

North American Freight Rail Industry

**Talking Freight Seminar
June 17, 2015**

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**ASSOCIATION OF
AMERICAN RAILROADS**



Assn. of American Railroads

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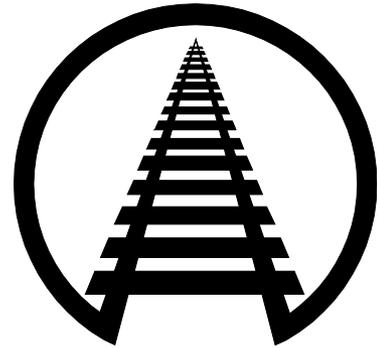


BUILDING AMERICA®



Some of the AAR's Most Important Functions

- Set industry inter-operability and safety standards
- Represent the railroad industry before Congress, regulatory agencies, etc.
- Collect and distribute statistical data
- Public affairs
- Research and evaluate new technologies
- Provide information technology services





A Fully Integrated North American Rail System

- Over 185,000 miles of Heavy Haul Infrastructure in U.S., Canada & Mexico
- 1.5 million freight cars
- 31,000 locomotives
- Technology / management / administrative processes identical in all three countries
- Seamless across borders except for Customs





Large and Small Railroads Working Together

The U.S. Freight Railroad Industry: 2012

Type of Railroad	Number	Miles Operated*	Employees	Freight Revenue (\$ billions)
Class I	7	95,311	163,464	\$67.6
Non-Class I	567	43,213	17,800	\$4.0
Total	574	138,524	181,264	\$71.6

*Excludes trackage rights. Source: AAR



General Characteristics of North American Freight Railroads

- Vast majority privately-owned
- Typically, the same company owns the track and operates trains over it
- One railroad does not have automatic access to another railroad's tracks
- Little government funding
- Don't carry passengers





Privately Owned Firms on Privately Owned Infrastructure

	FreightRail	Trucks	Barges	Ocean carriers¹	Air
Infrastructure – Line Haul	Private	Public	Public ²	None / Public ²	None / Public ³
Infrastructure - Terminals	Private	Private	Public / Private ⁴	Public / Private ⁴	Public / Private ⁴
Equipment / Operations	Private	Private	Private	Private	Private

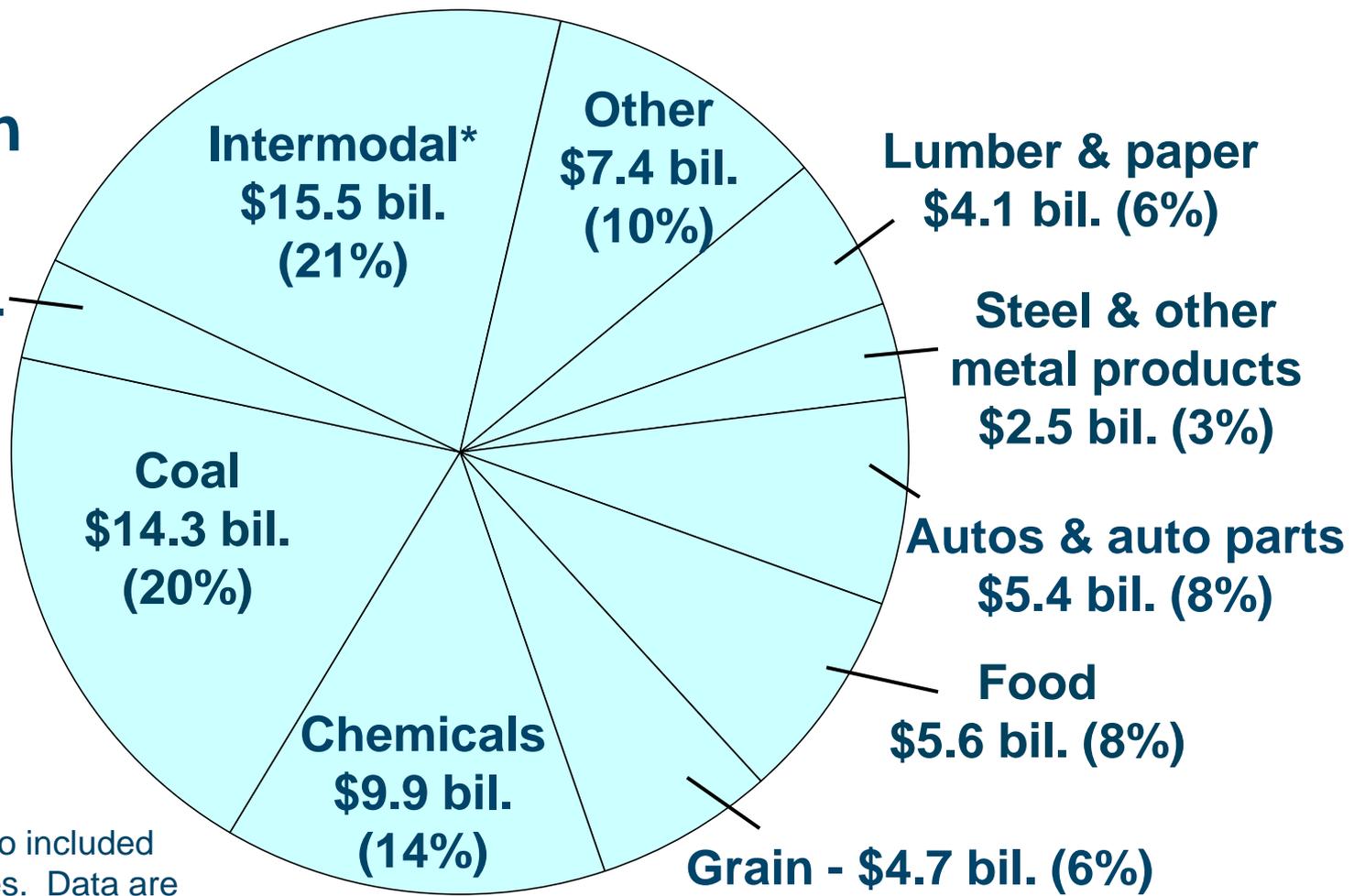
- 1 Also applies to U.S. Coastal and Great Lakes shipping
- 2 Public component includes aids to navigation, channel maintenance, and safety
- 3 Public component includes the air traffic control network
- 4 Often consists of privately-developed terminals on publicly-owned property



