



## Program Progress Performance Report for University Transportation Centers

**Submitted to:** U.S. Department of Transportation  
Office of the Assistant Secretary for Research and  
Technology (OST-R)

**Grant Number:** DTRT13-G-UTC42

**Project Title:** Tier I University Transportation Centers  
Center for Accessibility and Safety for an Aging  
Population (ASAP)

**Program Director:** John O. Sobanjo, Ph.D., P.E.  
Professor and Director  
Center for Accessibility and Safety for an Aging  
Population (ASAP)  
Florida State University  
2525 Pottsdamer St., Rm. 129,  
Tallahassee FL 32310  
[jsobanjo@fsu.edu](mailto:jsobanjo@fsu.edu) / (850) 410.6153

**Submitting Official:** Same as Program Director

**Submission Date:** October 30, 2014

**DUNS and EIN:** 790877419 / 59-1961248

**Recipient Organization:** Florida State University  
874 Traditions Way, Rm. 300 SSB  
Tallahassee, FL 32306-4166

**Recipient Account No.:** 24598/033177

**Project/Grant Period:** September 30, 2013 – September 30, 2017

**Reporting Period End Date:** September 30, 2014

**Report Term or Frequency:** Annual

**Signature of Submitting Official:**

# Overview

The project was awarded for the funding period of September 30, 2013 to September 30, 2017. As expected of a new center, most activities done on the project for the first quarter were administrative, including hiring of staff, development of a website, establishing advisory committees, generating research projects, and some outreach activities. The initial part of the year was dedicated to establishing internal accounting and budget procedures to track costs, including matching funds. It was also necessary to establish subcontracts with each consortium member. The remainder of the year was focused on conducting research and outreach activities. An Office Manager was hired to assist with administrative work, and a Web Manager also hired for web development and maintenance. A website has been established for the Center, showing the information on the Center's key personnel, and ongoing activities at the Center (<http://www.utc.fsu.edu/>).

The Center has formed both Internal and External Advisory Boards. Faculty from the universities constitutes the Internal Advisory Board, while the External Advisory Board consists of both academicians and very well-qualified industry and public agency professionals in the pertinent areas of focus of the Center. The Center's research proposals have been multi-disciplinary in nature, thus involving principal investigators across colleges and universities in the consortium. Overall, nine research projects were selected for funding in the first cycle of funding, with the principal investigators being from the three member universities of the consortium. Late in the fiscal year, two pertinent events also took place: a Driving Simulator was purchased and installed at the FAMU-FSU College of Engineering for use by the Center; and a well-attended *Transportation Day* was hosted at FSU, with the theme of "*Transportation for K-12 and the elder user.*"

## 1. Accomplishments

### 1.1 Major Goals and Objectives of the Center

#### Research

With motivation from Florida's large number of senior residents, the reported relatively high involvement of seniors in traffic crashes nationwide and their special needs for transportation, the theme of the Center is to provide safe and accessible transportation to the aging population. Working within the five USDOT strategic goals, and the related tasks listed in the MAP-21 (Pub. L. 112-141 Sec. 52003), the center will focus on safety and accessibility, as addressed under Section 52003 (b) (2) IMPROVING HIGHWAY SAFETY, and Section 52003 (b) (4) STRENGTHENING TRANSPORTATION PLANNING AND ENVIRONMENTAL DECISIONMAKING. The center focuses on four interdisciplinary areas: Accessibility and community connectivity among older adults; human factors affecting the older population, especially regarding acceptance of emerging technologies; geometric design research, especially regarding elder crash mitigation; and health, wellness and safety of seniors as it relates to multimodal transportation and emergency operations. The nine research projects identified in Year 1 are subject to the following desired **research metrics**:

- Number of interdisciplinary research projects funded.
- Number of projects that are multimodal in nature, or focus on non-vehicle modes.

- Impact of funded research projects, as measured by relevant leadership and technology transfer metrics.

