

**GEORGIA RACE TO THE TOP  
INNOVATION FUND  
APPLICATION FACE SHEET**

**SECTION 1: APPLICANT AGENCY**

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Congressional District #: GA:012

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**SECTION 4: PROJECT INFORMATION**

Project Name: Real STEM

Partner Names: Georgia Southern University, Skidaway Institute of Oceanography, Bulloch County

School District are core partners – multiple additional research institute and school district partners

Priorit(ies) Addressed: Priority 1: Providing Applied Learning Opportunities to Students

Grant Amount Requested: \$703,296

**SECTION 5: PARTICIPANT DATA:**

Approximate number of students served: 150 in year one, 300 in year two

Population of focus (i.e. age, gender, race): high school, rural, high needs

**SECTION 6: SERVICE DELIVERY AREA**

Primary county or counties to be served: Bulloch County, Burke County, Camden County, Jenkins County, Treutlen County, Ware County

List other counties to be served (if any): 27 counties in the lower coastal plain of Georgia

Congressional District(s) to be served: District 1 and District 12

**SECTION 7: PROGRAM ACTIVITIES**

Real STEM will engage students in addressing global challenges of environment and energy that impact their local community through the implementation of integrated STEM courses that serve as a component of a designated career pathway. The partnership will develop high school courses for the pathway which will increase the engagement of students in STEM fields by demonstrating the utility of STEM in addressing problems that impact their communities and lives.

**SECTION 8: APPLICANT AGENCY FISCAL INFORMATION**

1. Month of Fiscal Year End: 06/30
2. Attach to the application, the applicant agency’s financial audit.
3. Is applicant agency delinquent on any federal debt? NO  YES  If yes, attach a detailed explanation.
4. Did applicant agency receive 80 percent or more of its annual gross revenue in federal awards in its preceding fiscal year; and \$25,000,000 or more in annual gross revenue from federal awards and in so doing is required to comply with “Federal Funding Accountability and Transparency Act”? NO  YES  If yes, attach names and total compensation of the five most highly compensated officers of the grantee.

**SECTION 9: AUTHORIZING SIGNATURES**

*I, the undersigned, an authorized representative of the applicant, have read, understand, and agree to all relative conditions specified in the Race to the Top Innovation Fund Request for Proposals and having read all attachments thereto do submit this application on behalf of the applicant agency. If awarded a grant to implement the provision herein, I do certify that all applicable federal and state laws, rules, and regulations thereto will be followed.*

**APPLICANT AGENCY:**

Deborah N. Shaver  
Deborah N. Shaver, Executive Director

7/6/12  
Date

## TABLE OF CONTENTS

Application Face Sheet .....	i
Proposal Narrative .....	1
Executive Summary .....	1
Section 1: Partnership Overview .....	2
Section 2: Need for Project .....	4
Section 3: Quality of Project Design .....	6
Section 4: Quality of Project Evaluation .....	15
Section 5: Quality of Project Management Plan .....	19
Section 6: Quality of Sustainability/Scalability Plan .....	22
Budget .....	23
Budget Narrative/Justification .....	24
Appendix-Attachments .....	26

## PROPOSAL NARRATIVE

### Executive Summary

Project Real STEM is a Georgia Race to the Top Innovation Fund Enterprise Grant (Large) addressing Priority 1: Providing Applied Learning Opportunities to Students. The lead partner on the project is Georgia Southern University, with principle investigators Robert Mayes and Tom Koballa. The Real STEM collaborative includes school districts, a higher education institution, and science research institutions/STEM Informal Education Centers across the 27 counties making up the lower coastal plain of Georgia. A map indicating counties and Table 1 listing partners are provided later in the narrative. In addition to the 27 target counties, the project has invited 4 neighboring high needs Race to the Top districts to join the collaborative.

The Real STEM service region of the lower coastal plain is a geographic region which includes highly rural and low social economic status counties in southeast Georgia with a high number of minorities. The population served includes 44 high schools, of which 26 are classified “needs improvement” by the Georgia Department of Education 2011 Adequate Yearly Progress Detailed School Reports. End of course test percent passed in STEM for the 26 higher needs schools for 2011 was Math I 54% (low 26%), Math II 48% (low 15%), Biology 62% (low 47%), and Physical Science 68% (low 38%). The student population of these 26 schools exceeds 24,281. Twenty of the 44 high schools in the service region are Title I schools. Seventeen of the 47 schools have a 20% or higher (high of 35%) below poverty level rating. This data indicates that southeast Georgia is a low Social Economic Status (SES), high minority population rural region with STEM achievement concerns. In addition it is a region which has not received prior support from the Innovation Fund. The goal of Real STEM is to initiate an integrated STEM initiative with a systemic follow-on plan that will reach all 44 high schools in the service region over a 10 year period.

Real STEM will create a collaborative with Georgia Southern University and regional research institutes working with school district partners to develop integrated STEM performance tasks that engage students in applied learning through real-world grand challenges of environment and energy that are impacting their local communities. The partnership will develop problem-based modules for high school career pathways courses mandated by State House Bill 186 with the goal of reigniting the interest of students in STEM, improving STEM achievement, and encouraging them to take up careers in STEM as well as become STEM literate citizens who can make informed decisions about grand challenge issues which will impact their lives. The 150 students in the first year of the project and 300 in the second year will apply STEM to real-world place-based problems arising from research conducted on the coastal plain, be mentored by scientists, and be taught by teachers working in professional learning communities that are collaborating with scientists.

## Section 1: Partnership Overview

*Partnership Entities, Missions, Expertise and Experience:* The long term goal of Real STEM is to create a broad partnership across the 27 rural counties that constitute the lower coastal plain of Georgia and neighboring high needs districts, which includes school districts (26 of 44 in coastal plain are rated as needs improvement, 5 districts are designated as high needs), Georgia Southern University, STEM research institutes, and STEM Informal Science organizations. We will begin with the core collaborative listed in Table 1, which provides information on their respective missions, expertise and experience. Table 1 also provides a list of future potential partners in the service region, including business partners that can provide STEM related applications.

**Table 1: Partnership**

<b>Collaborator</b>	<b>Mission</b>	<b>Expertise</b>	<b>Experience</b>
Georgia Southern University	Higher Education	STEM Education, STEM Research	STEM teacher education, STEM content experts and education experts
Skidaway Institute of Oceanography	Research Institute	STEM Research, field research	STEM research on coastal plain, teacher/student workshops
UGA Marine Institute at Sapelo Island	Research Institute	STEM Research, field research	STEM research on coastal plain, teacher/student workshops
Gray's Reef Marine Sanctuary	Research Site	STEM field research	STEM research site on coastal plain, STEM curriculum
Marine Education Center and Aquarium	Informal STEM Ed.	STEM Science Education	Coastal marine environment education
Magnolia Midlands Youth Science Technology Center	Informal STEM Ed.	STEM Science Education	Provide STEM education resources
Southeastern Natural Sciences Academy	Research Site	STEM Research and education	STEM research, STEM education opportunities
Ossabaw Island Education Alliance	Informal STEM Ed.	STEM Science Education	Provide site and support for PD and student field trips
School Districts	Bulloch County, Burke County, Camden County, Jenkins County, Treutlen County, Ware County		
	STEM Education	STEM Teaching	STEM high school teachers
Potential Institutes of Higher Education	Savannah State University, Armstrong Atlantic State University, College of Coastal Georgia, and East Georgia State College		
Potential Research Institutes/Informal Science Education Organizations	GSU Applied Coastal Research Laboratory, St. Catherine's Island, Okefenokee National Wildlife Refuge, Georgia Sea Turtle Center, Cumberland Island National Seashore, Southeastern Natural Science Academy, and multiple national wildlife refuges		
Potential LEA	44 high schools in 27 counties constituting lower coastal plain		
Potential Business offering applied STEM applications	Georgia Power, Georgia Ports Authority, IBM, Technology Association of Georgia		

*Partnership Collective Mission and Vision:* Real STEM is focused on the RT3 STEM initiative goals of graduating more high school students with strong STEM backgrounds and increasing the number of students selecting and graduating with STEM degrees in college. Real STEM will provide real-world problem-based education opportunities in integrated science, technology, engineering, and mathematics for high school students across southeast Georgia. The partnership will develop problem-based modules for high school career pathways courses mandated by State House Bill 186 with the goal of reigniting the interest of students in STEM, improving STEM achievement, and encouraging them to take up careers in STEM as well as become STEM literate citizens who can make informed decisions about grand challenge issues which will impact their lives. The Science Research Institutes (RI) will use their expertise in research on the coastal plain to identify enduring understandings (key ideas) in science that are important to our region and communities in that region. For example the research on coastal systems at the Skidaway Institute of Oceanography elicits questions about the transport of materials in water, which students in Bulloch county would study in the context of fresh water supplies for their community. The RI will consult on the research and content aspects of the enduring understandings with the Institutes of Higher Education (IHE), provide onsite field campaigns and laboratory experiences where they mentor high school STEM teachers on content, host field trips for high school students, conduct virtual online seminars for high school students, and integrate the program into the broader impact component of research grants. The IHE will provide STEM content expertise to the project in a similar way as discussed for the RI. But the IHE will also focus on problem-based module development, with STEM educators collaborating with scientists and selected master high school teachers to translate the enduring understandings into material which is attainable for the high school students. A STEM Coordinator hired by the project will then collaborate with a Professional Learning Community (PLC) of high school teachers on implementing the module. Local Education Authorities (LEA) will identify science (biology, chemistry, physics, and earth science) and mathematics teachers to serve in the PLC, provide common planning time for the PLC to work on implementing the modules, and assist the project in data collection.

*Lead Partner Past Performance:* Georgia Southern University will serve as the lead institution for Real STEM, with Robert Mayes and Thomas Koballa serving as PIs for the project. Georgia Southern was a key partner in the National Science Foundation PRISM Project, which was a large complex STEM education project in the state of Georgia. Mayes has been a co-PI on funded multi-university projects worth collectively over \$25 million, including: the NSF ACCLAIM Center for Learning and Teaching project to improve leadership in math education with 6 university partners; the NSF MSP Math Teacher Leadership Center to develop a virtual master's program for secondary mathematics education and a teacher leadership program for 4-12 grade mathematics teachers with 2 university partners; and the NSF



Seventeen of the 47 schools have a 20% or higher (high of 35%) below poverty level rating. End of course test percent passed in STEM for the 26 higher needs schools for 2011 was Math I 54% (low 26%), Math II 48% (low 15%), Biology 62% (low 47%), and Physical Science 68% (low 38%). The student population of these 26 schools exceeds 24,281. This data indicates a largely rural region with achievement and social economic status needs. The only district in the lower coastal plain designated as high needs by the State of Georgia is in Chatham County, so we have expanded our service region to include the four neighboring high needs counties of Richmond, Burke, Treutlen, and Ben Hill. Table 2 provides specific needs and demographic data on our core school district partners.

**Table 2: School District Partners Data**

School	Population	Needs – Title 1, AYP	Demographics 35% poverty, < 60% graduate rate
Bulloch County	72,881	Schools Meeting AYP: 12 (80.0%) Schools Not Meeting AYP: 3 (20.0%) Total of 15 schools Title I Status: Refer to Second Indicator Report SYSTEM DID NOT MEET AYP	Graduation Rate of All Students: 75.4% Black students: 66.0% Hispanic Students: 61.5% White Students: 82.4% SWD (Student with Disabilities): 28.4% Economic Disadvantage: 73.8% Current Year >= 85% No
Burke County	90,904	Schools Meeting AYP: 3 (60.0%) Schools Not Meeting AYP: 2 (40.0%) Total of Schools: 5 Title I Status: Refer to Second Indicator Report SYSTEM DID NOT MEET AYP	Graduation Rate of All Students: 79.6% Black students: 76.0% White Students: 86.6% SWD (Student with Disabilities): 48.8% Economic Disadvantage: 79.6% Current Year >= 85% Yes
Camden County	50,410	Schools Meeting AYP: 12 (100.0%) Schools Not Meeting AYP: 0 (0.0%) Total of Schools : 12 Title I Status: Refer to Second Indicator Report SYSTEM DID MEET AYP	Graduation Rate of All Students: 90.6% Black students: 87.6% Hispanic Students: 97.3% White Students: 91.0% SWD (Student with Disabilities):58.1% Economic Disadvantage: 86.6% Current Year >= 85% Yes
Jenkins County	8,148	Schools Meeting AYP: 0 (0.0%) Schools Not Meeting AYP: 3 (100.0%) Total of Schools : 3 Title I Status: Refer to Second Indicator Report SYSTEM DID NOT MEET AYP	Graduation Rate of All Students: 68.3% Black students: 66.2% White Students: 75.7% SWD (Student with Disabilities): 21.4% Economic Disadvantage: 68.3% Current Year >= 85% No
Treutlen County	6,825	Schools Meeting AYP: 1 (50.0%) Schools Not Meeting AYP: 1 (50.0%) Total of Schools : 2 Title I Status: Refer to Second Indicator Report SYSTEM DID NOT MEET AYP	Graduation Rate of All Students: 82.4% Black students: 86.2% White Students: 79.1% Economic Disadvantage: 75.0% Current Year >= 85% Yes
Ware County	36,474	Schools Meeting AYP: 9 (100.0%) Schools Not Meeting AYP: 0 (0.0%) Total of Schools : 9 Title I Status: Refer to Second Indicator Report SYSTEM DID MEET AYP	Graduation Rate of All Students: 80.1% Black students: 76.1% Hispanic: 78.6% White Students: 82.9% SWD (Student with Disabilities): 50.0 % Economic Disadvantage: 78.8% Current Year >= 85%

### Section 3: Quality of Project Design

*Proposal Concept:* Real STEM will engage students in addressing global challenges of environment and energy that impact their local community through the implementation of integrated STEM modules that serve as a component of courses in a designated career pathway. Table 3 summarizes how the project will address Priority 1: Providing Applied Learning Opportunities to Students.

**Table 3: Priority 1 Outcomes**

Innovation Fund Applied Learning Essential Components listed in RFP	Real STEM Activity	Focus	Expected Results
Heightened academic rigor, such as: a) Challenging classroom curriculum;	Real STEM will design, develop and implement curriculum materials focused on real-world grand challenges of environment and energy that are impacting students' local communities in the coastal plain region of Georgia.	Student	Increased student motivation, engagement,
Enhanced self-management skills, such as: a) Problem solving skills;	Real STEM will provide real-world problem-based education opportunities in integrated science, technology, engineering, and mathematics for high school students across the lower coastal plain of Georgia.	Student	Problem-based learning is a "learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem." (Savery, 2006, p. 9)
Increased opportunities to apply new knowledge and skills within a real-world setting.	Real STEM will design, develop and implement curriculum materials focused on real-world grand challenges of environment and energy that are impacting students' local communities in the coastal plain region of Georgia.	Student	Increased student motivation for and engagement with STEM; increased STEM literacy related to students' local environment/community

The partnership will develop high school courses for the pathway which will increase the engagement of students in STEM fields by demonstrating the utility of STEM in addressing problems that impact their lives. Our goal is to reignite the interest of students in STEM, encouraging them to pursue

STEM education at an institute of higher education and to take up careers in science, technology, engineering or mathematics. We also want to develop STEM literate citizens who can make informed decisions about grand challenge issues which will impact their lives, such as biogeochemical cycles impact on climate, hydrological forecasting related to fresh water concerns, and biological diversity concerns about extinction (Committee on Grand Challenges in Environmental Sciences, National Research Council, 2001). While a two- year project cannot develop a complete four year integrated STEM career pathways, it can lay the groundwork by demonstrating the feasibility through creation of a career pathways course.

To implement the initiative three teams will be formed: Team 1 Research Science; Team 2 Module Transition; and Team 3 Implementation. Team 1 will consist of research scientists from research institutes, STEM content and STEM education faculty from an institute of higher education, the PIs, and two master teachers. Team 1 will identify key concepts within their research which underpin grand challenges impacting the coastal plain. These concepts will serve as the enduring understandings and central foci of research questions for the science modules. The framing questions for Team 1 are: What are the grand challenges that are most impactful to the coastal plain? How do these challenges relate to the research they do? What would a student need to know and be able to do to address the challenges? How do the challenges impact the student's community/place?

Team 2 Module Transition will consist of IHE STEM faculty from biology, chemistry, physics, earth science, mathematics, and engineering, IHE STEM science education and mathematics education faculty, the Real STEM Coordinator and PIs, and a master science and master mathematics high school teacher. Team 2 will take the key scientific concepts identified by Team 1 and transition them to a level that is within reach of high school students. Team 2 will explicate entry points into the scientific concept, creating a module which is engaging and challenging for high school students. The Understanding by Design framework will be employed to create performance tasks that are real-world problem-based and place-based which engage students in applied learning. The framing questions for Team 2 are: How can students approach the topic? What scaffolding and support will they need? How do we support while leaving the student to discover, create models, test models, and refine them? What are the interdisciplinary implications of the problem, that is, how can the problem be addressed through the lens of biology, chemistry, physics, earth sciences, engineering, and mathematics?

Team 3 Implementation will consist of the Real STEM Coordinator and a professional learning community (PLC) of teachers within each partner school. The PLC will include minimally a science teacher and a mathematics teacher, and if possible multiple teachers to include one in each of the areas of biology, chemistry, physics, earth systems science, and mathematics, as well as the school Librarian/Media Specialist to provide technology expertise. Team 3 will meet weekly to plan teaching of

the module, if possible during a common planning time during the school day. This will allow for adjustments in the implementation of the module, development of formative assessments which inform instruction, and interdisciplinary discussions of the module. One or more of the PLC teachers will be the primary instructor for the module, with the other members of the PLC providing content and pedagogical support. The STEM Coordinator will serve as a face-to-face mentor for the PLC, provide a liaison with content and pedagogy experts in Team 1 and Team 2, and coordinate field campaigns and laboratory experiences for the students including virtual online classroom visits by scientists. The framing questions for Team 3 are: How do we implement the designed module in our high school? How do we provide interdisciplinary pedagogical support for the teacher leading instruction of the module? How do we implement an authentic assessment of the module that requires a performance of the students that demonstrates understanding of STEM?

