



**UF MARTIN**

*Overview of Sponsored Funding & Research*  
**2013-2016**



The Mission of the Office of Research, Grants, and Contracts (ORGC) is to assist members of the campus community in pursuing and managing their research and development activities sponsored by internal and/or external agencies and organizations. The following goals are interrelated and designed to support the teaching, learning, research, and service functions of the University. These goals (1) increase and maintain UT Martin's volume of competitive sponsored funding; (2) assure research integrity with federal and state laws and regulations, sponsored program guidelines, and university policies and procedures; and (3) promote faculty development and interdisciplinary research opportunities.



Dear Reader:

The 3rd edition of UT Martin Overview of Sponsored Funding and Research, we feature externally sponsored funding and the Hal and Alma Reagan Leave Awardees from 2013 through 2016. In this edition, we have added information about the faculty who have received internal Faculty Research Awards from 2013 through 2016 as well. All three of these areas demonstrate how our faculty members use research and professional development to enhance their teaching.

What is the role of externally sponsored grants on a college campus? Many of us associate grants with sophisticated labs, super computers, and medical research. In the past five years, external funding has furthered UT Martin's mission of teaching, research, and service through:

- collaborative research with colleagues in Tennessee, other states, and internationally;
- programs that provide tailored professional development for K-12 teachers, law enforcement, social workers, and business leaders throughout West Tennessee;
- enhanced relationships between UT Martin and community business and industry partners; and
- equipment and facility improvements in science and agriculture.

Sponsored funding also represents a good investment for UT Martin fiscal viability. UT Martin, like many institutions of higher education, has become a state-supported rather than a state-funded institution. Consequently, grants provide additional salaries, undergraduate and graduate tuition, and equipment that would be unavailable in this era of flat funding from the state government. Sponsored programs also enable staff to create programs and provide services that support our students in their academic experiences. Our current yield rate is at 66%, which is high, and also speaks well of the quality of work that our campus produces. The University of Tennessee at Martin is committed to student access and success, research and economic development, and outreach and globalization.

Internal and external research and sponsored projects allow the faculty to expand their horizons through additional research opportunities and development of new and state-of-the art programs. Internal research support is provided through the Hal and Alma Reagan Leave program that awards eligible faculty either a half or full-year leave to pursue their personal research initiatives and the internal Faculty Research Program that allows eligible faculty to conduct their research that often leads to generating baseline data for future studies. Both of these programs not only further the recipients' research agendas, but also reignites their passion for teaching. Another

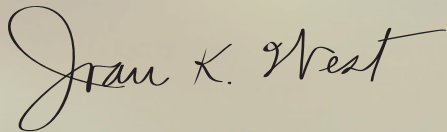
venue of achieving these goals is through externally sponsored grants, which are becoming more competitive to secure. Not all proposals submitted are funded; however, all require commitment and many hours of preparation.

UT Martin's commitment to achieving these goals and depict the creativity and hard work of the university's faculty and staff in writing, securing, and managing these grants. A new federal administration usually means that programs and the funding that accompanies those programs are subject to repeal, revision, and/or replacement. Sometimes when these things happen, higher education institutions will step back and adjust institutional strategic goals to align with the new programs and funding. UT Martin is no exception. Several agencies in the State of Tennessee are also experiencing cutbacks or flat funding and are either redacting funds or reducing budgets for all sponsored programs for Tennessee colleges and universities. A major accomplishment for UT Martin is that the university is learning how to make the matching and/or cost sharing commitments stronger and broader, which means new dollars for our campus.

Internal as well as external collaborative efforts are becoming a norm for the university, which, in turn, strengthens our foundational goals and programs. One example of internal collaboration is the Title III, Strengthening Institutions Program. Funded through the US Department of Education, UT Martin has committed to two goals: (1) enhancing postsecondary success and (2) improving productivity. These two goals are interrelated and focused on strengthening the institution.

Two examples of external collaborations are the Northwest Tennessee STEM Innovation Hub funded by the Battelle Memorial Institute and the Regional Entrepreneurship and Economic Development Center (REED Center) sponsored by Tennessee Small Business Development Centers. These projects involved collaborative partnerships among and between the agriculture, business, education, health care, and law enforcement sectors throughout West Tennessee. The Office of Research, Grants, and Contracts continues to build upon this foundation to amplify the impact of UT Martin in our service area. These are exciting times for UT Martin and our region.

Sincerely,

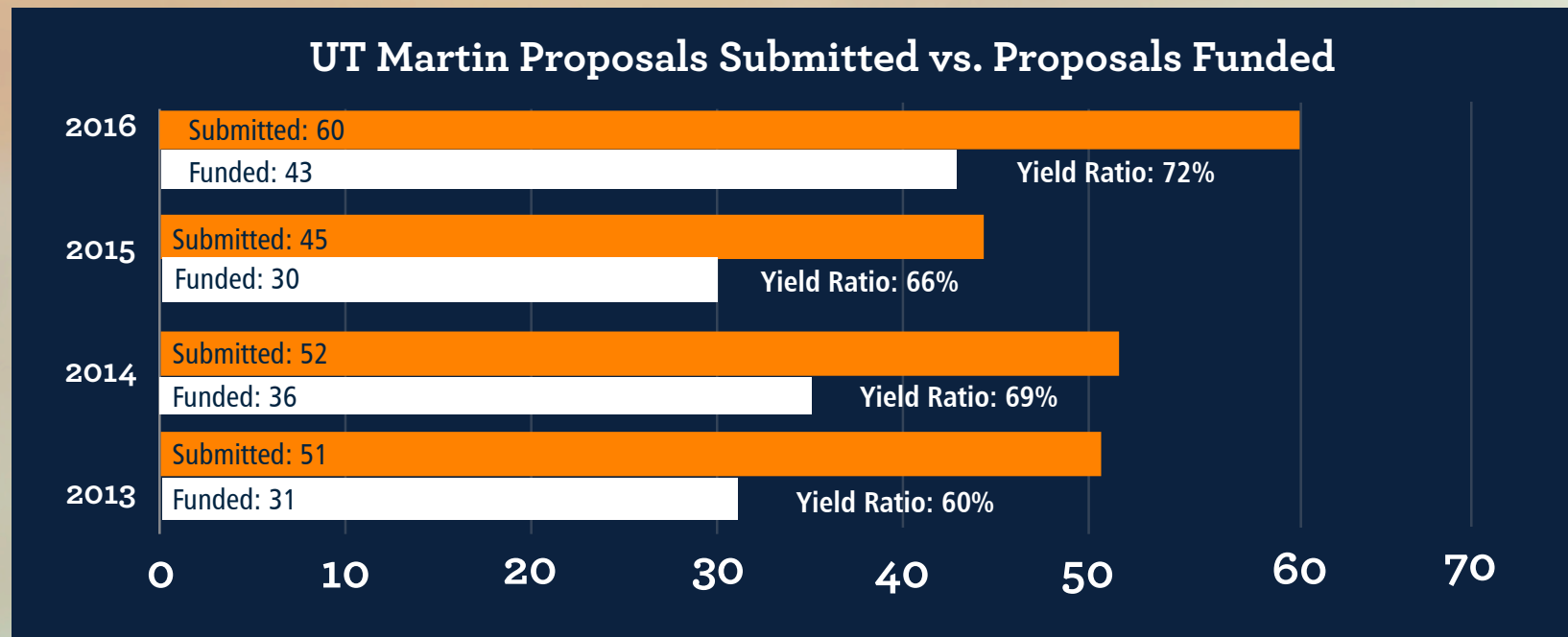
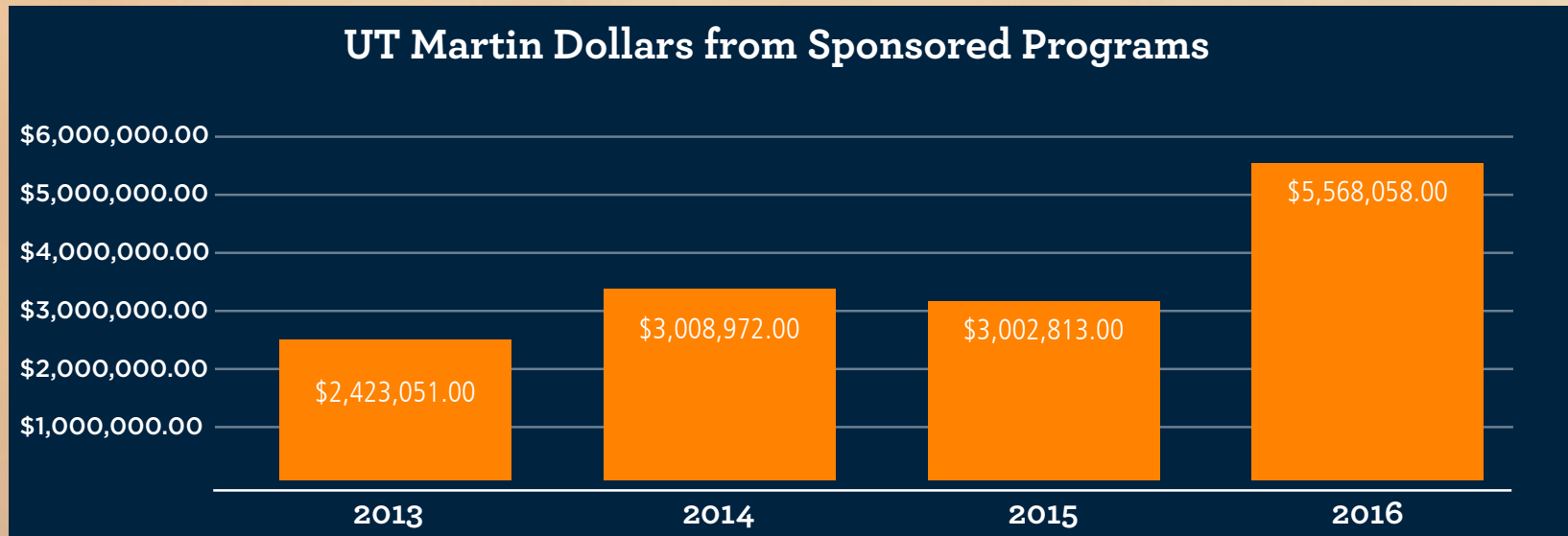
A handwritten signature in black ink that reads "Joan K. West". The signature is written in a cursive, flowing style.

Joan K. West, Ph. D.  
Chief Research Officer and Director of Research, Grants, and Contracts

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# Financial Information





**College of Agriculture and Applied Sciences**

## St. Elias Erosion and Tectonics Project

**Project Director:** Dr. Benjamin Hooks, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012 – 2013

**Sponsoring Agency:** University of Texas – El Paso (UTEP)

The St. Elias Erosion/Tectonics Project (STEEP) was a large multi-university collaboration focused on the study of the interaction between tectonics and surface processes (i.e. glacial erosion). Dr. Hooks collaborated with researchers at the University of Texas at El Paso, GNS Science of New Zealand and the University of Maine to develop three-dimensional thermo-mechanical numerical simulations of the southern Alaska orogeny that reproduced the first-order deformation patterns from the last 10 million years. These simulations suggested that the role of erosion was to enhance the pre-existing strain patterns and provided very little control on the patterns of deformation.

## Decoding & Predicting Greenland's Surface Melt History and Future

**Project Director:** The Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2013 – 2016

**Sponsoring Agency:** National Science Foundation

The purpose of the National Science Foundation (NSF) Polar Project was to advance the understanding of recent and future behavior of ice melts on the surface of Antarctica on the surface of the Geographic Information System (GIS) by combining satellite records of melt with high-resolution regional atmospheric modeling. The collaboration between UT Martin and the New Mexico Institute of Mining and Technology allowed the diagnosis of the meteorological and sea-ice conditions that bring melting to the GIS. The project examined whether regional warming, associated with anticipated anthropogenic global warming and related atmospheric global warming and atmospheric circulation changes will lead to a future increase of melting and how this will manifest.





## Fish and Wildlife

**Project Director:** Dr. Eric Pelren, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** National Fish and Wildlife Foundation

UT Martin entered an agreement with the U.S. Fish and Wildlife Service's Tennessee National Wildlife Refuge to share the support of four students from the UT Martin Wildlife Program as interns each summer on the refuge. These student interns gain a wide range of valuable experiences, including waterfowl trapping and banding, habitat management, invasive plant control, use of Global Positioning Systems and the delivery of educational programming. The interns are provided housing, uniforms and a modest stipend to cover food and fuel, as well as safety training.



## Environmental Factors on Choice of Maturity Group in Mid-South Soybean Production

**Project Director:** Dr. Eric Walker, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012

**Sponsoring Agency:** The University of Arkansas at Fayetteville

UT Martin collaborated with the University of Arkansas to research "The Effect of Planting Date, Latitude, and Environmental Factors on Choice of Maturity Groups in Mid-South Soybean Production." Dr. Walker studied data on disease, insects and other problems common to soybean production. Specifically, he tested seed quality for germination and accelerated aging. This award provided an opportunity for an undergraduate student to conduct research with Dr. Walker.

## Optimum Soybean Row Spacing and Seeding Rate Combinations for Teaching and Demonstrations

**Project Director:** Dr. Eric Walker, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012

**Sponsoring Agency:** Tennessee Soybean Promotion Council

Practices and products are continually marketed to soybean producers, although some of these practices and products may not be supported by university/government data. Through this grant, UT Martin conducted soybean field studies to be used for teaching, demonstration and research that examine the technological, agronomic and foliar nutrient application effects on MG IV and V soybean. Practices to be evaluated included foliar nutrient and fungicide application, deep tillage, soybean MG and seeding rate selection, and others. Practical training in equipment GIS/GPS systems was also included. The objectives for these studies included: (1) providing a research opportunity for a UT Martin student to apply essential crop-production principles in the field; actively contribute to the solution of current problems, inadequacies and questions in agriculture; learn costs and profits associated with production agriculture; and learn about funding and its source relating to teaching, research and demonstration; (2) evaluating technological, agronomic, and foliar nutrient application effects on MG IV and V soybean.; and (3) utilizing these field studies as teaching tools for UT Martin students, UT Extension agents, producers and industry professionals.

