The Center

M-CASTL offices are housed at the University of Michigan Transportation Research Institute (UMTRI). An executive committee comprised of University of Michigan Deans, Department Heads, and Directors (as appropriate) from Architecture and Urban Planning, the Center for Human Growth and Development, Emergency Medicine, Engineering, Geriatric Medicine, Institute of Gerontology, Institute of Social Research, Natural Resources and Environment, Pharmacy, Psychology, and Public Health, as well as representatives from each division within UMTRI, provide guidance on activities of the Center. An external advisory board comprised of executives from the auto industry, other private industry, federal, state, and local governments, foundations, and private and community organizations provide strategic direction for the Center.

M-CASTL

Michigan Center for Advancing Safe Transportation throughout the Lifespan

For information about the Center or opportunities to support Center activities, please contact:

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AT THE
UNIVERSITY OF MICHIGAN

sponsored by the
United States Department of Transportation
Research and Innovative
Technology Administration

http://m-castl.org

Safety and Mobility throughout the Lifespan

Both young people and older adults present unique safety and mobility challenges. The Michigan Center for Advancing Safe Transportation throughout the Lifespan (M-CASTL) was established to address—across the different dimensions of the roadway, vehicle, and driver—the risks related to these two ends of the age spectrum.

M-CASTL supports a vigorous research program encompassing basic and applied projects to improve safety and mobility for young people and older adults. The Center also fosters the application of transportation science and technology through education of new professionals and technology transfer to those in transportation-related fields.

Research

The Center's Research Excellence Program supports a variety of basic and applied research projects within three broad thrust areas:

Understanding and addressing the changing perceptual, cognitive, and psychomotor abilities of older drivers to help them maintain safe driving

- Driver, vehicle, and roadway factors related to crash risk
- Functional abilities related to driving
- Screening and assessment of driver fitness
- Effects of medical conditions and medications
- Driver fatigue and distraction
- Efficacy of education and training programs
- Vehicle interior and exterior design issues
- Design and use of technology
- Vehicle adaptation issues
- Roadway infrastructure design elements

Understanding and addressing the transportation needs of young people and older adults when they are unable or choose not to drive themselves

- The relationship between mobility, social support, and well being
- Available, accessible, acceptable, adaptable, and affordable transportation options
- Social consequences of cognitive deterioration
- Coordination and management of complex transportation systems
- Land use patterns and livable communities
- Transport of users of wheelchairs and other mobility devices

Understanding and addressing the elevated crash risk of young drivers

- Driver, vehicle, and roadway crash factors
- Driver training and education
- Driver drowsiness and distraction
- Graduated driver licensing programs
- Vehicle interior and exterior design issues
- Cognitive development and driving
- Risk perception and risky driving

Education

M-CASTL fosters the application of transportation science through education of students and professionals. The Center's educational program is based on multidisciplinary course work and training, student participation in research, and support for national strategies for transportation research and education.

The following programs are planned or in place:

Transportation Safety and Mobility Certificate Program: will allow graduate students to add a specialization in transportation and mobility to their primary graduate degree.

Professional Education Program: provides continuing education for transportation safety and mobility practitioners.

Global Education Program: provides online safety and mobility training modules, as well as M-CASTL publications.

Outstanding Student of the Year Award Program: selects students nominated by U-M faculty and staff; provides funding for attendance at the TRB's annual meeting.

Technology Transfer

M-CASTL provides transportation safety and mobility practitioners with ongoing education and accreditation, hosts conferences with international representation, creates webcasts of transportation seminars, and increases awareness through newsletters, annual reports, and annual synthesis reports.