We recognize that in order to increase the number of students who pursue STEM education and careers, we cannot only serve those students who are already interested in science and math. We must also recruit new students. To accomplish this Team 3 will work closely with partner schools to develop promotional strategies and materials for the STEM Career Pathways courses. Special efforts will be made to attract traditionally under-represented groups in STEM. According to Flores and Claeys (2011), as the demographics across the country dramatically shift, so does the Latino college population. Latinos, while experiencing the largest population growth as a group, also have the least amount of formal education (National Center for Education Statistics [NCES], 2007; Santiago, 2007; Swail, Cabrera, Lee, & Williams, 2005). Nationally, 90 percent of all secondary students complete high school, yet only 60 percent of Latinos do so (Martínez, 2003). In the case of Latinas, as compared to White females, under-education is even more acute (González, Stoner, & Jovel, 2003). At the core of the situation we know that if we examine the attainment rates of a group of 100 elementary female students, the attainment rates for Latinas and Whites starkly vary (Waterford, Rivas, Burciaga, & Solórzano, 2006).

Focusing out from Latino populations and looking at underrepresented people in general, recent trends show an increase in the number of minorities attending college (Perna, 2000). While this is exciting information, the educational gap between majority and minority populations is widening across the country (Oliva, 2004). Although there are many reasons for this, including kindergarten through 12th grade (K-12) schooling experiences (Martínez, 2003), institutions of higher education have historically not ensured equity and access for minority populations, thus compounding the problem. Whether we focus on Latinos or underrepresented people, the bottom line is that their growth as a population is disproportionate to their growth in the STEM fields. Specifically, of bachelor degrees earned in the stem fields Blacks and Latinos earned 8%. (<http://www.post-gazette.com/stories/news/education/lack-of-diversity-part-of-equation-in-stem-fields-329392/>). The implication of these numbers and argument is to

question why Whites are more prepared academically to enter STEM fields in the pre-tertiary stages than underrepresented people? While answers abound it is clear that the pre-college experience for these students becomes a critical factor.

Implementation of such innovative interdisciplinary STEM modules will entail professional development to improve teaching in STEM, moving from memorization of isolated facts within content areas that are taught in isolation, to applying multiple STEM perspectives to real-world global problems. The PIs and STEM Coordinator will collaborate with the research institutes to develop a week long field campaign for teachers in the PLCs. The field campaign will engage the teachers in field or laboratory research with the scientists so that the teachers gain expertise in the key science concept and in research methods used to study it. When available, science mobile technologies will be incorporated into the field campaigns. The field campaign will be followed by a second week with the PIs and STEM Coordinator which is focused on pedagogical techniques and relating the science to the new core standards in mathematics and the new science assessment framework.

*Number Served:* Real STEM will serve five school districts in the first year of the program, scaling up to 10 in the second year. Each partner district will designate a PLC consisting of two to five STEM teachers (at least one science and one mathematics), accounting for 10 to 25 teachers in year one and 20 to 50 teachers in year two. Each partner district will agree to collaborate in development of an integrated STEM module in fall 2012 and pilot of the module in a science or mathematics class in the spring of 2013. Estimating 30 students per class, in the first year a minimum of 150 students will participate in the program, more if multiple sections of courses implement the module. In the second year a collection of modules will serve as the curriculum for an entire course which is part of a STEM career pathway. This sets the stage for the development of a sequence of four courses which would serve as an entire integrated STEM career pathway. In the second year the program will serve a minimum of 300 students. The number of LEAs served will be five districts in year one and 10 districts in year two, with some districts having multiple schools per district this could double the number of schools to between 10 and 20.

*Exceptional Approach:* The theoretical framework for Real STEM includes design strategies that incorporate cutting edge research in learning progressions, problem-based pedagogy, place-based pedagogy, Understanding by Design as a development/assessment framework, quantitative reasoning as an integrating factor for interdisciplinary modules, and modes of reasoning which allow for interdisciplinary approaches to complex real-world problems (Figure 2). The underlying goal for the framework is that learning must be meaningful and engaging for the student.

The interdisciplinary STEM modules will be driven by global grand challenges, like the eight grand challenges identified by the Committee on Grand Challenges in Environmental Sciences (National Research Council, 2001). Challenges such as biogeochemical cycles - understanding how human activity is perturbing the six nutrient cycles of carbon, oxygen, hydrogen, nitrogen, sulfur, and phosphorus which has impacts on climate change, CO2 concentrations, acid rain, and chlorofluorocarbons (CFC); biological diversity and ecosystem functioning - understanding the regulation and functional consequences of

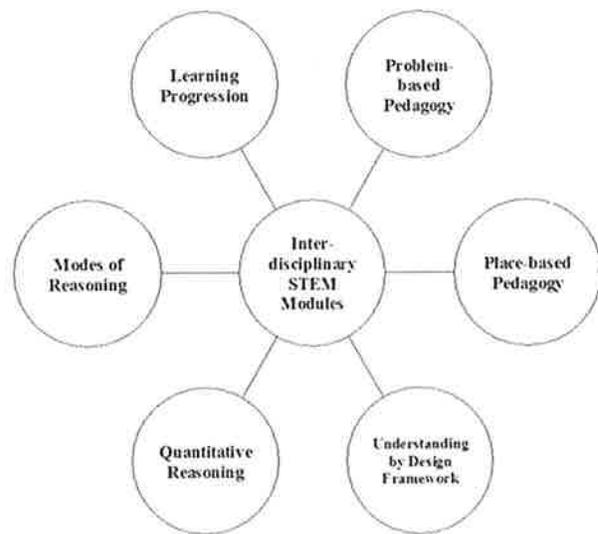


Figure 2

biological diversity which has impacts on rates of species extinction, threats to biological diversity, and controls on biological diversity; and hydrological forecasting - understanding and predicting changes in freshwater resources and the environment caused by floods, droughts, sedimentation, and contamination which threatens freshwater ecosystems. Research institute and IHE scientists will interpret the grand challenges through their research on the coastal plain, providing a problem-based approach to module development which is grounded in the place of the lower coastal plain and its communities. Place-based pedagogies will engage the students in how global challenges impact their place. The Understanding by Design framework will be used to create performance tasks that are based on enduring understandings driven by environmental or energy grand challenges.

Learning progressions will provide learning trajectories which underpin the development of student understandings needed to address the research questions which they pursue. Learning progressions provide a focus on a limited number of enduring understandings, trajectories of learning which teachers can use to determine student progress, and assessments supporting those trajectories. The students will study science through model building, testing of their models, and refinement of the models to address their research question. Modeling requires quantitative reasoning, including the ability to quantify objects they are studying and provide quantitative accounts of models. Modeling also requires multiple modes of reasoning, with a focus on science inquiry, mathematical problem solving, and engineering design science. Real STEM will build collaborative teams where scientists, mathematicians, engineers, STEM education faculty, STEM high school teachers, and businesses applying STEM will mentor high school students while they study real-world problems that impact their place.

*Evidence-based:* The NRC states in *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (NRC, 2011) that STEM disciplines permeate our lives and thus are central to meeting humanity's most pressing challenges. The report proposes three dimensions around which STEM education should be coordinated that Real STEM will implement through the interdisciplinary modules: *crosscutting concepts* that unify the study of science through common application across science fields; *scientific practices*; and *core ideas* in physical sciences, life sciences, earth and space sciences, technology, and the applications of science.

Learning progressions will be used to inform the development of the modules. The Consortium for Policy Research in Education (CPRE) report *Learning Progressions in Science: An Evidence-based Approach to Reform* (Corcoran, Mosher, & Rogat, 2009) identified learning progressions as a promising model that can advance effective adaptive instruction teaching techniques and thereby change the norms of practice in schools. *Taking Science to School* (Duschl, Schweingruber, & Shouse, 2007) recommends that learning and curriculum designs be organized around learning progressions as a means of supporting learners' development towards attaining the four essential proficiencies in science:

- Strand 1: Know, use, and interpret scientific explanations of the natural world
- Strand 2: Generate and evaluate scientific evidence and explanation
- Strand 3: Understand the nature and development of scientific knowledge
- Strand 4: Participate productively in scientific practices and discourse

A number of learning progressions in science are currently under development including: tracing carbon in ecological systems (Mohan, Chen, & Anderson, 2009), particle model of matter (Merritt, Krajcik, & Swartz, 2008), modeling in science (Schwarz, Reiser, et. al., 2009), genetics (Duncan, Rogat, & Yarden, 2009), chemical reactions (Roseman, Caldwell, Gogos, & Kurth, 2006), data modeling and evolution (Lehrer & Schauble, 2002), explanations and ecology (Songer, Kelcey, & Gotwals, 2009), buoyancy (Kennedy & Wilson, 2006), atomic molecular theory (Smith, Wisner, Anderson, & Krajcik, 2006), and evolution (Cately, Lehrer, & Reiser, 2005). Real STEM will use existing science learning progressions, as well as a quantitative reasoning progression being developed by Mayes, to guide and assess development of interdisciplinary STEM modules. Quantitative reasoning, science as modeling, and engineering design will serve as crosscutting modes of reasoning underpinning the interdisciplinary STEM modules.

Problem-based and place-based approaches will be used to ensure the modules engage students. Problem-based learning is a "learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem." (Savery, 2006, p. 9). Long-term retention, skill development, and student and teacher satisfaction have been found to be benefits of problem-based learning when compared with traditional

forms of instruction (Strobel & van Barneveld, 2009). Statistically significant gains in achievement have been observed for middle school science students experiencing science in a problem-based learning format (Williams, Pedersen, & Liu, 1998). The Jasper Woodbury series (CTGV, 1992) is an example of a problem-based mathematics curriculum for students in fifth grade and older. The CTGV (1992) reports improved student ability to solve word problems, plan to solve complex problems, and enhanced attitudes regarding mathematics when compared to students in the non-Jasper sections of the course. Inquiry-based instruction is an instructional approach, which is closely aligned with problem-based learning (Savery, 2006, p. 16). Recently, it has been observed that lessons planned using an inquiry-based approach incorporating technology increased the higher-order thinking skills and technology use required in the lessons (Polly, 2011). Professional development for the Real STEM participants may result in similar increases in their use of problem-based and inquiry-based lessons.

Place-based education that uses the environment as an integrating context for learning results in students who score higher on standardized tests in reading, writing, mathematics, science and social studies (Lieberman & Hoody, 1998; Bartosh, 2003; SEER 2000; NEETF, 2000). Other results from these studies indicate that students improve overall GPA, stay in school longer, and receive higher than average scholarship awards. Ernst and Monroe (2004) found that students in place-based programs significantly raised critical thinking skills. These positive outcomes are likely due to increased achievement motivation (Athman & Monroe, 2004), reduced discipline and classroom management problems (Falco, 2004; Lieberman & Hoody, 1998; NEETF, 2000; SEER, 2000), improved attendance (SEER, 2000), and more responsible behavior in school and community (Bartosh, 2003). The more exposure students have to place-based environmental education the more they report attachment to place, civic engagement, and environmental stewardship (Duffin et al., 2004). The American Institute for Research (2005) found that at-risk sixth graders engaged in place-based education significantly raised their science scores and improved problem solving and motivation to learn. Science from a model-building perspective is best achieved through integrated, interdisciplinary STEM instruction that incorporates place-based (Smith & Sobel, 2010) and problem-based pedagogies (Edelson & Reiser, 2006).

Taking Science to School (Duschl, et al, 2007) provides a research-based framework for how science is learned, which underpins the theoretical framework for Real STEM.

1. Students build on prior knowledge, they do not come to us as “tabula rasa” – a blank slate. Learning progressions provide information on what students bring to the table.
2. Children have the capacity to develop and test models, apply STEM to real-world settings, and develop as citizen scientists capable of making informed decisions. The science as model-building and refining process is essential if students are to develop in this way. Knowledge, experience, and effective instructional interventions play a critical role in STEM learning.

Students and teachers will engage in a model-based approach to learning science as a means of increasing knowledge and experience in STEM.

3. There are a number of factors that influence the knowledge and experience children bring to the classroom, including race, ethnicity, language, culture, gender, and social-economic status. This project will collect data from a geographic region with diverse populations, allowing for tracking outcomes related to these mitigating factors.
4. Students learn STEM through actively engaging in the practices of STEM. Learning science from the perspective of model-building and testing will engage students in gathering data, analyzing the data, building models, making predictions from those models, and refining the models. This leads naturally to place-based and problem-based pedagogies.
5. A range of instructional approaches is necessary for development of STEM proficiency. A focus of the project is implementing multiple instructional strategies that are interdisciplinary and modeling based.

The theoretical framework will also be driven by Thompson's research on quantification (Thompson, in press) and his work on developing meaning and coherence in the learning and teaching of mathematics. Quantification is known to be a significant component in modeling and has been found to be difficult for students (Thompson, 2011).

*Advance Student Performance:* Real STEM will advance Georgia's RT3 strategy for improving student performance by implementing the Teacher Keys Evaluation System (TKES) with all teachers in the project. The three components of TKES will be used: Teacher Assessment on Performance Standards (TAPS) to measure teacher performance, Student Growth and Academic Achievement as a student growth percentile model, and Surveys of Instructional Practice to report on student experience in the project. Real STEM will align the curricular modules to the Common Core Georgia Performance Standards (CCGPS) for mathematics, with a focus on the Standards for Mathematical Practice which directly support the project goals of modeling and problem solving. The project will also attend to the Next Generation Science Standards as they pertain to project goals. Real STEM will serve high needs schools in the lower coastal plain as designated by the Turning Around Lowest Achieving Schools initiative. Currently only Chatham County Groves High School and Beach High School in the lower coastal plain region are classified as lowest achieving schools. So the high needs districts boarding the lower coastal plain will be invited to join Real STEM, including Burke County Schools, Richmond County Schools, Treutlen County Schools, and Ben Hill County Schools. Real STEM is focused on the RT3 STEM initiative goals of graduating more high school students with strong STEM backgrounds and increasing the number of students selecting and graduating with STEM degrees in college. Real STEM will support the RT3 STEM activities of raising educator awareness of STEM resources through intensive

partnerships with research institutes, promoting a STEM culture in schools through interdisciplinary applied learning experiences, developing and disseminating applied STEM modules that promote problem-based inquiry approaches to STEM, and initiating STEM applied learning partnerships. Real STEM will support the great teachers in STEM initiative by providing 21<sup>st</sup> Century teacher professional development through PLC collaboration with research scientists, placing STEM teachers in mentored challenging STEM summer internships through field campaigns, supporting Engineering Design to teach physical sciences, and using Teacher Effectiveness Measures (TEM) scores of STEM teachers to identify and deliver tailored professional development for teachers through the field campaigns.

*Scope of Work:* The scope of work chart (above) indicates the intended goals for Real STEM and the activities and implementation steps to achieve those goals. The chart includes a timeline for completing activities, assigns responsibility for each activity to a project partner, and identifies funding sources that will support each activity.

RACE TO THE TOP INNOVATION FUND				
SCOPE OF WORK				
NAME OF PARTNERSHIP: REAL STEM				
GOAL 1: DEVELOP INTEGRATED STEM MODULES				
ACTIVITY	IMPLEMENTATION STEPS	TIMELINE	RESPONSIBILITY	FUNDING SOURCE
Identify science concepts that will drive the modules	Review global challenges , RI & IHE research initiatives to identify key science conceptions and potential research questions for modules	Sept-Oct. 2012	Team 1 – research institutes, IHE, PI	Innovation Fund
Transition science concepts to appropriate developmental level	Determine components of science concepts and research questions that are attainable by students; use Understanding by Design framework to create module outline	Oct.-Nov. 2012	Team 2 – IHE, STEM Coordinator, PI, master STEM teachers	Innovation Fund
Develop problem-based, place-based module	Develop an engaging curriculum module focused on regional/community issues of grand challenge/research institute problems, open ended performance task	Nov.-Dec. 2012	Team 2 – IHE, STEM Coordinator, PI, Master STEM teachers	Innovation Fund
Repeat development cycle	Repeat above cycle to develop additional modules, one in spring 2013, two in summer 2013 for total of 4 modules	Jan.-May 2013 June-Aug. 2013	Team 1 and 2	Innovation Fund
GOAL 2: IMPLEMENT STEM MODULES				
ACTIVITY	IMPLEMENTATION STEPS	TIMELINE	RESPONSIBILITY	FUNDING SOURCE
Pilot module in existing STEM course	Implement pilot of module in STEM course, providing a minimum of 1 week of class time, course could be biology, chemistry, earth science or mathematics, coordinate across multiple STEM courses	Jan.-May 2013	Team 3 – STEM Coordinator, PI, PLC in consultation with Team 1 and 2	Innovation Fund
Virtual Online Classroom Visits & Field Trips	RI and IHE scientists serve as expert mentors through online classroom visits and field trips for students	Jan.-May 2013 June-July 2013	Team 1 and 2, STEM Coordinator, PI	Innovation Fund
Professional Development	STEM Coordinator and PI through PLC development efforts; field campaign with	Jan.-May 2013 June-July 2013	STEM Coordinator & PI for academic	Innovation Fund.

	RI and IHE in summer; goal is to improve content and pedagogical content knowledge to enable interdisciplinary teaching		year; also Team 1 and 2 for field campaign	Broader Impacts RI
Full course implementation	Implement series of 2 to 4 modules in a full year interdisciplinary career pathways course; includes virtual online classroom visits and field trips	Aug-May 2013-2014	Team 3, STEM Coordinator, PI with mentoring from Team 1 and 2	Innovation Fund
<b>GOAL 3: EVALUATE IMPACT OF MODULES</b>				
<b>ACTIVITY</b>	<b>IMPLEMENTATION STEPS</b>	<b>TIMELINE</b>	<b>RESPONSIBILITY</b>	<b>FUNDING SOURCE</b>
Impact on Student Learning across all subgroups of participants (e.g. females, minorities)	Observational data conducted by STEM Coordinator using RTOP protocol; Student Growth and Academic Achievement measure, Survey of Instructional practice; outcome of student performance task	Jan.-Aug. 2012	Project Evaluator and PI	Innovation Fund
Impact on Teacher Practice	Observational data conducted by STEM Coordinator using RTOP protocol, TAPS	Jan.-Aug. 2012	Project Evaluator and PI	Innovation Fund
Repeat evaluation cycle	Repeat above cycle to evaluate impact of full course on student learning and teacher practice	Aug.-July 2013-2014	Project Evaluator and PI	Innovation Fund

#### Section 4: Quality of Project Evaluation

Charles Martin, Director of the Center for Program Evaluation and Development at Georgia College and State University, will serve as the external evaluator for Real STEM.

