Improved Safety

**Relation to Economic Competitiveness**

In the US, motor vehicle crashes cost $871 billion annually in economic losses and societal harm.

NHTSA 2010 Motor Vehicle Crash Unit Costs
- Property Damage Only: $3,900
- Minor Injury: $2,800
- Moderate-Critical Injury: $2,800-1.1 Million
- Fatal Injury: $1.4 Million

**Crashes Cost Components**
- Delay
- Secondary Crashes
- Increased Emissions
- Increased Fuel Consumption

**Research Focus Areas**

**Human Factors**
- Seatbelt Use
- Impaired Driving
- Older Drivers
- Teen Drivers
- Distracted Driving
- Ped/Bike Safety

**Infrastructure**
- Intersections
- Rural Highways
- Urban Freeways
- Traffic Incident Management
- Work Zone

**Vehicles**
- Advanced Warning Systems
- Connected Vehicles
- Automated Vehicles

**Related Work at NTC@Maryland**

Design and Implementation of a Detection, Control, and Warning System (DCWS) for Dilemma Zone Applications

Simulation-Based Secondary Incident Filtering Method

Effects of Automated Speed Enforcement in Maryland Work Zones

Evaluating the Integration of Variable Speed Control with Ramp Metering from the Traffic Safety Perspective