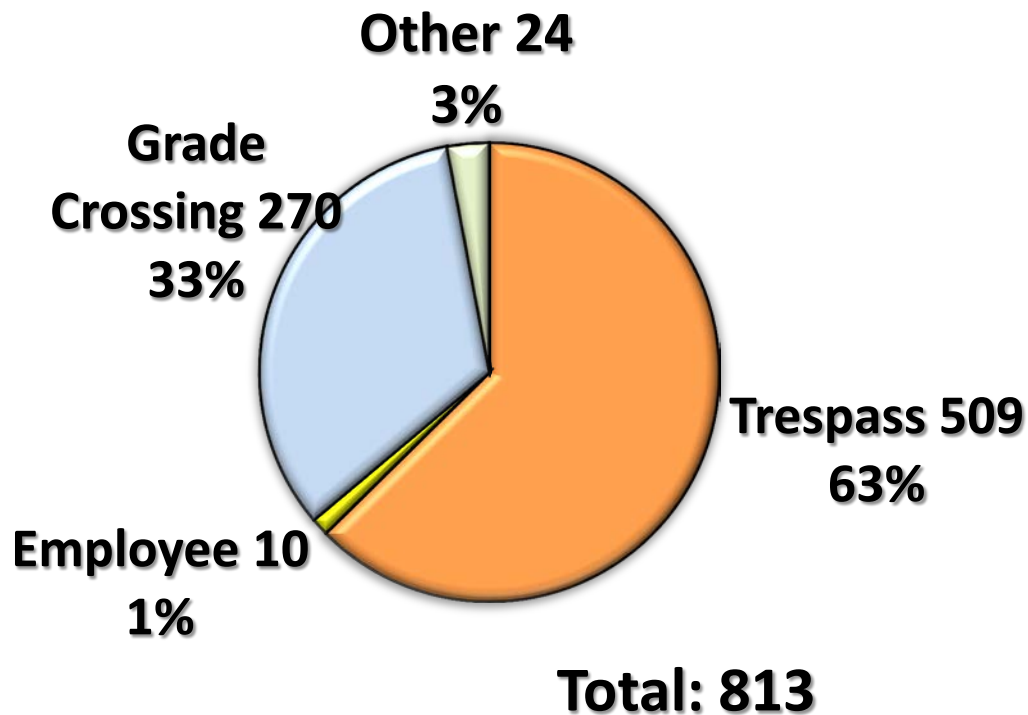


# Highway-Rail Grade Crossing Safety

Railroad Safety Advisory Committee  
May 28, 2015



# Rail-Related Fatalities CY 2014



# Foundation for Risk Mitigation

 *Enforcement*

 *Education*

 *Engineering*

# Number of Crossings as of January 2015

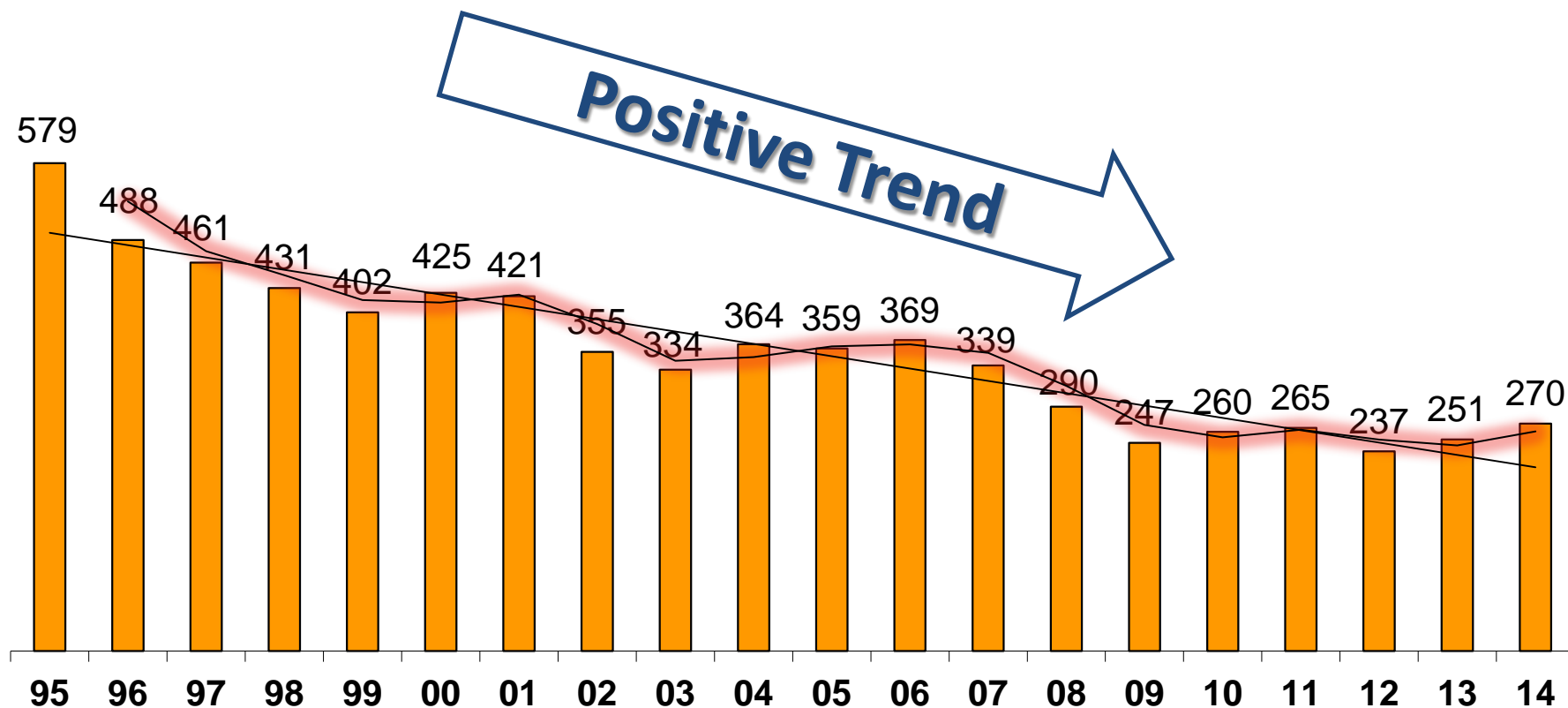
Crossing Type	How Many	% of Total
Total	250,504	100.0
Public at grade	129,502	51.7
Private at grade	79,983	31.9
Pedestrian at grade	2,188	0.9
Grade Separated (all)	38,831	15.5

# Where Collisions Occur

## 2014 (Public GX)

Device	% Collisions	% Xings (2014)
Gates	49.6%	35.6%
Flashing Lights	16.4%	15.1%
STOP Signs	9.7%	8.5%
Crossbucks	22.3%	35.3%
Other	2.0%	5.5%