The evaluation is designed to provide formative as well as summative data for the project and the Innovation Program using quasi-experimental studies to examine the impact of the program on student and teacher participants. How the evaluation addresses requirements of the Innovation Program and specific evaluation measures are presented below and in additional detail in the Evaluation Table.

- *Evaluation Data and Feedback: The extent to which the methods of evaluation will provide high-quality implementation data and performance feedback, include rigorous student progress goals, and permit periodic assessment of progress toward achieving intended outcomes.*

The primary focus of the evaluation will be on student and teacher outcomes. Student outcomes include ability to study complex real-world problems from an interdisciplinary perspective, ability to bring multiple STEM disciplines to bear on a problem, ability to use quantitative reasoning to formulate a problem and write a researchable question, ability to collect and analyze data, ability to build a model representing the problem then test and refine the model, ability to communicate outcomes/findings/conclusions to an expert audience, ability to reason from multiple perspectives including scientific modeling, engineering design, and mathematical problem solving, and increased motivation and engagement in STEM through understanding how science applies to their world. The evaluation will also examine the effect of the program on student performance in mathematics and science classes on state measures associated with AYP (i.e. EOCT scores). The evaluation will address changes across all subgroups of participants (e.g., females, minorities).

Teacher outcomes include the ability to teach an interdisciplinary module, ability and willingness to collaborate with teachers from other content areas to teach real-world problem-based modules, ability to develop place-based courses, and demonstration of skill at collaborating with research scientists and using local resources to teach STEM.

It also is critical for the evaluation to describe program implementation and determine the extent to which different implementation components contributed to program outcomes. Implementation data will come from three sources: 1) artifacts from the production of modules and the work of the development/implementation teams (e.g., drafts of modules and assessment tools); 2) module quality assessment data produced by the teams as part of their pilot testing and peer review of the modules as they are developed, field tested, and implemented in the Career Pathways courses. This includes module evaluation forms and rubrics tied to the extent to which the modules incorporate problem-based and place-based approaches to accomplish student outcomes, and are guided by learning progressions and alignment to common core or GPS standards.; 3) Evaluator generated data including observations, interviews with teams, and TKES student surveys. Data from these three sources will allow the evaluation to provide feedback about what is working and make recommendations for improving development and implementation processes.

- *Evaluation for Replication:* The extent to which the evaluation will provide sufficient information about the key elements and approach of the project so as to facilitate replication or testing in other settings.

Because the evaluation documents the development and implementation of the Career Pathways modules and their impact on students and teachers, it not only provides formative and summative feedback to the project but also thoroughly describes the key elements of the approach so that the development of modules can be replicated and their effectiveness tested. Others will be able to use materials developed in the project, review evaluation findings, and implement or customize the modules or the development process to fit their settings and resources. Specifically, they can see how the project used place-based and problem-based pedagogies; drew on collaborative efforts of teachers, university faculty, and research scientists; employed Understanding by Design and learning progressions to guide learning trajectories; and developed assessments to measure student outcomes.

- *Evaluation Resources:* The extent to which the proposed project plan includes sufficient resources to carry out the project evaluation effectively.

Real STEM will provide funding for an external evaluator to lead the evaluation effort. The PI and full time STEM Coordinator will work with the evaluator to collect data and perform analysis. The design of the project also contributes to the evaluation because the module development process includes pilot testing and collection of data on the effectiveness of the modules thus producing critical information

for the evaluation. In addition, a graduate student will be supported by the project to assist with module development, data collection, and data analysis.

Overall, the evaluation provides data to document module development, measure qualities of the modules (e.g., promotion of model making and testing, use of place-based problems) and makes connections between those qualities and student and teacher outcomes. Data will track levels of student and teacher participation and examine relationships between program participation and state student assessments. These data will be used to provide feedback to the project and determine the project’s progress toward achieving its goals.

<b>GEORGIA BENEFITS FROM A MEASURABLY STRONGER COMMITMENT FROM PUBLIC AND PRIVATE SECTORS TO SUPPORT AND ADVANCE POSITIVE ACADEMIC OUTCOMES FOR STUDENTS</b>		
<b>INDICATOR(S)</b>	<b>DATA COLLECTION METHODS(S)</b>	<b>FREQUENCY OF DATA COLLECTION/REVIEW</b>
Number of participating partners and the nature of their contributions (e.g., Informal Science Education institutions such as the MAREX provide student education programs for field trips)	Meeting sign-in sheets Real STEM Partner Survey Work team/partner contribution logs	Sign in sheets and attendance ongoing at events and meetings Work team/partner contribution logs- Mid-year and End of year Partner survey annually
Value of In-kind commitments Research institutes provide science expertise, site for field experiences/lab experiences, virtual site visits to school classrooms	Record on in-kind commitments- (time/resources/other in-kind and real monetary contributions)	Annually
Number, nature, and amount of leveraged resources obtained due to partner efforts (e.g., additional grants supporting Real STEM initiative)	Analysis of additional funding and role of Innovation funds in securing funding	Annually
Changes in policy that support project	Analysis of partner organization policy changes related to project	Policy document analysis annually
<b>GEORGIA BENEFITS FROM AN INCREASED NUMBER AND PERCENTAGE OF STUDENTS AND TEACHERS WHO WILL HAVE ACCESS TO INNOVATIVE PROGRAMS, STRATEGIES, AND PRACTICES RELATED TO APPLIED LEARNING AND TEACHER/LEADER RECRUITMENT AND DEVELOPMENT</b>		
<b>INDICATOR(S)</b>	<b>DATA COLLECTION METHODS(S)</b>	<b>FREQUENCY OF DATA COLLECTION/REVIEW</b>
300 students will participate in full academic year integrated STEM courses as part of a career pathway- minimum of one class per 10 schools with average of 30 students per class (Number of students could be more if they are semester classes and students do not repeat in spring semester)	Class rosters	Each semester

50 teachers each year- PLC of 5 teachers in each of 10 high schools	PLC participation logs and sign in sheets	Each semester
<b>GEORGIA BENEFITS FROM A STRONGER UNDERSTANDING OF THE TYPES OF INNOVATIVE PROGRAMS, STRATEGIES, AND PRACTICES THAT WILL LEAD TO POSITIVE IMPROVEMENTS IN APPLIED LEARNING, TEACHER INDUCTION, AND HOMEGROWN TEACHER PIPELINE EFFORTS</b>		
INDICATOR(S)	DATA COLLECTION METHODS(S)	FREQUENCY OF DATA COLLECTION/REVIEW
<p>Creation of 4 problem-based modules per year that meet developmental criteria (e.g., includes quantitative reasoning, inquiry, mathematical problem solving, engineering design science)</p> <p>Students will demonstrate statistically significant improvement in applied learning and scientific problem solving and higher scores on measure of problem-solving and reasoning compared to non-participants</p> <p>Teacher professional development leads to more inquiry, problem-based approaches to teaching.</p> <p>Links between the characteristics of modules/teacher professional development and student outcomes (e.g., Modules that emphasize generating/evaluating evidence lead to what student outcomes?)</p>	<p>Module development rubric; Peer review of modules; results of pilot testing and participant feedback surveys; Document analysis</p> <p>Comparison of pre/post measures; analysis of student products using learning progressions rubric; Comparison with matched sample of non-participants</p> <p>Classroom observations (RTOP); TKES Survey of Instructional Practice</p> <p>Analysis of characteristics of modules/teacher PD and links to student outcome measures using data collection described above</p>	<p>Modules reviewed at each stage; Pilot testing after handoff to Team 3 and implementation; Document analysis twice per year</p> <p>Students will be assessed in the first 6 weeks and last 6 weeks. Data from non- participants gather in last 6 weeks. Data will be evaluated within 4 weeks of data collection.</p> <p>Each semester of implementation</p> <p>Each semester of implementation</p>
<b>GEORGIA BENEFITS FROM IMPROVED STUDENT OUTCOMES</b>		
INDICATOR(S)	DATA COLLECTION METHODS(S)	FREQUENCY OF DATA COLLECTION/REVIEW
<p>Increased student achievement (EOCT in science and math). -Statistically higher scores than non-participating students - 15% increase in students scoring Proficient or Advanced by 2014</p> <p>Increased interest in pursuing STEM in college or STEM-related careers</p> <p>80% of participating students will improve in their ability to use quantitative reasoning, formulate a problem, collect and analyze data, reason from different perspectives, use scientific model-building, testing and refining, and communicate findings.</p>	<p>Georgia EOCT tests in science and math analyzed across sub-groups (females, minorities)</p> <p>STEM Career Interest Questionnaire Knezek and Christensen (2010) ; STEM Education Interest Inventory</p> <p>Module Pre-Post tests; Student Product and presentation analysis- learning progressions rubric</p>	<p>Each Year (Semester if on block scheduling)</p> <p>Each Year (Pre/Post)</p> <p>Each semester in course</p>

## Section 5: Quality of Project Management Plan

*Partnership Capacity:* The Real STEM partnership is positioned to achieve the objectives of the proposed project on time and within budget. Georgia Southern University is a Carnegie Doctoral-Research University with a strong commitment to research and teaching. GSU is the premier university serving southeast Georgia, with more than 110 degree programs in eight colleges. Interdisciplinary collaboration at GSU is well established, as is evident with the long standing STEM Working Group which brings together faculty from across campus on a regular basis to discuss STEM education initiatives. The commitment to interdisciplinary STEM has recently resulted in a proposal for a STEM Education Institute with core college partners including the Allen E. Paulson College of Science and Mathematics, the College of Education, the new College of Engineering and Information Technology, and the College of Liberal Arts and Social Sciences. This Institute will serve as a home to STEM projects such as Real STEM and provide assistance for such projects in the areas of management, outreach, collaboration, and accounting. Georgia Southern University will serve as the fiscal agent for the project, which it is well positioned to do through the Office of Research Services and Sponsored Programs.

Our primary research institute partner is the Skidaway Institute of Oceanography (SkIO) a multidisciplinary research institution within the University System, located on a 700 acre campus on Skidaway Island, 16 miles southeast of Savannah (Figure 3). The Institute sits on the banks of the Skidaway River, with access to a diverse range of estuarine and coastal habitats. Its remote pristine location, convenient to coastal and ocean waters,



Figure 3

guarantees a constant influx of visiting scientists and students seeking access to state-of-the-art research facilities, accessible research locations, and opportunities for collaboration with Skidaway Institute's interdisciplinary and internationally-recognized research faculty. The Skidaway Institute of Oceanography was created in 1967 by a commission of the Georgia General Assembly and was given the mandate to conduct research in all fields of oceanography and marine sciences. In 1971, Skidaway Institute of Oceanography was transferred to the University System to serve as a base of operations and central facility for marine interests within the University System.

The Institute's primary goals are to further understanding of marine and environmental sciences, conduct leading edge research on marine and coastal systems, and train tomorrow's scientists. The campus serves as a gateway to marine environments and helps to integrate marine programs throughout the University System. The Institute strives to create a more knowledgeable citizen capable of promoting sound utilization of natural coastal and marine resources while capitalizing on coastal economic

opportunities. Research activities at the Institute are conducted on scales ranging from local economic and environmental issues to global processes and phenomena. Institute faculty supervise the research and training of students from all over the world. Strong collaborative ties with other University System institutions allow Skidaway Institute of Oceanography faculty to bring the latest in research findings to the classroom; in turn, Institute laboratories offer hands-on research opportunities for students. The campus also houses the University System's largest library devoted to marine sciences. It is clear that SkIO provides a strong research and education partner for the collaborative. In addition to SkIO, multiple other research institutes and informal science education centers have joined the collaborative including UGA Marine Institute at Sapelo Island, Gray's Reef Marine Sanctuary, Marine Education Center and Aquarium, Southeastern Natural Sciences Academy, Ossabaw Island Education Alliance, and Magnolia Midlands Youth Science Technology Center.

*Key Project Personnel:* The Real STEM project director will be **Robert Mayes** (Ph.D. in Mathematics Education, Kansas State University) a Full Research Professor in the College of Education at Georgia Southern University. Mayes has research interest in the areas of mathematical modeling, quantitative reasoning, problem solving, interdisciplinary science teaching, and distance education. Mayes has been a co-PI on multiple large funded multi-university projects, including: the NSF ACCLAIM Center for Learning and Teaching project to improve leadership in math education with 6 university partners; the NSF MSP Math Teacher Leadership Center to develop a virtual master's program for secondary mathematics education and a teacher leadership program for 4-12 grade mathematics teachers with 2 university partners; and the NSF MSP Pathways LTER – Culturally Relevant Ecology, Learning Progressions, and Environmental Literacy project to develop environmental literacy learning progressions with 7 university partners. His current work on the Pathways project is the development of a learning progression for quantitative reasoning in environmental science, which directly relates to the proposed Real STEM project.

**Thomas R. Koballa, Jr.** (Ph.D. Curriculum & Instruction-Science Education, Pennsylvania State University) is Dean of the College of Education at GSU. Prior to July 2010, he was a professor of science education at the University of Georgia and was the PI of the Georgia Teacher Quality project from 2006-2010, which had an annual budget of \$2M. He is past-president of the National Association for Research in Science Teaching, received professional development and research grants from the NSF and the Janet H. and C. Harry Knowles Foundation, and has authored more than 65 published works on science teacher learning.

**Charles B. Hodges** (Ph.D. Curriculum & Instruction-Instructional Design and Technology, Virginia Tech) Hodges is an Assistant Professor of Instructional Technology in the College of Education

at GSU. He is currently the Project Director and Principle Investigator of a grant-funded Teacher Quality collaboration between GSU and Glynn County Schools involving the design and development of problem-based learning units based on the Common Core State Standards for Mathematics. He regularly presents at state and national conferences and has published more than 20 scholarly articles in the field of instructional design technology.

**Alejandro J. Gallard Martinez (Ph.D.)** has extensive experience in the public school arena as a science teacher and researcher. He has also obtained and managed large scale National Science Foundation (NSF) projects, which focused on reform in the teaching and learning of science education through development of professional development programs. Alejandro is also a participating member of the Earth Systems Science Education Alliance, which develops problem-based learning as a framework for earth systems modules that are based on real world science data. He is the Chair of the American Education Research Association's Hispanic Research Special Interest Group. In addition, Dr. Gallard is an editorial board member of the journal *Cultural Studies in Science Education*. Alejandro's research interests include understanding the complexities that contribute to students' lack of success: such as race, ethnicity, and gender and the tensions between education policy and teaching and learning in general and science in particular. Specifically, his national and international expertise encompasses three areas: socio-cultural understanding of underrepresented populations targeting Latinos, the role of gender in STEM fields focusing on Latinas (e.g., <http://www.met.fsu.edu/orgs/realms/>), analysis and evaluation of education policy, and programs.

**Charles Martin** will serve as the external evaluator for Real STEM. Dr. Martin is Director of the Center for Program Evaluation and Development at Georgia College and State University and is co-director of the University System of Georgia STEM initiative at Georgia College. He has been an evaluator for more than 25 years and has extensive experience evaluating STEM initiatives, including the Georgia Partnership for Reform in Mathematics and Science (PRISM), numerous Georgia Math/Science Partnership (MSP) programs, and the Georgia Science Olympiad. He has received several NSF/DOE STEM grants most recently to study K-16 STEM professional learning communities.

*Leadership Structure:* The leadership structure and defined responsibilities are laid out in the Scope of Work chart. The Project Director will be responsible for overall management of the project, lead editor for curricular modules, collaborating with external evaluator on evaluation of project, and reports on project to the funding agency. The two PIs will lead module development and collaborate with the external evaluator on project evaluation. The Research Institute Lead Scientist will coordinate institute efforts which include consulting on science modules, mentoring teachers, and assisting with student field trips and virtual classroom visits. The STEM Coordinator will be a member of the module

development team, manage the implementation team, mentor PLC teachers, and assist with evaluation of the project.

### **Section 6: Quality of Sustainability/Scalability Plan**

*Sustainability:* The sustainability and scalability of Real STEM is inherent in its alignment with the new high school curriculum structures mandated by the State of Georgia. As a component of a career pathway, Real STEM has an entryway into school academic programs, and as such has the opportunity to spread to all schools in Georgia.

The STEM research institute partners have a commitment to provide outreach and educational programs that publicize their work, so they are vested in efforts such as Real STEM. In addition the National Science Foundation, the primary funding organization for science research, requires that funded projects have a Broader Impact component which stresses education. Real STEM can serve as a sustained broader impacts project which research institutes can plug in to.

Georgia Southern University has a distinguished reputation in education and outreach in the lower coastal plain, and is committed to working to improve STEM teaching and learning. In addition, Georgia Southern University has a strong track record in graduating minority students in STEM fields. The newly proposed STEM Institute at Georgia Southern University can provide support for sustaining the project, such as serving as a center for continued communication among collaborative partners, hosting collaborative meetings, and pursuing funding to extend professional development aspects of the project.

*Support Letters:* The appendix contains letters of support from partners that demonstrate a commitment to advance and sustain the project. In addition there are letters of support that demonstrate broad support from stakeholders critical to the long-term success of the project.

Two Innovation Fund requests from Georgia Southern University were approved for submission of a full proposal, Real STEM and Next STEM. The writing teams for the two proposals have been working collaboratively to develop two distinct but complimentary projects. Next STEM focuses on workforce development in STEM disciplines, which complements Real STEM which centers on STEM researcher pipeline and development of STEM literate citizens who can make informed decisions about complex issues. While the proposed projects can stand independently of one another, funding of both would serve complementary and not overlapping roles.

