

# ATLAS



# CENTER

*Advancing Transportation  
Leadership and Safety*

## Center for Advancing Transportation Leadership and Safety (ATLAS Center)

Lisa J. Molnar, PhD  
Associate Director

MTPA Conference, August 6-8, 2014

# UTC Program Overview

- Established in 1987 under Surface Transportation and Uniform Relocation Assistance Act (10 regional centers)
- Vision:
  - Internationally recognized centers of excellence, fully integrated within institutions of higher learning, that serve as a vital source of leaders who are prepared to meet the nation's need for safe, efficient and environmentally sound movement of people and goods
- Mission:
  - To advance US technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer at university-based centers of excellence
- Funding comes from US DOT
- Reauthorized under ISTEA, TEA-21, SAFETEA-LU, Extension Act of 2011



# UTC Program Overview

- 2013 competition authorized under MAP-21
- Resulted in 142 total applications
- Funding for 35 centers
  - 10 regional centers
  - 5 national centers
  - 20 Tier 1 centers
- Responsive to US DOT strategic goals



# US DOT Strategic Goals

- **Safety:** Improve public health and safety by reducing transportation-related fatalities and injuries.
- **State of Good Repair:** Ensure US proactively maintains critical transp. infrastructure in state of good repair.
- **Economic Competitiveness:** Promote transp. policies and investments that bring lasting and equitable economic benefits to the Nation and its citizens.
- **Livable Communities:** Foster livable communities through place-based policies and investments that increase transp. choices and access to transp. services.
- **Environmental Sustainability:** Advance environmentally sustainable policies and investments that reduce carbon and other harmful emissions from transp. sources.





# ATLAS Center Overview

- Partnership between UMTRI (U-M) and TTI (Texas A&M)
- Sept. 30, 2013 – Sept 30, 2017
- Tier 1 Center: Safety
- Total Funds (2/3 UMTRI; 1/3 TTI):
  - \$1,414,100 in 1<sup>st</sup> year
  - \$1,402,200 in 2<sup>nd</sup> year
- 50% cost match required



# ATLAS Center Overview

- Theme: “Integrated Solutions for Transportation Safety”
- Surface transportation focus
- ATLAS Center/UMTRI/TTI
  - Advisory Committee for overall Center
  - Executive Committee at each location
- Scope (Matrix):
  - *Vehicle, Person, Environment/Roadway*
  - *Pre-Drive/Pre-Crash; Crash*



# Figure 1: Safety Scope

Key	SAFETY		
	Pre-Drive/ Pre-Crash <small>(Education, training, enforcement, ITS, roadway markings, etc.)</small>	Crash <small>(Connected vehicles, crashworthiness, etc.)</small>	Post-Crash <small>(Crash notification, rescue, etc.)</small>
Primary	Primary	Primary	Secondary
Secondary	Primary	Primary	Secondary
Out of Scope	Primary	Primary	Out of Scope





# ATLAS Center Personnel



Lidia Kostyniuk,  
Research Coordinator



Lisa Molnar  
Associate Director



Robert Wunderlich,  
Associate Director



Peter Sweatman  
UMTRI Director



Renée St. Louis,  
Education Coordinator



Robert Sweet,  
Information Coordinator



David Eby, Director



Melissa Tooley,  
Program Advisor



John Maddox,  
Collaboration Coordinator



Nicole Zanier,  
Tech Transfer Coordinator



Cathy Seay-Ostrowski  
UMTRI Business Manager



Francine Romine  
Communications Coordinator



Yan Wang,  
Financial Manager

# ATLAS Center: Research

- **Research Excellence Program (UMTRI/TTI)**
  - *Competitive Program with University PI*
  - *Collaboration between UMTRI/TTI encouraged*
  - *Quad team approach*
- **Cooperative Research Program**
  - *Project with both UMTRI and TTI researchers*
  - *Heavy Truck Crashworthiness*
- **Strategic Initiatives Program**
  - *Alcohol impaired nighttime driving (TTI)*



# Research Excellence Program Projects

- Predicting performance in the occlusion compliance test in NHTSA distraction guidelines (UMTRI)
- Risk-taking behaviors and pre-frontal cortex activity of male adolescents in the presence of peer passengers during simulated driving: A function near-infrared spectroscopy study (UMTRI)
- Developing a procedure for estimating the required sample size for safety performance function calibration factors (TTI)
- Is age a factor at channelized right-turn lanes? (TTI)
- Best practices for addressing pedestrian crashes on high speed roadways (TTI)



# ATLAS Center: Education

- Student participation in research (UMTRI/TTI)
- Outstanding Student of the Year Award Program (UMTRI/TTI)
- K-12 Outreach (UMTRI/TTI)
- STEM Outreach Program (UMTRI/TTI)
- ATLAS Symposium Series Program (UMTRI/TTI)
  - Faculty travel between institutions



# ATLAS Center: Education

- Workforce Development Partnership Program (UMTRI)
- Emerging Scholars Program (UMTRI)
- Professional Education Program (UMTRI)
- Summer Intern Program (TTI)
  - 3 students from U-M chosen to participate this year
- Student Travel Assistance Program (TTI)
- Community Outreach/Education Program (TTI)



# ATLAS Center: Education

- **Advancement Via Individual Determination (AVID) Program Support (TTI):**
  - College readiness program for underserved students
- **Summer Transportation Institute (STI) Program Support (TTI)**
  - Encourage 11<sup>th</sup> and 12<sup>th</sup> grader minority and women to attend college and choose STEM majors



# ATLAS Center: Technology Transfer

- Publication Support (UMTRI/TTI)
- ATLAS Center Annual Conference (UMTRI/TTI)
  - First one in San Antonio, TX (May 2014)
- Periodic Special Conference (UMTRI/TTI)
- Website (UMTRI/TTI)
- Quarterly Newsletter (UMTRI/TTI)
- Web Briefings Program (UMTRI/TTI)
- Research Briefs Program (UMTRI/TTI)
- Annual Report (UMTRI/TTI)



# ATLAS Center: Technology Transfer

- **Transportation Safety Seminar Series (UMTRI)**
- **Knowledge Translation Program (UMTRI)**
  - U-M Office of Technology Transfer
- **T3 Fund Program (TTI)**
  - Support for PIs to attend meetings/conferences
- **Commercialization Program (TTI)**
  - Assistance in commercializing technologies





# ATLAS Center Collaborations

- AAA Foundation for Traffic Safety
- Alamo Area Council of Governments
- Capital Metropolitan Transportation Authority, Dallas, Texas
- Centers for Disease Control and Prevention
- City of Austin, Texas
- Dallas Area Rapid Transit System
- East Carolina University
- Gerontological Society of America
- Lakehead University (Canada)
- Michigan Department of Transportation
- Monash University (Australia)
- North Texas Tollway Authority
- Please be Kind to Cyclists – Texas
- School of Public Health, Texas A&M University
- Southeastern Transportation Center, Knoxville, TN
- Southwest Research Institute
- Texas Department of Public Safety
- Texas Department of State Health Services
- Texas Department of Transportation
- University of Massachusetts, Boston
- University of Ottawa (Canada)
- University of Texas Health Science Center
- USAA Insurance

# ATLAS Center Information

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