

RAIL

MOVING AMERICA FORWARD



Railroad Trespass Prevention Summit for the Greater Boston Area

Railroad Trespassing Prevention Summit



Monica Shaw - Federal Railroad Administration

As a Transportation Specialist Mrs. Shaw coordinates the Federal Railroad Administration (FRA) involvement in trespass prevention programs, serves as Project Manager overseeing the Operation Lifesaver Inc. Grant, FRA's Law Enforcement Trespass and Suicide Prevention Grant Programs. Mrs. Shaw holds a Bachelor of Business Administration Degree in Project Management. Mrs. Shaw has an extensive career with FRA for 34 years.



Michail Grizkewitsch - Federal Railroad Administration

Since 2004 Michail Grizkewitsch has been a part of the Federal Railroad Administration's (FRA) Office of Railroad Safety as a Railroad Trespassing Program Specialist. He partners with federal, state, and local government officials throughout the United States to establish and implement trespass prevention programs.



Housekeeping

- Medical
- Fire
- Tripping Hazards
- Breaks
- Lunch

Holiday Inn Welcome from General Manager Nicole Caraglia

8:30 - 9:00 AM	Session 1: Welcome
9:00 - 10:00 AM	Session 2: Data Analysis of Trespassing and Suicide Incidents
10:30 -12:00 PM	Session 3: Local Railroad Trespassing Mitigation
1:00 - 2:15 PM	Strategies
2:30 - 3:45 PM	Session 4: Railroad Trespassing Treatments & Tools
3:45 - 4:30 PM	Session 5: Public Engagement
	Session 6: Federal and State Funding Opportunities

Thank you to our safety partners at the MBTA & Keolis Commuter Rail Services for assisting with this summit.



U.S. Department of Transportation
Federal Railroad Administration



Massachusetts Bay
Transportation Authority

KEOLIS

Welcome

Over the course of his 22-year rail industry career, Steve has served as a dedicated professional continually seeking to improve railroad safety. He has held several operational and safety positions with freight and passenger railroads, as well as having an extensive career with the Federal Railroad Administration. Steve is now in his second tenure with the agency and is currently Railroad Administrator for the Amtrak and Passenger Operations East Safety Management Team (SMT-1). His previous FRA titles include Inspector, Operating Practices Specialist, Special Assistant to the Administrator, Deputy Regional Administrator and Regional Administration - Chicago Region. Steve holds a BA in Sociology from Bowling Green State University and a MA in Public Policy and Administration from Northwestern University.

Steven Illich
Railroad Administrator, SMT-1
Federal Railroad Administration

Welcome

Effective January 1, 2019, Steve Poftak joined the MBTA as General Manager. General Manager Poftak, who previously served as the Vice Chair of the Fiscal and Management Control Board and as a Director of the MassDOT Board since 2015, comes to the T from the Harvard Kennedy School, where he was Executive Director of the Rappaport Institute for Greater Boston.

Previously, Poftak was Research Director and Director of the Center for Better Government at the Pioneer Institute for Public Policy Research. Prior to that, he worked at the Commonwealth's Executive Office for Administration and Finance, where he managed the \$1.3 billion capital budget, prepared the state's quarterly cash flow reporting, and monitored non tax revenue receipts. Other experience includes service on the Commonwealth's Finance Advisory Board and Zero Based Budget Commission.

Poftak holds an MBA from the Olin School at Babson College and a BA in Political Science from Middlebury College. He is a Boston resident and has children who attend the Boston Public Schools.



Steven Poftak
General Manager
MBTA

Welcome



Abdellah Chajai
CEO, General Manager
Keolis Commuter Services

Abdellah Chajai brings more than 25 years of management experience in passenger rail operations to Keolis Commuter Services (KCS), where he became General Manager and CEO in December of 2021. In previous roles managing transit operations in London and Paris, Abdellah demonstrated visionary leadership combined with technical expertise to effectively develop successful teams with a focus on innovation and global best practices. Prior to taking on leadership of KCS, Abdellah most recently served as Managing Director for Keolis Amey Docklands (KAD), the 6th busiest light rail system in the UK, which was awarded four operators of the year awards during Abdellah's tenure including the prestigious 'Passenger Operator of the Year' award at the UK's National Rail Awards. KAD operates a key part of the London transportation network under contract to Transport for London (TfL) and achieved both growth and customer accolades under his leadership. A native of France, Abdellah began his career as a project manager and operations director in several European countries and now brings a global perspective to the MBTA Commuter Rail operation in Massachusetts. Mr. Chajai speaks six languages and has multiple master's degrees.

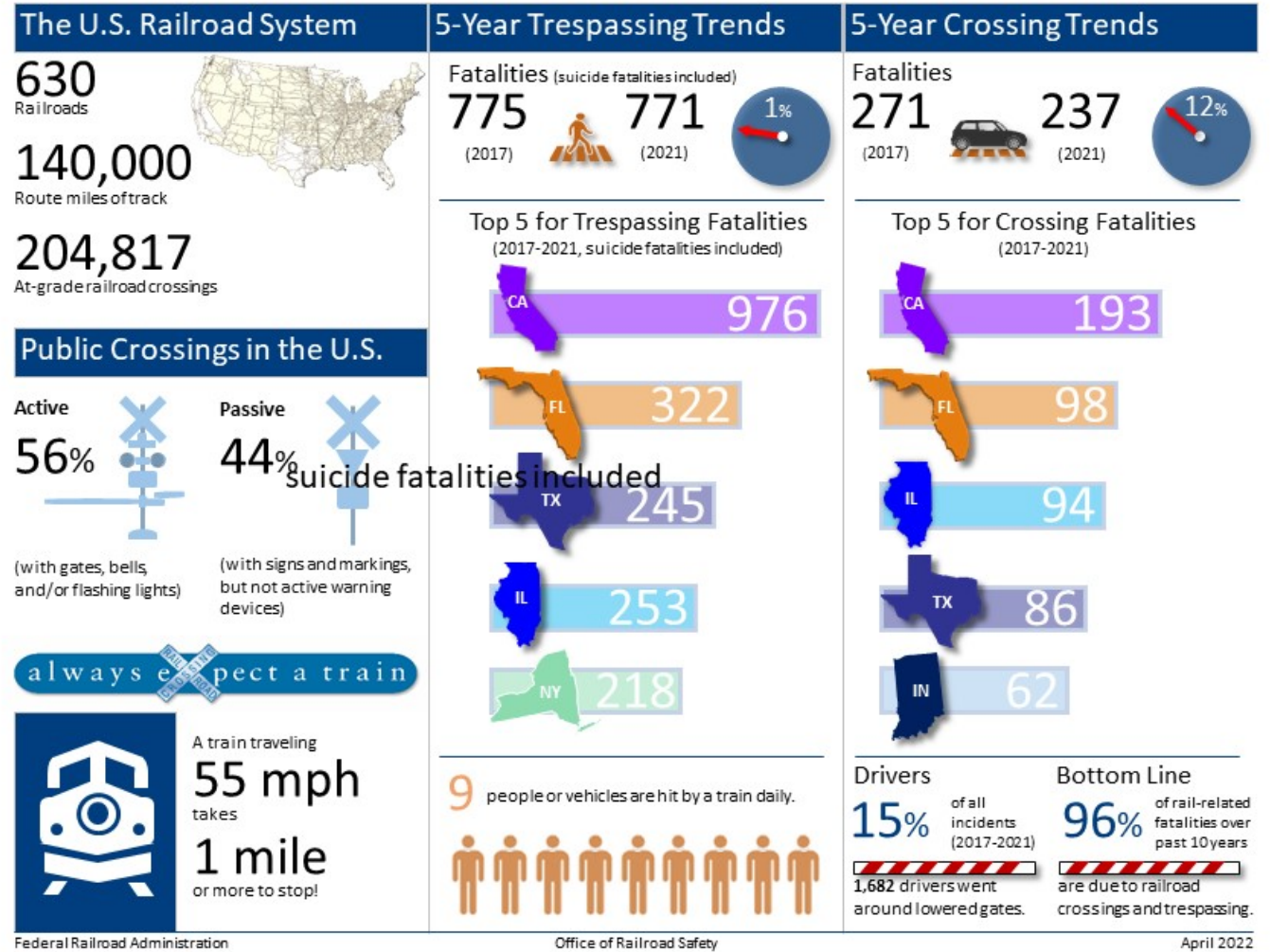
Railroad Grade Crossing & Trespassing Data

Top 5 Trespassing Fatality States - 2017-2021

State	Fatalities
CA	782
FL	250
TX	245
IL	158
NY	122
Total	1557

Top 5 States Suicide Fatalities - 2017-2021

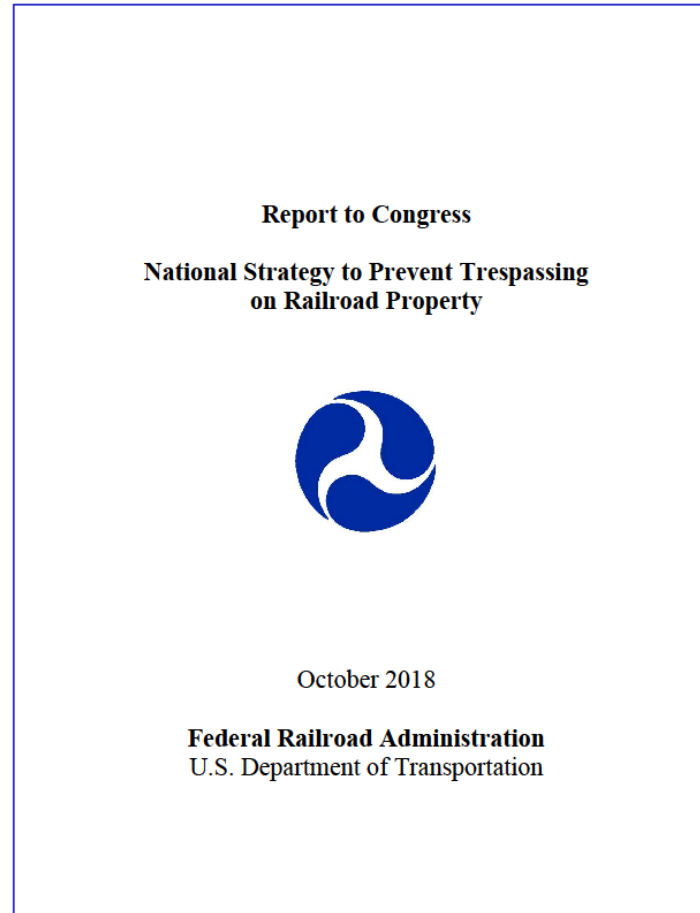
State	Fatalities
CA	194
NY	96
IL	95
NJ	78
FL	72
Total	535



National Strategy to Prevent Trespassing on Railroad Property

In its report on the Fiscal Year 2018 budget, the House Committee on Appropriations requested the FRA to:

- Identify and study the causal factors that lead to trespassing incidents on railroad property
- Develop a National Strategy



FRA Developed a National Strategy, focusing on four strategic focus areas:

1. Data Gathering and Analysis,
2. Community Site Visits,
3. Funding,
4. Partnerships with Stakeholders.

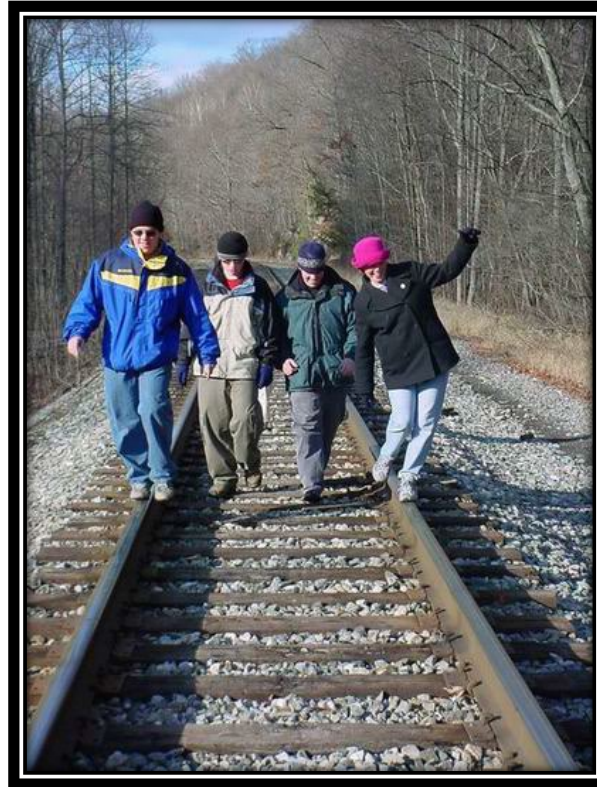
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Highway-Rail Grade Crossing and Trespassing Trends

Highway-Rail Grade Crossing and Trespassing Trends



Local Railroad Trespassing Mitigation Strategies

District 1			
Trespassing and Suicides Fatalities			
2017-2021			
State	Trespass	Suicides	Total
CT	25	13	38
ME	9	2	11
MA	62	38	100
NH	1	0	1
NJ	78	78	156
NY	141	77	218
RI	4	1	5
VT	2	0	2
Totals	322	209	531



U.S. Department of Transportation
Federal Railroad Administration

The U.S. Railroad System

821

Railroads in US



6706

At-grade Public railroad crossings

5638

At-grade Private railroad crossings

5-Year Trespassing Trends

Fatalities (includes suicides)

94

(2017)



D1 Only

110

(2021)



5-Year Crossing Trends

Fatalities

15

(2017)



D1 Only

11

(2021)



Grade Crossing and Trespasser Prevention Information for the Northeastern States (District 1)

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont

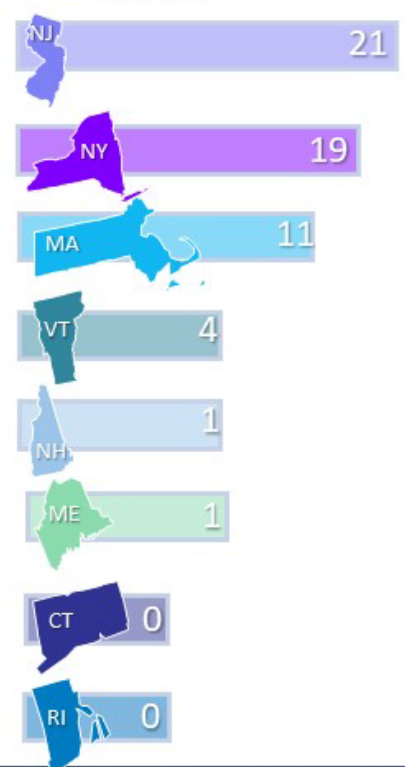
Trespassing Fatalities

(2017-2021, suicide fatalities included)



Grade Crossing Fatalities

(2017-2021)



Comparison 2017-2021			
	Trespassing	Suicides	GX
D1	322	209	57
Entire US	2607	1112	1255
Percentage	12%	19%	5%

Revised April 2022



Data Analysis of Area Trespassing Events

Norma Jean Griffiths is a Railroad Safety Inspector in the Grade Crossing & Outreach Division of the Federal Railroad Administration (FRA). She supports the FRA's Highway-Rail Grade Crossing Safety and Trespasser Prevention Programs in District 1 which includes New England, New York and New Jersey. Before joining the FRA, she held a variety of administrative and safety positions in the legal and airline industries, town government and the railroad industry including a brief stint as a dispatcher. Norma has been a Member, Chairman of the Board and Acting State Coordinator for Maine Operation Lifesaver and sits on the Boards of ME, NH, MA and VT as an advisory member. She is a qualified Operation Lifesaver OLAV, Trainer/OLAV Coach and course instructor and Traffic Incident Management (TIMs) instructor. She attended University College in Bangor, Maine, Basic Railroad Claims School at Lawrence Technological University in Michigan along with a variety of safety, OSHA and emergency management trainings over her 25-plus year career as a railroader.



Norma Griffiths
Railroad Safety Inspector (GXTP)
Federal Railroad Administration

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National and Local Strategy to Prevent Trespassing on Railroad Property Presented by: Safety Working Action Team

Data Analysis of Area Trespassing Events



Cynthia Delaney
Asst. Director of Rail Safety
MBTA

Cynthia E. Delaney is an Asst. Director Rail Safety at Massachusetts Bay Transportation Authority. She supports the Director of Commuter Rail & Ferry Safety at MBTA Safety Department. Ms. Delaney has held a variety of positions with MBTA and MBCR including Asst. Director of Transit Rail Safety, Asst. Chief Train Dispatcher, Train Dispatcher and Transportation Safety Specialist. Prior to MBCR Ms. Delaney was an Amtrak Train Dispatcher and a Fed Ex Operations Manager. Essentially, Ms. Delaney has been in the Transportation Industry in some capacity since 1986. Ms. Delaney has a TSSP in Bus and Rail; she is OSHA Safety Certified and has attended numerous rail safety education programs and attended Johnson & Wales University in the Arts and Sciences program.

Data Analysis of Area Trespassing Events



Christopher Harrington
Director of Security/Training
Keolis Commuter Services

Christopher Harrington is the Director of Security & Training for Keolis Commuter Services in Boston Massachusetts. He has been working in the safety for over 20 years, with a combination of emergency services and transportation experience. Chris has served as a Vice State Coordinator for Operation Lifesaver Massachusetts for six years and has worked with the FRA's Highway-Rail Grade Crossing team in implementing the FRA CARE model here at the MBTA.

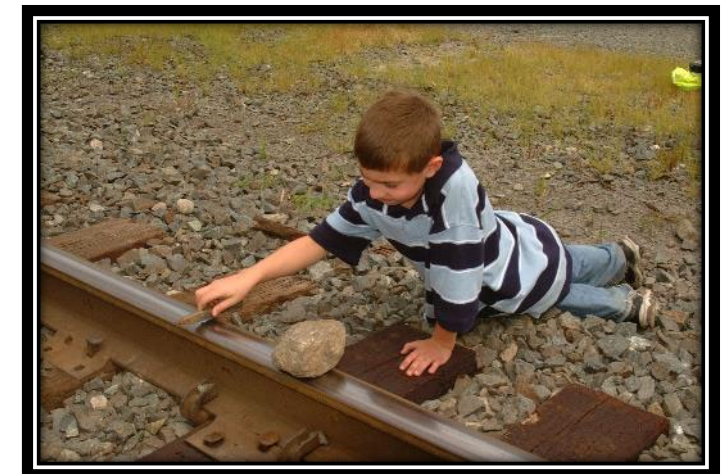
Data Analysis of Area Trespassing Events

Manuel Machado is a certified Safety and Security Officer through the World Safety Organization. Manuel has worked for close to 25 years on the MBTA Commuter Rail System with Amtrak, MBCR, and Keolis Commuter Services. While working on the Commuter Rail property, Manuel has spent ten years in the Engineering Department and almost 15 years in the Safety Department. Manuel's Current role in the Keolis Safety Department is as a Systems Specialist, which includes working with the Engineering Department and grade crossing and trespasser safety.

Manuel Machado
System Specialist
Keolis Commuter Services

Trespassing Casualties – State of Massachusetts

State of Massachusetts						
Trespassing Casualties						
	2017	2018	2019	2020	2021	Total
Fatalities	15	14	7	11	15	62
Injuries	3	4	14	6	8	35
Suicide Casualties						
Fatalities	12	9	12	4	1	38
Injuries	1	1	0	0	0	2
Total Casualties						
Fatalities						100
Injuries						37



Massachusetts is 21st in the Nation for most trespassing fatalities.

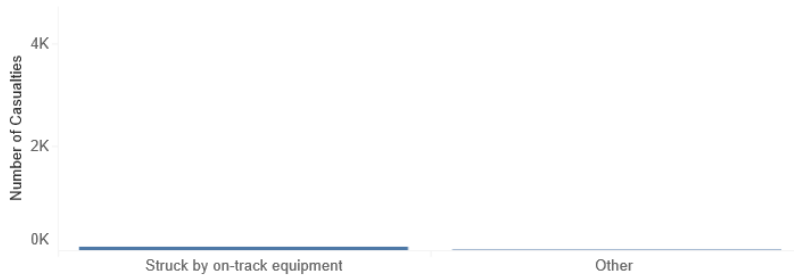
Trespassing Actions – State of Massachusetts



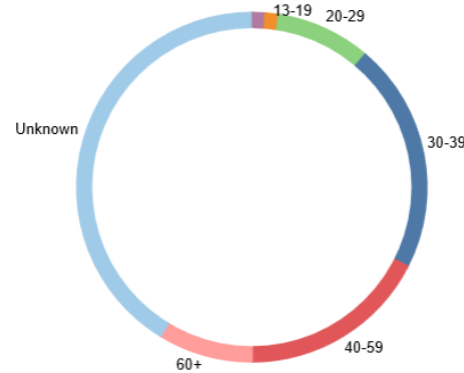
Trespass Details
 Years Selected: 2017, 2018, 2019 and 2 more
 Month Selected: All

Casualty: (All) Year: (Multi...) Month: (All) State: Massac... County: (All) Railroad: (All)

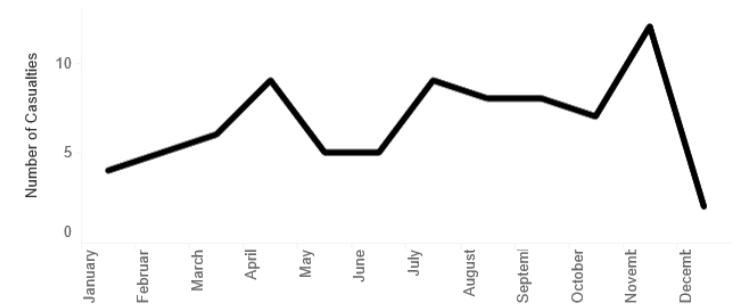
Event Causing Casualty



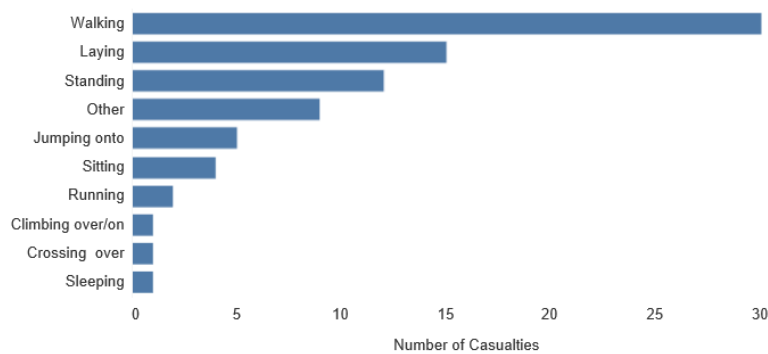
Trespassers by Age



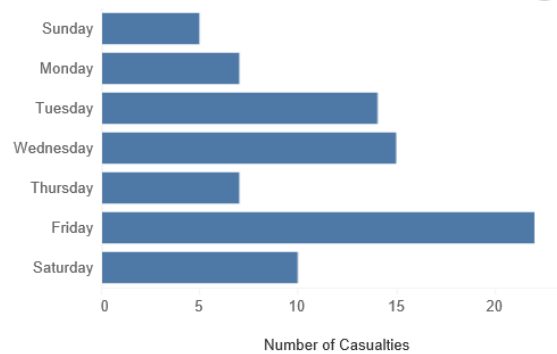
Trespassing by Month



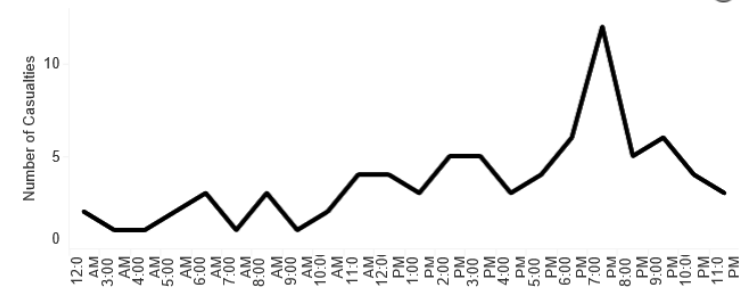
Physical Act Before Collision



Trespassing by Day of the Week



Trespassing by Time of Day



Trespassing Casualties – Middlesex County

Middlesex County Specific						
Trespassing Casualties						
	2017	2018	2019	2020	2021	Total
Fatalities	6	5	3	2	3	19
Injuries	1	1	1	3	2	8
Suicide Casualties						
Fatalities	3	3	4	2	0	12
Injuries	0	1	0	0	0	1
Total Casualties						
Fatalities						31
Injuries						9

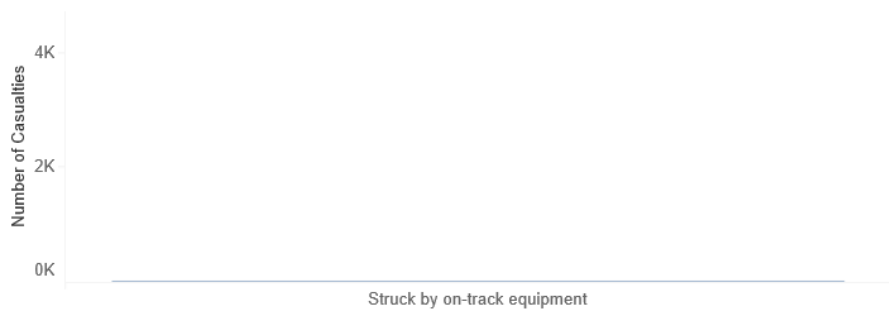


Middlesex County is 51st in the Nation for most trespassing fatalities.

