

**NO CHILD LEFT BEHIND, TITLE II (Part A) GRANT ABSTRACTS  
2002-2003**

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Following is a list of sub-grants funded by the Arkansas Department of Higher Education through the federally funded No Child Left Behind grant program. The purpose of the grant funds is to improve the quality of teaching in Arkansas. The grant notifications were distributed in April 2003.

**Arkansas State University, Craighead County** **\$77,680.00**

**Project Title: "Comprehensive Assistance in Mathematics, Science and Technology Instruction and Assistance for Teachers of Spanish-Speaking Children Program (CAMSTIATS)"**

The Comprehensive Assistance in Mathematics, Science and Technology Instruction and Assistance for Teachers of Spanish-speaking Children Program (CAMSTIATS) is designed to increase teacher content knowledge and pedagogy in K-12 mathematics and science, 9-12 mathematics, data-driven decision making, technology integration, and assistance to teachers and administrators of Spanish speaking children through five content institutes in mathematics and science during the 2003-2004 grant period.

**Integrated Preparation for the Science Benchmarks** focuses on integrating mathematics, science, technology and literacy content in active, research-based curricular materials available from the **Northeast Mathematics and Science Partnership Curriculum ACCESS Center**. **Summer Mathematics Institute** will focus on providing high-level learning opportunities for current mathematics teachers in grades 9-12 to increase mathematics content knowledge through the use of technology and cutting-edge pedagogical methods. Assistance for End of Course improvements will be provided. **Access Data to Help Students Excel** focuses on using data, curricular integration, and curricular mapping to improve instruction. Excel will be used for program analysis of ACTAAP data. Internet and **ACCESS** Center materials will be used to design integrated curriculum. Access will be used to develop curriculum reports and maintain a curricular map of documenting program improvements. **Assistance for Teachers and Administrators of Spanish-Speaking Children** provides intensive instruction in Spanish and cultural issues of Spanish-speaking students and parents tailored to meet the expressed needs of participating teachers. Interactions with Spanish-speaking adults and children will be provided to create a more realistic opportunity for practice. **K-4 Mathematics and Science** will focus on integrating mathematics, science and literacy in activity-based instructional experiences that teach core content using research-based instructional strategies.

**Arkansas Tech University, Pope County** **\$40,514.00**

**Project Title: "MSI River Valley Middle Level Math/Science Improvement Project"**

The concept of the grant proposal is to form a partnership between Arkansas Tech University and a limited number of close proximity school districts. The vision of the proposal will be to modify teacher behavior in the presentation of middle level math and science curriculum resulting in an increase in student achievement. This is to be accomplished by providing assistance to the selected school districts in the form of sustained high-quality professional development activities; working with the math and science education instructors to modify their curriculum to include more experiences for pre-service teachers out in the classroom prior to their internship; and by offering graduate coursework for middle level teachers to bolster their preparation in the sciences,

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mathematics and the true integration of the subject areas in the curriculum. In allowing additional time for pre-service teachers out in the classrooms with regular classroom teachers prior to their internship will serve two fold purpose: (1) provide assistance for the classroom teacher while implementing new curricular materials and (2) provide more experiences for the pre-service teachers as they prepare to enter the profession while also allowing guided engagement with middle level students.

**Harding University,  
White County**

**\$35,554.00**

**Project Title: "Reflection and Assessment on Student Achievement  
In Core Subject Areas by Way of National Board of Professional  
Teaching Standards (NBPTS)"**

The National Board candidate's process is a high-stakes endeavor for teachers. The goal of the certification process is student achievement. In partnership with the College of Education, the College of Arts and Humanities, and the Rose Bud School District, this project will provide specific content teaching area support for National Board certification and provide high quality professional development in the areas of descriptive, analytical and reflective writing across-the-curriculum with institutes in interdisciplinary approaches to teaching math and science.

Participants will be expected to demonstrate how they meet the National Board's high and rigorous standards by completing a school-site portfolio that provides evidence of teaching practices and student achievement through student work samples, videotapes of classroom interaction, written commentaries from these documents and reflecting on their actions.

Research released by NBCTs examined student work samples in classes taught by NBCTs and non-board certified teachers. Nearly three-fourths (74 percent) of the work samples from students taught by NBCTs reflected a high level of content comprehension of the concepts being taught compared to 3 in 10 (29%) from non-board certified teachers, including: knowledge of subject matter, ability to adapt and improvise instruction, formulating lessons that are challenging and engaging and promoting both personal and intellectual academic achievement.

