Just as this report was going to press, we received word that Dr. William L. Boyd, Batschelet Chair Professor of Educational Leadership and a major figure in education policy-making circles, passed away following a courageous battle with a long illness. Bill Boyd was a towering figure in policy analysis, an inspiring colleague, and above all a gentleman. We are a much stronger College and University because of his presence among us. We must now share him more broadly, and it is with profound gratitude and appreciation that we dedicate this report on policy research in the Penn State College of Education to the enduring memory of Dr. William L. Boyd.
The “what works best under what circumstance” question is perhaps the single most policy relevant question imaginable.
Faculty members throughout the College of Education are deeply involved in the development and assessment of education policy in its many manifestations. Some of us, myself included, are interested in the policy-making process as it develops and the complex interplay of interests across levels of decision making within educational systems. The study of education policy-making in the United States is particularly interesting given the artful balances that need to be struck and re-stripped between the rights of individuals and minority interests and the broader social needs for order and cohesion.

The College also includes faculty members who care not a bit about the policy-making process itself and who instead focus on particular education phenomena such as how six-year-old children can best learn to read. What links a scholar with a focused interest like this to education policy is the potential policy relevance of the resulting findings. The “what works best under what circumstances” question is perhaps the single most policy-relevant question imaginable. If scholars can gain even partial answers to this question, there can be important implications for practice; and laws, rules, and regulations may logically follow that are designed to move the field toward the use of practices that are informed by the emerging research.

We take seriously our responsibility to conduct impartial and nonpartisan analyses, and this can be a challenge given the sometimes highly politically charged context in which the research is conducted. We also work hard to inform the debate and embrace the checks and balances that are such an important part of the policy-making process in this nation.

We are proud of our track record and welcome the collaborative efforts of scholars located in other colleges and campuses at Penn State as well as at other universities. It is enormously gratifying to me as dean to see so many of our faculty members so prodigiously engaged in these issues, and we use the following pages to provide a tour of policy-relevant work being conducted within the College. I think you will be impressed with what we report, and I welcome your comments. We are particularly interested in suggestions about how we can play even more effective roles in the creation of sound education policy at the local, state, and national levels of education governance.

Sincerely,

David H. Monk, Dean
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SUPPORTING THE POLICY-MAKING PROCESS AND Preparing Future Policy Makers

Education policy is traditionally understood as the rules and regulations established by federal, state, and local governments regarding the establishment and implementation of public education. It includes nearly every aspect of the public education enterprise, from the education and certification of teachers, to the development of curriculum, to the management of resources and funds that support the education enterprise.

On a broader level, education policy can include the policies established on a district, school, or even classroom level by superintendents, principals, and teachers. The guidelines may not be legally binding, but they could have a direct impact on individual students.

Regardless of who is setting the policy, it is imperative that policy makers understand both the reasons for and the desired consequences of their policy decisions. There is a continually growing need for research data to support policy makers as they investigate and make policy decisions.
Policy-Relevant Research

In passing the No Child Left Behind legislation, Congress recognized the need for quality research data, and created the Institute of Education Sciences (IES) as an arm of the Department of Education to support educational research.

In 2006, the Penn State College of Education and its partners were awarded a five-year, $34 million contract from IES to operate the Regional Education Laboratory—Mid-Atlantic (REL Mid-Atlantic) and coordinate the efforts of the nine other regional education labs across the country.

The U.S. Department of Education’s Regional Educational Laboratory Program consists of a network of 10 laboratories that serve the educational needs of a designated region by conducting high-quality, scientifically based research and providing access to valid data through applied research and development projects, studies, and other related technical assistance activities.

To best serve schools and educators, REL Mid-Atlantic has focused on two types of projects: fast-response projects and long-term randomized control trials (RCTs).

The “fast-response” projects provide quick answers to real questions from educators. Lab researchers review the existing research based on a need expressed by schools in the region and provide a summary of findings fairly quickly. These findings are aggregated on a national Web site with similar reports from the other regional education laboratories. (See ies.ed.gov/nci/fast heavyweight projects’). REL Mid-Atlantic has coordinated public forums to distribute the reports within Pennsylvania.

