



FMCSA Safety and Security Accomplishments



Office of Research and Analysis

Washington, DC

January 22, 2006



U.S. Department of Transportation

Federal Motor Carrier Safety Administration



What Programs are Available to States to Improve Data Quality?

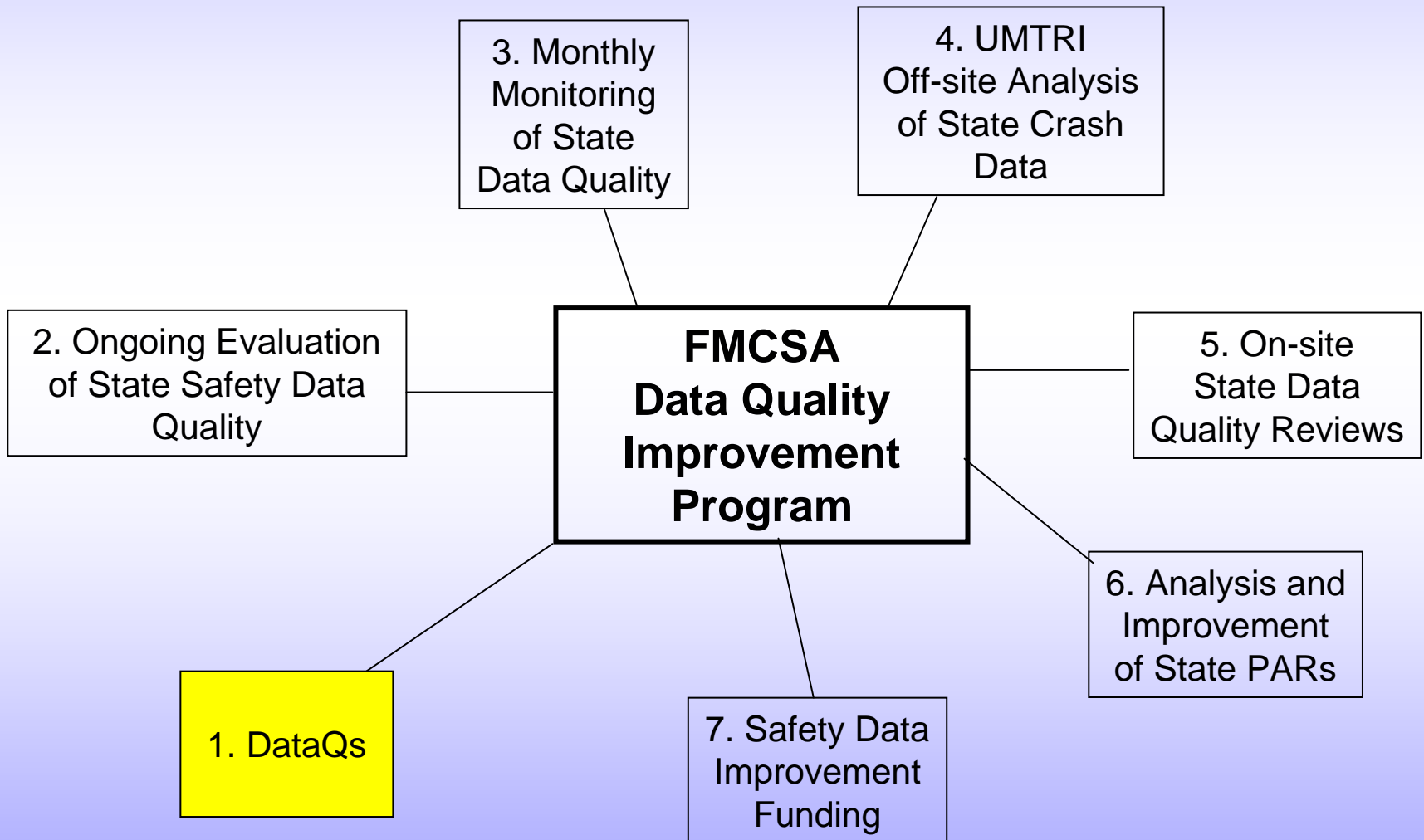
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Analysis Division



U.S. Department of Transportation
Federal Motor Carrier Safety Administration

FMCSA Data Quality Programs



1. What is the DataQs Program?



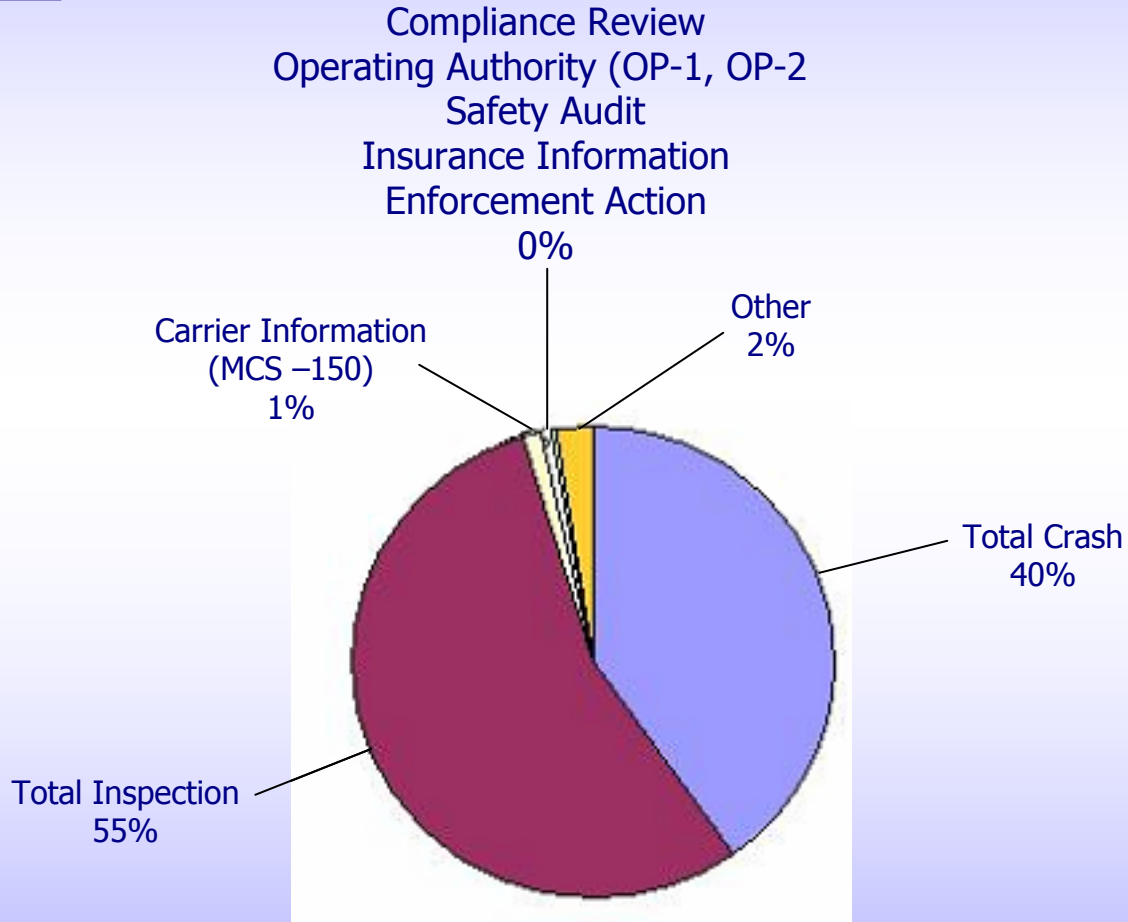
◆ It is:

