

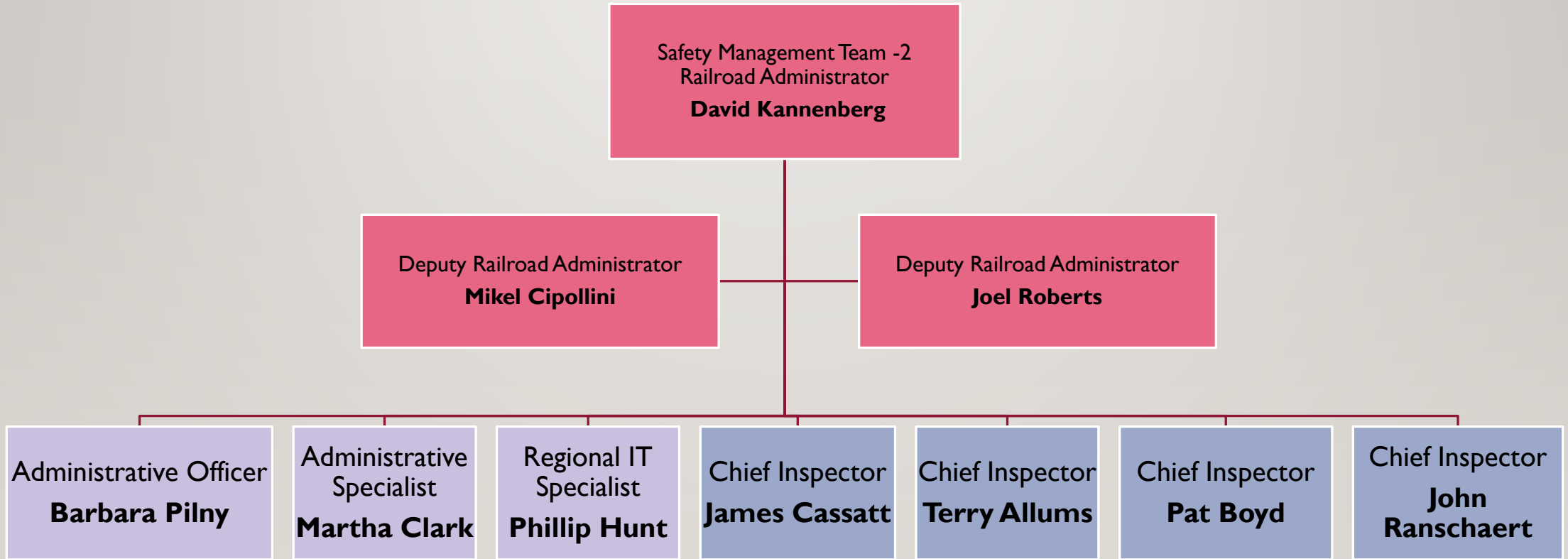
**RAIL**

*MOVING AMERICA FORWARD*

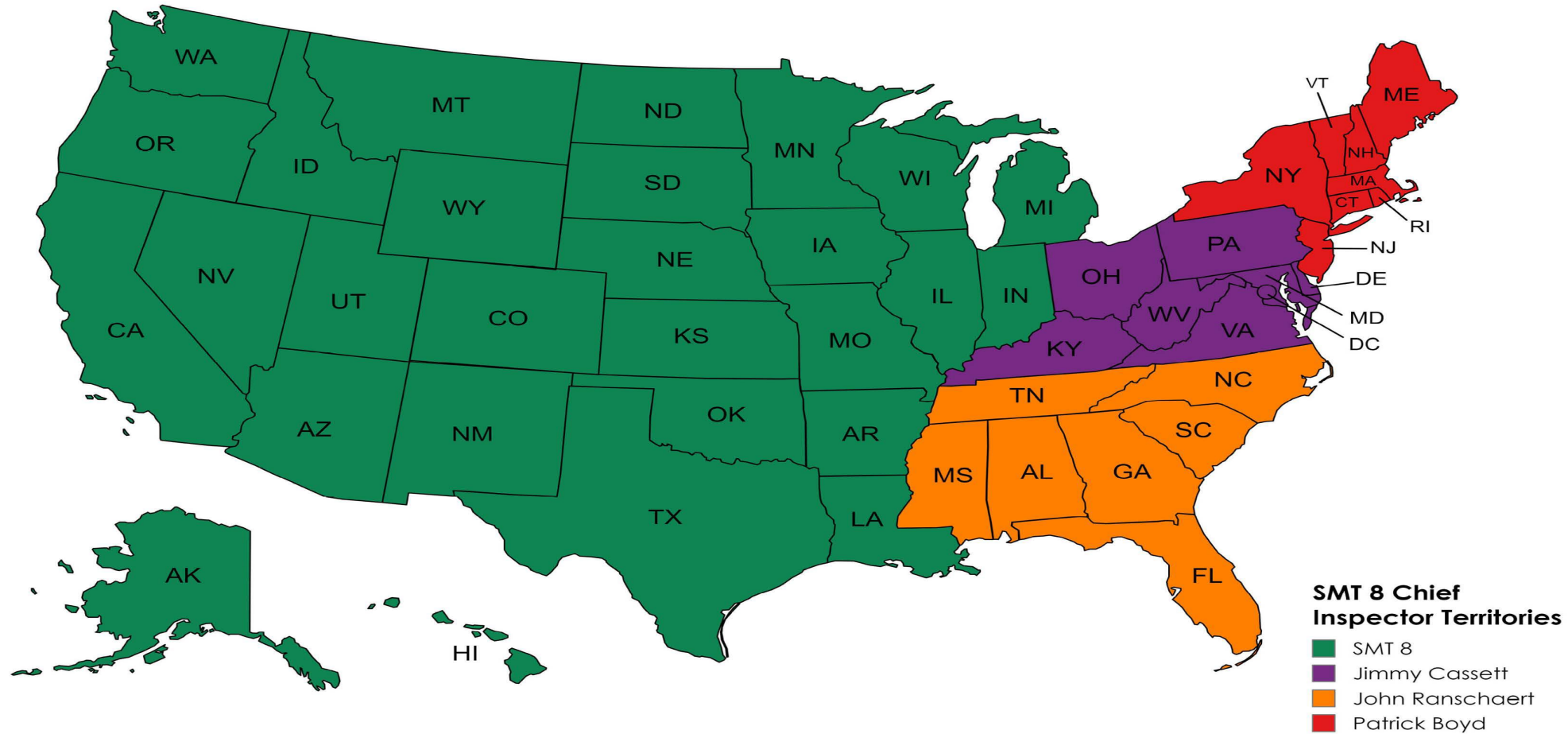
# **Accident & Injury Data Analysis**

## **Federal Railroad Administration Safety Management Team 2 Short Line Railroads East**

# SMT 2 Short Lines East



# SMT 2 Map with Chief Territories and Holding Companies

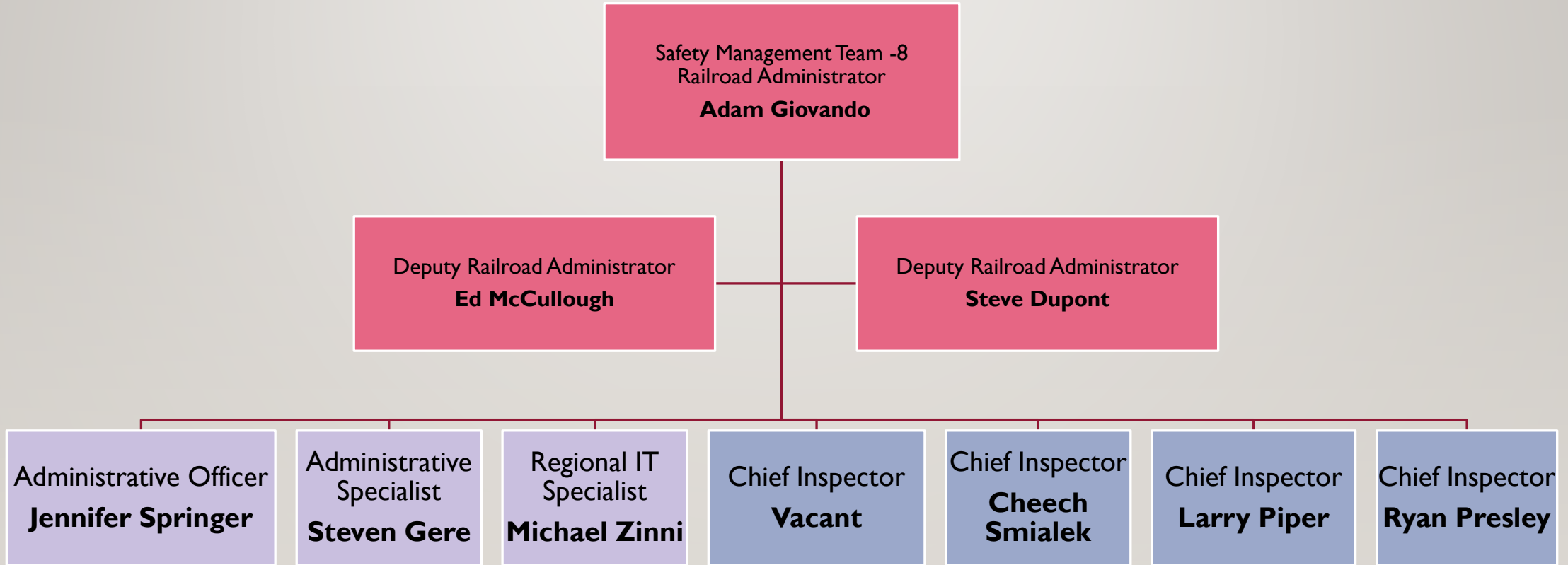


ated with mapchart.net

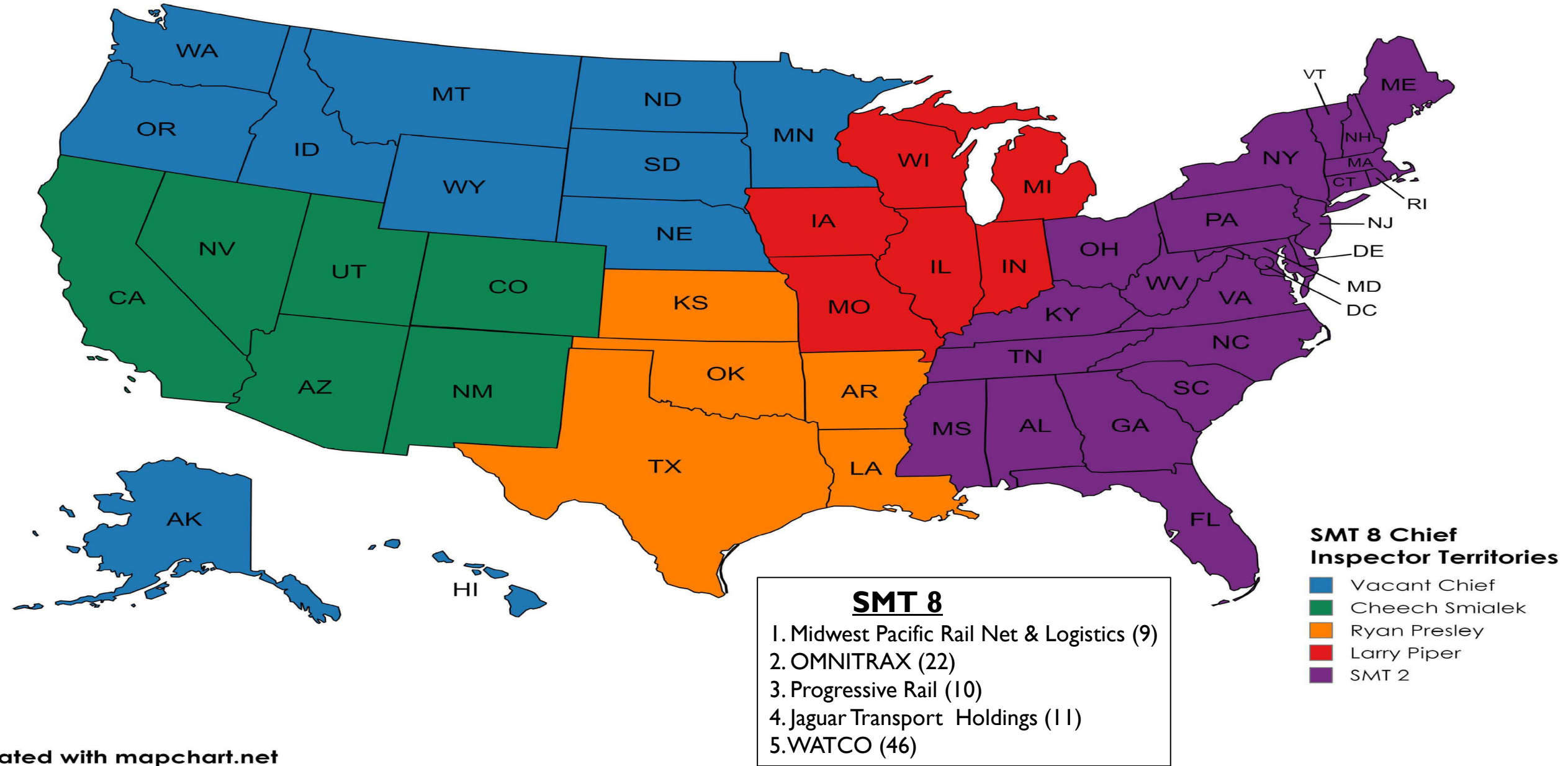
## SMT 2 Holding Companies

1. Patriot Rail (32)
2. Genesee & Wyoming (109)
3. R J Corman (19)

# SMT 8 Short Lines West



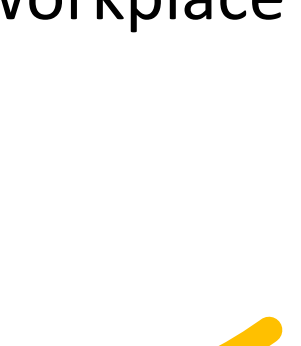
# SMT 8 Map with Chief Territories and Holding Companies



Mission

Goals &

Objectives

- **Conduct 209 Determinations**
    - Determine if RR warrants FRA oversight
  - **Conduct Part 225 Audits**
    - Ensure regulatory compliance
    - Promote RR safety
  - **Conduct Part 219 Audits**
    - Ensure regulatory compliance
    - Promote drug & alcohol-free workplace
  - **Railbikes on Short Line Railroads**
    - Emerging tourist industry
    - Ensure safe operations
- 

Mission

Goals &

Objectives

- **Conduct Analysis of Short Line RR Safety Data**
  - Industry-wide accident, fatality & injury trends and FRA inspection results
  - Conduct Risk Reduction Program RISK mitigation validation