**Leadership Metrics:** A number of performance metrics have been developed that will be used to evaluate the Center's leadership in the transportation field:

- Number of presentations by Center members at national and international conferences
- Number of invited seminars, keynote lectures, etc. given by Center members
- Number of Center members who are members of national technical committees
- Number of Center members who are on editorial boards of national and international journals
- Number of Center members who receive awards and recognition

**Technology Transfer Metrics:** A number of metrics have been developed to evaluate the Center's technology transfer efforts:

- Number of seminars, webinars, conferences, and colloquia hosted by the Center
- Attendance at seminars, webinars, conferences, and colloquia hosted by the Center
- Number and impact of technology deployments

## Education and outreach

The Center faculty is committed to education and workforce development at all levels. Education and workforce development activities planned for the center include the following:

- Research assistantships
- Annual graduate student research colloquia
- Seed grants for student pilot projects (approximately eight)
- Dissertation fellowships
- Monthly brown bag lunch and seminar series

Other Center activities focused on K-12 will include:

- Expanding existing NSTI summer program at FAMU and developing NSTI program at FSU, to serve a larger student population over longer time frame
- Conducting an annual K-12 Transportation Day with opportunities to drive in the simulator
- Developing online educational activities and games for inclusion on Center website

A number of **metrics** have been developed to evaluate the Center's **education** efforts:

- Number participating in K-12 programs offered by Center
- Percent of participants in K-12 Center activities who continue into transportation programs in college
- Number of students enrolled in transportation-related programs at member institutions
- Number of undergraduate and graduate student participants in Center research
- Number of transportation related degrees awarded at member institutions
- Number of undergraduate and graduate student participants who continue into more advanced degree programs or obtain transportation-related employment
- Number of courses and course modules developed and adopted
- Number of certificate programs established

- Number of new faculty lines allocated to Center related programs

## **Collaboration and diversity**

The proposed Center is a collaborative effort among Florida State University (FSU), Florida A&M University (FAMU), and the University of North Florida (UNF), with FSU serving as the lead institution. The selection of these two collaborative institutions (FAMU and UNF) is special because of the uniqueness of the two institutions. The Center also plans to collaborate with other public section organizations (FDOT, TRB, etc.), as well as with other Universities. There will be both External and Internal Advisory Boards with memberships from the private industry, government agencies, e.g., federal, state, county, city, etc., and academic institutions. Our Center is uniquely equipped to address the challenges of broadening participation and attracting minorities to the transportation field. The Center is committed to increasing the number of students in STEM (science, technology, engineering, and mathematics) fields in general and the transportation field in particular.

**Collaboration Metrics:** A number of metrics have been developed to evaluate the Center's collaborative efforts:

- Number of joint research proposals submitted by Center members across institutions and departments
- Number and diversity of internal advisory board members
- Number and diversity of external advisory board members
- Number and impact of collaborative technology deployments

**Diversity Metrics:** A number of metrics have been developed to evaluate the Center's diversity efforts:

- Percent of participants in K-12 center activities who are female or minorities
- Percent of female or minority participants in K-12 center activities who continue into transportation programs in college

## **1.2 Accomplishment under Major Goals and Objectives**

### **Research**

The Center established the overall administration team: Center Director; Associate Directors; Office Manager; and Web Manager. The Center has formed both Internal and External Advisory Boards. The research proposals were reviewed by a team comprising members from the Internal and External Advisory Boards. The Center's research projects have been multi-disciplinary in nature, thus involving principal investigators across colleges and universities in the consortium. Overall, nine research projects were selected for funding, with the principal investigators being from the three member universities of the consortium. The nine selected and ongoing research projects are as shown below. The specific accomplishments in terms of publications, conference presentations, etc. are listed in other sections (2.0 Products) of this report.

**List of funded research projects**

No.	Project Title	University/Discipline
1	Student Pilot Project: Impact of Red Light Running Camera Flashes on Younger and Older Driver Brake Response Times	FSU: Psychology
2	Protecting Vulnerable Road-Users: Ensuring the Safety of Bicyclist Infrastructure for an Aging Population	FSU: Psychology; FSU: Urban and Regional Planning
3	Needs Assessment for Multi-Modal Emergency Transportation Operations with a Focus on an Aging Population	FSU: Civil Engineering; Geography; FAMU: Civil Engineering; UNF: Civil Engineering.
4	Spatial Context Transportation Safety Analysis for the Aging Population: An Integrated 3-Dimensional Visualization and Human Factors Simulation Approach	FAMU: Civil Engineering; FSU: Psychology; FSU: Civil Engineering.
5	Accessibility for an Aging Population: Measuring and Ensuring Access to Goods, Services, and Vital Needs	FSU: Geography; Urban and Regional Planning
6	Improving Cutaway Bus Safety For Aging Passengers	FSU: Psychology; FAMU: Civil Engineering
7	Assessment of the Psychosocial Behavior Associated to Elderly Drivers to Reduce Their Involvement in Crashes	FAMU: Architecture Engineering; Health Care Management; and Occupational Therapy.
8	Analyzing Crash Clusters Near Senior Destination Sites Using GIS	UNF: Civil Engineering; FAMU: Civil Engineering; FSU: Civil Engineering.
9	Safety Investigation of Elder Drivers and Pedestrians at Roundabouts	FSU: Civil Engineering; and Geography.

