Program Progress Performance Report for University Transportation Centers

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Research and Innovative Technology Administration
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Project Title: Southeastern Transportation, Research, Innovation Development and Education Center (STRIDE)

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Accomplishments

What are the major goals of the program?

The STRIDE Center has been devoting its energies to three major areas that are deemed critical in Region 4: safety, livable communities and economic competitiveness. More specifically, the major goals of the Center are:

a) To develop, implement and maintain a comprehensive research program that addresses critical needs related to safety, livable communities and economic competitiveness
b) To serve as the focal point for transportation research, education and outreach in the region
c) To strengthen the collaboration between the partner universities as well as between the consortium and federal, state, and local agencies
d) To develop ties with other University Transportation Centers (UTCs) and USDOT's research clusters to create opportunities for collaborative activities across centers
e) To disseminate research results to government, academia and private sectors through publication in peer-reviewed journals, conference papers and presentations at transportation-related industry events
f) To establish additional communication mechanisms, including the use of social media, by which important research findings are made available to researchers and others with an interest in transportation matters
g) To utilize research activities to promote transportation-related education as well as careers and employment opportunities
h) To support and encourage the identification, development, and implementation of inventions and discoveries with the potential to address challenges in the core focus areas.

What was accomplished under these goals?

Accomplishments are listed below under each of the program's major goals:

a) To develop, implement and maintain a comprehensive research program that addresses critical needs related to safety, livable communities and economic competitiveness

<u>Accomplishments:</u>

Since the last reporting period ending on January 31, 2016, all but one Year 1 (2012) research projects have been completed. The remaining active project is titled: "Towards a Holistic Understanding of Quality of Life: An Analysis of Activity Travel Patterns on Non-Mid-Week Days", PI: Srinivasan, Project # 2012-024S. Regarding the 2012, K-12 projects, one draft final report is still under peer review.

The status of the STRIDE Center's Year 2 (2013) research projects are as follows: one draft final report is under peer-review and we are expecting the delivery of a final report on a project titled "GIS-Based Instructional Tool for Crash Prediction Methods". We are also expecting two draft final reports; one project is still active (PI: Hunter, Project # 2013-062, "Distracted Driving, It's

Not Always a Choice"). All the 2013, K-12 projects have been completed except for a K-12 Workforce Development project from 2012, which we expect the final report to be delivered in the next two months.

A set of tables beginning on page 3 summarize the status of each project. As shown, in Year 1 (2012) of the STRIDE Center, a total of 19 research projects were competitively awarded, including five K-12 Workforce Development (WD) projects. In Year 2 (2013), a total of 11 research projects were competitively awarded, including four K-12 WD projects.

All selected projects have a technology transfer component, and we continue to monitor those activities. Also, the STRIDE Center has continued to reach out to the lead researchers of each STRIDE-funded project to discuss additional technology transfer opportunities (webinars or workshops). These activities are reported on page 5 under "Additional Projects".

Reports for all completed research projects are posted on the STRIDE website at: http://www.stride.ce.ufl.edu/completed-projects.

All technology transfer projects are posted at:

- http://stride.ce.ufl.edu/technology-transfer-projects-2015
- http://stride.ce.ufl.edu/technology-transfer-projects-2016

Table 1. YEAR 1 PROJECTS (2012)		
No.	**Research Project Title**	**STATUS**
1	Emissions Modeling and Integration into Traffic Micro-simulation	COMPLETED
2	A Regional Land-use Transportation Decision Support Tool for Mississippi	COMPLETED
3	Engineering: It's for Girls Too!	COMPLETED
4	Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings	COMPLETED
5	Quantifying the Costs of School Transportation	COMPLETED
6	Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non- Mid-week Days	In progress
7	Development of Pedestrian and Bicycle Transportation Course Modules	COMPLETED
8	Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills	COMPLETED
9	Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes	COMPLETED
10	Investigation of ATDM Strategies to Reduce the Probability of Breakdown	COMPLETED

11	Development of Graduate Level Course on Sustainable Pavements	COMPLETED
12	Automated Sidewalk Quality and Safety Assessment System	COMPLETED
13	Engaging Engineering Students with Transportation Safety: an Educational Module	COMPLETED
14	Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes	COMPLETED
15	A Naturalistic Driving Study Across the Lifespan	COMPLETED
16	Development of Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation	COMPLETED
17	Analyzing the Impact of Carbon Regulatory Mechanisms on Supply Chain Management	COMPLETED
18	Developing a New Course for Public Transportation Education	COMPLETED
19	Signalized Intersection Simulation Program for Education	COMPLETED

Table 2. YEAR 1 WORKFORCE DEVELOPMENT PROJECTS (2012)		
No.	**Project Title**	**STATUS**
1	LEGO Robot Vehicle Afterschool Workshops: Transportation Engineering Problem Solving (Modules 1-5)	COMPLETED
2	K-12 Workforce Development in Transportation Engineering at FIU	COMPLETED
3	Transportation Workforce Development at UAB	COMPLETED
4	Family Engineering Night STRIDE Proposal for K-12 Workforce Transportation Workforce Development (at MSU)	COMPLETED
5	K-12 Workforce Development in Transportation Engineering at UF	Awaiting delivery of final report

Table 3. YEAR 2 PROJECTS (2013)		
No.	**Research Project Title**	**STATUS**
1	Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality	COMPLETED
2	Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness	COMPLETED
3	Livability Performance Measures to Transportation Plans and Projects	COMPLETED

4	Signal Timing Optimization with Consideration of Environmental and Safety Impacts	Waiting for draft final report
5	Engineers Change the World: A Hands-on Workshop for 13- to 18-Year-Old Girls	COMPLETED
6	GIS-Based Instructional Tool for Crash Prediction Methods	Waiting for final report
7	School Transportation: Development of an Education Module	COMPLETED
8	On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing	Under peer-review
9	Investigating the Effect of Drivers' Body Motion on Traffic Safety	COMPLETED
10	Distracted Driving - It Is Not Always a Choice	In progress
11	Using Crowdsourcing to Prioritize Bicycle Route Network Improvements	Waiting for draft final report

Table 4. YEAR 2 WORKFORCE DEVELOPMENT PROJECTS (2013)

No.	Project Title	STATUS
1	LEGO Robot Vehicle Afterschool Workshops: Transportation Engineering Problem Solving (Modules 1-5)	COMPLETED
2	K-12 Workforce Development Activities at NCSU	COMPLETED
3	Engaging in Engineering Initiative with Centennial Elementary School at GaTech	COMPLETED
4	K-12 Workforce Development Activities at UAB	COMPLETED
5	K-12 Workforce Development Activities at UF	COMPLETED