## Agriculture Vocational Education

**Project Director:** Dr. James Butler, Jr., Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012 - 2015

**Sponsoring Agency:** Tennessee Department of Education - Division of Vocational Education

Funding for this award has enabled UT Martin to provide professional development to area agriculture education teachers. The purposes of the sessions were to update teachers on trends and events in the field of agriculture education, discuss issues and problems of concern and discuss ways to improve their local agricultural education programs. Most recently, topics have included: (1) integrating academics into the content area; (2) navigating the state website on clusters of related occupations; and (3) identifying related programs of study. The content presented at the session included methodology, concepts and applications; tutorials and hands-on activities to reinforce learning concepts; and sample lesson plans. The session also presented specific strategies on how agriculture education teachers can advise students in selecting a career and new technologies and trends in the agriculture industry. Other training was designed to ensure that colleges and universities continue to meet Tennessee teacher licensure standards and identify ways to assist agriculture education teachers in implementing state Agriculture Education Standards, occupational clusters and programs of study.





## West Tennessee Animal Diagnostic Laboratory

**Project Director:** Dr. Jason Roberts, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012 - Ongoing

**Sponsoring Agency:** Tennessee Department of Agriculture

Funding from the West Tennessee Animal Disease Diagnostic Laboratory (TADL) serves primarily as a satellite laboratory designed to accept deceased suspect animals and collect tissue samples that are forwarded to a parent laboratory for final evaluation. It provides essential services to Tennessee's own companion animals. Companion animal diagnostic medicine serves as an important means to directing and monitoring the incidence of zoonotic diseases (diseases transmittable from animal to humans). The West Tennessee Animal Diagnostic Laboratory provides for management of a mobile animal working unit, the registration and identification of animals and premises at UT Martin, and the organization of an emergency response team.

## Support to Enhance the Agricultural Teaching and Outreach Training in Classrooms

**Project Director:** Dr. Joey Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – 2016

**Sponsoring Agency:** United States Department of Agriculture

This grant was used to assist in adding a state-of-the-art classroom to enhance the agricultural teaching and outreach programs at the University of Tennessee at Martin. The classroom in the renovated building is valuable to the university's new Veterinary Health Technology Program on campus. The classroom also supports small businesses and adult-producer education opportunities through developing workshops. The veterinary health technology classroom is used as a primary classroom for veterinary health technology and a location for training events for the public and area industry. The facility utilizes state-of-the-art technology to help faculty develop educational materials and make them available to agriculture producers and rural businesses on the worldwide web. This will help provide access to education among many of the rural residents who are not located close to a university

## UT Martin Clay Target Club

**Project Director:** Dr. Joey Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2014

**Sponsoring Agency:** Friends of the National Rifle Association

The UT Martin Clay Target Club/Team is a student-based sports club which supports the pastime of sports shooting with an emphasis on training for the evolving sport of collegiate shotgun competition. The National Rifle Association (NRA) provided supplies to the Clay Target Club so the team could participate in the National Junior Olympics in Colorado Springs, Colo., and the Tennessee State Championships. This club strives to educate individuals with respect to firearms, firearms history, and participation in the shooting sports, hunting safety and marksmanship.





## Center of Excellence for Experiential Learning in the Agricultural Sciences

**Project Director:** Dr. Joey Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2012 – Ongoing

**Sponsoring Agency:** Tennessee Department of Higher Education Commission

The State of Tennessee operates several Centers of Excellence throughout the higher education system. UT Martin has operated the Center of Excellence in Experiential Learning in Agriculture Sciences since 2005. This program provides high school juniors throughout Tennessee with experiential activities related to agriculture; students receive six hours of college credit for this five-week experience. It provides an innovative infrastructure through which existing and new experiential inter-disciplinary studies in production agriculture, the environment and conservation techniques can take place.

## Mobile Energy Classroom

**Project Director:** John Cole, Dr. Paula Gale, and Dr. Rachna Tewari; Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** National Institute of Food & Agriculture - United States Department of Agriculture

The United States Department of Agriculture awarded UT Martin funds to finance the creation of a mobile classroom to educate university students and the general public about the conservation and production of different types of energy. The mobile classroom project includes both static and hands-on demonstrations of current energy production, conservation and renewable technology. “The idea is to provide visual and hands-on education in energy, energy conservation and renewable energy to the general public, K-12 students and interested university students,” said Cole. The classroom will be available to visit regional schools, civic clubs and organizations, community centers and area festivals to meet interested students where they are. The grant is one of 12 awarded by the USDA through the Capacity Building Grants for Non-Land-Grant Colleges of Agriculture program and is intended to “support research, education and outreach activities at non-land-grant colleges and universities to further agricultural research and teaching.”





## “Something is Missing Here: A Teacher Field Camp in Fossil & Taphonomy”

**Project Director:** Dr. Michael Gibson, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2013 – 2014

**Sponsoring Agency:** The Paleontology Society

“Something Is Missing Here: A Teacher Field Camp in Fossil and Taphonomy” was a three-day professional development field paleontology camp experience (with online follow-up) that provided middle and high school science teachers from Tennessee and nearby Mississippi, with the opportunity to explore the nature of the fossil record and how taphonomic bias affects the interpretation of fossils and ancient environments. Teachers conducted field analyses at the Coon Creek Lagerstätte locality in McNairy County, Tennessee. Tied directly to national and state science standards, teachers collected fossils in the field setting and investigated their findings using open-ended inquiry methods and the impact of post-mortem events (e.g., burial decay, scavenging, transportation, diagenesis, concentration and deposition) on preservation potential. The teachers critically examined actual ongoing taphonomic research at the site. This short course aimed to provide science teachers with the knowledge and tools necessary to incorporate taphonomy into their earth-science curricula.

## NGGDPP Data Preservation

**Project Director:** Dr. Michael Gibson, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2014 – 2015

**Sponsoring Agency:** Tennessee Department of Environment and Conservation

The Tennessee Division of Geology (TDG) contains more than 100 field books spanning nearly 100 years of work in Tennessee by the TDG and contracted geologists. While some of this information was used in various published reports, much of the data within these books remained unused and uncategorized, and 50 to 100-year-old documents were available only in hard copy format. Funding for this project was used to digitize all TDG field books.



## Increasing Resilience of Agricultural Production in the Tennessee and Cumberland River Basins through more Efficient Water Resource Use

**Project Director:** Dr. Paula Gale, Department of Agriculture, Geosciences, & Natural Resources

Dr. Gregory Nail, Department of Engineering

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** United States Department of Agriculture - Agriculture and Food Research Initiative

Funded through the United States Department of Agriculture: Agriculture and Food Research Initiative, this project is a cooperative venture involving 23 researchers representing five institutions across Tennessee. The action plan addresses the following questions: (1) How do changes in climate, land use and industrial/ consumer demand affect the quantity, quality and availability of water for agriculture in the Tennessee and Cumberland River Basins (TCB)? (2) How can agriculture in the TCB adapt to these changes? (3) What are the economic impacts of these changes? and (4) What policy, institutional or technological changes will help ensure that sufficient amounts of high-quality water are available to meet the demand in the TCB? The answers to these questions are being discovered by coupling hydrodynamic and bio-geophysical models with economic models in a framework to analyze a range of anticipated climate and land use scenarios for the southeastern United States. Field trials are being conducted at University of Tennessee research and education centers to test the effects of adaptive management practice (AMP) adoption on watershed-scale hydrology, thus providing data for the coupled models. The University of Tennessee at Martin is contributing to this project through educational enhancements that include field work and site visits for students in existing courses, research and networking opportunities for students, and new course development in hydraulic and hydrologic modeling.

## An Ecosystem Approach to Classification of Impacted Low Gradient Floodplains in MLRA 134: Connecting Soils, Landforms and Vegetation

**Project Director:** Dr. Paula Gale, Department of Agriculture, Geosciences, & Natural Resources and Dr. Lisa Krueger, Department of Biological Sciences

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** United States Department of Agriculture - National Resources Conservation Service

This project is systematically inventorying the soils and vegetation assemblages per floodplain landform for selected altered and unaltered riverine systems in the Major Land Resource Area (MLRA) 134. The end results will include the development of ecological site description reports for the floodplain sites evaluated along with the development of state and transition models for these sites. This educational and research opportunity provides students with experiences in all aspects of the project, including field sampling, collection and identification of soil and vegetation, database population and analysis, and preparation of final reports. These students are gaining experience in new and developing approaches to soil resource inventory and management in accordance with the mission of Soil Survey, thus preparing them to be future soil scientists. Ultimately, this project provides key information that can be used to validate the development of provisional ecological site descriptions in the region.

## South Regional Soil Survey Conference

**Project Director:** Dr. Paula Gale, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2013 – 2014

**Sponsoring Agency:** United States Department of Agriculture - National Resources Conservation Service

UT Martin received funding from the Southern Appalachian Mountains Cooperative Ecosystems Studies Unit (CESU) to attend and host the South Regional Cooperative Soil Survey Conference (SRCSS) in Martin, Tennessee. This was an opportunity for representatives from cooperating universities, governmental agencies and private sectors to meet and address issues of concern to soil science and to the National Cooperative Soil Survey. The SRSSC convenes every other year to provide a forum for technical exchange among soil scientists that supports the National Resources Conservation Service's mission to develop and maintain an inventory of soil resources in the South region of National Cooperative Soil Survey.

## Measuring Water Dynamics in Soybean Production Systems: A Student Learning Opportunity

**Project Director:** Dr. Paula Gale, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2014 - Ongoing

**Sponsoring Agency:** Tennessee Soybean Promotion Council

As the number of irrigation systems in the area increases, West Tennessee needed to have a better understanding of water dynamics in row crop production systems. This project involves measuring both percolation and infiltration of water in soybean production systems under a variety of different winter cover crops. UT Martin students are gaining work experience in all aspects of research including data collection, interpretation and presentation. This project is ongoing and allows the department to train students in collecting saturated hydraulic conductivity data and generate a database of information for West Tennessee. The project has given opportunities for research experience to an increasing number of students each year and has allowed them the opportunity to meet researchers and farmers throughout West Tennessee.

## Capacity Building across Upper Mid-South Institutions: Enhancing Teaching and Research through Cover Crop Management

**Project Director:** Dr. Paula Gale, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 - Ongoing

**Sponsoring Agency:** United States Department of Agriculture - Agriculture and Food Research Initiative

This collaborative project aims to build the capacity of the colleges of agriculture at Arkansas State University, UT Martin and South East Missouri State University. Strengthening these institutions' ability to provide quality, dynamic and innovative research and education in the agricultural sciences supports innovative course-sharing among institutions to recruit secondary school students into higher education in the science of agriculture. This multidisciplinary, multi-institutional project will target university faculty, undergraduate students, high school students, farmers and extension agents in this highly intensive agricultural region. This project has established a sustainable agriculture field course and is working on regional cover crop fact sheets, cross-institutional course-sharing and a course-sharing model. Results from the research on cover crop adaptiveness and function will be published and disseminated widely in order to assist producers in selecting specific cover crops for particular desired function in the soil.

## Determining Optimal Height for Aerial Imaging Agriculture Crops

**Project Director:** Phillip Smartt, Department of Agriculture, Geosciences & Natural Resources

**Project Duration:** 2013 – 2014

**Sponsoring Agency:** United States Department of Agriculture - Rural Development

This project measured the optimal flying height for imaging crops. The grant funds were utilized to purchase a Mini-MCA 6 camera that was installed on an unmanned aerial vehicle (UAV) for purposes of remote sensing of crops. The camera mounted on the UAV routinely flies over fields with crops at different flying heights and varying time periods to analyze crop and vegetation status during the growing season. This project helped develop baseline estimates that allowed further research to be conducted, which lead to more rapid commercialization of the technology for agricultural use.



## Educating Drivers about Sharing the Road with Farm Equipment Training

**Project Director:** Dr. Sandy Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2014 – 2015

**Sponsoring Agency:** Tennessee Department of Agriculture – Tennessee Soybean Promotion Board

Targeted at local high school students enrolled in driver's education courses, the purpose of this grant was the development and dissemination of the legal aspects of sharing the road with farm equipment. Agricultural producers are spending more time on public roadways driving their equipment between fields. With the driving public often unsure of the proper rules for passing or following farm equipment, the training was essential to new high school drivers.

## Development of Unmanned Aerial Systems in Precision Agriculture

**Project Director:** Dr. Sandy Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2016 – Ongoing

**Sponsoring Agency:** Tennessee Department of Agriculture – Tennessee Soybean Promotion Board

In order to advance UT Martin's role in the Research, Teaching, and Outreach in Tennessee (RTOT) grant and assist a graduate student with their thesis work, this grant allows graduate-student use of unmanned aerial systems (UASs). The focus of the research is to promote the applicability of UASs to producers throughout the state, collaborate with faculty and students from MTSU, and begin data collection and analysis from various cameras on the UAS.



## Specialty Crop Block Grant Program

**Project Director:** Dr. Sandy Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2013 – 2016

**Sponsoring Agency:** Tennessee Department of Agriculture

The purpose of the Specialty Crop Block Grant Program (SCBGP) was solely to enhance the competitiveness of specialty crops, defined as fruits and vegetables, dried fruit, tree nuts and nursery crops including floriculture. The Tennessee Department of Agriculture partnered with the University of Tennessee at Martin to increase the number of producers using alternative growing methods by constructing a high tunnel at Hidden Hill Farm, a community supported agriculture farm, in Dresden, Tenn., and educating local small producers, the public and university students on alternative methods for growing specialty crops through public farm tours, small producer workshops and farm visits from local school children.