The Lab undertakes larger randomized control trials of different programs and curricula that are very similar to clinical trials that might be used in medical research.

The Lab’s two current long-term studies are focused on mathematics. One is investigating the effects of Odyssey Mathematics, a CompassLearning mathematics supplemental software program, on students’ achievement at the fourth-grade level. The other RCT is focused on Connected Mathematics Project 2 (CMP2), a complete mathematics curriculum for grades 6–8 that was developed by Michigan State University with grants from the National Science Foundation.

Through the REL Mid-Atlantic and similar initiatives, the College of Education is playing an important role in the creation of quality research data. Likewise, we are dedicated to publicizing the results of our research in an effort to share this data with all persons involved in education.
Hartman has served as the principal investigator for a $3.1 million, three-year research grant from the National Center for Educational Research designed to improve student performance. In this recently concluded project, Hartman and his collaborators have developed a school-level resource-management model to provide relevant information for administrators to track and allocate their resources effectively. Four Pennsylvania school districts participated as pilot districts for the project.

The new reports provide a picture of actual resource expenditures per student, salary, average years of service) and spending indicators (student/teacher ratios, average teacher salary, average salary, average salary, time in school organization and operation. Additionally, a district-wide comparison report of each individual school with all other schools in the district was developed to allow administrators and board members to compare student, staffing, and expenditure patterns across all schools in a district in conjunction with the student performance measures for each school.

A key feature of this report is a “school share” analysis that compares percentage of students by type in each school with their percentage share of resources (teachers, other staff, and expenditures) with the same measures for other schools and district averages. This report also includes staff indicators (student teacher ratios, average teacher salary, average salary, average salary, and total school expenditure per student).

Separate models were created for elementary, middle, and high schools to recognize differences in school organization and operation. Additionally, a district-wide comparison report of each individual school with all other schools in the district was developed to allow administrators and board members to compare student, staffing, and expenditure patterns across all schools in a district in conjunction with the student performance measures for each school.

These reports encourage district-wide discussions about current resource allocation practices and patterns among principals, central office administrators, and school board members. It is now possible to see clearly if resources are allocated evenly, or if some budget adjustments have been made to recognize student characteristics or targeted to improving lower student performance in some schools.

A similar effort has been completed with the New York State Education Department to create a school-level data gathering, model building, and reporting process in three pilot districts in New York State. The state’s accounting system, data-collection procedures, and availability of school-level data are substantially different from Pennsylvania’s, but the model has been successfully modified to accommodate the differences. Hartman plans to add another set of pilot districts in one or more other states to test the models with another data-and-accounting system.

Importantly, the project has established that relevant and sufficient indicators of student achievement data are currently available in both the state and district data systems levels to develop timely useful management reports for school-level resource allocation information and decision making. It is not necessary to mandate new accounting systems or accounts.

Preparing Future Policy Makers and Researchers

The education of future policy researchers and leaders is one of the primary ways we as a College support the formation of good education policy. In 2004, the Penn State College of Education and World Campus partnered to establish an online Certificate in Institutional Research (IR) for students earning a doctorate.

The IR certificate program was initiated and continues to be led by J. Fredericks Volkwein, professor emeritus of education in higher education. Volkwein states, “It is a direct result of national education policy aimed at enhancing the national pool of talented researchers. Although this is a young program, some of the certificate participants have received national awards, such as the United States Institute of Peace research grant.

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This program grew out of a national, and later, international movement, begun in the 1950s, to identify the reasons for differences, and the consequences of those differences for students and schools around the world. Recently, globalization and international competition have framed both the research and the curriculum. There is also a component of tension between global and local concerns as sources of identity and control. This program, like others around the world, has received federal and private support and has contributed research and teaching to illuminate the unanswered questions.