Gross Revenue for U.S. Railroads in 2013

Total:
\$72.1 billion

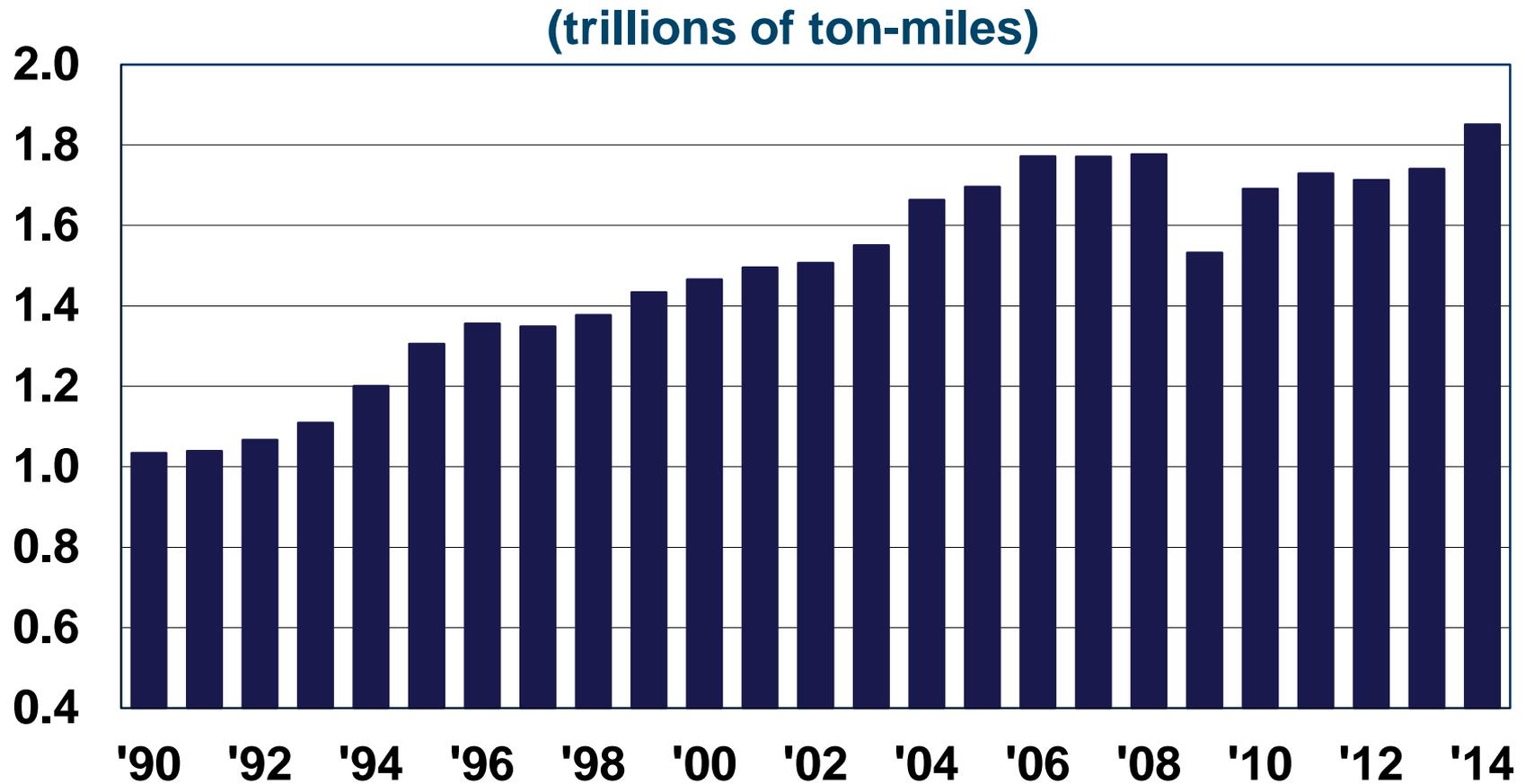
Stone, gravel,
sand - \$2.7 bil.
(4%)



*Some intermodal is also included in individual commodities. Data are Class I railroads only. Source: AAR (FCS)