## Youth Urban Farm Training Program

**Project Director:** Dr. Sandy Mehlhorn, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** Landmark Training Development Company

The Youth Urban Farm Training Program's sole purpose is to nurture relationships between at-risk youth and their families by growing healthy organic fruits and vegetables. To date the program provides high-quality, culturally appropriate foods to people in low-income communities located in food deserts. This ongoing project proposed to extend the fresh fruit and vegetable growing seasons in urban communities with equipment and processes that will have a lasting impact on increasing specialty crop production. In addition, The Urban Farm Training Program will continue to train and equip the next generation of potential farmers. By establishing nurturing relationships, at-risk urban youth and their families experience growing, harvesting, canning, selling and eating healthy specialty crop foods with the expectation of increased consumption of fresh fruits and vegetables among Supplemental Nutrition Assistance Program (SNAP) participants.



## Enhancing Unmanned Aerial System-Based Precision Based Agriculture Education by Integrating Research, Teaching, and Outreach in Tennessee(RTOT)

**Project Director:** Dr. Sandy Mehlhorn and Dr. Philip Smartt, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** National Institute of Food and Agriculture

Unmanned aerial systems (UAS) have great potential to influence next-generation remote sensing (RS) tools and precision agriculture (PA) practices. It is predicted that UAS will have an economic impact of \$13.6 billion in the first three years of implementation. However, the major challenges for using UAS in agriculture are a lack of integrated research combining image processing, spectral bands selection, economic analysis and crop management; insufficient high-quality educational programs; and public skepticism and misinformation. UT Martin collaborated with Middle Tennessee State University to develop Project RTOT: Research, Teaching, and Outreach in Tennessee, which takes an innovative, three-fold integration approach based on a collaborative effort between the two institutions. RTOT benefits producers, agronomists and economists through UAS-centered RS research within different cropping systems; helps students and faculty members through instrument acquisition and teaching enhancement; and improves the public understanding and awareness of UAS-based technology through outreach activities.



## Launch Tennessee University Venture Challenge

**Project Director:** Dr. Todd Winters, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2016

**Sponsoring Agency:** Tennessee Technology Department Corporation

This grant enabled UT Martin's College of Agriculture and Applied Sciences to host the annual UT Martin Collegiate Pitch Contest through a partnership with the Northwest Tennessee Entrepreneur Center (NTEC). LaunchTN (a public-private partnership dedicated to supporting the development of high-growth companies and local entrepreneurs in Tennessee) awarded UT Martin funds to sponsor the Collegiate Pitch Contest. Students were given the opportunity to create a business idea and give a five-minute "pitch" to a panel of judges, with three minutes of questions following. The top three teams and those selected for the Audience Choice and Soybean Innovation awards received cash prizes to go towards developing the team's business or innovation. The top three teams also qualified to compete in the Tennessee Collegiate Venture Challenge Contest hosted by LaunchTN in partnership with Northwest Tennessee Entrepreneur Center (NTEC). The College of Agriculture and Applied Sciences will continue to work with Northwest Tennessee Entrepreneur Center to support and develop the business plans and innovations of UT Martin students.



## Technological Agronomic and Foliar Nutrient Application Effects on MG IV and V Soybean for Teaching and Demonstration

**Project Director:** Dr. Wesley Totten, Department of  
Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2013 - 2015

**Sponsoring Agency:** Tennessee Soybean Promotion  
Board

While many of today's agriculture students will be tomorrow's producers, researchers, agronomists, consultants, sales people, lenders, insurers, lobbyists and policymakers, many of the students who have chosen agriculture as their major either did not grow up on a farm or do not have family who are crop, forage or livestock producers. Therefore, this award sought to provide all UT Martin students with the opportunity to gain practical and applied experience in crop production and management through field demonstrations and research plots, ultimately improving student learning and marketability. Students will participate in crop establishment, monitoring, management and harvest by applying crop production principles, practices and problem solving skills. To accomplish the program goals, Dr. Walker will continue to work with the Tennessee Soybean Promotion Board, private industries, the UT Extension Service and local producers to conduct field studies on the UT Martin farm to evaluate technological, agronomic and foliar nutrient application effects on maturity group IV and V soybeans to maximize yields and profitability.





## Family and Consumer Sciences Career & Technical Education

**Project Director:** Dr. Lisa LeBleu, Department of Family and Consumer Sciences

**Project Duration:** 2013

**Sponsoring Agency:** Tennessee Department of Education

UT Martin's Department of Family and Consumer Sciences continued to work with State Department of Education officials to update the course matrices provided to high school family and consumer science educators to ensure that content is aligned with state standards. The award produced a set of online and print educational resources available for use in teaching the standards with working links to online resources; all applicable end-of- course alignments with national FACS and state standards for English II, Algebra I and Biology; integrated co-curricular Family Career and Community Leaders of America activities that supported the mastery of the learning expectation; and a listing of higher-order thinking skills developed by the learning expectation within the dimensions of analysis, evaluation, synthesis and application.

## The Promethean Foundation

**Project Director:** The Department of Family & Consumer Sciences

**Project Duration:** 2015 – 2016

**Sponsoring Agency:** US Department of Agriculture – The Promethean Foundation

UT Martin and the Promethean Foundation, related to the Promethean Foundation Early Childhood Character Building Initiative, teamed up to create a Promethean-UT Martin Task Force with responsibilities for developing guidelines to implement the initiative, and monitor and communicate with those involved. The Promethean Foundation was created in 2004 by the Robert E. and Jenny D. Kirkland Foundation. The mission of the foundation is to help “at-risk” pre-school children reach their learning potential and attend high quality childcare centers in Obion County. The foundation focuses on the common theme of educational excellence in academic and character development. By gathering, analyzing and disseminating research findings, UT Martin was able to expand the vision of the original initiative to “find ways to promote and enhance the economic and human capital advantages of early childhood education.”

## Infant Stimulation Clinic

**Project Director:** Sharon Waterfield, Department of Family & Consumer Sciences

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** Tennessee Department of Health

UT Martin is the only higher education institution in Tennessee to house an Infant Stimulation Clinic. This program provides consultation services to children with special health-care needs for physical therapy, speech therapy and feeding evaluations through clinic and home-visitation services. Evaluation and therapy services were based on individual need with emphasis on written home programs to be carried out by parents on a daily basis. Services were provided to eligible children (from birth through age two) in Benton, Carroll, Henry, Lake, Obion and Weakley counties. .

## Child-Find

**Project Director:** Sharon Waterfield, Department of Family & Consumer Sciences

**Project Duration:** 2013 – 2014

**Sponsoring Agency:** Tennessee Department of Education

This grant increased referrals through the Child-Find efforts of Northwest TN Infant Stimulation for the Tennessee Early Intervention Agency. The services were provided within the seven county service region of Infant Stimulation (Weakley, Obion, Lake, Henry, Gibson, Benton and Carroll). The audience served included infants through age two who are developmentally delayed.

## Healthier Beginnings

**Project Director:** Sharon Waterfield, Department of Family & Consumer Sciences

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** Tennessee Department of Health

The Healthier Beginnings Program serves first-time mothers whose child is 3 months or younger and/or teen mothers who have not attained the age of 21 and their child is 3 months or younger. Healthier Beginnings is accredited through Healthy Families America as a provider of high-quality home-visiting services to families who want to improve their child's health, nutrition and development outcomes in Lake, Lauderdale and Dyer county. The program strives to: (1) increase and strengthen parenting skills while incorporating age-appropriate child development practices within the home; and (2) increase community resources and develop a community resource base. Healthy Families America and its affiliates connect with families through community partners such as hospitals and pediatricians to provide accessible service. "A safe, healthy childhood can set the stage for lifelong health. The Healthier Beginnings program offers families the tools and resources to provide a healthy environment for the child," stated Sharon Waterfield, director, UT Martin child and family grant programs..

## Infant Stimulation Program

**Project Director:** Sharon Waterfield, Department of Family & Consumer Sciences

**Project Duration:** 2014 – Ongoing

**Sponsoring Agency:** Tennessee Department of Health and Mental Retardation

The UT Martin Infant Stimulation Program was established in January 1976 to provide in-home early-intervention services for children from birth up to 3 years of age in Benton, Carroll, Henry, Lake, Obion and Weakley counties. The program offers assistance to young, developmentally delayed children and their families and provides ideas for growth within the frameworks of families. The program's mission is to provide families with the tools, opportunities and support necessary to help their children reach their highest potential. The varieties of services provided by the UT Martin Infant Stimulation Program include an early-intervention educational model, which includes parent involvement in a home-based and/or center-based setting, and screening in conjunction with Tennessee's Early Intervention System. The UT Martin Infant Stimulation Program is housed on the UT Martin campus, and the Paris center is located in the Paris Housing Authority in Henry County.

## Healthy Start

**Project Director:** Sharon Waterfield, Department of Family & Consumer Sciences

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** Tennessee Department of Health

The Northwest Tennessee Healthy Start Program is an intensive, voluntary home-visiting program that seeks to reduce infant and child mortality, prevent child abuse and neglect, and promote family health. It is designed to help first-time parents with children from birth to three years of age better meet the challenges and adjustments of family life. The program, funded through the Tennessee Department of Health, also helps overcome barriers to at-risk families through education about prenatal care, child safety, child health, disease prevention, child development and parenting skills. Healthy Start's focuses on: (1) identifying families in need of support; (2) building trusting family relationships; (3) promoting positive parent-child interaction; and (4) promoting healthy childhood growth and development. A total of nine agencies in Tennessee offer the Healthy Start program to families in Weakley, Obion, Lake, Dyer, Gibson, Henry, Benton, Tipton and Carroll counties. Family support workers make regular home visits with enrolled families to promote positive parenting manners, teach age-appropriate child development, and encourage bonding between parents and children. Enrollment eligibility is determined through an assessment interview. These services are offered free of charge.



**College of Business and Global Affairs**

## Dyersburg State Community College Peer Mentoring

**Project Director:** Dr. Tommy Cates, Department of Extended Campus & Online Studies

**Project Duration:** 2012 – 2014

**Sponsoring Agency:** Dyersburg State Community College

UT Martin partnered with Dyersburg State Community College to develop a peer-mentoring program to provide support and guidance for adult learners navigating the college process. Two adult student peer mentors from UT Martin were hired to work with students from both institutions. The goal of the program was to expand the number of dual-admissions agreements among consortia member institutions with emphasis on degree programs comprising the largest number of adult students.





## Tennessee Intensive English Program

**Project Director:** Amy Fenning, Department of International Programs & Admissions

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** Fukuoka Jo-Gakuin University & Tasaki City University of Economics

The primary purpose of the Tennessee Intensive English Program (TIEP) is to provide international students with the language skills and cultural adjustment needed to succeed in both undergraduate and graduate programs at the university level. Groups of students from Fukuoka Jo-Gakuin University in Fukuoka, Japan; Tasaki University of Economics, in Takasaki, Gunma, Japan; and Hansung University in Seoul, South Korea, come to UT Martin for three-week, all-inclusive programs to learn about American culture and language, and experience regional destinations. TIEP welcomes large groups from Mexico as part of the 100,000 Strong Americas program. In addition to these short-term programs, students from around the world can attend any of the six eight-week sessions throughout the year to learn about American culture, improve their language skills and partake in field trips throughout the city of Martin and the region. TIEP is a Commission on English Language (CEA)-accredited program. CEA is recognized by the U.S. Secretary of Education as an accrediting body for English language programs around the world.

## Takasaki City University of Economic Students

**Project Director:** Dr. Malcolm Koch, Department of International Education

**Project Duration:** 2015

**Sponsoring Agency:** Tasaki City University of Economics

This special program was a collaboration between UT Martin and the Takasaki City University of Economics (TCUE). UT Martin provided cultural, non-credit academic and other services for a group of 27 students from TCUE during a three-week period.



## Regional Entrepreneurship and Economic Development Center

**Project Director:** Landy Fuqua, Director of REED Center

**Project Duration:** 2012 - Ongoing

**Sponsoring Agency:** Tennessee Small Business Development Centers

The Regional Entrepreneurship and Economic Development Center (REED Center), housing the Tennessee Small Business Development Center (TSBDC), was established to meet the needs of existing and potential business owners through one-on-one consultations and interactive training programs. It serves as a hub of information for prospective entrepreneurs and owners of existing small businesses who need individual consultant services, group training services and associated technical resources. The REED Center offers courses, workshops and training sessions that respond to the needs of small businesses and supports regional economic development.

The REED Center combines the resources of regional businesses, chambers of commerce, small business development centers, rural development services, lending institutions, city governments, the UT Martin College of Business and Global Affairs, the Hendrix Chair of Free Enterprise, the Dunagan Chair of Banking, the Financial Services Center, the Oldham Center for Entrepreneurship and Economic Education and other public and private organizations to provide innovative and ongoing training and consulting services. The center's primary service areas include: Weakley County, Henry County, Benton County, Carroll County, northeastern Gibson County, and Obion County. The Center's secondary service area includes the remainder of Gibson County, along with Crockett, Dyer and Lake Counties.





