories and the renovations that will be necessary for us to create the Innovation Studio.

We are also eager to expand our Professional Development School model beyond its current focus on teacher preparation. We have made some recent progress toward expanding the model to include School Psychology and seek additional faculty resources to expand the model further to include counseling and administration.

(2) Children, Youth, and Families Consortium (CYFC) and the Social Science Research Institute (SSRI)

We are in conversation with our colleagues in the CYFC and SSRI and expect to develop a partnership that will support the new Center for Applied Educational and Developmental Sciences. We are excited about the strength this Center will add to our research capacity and look forward to launching this initiative in the near term.

(3) Other Colleges

We are pursuing several significant collaborative efforts with various Penn State Colleges including the STEM Colleges through the Center for Science and the Schools, the College of Arts and Architecture through a jointly funded position and collaborations in Art and Music Education, the IST College through our common interest in the Learning Sciences, and the College of the Liberal Arts through its Applied Linguistics Department. We expect to expand and strengthen these relationships over the next five years.

(4) State College Area School District (SCASD) and Surrounding School Districts

We have been expanding our 10-year-old Professional Development School partnership with the SCASD to the point where the elementary program is now present in all of the district's elementary schools plus its two middle schools. The secondary English program also remains strong. These partnerships involve jointly funded positions, and we recently reached an agreement with the SCASD to fund a new joint position in our School Psychology graduate program. As we indicate above, we are eager to expand this concept into new areas like counseling and administration.

We have also begun to build partnerships with other school districts in the area to take advantage of our advanced doctoral students who need internship placements. School

Psychology is a good example where we have advanced doctoral students who have skills that can be of great use to school districts. We are working to develop agreements that would involve the school district covering the stipend for a graduate assistantship with the College covering the cost of the grant in aid so that an advanced graduate student could work in the school district for 20 hours a week and simultaneously earn credit toward his or her degree. This is an example of a creative partnership that is beneficial to the students, the school districts, and the College.

(5) Foundations, Corporations, and Government Funding Agencies

We will continue to seek funding from all three of these sources. To date, we have had the most success with government funding agencies and see great potential for us to do more with foundations and corporations. We hope to make significant progress along these lines during the next five years.

VII. Final Observations

We see strategic planning as an ongoing and iterative process and will stay actively involved with refining our plan throughout and beyond the next five years. It is impossible to anticipate every opportunity, and we need to maintain flexibility to take advantage of real opportunities that we cannot presently imagine. For example, in our last plan, we did not anticipate the opportunity to partner with our colleagues in the Dickinson School of Law, and yet here in the spring of 2008, we have a joint faculty appointment with Dickinson, we have created four joint graduate degree programs, and we are running a very successful law and education outreach program.

This nimbleness is important to our future as a College. At the same time, we need to be deliberate and not accept every unanticipated opportunity that beckons. A number of our study teams will continue to be active in the years to come and will help to keep us focused on the vision we have developed for this plan. The new planning process we implemented stimulated a remarkable and quite welcome level of engagement throughout the entire faculty and staff. We will endeavor to maintain the positive energy that surrounds this planning effort.

The field of education is intellectually alive and filled with challenges and opportunities. Our plan is designed to open pathways for all learners to achieve at unprecedented levels. We aspire to be at the cutting edge of our field and recognize the important role education plays in a rapidly changing and increasingly interdependent global society.

We look forward to taking the next steps toward implementing our plan and stand ready to work collaboratively with our colleagues in other parts of the University. Reactions to this document are welcome and will be factored into our ongoing planning efforts. We are privileged to work in this field and remain grateful for the levels of dedication, talent, and energy that we bring collectively to the endeavor.

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IX. Appendices

APPENDIX A — Summary Results from the 11 Study Teams⁷

LITERACY AND THE ARTS IN EDUCATION (#1)

TEAM MEMBERS: Gail Boldt (lead), Anne Whitney and Kim Powell

1. Commit to achieving national prominence in the integration of literacy and the arts through:

- Hiring
- Research support
- Creation of an Idea Studio
- Staff support for digital media development
- Integrated university-wide colloquia
- Creation of post-docs
- Advocacy for the arts

1. Integrate Arts into the College's undergraduate program

2. Create Partnerships with:

- Other colleges and units at Penn State
- K-12 school districts
- Community groups and studios

INTERNATIONAL PROGRAMMING (#2)

TEAM MEMBERS: David Baker (lead), Jamie Myers, Esther Prins, Ladi Semali, Elias Mpofu, William Rothwell, and Charles Hughes

A College of Education that (in the next five years):

1. Creates integrated international programs with regular coordination of current and proposed projects.
2. Achieves the goal of having between one-third and one-half of its faculty engaged in at least one research/training project that has an international dimension.

