



U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Office of Analysis, Research, and Technology

Maryland Traffic Records Forum

June 16, 2015



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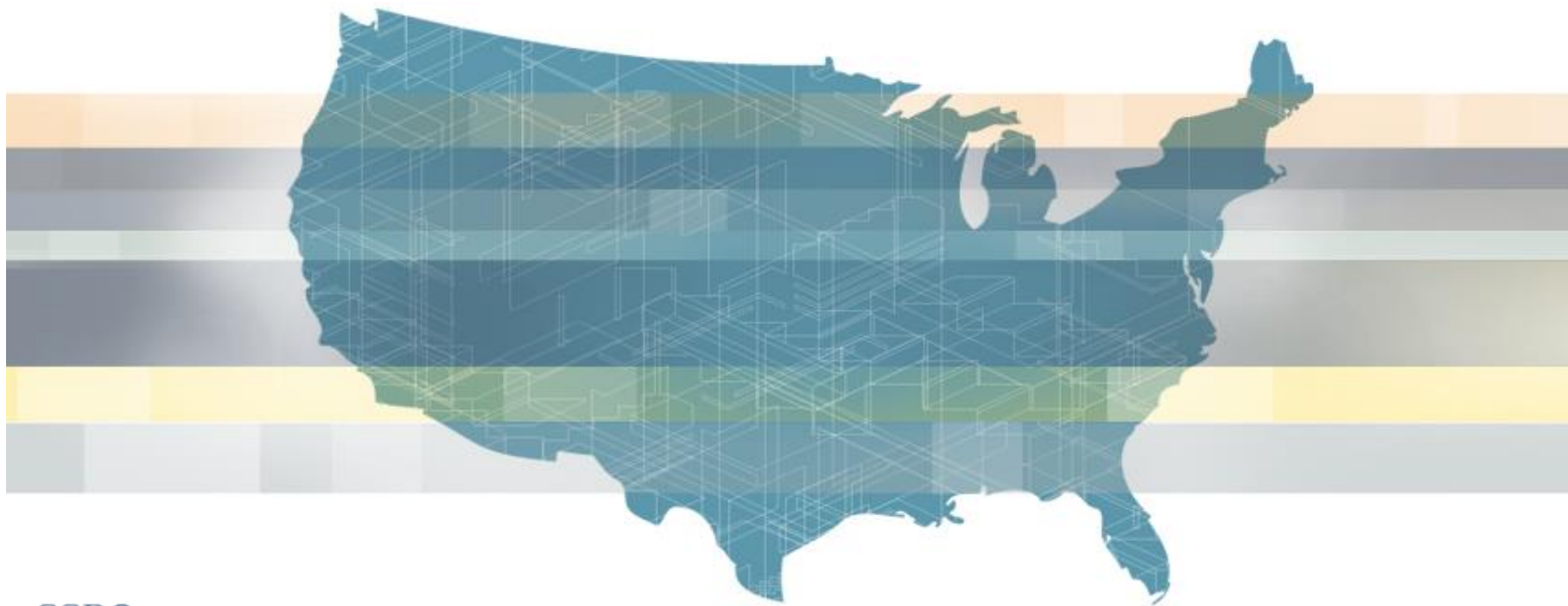
Office of Research and Information Technology

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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



Data Quality Supports FMCSA Safety Programs

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)

Driver Safety Measurement System (DSMS)

Safer Roads

State Safety Data Quality (SSDQ) Program

The FMCSA Data Quality Program offers a toolbox of improvement tactics to meet States' varying needs

