

Fund for the Improvement of Postsecondary Education (FIPSE)
FY 2006 Comprehensive Program – New Awards by State

ARIZONA

University of Arizona
P116B060067

Title: Preparación -- Building Teacher Capacity for Latino Academic Success in Middle/High School and Beyond

Builds in-service and pre-service teacher capacity and introduces an innovative and reproducible translation and interpretation curriculum for inclusion in middle and high school curricula. The process aims to capitalize on Latino students' unique bilingual and bicultural heritage as a springboard to improve English language and academic skills leading to educational achievement at the postsecondary level.

FY 06 Award: \$238,479
Total Award: \$594,832

Contact: Roseann D. Gonzalez, Geronimo Building, 2nd Floor; P.O. Box 210432, University of Arizona, Tucson, AZ 85721-0432; 520-621-3615; rgonzale@u.arizona.edu

Arizona State University
P116B060433

Title: Preparing High School Teachers for Service-Oriented Computer Science Education

Develops the new service-oriented computing (SOC) computer science curriculum in high schools by developing modules and training for in-service and pre-service teachers. The purpose is to lay the foundation for the national implementation of SOC-based computer science education in high schools. The focus is on inspiring and preparing high school students to develop an understanding of the conceptual framework that computer science enables for various disciplines. It differs from traditional programming schemata by preparing students for high-end development tasks that taps application domains, requires conceptual thinking and creativity, and is intrinsically exciting/motivating. The SOC course and support materials will be field tested in selected high schools in Arizona with the purpose of developing a teacher preparation model which can then be used to help teachers become better prepared to address critical economic and computer science needs of the future.

FY 06 Award: \$184,013
Total Award: \$596,427

Contact: Wei-Tek Tsai, Arizona State University, P.O. Box 878809, Tempe, AZ 85287-8809; 480-727-6921; wei-tek.tsai@asu.edu

CALIFORNIA

University of California, Los Angeles
P116B060029

Title: A Systems Response to Improving Education on Aging

Creates and assesses competency-based gerontology curricula for courses in gerontology, nursing and social work that represent education and career ladder principles and national disciplinary standards, and trains faculty to implement the curricula at two-year and four-year campuses throughout the California system.

FY 06 Award: \$259,248

Total Award: \$728,768

Contact: Janet C. Frank, UCLA Division of Geriatrics, 10945 Le Conte Avenue, Suite 2339, Los Angeles, CA 90095-1687; 310-312-0531; jcfrank@mednet.ucla.edu

California State University System

P116B060079

Title: Alignment of High School and College Curriculum: Expository Reading and Writing

Advances the Early Assessment Program begun in 2001 and combines it with the new 12th grade Expository Reading and Writing course begun in June 2006. The project will focus on teacher professional development of pre-service teacher candidates, evaluate the results of the new 12th grade course and begin the process of state-wide adoption. The course was developed through a collaborative effort of California State University's English faculty and Long Beach area high school teachers to align secondary literacy skills with collegiate expectancies.

FY 06 Award: \$199,897

Total Award: \$599,829

Contact: Nancy Brynelson, California State University System, 6000 J Street, Sacramento, CA 95819-6018; 916-278-4581; mbrynelson@csustate.edu

Pierce College

P116B060197

Title: Textbook Accessibility for Deaf Community College Students

Makes textbooks accessible to deaf students at the community college level. The project will develop an assessment methodology and produce a series of DVDs using skilled interpreters for the deaf to sign the content of textbooks for courses in eleven commonly required subjects. The project will involve eleven California community colleges.

FY 06 Award: \$118,076

Total Award: \$586,067

Contact: Norman Crozer, Pierce College, 6201 Winnetka Ave., Woodland Hills, CA 91371-0002; 818-710-4226; crozernp@piercollege.edu

University of California, San Diego

P116B060216

Title: Developing, Assessing, and Disseminating an Alternative Program for Teacher Preparation in Mathematics at the High School Level

Implements an innovative instructional approach as an alternative to current practice in most programs in secondary mathematics education. The project develops a series of professional development activities and materials for pre-service and in-service secondary mathematics teachers using a theoretical framework, DNR-based instruction based on principles of learning – duality, necessity and repeated-reasoning - which helps students develop conceptual knowledge through the careful design, selection and sequencing of problems. The professional development focuses on improving teachers' understanding of the mathematics content, fundamental principles of learning and teaching practices that are in accordance with these principles.

FY 06 Award: \$124,955
Total Award: \$557,877

Contact: Guershon Harel, University of California, San Diego, Dept. of Mathematics, 9500 Gilman Drive, 0112, La Jolla, CA 92093-0112; 858-534-2650; harel@math.ucsd.edu

California State University, Long Beach
P116B060223

Title: The MERLOT Faculty ELIXR Project: Faculty Development Centers and Online Repositories Collaborating to Share Exemplary Practices

Links online repositories in order to improve faculty development--linking Multimedia Educational Resource for Learning and Online Teaching (MERLOT) to a newly piloted and innovative repository which is designed to provide faculty with best practicing teaching tools and a variety of discipline-oriented resources. The new repository serves to enhance existing faculty development centers and online resource repositories across a range of higher education participants in MERLOT. The digital collection of exemplary case story resources that combine disciplinary and institutional contexts are to improve the teaching-learning culture on campuses through faculty development interventions.