Each of the research projects has a dedicated website for information on the project and also for disseminating the results of the study. Measurements under the specific metrics related to research are summarized in the following table.

<b>General research metrics:</b>	<b>Status</b>
Number of interdisciplinary research projects funded.	7
Number of projects that are multimodal in nature, or focus on non-vehicle modes.	2
Impact of funded research projects, as measured by relevant leadership and technology transfer metrics.	See Below
<b>Leadership Metrics:</b>	
Number of presentations by Center members at national and international conferences	11
Number of invited seminars, keynote lectures, etc. given by Center members	4
Number of Center members who are members of national technical committees	3
Number of Center members who are on editorial boards of national and international journals	13
Number of Center members who receive awards and recognition	0
<b>Technology Transfer Metrics:</b>	
Number of seminars, webinars, conferences, and colloquia hosted by the Center	2
Attendance at seminars, webinars, conferences, and colloquia hosted by the Center	110
Number and impact of technology deployments	0

## Education and outreach

The Center successfully organized a Brown Bag Lecture Series titled “Age and Transportation” at Florida State University (FSU) during the Spring 2014 semester, with participants from the universities and the state agencies. The speaking schedule is shown below.

<b>Date</b>	<b>Speaker</b>	<b>Speaker's Title</b>	<b>Lecture Topic</b>
Mon. Feb. 3, 2014	Dr. Neil Charness	Professor, Department of Psychology, FSU	Age and Parking Lot Safety
Mon. Feb. 17, 2014	NO MEETING		
Mon. Mar. 3, 2014	Dr. John Reynolds	Director, Claude Pepper Institute for Aging, FSU	Findings from the Florida Aging Road User Surveys
Mon. Mar. 17, 2014	Dr. Walter Boot	Assistant Professor, Department of Psychology, FSU	Age and Intersection Safety
Mon. Mar. 31, 2014	Dr. Alice Pomidor	Professor, College of Medicine, FSU	Medical Issues for Older Drivers
Mon. Apr. 14, 2014	Dr. Eren Ozguven	Assistant Professor, Department of Civil & Environ. Engineering, FSU	Emergency Evacuation with a Focus on Aging Populations



On Friday, March 21, 2014, as part of the Civil and Environmental Engineering Graduate Seminar Series at the FAMU-FSU College of Engineering, a lecture was organized and well attended by faculty and graduate students. The topic was “Designing for Florida’s Aging Population” and the speaker was Gail M. Holley, Head of Safe Mobility for Life Program, and Research Manager, Florida Department of Transportation.

On Wednesday August 20, 2014, our Center participated in the FHWA’s State Planning and Research (SPR) National Review (Florida was one of 4 randomly chosen states). The meeting was hosted by Florida DOT and our Center at the FAMU-FSU College of Engineering. Present at this meeting were the three FHWA visitors (Shakira Crandol, Carl Mikyska, and Tom Byron), the FDOT staff (Gail Holley and Darryll Dockstader) as well as the Directors and Associate Directors of the Center (John Sobanjo, Neil Charness, and Mark Horner). Our center made a presentation and answered discussions related to research and outreach activities. Our Center received a very positive feedback from the FHWA visitors after the review.

On October 7 and 8, 2014, hands-on training was conducted by the Vendor after the installation of the Driving Simulator at the FAMU-FSU College of Engineering. A similar simulator can be seen at <http://www.drivesafety.com/products/8/18/RS-250>.