**Harding University,  
White County**

**\$49,542.00**

**Project Title: "Technology in Mathematics Education (TIME)**

The main component of the Technology In Mathematics Education (TIME) Project is two courses focusing on methods of teaching mathematics via technology. The courses will entail approximately 40 contact hours and be completed in one week during the summer. One course will be geared to the needs of middle level mathematics instructors and the other to the needs of secondary mathematics teachers. All technological resources purchased with grant funding will be available for area teachers to check out and use with their classes. During the ensuing school year, participating teachers will attend four follow-up sessions (=8 contact hrs.) that will help provide the support the participants need to sustain their efforts to integrate technology into their mathematics instruction. Participants will also develop plans for lessons that incorporate the use of technology, and these lessons will be posted on Internet. Finally, teachers participating in the TIME Project will make a presentation to colleagues at a local, state, regional or national workshop or conference concerning technology infused lessons they have taught.

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**Harding University,** **\$69,646.00**  
**White County**  
**Project Title: "Arkansas P-12 Mathematics Campaign"**

The mathematic courses will be offered for three semester hours of graduate credit to a maximum of 20-25 participants. The course will stress the learning of mathematics as an active integrated, constructive process involving experimentation, investigation, communication, reasoning and problem solving. The course builds foundations in content to show connections and relevant applications of areas of mathematics. The goals of the course are to help teachers extend content learning, to help teachers create successful learning environments for every student by teaching them to use manipulatives, calculators, technology, and a various learning strategies, and to provide access to appropriate materials, equipment and technology in geometry and DMI strands.

**Henderson State University,** **\$62,362.00**  
**Clark County**  
**Project Title: "Improving Instruction with Technology"**

With the current focus on accountability along with initiatives and mandates that surround teachers it is vital that they continue to improve their own skills and knowledge. Assisting teachers with opportunities to increase their expertise is essential to their continued professional growth and ability to realize greater student achievement in the classroom. Technology makes learning more interactive, more enjoyable, and more customizable. It improves students' attitudes toward content and their interest in learning. Improved content knowledge of teachers will result in better instruction for students and improved student achievement.

**Henderson State University,** **\$62,340.00**  
**Clark County**  
**Project Title: "TeaMS Leadership Institute"**

The goal of the TeaMS Institute is to reverse the downward performance trend of middle grades students in the areas of mathematics and science. The TeaMS Institute will include participation from teams consisting of one middle grade math instructor and one middle grade science instructor from 12 school districts. Participants will attend an intensive 10-day summer institute at the Arkansas School for Mathematics And Science with follow-up activities during the school year. Participants will enroll in one math/science content course and one leadership course.

**University of Arkansas at Little Rock,** **\$34,800.00**  
**Pulaski County**  
**Project Title: "Real-World Experiences in Inquiry and Problem Solving"**

Arkansas STRIVE places science, math, and computer teachers from middle, junior high, and senior high schools (6-12<sup>th</sup> grades) into summer research positions or on projects in industry, government agencies, universities, research facilities, and nonprofit organizations. Teachers work with professionals in the field for eight-weeks and learn how professionals solve problems facing their organizations. We also present workshops to the teachers on inquiry and problem-based teaching, and on using computers for data analysis. In addition, we help the teachers develop inquiry-based or problem-based lessons using the new skills and experiences that the teachers acquired during the summer.

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**University of Arkansas at Little Rock,  
Pulaski County**

**\$49,316.00**

**Project Title: "Standardizing Content: Weaving NCATE Standards"**

The proposal seeks funding to develop the plan for curricular modifications needed to enable the pre-service teacher candidates in foreign languages at the University of Arkansas at Little Rock to meet or exceed the standards approved in October, 2002 by the National Council for Accreditation of Teacher Education for foreign language teacher candidates nationwide in NCATE accredited institutions. Licensure requirements have become significantly more rigorous, necessitating an intensive effort in undergraduate foreign language courses to document the progress of students in language acquisition and to improve their language proficiency. Given the increased proficiency required by these standards, the shortage of candidates qualified for licensure is likely to increase significantly while there is already a substantial shortage of qualified teachers. In order to meet the newly-approved standards it will be necessary to modify the existing 12 credit hour second language pedagogy courses as well as the course content in all the French, German, and Spanish curricula to include the six new program standards. Since this is a major undertaking, this proposal seeks funding to plan a systematic and level-appropriate process for the needed modifications. This plan can then become a model for other institutions of higher education.

