

### DEPARTMENT OF TRANSPORTATION

SUPPORTED RESEARCH AT THE

# UNIVERSITY OF MICHIGAN









FY 2016 Research Expenditures: \$8,896,058

Year-to-year, DOT-supported projects involve about:

Faculty Researchers	55
Postdoctoral Fellows	
Graduate Student Researchers	

#### Examples of U-M projects supported by the Department of Transportation (DOT):



#### CONNECTED VEHICLES

U-M researchers are assessing the potential of "cars that talk to each other"—connected vehicle systems. Over the past four years, researchers at the U-M Transportation Research Institute have installed wireless communication devices on 3,000 cars, trucks, and buses, as well as along roads in northeast Ann Arbor. The devices allow vehicles to share data on individual vehicle position, speed and direction, and to warn drivers of potential crash situations.

Researchers estimate that the technology may be able to help reduce crashes by up to 80 percent.

So far, researchers have collected more than 70 terabytes of data; recorded 6.9 million trips, 44.9 million miles, and 1.6 million hours.



### MIDWEST US DEPARTMENT OF TRANSPORTATION CENTER

A \$2.47 million center, headquartered at U-M, explores the full picture of how communities and our workforce can best transition to connected and automated vehicles.

Six Midwestern universities, including a community college, are involved in the new U.S. DOT-funded Center for Connected and Automated Transportation. The center is one of only 10 regional University Transportation Centers across the U.S. and represents Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.

It also focuses on educating the workforce our nation will need to make this shift possible. All participating institutions will establish new courses to train engineers who can serve as leaders in this emerging field, as well as technicians and entrepreneurs.



## TRANSPORTATION SAFETY THROUGH DATA INTEGRATION

A data center at U-M curates transportation datasets, develops tools for data, and analyzes transportation data to answer major questions in safety and sustainability.

The center hosts web-based data access tools that allow for rapid generation of customized datasets and combinations of multiple datasets.

Focus areas include crash-data collection and traffic-safety analysis, bioengineering, human factors and driver behavior, mechanical engineering, industry trends, psychology, economics, and public policy.