As listed among the research projects at the Center, a student pilot project was also funded. Doctoral Research Fellowship was awarded to three graduate students working under research grants funded by the Center. The awards were based on nominations by faculty, formal applications and a review process.

On October 24, 2014, the Center held its First *Annual Transportation Day* event at the FAMU-FSU College of Engineering. More than 100 community members, researchers, and K-12 students enjoyed presentations and demonstrations on the theme of



*Transportation for the K-12 and Elder Road User.* At the opening session, Dean Yaw Yeboah of the FAMU-FSU College of Engineering welcomed the attendees, with a special challenge to the students to prepare to solve the transportation problems of the 21st century. John Sobanjo, Center Director and FSU Professor of Civil Engineering, reviewed the Center’s mission and research activities, and Lisa Spainhour, Education and Outreach Chair, presented Doctoral Research Fellow Awards to Ayberk Kocatepe,

PhD candidate in Civil and Environmental Engineering, Cary Stothart, Fourth Year Graduate Student in Psychology, and Timothy Wright, PhD Candidate in Psychology.

After the opening session, participants selected from concurrent tracks -- Aging and Mobility, and Teens and Transportation. Neil Charness, the Center's Associate Director and FSU Professor of Psychology initiated the track on Aging and Mobility with a talk on parking lot hazards for seniors. Other speakers included Alice Pomidor, a geriatrician and Professor with FSU's School of Medicine, who spoke on recognizing and reducing medical risk for older drivers, and Michal Gleba, a graduate student in Jerry Wekezer's Crashworthiness and Impact Analysis Lab at the FAMU-FSU College of Engineering, who spoke about issues in paratransit transportation. Attendees also had the opportunity to experiment with the Center's new Driving Simulator, in a session hosted by Ainsley Mitchum of the FSU's Department of Psychology.



Younger participants were able to attend special Teens and Transportation track held at the same time. Will Grissom of Florida Department of Transportation's Impaired, Distracted, and Teen Driving Program (Safety Office) spoke on teen driving safety, and Carey Shepherd of the Federal Highway Administration introduced the students to potential careers in transportation safety and engineering. After a walk through transportation themed displays and

posters, the students enjoyed hands-on activities in the FAMU-FSU computer lab, including a bridge design and safety competition, and a traffic signal design game.



The Center was pleased to welcome Gail Holley, Manager of FDOT’s Safe Mobility for Life program, as the event’s keynote speaker. Ms. Holley spoke on the topic of staying safe and mobile as aging road users. Event exhibitors included the Safe Mobility for Life Coalition, TraCS Florida crash and citation software, StarMetro Transit, and the Federal Highway Association. Students from FAMU and FSU, including members of the American Society of Civil Engineers (ASCE) and the Florida Engineering Society (FES) and Dwight Eisenhower Fellows, served as volunteers during the event.



Measurements under the specific metrics related to education and outreach are summarized below.

<b>Education and outreach metrics:</b>	<b>Status</b>
Number participating in K-12 programs offered by Center	100
Percent of participants in K-12 Center activities who continue into transportation programs in college	N/A
Number of students enrolled in transportation-related programs at member institutions	52
Number of undergraduate and graduate student participants in Center research	22
Number of transportation related degrees awarded at member institutions	20
Number of undergraduate and graduate student participants who continue into more advanced degree programs or obtain transportation-related employment	N/A
Number of courses and course modules developed and adopted	
Number of certificate programs established	
Number of new faculty lines allocated to Center related programs	

## Collaboration and diversity

The Center awarded nine research projects (listed earlier in this report) with most of the project requiring collaboration among faculty from various disciplines and different universities. There were collaborations with public agencies: Florida Department of Transportation (FDOT)’s Research Office; FDOT’s Safe Mobility for Life Program; and FSU’s Claude Pepper Institute for Aging. External and internal advisory boards were also established with memberships from the private industry, government agencies, e.g., federal, state, county, city, etc., and academic institutions. The names of the board members are listed in the following table.