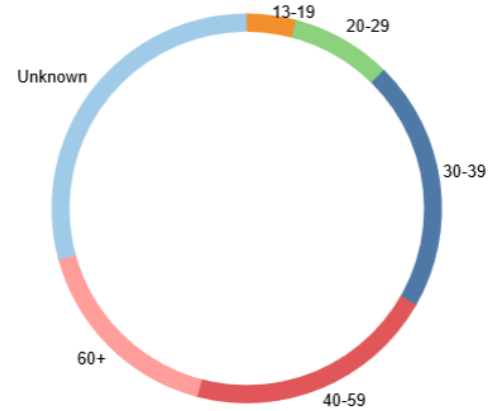
Trespassing Actions – Middlesex County

Trespass Details
Years Selected: 2017, 2018, 2019 and 2 more
Month Selected: All

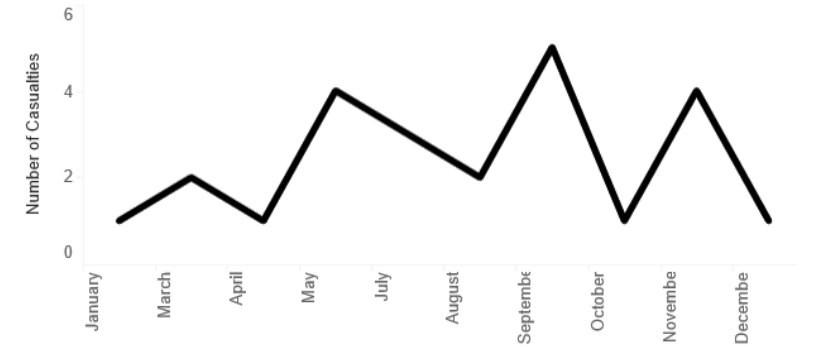
Event Causing Casualty



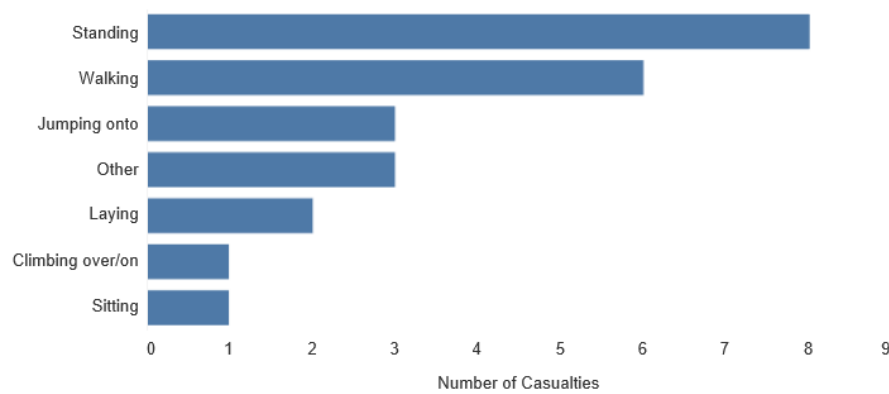
Trespassers by Age



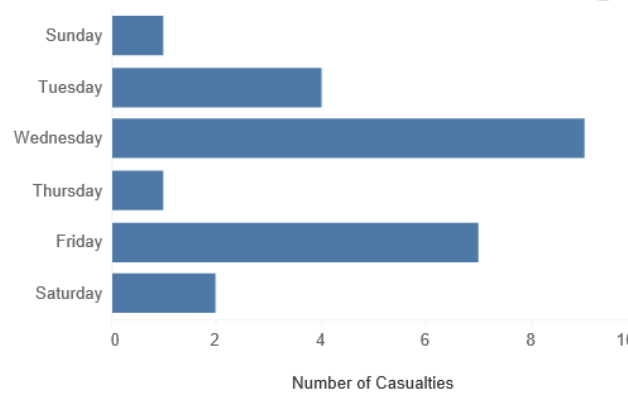
Trespassing by Month



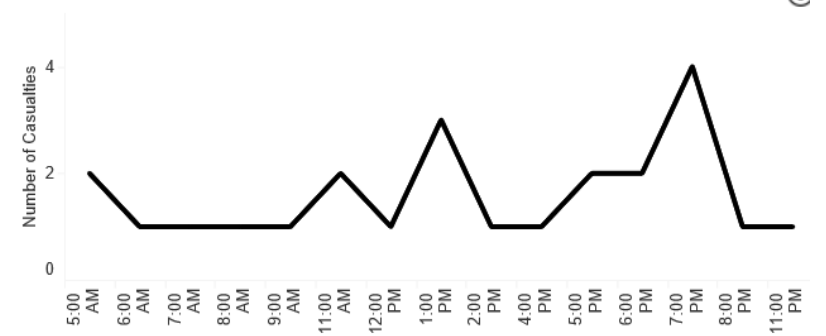
Physical Act Before Collision



Trespassing by Day of the Week



Trespassing by Time of Day



Trespassing Casualties – Essex County



Essex County Specific						
Trespassing Casualties						
	2017	2018	2019	2020	2021	Total
Fatalities	3	4	1	3	3	14
Injuries	0	1	3	0	0	4
Suicide Casualties						
Fatalities	2	3	2	1	0	8
Injuries	0	0	0	0	0	0
Total Casualties						
Fatalities						22
Injuries						4

Trespassing Actions – Essex County



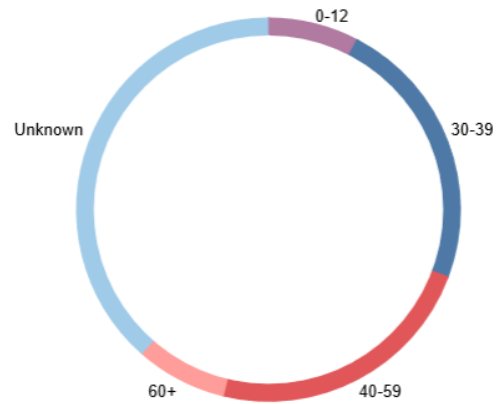
Trespass Details
 Years Selected: 2017, 2018, 2019 and 2 more
 Month Selected: All

Casualty: (All) | Year: (Multi...) | Month: (All) | State: Massac... | County: ESSEX | Railroad: (All)

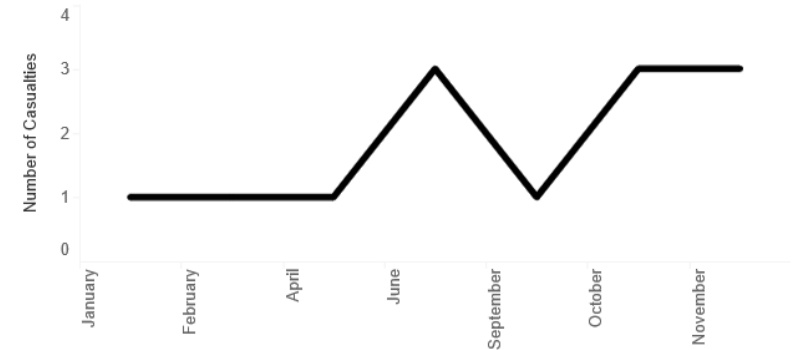
Event Causing Casualty



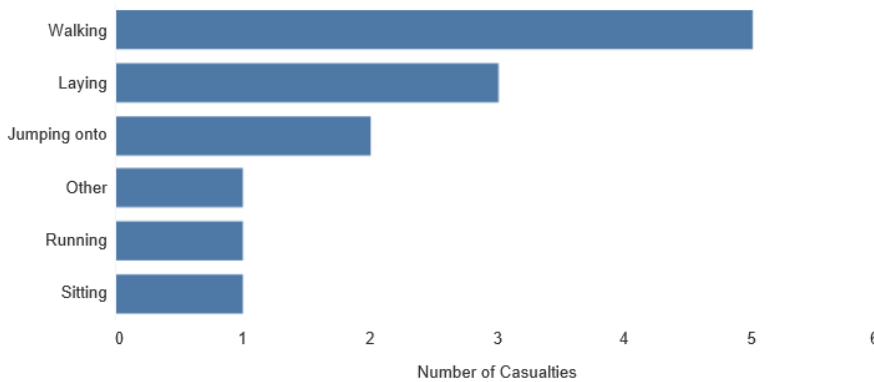
Trespassers by Age



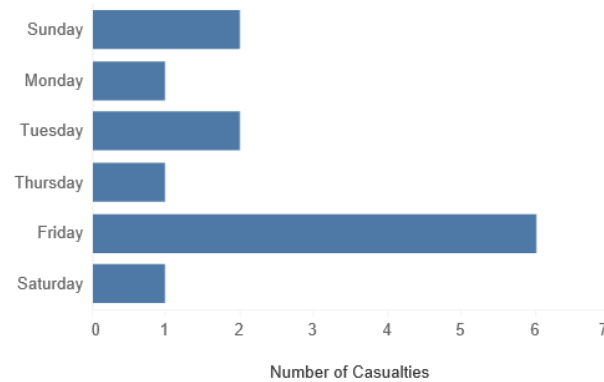
Trespassing by Month



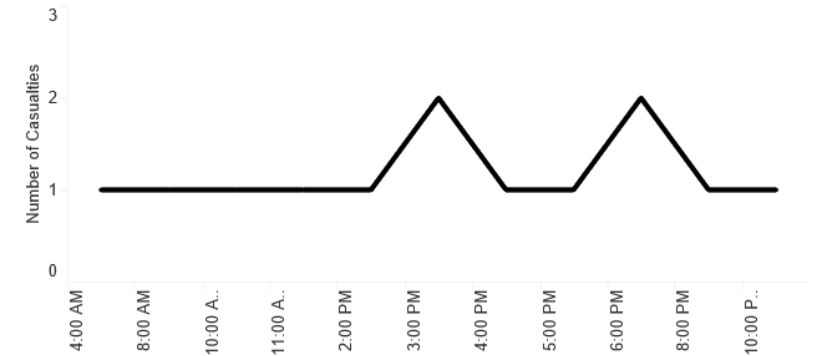
Physical Act Before Collision



Trespassing by Day of the Week

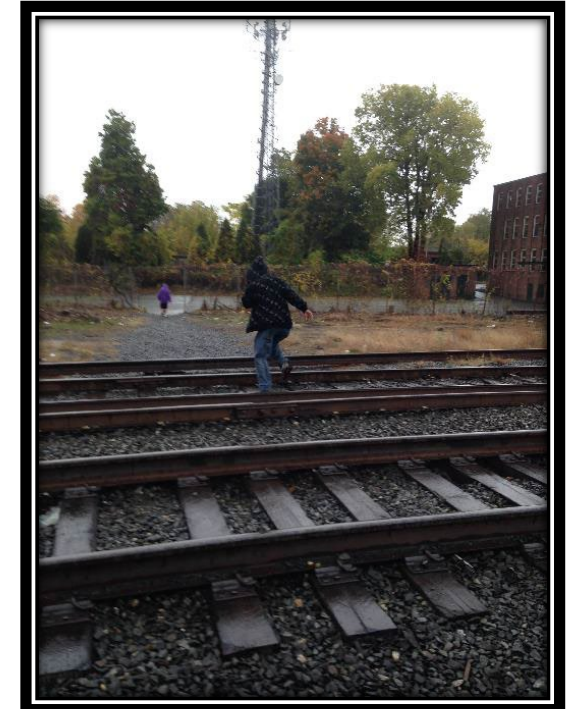


Trespassing by Time of Day



Trespassing Casualties – Suffolk County

Suffolk County Specific						
Trespassing Casualties						
	2017	2018	2019	2020	2021	Totals
Fatalities	1	3	0	1	3	7
Injuries	1	0	0	2	2	5
Suicide Casualties						
Fatalities	1	0	1	0	0	2
Injuries	0	0	0	0	0	0
Total Casualties						
Fatalities						9
Injuries						5



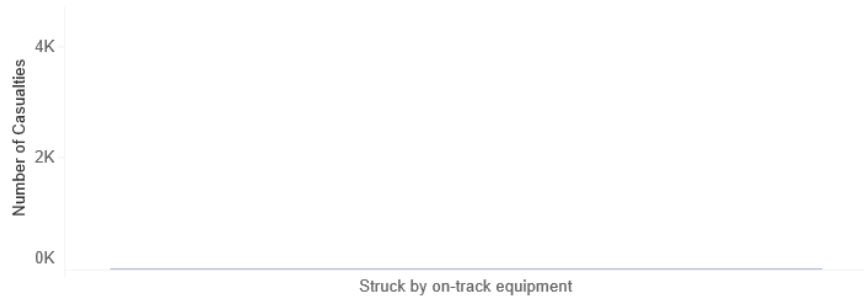
Trespassing Actions – Suffolk County



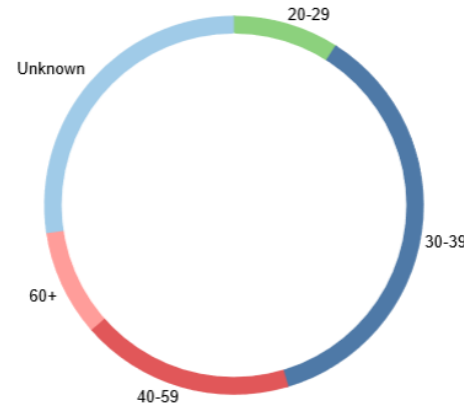
Trespass Details
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 Month Selected: All

Casualty: (All) | Year: (Multi...) | Month: (All) | State: Massac... | County: SUFFOLK | Railroad: MBTA

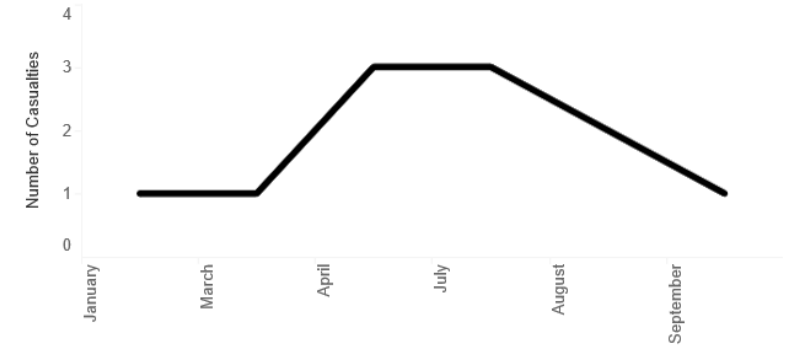
Event Causing Casualty



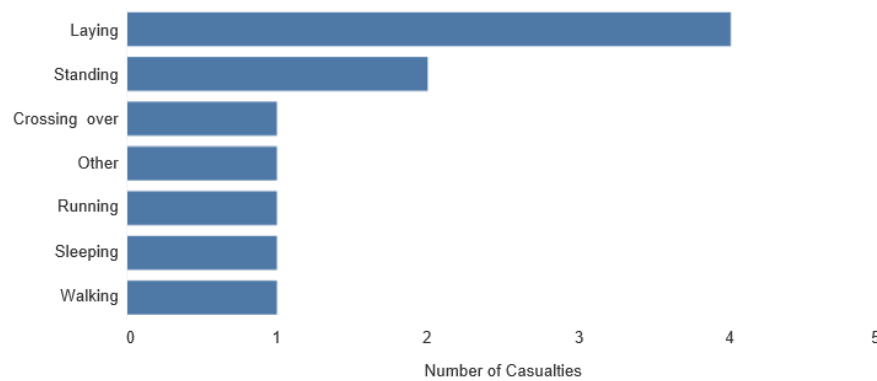
Trespassers by Age



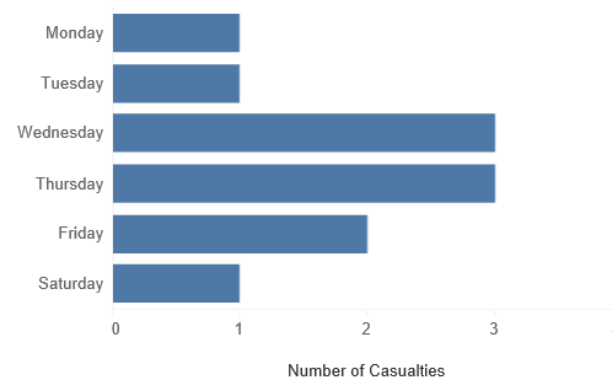
Trespassing by Month



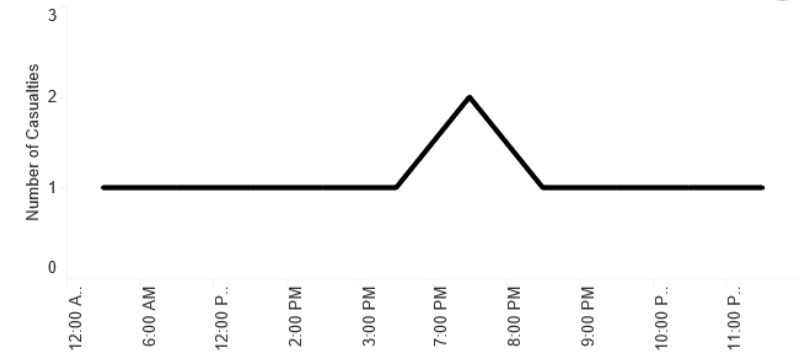
Physical Act Before Collision



Trespassing by Day of the Week



Trespassing by Time of Day



Safety Working Action Team (SWAT)

➤ Grade Crossing Collisions/Close Calls

- ✓ Crossing diagnostics where traffic light preemption may have been a contributing factor
- ✓ Passive/Active warning device review
- ✓ Railroad markings
- ✓ Emergency Notification System (ENS) inspections
- ✓ ENS Education Films w/FRA, MBTA/Keolis and CSX
- ✓ Grade Crossing and Pedestrian Incursion Recommendations



➤ Trespasser Strikes

- ✓ ~94 Post-Incident assessments to date
- ✓ Exercise the Community Trespassing Guide and CARE model
- ✓ Identify ROW trespass points of entry and make recommendations to mitigate unlawful access
- ✓ Team of Railroad Experts and Community Stakeholders
- ✓ CRARC – Commuter Rail Accident Reduction Committee



Rail Safety Campaign 2022

Rail Grade Crossing Safety Campaign

Always expect a train at a rail crossing

- Slow down, look both ways and listen
- Never stop on tracks
- Cross only where designated
- Trespassing on tracks is illegal



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U.S. Department of Transportation
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Rail Grade Crossing Safety Campaign

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KEOIS AMTRAK U.S. Department of Transportation
Federal Railroad Administration



Always expect a train at a rail crossing

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Federal Railroad Administration

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Safety Working Action Team (SWAT)

➤ Community Outreach

- Grade Crossing Campaign(s) 2019, 2021 & 2022
- ✓ Updated 2021 Campaign to include Emergency Notification System sign.
- ✓ 2022 Campaign will run for one month in May 2022
- ✓ 150 MassDOT Highway Billboards across the State of Massachusetts
- ✓ All MassDOT Registry of Motor Vehicles Flat Screen Televisions
- ✓ MBTA Commuter Rail Digital Displays at MBTA's North / South & Back Bay Stations



➤ On-Line Safety Rail Education

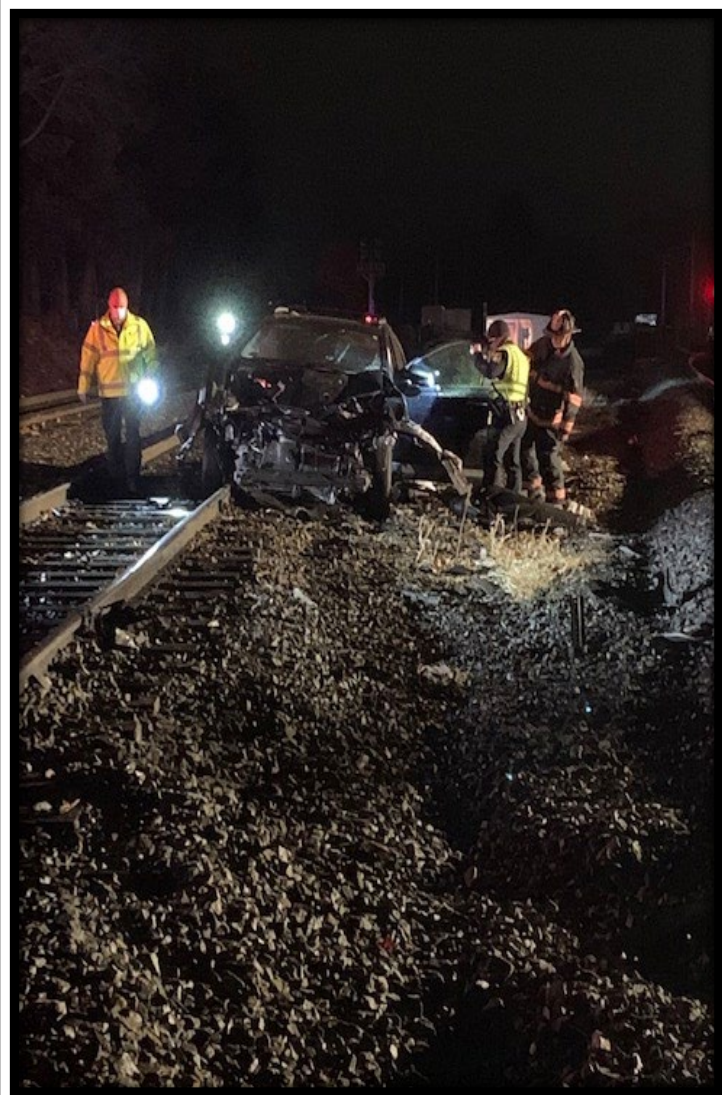
- ✓ Safety Working Action Team (SWAT) recommended to South Coast Rail Project funding KEA Technologies to develop K-12 educational Rail Safety Videos and a general public (close captioned) video to be deployed via YOU TUBE as early as December 2022
- ✓ Pro-active approach to educating all MA communities on the Dangers of the railroad is vital to preventing Rail Tragedies.

➤ Emergency Responder Training (ERT)

- ✓ To provide a basic overview of Keolis Operations, Personnel, and Commuter Rail Equipment.
- ✓ Overview of Hazards on or near the Right of Way.
- ✓ Meet Federal Railroad Administration (FRA) 49 CFR part 239 requirements.
- ✓ "Universal Precautions"



Emergency Responder Training (ERT)



Community Impact – Safety Working Action Team (SWAT)

Day to Day Passenger Impact

EMS Response

Responding Crews – Train Crew/On the Ground Responders/EMS Interaction

Impact

Interaction at After Actions with Actual Trespassers (children with parents)

Food for Thought Today: Do WE do enough?

NOW THAT I KNOW – I can join the New England Region Committee....

Contact Us

Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590



Connect with us at [USDOTFRA](#)

Norma Jean Griffiths
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Cynthia Delaney
MBTA
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**Massachusetts Bay
Transportation Authority**

Data Analysis of Area Trespassing Events

Frank Frey General Engineer Federal Railroad Administration

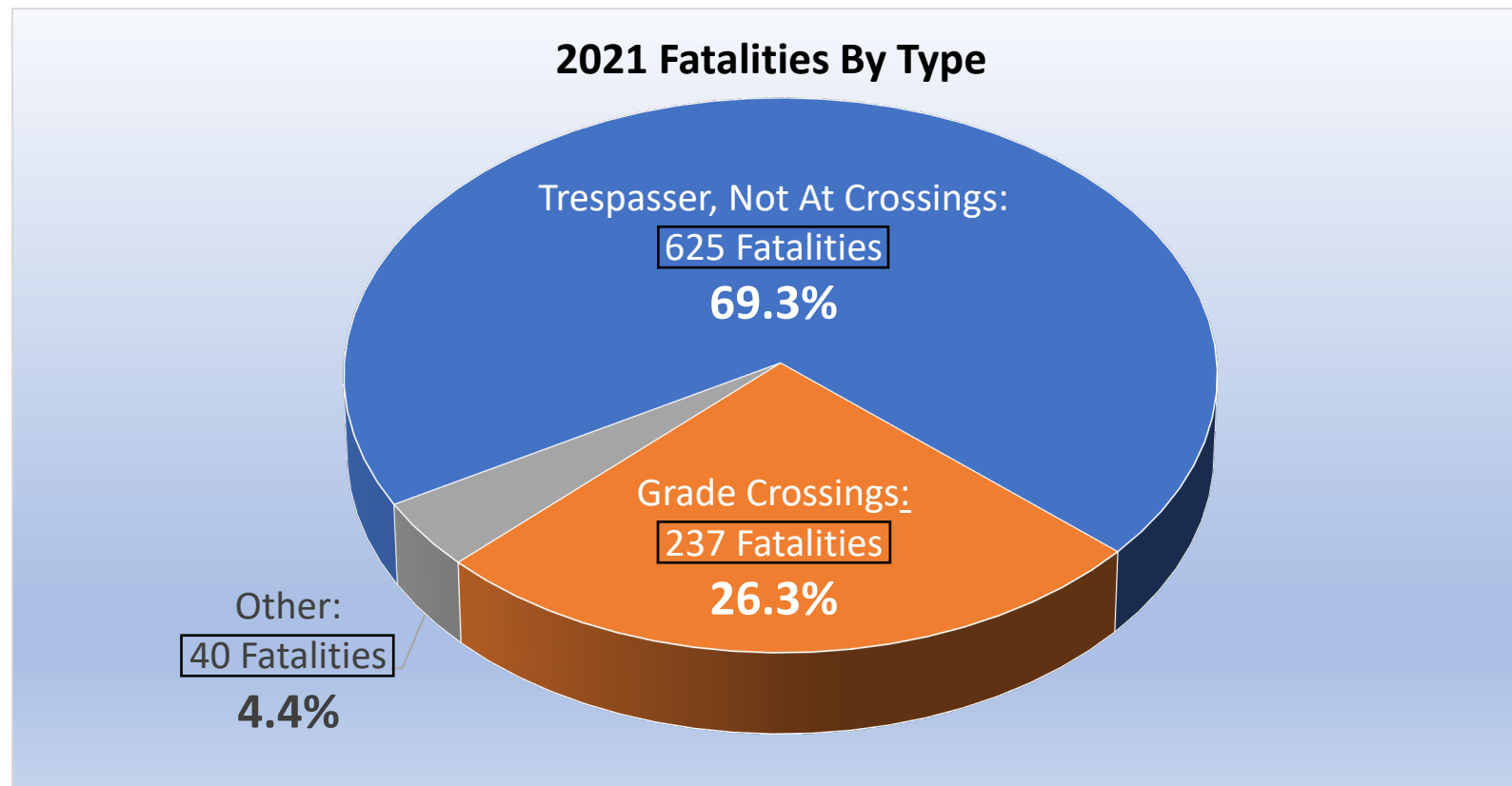
Frank is currently a General Engineer with Federal Railroad Administration out of Washington, D.C.. He's been with FRA for 11 years, tasked with providing engineering solutions to complex railroad grade crossing designs. His position requires periodic travel throughout the country, conducting diagnostic safety reviews of grade crossing locations with various railroads and municipalities involved. He is involved with new and innovative grade crossing signal technologies.

Prior to joining the FRA, Frank spent 13 years with the Massachusetts' Department of Public Utilities (DPU) as their Transit Engineer. His main role involved the implementation of state safety and regulatory oversight of all public railroad grade crossings within the Commonwealth.

Frank attended Wentworth Institute of Technology in Boston, MA where he received a B.S. in Mechanical Engineering Technology. Shortly thereafter, he attended the University of Massachusetts where he earned a M.S. in Public Affairs.

FRA has set a goal of a 5% annual reduction in accidents and a 5% annual reduction in fatalities across the nationwide rail network

- Crossing and Trespassing represent 95.6% of all fatalities across the rail network in 2021



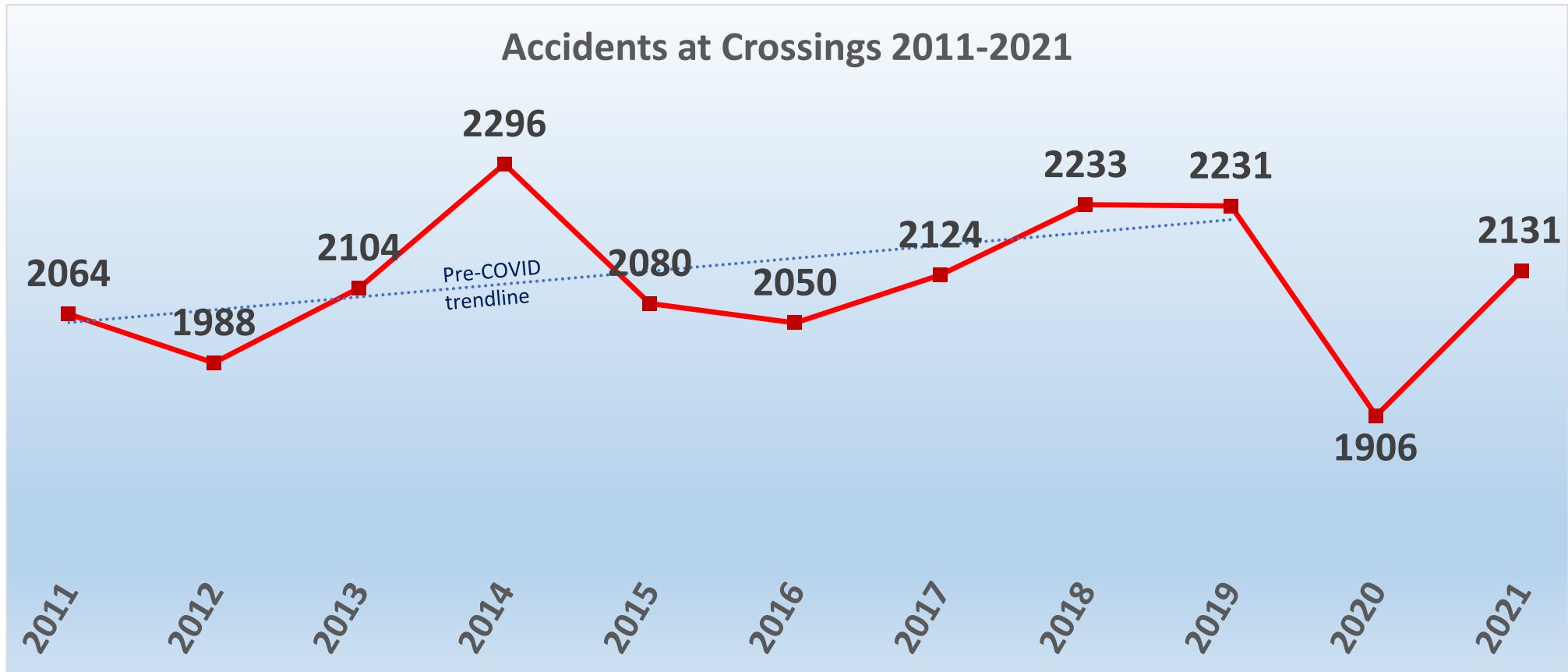
Crossing Accidents and Fatalities by Year

Fatalities at crossings have been gradually increasing over the previous 10 years (when not considering the impacts of COVID on fatalities)



Crossing Accidents and Fatalities by Year

Accidents at crossings have also been gradually increasing over the previous 10 years (when not considering the impacts of COVID on accidents)



Purpose and Objective

Purpose: To help meet FRA's annual goal

- 5% reduction in fatalities at crossings
- 5% reduction in accidents at crossings

Objective:

- To alert and familiarize State DOTs about the high-risk crossing locations that are identified within their state.
- To provide engineering recommendations and solutions to mitigate crossing hazards at those crossings
- To provide education on funding opportunities available

Analyzing Data

Two lists were generated to identify approximately 100 crossings:

- Crossings with the 5 of more accidents over a 5-year period
- Crossings with 2 or more fatal accidents over a 5-year period
 - Note that injuries were not analyzed because the FRA goals focus on reducing accidents and fatalities only

Working one state at a time, we meet with the State DOT to inquire about these crossings in their state. We discuss which crossings may already have a programmed a project (or recently completed construction) to improve safety.

