



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

# Jack Van Steenburg

Assistant Administrator and Chief Safety Officer  
**Federal Motor Carrier Safety Administration**

**Analysis, Research, and Technology Forum**  
**93<sup>rd</sup> Annual Meeting of the**  
**Transportation Research Board**  
**Washington, D.C.**  
**January 14, 2014**



+

Office of Research and Information Technology

+





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

# 2012 FARS Data on Large Truck and Bus Fatal Crashes

Including Large Truck Occupant Fatalities, Alcohol, and Work Zones



+

Office of Research and Information Technology

+



# Our Mission

## FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION 2012-2016 STRATEGIC PLAN

Preventing  
Crashes...  
**SAVING  
LIVES**

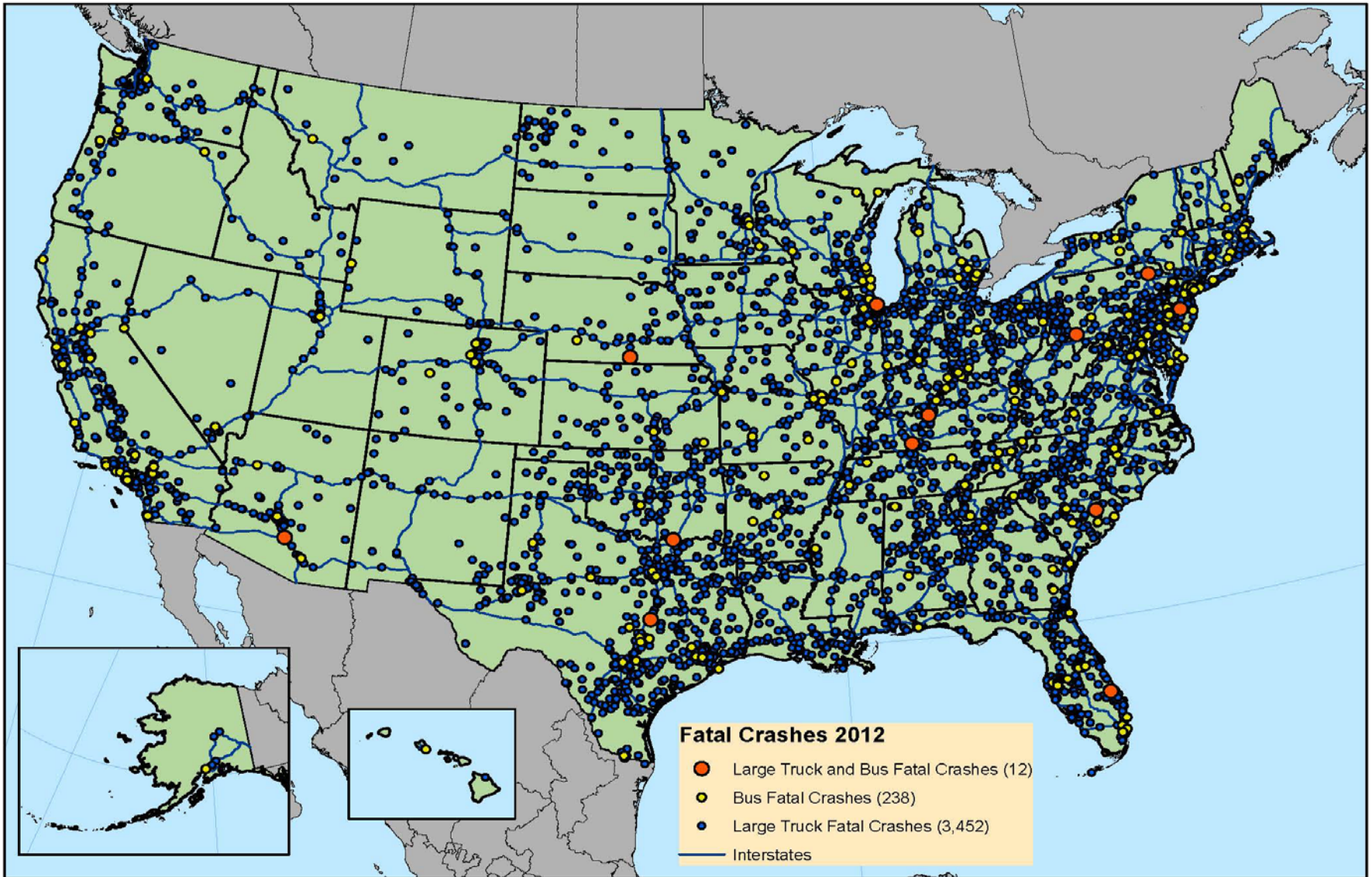
Raising the Bar to Entry  
Requiring to Maintain High Safety Standards  
Removing High Risk Carriers & Drivers