FMCSA Data Quality Program

SSDQ Measures

Training

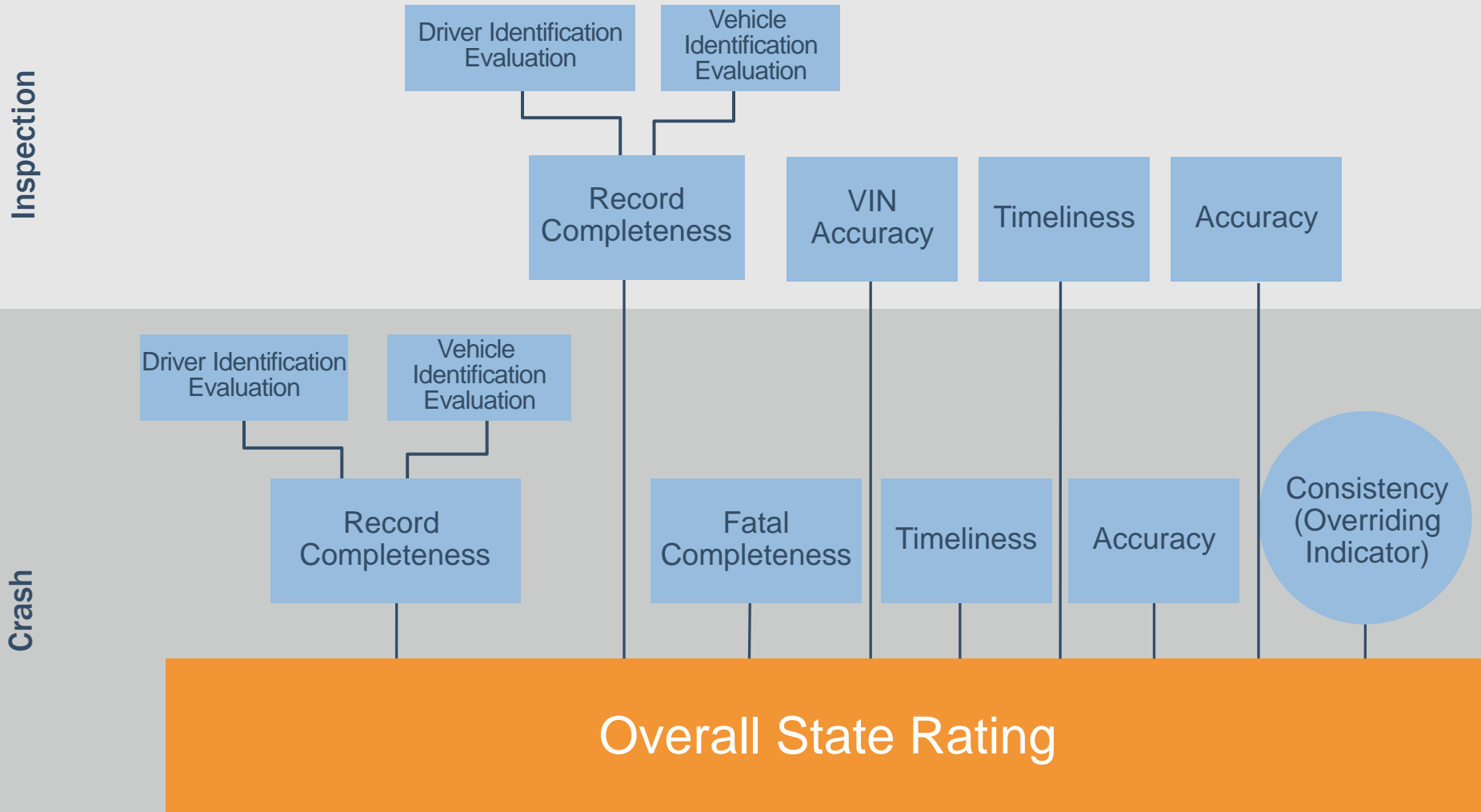
Technical Assistance

DataQs

Grants

Data Quality

SSDQ Measures



Overview of Crash Reporting Measures (Volumes)

