

# FTA

FEDERAL TRANSIT ADMINISTRATION

## Opportunities for Innovation in Employee Safety Reporting

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U.S. Department of Transportation  
Federal Transit Administration

# BACKGROUND

# VOLPE RESEARCH ON EMPLOYEE SAFETY REPORTING



2002-2015

FTA

FEDERAL TRANSIT ADMINISTRATION

## PREPARING

FOR AN EMPLOYEE SAFETY REPORTING SYSTEM

CHAPTER  
3



*Sed nisiliam  
mia, interdum  
lor bortis  
tincidunt aic,  
finibus id lectus.*

Nulla eu maximus  
lacus. Sed eros  
odio, iaculis eget  
rhoncus et, dapibus  
ut quam. Nunc non  
vulputate elit. Sed  
nisi mi interdum  
lobortis tincidunt ac,  
finibus id lectus. Ut  
augue nisi, pharetra  
vitae pharetra non  
imperdiet nec lectus.  
Nunc non vulputate  
elit. Nullam augue  
velit, feugiat  
vestibulum magna.  
Nunc pulvinar en  
luctus luct.

Federal Transit Administration

2016-Present

# ESRP STUDY COMPONENTS

## Industry demographics

Used NTD data to identify agency characteristics for industry segmentation

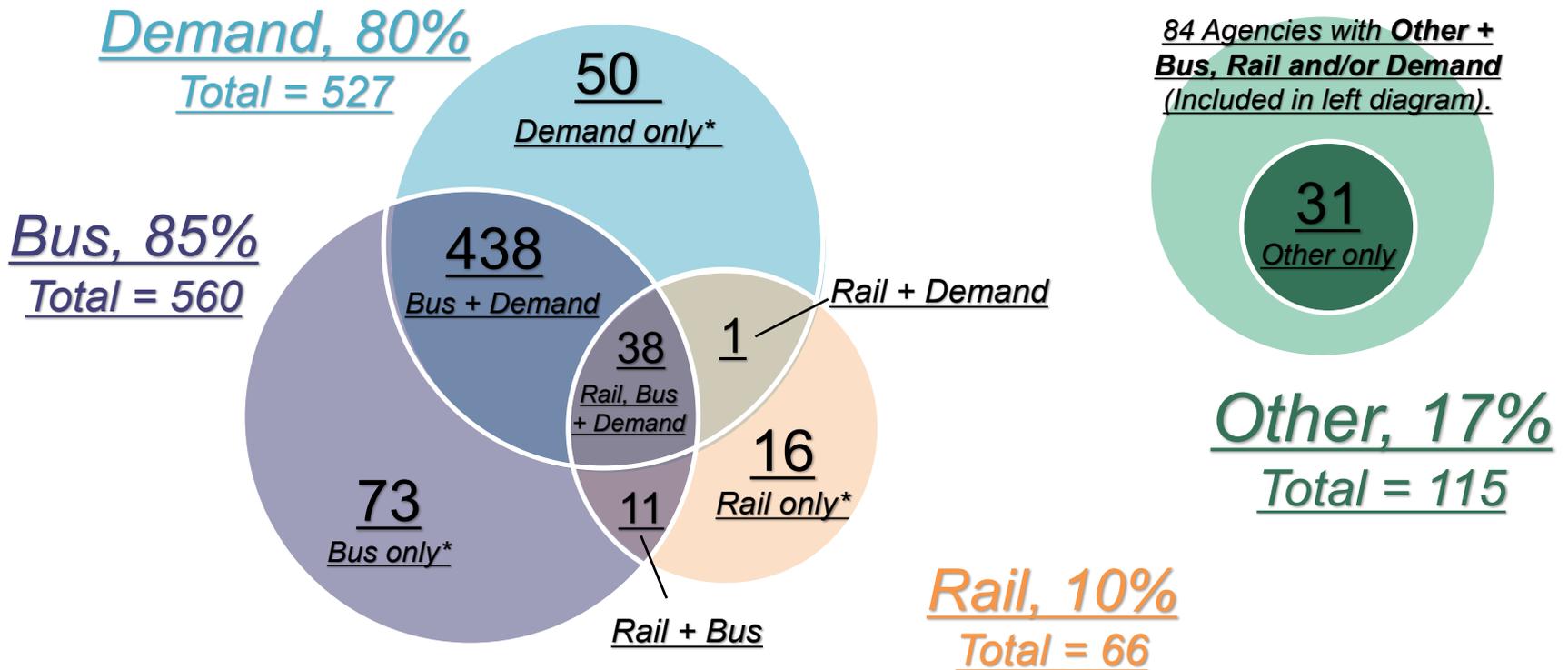
## SMS & ESRP industry baseline discussions