Diagnostic Site Visit

We travel to the crossings site(s) in that state and conduct a diagnostic site visit with all relevant stakeholders:

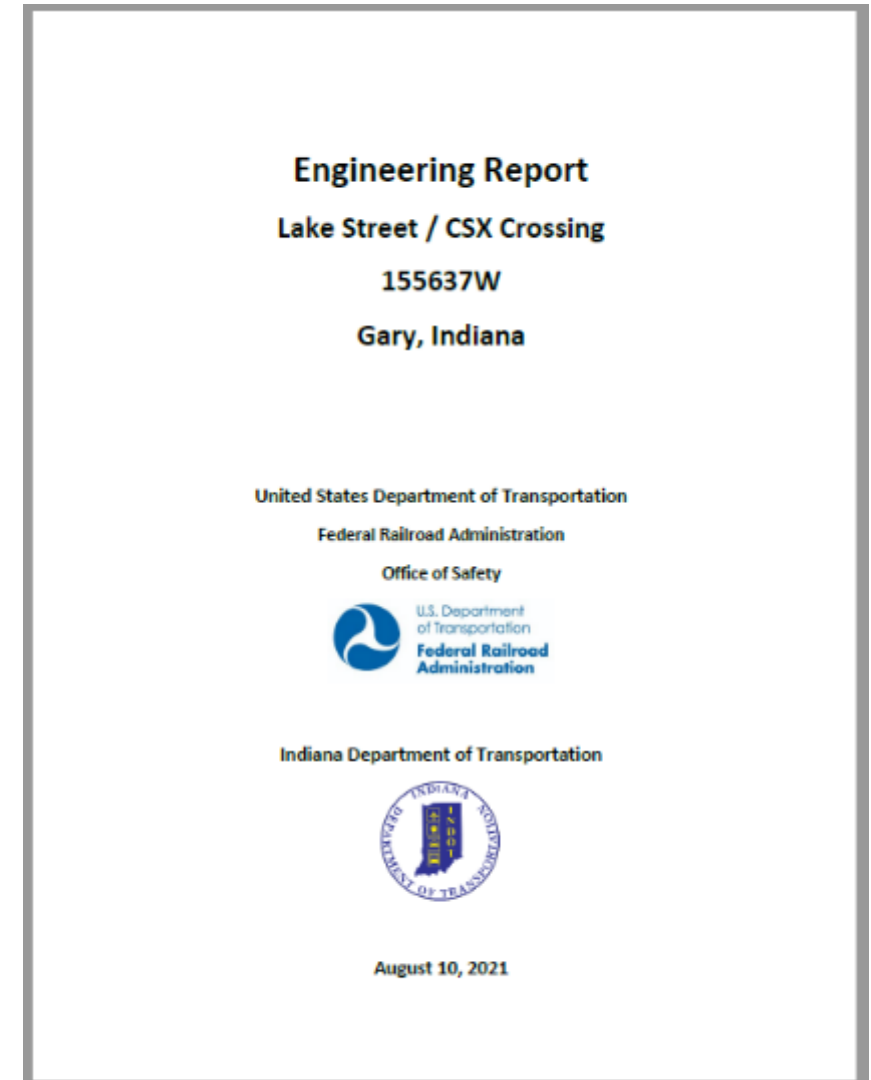
- FRA
 - HQ Staff
 - Local S&TC Specialist or Inspector
 - GX&TP Specialist or Inspector
- FHWA
- State DOT
- Public Utility Commission
- Local agencies such as city or county staff
- Railroads
- Police and Law Enforcement
- EMS / First responders
- Any other stakeholders with interest



Diagnostic Site Visit

Depending on the state, some prefer that they take the lead managing and conducting the diagnostic while others prefer FRA to be the lead and manage the diagnostic:

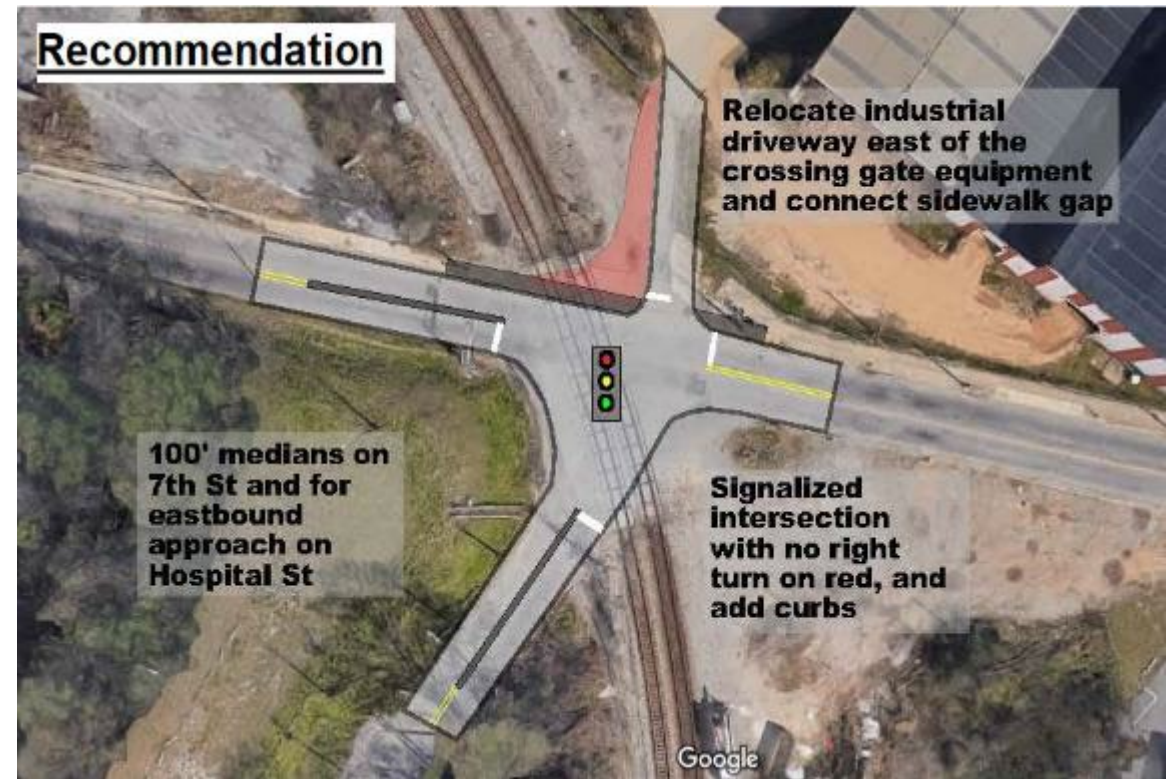
- If FRA is the lead manager of the diagnostic site visit, FRA will draft the report to document the findings on the site (such as site conditions, roadway user behavior, etc) and the potential solutions to mitigate the risks.
- If the state is taking the lead, then FRA will review the draft of the report that they generate and provide feedback.



Diagnostic Site Visit

The report describes the accident history, crossing characteristics, site conditions found in the field, roadway user actions observed, and recommended improvements as determined by the diagnostic team.

- Recommended improvements may be broken down in to short, medium, and longer-term depending on the circumstances
- Photos and diagrams of the existing conditions and potential locations for improvements are included in the reports



Project programming and funding

We have no direct funding to construct improvements, and the roadway owners have the final determination on whether to implement projects

- We direct states, municipalities, and railroads towards funding opportunities (i.e. CRISI, CARSI, RAISE)
- We also encourage states to consider Section 130 funding where appropriate and assist states in working with our FHWA partners on prioritization and programming issues that may arise



Without funding, improvements to a crossing are just pictures and recommendations

Pictures from Site Visits

Car debris

**CSX and Amtrak
Crossing, Hospital
Street in Richmond VA**



Trespasser fatalities

Route 139 – Holbrook, MA MBTA

Fencing will be installed at each quadrant to channelize all pedestrians to deter trespassing along the R.O.W. or take short cuts to the station.



Trespasser fatalities

Station Crossing – Brockton, MA MBTA

- Lower the flasher lights
- Zig Zag Fencing



Trespasser fatalities

Lincoln Street – Stockton, CA BNSF and Amtrak



Trespasser fatalities

Lincoln Street – Stockton, CA BNSF and Amtrak











Challenges

What we have done so far:

- Have worked with nine states: MD, VA, OH, PA, IL, IN, CA (northern), AZ, MA
- Upcoming work to include high risk locations in other states: GA, AL, LA, NM, CO, FL, CA (southern), UT, TX, WA
- Visited close to 40 crossing sites
- Leveraging the S&TC + GX Specialists can expand our “reach” to get to more states and crossings

(Future) Data analysis and evaluation after construction

Evaluation of In future years an evaluation of the effectiveness may be conducted:

- An equal period of time is typically analyzed before an after construction
 - (such as a 5-year accident history before construction compared to a 5-year accident history after construction)
- Further analysis in future years may assist other agencies in determining the most cost-effective types of improvements



Contact Us

Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590



Connect with us at [USDOTFRA](#)



U.S. Department of Transportation
Federal Railroad Administration

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General Engineer
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frank.frey@dot.gov

RAIL

MOVING AMERICA FORWARD



Questions for our Panelist

RAIL

MOVING AMERICA FORWARD



Break

RAIL

MOVING AMERICA FORWARD



Local Railroad Trespassing Mitigation Strategies

Local Railroad Trespassing Mitigation Strategies



- Railroad Trespassing Enforcement Grant Program: The grantees will perform rail trespassing enforcement-related activities and report those activities and associated benefits to FRA.
- The Community Trespass Prevention Program is a local, state and national partnership aimed at reducing trespassing and crossing incidents and related injuries and deaths.

Railroad Trespassing Enforcement Grants

The objective of the program is to deter railroad trespass in the most prone areas through law enforcement activities.

- Fitchburg MA. Subject passed out in between railroad tracks, officers came upon subject, administered Narcan and removed subject from tracks and taken to hospital.
- Greensboro, NC.: 1st qtr. of FY21, Greensboro reported officers discovered a subject attempted to commit suicide by train. Subject was taken to a medical hospital.
- Hollywood, FL: 1/29/2021, officers located an intoxicated male passed out on the tracks, they were able to pull him off the tracks prior to any train strike.

2020 Law Enforcement Grant Totals				
Total Contacts	Total Summons/Arrest	Total Warnings	Trespass Warnings	Other Warning
649	214	435	379	56
106	0	106	98	10
114	34	80	57	10
0	0	0	0	21
713	1	148	148	8
876	397	758	776	245
15	0	15	5	10
14	6	12	9	3
29	0	29	15	14
184	69	115	88	27
474	398	76	0	76
3174	1119	1774	1575	480

In 2021 FRA announced \$2.3 million in available funding under the 2021 CRSIS Grant Program.

RAIL

MOVING AMERICA FORWARD



Norma Griffiths - FRA

Local Railroad Trespassing Mitigation Strategies



Ryan Coholan
Chief Railroad Officer
MBTA

Ryan Coholan is a 27-year railroad veteran, who started into the industry as most of us do, out of curiosity. Ryan began working in a locomotive shop as a laborer and progressed through the ranks and also across disciplines. Ryan has held many positions in the railroad industry, such as Trainmaster, Rules Examiner, Train Dispatcher, Track Inspector and General Manager. Ryan joined the MBTA in 2014 as a Railroad Operations Manager and has been the Chief Railroad Officer since 2016. In this role, Ryan is responsible for the safe and efficient daily operation of the MBTA/MassDOT Commuter Rail system, as well as administration of the Operating Agreement with Keolis Commuter Services, and the administration of the Operating Agreements with Amtrak, CSX Transportation, and other tenant railroads. Ryan also actively maintains his certifications, including his locomotive engineer's qualifications.



An Overview of Commuter Rail Trespassing Mitigation Strategies

Presented by
Ryan D. Coholan

Chief Railroad Officer
Massachusetts Bay Transportation Authority

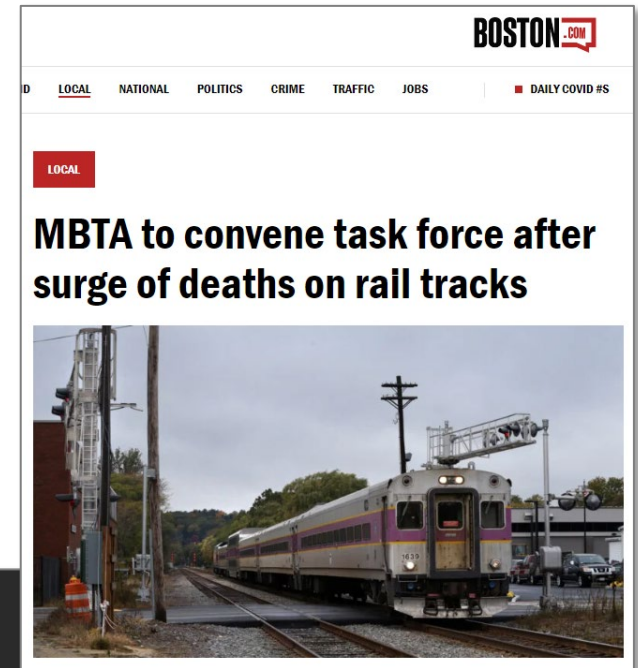
Federal Railroad Administration
Railroad Trespass Summit
April 27, 2022

Situational analysis

BACKGROUND

- Unusual surge in person-train collisions on commuter rail in 2017
- MBTA called for task force to study the issue
- Commuter Rail Collision Reduction Committee (CRCRC) formed

Commuter Rail
Person-Train
Collisions
2013-2017



MASS LIVE

News

MBTA to study spike in track deaths

Updated: Oct. 14, 2017, 2:11 a.m. | Published: Oct. 14, 2017, 1:11 a.m.

Guidance

The Commuter Rail Collision Reduction Committee (CRCRC)

Comprised of representatives from public safety, public health, mental health, and transportation, worked together to: study the issue of person-train collisions locally, nationally, and globally; and recommend mitigation efforts intended to reduce incidents on the commuter rail system.

Early indications pointed to an increase in intentional incidents locally and nationally as a possible reason for the increase on commuter rail.

With this in mind, the CRCRC focused on mitigation strategies to:

1. aid those in need;
2. support employees; and
3. reduce trespassing on and around the tracks.



CRCRC Key Recommendations (by audience)

1. **For the media**
 - Responsible reporting guidelines to reduce copycat incidents
2. **For passengers and those in need**
 - Campaigns to generate awareness about mental health to help those in need
 - Signage at stations and along the right-of way to remind the public that trespassing is illegal, and to help those in need of support
 - Rail safety education, events, and ongoing safety messaging
 - Continued location specific mitigation efforts to reduce the possibility of future collisions
3. **For employees**
 - Suicide intervention training to help frontline staff spot a potential danger
 - Scripts for train crews to use with passengers during a person-train collision incident

Mitigation

In partnership
with the media

Recommendation #1

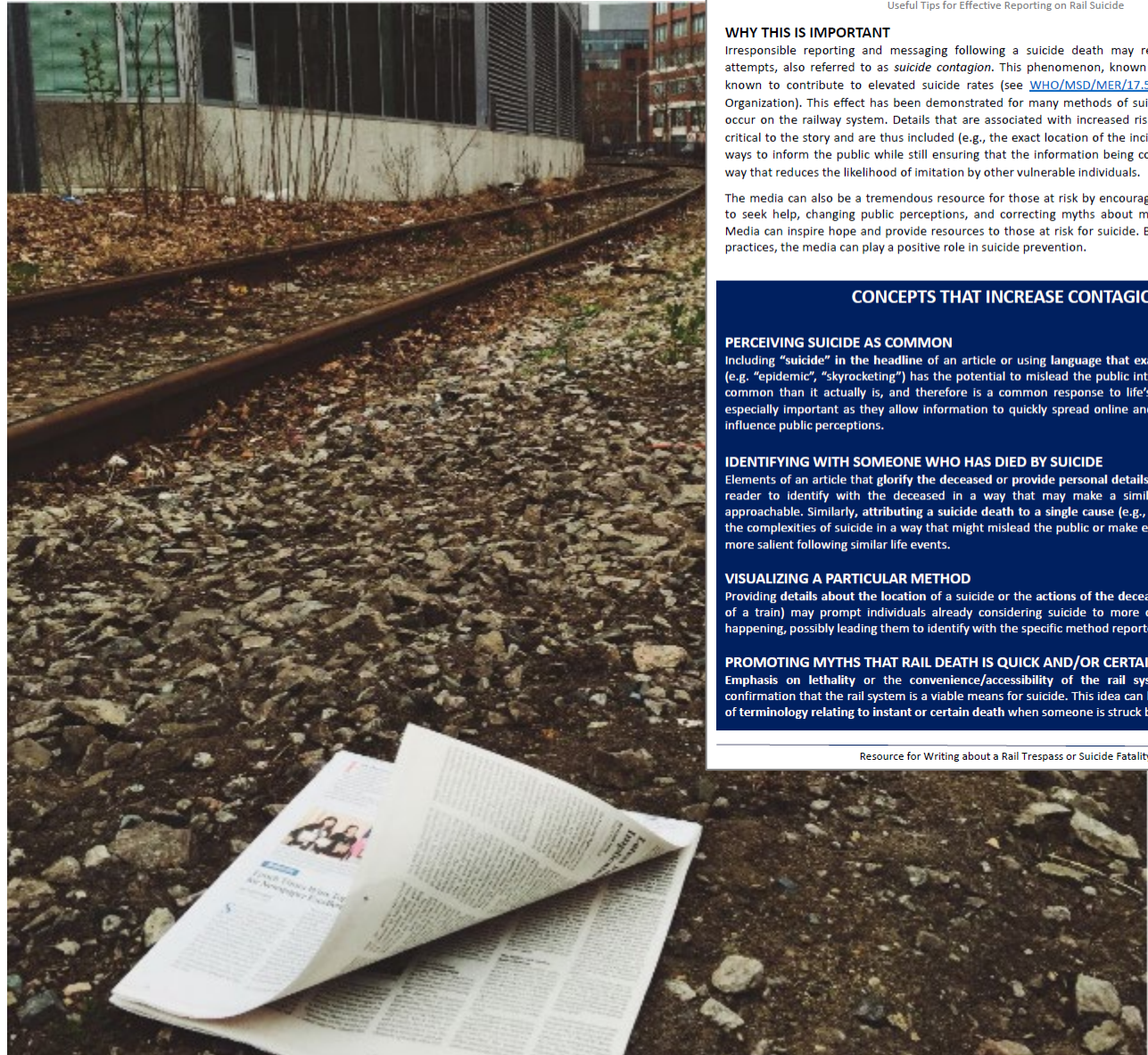
Provide local media with reporting guidelines, developed by the U.S. Department of Transportation, for safe and effective messaging on rail incidents.

Responsible reporting:

- Reduced copycat events
- Encouraged vulnerable individuals to seek help
- Changed public perceptions about mental health
- Inspired hope

Timing

Ongoing from 2017



SAFE AND EFFECTIVE MESSAGING ON RAIL INCIDENTS

Useful Tips for Effective Reporting on Rail Suicide

WHY THIS IS IMPORTANT

Irresponsible reporting and messaging following a suicide death may result in 'copycat' suicide attempts, also referred to as *suicide contagion*. This phenomenon, known as the Werther Effect, is known to contribute to elevated suicide rates (see [WHO/MSD/MER/17.5](https://www.who.int/news-room/fact-sheets/detail/suicide) from the World Health Organization). This effect has been demonstrated for many methods of suicide, including those that occur on the railway system. Details that are associated with increased risk of contagion may seem critical to the story and are thus included (e.g., the exact location of the incident). However, there are ways to inform the public while still ensuring that the information being communicated is done in a way that reduces the likelihood of imitation by other vulnerable individuals.

The media can also be a tremendous resource for those at risk by encouraging vulnerable individuals to seek help, changing public perceptions, and correcting myths about mental health and suicide. Media can inspire hope and provide resources to those at risk for suicide. By being informed on best practices, the media can play a positive role in suicide prevention.

CONCEPTS THAT INCREASE CONTAGION

PERCEIVING SUICIDE AS COMMON

Including "suicide" in the headline of an article or using language that exaggerates rates of suicide (e.g. "epidemic", "skyrocketing") has the potential to mislead the public into thinking suicide is more common than it actually is, and therefore is a common response to life's struggles. Headlines are especially important as they allow information to quickly spread online and through social media to influence public perceptions.

IDENTIFYING WITH SOMEONE WHO HAS DIED BY SUICIDE

Elements of an article that glorify the deceased or provide personal details may prompt a vulnerable reader to identify with the deceased in a way that may make a similar path to suicide more approachable. Similarly, attributing a suicide death to a single cause (e.g., loss of job) oversimplifies the complexities of suicide in a way that might mislead the public or make existing thoughts of suicide more salient following similar life events.

VISUALIZING A PARTICULAR METHOD

Providing details about the location of a suicide or the actions of the deceased (e.g., jumped in front of a train) may prompt individuals already considering suicide to more clearly imagine the event happening, possibly leading them to identify with the specific method reported.

PROMOTING MYTHS THAT RAIL DEATH IS QUICK AND/OR CERTAIN

Emphasis on lethality or the convenience/accessibility of the rail system may be read as a confirmation that the rail system is a viable means for suicide. This idea can be reinforced with the use of terminology relating to instant or certain death when someone is struck by a train.

Resource for Writing about a Rail Trespass or Suicide Fatality

Mitigation

To support those in need

Recommendation #2

Work in partnership with local crisis and prevention organizations such as the Massachusetts Department of Public Health, and Samaritans, Inc. to provide those in need with information for support; and to improve perceptions about mental health.

Timing

Ongoing - The MBTA has been in partnership with Samaritans, Inc. for over 15 years.



Clockwise:

- Awareness campaign for suicide prevention
- 5K Walk/Run to increase awareness
- Lighting of Government Center Station to support suicide prevention awareness week



Mitigation

To support
those in need

Recommendation #2

In the spring and summer of 2018, over 1,200 Samaritans and No Trespassing signs were installed across the MBTA system to:

- remind the public that trespassing is dangerous and illegal;
- and to provide a resource for those in need of support.

Timing

Initial install was completed in 2018. Samaritans signage will be updated this summer with the new 588 national suicide prevention number.



If you or someone
you know needs
someone to listen,
Samaritans is there.
Call or text 24/7
1-877-870-HOPE (4673)



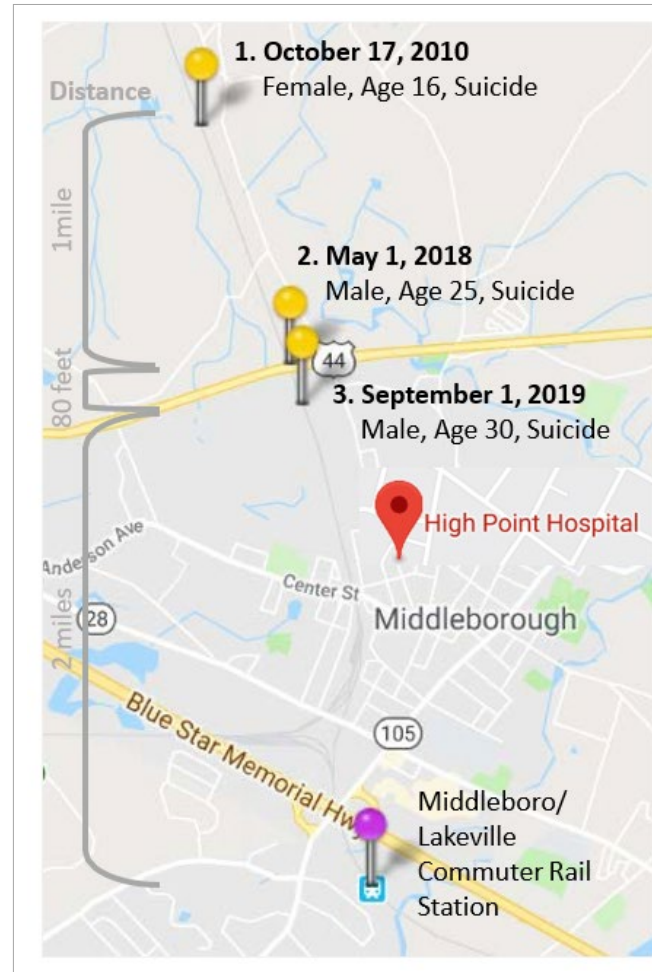
Mitigation

To support
those in need

Recommendation #2

Location specific mitigation

Middleborough – Restrict access in
the Route 44 area



Person-train collisions and illegal ATV path

Three intentional person-train incidents took place in the Route 44 overpass area between 2010 and 2019. There was also a worn, illegal ATV path parallel to the tracks.

Mitigation efforts:

- To reduce access to the ROW, KCS replaced sections of the fence, and repaired a gate, which was damaged by a previous storm, in the area entrance.
- Concrete blocks were set along sections of ROW to block ATV access.
- No Trespassing and HOPE signage was installed in appropriate locations.
- Local police will keep an eye on the area.

