



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

Understanding Your State's Data Quality Resources and Reports

CVSA Annual Workshop
Information Systems Users Workshop
April 7, 2014



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Office of Research and Information Technology

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Overview

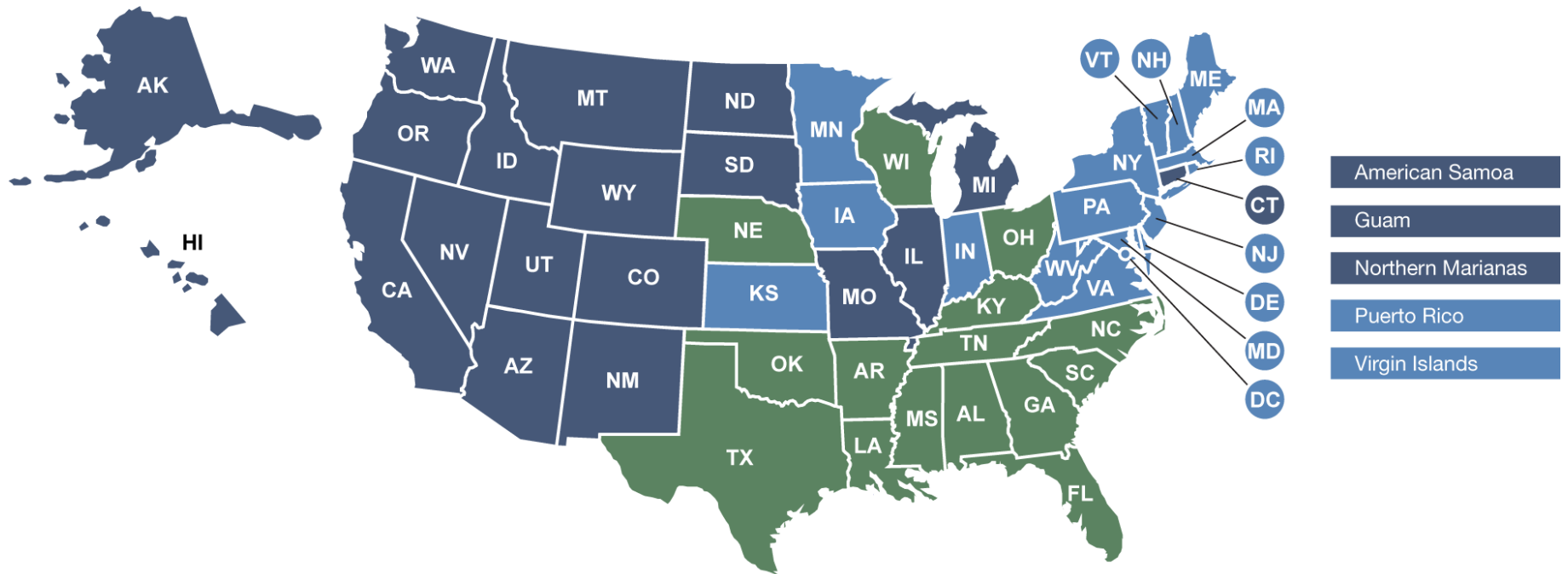
- Meet your Data Quality (DQ) Specialists
- Navigate the DQ Website
 - When to monitor State Safety Data Quality (SSDQ) results
 - How to interpret reports
- Learn about other resources on the A&I Website
 - Crash Statistics
 - SAFETYNET Best Practices

Meet Your DQ Specialist

 Kevin Berry

 Deirdre Hering

 Janet Bibinski



THE DQ WEBSITE

Review the SSDQ Results Every Month

MCMIS Snapshot Taken

Results Available for You

FEBRUARY 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Third (or fourth) Friday

MARCH 2014

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1
3	4	5	6	7	8
10	11	12	13	14	15
18	19	20	21	22	23
25	26	27	28	29	30