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

Placing safety as our highest priority:  
Reduce crashes, injuries, and fatalities involving CMV transportation through *education, innovation, regulation, enforcement, financial assistance, partnerships, and full accountability.*

# Large Truck and Bus Fatal Crashes 2012



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

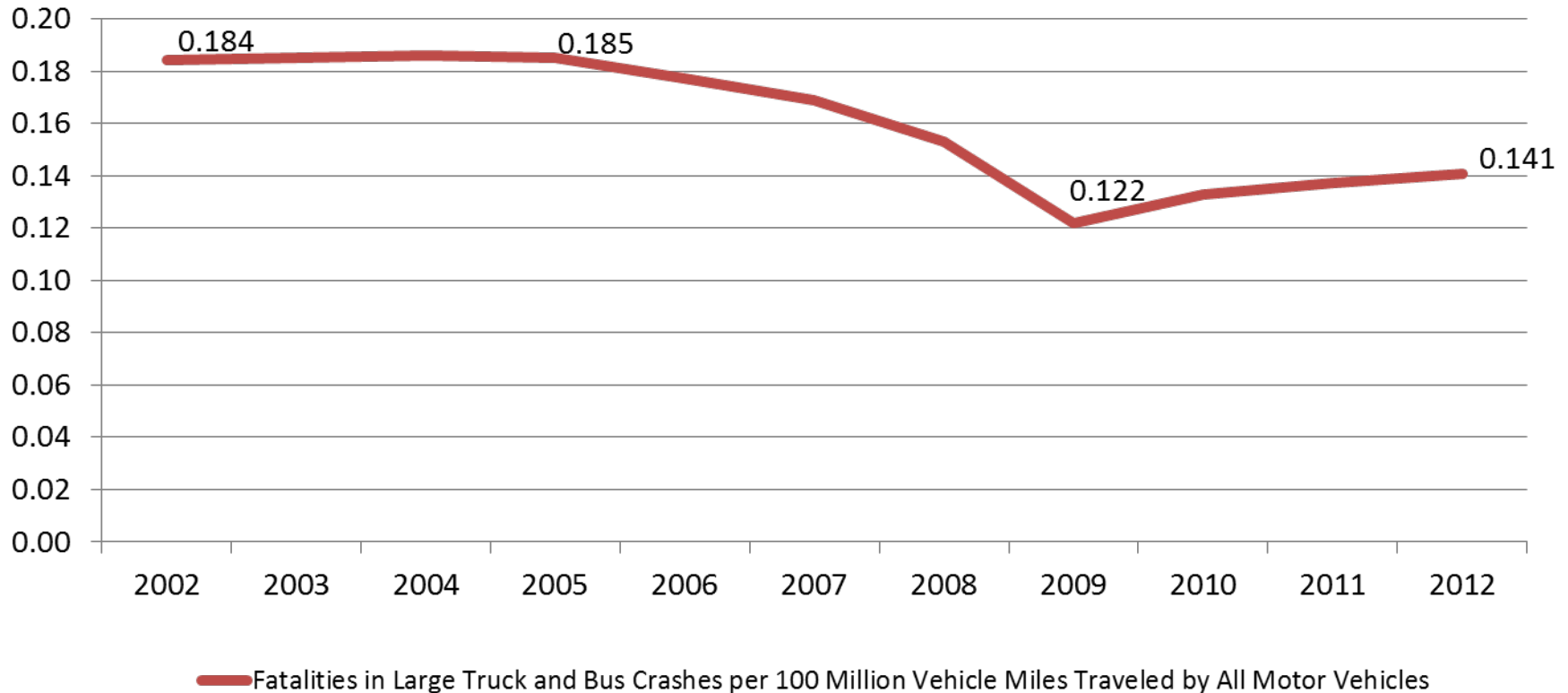
Source: Fatal Analysis Reporting System (FARS) 2012  
MAP Date: 11/18/2013  
MAP ID: FARS2012US1

# Overview: Large Truck and Bus Fatal Crash Data, 2010-2012

	2010	2011	2012	2010-2011 Percent Change	2011-2012 Percent Change
Fatal <u>Crashes</u> Involving Large Trucks and/or Buses	3,512	3,593	3,702	2.3%	3.0%
<u>Large Trucks and Buses</u> Involved in Fatal Crashes	3,745	3,878	4,053	3.6%	4.5%
<u>Fatalities</u> in Large Trucks and/or Bus Crashes	3,957	4,043	4,183	2.2%	3.5%
Large Truck and Bus <u>Occupant</u> <u>Fatalities</u>	574	695	736	21.1%	5.9%