- A single location for data challenge entry and response
- A web-based interface to view the status of data challenges and supporting documentation throughout the challenge process
- A support tool that assists FMCSA and States in generating responses

◆ It is not:

- A change in either the State or FMCSA data correction guidelines
- A system that allows or requires FMCSA to intervene in the State data correction process

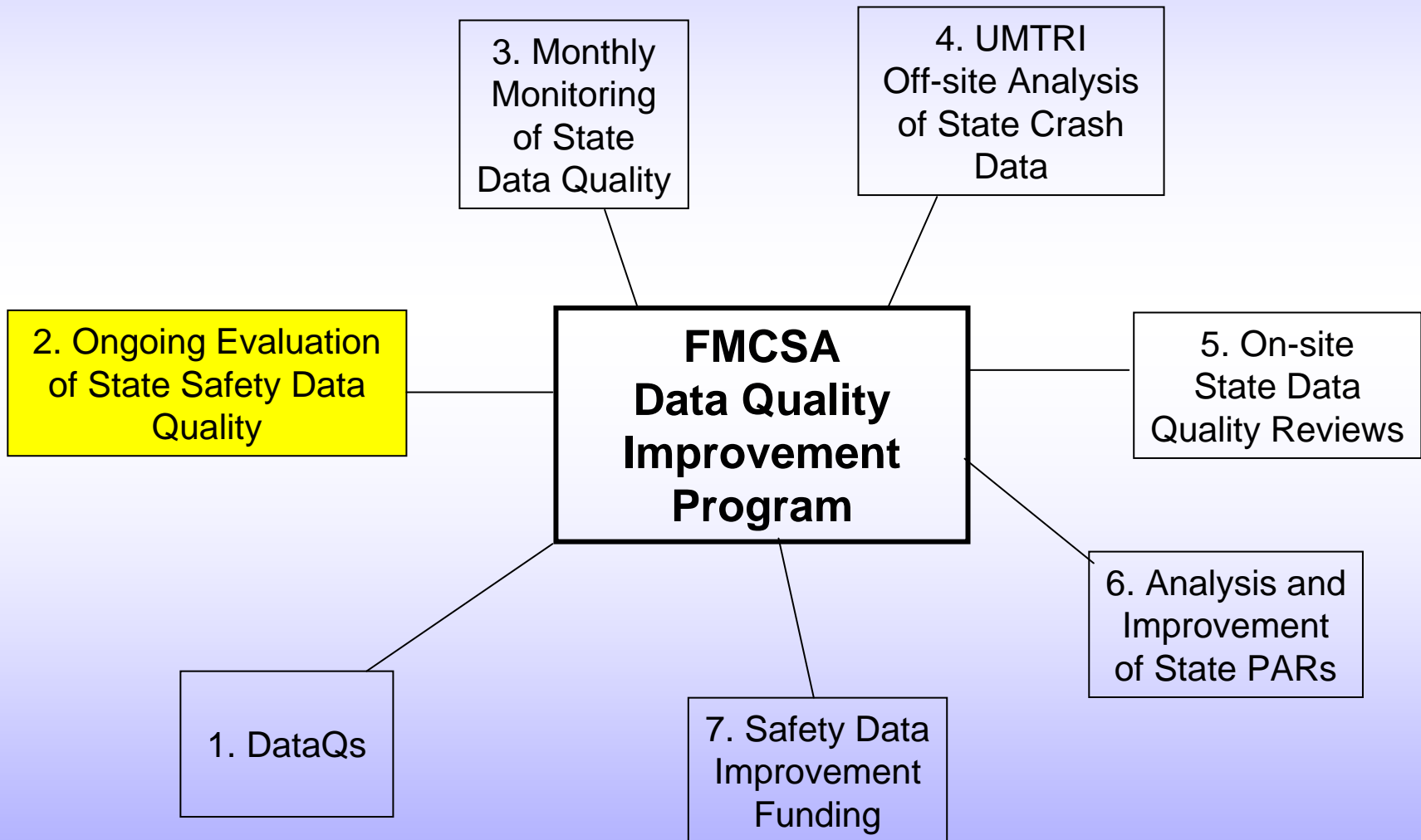
1. DataQs Challenge-Type Breakdown



Total Challenges 10,231

Status as of 1/12/06

FMCSA Data Quality Programs





2. Ongoing Evaluation of State Safety Data Quality

- ◆ **Objective:** To evaluate the completeness, timeliness, accuracy and consistency of the State-reported crash and roadside inspection data in the Motor Carrier Management Information System (MCMIS).

