

2009: Historic Truck Crash Declines

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Fatal Large Truck Numbers, 2008 to 2009

Three levels of crash data:

Fatalities: Down 20% (4,245 to 3,380)

Large Trucks: Down 21% (4,089 to 3,215)

Crashes: Down 20% (3,754 to 2,987)

Source: Fatality Analysis Reporting System (FARS) of the
National Highway Traffic Safety Administration (NHTSA)

Fatal Bus Numbers, 2008 to 2009

- ◆ Motorcoaches
 - Fatalities: Down 12% (52 to 46)
 - *Occupant Fatalities: Down 76% (38 to 9)*
 - Crashes: Up 90% (20 to 38)

- ◆ All buses (school, transit, motorcoach, other)
 - Fatalities: Down 18% (311 to 254)
 - Crashes: Down 12% (251 to 221)

Source: FARS

Large Truck and Passenger Vehicle Fatalities

Year	Large Truck Fatalities	Year Over Year % Change	Passenger Vehicle Fatalities	Year Over Year % Change	Percentage Point Difference
2004	5,235	—	38,759	—	—
2005	5,240	0%	38,933	+0.4%	0.4
2006	5,027	-4.1%	38,140	-2.0%	2.1
2007	4,822	-4.1%	36,460	-4.4%	0.3
2008	4,245	-12.0%	32,638	-10.5%	1.5
2009	3,380	-20.4%	29,885	-8.5%	11.9

Source: FARS

Safety Performance Measure: Truck and Bus Crash Rates

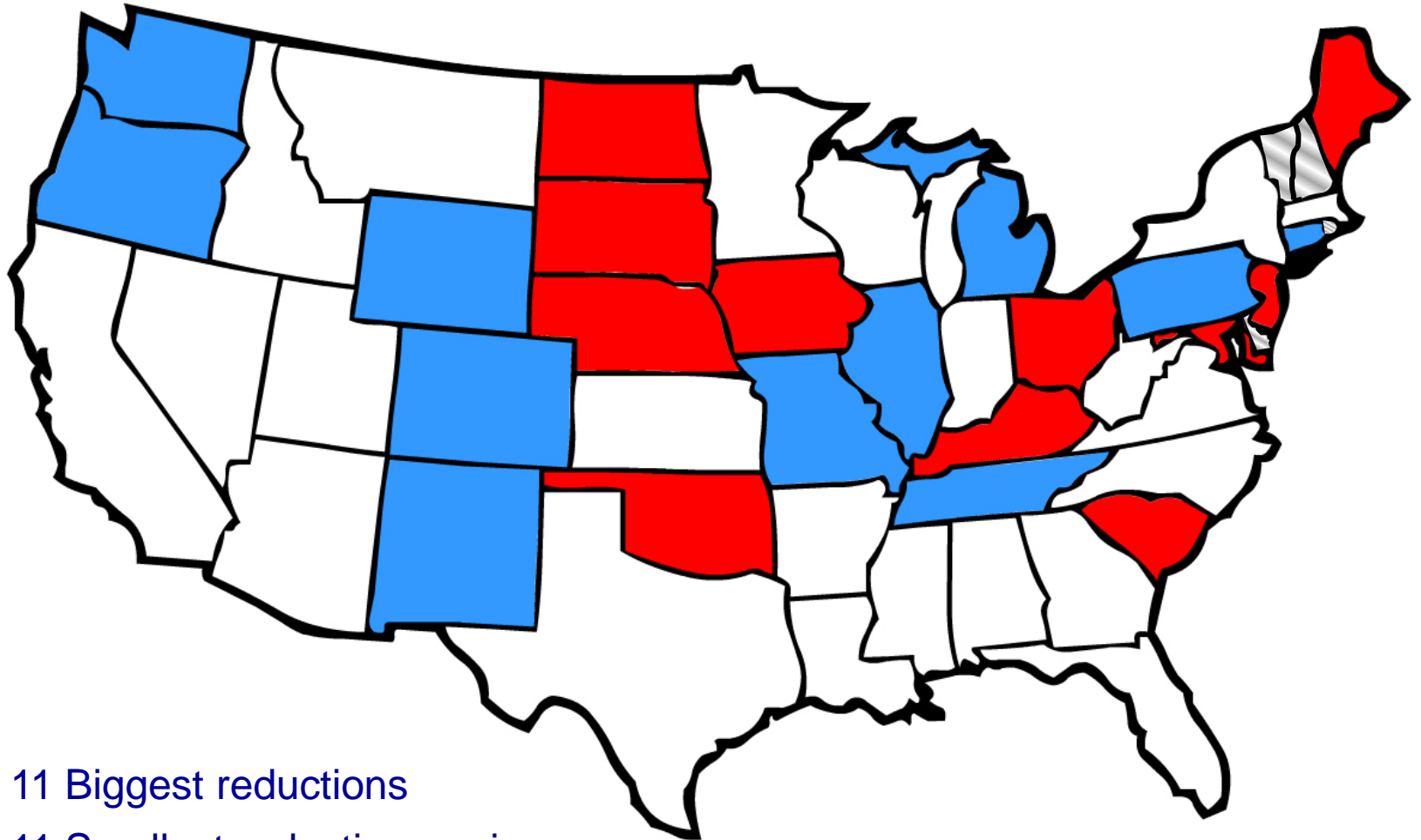
Large Truck and Bus Fatalities per 100 million Total VMT