**GOVERNOR'S OFFICE OF STUDENT ACHIEVEMENT  
RACE TO THE TOP INNOVATION FUND BUDGET FORM**

Project Name: Real STEM	Applicants requesting Venture grants should complete the column under "Project Year 1." Applicants requesting funding for Enterprise grants should complete all applicable columns. Please read all instructions before completing form.
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**SECTION A - BUDGET SUMMARY  
INNOVATION FUND COSTS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Total (d)
1. Personnel	\$113,067	\$117,015	\$230,622
2. Fringe Benefits	\$25,982	\$26,761	\$52,743
3. Travel	\$11,085	\$11,085	\$22,170
4. Equipment	\$0	\$0	\$0
5. Supplies	\$1,000	\$0	\$1,000
6. Contractual	\$60,000	\$60,000	\$120,000
7. Construction			
8. Other	\$36,601	\$35,314	\$72,915
9. Total Direct Costs (lines 1-8)	\$247,735	\$250,175	
10. Indirect Costs*	\$24,828	\$25,018	\$49,845
11. Training Stipends	\$77,500	\$77,500	\$155,000
12. Total Costs (lines 9-11)	\$350,063	\$352,693	\$703,296

**SECTION B - BUDGET SUMMARY  
NON-INNOVATION FUND COSTS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Total (d)
1. Personnel	0	0	0
2. Fringe Benefits	0	0	0
3. Travel	0	0	0
4. Equipment	0	0	0
5. Supplies	0	0	0
6. Contractual	0	0	0
7. Construction	0	0	0
8. Other	0	0	0
9. Total Direct Costs (lines 1-8)	0	0	0
10. Indirect Costs*	0	0	0
11. Training Stipends	0	0	0
12. Total Costs (lines 9-11)	0	0	0

**SECTION C - BUDGET NARRATIVE (see instructions)**

## **BUDGET NARRATIVE/JUSTIFICATION**

1. Personnel: The senior personnel will oversee management of the project, creation of interdisciplinary STEM modules, and implementation of the modules in partner schools. The PI Robert Mayes will serve as the primary contact for the project, complete reports on the project, coordinate the three development teams in the project, serve as expert in mathematics education, learning progressions, place-based education, Understanding by Design, and quantitative reasoning. The Co-PI Thomas Koballa will assist the PI with reports and coordination of development teams, serve as expert in science education. Senior personnel Chuck Hodges will provide expertise in technology aspects of the project, including virtual seminars, website for project, and assist in development of the curriculum modules. The science educator will assist with development of curriculum modules. The STEM Coordinator will lead the implementation team serving as a primary mentor for teachers in professional learning communities, serve on the module development team, and assist PI with project management and reporting. The graduate student will support module development and implementation efforts by assisting the STEM Coordinator.

2. Fringe Benefits: Fringe benefits for personnel are calculated by the GSU Research Office, with a base fringe rate of 16.89% for senior personnel.

3. Travel: Senior personnel will be supported for two trips per year to the partner Research Institute sites to determine key scientific concepts and research questions that will drive development of modules, plan field campaigns for participant teachers, and establish field trip opportunities for high school students. Funding will support mileage at 0.55 cents/mile for an average 200 mile round trip plus a \$30 per diem per day. The STEM Coordinator and graduate student will receive the same level of support to attend the Research Institute meetings. In addition in the first year the STEM Coordinator will supported for 15 visits (approximately once every two weeks) to the 5 partner school districts for an average 100 mile round trip and in the second year this will be increased to include 10 partner school districts.

4. Equipment: No equipment is being requested.

5. Supplies: A minimal supply account is established to offset costs of producing the modules.

6. Contractual: The Research Institutes working with the project to identify key science concepts and research questions will receive \$2,500 stipends for 2 scientists at each institute site for 5 partner institutes to support scientists in development efforts, mentoring of teachers, and virtual seminars with students. The 6 content experts at the IHE partner will receive \$2,500 stipends for consulting on development of the curriculum modules, mentoring teachers, and providing field opportunities for students. The 2 master teachers will receive \$2,500 stipends for development of curriculum modules and serving as teacher leaders for the professional learning communities in the partner schools. Support for the one week field campaigns for teachers at Research Institutes is a \$1,500 per site per week stipend for scientists mentoring

teachers. A matching stipend will be provided for GSU faculty mentoring in the one week pedagogy workshop supporting transition of field campaign experiences to the classroom and supporting innovative pedagogical practices.

7. Construction: No funds are requested for construction.

8. Other: A minimal publication/dissemination account is provided to support advertising the modules and publishing them in refereed practitioner journals. The external evaluator will be paid 8% of the overall project costs to serve in this capacity. A minimal computer services account is provide to support implementation of technology aspects of the project including a web site and wiki. Graduate student tuition and fees will be provided for the project graduate student.

9. Total Direct Costs: The total direct costs includes all personnel, fringe, travel, supplies, contractual, and other costs. It excludes Training Stipends and graduate student tuition and fees.

10. Indirect Costs: Indirect costs are charged at 10% of total direct costs.

11. Training Stipends: Teachers in the professional learning communities at partner schools will receive a \$2,000 stipend for their collaborative efforts with the STEM Coordinator, STEM content and education experts, and the project leadership team. There will be 5 PLC in year one with 5 teachers per community, this will increase to 10 PLC in year two. In addition the teachers in the PLC will be provided support for one 10 day field campaign and pedagogy workshop including a \$100 housing and travel stipend per day for 8 nights and \$30 meal stipend per day for 10 days of the field campaign and pedagogy workshop.

12. Total Costs: Total costs include total direct costs, indirect costs, and training stipend costs for the project.

## APPENDIX – ATTACHMENTS

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The University of Georgia

Marine Institute

(912) 485-2221  
(912) 485-2133 FAX

Sapelo Island, GA 31327

June 26, 2012

Robert Mayes  
113 Chelsea Circle  
Statesboro, GA 30458

Dear Robert,

I would like to provide this this very short supporting letter to confirm the UGA Marine Institute's participation in the Race to the Top Innovation proposal Real STEM. The Institute's mission is to carry out and facilitate a 'world class' program of education and research in marine systems that contribute to a sustainable Georgia coast. Our facility is host to numerous classes and researchers over the course of the year. In the middle of the second oldest National Estuarine Research Reserve, the Institute provide a one of a kind opportunity for immersive learning and hands on research experiences. Consequently, we would be happy to serve as a destination for field trips for partner school STEM students.

Thank you for the opportunity to participate.

Sincerely,

William L. Miller, Jr  
Director, Marine Institute, Sapelo Island  
Assoc. Director Marine Programs  
UGA Marine Science Dept., Athens, GA

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM (Partners). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State

### I. SCOPE OF WORK

Exhibit 1, the Preliminary Scope of Work, indicates the work that the Partnership is agreeing to implement.

### II. PROJECT ADMINISTRATION

#### A. PARTNERSHIP RESPONSIBILITIES

The Partnership agrees to:

- 1) Implement the plan as identified in Exhibit 1 of this agreement;
- 2) Actively participate in all relevant convenings, communities of practice, or other practice-sharing events that are organized or sponsored by GOSA, the Georgia Department of Education, and the US Department of Education;
- 3) Post to any website specified by the State in a timely manner, all non-proprietary products and lessons learned using funds associated with the Innovation Fund;
- 4) Participate, as requested, in any evaluations of this grant conducted by the State or agency conducting business on behalf of the State;
- 5) Be responsive to State requests for information including the status of the project, project implementation, outcomes, and any problems anticipated or encountered; and
- 6) Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the Innovation Fund grant period, and (d) other matters related to the Innovation Fund grant and associated plans.

#### B. STATE RESPONSIBILITIES

The State agrees to:

- 1) Timely distribute the Partnership's grant during the course of the project period;
- 2) Provide feedback on the Partnership's status updates, annual reports, any interim reports, and projects plans and products; and
- 3) Identify sources of technical assistance for the project.

#### C. JOINT RESPONSIBILITIES

- 1) GOSA and the Partnership will each appoint a key contact person for the Innovation Fund grant.
- 2) These key contacts from GOSA and the Partnership will maintain frequent communication to facilitate cooperation under this MOU.
- 3) State and Partnership grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the grant period.
- 4) State and Partnership grant personnel will negotiate in good faith to continue to achieve the overall goals of the Innovation Fund.

#### D. STATE RECOURSE FOR PARTNERSHIP NON-PERFORMANCE

If GOSA determines that the Partnership is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, GOSA will take appropriate enforcement action, which could include a collaborative process between GOSA and the Partnership, or any of the enforcement measures

that are detailed in 34 CFR section 80.43 including putting the Partnership on reimbursement payment status, temporarily withholding funds, or disallowing costs.

**III. ASSURANCES**

The Partnership hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
- 2) Agrees to implement the work indicated in Exhibit I, if funded;
- 3) Will comply with all terms of the grant and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Race to the Top program and the applicable provisions of EDGAR (34 CFR Parts 74,75, 77, 79, 80, 81, 82, 84, 85, 86, 97, 98 and 99).

**IV. MODIFICATIONS**

This Memorandum of Understanding may be amended only by written agreement signed by each of the parties involved.

**V. DURATION/TERMINATION**

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

**Partnership Executive Official – required:**

 7/6/12  
Signature/Date

DEBORAH N SHAVER, EXEC DIRECTOR  
Print Name/Title

Partnership Member

**Partnership Member – required:**

 26 June 2012  
Signature/Date

WILLIAM L. MILLER, JR., DIRECTOR UGA MARINE INSTITUTE  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

**1858 Lock and Dam Road  
Augusta, GA 30906  
706-828-2109  
young@naturalsciencesacademy.org**



June 29, 2012

Georgia Department of Education  
2070 Twin Towers East  
205 Jesse Hill Jr. Drive, SE  
Atlanta, GA 30334

Dear Sir:

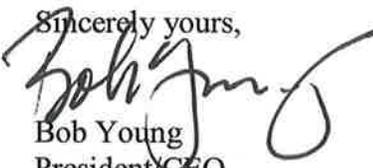
Southeastern Natural Sciences Academy is pleased to offer its support of the Race to the Top Innovation proposal Real STEM. The Academy was founded in 1996 in response to a critical need for leadership in natural resources management and environmental education. The Academy provides research-based solutions for clean water and ecological restoration and serves as a catalyst for community participation in local natural resources management. The Academy has used public-private partnerships and the cooperative conservation model to insure collaboration among agencies, scientists, universities and environmental and community groups to grow into a recognized natural resources institute.

Academy support to Real STEM will include, but not be limited to

- Academy research scientists will consult on key understandings and research questions in STEM that are focused on the Georgia Lower Coastal Plain. The understandings and questions would relate to existing and proposed research.
- The Academy will provide educational opportunities related to the development of STEM modules by the teachers, such as field campaigns where teachers engage with scientists at the site on research they are doing.
- The Academy will be a potential site for field trips for partner school STEM students
- Academy research scientists will be available for virtual classroom visits with STEM students in partner schools.
- The Academy will collaborate by sharing STEM materials they have created for teachers and other educational opportunities.

The Academy looks forward to Real STEM collaborations and is pleased to submit this letter of support and the executed MOU.

Sincerely yours,

  
Bob Young  
President/CEO

## **MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM (Partners). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. **Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State**

### **I. SCOPE OF WORK**

Exhibit 1, the Preliminary Scope of Work, indicates the work that the Partnership is agreeing to implement.

### **II. PROJECT ADMINISTRATION**

#### **A. PARTNERSHIP RESPONSIBILITIES**

The Partnership agrees to:

- 1) Implement the plan as identified in Exhibit I of this agreement;
- 2) Actively participate in all relevant convenings, communities of practice, or other practice-sharing events that are organized or sponsored by GOSA, the Georgia Department of Education, and the US Department of Education;
- 3) Post to any website specified by the State in a timely manner, all non-proprietary products and lessons learned using funds associated with the Innovation Fund;
- 4) Participate, as requested, in any evaluations of this grant conducted by the State or agency conducting business on behalf of the State;
- 5) Be responsive to State requests for information including the status of the project, project implementation, outcomes, and any problems anticipated or encountered; and
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#### **B. STATE RESPONSIBILITIES**

The State agrees to:

- 1) Timely distribute the Partnership's grant during the course of the project period;
- 2) Provide feedback on the Partnership's status updates, annual reports, any interim reports, and projects plans and products; and
- 3) Identify sources of technical assistance for the project.

#### **C. JOINT RESPONSIBILITIES**

- 1) GOSA and the Partnership will each appoint a key contact person for the Innovation Fund grant.
- 2) These key contacts from GOSA and the Partnership will maintain frequent communication to facilitate cooperation under this MOU.
- 3) State and Partnership grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the grant period.
- 4) State and Partnership grant personnel will negotiate in good faith to continue to achieve the overall goals of the Innovation Fund.

#### **D. STATE RECOURSE FOR PARTNERSHIP NON-PERFORMANCE**

If GOSA determines that the Partnership is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, GOSA will take appropriate enforcement action, which could include a collaborative process between GOSA and the Partnership, or any of the enforcement measures

that are detailed in 34 CFR section 80.43 including putting the Partnership on reimbursement payment status, temporarily withholding funds, or disallowing costs.

**III. ASSURANCES**

The Partnership hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
- 2) Agrees to implement the work indicated in Exhibit I, if funded;
- 3) Will comply with all terms of the grant and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Race to the Top program and the applicable provisions of EDGAR (34 CFR Parts 74,75, 77, 79, 80, 81, 82, 84, 85, 86, 97, 98 and 99).

**IV. MODIFICATIONS**

This Memorandum of Understanding may be amended only by written agreement signed by each of the parties involved.

**V. DURATION/TERMINATION**

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

**Partnership Executive Official – required:**

Deborah N Shaver                      7/6/12  
Signature/Date

DEBORAH N SHAVER, EXEC DIRECTOR  
Print Name/Title

Partnership Member

**Partnership Member – required:**

Bob Young                      June 29, 2012  
Signature/Date  
Bob Young, President/CEO                      SNISA  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title



**Skidaway Institute of Oceanography**

*University System of Georgia*  
10 Ocean Science Circle  
Savannah, Georgia 31411

27 June 2012

Dr. Robert Mayes  
Department of Teaching and Learning  
Georgia Southern University  
Statesboro, GA

Dear Bob:

Skidaway Institute of Oceanography (SkIO) is pleased to partner with Georgia Southern University and you in your Project Real STEM. As you know, SkIO is a multidisciplinary, research-focused campus within the University System of Georgia. The Institute's primary goals are to further understanding of marine and environmental sciences, conduct leading edge research on marine and coastal systems, and train tomorrow's scientists. The campus serves as a gateway to marine environments and helps to integrate marine programs throughout the University System. The Institute strives to create a more knowledgeable citizen capable of promoting sound utilization of natural coastal and marine resources while capitalizing on coastal economic opportunities. Research activities at the Institute are conducted on scales ranging from local economic and environmental issues to global processes and phenomena.

As a partner to your efforts, SkIO will:

- consult on key understandings and research questions in STEM that are focused on the Georgia Lower Coastal Plain, relating to the Institute's past and existing research on coastal ecosystems,
- provide, where appropriate, educational opportunities related to the development of STEM modules by teachers associated with your project,
- provide access to research scientists for virtual classroom visits with STEM students in partner schools, and
- provide other opportunities for interactions with our research programs, as may become apparent during the course of the project.

We look forward to working with you in this important endeavor. I will serve as the primary point of contact for the Institute, and will help to identify appropriate research scientists and opportunities for collaborations. Please let me know if I can provide any further information during the proposal process.

Sincerely,

James G. Sanders  
Director

that are detailed in 34 CFR section 80.43 including putting the Partnership on reimbursement payment status, temporarily withholding funds, or disallowing costs.

### III. ASSURANCES

The Partnership hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
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### VI. SIGNATURES

**Partnership Executive Official – required:**

Deborah N Shaver 7/6/12  
Signature/Date

DEBORAH N SHAVEN, EXEC DIRECTOR  
Print Name/Title

Partnership Member

**Partnership Member – required:**

James G Sanders 6/27/2012  
Signature/Date

James G. Sanders, Director  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM partner – **Jenkins County Schools**. The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. **Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State**

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### VI. SIGNATURES

**Partnership Executive Official – required:**

Tara Couper / 6-27-12  
Signature/Date

Tara Couper / Superintendent  
Print Name/Title

Partnership Member

**Partnership Member – required:**

Deborah N Shaver 7/6/12  
Signature/Date

DEBORAH N SHAVER, EXEC DIRECTOR  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

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**VI. SIGNATURES**

**Partnership Executive Official – required:**

Deborah N Shaver 7/6/12  
Signature/Date

DEBORAH N SHAVER, EXEC DIRECTOR  
Print Name/Title

Partnership Member

**Partnership Member – required:**

Fran Stephens 6/20/12  
Signature/Date

Fran Stephens, Interim Superintendent  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title



311 South East Street  
Kingsland, GA 31548

Telephone: (912) 729-5687  
Fax: (912) 729-1489

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Dr. William C. Hardin, Superintendent

Drs. Robert Mayes and Tom Koballa  
College of Education  
P.O. Box 8013  
Georgia Southern University  
Statesboro, GA 30460

Dear Drs. Mayes and Koballa:

Camden County Schools is excited about partnering with Georgia Southern University to carry out the Real STEM project. The project has the potential to bring about meaningful change to the STEM learning experiences of students across our school system. Through participating in the project, Camden County Schools will have the opportunity to build and implement a STEM career pathway that is tailored to the needs of students in South Georgia. In addition, the project will enable our teachers to develop understandings that will enable them to teach in ways that support the Common Core Standards and the Next Generation Science Standards.

As a project partner, Camden County Schools agrees to recruit an interdisciplinary team of STEM teachers to participate in a Professional Learning Community (PLC). The PLC will meet during a common planning time to plan the implementation of interdisciplinary problem-based STEM modules, and at least one member of the PLC will pilot a module in his/her classroom in Spring 2013. From the PLC, two teachers will be selected to work with scientists, engineers and mathematicians from Georgia Southern University and from research institutes in South Georgia to develop interdisciplinary problem-based STEM modules. In addition, teachers from the PLC will be recruited to participate in summer professional development experiences that include fieldwork with scientists, engineers and/or mathematicians as well as a pedagogical workshop. Based on results of the Spring 2013 pilot and in consultation with Real STEM project coordinators and school administrators, the PLC will determine the feasibility, and if appropriate develop a plan, to implement a STEM career pathways course and additional STEM modules during the 2013-2014 school year and beyond.

Camden County Schools views participation in the project as an opportunity to strengthen the STEM learning opportunities for students. The project will also provide students with information about STEM careers and the academic preparation needed for the careers. Again, Camden County Schools is excited about partnering with Georgia Southern University to carry out the Real STEM project.

Sincerely,

William C. Hardin, Ed.D.,  
Superintendent of Schools

---

Board Members:

Herbert Rowland, Chairperson · Daniel Simpson, Vice-Chairperson  
Doug Benton · Jimmy Coffel · Jane Brown

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM partner - **Camden County Schools**. The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. **Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State**

### I. SCOPE OF WORK

Exhibit 1, the Preliminary Scope of Work, indicates the work that the Partnership is agreeing to implement.