**College of Education, Health, and Behavioral Sciences**

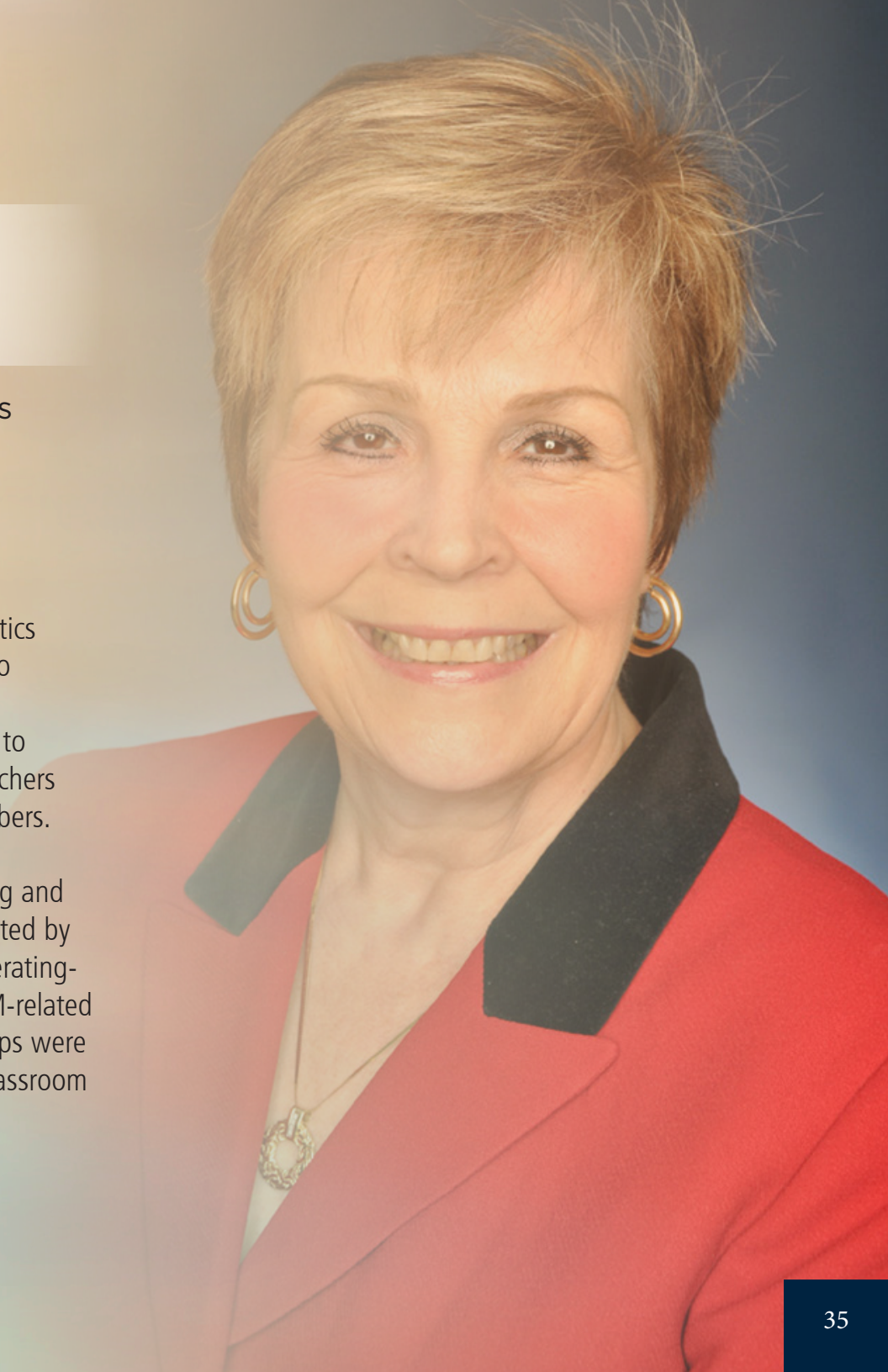
## STEM Integration for Middle School Teacher Academy

**Project Director:** Department of Educational Studies

**Project Duration:** 2013

**Sponsoring Agency:** Tennessee Higher Education Commission – U.S. Department of Education

The purpose of project Science, Technology, Engineering, and Mathematics (STEM) Integration for Middle School Teacher Academy (SIMS-TA) was to improve student achievement scores in 5th – 9th-grade classrooms by improving the quality of the teacher education programs. The goal was to establish partnerships with local school districts, license more STEM teachers and provide professional development for 5th – 9th-grade faculty members. This project was initiated to help improve teacher effectiveness with a cohesive STEM teaching approach that included inquiry, problem-solving and performance-based teaching and learning. The training workshops, hosted by UT Martin, focused on classroom organization and management, cooperating-teacher strategies, new-teacher training and engaging students in STEM-related subjects at the elementary, middle and high school levels. The workshops were offered to teachers free of charge. The grant distributed stipends and classroom materials for the UT Martin workshops.



## Become A Special Educator in Tennessee

**Project Director:** The Department of Educational Studies

**Project Duration:** 2012 – 2015

**Sponsoring Agency:** Tennessee Department of Education

In an effort to recruit more qualified teachers into special education, Become A Special Educator in Tennessee (BASE-TN) has provided tuition and academic support services to participants. Students receive an initial special education license issued by the state after completing an approved licensure program and submitting minimum qualifying scores on required teacher licensure examinations. Teachers who already hold valid teaching licenses can also participate in the program to earn an additional endorsement in special education. UT Martin staff work with each participant to create a plan of study based upon his or her past academic coursework and the coursework needed to meet state requirements for teacher licensure. Participants are also obligated to teach in an approved Tennessee public special education classroom two years for each 30 semester hours of BASE-TN financial support

## ACCESS: Achieving Common Core Standards in English and Social Studies

**Project Director:** The Department of Educational Studies

**Project Duration:** 2014

**Sponsoring Agency:** Tennessee Higher Education Commission

The “ACCESS: Achieving Common Core Standards in English and Social Studies” project funded through the federal Improving Teacher Quality (ITQ) grant was committed to supporting implementation of the Common Core State Standards for Reading: Literature and Informational Text, specifically in grades 6-12, by providing quality professional development to high school English and social studies teachers who sought to strengthen their content knowledge and pedagogical practices. This project served up to 24 high school teachers, including participants from Henry and Weakley County.

The four primary objectives of this program were to:

1. Increase the content knowledge base of secondary English and social studies teachers;
2. Increase teachers’ strategies and knowledge of teaching reading;
3. Train teachers in heuristics (ways of thinking); and
4. Develop and implement appropriately challenging student tasks and problems.

## Special Education Institute

**Project Director:** Dr. Cherry Watts, Department of Educational Studies

**Project Duration:** 2012 - 2015

**Sponsoring Agency:** Tennessee Department of Education - Division of Special Education

UT Martin has offered the Special Education Summer Institute since 1989. The goal of the Special Education Institute was to plan, implement and evaluate an institute for the purpose of offering coursework leading to licensure with the special education for teachers and educational assistants who serve students with disabilities. The program paid for tuition and provided an allowance for fees, materials, books and lodging for those who participated



A portrait of Dr. Kimberly Williams, a woman with shoulder-length brown hair and bangs, smiling warmly. She is wearing a light-colored top and a textured, light brown cardigan. The background is a soft, out-of-focus blue and white.

## Teacher Preparation Reinvention for Optimizing Continuous Improvement for Effectiveness and Student Success (T-PROCESS)

**Project Director:** Dr. Kimberly Williams, Department of Educational Studies

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** U.S. Department of Education

Improving teacher education and teacher retention are goals for the Teacher Quality Partnership grant (TQP). UT Martin is one of 24 U.S. institutions to receive this grant, which funds the Teacher Preparation Reinvention for Optimizing Continuous Improvement for Effectiveness and Student Success (T-PROCESS) grant. The overarching goal is to develop intentional partnerships with local education agencies (LEAs) that foster collaboration for the purpose of improving student achievement. This ongoing TQP program provides resources for UT Martin, high-need local educational agencies and high-need schools to prepare teachers to teach in high-need schools and support them in their first critical years. Professional development is offered to PreK-12 teachers covering such topics as STEM lessons, new teacher induction and training, and classroom management. This grant will support the transformation of the university's Teacher Education Program over the five years of funding to include mechanisms to engage and collaborate regularly with local school systems for mutually-agreed-upon goals, feedback and improvement. Higher admissions standards will also be required for teacher education program candidates, and the practicum will be reconfigured to a yearlong clinical experience, which will include student teaching and other field experiences.

## Sustainable Agriculture, Curricula, & Energy for Tennessee Program

**Project Director:** Ramona Nelson, Department of Education Graduate Programs

**Project Duration:** 2015 - Ongoing

**Sponsoring Agency:** Tennessee State University

The Sustainable ACEs (Agriculture, Curricula, Energy) for Tennessee Program engages a diverse group of institutions to create a curriculum that will provide biomass energy training to extension agents, and state and federal farmers/ranchers. The overall goal of this project is to increase farmer/rancher implementation of sustainable biomass energy feedstock production techniques and biomass energy production systems.





## UT Martin Curriculum Shooting Program

**Project Director:** Dr. Deborah Gibson, Department of Health & Human Performance

**Project Duration:** 2014 - Ongoing

**Sponsoring Agency:** Midway USA Foundation, Inc.

As the primary program of the Midway USA Foundation, Scholastic Shooting Endowment Grants provide financial support to high school and college-level youth shooting sports teams across America. The Midway USA Foundation supports all shooting disciplines, including shotgun, small-bore and air rifle, pistol and air pistol, high power and black powder. Grant funds are used for course supplies such as ammunition and range fees, but cannot be used for firearm purchases or political lobbying. Approximately 20 college students are enrolled in this two-hour credit clay target curriculum each semester. The curriculum shooting program is geared toward novice students, thereby fostering a continued interest in clay target shooting and competition.

## Easton Foundation Archery Award

**Project Director:** Dr. Deborah Gibson, Department of Health & Human Performance

**Project Duration:** 2014 - Ongoing

**Sponsoring Agency:** Midway USA Foundation, Inc.

Archery equipment was purchased through the Easton Foundation for use by students in the UT Martin Department of Health and Human Performance. The equipment was used in a physical activity class taught by Sarah Rohde, a National Training System Level 2 instructor certified by USA Archery. Having the proper equipment for the archery classes allowed students the opportunity to learn everyday shooting and tournament competition safety rules and standards, develop an archery vocabulary and shoot in tournament-style situations.



## Vocational Education for Health Sciences

**Project Director:** Dr. Janet Rasmussen-Wilbert,  
Department of Health and Human Performance

**Project Duration:** 2012 - 2013

**Sponsoring Agency:** Tennessee Department of  
Education - Division of Vocational Education

The UT Martin Department of Health and Human Performance planned, organized and coordinated professional development activities for the teachers in the health science curriculum from across the state of Tennessee. The purposes of these activities were to provide teachers with resources on the required course content and introduce them to professionals in the field. It is important to provide teachers with opportunities to learn about best practices and integrating cross-curricular subject matter into the health science education standards. Activity assessments were also incorporated into the professional development. UT Martin has hosted Health Occupations Students of America (HOSA) events and/or coordinated many of the events for Upper West Tennessee. These included assisting HOSA management in coordinating activities at the site for regional competition, assisting with procurement of judges and supplies, and assisting on the day of the event





Harnessing Echo360 Lecture Capture to Enhance the Benefits of Blended Learning in an Inverted Classroom Model: Self-Efficacy and Achievement – the “Proof in the Teaching/Learning Pudding.”

**Project Director:** Dr. Peggy Davis, Department of Nursing

**Project Duration:** 2012 – 2014

**Sponsoring Agency:** ECHO 360, Inc.

This project examined the role of Echo360’s platform in improving student learning outcomes via the “Flipped Classroom” method. Echo360 brings new levels of engagement and visibility to daily learning moments – those moments of learning that occur while taking notes, asking questions, reviewing lectures, building study guides, flagging confusing content and discussing topics with peers. The study examined the effects of blended learning on student comprehension, self-efficacy, and the larger issues of recruitment, retention and academic achievement. In an inverted classroom model, content was presented to students prior to class using Echo360 Personal Capture or Classroom Capture recordings posted on the web. The classroom time was then devoted to exploring content and reinforcing concepts that promoted active learning and student engagement. Echo360 captured these interactions and provided daily reports so instructors and students could see what is working – and what is not – and intervene quickly and proactively to improve outcomes.



## Overcoming a Rural Nursing Education Barrier through Simulation

**Project Director:** Dr. Mary Radford, Department of Nursing

**Project Duration:** 2012 – 2014

**Sponsoring Agency:** Tennessee Promise of Nursing Grant Program – Foundation of the National Student Nurses' Association

This project provided high-fidelity simulation opportunities to students in a rural baccalaureate nursing education program. This grant supported the purchase of a Nursing Anne simulator. A Nursing Anne simulator is a manikin designed for scenario-based training for the care and management of a wide variety of in-hospital patients. Nursing Anne is an efficient, effective, flexible manikin for clinical training in women's health, obstetrics, post-partum, wound assessment and care, and general patient assessment and care.