Currently headed by Ladislaus Semali, professor of education in language and literacy and adult education, the Center for the Study of Leadership in American Indian Education is designed to create opportunities for a range of people—administrators and policy makers in social welfare, health education, and development; scholars who advance our basic knowledge about schooling and education around the globe and advanced degrees in education leadership, and social welfare, health education, and development; scholars who advance our basic knowledge about schooling and education around the globe and

John Tipsicoencze, professor of education in educational leadership, and Susan Faircloth, assistant professor of education in educational leadership, are co-directors of AILP. They are also co-directors of the Center for the Study of Leadership in American Indian Education, which was recently established to conduct research and outreach that helps improve education at all levels. Some of the goals of the Center are to conduct research designed to improve Indian education policy and practice and then to disseminate research findings to policy makers.

The College has a number of other programs to empower educators to be more involved in policy. For example, the College of Education and the Dickinson School of Law have initiated a joint degree program whereby students can obtain a juris doctor (J.D.) and a master’s or doctoral degree in one of four College programs: College Student Affairs, Educational Leadership, Educational Policy, and Higher Education.

Education and law are disparate fields, but there is common ground. Since so much educational policy is established through laws, school superintendents and principals, as well as attorneys who represent educational institutions, need keen insight into how they cut across both fields.

For school administrators, a great deal of their work is legal in nature,” notes Preston Green, associate professor of education and law. “It is essential for educational institutions to have persons in leadership roles who have an understanding of both law and education. By the same token, educational attorneys need to know how school systems work. They must understand the context of educational institutions in order to effectively advise their clients, make legal arguments in court, and develop effective educational statutes or regulations,” says Green.

A recent four-day institute at Penn State, another collaboration between the College of Education and the Dickinson School of Law, helped increase the legal literacy of teachers and administrators. The Pennsylvania State University Law and Education Institute, first held in 2006, features workshops on a variety of legal issues that often arise. Topics include student rights, the First Amendment, charter schools, accountability, discrimination, personnel/employment law, and special education. Most teachers believe school administrators should know how to avoid legal problems, according to Harvard Education Review. In addition, a majority of teachers report that the potential for legal liability impairs their ability to do their own job.

“They practice preventive law,” suggests Green. “Most teachers and administrators are so fearful of the law that they tend to engage in conservative practices.”

And as often, such practices compromise a school’s academic, social, and disciplinary aspects. “If teachers and administrators don’t fully grasp the implications of policy or have a reasonable understanding of law, their good intentions could go up in smoke,” notes Green.

As an example, Green points to the ways schools are struggling to provide security to students without violating their constitutional rights. “Changing laws related to education and policies have given rise to a great deal of litigation,” he says. The participants came away from the 2006 institute with a sense of empowerment to create educational environments that optimize learning.

“If administrators and teachers become more comfortable with legal issues,” says Green, “then they will be able to focus more on educating students.”

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We purposively use technology to deepen a focus on learning so our students become highly capable beginning educators.
According to the National Institute of Mental Health (NIMH), people who were abused or neglected as children have an increased risk of depression later in life. NIMH hopes to learn more about circumstances in families that lead to child maltreatment.

To address child maltreatment, federal legislators enacted the Child Abuse Prevention and Treatment Act (CAPTA) in 2003. CAPTA has established a number of guidelines aimed at protecting children. Elizabeth Skowron, associate professor of counseling psychology, is the lead investigator of a five-year, $1.6 million NIMH grant titled “Parent-Child Processes: Negative Self-Regulatory and Behavioral Outcomes.” The project aims to improve identification of optimal parenting practices through better understanding of the effects of child maltreating and parenting on child behavioral problems.

“Our goal is to translate our basic research findings into the development of testable child maltreatment interventions that target specific patterns of interactive disruption identified in maltreating families,” said Skowron. “We expect our research to lead to the development of more effective treatments designed to reduce the incidence of child abuse and neglect, strengthen and support families, and improve healthy child outcomes.”

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According to a study released in 2007 by the Centers for Disease Control, autism spectrum disorders may affect up to 1 in 150 children. Autism awareness is continuing to grow, as more families are affected by this disease. Schools and educators are seeking to have a greater understanding of how autistic students can be included in traditional classrooms.