Rail Ton-Miles Have Surpassed Pre-Recession Peak

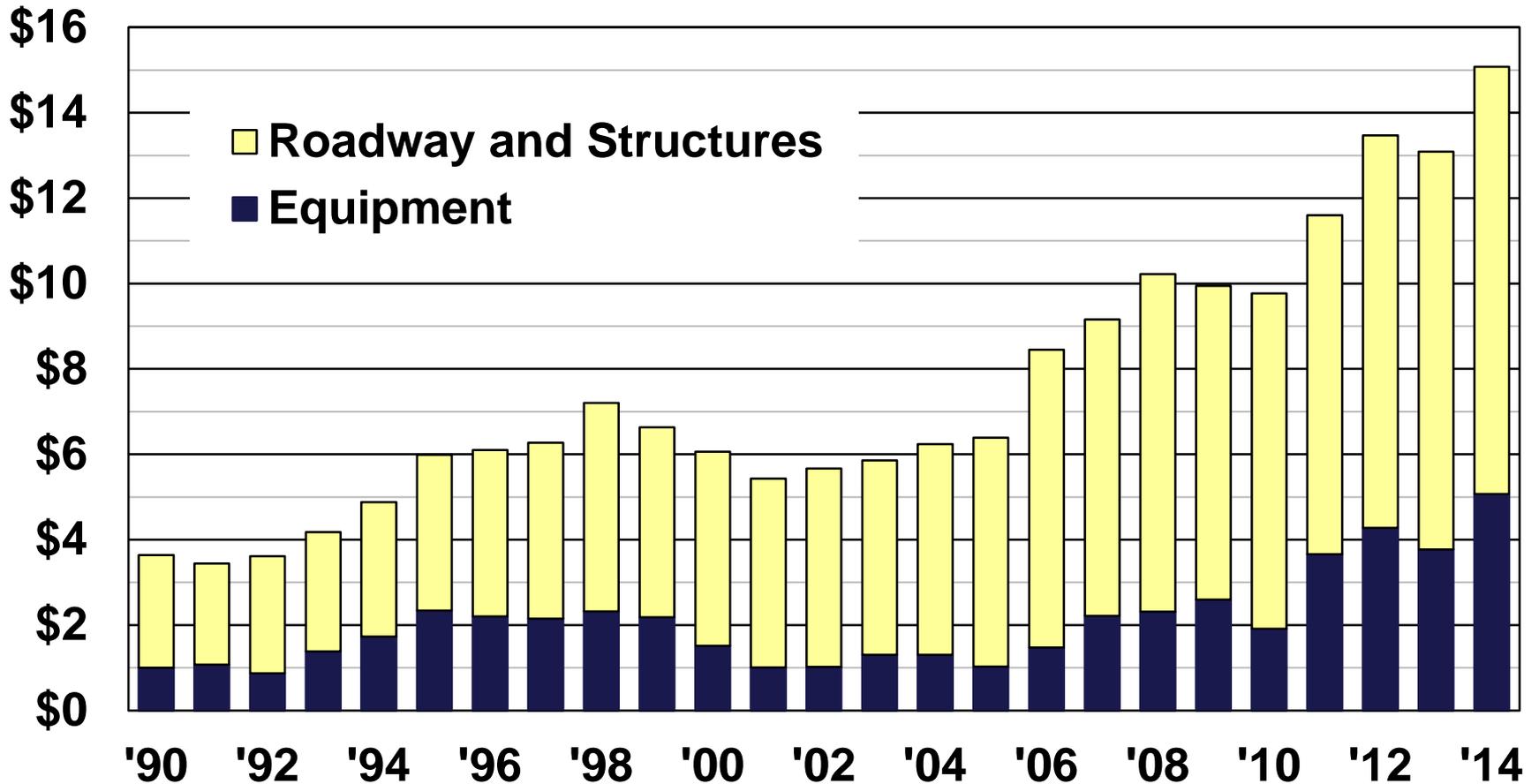


Data are for Class I railroads. Source: AAR



Railroad Capital Spending

(\$ billions, current dollars)



Data are for Class I railroads. Source: AAR



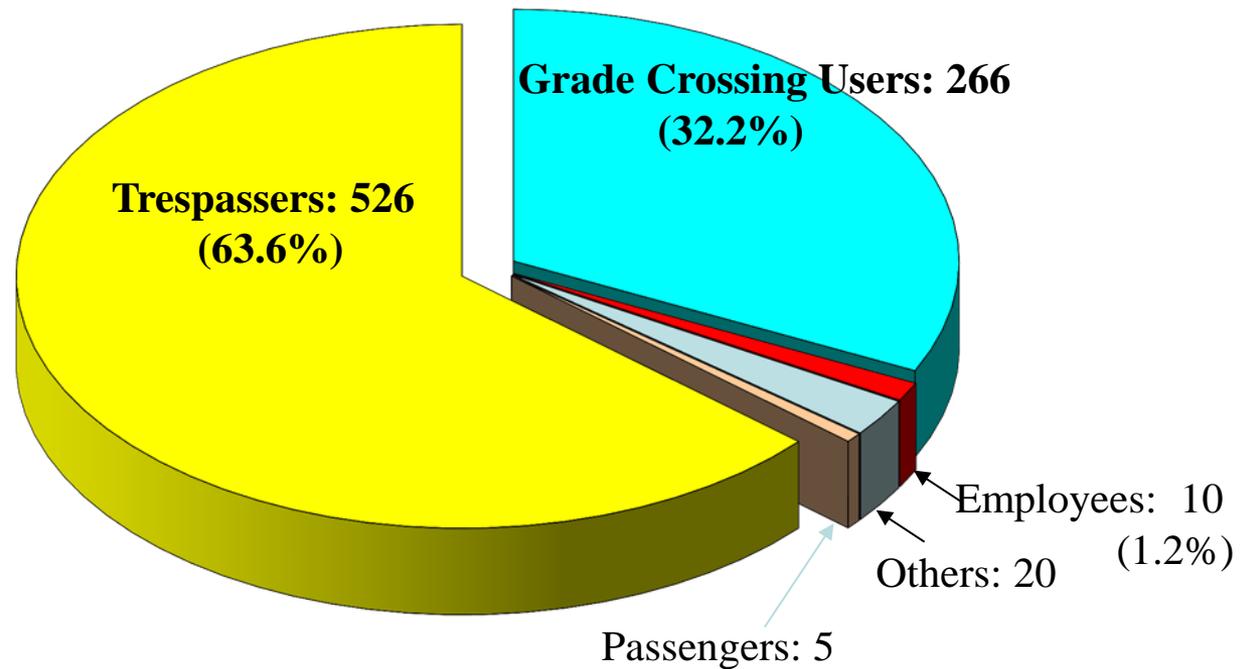
U.S. Railroad Safety Statistics:

In 2014, U.S. railroads achieved their safest year ever by the following train accident yardsticks:

- Train Accidents and Accident Rates, down 6% and 8% respectively from 2013
- Track-Caused, Equipment-Caused, and Human Factor Caused Train Accident Rates, all down between 6% and 13% from 2013
- 10 Employee Fatalities, down from previous record low of 14 in 2013



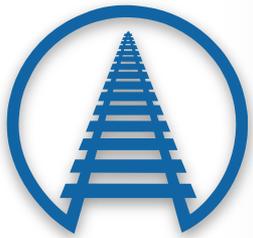
In 2014, 96% of Rail-Related Fatalities Were Grade Crossing Users / Trespassers



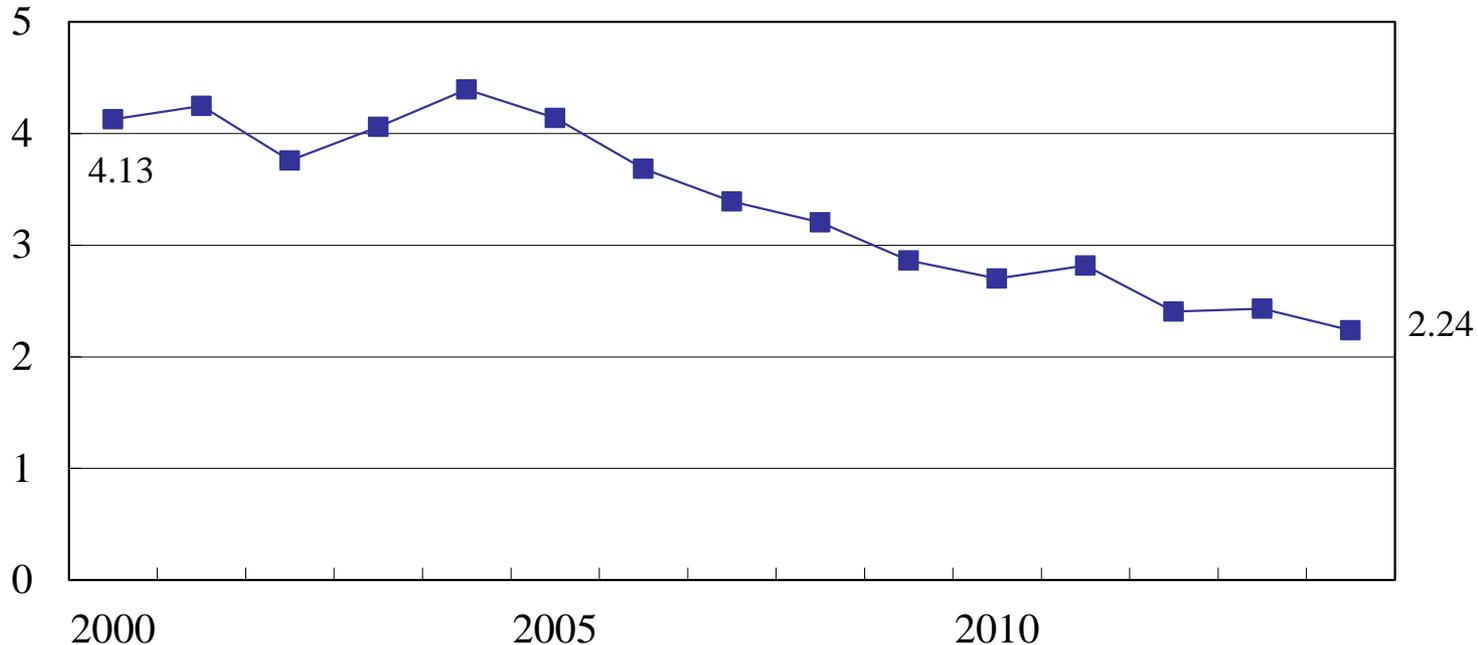
Source: FRA website (2014 data as of March 2015):