2. Evaluation Methodology



FMCSA Standards

5 Performance Measures

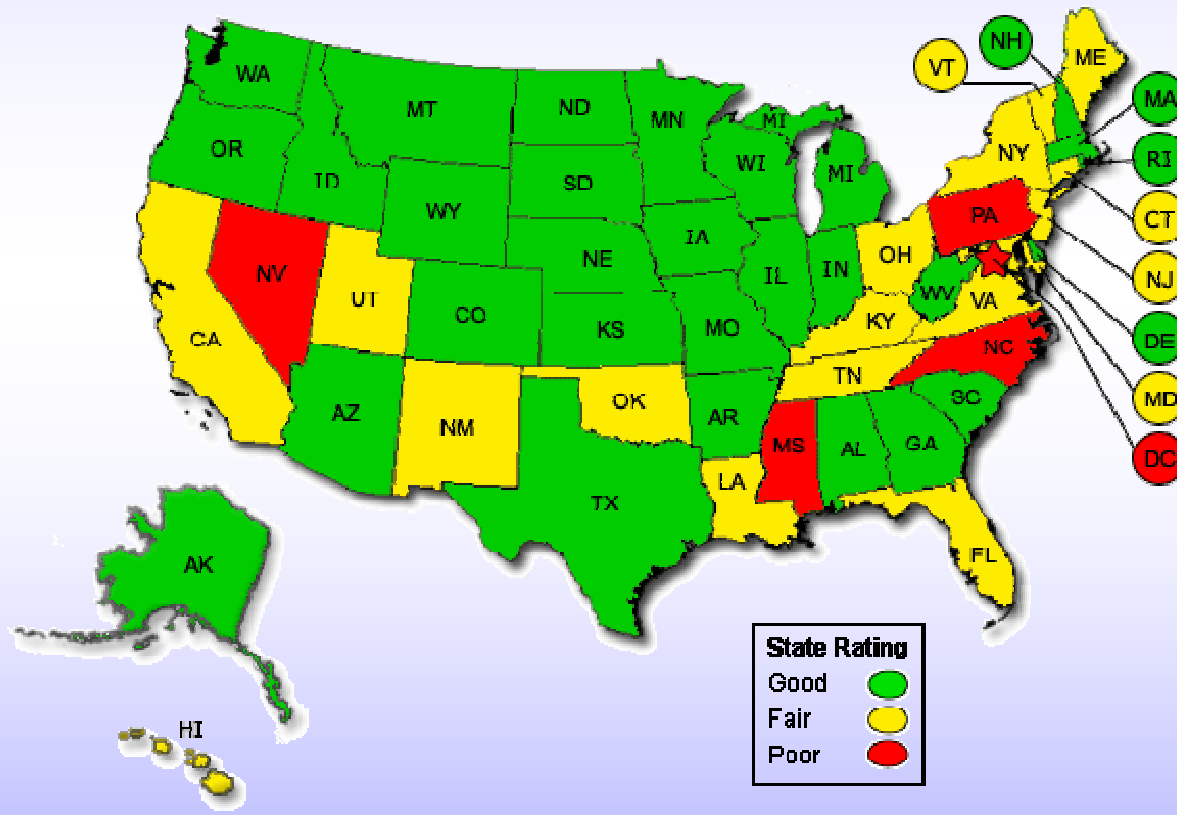
1 Overriding Indicator

Overall State Ratings
(Good, Fair, Poor)