For ten consecutive years, Penn State has hosted the National Autism Conference*. This conference acts as a clearinghouse of information for parents, teachers, doctors, and others who serve autistic students. The conference’s mission is to provide comprehensive, evidence-based information to assist educators, professionals, and families in developing effective educational programming for all students with autism spectrum disorders.

* The National Autism Conference is sponsored by the Pennsylvania Department of Education, Bureau of Special Education; the Pennsylvania Training and Technical Assistance Network; Penn State’s College of Education, Continuing Education Office and Office of Stateside Programs; and the Pennsylvania Department of Public Welfare.
Another issue facing children is bullying and other aggressive behaviors. The Penn State Prevention Research Center has received a $3.7 million grant from the Pennsylvania Department of Health to study interventions to build resilience and reduce aggression in young children.

The leaders of the Penn State project include Tom Farmer, associate professor of education in special education, along with five other faculty members throughout the University.

The project will focus on gaining a better understanding of factors related to aggressive behavior and social-emotional competence in children when they first enter school. Researchers will develop and evaluate a multicomponent prevention program targeted to help parents and teachers support healthy social and academic development in children who show early signs of aggression.

Researchers also will assess how various neurobiological factors may be related to aggressive behavior and how children’s actions are modified by this preventive program. This information can be used to better assess and support children to improve school readiness and mental health.

By learning to use multiple teaching approaches in the classroom, teachers can help students gain more confidence in their own abilities and excel in their education.

Teacher Preparation

College faculty are presently designing and revising programs in teacher education that reflect current research and innovations in the field of education. These new programs include integrations with technology, connections with the arts, and coursework and experiences to meet the increasing demands for teachers who will have children with special needs and English language learning needs in their classrooms.

The number of special education students in regular classrooms in Pennsylvania has been increasing steadily over the last few years—currently there are more than 135,000 special education students in regular classrooms most of the day.

To address these changes, the Penn State Special Education program has partnered with Continuing and Professional Education, a unit of Penn State Outreach, to produce a postbaccalaureate credit program titled Evidence-Based Practices for Inclusive Classrooms and Differentiating Instruction (EPIC), a five-course, 9-credit series designed to help teachers work with students with special needs.

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Like the push for the integration of special education students into regular classrooms, policies regarding the preparation and certification of new teachers have changed how teacher preparation programs are administered.

For example, Maryland teacher education policy states that all teacher education candidates must have a Professional Development School (PDS) experience. In Pennsylvania, the Governor’s Commission on Teacher Education recommended that the state support PDSs as a valuable concept in teacher education and apportion funds so that at least one PDS will be available in each county in the Commonwealth.

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Each elementary PDS intern receives an Apple iBook to use throughout his or her internship. Interns use the computer to create lesson plans, organize notes, and create multimedia presentations that support the curriculum. The use of notebook computers by PDS interns has been so successful that the College has expanded it to include all elementary education and secondary education teacher preparation students. Juniors in these programs are required to have a notebook computer and software for use in their courses and classrooms, as part of an initiative titled EXploring Directions in Ubiquitous Computing and Teacher Education or EDUCATE. This program is designed to incorporate technology into our teacher preparation programs. It is built on research that suggests that a portable digital tool set—available anytime and anywhere—can significantly enhance a student’s preparation for teaching and provide an important early-career foundation.

Says Erin Murray, assistant professor of education and director of the EDUCATE project, “We purposely use technology to deepen a focus on learning so our students become highly capable beginning educators.”

The College is sharing this emphasis on technology as a learning and teaching aid with current teachers as well. Mentor teachers in the PDS are learning about new technologies along with their student interns, and the College hosts a One-to-One Computing conference every year.

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The Penn State PDS program has now been expanded to the Isaac A. Sheppard Elementary School in Philadelphia. It is part of Penn State’s multi-faceted Urban Teaching Collaborative, established three years ago for the improvement of education at Sheppard School. Sheppard School serves as an oasis within Philadelphia’s Kensington neighborhood, where crime and unemployment are high. Communication between the school and the students’ parents had long been meager. A great many of the parents are Puerto Rican immigrants. Many of them are illiterate in both English and Spanish.