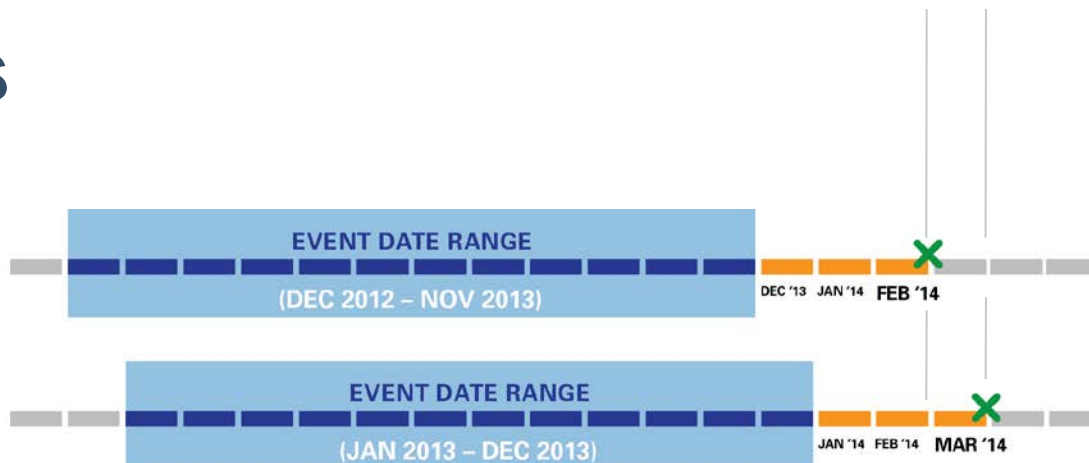
**About 10 days
after snapshot**

What “Rolling 12 Months” Means

SSDQ Measures

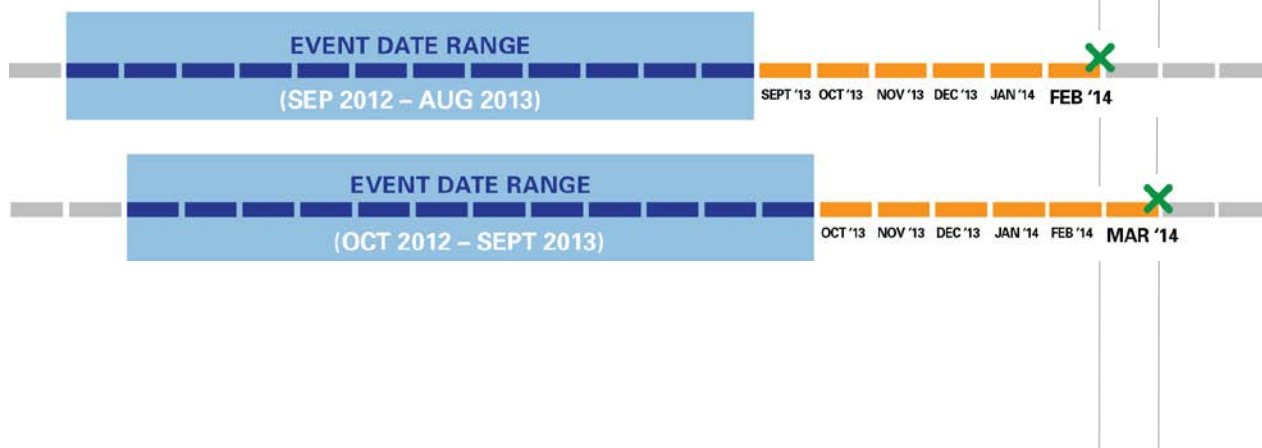
Timeliness/Accuracy/
Record Completeness