- **Fatal Crash Completeness (FCC):** the number of a State's Motor Carrier Management Information System (MCMIS) fatal records reported during a calendar year compared to the number of Fatality Analysis Reporting System (FARS) fatal records over the same year
- **Crash Consistency Indicator (CCI):** the number of non-fatal crash records reported to MCMIS during a 12-month period compared to the average number of non-fatal crash records reported over the prior three years

Overview of Record Completeness and Inspection VIN Accuracy Measures

- **Crash Record Completeness:** the percentage of fatal and non-fatal crash records, which contain complete driver and vehicle information over a 12-month period
- **Inspection Record Completeness:** the percentage of inspection records, which contain complete driver and vehicle information over a 12-month period
- **Inspection VIN Accuracy:** the percentage of inspection records, which contain complete and accurate VIN over a 12-month period

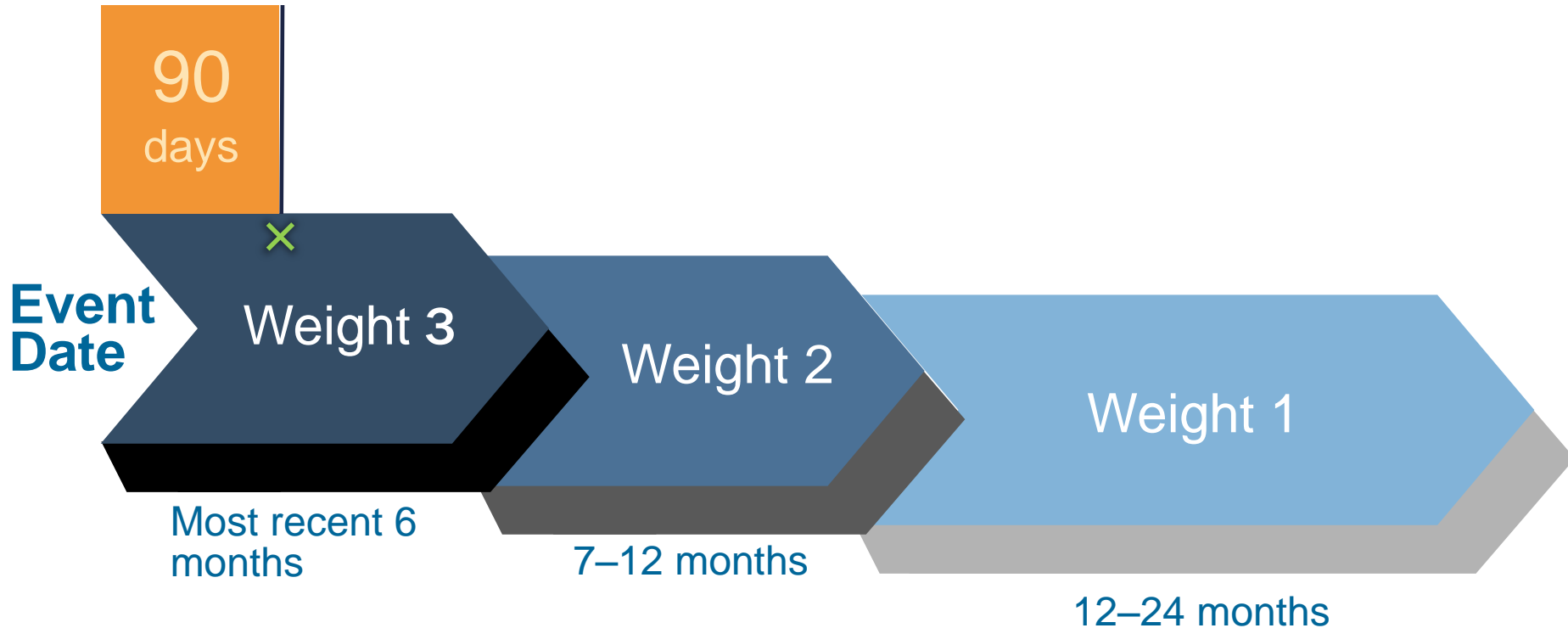
Overview of Timeliness Performance Measures