Sources: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)  
Federal Motor Carrier Administration, MCMIS Crash Data

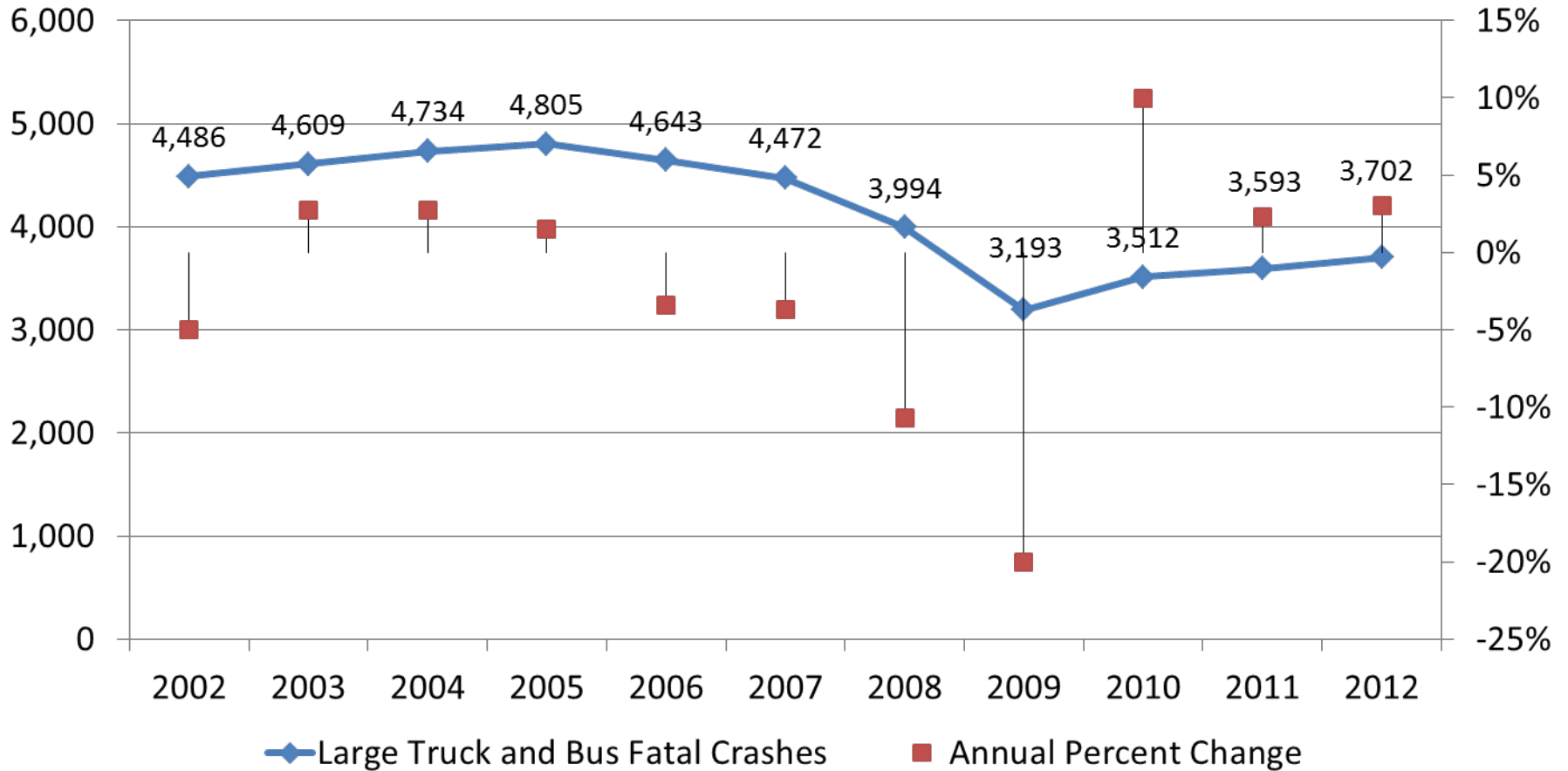
# Large Truck and Bus Fatality Rate, 2002-2012



Sources: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)  
Federal Highway Administration (FHWA) Vehicle Miles Traveled (VMT) Data

- 16% increase in large truck and bus fatality rate from 2009 to 2012
- 24% decrease in large truck and bus fatality rates from 2005 to 2012