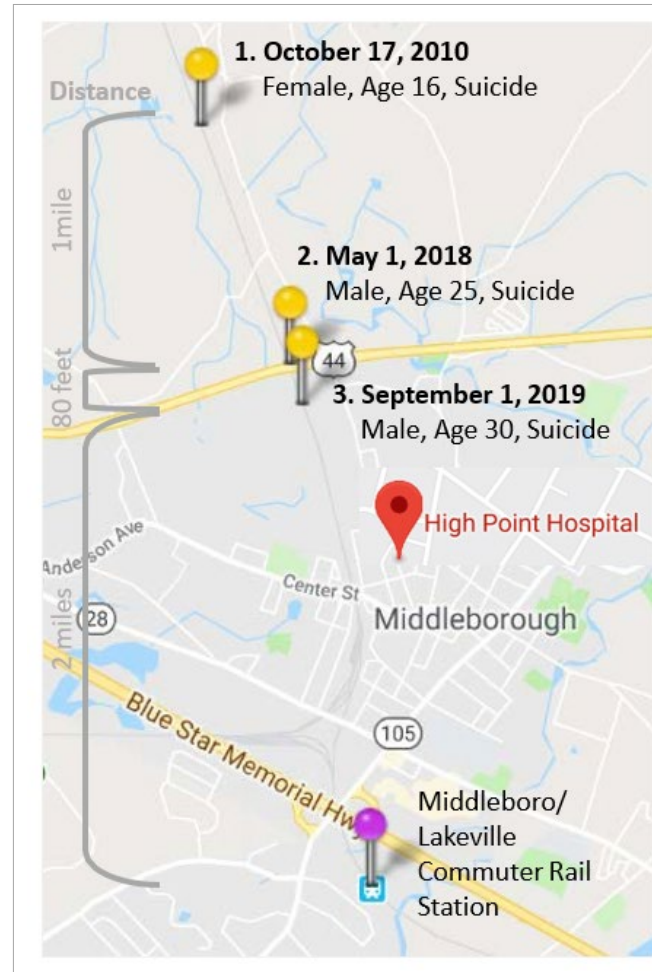
Mitigation

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Mitigation

To support
those in need

Recommendation #2

Location specific mitigation

Waltham – Under the Main Street overpass

Person-Train Collisions (Repeat location)

September 12, 2018, suicide

November 13, 2018, suicide attempt

Location

Under the Route 20/Main Street overpass

Repeat location

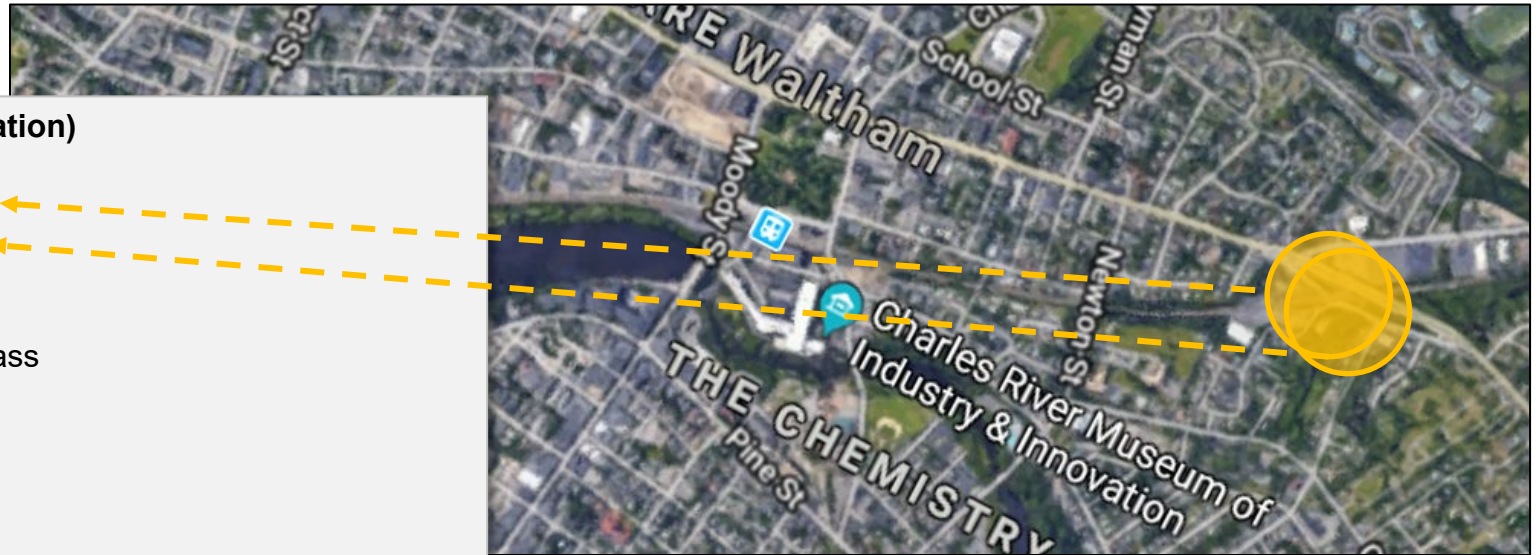
Yes

Access to the ROW

The area is currently fenced off. Both people climbed over fence to gain access to tracks.

Mitigation

- Fencing before and after overpass replaced with higher fence.
- No Trespassing signage and HOPE signage installed.
- Local police will keep an eye on the area.



Mitigation

To support
those in need

Recommendation #2

Location specific mitigation

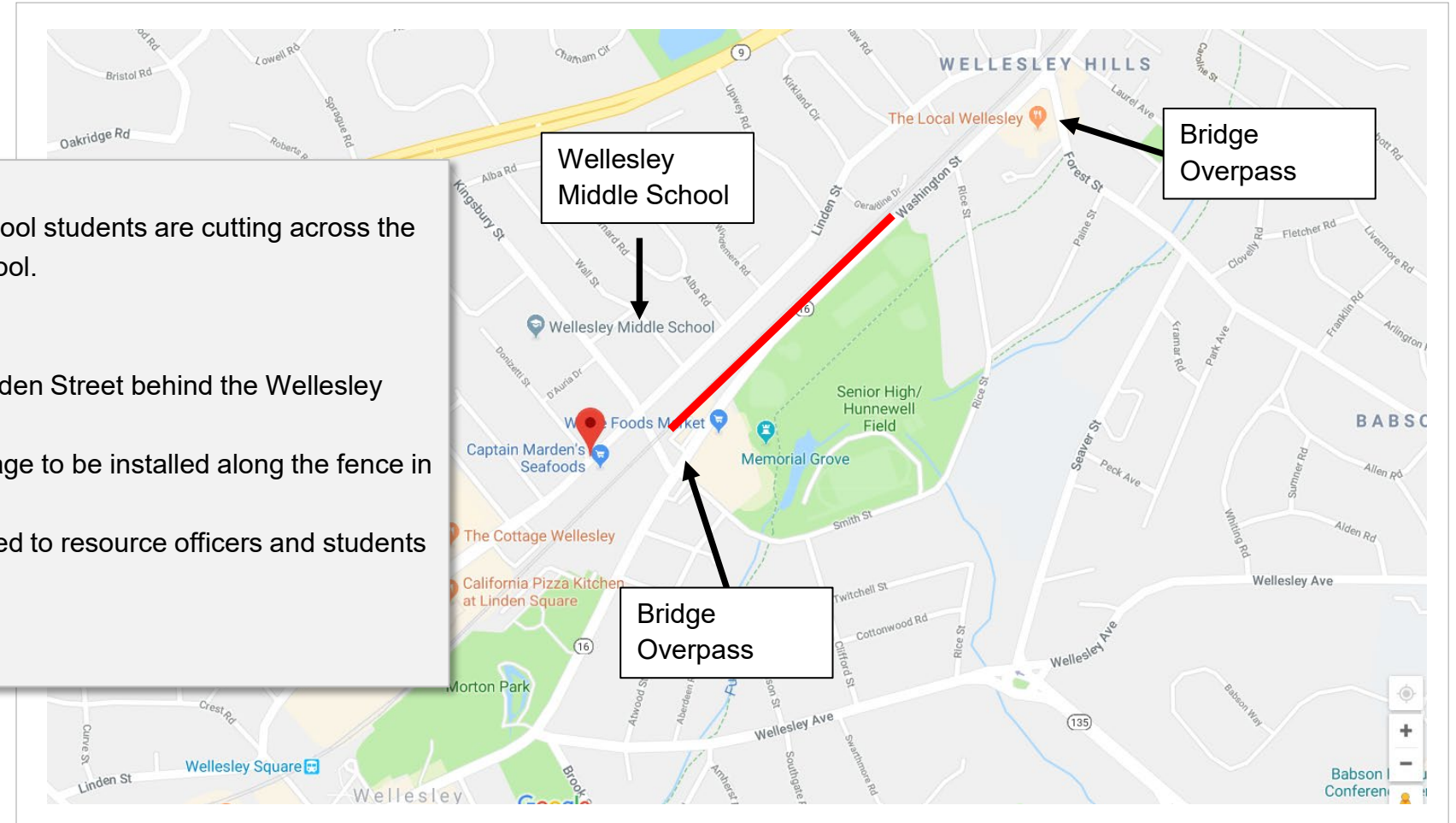
Wellesley – Cut-through on Linden Street

Safety Concern

Area residents report that middle school students are cutting across the tracks as they travel to and from school.

Mitigation efforts:

- 700' of fencing installed along Linden Street behind the Wellesley Middle School
- 'No Trespassing' and 'Hope' signage to be installed along the fence in April.
- Operation Lifesaver training offered to resource officers and students of Wellesley Middle School.
- Local police will watch the area.

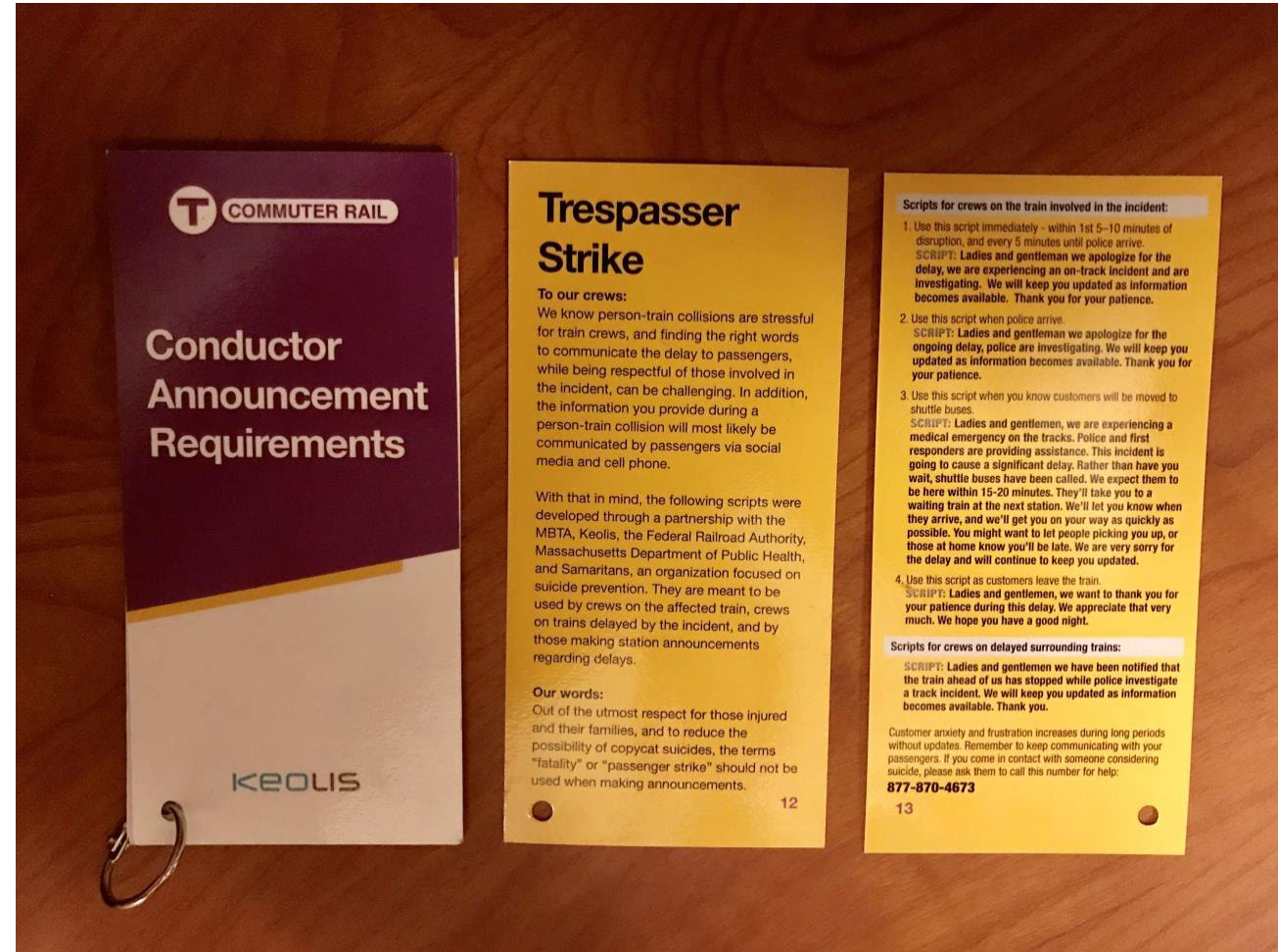


Mitigation

To support employees

Recommendation #3

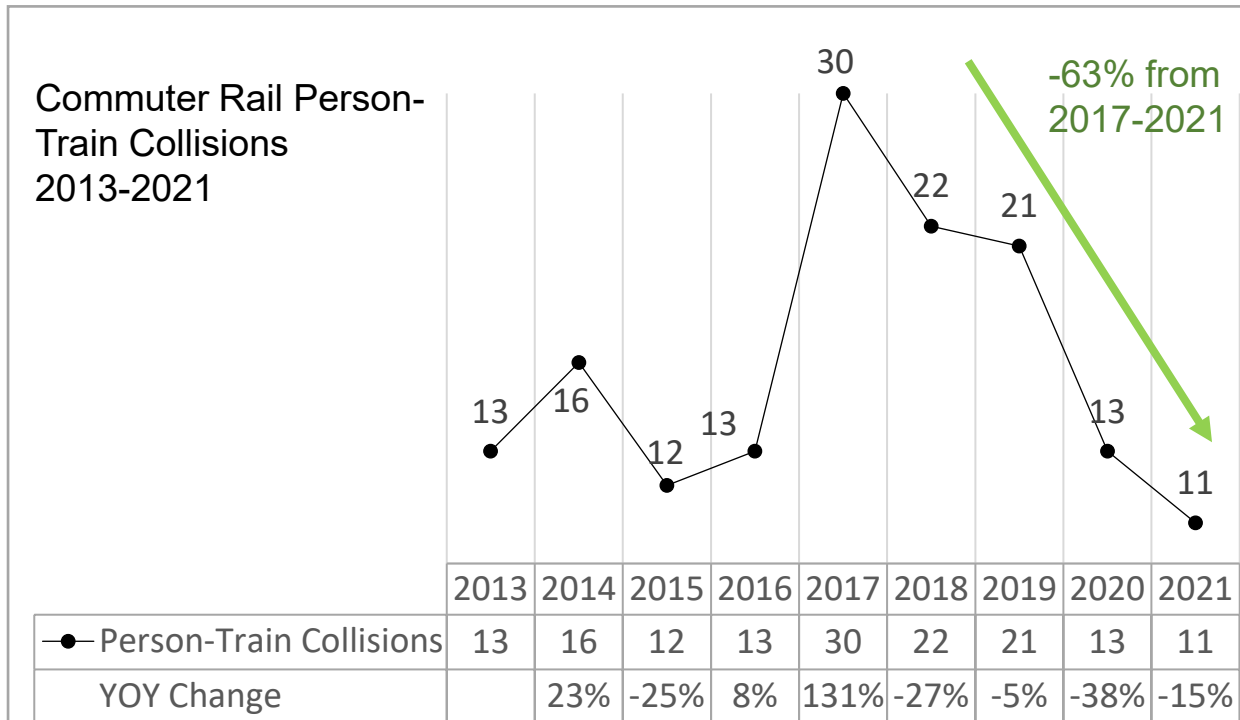
- Training for front line employees
- Scripts for train crews in the event of an incident



Update

While we may never fully understand why intentional incidents increased and then declined in the last few years, we do know that helping those in need of support, educating the public about rail safety, and finding ways to reduce collisions, are efforts that will continue into the future.

<https://www.bostonherald.com/2021/04/04/suicide-deaths-reportedly-dropped-in-2020-but-full-picture-is-not-clear-amid-coronavirus-pandemic/>
<https://www.wbur.org/news/2021/01/21/study-no-increase-suicide-pandemic-massachusetts>
<https://www.prnewswire.com/news-releases/suicide-rate-decreases-by-3-percent-for-second-consecutive-year-according-to-most-recent-cdc-data-year-2020-301493105.html>



NEWS · HEALTH

Suicide deaths dropped in 2020, according to data; full picture unclear amid coronavirus pandemic

There were 2,677 fewer suicide deaths last year, according to preliminary data

Suicide Rate Decreases by 3 Percent for Second Consecutive Year According to Most Recent CDC Data (Year 2020)



Thank you

An Overview of Commuter Rail Trespassing Mitigation Strategies

Presented by
Ryan D. Coholan, Chief Railroad Officer
Massachusetts Bay Transportation Authority

Federal Railroad Administration
Railroad Trespass Summit
April 27, 2022

Local Railroad Trespassing Mitigation Strategies

Detective Robert Hanson worked for the Amtrak Police Department as a patrol officer since 2010 and was promoted to the rank of Detective in 2015. In his time with Amtrak Police, Detective Hanson has been the lead investigator on over 120 fatal train accidents along with hundreds of other investigations across the New England Division. He is responsible for leading all of the Amtrak Police criminal investigations across CT, MA, VT and New Hampshire. Detective Hanson is heavily involved in Amtrak's safety and security mission including customers, employees and community safety. Developing collaborative partnerships with State, local and community stakeholders is the foundation for success and resiliency across the transportation system.

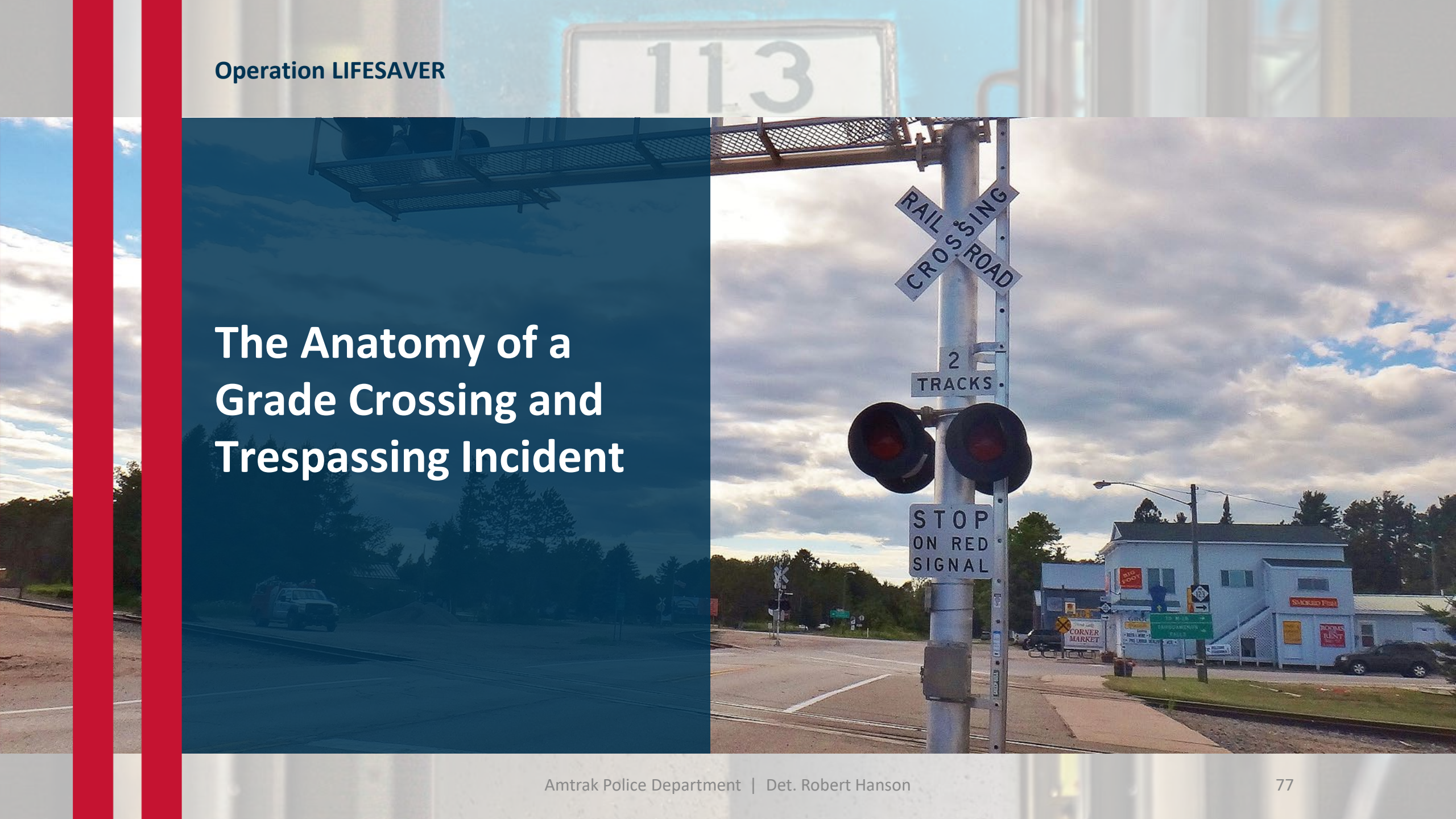
Robert Hanson
Detective
Amtrak Police Department

Federal Railroad Administration Grade Crossing/ Trespassing Summit



April 27, 2022
Detective Robert Hanson
Amtrak Police

The Anatomy of a Grade Crossing and Trespassing Incident



Operation LIFESAVER

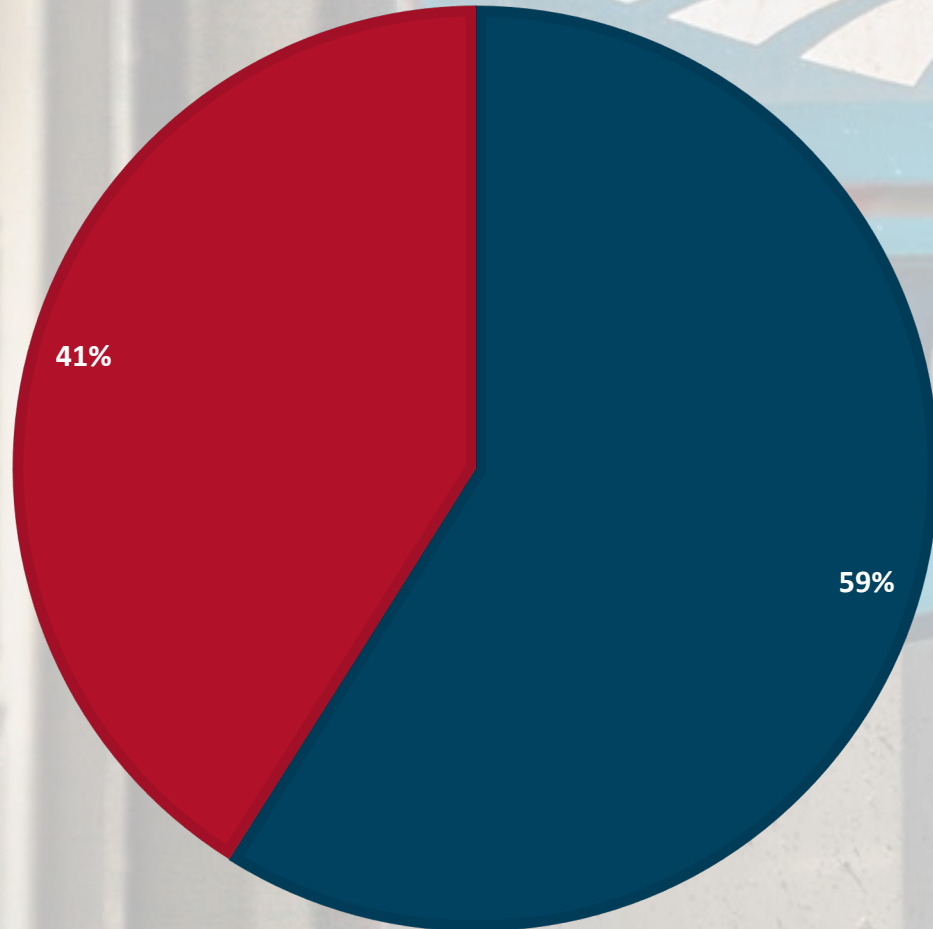
Motorist Action	Number
Did not stop	785
Stopped on crossing	562
Went around gate	327
Other	209
Stopped then proceeded	118
Suicide or attempted suicide	30

2021 Public Crossings – Motorist Actions

Amtrak Police Statistics

STRIKE DATA

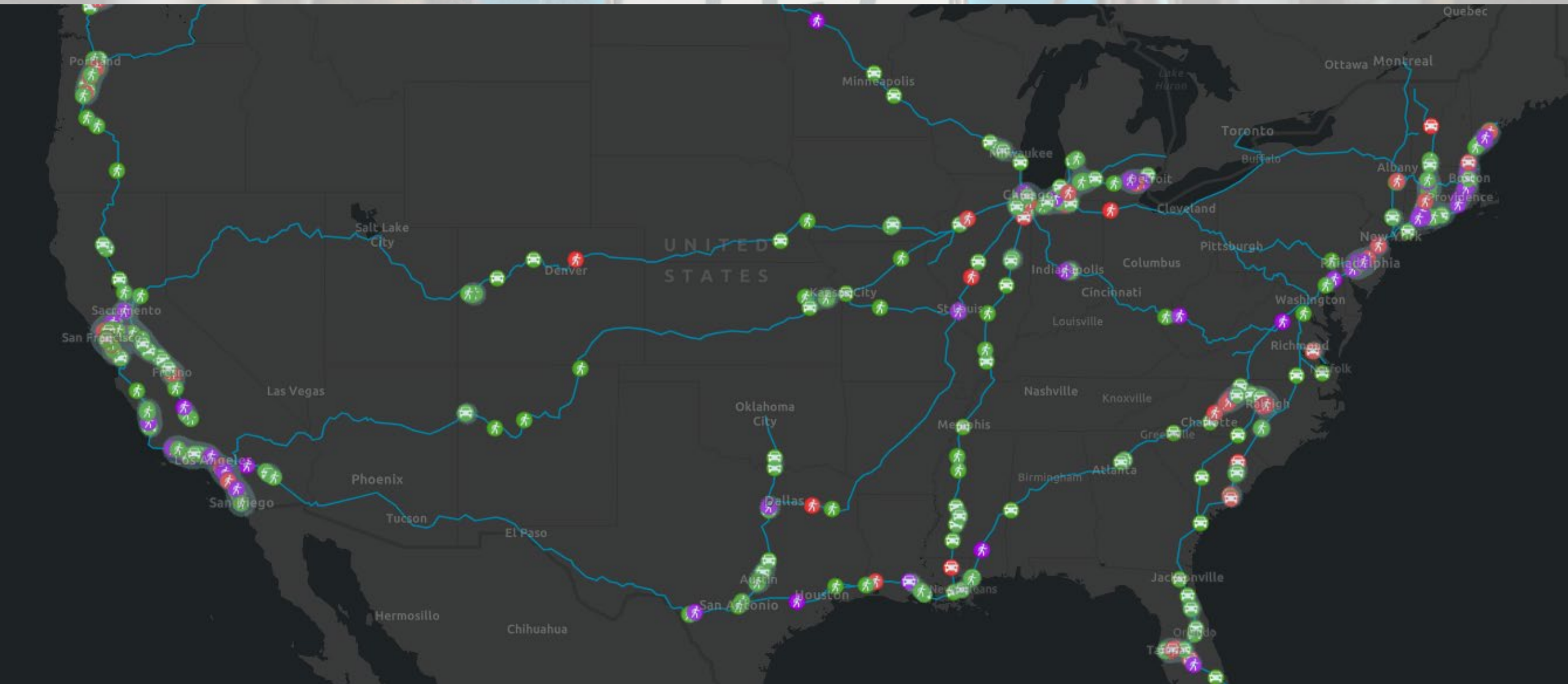
■ Trespassers ■ Vehicles



404 Rail-related Fatalities in 2021

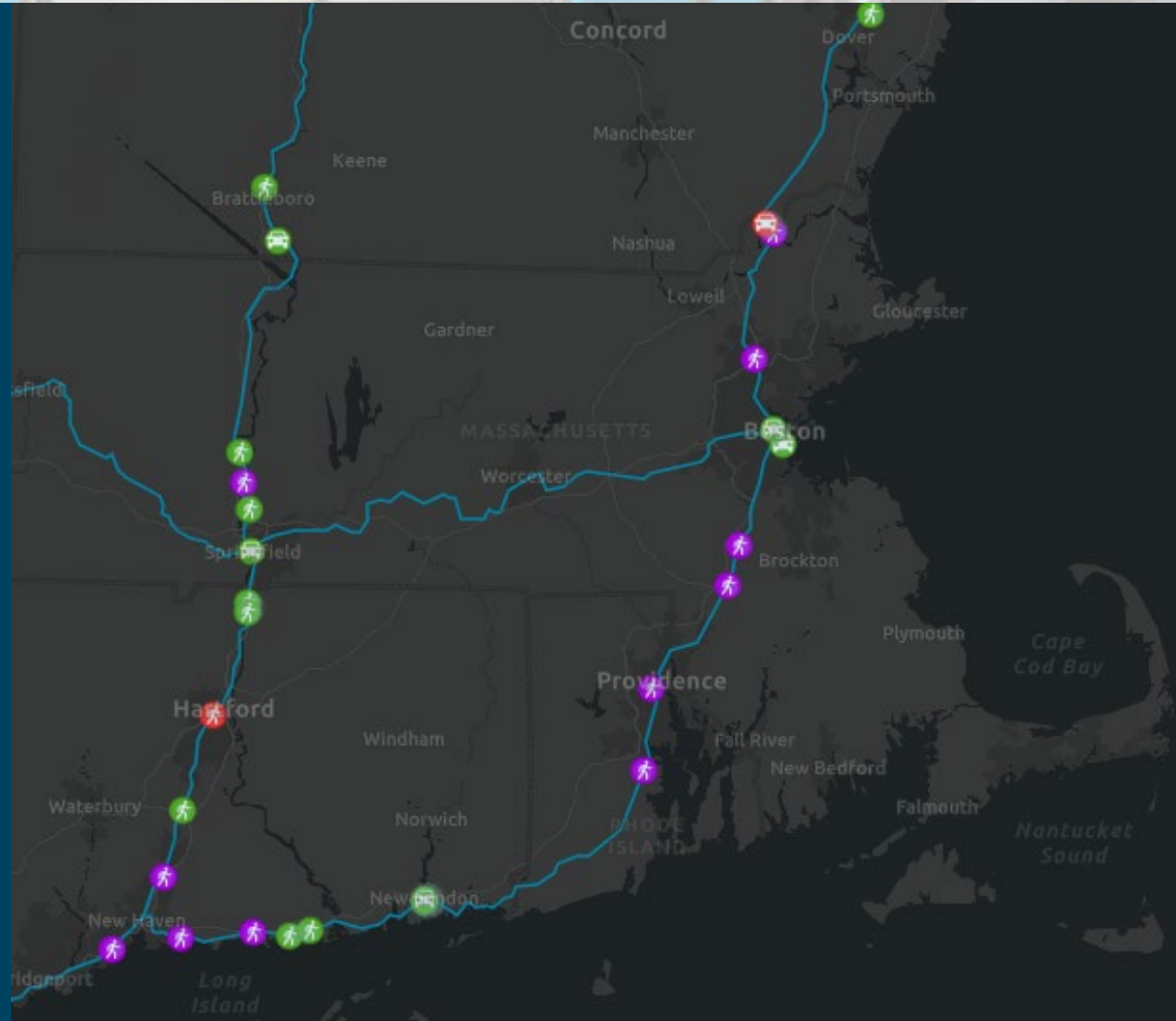
Trespassers	238
Vehicles	166
At Grade Crossings	152
Suicides (Confirmed)	69