- **Crash Timeliness:** the percentage of fatal and non-fatal crash records submitted to Motor Carrier Management Information System (MCMIS) within 90 days of the crash event over a 12-month period
- **Inspection Timeliness:** the percentage of inspection records submitted to MCMIS within 21 days of the inspection event over a 12-month period

Why Timeliness Matters

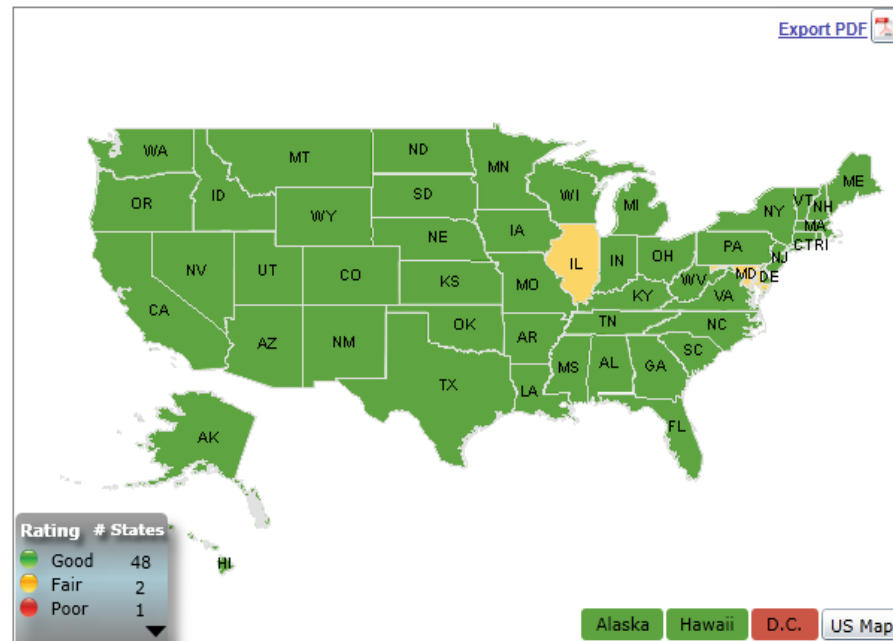
SMS Weights Crashes by Time

SSDQ Crash Timeliness
Measure: submit records
within 90 days



SSDQ Results

- SSDQ results updated monthly and available online (May 2015)
- Map changes monthly and is a barometer for national data quality



Data Quality Trends

- Data quality is improving, but we still have work to do
- The table below shows ratings according to SSDQ measures

Measures	2004* Rating	2008* Rating	2013* Rating	2013* Record Counts
Crash Timeliness	69%	88%	91%	12,483 late (>90 days)
Crash Accuracy	87%	96%	98%	1,846 not matched to a carrier
CRC – Vehicle	N/A	87%	96%	5,548 missing vehicle data
CRC – Driver	N/A	81%	95%	6,935 missing driver data

* Fiscal Year

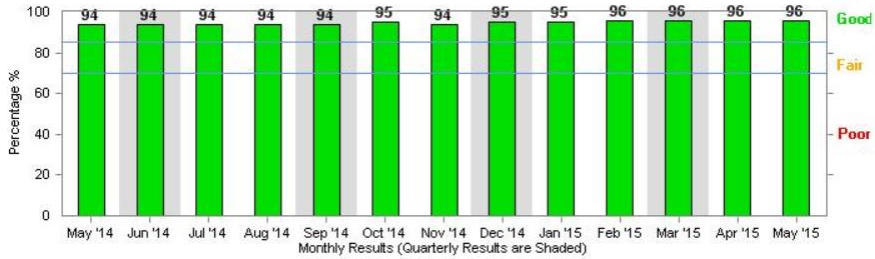
Grants – SaDIP

Safety Data Improvement Program (SaDIP) is available to States, the District of Columbia, and territories to help States with the completeness, timeliness, and accuracy of the crash and inspection data reported to FMCSA