# Large Truck and Bus Fatal Crashes, 2002 - 2012

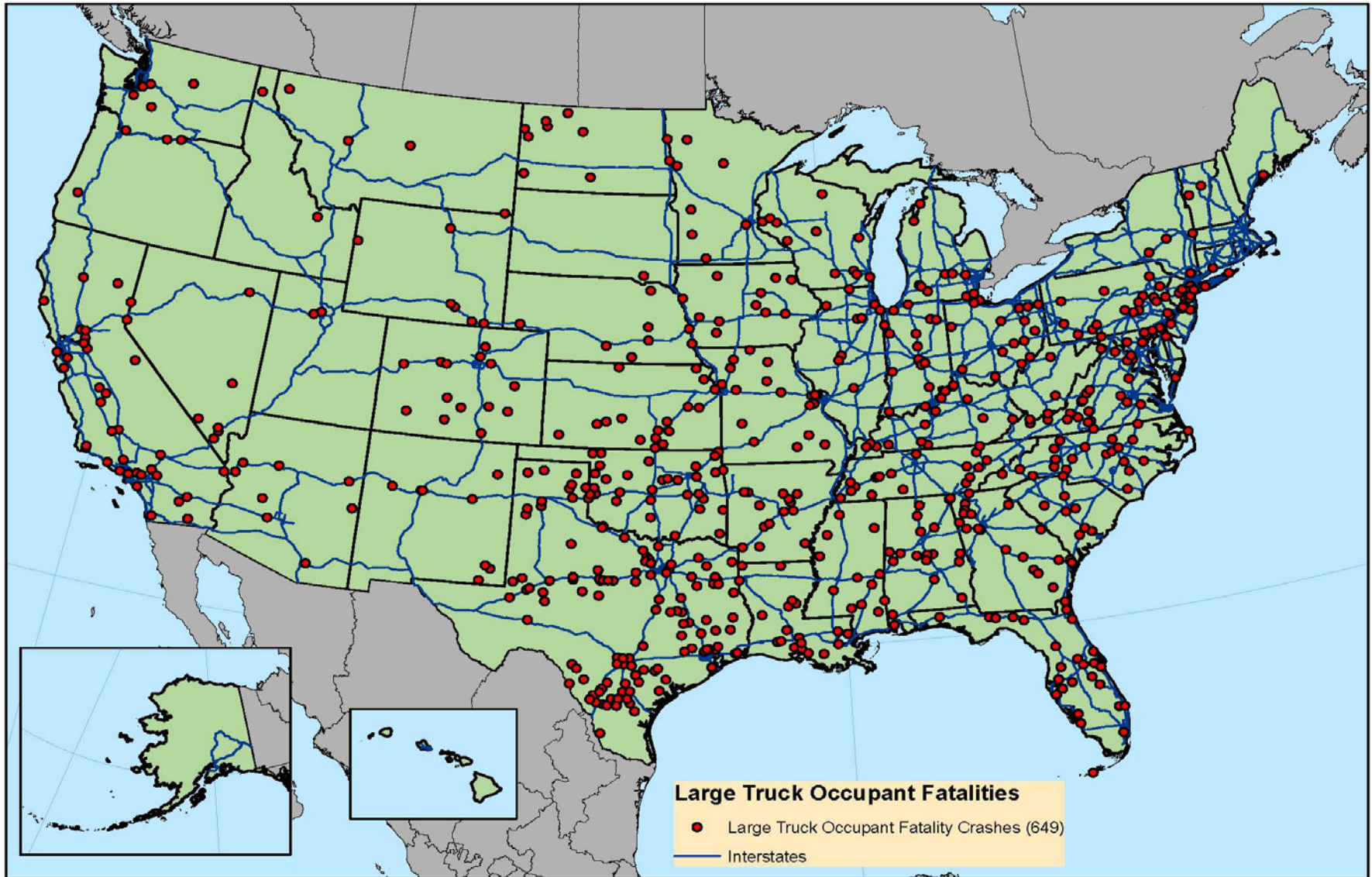


Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

16% increase in fatal large truck and bus crashes from 2009 - 2012  
 23% decrease in fatal large truck and bus crashes from 2005 - 2012