⁷ All of the reports from the Study Teams are available on the College of Education's Strategic Plan home page at: <http://www.ed.psu.edu/educ/for-current-faculty-and-staff/strategic-plan-folder>

3. Creates significant partnership(s) with non-American teacher training research universities.
4. Reaches the point where at least one-half of its undergraduate and graduate programs build in requirements along with viable options for study, research, and/or training outside the United States.

THE ROLE OF EVIDENCE IN THE FIELD OF EDUCATION (#3)

TEAM MEMBERS: Hoi Suen (lead), JoLynn Carney, Dorie Evensen, David Post, Jerry Trusty, and Paul Morgan

A wide variety of methods and designs are used by education researchers and evaluators. Appropriateness of method depends on the purpose of the research and the questions being addressed.

Regardless of types of data used, cogency of evidence depends on the reliability of data and its correct interpretation and use (i.e., validity). Students should understand the concepts of reliability and validity, and they should be encouraged to enroll in courses that address these concepts.

It remains to be seen whether the current orientation of the Institute of Education Sciences (IES) on experimental design will outlast the current administration. Policy and funding criteria could change in the future. Attempts by our College of Education to be guided exclusively by the current emphasis may position us just in time for obsolescence in another year.

Understanding experimental and quasi-experimental methods will continue to be essential for graduate students in the near future. But students also need to understand the traditions and basic methods of qualitative research.

The College of Education should conduct an inventory of what courses are available for which types of data and which types of data-collection designs. We recommend creating a College-wide repository for course syllabi and for concepts taught.

The College of Education needs to ensure students have a comprehensive view of the many methods and types of evidentiary data used in education. We note important advances in technology and the availability of new means of gathering reliable physiological or geographic evidence. But a consensus emerged in the current strategic planning exercise about the value of diversity and complementary approaches to evidence.

TEACHER EDUCATION (#4)

TEAM MEMBERS: Jim Nolan (lead), David Lee, and Richard Walter

1. Strengthen the quality of our teacher preparation programs by **working more collaboratively with practitioners, using technology more effectively, and ensuring that all programs are at an appropriate size.**
3. Establish a **Center for Research on Teacher Education** to enhance our national reputation and visibility in teacher education and develop a **cross-disciplinary doctoral level program in teacher education** that would supplement graduate study in specific disciplines or subjects.
4. Develop a systematic plan, including incentives and targeted scholarships, to **recruit and retain a more diverse student population** for initial teacher preparation programs and also to recruit students in general to high need and under-populated areas of certification.
5. Establish a Task Force to develop a **conceptual framework and operational plan regarding international study** as a component of teacher education programs as well as possibilities for study at sites within the United States that offer diverse environments.

UBIQUITOUS COMPUTING, TELECOMMUNICATIONS, AND THE SCIENCE OF LEARNING (#5)

TEAM MEMBERS: Carla Zemba-Saul (lead), Kathy Heid, Orrin Murray, Scott McDonald, Chris Hoadley, and Brian Smith

GOAL: Be a national leader in research and practice for educating educational professionals for 21st century technology-intensive learning environments.

Initiative 1: 21st Century Learning Environments for Research, Practice, and Supervision

- Classrooms
- Communications
- Ubiquitous access

Initiative 2: Build capacity among faculty to use technology

- Innovation Studio
- College of Education as a Digital Commons site

RE-ENVISIONING INTERVENTION RESEARCH (#6)

TEAM MEMBERS: Karen Murphy (lead), Jim Johnson, Susan Woodhouse, and Tom Farmer

NEED:

The Institute of Education Sciences has radically altered intervention research and the education sciences. We need to position the College of Education to help craft this “new science.”

GOAL:

Build new infrastructure to support research that transcends disciplinary boundaries and bridges methods while addressing complex educational problems.

STRATEGY:

Create an “Applied Educational and Developmental Sciences Institute.”

Functions:

1. Establish a research community and culture.
2. Build relations with stakeholders (schools, teachers, families).
3. Provide pre-award and post-award support.