Calendar Year	Target	Actual
2007	0.175	0.169
2008	0.171	0.153
2009	0.167	0.121*
2010	0.164	—

*Based on preliminary estimate of VMT from the Federal Highway Administration (FHWA)

Sources: FARS, FHWA

Reductions of Large Trucks Involved in Fatal Crashes, 2007–2009



■ 11 Biggest reductions

■ 11 Smallest reductions or increases

▨ States with low crash numbers excluded: Vermont, New Hampshire, New Jersey, Rhode Island, Delaware, Alaska, Hawaii, and DC

Motor Vehicles in Crashes, 2009

Crash Type	Large Trucks	Other Vehicles	Percent Trucks
Fatal	3,215	42,358	7%
Injury	53,000	2,727,000	2%
Property Damage Only	239,000	6,629,000	3%
Total	295,000	9,398,000	3%

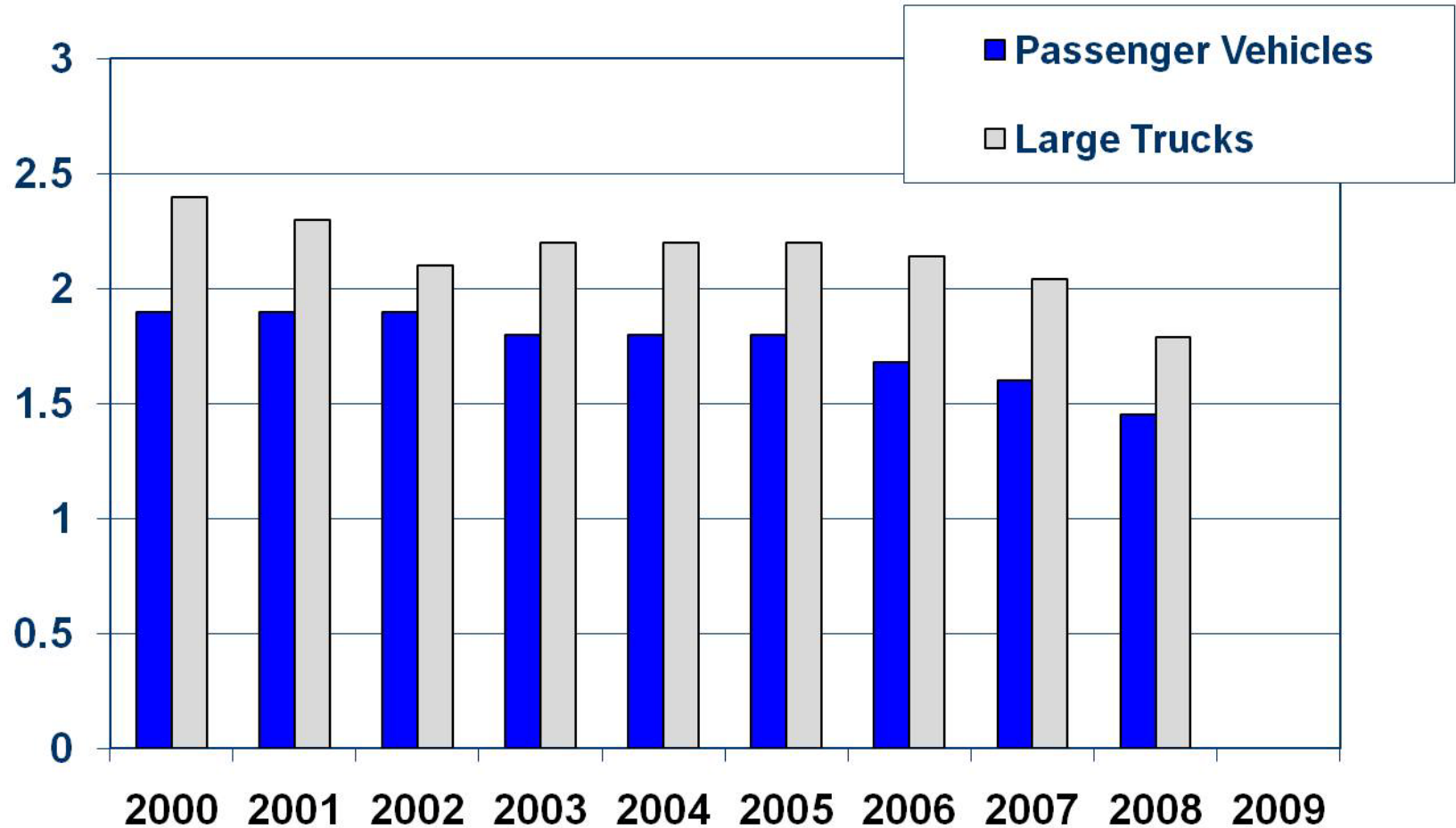
Sources: FARS, General Estimates System (GES)