FY 06 Award: \$236,088
Total Award: \$680,184

Contact: Gerard L. Hanley, California State University, Office of the Chancellor, 401 Golden Shore, Long Beach, CA 90802-4210; 562-951-4259; chanley@calstate.edu

University of California, San Diego
P116B060323

Title: The California BioBridge Partnership

Enhances instruction and stimulates high school students' interest in science through curricular innovation based on state-of-the-art research technologies using fluorescent protein technology. Approximately 360 teachers are to be trained to instruct students in inquiry-based applied mathematics, physics, chemistry, and biology labs. The program will be implemented in two demographic areas with different teaching populations - Sweetwater Unified High School District in San Diego and East Bay in the San Francisco Bay. The partnership collaboration includes biotech industry, university science researchers, and high school teachers. Project activities and objectives include the development of an interactive Website with lab resources, including teacher-developed curricular materials with an "Ask a Scientist" feature for teachers and students and establishment of more cost-effective, production-efficient systems of supply and demand for lab supplies. Real world science programs can be used by teachers with Web access, whether or not they participate in the labs.

FY 06 Award: \$190,649
Total Award: \$593,382

Contact: Brinda K. Rana, University of California, San Diego, 9500 Gilman Drive, mc 0815, La Jolla, CA 92093-0815; 858-822-4010; bkrana@ucsd.edu

Loyola Marymount University
P116B060364

Title: Project for Learning in the United States (PLUS): International Student Support Project

Develops a unique comprehensive online curriculum enabling faculty and staff of institutions of higher education to improve their information support services for international students. These services create greater incentives for attracting and retaining students from other countries studying at U.S. institutions, students whose presence

contributes to the internationalization of U.S. campuses. Three online courses (pre-study, U.S. study, and post-study), a special certificate for students completing all three, and faculty/staff modules will be developed.

FY 06 Award: \$143,533

Total Award: \$441,659

Contact: Gary M. Rhodes, Loyola Marymount University, STE 1840, 1 LMU Drive, Los Angeles, CA 90045; 310-338-7451; grhodes@lmu.edu

San Francisco State University

P116B060437

Title: National Network of Metropolitan Health Leadership Academies

Working with a network of partners, San Francisco State University and City College of San Francisco seek to organize, pilot test and evaluate a consortium of health leadership academies. Through a planned 2+2+2+2/3 organized curriculum, beginning in the 11th grade, the goal is to encourage community members to become community health leaders devoted to overcoming the serious health problems of the nation's metropolitan areas.

FY 06 Award: \$200,000

Total Award: \$600,000

Contact: Mary Beth Love, SFSU, 1600 Holloway Ave, San Francisco, CA; 415-338-2708; love@sfsu.edu

COLORADO

University of Northern Colorado

P116B060180

Title: Videocases for The Professional Development of Novice College Mathematics Instructors

Develops a book of DVD-case studies for graduate teaching assistants (TAs) to use as preparation for the teaching of college mathematics courses. Building on a former FIPSE-funded Boston College Case Studies (BCCS) project that created a book of case studies based on the pedagogy of mathematics using text-only case materials, this current project constructs a book of videocases with ancillary textual resources to help teachers of mathematics improve their instructional skills. The main focus is on improving classroom practice for TAs, although it is suitable for professional development for other levels of teachers as well. Extensive field-testing will be conducted throughout seven states and has the endorsement of the American Mathematical Society and the Conference Board for Mathematical Sciences, which are interested in publishing the final product. The book-DVD may be used as a core for college mathematics professional development programs or as a part of an already-established program.

FY 06 Award: \$162,996

Total Award: \$488,742

Contact: Shandy Hauk, Campus Box 122, Mathematical Sciences, University of Northern Colorado; Greeley, CO 80639; 970-351-2344; shandy.hauk@unco.edu

Colorado State University

P116B060387

Title: Labtop: An Integration of Theory and Practice in General Chemistry with Diverse Community College Learners

Implements a project to create a new chemistry learning system that merges the methodology of Powerful Pictures and Small-Scale Chemistry with the technological potential of Tablet PCs. Labtop would be a fusion of theory and practice in which a web-based computer system would replace the printed textbook, class and homework problems,

and much of the traditional laboratory approach. The project outcomes include new curriculum materials, case studies, assessments of student learning, and evaluation of the potential for replication.

FY 06 Award: \$146,089

Total Award: \$415,162

Contact: Stephen Thompson, Colorado State University, CSMATE, Campus 1802, Fort Collins, CO 80523-1802; 970-491-1700; thompson@csmate.colostate.edu

DISTRICT OF COLUMBIA

Association of American Colleges and Universities

P116B060445

Title: Shared Futures: General Education for Global Learning

Aligns general education curricula with global learning outcomes at 16 institutions collaborating in AAC&U's "Shared Futures" project. The project will focus on making the general education science requirements more central to global education, using global education to assess key liberal education outcomes, and illuminating the links between global learning, diversity, democracy, civic engagement, and social and ethical responsibility.