- **Promote Rail Safety with Labor Organizations**
  - Hold periodic meetings to identify safety concerns
- **Promote Rail Safety with RRs & Associations**
  - Meet with RRs to validate safety concerns

Mission

Goals &

Objectives

- **Review FRA FORM 6180.54 Reports**
  - Verify validity & accuracy
- **Investigate Blocked Crossings**
  - Verify validity, accuracy & frequency
- **Investigate Rail Safety Complaints**
  - Verify validity & accuracy
  - Identify rail safety concerns
- **Participate in C3RS Peer Review Teams**
  - Support Rail Safety Partnership Division



# Short Line RRs Accident, Injury & Inspections Analysis 2023

- **Analysis of Short Line Railroads:**
  - FRA FORM 6180.54 (reportable accidents)
    - Top Causes
  - FRA FORM 6180.55A (EOD reportable injuries)
    - Top Causes
  - FRA FORM 6180.96 (FRA inspection results)
    - Top Five Defects Observed by Craft
  - FRA FORM 6180.57 (Grade Xing accidents)
    - Total # of GX accidents on SL RRs

# Short Line RRs Reportable Accidents

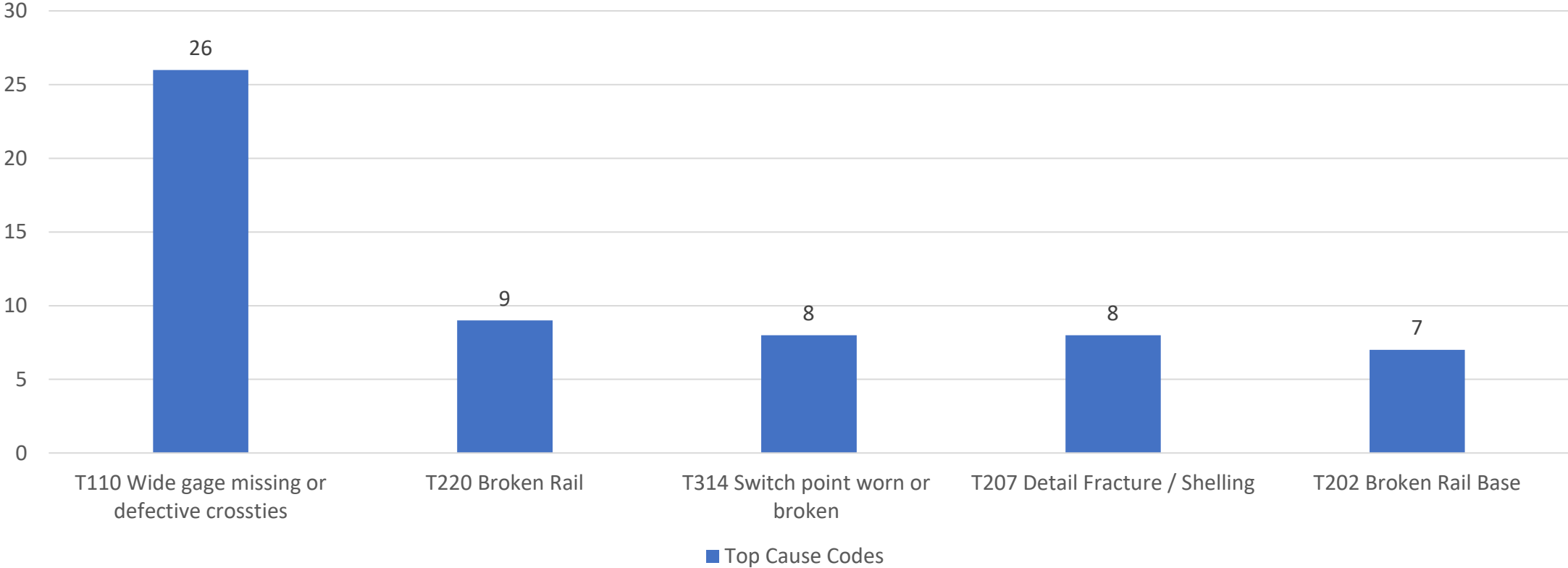
2023

## Breakdown of FRA 6180.54 Reports:

- Non-highway accidents = 264
- Locomotives derailed = 52
- Freight cars derailed = 1,033
- Damages = \$ 36,764,312.00
- Train accident rate per 1,000,000 miles = 8.99