- Transit agencies chosen by size, modes, contractor use, & location
- Discussions held on site with management, front line & supervisors

## ESRP guidance document

- Reflects guidance based on literature and Volpe expertise on employee reporting

# TRANSIT AGENCIES VARY IN THE TYPE OF TRAVEL MODES THEY OFFER



# THE SAFETY AND MOBILITY CHALLENGE

Transit agencies have a diverse range of transportation modes

Category	Type
Rail	Heavy Rail
	Commuter Rail
	Light Rail
	Hybrid Rail
	Aerial Tramway
	Alaska Railroad
	Cable Car
	Incline Plane
	Monorail/Automated Guideway
Bus	Bus
	Commuter Bus
	Bus Rapid Transit
	Trolley Bus
Demand	Demand Response
	Demand Response – Taxi
	Jitney
	Publico
Other	Ferry Boat
	Van Pool

# FTA EMPLOYEE SAFETY REPORTING PROGRAM REQUIREMENTS



# WHAT IS AN EMPLOYEE SAFETY REPORTING PROGRAM?

A process that allows **all employees**, including contract employees to **report safety conditions to senior management**

# ESRP SAFETY MANAGEMENT POLICY REQUIREMENTS

- Reported safety conditions could include hazards, potential consequences of hazards, or any other information relevant to safety.
  - Transit agencies may choose to specify how employees should report different types of information.
- Must specify protections for employees who report safety conditions to senior management. Part 673 does not specify what those protections must be. Options include, but are not limited to:
  - OSHA whistleblower protections
  - Confidentiality

## • §673.23(b)

- Must establish and implement a process that **allows all employees—including relevant contract employees—to report safety conditions to senior management.**
- **Must specify protections for employees who report safety conditions** to senior management
- Must **describe employee behaviors that may result in disciplinary action**—and therefore would not be covered by protections

# ESRP SAFETY ASSURANCE REQUIREMENTS

- **Reporting programs include, but are not limited to:**
  - Employee safety reporting programs
  - Mandatory safety reporting programs (e.g., accident notification)
- **Could collect, analyze, and assess information** reported from programs over time.
- May be an important **source of safety data**.
- Analysis of reports **may lead to the identification of hazards** to address through Safety Risk Management.

- §673.27(b)

Transit agencies must **monitor information reported through any internal safety reporting programs.**

# ESRP SAFETY PROMOTION REQUIREMENTS

- Includes relevant contractors.
- A safety action doesn't have to mean implementing a new safety solution. Many safety actions taken in response to reports could primarily involve recordkeeping for later trend analysis.
- **Responding to employee reports can help to encourage more employee reporting.**

- §673.29(b)
  - **Must inform employees of safety actions taken in response to reports submitted** through an employee safety reporting program.