<http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/summary.aspx>

Note: Data for 2014 are preliminary.



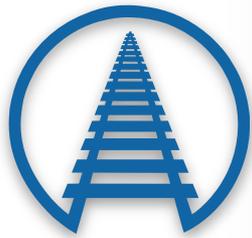
Train Accidents / Million Train-Miles Dropped 46% Since 2000; a New Low



Sources: <http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx> (2014 data).

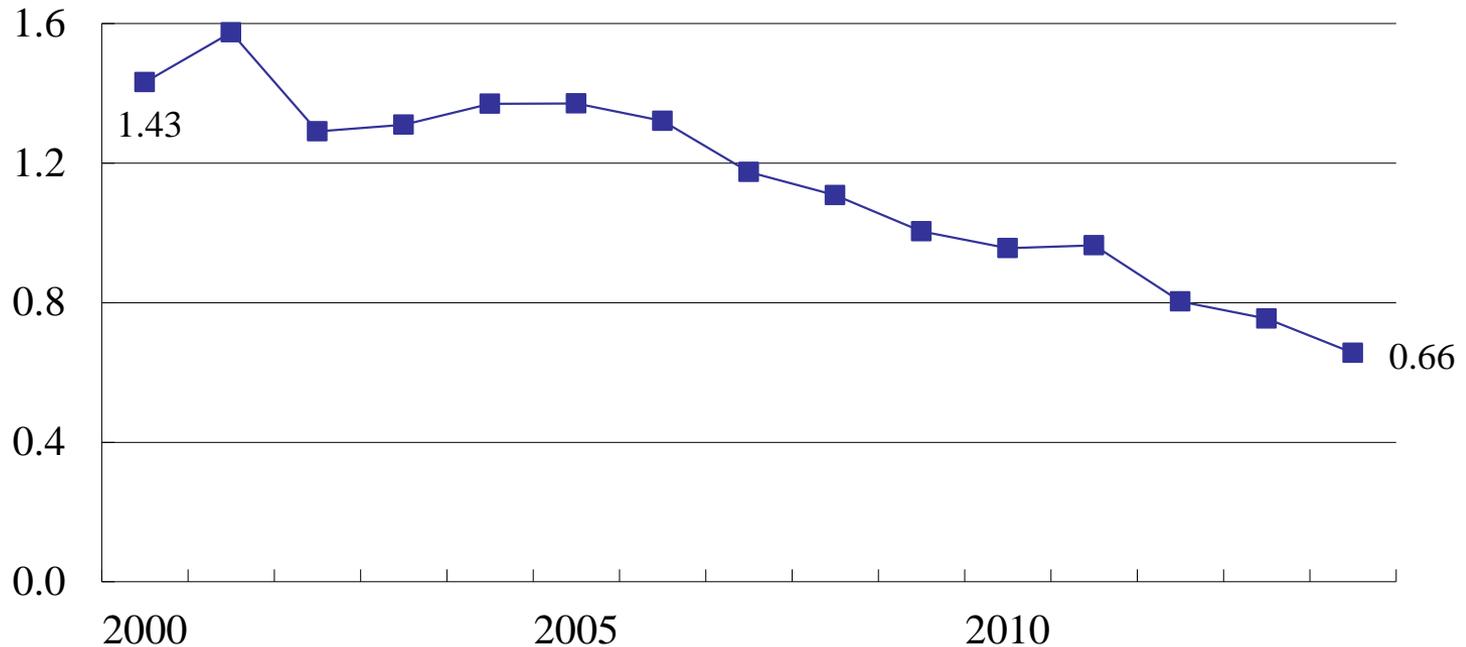
FRA, *Railroad Safety Statistics Annual Report*, 1997-2010, Tables 1-1, 1-2.

Note: Excludes grade crossing accidents. Data for 2014 are preliminary.





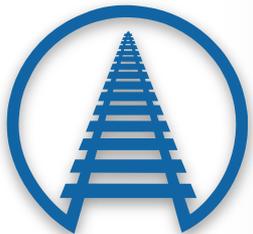
Track-Caused Accidents / Million Train-Miles Dropped 54% Since 2000; a New Low



Sources: <http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx> (2014 data).

