Motor Carrier Safety: Research, Technology, and Direction

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Agenda

- Mission and Activities
- Technology Projects
  - QC-ACE/ITDS
  - COMPASS
- Research Projects
  - Driver Focus
- Discussion
TSSC Mission and Activities

- Mission - To improve the safety of our transportation network
- Software development for state and federal safety enforcement specialists nationwide
- Safety-related research and analysis
- Presentations and training
On-going Technology Projects

- Software for commercial vehicle and driver inspections
  - Aspen, ISS, PIQ
  - CDLIS Access
- For compliance reviews
  - CaseRite, UFA,
    ProVu, eFOTM
- Web-based development
  - Query Central, FMCSA Information Systems site
Recent Technology Projects

- Query Central – Automated Commercial Environment (ACE) /International Trade Data System (ITDS) Interface
  - Working with U.S. Customs and Border Protection
- COMPASS
  - FMCSA IT Modernization initiative to transform the way they do business and align their information technology with their business operations
QC-ACE/ITDS Interface

- Ability to identify and contain unsafe CMVs and drivers before they reach our nation's roads
  - The carrier submits an electronic manifest through ACE/ITDS which sends the manifest data to QC
  - QC processes the manifest data against multiple federal and state data sources to determine if the driver and/or vehicle needs to be seen by FMCSA at the border
  - QC sends a response through ACE/ITDS either clearing or identifying problem areas
  - ACE notifies the carrier of the result and lists any specified issues
    - This gives carriers the opportunity to resolve any safety issues prior to arrival at the border
QC-ACE/ITDS Interface (cont.)

• FMCSA inspects those problem drivers/vehicles when they arrive at the border
COMPASS

- An effort to transform the way FMCSA does business and to align their information technology with their business operations
  - Increase productivity and efficiency
  - Improve data accessibility through simple sign-on and easier navigation
  - Improve data consistency through database consolidation and integration
  - Enable better policy and program decisions through improved data quality
Recent Research Projects

- Development and Implementation of a Driver Safety History Indicator into ISS
- Commercial Motor Vehicle Driver Risk Factors Study
- Improving Driver Identification Data Collected
Development & Implementation of a Driver Safety History Indicator

- Examined creating a new measure for ISS
  - Based on the traffic conviction history of a carrier’s drivers
  - Calculated by a weighted sum of the drivers’ convictions divided by the number of drivers
- Determined that this new measure is associated with crash rates
- Pilot test as part of ISS was conducted in eight states
  - Resulted in increased driver out-of-service rates
- Currently working on full deployment
Commercial Motor Vehicle Driver Risk Factors Study

- Main objective is to identify, verify, quantify, and prioritize commercial driver risk factors
  - Personal factors such as demographic characteristics, medical conditions, personality traits, and performance capabilities
  - Work environmental conditions, such as carrier operations type, and compensation method
  - Will link the characteristics of individual drivers with their driving histories, especially the presence or absence of crashes
Contact Info and Discussion

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