Hazardous Materials, 2009

- ◆ Large trucks in fatal crashes – 3,215
 - Carrying hazardous materials – 108 (3.4%)
 - Spillage of hazardous materials from cargo compartment – 33 (1.0%)
- ◆ People killed by exposure to hazardous materials in large truck crashes – 6

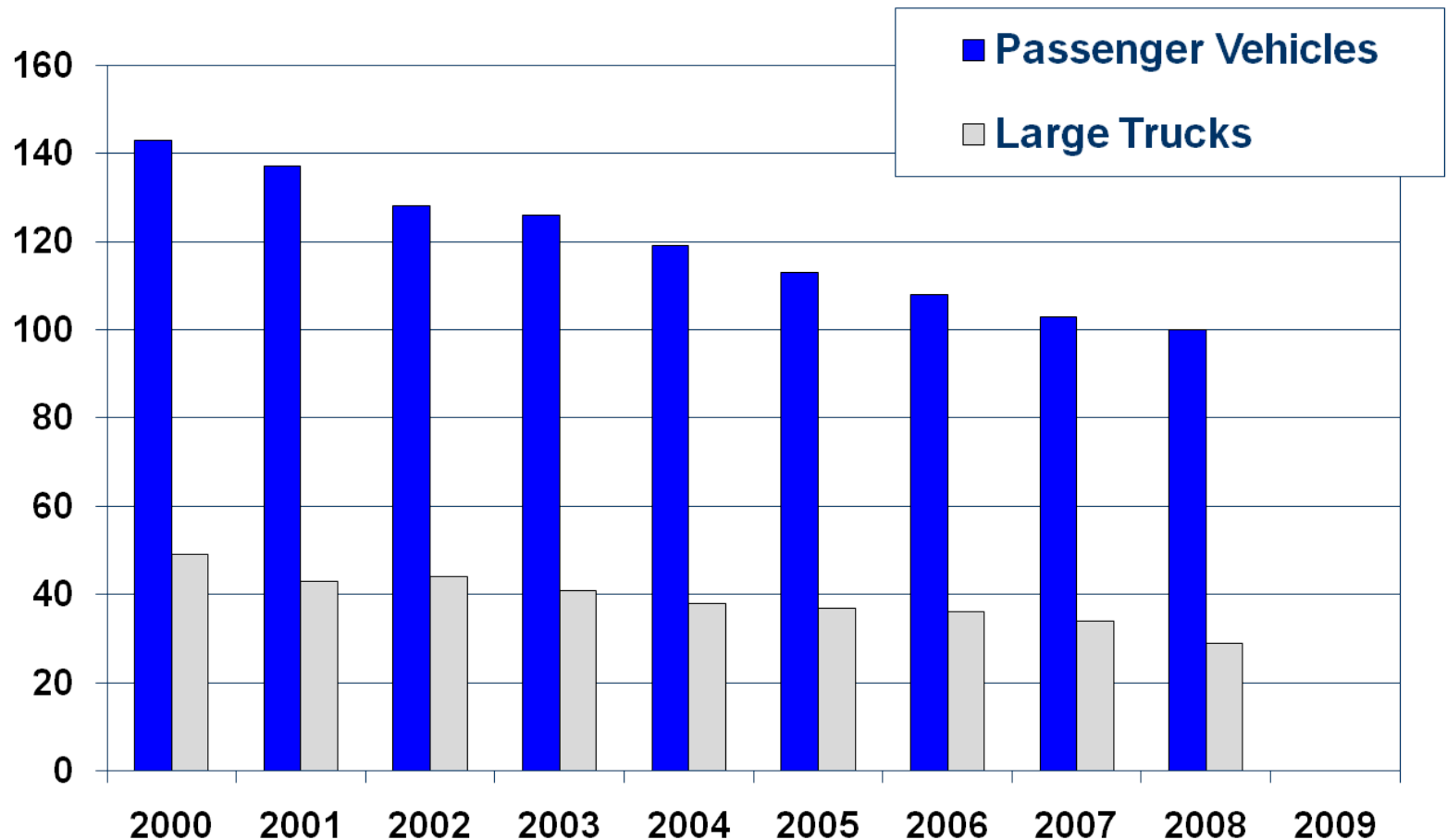
Sources: FARS, Pipeline and Hazardous Materials Safety Administration
(2009 Incident Report)