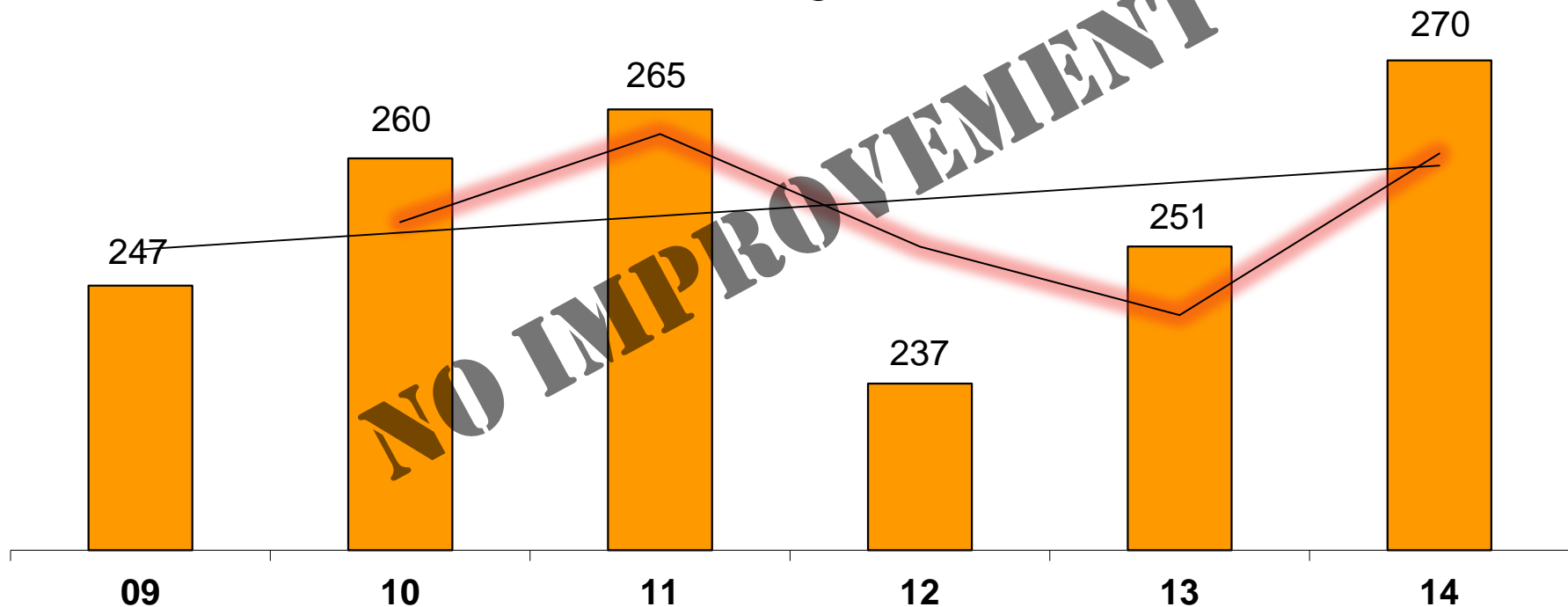
# 20 Year Fatality Trend at Grade Crossings, 1995-2014



# Fatality Trends

## At Grade Crossings -- Last 6 years, 2009-14

***However ... last 6 years***



# Accident: Valhalla, NY -- Feb 2015



## Facts

- Commuter train struck a SUV
- 650 passengers on board
- 6 fatalities



## Contributing factors:

- Traffic routed to alternate route
- Traffic backed up across track
- 3<sup>rd</sup>-rail penetrated passenger car
- Appears the driver did not know how to act when trapped in a grade crossing
- Close proximity of traffic signal to Xing





# Accident: Oxnard, CA – February 24, 2015



## 🚦 Facts:

- Commuter train struck a pickup truck towing a trailer
- 28 of 38 passengers & 3 crewmembers injured. 1 fatality

## 🚦 Contributing Factors

- Dark (just before dawn)
- Rail crossing's close proximity to traffic intersection
- Driver appeared to not know how to respond to being trapped on tracks

Just two car lengths

# Accident: Halifax Co., NC – March 9<sup>th</sup>, 2015



## 🚦 Facts

- A passenger train struck a special rig truck-trailer (168 ft. long)
- 50 of 212 passengers injured

## 🚦 Contributing Factors

- Truck difficulty maneuvering around lights
- Truck permit did not require notification of RR.
- Police escort failed to call ENS #



# Problem Requires a *Fresh* Approach

## Maximize Strategic Partnerships

- Strategic programs to inform and drive local action

## Identify New Funding

- Public and Private

## Leverage New Technologies

- Social Media and “Apps”
- Emerging Rail Technology
- Cameras and other detection technologies
- New data analysis systems

# Strategic Partnerships

- ✱ FRA and Railroad Industry have a shared goal
  - Improve coordination -> efficiency and effectiveness
- ✱ New Partners
  - Develop national enforcement programs through:
    - ***Association of Chiefs of Police; National Sheriffs Association; Fraternal Order of Police***
    - ***State Public Utilities*** – actions at “riskier grade crossings”; truck permitting
  - Leverage new information systems to inform the public
    - ***Google; Garmin; Wayz***
  - Challenge private industry to develop new systems to alert and/or prevent accidents
    - ***PTC and Signal System developers*** (e.g. create interfaces @ GXings)