Table 5. Additional Technology Transfer Projects (2015 & 2016)

No.	Project Title	STATUS
1	Development of Case Studies, Numerical Exercises, and Instructional Modules for Teaching Roadway Safety Analysis	ACTIVE
2	Statewide Training for SafetyAnalyst in Florida	ACTIVE
3	Workshops Related to STRIDE Funded Study of Multi-modal Costs of School Transportation	COMPLETED
4	Workshops for Managed Lanes on Arterials	COMPLETED
5	Extension of Signal Timing Optimization with Consideration of Environmental and Safety Impacts	ACTIVE
6	Evaluation of Traffic Control Options in Work Zone	ACTIVE
7	Infrastructure Adaptation Planning for Autonomous Vehicles	ACTIVE
8	Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) – Workshops 1,2 and 3	ACTIVE

9	Technology Transfer Workshops Based on A Regional Land Use Transportation Decision Support Tool for Mississippi	ACTIVE
10	Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House	ACTIVE
11	Cycle Atlanta Application	Contracting in Progress
12	Evaluating Child Restraint System (CRS) Installation using Interactive Visual Presence	Selected for funding
	Active Transportation Network Based on the Tangelfoot Trail	Contracting in Progress
	Practitioner Workshop on School Sititng and School Transportation Impacts	Contracting in Progress
	Evaluating the Relationship Between School Site Selection, Residential Developments and School Transportation in North Carolina	Contracting in Progress
	Sidewalk Survey Implementation for the Southeast Region	Selected for funding
	Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems: Workshop	Contracting in Progress
	Empowering Girls in Science and Engineering	COMPLETED

b) To serve as the focal point for transportation research, education and outreach in the region

Accomplishments:

Annual UTC Conference for the Southeastern Region

The Annual UTC Conference for the Southeastern Region continues to be offered, thanks to the innovative efforts of the STRIDE Center who conceptualized the conference in 2013. This year, the conference was hosted by the University of Tennessee in Knoxville, March 31 to April 1, 2016. The first such conference took place in Orlando, Fla., with subsequent conferences been hosted by GaTech in Atlanta, Ga. (2014), and by the University of Alabama at Birmingham in Birmingham, Ala (2015). As in previous years, the STRIDE Center co-sponsored this conference along with other UTCs in the region.

STRIDE Technology Transfer Activities

The STRIDE Center continues its efforts to produce webinars, workshops and other training based on products from center-funded research. The STRIDE Center expects to produce, host and facilitate additional training events in Fall 2016. During this reporting period, the following activities were held:

1. **Webinar on Open Access Database for Investigating Body Movements While Performing Driving Tasks**, held March 7, 2016. Project 2013-015S. View recording: https://mctrans.adobeconnect.com/p3qea8m8oxy/.

2. **Seminar on Control of Freeway Corridors: Objectives, Performance Measures, Strategies**. March 24, 2016. View recording: http://www.transportation.institute.ufl.edu/?p=5041.
3. **STRIDE Workshop Introduce Planning Tools for Linking Rural Development and Transportation**. Workshop 1 of 2 took place during the National Rural Transportation Conference in Chattanooga, TN, June 13-15, 2016. Project 2012-003S. The next one will take place at the 2016 Annual Conference of the Mississippi and Alabama Chapters of the American Planning Association, September 16-16, Biloxi, MS.
4. **ATM Workshop on FREEVAL-DSS.** Workshop 1 was held during the UTC Conference for the Southeastern Region, March 31, 2016, and workshop 2 was held at the ITE Conference in Chicago, IL on June 26, 2016. Project 2013-009S. The following link was used for the ITE Conference workshop: https://ncsu.qualtrics.com/jfe/form/SV_a9lcxAouAIaEllH.
5. **Statewide Training of SafetyAnalyst in Florida.** This is part 2 of the technology transfer efforts related to this database, which was developed as a cooperative effort by Federal Highway Administration (FHWA) and participating state and local agencies. Often advertised as a companion to Part B of the Highway Safety Manual (HSM), *SafetyAnalyst* automates all the steps in the roadway safety management process. Florida has been preparing for deploying *SafetyAnalyst* for the past few years. As part of this effort, a data converter has been developed to convert the existing Florida Department of Transportation (FDOT) roadway, traffic, and crash databases into the format required by *SafetyAnalyst*[1]. However, Florida started to use a new police crash report form in 2011, and the data converter has to be modified to accommodate the new crash codes and the new file formats. Under a separate contract with the FDOT, researchers at Florida International University (FIU) are in the process of updating the data converter. The next step in implementing *SafetyAnalyst* is to train FDOT district officials on using the software. By implementing it statewide, FDOT will, for the first time, have a standardized system to consistently conduct safety analysis across the state, and provide statewide training on the use of the system. Training began last fall with a series of workshops and a pre-pilot of a webinar was conducted on May 16th. The session has been recorded and FDOT is currently reviewing it. STRIDE will post this link when the session has been finalized. A live session of SafetyAnalyst will be conducted on August 1st.
6. **Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House.** The purpose of this ongoing project is to create instructional modules to assist in training researchers in using the UF-based driving simulator. The project began in May 2016 and will end December 2016. The training modules will become available and posted on the STRIDE website.

Educational Projects

During this reporting period, two additional projects were completed: "Signalized Intersection Simulation Program for Education" and "Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation." Table 6 provides a comprehensive list of the educational products produced by STRIDE-funded projects to-date.

STRIDE-funded educational projects will be posted as they are completed at the following website: http://www.stride.ce.ufl.edu/course-materials-developed-by-stride.