Excludes the most
recent 3 months

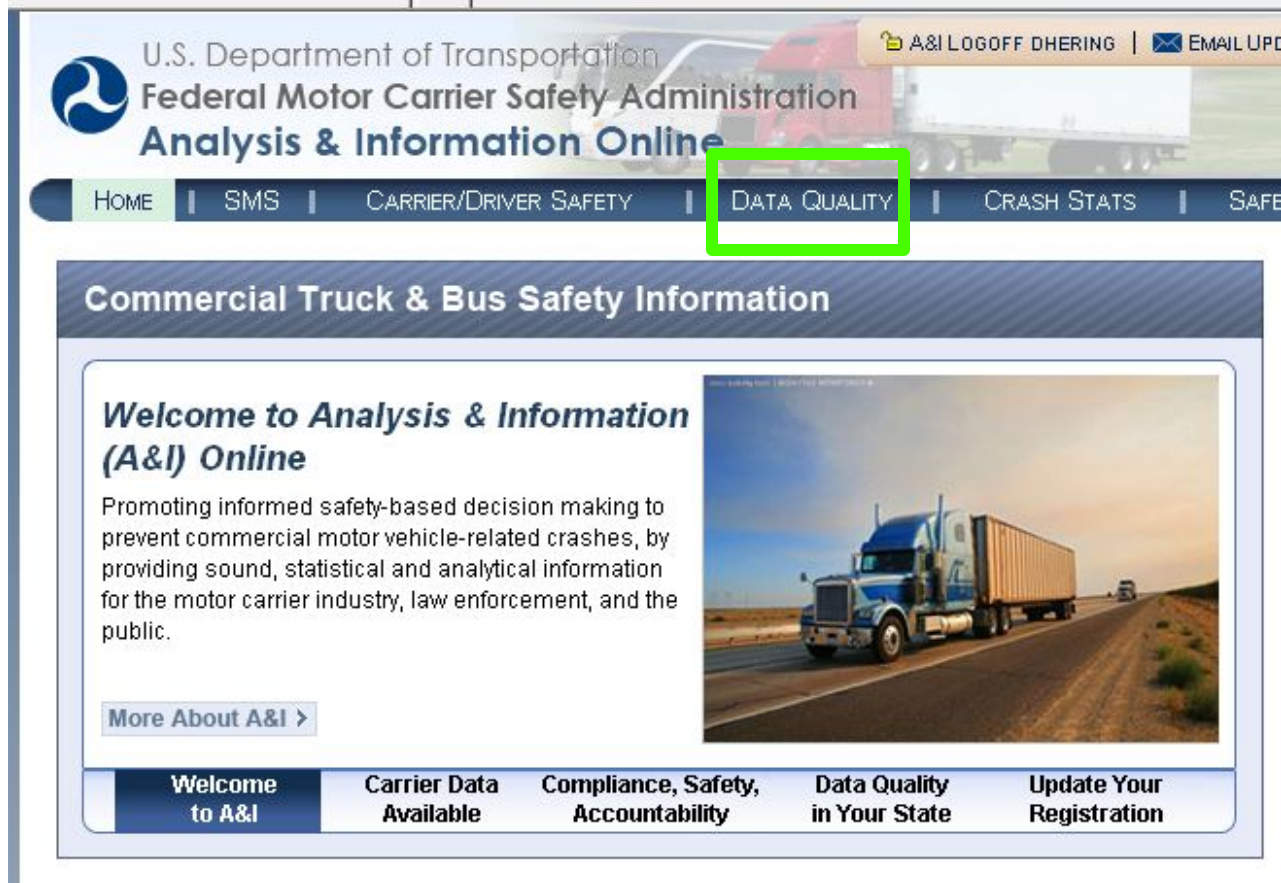


Non-Fatal Crash
Completeness
(NFCC)

Excludes the most
recent 6 months



Where to Find the SSDQ Results: A&I



U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Analysis & Information Online

A&I LOGOFF DHERING | EMAIL UPD

HOME | SMS | CARRIER/DRIVER SAFETY | **DATA QUALITY** | CRASH STATS | SAFE

Commercial Truck & Bus Safety Information

Welcome to Analysis & Information (A&I) Online

Promoting informed safety-based decision making to prevent commercial motor vehicle-related crashes, by providing sound, statistical and analytical information for the motor carrier industry, law enforcement, and the public.

[More About A&I >](#)

Welcome to A&I | **Carrier Data Available** | **Compliance, Safety, Accountability** | **Data Quality in Your State** | **Update Your Registration**

Where to Find the SSDQ Results: DQ Website

CARRIER/DRIVER SAFETY | **DATA QUALITY** | CRASH STATS | SAFETY PROGRAMS

The Data Quality module identifies FMCSA resources for evaluating, monitoring, and improving the quality of data submitted to the Motor Carrier Management Information System (MCMIS).

Announcement

Introducing Scott Valentine (Scott.Valentine@dot.gov) as the new Data Quality Program Manager for FMCSA. Scott will oversee:

- Technical management of the Safety Data Improvement Program (SaDIP) grants
- The State Safety Data Quality (SSDQ) program that assists State partners in measuring and improving their crash and safety data
- The DataQs system for identifying and correcting data reported to FMCSA

Scott is excited to support FMCSA's State partners in continuing to improve data quality.

Overall State Rating - February 2014

State	Rating
AK	Good
AL	Good
AR	Good
AZ	Good
CA	Good
CO	Good
CT	Good
DC	Good
DE	Good
FL	Fair
GA	Good
IA	Good
IL	Fair
IN	Good
KS	Good
KY	Good
LA	Good
MA	Good
MD	Good
ME	Good
MI	Good
MN	Good
MO	Good
MS	Good
MT	Good
NC	Good
ND	Fair
NH	Good
NJ	Good
NM	Good
NY	Good
OH	Fair
OR	Good
PA	Good
RI	Good
SC	Good
SD	Fair
TN	Good
TX	Good
UT	Good
VA	Good
VT	Good
WA	Fair
WI	Good
WV	Good
WY	Good

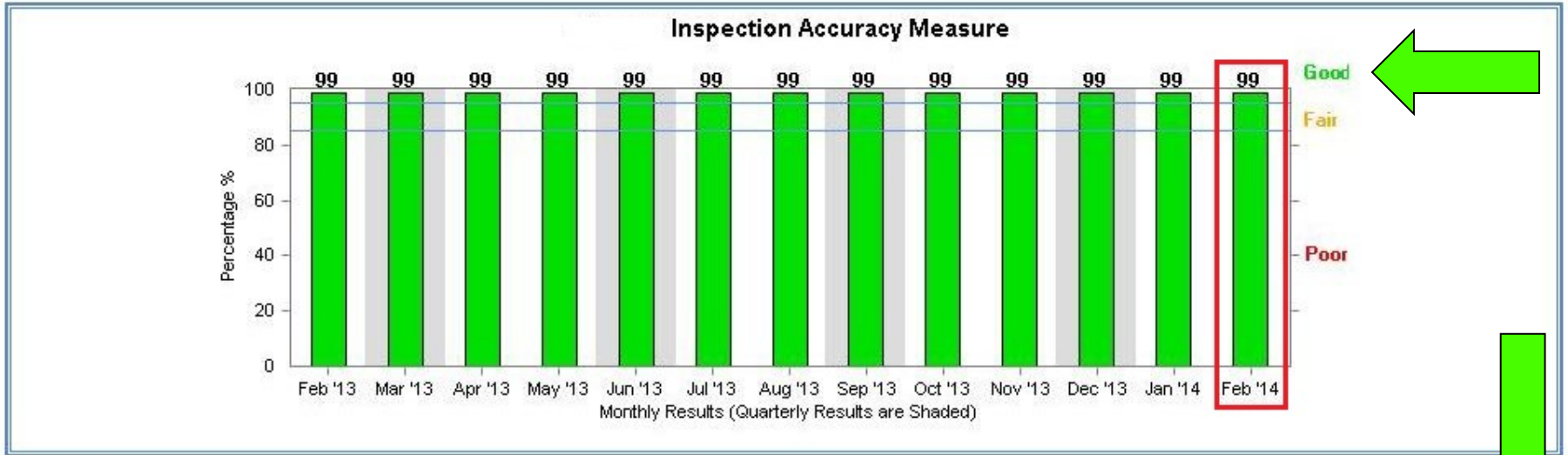
Legend: Good (Green), Fair (Yellow), Poor (Red)