2021 Data Analysis

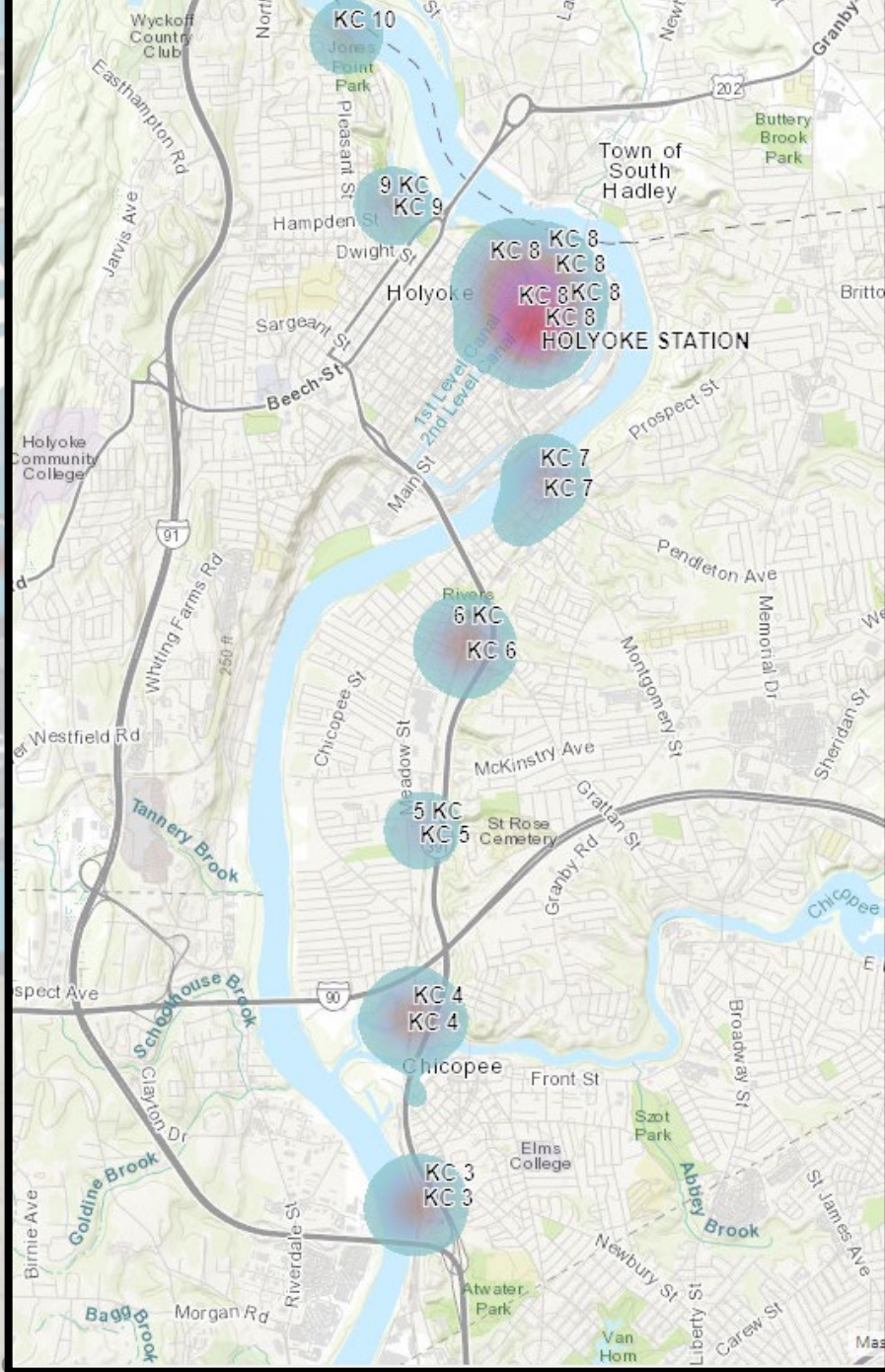


113

Strikes within New England Division



Call for Service Analysis



Challenges of Determining Root Cause

113

AMTRAK

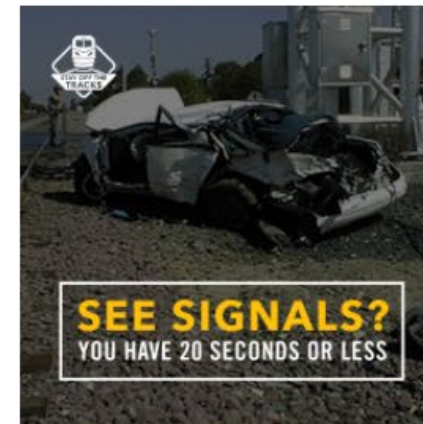
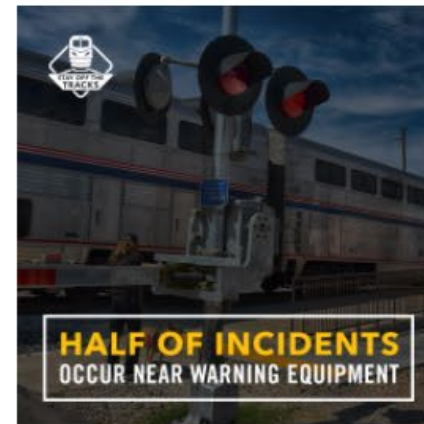
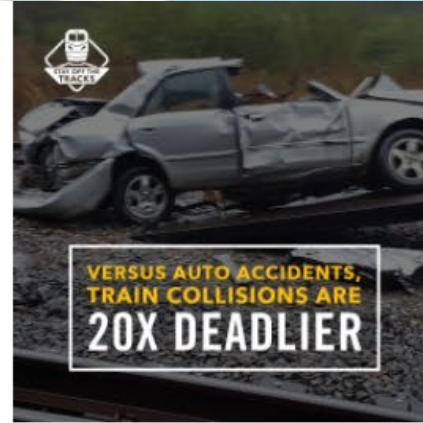
July 28, 2019

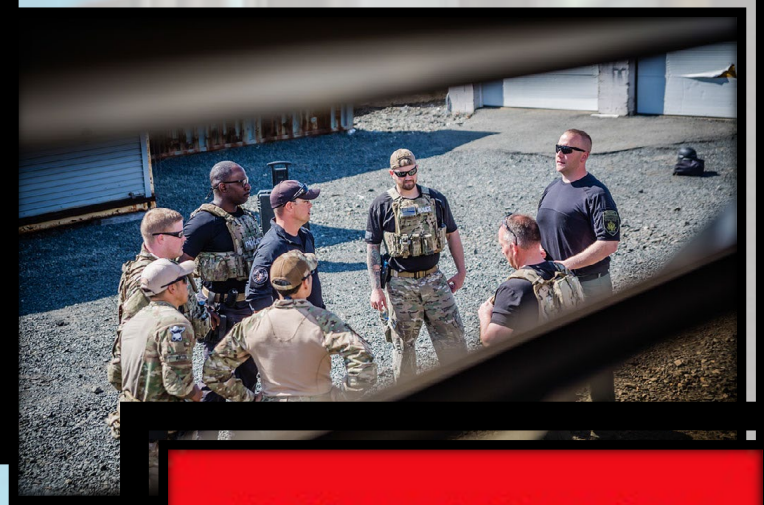
Newton, NH

85 Year old Male

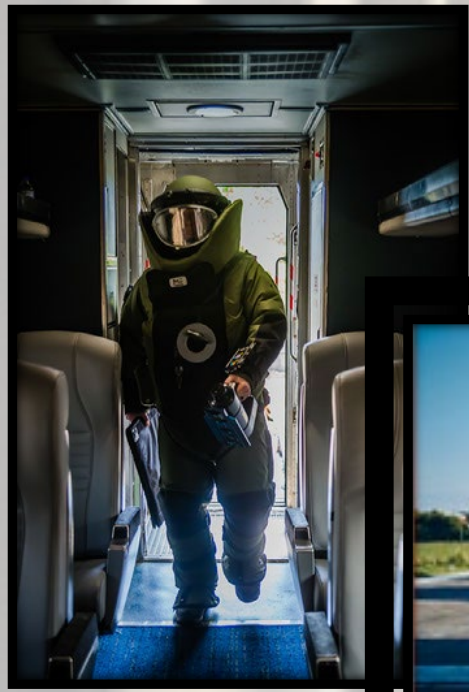
FAST FACTS

The statistics speak clearly. Stay off the tracks or face tragic, deadly consequences





Partnerships



Railroad Crossing Safety Tips

- Wait, Look Both Ways**

Trains may be closer and traveling faster than they appear and can run on any track, in any direction, at any time.
- Cross Legally and Safely**

The only safe and legal place for anyone to cross railroad tracks is at designated crossings.
- Don't Get Caught in the Middle**

Make sure you or your vehicle are not stopped in the middle of a grade crossing, waiting for traffic to move.
- You vs. Train**

This is NOT a race! Never attempt to outrun or beat a train. Trains **ALWAYS** have the right of way.
- Call for Help**

Locate the Blue and White Emergency Notification System sign located at every railroad crossing. Call the phone number listed or 911 to report problems on or near railroad tracks or trains.

Operation LIFESAVER



Operation LIFESAVER

Year	National	Injuries	APD
2016	274	36	88
2017	277	41	84
2018	265	37	54
2019	110	16	62
2020	120	15	57
2021			69

Suicides

113



Signage Based on Location Analysis

21 Before 12 After 43% Reduction



Intelligence Based Policing



AMTRAK



Amtrak Police Office of Intelligence & Analysis (OIA)

Supports security and counterterrorism efforts by coordinating and sharing information with agencies in the intelligence and law enforcement communities

Amtrak Strikes

Strike Data Analytics

January 2016 - February 2022

Created by Amtrak Police

Define the Date Range

Manual

Train Route

Strike Type

Vehicle

Passenger

Inside Strike

Strikes No Yes

Outside Crossing Strike

N Y

Under Drug Influence

N Y

Under Alcohol Influence

N Y

Intoxically Ill Offender

N Y

Emotionally Disturbed Person

N Y

Persistent Offender

N Y

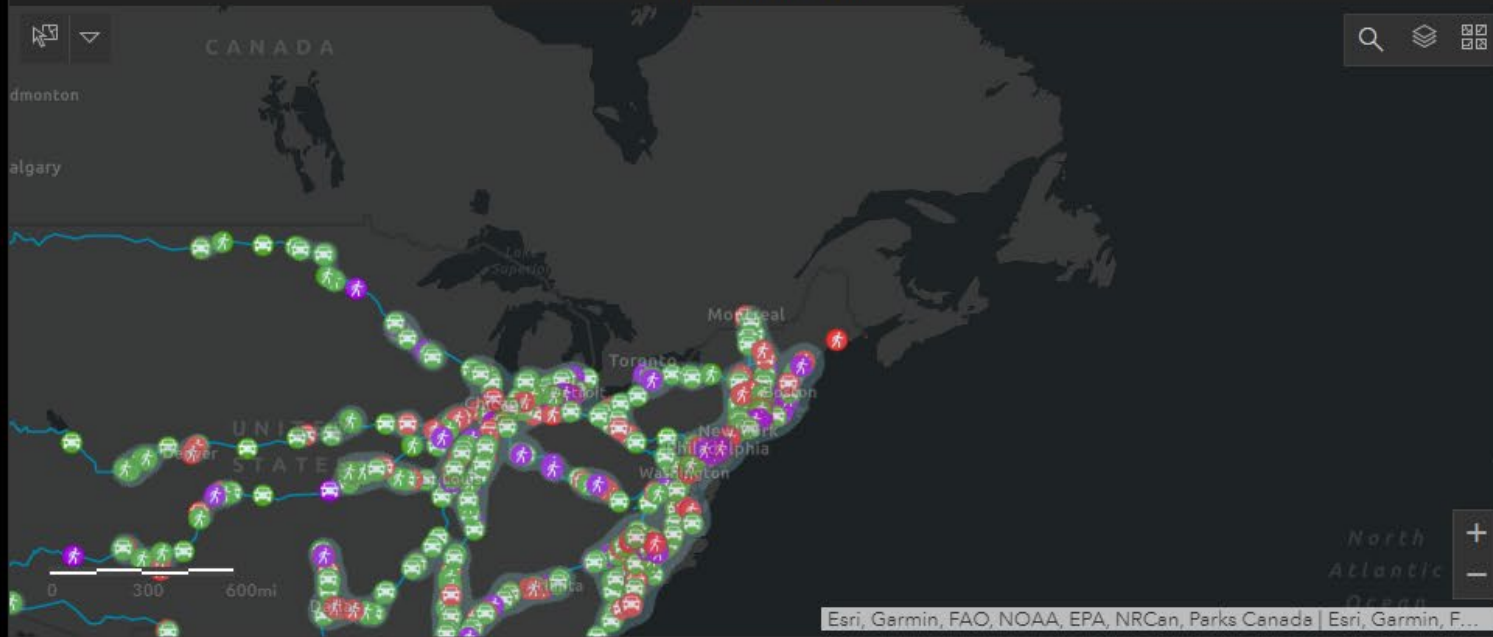
Gender Wearing Headphones

N Y

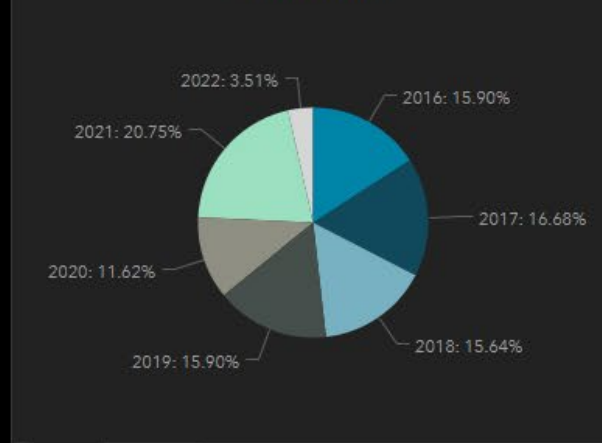
Attracted by Electronics

N Y

Strikes by Location

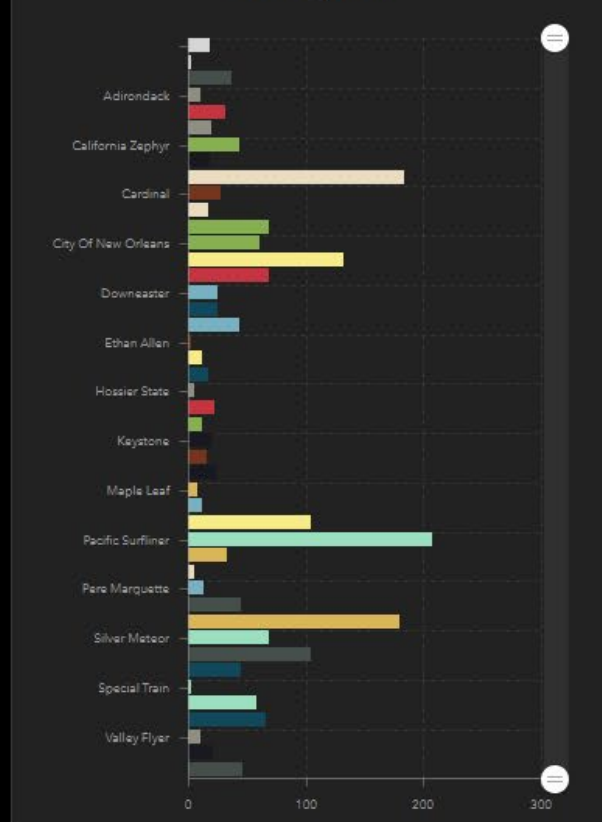


Strikes by Year

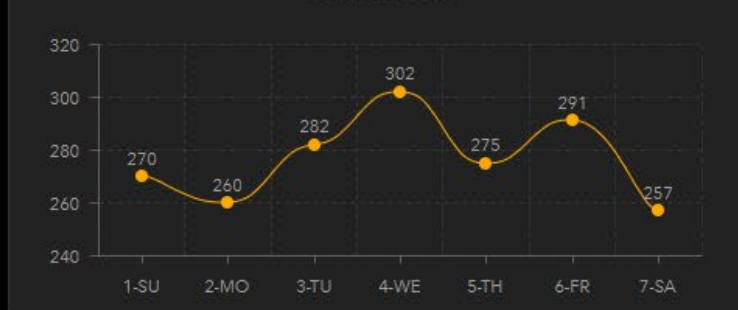


Year Gender

Strikes by Route



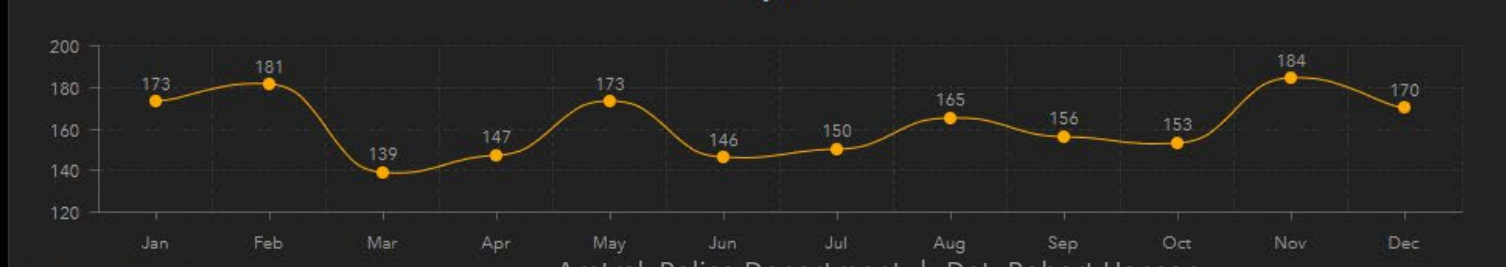
Day of Week



Train Strike Delay Times



Strikes by Month



Strikes by Month Delay Cost

Where Do We Go From Here?



Grade Crossing Outreach



Collaboration and Innovation to Develop Infrastructure Resiliency

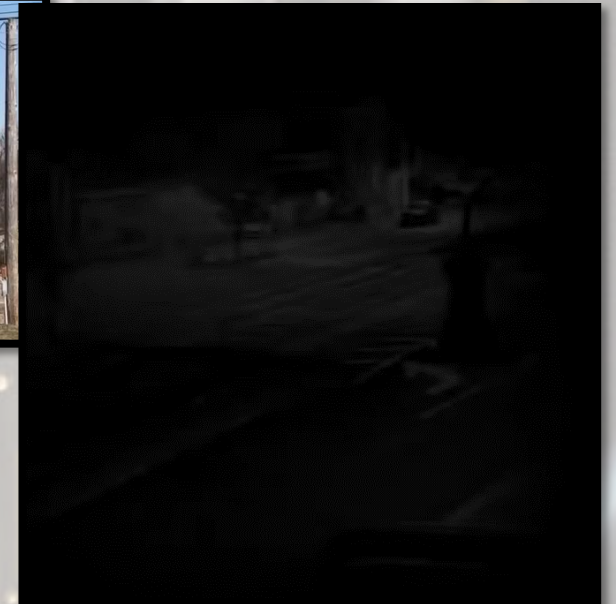
Knowledge Corridor Safety and Security Project

Consolidated Rail Infrastructure and Safety
Improvements (CRISI) Discretionary Grant
Application

November 29, 2021



Confidential Information Enclosed





Social Media

FB: @StayOffTheTracks

TW: @StayOffTheTrax



http://

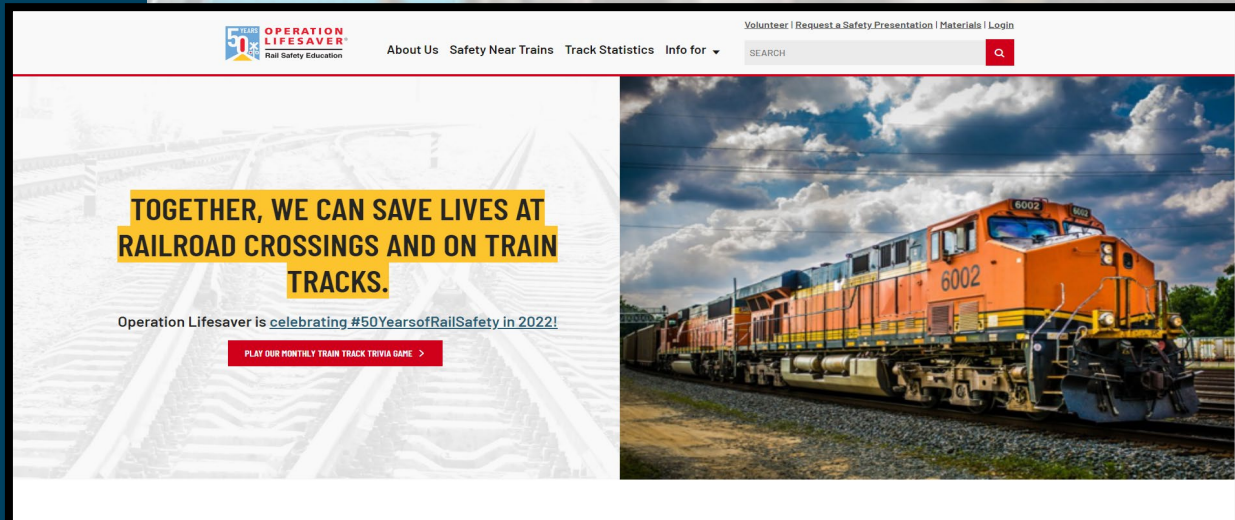
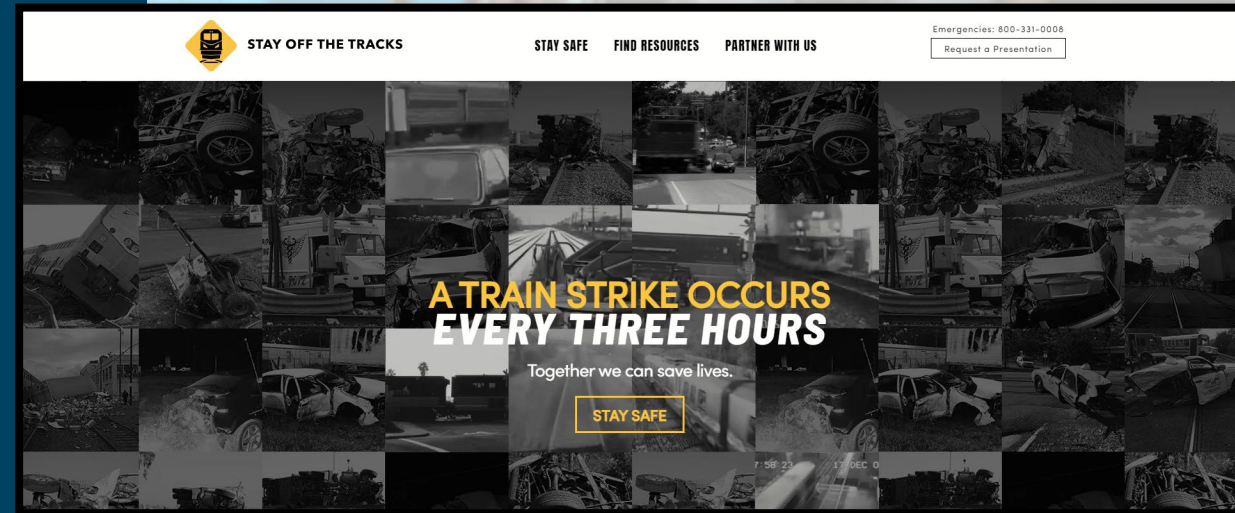
Visit us online at

www.oli.org and

www.stayoffthetracks.org



Tell
somebody



Local Railroad Trespassing Mitigation Strategies



Jean Fox
Outreach Director
South Coast Rail

Jean Fox is the Director of Community Engagement for the MBTA's South Coast Rail project. Jean has been involved with the project since 2011, when she joined MassDOT to shepherd the project through design and permitting. A resident of Freetown in Southeastern MA, Jean has served on the town's Board of Selectmen, the SRPEDD Commission and MPO, the South Coast Development Partnership, the State Commission on the Status of Women, among other organizations, and has been recognized for her advocacy and commitment to the region by SRPEDD, the YWCA of Southeastern MA, and the Greater New Bedford Workforce Investment Board. Jean cares deeply about her region of the Commonwealth and the its vast potential. In her current role with the MBTA, Jean interacts with legislators, municipal leaders, business organizations, and area residents. She will be working on implementing a comprehensive safety program for the South Coast Rail Corridor, collaborating closely with the cities and towns and their respective public safety officials.