FY 06 Award: \$225,000

Total Award: 2 years, \$450,000

Contact: Caryn McTighe Musil, AAC&U; 1818 R Street N.W.; Washington, DC 20009-1604; 202-387-3760; musil@aacu.org

FLORIDA

The National Center for Academic Transformation, Inc.

P116B060027

Title: Course Redesign National Dissemination Project

Disseminates to 60 novice institutions a re-design methodology for large, early enrollment courses. The proven methodology uses technology, improves student learning, and cuts institutional costs by a significant degree. The National Center for Academic Transformation, building on its eight-year successful track record, partners with 60 new institutions in order to demonstrate how large-scale course re-design can be accomplished. Sustainability beyond the end of the grant is achieved by the creation of a Redesign Alliance of institutions with a yearly membership fee.

FY 06 Award: \$292,462

Total Award: \$849,670

Contact: Carol A. Twigg, National Center for Academic Transformation, Inc., 1643 Brickell Avenue, #3804, Miami, FL 33129; 518-695-5320; ctwigg@thencat.org

University of South Florida

P116B060110

Title: Marketing of Science Teachers and Induction (MOSTI)

Tests a model program that implements innovative marketing aimed at increasing the number of career change professionals teaching middle school science. Project will improve this group's preparation and support through linked mentoring and content focused workshops. The Museum of Science and Industry, building on its local and national visibility, is to initiate an innovative national marketing strategy that combines multimedia advertising and public presentations to promote careers in teaching middle school science.

FY 06 Award: \$190,392
Total Award: \$568,799

Contact: Robert Potter, University of South Florida, 4202 E. Fowler Ave., SCA400, Tampa, FL 33620; 813-974-3538; Potter@cas.usf.edu

Tallahassee Community College
P116B060298

Title: A Blueprint for the Establishment and Implementation of a Statewide Standards-Based Digital Repository

Develops a blueprint for establishing a digital content repository throughout the state of Florida and extends the initiative to other states and entities. The statewide digital content repository will accommodate all subject areas in postsecondary education. By using the blueprint, institutions, states and departments can ensure interoperability among repositories and learning management systems and maintain consistent quality content. The blueprint is to include recommendations for policies, procedures, meta-data and content standards; workflow and quality review guidelines; training topics; and, funding and marketing strategies that will enable users to establish and maintain a successful learning object repository. The blueprint can be modeled and reused by educational institutions and state and federal government entities across the nation and will be based on the Shareable Content Object Reference Model (SCORM) that has been proven effective in reducing development costs and duplication of effort.

FY 06 Award: \$147,315
Total Award: \$473,364

Contact: Susie Henderson, Florida Distance Learning Consortium; 1753 W. Paul Dirac Drive, Tallahassee, FL 32310-3708; 850-922-3359; shenderson@distancelearn.org

Florida State University
P116B060460

Title: Improving the Academic Performance and Critical Thinking Skills of College Freshmen

Develops a social annotation model (SAM) that uses a software program (Hylighter) for annotating text online. The model teaches critical thinking skills, self-reflection, and feedback to second-semester freshmen. This project further evaluates the software to measure effectiveness and student learning. The software allows the instructor significant control over the written work of students. Students can annotate each others' papers and communications and compare their understanding of a text with other students' and the instructor's. The resulting broader awareness of users is significantly greater than what is achieved in a standard classroom with or without the use of other annotation software on the market.

FY 06 Award: \$153,687
Total Award: \$587,178

Contact: Dale W. Lick, Florida State University, C4600 University Center, Tallahassee, FL 32306-2540; 850-644-2570; dlick@lsi.fsu.edu

ILLINOIS

University of Illinois at Chicago P116B060059

Title: Reducing Errors in Medicine – Adapting the Aviation Industry Model

Expands a very promising pilot effort that uses an airline industry model to train medical students in communication and teamwork so that, as doctors, they can perform well in highly stressful emergency situations. Project would develop survey instruments and course modules for medical students that address non-cognitive attitudes and behaviors that may affect medical error rates.

FY 06 Award: \$145,871
Total Award: \$438,203

Contact: David Mayer, University of Illinois at Chicago, 1819 W. Polk St., Room 150, Chicago, IL 60612; 312-996-4020; dmayer1@uic.edu

Associated Colleges of Illinois P116B060176

Title: ACI's College Success Network

Develops a collaborative, learner-centered, integrated college retention strategy to increase retention and graduation rates among minority, low-income, first generation, and other at-risk students. Creates a database to track student persistence across a statewide network that involves 24 private colleges and universities. The database includes best practices associated with persistence and financial aid. Faculty serve as members of multi-disciplinary campus teams across institutions and establish and implement collaborative institution-wide policies and programs based on best practices.