# College of Engineering and Natural Sciences

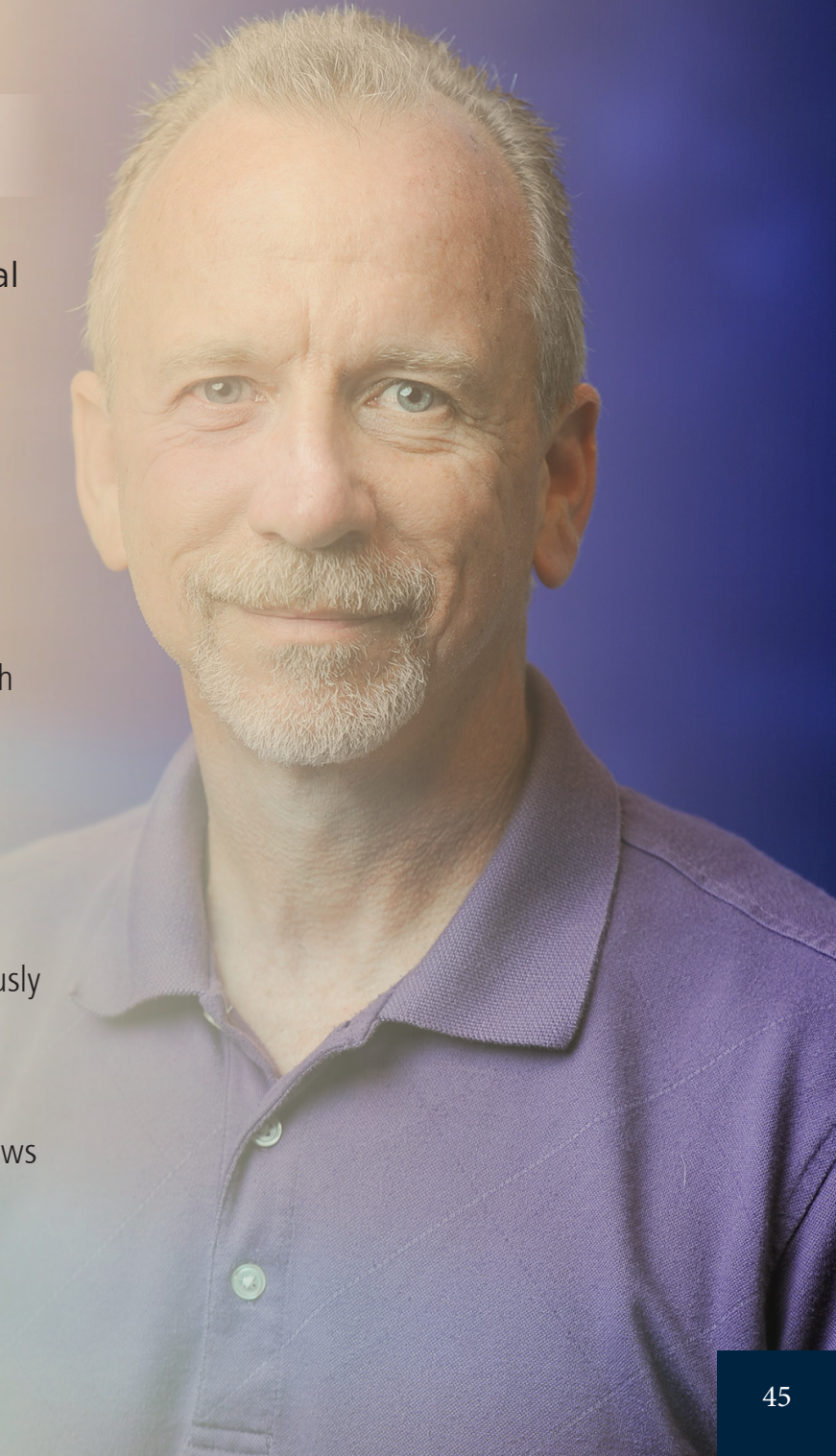
## Stream Restoration Monitoring Project

**Project Director:** Dr. Tom Blanchard, Department of Biological Sciences  
Dr. Jeffrey Fore, Tennessee Nature Conservancy

**Project Duration:** 2013 - Ongoing

**Sponsoring Agency:** Tennessee Department of Environment and Conservation  
West Tennessee River Basin Authority

This grant is a collaboration between the State of Tennessee, West Tennessee River Basin Authority, Tennessee Nature Conservancy and UT Martin that funds a three-year study on how the restoration of previously channelized streams in West Tennessee affects the physical characteristics of the system and the biodiversity of fish communities. The basin authority is responsible for preserving the natural flow and function of the Hatchie, Obion and Forked Deer river basins through environmentally sensitive stream maintenance. The basin authority's territory covers 20 counties, including Weakley County, along and between the Mississippi and Tennessee Rivers. Dr. Tom Blanchard, who serves as director of the Reelfoot Lake Environmental Field Station, and Dr. Jeffrey Fore (Tennessee Nature Conservancy) are working in several river systems throughout West Tennessee to determine how the reshaping of previously straightened streams affects in-stream features and fish biodiversity. By collecting information on the types and numbers of fish inhabiting these restored sections of stream, the team hopes to assess the extent of recovery toward a more natural condition. This grant provides summer support for several biology students that allows them to gain valuable experience in basic science and applied ecology.



## Scholarships in Science, Technology, Engineering & Mathematics (S-STEM) Program

**Project Director:** Dr. Robbie Montgomery, Department of Chemistry & Physics

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** National Science Foundation  
West Tennessee River Basin Authority

Project UT Martin Scholarships in STEM (S-STEM) will provide approximately 35 scholarships – 20 four-year scholarships and 15 two-year transfer scholarships – to academically promising undergraduate students, incoming freshmen and transfer students who are majoring in chemistry, engineering, geology, computer science and mathematics at UT Martin. The framework of this project provides the resources needed to recruit, support and retain more students, including minorities and women, in STEM fields. The following objectives will allow the project goals to be met: (1) Recruiting and retaining 35 STEM students who have demonstrated financial need, as well as the desire and capability to major in the underrepresented STEM fields of chemistry, mathematics, engineering, computer science or geology; (2) Develop the STEM Academy to aide in preparation and retention of STEM Scholars. Each summer, the S-STEM students enroll in a two-week, all-day course called STEM Academy. This course aims to solidify background material from the previous semester and introduce key concepts the student will see in the upcoming year. The workshops cover topics ranging from study skills and career advice to C.V./resume writing, and undergraduate research options.

## Wildlife Escape Structure Study

**Project Director:** Dr. Nancy Buschhaus, Department of Biological Sciences

**Project Duration:** 2016 – Ongoing

**Sponsoring Agency:** Bat Conservational International

Dr. Buschhaus and students are conducting a multi-year assessment of wildlife use of steep-sided livestock troughs across the states east of the Mississippi River by gathering data via surveys of agency personnel and livestock producers, as well as through field work to document wildlife use at active livestock watering troughs. The ultimate goal of this research project is to determine whether Wildlife Escape Structures (WES) are necessary to deter wildlife mortality in the eastern U.S. as they are in the western U.S. As a result of this research, Buschhaus and students plan to develop a predictive model and guidelines for WES requirements in regions and/or states within the study area.





## Upper-Division Laboratory and Engineering Equipment Purchase

**Project Director:** Dr. Edward Wheeler, The Department of Engineering

**Project Duration:** 2013 – Ongoing

**Sponsoring Agency:** Tennessee Department of Commerce and Insurance – The Board of Architectural and Engineering Examiners

This award contributes to the enhancements of the UT Martin Department of Engineering. This project included the addition of new computers, a Haas Simulator and Toolroom Mill, a laboratory and instructional equipment. The Haas mill purchased under this grant significantly expands the capability of the Department of Engineering's Product Realization Laboratory. This lab contains manual and computer numerical control (CNC) machine tools used in the department's computer-aided manufacturing and manufacturing processes courses, as well as by students working on course-related projects. Students are able to design and fabricate more complex parts using the technology provided by this state-of-the-art machine tool. The tool paths required to make a part can be checked prior to actual machining using the Haas Control Simulator. By receiving new equipment, the engineering students will be able to grow professionally through lifelong learning, such as becoming a licensed professional engineer, pursuing graduate study, participating in continuing professional education and maintaining active membership in professional engineering societies.



## Northwest Tennessee Regional STEM Hub

**Project Director:** Dr. Curtis Kunkel, Department of Mathematics and Statistics

Dr. Michael Gibson, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015 – Ongoing

**Sponsoring Agency:** Battelle Memorial Institute

UT Martin and Dyersburg State Community College proposed a partnership to establish and sustain the Northwest Tennessee STEM Hub for the purpose of expanding the teaching and learning of STEM education in the region. The purpose of the STEM Hub is to focus on: (1) improving the quality of STEM education in rural school systems in Benton, Decatur, Dyer, Carroll, Crockett, Gibson, Henry, Lake, Lauderdale, Obion, Tipton and Weakley counties; (2) connecting existing regional STEM assets among STEM businesses, non-profit organizations, local school systems, higher education and the central Innovation Network infrastructure; and (3) providing leadership to said initiatives to ensure a positive regional impact. The STEM Hub is a visible entity established to bring together K-12 educators, students and parents, STEM professionals and higher education faculty to connect existing STEM assets in Northwest Tennessee to effect changes in attitudes and practices.





## Integrated Mathematics in the Mid-State: Focus on Content and Modeling

**Project Director:** Dr. Stephanie Kolitsch, Department of Mathematics and Statistics

**Project Duration:** 2015 – 2016

**Sponsoring Agency:** Metropolitan Nashville Public Schools

Integrated Mathematics in the Mid-State: Focus on Content and Modeling is an 11-month Math-Science Partnership Grant funded through the Tennessee Department of Education. The grant was submitted by and administered by Metro-Nashville Public Schools. This grant served 180 high school mathematics teachers in Middle Tennessee whose districts were transitioning from the traditional Algebra I-Geometry-Algebra II pathway to the integrated mathematics pathway. The grant was designed to improve the content and pedagogical knowledge of the teachers and provide classroom resources for use in the new pathway. The grant provided for two, two-week summer institutes and one day of follow-up instruction for the teachers. Evaluation of the program included pre- and post-testing of content and pedagogical knowledge, teacher reflections and attitude surveys, tangible pacing guides and scope-and-sequence documents prepared by Metro-Nashville Public Schools.

## K-12 Common Core State Standards to College

**Project Director:** Dr. Stephanie Kolitsch, Department of Mathematics and Statistics

**Project Duration:** 2015

**Sponsoring Agency:** Rockefeller Philanthropy Advisors

Funds received from this grant allowed Dr. Kolitsch to assess and align K-12 Common Core State standards to credit-bearing, entry-level courses in mathematics to create a more seamless transition from high school to college for Tennessee students. A Math Redesign Team finalized course redesigned materials, developed math tasks and disseminated course materials.



**College of Humanities and Fine Arts**



## West Tennessee Writing Project

**Project Director:** Dr. David Carithers, Department of English & Modern Languages

**Project Duration:** 2012 – Ongoing

**Sponsoring Agency:** National Writing Project Corporation

The West Tennessee Writing Project (WTWP) is a program of professional development for K-12 teachers that seeks to improve writing and writing instruction in our schools. It is one of nearly 200 sites of the National Writing Project and one of three such sites in Tennessee. WTWP is housed in the Department of English and Modern Foreign Languages in the College of Humanities and Fine Arts at the University of Tennessee at Martin. The heart of WTWP is its annual invitational summer institute for K-12 teachers that supports ongoing learning and leadership in the service areas and is held at UT Martin or at a UT Martin extended campus center. Teachers who participate in a summer invitational institute become teacher consultants of WTWP. Their students write often during school in a wide variety of genres. Students become better readers of their own writing and are able to think more critically about what to say, how to say it and who to say it to. With more opportunities to write in a variety of ways, students can become more fluent readers and writers in school and for their own personal growth.



## Tennessee Rural Arts Middle School Music & Band Camp

**Project Director:** Department of Music

**Project Duration:** 2014 – 2015

**Sponsoring Agency:** Tennessee Arts Commission

This project facilitated a middle school music and band camp held at UT Martin. This week-long event was offered to middle school students who had the opportunity to participate in music education courses. Students participated in group performances and individual lessons, and learned about music theory and improvisation. The camp culminated with an “informance,” a performance specifically highlighting what the students learned during the week.