Structure:

- Steering Committee
- Director/Associate Director
- Part-time Assistant/GRA

IMPROVING OPERATIONS (ALUMNI CONTACT/CULTIVATION FOCUS) (#7)

TEAM MEMBERS: Judy Kolb (lead), Judy Leonard, Brian Mauersberg, Kep Sones, Maria Schmidt, Suzanne Wayne, Craig Eozzo, and Judy Nastase

- Find ways to share information (respecting concerns about the intrusive use of lists).
- Increase the involvement of alumni with students (provide opportunities for contact, e.g., first year seminars, internships, and mentoring opportunities).
- Develop two-way interaction opportunities with alumni (90% are happy with the current contact).

- Develop ways for alumni to easily initiate interaction, preferably through the Web site.
- Use emerging technology to reach recent alumni (Facebook wikis, blogs, streaming media, etc.).

STEM EDUCATION (#8)

TEAM MEMBERS: Glen Blume (lead), Bill Carlsen, Cynthia Pellock, and Simon Hooper

1. Identify/address key STEM Education research problems; organize research teams.
2. Identify/disseminate existing STEM Education initiatives in the College and connections within the University.
3. Develop STEM Educators who are better prepared to teach in diverse settings.
4. Expand Waterbury Summits.
5. Continue the planning process with the new Waterbury Chair.

PROFESSIONAL ETHICS (#9)

TEAM MEMBERS: Paul Begley (lead), Nancy Tuana, and Liza Conyers

Six interdisciplinary strategies for scholarly inquiry on the subject of ethics. Integrate existing projects, expertise and funding with two new initiatives and funding.

1. Responsible Conduct of Research Projects

Establish and fund a graduate assistantship position for five years to identify and collect resources relevant to the responsible conduct of research; develop and deliver curriculum and presentations for faculty and students; collect base-line data on research practices at Penn State; develop a Spencer Foundation grant proposal for further research on this subject. New Funding: \$25k per year for five years.

2. Community/College Based Small-Scale Research Projects on Ethics

Establish annual funding in support of small-scale research projects relating to ethics. These would be carried out within the College of Education and local school districts. Establish five grants annually of \$5k per year for five years that will be managed by the Willower Center. New funding: \$25k per year for five years.

3. Annual Moral Literacy Colloquium

Continue annual moral literacy colloquiums by the Rock Ethics Institute and the Willower Center. Outcomes will include: compilations of downloadable resources, conference papers at national conferences, and special issues of refereed journals. No new funding is required.

4. Annual Values and Educational Leadership Conference

Continue the annual conference sponsored by the Willower Center. It has a 13-year history of success and excellence. The average attendance has been between 100 and 150 participants. Seventy papers are delivered annually and the proceedings are published on a compact disk. No new funding is required.

5. Refereed Publication

Values and Ethics of Educational Administration (VEEA) is a refereed journal established in September of 2002. This journal is published quarterly, both in paper format and on-line. Back issues are archived and readily downloadable. No new funding is required.

6. Compilation of Resources for Teachers and School Leaders

The Web sites of both the Willower Center for the Study of Leadership and Ethics and the Rock Ethics Institute have become a repository for resources and reading lists on subjects related to values, ethics, and moral literacy. These resources are produced by graduate students carrying out project work during the summer. No new funding is required.

ENGLISH LANGUAGE LEARNING AND WORLD LANGUAGE ACQUISITION (#10)

TEAM MEMBERS: Pat Shannon (lead), Joan Kelly Hall, Linda Mason, and Karen Johnson

Curricular

Build stronger bonds with the College of the Liberal Arts, particularly with the Department of Applied Linguistics and Language Departments.

Teaching English as a Second Language (TESL) minor and teacher education

Recruit heritage speakers of less commonly taught languages into programs.

Research

Develop cross-disciplinary groups around research on language learning.

Advocacy

Advocate for World Language Education in Pennsylvania schools.

Expand the mix of languages being taught to include Arabic, Chinese, Japanese, and Russian in addition to Spanish, French, and German.

SCHOOL PSYCHOLOGY PROGRAM REVIEW (#11)

TEAM MEMBERS: Robert Hendrickson (lead), Kathy Ruhl, Spencer Niles, Pat Moore, Rayne Sperling, and Jackie Stefkovich

1. Current efforts to move the existing School Psychology graduate program toward becoming more oriented around an integrated interventionist theme are desirable and should be continued.
2. The College should fill the vacant faculty position in school psychology with an individual who will strengthen the integrated interventionist theme.
3. The College of Education should better integrate current teaching, research, and service efforts within school psychology into other relevant parts of the College, particularly in counseling.
4. The School Psychology graduate program should streamline its existing program so that it requires less time of students and at the same time broaden the curriculum so that in addition to preparing to become practicing school psychologists students have the opportunity to develop into scholars in the field.