**External Advisory Board**

<b>Name</b>	<b>Title/Employer</b>	<b>Industry</b>	<b>Expertise</b>
Karlene Ball	Prof. & Chair, Dept. of Psychology, Univ. of Alabama, Birmingham	Academic	Aging
Lynn Barr	Mobility Coordinator, Capital Region Transportation Planning Agency	MPO	Transportation Planning
Larry Baxter	Florida Dept. of Elder Affairs	State	Aging
Sara Czaja	Prof. Dept. of Psychiatry, Behavioral Sciences, and Industrial Engineering, Univ. of Miami, Florida	Academic	Aging
Heejo Ham	Director of Technical Support, <i>Citilabs</i>	Private Industry	Transportation Planning
Chester Henson	FDOT Roadway Design	State (FDOT)	Transportation Design
Gail Holley	FDOT-Engineering and Operations	State (FDOT)	Transportation Safety
Bill Horrey	The Liberty Mutual Research Institute, Boston, MA	Private Industry	Transportation Safety/Human Factors Psychology
Sylvester A. Kalevela	Acting Dean/Prof., Transportation Engineering, Colorado State University	Academic	Transportation
Trenda McPherson	FDOT Pedestrian Safety	State (FDOT)	Transportation Safety
Eric Sawyer	Retired City Traffic Engineer, Tallahassee	City	Transportation Traffic
Victor B. Wiley	FDOT Transit Safety	State (FDOT)	Transportation Safety

**Internal Advisory Board**

<b>Name</b>	<b>Title/Employer</b>	<b>Industry</b>	<b>Expertise</b>
Simon Foo	Prof. & Chair, FAMU-FSU College of Engineering, Dept. of Electrical & Computer Engineering	Academic	Electrical & Computer Engineering
Michelle Rambo-Roddenberry	Assoc. Prof. FAMU-FSU College of Engineering, Dept. of Civil & Environmental Engineering	Academic	Civil & Environmental Engineering
Greg Thompson	Emeritus Prof. FSU Dept. of Urban & Regional Planning	Academic	Urban Planning
John Sobanjo	Prof. FSU Dept. of Civil & Environmental Engineering	Academic	Transportation Center Director
Neil Charness	Prof. FSU Dept. of Psychology	Academic	Psychology/Center Assoc. Director
Mark Horner	Prof. FSU Dept. of Geography	Academic	Geography/Center Assoc. Director

Measurements under the specific metrics related to collaboration and diversity are summarized below.

<b>Collaboration and diversity metrics:</b>	<b>Status</b>
Number of joint research proposals submitted by Center members across institutions and departments	7
Number and diversity of internal advisory board members	6
Number and diversity of external advisory board members	12
Number and impact of collaborative technology deployments	
Percent of participants in K-12 center activities who are female or minorities	60
Percent of female or minority participants in K-12 center activities who continue into transportation programs in college	N/A

## 2. Products

### Publications, conference papers, and presentations

The following list shows the publications, conference papers, presentations, etc., resulting from research funding at the Center, under the specific research projects. It should be noted that these are based on one year of funding, with the initial period spent on non-research activities such as establishing subcontracts, formalizing the project budgets, and other necessary paperwork. It is anticipated that more journal publications will be reported in the next year, resulting from ongoing research activities.

#### **Project ID 34417, Timothy Wright (Advisors: Neil Charness and Walter Boot), “Student Pilot Project: Impact of Red Light Running Camera Flashes on Younger and Older Driver Brake Response Times.”**

Boot, W. R., Sall, R., & Wright, T. (**Presented 2013**). The Effect of Simulated Red Light Running Camera Flashes on Attention and Oculomotor Control. Presentation at The 14th Annual Meeting of the Vision Sciences Society, Vision Sciences Society. (International)

Wright, T. J., Boot, W. R., Charness, N., & Vitale, T. (**Presented 2014**). *The Impact of Red Light Running Camera Flashes on Younger and Older Drivers’ Attention and Oculomotor Control*. Presentation at The 67th Annual Meeting of the GSA, Gerontological Association of America. (International)

Wright, T. J., Boot, W. R., Charness, N., & Vitale, T. (**in preparation**). The Impact of Red Light Running Camera Flashes on Younger and Older Drivers’ Attention and Oculomotor Control. *Psychology and Aging*.