Table 6. STRIDE Educational Products

Project Title	Product
Engaging Engineering Students with Transportation Safety: An Educational Module (STRIDE 2012-085S)	Course Website: http://ergo.research.ise.msstate.edu/stride-classroom-module
Development of Pedestrian and Bicycle Transportation Course Modules (STRIDE Project Number 2012-028s)	Course Website: www.pedbikeinfo.org/training/courses.cfm
Development of Graduate Level Course on Sustainable Asphalt Pavements (STRIDE Project Number 2012-049s)	Course Website: http://eng.auburn.edu/online/professional-development/course-listing/civil-structural.html
Transportation K-12 Workforce Development 2012 at FIU, GaTech, MSU, NCSU, UAB, and UF	K-12 Workforce Development projects at FIU, GaTech, MSU, NCSU, UAB, and UF have yielded lesson plans and information on how to create activities that engage school-age children in engineering and transportation. Information on these activities can be found at: http://stride.ce.ufl.edu/workforce-development LEGO® Robot Vehicle Lesson Plans for Secondary Education; Course website: http://www.t2ctt.ce.ufl.edu/Forms.asp?MODE=NEW&Forms_FormTypeID=-17
Planning for Schools: An Educational Module & Cost Calculator to Support School Siting & Transportation Decision Making	Course Website: http://schoolsiting.web.unc.edu/ STRIDE's page for this product: http://stride.ce.ufl.edu/school-transportation-educational-module-cost-calculator
Developing a New Course for Public Transportation Education	Course Website: http://stride.ce.ufl.edu/public-transportation-course-modules
Signalized Intersection Simulation Program for Education (NEW!)	Course Website: http://stride.ce.ufl.edu/signalized-intersection-simulation-program-for-education

Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation (NEW!)	Course Website: http://stride.ce.ufl.edu/educational-modules-on-green-sustainable-design-and-rating-systems-for-neighborhood-development-and-transportation-

WTS Chapter Development in the Southeast

During the Spring 2016 semester, the WTS Florida Gator Student chapter reached out to key faculty members at the University of Central Florida in Orlando, FL and the University of South Florida in Tampa, FL to generate interest in forming WTS student chapters. The effort is still ongoing and the WTS student chapter executive board members will resume efforts the Fall 2016. This year Ria Kontou, a doctoral transportation student at UF, was selected to shadow Ms. Marcia Ferranto, president of WTS International during the organization's annual conference held in Austin, Texas. UF also sent Yinan Zheng, another doctoral student at UF, to the WTS Annual Conference. Both Ria and Yinan are members of the UF student chapter's executive board.

A representative of WTS International (Ms. Tiffany Jackson, director of chapter development), attends the UTC Conference for the Southeastern region, and Ines Aviles-Spadoni coordinates this invitation with the university hosting the conference each year during the planning process.

c) To strengthen the collaboration between the partner universities as well as between the consortium and federal, state, and local agencies

Accomplishments:

- The 4th Annual UTC Conference for the Southeastern Region took place in March 2016 at the University of Tennessee, and the STRIDE Center again was one of the co-sponsors of this conference. The conference brings together local and state agencies as well as federal representatives. STRIDE partner universities attend this conference, including many other academic institutions in the Southeastern U.S. The conference included the participation of eight UTCs in the southeast and conference speakers included Tennessee DOT Commissioner John Schroer, Paul Trombino of AASHTO who is also the Iowa DOT director, Peter Kelle of LSU, and Jurek Grabowski, director of research for the AAA Foundation. The conference included a workshop titled "Dynamic Software Tool to Assess the Value of Active Traffic Management (ATM) Strategies in a Freeway Facility Context", which was based on a product generated from a STRIDE-funded project.
- STRIDE continues to reach out to federal, state, and local agencies to offer training based on our research products (as discussed in earlier sections of this document).

d) To develop ties with other UTCs and USDOT's research clusters to create opportunities for collaborative activities across centers.

Accomplishments:
The STRIDE Center continues to facilitate the development of ties with other UTCs and DOTs in the region by participation in the Annual UTC Conference for the Southeastern Region. This conference is an excellent forum for the exchange of ideas and the initiation of collaboration amongst centers.

In March 2016, Dr. Lily Elefteriadou, director of the STRIDE Center, was invited to present at Florida State University (FSU) on her research titled "Driver Behavior and Characteristics and their Use in Traffic Modeling". The seminar was hosted by the Center for Accessibility and Safety for an Aging Population, which is a Tier-1 UTC at FSU.

STRIDE actively participates in CUTC (Dr. Elefteriadou is now the Vice-President of the CUTC executive board), which further facilitates collaboration across universities and transportation centers.

e) To disseminate research results to government, academia and private sectors through publication in peer-reviewed journals, conference papers and presentations at transportation-related industry events

Accomplishments:

The following are selected papers and presentations from STRIDE-affiliated researchers in the past six months:

Boppana, S., Shen, J., and Schwebel, D. C. (in press). Transportation-related safety behaviors in top-grossing children's movies from 2008-2013. Journal of Developmental and Behavioral Pediatrics.

Chen, X., M. Hadi, Y. Xiao, L. Elefteriadou, Vehicle Emission Models based on Macroscopic Performance Measures Derived Utilizing the MOVES Operating Mode Distribution Method, Journal of the Transportation Research Board, accepted for publication and presented at the TRB Annual Meeting 2016.

Huang, H., Yin, Q., Schwebel, D. C., Li, L., & Hu, G. (in press). Examining road traffic mortality status in China: A simulation study. PLoS ONE.

Kondyli, A., Barmpoutis, A., and Sisiopiku, V.P. (2016). Safety-Related Analysis of the 3D Driver Body Posture Using Naturalistic Data, Proceedings of the TRB 95th Annual Meeting, Washington, D.C.

Kondyli, A.; St. George, B.; Elefteriadou, L.; Bonyani, G.; Are the Freeway Capacity Values Provided in the Highway Capacity Manual Accurate? Revised and re-submitted for publication to the ASCE Journal of Transportation Engineering, December 2015.

Mamidipalli, S., V. Sisiopiku, B. Schroeder, L. Elefteriadou, K. Salamati, N. Rouphail, A Probit Based Pedestrian Gap Acceptance Model for Mid-Block Crossing Locations, Journal of the Transportation Research Board of the National Academies, Washington, DC, December 2015, No 2519, pages 128–136.

Michalaka, D.; R. Steiner; L. Elefteriadou, Roundabouts as a Form of Access Management, Transportation Research Record: Journal of the Transportation Research Board of the National Academies, No 2556, Washington, DC, February 2016.

O'Neal, E. E., Plumert, J. M., McClure, L. A., and Schwebel, D. C. (2016, September). The role of body mass index on childhood pedestrian injury risk. Poster submitted for presentation at the World Conference on Injury Prevention and Safety Promotion, Tampere, Finland.

Parr, M. N., Ross, L. A., McManus, B., Bishop, H. J., Wittig, S. M. O., and Stavrinos, D. (2016). Differential impact of personality traits on distracted driving behaviors in teens and older adults. Accident Analysis and Prevention,92, 107-112. DOI: 10.1016/j.aap.2016.03.011

Ramadan, O.E., and Sisiopiku, V.P. (2016). Impact of Bottleneck Merge Control Strategies on Freeway Level of Service, Transportation Research Procedia, Vol. 15, 583-593.