### II. PROJECT ADMINISTRATION

#### A. PARTNERSHIP RESPONSIBILITIES

The Partnership agrees to:

- 1) Implement the plan as identified in Exhibit I of this agreement;
- 2) Actively participate in all relevant convenings, communities of practice, or other practice-sharing events that are organized or sponsored by GOSA, the Georgia Department of Education, and the US Department of Education;
- 3) Post to any website specified by the State in a timely manner, all non-proprietary products and lessons learned using funds associated with the Innovation Fund;
- 4) Participate, as requested, in any evaluations of this grant conducted by the State or agency conducting business on behalf of the State;
- 5) Be responsive to State requests for information including the status of the project, project implementation, outcomes, and any problems anticipated or encountered; and
- 6) Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the Innovation Fund grant period, and (d) other matters related to the Innovation Fund grant and associated plans.

#### B. STATE RESPONSIBILITIES

The State agrees to:

- 1) Timely distribute the Partnership's grant during the course of the project period;
- 2) Provide feedback on the Partnership's status updates, annual reports, any interim reports, and projects plans and products; and
- 3) Identify sources of technical assistance for the project.

#### C. JOINT RESPONSIBILITIES

- 1) GOSA and the Partnership will each appoint a key contact person for the Innovation Fund grant.
- 2) These key contacts from GOSA and the Partnership will maintain frequent communication to facilitate cooperation under this MOU.
- 3) State and Partnership grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the grant period.
- 4) State and Partnership grant personnel will negotiate in good faith to continue to achieve the overall goals of the Innovation Fund.

#### D. STATE RECOURSE FOR PARTNERSHIP NON-PERFORMANCE

If GOSA determines that the Partnership is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, GOSA will take appropriate enforcement action, which could include a collaborative process between GOSA and the Partnership, or any of the enforcement measures

that are detailed in 34 CFR section 80.43 including putting the Partnership on reimbursement payment status, temporarily withholding funds, or disallowing costs.

**III. ASSURANCES**

The Partnership hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
- 2) Agrees to implement the work indicated in Exhibit I, if funded;
- 3) Will comply with all terms of the grant and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Race to the Top program and the applicable provisions of EDGAR (34 CFR Parts 74,75, 77, 79, 80, 81, 82, 84, 85, 86, 97, 98 and 99).

**IV. MODIFICATIONS**

This Memorandum of Understanding may be amended only by written agreement signed by each of the parties involved.

**V. DURATION/TERMINATION**

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

Partnership Executive Official – required:

*Dr. James L. Gibbs*  
Signature/Date

Dr. James L. Gibbs Director of Secondary Instruction  
Print Name/Title

Partnership Member

Partnership Member – required:

*Deborah N. Shaver* 7/6/12  
Signature/Date

DEBORAH N. SHAVEL, EXEC DIRECTOR  
Print Name/Title

Partnership Member – required:

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

# TREUTLEN COUNTY SCHOOLS

5040 South Third Street  
Soperton, Georgia 30457  
Telephone (912) 529-4228  
Facsimile (912) 529-4226

CHARLES E. ELLINGTON, JR.  
Superintendent

BOARD MEMBERS  
Alvin Heath, Chairman  
Jeff Ralford, Vice Chairman  
Leo Gillis  
Keith Edge  
Demetria Noble

June 29, 2012

Drs. Robert Mayes and Tom Koballa  
College of Education  
P.O. Box 8013  
Georgia Southern University  
Statesboro, GA 30460

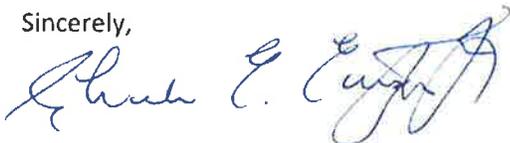
Dear Drs. Mayes and Koballa:

Treutlen County Schools is excited about partnering with Georgia Southern University to carry out the Real STEM project. The project has the potential to bring about meaningful change to the STEM learning experiences of students across our school system. Through participating in the project, Treutlen County Schools will have the opportunity to build and implement a STEM career pathway that is tailored to the needs of students in South Georgia. In addition, the project will enable our teachers to develop understandings that will enable them to teach in ways that support the Common Core Standards and the Next Generation Science Standards.

As a project partner, Treutlen County Schools agrees to recruit an interdisciplinary team of STEM teachers to participate in a Professional Learning Community (PLC). The PLC will meet during a common planning time to plan the implementation of interdisciplinary problem-based STEM modules, and at least one member of the PLC will pilot a module in his/her classroom in Spring 2013. From the PLC, two teachers will be selected to work with scientists, engineers and mathematicians from Georgia Southern University and from research institutes in South Georgia to develop interdisciplinary problem-based STEM modules. In addition, teachers from the PLC will be recruited to participate in summer professional development experiences that include fieldwork with scientists, engineers and/or mathematicians as well as a pedagogical workshop. Based on results of the Spring 2013 pilot and in consultation with Real STEM project coordinators and school system administrators, the PLC will determine the feasibility, and if appropriate develop a plan, to implement a STEM career pathways course and additional STEM modules during the 2013-2014 school year and beyond.

Treutlen County Schools views participation in the project as an opportunity to strengthen the STEM learning opportunities for students. The project will also provide students with information about STEM careers and the academic preparation needed for the careers. We look forward to work with Georgia Southern University to carry out the Real STEM project.

Sincerely,



Charles E. Ellington, Jr.  
Superintendent

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM partner - **Treutlen County Schools**. The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. **Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State**

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The State agrees to:

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- 2) Provide feedback on the Partnership's status updates, annual reports, any interim reports, and projects plans and products; and
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#### C. JOINT RESPONSIBILITIES

- 1) GOSA and the Partnership will each appoint a key contact person for the Innovation Fund grant.
- 2) These key contacts from GOSA and the Partnership will maintain frequent communication to facilitate cooperation under this MOU.
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#### D. STATE RECOURSE FOR PARTNERSHIP NON-PERFORMANCE

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**III. ASSURANCES**

The Partnership hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
- 2) Agrees to implement the work indicated in Exhibit I, if funded;
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This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

**Partnership Executive Official – required:**

Deborah N Shaver                      7/6/12  
Signature/Date

DEBORAH N SHAYER, EXEC DIRECTOR  
Print Name/Title

Partnership Member

**Partnership Member – required:**

Charles E. Ellington, Jr.                      06-29-12  
Signature/Date

Charles E. Ellington, Jr. - Superintendent  
Print Name/Title

**Partnership Member – required:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title



## ***BURKE COUNTY PUBLIC SCHOOLS***

---

***Rudolph Falana***  
***Superintendent***

***(706) 554-5101***

***789 Burke Veterans Parkway***  
***Waynesboro, GA 30830***

Drs. Robert Mayes and Tom Koballa  
College of Education  
P.O. Box 8013  
Georgia Southern University  
Statesboro, GA 30460

Dear Drs. Mayes and Koballa:

Burke County Schools is excited about partnering with Georgia Southern University to carry out the Real STEM project. The project has the potential to bring about meaningful change to the STEM learning experiences of students across our school system. Through participating in the project, Burke County Schools will have the opportunity to build and implement a STEM career pathway that is tailored to the needs of students in South Georgia. In addition, the project will enable our teachers to develop understandings that will enable them to teach in ways that support the Common Core Standards and the Next Generation Science Standards.

As a project partner, Burke County Schools agrees to recruit an interdisciplinary team of STEM teachers to participate in a Professional Learning Community (PLC). The PLC will meet during a common planning time to plan the implementation of interdisciplinary problem-based STEM modules, and at least one member of the PLC will pilot a module in his/her classroom in Spring 2013. From the PLC, two teachers will be selected to work with scientists, engineers and mathematicians from Georgia Southern University and from research institutes in South Georgia to develop interdisciplinary problem-based STEM modules. In addition, teachers from the PLC will be recruited to participate in summer professional development experiences that include fieldwork with scientists, engineers and/or mathematicians as well as a pedagogical workshop. Based on results of the Spring 2013 pilot and in consultation with Real STEM project coordinators and school system administrators, the PLC will determine the feasibility, and if appropriate develop a plan, to implement a STEM career pathways course and additional STEM modules during the 2013-2014 school year and beyond.

Burke County Schools views participation in the project as an opportunity to strengthen the STEM learning opportunities for students. The project will also provide students with information about STEM careers and the academic preparation needed for the careers. Contingent upon local Board approval, we look forward to working with Georgia Southern University to carry out the Real STEM project.

Sincerely,

A handwritten signature in blue ink that reads "Rudy Falana".

Rudy Falana, Superintendent

Burke County Board of Education  
Johnny Jenkins, Chairman • Greg Chandler, Vice-Chairman  
Lynn Crews • Dr. Ruby Saxon Myles • Larry Preston

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM partner – **Burke County Schools**. The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State

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The State agrees to:

- 1) Timely distribute the Partnership's grant during the course of the project period;
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**IV. MODIFICATIONS**

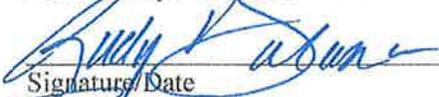
This Memorandum of Understanding is a temporary agreement, which is contingent upon approval or lack thereof by the local Board of Education.

**V. DURATION/TERMINATION**

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

Partnership Executive Official – required:

  
\_\_\_\_\_  
Signature/Date

RUDY FALANA - Superintendent  
Print Name/Title

Partnership Member

Partnership Member -- required:

 7/6/12  
\_\_\_\_\_  
Signature/Date

DEBORAH N SHAVEL, EXEC DIRECTOR  
Print Name/Title

Partnership Member – required:

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

# Ossabaw Island Education Alliance

Coastal Georgia Center

305 Fahm Street • Savannah, GA 31401

July 2, 2012

Dr. Robert Mayes  
Department of Teaching and Learning  
Georgia Southern University  
P.O. Box 8022  
Statesboro, GA 30460-8022

Dear Dr. Mayes,

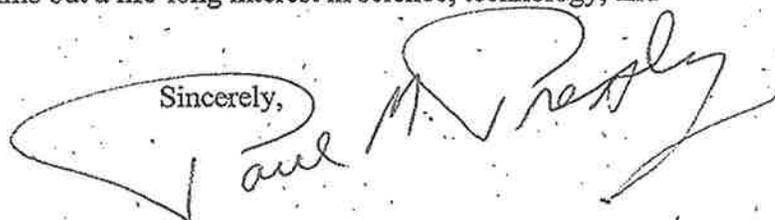
The Ossabaw Island Education Alliance is pleased to participate as a partner with Georgia Southern University in implementing the Race-to-the-Top Innovation proposal, Real STEM. The Alliance is a partnership between the Board of Regents, the Georgia Department of Natural Resources, and the Ossabaw Island Foundation.

With its 26,000-acres of marsh and maritime forest, Ossabaw Island is a living laboratory for monitoring environmental change and for exploring the impact of human beings over the centuries. The Governor's Executive Order of 1978 reserves the island only for study, research, and education and does not permit recreation. No bridge may be built, and less than six people live there. Educators and students from university to elementary-school levels gather on the island to teach and learn from each other in a setting where the human footprint is light.

Georgia Southern University brings students for learning experiences. Armstrong Atlantic State University received a \$1.2 million grant from the National Science Foundation to bring inner city students onto the island to explore technology. Hundreds of students and teachers come for a holistic experience of nature and culture.

The Alliance is eager to participate in your proposal, which offers so much to address the needs of young people in acquiring not just skills but a life-long interest in science, technology, and mathematics.

Sincerely,



Paul M. Pressly

Ossabaw Island Education Alliance

A collaborative effort led by the Ossabaw Island Foundation,  
the Georgia Department of Natural Resources,  
and the Board of Regents of the University System of Georgia

Paul M. Pressly, Ph.D., Director

Office: 912-651-2440 • Mobile: 912-398-2651 • Fax: 912-644-7901  
ppressly@ossabawisland.org • www.ossabawisland.org

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the Governor's Office of Student Achievement (GOSA) and Real STEM (Partners). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of approved Innovation Fund projects. Any partner named in the aforementioned project will only be considered a member of the partnership if they appear on this Memorandum of Understanding with the State

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### III. ASSURANCES

The Partnership hereby certifies and represents that it:

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### VI. SIGNATURES

Partnership Executive Official -- required:

Deborah N Shaver                      7/6/12  
Signature/Date

DEBORAH N SHAVEL, EXEC DIRECTOR  
Print Name/Title

Partnership Member

Partnership Member -- required:

Paul M. Pterry, July 2, 2012  
Signature/Date

Paul M. Pterry, Director  
Print Name/Title                      Ossabaw Island Education Alliance

Partnership Member -- required:

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Office of National Marine Sanctuaries  
Gray's Reef National Marine Sanctuary  
10 Ocean Science Circle  
Savannah, GA 31411

5 July 2012

Robert Mayes  
Department of Teaching and Learning  
Georgia Southern University  
P.O. Box 8134  
Statesboro GA 30460

Dear Bob:

Gray's Reef National Marine Sanctuary supports your proposal to the Georgia Race to the Top Innovation Fund, for your project, "Real STEM". I have begun the process to establish an MOU between GRNMS and GSU to facilitate this.

GRNMS currently engages in several STEM projects and workshops that can complement your proposed STEM program, and further our education and outreach. We have a permanent staff position for education, and she and the rest of the staff are engaged in research that supports material for STEM education programs. We conduct several teacher workshops each year that include hands-on field experiences for middle and high school teachers. The workshops include technology workshops for teachers and students (ROV competitions) and a "Rivers to Reefs" field experience that engages teachers in making observations in environmental gradients along Atlantic drainages from Atlanta to Gray's Reef. In addition, staff is available to make remote or on-site science and technology presentations to groups of students and teachers. Our education programs can gain further reach by partnering with your proposed STEM program.

The goal of research and education programs we like to see supported in Gray's Reef has recently become less focused on simple site characterization and more focused on the large scale processes and their effects on the ecosystem as a whole, from watershed that affect the reef, to the Gulf Stream that influences its fauna. We have available seafloor observatories to provide real-time data to scientists, teachers and students, and we conduct annual expeditions to the sanctuary aboard a large NOAA research vessel. These expeditions include a teacher at sea program that could incorporate teachers from your proposed program.

Gray's Reef is prepared to support your proposal with in-kind support (staff time, educational materials) for your project.

We appreciate the opportunity to collaborate with you to increase STEM education opportunities in Georgia and at Gray's Reef National Marine Sanctuary.

Sincerely,

George R. Sedberry, Ph.D.  
Sanctuary Superintendent





## The University of Georgia

Marine Extension Service  
*Marine Education Center and Aquarium*

July 2, 2012

Dr. Robert Mayes  
College of Education  
Georgia Southern University  
Statesboro GA 30460

Dear Dr. Mayes:

This Letter of Support is offered on behalf of the University of Georgia Marine Extension Service's Marine Education Center and Aquarium. We will pursue the potential steps for securing the MOU required for the partnership. We are pleased to be included as a potential partner on your Race to the Top Innovation Real Grant STEM Proposal and support the objectives of the project in the following ways.

- The University of Georgia Marine Extension Service will provide educational opportunities related to the development of STEM modules by the teachers and collaborate on the development of field campaigns where teachers engage with scientists on the Skidaway Campus.
- The Marine Extension Service's Marine Education Center and Aquarium on Skidaway Island will be a potential site for field trips for partner school STEM students.
- The Marine Extension Service will collaborate by sharing STEM materials they have created for teachers and other educational opportunities.

The University of Georgia Marine Extension Service is a unit of the Public Service and Outreach Division of the University of a Georgia. The Marine Education Center and Aquarium on Skidaway Island has served as the education arm of the Marine Extension Service since 1972.

The Center's mission is to develop the public's understanding and appreciation of the numerous coastal marine environments in the state of Georgia, and to foster respect for the beauty and complexity of these environments. The mission is fulfilled through dynamic programs delivered by professional personnel at a unique coastal facility and via diverse field sites. We encourage stewardship of ocean and coastal resources and provide opportunities that allow individuals to make informed decisions about coastal issues and environmental challenges.

The Marine Education Center and Aquarium operates year round and offers a hands-on, feet-in approach to learning about coastal ecology and marine science. Programs are available to students in grades PK-12 and college, teachers, and public audiences. Field-based, laboratory, and discussion programs address a diversity of marine science and coastal ecology topics. All programs are aligned with Georgia Performance, National Science, and Ocean Literacy Standards.

We look forward to this potential collaboration and those that may follow in the future.

Sincerely,

Anne Lindsay Frick  
Associate Director for Marine Education

Cc: Dr. Randal Walker, Director, Marine Extension Service

## ASSURANCES

The Applicant hereby assures and certifies compliance with all federal statutes, regulations, policies, guidelines and requirements, including OMB Circulars No. A-21, A-87, A-110, A-122, A-133; E.O. 12372 and Uniform Administrative Requirements for Grants and Cooperative Agreements 28 CFR, Part 66, Common rule, that govern the application, acceptance and use of federal funds for this federally-assisted project.

Also the Applicant assures and certifies that:

1. It possesses legal authority to apply for the grant; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information
2. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of federal and federally - assisted programs.
3. It will comply with provisions of federal law which limit certain political activities of employees of a State or local unit of government whose principal employment is in connection with an activity financed in whole or in part by federal grants. (5 USC 1501, et seq.)
4. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act if applicable.
5. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.
6. It will give the sponsoring agency or the Comptroller General, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the grant.
7. It will comply with all requirements imposed by the federal sponsoring agency concerning special requirements of law, program requirements, and other administrative requirements.
8. It will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.
9. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976, Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The phrase "federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect federal assistance.
10. It will assist the federal grantor agency in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 USC 470), Executive Order 11593, and the Archeological and Historical Preservation Act of 1966 (16 USC 569 a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties

listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effects (see 36 CFR Part 800.8) by the activity, and notifying the federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the federal grantor agency to avoid or mitigate adverse effects upon such properties.