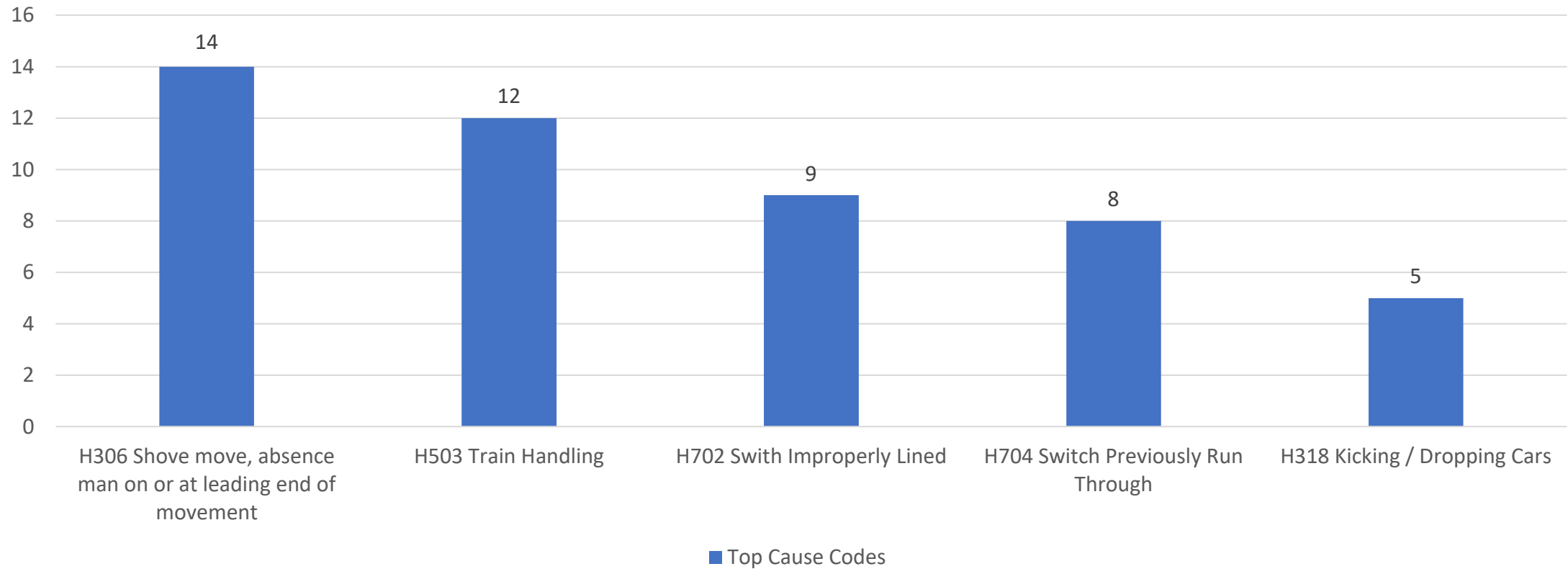
# Reportable Accidents Track Causes

Top Cause Codes



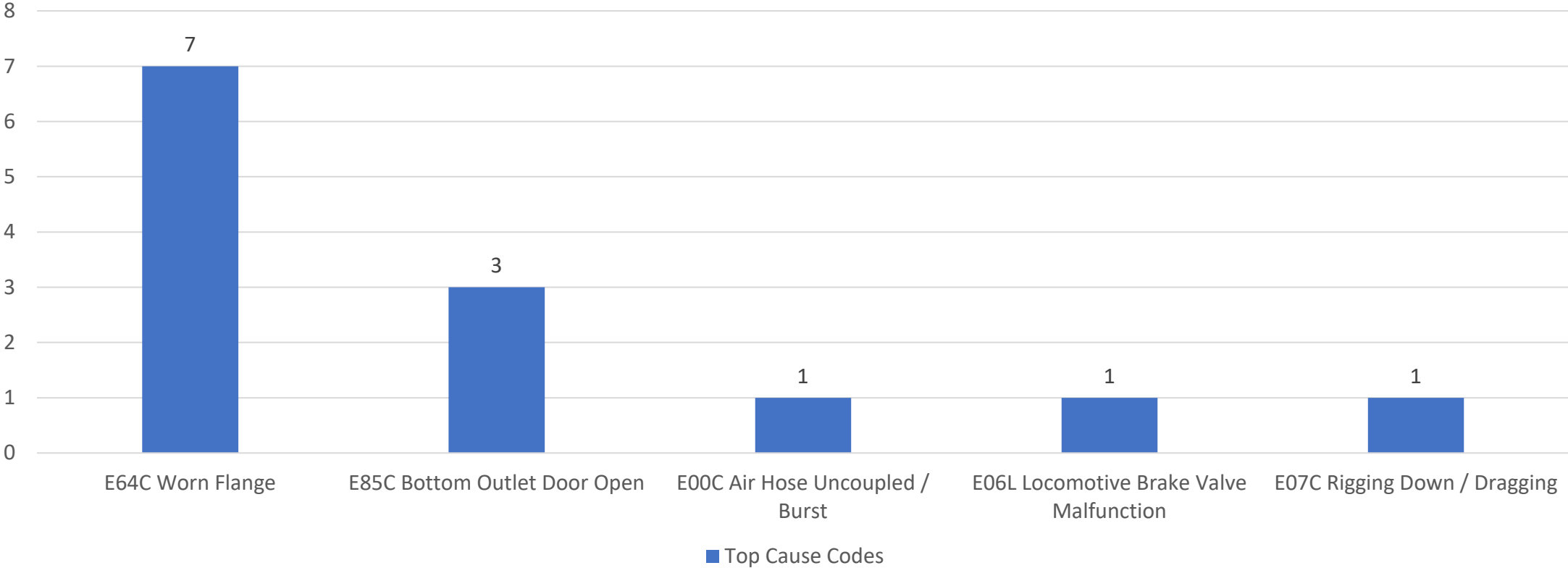
# Reportable Accidents Human Factor Causes

Top Cause Codes



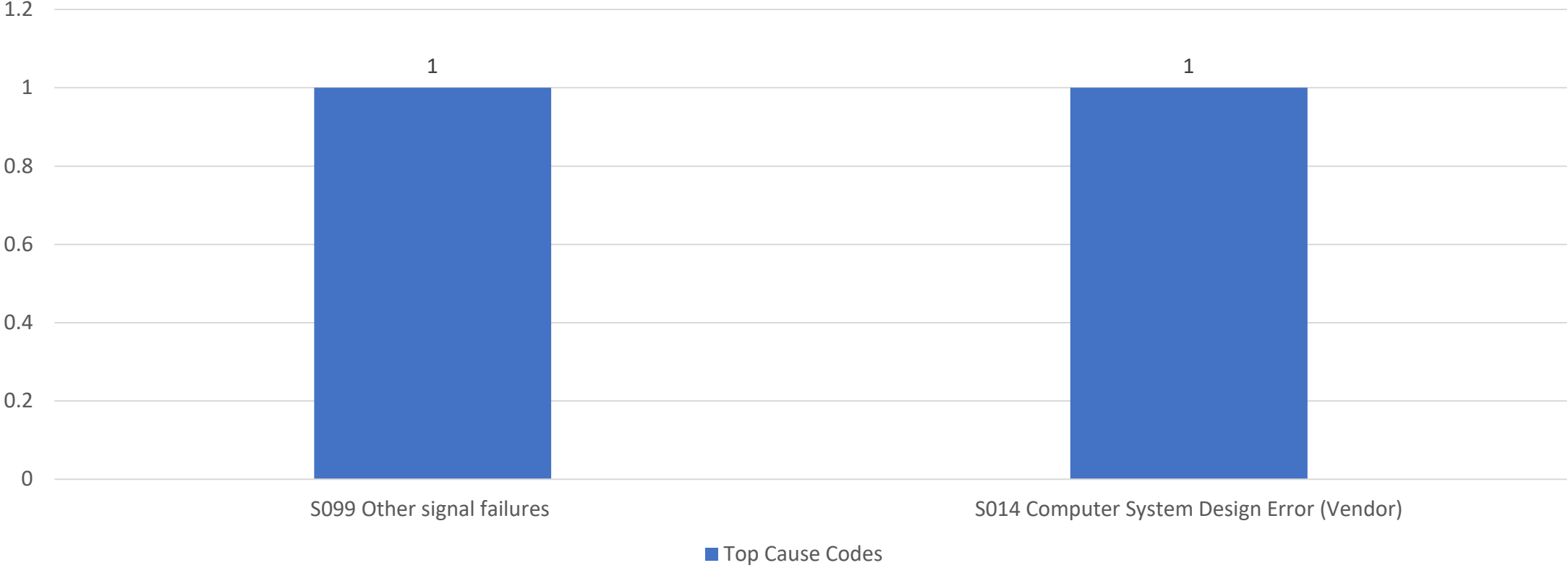
# Reportable Accidents Mechanical Causes