#### **Project ID 34695, Walter Boot, Neil Charness, Jeffrey Brown, Ainsley Mitchum, Cary Stothart, and Heather Lupton, “Protecting Vulnerable Road-Users: Ensuring the Safety of Bicyclist Infrastructure for an Aging Population.”**

Charness, N., Mitchum, A., Boot, W. R., Stothart, C., & Lupton, H. (2015). Human factors in parking lot crash risk for older pedestrians. Accepted as poster at the Transportation Research Board’s 94th Annual Meeting, Washington, DC, USA, January 11-15, 2015.

Charness, N. (2014). Parking lot hazards. Presentation at *Transportation Day*. FAMU/FSU College of Engineering, Oct. 24.

Charness, N. (2014). Parking lot safety. Presentation to Engineering Research Seminar organized by Prof. Virgil Ping, FAMU-FSU College of Engineering, Feb. 7.

Charness, N. (2014). Age and parking lot safety. Presentation in brown bag seminar on Age and Transportation, Neil Charness, Organizer. Florida State University, Feb. 3.

**Project ID 34609, Eren Erman Ozguven, Mark Horner, Yassir Abdelrazig, Thobias Sando, and Ren Moses, “Needs Assessment for Multi-Modal Emergency Transportation Operations with a Focus on an Aging Population.”**

Ozguven, E. E., Horner, M., Kocatepe, A., Marcelin, J. M., Abdelrazig, Y., Sando, T., and Moses, R., (2015). “Metadata-based Needs Assessment for Emergency Transportation Operations with a Focus on an Aging Population: A Case Study in Florida”, Accepted for Presentation at the Transportation Research Board’s 94th Annual Meeting, Washington, DC, USA, January 11-15.

Horner, M., Ozguven, E. E., Marcelin, J. M., and Kocatepe, A., (2015). “Spatial Network Optimization Modeling for Special Needs Hurricane Shelter Placement Serving the Aging Population”, Accepted for Presentation at the Transportation Research Board’s 94th Annual Meeting, Washington, DC, USA, January 11-15.

Ozguven, E. E., and Horner, M., (2015). “Assessing the Impacts of Emergency Transportation Needs on Aging Populations”, Accepted for Presentation at the Transportation Research Board’s 94th Annual Meeting, Washington, DC, USA, January 11-15.

Kocatepe, A., Ozguven, E. E., and Moses, R., (2014). “Evaluation of Multi-Modal Evacuation Operations in the Aftermath of a Disaster”, Presented at the 11th International Congress on Advances in Civil Engineering, Istanbul, Turkey, October 21-25.

Ozguven, E. E., Horner, M., Kocatepe, A., Marcelin, J. M., Abdelrazig, Y., Sando, T., and Moses, R., (2014). “Needs Assessment for Multi-Modal Emergency Transportation Operations with a Focus on an Aging Population”, Presented at the 2014 Conference for the UTC Region, Georgia Institute of Technology, Atlanta, March.

Ozguven, E. E., Horner, M., Kocatepe, A., Marcelin, J. M., Abdelrazig, Y., Sando, T., and Moses, R., (2014). “Needs Assessment for Multi-Modal Emergency Transportation Operations with a Focus on an Aging Population”, Presented at the 2014 ASAP Center *Transportation Day*, Tallahassee, Florida, October.

Vemulapalli, S.S., Ozguven, E. E., Sando, T., Abdelrazig, Y., and Moses, R., "Analyzing Crash Clusters Near Senior Destination Sites Using A GIS Approach", Presented at the 2014 ASAP Center *Transportation Day*, Tallahassee, Florida, October .

**Project ID: 34696, Mark Horner, and Michael Duncan, “Accessibility for an Aging Population: Measuring and Ensuring Access to Goods, Services, and Vital Needs.”**

Horner, MW, Duncan M, Wood B., Valdez-Torres Y, Stansbury C. Do Aging Populations Have Differential Accessibility to Activities? Analyzing the Spatial Structure of Social, Professional, and Business Opportunities. Submitted October 2014 to Travel Behavior and Society (Elsevier) (*under review*).

Duncan M., Horner MW, Valdez-Torres Y, Stansbury C, Wood B. Does the Travel Behavior of Aging Populations Differ by the Size of the Metropolitan Area in Which They Live? An Analysis of NHTS Data. Planned submission to transportation journal approximately December 2014 (*in preparation*).