## Academic Affairs

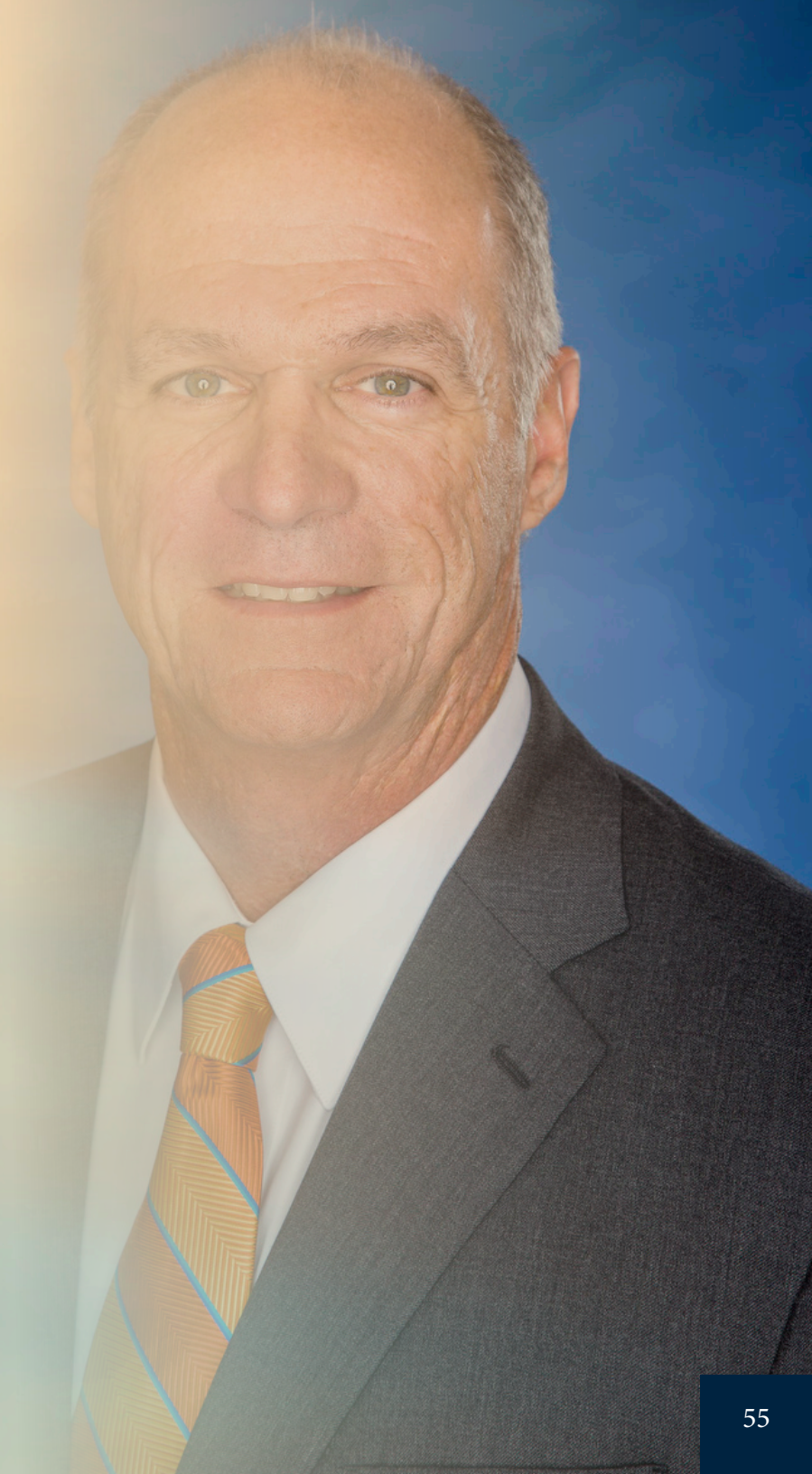
## Title III: Soaring Towards Success

**Project Director:** Dr. Brian Donavant, Office of Educational Outreach

**Project Duration:** 2014 – Ongoing

**Sponsoring Agency:** U.S. Department of Education

Through the Title III Strengthening Institutions Project, UT Martin's "Soaring Toward Success" Program seeks to enhance students' post-secondary success and improve college productivity. These goals are interrelated and focus on strengthening the institutional alignment with two of the five UT System Strategic Plan goals of enhancing educational excellence and ensuring efficiency and effectiveness. The \$1.9 million project's five initiatives will (1) develop a comprehensive, student-centered advising system; (2) develop student leadership and peer-support networks; (3) establish faculty teaching and learning communities; (4) create a culture of evidence of academic excellence on campus; and (5) enhance the UT Martin Veterinary Science Program. The focus of these goals and activities is to serve UT Martin's students, many of whom are low-income, first-generation college students from rural regions.



## Specialized Law Enforcement Training

**Project Director:** Debbie Mount, Office of Educational Outreach

**Project Duration:** 2013 – 2015

**Sponsoring Agency:** City of Memphis Police Department

UT Martin's Office of Educational Outreach (OEO) provided specialized training to law enforcement officers. OEO has trained law enforcement officers from all across the country. These non-credit continuing education programs address a specific educational need which meet and exceed Peace Officers Standards and Training Commission (POST) requirements and the guidelines as set by the Southern Association of Colleges and Schools (SACS). OEO offers courses in management/supervisory issues, criminal investigation, and patrol and tactical operations, as well as other law enforcement topics. OEO coordinated with the staff at the Memphis Police Department Training Academy and the Memphis Police Department Command Staff to determine and prioritize specific training needs provided through this award.

## Specialized Law Enforcement Training

**Project Director:** Scott Robbins, Department of Public Safety

**Project Duration:** 2012 – 2015

**Sponsoring Agency:** Tennessee Department of Transportation – Governor's Highway Safety Office

Grant funds were utilized to upgrade police cruisers with enhanced video recorder and speed-detection radars, along with personal video recorders for each officer. Upgraded equipment for officers to use in traffic enforcement and training initiatives, such as reflective vests and raincoats, computers, traffic cones, barriers and body-worn cameras for each officer were also purchased. The upgraded equipment allowed officers to reduce the number of DUIs and DWIs and increase the use of seatbelts on roads connected to or near the university through saturation patrols and traffic checkpoint participation. These technological improvements were integrated into the department's case files for evidentiary presentment in court and quality-control review of the officers by departmental commanders.







## Governor's School for the Humanities

**Project Director:** Dr. Jerald Ogg, Jr., Provost and Vice-Chancellor of Academic Affairs

**Project Duration:** 1985 - Ongoing

**Sponsoring Agency:** Tennessee Department of Education

Founded in 1986, the state of Tennessee funds Governor's Schools at colleges and universities across the state, focusing on various disciplines. UT Martin proudly hosts the Governor's School for the Humanities, where students investigate the vitality and centrality of the humanities in both Western and non-Western cultures. Rising high school juniors and seniors are eligible to apply for the four-week summer program. Under the tutelage of experienced university faculty, students examine the roles of language, history, values and art in defining the relevance of the humanities in our modern age. Through coursework and seminars, exposure to visiting scholars, films, field trips and practical experiences, the students gain an enhanced appreciation for the intellectual diversity of the world in which we live. The curriculum, broad in perspective, includes specific courses from disciplines such as English, philosophy, history, political science, communications, music and art, and emphasis is placed on the interrelationship of knowledge in these areas. In addition to regular curricular offerings, students also develop independent and group programs to cultivate critical thinking, creative expression and technological innovation. Seminars typically include the design, editing and publishing of both a yearbook and a newspaper; the use of computers to create graphic and multimedia content; the planning and execution of a group talent show; and an ethics bowl competition.



## Economic Impact and Investment Analysis

**Project Director:** Dr. Robert Smith, Chancellor Emeritus

**Project Duration:** 2016

**Sponsoring Agency:** United States Department of Agriculture – Rural Business Development

This grant enabled UT Martin funds to assist in conducting an Economic Impact Analysis study to measure UT Martin's impact on new economic activity in the rural region covering the 21 counties of West Tennessee. UT Martin partnered with Economic Modeling, LLC, of Moscow, Idaho (EMSI) to conduct the study. EMSI consultants created a development model designed to quantify the impacts and value of colleges and universities. There were two sides to EMSI's standard study: an economic impact analysis and an investment analysis. The economic impact analysis examined the direct and indirect effects of having UT Martin in the area with regards to the money that employees, students, and parents spend for housing, food, transportation, entertainment and other incidentals. The investment analysis indicated UT Martin's value as an investment from the perspectives of students, taxpayers and society as a whole. Another variable included in the summary were how many students graduate from UT Martin and then live and work in West Tennessee, thereby contributing to the economy of the area. The results of the study served as a guide for business and industry development in West Tennessee. Stakeholder businesses and organizations in the West Tennessee area served with the results of the economic and investment analyses included the Weakley County Economic Development District; the City of Martin, Tennessee; Weakley County; and the Southwest Tennessee Economic Development District, among others.



**Student Health and Counseling Services**

## Project Safety-Networking, Education, and Training

**Project Director:** Shannon Deal, Director of Student Health and Counseling Center

**Project Duration:** 2012 – 2015

**Sponsoring Agency:** United States Substance Abuse and Mental Health Services Administration – Health and Human Services

Project Safety – Networking, Education, and Training (Safety-NET) was designed to “create prevention-prepared communities where individuals, families, schools, workplaces and communities take action to prevent and reduce mental illness and substance abuse across the lifespan,” according to the United States Substance Abuse and Mental Health Services Administration (SAMHSA). This project provided training to campus organizations and officials regarding available resources and educated faculty, staff, students and others about how to detect warning signs and make mental health referrals for those at risk. This program also sought to promote crisis hotlines for those in need. Project Safety-NET served more than 8,000 students at the main campus and at the four extended campus locations. All students benefited from this project, but special training and outreach was targeted toward three specific populations: veterans, international students, and lesbian, gay, bisexual and transgendered students. The main goals achieved through project Safety-NET included: (1) increased awareness of suicide risk factors, prevention and resources through evidence-based training; (2) strengthened infrastructure among UT Martin staff and faculty and community resources to enhance access to mental health services; and (3) an increased number of seminars and informational materials for campus and family members on suicide prevention, identification and reduction of risk factors.

## Personal Safety Empowerment Partnership Program: Count Me In

**Project Director:** Shannon Deal, Director of Student Health and Counseling Center

**Project Duration:** 2012 – 2015

**Sponsoring Agency:** United States Department of Justice

The overarching goal of this project was to expand a coordinated community approach that enhanced victim safety, assistance and support efforts to hold offenders accountable. As a continuation award, the Personal Safety Empowerment Partnership Program: Count Me In (PSEEP: CMN) program amplified current services developed by the original PSEEP award by refining both internal and external policies and protocols that treat violence against women as a serious offense, and by refining victim services and programs that prioritize victim safety, offender accountability and prevention. PSEEP: CMN provided training and education to faculty, students and staff on issues of sexual assault, dating violence and stalking. This program also implemented mandatory sexual assault training and a new bystander interaction program.



## Violence Against Women

**Project Director:** UT Martin Student Health and Counseling Center

**Project Duration:** 2012 – 2013

**Sponsoring Agency:** United States Department of Justice

On many campuses, domestic and dating violence, sexual assault and stalking are “hidden crimes.” The Personal Safety Empowerment Partnership Project (PSEPP) coordinated existing campus and off-campus resources for victims of these crimes. The cornerstone of the program was a proactive approach to reducing these crimes through the creation of a supportive network of resource providers, including the judicial system, law enforcement, judicial affairs, student affairs, and faculty and staff. In addition to the coalition of providers, PSEPP provided extensive programming and training to the campus to raise awareness about these crimes and the resources available to victims. These comprehensive efforts are designed to enhance victim services, implement prevention and education of programs, and develop and strengthen security and investigation strategies in order to prevent, prosecute and respond to domestic violence, dating violence, sexual assault and stalking crimes on campuses. PSEPP refined both internal and external protocols to define violence against women as a serious offense, thus increasing the reach of victim services.




## Hal and Alma Reagan Leave Program

The UT Martin Hal and Alma Reagan Faculty Leave Program is designed to enable participants to become more effective teachers and scholars by engaging in a variety of academic renewal experiences. Tenured faculty members with six or more years of full-time service at UT Martin are eligible to apply for a one-year leave at half salary or a half-year leave at full salary. The Faculty Research and Development Committee reviews the application and determines awardees. The UT Martin Faculty Research and Development Committee is comprised of faculty members from UT Martin's five colleges. The work of the committee and oversight of the Faculty Development is coordinated through the Office of Research, Grants, and Contracts.

## Current Recipients

**Dr. Mohammad Obadat, 2013-2014:** Dr. Obadat, a professor in the Department of Engineering, took time off to renew and rejuvenate his teaching experience. Dr. Obadat has been with UT Martin ten years, teaching five courses and three laboratories each school year. He traveled to Jeddah, Saudi Arabia, during his leave, and accepted a visiting professor position at King Abdul-Aziz University (KAU). Dr. Obadat spent time teaching and researching new compelling topics regarding civil engineering. He developed two new courses that he has never taught before – Traffic Engineering and Fundamentals of Civil Engineering. “My leave was an enriching experience where I fulfilled most of my goals and more. It was a great international and rejuvenating experience in teaching, research and service that will be transferred to UT Martin,” stated Dr. Obadat. “I believe my activities during the Reagan Leave have broadened my skills as a researcher and educator, and it will reflect on my UT Martin students’ level of education. The teaching of the courses and laboratories at an international and diverse level provided a rich experience that will also be conveyed to my students.”



A portrait of Dr. Nathan Howard, a man with short brown hair and blue eyes, smiling. He is wearing a dark blue sweater over a light blue and white checkered shirt and a yellow tie. The background is a soft, out-of-focus gradient of blue and green.

**Dr. Nathan Howard, 2013-2014:** Dr. Howard, an associate professor in the Department of History and Philosophy, used his Reagan Leave to research and complete the first draft of a book manuscript titled *Textual Pleasures: Christianity and the Aesthetics of Nobility in Late-Antique Cappadocia*. The project addresses the cultural influence of classic Greece on the leadership of the Christian church during the late-fourth century in the eastern Roman Empire, specifically the province of Cappadocia (located in central Turkey). His investigation demonstrates how classical Greek conventions of class and gender shaped east Roman ideals of the episcopacy. He spent time at university and seminary libraries in Knoxville and Memphis and also traveled to modern Cappadocia in Turkey to carry out on-site research. Dr. Howard completed the first draft of the five-chapter manuscript, which is currently under review for publication. His progress was made possible using the patristics and late antique collections at the Harding School of Theology Library in Memphis, followed by an extended period of work at the Hodges Library at UT Knoxville. Since completing the Reagan Leave, Dr. Howard has presented research from the project at conferences in Oxford, England; Chicago, Ill.; and Nashville, Tenn. A portion of one of the chapters was accepted for publication and will appear in the journal *Studia Patristica* in 2017. Dr. Howard will incorporate his research into his pedagogy by encouraging students to pay careful attention to the role of cultural contexts in shaping religion.



**Dr. Christopher M. Brown, 2014:** Dr. Brown, a professor of philosophy in the Department of History and Philosophy, was granted six months off to make substantial progress on a book manuscript that was invited for formal consideration for publication by the Catholic University of America Press. Brown has titled his book, *St. Thomas Aquinas on God and Human Happiness: Solving Puzzles about Eternal Life*. The book will treat four different puzzles for the notion of an eternal human life in heaven, discuss how some important contemporary philosophers and theologians are addressing these puzzles, explicate the views of thirteenth-century philosophical theologian St. Thomas Aquinas on human happiness in heaven, and offer an argument that St. Thomas' views allow for solutions to puzzles about an eternal human life in heaven that are advantageous in ways that current philosophical points of view are not. Since his return, Dr. Brown has published a paper in the journal *Faith and Philosophy* (a tier-one academic journal within the field of the philosophy of religion) titled "Making the Best Even Better: Modifying Pawl and Timpe's Solution to the Problem of Heavenly Freedom." Brown also finished up this paper while on his leave. "The Reagan Leave allowed me to make great progress on my book project," states Dr. Brown. "I now have a clear outline and focus for my book project, and I have written drafts of several chapters. I learned a lot about St. Thomas' views and am excited to share what I learned with my colleagues and students."