Vehicles in Fatal Crashes per 100 million vehicle miles traveled



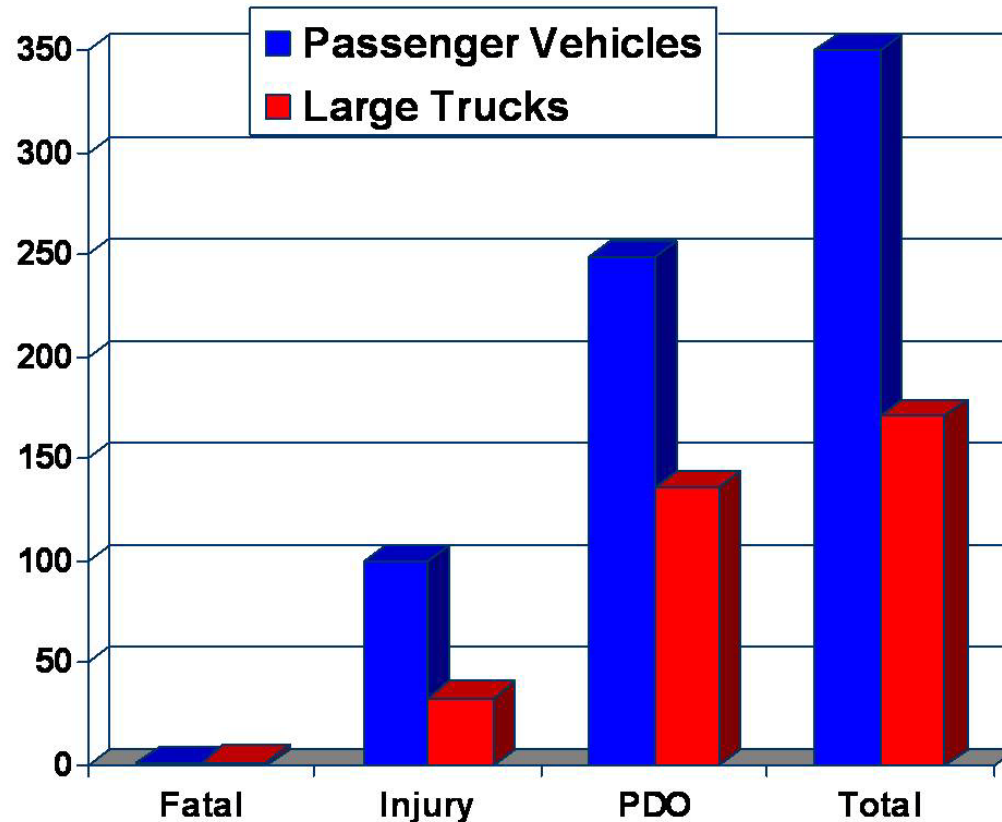
Source: FARS, Federal Highway Administration (FHWA)

Vehicles in Injury Crashes per 100 million vehicle miles traveled



Source: FARS, Federal Highway Administration (FHWA)