Top Cause Codes



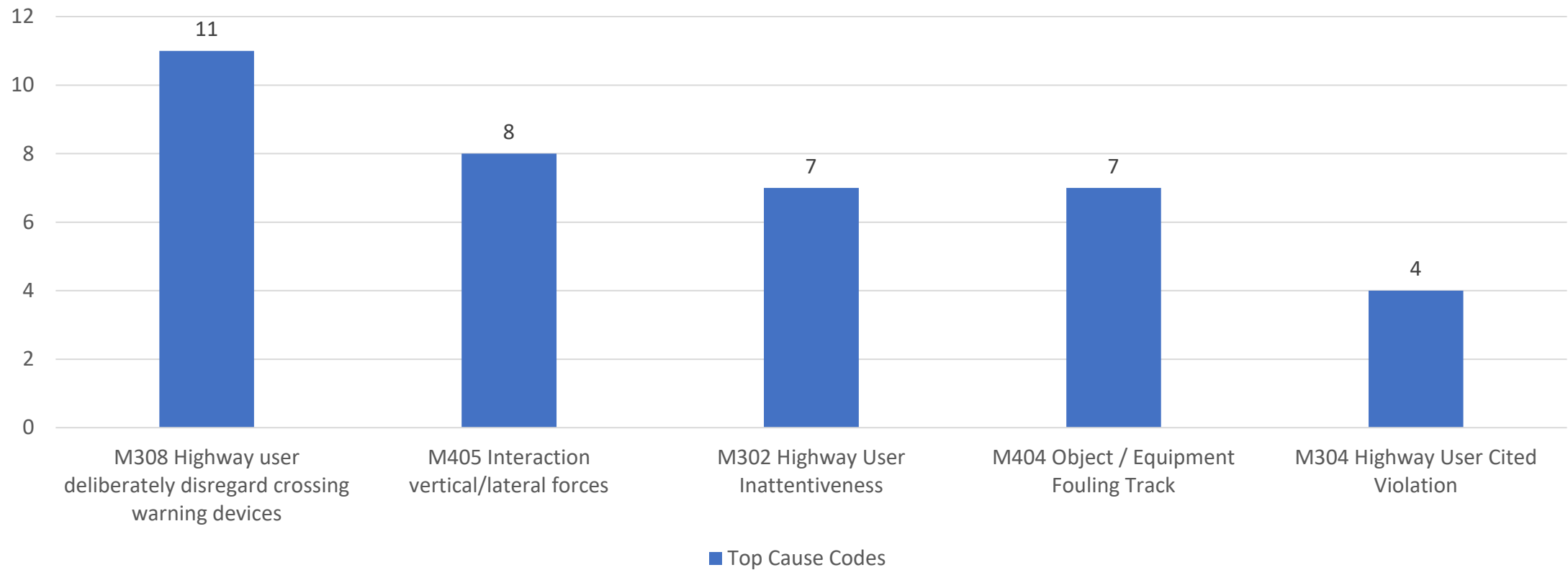
# Reportable Accidents Signal & Train Control Causes

Top Cause Codes



# Reportable Accidents Miscellaneous Causes

Top Cause Codes



# Short Line RRs Reportable EOD Injuries

2023

## Breakdown of FRA 6180.55a Reports

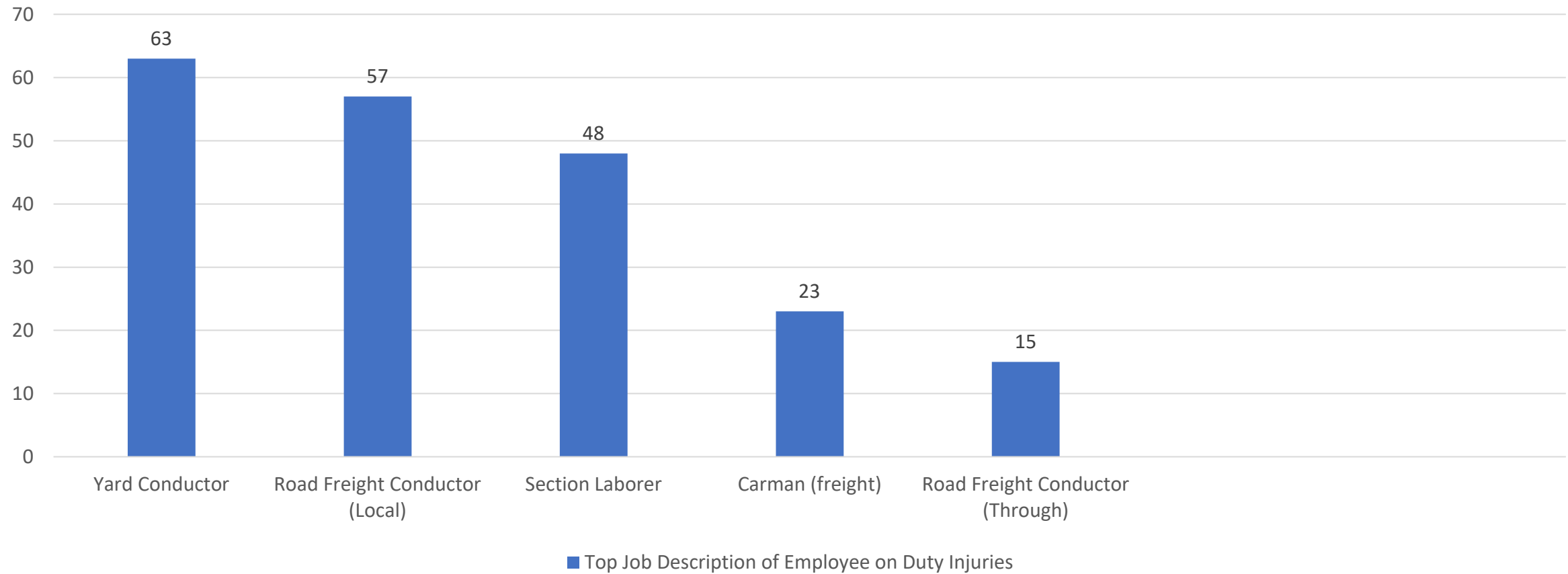
- Employee on duty fatalities = 0
- Employee on duty injuries = 387
- Serious injury = 36\*
- EOD injury rate per 200,000 manhours = 2.29%

\***Serious Injury** = Broken Bones, Amputation, Loss of Eyesight (FRA Accident Reporting Guide)