**Dr. Christopher Hill, 2014:** Dr. Hill, a professor in the Department of English and Modern Foreign Languages, was awarded time off during the spring 2014 semester to work on a multi-phase project on 16th and 17th-century English religious satire. This has been a focus for Dr. Hill's academic research for years. During his leave, he collaborated with colleagues to produce both a volume of critical essays devoted to 16th and 17th-century religious satire and an online repository of annotated and edited satirical texts from the period. The leave period was spent working on the critical essays for the volume, both as a contributor and as a co-editor, and working on the gathering, editing and annotating of primary texts for the online repository. The objective for the online repository is to create a "virtual" critical edition of a subset of these satirical publications as a companion to the recently published annotated edition of the Marprelate Tracts (Cambridge, 2008).

**Dr. Mark Simmons, 2014:** Dr. Simmons, an associate professor in the Department of Music, requested time off in the spring of 2014 to conduct research on original music compositions. During his leave, he spent time reading many poets and Biblical texts for inspiration for compositions. Simmons set out to create two to four original choral compositions and submit them for publication. Composed in 2003, his first composition, Gloria, was published by Roger Dean Publishing in 2009. Since then, the piece has been performed by community choirs, school choirs and international choirs. The company has expressed interest in publishing more works and has requested that Simmons grant them “first right of refusal” on all future compositions. Taking the Reagan Leave gave Simmons the opportunity to refresh his own creative interests and capabilities by contributing to the choral art form. By reading various poems, he was able to create two compositions. “The leave was successful and deeply restorative. I feel newly energized and am enriched by the experience,” stated Simmons. “Music that is published and therefore performed throughout the country brings not only visibility to me, but also to UT Martin. As I will dedicate the pieces to UT Martin, this will bring positive attention in the music community to UT Martin.”





**Dr. Paula Gale, 2015:** Dr. Paula Gale, a professor in the Department of Agriculture, Geosciences and Natural Resources, received a Reagan award for the spring 2015 semester to work in a lab and gain experience in soil biotechnology. Dr. Gale conducted extensive research in the field of soil microbiology at Kansas State University. This research gave her experience in cutting-edge techniques to improve and maintain soil health, and she has developed a new course to be taught at UT Martin based on her new knowledge and skill-set. Dr. Gale is currently working on a publication of her research experience. Since her return, Dr. Gale has brought this new information back to the classroom to keep her students at the forefront of relevant research.

**Dr. Kurt Gorman, 2015:** Dr. Kurt Gorman, a professor in the Department of Music, took time to revise and expand his doctoral dissertation, titled "The Trumpet in Mixed Chamber Music of the Twentieth Century," during the spring of 2015. His dissertation focuses on the introduction of the trumpet to chamber music composition in 1900. His initial survey included 1,200 compositions for trumpet with wind, strings, percussion, keyboard and electronics, and he conducted additional concentrated analysis of musical scores and musicological research in this area. His revised document will be published by Veritas Musica Publications.





**Dr. Julie Hill, 2015:** Dr. Hill, chair and professor of percussion in the Department of Music and president of the Percussive Arts Society, spent her leave co-authoring a collection of new musical audition etudes for middle, high school and university percussion students. Dr. Hill and Dr. Eric Willie's published book, "All Inclusive Etudes," is used for regional and state auditions throughout the United States. Dr. Hill's published collection is featured at select music education and industry trade shows across the country.

**Lane Last, 2016:** Lane Last, a professor in the Department of Visual and Theatre Arts, used his Reagan Leave as an opportunity to both finish a multi-layered project and embark on a new creative outlet in 3D modeling and printing. His original project was the creation of a series of stereoscopic images from photographs he took in Hirosaki City, Japan, in 2014. The computer visualization and production aspect of the project was more time-consuming than anticipated, partially from having more time to explore multiple options. These stereoscopic works will be exhibited as intended along with other images in a solo exhibition scheduled to be held in the Paul Meek Library beginning in January 2017. Lane also undertook learning more about the creation and manipulation of 3D models on a number of software applications. He was originally hoping to use the technology to make stereoscopic prints related to his other project works. Instead he decided to use the research time and experience to make small 3D sculptures. Last's hope is to bring the techniques and processes of 3D modeling and printing to the visual art and graphic design students in the Department of Visual and Theater Arts program as soon as some health, safety and security issues can be resolved in a proper location and setting. These skills will be very beneficial to students interested in innovative design environments and entrepreneurship opportunities. Two of Professor Last's new 3D printed sculptures were selected to appear in a national exhibition at the John Michael Kohler Art Center in Sheboygan, Wisconsin.





**Dr. Louis Kolitsch, 2016:** Dr. Kolitsch, a professor from the Department of Mathematics and Statistics, requested time off to work on and expand the Truncated Jacobi Triple Product Identity and the Truncated Over Partition Series. Dr. Kolitsch has been studying partitions since 1981 and has written more than twenty papers on the subject. His latest interest in truncated partition identities is derived from a student research project that he directed. Michael Burnette, a UT Martin undergraduate student, and Dr. Kolitsch published a joint paper, "Interpreting the Truncated Pentagonal Number Theorem using Partition Pairs," in 2015 in the *Electronic Journal of Combinatorics*. Later that year he published a follow-up paper, "Another Approach to the Truncated Pentagonal Number Theorem," in the *International Journal of Number Theory*. His previous publications allowed him to complete the paper, "Overpartitions and Truncated Partition Identities," which has been submitted for inclusion in the Proceedings of the 2016 Gainesville International Number Theory Conference. Dr. Kolitsch achieved one of his goals for the leave, which was to look for new projects that would make good undergraduate research projects.



**Dr. David Barber, 2015:** Dr. Barber, an associate professor in the Department of History and Philosophy, is the author of a 2008 book on the white new left of the 1960s, *A Hard Rain Fell: SDS and Why It Failed*, and sought to extend his research into the world-wide anti-colonial revolution's impact on the United States. Barber's research was accepted for a presentation at the 2015 American Cultural Association Conference. He conducted some of his research at the Martin Luther King, Jr. center in Atlanta, Georgia. In January 2016, he presented his research at the UT Martin History and Philosophy Colloquium. Barber seeks to complete his publication with hopes of securing a book contract for his work.





**Dr. Richard Garlitz, 2015-2016:** Dr. Garlitz, a professor in the Department of History and Philosophy, spent his Reagan Leave completing a manuscript for his book, titled “A Mission for Development: Utah Universities and the Point Four Program in Iran,” and had it submitted for peer review. During his leave, he presented a chapter from his book at the 2015 The Society for Historians of American Foreign Relations (SHARF) conference. “As for benefits to my students, completing the manuscript forced me to rethink much of what I thought I knew about the U.S. government’s policies toward international development during the Cold War,” said Dr. Garlitz. “It also exposed gaps in my understanding that I have since taken steps to fill. That will help me refine my teaching of U.S. foreign policy from the 1950s through the 1990s. It also forced me to acquire a more nuanced understanding of the U.S. government’s evolving relationship with Iran, especially during the 1950s and 1960s. That knowledge will enhance my courses on the modern Middle East and on recent American diplomacy.” His book is under contract with University Press of Colorado, Utah State University Press Imprint, with an expected publication date of 2017.

**Dr. Michelle Merwin, 2016:** Dr. Merwin, a professor in the Department of Psychology, requested time off to further her expertise in mindfulness and meditation through educational endeavors. Mindfulness and meditation has emerged as a psychological aid to help combat psychological discomfort, such as anxiety. Her goals included reading scholarly works, attending mindfulness/meditation training, and completing an online training course. A research protocol involving the use of mindfulness and meditation to help students reduce stress was conducted. The results were used to develop a mindfulness-based curriculum to use with a local health agency.



# Past Recipients

## 2008 – 2009

Dr. Georginia Awipi  
Dr. Chris Caldwell  
Dr. James Fieser  
Dr. Eric Pelren  
Dr. Jozsef Devnyi

## 2010 – 2011

Dr. Chris Brown  
Dr. Phillip Davis  
Dr. Alice-Catherine Carls  
Dr. Richard Griffin  
Dr. Michelle Merwin  
Dr. Suzanne Maniss  
Dr. Michael Park

## 2012 – 2013

Dr. Susan Buckelew  
Dr. Charles Bradshaw  
Dr. Betty Cox  
Dr. Charles Hammond, Jr.  
Dr. Daniel Nappo



## **Internal Faculty Research Award Recipients**




## “Rethinking Europe War to War, 1914-1945”

**Project Director:** Dr. Alice Catherine-Carls,  
Department of History and Philosophy

**Project Duration:** 2013-2014

The purpose of this research project was to advance the writing of Dr. Carls textbook on 20th century Europe. Dr. Carls spent two days of intensive research at the Hodges Library at UT Knoxville. There, she was able to complete the editorial work and update her bibliography for her book entitled Europe from War to War, 1914 – 1945. Europe from War to War, 1914-1945, excepted for publication from Routledge Publishing Group, explores this age of metamorphosis within European history, an age which played a crucial role in shaping the Europe of today. Covering a wide range of topics such as religion, arts and literature, humanitarian relief during the wars, transnational feminism and efforts to create a unified Europe, it examines the social and cultural history of this period as well as political, economic and diplomatic perspectives. Each period is analyzed from both an international and a domestic perspective, expanding the traditional narrative to include the role and impact of European colonies around the world while retaining a close focus on national affairs and everyday life within Europe itself.

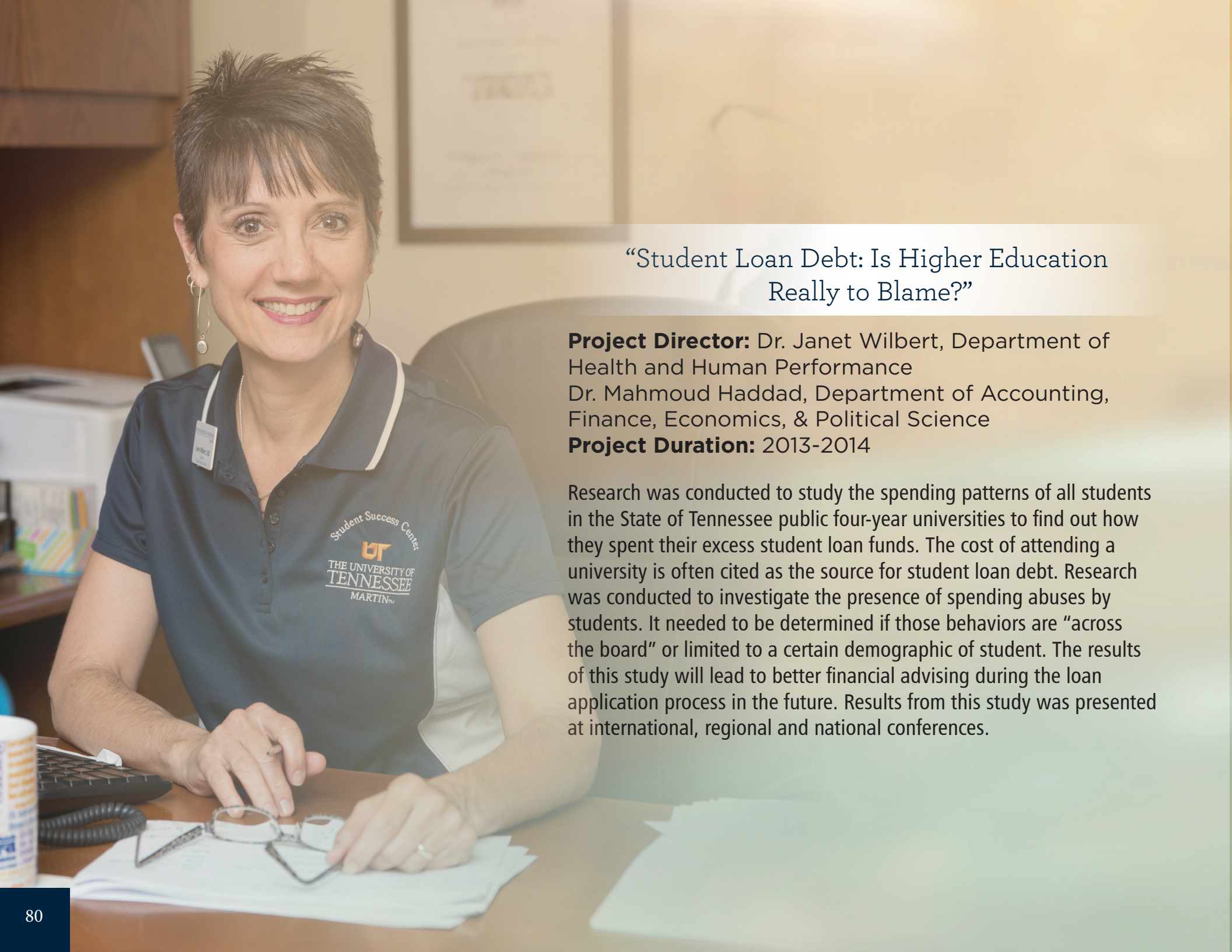
A portrait of Dr. Darshak Patel, a man with short dark hair, a beard, and glasses, wearing a green and white plaid shirt. He is smiling and looking towards the camera. The background is a soft, out-of-focus grey.