Local Railroad Trespassing Mitigation Strategies



Randy Hunt
Senior Director of Administration
South Coast Rail

Randy Hunt is Senior Director of Administration for the MBTA's South Coast Rail. He is a CPA with a career in government and the private sector. Randy brings deep experience to the project. As a member of the Sandwich Board of Selectmen, he managed town issues and concerns. During his 10 years as a State Representative for the 5th Barnstable District, he worked on transportation, telecommunications, health care policy, elder affairs and more. In the private sector, he worked for large accounting and manufacturing firms and later set up his own practice. Randy also manages civic engagement for South Coast Rail, and he will be involved in managing implementation of the safety program for Commuter Rail service startup.



South Coast Rail

Greater Boston Railroad Trespassing Summit

.....
April 27, 2022



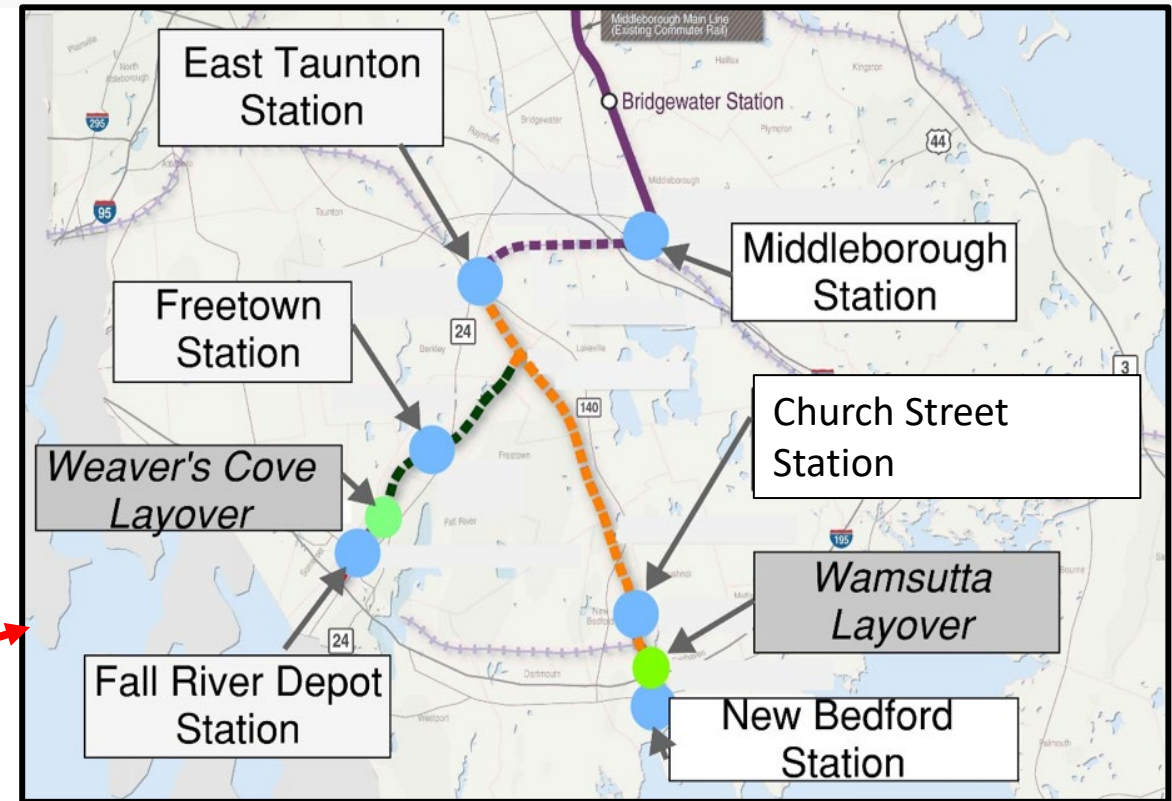
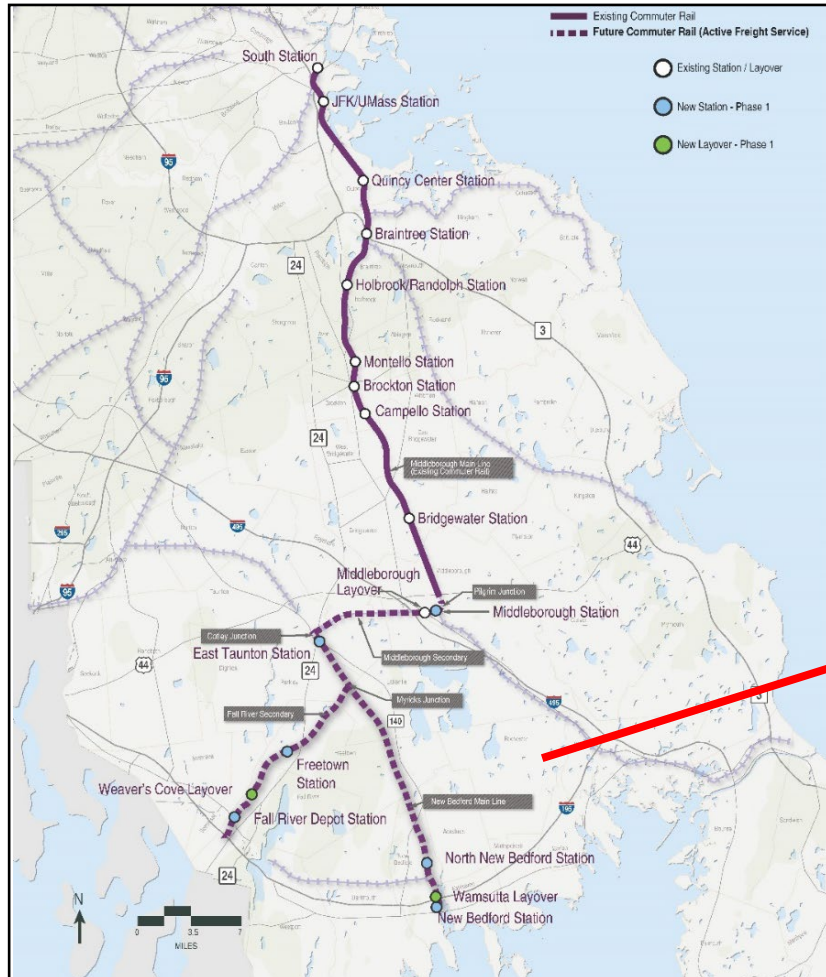
History of the Operating Railroads



- Railroads once crisscrossed Southeastern MA
- Passenger Rail service ended in the late 1950s and the ROW has seen only slow-moving freight since 1959
- The only recorded incidents SCR is aware of have been derailments
- Limited train traffic results in unsafe and recreational use of the ROW
- With no ROW monitoring, multiple, unsafe, and illegal uses of the railroad area occur



Phase 1 Stations and Layover Facilities



- New construction: six stations and two layover facilities; service anticipated at the end of 2023

Anticipated Operations



26 trains will operate on the Middleborough Secondary each weekday when Phase 1 begins service, two more than the current 24 that currently end service at Middleborough/Lakeville

- 13 trains inbound and 13 trains outbound
- 12 of 26 trains will operate during peak periods, 6 inbound and 6 outbound

Result: a train will pass by approximately every 45 minutes during peak periods, and approximately every 1.5 – 2 hours during off-peak periods



Challenges in the Region: Enforcement



- With no ROW monitoring, recreational activities (ATVs, dog walking, running), crimes, arson, vandalism and tagging have been common, along with trash dumping
- Tracks and previously abandoned station sites are often used by homeless individuals, particularly in Fall River and New Bedford due to high levels of homelessness
- Municipalities have concerns about the necessary resources required to contain homelessness, trespassing, and crime along the ROW
- Some sites have already been cleared due to the presence of local or nearby construction activities
- Environmental Police have fined ATV operators when there is staff to monitor local sites



Community Coordination on Homelessness



- Because the route goes through cities and rural areas, homeless people have constructed encampments along the ROW
- SCR is working with the cities to address the issue
 - Fall River: 160 homeless (Point in Time survey, not including those in shelters); coordinating with a FAST Response Team that consists of a director, Police Liaison, 2 recovery coaches, and a clinician
 - New Bedford: 61 chronically homeless; responsibility of New Bedford's Continuum of Care, the Homeless Service Provider Network (HSPN). Here there has been a tendency to set up camps on vacant lots (one is an SCR station site) or adjacent to rail
- SCR works with the cities' staffs and police to identify access points and clear these locations

Fall River ROW Homeless Site



Challenge - Rescues and Accidents



- SCR is planning implementation of a Railroad Safety Program throughout the region
- Currently conducting fire/life/safety meetings with Police and Fire Departments in the region
- Concerns raised: human resources (staff) and capital resources (equipment)



SCR Current Safety Approaches



- In fact sheets, emails, presentations and community meetings, SCR addresses safety and shares this message:

There is no safe place to be on the tracks except in a train or at a designated public crossing

- Fencing is being placed to enhance safety and minimize trespassing on the railroad right-of-way
- Fall River has installed cameras to monitor grade crossings, which are major access points trespassers use to access the ROW



Public Safety Educational Materials



SCR is developing educational rail safety videos for multiple audiences:

- K-12 videos targeted to three age groups with companion classroom training materials
- General public safety video
- Videos to include closed captioning and be translated into Portuguese and Spanish

Video distribution plan is in development



Mass Coastal Railroad – Freight Operator



- The railroad operates a network of lines totaling almost 60 miles of track stretching from Fall River to Hyannis
- Freight trains operate at low speed, 10 mph, five days a week
- MCRR provides right-of-way safety programs for all rail users
- MCRR promotes Operation Lifesaver



Mass Coastal Active ROW



Summary



- SCR is developing a multi-phase safety program to prepare for new Commuter Rail service in late 2023 – and we are interested in learning more best practices
- Videos for schools and the public, and coordination with communities, homeless advocates and police and fire departments are all in progress
- Our goal: To prepare all southeastern MA cities and towns for new, higher speed trains on an active right-of-way



RAIL

MOVING AMERICA FORWARD



Questions for our Panelist

RAIL

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Lunch

RAIL

MOVING AMERICA FORWARD



Railroad Trespassing Treatments & Tools

Railroad Trespassing Treatments & Tools



Francesco Bedini Jacobini
Federal Railroad Administration

Mr. Francesco Bedini Jacobini joined the FRA in 2017 where he currently serves as Program Manager for Grade Crossing and Trespass Research within the FRA's Office of Research, Development and Technology. He previously worked for four years with the Illinois Department of Transportation on the Chicago to St. Louis High Speed Rail project. He holds a Bachelor and Master of Science degrees in Civil Engineering, both from the University of Illinois at Urbana-Champaign.

Trespass Database (Rutgers University)

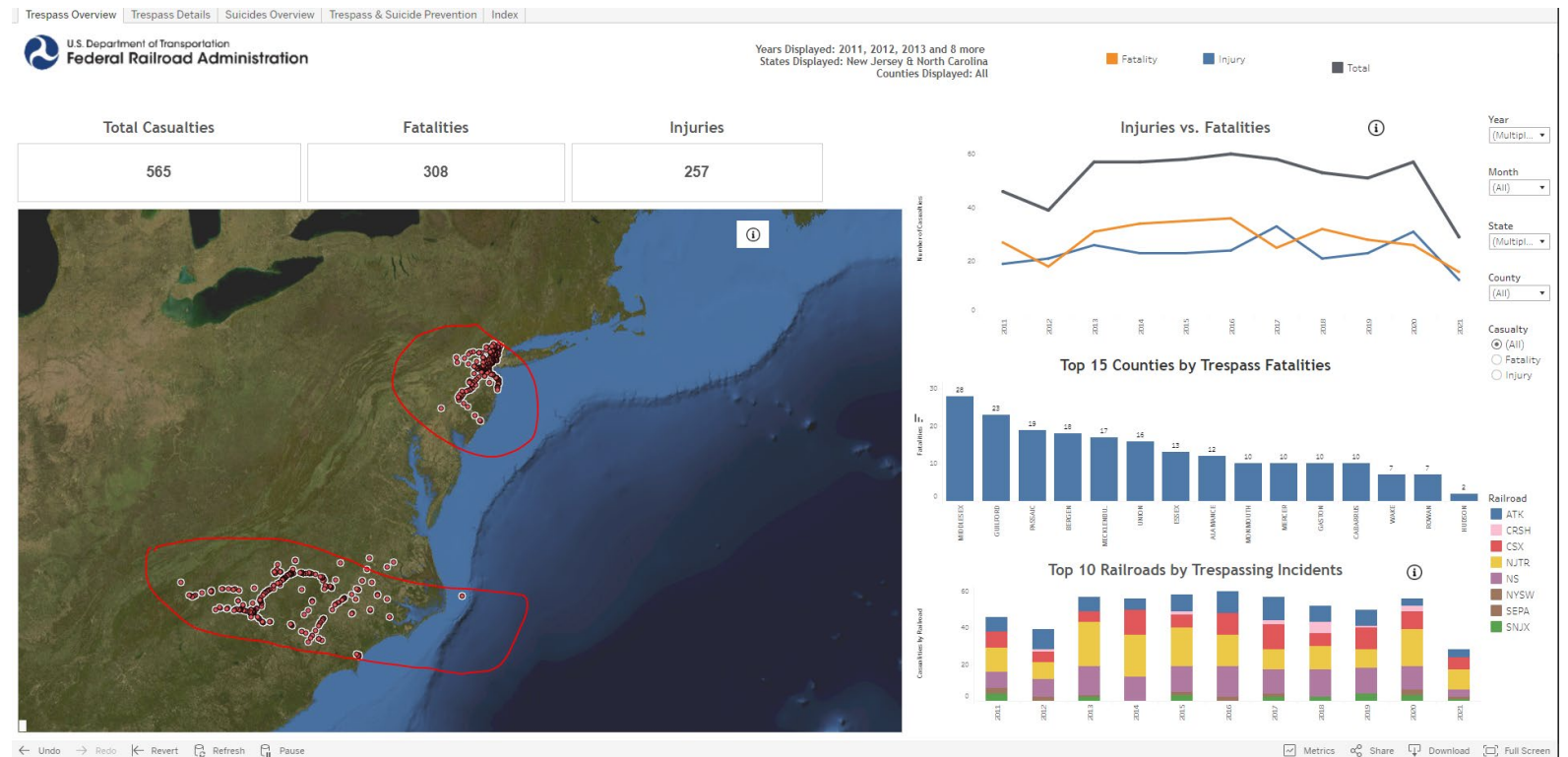
- One year of data collection in 2021 at four different locations

- Ramsey, NJ
- Thomasville, NC (2)
- Ashland, NJ

- **27,000+** trespassing events



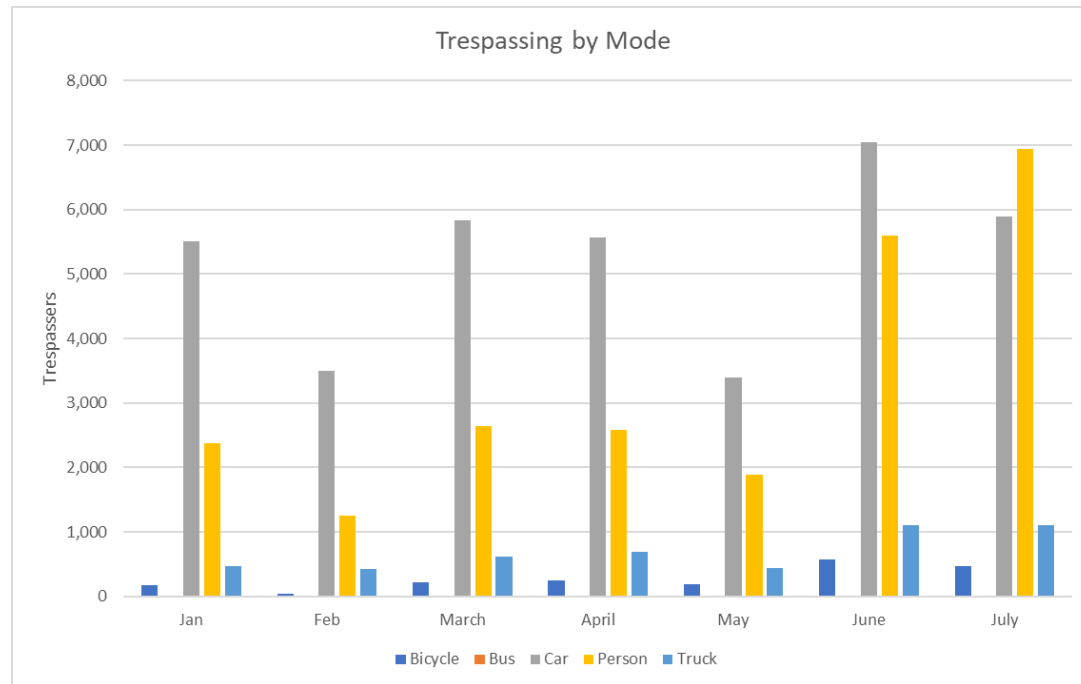
Number of trespass casualties 2011 – 2021 (NY, NJ & NC): **565**
Including suicides



FRA Trespass Dashboard: <https://explore.dot.gov/t/FRA/views/TrespassandSuicideDashboard/>

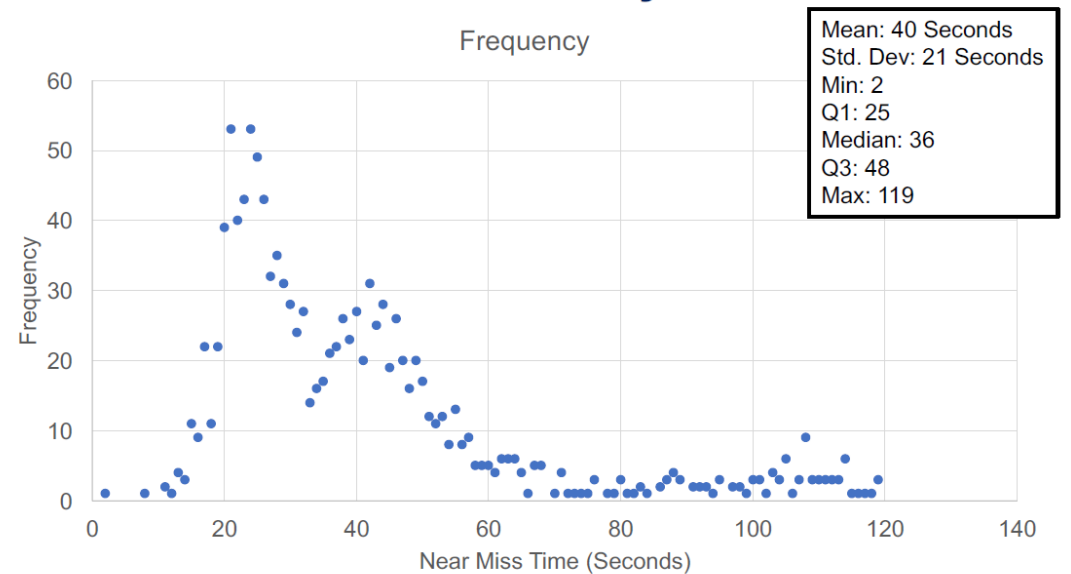
Trespass Casualties are Just the Tip of the Iceberg:

Trespassers by Type (Rutgers) Four Locations



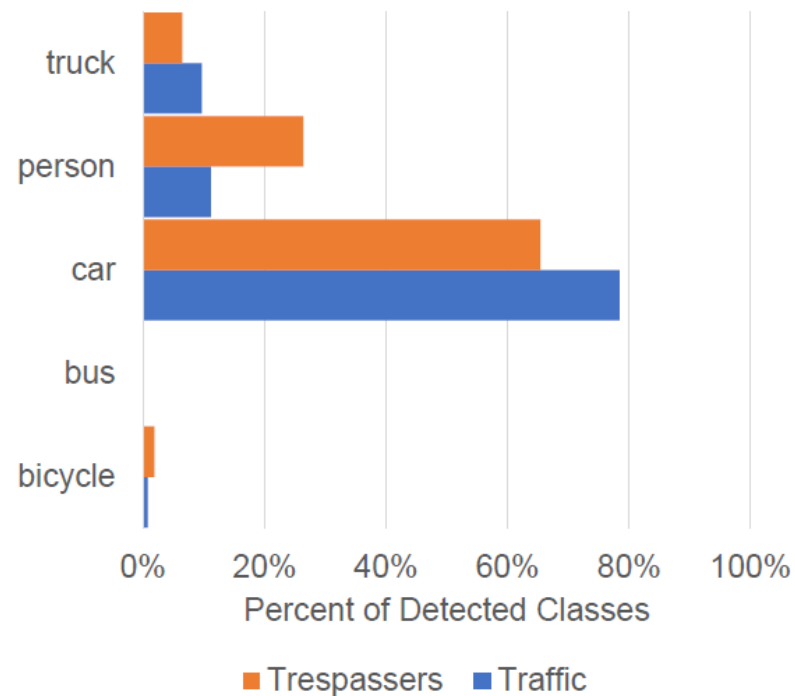
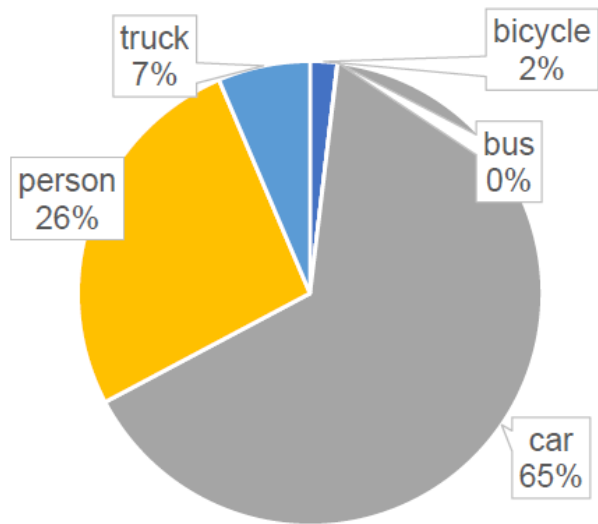
Near Miss Distribution (Rutgers)

Ramsey Trespass Event Near-Miss Time Distribution: July 2021



Main St., Ramsey, NJ 2021 Data

Grade Crossing #1 Trespassers and Traffic Proportions



- Data from Ramsey, NJ
- Crossing ID: 263186S
- About 21,000 trespassing events
- Approx. 5,000 violations from pedestrians

Data from Rutgers University

Railroad Trespassing Treatments & Tools

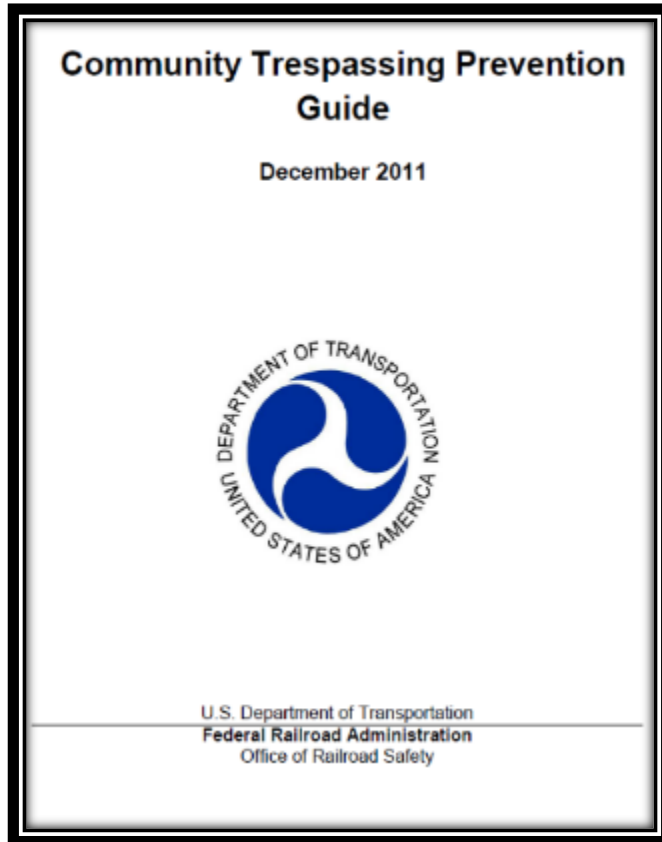


Marco daSilva
USDOT Volpe Center

Mr. Marco daSilva is a Senior Engineer at the U.S. Department of Transportation (USDOT) Volpe Center in Cambridge, Massachusetts. His work portfolio includes management of the Volpe Center's Highway-Rail Grade Crossing and Trespass Research program in support of the Federal Railroad Administration. Mr. daSilva holds a Bachelor's degree in Mechanical Engineering from Boston University and a Master's degree in Transportation Engineering from Northeastern University.

Problem-Solving Guide

C.A.R.E.: Community, Analysis, Response, and Evaluation



<https://www.fra.dot.gov/eLib/Details/L02716>

Community	Analysis	Response	Evaluation
<p>Identify and describe the trespass problem.</p> <p>Identify community resources and begin involvement.</p> <p>Organize a problem-solving committee with community stakeholders and develop an action plan.</p>	<p>Develop data collection and analysis plan.</p> <p>Collect trespass data.</p> <p>Analyze the data to determine the underlying causes of the trespass problem.</p> <p>Establish baseline and identify measures to determine program's effectiveness.</p>	<p>Identify and implement feasible countermeasures</p> <ul style="list-style-type: none"> - Develop countermeasures (CM) implementation plan. - Implement CM, such as: education, enforcement, engineering, and other strategies developed by the committee. 	<p>Assess impact of the response, and determine whether the trespass problem was displaced, reduced, unchanged, or eliminated.</p> <p>Evaluate the process used and assess whether the key stakeholders were identified and included, the underlying causes correctly identified, the response implemented as planned, and reasons why parts of the plan may not have been implemented.</p> <p>Develop and implement a long-term program monitoring plan if needed.</p>

Goal

- Create safer communities by fostering the development of long-term trespass prevention strategies through collaborative community problem-solving partnerships.
- **It's a collaboration between different entities, it is a shared responsibility between railways and other stakeholders.**

Strategy

- “Problem-solving model designed to provide a step-by step approach for addressing railway trespassing issues in communities.”
- “Based on lessons learned during actual collaborative community problem-solving projects.”
- Help solve existing trespassing problems or potential trespass issues resulting from re-zoning or planned construction.
- **Dissemination of good practices can make the difference.**



Problem-Solving Guide

C.A.R.E.: Community, Analysis, Response, and Evaluation

Step 1 – Community

- Identify the trespassing problem in the community and potential community stakeholders.
- Develop a general statement to describe the problem. (e.g., children are crossing the railway tracks where the street dead ends at the tracks.)
- Organize a community problem-solving meeting to discuss the issues and develop an action plan for your Trespass Prevention Program.



Worcester, MA Rail Trespass Study (2018)



Problem-Solving Guide

Step 2 – Analysis (continued)

Answer the following in as much detail as possible:

- **Who** is trespassing, and what are their ages? (students, residents, workers...)
- **What** are they doing while on the tracks? (walking, crossing the tracks, riding a bicycle, playing, drinking...)
- **When** does it happen: time, day of the week, month, season?
- **Where** are they entering an exiting the railroad property? Where are they going? Coming From? Where is the desired path?
- **How** are they entering and exiting the railroad property? (no barrier present, hole in fence, climbing, jumping, at a crossing...)



Problem-Solving Guide

Step 2 – Analysis (continued)

- Determine the underlying cause(s) of trespassing
 - Analysis of information collected and analysis of common factors (time, location, point of entry, or point of exit...)
- Develop statement describing the underlying cause(s) in detail and a goal to describe what you want to achieve from the program.
- Identify scale of the problem:
 - Large scale: whole community or many organizations needed to solve
 - Medium scale: focused group can solve
 - Small scale: one or two people or organizations can solve
- Identify measures that will be used to determine effectiveness of the program (trespass reduction/elimination, increased public awareness...)



Problem-Solving Guide

Step 3 – Response

Identify and implement the most effective and feasible response(s) that will help solve the underlying cause(s) of trespassing:

- Education (e.g. school presentations, media, other)
- Engineering or Environmental Design (e.g. fences, signs, crossing)
- Enforcement
- Other Strategy
- **Implement the plan**



Problem-Solving Guide

Step 4 – Evaluation

Process: Determine if the process was effective and why or why not.