Where to Find the SSDQ Results: Evaluation Reports

- Select State and Measure Report

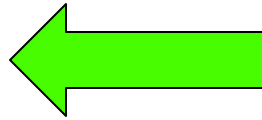
The screenshot shows the 'Evaluation Reports' section of a web application. The navigation bar includes 'CARRIER/DRIVER SAFETY', 'DATA QUALITY', 'CRASH STATS', 'SAFETY PROGRAMS', 'MCSAP', and 'ANALYSIS & REPORTS'. The 'DATA QUALITY' tab is active. Below the navigation bar, there are links for 'Mapping Tool', 'Current Report', and 'All Reports'. The 'Evaluation Reports' section has a 'REVIEW' button on the right. The 'Select Report:' dropdown is set to 'Overall State Rating'. The 'Select Report Focus:' section has radio buttons for 'All States' and 'Service Center', and a dropdown for '-- Select Service Center --'. The 'Select Historical View:' section has radio buttons for 'Monthly' and 'Quarterly'. The 'State -- Select State --' dropdown is highlighted with a green box, and a large green arrow points to it. The 'Generate Report' button is located at the bottom right of the form.

How to Read a Measure Report



Inspection Accuracy Measure									
Monthly Results	MCMIS Run Date	Event Date Range	Rating	# Interstate & HM Intrastate Inspection Records	# UnMatched Records	% UnMatched Records	# Matched Records	% Matched Records	
Feb '14	2/21/2014	12/1/2012 - 11/30/2013	●	63,446	443	1%	63,003	99%	
Jan '14	1/24/2014	11/1/2012 - 10/31/2013	●	63,367	455	1%	62,912	99%	

State Data Analysis by Measure Report



SSDQ Measure	Analysis Reports
Crash Record Completeness	Complete Record Analysis
	Monthly Analysis
Crash Timeliness	Monthly Analysis
	Frequency of Record Uploads to MCMIS
Crash Accuracy	Records Reported by Agency and Badge #
Inspection Timeliness	Monthly Analysis
	Records Reported by Inspector ID
	Records Reported by Facility Type and Inspection Level

Coming Soon: Inspection Non-Match Report

Provides supporting details to help you match carriers to inspections

Based on SSDQ snapshots

- Report Number
- Inspection Date
- Inspection Start Time
- Inspection End Time
- SI Code
- Carrier Type
- Hazmat Placard
- USDOT Number
- Carrier Name
- Carrier Address