11. It will comply, and assure the compliance of all its sub-grantees and contractors, with the applicable provisions of Title I of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, the Juvenile Justice and Delinquency Prevention Act, or the Victims of Crime Act, as appropriate; the provisions of the current edition of the Office of Justice Programs Financial and Administrative Guide for Grants, M7100.1; and all other applicable federal laws, orders, circulars, or regulations.
12. It will comply with the provisions of 28 CFR applicable to grants and cooperative agreements including Part 18, Administrative Review Procedure; Part 20, Criminal Justice Information Systems; Part 22, Confidentiality of Identifiable Research and Statistical Information; Part 23, Criminal Intelligence Systems Operating Policies; Part 30, Intergovernmental Review of Department of Justice Programs and Activities; Part 42, Nondiscrimination/Equal Employment Opportunity Policies and Procedures; Part 61, Procedures for Implementing the National Environmental Policy Act; Part 63, Floodplain Management and Wetland Protection Procedures; and federal laws or regulations applicable to Federal Assistance Programs.
13. It will comply, and all its contractors will comply, with the nondiscrimination requirements of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, 42 USC 3789(d), or Victims of Crime Act (as appropriate); Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973, as amended; Subtitle A, Title II of the Americans with Disabilities Act (ADA) (1990); Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975; Department of Justice Non-Discrimination Regulations, 28 CFR Part 42, Subparts C, D, E, and G; and Department of Justice regulations on disability discrimination, 28 CFR Part 35 and Part 39.
14. In the event a federal or state court or federal or state administrative agency makes a finding of discrimination after a due process hearing on the grounds of race, color, religion, national origin, sex, or disability against a recipient of funds, the recipient will forward a copy of the finding to the Office for Civil Rights, Office of Justice Programs.
15. It will provide an Equal Employment Opportunity Program if required to maintain one, where the application is for \$500,000 or more.
16. It will comply with the provisions of the Coastal Barrier Resources Act (P.L. 97-348) dated October 19, 1982 (16 USC 3501 et seq.) which prohibits the expenditure of most new federal funds within the units of the Coastal Barrier Resources System.
17. It will comply will all ARRA requirements. All funds must be spent with an unprecedented level of transparency and accountability. Accordingly, recipients of ARRA funds must maintain accurate, complete, and reliable documentation of all ARRA expenditures.

Authorizing Official:

Deborah N. Shaver, Executive Director



Signature and Title



Date

**NON-SUPPLANTING CERTIFICATION**

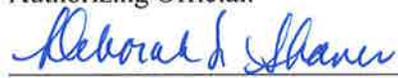
Regulations require certification to the effect that grant funds will not be used to increase state or local funds that would, in the absence of such grant aid, be made available for the purpose of this grant program.

**CERTIFICATION:**

I certify that grant funds will not be used to supplant state or local funds that would otherwise be available for implementation of this grant program.

I further certify that the program proposed in the grant application meets all the requirements of the applicable Race to the Top Innovation Fund Request for Proposal; that all the information presented is correct and that the applicant will comply with the provisions of the Governor's Office of Planning and Budget, all applicable federal and state laws, and the above mentioned certification should a grant be awarded.

Authorizing Official:



Deborah N. Shaver

Executive Director

Title

7/4/12  
Date

## IMMIGRATION AND SECURITY FORM

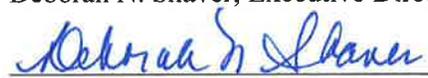
A. In order to insure compliance with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act OCGA 13-10-90 et.seq., Contractor must initial one of the sections below:

Contractor has 500 or more employees and Contractor warrants that Contractor has complied with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act by registering at <https://www.vis-dhs.com/EmployerRegistration> and verifying information of all new employees; and by executing any affidavits required by the rules and regulations issued by the Georgia Department of Labor set forth at Rule 300-10-1-.01 et.seq. Contractor has 100-499 employees and Contractor warrants that no later than July 1, 2008, Contractor will register at <https://www.visdhs.com/EmployerRegistration> to verify information of all new employees in order to comply with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act; and by executing any affidavits required by the rules and regulations issued by the Georgia Department of Labor set forth at Rule 300-10-1-.01 et.seq. Contractor has 99 or fewer employees and Contractor warrants that no later than July 1, 2009, Contractor will register at <https://www.visdhs.com/EmployerRegistration> to verify information of all new employees in order to comply with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act; and by executing any affidavits required by the rules and regulations issued by the Georgia Department of Labor set forth at Rule 300-10-1-.01 et.seq.

B. Contractor warrants that Contractor has included a similar provision in all written agreements with any subcontractors engaged to perform site under this Contract.

Authorizing Official:

Deborah N. Shaver, Executive Director



Signature and Title



Date

**CERTIFICATION REGARDING LOBBYING (ED 80-0013)**

Certification for Contracts, Grants, Loans and Cooperative Agreements.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal Loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- 2) If any funds other Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, “Disclosure of Lobbying Activities,” in accordance with its instructions.
- 3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

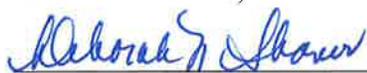
Statement for Loan Guarantees and Loan Insurance.

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any agency, a member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, “Disclosure of Lobbying Activities,” in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Authorizing Official:

Deborah N. Shaver, Executive Director



Signature and Title

7/6/12  
Date

## OTHER CERTIFICATIONS

Regulations require certification to the effect that grant funds will not be used to increase state or local funds that would, in the absence of such grant aid, be made available for the purpose of this grant program.

1. Any person associated with the program that has reasonable cause to believe that a child has been or is being abused, shall be required to report or cause report to be made with regard to the abuse as provided in O.C.G.A. 19-7-5.
2. Background investigations (Georgia Crime Information Center) are required on all persons with direct contact with children and youth. It is left to the discretion of the Partnership to determine the methodology for completing these investigations.
3. Establish/enforce an Internet Security Policy when minor participants and/or staff have online access (supervised or unsupervised). This includes any technology provided by PLC funding and technology used by participants.
4. The grantee agrees to comply with Public Law 103-227, also known as the Pro-Children Act of 1994, which requires that smoking not be permitted in any portion of any indoor facility owed or leased or contracted for by the grantee and used routinely or regularly for the provision of healthy care, day care, early childhood development site, education or library site to children under the age of 18. Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty up to \$1,000 for each violation and/or the imposition of an administrative compliance order on the grantee.

Authorizing Official:



Deborah N. Shaver

Executive Director

Title

7/6/12

Date

**2010 Exempt Organization Business Tax Return**  
prepared for:

**Georgia Southern University Research and Service Foundation, Inc.**  
P.O. Box 8005  
Statesboro, GA 30460

**Thigpen, Lanier, Westerfield & Deal**  
P.O. Box 505  
Statesboro, GA 30459

# Return of Organization Exempt From Income Tax

**2010**

Department of the Treasury  
Internal Revenue Service

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code  
(except black lung benefit trust or private foundation)

Open to Public  
Inspection

▶ The organization may have to use a copy of this return to satisfy state reporting requirements.

**A For the 2010 calendar year, or tax year beginning** Jul 1 , 2010, **and ending** Jun 30 , 2011

<b>B</b> Check if applicable: <input type="checkbox"/> Address change <input type="checkbox"/> Name change <input type="checkbox"/> Initial return <input type="checkbox"/> Terminated <input type="checkbox"/> Amended return <input type="checkbox"/> Application pending	<b>C</b> Name of organization <u>Georgia Southern University Research and Service Foundation, Inc.</u>		<b>D</b> Employer Identification Number <u>58-2354256</u>
	Doing Business As		<b>E</b> Telephone number <u>(912) 478-5121</u>
	Number and street (or P.O. box if mail is not delivered to street addr) Room/suite <u>P.O. Box 8005</u>		<b>G</b> Gross receipts \$ <u>5,841,798.</u>
	City, town or country State ZIP code + 4 <u>Statesboro GA 30460</u>		
<b>F</b> Name and address of principal officer: <u>Deborah N. Shaver P.O. Box 8005 Statesboro GA 30460</u>			<b>H(a)</b> Is this a group return for affiliates? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<b>H(b)</b> Are all affiliates included? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "No," attach a list. (see instructions)
<b>I</b> Tax-exempt status <input checked="" type="checkbox"/> 501(c)(3) <input type="checkbox"/> 501(c) ( ) (insert no.) <input type="checkbox"/> 4947(a)(1) or <input type="checkbox"/> 527			
<b>J</b> Website: ▶ <u>N/A</u>			
<b>K</b> Form of organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Trust <input type="checkbox"/> Association <input type="checkbox"/> Other ▶			<b>L</b> Year of Formation: <u>1997</u>
			<b>M</b> State of legal domicile: <u>GA</u>

**Part I Summary**

<b>Activities &amp; Governance</b>	<b>1</b> Briefly describe the organization's mission or most significant activities: <u>Assist and Further Research at Georgia Southern University</u>		
	2 Check this box <input type="checkbox"/> if the organization discontinued its operations or disposed of more than 25% of its net assets.		
	3	Number of voting members of the governing body (Part VI, line 1a)	5
	4	Number of independent voting members of the governing body (Part VI, line 1b)	5
	5	Total number of individuals employed in calendar year 2010 (Part V, line 2a)	0
	6	Total number of volunteers (estimate if necessary)	0
	7a	Total unrelated business revenue from Part VIII, column (C), line 12	0.
	b Net unrelated business taxable income from Form 990-T, line 34		
<b>Revenue</b>	8	Contributions and grants (Part VIII, line 1h)	Prior Year: 5,896,519. Current Year: 5,831,509.
	9	Program service revenue (Part VIII, line 2g)	
	10	Investment income (Part VIII, column (A), lines 3, 4, and 7d)	21,707. 10,289.
	11	Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)	5,100.
	12	Total revenue - add lines 8 through 11 (must equal Part VIII, column (A), line 12)	5,923,326. 5,841,798.
<b>Expenses</b>	13	Grants and similar amounts paid (Part IX, column (A), lines 1-3)	5,653,274. 5,622,056.
	14	Benefits paid to or for members (Part IX, column (A), line 4)	
	15	Salaries, other compensation, employee benefits (Part IX, column (A), lines 5-10)	8,225.
	16a	Professional fundraising fees (Part IX, column (A), line 11e)	
	b	Total fundraising expenses (Part IX, column (D), line 25) ▶	0.
	17	Other expenses (Part IX, column (A), lines 11a-11d, 11f-24f)	75,723. 67,659.
	18	Total expenses. Add lines 13-17 (must equal Part IX, column (A), line 25)	5,728,997. 5,697,940.
19	Revenue less expenses. Subtract line 18 from line 12	194,329. 143,858.	
<b>Net Assets or Fund Balances</b>	20	Total assets (Part X, line 16)	Beginning of Current Year: 2,899,638. End of Year: 3,450,672.
	21	Total liabilities (Part X, line 26)	2,076,965. 2,484,141.
	22	Net assets or fund balances. Subtract line 21 from line 20	822,673. 966,531.

**Part II Signature Block**

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

<b>Sign Here</b>	Signature of officer	Date
	<u>Deborah N. Shaver</u> Type or print name and title.	

<b>Paid Preparer Use Only</b>	Print/Type preparer's name	Preparer's signature	Date	Check <input type="checkbox"/> if self-employed	PTIN
	<u>Richard N Deal, CPA</u>		<u>11/08/11</u>		
	Firm's name ▶ <u>Thigpen, Lanier, Westerfield &amp; Deal</u>	Firm's address ▶ <u>P.O. Box 505</u> <u>Statesboro GA 30459</u>		Firm's EIN ▶	Phone no. <u>(912) 489-8756</u>

May the IRS discuss this return with the preparer shown above? (see instructions)  Yes  No

Part III Statement of Program Service Accomplishments

Check if Schedule O contains a response to any question in this Part III

1 Briefly describe the organization's mission:
Assist and Further Research at Georgia Southern University

2 Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ? Yes No

3 Did the organization cease conducting, or make significant changes in how it conducts, any program services? Yes No

4 Describe the exempt purpose achievements for each of the organization's three largest program services by expenses. Section 501(c)(3) and 501(c)(4) organizations and section 4947(a)(1) trusts are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported.

4a (Code: ) (Expenses \$ 5,622,056. including grants of \$ 5,622,056.) (Revenue \$ 5,831,509.)
The foundation assists, supports, and furthers the research, service, and educational missions of Georgia Southern University.

4b (Code: ) (Expenses \$ including grants of \$ ) (Revenue \$ )

4c (Code: ) (Expenses \$ including grants of \$ ) (Revenue \$ )

4d Other program services. (Describe in Schedule O.)
(Expenses \$ including grants of \$ ) (Revenue \$ )

4e Total program service expenses 5,622,056.

**Part IV Checklist of Required Schedules**

		Yes	No
1	Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If 'Yes,' complete Schedule A .....	X	
2	Is the organization required to complete Schedule B, Schedule of Contributors? (see instructions) .....		X
3	Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? If 'Yes,' complete Schedule C, Part I .....		X
4	<b>Section 501(c)(3) organizations.</b> Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? If 'Yes,' complete Schedule C, Part II .....		X
5	Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 98-19? If 'Yes,' complete Schedule C, Part III .....		
6	Did the organization maintain any donor advised funds or any similar funds or accounts where donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? If 'Yes,' complete Schedule D, Part I .....		X
7	Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas or historic structures? If 'Yes,' complete Schedule D, Part II .....		X
8	Did the organization maintain collections of works of art, historical treasures, or other similar assets? If 'Yes,' complete Schedule D, Part III .....		X
9	Did the organization report an amount in Part X, line 21; serve as a custodian for amounts not listed in Part X; or provide credit counseling, debt management, credit repair, or debt negotiation services? If 'Yes,' complete Schedule D, Part IV .....		X
10	Did the organization, directly or through a related organization, hold assets in term, permanent, or quasi-endowments? If 'Yes,' complete Schedule D, Part V .....		X
11	If the organization's answer to any of the following questions is 'Yes,' then complete Schedule D, Parts VI, VII, VIII, IX, or X as applicable.		
a	Did the organization report an amount for land, buildings and equipment in Part X, line 10? If 'Yes,' complete Schedule D, Part VI .....	X	
b	Did the organization report an amount for investments— other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 16? If 'Yes,' complete Schedule D, Part VII .....		X
c	Did the organization report an amount for investments— program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 16? If 'Yes,' complete Schedule D, Part VIII .....		X
d	Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 16? If 'Yes,' complete Schedule D, Part IX .....		X
e	Did the organization report an amount for other liabilities in Part X, line 25? If 'Yes,' complete Schedule D, Part X .....	X	
f	Did the organization's separate or consolidated financial statements for the tax year include a footnote that addresses the organization's liability for uncertain tax positions under FIN 48 (ASC 740)? If 'Yes,' complete Schedule D, Part X .....		X
12a	Did the organization obtain separate, independent audited financial statements for the tax year? If 'Yes,' complete Schedule D, Parts XI, XII, and XIII .....	X	
b	Was the organization included in consolidated, independent audited financial statements for the tax year? If 'Yes,' and if the organization answered 'No' to line 12a, then completing Schedule D, Parts XI, XII, and XIII is optional .....		X
13	Is the organization a school described in section 170(b)(1)(A)(ii)? If 'Yes,' complete Schedule E .....		X
14a	Did the organization maintain an office, employees, or agents outside of the United States? .....		X
b	Did the organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business, and program service activities outside the United States? If 'Yes,' complete Schedule F, Parts I and IV .....		X
15	Did the organization report on Part IX, column (A), line 3, more than \$5,000 of grants or assistance to any organization or entity located outside the United States? If 'Yes,' complete Schedule F, Parts II and IV .....		X
16	Did the organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or assistance to individuals located outside the United States? If 'Yes,' complete Schedule F, Parts III and IV .....		X
17	Did the organization report a total of more than \$15,000 of expenses for professional fundraising services on Part IX, column (A), lines 6 and 11e? If 'Yes,' complete Schedule G, Part I (see instructions) .....		X
18	Did the organization report more than \$15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8a? If 'Yes,' complete Schedule G, Part II .....		X
19	Did the organization report more than \$15,000 of gross income from gaming activities on Part VIII, line 9a? If 'Yes,' complete Schedule G, Part III .....		X
20 a	Did the organization operate one or more hospitals? If 'Yes,' complete Schedule H .....		X
b	If 'Yes' to line 20a, did the organization attach its audited financial statements to this return? <b>Note.</b> Some Form 990 filers that operate one or more hospitals must attach audited financial statements (see instructions) .....		