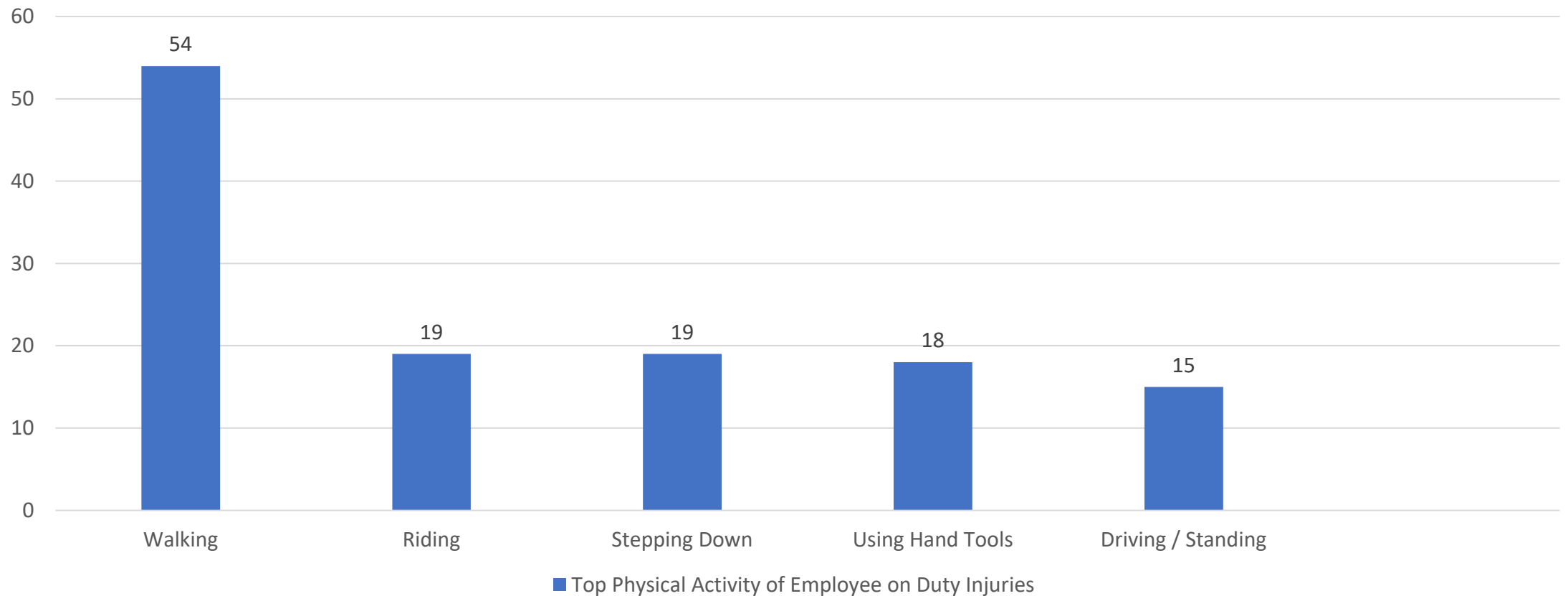
# Reportable Injuries By Job Positions

Top Job Description of Employee on Duty Injuries



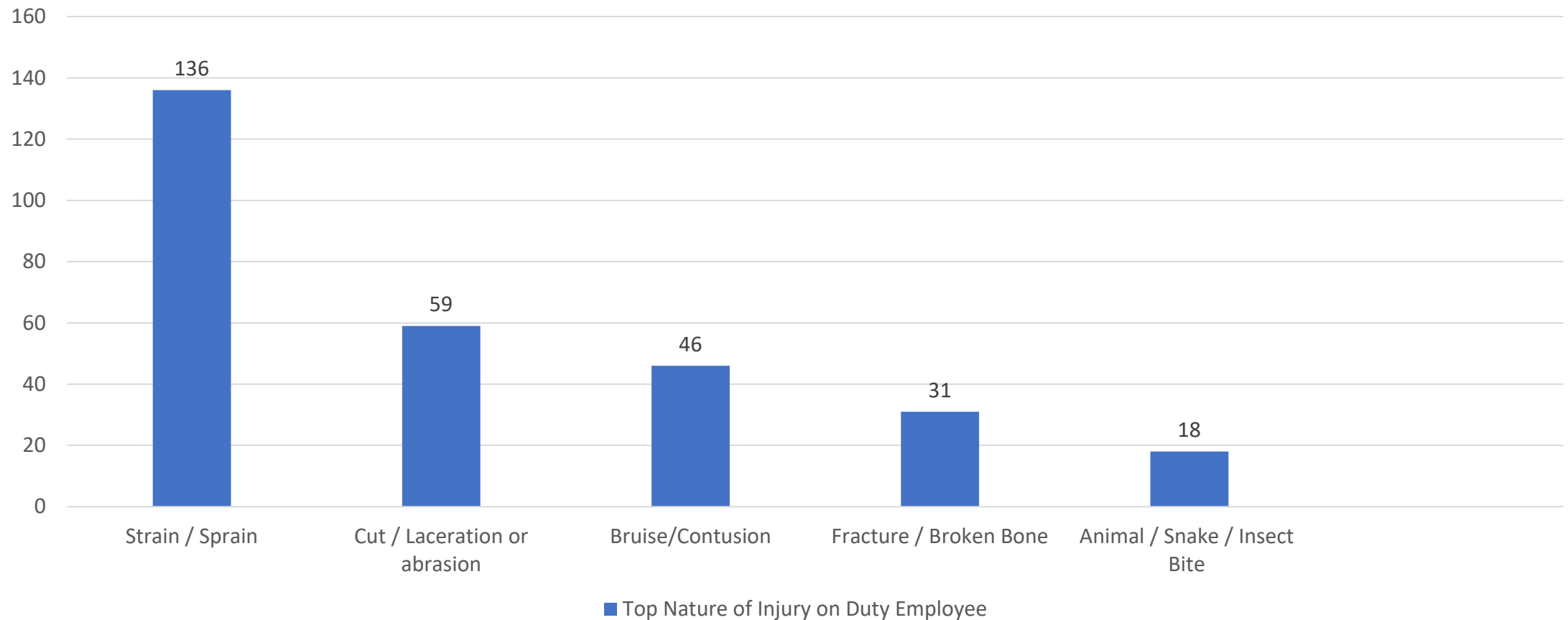
# Reportable Injuries By Activities

Top Physical Activity of Employee on Duty Injuries



# Reportable Injuries By Nature of Injuries

Top Nature of Injury on Duty Employee



# FRA 6180.96 Inspection Reports:

## Short Line RRs FRA Inspection Results

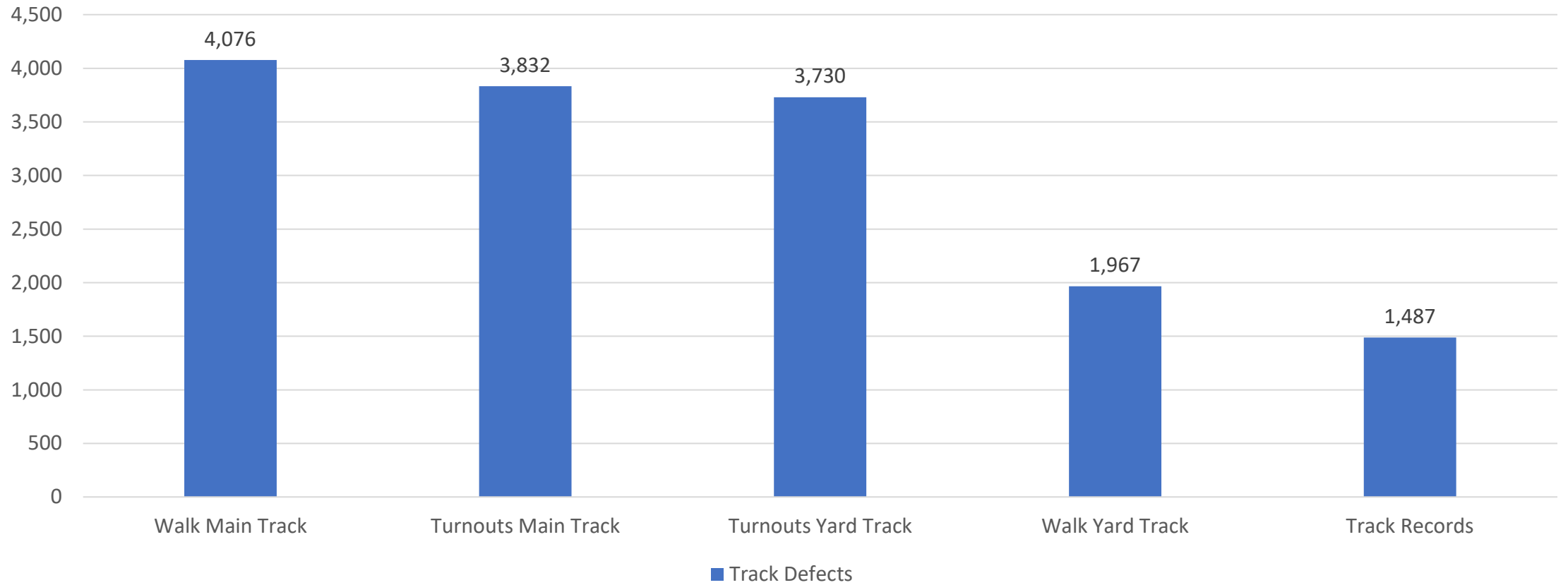
2023

<u>Crafts</u>	<u>Inspections</u>	<u>Defects</u>	<u>Comp Ratio</u>
<u>Track</u>	92,968	19,470	20.94 %
<u>MP&amp;E</u>	402,367	19,428	4.83 %
<u>Signal &amp; T/C</u>	60,073	2,899	4.83 %
<u>Grade Xing</u>	30,367	1,361	4.48 %
<u>Oper Prac</u>	67,106	2,541	3.79 %
<u>Haz Mat</u>	100,878	2,574	2.55 %