Ramadan, O. and Sisiopiku, V.P. (2016). Evaluation of Merge Control Strategies at Interstate Work Zones Under Peak and Off-Peak Traffic Conditions, Journal of Transportation Technologies, Special Issue on Transportation Planning and Management, Vol 6, No. 3, pp. 118-130.

Schwebel, D. C., Shen, J., and McClure, L. A. (in press). How do children learn to cross the street? The process of pedestrian safety training. Traffic Injury Prevention.

Schwebel, D. C., Shen, J., & McClure, L. A. (2016, September). How do children learn to cross the street? The process of pedestrian safety training. Paper accepted for presentation at the World Conference on Injury Prevention and Safety Promotion, Tampere, Finland.

Schwebel, D. C. (2016, June). Using virtual reality to teach children to cross streets more safely. Invited Lecture presented at the Fourth Session of the National Injury Prevention Seminar and National Injury Prevention Training Meeting, Beijing, China.

Schwebel, D. C. (2016, March). Using virtual reality to teach children pedestrian safety. Invited lecture presented at the UAB SimConnect Journal Club.

Schwebel, D. C. (2016, January). Behavioral strategies to prevent unintentional child injury. Invited Medical Grand Rounds presented at the Department of Pediatrics, University of Alabama at Birmingham/Children's of Alabama.

Schwebel, D. C. (2016, January). Behavioral strategies to prevent unintentional child injury. Invited lecture presented at Central South University, Changsha, Hunan Province, China.

Schwebel, D.C., Combs, T., Rodriguez, D., Severson, J., and Sisiopiku, V. (2016). "Community-Based Pedestrian Safety Training in Virtual Environment: A Pragmatic Trial", Accident Analysis and Prevention, Jan. 2016; Vol 86, pp. 9-15.

Sisiopiku, V.P., Mamidipalli, S., Schroeder, B., and Elefteriadou, L. (2016). Time-of-day Visibility-based Pedestrian Gap Acceptance Model for Two-way Stop Controlled Crossings, Journal Procedia Engineering, forthcoming.

Swanson, M., Porter, B., and Schwebel, D. C. (2016, April). Pedestrian distraction prevalence at a university campus signalized intersection. Poster presented at the Society of Pediatric Psychology National Conference, Atlanta, GA.

Zheng, Y., Chase, T., Elefteriadou, L., Chase, T., V.P., Schroeder, B., and Sisiopiku, V. (2016). Pedestrian Traffic Operations in Urban Networks, Transportation Research Procedia, Vol. 15, 134-149.

Zheng, Y; Chase, R.T.; Elefteriadou, L.; Schroeder, B.; Sisiopiku, V.P., Modeling Pedestrian-Vehicle Interactions Outside of Crosswalks, Simulation Modelling Practice and Theory, Volume 59, December 2015, Pages 89–101.

Zheng, Y., Chase, T., Elefteriadou, L., Sisiopiku, V.P., Schroeder, B. (2016). Driver Types and Their Behaviors within a High Level of Pedestrian Activity Environment. Transportation Letters: the International Journal of Transportation Research.

f) To establish additional mechanisms, including the use of social media, by which important research findings are made available to researchers and others with an interest in transportation matters

Accomplishments:

- The STRIDE Center actively uses its website (stride.ce.ufl.edu) and Facebook (https://www.facebook.com/southeasterntranportationcenter) to disseminate information on products and events.
- Twitter (https://twitter.com/STRIDE_UTC) is also widely used to announce events, webinars, conference, completed projects and other important information related to STRIDE and other UTC activities.

- The STRIDE Center has been actively participating in USDOT Secretary Anthony Foxx's Twitter campaign on #AmazingUTCs.
  The STRIDE Center uses Constant Contact, an online email marking service to advertise annual reports, completed projects, events, and any other products produced by the Center. Webinars and workshops are also used to disseminate information and products related to Center-funded research.

g) To utilize research project activities to promote transportation-related careers and employment opportunities for education and workforce development

Accomplishments:

Five interns were selected to work with STRIDE researchers in summer 2016. The students have begun their internship at UF and at STRIDE partner schools as part of the Transportation Research Internship Program (TRIP), which is funded by the Center. The internship program began on May 19, 2016 and ended July 291, 2016. The selected interns are:

- Fernando Dhabura (FIU)
  Advisers: Dr. Albert Gan and Dr. Priyanka Alluri (FIU)
  Topic: Analysis of Bicycle High Crash Locations
- Alex Dixon, Arizona State University
  Adviser: Dr. Ruth Steiner (UF)
  Topic: To be determined
- Matthew Elias (UF)
  Adviser: Dr. Mehrdad Shahabi (UF)
  Topic: Exploratory Data Analysis of Taxi Trips
- Taehyun Kim (UF)
  Adviser: Dr. Scott Washburn (UF)
  Topics: 1) Two-lane Highway Analysis (NCHRP 17-65) and 2) Commercial Truck Parking Detection Technology (FDOT)
- Daniel Royer (UF)
  Adviser: Sarah O'Brien (ITRE, NCSU)
  Topic: Bicycle and Pedestrian Data Collection

Workforce Development Activities:

The STRIDE Center's K-12 projects from Year 1 (2012) and Year 2 (2013) are all completed except for one, for which the final report will be delivered during the next reporting period**.** In December 2015, we received a request from Dr. Virginia Sisiopiku at UAB for additional funding to carry out a K-12 activity titled "Girls in Science and Engineering Day (GSED)". This program engages middle school girls in Alabama in STEM activities. The event was held at UAB, with 170 girls registered, and participation from 45 schools. That project was recently completed.

How have results been disseminated?

1. Information on completed projects is made available to transportation professionals, students and faculty in the public and private sectors via the use of Constant Contact, an email marketing tool.
2. Reports are also posted on the STRIDE website, included in the STRIDE newsletter and annual report and in refereed journals.
3. Researchers routinely produce presentations and publications related to STRIDE-funded projects and products.
4. The STRIDE Center continues to showcase ongoing and completed projects at the Annual UTC Conference for the Southeastern Region and at the STRIDE Student Poster Showcase/Competition, which is held at the University of Florida's Reception during the Transportation Research Board's annual meeting in Washington, D.C.
5. Results are posted on the STRIDE, Facebook and Twitter pages.