**Part IV Checklist of Required Schedules (continued)**

	Yes	No
21 Did the organization report more than \$5,000 of grants and other assistance to governments and organizations in the United States on Part IX, column (A), line 1? <i>If 'Yes,' complete Schedule I, Parts I and II</i> .....	X	
22 Did the organization report more than \$5,000 of grants and other assistance to individuals in the United States on Part IX, column (A), line 2? <i>If 'Yes,' complete Schedule I, Parts I and III</i> .....		X
23 Did the organization answer 'Yes' to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? <i>If 'Yes,' complete Schedule J</i> .....		X
24a Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than \$100,000 as of the last day of the year, and that was issued after December 31, 2002? <i>If 'Yes,' answer lines 24b through 24d and complete Schedule K. If 'No,' go to line 25</i> .....		X
b Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception? .....		
c Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds? .....		
d Did the organization act as an 'on behalf of' issuer for bonds outstanding at any time during the year? .....		
25a <b>Section 501(c)(3) and 501(c)(4) organizations.</b> Did the organization engage in an excess benefit transaction with a disqualified person during the year? <i>If 'Yes,' complete Schedule L, Part I</i> .....		X
b Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? <i>If 'Yes,' complete Schedule L, Part I</i> .....		X
26 Was a loan to or by a current or former officer, director, trustee, key employee, highly compensated employee, or disqualified person outstanding as of the end of the organization's tax year? <i>If 'Yes,' complete Schedule L, Part II</i> .....		X
27 Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor, or a grant selection committee member, or to a person related to such an individual? <i>If 'Yes,' complete Schedule L, Part III</i> .....		X
28 Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions):		
a A current or former officer, director, trustee, or key employee? <i>If 'Yes,' complete Schedule L, Part IV</i> .....		X
b A family member of a current or former officer, director, trustee, or key employee? <i>If 'Yes,' complete Schedule L, Part IV</i> .....		X
c An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If 'Yes,' complete Schedule L, Part IV</i> .....		X
29 Did the organization receive more than \$25,000 in non-cash contributions? <i>If 'Yes,' complete Schedule M</i> .....		X
30 Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If 'Yes,' complete Schedule M</i> .....		X
31 Did the organization liquidate, terminate, or dissolve and cease operations? <i>If 'Yes,' complete Schedule N, Part I</i> .....		X
32 Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If 'Yes,' complete Schedule N, Part II</i> .....		X
33 Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? <i>If 'Yes,' complete Schedule R, Part I</i> .....		X
34 Was the organization related to any tax-exempt or taxable entity? <i>If 'Yes,' complete Schedule R, Parts II, III, IV, and V, line 1</i> .....		X
35 Is any related organization a controlled entity within the meaning of section 512(b)(13)? .....		X
a Did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? <i>If 'Yes,' complete Schedule R, Part V, line 2</i> ..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
36 <b>Section 501(c)(3) organizations.</b> Did the organization make any transfers to an exempt non-charitable related organization? <i>If 'Yes,' complete Schedule R, Part V, line 2</i> .....		X
37 Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? <i>If 'Yes,' complete Schedule R, Part VI</i> .....		X
38 Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11 and 19? <b>Note.</b> All Form 990 filers are required to complete Schedule O .....	X	

**Part V** Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response to any question in this Part V

		Yes	No
1a	Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable		
1b	Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable		
1c	Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?	X	
2a	Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return		
2b	If at least one is reported on line 2a, did the organization file all required federal employment tax returns? <i>Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file. (see instructions)</i>		
3a	Did the organization have unrelated business gross income of \$1,000 or more during the year?		X
3b	If 'Yes' has it filed a Form 990-T for this year? If 'No,' provide an explanation in Schedule O.		
4a	At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?		X
4b	If 'Yes,' enter the name of the foreign country: See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts.		
5a	Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?		X
5b	Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?		X
5c	If 'Yes,' to line 5a or 5b, did the organization file Form 8886-T?		
6a	Does the organization have annual gross receipts that are normally greater than \$100,000, and did the organization solicit any contributions that were not tax deductible?		X
6b	If 'Yes,' did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?		
7	<b>Organizations that may receive deductible contributions under section 170(c).</b>		
7a	Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and services provided to the payor?		X
7b	If 'Yes,' did the organization notify the donor of the value of the goods or services provided?		
7c	Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282?		X
7d	If 'Yes,' indicate the number of Forms 8282 filed during the year		
7e	Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?		X
7f	Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?		X
7g	If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?		
7h	If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C?		
8	<b>Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations.</b> Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year?		X
9	<b>Sponsoring organizations maintaining donor advised funds.</b>		
9a	Did the organization make any taxable distributions under section 4966?		X
9b	Did the organization make a distribution to a donor, donor advisor, or related person?		X
10	<b>Section 501(c)(7) organizations.</b> Enter:		
10a	Initiation fees and capital contributions included on Part VIII, line 12		
10b	Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities		
11	<b>Section 501(c)(12) organizations.</b> Enter:		
11a	Gross income from members or shareholders		
11b	Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them.)		
12a	<b>Section 4947(a)(1) non-exempt charitable trusts.</b> Is the organization filing Form 990 in lieu of Form 1041?		
12b	If 'Yes,' enter the amount of tax-exempt interest received or accrued during the year		
13	<b>Section 501(c)(29) qualified nonprofit health insurance issuers.</b>		
13a	Is the organization licensed to issue qualified health plans in more than one state? <i>Note. See the instructions for additional information the organization must report on Schedule O.</i>		
13b	Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans		
13c	Enter the amount of reserves on hand		
14a	Did the organization receive any payments for indoor tanning services during the tax year?		X
14b	If 'Yes,' has it filed a Form 720 to report these payments? If 'No,' provide an explanation in Schedule O.		

**Part VI Governance, Management and Disclosure** For each 'Yes' response to lines 2 through 7b below, and for a 'No' response to line 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See instructions.

Check if Schedule O contains a response to any question in this Part VI

**Section A. Governing Body and Management**

		Yes	No
1 a	Enter the number of voting members of the governing body at the end of the tax year		
	<b>1 a</b>		5
b	Enter the number of voting members included in line 1a, above, who are independent		
	<b>1 b</b>		5
2	Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee or key employee?		X
3	Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors or trustees, or key employees to a management company or other person?		X
4	Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?		X
5	Did the organization become aware during the year of a significant diversion of the organization's assets?		X
6	Does the organization have members or stockholders?		X
7 a	Does the organization have members, stockholders, or other persons who may elect one or more members of the governing body?		X
	<b>7 a</b>		X
b	Are any decisions of the governing body subject to approval by members, stockholders, or other persons?		X
	<b>7 b</b>		X
8	Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following:		
a	The governing body?	X	
	<b>8 a</b>	X	
b	Each committee with authority to act on behalf of the governing body?	X	
	<b>8 b</b>	X	
9	Is there any officer, director or trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If 'Yes,' provide the names and addresses in Schedule O		X
	<b>9</b>		X

**Section B. Policies** (This Section B requests information about policies not required by the Internal Revenue Code.)

	Yes	No
10 a		X
	<b>10 a</b>	X
b		
	<b>10 b</b>	
11 a	X	
	<b>11 a</b>	X
b		
	<b>11 b</b>	
12 a	X	
	<b>12 a</b>	X
b	X	
	<b>12 b</b>	X
c	X	
	<b>12 c</b>	X
13	X	
	<b>13</b>	X
14	X	
	<b>14</b>	X
15		
a		X
	<b>15 a</b>	X
b		X
	<b>15 b</b>	X
16 a		X
	<b>16 a</b>	X
b		
	<b>16 b</b>	

**Section C. Disclosure**

- 17 List the states with which a copy of this Form 990 is required to be filed ▶ Georgia
- 18 Section 6104 requires an organization to make its Forms 1023 (or 1024 if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you make these available. Check all that apply.  
 Own website     Another's website     Upon request
- 19 Describe in Schedule O whether (and if so, how) the organization makes its governing documents, conflict of interest policy, and financial statements available to the public.
- 20 State the name, physical address, and telephone number of the person who possesses the books and records of the organization:  
 ▶ Krista Brinson, CPA Georgia Southern University Statesboro GA 30460 (912) 478-5121

**Part VII Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors**

Check if Schedule O contains a response to any question in this Part VII

**Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees**

1 a Complete this table for all persons required to be listed. Report compensation for the calendar year ending with or within the organization's tax year.

- List all of the organization's **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation. Enter -0- in columns (D), (E), and (F) if no compensation was paid.
- List all of the organization's **current** key employees, if any. See instructions for definition of 'key employee.'
- List the organization's five **current** highest compensated employees (other than an officer, director, trustee, or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than \$100,000 from the organization and any related organizations.
- List all of the organization's **former** officers, key employees, and highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations.
- List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations.

List persons in the following order: individual trustees or directors; institutional trustees; officers; key employees; highest compensated employees; and former such persons.

Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee.

(A) Name and title	(B) Average hours per week (describe hours for related organizations in Schedule O)	(C) Position (check all that apply)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional trustee	Officer	Key employee	Highest compensated employee	Former			
(1) <u>Debbie Shaver</u> Executive Director	0.00			X			0.	0.	0.	
(2) <u>Gary Means</u> Chair	0.00	X					0.	0.	0.	
(3) <u>Ron Core</u> Vice Chair	0.00	X					0.	0.	0.	
(4) <u>Lee Davis</u> Secretary	0.00	X					0.	0.	0.	
(5) <u>Billy Griffis</u> Board Member	0.00	X					0.	0.	0.	
(6) <u>Amy Heaston</u> Board Member	0.00	X					0.	0.	0.	
(7) _____										
(8) _____										
(9) _____										
(10) _____										
(11) _____										
(12) _____										
(13) _____										
(14) _____										
(15) _____										
(16) _____										
(17) _____										

**Part VII Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees (cont)**

(A) Name and title	(B) Average hours per week (describe hours for related organizations in Sch O)	(C) Position (check all that apply)					(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional trustee	Officer	Key employee	Highest compensated employee			
(18)									
(19)									
(20)									
(21)									
(22)									
(23)									
(24)									
(25)									
(26)									
(27)									
(28)									
(29)									
<b>1 b Sub-total</b> .....						0.	0.	0.	
<b>c Total from continuation sheets to Part VII, Section A</b> .....									
<b>d Total (add lines 1b and 1c)</b> .....						0.	0.	0.	

**2** Total number of individuals (including but not limited to those listed above) who received more than \$100,000 in reportable compensation from the organization

	Yes	No
<b>3</b> Did the organization list any <b>former</b> officer, director or trustee, key employee, or highest compensated employee on line 1a? <i>If 'Yes,' complete Schedule J for such individual</i> .....	3	X
<b>4</b> For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than \$150,000? <i>If 'Yes,' complete Schedule J for such individual</i> .....	4	X
<b>5</b> Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? <i>If 'Yes,' complete Schedule J for such person</i> .....	5	X

**Section B. Independent Contractors**

**1** Complete this table for your five highest compensated independent contractors that received more than \$100,000 of compensation from the organization.

(A) Name and business address	(B) Description of services	(C) Compensation

**2** Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 in compensation from the organization

**Part VIII Statement of Revenue**

		(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512, 513, or 514	
CONTRIBUTIONS, GIFTS, GRANTS AND OTHER SIMILAR AMOUNTS	1a Federated campaigns	1a				
	b Membership dues	1b				
	c Fundraising events	1c				
	d Related organizations	1d				
	e Government grants (contributions)	1e 5,011,230.				
	f All other contributions, gifts, grants, and similar amounts not included above	1f 820,279.				
	g Noncash contributions included in lns 1a-1f: \$					
	<b>h Total. Add lines 1a-1f</b>		<b>5,831,509.</b>			
PROGRAM SERVICE REVENUE	Business Code					
	2a					
	b					
	c					
	d					
	e					
	f All other program service revenue					
<b>g Total. Add lines 2a-2f</b>						
OTHER REVENUE	3 Investment income (including dividends, interest and other similar amounts)		10,289.	10,289.	0.	0.
	4 Income from investment of tax-exempt bond proceeds					
	5 Royalties					
	6a Gross Rents	(i) Real				
		(ii) Personal				
		b Less: rental expenses				
		c Rental income or (loss)				
	d Net rental income or (loss)					
	7a Gross amount from sales of assets other than inventory	(i) Securities				
		(ii) Other				
		h Less: cost or other basis and sales expenses				
		c Gain or (loss)				
	d Net gain or (loss)					
	8a Gross income from fundraising events (not including \$ _____ of contributions reported on line 1c). See Part IV, line 18	a				
	b Less: direct expenses	b				
c Net income or (loss) from fundraising events						
9a Gross income from gaming activities. See Part IV, line 19	a					
b Less: direct expenses	b					
c Net income or (loss) from gaming activities						
10a Gross sales of inventory, less returns and allowances	a					
b Less: cost of goods sold	b					
c Net income or (loss) from sales of inventory						
Miscellaneous Revenue		Business Code				
11a						
b						
c						
d All other revenue						
e Total. Add lines 11a-11d						
<b>12 Total revenue. See instructions</b>		<b>5,841,798.</b>	<b>10,289.</b>	<b>0.</b>	<b>0.</b>	

**Part IX | Statement of Functional Expenses**

Section 501(c)(3) and 501(c)(4) organizations must complete all columns.  
 All other organizations must complete column (A) but are not required to complete columns (B), (C), and (D).

<i>Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.</i>	(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
1 Grants and other assistance to governments and organizations in the U.S. See Part IV, line 21	5,622,056.	5,622,056.		
2 Grants and other assistance to individuals in the U.S. See Part IV, line 22				
3 Grants and other assistance to governments, organizations, and individuals outside the U.S. See Part IV, lines 15 and 16				
4 Benefits paid to or for members				
5 Compensation of current officers, directors, trustees, and key employees				
6 Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)				
7 Other salaries and wages				
8 Pension plan contributions (include section 401(k) and section 403(b) employer contributions)				
9 Other employee benefits	8,225.	0.	8,225.	0.
10 Payroll taxes				
11 Fees for services (non-employees):				
a Management				
b Legal	77.	0.	77.	0.
c Accounting	14,800.	0.	14,800.	0.
d Lobbying				
e Professional fundraising services. See Part IV, line 17				
f Investment management fees				
g Other	26,969.	0.	26,969.	0.
12 Advertising and promotion	1,405.	0.	1,405.	0.
13 Office expenses				
14 Information technology				
15 Royalties				
16 Occupancy				
17 Travel	2,073.	0.	2,073.	0.
18 Payments of travel or entertainment expenses for any federal, state, or local public officials				
19 Conferences, conventions, and meetings	6,448.	0.	6,448.	0.
20 Interest				
21 Payments to affiliates				
22 Depreciation, depletion, and amortization	231.	0.	231.	0.
23 Insurance	4,870.	0.	4,870.	0.
24 Other expenses. <u>Itemize expenses not covered above (List miscellaneous expenses in line 24f. If line 24f amount exceeds 10% of line 25, column (A) amount, list line 24f expenses on Schedule O.)</u>				
a <u>Miscellaneous</u>	724.	0.	724.	0.
b <u>Public Relations</u>	9,090.	0.	9,090.	0.
c <u>Equipment Rental &amp; Maintenance</u>	292.	0.	292.	0.
d <u>Staff Development</u>	680.	0.	680.	0.
e				
f All other expenses				
25 <b>Total functional expenses.</b> Add lines 1 through 24f	5,697,940.	5,622,056.	75,884.	0.
26 <b>Joint costs.</b> Check here <input type="checkbox"/> if following SOP 98-2 (ASC 958-720). Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation				

**Part X Balance Sheet**

		(A) Beginning of year		(B) End of year		
ASSETS	1	Cash – non-interest-bearing	1,960,043.	1	2,076,822.	
	2	Savings and temporary cash investments		2		
	3	Pledges and grants receivable, net	938,495.	3	1,370,539.	
	4	Accounts receivable, net		4		
	5	Receivables from current and former officers, directors, trustees, key employees, and highest compensated employees. Complete Part II of Schedule L		5		
	6	Receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions)		6		
	7	Notes and loans receivable, net		7		
	8	Inventories for sale or use		8		
	9	Prepaid expenses and deferred charges	1,100.	9	1,950.	
	10a	Land, buildings, and equipment: cost or other basis. Complete Part VI of Schedule D	10a	1,592.		
	b	Less: accumulated depreciation	10b	231.	10c	1,361.
	11	Investments – publicly traded securities		11		
	12	Investments – other securities. See Part IV, line 11		12		
	13	Investments – program-related. See Part IV, line 11		13		
	14	Intangible assets		14		
	15	Other assets. See Part IV, line 11		15		
16	<b>Total assets.</b> Add lines 1 through 15 (must equal line 34)	2,899,638.	16	3,450,672.		
LIABILITIES	17	Accounts payable and accrued expenses	400.	17	14,209.	
	18	Grants payable	962,568.	18	1,462,349.	
	19	Deferred revenue	718,536.	19	560,496.	
	20	Tax-exempt bond liabilities		20		
	21	Escrow or custodial account liability. Complete Part IV of Schedule D		21		
	22	Payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons. Complete Part II of Schedule L		22		
	23	Secured mortgages and notes payable to unrelated third parties		23		
	24	Unsecured notes and loans payable to unrelated third parties		24		
	25	Other liabilities. Complete Part X of Schedule D	395,461.	25	447,087.	
	26	<b>Total liabilities.</b> Add lines 17 through 25	2,076,965.	26	2,484,141.	
NET ASSETS OR FUND BALANCES	<b>Organizations that follow SFAS 117, check here <input checked="" type="checkbox"/> and complete lines 27 through 29 and lines 33 and 34.</b>					
	27	Unrestricted net assets	822,673.	27	966,531.	
	28	Temporarily restricted net assets		28		
	29	Permanently restricted net assets		29		
	<b>Organizations that do not follow SFAS 117, check here <input type="checkbox"/> and complete lines 30 through 34.</b>					
	30	Capital stock or trust principal, or current funds		30		
	31	Paid-in or capital surplus, or land, building, or equipment fund		31		
	32	Retained earnings, endowment, accumulated income, or other funds		32		
	33	<b>Total net assets or fund balances.</b>	822,673.	33	966,531.	
	34	<b>Total liabilities and net assets/fund balances.</b>	2,899,638.	34	3,450,672.	

BAA

Form 990 (2010)

**Part XI Reconciliation of Net Assets**

Check if Schedule O contains a response to any question in this Part XI

1	Total revenue (must equal Part VIII, column (A), line 12)	1	5,841,798.
2	Total expenses (must equal Part IX, column (A), line 25)	2	5,697,940.
3	Revenue less expenses. Subtract line 2 from line 1	3	143,858.
4	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	4	822,673.
5	Other changes in net assets or fund balances (explain in Schedule O)	5	
6	Net assets or fund balances at end of year. Combine lines 3, 4, and 5 (must equal Part X, line 33, column (B))	6	966,531.

**Part XII Financial Statements and Reporting**

Check if Schedule O contains a response to any question in this Part XII

		Yes	No
1	Accounting method used to prepare the Form 990: <input type="checkbox"/> Cash <input checked="" type="checkbox"/> Accrual <input type="checkbox"/> Other _____ If the organization changed its method of accounting from a prior year or checked 'Other,' explain in Schedule O.		
2a	Were the organization's financial statements compiled or reviewed by an independent accountant?		X
b	Were the organization's financial statements audited by an independent accountant?	X	
c	If 'Yes' to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant? If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O.	X	
d	If 'Yes' to line 2a or 2b, check a box below to indicate whether the financial statements for the year were issued on a separate basis, consolidated basis, or both: <input checked="" type="checkbox"/> Separate basis <input type="checkbox"/> Consolidated basis <input type="checkbox"/> Both consolidated and separate basis		
3a	As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?	X	
b	If 'Yes,' did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits.	X	

BAA

Form 990 (2010)

**SCHEDULE A**  
(Form 990 or 990-EZ)

Department of the Treasury  
Internal Revenue Service

**Public Charity Status and Public Support**

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.

▶ Attach to Form 990 or Form 990-EZ. ▶ See separate instructions.

OMB No. 1545-0047

**2010**

**Open to Public Inspection**

Name of the organization: Georgia Southern University Research and Service Foundation, Inc. Employer identification number: 58-2354256

**Part I Reason for Public Charity Status** (All organizations must complete this part.) See instructions.

The organization is not a private foundation because it is: (For lines 1 through 11, check only one box.)