# Crashes with Large Truck Occupant Fatalities 2012

697 Large Truck Occupant Fatalities involving 662 Large Trucks in 649 crashes.



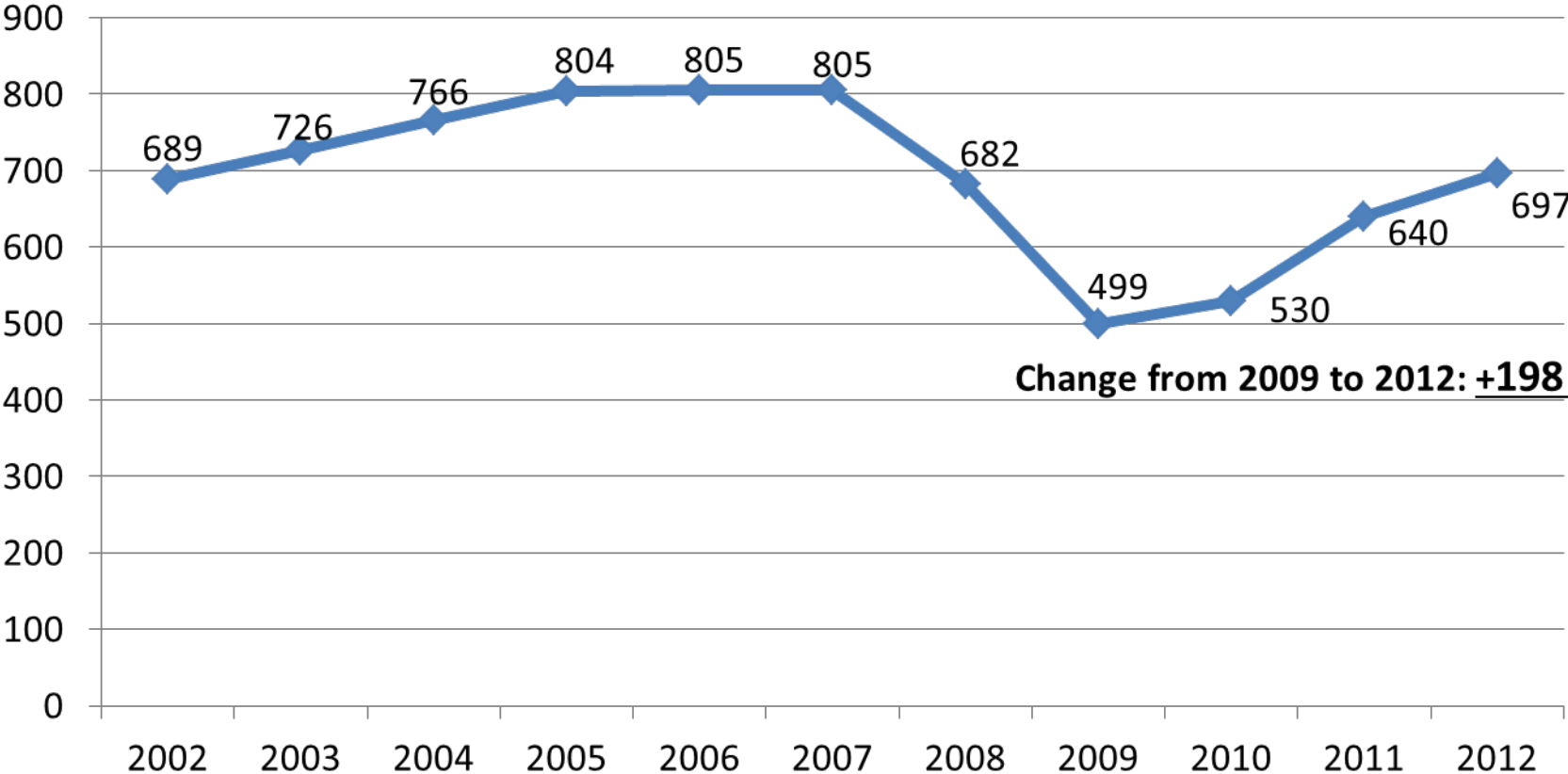
U.S. Department of Transportation  
Federal Motor Carrier Safety Administration

Office of Research and Information Technology

Source: Fatal Analysis Reporting System (FARS) 2012  
MAP Date: 11/20/2013  
MAP ID: FARS2012LTFO3