# Track Inspection Reports

## Top Five Defects

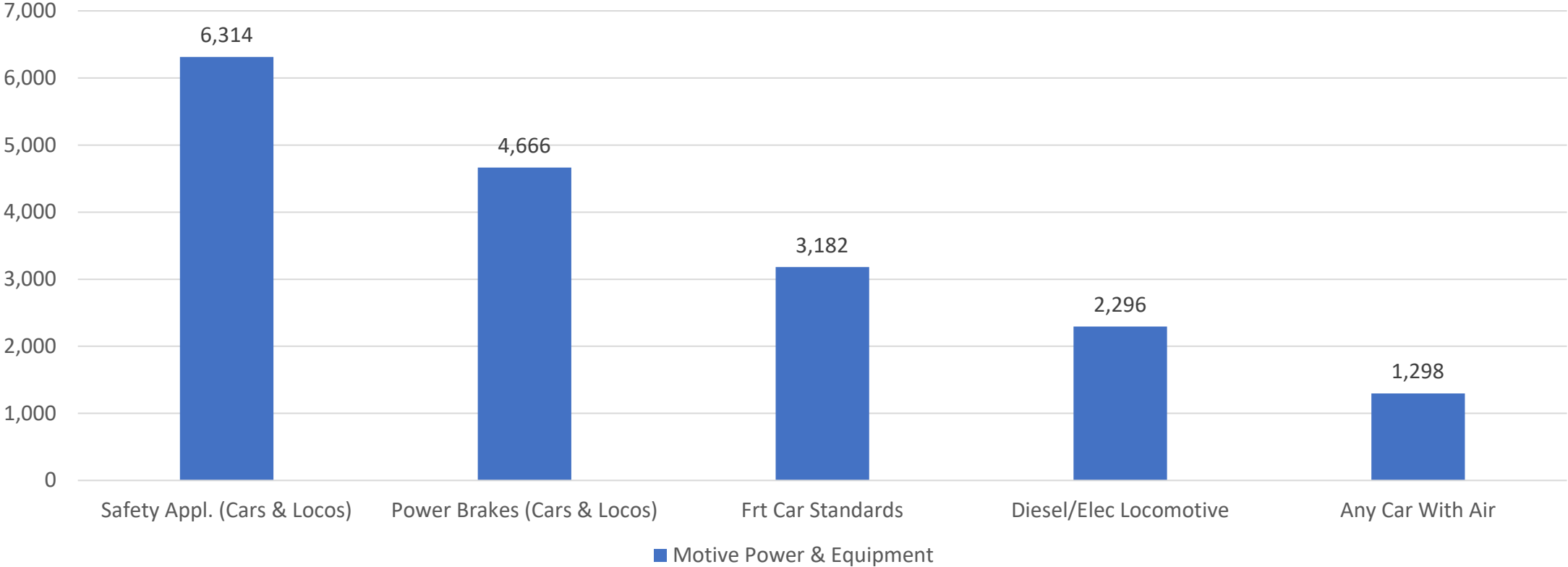
Track Defects



# Motive Power & Equipment Inspection Reports

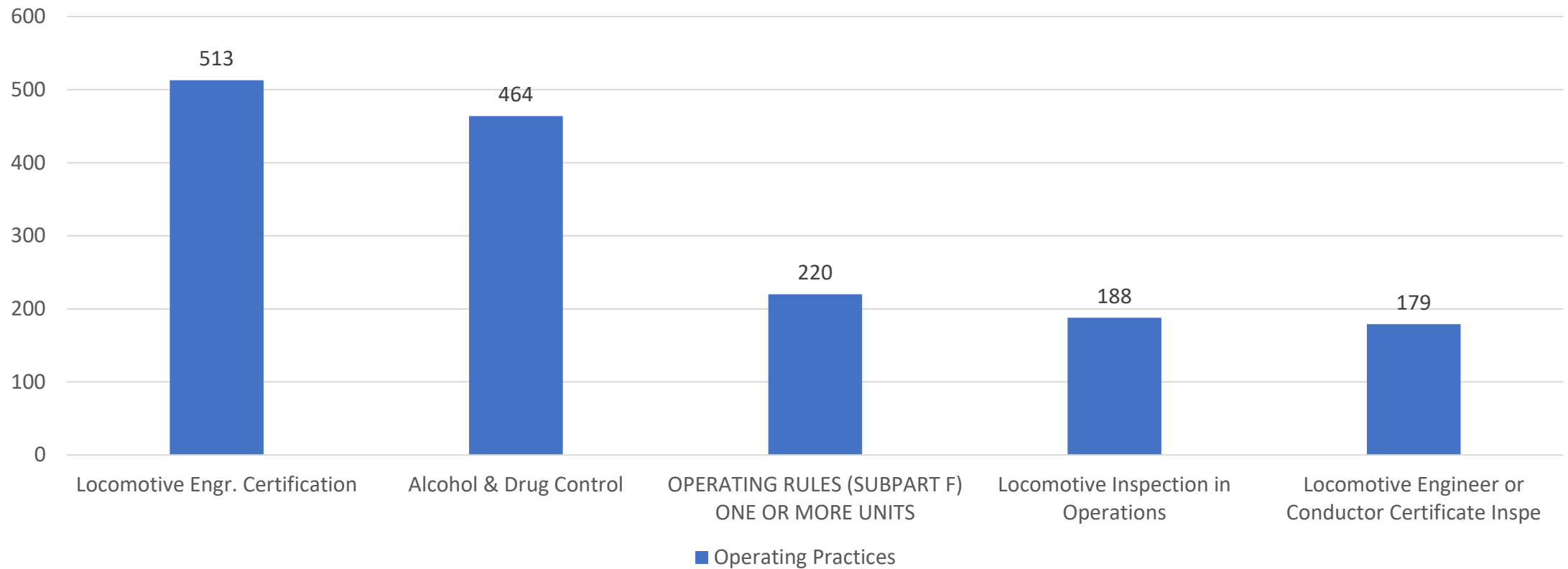
## Top Five Defects

Motive Power & Equipment



# Operating Practices Inspection Reports Top Five Defects

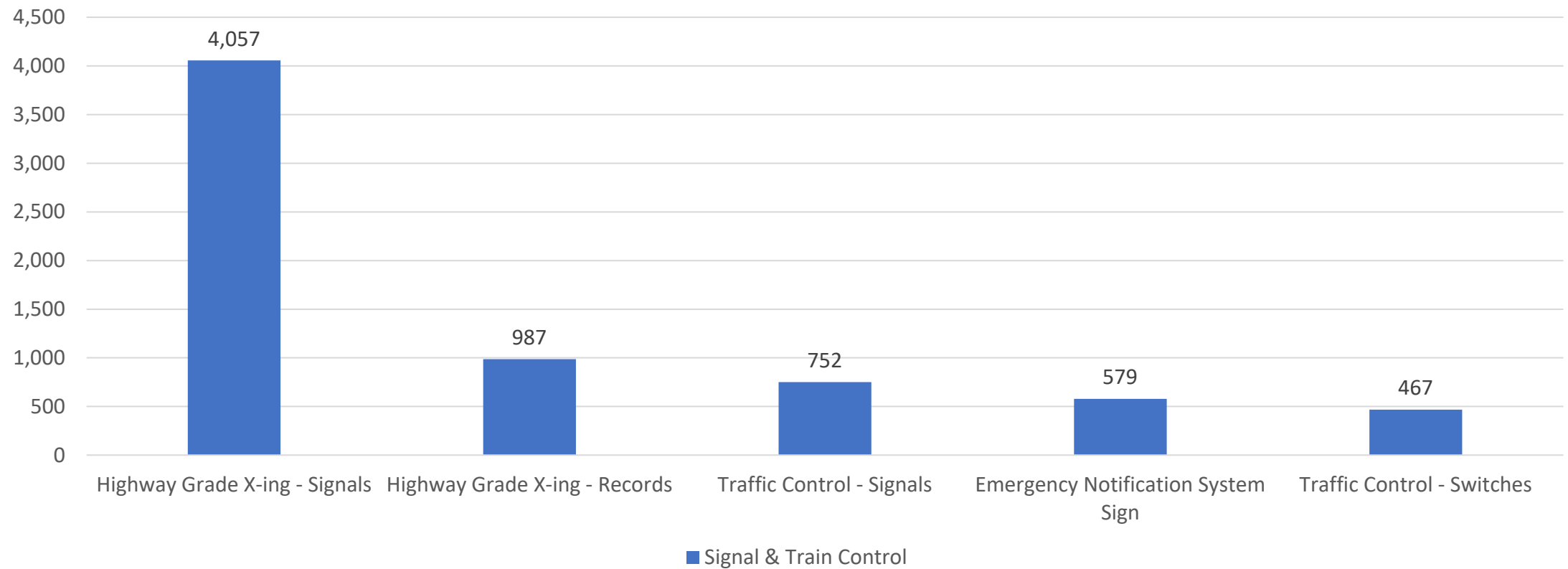
Operating Practices



# Signal & Train Control Inspection Reports

## Top Five Defects

Signal & Train Control

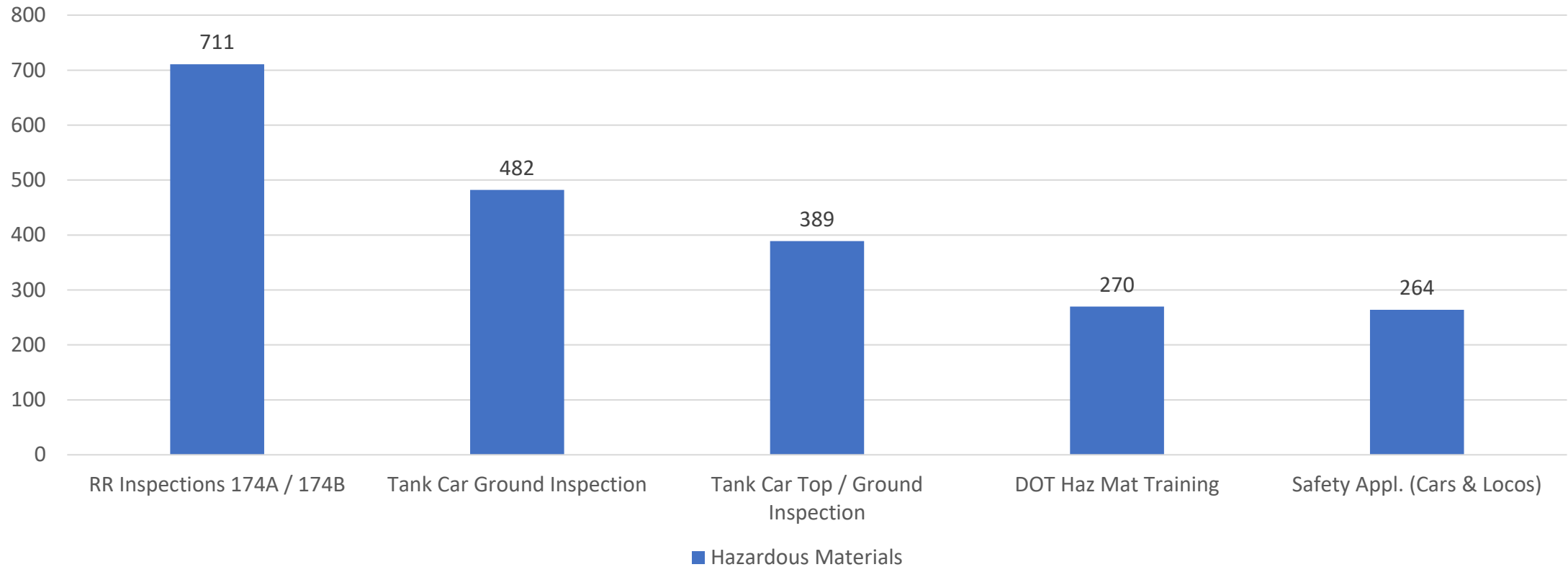