- 1  A church, convention of churches or association of churches described in section 170(b)(1)(A)(i).
- 2  A school described in section 170(b)(1)(A)(ii). (Attach Schedule E.)
- 3  A hospital or a cooperative hospital service organization described in section 170(b)(1)(A)(iii).
- 4  A medical research organization operated in conjunction with a hospital described in section 170(b)(1)(A)(iii). Enter the hospital's name, city, and state: \_\_\_\_\_
- 5  An organization operated for the benefit of a college or university owned or operated by a governmental unit described in section 170(b)(1)(A)(iv). (Complete Part II.)
- 6  A federal, state, or local government or governmental unit described in section 170(b)(1)(A)(v).
- 7  An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in section 170(b)(1)(A)(vi). (Complete Part II.)
- 8  A community trust described in section 170(b)(1)(A)(vi). (Complete Part II.)
- 9  An organization that normally receives: (1) more than 33-1/3% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions — subject to certain exceptions, and (2) no more than 33-1/3% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975. See section 509(a)(2). (Complete Part III.)
- 10  An organization organized and operated exclusively to test for public safety. See section 509(a)(4).
- 11  An organization organized and operated exclusively for the benefit of, to perform the functions of, or carry out the purposes of one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2). See section 509(a)(3). Check the box that describes the type of supporting organization and complete lines 11e through 11h.
  - a  Type I
  - b  Type II
  - c  Type III — Functionally integrated
  - d  Type III — Other
- e  By checking this box, I certify that the organization is not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2).
- f If the organization received a written determination from the IRS that is a Type I, Type II or Type III supporting organization, check this box
- g Since August 17, 2006, has the organization accepted any gift or contribution from any of the following persons?

- (i) A person who directly or indirectly controls, either alone or together with persons described in (ii) and (iii) below, the governing body of the supported organization? .....
- (ii) A family member of a person described in (i) above? .....
- (iii) A 35% controlled entity of a person described in (i) or (ii) above? .....

	Yes	No
<b>11 g (i)</b>		
<b>11 g (ii)</b>		
<b>11 g (iii)</b>		

**h** Provide the following information about the supported organization(s).

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1-9 above or IRC section (see instructions))	(iv) Is the organization in column (i) listed in your governing document?		(v) Did you notify the organization in column (i) of your support?		(vi) Is the organization in column (i) organized in the U.S.?		(vii) Amount of support
			Yes	No	Yes	No	Yes	No	
(A)									
(B)									
(C)									
(D)									
(E)									
<b>Total</b>									

BAA For Paperwork Reduction Act Notice, see the Instructions for Form 990 or 990-EZ.

Schedule A (Form 990 or 990-EZ) 2010

**Part II Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv) and 170(b)(1)(A)(vi)**

(Complete only if you checked the box on line 5, 7, or 8 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

**Section A. Public Support**

Calendar year (or fiscal year beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
1 Gifts, grants, contributions, and membership fees received. (Do not include 'unusual grants.') ...	5,566,572.	4,956,555.	4,397,605.	5,896,519.	5,831,509.	26,648,760.
2 Tax revenues levied for the organization's benefit and either paid to it or expended on its behalf .....						
3 The value of services or facilities furnished by a governmental unit to the organization without charge ....						
4 <b>Total.</b> Add lines 1 through 3 ....	5,566,572.	4,956,555.	4,397,605.	5,896,519.	5,831,509.	26,648,760.
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f) ...						
6 <b>Public support.</b> Subtract line 5 from line 4 .....						26,648,760.

**Section B. Total Support**

Calendar year (or fiscal year beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
7 Amounts from line 4 .....	5,566,572.	4,956,555.	4,397,605.	5,896,519.	5,831,509.	26,648,760.
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources .....	63,105.	57,336.	32,544.	21,707.	10,289.	184,981.
9 Net income from unrelated business activities, whether or not the business is regularly carried on .....						
10 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.) .....			2,285.	5,100.		7,385.
11 <b>Total support.</b> Add lines 7 through 10 .....						26,841,126.
12 Gross receipts from related activities, etc (see instructions) .....					12	
13 <b>First five years.</b> If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and <b>stop here</b> .....						<input type="checkbox"/>

**Section C. Computation of Public Support Percentage**

14 Public support percentage for 2010 (line 6, column (f) divided by line 11, column (f)) .....	14	99.28%
15 Public support percentage from 2009 Schedule A, Part II, line 14 .....	15	99.18%
16a <b>33-1/3% support test – 2010.</b> If the organization did not check the box on line 13, and the line 14 is 33-1/3% or more, check this box and <b>stop here.</b> The organization qualifies as a publicly supported organization .....		<input checked="" type="checkbox"/>
b <b>33-1/3% support test – 2009.</b> If the organization did not check a box on line 13 or 16a, and line 15 is 33-1/3% or more, check this box and <b>stop here.</b> The organization qualifies as a publicly supported organization .....		<input type="checkbox"/>
17a <b>10%-facts-and-circumstances test – 2010.</b> If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the 'facts-and-circumstances' test, check this box and <b>stop here.</b> Explain in Part IV how the organization meets the 'facts-and-circumstances' test. The organization qualifies as a publicly supported organization .....		<input type="checkbox"/>
b <b>10%-facts-and-circumstances test – 2009.</b> If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the 'facts-and-circumstances' test, check this box and <b>stop here.</b> Explain in Part IV how the organization meets the 'facts-and-circumstances' test. The organization qualifies as a publicly supported organization .....		<input type="checkbox"/>
18 <b>Private foundation.</b> If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions .....		<input type="checkbox"/>

**Part III Support Schedule for Organizations Described in Section 509(a)(2)**

(Complete only if you checked the box on line 9 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

**Section A. Public Support**

Calendar year (or fiscal yr beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
1 Gifts, grants, contributions and membership fees received. (Do not include any 'unusual grants'.)						
2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3 Gross receipts from activities that are not an unrelated trade or business under section 513						
4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5 The value of services or facilities furnished by a governmental unit to the organization without charge						
6 Total. Add lines 1 through 5						
7a Amounts included on lines 1, 2, and 3 received from disqualified persons						
b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year						
c Add lines 7a and 7b						
8 Public support (Subtract line 7c from line 6.)						

**Section B. Total Support**

Calendar year (or fiscal yr beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
9 Amounts from line 6						
10a Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
b Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
c Add lines 10a and 10b						
11 Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
12 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.)						
13 Total support. (Add lns 9, 10c, 11, and 12.)						

14 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and stop here

**Section C. Computation of Public Support Percentage**

15 Public support percentage for 2010 (line 8, column (f) divided by line 13, column (f))	15	%
16 Public support percentage from 2009 Schedule A, Part III, line 15	16	%

**Section D. Computation of Investment Income Percentage**

17 Investment income percentage for 2010 (line 10c, column (f) divided by line 13, column (f))	17	%
18 Investment income percentage from 2009 Schedule A, Part III, line 17	18	%

19a 33-1/3% support tests — 2010. If the organization did not check the box on line 14, and line 15 is more than 33-1/3%, and line 17 is not more than 33-1/3%, check this box and stop here. The organization qualifies as a publicly supported organization

b 33-1/3% support tests — 2009. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33-1/3%, and line 18 is not more than 33-1/3%, check this box and stop here. The organization qualifies as a publicly supported organization

20 Private foundation. If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions

**Part IV** **Supplemental Information.** Complete this part to provide the explanations required by Part II, line 10; Part II, line 17a or 17b; and Part III, line 12. Also complete this part for any additional information. (See instructions).

Other Income Part II, Line 10

Description: Royalties

2008: 2285.

2009: 5100.

SCHEDULE D (Form 990)

Department of the Treasury Internal Revenue Service

Supplemental Financial Statements

Complete if the organization answered 'Yes' to Form 990, Part IV, lines 6, 7, 8, 9, 10, 11, or 12. Attach to Form 990. See separate instructions.

OMB No. 1545-0047

2010

Open to Public Inspection

Name of the organization

Employer identification number

Georgia Southern University Research and Service Foundation, Inc.

58-2354256

Part I Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts. Complete if the organization answered 'Yes' to Form 990, Part IV, line 6.

Table with 2 columns: (a) Donor advised funds, (b) Funds and other accounts. Rows include: 1 Total number at end of year, 2 Aggregate contributions to (during year), 3 Aggregate grants from (during year), 4 Aggregate value at end of year, 5 Did the organization inform all donors... Yes/No, 6 Did the organization inform all grantees...

Part II Conservation Easements. Complete if the organization answered 'Yes' to Form 990, Part IV, line 7.

- 1 Purpose(s) of conservation easements held by the organization (check all that apply). 2 Complete lines 2a through 2d if the organization held a qualified conservation contribution... 2a Total number of conservation easements, 2b Total acreage restricted by conservation easements, 2c Number of conservation easements on a certified historic structure, 2d Number of conservation easements included in (c) acquired after 8/17/06... 3 Number of conservation easements modified, transferred, released, extinguished, or terminated... 4 Number of states where property subject to conservation easement is located... 5 Does the organization have a written policy regarding the periodic monitoring... 6 Staff and volunteer hours devoted to monitoring... 7 Amount of expenses incurred in monitoring... 8 Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and section 170(h)(4)(B)(ii)? 9 In Part XIV, describe how the organization reports conservation easements in its revenue and expense statement...

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets. Complete if the organization answered 'Yes' to Form 990, Part IV, line 8.

- 1 a If the organization elected, as permitted under SFAS 116 (ASC 958), not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide, in Part XIV, the text of the footnote to its financial statements that describes these items. b If the organization elected, as permitted under SFAS 116 (ASC 958), to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items: (i) Revenues included in Form 990, Part VIII, line 1 (ii) Assets included in Form 990, Part X 2 If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 (ASC 958) relating to these items: a Revenues included in Form 990, Part VIII, line 1 b Assets included in Form 990, Part X

**Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets (continued)**

3 Using the organization's acquisition, accession, and other records, check any of the following that are a significant use of its collection items (check all that apply):

- a  Public exhibition
- b  Scholarly research
- c  Preservation for future generations
- d  Loan or exchange programs
- e  Other \_\_\_\_\_

4 Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIV.

5 During the year, did the organization solicit or receive donations of art, historical treasures, or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection?  Yes  No

**Part IV Escrow and Custodial Arrangements.** Complete if organization answered 'Yes' to Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

1 a Is the organization an agent, trustee, custodian, or other intermediary for contributions or other assets not included on Form 990, Part X?  Yes  No

b If 'Yes,' explain the arrangement in Part XIV and complete the following table:

	Amount
c Beginning balance	1 c
d Additions during the year	1 d
e Distributions during the year	1 e
f Ending balance	1 f

2 a Did the organization include an amount on Form 990, Part X, line 21?  Yes  No

b If 'Yes,' explain the arrangement in Part XIV.

**Part V Endowment Funds.** Complete if the organization answered 'Yes' to Form 990, Part IV, line 10.

	(a) Current year	(b) Prior year	(c) Two years back	(d) Three years back	(e) Four years back
1 a Beginning of year balance					
b Contributions					
c Net investment earnings, gains, and losses					
d Grants or scholarships					
e Other expenditures for facilities and programs					
f Administrative expenses					
g End of year balance					

2 Provide the estimated percentage of the year end balance held as:

- a Board designated or quasi-endowment \_\_\_\_\_ %
- b Permanent endowment \_\_\_\_\_ %
- c Term endowment \_\_\_\_\_ %

3 a Are there endowment funds not in the possession of the organization that are held and administered for the organization by:

	Yes	No
(i) unrelated organizations	3a(i)	
(ii) related organizations	3a(ii)	
b If 'Yes' to 3a(ii), are the related organizations listed as required on Schedule R?	3b	

4 Describe in Part XIV the intended uses of the organization's endowment funds.

**Part VI Land, Buildings, and Equipment.** See Form 990, Part X, line 10.

Description of investment	(a) Cost or other basis (investment)	(b) Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1 a Land				
b Buildings				
c Leasehold improvements				
d Equipment		1,592.	231.	1,361.
e Other				
<b>Total.</b> Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c).)				1,361.

**Part VII Investments—Other Securities.** See Form 990, Part X, line 12.

(a) Description of security or category (including name of security)	(b) Book value	(c) Method of valuation: Cost or end-of-year market value
(1) Financial derivatives		
(2) Closely-held equity interests		
(3) Other		
(A) -----		
(B) -----		
(C) -----		
(D) -----		
(E) -----		
(F) -----		
(G) -----		
(H) -----		
(I) -----		
Total. (Column (b) must equal Form 990 Part X, column (B) line 12.)		

**Part VIII Investments—Program Related.** (See Form 990, Part X, line 13)

(a) Description of investment type	(b) Book value	(c) Method of valuation: Cost or end-of-year market value
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
Total. (Column (b) must equal Form 990, Part X, column (B) line 13.)		

**Part IX Other Assets.** (See Form 990, Part X, line 15)

(a) Description	(b) Book value
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
Total. (Column (b) must equal Form 990, Part X, column (B), line 15)	

**Part X Other Liabilities.** (See Form 990, Part X, line 25)

(a) Description of liability	(b) Amount
(1) Federal income taxes	
(2) Residuals to Departments	447,087.
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
Total. (Column (b) must equal Form 990, Part X, column (B) line 25)	447,087.

2. FIN 48 (ASC 740) Footnote. In Part XIV, provide the text of the footnote to the organization's financial statements that reports the organization's liability for uncertain tax positions under FIN 48 (ASC 740).

**Part XI Reconciliation of Change in Net Assets from Form 990 to Audited Financial Statements**

1	Total revenue (Form 990, Part VIII, column (A), line 12)		5,841,798.
2	Total expenses (Form 990, Part IX, column (A), line 25)		5,697,940.
3	Excess or (deficit) for the year. Subtract line 2 from line 1		143,858.
4	Net unrealized gains (losses) on investments		
5	Donated services and use of facilities		
6	Investment expenses		
7	Prior period adjustments		
8	Other (Describe in Part XIV)		
9	Total adjustments (net). Add lines 4 through 8		
10	Excess or (deficit) for the year per audited financial statements. Combine lines 3 and 9		143,858.

**Part XII Reconciliation of Revenue per Audited Financial Statements With Revenue per Return**

1	Total revenue, gains, and other support per audited financial statements	1	5,841,798.
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12:		
	a Net unrealized gains on investments	2a	
	b Donated services and use of facilities	2b	
	c Recoveries of prior year grants	2c	
	d Other (Describe in Part XIV)	2d	
	e Add lines 2a through 2d	2e	
3	Subtract line 2e from line 1	3	5,841,798.
4	Amounts included on Form 990, Part VIII, line 12, but not on line 1:		
	a Investments expenses not included on Form 990, Part VIII, line 7b	4a	
	b Other (Describe in Part XIV.)	4b	
	c Add lines 4a and 4b	4c	
5	Total revenue. Add lines 3 and 4c. (This must equal Form 990, Part I, line 12.)	5	5,841,798.

**Part XIII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return**

1	Total expenses and losses per audited financial statements	1	5,697,940.
2	Amounts included on line 1 but not on Form 990, Part IX, line 25:		
	a Donated services and use of facilities	2a	
	b Prior year adjustments	2b	
	c Other losses	2c	
	d Other (Describe in Part XIV.)	2d	
	e Add lines 2a through 2d	2e	
3	Subtract line 2e from line 1	3	5,697,940.
4	Amounts included on Form 990, Part IX, line 25, but not on line 1:		
	a Investments expenses not included on Form 990, Part VIII, line 7b	4a	
	b Other (Describe in Part XIV.)	4b	
	c Add lines 4a and 4b	4c	
5	Total expenses. Add lines 3 and 4c. (This must equal Form 990, Part I, line 18.)	5	5,697,940.

**Part XIV Supplemental Information**

Complete this part to provide the descriptions required for Part II, lines 3, 5, and 9; Part III, lines 1a and 4; Part IV, lines 1b and 2b; Part V, line 4; Part X, line 2; Part XI, line 8; Part XII, lines 2d and 4b; and Part XIII, lines 2d and 4b. Also complete this part to provide any additional information.

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**SCHEDULE I**  
(Form 990)

**Grants and Other Assistance to Organizations,  
Governments and Individuals in the United States**

OMB No. 1545-0047

**2010**

Department of the Treasury  
Internal Revenue Service

Complete if the organization answered 'Yes,' to Form 990, Part IV, lines 21 or 22.  
▶ Attach to Form 990.

**Open to Public  
Inspection**

Name of the organization

Georgia Southern University Research and Service Foundation, Inc.

Employer identification number

58-2354256

**Part I General Information on Grants and Assistance**

- 1** Does the organization maintain records to substantiate the amount of the grants or assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance?  Yes  No
- 2** Describe in Part IV the organization's procedures for monitoring the use of grant funds in the United States.

**Part II Grants and Other Assistance to Governments and Organizations in the United States. Complete if the organization answered 'Yes' to Form 990, Part IV, line 21 for any recipient that received more than \$5,000. Check this box if no one recipient received more than \$5,000. Part II can be duplicated if additional space is needed.**

1 (a) Name and address of organization or government	(b) EIN	(c) IRC section if applicable	(d) Amount of cash grant	(e) Amount of non-cash assistance	(f) Method of valuation (book, FMV, appraisal, other)	(g) Description of non-cash assistance	(h) Purpose of grant or assistance
(1) Georgia Southern University P.O. Box 8014 Statesboro GA 30460	58-6002059		5,599,066.				Research/Inst.
(2) Dr. Anthony V. Parrillo 1149 Bartlett Drive Statesboro GA 30461	127-42-0866		7,752.				Research/Inst.
(3) Ga Society for Public Hea PO Box 2777 Calhoun GA 30703	26-3965183		6,600.				Research/Inst.
(4) -----							
(5) -----							
(6) -----							
(7) -----							
(8) -----							

**2** Enter total number of section 501(c)(3) and government organizations 1

**3** Enter total number of other organizations 1

**BAA For Paperwork Reduction Act Notice, see the Instructions for Form 990.**

TEEA3901 10/29/10

Schedule I (Form 990) 2010



**SCHEDULE O**  
(Form 990 or 990-EZ)

**Supplemental Information to Form 990 or 990-EZ**

OMB No. 1545-0047

**2010**

Department of the Treasury  
Internal Revenue Service

Complete to provide information for responses to specific questions on  
Form 990 or 990-EZ or to provide any additional information.  
▶ Attach to Form 990 or 990-EZ.

Open to Public  
Inspection

Name of the organization

Employer identification number

Georgia Southern University Research and Service Foundation, Inc.

58-2354256

Pt VI-B, Line 12c Board members of the Foundation will sign a conflict of  
interest statement annually which will be maintained  
and monitored by the Foundation's management.

Pt VI-B, Line 11a The 990 is emailed to the board of directors in draft  
format for approval prior to its filing.

Pt VI-C, Line 19 Available upon request.