Vehicles in Crashes, 2008 per 100 million vehicle miles traveled

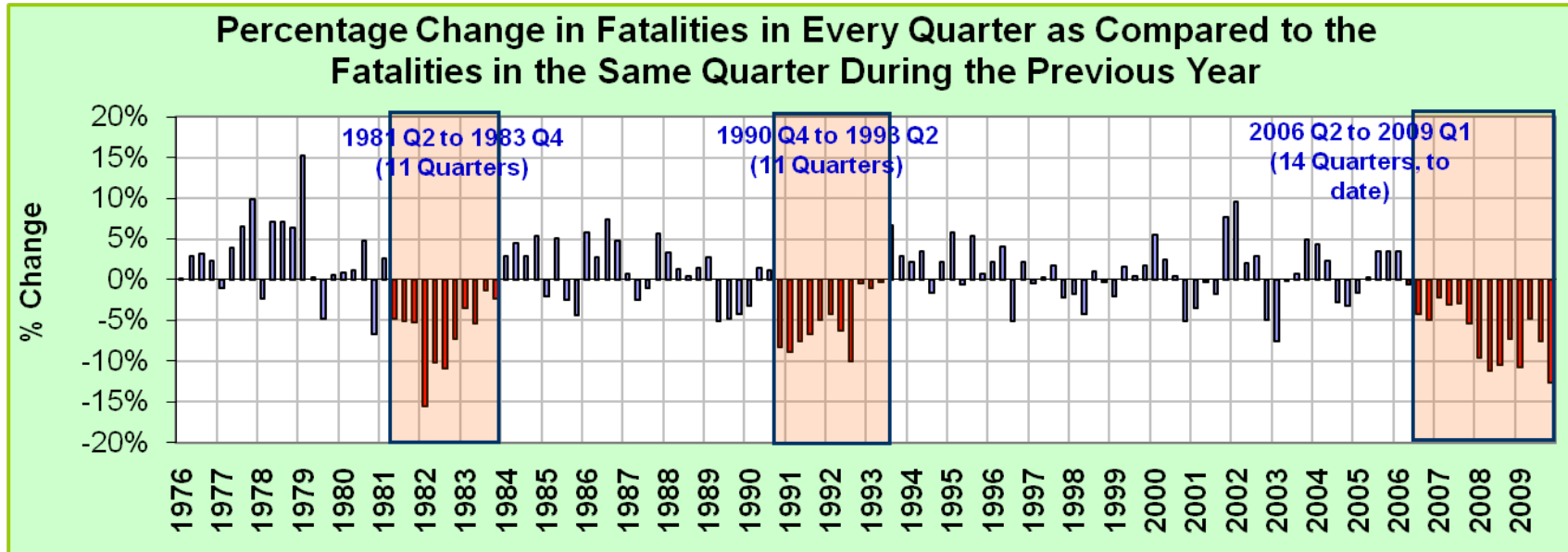


Sources: FARS, FHWA

Possible Contributing Factors

- ◆ Never trust a single factor explanation
- ◆ Many factors could have contributed, including
 - The Economy
 - FMCSA
 - NHTSA
 - Motor carrier industry
 - Safety groups
 - Others

Long Term Quarter to Quarter Changes in All Fatalities



- ◆ Recessions in each of the three periods of 10 or more quarters of fatality declines
- ◆ Economy now is recovering from the worst recession since 1975, and longest period of consecutive quarterly fatality declines

Freight Transportation Service Index

Month-to-Month changes in freight shipments
by for-hire freight industries (2000 = 100)

	Index	Index Change
December 2006	109.3	—
December 2007	109.8	+0.5
December 2008	100.3	-9.5
December 2009	96.2	-4.1
July 2010	101.1	+4.9

Source: Bureau of Transportation Statistics

Truck Traffic Changes

- ◆ From 2007 to 2009 Intermodal freight hauled by Class 1 railroads dropped 18%.
 - Association of American Railroads
- ◆ The For-Hire Truck Tonnage Index (2000 = 100) dropped from 116.7 to 108.4 from December 2007 to December 2009.
 - American Trucking Association
- ◆ NAFTA truck traffic to Canada and Mexico dropped in both 2008 and 2009.
 - Bureau of Transportation Statistics

Note: All three measures related to truck traffic have increased substantially in 2010.