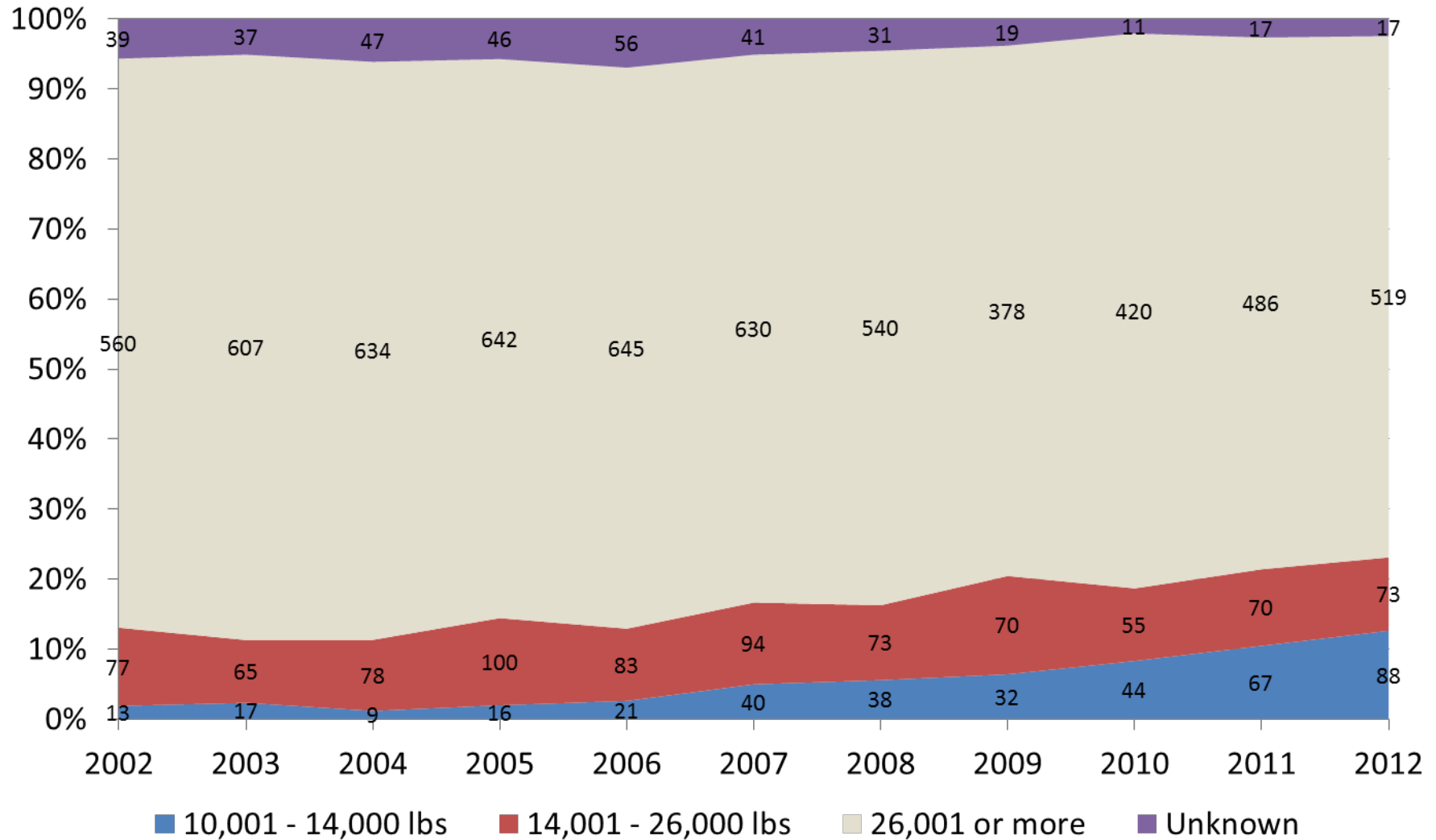
# Large Truck Occupant Fatalities, 2002 - 2012



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS).

40% increase in large truck occupant fatalities from 2009 – 2012  
13% decrease in large truck occupant fatalities from peak in 2007

# Occupant Fatalities by Truck Weight Rating, 2002-2012



Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

# Large Truck Occupant Fatalities by Truck Weight Rating Category and US DOT Status

Year	Occupant Fatalities in 10,001 - 14,000 lbs. Large Trucks		Occupant Fatalities in 14,001 - 26,000 lbs Large Trucks		Occupant Fatalities in Large Trucks 26,001 lbs or more		Occupant Fatalities in Large Trucks of other weight categories (including Unknown)		Total Large Truck Occupant Fatalities	
	Total	<i>Percent without US DOT Number</i>	Total	<i>Percent without US DOT Number</i>	Total	<i>Percent without US DOT Number</i>	Total	<i>Percent without US DOT Number</i>	Total	<i>Percent without US DOT Number</i>
<b>2007</b>	40	87.5%	94	54.3%	630	25.7%	41	51.2%	<b>805</b>	<b>33.4%</b>
<b>2008</b>	38	94.7%	73	67.1%	540	26.1%	31	64.5%	<b>682</b>	<b>36.1%</b>
<b>2009</b>	32	81.3%	70	55.7%	378	23.5%	19	68.4%	<b>499</b>	<b>33.5%</b>
<b>2010</b>	44	81.8%	55	45.5%	420	22.4%	11	54.5%	<b>530</b>	<b>30.4%</b>
<b>2011</b>	67	89.6%	70	57.1%	486	21.8%	17	64.7%	<b>640</b>	<b>33.9%</b>
<b>2012</b>	88	96.6%	73	52.1%	519	22.2%	17	47.1%	<b>697</b>	<b>35.3%</b>