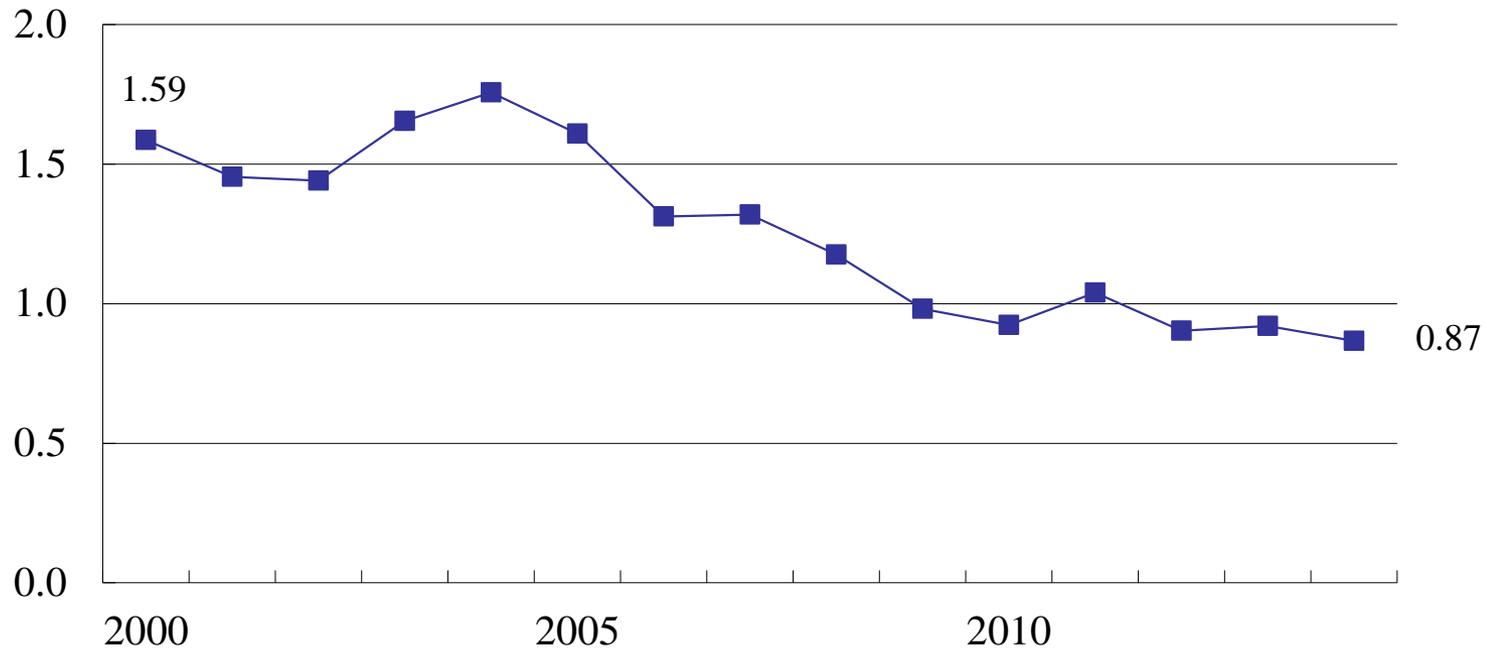
FRA, Railroad Safety Statistics Annual Report, 1997-2010, Tables 1-1, 5-9.

Note: Excludes grade crossing accidents. Data for 2014 are preliminary.





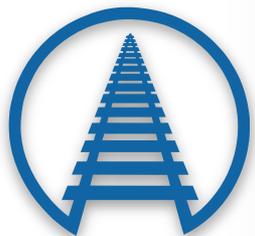
Human Factors Accidents / Million Train-Miles Dropped 45% Since 2000; a New Low



Sources: <http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx> (2014 data).

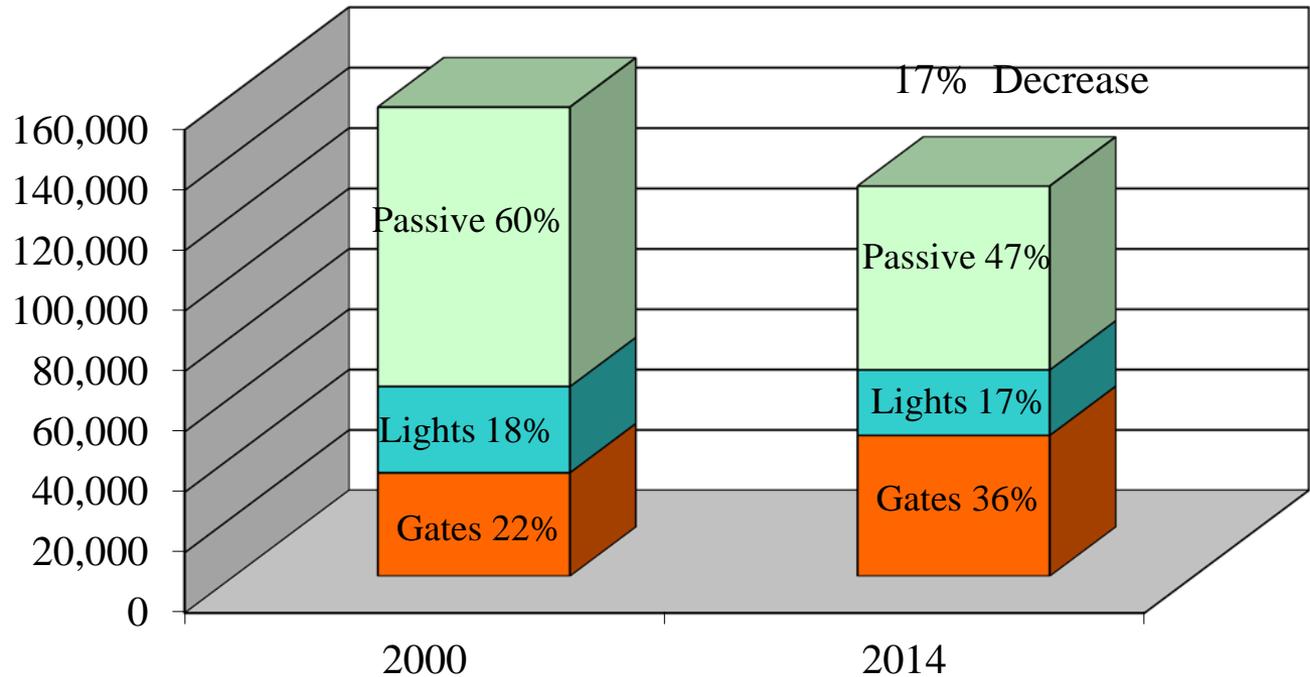
FRA, Railroad Safety Statistics Annual Report, 1997-2010, Tables 1-1, 5-9.

Note: Excludes grade crossing accidents. Data for 2014 are preliminary.