FY 06 Award: \$214,553
Total Award: \$600,000

Contact: Renee Martinez, Associated Colleges of Illinois, 20 N. Wacker Drive, Suite 1456, Chicago, IL 60606; 312-263-2391; martinez@acifund.org

INDIANA

Purdue University P116B060421

Title: Increasing Access to Quality Learning Through Effective Use of Peer Feedback in Online Discussions

Prepares students for the workplace by increasing student learning in selected disciplines such as engineering, mathematics, science, and technology and in the areas of critical thinking, self-directed learning, and teaming skills through the use of online discussions, augmented by a rigorous peer feedback strategy. Online discussions are content-based and geared toward the application, synthesis, and evaluation of subject matter information in order to solve problems relevant to the discipline under study. The peer feedback strategy includes use of an electronic tool developed in partnership with WebCT and modeled after the kinds of Web-based feedback systems used by Amazon and other online retailers. If successful, the tool will be disseminated to wider audiences, including two-year and four-year institutions nationwide.

FY 06 Award: \$146,996
Total Award: \$497,135

Contact: Jennifer C. Richardson, Purdue University, Beering 3142, C&I Department, 100 North University Street, West Lafayette, IN 47907-2098; 765-494-5669; jennrich@purdue.edu

KANSAS

The University of Kansas Center for Research, Inc. P116B060192

Title: An Innovative Mentoring Model for Underrepresented Students at the University of Kansas and Partnering Community Colleges in Kansas

Modifies, evaluates, and disseminates a model mentoring program. The Multicultural Scholars Program (MSP) will develop partnerships with community colleges in Kansas that express interest in using the modified version of the MSP model. Patterned after the MSP, for which past results evidenced a significant improvement in GPA for students participating in the program, the project focuses on improved retention and performance of students from underserved populations.

FY 06 Award: \$156,443
Total Award: \$515,157

Contact: Renate Mai-Dalton, KUCR, Summerfield Hall, 1300 Sunnyside Avenue, Rm. 302, Lawrence, KS 66045-7585; 785-864-7566; rmaidalton@ku.edu

Kansas State University P116B060403

Title: Inter-Institutional Collaboration: The Key to Affordable and High Quality Education

Using the establishment of a multi-state, multi-institutional program in nuclear engineering as a test case, the project examines the policy and political obstacles to inter-state cooperation in higher education. Specifically it seeks to address the influence of higher education governing and accrediting board policies and procedures on inter-institutional programming.

FY 06 Award: \$225,226
Total Award: \$636,617

Contact: Sue Maes, Kansas State University, 128 Dole Hall, Manhattan, KS 66506-6903; 785-532-3110; scmaes@ksu.edu

KENTUCKY

Kentucky Science and Technology Corporation P116B060272

Title: Linking Pre-Service Preparation and In-Service Induction of Science and Math Teachers Through Formative Assessment

Improves science and mathematics teacher preparation by conducting an analysis of student teacher and first-year teacher instructional strategies. A Web-based classroom observation system will be used to develop a database of patterns of instruction of student and first-year teachers. Participating higher education institutions will use the data to evaluate student teaching and develop improvement plans for their teacher education programs.

FY 06 Award: \$200,000
Total Award: \$634,071

Contact: Stephen A. Henderson, Kentucky Science and Technology Corporation, 200 West Vine Street, Suite 420, Lexington, KY 40507; 859-255-3511; shenderson@arsi.org

MASSACHUSETTS

Simon's Rock College of Bard P116B060297

Title: Institute on Early College Pedagogy

Offers an alternative to the traditional ways of educating adolescents by restructuring the last two years of high school and the first two years of college. Simon's Rock College of Bard proposes to develop an institute on early college pedagogy to advance the successes of this growing education reform effort. The project activities will include a series of teaching seminars on early college pedagogy, a network of consultants serving other colleges, and a national conference leading to the creation of a consortium on early college pedagogy.

FY 06 Award: \$169,784
Total Award: \$393,405

Contact: Christine Somervill, Simon's Rock College of Bard, 84 Alford Road, Great Barrington, MA 01230-0123; 413-528-7216; csomervill@simons-rock.edu

University of Massachusetts Amherst P116B060327

Title: Building a Java Instructor Community: An online Plan for Improving Introductory Computer Science Teaching and Learning

Builds an instruction community, which supports an effort to increase the number of students majoring in computer science through a training program at the introductory level using the iJava system. The iJava system is integrated with an online teaching community, which includes online teaching notes, lesson plans, groups work resources, and other lab materials. Six institutions are involved initially, but ultimately, the instruction community seeks to develop an outreach program aimed at training high school and college instructors in two- and four-year institutions around the country.

FY 06 Award: \$209,906
Total Award: \$599,515

Contact: Robert Moll, University of Massachusetts Amherst, 140 Governors Drive, Amherst, MA 01003; 413-545-4315; moll@cs.umass.edu

MARYLAND

Montgomery College P116B060280

Title: Portal to Success in Engineering

Builds on empirical data and adapts lessons learned to develop programs and strategies to increase the numbers of women and minorities at two-year colleges who are entering engineering. Mentoring, academic coaching, supplemental instruction, and undergraduate research are part of a holistic approach to preparation.