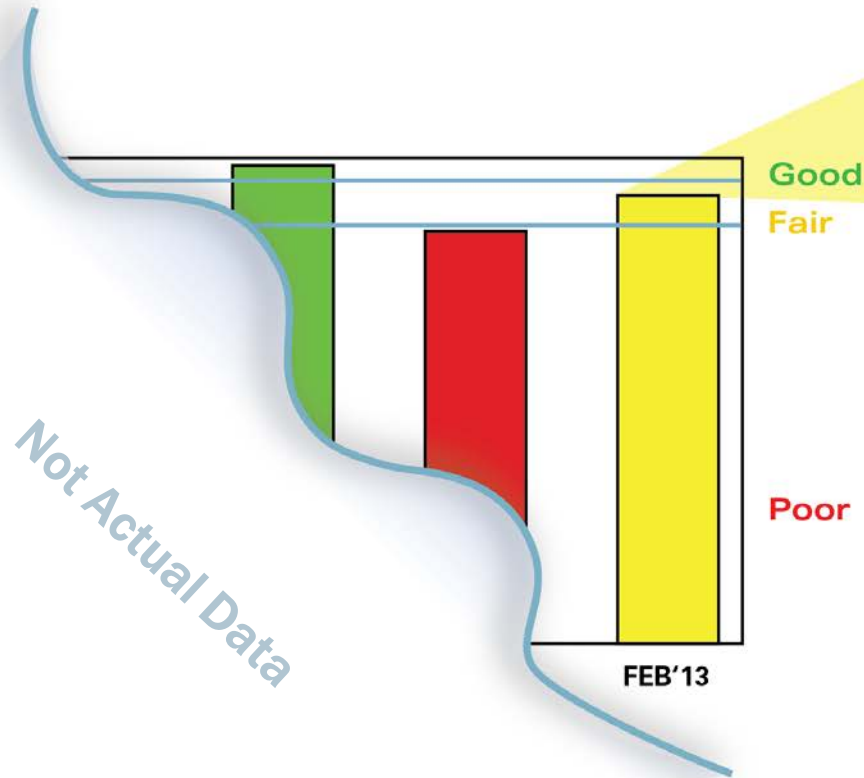
Coming Soon: Crash Non-Match Report

Provides supporting details to help you match carriers to crashes

Based on SSDQ snapshots

- Report Number
- Report Date
- Report Time
- Sequence Number
- Agency
- Officer Badge
- Carrier Type
- Hazmat Placard
- USDOT Number
- Carrier Name
- Carrier Address

What Is Included in the Event Date Range?



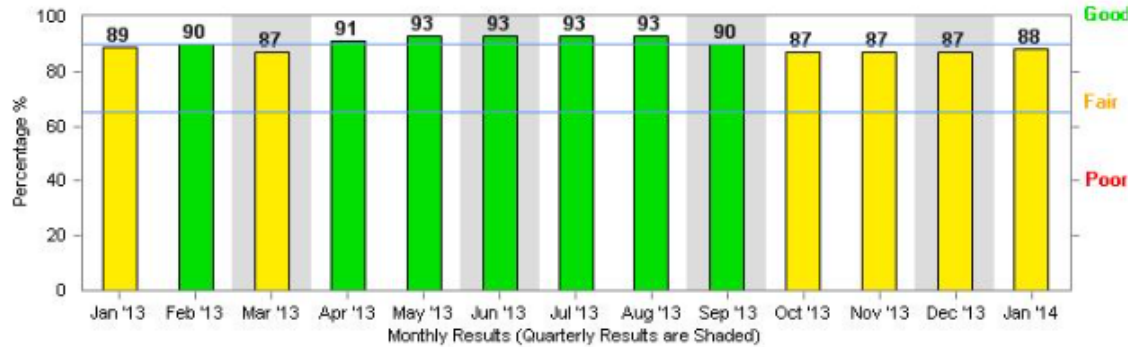
Event Date Range is
12/1/2012–11/30/2013

12 months of MCMIS data

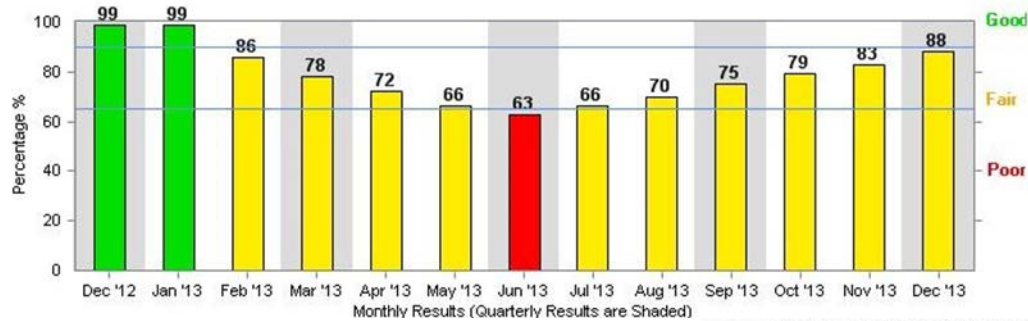
MCMIS snapshot
was taken February 22, 2014