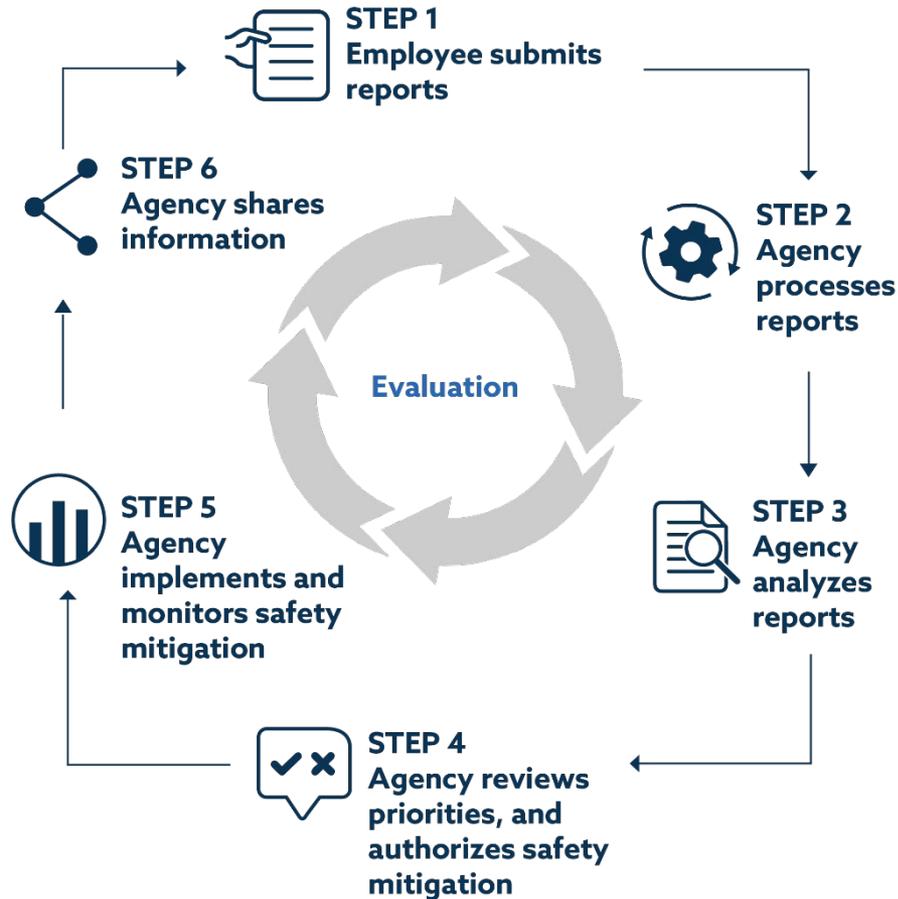
# OPPORTUNITIES FOR INNOVATION AND USE OF TECHNOLOGY

# WHERE CAN INNOVATION AND TECHNOLOGY SUPPORT EMPLOYEE SAFETY REPORTING PROGRAMS?

Reporting

Decision-making  
and action

# WHERE CAN TECHNOLOGY SUPPORT THE ESRP?



# REPORTING METHODS

The rule is silent about methods that transit agencies use to enable employee safety reporting



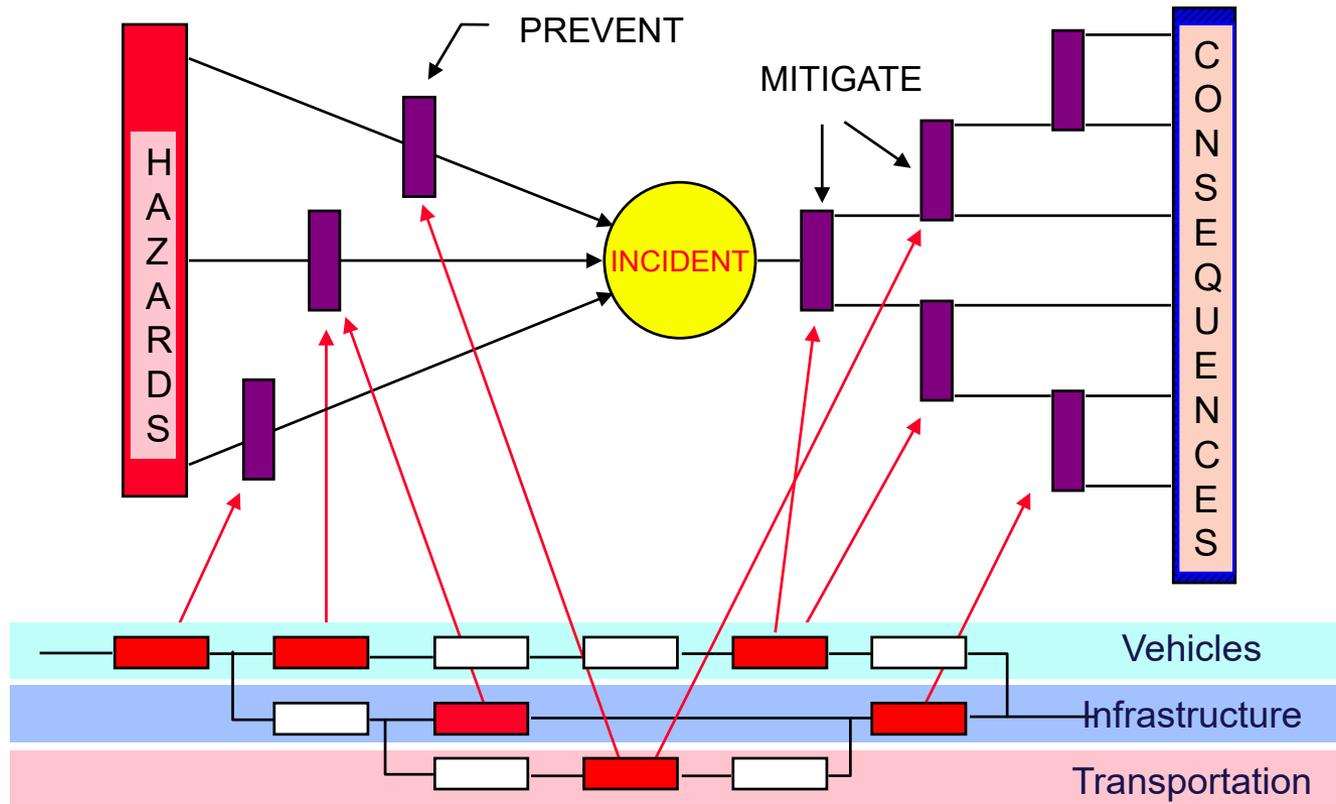
- Hotline
- Paper form
- Safety meetings or toolbox talks
- SharePoint site or form
- Phone or tablet app
- Third party information collection service