FY 06 Award: \$198,831
Total Award: \$471,142

Contact: Sanjay Rai, MT 621, Rockville, MD 20850; 301-279-5031; sanjay.rai@montgomerycollege.edu

MISSOURI

University of Missouri - Columbia P116B060045

Title: The Context Awareness and Notification System

Partners with the University of Michigan and Virginia Tech to broaden access to higher education by improving the processes and quality of online teaching and learning. The project is to: 1) develop a software system for context awareness that is integrated with the Sakai course management system and is easy for faculty and students to use and 2) evaluate its impact on teaching and learning, producing new knowledge about the contextual and social implications of online learning. Specifically, this new software application allows the instructor and students to keep better track of communications and activities in online courses.

FY 06 Award: \$180,813
Total Award: \$559,474

Contact: James M. Laffey, University of Missouri-Columbia, SISLP - 221P Townsend Hall, Columbia, MO 65211-2400; 573-882-5399; laffeyj@missouri.edu

MONTANA

Salish Kootenai College P116B060220

Title: Building Cultural Connections to Health Care

Plans for the development and dissemination of culturally competent health modules for nursing education programs to improve education and culturally competent care for Native Americans. The project focuses on planning for three levels of nursing education: nursing assistant certificate, associate degree, and registered nurse/baccalaureate degree. The college is collaborating with Oglala Lakota College (Kyle, South Dakota). Instructional technologies, including an Internet discussion board and ITV technologies, will support communication between the two colleges.

FY 06 Award: \$100,000
Total Award: 1 year, \$100,000

Contact: Jacque K. Dolberry, Salish Kootenai College, Nursing Department, Box 70, 52000 Highway 93 North, Pablo, MT 59855; 406-275-4909; jacque_dolberry@skc.edu

NEW HAMPSHIRE

New Hampshire Community Technical College System P116B060322

Title: Optimizing Technology to Deploy Quality Matters Concepts and Implement an Online AA Degree in a Resource Limited, Geographically Dispersed Community College System

Implements a pilot project to expand hybrid and online courses and offer a full AA degree online. The New Hampshire System proposes to train faculty in online course design with the use of a quality assurance system originally developed in Maryland. The project is designed to demonstrate the cost effectiveness and replicability of

adapting a system of quality assurance for the use of technology that was not designed for a rural, dispersed community college system.

FY 06 Award: \$93,189

Total Award: 2 years, \$143,189

Contact: Sharon Sabol, New Hampshire Community Technical College System, 26 College Drive, Concord, NH 03301; 603-271-0705; ssabol@nhctc.edu

NEW YORK

City University of New York Graduate Center P116B060012

Title: The Dissemination of the Self-Regulated Learning (SRL) Model

Demonstrates the effectiveness of the Self-Regulated Learning model to dramatically improve student performance in associate degree programs. SRL teaches students a new way of understanding the learning process and how to monitor and manage it. The project seeks to apply this model to teacher training in urban high schools, urban two-year colleges, and urban four-year colleges.

FY 06 Award: \$764,084

Total Award: 3 years, \$764,084

Contact: John Hudesman, CUNY Graduate and University Center, 365 Fifth Ave., NY, NY 10016; 212-817-1835; jhudesman@gc.cuny.edu

University of Rochester P116B060113

Title: Optimizing and Disseminating Reforms in American Sign Interpreter Education

Implements curricular reforms in 12 sign language interpreter preparation programs across the United States. The reforms are centered on the Demand-Control Schema for Interpreting Work (DC-S), tested and refined through an earlier FIPSE project at the University of Tennessee. Three expert DC-S mentors are to each work with four interpreter preparation partners to refine, apply and expand this approach in their curricula. A national conference highlights the various applications of DC-S pedagogy.

FY 06 Award: \$530,085

Total Award: 3 years, \$530,085

Contact: Robert Q. Pollard, URM C Deaf Wellness Center, 300 Crittenden Boulevard, Rochester, NY 14642-8409; 585-275-3544; robert_pollard@urmc.rochester.edu

LaGuardia Community College P116B060124

Title: Project Quantum Leap

Demonstrates the use of a proven project, Science Education for New Civic Engagements and Responsibilities (SENCER). The approach of teaching science and higher-level mathematics in “compelling contexts” will be adapted to a new setting and population: high-risk, urban community college students in basic skills mathematics classes. SENCER promotes the development of courses that teach science and advanced mathematics through complex, capacious, and unsolved public issues. The project intends to systemically change the developmental mathematics instruction at LaGuardia for students college-wide and the on-campus high schools by strengthening student engagement in the mathematics learning process, increase student success in these gatekeeper courses, and

advance student retention and completion. Over 3500 students are expected to benefit from the project during the course of the grant.