**Project ID 34715, Jerry Wekezer, and Neil Charness, “Improving Cutaway Bus Safety For Aging Passengers.”**

Gepner, B., Siervogel, J., Wekezer, J., (2014). Crashworthiness evaluation of paratransit buses (*presentation*). UTC Conference for the Southeastern Region March 2014, Atlanta, Ga., USA.

Souders, D.J., Gepner, B., Charness, N., Wekezer, J., (2015). “A User-centered Literature Review of Safety and Human Factors Issues Involving Older Adults as Cutaway Bus Passengers”. Paper approved for presentation at the 94-th Annual Meeting of the Transportation Research Board. Washington D.C., January 11 - 15.

Gepner, B., Gleba, M., Jung, S., Wekezer, J., (2014). “Strain Rate Dependency in Paratransit Bus Rollover”. Paper submitted for possible publication in the International Journal of Heavy Vehicle Systems. October 15, (*under review*).

Gleba, M., “Issues in Paratransit Transportation”. (2014). (*presentation*) during ASAP UTC *Transportation Day* at FAMU-FSU College of Engineering, October 24.

## **Website(s) or other Internet site(s)**

Hosted on a computer server at Florida State University, a website has been developed and maintained to provide information about the Center (<http://www.utc.fsu.edu/>).

A Facebook page has also been initiated ([https://www.facebook.com/pages/The-Center-for-Accessibility-and-Safety-for-an-Aging-Population/1444922912427725?ref\\_type=bookmark](https://www.facebook.com/pages/The-Center-for-Accessibility-and-Safety-for-an-Aging-Population/1444922912427725?ref_type=bookmark))

## **Technologies or techniques**

Nothing to report.

## **Inventions, patent applications, and/or licenses**

Nothing to report.

## **Other products**

Nothing to report.



### 3. Participants & collaborating organizations

As mentioned earlier in this report, there were collaborations with public agencies: Florida Department of Transportation (FDOT)'s Research Office; FDOT's Safe Mobility for Life Program; and FSU's Claude Pepper Institute for Aging. Also, through their membership in the external and internal advisory boards, the agency or organization (employer) of the various members were involved in the Center's activities. The names of the board members were listed earlier in the report. A summary of the collaboration is as follows:

Organization	Type	Partner's Contribution
Florida Department of Transportation (Research Office)	State	Cost share support
Florida Department of Transportation (Roadway Design, Engineering and Operations, Safety, and Transit Offices)	State	Advisory board membership
Florida Department of Transportation (Safe Mobility for Life Program)	State	Advisory board membership
Florida Department of Transportation (Safe Mobility for Life Program)	State	Speaker at seminars and conferences
Elder Rights Bureau, Florida Dept. of Elder Affairs	State	Advisory board membership
Capital Region Transportation Planning Agency	MPO	Advisory board membership
The Liberty Mutual Research Institute, Boston, MA	Private industry	Advisory board membership
<i>Citilabs</i>	Private industry	Advisory board membership
Colorado State University	Academic	Advisory board membership
Dept. of Psychology, University of Alabama, Birmingham	Academic	Advisory board membership
Dept. of Psychiatry, Behavioral Sciences, and Industrial Engineering, University of Miami, Florida	Academic	Advisory board membership
Claude Pepper Institute for Aging, Florida State University	Academic	Speaker at seminars and conferences

Support research projects funded by the Florida Department of Transportation (Research Office) and used for cost sharing at our Center include those listed as follows.

- Mike Duncan, PI: Enhanced Mobility for Aging Population Using Automated Vehicles, BDV30 977-11 (June 2014).
- Walter Boot, PI: Driving Simulator Studies of the Effectiveness of Countermeasures to Prevent Wrong Way Crashes, BDV30 977-10 (June 2014).

- Walter Boot, PI: Aging Road User Studies of Intersection Safety: Lab and Simulator - Based Studies of Crosswalk Markings and Flashing Yellow Arrow Comprehension - Phase 2, BDV30 977-04 (Dec 2013).

## **4. Impact**

The Center is a new UTC in its first year of operations and considerable efforts are being expended on research education and outreach activities. There is not much to report at this time on the impact. It is anticipated that the next report will present some results in terms of the impacts.

## **5. Changes/Problems**

Nothing to report.

## **6. Special reporting requirements**

Nothing to report.