Watch for Changes and Respond Quickly

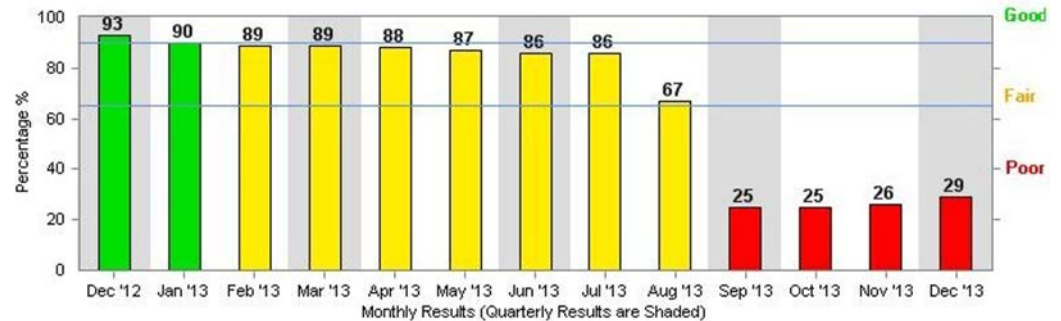
Crash Timeliness Measure - State 1



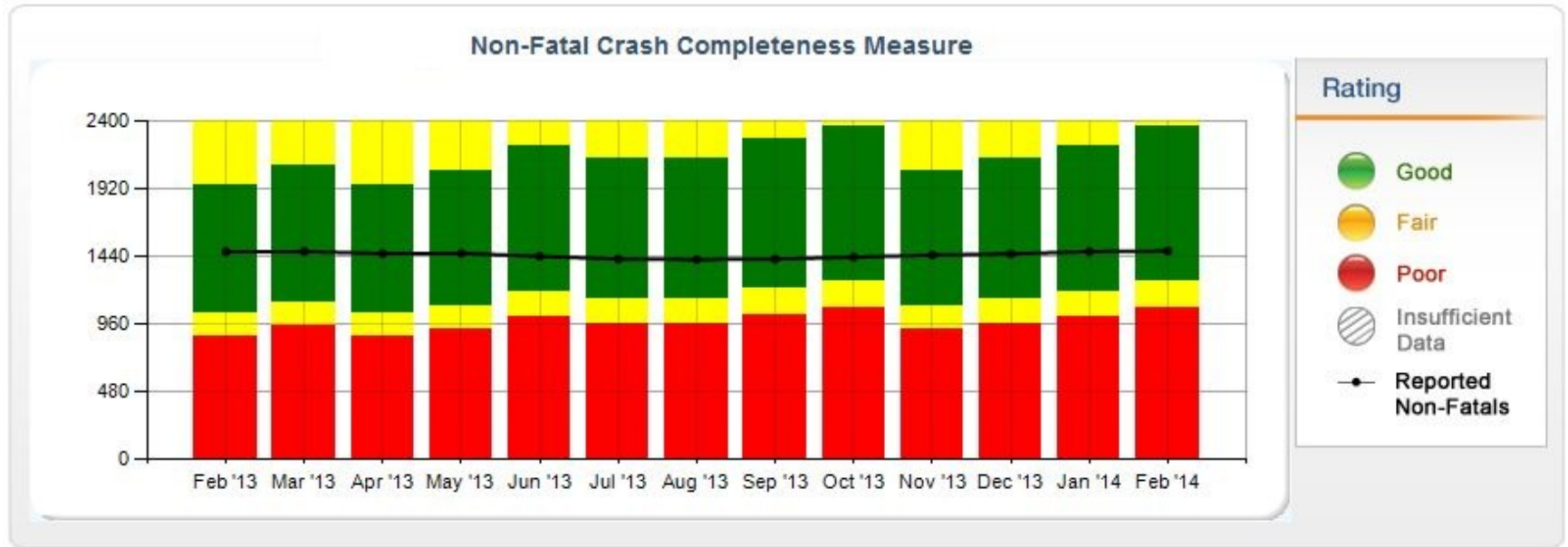
Crash Timeliness Measure - State 2



Crash Timeliness Measure - State 3



How to Read the NFCC Measure Report



Non-Fatal Crash Completeness Measure							Input & Date Details					
Monthly Results	Rating	Reported MCMIS Records		Rating Ranges				Non-Fatal Crash Completeness Base Rating	FCC Measure Override?	Rating	MCMIS Run Date	Event Date Range
				Under Reporting		Good	Over Reporting					
		Fatal	Non-Fatal	Poor*	Fair		Fair					
Feb '14	●	53	1,478	< 1,069	1,069 - 1,256	1,257 - 2,365	> 2,365	Good	No	●	02/21/2014	09/01/2012 - 08/31/2013
Jan '14	●	50	1,473	< 1,004	1,004 - 1,180	1,181 - 2,225	> 2,225	Good	No	●	01/24/2014	08/01/2012 - 07/31/2013

OTHER RESOURCES ON A&I

Crash Statistics – Crash Stats Module



U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Analysis & Information Online

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HOME | SMS | CARRIER/DRIVER SAFETY | DATA QUALITY | **CRASH STATS** | SAFE

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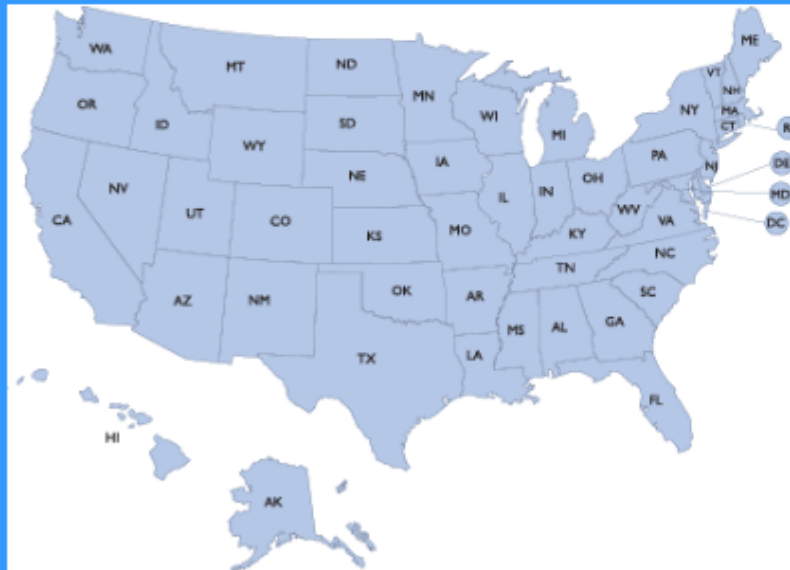
Welcome to A&I | **Carrier Data Available** | **Compliance, Safety, Accountability** | **Data Quality in Your State** | **Update Your Registration**