## “Time is Money: An Exploratory Analysis of the Relationship between Student Characteristics and Post-Secondary Time to Graduation”

**Project Director:** Dr. Darshak Patel, Department of Accounting, Finance, Economics, & Political Science

**Project Duration:** 2013-2014

This study tested the hypothesis that better current labor market conditions influences students' to delaying graduation as stated by Weisbrods (1962) option value theory. Most studies on post-secondary graduation largely focus on factors affecting the likelihood of graduation. While graduating is vital, it is important to push students to graduate in a timely manner. The focus was on community college students because of their sensitivity towards change in labor market conditions. Community college students from Kentucky were used due to the ease of data availability through a good relationship with Kentucky representatives. Two cohorts of students from Kentucky Community and Technical College System were used to conduct this study. Detailed analysis was conducted on different age groups, gender, and race to test the robustness of the model. This analysis was conducted for students whose intentions were to graduate.



## “Student Loan Debt: Is Higher Education Really to Blame?”

**Project Director:** Dr. Janet Wilbert, Department of Health and Human Performance  
Dr. Mahmoud Haddad, Department of Accounting, Finance, Economics, & Political Science

**Project Duration:** 2013-2014

Research was conducted to study the spending patterns of all students in the State of Tennessee public four-year universities to find out how they spent their excess student loan funds. The cost of attending a university is often cited as the source for student loan debt. Research was conducted to investigate the presence of spending abuses by students. It needed to be determined if those behaviors are “across the board” or limited to a certain demographic of student. The results of this study will lead to better financial advising during the loan application process in the future. Results from this study was presented at international, regional and national conferences.



## “A Mission for Development: Utah Universities and the Point Four Program in Iran”

**Project Director:** Dr. Richard Garlitz, Department of History and Philosophy

**Project Duration:** 2014-2015

The purpose of this project was to conduct archival research at Utah State University, Brigham Young University, and the University of Utah. Almost no scholarly literature exists on the history of the Point Four Program in Iran, an important Cold War ally of the United States and the first nation in which the program operated. This monograph grows from Garlitz's dissertation, "Academic Ambassadors in the Middle East: The University Contract Program in Turkey and Iran, 1950-1970." This research helped expand the scope of Dr. Garlitz's dissertation and helped him to revise it into a publishable manuscript. The University Press of Colorado editorial board voted to publish the book in February 2017. The book is expected to be published in 2018.





## “Journey into the Long Night of Stone: The Life and Works of Celso Emilio Ferreiro”

**Project Director:** Dr. Antón García-Fernández,  
Department of English & Modern Foreign

**Project Duration:** 2014-2015

The ultimate goal of this project was to write a book-length study in English assessing the work of Celso Emilio Ferreiro. There are no monographs that have ever been written in English appraising the Galician writer’s work. The hope is that the book may introduce scholars and readers alike to the invaluable contribution of an often underappreciated figure in Spanish literature. This project involved careful textual analysis of primary sources with the help of a few secondary sources that appeared over the years, mostly in Galician. The funding from the Internal Research Award enabled the project director to purchase books written by Ferreiro that would help him in assessing his work. The final study from this project was submitted for publication.

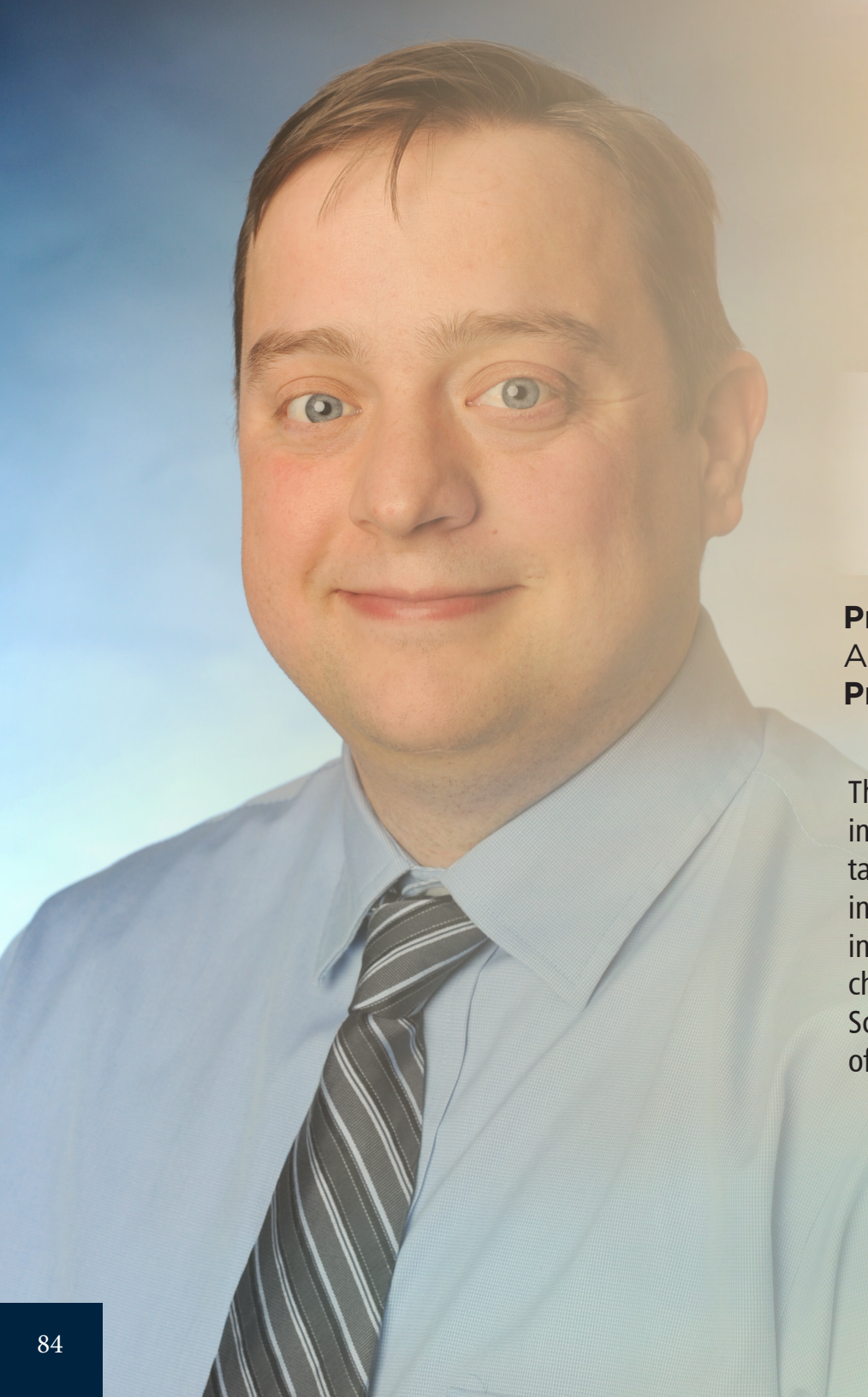
## “Cretaceous Amber of West Tennessee”

**Project Director:** Dr. Michael Gibson,  
Department of Agriculture, Geosciences, &  
Natural Resources

**Project Duration:** 2014-2015

The rationale of this project was to scientifically investigate the discovery by an amateur fossil collector of several new sediment exposures with abundant fossil Amber, and associated plant fossils, from the Cretaceous age (~70 million years old) Coffee Sand and Sardis formations exposed near Savannah and Sardis, Tennessee. Amber has been located by an amateur fossil collector in significant quantity; however, at one site the material is in danger of being lost to erosion from the Tennessee River. Amber has only been found in a small handful of sites in Tennessee and generally a very small quantity, until recently. Results from this study would produce the largest collection of Amber in Tennessee and considerably expand the understanding of the terrestrial component of this geological time period. The field and laboratory worksites took place at the UT Martin Research Facility at the Coon Creek Science Center near Enville, Tennessee. To date the over 1000 pieces of amber have been collected and cleaned. Microscope work is ongoing to identify inclusions within the amber (insects, sediment grains, etc.).





“Geochemical Investigation of the  
Charlotte and Red Beach Granites,  
Southeastern Maine”

**Project Director:** Dr. Benjamin Hooks, Department of  
Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2014-2015

This proposed research aided in the support of a pilot project that investigated the geochemistry characterization of a suite of samples taken from two igneous intrusions in southeastern Maine. This study involved the collection of field data, laboratory analysis of rock sections in thin sections, and the laboratory analysis of rock and mineral chemistry. Results from this study were included in a part of a National Science Foundation grant that was submitted and a Geological Society of America presentation.

A portrait of Dr. Mason M.S. Kim, a man with dark hair and glasses, wearing a light blue checkered shirt and a blue and white striped tie. He is smiling slightly and looking towards the camera. The background is a soft, out-of-focus grey.

## “Productivist Welfare Capitalism in East Asia: Inclusive, Market-oriented, and Dualist Strategies”

**Project Director:** Dr. Mason M.S. Kim, Department of Accounting, Finance, Economics, & Political Science

**Project Duration:** 2014-2015

The objective of this project was to examine the nature of East Asia’s social policy development and publish the findings. This seven-chapter book publication described the development of conceptual refining and theoretical reframing of productivist welfare capitalism (PWC) to address a set of questions concerning whether and how productivist welfarism has experienced both continuity and change in East Asia. The research conducted for this project presented a new typology of PWC – namely, inclusive productivist welfarism with a focus on social insurance schemes, market productivist welfarism based on individual savings schemes, and the dualist productivist welfarism that is a middle-ground pattern combining the above two. The final product was published in 2015.



## “Research Towards a Study in Rural Modernization and Tennessee Civil Rights History”

**Project Director:** Richard Sanders, Paul Meek Library  
**Project Duration:** 2014-2015

This proposal sought support to underwrite the cost of on-site research in the National Sharecroppers Fund (NSF) records at the Walter P. Reuther Library in Detroit, Michigan. The NSF was the major proponent of socially based economic development effort in Tennessee’s only black-majority counties, Fayette and adjoining Haywood counties. The goal was to produce a book-length manuscript on the social and economic change in these two counties. Unlike the well-studied Southern Tenant Farmers’ Union, no substantive research has ever been published on the NSF or any of its projects. This writing project was a local-scale test of the broad social and economic trends described by UT Knoxville geographer Charles S. Aiken in *The Cotton Plantation since the Civil War*. Aiken catalogued changes in New South patterns and institutions (1865 – 1940) as they made the painful transition to the less-agricultural Modern South. This project constituted basic research in one key economic development agent as part of a broad scholarly study of social and economic change in rural West Tennessee.

## “Unconditional and Immediate Surrender: Forts Henry and Donelson”

**Project Director:** Dr. Timothy Smith, Department  
of History and Philosophy

**Project Duration:** 2015-2016

Grant funds were used to fund three research trips to finish a manuscript on Forts Henry and Donelson. The objectives in pursuing this grant were: 1.) to research at various manuscript repositories across the nation, including the Library of Congress and National Archives in Washington, DC, the United States Army Military History Institute in Carlisle, Pennsylvania, and in numerous academic archives and special collections across the nation 2.) use that research as the basis for writing a narrative and analytical history of one of the Civil War's most important campaigns. As a result, the manuscript was published by the University Press of Kansas, and won two book awards, the 2016 Tennessee History Book Award and the 2017 Douglas Southall Freeman Award.





## “Evaluating the Effectiveness of the Farmers’ Market Nutrition Programs: An Exploratory Analysis for West Tennessee and Puerto Rico”

**Project Director:** Dr. Rachna Tewari, Department of Agriculture, Geosciences, & Natural Resources

**Project Duration:** 2015-2016

This study evaluated the effectiveness of the existing Farmers’ Market Nutrition Programs (FMNP) through a preliminary comparative analysis for west Tennessee and Puerto Rico. Federal nutrition assistance programs at farmers’ markets are considered effective strategies to support direct marketing of local produce, and to increase consumer access to healthy food in low-income communities. Preliminary exploratory survey questionnaires were administered to participating FMNP vendors (farmers) and recipients at the farmers’ markets and Dyer county feeding program in west Tennessee for the years 2015 and 2016. The results from the west Tennessee region suggested that a majority of recipients as well as vendors considered the program to be working effectively. Recipients suggested the need for more produce availability, extended hours, and additional week days. It was found that the FMNP program increased fresh fruit and vegetable consumption among recipients in addition to encouraging frequent visits to farmers’ markets. Results also indicated that the percent of vendor sales attributed to vouchers varied from 0% to 25%. It was found that the program incurred high administrative costs and the lack of personnel posed a constraint toward expansion of the program.





## “Professional Learning Communities”

**Project Director:** Dr. Johnathan Vest, Department of Music

**Project Duration:** 2015-2016

Through structured interviews, researchers explored how music teachers work within a Professional Learning Community (PLC) at their respective school levels. Researchers attended PLC meetings at selected elementary, middle and high schools, observing and interviewing the music PLC members regarding their experience. This project consisted of two case studies with a small group of music teachers at various schools in two school systems in Middle Tennessee. Areas of inquiry included: how schools organize PLCs for their music teachers, what type of responsibilities music teachers are asked to perform within their PLC teams, and what they found helpful in their work and the challenges they faced. The data from the interviews were coded and analyzed using an analysis software system. The findings were useful for music educators and administrators as they make decisions in their schools. As a result of this project, an article was submitted for publication describing the researcher's outcomes.



This publication was produced collaboratively by the Office of Research, Grants, & contracts and the Vice Chancellor for Academic Affairs. For more information, contact (731) 881-7015 or visit [www.utm.edu/rgc](http://www.utm.edu/rgc).

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