Quarterly Results






2. Generate Quarterly Results



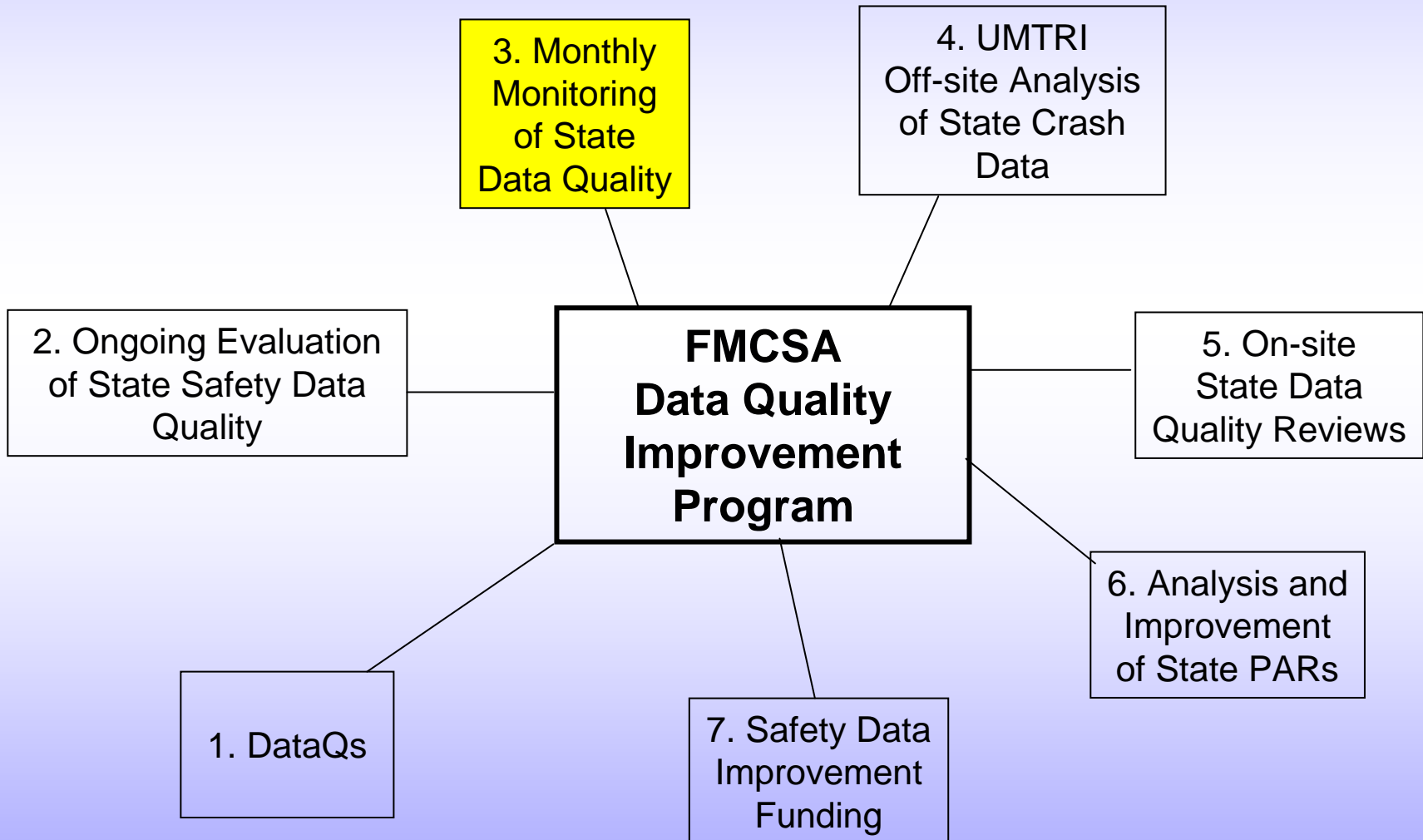


2. How the Evaluation Results Improved Online

18 Month Comparison of Overall State Ratings

	<u>March 2004</u>	<u>Sept 2005</u>	
Good:	24 States	29 States	
Fair:	13 States	17 States	
Poor:	14 States	5 States	

FMCSA Data Quality Programs





3. What is Monthly Monitoring of State Data Quality?

- ◆ A program that assists FMCSA and States to:
 - Monitor State-reported CMV crash and inspection data quality on a monthly basis
 - Measure progress towards the quarterly State data quality rating
 - Analyze current and historical MCMIS and DataQs management reports
 - Provide current status and historical trends of CMV data quality



3. What Analysis is Conducted in the Monthly Monitoring Process?

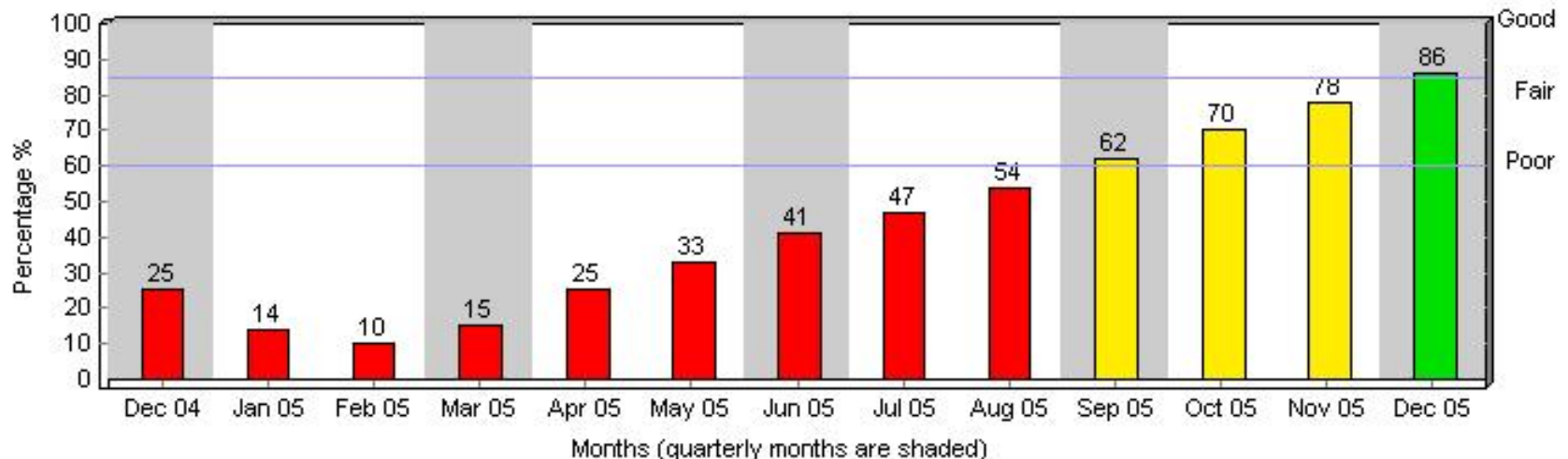
- ◆ Review of MCMIS Online Reports
 - Review 8 reports
 - Crash & inspection timeliness, accuracy, and duplicate analysis
 - Identify Discrepancies
- ◆ Review DataQs Management Reports
 - Indication of persistent problems in data collection or correction
 - Review data challenges entered and open over certain time limits