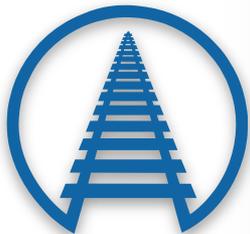




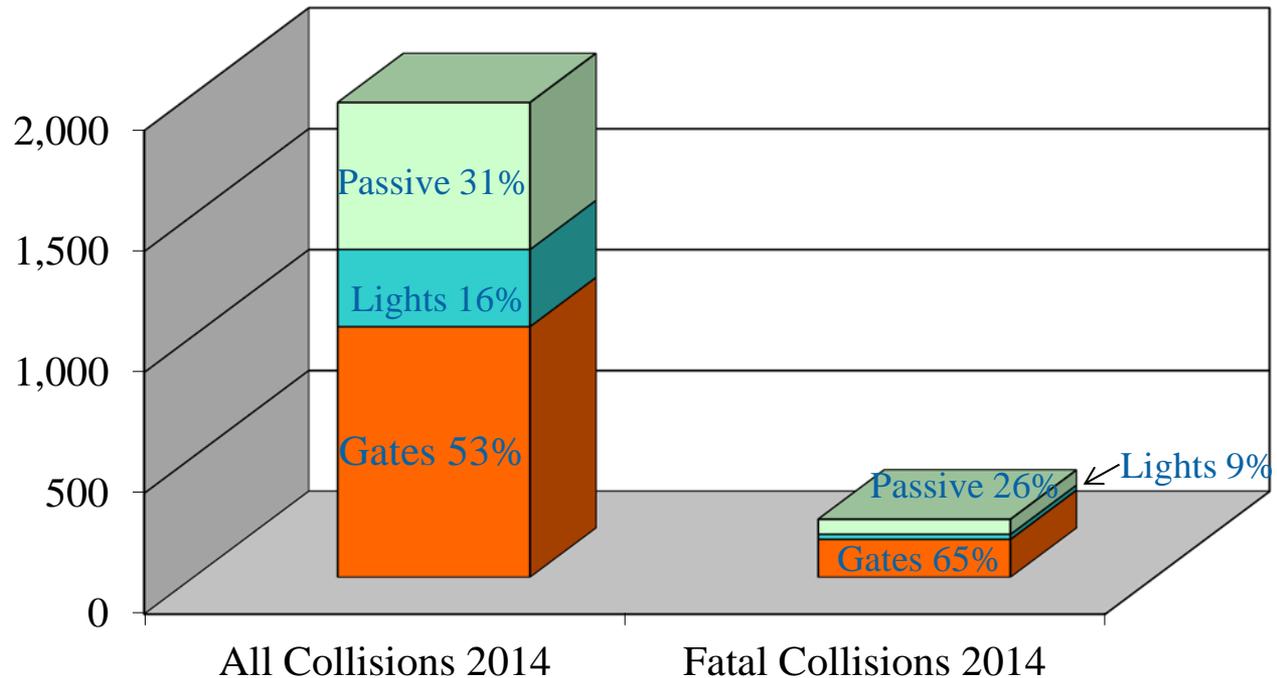
Since 2000, While the Total Number of Public Crossings Declined 17%, the Number with Gates Increased 36%



Sources: AAR Analysis of March 2015 FRA Grade Crossing Inventory Database.
FRA, Railroad Safety Statistics Annual Report 2000, and 2010, Table 9-3.



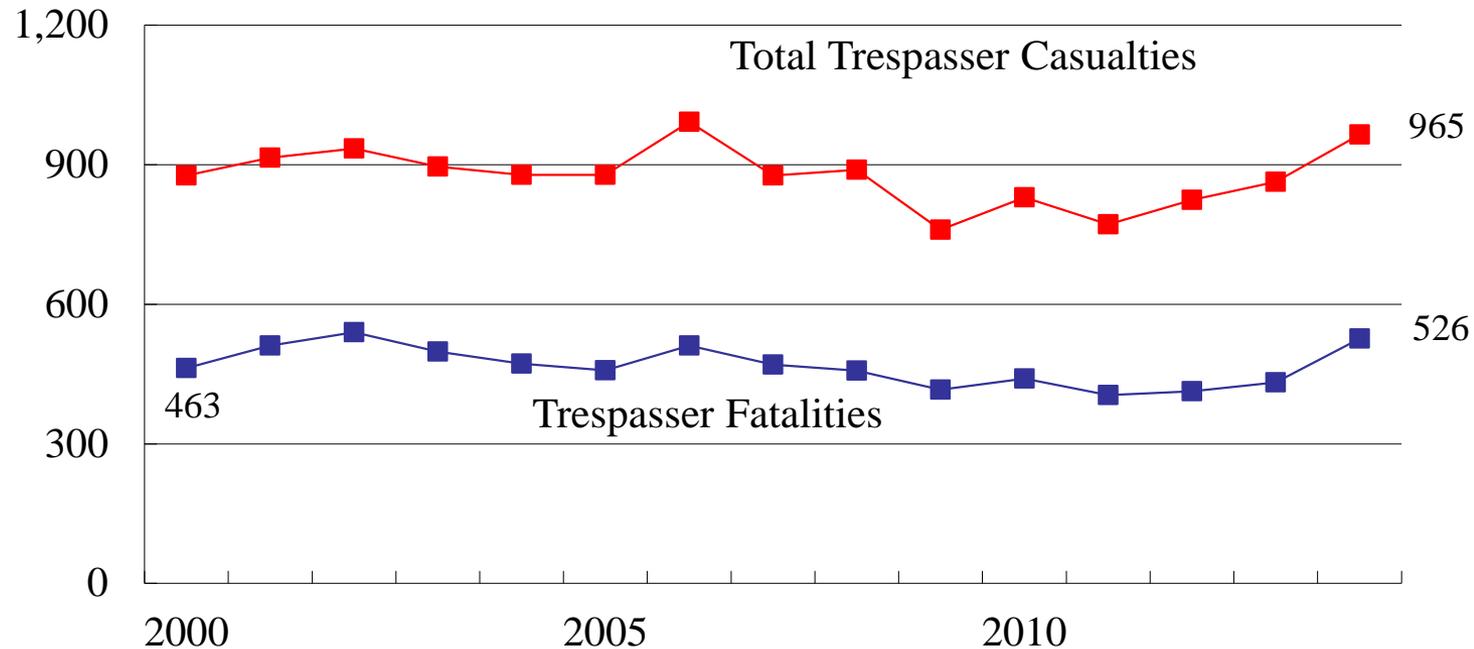
In 2014, 53% of All Grade Crossing Collisions & 65% of All Fatal Grade Crossing Collisions Occurred at Gated Crossings



Sources: AAR Analysis of March 2015 FRA Highway-Rail Crossing Incident Database. FRA, [Railroad Safety Statistics Annual Report 2010](#), Table 7-9 for 2010 statistics. Note: All U.S. Railroads. All Collisions at Public Highway-Rail Crossings, including those with pedestrians.