# SUPPORTING INVESTIGATION AND ANALYSIS OF INDIVIDUAL SAFETY CONDITIONS

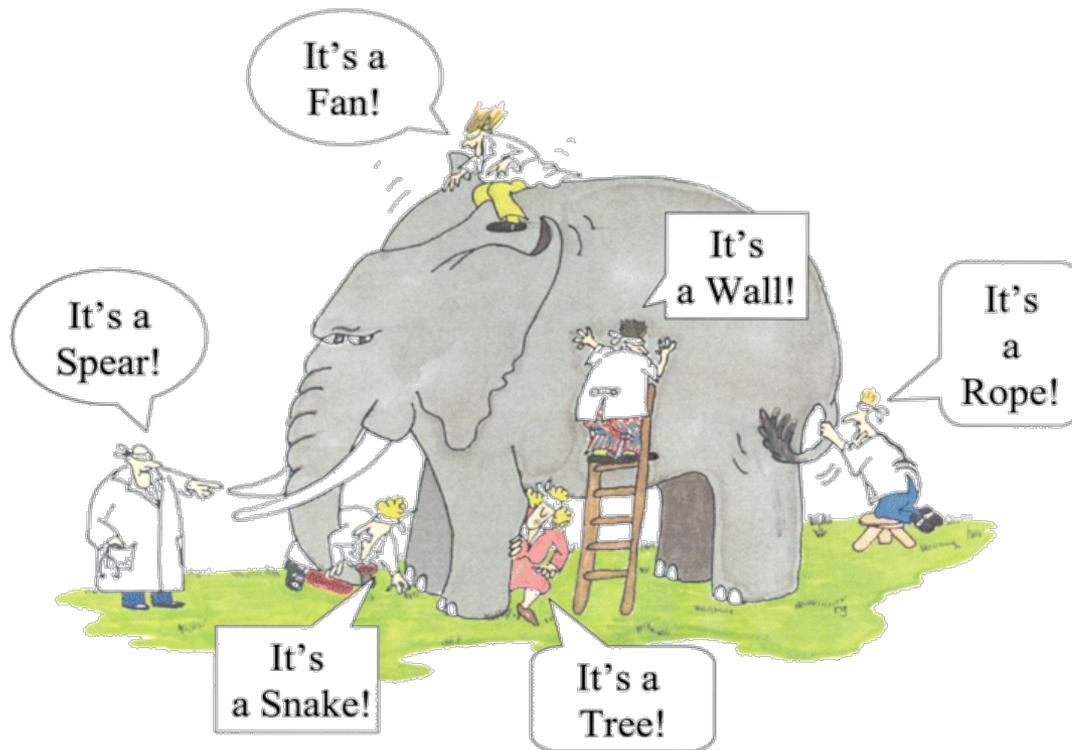


Some hazards can be addressed more quickly than others

# CAN WE MITIGATE THESE EVENTS/CONDITIONS BEFORE THEY CAUSE HARM?

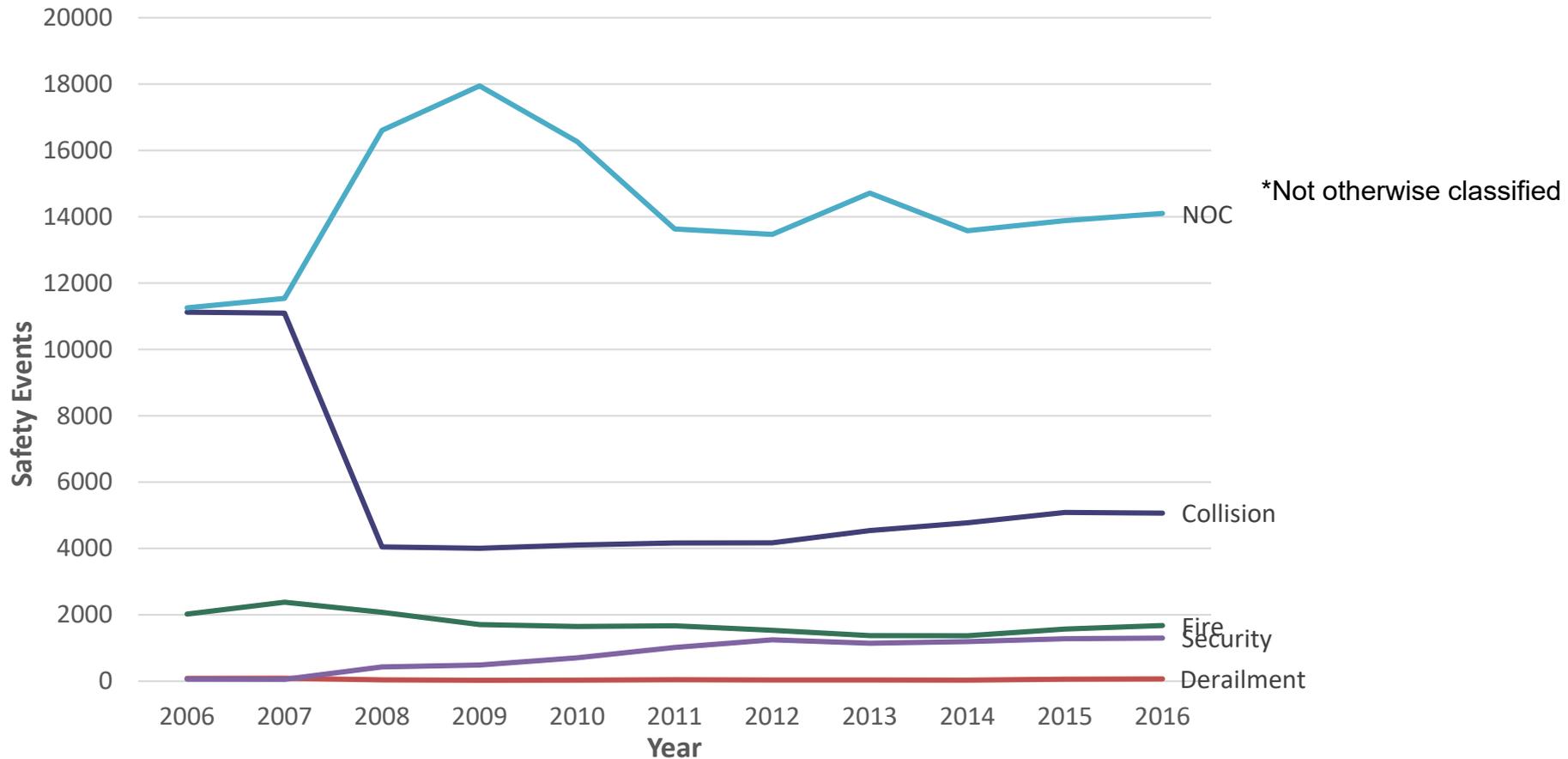


# SUPPORTING INVESTIGATION AND ANALYSIS OF INDIVIDUAL SAFETY CONDITIONS



Some hazards need investigation and analysis to understand

# IDENTIFYING AGENCY AND INDUSTRY SAFETY TRENDS & BENCHMARKING

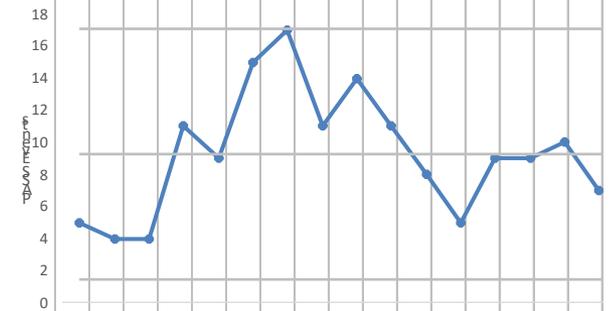


# IDENTIFYING AGENCY AND INDUSTRY SAFETY TRENDS & BENCHMARKING

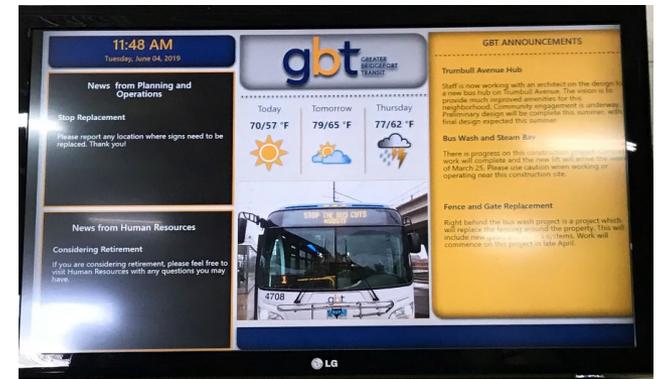
TYPE OF EVENT/SITUATION _____	
INVOLVED EMPLOYEES _____	
TELEPHONE NUMBERS where we may reach you for further details of this occurrence: (Circle One)	
PRIMARY Area _____ No. _____ Hours _____ H M W	EVENT LOCATION Subdivision _____
ALTERNATE Area _____ No. _____ Hours _____ H M W	Milepost _____ State _____
NAME _____	Nearest Station _____
ADDRESS _____	CARRIER NAME _____
CITY _____ STATE _____ ZIP _____	DATE OF OCCURRENCE mm/dd/yyyy LOCAL TIME (24 hr. clock) _____ <small>(gmt offset)</small>
PLEASE FILL IN APPROPRIATE SPACES AND CHECK ALL ITEMS WHICH APPLY TO THIS EVENT OR SITUATION.	
<b>EMPLOYEES INVOLVED</b>	
<input type="checkbox"/> Engineer	<input type="checkbox"/> Assistant Conductor
<input type="checkbox"/> Assistant Engineer	<input type="checkbox"/> Brakeman
<input type="checkbox"/> Conductor	<input type="checkbox"/> RCO (Operator)
<input type="checkbox"/> Other: _____	
<b>EMPLOYEE EXPERIENCE</b>	
<input type="checkbox"/> Yardmaster	<input type="checkbox"/> On Board Service