What do you plan to do during the next reporting period to accomplish the goals?

1. Continue to create additional technology transfer opportunities such as webinars, workshops and/or short courses based on completed CMS, STRIDE and match research projects.
2. Monitor the remaining ongoing projects via quarterly reports to ensure they are progressing on schedule, and products and results are disseminated as expected.
3. Monitor the draft final reports from all projects, the peer reviews of those reports and the process of receiving and editing the final reports for posting on the STRIDE website, reporting these on the RiP database as completed projects, and providing links to completed PDFs of projects from the TRID/TRIS database.
4. Monitor the remaining K-12 Workforce Development project to ensure delivery of final reports.
5. Publish the final STRIDE e-Newsletter this Fall 2016.
6. Continue to engage in discussions with State DOTs in the region and nationwide for potential collaborations.
7. Continue to engage in discussions with WTS International to create student chapters in the region, and coordinate activities with these chapters as they are created.
8. Continue posting events and products on the STRIDE website, Facebook, and via the use of Constant Contact email marketing tool to advertise the completion of final reports, events, etc.

Research Products

List any research products resulting from the program during the reporting period

- Signalized Intersection Simulation Program http://stride.ce.ufl.edu/signalized-intersection-simulation-program-for-education
- Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation http://stride.ce.ufl.edu/educational-modules-on-green-sustainable-design-and-rating-systems-for-neighborhood-development-and-transportation-
- Planning Tools for Linking Rural Development and Transportation. This is a suite of tools for planning for bicycle travel, preservation of community character and regional development.

Participants and Other Collaborating Organizations

The following is a comprehensive list of universities, other academic institutions and agencies that the STRIDE Center has been involved with.

Table 7. Partners and Participating Organizations		
Organization Name	**Location**	**Contribution**
University of Florida	Gainesville, FL	Lead University
Auburn University	Auburn, AL	Partner University
Georgia Institute of Technology	Atlanta, GA	Partner University
Mississippi State University	Mississippi State Univ., MS	Partner University
North Carolina State University	Raleigh, NC	Partner University
University of Alabama at Birmingham	Birmingham, AL	Partner University
University of North Carolina	Chapel Hill, NC	Partner University
Florida Department of Transportation (FDOT)	Tallahassee, FL	Matching funds commitment
Alabama Department of Transportation (ALDOT)	Montgomery, AL	Matching funds commitment
Georgia Department of Transportation (GDOT)	Atlanta, GA	Matching funds commitment
Mississippi Department of Transportation (MDOT)	Jackson, MS	Matching funds commitment
North Carolina Department of Transportation (NCDOT)	Raleigh, NC	Matching funds commitment

Table 8. Other Collaborators			
Organization Name	**Location**	**Contribution**	**Comments**
Town of Carrboro (Jeff Brubaker)	North Carolina	Collaboration	
Town of Chapel Hill (Council member Jim Ward)	North Carolina	Collaboration	
Durham-Chapel Hill-Carrboro MPO (Andrew Henry and other staff)	North Carolina	Collaboration	

University of North Carolina Facilities Planning	North Carolina	Collaboration	
Carrboro Bicycle Coalition (Seth Lajeneusse North Carolina and other staff)	North Carolina	Collaboration	
Triangle J Council of Governments (John Hodges Copple and other staff)	North Carolina	Collaboration	
Federal Highway Administration	Washington, DC	Collaboration	
Federal Transit Administration	Washington, DC	Collaboration	
Woman's Transportation Seminar (WTS) International	Washington, DC	Collaboration in the creation of new chapters in the Southeast	Various K-12 workforce development programs for **STRIDE Project Number 2012-009S**
WTS NC Triangle Chapter	Raleigh, NC	Collaboration	Various K-12 workforce development programs for **STRIDE project Number 2012-009S**
University of North Florida	Jacksonville, FL	Facilities, collaboration, personnel exchanges	K-12 workforce development program for **STRIDE Project Number 2012-009S**
21st Century Community Learning Center of Alachua County	Gainesville, FL	Facilities, collaboration, personnel exchanges	Various K-12 workforce development programs for **STRIDE project Number 2012-009S**
North Florida WTS Chapter	Jacksonville, FL	Facilities, collaboration, personnel exchanges	Various K-12 workforce development

			programs for **STRIDE Project Number 2012-009S**
WTS Central Florida Chapter	Orlando, FL	Facilities, collaboration	Various K-12 workforce development programs for **STRIDE Project Number 2012-009S**
Center for Transportation and the Environment (CTE) at North Carolina State University	Raleigh, NC	Facilities, Collaborative research Personnel exchanges	Various K-12 workforce development programs for **STRIDE Project Number 2012-009S**
Highway Safety Research Center at North Carolina State University	Raleigh, NC	Facilities, Collaborative research personnel exchanges	For data extraction of injuries and crashes on **STRIDE Project Number 2012-022S**
Roybal Center for Translational Research on Aging and Mobility, University of Pennsylvania	Philadelphia, PA	Collaborative research, personnel exchanges	The director of the Roybal Center, Dr. Karlene Ball, is a member of the multidisciplinary Advisory Committee for **STRIDE research project 2012-095**. The center has vast expertise in cognitive research aimed to older adults
Safe Routes to School	Federal program, various states	Personnel exchanges, collaborative research on STRIDE project 2012-067S	Assisted in collecting sidewalk data for **STRIDE Project Number 2012-067S**
Atlanta Regional Commission	Atlanta, GA	Personnel exchanges, Facilities, collaborative research on STRIDE project 2012-067S	Transportation Division, bicycle and pedestrian planning for **STRIDE Project Number 2012-067S**

City of Atlanta	Atlanta, GA	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	Department of Public Works, Department of Planning and Community Development for **STRIDE Project Number 2012-067S**
Atlanta City Council Sidewalk Task Force	Atlanta, GA	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	Members of the research team on **STRIDE Project Number 2013-067S** participate in the Atlanta City Council Sidewalk Task Force, which involves attending general meetings and subcommittee meetings related to policy and funding for pedestrian facility maintenance. The full Sidewalk Task Force includes city staff from the department of Public Works and department of Planning, elected officials, and pedestrian advocates.
Atlanta Pedestrian Organization (PEDS)	Atlanta, GA	Personnel exchanges on STRIDE project 2012-067S	Staff and volunteers at PEDS participated in initial testing of the sidewalk survey instrument and provided feedback that was then incorporated into the instrument before full scale deployment.
Tulane University	New Orleans, LA	Personnel exchanges, collaborative research, financial support	Collaboration and as partial match for petroleum related releases