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

# Large Truck Occupant Fatalities by Restraint Use and Ejection from the Vehicle, 2012

Restraint Use	Ejection from the Vehicle						Total	
	Not Ejected		Ejected (Partially or Totally)		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No	136	26.2%	100	62.1%	0	0.0%	236	33.9%
Yes	255	49.1%	23	14.3%	1	5.9%	279	40.0%
Unknown	128	24.7%	38	23.6%	16	94.1%	182	26.1%
<b>Total</b>	<b>519</b>	<b>100.0%</b>	<b>161</b>	<b>100.0%</b>	<b>17</b>	<b>100.0%</b>	<b>697</b>	<b>100.0%</b>

- 34% of large truck occupant fatalities did not use any safety restraint.
- Of the 236 large truck occupant fatalities not wearing a safety restraint, 100 (42%) were partially or totally ejected from the vehicle.
- 23% of all truck occupant fatalities were either partially or totally ejected from the vehicle.
- (not shown here) 46% of all motor vehicle occupant fatalities did not use any safety restraint.

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

# Top 10 States for Large Truck and Bus Fatalities by State, 2010-2012

<b>State</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2010-2012 Three-Year Average</b>	<b>Change, 2011-2012</b>
Texas	421	449	589	486.3	31.2%
California	266	296	277	279.7	-6.4%
Florida	213	233	231	225.7	-0.9%
Pennsylvania	178	169	177	174.7	4.7%
Georgia	158	176	158	164.0	-10.2%
Ohio	137	123	159	139.7	29.3%
New York	144	142	127	137.7	-10.6%
Illinois	117	132	134	127.7	1.5%
Indiana	120	144	116	126.7	-19.4%
North Carolina	122	128	129	126.3	0.8%

In 2012, these States accounted for 50% of all large truck and bus fatalities

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS).

# Top Ten Driver-Related Crash Factors for Drivers of Large Trucks with Occupant Fatalities, 2012

Driver-Related Factor	Number	Percent
Speeding-Related	130	19.7%
Distraction/inattention (cell phone, lost in thought, eating, etc.)	77	11.6%
Over Correcting	63	9.5%
Careless Driving	53	8.0%
Impairment: Asleep or Fatigued	41	6.3%
Failure to Keep in Proper Lane	36	5.4%
Impairment: Under the Influence of Alcohol, Drugs, Medication	26	3.9%
Vision Obscured (by Weather, Roadway Design, Vehicles, etc.)	24	3.6%
Failure to Obey Traffic Sign, Traffic Control Devices	23	3.5%
Following Improperly	19	2.9%
At Least One Driver-Related Factor Recorded	404	61.1%
No Driver-Related Factors Recorded	257	38.9%
<b>Total</b>	<b>661</b>	<b>100.0%</b>
At Least One Moving Violation Recorded	22	3.3%
No Moving Violations Recorded	639	96.7%
<b>Total</b>	<b>661</b>	<b>100.0%</b>