FY 06 Award: \$188,632

Total Award: \$499,969

Contact: Paul Arcario, LaGuardia Community College, 3410 Thomson Ave., Long Island City, New York, 11101-3007; 718-482-5405; arcariop@lagcc.cuny.edu

City University of New York

P116B060154

Title: School Teacher and College Faculty Improving Teacher Preparation

Expands a public/private NYC Partnership for Teacher Excellence that transforms the preparation of mathematics and science teachers. CUNY and the New York City Department of Education bring together college faculty and host school teachers to design fieldwork experiences for aspiring teachers, redevelop education courses, develop new approaches for insuring that all students learn math and science well, and re-think the relationship between content study at the postsecondary level and content teaching at the secondary.

FY 06 Award: \$150,000

Total Award: \$600,000

Contact: John Garvey, City University of New York, Office of Academic Affairs, 535 East 80th Street, New York, NY 10021; 212-794-5747; john.garvey@mail.cuny.edu

City College of New York, John Jay College of Criminal Justice

P116B060183

Title: Teaching the Process of Science

Creates a curriculum and supporting materials to expose a greater number of undergraduate students, both science majors and non-science majors, to the scientific process and scientific research. The project's ultimate aim is to expand this model to catalyze a shift in the way undergraduate introductory science courses are taught. It seeks to develop a set of freely available online curricular modules to be used in a Process of Science course. The modules are to be used and evaluated at four different postsecondary institutions through interdisciplinary science programs. Five key concepts make up this work: scientific methods; the evolution of science through time; the practice of science; communicating science; and science today. The set of curricular modules and associated teaching materials to be used in the Process of Science course uses Vision Learning, a widely used teaching module design. Outcomes are a community of practice for the teaching of the process of science.

FY 06 Award: \$200,746

Total Award: \$599,870

Contact: Anthony Capri, CUNY, John Jay College, 445 West 59th Street, New York, NY 10019-1069; 212-237-8944; acapri@jjay.cuny.edu

State University of New York at Buffalo

P116B060438

Title: Building Literacy: The Integration of Building Technology and Design in Architectural Education

Develops educational materials for architecture students to improve understanding of the application of technological principles in building design. The project seeks to accomplish this end by teaching building systems integration and harnessing the capabilities of advanced graphic media such as dynamic modeling programs to help students visualize concepts that otherwise are difficult to comprehend. Dissemination plans incorporate use of a

nationally recognized publisher to disseminate the Interactive Building Software and support material for faculty and students.

FY 06 Award: \$210,266

Total Award: \$553,045

Contact: Shahin Vassigh, Dept. of Architecture; 3435 Main St. Bldg.1; Buffalo, NY 14214-3087; 716-829-3485; vassigh@ap.Buffalo.edu

OREGON

University of Oregon

P116B060073

Title: Measuring Second Language Performance to Improve Articulation and Accountability

Develops a comprehensive Web-based assessment instrument to measure student proficiency in second language acquisition. Reliable proficiency data will improve academic placement and articulation of students and support postsecondary language educators in evaluation and program improvement efforts. The Center for Applied Second Language Studies (CASLS) at the University is to develop online proficiency assessments in six languages: Chinese, French, German, Hindi, Japanese, and Spanish. These online assessment instruments are expected to assist government and private sector employers.

FY 06 Award: \$196,709

Total Award: \$506,112

Contact: Carl Falsgraf, Suite 100, 975 High Street, 5290 University of Oregon, Eugene, OR 97403-5290; 541-346-5699; falsgraf@uoregon.edu

PENNSYLVANIA

Carnegie Mellon University

P116B060106

Title: Opening the Genetics Gateway

Develops, evaluates and disseminates an innovative genetics course that shifts the emphasis to problem based learning. Cognitive tutor technology is integrated into a problem oriented course with new lecture preview problems individualized to student needs. Summative evaluations will be conducted at a varied group of ten institutions.

FY 06 Award: \$145,166

Total Award: \$450,586

Contact: Albert Corbett, Carnegie Mellon University, HCII-CMU, 5000 Forbes Ave., Pittsburgh, PA 15213; 412-268-8808; corbett+@cmu.edu

Drexel University

P116B060122

Title: Enhancement in Online Laboratory Learning

The aim of the project is to enhance online distance laboratory learning in engineering education through the synergistic integration of a stereoscopic tele-presence system for sufficient visual, auditory communications and the ability to control the remote system in an intuitive and natural manner so that for students it appears to co-exist in one unified world model. Its goal is to develop an agent-based tutorial system and infuse research into the curriculum. The project seeks to overcome the current limitations in online laboratory education by advancing the

understanding of pedagogy to acquire knowledge of: 1) how remotely located, technologically sophisticated systems work; 2) how cognitive learning develops under the lack of face-to-face interactions with teachers; and 3) design assessments that incorporate effective evaluation methodology from K-12 education research. During the period of the grant the project will benefit 300 non-traditional students, 270 traditional students, and 100 high school students.