FRA – Highway-Rail Crossing & Trespass Prevention Programs

6/1/2015



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

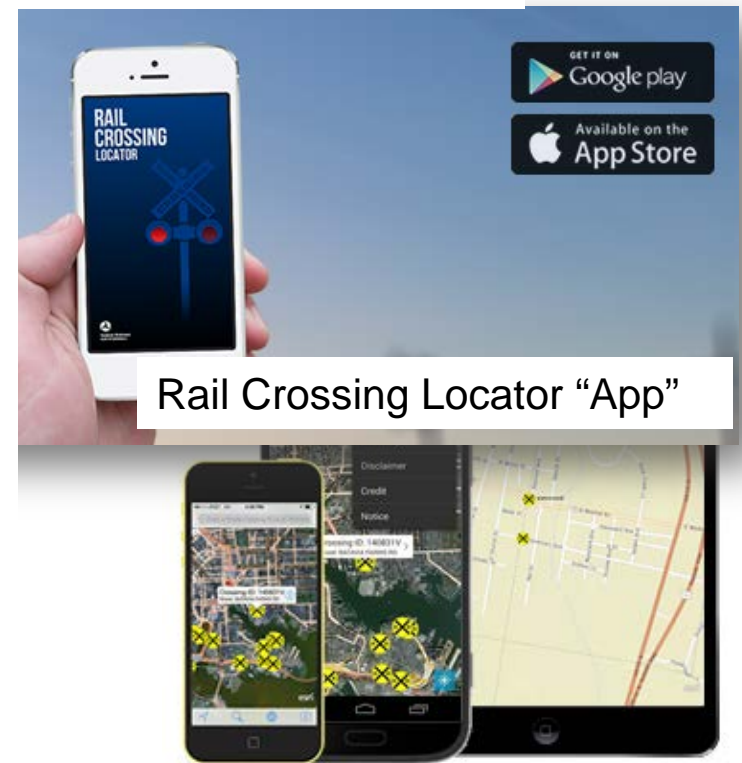
# Funding

- ✚ Leverage existing (and petition for increases in) Federal grant programs to support State and Local enforcement and grade-crossing improvements
- ✚ Seek increased funding for media/education support
- ✚ Ask railroads to increase funding towards
  - Media/education campaigns
  - Research (new technologies and information analysis)
  - Grade Crossing Improvements

# New Technologies

## • Employ smarter uses of technology;

- Apps to for 1<sup>st</sup>-Responders to locate GXings
- Social Media (e.g. Facebook, Twitter, etc.) to deliver “click it or ticket” type message
- Increase R&D efforts to
  - Improve crossing signal-dispatch-train interaction
  - Identify high risk crossings for action.



Rail Crossing Locator “App”

# FRA Top 3 Priorities

- Grade Crossing and Trespass Accident Reduction
- Reduction of risk for the shipment of Energy Products on Rail
- Implementation of PTC



# 2015 Right-of-Way Fatality & Trespass Prevention Workshop

The Federal Railroad Administration will be conducting a ROW Fatality & Trespass Prevention Workshop on August 4-6, 2015, at the [Sheraton Charlotte Hotel](#) in Charlotte, North Carolina. The goal of this free workshop is to identify and share existing industry best practices and explore new trespass abatement and mitigation strategies that the rail industry can adopt to reduce the number of right-of-way and trespasser incidents and fatalities. The conference agenda is currently being developed by a team of industry experts and will cover five key areas:

- Community Outreach
- Enforcement
- Design, Technology, and Infrastructure
- Intentional Acts/Deaths
- Pedestrian Safety

While there is no attendance fee for this conference, registration is required using the link below.

[Click here to register](#)

[Click here to make hotel reservations](#)

<http://www.fra.dot.gov/Page/P0612>



FRA – Highway-Rail Crossing & Trespass Prevention Programs

6/1/2015



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# Questions?