<input type="checkbox"/> Hostler (Outside)	<input type="checkbox"/> Foreman
<input type="checkbox"/> Trainee	
Railroad Years _____ yrs	Years in Craft _____ yrs
<b>CREW SIZE</b>	
Crew Size _____	
<b>REPORTER LOCATION</b>	<b>SHIFT DURING EVENT</b>
Locomotive	At time of incident, were you on:
Train Car	<input type="checkbox"/> Clear
O Cab	<input type="checkbox"/> Snow
O Vestibule	<input type="checkbox"/> Fog
O Walkway/Steps	<input type="checkbox"/> Wind
O Car	<input type="checkbox"/> Hail
O Station Platform	<input type="checkbox"/> Haze/Smoke
O Adjacent to track/on ground	<input type="checkbox"/> Ice
O Tower/Control Center	<input type="checkbox"/> Thunderstorm/Lightning
O Other: _____	<input type="checkbox"/> Reduced Visibility: _____
Hours into Shift _____ hrs	<input type="checkbox"/> Rain
	_____ car lengths
<b>TRAIN</b>	
Type of Operation	<input type="checkbox"/> Passenger
	<input type="checkbox"/> Commuter
	<input type="checkbox"/> Freight
	<input type="checkbox"/> Yard Assignment
	<input type="checkbox"/> Other: _____
	<input type="checkbox"/> Showing
	<input type="checkbox"/> Push/Pull (Passenger)
	<input type="checkbox"/> Pulling
Equipment	Locomotives
	Controlling Locomotive Type _____ Total Head/End# _____
	Control Stand Type _____ # of Helpers _____
	Distributed Power <input type="checkbox"/> Yes <input type="checkbox"/> No
	Remote Control Box <input type="checkbox"/> Yes <input type="checkbox"/> No
	Passenger
	# of Cars _____ # In Service _____
	Cab Car Controlling <input type="checkbox"/> Yes <input type="checkbox"/> No