Crash Statistics – Crash Query Tool

Welcome to Analysis & Information - **Crash Statistics**

Crash Statistics are summarized statistics for large trucks and buses involved in fatal and non-fatal crashes that occurred in the United States and territories. [More info... >>](#)

Click a State below to view State Crash Summary Report. Click on highlighted State to use the Crash Query Tool.



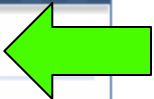
Large Trucks & Buses

Large Trucks

Buses

CRASH STATISTICS TOOLBOX

- ▶ [Crash Query Tool \(Previously State Profiles\)](#)
- ▶ [Mapping Tool](#)
- ▶ [CVSP Toolkit](#)
- ▶ [Download State Records](#)
- ▶ [Published Reports \(Previously National Profiles\)](#)
- ▶ [Large Truck Crash Causation Study](#)



WHAT'S NEW

- ▶ **Enhanced Crash Statistics:**
[Read all about it...](#)
- ▶ Website updated on:
February 3, 2014
- ▶ MCMIS crash data current as of:
January 24, 2014
- ▶ FARS crash data as of:
2012

Crash Reports Show Trends Over Time

A&I Home > Crash Statistics > Crash S

CRASH STATISTICS

- Home
- Crash Query Tool
 - Summary
- Carrier
 - Domicile
 - Operation
- Crash
 - Day of Week
 - First Harmful Event
 - Initial Impact Area
 - Month of Year**
 - Quarter of Year
 - Roadway Type
 - Time of Day
 - Type of Trafficway
 - Urban vs. Rural
 - Work Zone

Crash Reports: Month of Year

Select characteristics to filter crash data

Data Source: Carrier Domicile: Vehicle Type:

Report Focus: National All States State

Time Period: Calendar Fiscal

Submit Feedback

Do you have comments, questions or suggestions for the updated Crash Stats module?
Tell us what you think by [Submitting feedback](#)

All Crashes Fatal Crashes Injury Crashes Towaway Crashes

Print PDF Download Data Report Description

Crash Month of Year statistics for Large Trucks and Buses in all domiciles based on the MCMIS data source(s) covering Calendar Year(s) 2009 - 2013 for all crash events

Display As

Wyoming: Crash Report					
Month of Year	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013*
	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved
▶ January	110	47	96	81	74
▶ February	65	64	145	157	126
▶ March	106	86	76	53	76
▶ April	63	81	49	48	131
▶ May	15	46	56	38	57
▶ June	28	32	58	58	51
▶ July	26	53	51	45	32
▶ August	34	46	52	42	43
▶ September	40	52	39	52	0
▶ October	129	44	67	94	0
▶ November	58	102	148	45	0
▶ December	73	111	129	128	0
Total	747	764	966	841	590

Analyze by Year and Compare to National Average

Crash Reports: Month of Year

Select characteristics to filter crash data

Data Source: Carrier Domicile: Vehicle Type:

Report Focus: National All States State

Time Period: Calendar Fiscal

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All Crashes | Fatal Crashes | Injury Crashes | Towaway Crashes

Print PDF | Download Data | Report Description

Crash Month of Year statistics for Large Trucks and Buses in all domiciles based on the MCMIS data source(s) covering Calendar Year(s) 2013 for all crash events Display As

Wyoming: Crash Report					
Month of Year	CY 2013 (Wyoming)*		CY 2013 (National)*		Percent Diff
	# of Vehicles involved	State Percent	# of Vehicles involved	National Percent	
▶ January	74	11.7%	12,866	12.5%	-6.4%
▶ February	126	19.9%	11,364	11.0%	80.5%
▶ March	76	12.0%	11,904	11.5%	3.9%
▶ April	131	20.7%	11,110	10.8%	91.8%
▶ May	57	9.0%	11,588	11.2%	-19.9%
▶ June	51	8.0%	10,944	10.6%	-24.2%
▶ July	32	5.1%	10,854	10.5%	-52.0%
▶ August	43	6.8%	11,209	10.9%	-37.6%
▶ September	44	6.9%	11,331	11.0%	-36.8%
▶ October	0	0.0%	0	0.0%	0.0%
▶ November	0	0.0%	0	0.0%	0.0%
▶ December	0	0.0%	0	0.0%	0.0%
Total	634	100%	103,170	100%	