APPENDIX B — Strategic Planning for Communications

The College must communicate large amounts of information to two vital groups: 1) current faculty, staff, and students; and 2) prospective students and faculty members, employers, media, and alumni.

Adequately managing communications to the first group can improve collaboration and decrease redundancy and confusion. Managing communications for the second group can help the College meet its goals for student and faculty recruitment and establish a strong reputation for the College.

I. Internal Communications

New technologies are making it possible for us to reach out to the College community of faculty, staff and students. By using these technologies appropriately, our goal is three-fold:

1. Improve understanding about College processes and policies.
2. Increase collaboration and cooperation.
3. Build a stronger College community.

A. Internal College Web site (<http://www.ed.psu.edu/educ/for-current-faculty-and-staff>):

The College has already made significant strides in developing a single source for information on College processes and policies. We would like to build on that in the following ways:

1. Set up content owners as editors in the new content management system (CMS) so that they can more easily maintain their respective pages within the site (i.e., Finance Office, Promotion & Tenure Review Committee, Diversity Committee).
2. Conduct user testing and surveys among faculty and staff to determine what current information should be retained on the site and the best way to organize and present the information.
3. Publicize the presence of the site regularly through the following mechanisms
 - a. Make short presentations at department faculty meetings, at the College-wide meeting in the fall, at a faculty council meeting, and at one of the College Advisory Committee Meetings.
 - b. Alert people to the existence of the link on the College home page using listserv e-mail and through the digital signage system.
 - c. Include a short presentation about the internal Web site in new faculty orientation meetings.
 - d. Link to the site in the *Connections* newsletter.

B. Digital Signage Management:

The College has recently installed a new College-wide digital signage system. This system will televise important messages (e.g., special events, job fairs, student organizational meetings, visiting scholar colloquia, new course offerings, emergency messages) to the entire College community using monitors placed in CEDAR, Chambers, Rackley, and Keller buildings. To maximize benefits from such a system, we plan to establish a committee to develop roles, processes, and policies for maintaining messages on the screens.

II. External Communications

A. Web Site Content Management:

The Web is the primary source of information about the College. Since the Web site is the external face of the College to the public, it is extremely important that we carefully design and monitor content on the site. We will be taking the following steps to improve and maintain our Web presence:

1. Provide appropriate training for staff members who are charged with maintaining their unit's respective Web sites.
2. Make sure staff members have the time to review and update their pages on a regular basis—at a minimum, twice a year.
3. Establish a Web editors group that meets once a month to discuss the content management system and best practices for writing and managing Web sites in general.
4. Continue to develop the Web site handbook on the College internal Web site as a resource for staff in maintaining their sites.
5. Ensure that the Web is accessible to all users and is in full compliance under Section 504, Subpart E of the Rehabilitation Act of 1973.

B. Incorporate User Experience Data in Web Site Management Decisions

Currently, we are making decisions about Web content and design based on internal user experience, which is naturally biased because of existing knowledge College employees already possess. To make sure our site is suitable for our outside audiences, we plan to take the following steps:

1. Develop a system of regular usability testing to get feedback on the Web and find ways to improve users' experiences. Users we may want to survey include current and prospective students, alumni, new faculty (about their experience as a prospective faculty member), parents, and the community at large.

2. Investigate ways to capture and use data from the Web site server logs regarding user experience.
3. Generate a regular monthly report with data to track improvement in usability.

C. Print Campaign to Key External Audiences

Each year we develop print materials that are aimed at key external audiences such as other deans of Colleges of Education (who fill out ranking surveys conducted by *U.S. News & World Report*), members of the Pennsylvania Legislature, the Pennsylvania Congressional Delegation, and School Superintendents in Pennsylvania.

The mailings traditionally include a postcard, periodic one-page summaries of research taking place in the College and an annual theme report on an important issue in education. .

In the future, we plan to select the topics for postcards, research reports, and theme reports strategically so that they fall in line with the College's selected areas of priority.

We also prepare print publications that are aimed at groups like our alumni and donors. These include an annual report towards the end of the calendar year and a spring alumni magazine. These publications appear to be working well for us, and we have no immediate plans for making changes.