The Penn State–State College Area School District Elementary Professional Development School was developed 10 years ago as a collaborative program involving preservice and veteran teachers, administrators, and university faculty working together to accomplish three goals:

1. Enhance the educational experiences of all children.
2. Ensure high-quality field experiences for new teachers.
3. Provide professional growth for school and university-based teachers and teacher educators.

The goals are met through the program’s design. Each PDS student commits to an entire year in the same classroom, as an intern at the State College Area School District. He or she begins the internship on the first day of school and completes it on the last day of school. As an employee of the school district, the intern is expected to attend the same professional development events as the district’s first-year teachers.

The classroom teachers who work with PDS interns act as mentors, and engage in professional development training along with University faculty as part of the partnership.

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The Penn State PDS program has grown to include every elementary and middle school in the State College Area School district, a total of 12 schools. Prospective secondary education English teachers participate in a PDS program at the high school.

The Penn State PDS has received a number of awards, including the 2004 Nancy Zimpher Award from the Holmes Partnership for the most outstanding school university partnership in the country. It was also the winner of the 2002 Distinguished Program in Teacher Education Award from the Association of Teacher Educators.

Jim Nolan, Harry J. Hermanowicz professor of teacher education and former director of the PDS program, reflects on the success of the program over its first decade:

“The quality of our program is attested to by our national awards as well as by the fact that other institutions within the state continually ask us to help them develop their own PDS sites, and we do so willingly. Additionally, Penn State alumni who received their Ph.D.s while working with the PDS program are now leading PDS efforts of their own in West Virginia, Ohio, Maryland, Idaho, New York, and other places.”

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3. Provide professional growth for school and university-based teachers and teacher educators.

The goals are met through the program’s design. Each PDS student commits to an entire year in the same classroom, as an intern in the State College Area School District. He or she begins the internship on the first day of school and completes it on the last day of school. As an employee of the school district, the intern is expected to attend the same professional development events as the district’s first-year teachers.

The classroom teachers who work with PDS interns act as mentors, and engage in professional development training along with University faculty as part of the partnership.

The Penn State PDS program has grown to include every elementary and middle school in the State College Area School district, a total of 12 schools. Prospective secondary education English teachers participate in a PDS program at the high school.

The Penn State PDS has received a number of awards, including the 2004 Nancy Zimpher Award from the Holmes Partnership for the most outstanding school university partnership in the country. It was also the winner of the 2002 Distinguished Program in Teacher Education Award from the Association of Teacher Educators.

Jim Nolan, Harry J. Hermanowicz professor of teacher education and former director of the PDS program, reflects on the success of the program over its first decade:

“The quality of our program is attested to by our national awards as well as by the fact that other institutions within the state continually ask us to help them develop their own PDS sites, and we do so willingly. Additionally, Penn State alumni who received their Ph.D.s while working with the PDS program are now leading PDS efforts of their own in West Virginia, Ohio, Maryland, Idaho, New York, and other places.”

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Each elementary PDS intern receives an Apple iBook to use throughout his or her internship. Interns use the computer to create lesson plans, organize notes, and create multimedia presentations that support the curriculum. The use of notebook computers by PDS interns has been so successful that the College has expanded it to include all elementary education and secondary education teacher preparation students. Juniors in these programs are required to have a notebook computer and software for use in their courses and classrooms, as part of an initiative titled EXploring Directions in Ubiquitous Computing and Teacher Education or EDUCATE. This program is designed to incorporate technology into our teacher preparation programs. It is built on research that suggests that a portable digital tool set—available anytime and anywhere—can significantly enhance a student’s preparation for teaching and provide an important early-career foundation.

Says Erin Murray, assistant professor of education and director of the EDUCATE project, “We purposely use technology to deepen a focus on learning so our students become highly capable beginning educators.”

The College is sharing this emphasis on technology as a learning and teaching aid with current teachers as well. Mentor teachers in the PDS are learning about new technologies along with their student interns, and the College hosts a One-to-One Computing conference every year.