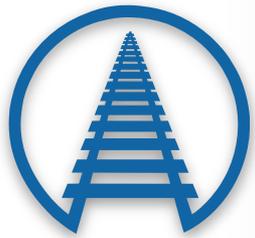
Trespasser Fatalities Remain a Challenge



Sources: <http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx> (2014 data).

FRA, Railroad Safety Statistics Annual Report, 1997-2010, Tables 1-2, 10-3.

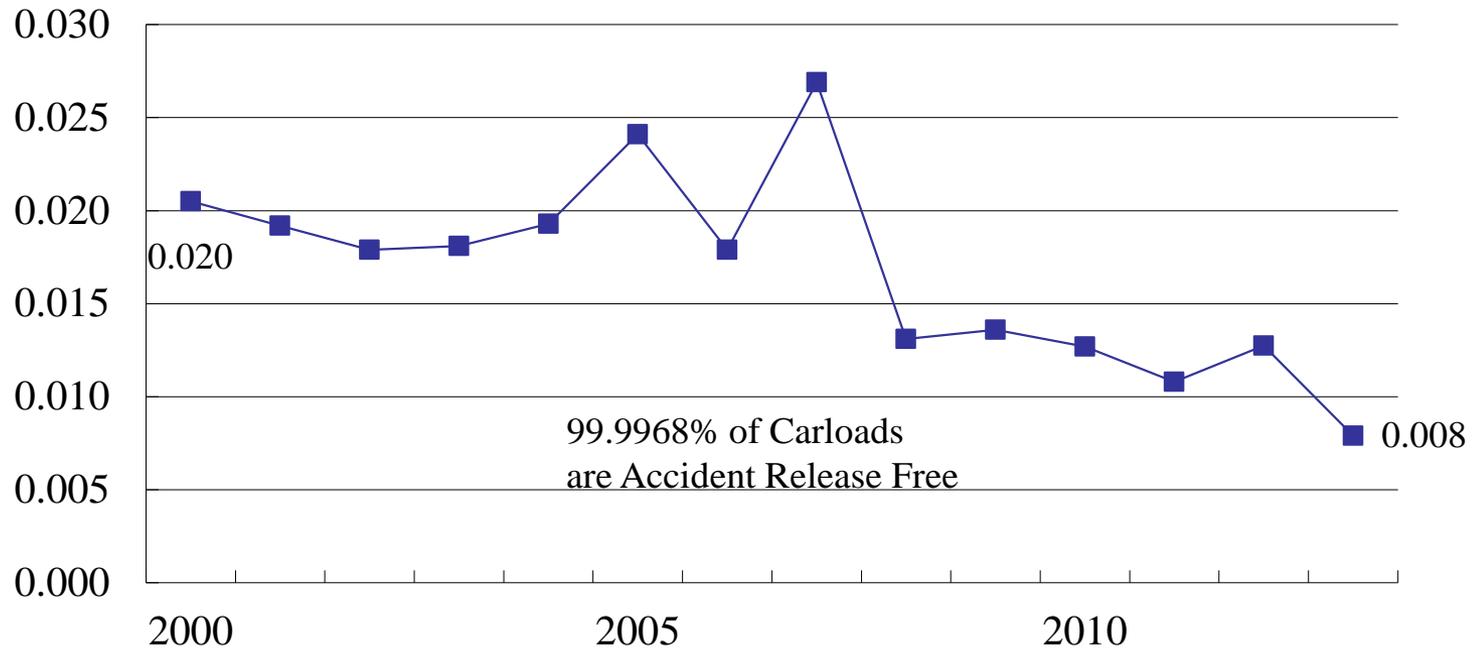
Note: Excludes fatalities in highway-rail crossing collisions. Data for 2014 are preliminary.





Hazmat Accident Rates Declined 62% Since 2000; a New Low

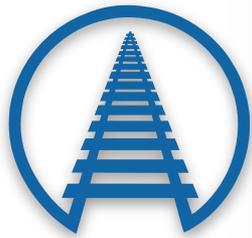
Train Accidents with a Release per Thousand Hazmat Carloads



Sources: AAR Analysis of FRA Train Accident Database.

Notes: Carloads terminated are from the ICC/STB Waybill Sample, 1995-2012 and, for 2013, from TRAIN II via the 2013 BOE Annual Report, Exhibit 9, p. 13.

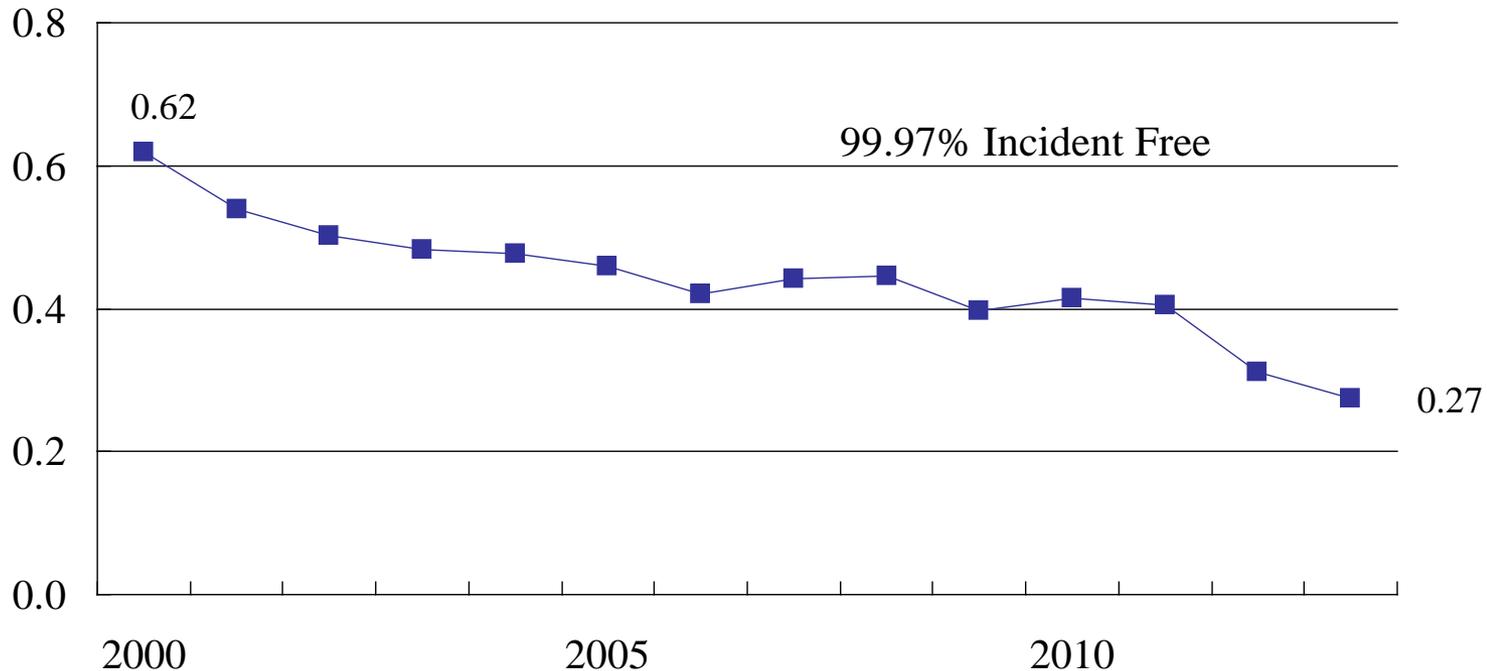
Terminated carloads adjusted to counter known hazmat underreporting.