FY 06 Award: \$135,789

Total Award: \$412,484

Contact: Yongjin Kwon, Drexel University, 3001 Market St., Suite 100, Philadelphia, PA 19104; 215-895-0969; yk73@drexel.edu

Cedar Crest College
P116B060261

Title: A Cost-Benefit Analysis of Nursing Education

Develops a replicable model to reduce the high cost of nursing education in schools of nursing, including a cost-benefit analysis, thereby helping to reduce the nursing shortage. Curricular, pedagogical, and administrative innovations in junior- and senior-year clinical laboratories and senior-year clinical rotations will result in reduced costs while enhancing the quality of baccalaureate nursing programs. Hospital-employed registered nurses, paid by the hospital and trained by the college, are to assume responsibility for additional nursing students during clinical rotations with no overall increase in cost to the college. The college also examines whether the use of online computer simulations and lessons reduces clinical laboratory time in junior-year courses.

FY 06 Award: \$171,224

Total Award: \$497,863

Contact: Laurie Murray, Cedar Crest College, 100 College Drive, Allentown, PA 18104-6196; 610-606-4606; lmurray@cedarcrest.edu

SOUTH CAROLINA

College of Charleston
P116B060026

Title: Radical Change in Large-Class Instruction

Demonstrates the use of Process Oriented Guided Inquiry Learning (POGIL), a student-active teaching method where students work in self-managed teams relying on little formal lecture. The use of POGIL has been proven successful in small-class chemistry instruction and one large class showing increases in student knowledge and key process skills. The grantee will now pilot test the method at the University of Washington in an organic chemistry class with over 250 students. The project will also explore using tablet PCs to monitor progress and gauge what interventions are needed and when. This project will develop: an activity book; a first of its kind organic chemistry text designed to be read in a guided discovery mode; instructors' guide; strategies for employing wireless tablet PC technology; and, tools for assessing conceptual learning in large classes. It will also collect and disseminate data on the effectiveness of POGIL in a large class.

FY 06 Award: \$214,681

Total Award: \$596,499

Contact: Andrei R. Straumanis, College of Charleston Chemistry Department, 66 George St., Charleston, SC 29412; 843-953-5275; straumanisa@cofc.edu

TENNESSEE

Tennessee Board of Regents P116B060289

Title: Tennessee Board of Regents (TBR) and Education Commission of the States (ECS) Academic Preparation Initiative

Designs and implements a statewide academic preparation initiative to reform developmental studies curriculum, teaching and learning methods, and assessment strategies. The Tennessee Board of Regents (TBR) is developing academic bridge programs and curriculum alignment on a state level between high schools and colleges while increasing access for students. Using a proven course re-design strategy, TBR develops new delivery structures that streamline course delivery, promote dual enrollment, and provide academic support. Emphasis is on English and math assessment and remediation. In cooperation with the Education Commission of the States, TBR seeks to disseminate this model nationwide so that other states and institutions can borrow and benefit from a more efficient and effective college readiness approach.

FY 06 Award: \$235,081
Total Award: \$739,040

Contact: Houston D. Davis, Tennessee Board of Regents, 1415 Murfreesboro Road, Suite 324 Nashville, TN 37217-2833; 615-366-39975; houston.davis@tbr.edu

TEXAS

Dallas County Community College District P116B060021

Title: Family Involvement for Latino College Success

Implements a model of “family centered” community-based programs, including credit and non-credit courses and a variety of other family centered educational activities. The key to the instructional model is the integration of family members in the educational process throughout the tenure of the students’ studies at the participating colleges.

FY 06 Award: \$184,140
Total Award: \$605,260

Contact: Jim Corvey, 4849 W. Illinois Ave., Dallas, TX 75211; 214-860-8520; sjc6610@dcccd.edu

Stephen F. Austin State University P116B060283

Title: Articulated Internet Teacher Education Program for Multilingual Elementary Classrooms

Partners with 21 community colleges in Texas to recruit, mentor, and support paraprofessional/teacher aides with associate of arts in teaching degrees interested in raising their level of educational attainment through an online baccalaureate Early Childhood-4 (EC-4) completion program. The EC-4 program will provide the skills to effectively manage and instruct children in multicultural and multilingual classrooms. Webcams and other interactive media devices will be used to facilitate instruction and to assess student teacher performance.

FY 06 Award: \$248,461
Total Award: \$592,260

Contact: Janice S. Pattillo, Stephen F. Austin State University, P.O. Box 13017, Nacogdoches, TX 75962; 936-468-1410; jpattillo@sfasu.edu

University of North Texas
P116B060398

Title: SimMentoring: Guiding Development from Virtual to Real Teaching

Demonstrates a Web-based computer application (simSchool) that dynamically simulates a classroom in which experienced teachers guide novice teachers. This simulation prepares and supports teachers through their induction years and is intended to reduce the attrition rates of new teachers. The approach combines mentoring with a wide range of simulated students. The innovation of simMentoring lies in its capacity to allow teachers many learning trials with simulated students, thereby increasing teacher confidence, competence, and retention.