- Were the key stakeholders and resources identified and included?
- Were the underlying causes correctly identified?
- Was the response implemented as planned? If not, why?
- Was any part of the plan not implemented? Why?
- Was the trespass problem displaced, reduced, unchanged, or eliminated?

Based on the implemented response, will this project require a long-term commitment and monitoring? Who will need to be involved? What could happen if the response is left in place? What could happen if it's taken away?



Summary

- The approach is collaboration between different players, it is a shared responsibility between railways and other stakeholders.
- Dissemination of good practices can make the difference.

Guide: <https://www.fra.dot.gov/eLib/Details/L02716>

Research Report (West Palm Beach, FL): <https://www.fra.dot.gov/eLib/details/L05307>

Research Results (Worcester, MA): <https://rosap.ntl.bts.gov/view/dot/55705>

Research Article: <http://onlinepubs.trb.org/onlinepubs/trnews/trnews322TrespassPreventionModel.pdf>



Rail Trespass Treatments/Countermeasures

- ❑ Detection and Warning
- ❑ Anti-trespass technologies/treatments
- ❑ Education Initiatives
- ❑ Enforcement Strategies



Detection and Warning

Fixed Systems

PTZ cameras, includes a speaker and microphone

Uses video motion detection as a sensor

Live video fed into police dispatch center

Dispatchers can control PTZs and speak to trespassers

Sensors or Machine Learning (ML) algorithms

Research Report (2020): <https://rosap.ntl.bts.gov/view/dot/50849>



Mobile (drone) Systems

Mobile camera on a drone by the police

Provide coverage over a significant amount of ROW

Used to identify and track trespassers in areas of the ROW that are difficult to access by the police.

Research Report (2020): <https://rosap.ntl.bts.gov/view/dot/50848>



Anti-Trespass Technologies/Treatments

Non-crossing Locations

- Warning Signs
- Right-of-way Fencing
 - [Effect of three countermeasures against the illegal crossing of railway tracks](#): Fencing reduced trespassing by 94.6 percent, landscaping 91.3 percent and prohibitive signs 30.7 percent
 - High-Security Fencing for Rail Right-of-way Applications Research Report (2015): <https://rosap.ntl.bts.gov/view/dot/12237>
- Landscaping
- Obstruction removal to increase visibility
- Grade Separation



Anti-Trespass Technologies/Treatments

At Crossings

- Anti-Trespass Guard Panels
 - Anti-trespass guard panels reduced the number of pedestrians who trespassed on railroad ROW by 38 percent. (Report 2019: <https://rosap.ntl.bts.gov/view/dot/41716>)
- Pedestrian Gate Skirts & Channelization
 - 56 percent reduction in pedestrian violations while the gates were descending; 19 percent reduction in pedestrian violations while the gates were horizontal. (Report 2020: <https://rosap.ntl.bts.gov/view/dot/53572>)
- Right-of-Way Incursion Treatments
 - Pavement markings through the crossing and reflective markers and flexible delineators on both sides and in between the tracks.
 - 85 percent reduction in frequency of vehicles turning onto the tracks in initial study. (Report 2018: <https://rosap.ntl.bts.gov/view/dot/37006>)



Enforcement Strategies

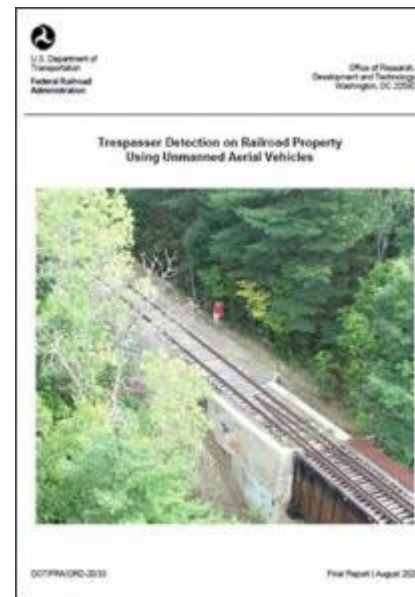
Law Enforcement Strategies for Preventing Rail Trespassing
Research Report (2016): <https://rosap.ntl.bts.gov/view/dot/12258>

Law Enforcement Strategies for Reducing Trespassing Pilot Grant
Program Results (2020): <https://rosap.ntl.bts.gov/view/dot/53546>



FRA References

- FRA Research Repository: <https://railroads.dot.gov/elibrary-search>
- FRA's National Strategy for Trespass Prevention on Railroad Property: <https://www.fra.dot.gov/eLib/Details/L19817>
- RosaP: <https://rosap.ntl.bts.gov/>



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Railroad Trespassing & Suicide Prevention Treatments



Dr. Shala Blue

Federal Railroad Administration

Dr. Shala Blue is an Engineering Psychologist in the Human Factors Research Division, of Office of Research, Development, and Technology. Dr. Blue joined FRA in 2020 and is the Program Manager for the Trespass and Suicide Prevention Human Factors research portfolios. The main goal of these portfolios are to reduce the number of rail-related casualties that are due to trespass and suicide.



Scott Gabree

USDOT Volpe Center

Scott Gabree joined the Volpe Center in 2009 and is the manager of the research program for grade crossing safety and trespass prevention for Volpe's Transportation Human Factors Division. The trespass prevention program seeks to better understand trespass and suicide incidents on the US rail system and what rail carriers may be able to do, in coordination with other groups, to help reduce the frequency and impact of these events. Scott and his team at Volpe are currently working with several rail carriers from around the country to try to improve our understanding of rail suicide.



FRA Human Factors Trespass and Suicide Prevention Program

Presented by:

Shala Blue, PhD

Presented to:

Boston Trespass Summit

Human Factors Division

- The Human Factors (HF) division is part of FRA's Office of Research Development and Technology (RD&T).
 - RD&T Mission: Ensure the safe movement of people and goods by rail through the research and development of innovative technologies and solutions.
- The objective of research programs within HF is to improve rail safety by reducing the potential for human error in railroad operations.
- The program develops decision support and planning tools, develops research-driven technologies and interventions, and works with stakeholders and partners to improve safety.
- Primary Program Areas:
 - ***Trespass and Suicide Prevention***
 - Railroad Technology, Automation, and System Design
 - Railroad Worker and Operator Performance
 - FRA Office of Railroad Safety Support
 - Grade Crossing Safety
 - Monitoring and Support to Short Line Safety Institute (SLSI)

Railroad Trespass and Suicide Prevention Portfolios

Railroad Trespass Prevention

- This research seeks to better understand the leading cause of rail-related death in the U.S.
- Identify countermeasures to prevent accidents attributable to trespassing. Identify and plan new efforts to support FRA rail trespass prevention.



Railroad Suicide Prevention

- This research area explores seeks to reduce the number of suicide casualties that occur on the railroad ROWs.
- Improve understanding of the causal factors behind why individuals might contemplate suicide by rail.



Trespass and Suicide Prevention Program

- Collaboration is very important for this research program
 - Cross-modal and inter-agency collaborations
 - Volpe partnership
 - University research partnerships
 - Rail community participation
 - Other organization partnerships
1. Data Quality and Analysis
 2. Countermeasure Development, Implementation, and Evaluation
 3. **Outreach**



Railroad Trespass and Suicide Prevention: U.S. Outreach

Suicide Prevention for US Rail (SPUR) Working Group

- **Background:** Spinoff of Global Railway Alliance for Suicide Prevention (GRASP)
- **Who:** Railroad (commuter rail) representatives and others with knowledge or insight about suicides on US railroad ROWs
- **Purpose:** To better understand why trespass and suicides occur on rail, identify effective mitigation strategies, reduce prevalence, and improve rail safety by generating conversation and information-sharing among commuter railroad carriers about suicide and trespass prevention.
- **Meetings:** November 2021 and February 2022

Invitation: Suicide Prevention for US Rail (SPUR) Working Group

*If you would like to get involved or get more information,
please contact:*

Scott Gabree: Scott.Gabree@dot.gov

Stephanie Chase: Stephanie.Chase@dot.gov

Trespass and Suicide Prevention Toolkit

27 April 2022

Somerville, MA

A Team Effort



Volpe

- Stephanie Chase
- Alexa D'Adamo
- Marco DaSilva
- Scott Gabree
- Danielle Hiltunen
- Tashi Ngamdung

FRA (core team)

- RD&T
 - Shala Blue
 - Starr Kidda
 - Jason Wornoff
- Safety
 - Michail Grizkewitsch
- IT
 - Samer Mina
 - Arsene Nougbohoue
- Communications
 - Emma Zayer-Chaing

Trespass in the US

- Trespass and suicide represent the leading causes of rail related death in the United States
- Railroad carriers and rail safety experts are identifying strategies to prevent these incidents

Report to Congress

**National Strategy to Prevent Trespassing
on Railroad Property**



October 2018

Federal Railroad Administration
U.S. Department of Transportation

Challenges for Trespass/Suicide Prevention

- Many driving factors stem from societal issues and may require collaboration with new partners
- A combination of approaches may be necessary for many situations
- Mitigations are often implemented quickly and without subsequent evaluation



Prevention requires a multifaceted approach

- Multiple strategies to truly address issues
- Informed by data
- Evaluation (e.g., CARE)
- Collaborations with outside groups



Education



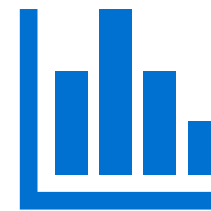
Engineering



Enforcement



Engagement



Data-Driven



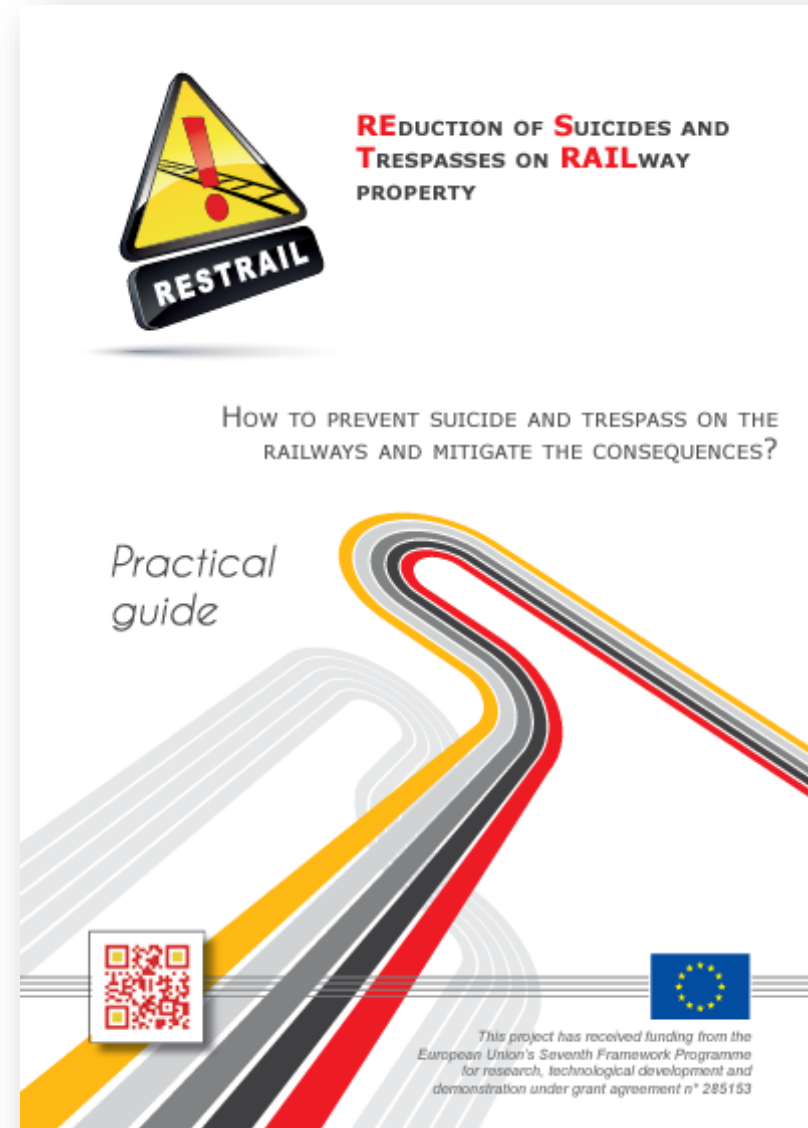
Evaluation



Collaboration

RESTRAIL

- European Union (EU) effort compiled research on trespass and suicide prevention
- Toolkit developed to provide insight to project partners
- Continues to be updated with new insights from international partners



<http://restrail.eu/toolbox/>

Trespass and Suicide Prevention Toolkit

- Identify relevant and effective strategies
- Consider improvements to your current practices
- Help identify partners
- Stay informed with up-to-date research to know which strategies may be the best fit for your situation

TRESPASS & SUICIDE PREVENTION TOOLKIT

Custom Keyword

Incident Type

- Trespass only (9)
- Suicide only (5)
- Both trespass and suicide (28)

Location

- Station only (8)
- Right-of-Way only (4)
- Both station and right-of-way (30)

Intervention Strategy

- Data: Application and Planning (8)
- Education: Outreach and Messaging (13)
- Enforcement: Policy Development and Implementation (4)
- Engineering: Technical and Physical Deterrents (17)

Measure Group

- Risk Assessment (5)
- Policy Enforcement (3)
- Collaboration, Training, and Education (8)
- Public Communication (6)
- Physical Barriers (7)
- Detection and Lighting (5)
- Infrastructure Modification (4)
- Post-Incident Management (4)

Risk Assessment

- Identify access points for potential trespassers**
Identify access points where individuals are entering the track area to determine appropriate mitigations.
- Identify and monitor hotspots**
Identify and monitor locations where the number of trespass and/or suicide incidents are higher than expected.
- Planning for events with increased traffic**
Develop a plan to ensure safety when an increase in foot or vehicle traffic near the tracks is expected.
- Rail corridor risk assessment**
Identify locations along railroad corridors with the potential for increased trespass and/or suicide incidents based on characteristics of the surrounding communities.
- Risk assessment using forward facing CCTV**
Use FFCCTV to review trespass, suicide, and close call incidents to better understand the actions of individuals in the moments before a strike or near miss.

Policy Enforcement

- Refuse or delay boarding to discourage trespassing**
Implement procedures to delay or deny boarding for passengers who are seen to trespass en route to board the train.
- Relocation of homeless individuals**
Coordinate the relocation of homeless encampments from near railroad tracks to locations a safe distance away.

[Contact Us](#)

Trespass and Suicide Prevention Toolkit

- Navigation with filters and custom search
- Over 40 measures
- Summarized insights with links to more detailed information and documents

TRESPASS & SUICIDE PREVENTION TOOLKIT

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Contact Us

Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- Advantages
- Drawbacks
- Images
- References
- Related Measures

Anti-trespass panels ↗						
Material installed alongside and across the tracks that make footing unreliable in order to deter entry to the right-of-way.						
Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
<p>Anti-trespass panels are used to restrict access to the Right-Of-Way (ROW) from grade crossings and other potential entry points to the tracks. These panels are made from recycled rubber or timber and have a surface that is difficult to walk on. Panels can have a repetitive skewed profile or a raised pyramid design.</p> <p>Anti-trespass panels are most effective when combined with proper channelization to prevent people from walking around the panels. They can also be effective at tunnel or bridge locations where there is natural/infrastructure channelization. These panels are often found at the end of a platform to prevent people from using the railroad ROW as a shortcut or intentionally putting themselves in front of a train.</p> <p>Anti-trespass panels have helped reduce railroad trespasser activity, according to evaluations of panel effectiveness, including one evaluation in the United States. The U.S. study reports a 38-percent reduction in the number of trespassers following the installation of the anti-trespass panels at a crossing in Fayetteville, AR [1]. Other research studies conducted in Europe evaluate the effectiveness of anti-trespass panels in combination with other physical and behavioral measures. These studies reported between a 30- and 98-percent reduction in the number of trespassers following installation of the panels [2][3][4].</p> <p>Additional search terms: <i>deterrent, grids, pyramids</i></p>						

Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- Advantages
- Drawbacks
- Images
- References
- Related Measures

Anti-trespass panels ↗						
Material installed alongside and across the tracks that make footing unreliable in order to deter entry to the right-of-way.						
Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
<ul style="list-style-type: none">• Consider the potential for individuals to attempt to jump over the panel when determining the width of the panel needed [1].• Consider adding snowplow lift signs near the panels if installed in snowy areas to reduce the occurrence of damage during snowplowing [2].• Consider safety and operational impacts on train and roadway users when scheduling panel installation.• Develop a maintenance strategy to remove dirt, fallen debris, and snow from the panels.• Reflective paint can increase a panel's visibility on the ground [4].• Ensure that there are escape routes around panels for train passengers during emergency evacuation [4].• Consider adding entry gates along the fence for railroad workers or first responders to access the railroad ROW [4].• Post warning and prohibitive signs near the panels.• Create proper channelization along the railroad ROW so that people cannot walk around the panels.• Collect trespass frequency before and after panel installation at each location to help evaluate effectiveness.						

Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- **Advantages**
- Drawbacks
- Images
- References
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Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
<ul style="list-style-type: none">• Anti-trespass panels are simple to install [2].• The panels are made of rubber and can be cut to fit around existing infrastructure (e.g., columns, signs).• Panels are relatively low cost. The cost is primarily associated with the materials, as the panels may be installed by rail staff.• Unlike rock treatments, where installation is only outside the tracks, installation for anti-trespass panel can also be between the rails.• Panels can be both a visual and physical deterrent [4].• Panels can be used to mitigate both trespass and suicide incidents on the ROW and at stations.						





Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- Advantages
- Drawbacks
- Images
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Anti-trespass panels ↗						
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Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
<ul style="list-style-type: none">• Anti-trespass panels can make it difficult for railroad maintenance workers and first responders to access the railroad ROW.• Anti-trespass panels can make it more difficult for passengers to exit the railroad ROW during an emergency evacuation.• Without proper upkeep, anti-trespass panels can fill up with dirt, fallen debris, or snow, reducing their effectiveness.						

Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- Advantages
- Drawbacks
- **Images**
- References
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Trespass and Suicide Prevention Toolkit

- Description
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Anti-trespass panels [↗](#)

Material installed alongside and across the tracks that make footing unreliable in order to deter entry to the right-of-way.

Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
<p>[1] Ngamdung, T. and daSilva, M. (2019). Effect of Anti-Trespass Guard Panels on Pedestrian Behavior. Technical Report No. DOT/FRA/ORD-19/23. Washington, DC: U.S. Department of Transportation, Federal Railroad Administration.</p> <p>Abstract: The U.S. Department of Transportation's (DOT) John A. Volpe National Transportation Systems Center (Volpe Center), under the direction of DOT's Federal Railroad Administration Office of Research, Development and Technology, conducted a research study that evaluated the effectiveness of anti-trespass guard panels installed on a railroad right-of-way (ROW) adjacent to the West Dickson Street grade crossing in Fayetteville, AR. The goal of the panels was to reduce the number of pedestrians that trespass onto railroad ROWs. Data was collected over 10 weekends before and another period of 10 weekends after the installation of the anti-trespass guard panels. Results indicated that the number of trespassing pedestrians was reduced by 38 percent, from 166 trespassers before installation to 103 after installation. Though these results seemed to indicate that this safety enhancement was effective in improving pedestrian behavior, it is important to note that no measure of pedestrian traffic was collected and this safety enhancement has only been studied at one unique crossing. Additional field testing is necessary before recommendations for wider use can be made.</p> <p>[2] Svensson, K. and Dahlstrand, A. (2019). Pyramid Rubber Mats Obstructing Rail Track Trespassers. The Swedish Transport Administration.</p> <p>No abstract available from published work. This report describes a study, conducted by Swedish Transport Administration, to evaluate the effectiveness of anti-trespass panels installed at six test site locations throughout the rail network in Sweden. The test site locations include three at rail yard, one at grade crossing, one at tunnel, and one at station platform. The report includes data on the effects of anti-trespass panels on the number of trespassers at these locations.</p> <p>[3] RESTRAIL. (2014). Evaluation of measures, recommendations and guidelines for further implementation: Pilot test #7, A combination of measures at Ayden Station – TCDD.</p> <p>Description: This document describes a pilot test of various physical and behavioral measure including anti-trespass panels to reduce the occurrence of suicides and trespasses on railway property as part of the RESTRAIL project.</p> <p>[4] RESTRAIL. (2020, September 30). 8.5 Anti-trespass panels. Restrail Toolbox.</p> <p>Description: This webpage provides information on implementing anti-trespass panels in Europe, including recommendations, considerations for implementation, and relevant research results.</p>						

Additional Resources

Metrolinx. (2019, September 26). [Metrolinx is exploring innovative ways to reduce deaths on our tracks](#).

Trespass and Suicide Prevention Toolkit

- Description
- Notable Practices
- Advantages
- Drawbacks
- Images
- References
- Related Measures

Anti-trespass panels ↗						
Material installed alongside and across the tracks that make footing unreliable in order to deter entry to the right-of-way.						
Description	Notable Practices	Advantages	Drawbacks	Images	References	Related Measures
	Fencing between tracks at stations					
	Landscaping treatments to restrict access					
	Physical barriers at bridges					
	Right-of-way fencing					

Toolkit Navigation

- **Incident Type:** *Are you looking to prevent trespass, suicide, or both?*
- **Location:** *Are your biggest issues at stations, along the right-of-way, or system wide?*
- **Intervention Strategy:** *Do you have a strategy in mind for how to approach the problem?*
- **Measure Group:** *Is there a certain type of approach that you are curious about?*

Custom Keyword ?

Incident Type ?
 Trespass only (9)
 Suicide only (5)
 Both trespass and suicide (28)

Location ?
 Station only (8)
 Right-of-Way only (4)
 Both station and right-of-way (30)

Intervention Strategy ?
 Data: Application and Planning (8)
 Education: Outreach and Messaging (13)
 Enforcement: Policy Development and Implementation (4)
 Engineering: Technical and Physical Deterrents (17)

Measure Group ?
 Risk Assessment (5)
 Policy Enforcement (3)
 Collaboration, Training, and Education (8)
 Public Communication (6)
 Physical Barriers (7)
 Detection and Lighting (5)
 Infrastructure Modification (4)
 Post-Incident Management (4)

TSP Toolkit: Intervention Strategy

- Data
 - Understand the problem
- Engineering
 - Restrict access to ROW
 - Detect access to ROW
- Education
 - Collaboration with partners
 - Educate staff/ridership
- Enforcement
 - Identify those at risk

TRESPASS & SUICIDE PREVENTION TOOLKIT

Custom Keyword

Incident Type

- Trespass only (9)
- Suicide only (5)
- Both trespass and suicide (28)

Location

- Station only (8)
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- Physical Barriers (7)
- Detection and Lighting (5)
- Infrastructure Modification (4)
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Risk Assessment

- Identify access points for potential trespassers**
Identify access points where individuals are entering the track area to determine appropriate mitigations.
- Identify and monitor hotspots**
Identify and monitor locations where the number of trespass and/or suicide incidents are higher than expected.
- Planning for events with increased traffic**
Develop a plan to ensure safety when an increase in foot or vehicle traffic near the tracks is expected.
- Rail corridor risk assessment**
Identify locations along railroad corridors with the potential for increased trespass and/or suicide incidents based on characteristics of the surrounding communities.
- Risk assessment using forward facing CCTV**
Use FFCCTV to review trespass, suicide, and close call incidents to better understand the actions of individuals in the moments before a strike or near miss.

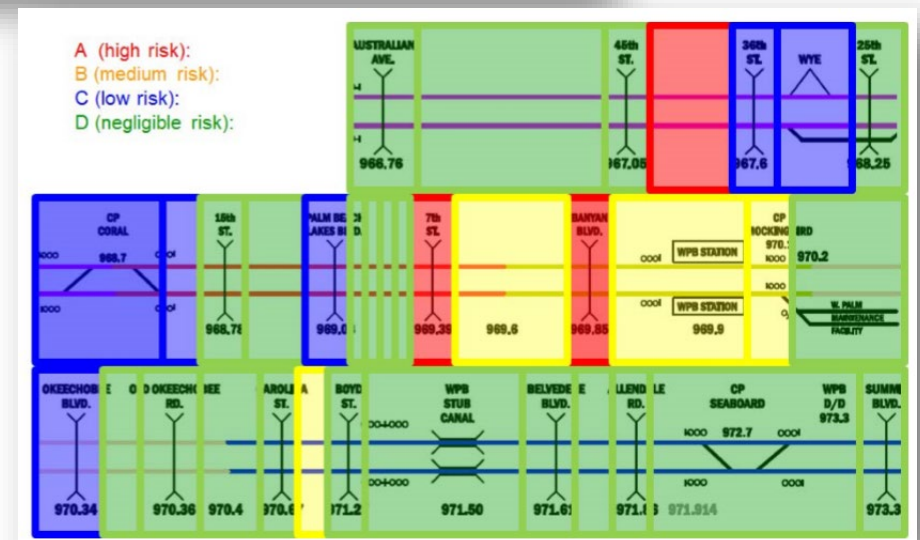
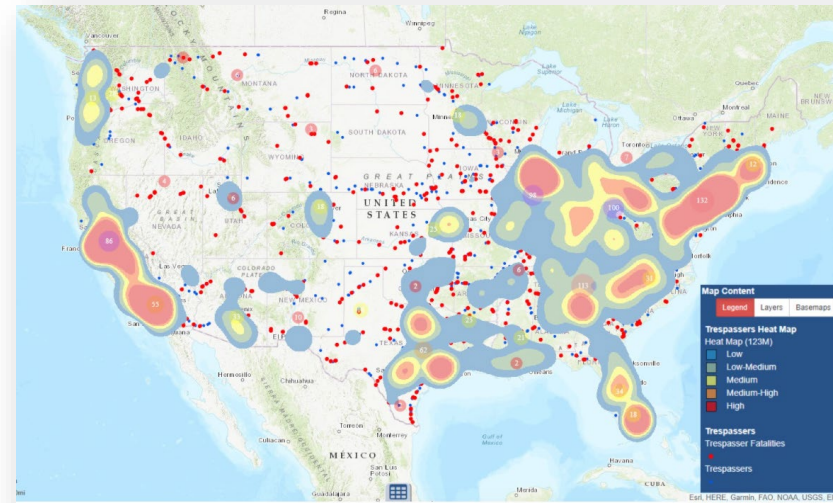
Policy Enforcement

- Refuse or delay boarding to discourage trespassing**
Implement procedures to delay or deny boarding for passengers who are seen to trespass en route to board the train.
- Relocation of homeless individuals**
Coordinate the relocation of homeless encampments from near railroad tracks to locations a safe distance away.