Cambridge Systematics	Tallahassee, Florida	Anita Vandervalk participates on the STRIDE External Advisory Board	
National Center for Transportation Systems Productivity and Management (NCTSPM), Georgia Institute of Technology	Atlanta, GA	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
National Center for Intermodal Transportation (NCITEC), Mississippi State University	Miss. State, MS	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
National Center for Transit Research (NCTR), University of South Florida,	Tampa, FL	Financial support	Co-sponsors for the UTC Conference for the Southeastern Region
Centennial Place Elementary School	Atlanta, GA	Facilitates	For K-12 activities
Girl Scouts of Gateway Council, Camp Kateri	Orange Springs, FL	Facilitates	For K-12 activities
Williams Elementary School	Gainesville, FL	Facilities	For K-12 activities
PK Yonge Research School	Gainesville, FL	Facilities	For K-12 activities
Lincoln Middle School	Gainesville, FL	Facilities	For K-12 activities
Mebane Middle School	Gainesville, FL	Facilities	For K-12 activities
Bishop Middle School	Gainesville, FL	Facilities	For K-12 activities
UF - Lawton Chiles Elementary School	Gainesville, FL	Facilities	For K-12 activities
Boone High School	Orlando, FL	Facilities	For K-12 activities
Arlington Middle School	Jacksonville, FL	Facilities	For K-12 activities
Jordan Glen School	Archer, FL	Facilities	For K-12 activities
21st Century Community Learning	Gainesville, FL	Facilities and Collaboration	For K-12 activities

Center, Alachua County Public Schools			
MSU – St. Martins Middle School, Arthur Watson Elementary School; Jackson County Schools, Mississippi; St. Martins Elementary, Mississippi	Pascagoula, MS and St. Martins, MS.	Facilities	For K-12 activities at Mississippi State University
Centennial Campus Magnet Middle School	Raleigh, NC	Facilities	For K-12 activities at North Carolina State University
Cade Museum	Gainesville, FL	Facilities	For K-12 activities at UF
UF Center for Pre-collegiate Education and Training	Gainesville, FL	Facilities	For K-12 activities at UF
University of North Florida	Jacksonville, FL	Facilities and collaboration	STRIDE K-12 workforce development activities at UF and on STRIDE project **2012-009S**
University of Florida LTAP	University of Florida, Gainesville, FL	Personnel exchanges, facilities, collaborative research on STRIDE project 2012-067S	STRIDE K-12 workforce development activities at UF and on STRIDE project **2012-009S**
RPCGB - Darrell Howard, Deputy Director of Planning Franchesca Taylor, Active Transportation Planner	Birmingham, AL	Personnel exchanges	
North Carolina Local Technical Assistance Program (NC LTAP)	Raleigh, NC	Personnel exchanges	STRIDE K-12 workforce development activities at UF and on STRIDE project **2012-009S**

Impact

What is the impact of the program? How has it contributed to transportation education, research, and technology transfer? (See below)

- ***What is the impact on the development of the principal discipline(s) of the program?***
  STRIDE affiliated students have been involved in various research projects funded by the Center and they have presented papers and posters at major conferences such as TRB and other smaller events such as the STRIDE Student Poster Showcase and Competition, including the UTC Conference for the Southeastern Region. Several of our educational and workforce development products have been downloaded by agencies around the U.S., and our seminars have been attended by hundreds of participants from MPOs, local, state, and national agencies, faculty, students, and other transportation professionals. We continue to disseminate information on STRIDE products to increase awareness of their availability. Most recently, a Signalized Intersection Simulation Program (http://stride.ce.ufl.edu/signalized-intersection-simulation-program-for-education) has been developed to help undergraduate students learn queuing theory, signal operations and analysis. These two topics are usually the most challenging for students to grasp when taking the Introduction to Transportation Engineering course.

- ***What is the impact on other disciplines?***
  The STRIDE Center continues to engage in interdisciplinary collaboration in research projects, education, workforce development and technology transfer. During the life of the grant, projects have involved psychologists, computer scientists, mechanical engineers, civil engineers, industrial engineers, urban planners and even law enforcement. Below are some examples:

  - An FDOT match project engages mechanical engineers and computer scientists to develop new algorithms for autonomous and connected vehicle trajectory optimization.
  - An FDOT match project engages computer scientists to use big data as related to transportation.
  - A STRIDE funded projects engages a computer scientist working on virtual reality to understand transportation safety while driving.
  - Psychologists have worked on our projects to improve pedestrian safety for children and young drivers.
  - Transportation engineers and a former highway patrol expert have conducted research to understand the characteristics of Road Ranger crashes and to identify practices and procedures that have the potential to mitigate identified dangers for Road Rangers.

- ***What is the impact on transportation workforce development?***
  The STRIDE Center's efforts related to workforce development have primarily focused on exposing K-12 children/students to transportation and STEM-related concepts. During this reporting period, the Center funded the 2016 Girls in Science & Engineering Day (GSED) at the University of Alabama, Birmingham, which was led by Dr. Virginia Sisiopiku. GSED is a program that engages middle school girls in Alabama in STEM-related activities, which include interactive workshops led by faculty and students at UAB. A total of 170 girls registered for this event with 45 different schools participating, and a variety of activities such as rehabilitation robotics, transportation/civil engineering, electrical engineering, biology, and environmental engineering to name a few. Ninety-three of the participants said they were exposed to a new career in science and engineering as a result of this event.

- ***What is the impact on physical, institutional and information resources at the university or other partner institutions?***
  Through the STRIDE Center's information dissemination activities (via electronic newsletters, final report releases) related to the various research products it has produced, the Center has increased its presence on campus at its main headquarters at the University of Florida and at its partner institutions. For example, students are aware of fellowships, assistantships and internships offered; local reporters contact us from time to time, and other universities in the Southeastern region know us through the UTC Conference for the Southeastern Region. This past year the University of Florida administration approved funding ($150K) to upgrade an existing driving simulator on campus, to further facilitate research conducted by STRIDE. The presence of the Center, its products and activities have served to increase the importance and breadth of transportation at UF and all partner institutions..

- ***What is the impact on technology transfer?***
  In the past 6 months, the STRIDE Center has sponsored six technology transfer activities (see pages 6-7). These workshops and webinars, which have been held in conjunction with conferences and other transportation-related events, have reached transportation professionals, faculty and students across the nation.