# Hazardous Materials Inspection Reports

## Top Five Defects

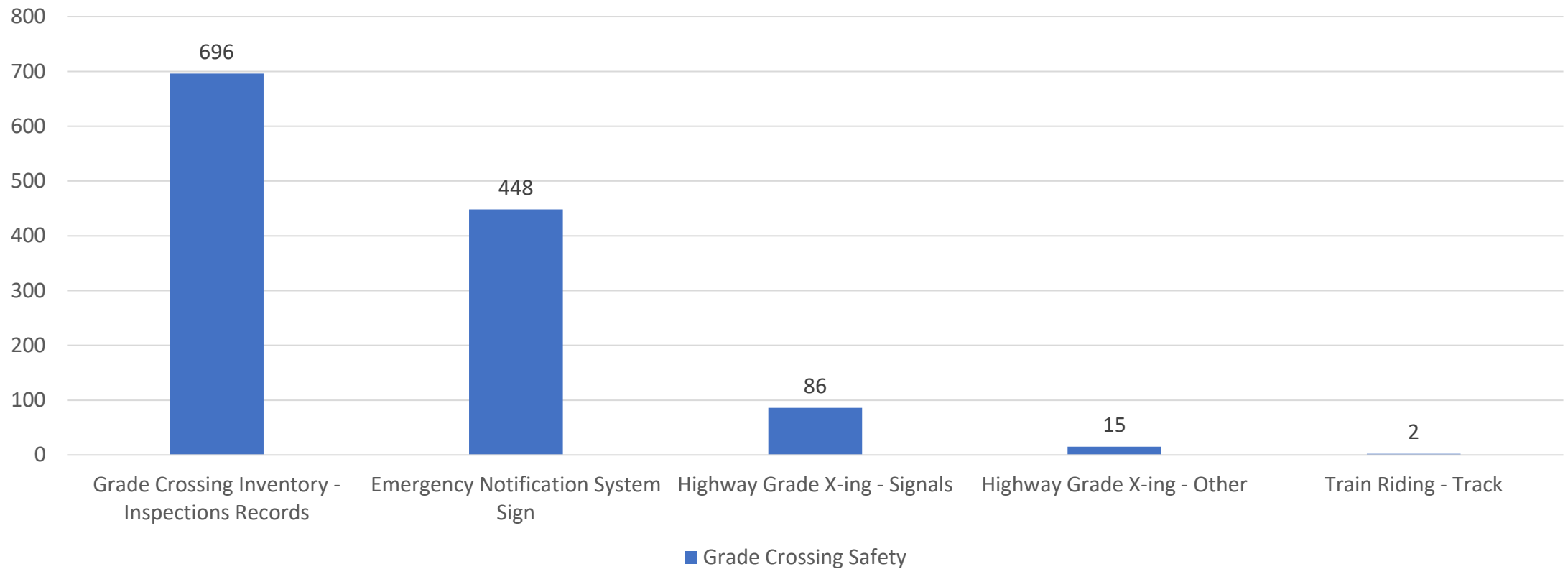
Hazardous Materials



# Grade Crossing Inspection Reports

## Top Five Defects

Grade Crossing Safety

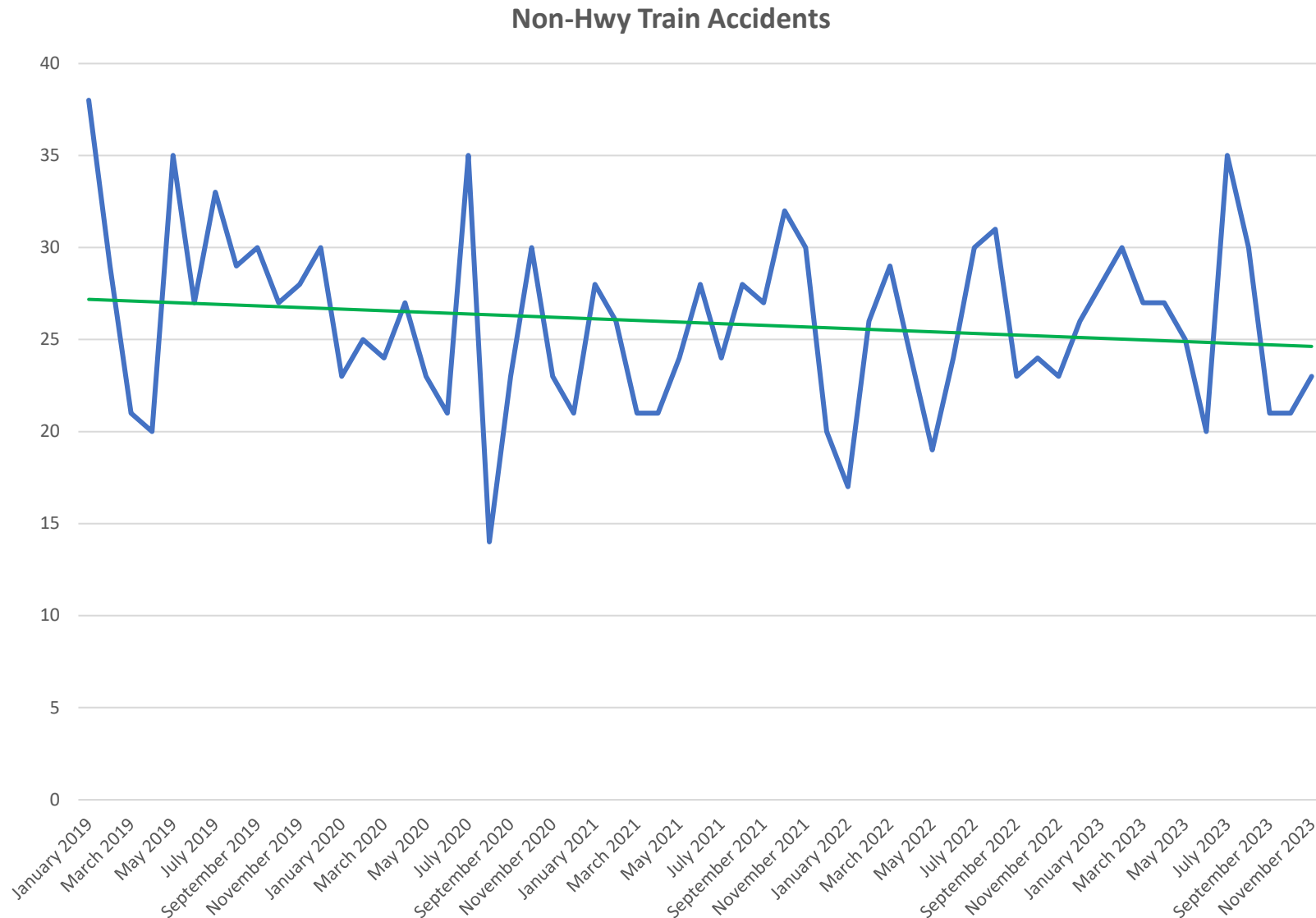


# Short Line RRs 5 – Year Trends

- **Analysis of Short Line Railroads:**
  - FRA FORM 6180.54 (reportable accidents)
  - FRA FORM 6180.55A (EOD reportable injuries)
  - FRA FORM 6180.57 (Grade Xing accidents)
  - FRA FORM 6180.96 (FRA inspection defects)

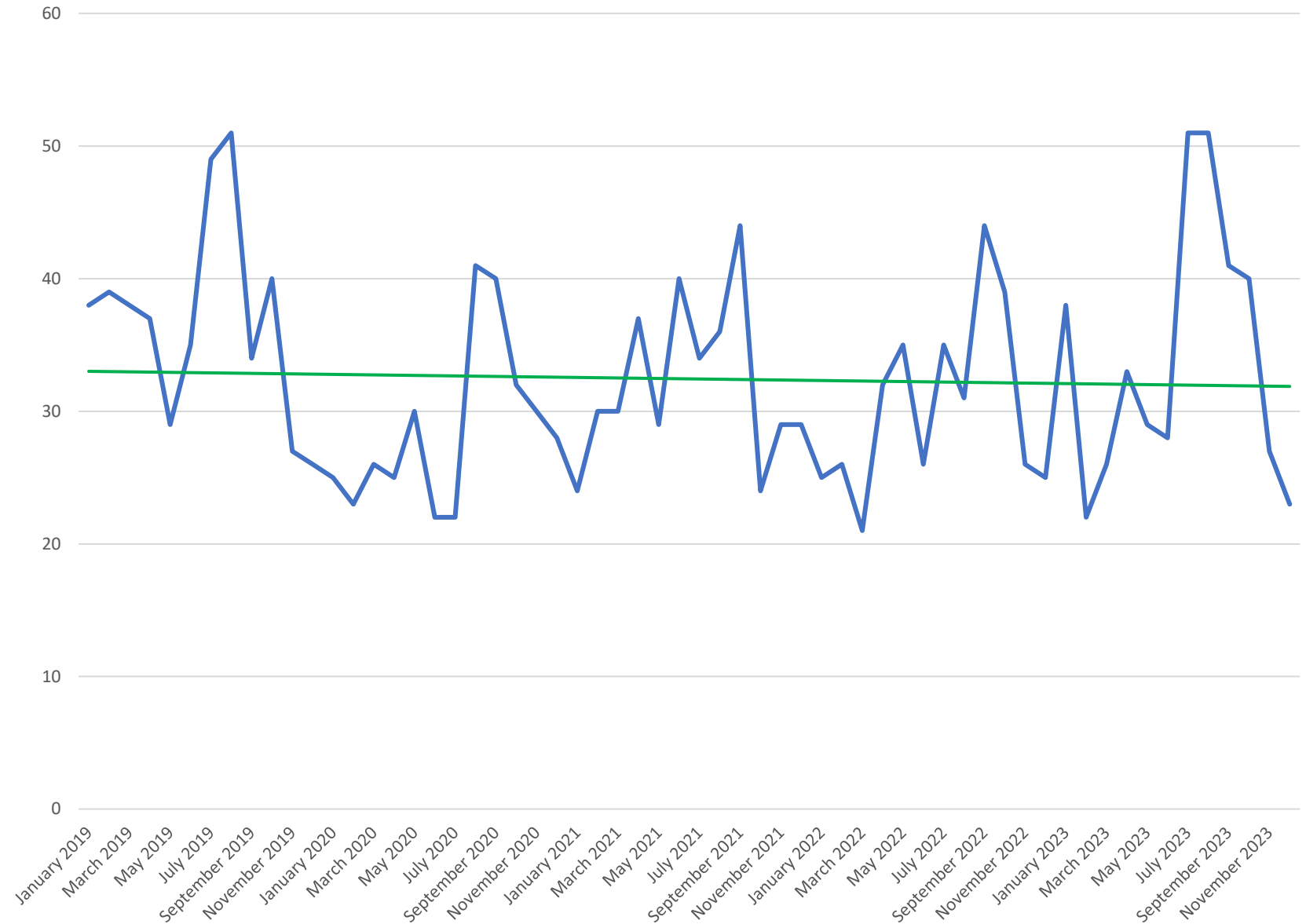
# Short Line RRs Reportable Accidents 5 - Year Trend