The Penn State PDS program has now been expanded to the Isaac A. Sheppard Elementary School in Philadelphia. It is part of Penn State’s multi-faceted Urban Teaching Collaborative, established three years ago for the improvement of education at Sheppard School. Sheppard School serves as an oasis within Philadelphia’s Kensington neighborhood, where crime and unemployment are high. Communication between the school and the students’ parents had long been meager. A great many of the parents are Puerto Rican immigrants. Many of them are illiterate in both English and Spanish.

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Penn State faculty and student teachers have been assisting with a new initiative to place computers in the homes of Sheppard students. The interphase project, titled "Student Achievement Through Parent Empowerment," is a collaboration between Sheppard School, Philadelphia School District, and Penn State’s College of Education. The $250,000 project is funded by the Office of State Sen. Christine M. Tartaglione (D., Phila.).

The project brings a wealth of learning resources for the children and their parents, many of whom would benefit from access to learning materials related to literacy and workforce preparation. The project is expected to greatly enhance communication between the school and the parents while engaging both parents and children in learning.

The project also opens new possibilities for Penn State’s elementary education majors who are based at the University Park campus, nearly 200 miles away. Tutoring students using the videoconferencing technology available through this initiative has the potential to revolutionize how we prepare future teachers.

Professional development of teachers and school leaders is a fundamental component of the program and is expected to contribute significantly to the long-term success of the initiative.

The use of technology in education has been a focus statewide. The Pennsylvania Department of Education (PDE) has made a bold and progressive step toward reform of the state’s high schools. PDE’s $200 million Classrooms for the Future (CFF) project calls for a notebook computer on every public school student’s desk in the four core subject areas by 2009.

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The Aerospace Education Services Project (AESP) is funded for up to $27.3 million. William Carlsen, professor of science education and CSATS director, is the project’s principal investigator. Nearly all 50 states have adopted regulations requiring teachers to pursue continuing education credits to retain licensing. AESP is developing space-themed instructional materials and inservice programming for teacher professional development and, through a subcontract with the National Space Grant Foundation, is supporting the development of courses for teachers at a number of U.S. colleges and universities. The first set of courses are organized around the general theme of lunar science and exploration.

AESP Education specialists work out of each of NASA’s 10 major centers around the country, and visit schools and other educational settings in all 50 states and U.S. territories. In addition, AESP is launching a new initiative in fall 2008, “Robots on the Road,” that will deliver short format, hands-on programs to middle schools. Using the theme of exploring the Moon, Robots on the Road engages middle school students in hands-on problem solving, and is intended to serve as an introduction to other robotics programs sponsored by NASA.

Duschl’s appointment is part of the College’s continued focus on STEM education at all levels. Other recent College of Education initiatives include the establishment of the new Gilbert and Donna Kahn Professorship in Education in Recognition of David H. Monk and Graham B. Spanier. The professorship was endowed with a gift from the late Gilbert Kahn and his wife, Donna Kahn. It is intended to strengthen the College’s programs in STEM education. Carla Zembal-Saul, associate professor of education has been appointed as the inaugural Kahn Professor.

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...federal and state governments can enforce specific policies and practices in higher education through the control of student aid funds and, in the case of public universities, state appropriations.

Policy-Relevant Work:
Postsecondary Education

The College of Education is committed to exploring all areas of human education, not just the traditional K-12 education enterprise. We have strong research and academic programs in adult education, workforce education, and higher education.
Adult and Workforce Education

There are a number of policy decisions that especially affect adult literacy and workforce education initiatives. In Pennsylvania, for example, there are ongoing discussions as to the more effective use of state and federal funds for adult education. There is great need for both adult literacy programs and workforce education and training programs, both of which help adults acquire skills needed for success in the workplace.

The College of Education is home to several centers and institutes focused on adult education and workforce development, which uniquely positions it to participate in these conversations. Recently, the College has offered to work with state leaders in Pennsylvania as they revisit current policy in the Commonwealth. In Pennsylvania, for example, there are ongoing discussions as to the more effective use of state and federal funds for adult education and training programs, both of which help adults acquire skills needed for success in the workplace.