3. How are Monthly Monitoring Results Presented?

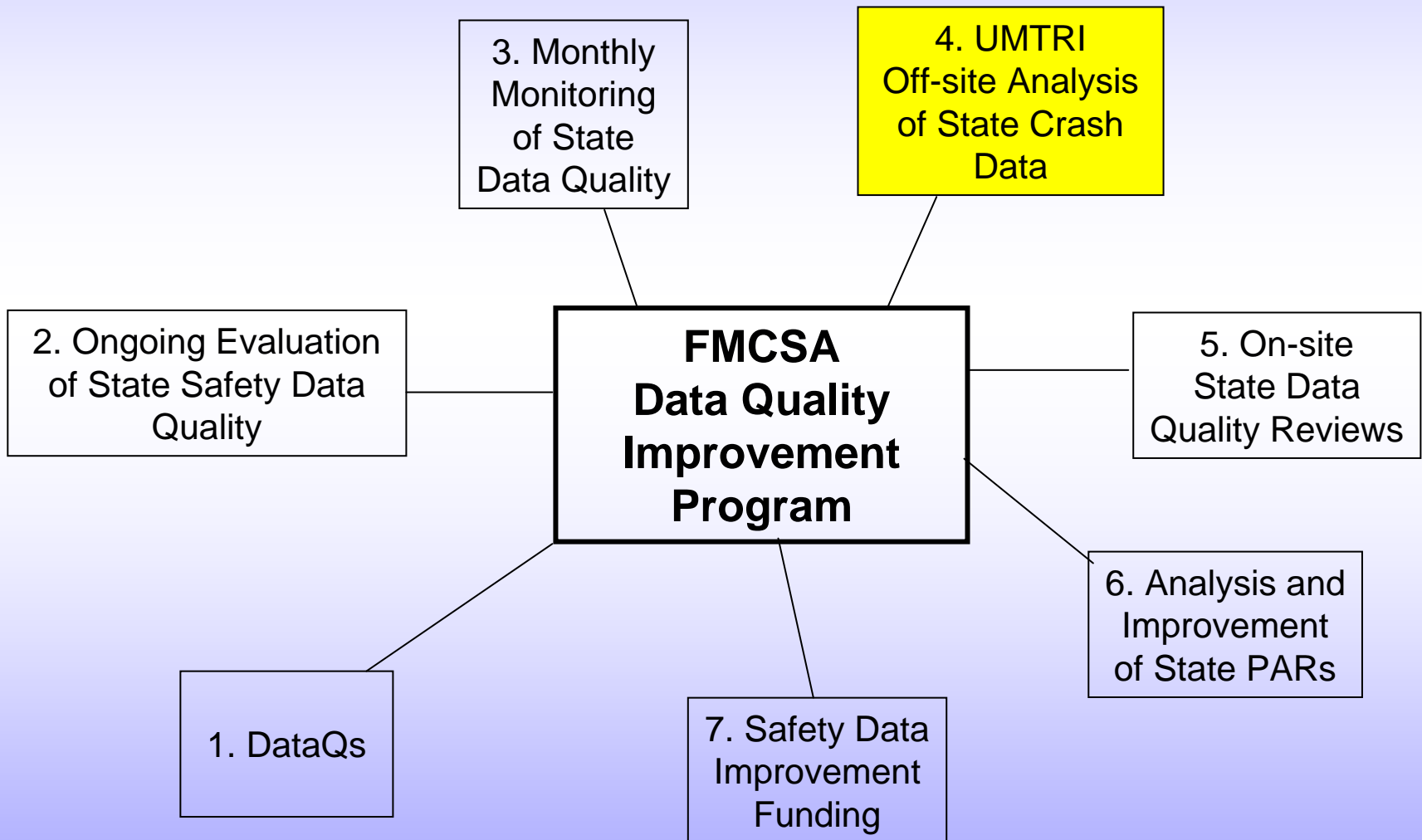
Results provide historic view of data quality

State Crash Timeliness Historical Report

Wisconsin State Crash Timeliness History



FMCSA Data Quality Programs





4. What is the UMTRI Analysis of State Crash Data?

- ◆ Provides an analysis of the State's data reporting to the FMCSA MCMIS file
- ◆ Similar evaluation method for each State
- ◆ State police accident report (PAR) file is evaluated for all reportable crashes
- ◆ Comparison of the PAR case file to the MCMIS Crash file