2019 - 2023



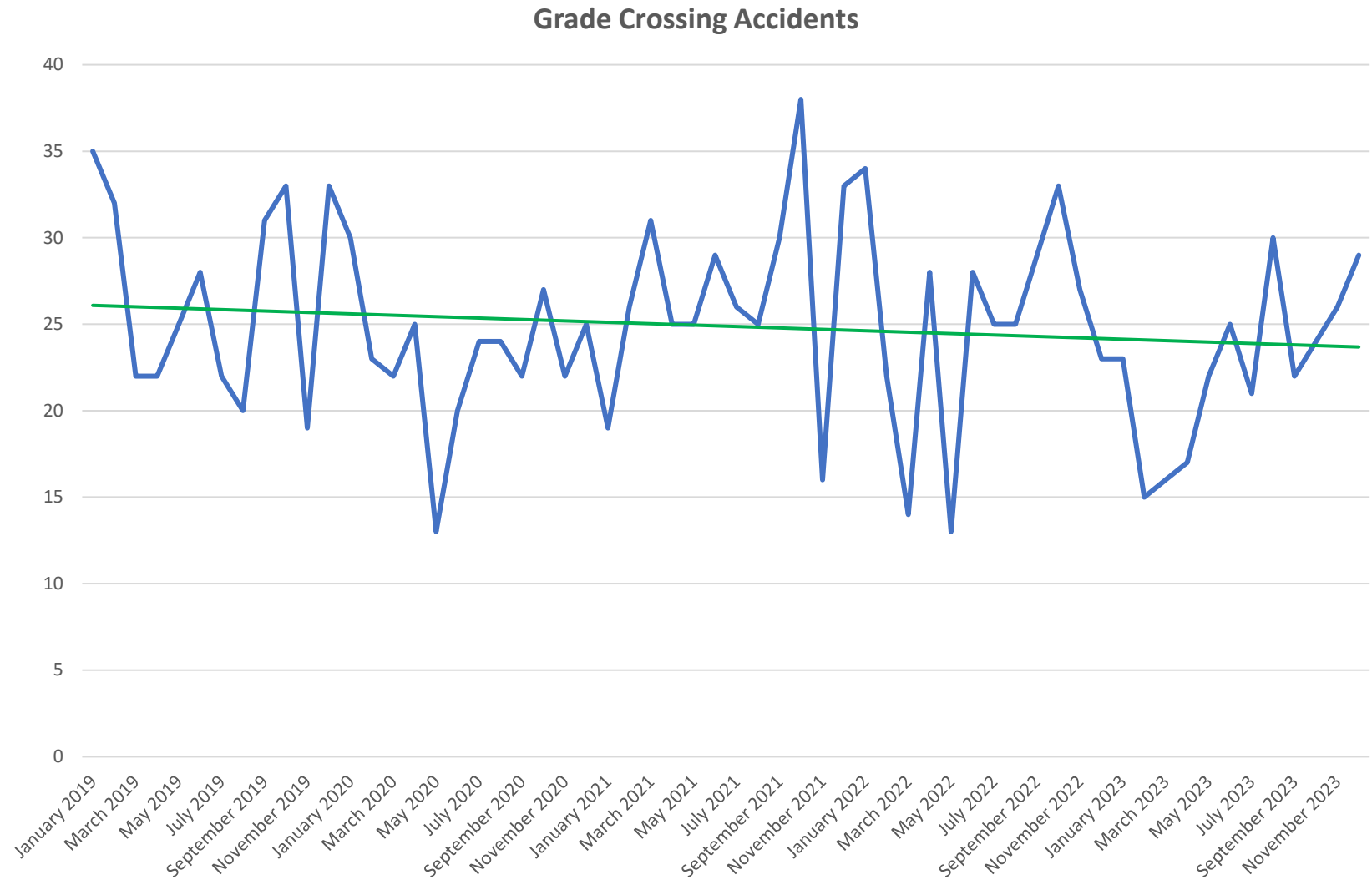
# Short Line RRs Reportable EOD Injuries 5 - Year Trend

## 2019 - 2023



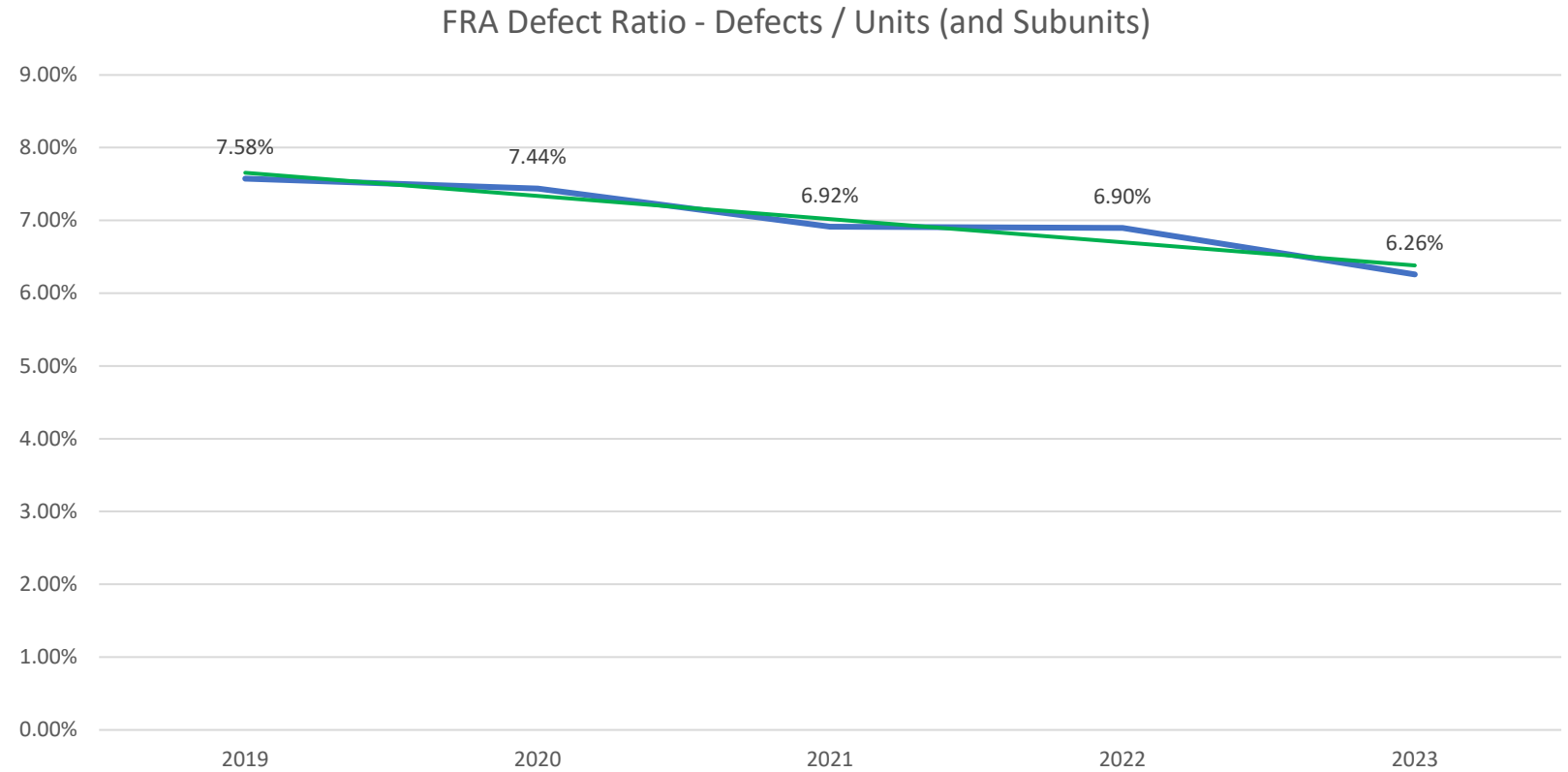
# Short Line RRs Grade Crossing Accidents 5 - Year Trend

2019 - 2023



# Short Line RRs FRA Inspection Defect Ratio 5 - Year Trend

2019 - 2023



# Success Stories

- **Compiled National Short Line RR Inventory**
  - 880 Short Line RRs (March 2024)
    - 739 - Freight & Freight / Tourist
    - 113 - Tourist / Excursion Only
    - 28 - Commuter Only
- **Partnership with ASLRRA & Short Line Safety Institute**
  - Parts 214/219/225/232 and HOS training
    - On-line webinars and on-site instruction
    - Locomotive simulators
- **C3RS Program Support**
  - Contributing to Peer Review Teams (PRTs)
    - Assist with causal factor determinations
    - Assist with corrective action plans



# Future Challenges

- **Conducting Nationwide Part 225 Audits**
  - 880 Short Line RRs via 5 – year cycle
  - Consistent training, policies & guidance
  - Goal = Establish & maintain compliance
- **Implementing Risk Reduction Program (RRP)**
  - Quantitative Analysis vs Qualitative Assessments
  - On-site Risk Reduction Plan verifications
  - Goal = Continual rail safety improvement
- **Emerging Railbike Operations**
  - Identify railbike operations nationally
  - Partnering with RRs to ID best practices
    - Establish safe operating procedures
    - Goal = Ensure safe operations

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Joel Roberts (614) 886-3511



*Thank You !*