The College of Education’s mission is to advance education, development, outreach, and leadership to improve the field of literacy through collaborative research, of Adult Literacy’s (ISAL) work has continued to focus on adults, it has expanded to include children within a family literacy context and adolescents facing literacy challenges. Since 2001, ISAL has worked collaboratively with the Goodling Institute for Research in Family Literacy, also in the College of Education.

The Goodling Institute was established with a one-time federal appropriation of $6 million by the U.S. Department of Education. Through WERC, we provide professional development and technical assistance for ABLE-funded services within Pennsylvania’s workforce education and development system.

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Says ISAL administrator Barbara Van Horn, “Through WERC, we provide professional development and technical assistance for ABLE-funded agencies across the state to help them develop the capacity to provide work-focused basic skills and instruction to adults looking for jobs as well as those in the workforce.”

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Van Horn and Esther Prins, assistant professor of education in adult education, are co-directors of both ISAL and the Goodling Institute.

Further, the Institute works collaboratively with national and state partners to identify promising education and training opportunities as well as potential issues and problems that need to be faced by the workforce education and development system.

Effective workforce education and development responds to current and anticipated needs for workers,” says Professor David Passmore, director of BRTI. “The economy—that is, the sale of goods and services to producers and consumers—creates these needs. Understanding the links between production, consumption, and employment—and how these affect training needs—a major policy analysis issue and opportunity. The WED initiative conducts economic and workforce analysis for employers, industry partnerships, nonprofits, organizations, and government entities. The initiative has developed a macroeconomic model for every county in Pennsylvania, allowing it to quickly produce timely reports that spell out the economic consequences of newsworthy occurrences.

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For providing support for the development of the workforce in Pennsylvania is the basic mission of Penn State’s Workforce Education and Development (WED) Initiative: a joint project between two Penn State research groups. The Institute for Research in Training and Development (IRTD) is in the College of Education and the Center for Regional Economic and Workforce Analysis in Penn State Outreach.

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Further, the Institute works collaboratively with national and state partners to identify promising education and training opportunities as well as potential issues and problems that need to be faced by the workforce education and development system.
Changes in the workforce make-up of a region can have a tremendous effect on the production of goods and services, driving the need for state policy changes. “Information about changes in the amount and kind of employment opportunities created by economic changes provides direction for workforce education and development policy in the Commonwealth by indicating promising education and training opportunities as well as potential issues and problems that need to be faced by the workforce education and development system,” explains Baker. “The WED Initiative performs these assessments using the best, world-system,” explains Baker. “The WED Initiative performs these assessments using the best, world-

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In 2002, ABET decided to evaluate the impact of the change in accreditation standards. The question ABET posed was, simply, “Are today’s engineering students any better prepared than the same students who graduated before the introduction of EC2000 criteria?”

ABET commissioned CSHE to conduct a $1.9 million, multiyear study to evaluate the influence of the new criteria on undergraduate student learning outcomes. Five surveys drew information from more than 5,500 graduates of the Class of 1994 and 4,300 Class of 2004 graduates, 1,200 faculty members, and 140 academic program chairs nationally, as well as more than 1,600 employers across the country. The research team also interviewed the deans of the 39 engineering schools participating in the study. CSHE’s findings were reassuring. The comprehensive study director and associate professor of higher education and senior research associate at CSHE, Patrick Terenzini, has done extensive work on the history of American higher education and issues that may affect policy makers’ views on higher education, is also providing research data to lead to changes in the current policies of accreditors and others to the interconnectedness and importance of the first year as a particularly significant period in students’ subsequent success.

The study may also have relevance for accrediting agencies. “We hope the study will call the attention of accrediting officers of accreditors and others to the interconnectedness and importance of the first year as a particularly significant period in students’ subsequent success in college,” said Terenzini.

To gain an understanding of the influences that both promote and impede students’ academic performance and persistence, Terenzini, along with Robert D. Reason, associate professor of higher education and CSHE research associate, was heading a $453,000 project titled “Parsing the First Year of College.”

The three-year research project is funded by the Spencer Foundation with additional support from the National Science Foundation, ACT, Inc. and the National Study of Student Engagement at Indiana University. According to Reason, “Knowing what experiences and dynamics are significantly involved in student learning can promote more informed program review, revision, and development.”