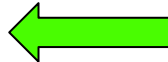
Vehicle Reports

A&I Home > Crash Statistics > Crash M

CRASH STATISTICS

- Home
- Crash Query Tool
 - Summary
 - Carrier
 - Crash
 - Driver
 - Environment
 - Hazardous Material
 - Vehicle**
 - Cargo Body Type
 - Configuration
 - Gross Veh Weight**

- Cargo Body Type
- Configuration
- Gross Vehicle Weight



All Crashes
Fatal Crashes
Injury Crashes
Towaway Crashes
Print PDF
Download Data
Report Description

Vehicle Gross Vehicle Weight statistics for Large Trucks and Buses in all domiciles based on the MCMIS data source(s) covering Calendar Year(s) 2009 - 2013 for all crash events

Display As

Illinois: Vehicle Report					
Gross Vehicle Weight	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013*
	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved
10,000 lbs. Or Less	10	22	83	72	55
10,001 lbs. - 26,000 lbs.	499	371	473	893	337
Over 26,000 lbs.	5,373	5,676	4,900	5,078	1,878
Missing	6	245	476	2	1
Total	5,888	6,314	5,932	6,045	2,271

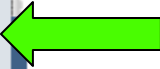


Carrier Operation Reports

A&I Home > Crash Statistics > Crash I

CRASH STATISTICS

- Home
- Crash Query Tool
 - Summary
 - Carrier**
 - Domicile
 - Operation**
- Crash



[All Crashes](#)
[Fatal Crashes](#)
[Injury Crashes](#)
[Towaway Crashes](#)

[Print PDF](#)
[Download Data](#)
[Report Description](#)

Carrier Operation statistics for Large Trucks and Buses in all domiciles based on the MCMIS data source(s) covering Calendar Year(s) 2009 - 2013 for all crash events

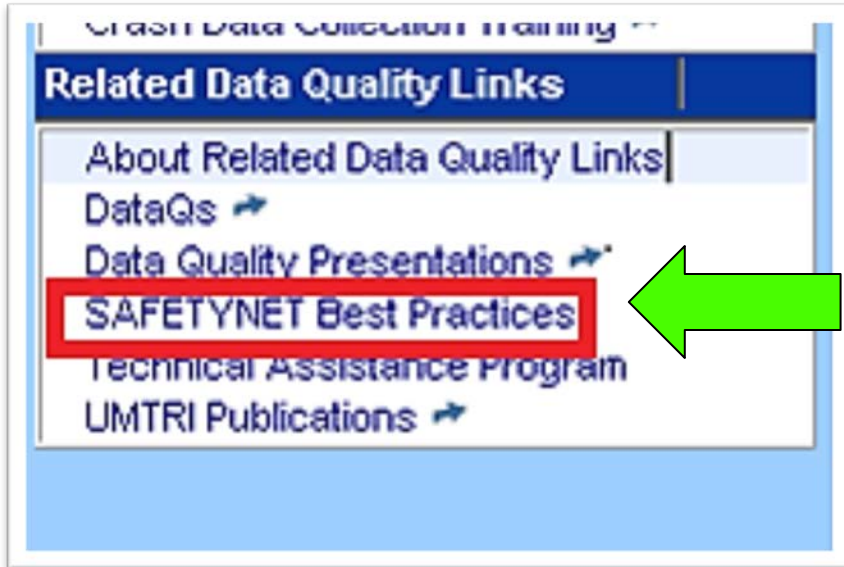
Display As

Alabama: Carrier Report

Operation Type	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013*
	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved	# of Vehicles involved
Interstate	1,733	1,897	1,965	2,014	1,653
Intrastate	233	307	442	484	443
Not in Commerce - Other Trucks	0	35	42	76	68
Not in Commerce - Government	0	71	199	249	191
Other Operation - Not Specified	184	152	78	84	62
Missing	0	0	0	0	0
Total	2,150	2,462	2,726	2,907	2,417

SAFETYNET RESOURCES

SAFETYNET Best Practices



- Review activity logs
 - Fix fatal errors
 - Understand warnings
- Use MCMIS upload stats
- Download census files
- Employ daily checklists

SAFETYNET Data Quality Report

- Tool for improving some measures
- Automatically runs queries on
 - Timeliness
 - Record Completeness
 - Duplicates
- Can help you:
 - Fix SAFETYNET data before uploading to MCMIS
 - Identify SAFETYNET records that need correction and re-upload
- See the Job Aid for instructions

DQ Specialists

- Contact your DQ Specialist for help with evaluating, monitoring, and improving your State's data quality:
 - Kevin Berry
(617) 494-2857
Kevin.Berry@dot.gov
 - Janet Bibinski
(617) 494-2308
Janet.Bibinski.ctr@dot.gov
 - Deirdre Hering
(617) 494-3535
Deirdre.Hering.ctr@dot.gov