

# **Federal Railroad Administration Safety Research Opportunities for the Future**

**Presented to  
UTC Safety Summit  
Carnegie Mellon University  
19 March 2015**

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# Agenda

- Railroad Industry Overview
- Railroad Industry Workforce
- FRA Safety R&D Program Areas
- Research Needs and Engagement



# Rail Industry Overview

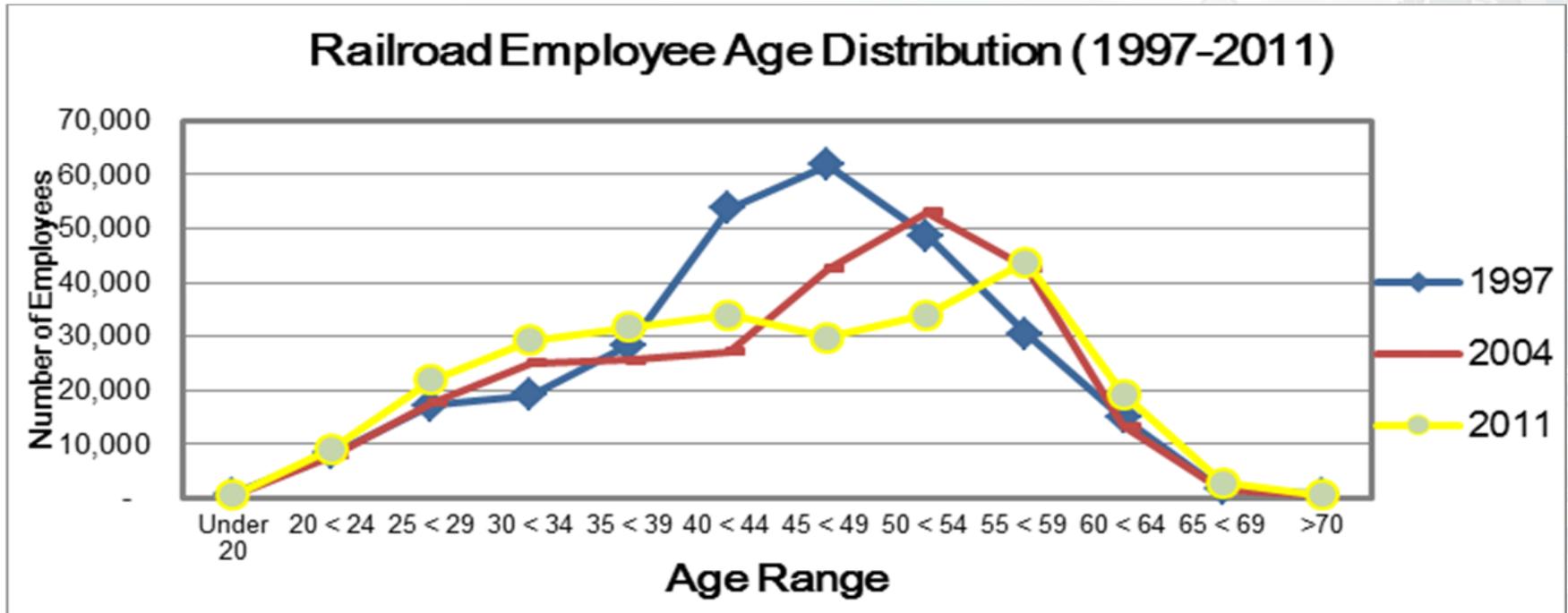
## How Railroads Address US DOT Priorities -

- **Safety** - Very Safe Mode and getting safer (35 people killed over last 5 yrs)
- **State of Good repair** - Rail infrastructure is in the best shape it has been in over 60 years
- **Economic Competitiveness** - The US Freight Rail transportation system is the envy of the world
- **Quality of Life** - People are choosing rail. Amtrak ridership up 30% over last ten years. Re-urbanization is allowing more people to benefit from downtown to downtown rail service
- **Environmental Sustainability** – Rail Moves a ton of freight over 400 miles per gallon of fuel. 40% lower CO2 emissions than trucking. Natural Gas is coming on as a fuel, will meet EPA Tier 4 emissions.

# Rail Industry Workforce

## Demographics

- 51% of the rail workforce is 45 years or older
- Women represent only 9% of the rail workforce (38% less than the national average)



# FRA Safety R&D Program Areas

- **Track and Structures** – Rail, Track Structure, Vehicle/Track Interaction, Bridges
- **Rolling Stock** – Freight, Passenger, High Speed, Hazmat, Accommodations for Disabled
- **Human Factors** – Safety Culture, Human Centered Design
- **Signals and Communications** – Positive Train Control (PTC), Grade Crossing Safety

# FRA Safety Research Needs and Potential Engagement

- Crude Oil and Natural Gas Safe Transport
- Improved Passenger Safety & Accessibility
- High Speed Rail – Adapting foreign technology
- FRA Broad Agency Announcement
  - FRA-BAA-2015-1
  - 15 research areas
  - Closing Date May 4<sup>th</sup>
- Partnering with existing FRA R&D Contractors

# Thank You

## Questions ?

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