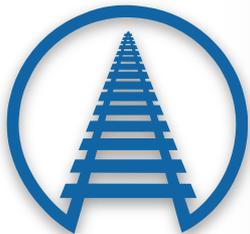


Hazmat Incident Release Rates Have Declined 56% Since 2000

Incidents per Thousand Hazmat Carloads



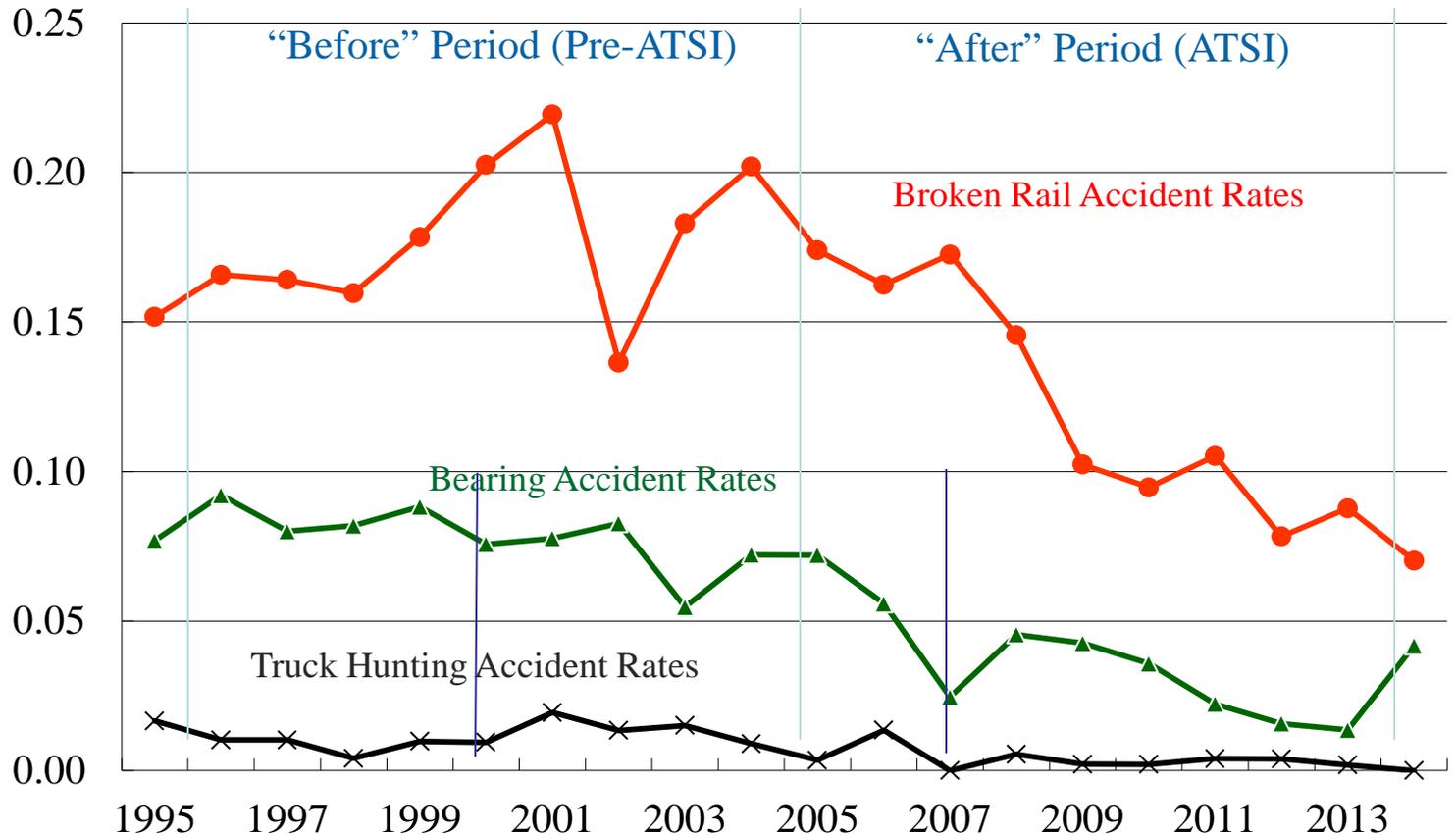
Sources: USDOT, Pipeline & Hazardous Materials Safety Administration, Hazardous Materials Incidents by Year & Mode. <http://hazmat.dot.gov/files/hazmat/10year/10yearfrm.htm> 2002-2013. Includes primarily non-accident releases (leaks, spills) but also includes releases in train accidents. Terminated carloads from ICC/STB Waybill Sample, 1995-2012, adjusted to counter known hazmat underreporting. For 2013, from TRAIN II via the 2013 BOE Annual Report, p. 13.



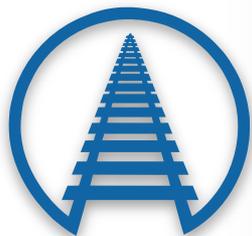


Since 2004, ATSI Helped Reduce Main Track Accident Rates from Broken Rail 65%, from Bearing Defects 42%, From Truck Hunting to Zero

Main Track Accidents per Million Freight Train Miles



ATSI = Advanced Technology Strategic Initiative Program managed by TTCL.
Source: AAR Analysis of FRA Train Accident and Train-Mile Data, 1995-2014,
U.S. Class I Freight Railroads. Note: Years are Oct. 1 to Oct. 1



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