	Freight
	Loads _____ Tons _____
	Empiles _____ Length _____ feet _____
	<input type="checkbox"/> Unit Train
	<input type="checkbox"/> Mixed Freight
	<input type="checkbox"/> Intermodal Train
	<input type="checkbox"/> Other: _____
Train Location	<input type="checkbox"/> Main
	<input type="checkbox"/> Yard
	<input type="checkbox"/> Passenger Station
	<input type="checkbox"/> Industry
	<input type="checkbox"/> Other: _____
Rules in Effect - Methods of Operation (check all that apply)	<input type="checkbox"/> Centralized traffic control
	<input type="checkbox"/> Yard limits
	<input type="checkbox"/> Other than main track rules
	<input type="checkbox"/> Positive train control
	<input type="checkbox"/> Direct traffic control
	<input type="checkbox"/> None/Dark
	<input type="checkbox"/> Automatic block signal
	<input type="checkbox"/> Automatic cab signal
	<input type="checkbox"/> Automatic train stop
	<input type="checkbox"/> Other: _____
Operating Rules	<input type="checkbox"/> GCOR
	<input type="checkbox"/> NORAC
	<input type="checkbox"/> Other: _____
Train Activity	<input type="checkbox"/> Pre-Departure
	<input type="checkbox"/> Departure
	<input type="checkbox"/> Enroute
	<input type="checkbox"/> Arrival
	<input type="checkbox"/> Switching in yard
	<input type="checkbox"/> Hold (meet, MOW, yard, etc.)
	<input type="checkbox"/> Passenger boarding/disembarking
	<input type="checkbox"/> Freight loading/unloading
	<input type="checkbox"/> Other: _____
If more than one train was involved, please describe the additional train in the "Describe Event/Situation" section.	