4. UMTRI Analysis of State Crash Data

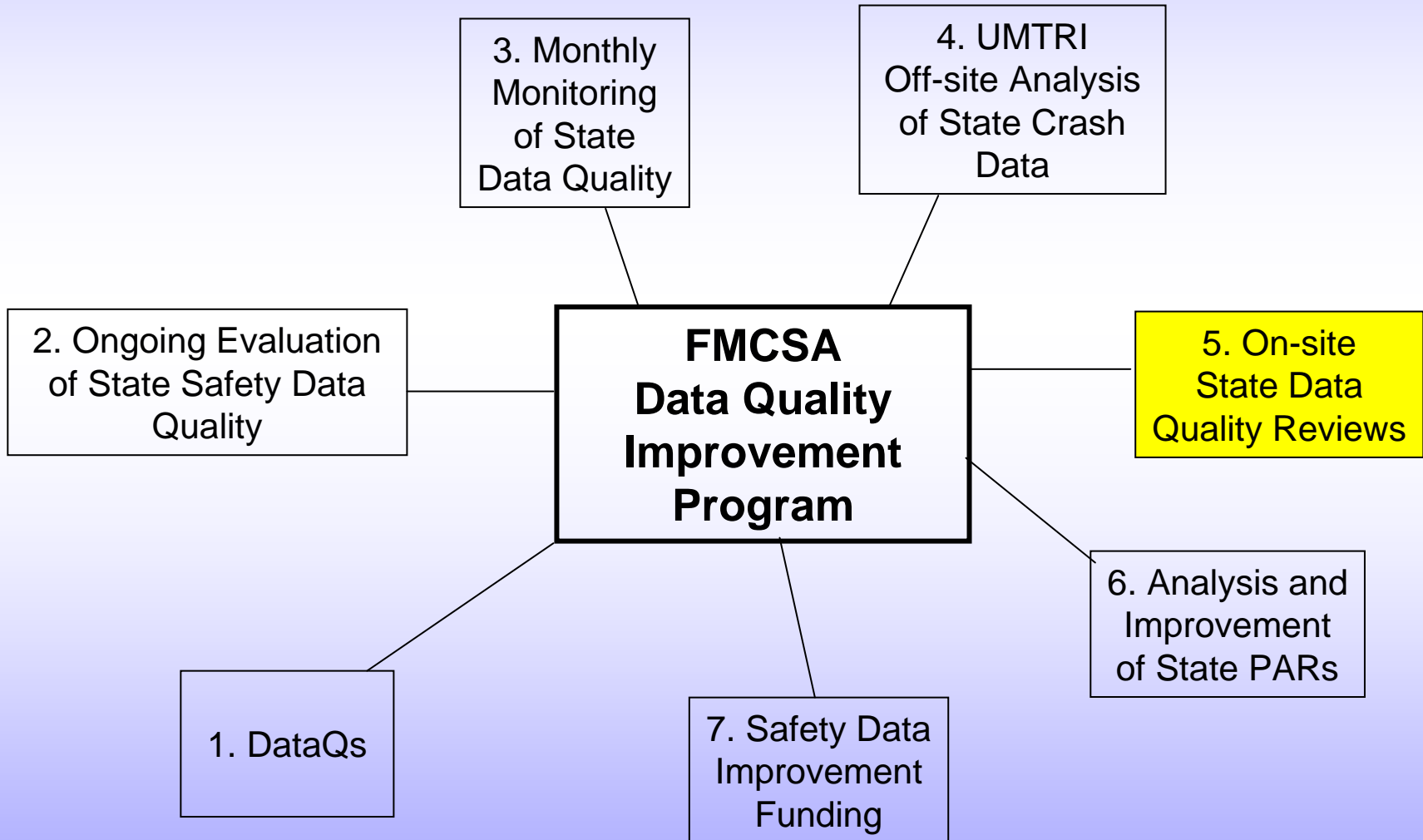
◆ Outcomes

- Determine the nature and extent of underreporting
- Determine patterns of MCMIS crash file under- or over-reporting
- Determine sources of under- or over-reporting

◆ List of Reports

- California, Florida, Illinois, Michigan, Missouri, New Mexico, New Jersey, North Carolina, Ohio

FMCSA Data Quality Programs





5. What is the FMCSA State Data Quality Review Program?

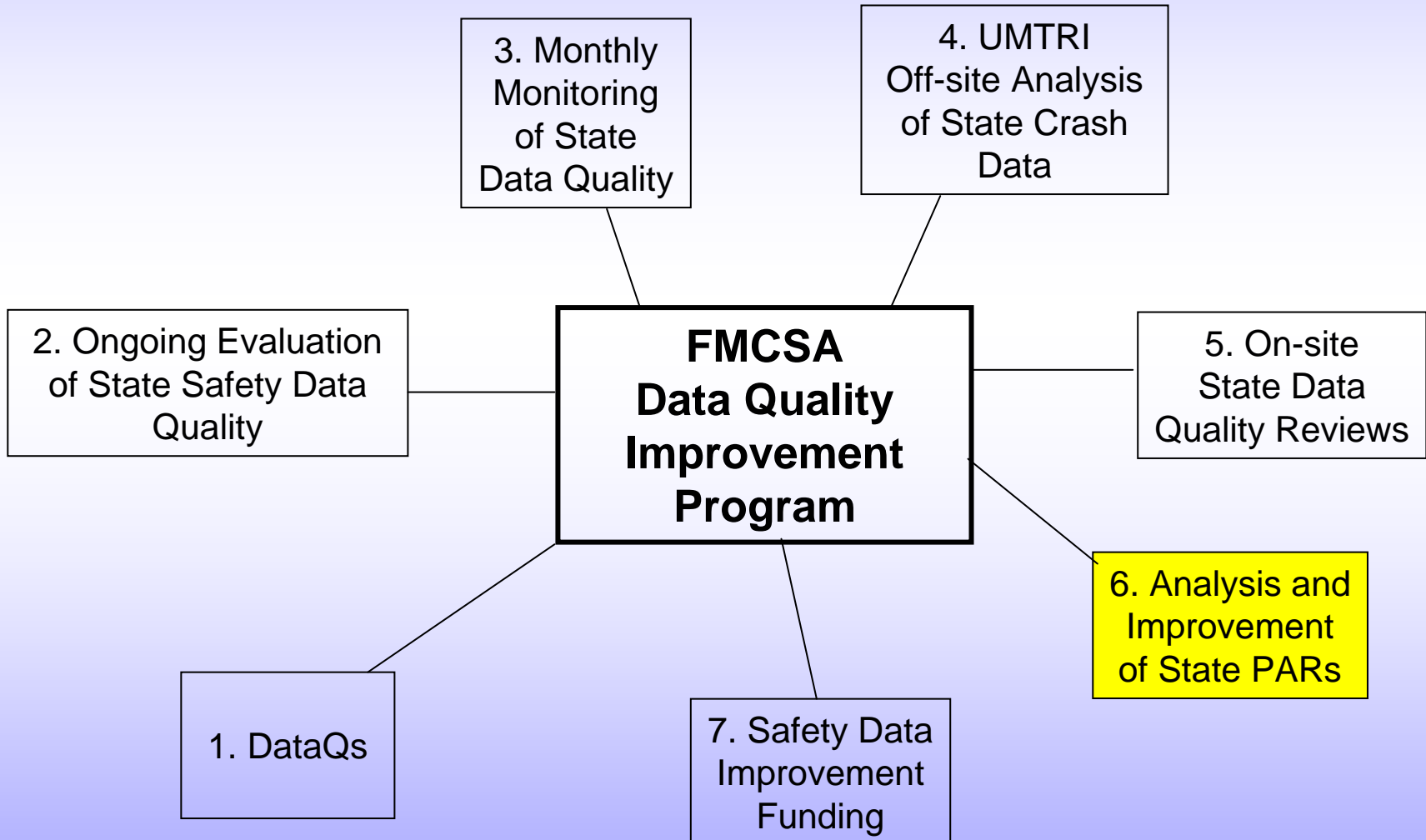
- ◆ FMCSA team goes on-site to a State to:
 - Review a State's crash and roadside inspection collection and reporting processes
 - Works with the States to identify areas for improving the data quality, and establishing methods for monitoring the effectiveness of the improvements



5. What is the status of the FMCSA State Data Quality Review Program?

- ◆ Conducted Pilot in New Hampshire – June 2005
- ◆ Conducting assessment in North Carolina – January 2006
- ◆ Conducting 1 State Data Quality Review Every Quarter

FMCSA Data Quality Programs





6. Analysis of State PARs

Comparison of State Crash Reports with SAFETYNET Selection Criteria and Key Data Elements























































**COMPARISON OF STATE CRASH REPORTS WITH SAFETYNET
SELECTION CRITERIA AND KEY DATA ELEMENTS**

LEGEND
 Good - with only minor modifications
 Fair - missing some codes/needs a revision
 Poor - no field or difficult to map into SAFETYNET