Terenzini, Reason, and their colleagues are gathering information from students, faculty members, and administrators at 34 four-year colleges and universities nationwide. They will analyze the effects of students’ individual experiences, the campus environment, faculty members’ educational values and activities, and internal institutional programs and practices. They plan to identify how these factors affect academic success.

In addition, the curriculum, instructional, and administrative structures and activities needed to respond effectively to the new accreditation standards were well aligned with a number of trends driving improvements in undergraduate engineering education in the U.S. Moreover, many engineering faculty members feared that responding to the new criteria would shorten time and attention away from the emphases traditionally given to the fundamentals in science, math, and engineering science. The study’s findings indicated, however, that faculty members’ fears were unfounded. “We found that the new softer skills that EC2000 required—working in groups, awareness of societal and global issues, communication skills—could be developed with no apparent negative consequence for achieving the foundational math, science, and engineering science skills,” said co-investigator Patrick Terenzini, distinguished professor of higher education and CSHE senior scientist.

As part of his research in the Center, Terenzini has also focused on policies and practices of individual institutions and how these affect students’ experiences. Some 25 percent of first-year college students don’t return for their sophomore year. Despite efforts over the past three decades by colleges and universities to improve student retention, dropout rates have not changed much.

The study’s findings may have implications for policy at college campuses and could influence public funding and regional accreditation. “At the campus level,” noted Terenzini, “the study will provide administrators and faculty members a currently unavailable, comprehensive map of the educationally significant aspects of the first year over which institutions have some programmatic and policy control.”

Financial aid is a major player of public policy in providing access to higher education. The term “access,” however, can be broadened to include opportunities for students even after they have began study. “What happens to students after they enroll has been virtually ignored as a public policy matter—at least until [U.S. Secretary of Education] Margaret Spellings’ Commission on the Future of Higher Education focused attention on assessment, student learning gains, and public accountability,” said Terenzini.

“We hope that what we find may promote a broader conception of ‘access’ and ‘success’ in the policy-making arena,” Reason added. “Policy makers’ adoption of such a broad focus might be expected to lead to the development of new theories and practices in distributing resources, drawing attention to factors other than enrollment.”

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In a paper titled “Beyond Technology Transfer: In a paper titled “Beyond Technology Transfer: Understanding the History of State-Level University Research,” which appeared in the journal Minerva (vol. 42, no. 1), Geiger and Sá examine the history of state-level policies that shape university research. The authors see an increasing reliance on evidence-based practices for inclusive classrooms and differentiating instruction. The authors suggest that these policies are resulting in new investments in university research. Reduced state funding produces other fallout effects on public colleges and universities, note the authors. Increased tuition costs force administrators to utilize a marketing strategy aimed at attracting prospective students who might choose less expensive education alternatives, such as community colleges. Additionally, more emphasis is being placed on seeking philanthropic support.


"Tenure-track faculty are teaching a declining share of student credit hours, which is entirely logical as tenure-track faculty represent a declining proportion of all faculty and the pressures to produce scholarship, increase extramural funding, and participate in outreach activities are heightened," stated the researchers in their Athena presentation.

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Mons co-authored a research paper for the 2nd International Conference on Educational Economics, held recently at the University of Athens in Greece. The paper, co-authored with Michael J. Doorea, Penn State’s director of planning research & assessment, and Rodney A. Erickson, Penn State executive vice president and provost—looks at the economic challenges being faced by higher education institutions, including new considerations about hiring faculty members.

Persons in administrative roles are reflecting on policies that are being made or implemented on campus and by state legislators, said David H. Monk, dean of the College of Education.

The authors point to the fact that, more and more, research universities are employing contingent faculty persons who teach by contract over a fixed term—rather than seeking tenure-track faculty, whose combined expectations of instruction and research warrant higher salaries.

The authors see an increasing reliance on contingent faculty, who are emerging as the workhorse in terms of instruction. The employment of contingent faculty allows tenure-track faculty to spend less time in typical classroom instruction and concentrate more on research.

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