CONTRIBUTING FACTOR TRACKING TEMPLATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Engineer & Conductor Certification					1			2		1						
Regulatory Mandated Testing			1				3			2	1		1	2		
Production Pressures	2		6	8	2	1	3	5		3		4	4	6	2	3
Employee training	1	2	4	3	4	5	2		2	3	4	5		2		1
Crew Assignment & Schedule			1		2		2	1		2	3	1		1	1	
Supervisory practices																
Cross-railroad processes	1		2		3		1	2		2		2	3		2	1
Communication	2	3	2	3	1	1		2	4	5	2	4	3	3		
Route knowledge				1	2		2		3		1		2		3	
Expectations		2	1				3	2		2	1		1			1
Distractions	1	1	4	3	2				1			2	2	1	1	
Signal placement				2				1		2		1				
Signal Maintenance	1		2				1							1		1
Job Aids					1			1							1	
Station Dwelling	2		3		2	1	2			1	1		2	1		
Locomotive Type					1			1								
Displays and Alerts		1					1			2					1	
Signal Design	3		2		2	1			2	1				1		

Contributing factors & mitigation tracking



# SHARING INFORMATION WITHIN AN AGENCY



# SHARING INFORMATION ACROSS AGENCIES: DEVELOP A COMMON DATA PLATFORM

Government  
Software  
(e.g., NTD,  
C3RS)

Commercial  
Off-The-Shelf-  
Software

Voluntary  
Standard for  
safety data

# THE GLUE THAT HOLDS EMPLOYEE SAFETY REPORTING TOGETHER IS TRUST