- ***What is the impact on society beyond science and technology?***
  New and improved tools and methods have been developed by STRIDE research. The educational materials produced by researchers affiliated with the STRIDE Center have been disseminated and used widely across the country. Collaboration between academia, public and private sectors remains strong and STRIDE continues to assist in the development and implementation of research products by funding technology transfer and workforce development activities.

Changes/Problems

- Changes in approach and reasons for change: *Nothing to report.*
- Actual or anticipated problems or delays and action or plans to resolve them: *Nothing to report.*
- Changes that have a significant impact on expenditures: *Nothing to report.*
- Significant changes in use or care of human subjects, vertebrate animals and/or biohazards: *Nothing to report.*
  Change of primary performance site location from that originally proposed*: Nothing to report.*

Special Reporting Requirements

(Award-specific reporting requirements)

- Federal Financial Report – *This report is prepared by the grants specialist at UF responsible for managing all STRIDE related financial duties.*
- Federal Financial Accountability and Transparency Act (FFATA) Sub-award and Executive Compensation Reporting Requirement – *This report is prepared by the College of Engineering contracts office.*

List of Projects and PIs (STRIDE 2013)

Dynamic Traffic Control Interventions for Enhanced Mobility and Economic Competitiveness
PI: Nagui Rouphail, Ph.D., North Carolina State University
Co-PI: Mohamed Hadi, Ph.D., Florida International University
$150,000

Signal Timing Optimization with Consideration of Environmental and Safety Impacts
PI: Mohamed Hadi, Ph.D., Florida International University
Co-PIs: Lily Elefteriadou, Ph.D., University of Florida
$120,000

On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing
PI: Scott Washburn, Ph.D., University of Florida
Co-PIs: Christopher Frey, Ph.D., North Carolina State University; Nagui Rouphail, Ph.D., North Carolina State University
$150,000

Using Crowdsourcing to Prioritize Bicycle Route Network Improvements
PI: Jeffrey J. LaMondia, Ph.D., Auburn University
Co-PI: Kari Watkins, Ph.D., Georgia Institute of Technology
$100,000

Distracted Driving – It is not always a choice.
PI: Mike Hunter, Ph.D., Georgia Institute of Technology
Co-PI: Gregory M. Corso, Ph.D., Morehead State University
$150,000

GIS-Based Instructional Tool for Crash Prediction Methods
PI: Ilir Bejleri, Ph.D., University of Florida
Co-PI: Siva Srinivasan, Ph.D., University of Florida
$89,961

Investigating the Effect of Drivers' Body Motion on Traffic Safety
PI: Angelos Barmpoutis, Ph.D., University of Florida
Co-PIs: Alexandra Kondyli, Ph.D., University of Florida; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
$132,972

Applying Livability Performance Measures to Transportation Plans and Projects
PI: Leigh Blackmon Lane, Ph.D., North Carolina State University
$53,000
Engineers Change the World: A Hands-on workshop for 13- to 18-Year-Old Girls
PI: James Martin, Ph.D., North Carolina State University
Co-PI: Nina Barker, University of Florida
$42,452

Teaching Schoolchildren Pedestrian Safety: A Pragmatic Trial Using Virtual Reality
PI: David Schwebel, Ph.D., University of Alabama at Birmingham
Co-PIs: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill; Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
$150,000

School Transportation: Development of an Education Module
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Ruth Steiner, Ph.D., University of Florida
$71,000

List of Projects and PIs (STRIDE 2012)

(The following projects were selected for funding)

Quantifying the Costs of School Transportation
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PIs: Ruth Steiner, Ph.D., University of Florida; Jeff Tsai, Ph.D., North Carolina State University
$250,313

Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings
PI: Bastian Schroeder, Ph.D., North Carolina State University
Co-PIs: Lily Elefteriadou, Ph.D., University of Florida; Virginia Sisiopiku, University of Alabama at Birmingham
$315,148

Comparative Analysis of Dynamic Pricing Strategies for Managed Lanes
PI: Jorge Laval, Ph.D., Georgia Institute of Technology
Co-PIs: Yafeng Yin, University of Florida; Yingyan Lou, University of Alabama
$204,526

Signalized Intersection Simulation Program for Education
PI: Scott Washburn, Ph.D., University of Florida
$34,212

Investigation of ATDM Strategies to Reduce the Probability of Breakdown
PI: Mohammed Hadi, Ph.D., Florida International University
Co-PI: Lily Elefteriadou, Ph.D., University of Florida
$190,792

Engaging Engineering Students with Transportation Safety: An Educational Module
PI: Lesley Strawderman, Ph.D., Mississippi State University
$2,610

A Naturalistic Driving Study across the Lifespan
Co-PIs: Despina Stavrinos, Ph.D. and Lesley Ross, Ph.D., University of Alabama at Birmingham
$125,071

Development of Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems for Neighborhood Development and Transportation
PI: Robert W. Peters, Ph.D., University of Alabama at Birmingham
Co-PI: Adjo Amekudzi, Ph.D., Georgia Institute of Technology
$45,809

Developing a New Course for Public Transportation Education
PI: Kari Edison Watkins, Ph.D., Georgia Institute of Technology
Co-PI: Jeffrey LaMondia, Ph.D., Auburn University
$70,000

Automated Sidewalk Quality and Safety Assessment System
PI: Randall Guensler, Ph.D., Georgia Institute of Technology
$196,667

Development of Pedestrian and Bicycle Transportation Course Modules
PI: Daniel Rodriguez, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Rod Turochy, Ph.D., Auburn University
$25,750

Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills
PI: Berrin Tansel, Ph.D., Florida International University
Co-PIs: Adjo Amekudzi, Ph.D., Georgia Institute of Technology; Nasim Uddin, University of Alabama at Birmingham
$70,000

Analyzing the Impact of Carbon Regulatory Mechanisms on Supply Chain Management
PI: Sandra Eksioglu, Ph.D., Mississippi State University
Co-PI: Joseph Geunes, Ph.D., University of Florida
$128,629

Engineering: It's for Girls, Too!
PI: James Martin, PE, North Carolina State University
Co-PI: Lily Elefteriadou, Ph.D., University of Florida
$38,895

A Regional Land Use Transportation Decision Support Tool for Mississippi
PI: Brian Morton, Ph.D., University of North Carolina at Chapel Hill
Co-PIs: John Poros, Ph.D., Mississippi State University; Joe Huegy, Ph.D., North Carolina State University
$120,380

Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non-Mid-week Days
PI: Siva Srinivasan, Ph.D., University of Florida
Co-PI: Xia Jin, Ph.D., Florida International University
$77,790

Development of Graduate Level Course on Sustainable Asphalt Pavements
PI: James Richard Willis, Ph.D., Auburn University
$47,837

Emissions Modeling and Integration into Traffic Micro-simulation
PI: Scott Washburn, Ph.D., University of Florida
Co-PIs: Nagui Rouphail, Ph.D., North Carolina State University; H. Christopher Frey, Ph.D., North Carolina State University
$251,764

List of Selected Cost Share Projects

Modeling, Implementation, and Validation of Arterial Travel Time Reliability
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDK77-977-20
$149,962

Planning for Incorporating Ancillary Demands in the Next Generation FSUTMS
PI: Sivaramakrishnan Srinivasan, Ph.D., University of Florida
FDOT Project No: BDK77-931-16
$158,485

Comparison of Methods for Measuring Travel Time at Florida Freeways and Arterials
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV32-977-02
$3,000

Before and After Implementation Studies of Advance Signal Technologies in Florida
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV-32-977-05
$739,841

Policy Implications of Automated Vehicle Technology
PI: Sivaramakrishnan Srinivasan, Ph.D., University of Florida
FDOT Project No: BDV32-977-06
$180,001

Evaluation of Arterial Corridor Improvements and Traffic Management Plans in Florida
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV31-977-44
$135,664

Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV31-977-45
$193,920

Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections
PI: Carl Crane, Ph.D., University of Florida
FDOT Project No: BDV31-977-45
$94,568

Development and Testing of Optimized Autonomous and Connected Vehicle Trajectories at Signalized Intersections
PI: Sanjay Ranka, Ph.D., University of Florida
FDOT Project No: BDV31-977-45
$100,616

Local Technical Assistance Program (LTAP) 2015/2016
PI: Maria Cahill, T2 Director, University of Florida Transportation Institute (UFTI)
FDOT Project No: BDV33-977-03
$300,000

Warrants, Design, and Safety of Road Ranger Service Patrols
PI: Yafeng Yin, Ph.D., University of Florida
FDOT Project No: BDV31-977-52
$147,217

Improvements to the FDOT Travel Time Reliability Model for Freeway Analysis
PI: Lily Elefteriadou, Ph.D., University of Florida
FDOT Project No: BDV32-934-01
$80,000

K-12 Workforce Development Projects

Florida International University, K-12 Workforce Development Activities, 2012
PI: Berrin Tansel, Ph.D.

Mississippi State University, K-12 Workforce Development Activities, 2012
PI Eric Heiselt, Ph.D.

North Carolina State University, K-12 Workforce Development Activities, 2012
PI: James Martin, P.E.

University of Alabama at Birmingham, K-12 Workforce Development Activities, 2012
PI: Virigina Sisiopiku, Ph.D.

University of Florida, K-12 Workforce Development Activities, 2012
PIs: Nina Barker, T2 Assistant Director and Leslie Washburn, P.E.

Georgia Institute of Technology, Engaging in Engineering Initiative with Centennial Elementary School, 2013
PIs: Yanzhi (Ann) Xu, Ph.D., and Alice Grossman (doctoral student)

North Carolina State University, K-12 Workforce Development Activities, 2013
PI: James Martin, P.E.

University of Alabama at Birmingham, K-12 Workforce Development Activities, 2013
PI: Virginia Sisiopiku, Ph.D.

University of Florida, K-12 Workforce Development Activities, 2013
PIs: Nina Barker, T2 Assistant Director and Leslie Washburn, P.E.

Supplemental Technology Transfer Projects

Workshop for Managed Lanes on Arterials
PI: Yafeng Yin, Ph.D., University of Florida
$25,266

Workshops Related to STRIDE-funded Study of Multi-modal Costs of School Transportation
PI: Noreen McDonald, Ph.D., University of North Carolina, Chapel Hill
$21,212

Statewide Training of SafetyAnalyst in Florida
PI: Priyanka Alluri, Ph.D., Florida International University
$20,000

Development of Case Studies, Numerical Exercises, and Instructional Modules for Teaching Roadway Safety Analysis
PI: Siva Srinivasan, Ph.D., University of Florida
$31,011

Signal Timing Optimization with Consideration of Environmental and Safety Impacts
PI: Mohammed Hadi, Ph.D., PE, Florida International University
$108,364

Evaluation of Traffic Control Options in Work Zone
PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
$69,858 (+ an additional $8,080 for technology transfer and additional task)

Empowering Girls in Science and Engineering
PI: Virginia Sisiopiku, Ph.D., University of Alabama at Birmingham
$1,524

Infrastructure Adaptation Planning for Autonomous Vehicles
PI: Yafeng Yin, Ph.D., University of Florida
$69,431

Dynamic ATM Strategy Selection Tool (FREEVAL-DSS) (Part 1, 2, and 3)
PI: Nagui Rouphail, Ph.D., North Carolina State University
$13,931

Technology Transfer Workshops Based on a Regional Land Use Transportation Decision Support Tool for Mississippi
PIs: Brian Morton, Ph.D., University of North Carolina at Chapel Hill and John Poros, Mississippi State University
$47,237

Development of Support Systems, Instructional Modules, and a Case Study for the Enhanced Driving Simulator at the Gator Tech Smart House
PI: Siva Srinivasan, Ph.D., University of Florida
$90,967

The Cycle Atlanta App
PI: Kari Watkins, Ph.D., GaTech
$50,000 (funds soon to be released)

Active Transportation Network Based on the Tangelfoot Trail
PI: Brian Morton, Ph.D., North Carolina State University
$28,882

Practitioner Workshop on School Sititng and School Transportation Impacts
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Ruth Steiner, Ph.D., University of Florida
$49,131

Evaluating the Relationship between School Site Selection, Residential Developments and School Transportation in North Carolina
PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill
Co-PI: Thomas Dudley, Ph.D., North Carolina State University, ITRE
$30, 921

Sidewalk Survey Implementation for the Southeast Region
PI: Randall Guensler, Ph.D. GaTech
$28,500 (funds soon to be released)

Educational and Professional Training Modules on Green/Sustainability Design and Rating Systems: Workshop
PI: Robert Peters, Ph.D., University of Alabama at Birmingham
Co-PI: Despina Stavrinos, Ph.D., University of Alabama at Birmingham
$10,529 (funds soon to be released)