Project Basics
The Virginia Tech Transportation Institute (VTTI) was selected by the Federal Motor Carrier Safety Administration (FMCSA) to carry out a Commercial Motor Vehicle (CMV) Research Indefinite Delivery, Indefinite Quantity (IDIQ) contract.
VTTI’s Center for Truck and Bus Safety (CTBS) works with FMCSA’s Research and Analysis (R&A) Office and the Research and Technology (R&T) program and leads a diverse team of universities, research companies, industry associations, and truck manufacturers to conduct various heavy-truck and bus research projects.

The VTTI research team is large and diverse, and each team partner has specialized knowledge, experience, and skills related to human factors and transportation safety research. The team members are capable of conducting a wide range of heavy-truck human factors and related research involving a variety of driver, vehicle, roadway, and environmental issues.
Several task orders have already been completed under the project and additional tasks covering a wide variety of areas are in development.

Research Examples
This project provided an independent evaluation of the safety benefits of a low-cost Driving Behavior Management System (DBMS). DBMSs integrate in-vehicle video technology, driving performance management software, and driver counseling; this research effort assessed the efficacy of this program and determined the improvements to driving safety (through improved driver performance) in commercial vehicle operations (CVO).

Defensive Driving Tips for CMV Drivers: An Internet-Based Approach
The scope of this research was to provide fleet safety managers and CMV drivers with ideas and tips regarding common large-truck safety events.
More specifically, the goal was to develop defensive driving safety information and generate examples of defensive driving “do’s” and “don’ts” for CMV drivers based on video from the Drowsy Driver Warning System Field Operational Test (DDWS FOT).

Driver Distraction in CVO
The research was patterned after the methods used in the 100-Car Naturalistic Driving Study to investigate driver distraction. The study focused on driver distraction for CMV drivers by investigating a large naturalistic truck-driving database.

Research Topics
Research under the IDIQ will most likely include, but is not limited to:
• Human Behavior and Performance
• Naturalistic Data Collection
• Field Studies
• Controlled Test Track Studies
• Focus Groups
• Surveys
• Benchmarking / Guidelines Development
• Policy Support
• System Development / Demonstration
• Driver Outreach and Training
• Laboratory / Simulator Studies
• Database Analysis

Analyzing data from heavy-truck drivers in their natural driving environments is one of the main research areas of the FMCSA IDIQ.

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