FMCSA Data Quality Program Overview

2014 Transportation Research Board 93rd Annual Meeting
Federal Motor Carrier Safety Administration
Analysis, Research, and Technology Forum
January 14, 2014
Agenda

- Why Improve Data?
- How Does Data Quality Impact the Federal Motor Carrier Safety Administration (FMCSA)?
- State Safety Data Quality (SSDQ) Program
- Trends in Data Quality
Why Improve Data?

- Effective safety programs need high quality data.
- FMCSA tasked with improving State-supplied data.
- FMCSA created a Data Quality Program to collect better data.
How Does Data Quality Impact FMCSA?

Crash and inspection data are critical to FMCSA’s data-driven safety systems that help the Agency prevent crashes, injuries, and fatalities related to commercial motor vehicles.

Data-Driven Safety Systems

- Safety Measurement System (SMS)
- New Applicant Screening (NAS)
- Inspection Selection System (ISS)
- Driver Information Resource (DIR)
- Pre-Employment Screening Program (PSP)
The FMCSA Data Quality Program addresses the different phases of the data reporting process to meet each State’s needs.
SSDQ Measures

Overall State Rating

Driver Identification Evaluation
Vehicle Identification Evaluation

Record Completeness
VIN Accuracy
Timeliness
Accuracy

Record Completeness
Non-Fatal Completeness
Fatal Completeness
Timeliness
Accuracy

Consistency (Overriding Indicator)

Office of Research and Information Technology
Measuring Results

- SSDQ results are updated monthly and available online.
- Map changes monthly and is a barometer for national data quality (map shown is for November 2013).
Data Quality Trends

Data quality is improving, but we still have work to do. The table below shows ratings according to SSDQ measures. Data quality improved over the non-consecutive 3-year period.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crash Timeliness</td>
<td>69%</td>
<td>80%</td>
<td>90%</td>
<td>13,319 late (&gt;90 days)</td>
</tr>
<tr>
<td>Crash Accuracy</td>
<td>87%</td>
<td>87%</td>
<td>98%</td>
<td>1,681 not matched to a carrier</td>
</tr>
<tr>
<td>CRC* – Vehicle</td>
<td>N/A</td>
<td>72%</td>
<td>96%</td>
<td>5,863 missing vehicle data</td>
</tr>
<tr>
<td>CRC – Driver</td>
<td>N/A</td>
<td>65%</td>
<td>95%</td>
<td>7,331 missing driver data</td>
</tr>
</tbody>
</table>

*CRC = Crash Record Completeness
Training and Technical Assistance

FMCSA provides training to State law enforcement agencies collecting data, and technical assistance to State organizations that send data to FMCSA.
My DataQs: Scott Valentine (FMCSA Administrative User)

What would you like to do?

1. Add Requests
   - Click the orange "Add a Request" button to request a review of FMCSA-issued data.
   - Advanced users who know the request type may click the grey "Start Advanced Form" button.

2. Monitor Requests
   - Monitor the status of your request in the List of Reviews Requested below. Select "Details" to view the full request and to add or delete information. The list defaults to showing only the requests matching the currently applied search criteria displayed above the List of Reviews Requested. You can modify the search criteria by clicking the Advanced Search link.
The Safety Data Improvement Program (SaDIP) is available to the States, the District of Columbia, and the U.S. Territories to help with the completeness, timeliness, and accuracy of the crash and inspection data reported to FMCSA.

- $3,000,000 per year in grants.
- Typically, 9 to 15 grants are awarded per year.
- Applications for fiscal year 2014 are due in late February 2014.
- 36 States have received 97 SaDIP grants since the inception of the program in 2006.
Contact Information

For more information about FMCSA’s Data Quality Program, please contact:

Scott Valentine
scott.valentine.@dot.gov
(202) 366-4869

Data Quality Website:
http://ai.fmcsa.dot.gov/DataQuality/dataquality.asp

DataQs:
http://dataqs.fmcsa.dot.gov/