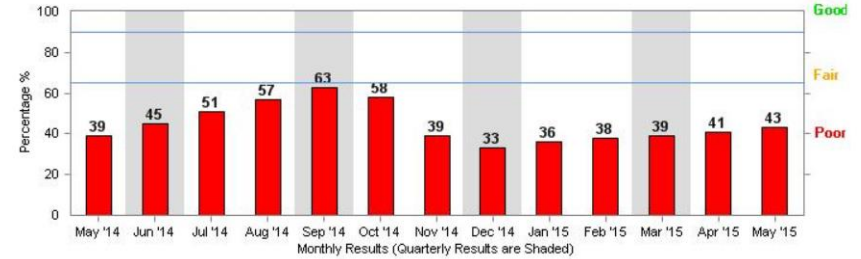
- \$3,000,000 per year in grants
- Typically, 9–15 grants awarded per year

Maryland's Crash Data Quality Measures

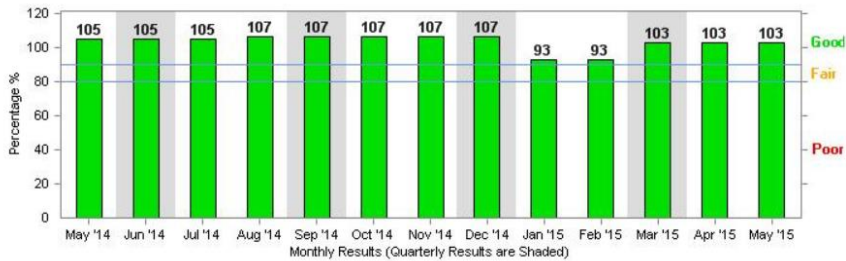
Maryland: Crash Record Completeness Measure



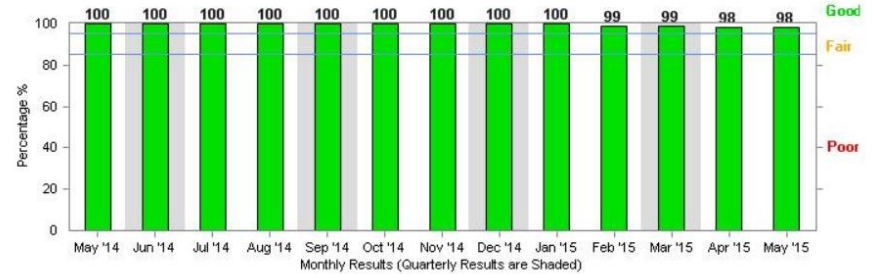
Maryland: Crash Timeliness Measure



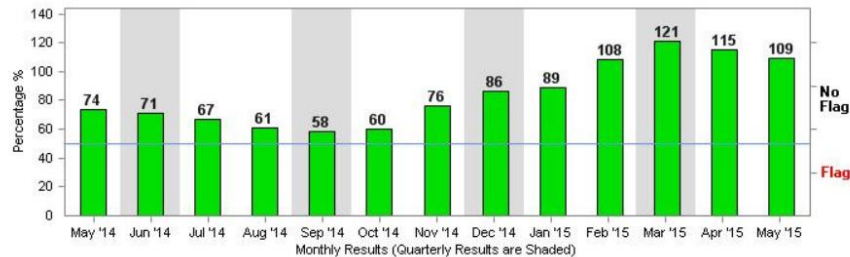
Maryland: Fatal Crash Completeness Measure



Maryland: Crash Accuracy Measure



Maryland: Crash Consistency Overriding Indicator



Visit the Data Quality Website

For more information about FMCSA's Data Quality Program, please visit:

Data Quality Website:

<http://ai.fmcsa.dot.gov/DataQuality/dataquality.asp>