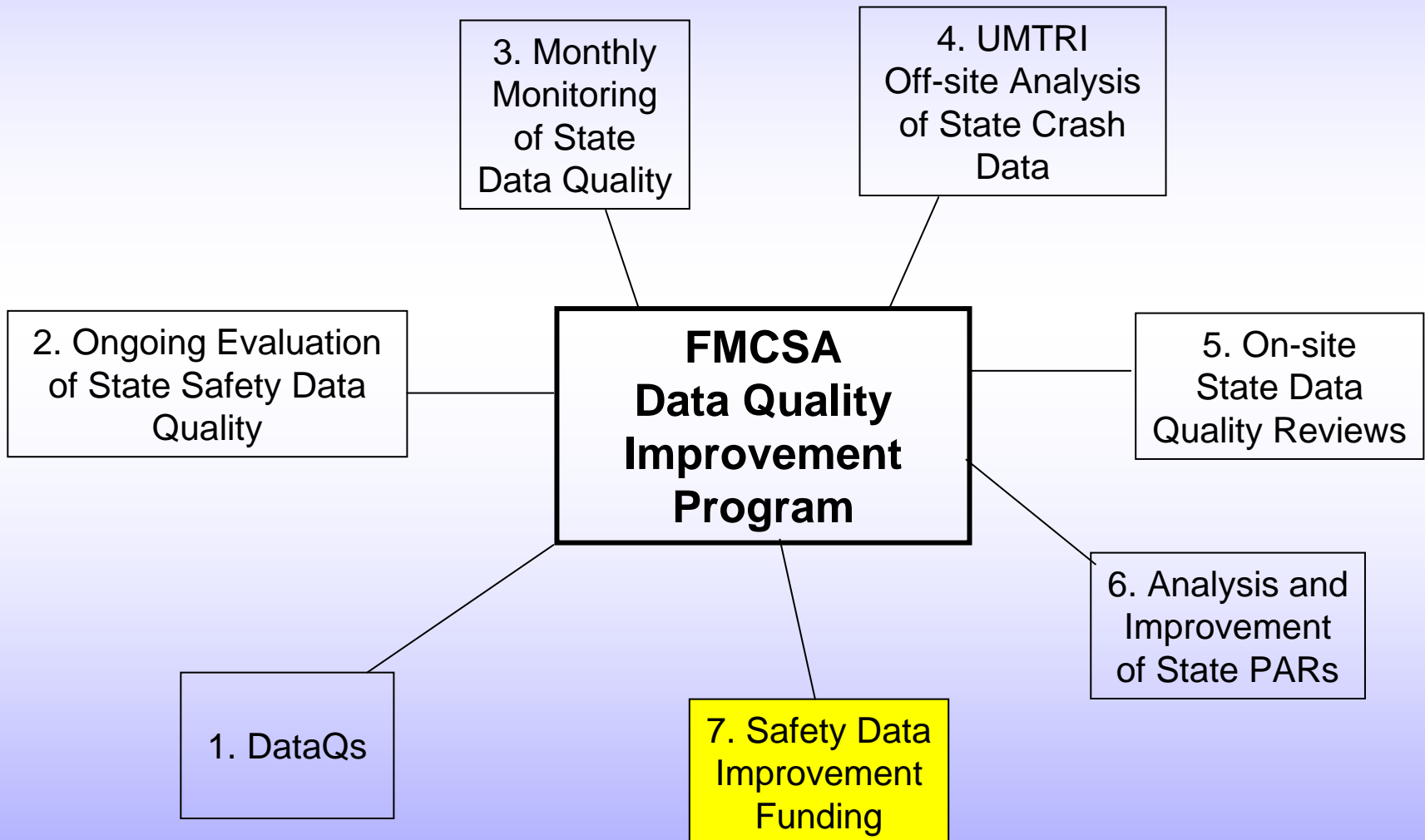
State	FMCSA Selection Criteria Rating	FMCSA CRASH SEVERITY					NGA/SAFETYNET DATA ELEMENTS									
		Injury Severity	Medical Treatment	Tow Away	Disabled Vehicle	Crash Severity Rating	Carrier ID	Vehicle Configuration	Cargo Body	GVWR	Hazardous Materials	Sequence of Events	Event Rating	Risk	Interstate/Intrastate	Commercial/ Government/ Personal
ALABAMA	Red	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Green	Yellow	Green	Red	Yellow
ALASKA	Red	Green	Green	Green	Green	Green	Red	Yellow	Green	Green	Green	Yellow	Green	Yellow	Red	Red
ARIZONA	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Yellow
ARKANSAS	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
CALIFORNIA	Yellow	Green	Red	Green	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red
COLORADO	Red	Green	Red	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Red	Yellow
CONNECTICUT	Red	Green	Red	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Red	Red
DELAWARE	Red	Green	Green	Green	Red	Yellow	Red	Yellow	Red	Red	Red	Red	Red	Red	Red	Yellow
DIST. OF COLUMBIA	Red	Green	Green	Green	Yellow	Green	Red	Green	Red	Green	Green	Red	Red	Red	Red	Green
FLORIDA	Yellow	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Red	Red	Red	Green
GEORGIA	Red	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Green	Red	Yellow	Green	Green	Green
HAWAII	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Yellow	Red	Green	Red	Red
IDAHO	Red	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Green	Yellow	Yellow	Green	Red	Red

6. Analysis of State PARs

Crash Report Ratings by Evaluation Factor

COMPARISON OF STATE CRASH REPORTS FOR CRASH MAP						
LEGEND 1 (from Crash Report Chart) - Columns 1 to 4  Good - with only minor modifications  Fair - missing some codes/needs revision  Poor - no field or difficult to map into SAFETYNET				LEGEND 2 - Columns 5 & 6 OVERALL RATING  Good - Minimum of 1 Good AND 0 Poor  Fair - Maximum of 1 Poor  Poor - 2+ Poor or 1 Poor and 2 Fair		
STATE	STATE CRASH REPORT RATING					Current Crash/Inspection Rating (b))
	Selection Criteria Rating	Crash Severity Rating	Motor Carrier ID	Key Element Rating (a)	Total Report Rating	
ALABAMA						
ALASKA						
ARIZONA						
ARKANSAS [c]						
CALIFORNIA						
COLORADO [c]						
CONNECTICUT						
DELAWARE						