FY 06 Award: \$189,118
Total Award: \$599,889

Contact: Rhonda Christensen, University of North Texas, P.O. Box 311335, Denton, TX 76203-1335; 940-565-4195; rhonda.christensen@gmail.com

Texas State University, San Marcos
P116B060466

Title: Mix It Up: Correlating Math and Science for Middle School

Provides intense, sustained, systemic, correlated math and science content knowledge and skills to undergraduates and graduates. The project recruits, strengths, and maintains middle school math and science teachers through an innovative model that utilizes collaboration and mentoring and produces custom-made, research-based, correlated science and math lesson plans using best practices that are aligned to national, state, and local standards

FY 06 Award: \$216,956
Total Award: \$714,762

Contact: Selina Vasquez-Mireles, 601 University Drive, Department of Mathematics, San Marcos, TX 78666-4616; 512-245-8019; sv10@txstate.edu

VIRIGINA

University of Virginia
P116B060039

Title: ETIPS Educational Leadership Cases

Seeks to expand the current Educational Theory into Practice Software (ETIPS), developed as an outcome of a PT3 grant, by creating new case studies for pre-service administrative preparation programs. Using an iterative design process and evaluation, it will expand the current library of ETIPS cases by providing practice of the application of theory within realistic school settings and receipt of feedback on critical thinking, thus helping to develop students' critical leadership skills in ways that bridge theory and practice.

FY 06 Award: \$223,901
Total Award: \$641,943

Contact: Sara Dexter, University of Virginia, P.O. Box 400265, Charlottesville, VA 22904-4265; 434-924-7131; sdexter@virginia.edu

Biotechnology Institute
P116B060093

Title: Operation Biotechnology

Develops engaging biotechnology teacher training curriculum and experiments that integrate biology, chemistry and physics content. In year-round professional development workshops high school teachers are trained to modify their existing courses and, using an easily replicable “teacher/leader” model, these master teachers will disseminate programs and labs to their colleagues.

FY 06 Award: \$277,137

Total Award: \$824,660

Contact: Paul Hanle, Biotechnology Institute, 1840 Wilson Blvd., Suite 202, Arlington, VA 22201; 703-248-8681; phanle@biotechinstitute.org

Roanoke College
P116B060412

Title: Preparing Faculty for Creating Integrative Learning Experiences

Designs, implements, and assesses a faculty development program that facilitates faculty providing integrative learning experiences to students. The project includes three initiatives to produce integrative teaching: initiative grants, annual faculty retreats, and e-portfolios. In collaboration with four other institutions, they develop and integrate three categories of assessment: national and local student surveys, student work, and results of qualitative face-to-face interactions. The outcome of the project creates a community of practice that promotes improved assessment-based inquiry and decision-making for faculty and students.

FY 06 Award: \$129,372

Total Award: \$452,041

Contact: Adrienne G. Bloss, Roanoke College, 221 College Lane, Salem, VA 24153; 540-375-2434; bloss@roanoke.edu

WASHINGTON

University of Washington
P116B060047

Title: Collaborative Learning in Construction Management Through Situational Simulations

Develops and demonstrates situational simulations for problem-based learning by construction engineering students. Situational simulations using many of the engaging features of video games help learners further develop decision-making skills. These simulations are created with the Virtual Coach, a desktop software tool that will be revised for use on the Internet. The project will produce a simulation development kit for non-programmers.

FY 06 Award: \$136,586

Total Award: \$436,512

Contact: Eddy Rojas, University of Washington, 532 Condon Hall, Box 351610, Seattle, WA 98195-1610; 206-616-1917; er@u.washington.edu

Professional Educator Standards Board
P116B060057

Title: Opportunity and Access to Increase the Diversity of Teachers

Strategically addresses the diversity gap between the teacher workforce and student populations in Washington State school districts in three regions. Opportunity and access are to be provided for paraprofessionals to enroll in teacher certification/BA degrees via three alternative route partnership programs.

FY 06 Award: \$144,568

Total Award: \$488,294

Contact: Lin Douglas, PESB, P.O. Box 47236, Olympia, WA 98504; 360-725-4951; ldouglas@ospi.wednet.edu

WISCONSIN

University of Wisconsin - Stout

P116B060111

Title: Combining Technology with Traditional Approaches to Improve Student Outcomes in Introductory Algebra Courses

Expands upon a new approach to teach introductory algebra courses. The approach has achieved a 61 percent reduction in failure and withdrawal rates in Beginning Algebra and 23 percent in Intermediate Algebra. This project assesses the long-term impact of the program on subsequent course outcomes and retention in school, expands the concept to higher level general education math courses, adapts the program to a summer pre-college preparatory program, and develops a series of workshops to foster adoption and adaptation of the approach by other institutions.

FY 06 Award: \$150,000

Total Award: \$450,000

Contact: Jeanne M. Foley, University of Wisconsin - Stout, P.O. Box 790, 210L Harvey Hall, Menomonie, WI 54751; 715-232-5001; foleyj@uwstout.edu