**University of Arkansas at Pine Bluff,  
Jefferson County**

**\$31,294.00**

**Project Title: "Southeast Arkansas P-16 Education Partnership"**

Education in the Arkansas Delta is dependent upon a teaching population that is trained and retrained to address student needs through the use of educational standards by incorporating technology as a management tool or as a method to enhance instruction. With the current movement toward higher standards for student performance, improved curricula, and assessment strategies, Arkansas Delta schools need high quality professional development programs that will address the needs of their teachers-many of whom are operating on Deficiency Removal Plans from the state of Arkansas Teacher Licensure Program. This program will support the Arkansas Curriculum Frameworks and national standards. The targeted audience for this program is the school districts of the Arkansas Delta where there are high concentrations of low-income students in sparsely populated areas. The activities proposed will be teacher preparation for pre-service teachers (undergraduate) and professional development for career teachers (graduate). Professional development activities will include, but not be limited to, a three-hour curriculum-based technology course where participants will receive graduate or undergraduate credit; weekend or evening training sessions; summer workshops to reinforce or introduce new and innovative technology-based teaching materials; and follow-ups on classes/sessions/workshops to evaluate material usage. Altheimer/Sherrill, Dollarway, Pine Bluff, and Stuttgart are the targeted districts for recruiting teachers into the program.

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**University of Arkansas at Pine Bluff,  
Jefferson County**

**\$70,416.00**

**Project Title: "The TIMS Project (Teaching to Improve  
Math Scores)"**

The P-16 Education Enhancement Coalition is deeply committed to closing the achievement gap in middle school math. We have consolidated our resources and aligned our efforts to serve students in Stuttgart, Dollarway, Altheimer and Pine Bluff School Districts. Our focus for this project is to reduce the achievement gap in the area of mathematics and to garner an increase in the use of technology.

Our project will consist of a summer institute for middle school math teachers (grades 4-8) from our partner school districts, with follow-up activities at the University of Arkansas at Pine Bluff and at each participating school site. We will focus on using the Benchmark released test items, teaching to the Arkansas Math Frameworks, incorporating supplemental resources, and technology inclusion in the math classroom. Institute participants will engage in hands-on training with various technological tools. All participants will have access to technical support via e-mail or telephone from a qualified facilitator. Facilitators will model and teachers will participate in "best practices". We will evaluate the project by data from the Arkansas assessment programs, surveys, pre and post assessment. Teachers deserve support in leading their students to meet expectations as reflected in the No Child Left Behind Act of 2001. The P-16 Education Enhancement Coalition believes that the key to student academic achievement is to help teachers focus on how the content is delivered.

**University of Central Arkansas,  
Faulkner County**

**\$63,364.00**

**Project Title: "UCA P-16 Partnership No Child Left Behind  
Mathematics and Science Quality Teacher and Student  
Achievement Collaborative"**

The University of Central Arkansas will establish a partnership with the Mayflower School District to provide a graduate credit course for 122 teachers in K-12 to include, 20 mathematics and science teachers in 8-12; 34 teachers in K-8, who are responsible for teaching mathematics and science, and 68 other subject matter teachers, integrating mathematics and science teaching across the curriculum. Program objectives are: 1) to increase the mathematics and science content knowledge of in-service teachers in K-12 as measured on pre-and post-test gains at a rate of 80%; 2) to increase the number of teachers who seek National Board for Professional Teaching Standards (NBPTS) Certification in their content area at a rate of 20%; 3) to increase the students' mathematics and science scores CRT, NRT, and EOC measures higher than average scores in the state. A team teaching approach employed to encompass 45 contact hours during the academic year, culminating in a two-week summer program. Scientifically based research indicates that the teacher quality has a powerful effect on student achievement and teachers who have achieved NBPTS Certification significantly outperform teachers without NBPTS certification on 11 of 13 key dimensions of teaching expertise. It is projected that the quality of mathematics and science teaching and student achievement will improve significantly.