FMCSA Data Quality Programs





7. What is Safety Data Improvement Funding?

- ◆ SaDIP – State Safety Data Improvement Program
- ◆ Provides funding via grants and cooperative agreements to State agencies to help them improve the collection and reporting of eligible large truck and bus safety data



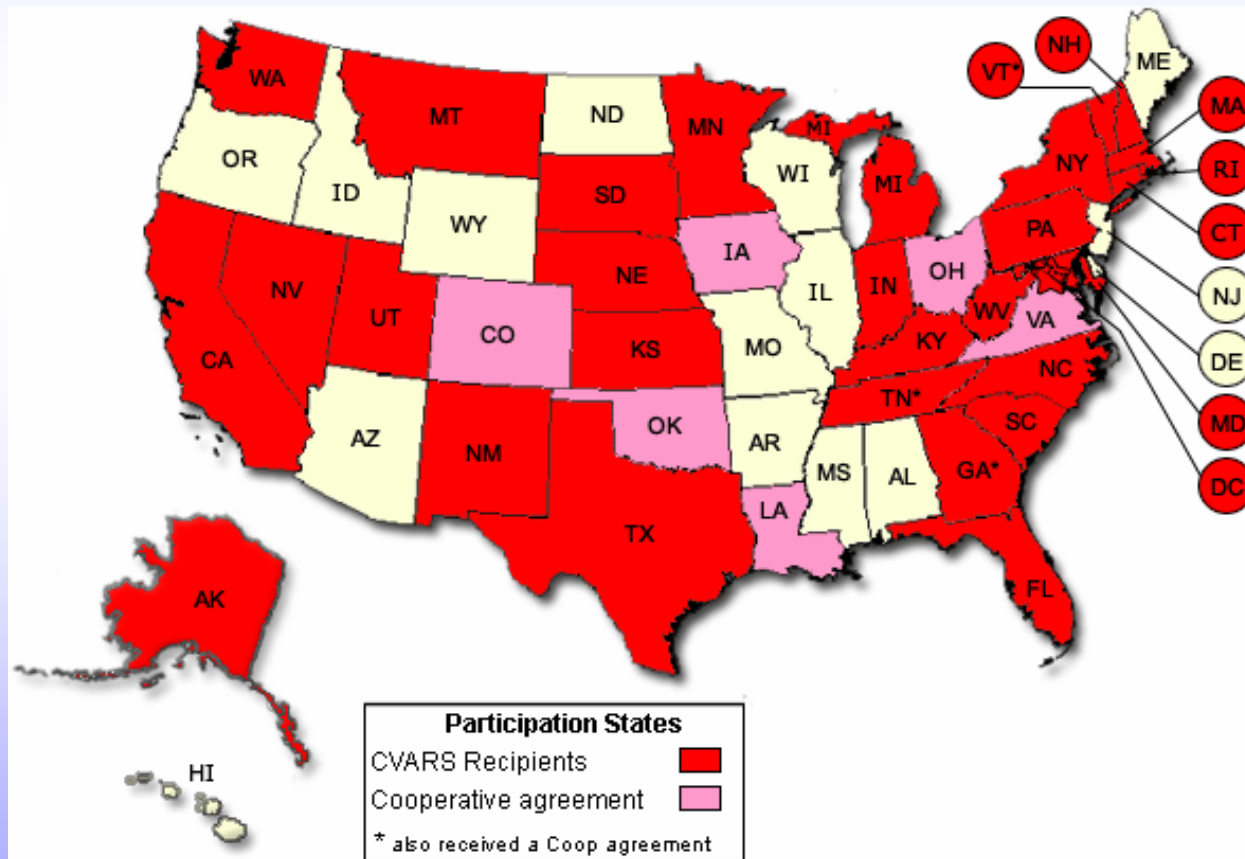
7. Safety Data Improvement Funding

Projects Initiated by States

- ◆ Hire staff to manage data quality improvement programs
- ◆ Revise outdated crash report forms
- ◆ Hire staff to code and enter crash data
- ◆ Train law enforcement officers in collecting crash data
- ◆ Develop software to transfer data from the State repository to SAFETYNET
- ◆ Purchase equipment to support data quality activities
- ◆ Purchase software for field data collection and data transfer

7. Safety Data Improvement Funding

From 2002-2005 almost \$21 million awarded in grant and cooperative funding





A&I Data Quality Module

- ◆ Presents data quality analysis and reports
- ◆ Located in A&I Online website <http://ai.fmcsa.dot.gov>
- ◆ Provides quarterly evaluations of State-reported data in MCMIS
- ◆ Provides an electronic means for filing concerns about Federal and State data
- ◆ Access tools for developing State strategic plans (e.g., CVSPs, State safety plan, etc.)

A&I Data Quality Module



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State Safety Data Quality

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Supporting Analysis Reports

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Data & Reports


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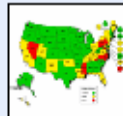
[Crash Reporting Status](#)

[Safety Plan Crash Data](#)

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

 Restricted to Authorized FMCSA and State Enforcement Users. [A&I User Login Required](#)

Evaluation



State Safety Data Quality (SSDQ)

Evaluation of State-reported data in MCMIS

States are rated on a quarterly basis on the completeness, timeliness, accuracy, and consistency of State-reported crash and roadside inspection data in MCMIS.



Data & Reports

Tools for Data Quality Analysis

Users can get access to data and reports that can be used to analyze data quality issues and to monitor trends in reporting.

Improvement



DataQs

How Do I Correct My Motor Carrier Safety Data?

DataQs is an electronic means for filing concerns about Federal

Highlights

- [State Safety Data Quality](#) evaluation updated with September 2005 quarterly results.
- Crash Reporting Status and Safety Plan Crash Data in [Data & Reports](#) have been updated with the September 23, 2005 MCMIS snapshot of data.

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Safety Data Improvement Funding

Contact

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