FMCSA Output Measures

Output	2007	2009	Change
Compliance Reviews	15,731	16,733	+6%
Inspections (1,000s)	3,274	3,340	+5%
Level 3 Inspections (1,000s)	1,006	1,173	+17%
Notice-of-Claim Letters	5,824	6,815	+17%
Fines Imposed (\$ millions)	\$26.3	\$31.1	+18%
UnSat/Unfit OOS Orders	829	1,080	+30%
90-day No Pay OOS Orders	1,112	1,549	+39%

Source: Motor Carrier Management Information System (MCMIS)

Large Truck Crash Types for Fatal Crashes*, 2009

- ◆ Collision with Another Vehicle in Transport – 75%
- ◆ Collision with Fixed Object – 8%
- ◆ Collision with Pedestrian – 7%
- ◆ Rollover – 4%
- ◆ Bicycle – 2%
- ◆ Parked Motor Vehicle – 1%
- ◆ Other and/or Unknown – 3%

* First harmful event

Fatal Head-on and Rear End Crashes

Two Vehicle Large Truck/Passenger Vehicle Crashes	2007	2009	Percent Drop
Rear End: Large Truck strikes Passenger Vehicle	123	73	-41%
Rear End: Passenger Vehicle strikes Large Truck	382	290	-24%
Head-on: Large Truck crosses center line	73	50	-32%
Head-on: Passenger Vehicle crosses center line	364	288	-21%

Source: FARS

Single vs. Multiple Vehicle Crashes, 2007–2009

- ◆ Single vehicle large truck crashes* dropped 33% (from 450 to 301).
- ◆ Multiple vehicle large truck crashes dropped 29% (from 3,363 to 2,384).

* A “single vehicle large truck crash” is defined as a crash where the first harmful event is the truck colliding with a fixed object or parked motor vehicle, or suffers a rollover or explosion/fire.

Source: FARS

Seat Belt Use and Truck Driver Fatalities, 2009

- ◆ No restraint use, full or partial ejection
 - 2007 – 138 fatalities
 - 2009 – 89 fatalities; down 49 (36%)
- ◆ No restraint use, no ejection
 - 2007 – 169 fatalities
 - 2009 – 88 died; fatalities; down 81 (48%)
- ◆ Total: Down 130
- ◆ Seat belt use by large truck drivers increased from 65% in 2007 to 74% in 2009

Percent of Drivers Coded with Specific Fatal Crash Factors

Factors (top 10 for each vehicle type)	Large Truck Drivers	Large Truck Drivers	Passenger Vehicle Drivers
	2007	2009	2009
Speeding	8.3%	7.3%	18.7%
Failure to keep in proper lane	11.6%	6.5%	18.1%
Inattentive (talking, eating, etc.)	5.8%	5.7%	9.6%
Failure to yield right-of-way	4.2%	3.5%	7.0%
Failure to obey traffic signs	2.8%	2.0%	4.5%
Overcorrecting	1.6%	1.8%	4.9%
Drowsy, asleep, fatigued	1.7%	1.4%	—
Under influence of alcohol, drugs, medications	—	1.4%	16.6%
Following improperly	2.0%	1.3%	—
Making improper turn	1.2%	1.0%	2.7%
Erratic or reckless driving	1.2%	—	3.1%
Driving on wrong side of road	—	—	2.7%

FARS compared with Large Truck Crash Causation Study (LTCCS)

Truck Driver Factors	FARS	LTCCS
Fatigue	1%	13%
Speeding	7%	23%
Inattention	6%	9%
Following improperly	1%	5%
Illness	0.4%	3%
Unfamiliar with Road	0.2%	22%

Source: FARS, FMCSA, LTCCS

Summary

- ◆ Large Truck crashes dropped dramatically in 2008–09.
- ◆ **Economic Indicators** – Four major indicators showed less truck traffic in 2008–09, but not as large and the crash reductions.
- ◆ **FMCSA Programs** – Enforcement and outreach efforts increased in 2008-09. In fatal large truck crashes:
 - Single vehicle crashes, trucks crossing the center line, trucks hitting other vehicles in the rear, and driver fatalities while not wearing seat belts all dropped more than the overall 30% decline in crashes.
 - Drivers coded with failure to keep in the proper lane in fatal crashes dropped by almost half.

For More Information

- ◆ Large Truck and Bus Crash Facts 2008:
<http://www.fmcsa.dot.gov/facts-research/LTBCF2008/Index-2008LargeTruckandBusCrashFacts.aspx>
- ◆ Truck and Bus Crash Facts 2009: Early release version available in October
- ◆ Data on Analysis and Information (A&I) Online
<http://ai.fmcsa.dot.gov/>

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