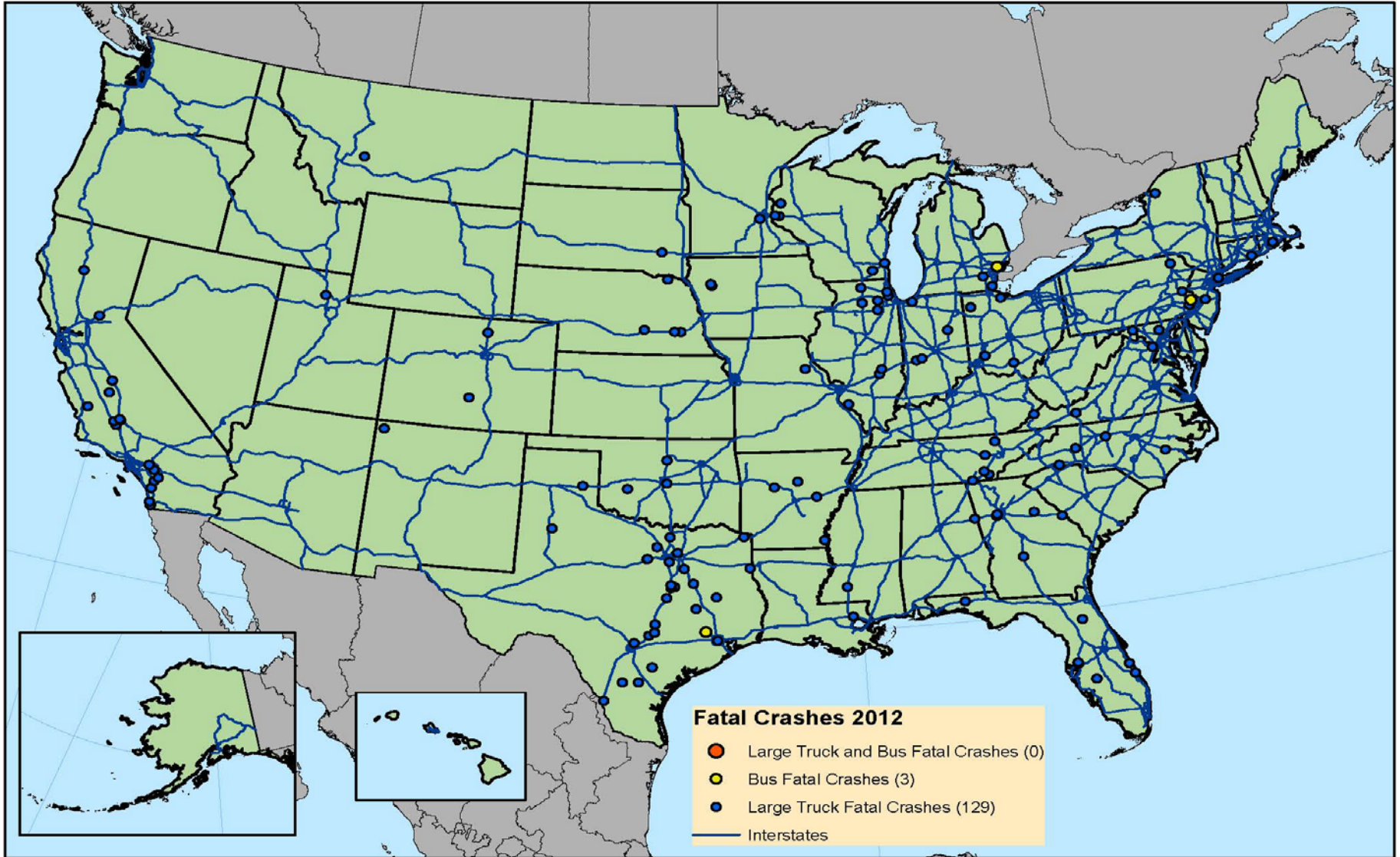
Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

# Fatal Crashes by Work Zone, 2008 - 2012

	2008	2009	2010	2011	2012
Percentage of Fatal Work-Zone Crashes that Involved at Least One Large Truck	25.7%	22.2%	22.5%	27.2%	23.6%
Percentage of ALL Fatal Crashes that Involved at Least One Large Truck	11.0%	9.7%	10.8%	11.3%	11.2%

Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

# Work Zone Large Truck and Bus Fatal Crashes 2012



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

Source: Fatal Analysis Reporting System (FARS) 2012  
MAP Date: 12/5/2013  
MAP ID: FARS2012WZ1



# Large Truck and Bus Traffic Enforcement



## All Unsafe Driving Behaviors

### Serious Traffic Offenses

- Speeding
- Following too close
- Improper lane change
- Texting and cell phone use

## Major Traffic Offenses

- DUI – Alcohol/Drugs
- Felony drug use
- Reckless driving
- Leaving scene of crash

## Disqualifications (Serious)

- 2<sup>nd</sup> conviction – 60 days
- 3<sup>rd</sup> conviction – 120 days

## Disqualifications (Major)

- 1<sup>st</sup> conviction – 1 year
- 2<sup>nd</sup> conviction – lifetime

# Our Vision

## FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION 2012-2016 STRATEGIC PLAN

Preventing  
Crashes...  
**SAVING  
LIVES**

Raising the Bar to Entry  
Requiring to Maintain High Safety Standards  
Removing High Risk Carriers & Drivers



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

Save lives by striving  
toward a *crash-free* and  
*fully accountable* CMV  
transportation life-cycle.