Contact Us

TSP Toolkit: Intervention Strategy

- Data
 - Understand the issue
- Engineering
 - Restrict access to ROW
 - Detect access to ROW
- Education
 - Collaborate with partners
 - Educate staff/ridership
- Enforcement
 - Develop and enforce policies



TSP Toolkit: Intervention Strategy

- Data
 - Understand the problem
- Engineering
 - Restrict access to ROW
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TSP Toolkit: Intervention Strategy

- Data
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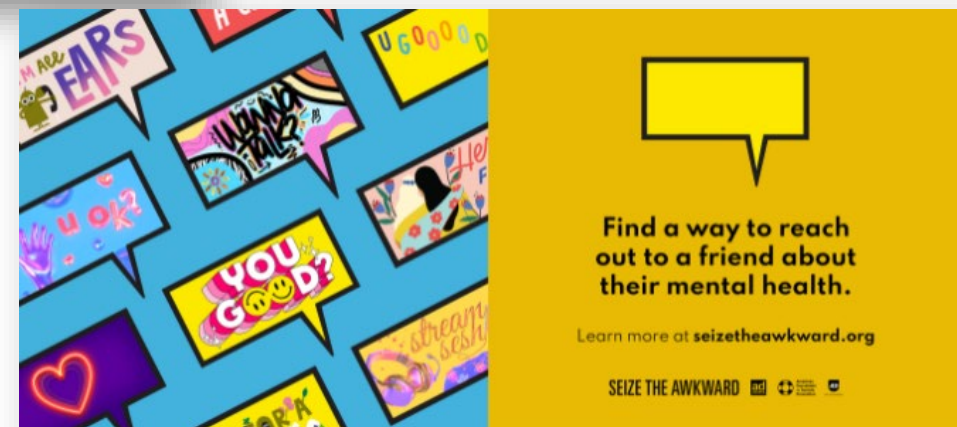
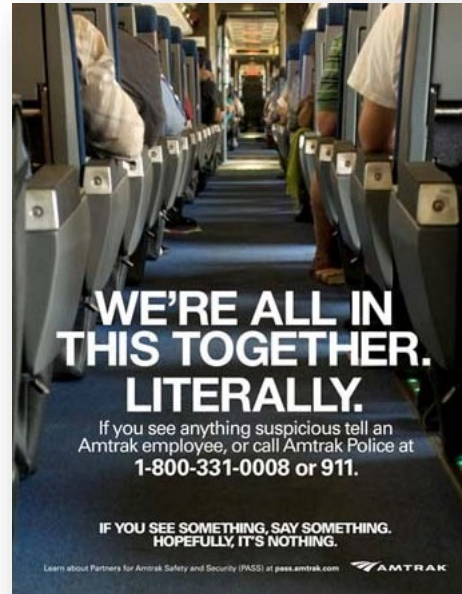
TSP Toolkit: Intervention Strategy

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- Engineering
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TSP Toolkit: Intervention Strategy

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TSP Toolkit: Intervention Strategy

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 - Restrict access to ROW
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Launching Soon!!

- Regularly updated
- Contact our team with feedback

The screenshot displays the 'TRESPASS & SUICIDE PREVENTION TOOLKIT' website. On the left is a sidebar with a search bar and filter options for Incident Type, Location, Intervention Strategy, and Measure Group. The main content area features a 'Risk Assessment' section with a list of items: 'Identify access points for potential trespassers', 'Identify and monitor hotspots', 'Planning for events with increased traffic', 'Rail corridor risk assessment', and 'Risk assessment using forward facing CCTV'. Below this is a 'Policy Enforcement' section with items: 'Refuse or delay boarding to discourage trespassing' and 'Relocation of homeless individuals'. A 'Contact Us' link is in the top right corner.

TRESPASS & SUICIDE PREVENTION TOOLKIT

Custom Keyword

Incident Type

- Trespass only (9)
- Suicide only (5)
- Both trespass and suicide (28)

Location

- Station only (8)
- Right-of-Way only (4)
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Intervention Strategy

- Data: Application and Planning (8)
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- Risk Assessment (5)
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- Relocation of homeless individuals**
Coordinate the relocation of homeless encampments from near railroad tracks to locations a safe distance away.

[Contact Us](#)

Questions?

Scott H. Gabree, PhD
Engineering Psychologist
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www.volpe.dot.gov



Our Purpose

Advancing transportation innovation for the public good.

OUR CORE VALUES



Public Service



Innovative Solutions



Collaboration and Partnering



Professional Excellence



Employee Well-Being

RAIL

MOVING AMERICA FORWARD



Questions for our Panelist

RAIL

MOVING AMERICA FORWARD



Break

RAIL

MOVING AMERICA FORWARD



Community & Public Outreach Engagement

Community & Public Outreach Engagement

Lifelong resident of New Jersey, married with two adult children who are both in law enforcement. Retired Police Chief with 42 years in Municipal, County, State and Railroad law enforcement. Served 8 years as the Director of Public Safety for Bergen County and the Chief of Police Training for the Bergen County Police Academy. Graduate of Thomas Edison University with a bachelor's degree in Criminal Justice and holds a New Jersey State Certified Public Manager certification from Rutgers University. 1999 Graduate of the FBI Law Enforcement Executive Development Academy at Princeton University. Starting my 5th year with the FRA as an Inspector with Grade Crossing & Trespass Outreach Division in District 1, covering the territory of NJ, NY, CT and RI.

August Greiner

“Chip”

Safety inspector (GXTP)

Federal Railroad Administration



Community & Public Outreach Engagement



Rachel Maleh
Executive Director
Operating Lifesaver, Inc.

Rachel Maleh is Executive Director of Operation Lifesaver, Inc, the national, nonprofit rail safety education organization based in Washington, D.C. Maleh has over 25 years' experience in nonprofit management, communications, marketing, fundraising, organizational development, and leadership transition planning.

Prior to joining Operation Lifesaver, Inc. Maleh ran a communications consulting firm offering comprehensive nonprofit management services. Previously, she was Deputy Executive Director of the Greater Washington Region of the American Heart Association. Her experience also includes serving as Senior Advisor/Chief of Staff with the National Community Reinvestment Coalition in Washington, D.C.

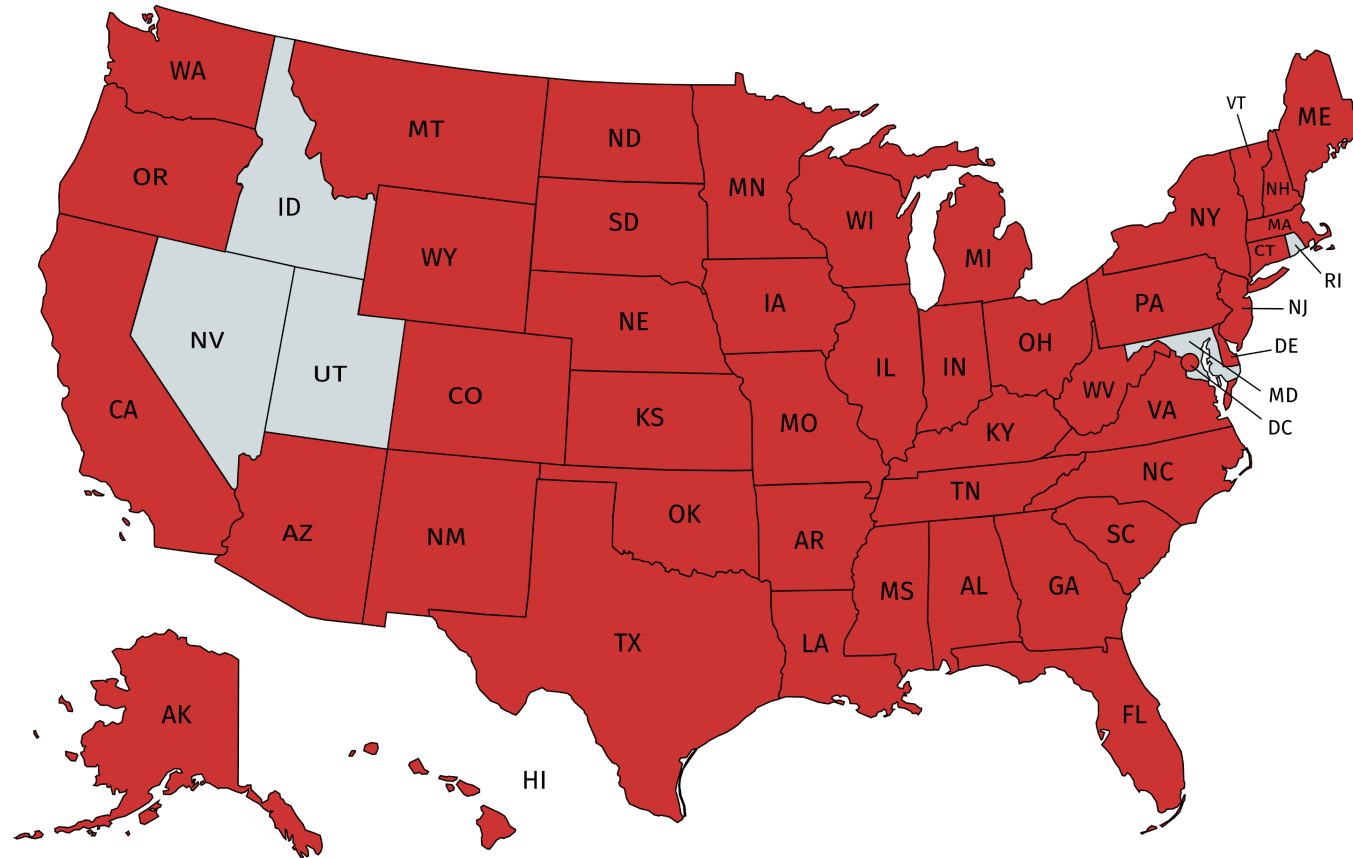
Maleh has advanced degrees both in International Relations and International Communications from Boston University; as well as a Master of Science in Marketing from Johns Hopkins University. She earned her Bachelor of Arts in Sociology and French from Hobart and William Smith Colleges.

Trespass Education and Prevention Strategies

Rachel Maleh
Executive Director



State Operation Lifesaver Programs Across the U.S.



2022 - Operation Lifesaver's 50th Anniversary

GOALS

- Enhance OL visibility
 - Strengthen partnerships
 - Honor our past and positively position OLI for the future
- Tagline - Operation Lifesaver: 50 Years of Rail Safety
 - Hashtag - #50YearsofRailSafety
 - View the timeline, volunteer highlights and take the safety pledge on the Anniversary landing page:
oli.org/celebrate



50th Anniversary – Amtrak Commemorative Locomotive



OLI ED Rachel Maleh, U.S. Federal Railroad Administrator Amit Bose, OLI Board Chair Jo Strang



Locomotive in Union Station, Washington, DC



FRA Chief Counsel Allison Fultz speaking at the Jan. 12 launch event



Education Resources – Trains & Tracks Video

- 9-minute video for Kindergarten-Second grade based on *Trains & Tracks* picture book
- Additional resources for teachers and parents include lessons plans and activities
- Watch it here:
<https://vimeo.com/456794057>



Education Resources - Mainline Middle School Video



- 9-minute video for middle schoolers created from a PowerPoint safety presentation
- Additional resources for teachers and parents include lessons plans and activities
- Find it online under **FOR KIDS** at **oli.org**

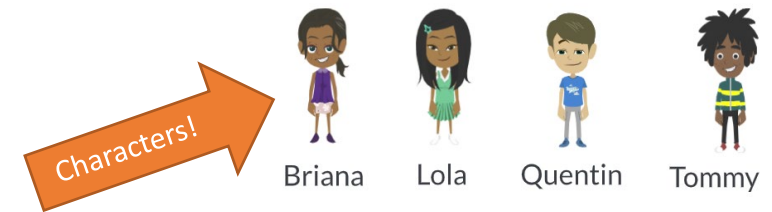
<https://oli.org/media/mainline-middle-school-video-grades-6-8>



Education Resources - Train Safety Savvy Game

- Interactive web-based train trip across the country teaching rail safety along the way
- Designed for autonomous play, geared toward 7 to 9-year-olds
- **3,000+ page views** since launching in 2020; average of 4 minutes spent on the page

Find it online under **FOR KIDS** at oli.org



Tools and Resources - People Experiencing Homelessness

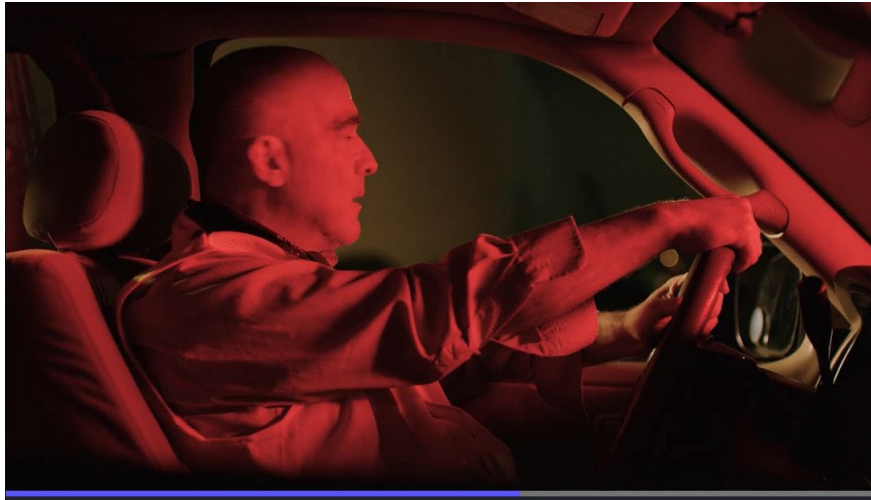


- Developed with assistance from Volpe Center experts, available in English and Spanish
- Image-driven [poster](#) highlighting positive and adverse choices around tracks and trains
- Information-filled [brochure](#) for service providers and volunteers

New Tools & Resources - College-Focus PSA



New Tools & Resources – Other Audience-Specific PSAs



Shift Worker

<https://vimeo.com/648607151/6638767ca9>



Mature Driver

<https://vimeo.com/648603763/1e2a1ef526>



New Tools and Resources – Train Track Trivia Game

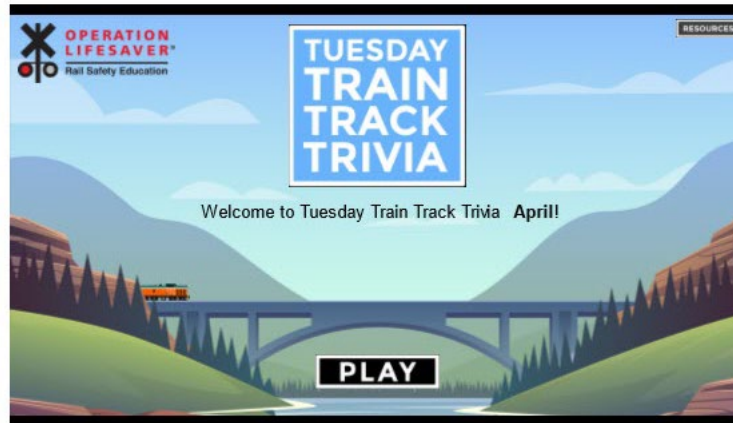
TUESDAY TRAIN TRACK TRIVIA – APRIL

Are you up to the challenge?

Test your rail safety and rail history knowledge. See if you can get correct answers to all 16 questions! Come back each month for a new challenge; new games release the first Tuesday of each month throughout 2022.

Drag and drop the crates into the boxcar that best answers the question. The faster you answer, the more points you earn. For touchscreens, touch and hold the boxcar with the correct answer. After completing the game, play again and improve your score! Scroll down to start playing Tuesday Train Track Trivia!

Use Google Chrome, Windows 10 or higher or MAC OS 11 for the best game experience. Refresh the page to restart if you have any problems.



<https://oli.org/tuesday-train-track-trivia-april>

- Interactive online game was launched in January as part of 50th Anniversary efforts
- Players test their rail safety and rail history knowledge by trying to correctly answer 16 questions; players may replay the game to improve their score
- A new online game will be available on the first Tuesday of each month throughout OL's 50th Anniversary in 2022

New Tools and Resources – Online Rail Safety Pledges

Take The Rail Safety Pledge

Every three hours in the U.S., a person or vehicle is hit by a train.

Make your communities safer. Take the Operation Lifesaver Rail Safety Pledge today!

TAKE THE PLEDGE ONLINE:

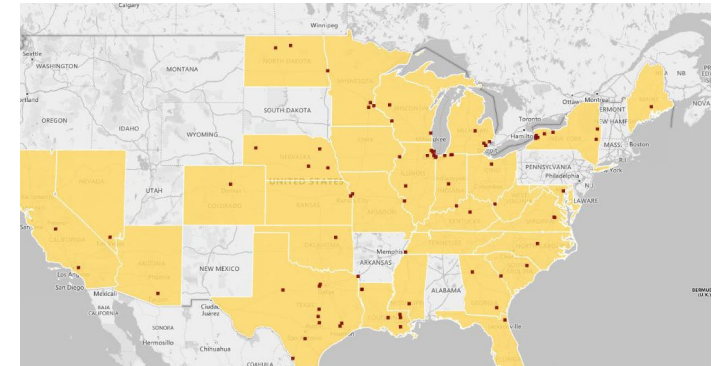
Kids Pledge: <https://oli.org/pledge/kids>

Adults Pledge: <https://oli.org/pledge/adults>



RISC (Railroad Investigation and Safety Course) Update

- Current # of RISC Instructor Trainers = 33
- Current # of RISC Instructors = 194
- Since RISC launched, a total of 233 classes have been held with 3,817 students completing RISC as of March 2022
- RISC is accredited in 17 states under law enforcement training programs
- RISC accredited states include Arizona, California, Colorado, Georgia, Indiana, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Carolina, Tennessee and Texas



2021 New RISC Instructor Locations



RISC Instructor Training Class Chicago, 2021

OLI/FRA Competitive Grants Fund Trespass Projects



NY OL Innovative Grant Campaign

- NY OL received the first OL Innovative Grant in 2020 for their trespass prevention campaign
- Two Region 1 states - NY and NJ - are among just-announced 2022 FRA grant recipients
- THANK YOU, FRA for your continued safety partnership on these important grants!



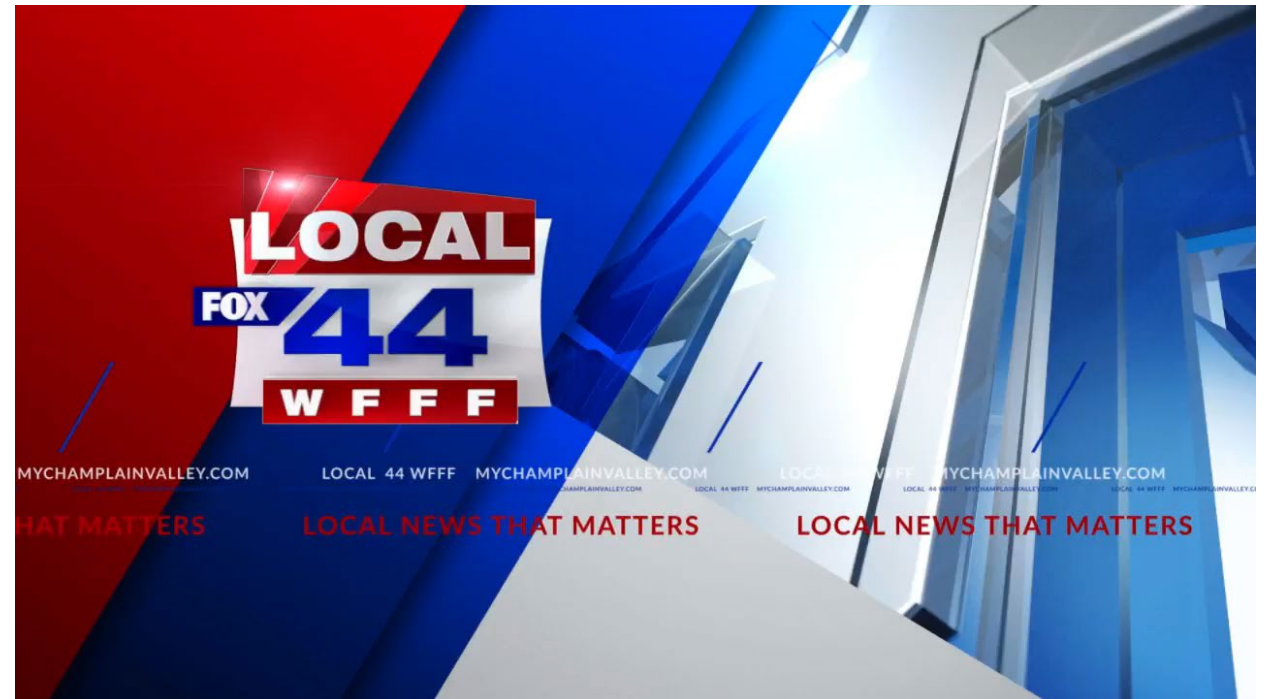
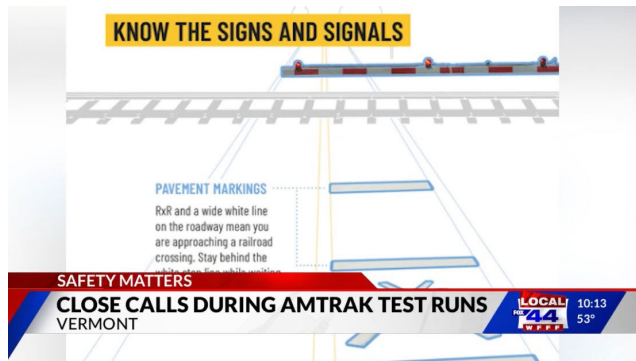
Creative State OL Safety Efforts

Connecticut: Suicide Prevention Signage in Stations



Creative State OL Safety Efforts

Vermont: TV Interview



Creative State OL Safety Efforts

South Carolina: Ad campaign for Outdoor Enthusiasts



ILCAD 2022 – June 8-10, Denver, Colorado, USA

- Trespass and Suicide Prevention Pre-Session June 8
- ILCAD June 9
- Technical visit to MxV Rail in Pueblo June 10
- Register today at ilcad.org



<https://ilcad.org>

Rail Safety Week 2022 – Save the Dates!

Join us across North America
September 19-25, 2022

Details: oli.org/rsw



Rail Safety Week Partnerships – Key to Success

Example: RSW 2020 MBTA Railcar Safety Messaging Wrap



2022 Projects Underway

Working groups are moving forward on:

- Transit PSA, Brochure and Social Media
- Photographer/Social Media Influencer PSA and supplemental materials
- Delivery Driver PSA



Operation Lifesaver, Inc. Staff



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TOGETHER, WE CAN #STOPTrackTragedies

OLI.ORG

FOLLOW US ON SOCIAL

(800) 537-6224





Fitchburg PD Railroad Trespassing Enforcement Program



Community & Public Outreach Engagement

Lieutenant Jeffrey J. Howe is the Community Engagement Unit Commander of the Fitchburg Police Department. Lt. Howe is a 29-year member of the Fitchburg Police Department, beginning his career as an officer in 1994. He obtained the rank of Sergeant in 2003 and was sworn in as Lieutenant in 2015. During his 29 years of service to the city of Fitchburg, Lt. Howe has received several recognitions, including a commendation of heroism and two merit awards. He also served as a volunteer first responder in New York City following September 11, 2001, terrorist attacks. Born and raised in Fitchburg, Lt. Howe is a 1988 graduate of Fitchburg High School. He continued his education at Fitchburg State University where he obtained a bachelor's degree in sociology and earned a master's degree in criminal justice from Anna Maria College. He resides in central Massachusetts with his wife, Lauren, daughter, Francesca and stepdaughter, Gracie. In his spare time, Lt. Howe enjoys being in the outdoors, and spending time with his family and dog, Boo Bear.

Lt. Jeffrey Howe
Community Relations
Fitchburg Police Department

Community & Public Outreach Engagement

Kristi Fritscher is the grant writer and crime analyst for the Fitchburg Police Department. Ms. Fritscher has been with the Fitchburg Police Department working in a dual role since 2009. She is a successful grant writer who has been awarded over 100 grant awards in her career and is currently managing over 1.5 million in grant funds. She is a member of the Massachusetts Association of Crime Analysts and the International Association of Crime Analysts. Ms. Fritscher has a master's degree in Criminal Justice from the University of Massachusetts Lowell as well as a master's degree from Fitchburg State University in History with a focus on research and writing. She resides in Central Massachusetts with her husband Scott and two young sons.

Kristi Fritscher
Crime Analyst/Grant Writer
Fitchburg Police Department



Fitchburg PD Railroad Trespassing Enforcement Program





Fitchburg, MA

- ▶ Fitchburg is one of the largest cities in Worcester County with a population of 40,882
- ▶ Fitchburg is located approximately 40 miles northwest of Boston, and 25 miles north of Worcester, making it one of the county's gateway cities
- ▶ Home to Fitchburg State University – attracts over 7,000 staff/students to the area. Many of whom use the Intermodal Train Station
- ▶ Poverty rate is 16% which is higher than the state's poverty rate of 10%
- ▶ Significant transient and homeless population with little resources to address either issue.



Fitchburg Police Department

- ▶ Currently has 73 sworn officers, nearly 40% of department CIT trained
- ▶ Averages 50,000 calls for service per year including 200 non-fatal overdoses, over 900 mental health related calls for service and dozens of panhandling complaints.
- ▶ All sworn staff carry Narcan. About 80 Narcan deployments per year & 15% of those who received Nasal Naxolone after a non-fatal overdose were homeless
- ▶ Averages over 800 Part I Crimes per year including over 300 violent offenses including robbery, shootings and stabbings. Majority of property crime includes motor vehicle thefts and general larceny

Fitchburg Rail Lines

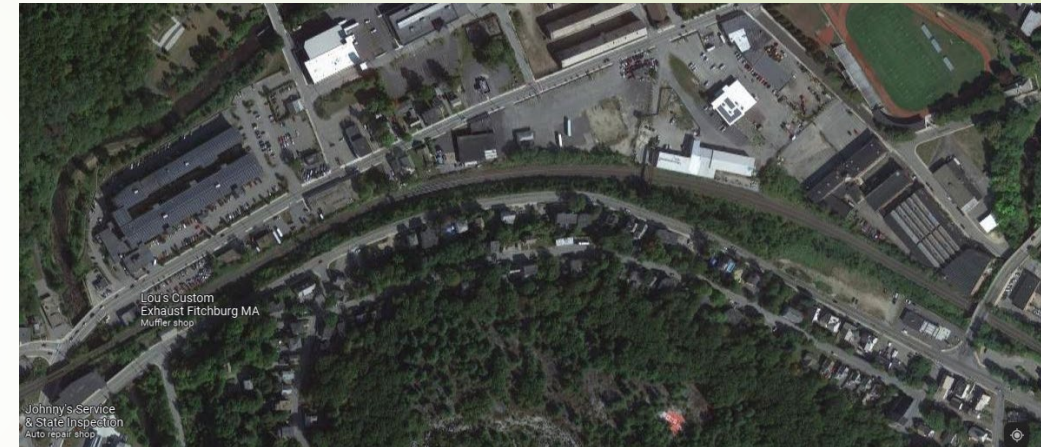
- Main Railway Lines – MBTA & Boston & Maine Railroad Intermodal Train Station 150 Main St located in downtown Fitchburg. Last year there were 242 calls for service at the Intermodal Station – most calls for unruly persons, drunkenness, overdoses, disturbances and suspicious activity





Fitchburg Rail Lines

- Over five miles of FRA regulated rail line in Fitchburg



Above: River St – Rail line

Left: Majority of rail line in the downtown area near Main & Water St. Rail line located along wooded area, commercial district and residential area



Trespassers by the tracks

- ▶ Approximately 2 to 3 dozen homeless people live in camps near the railroad tracks, and up to 50 persons are known to congregate by the tracks. Many of these people suffer from mental illness and/or substance abuse.
- ▶ Fights, drunkenness, thefts, disturbances and overdoses are reported by and along the tracks on a fairly regular basis.
- ▶ Many trespassers walk across the tracks to get to Market Basket, the liquor store or the other retail stores on the other side of the tracks.
- ▶ Over the past ten years in Fitchburg, nearly a dozen people have died or have been seriously injured as a result of trespassing along the tracks within the city.



Trespassers by the tracks

- ▶ 16 arrests for trespassing along the tracks & 5 summonses issued since 2016
- ▶ Officers respond to nearly 100 calls on or along the tracks every year. These calls include disturbances, loitering, overdoses, ATV activity, mental health crises including suicide attempts. Suspects in unrelated calls often flee towards the tracks to evade police.
- ▶ Intermodal Station: Since 2016, there have been 46 arrests (not related to trespassing). 1800 calls for service including 33 suicide attempts, 27 mental health crises, 116 fire/ems calls, 25 overdoses, 19 thefts, 5 complaints of panhandling and prostitution, 41 trespassing complaints and 13 drug calls.



Fitchburg Rail Lines – Recent Notable Incidents

- ▶ 2021: 60 year old male trespasser was hit by the MBTA commuter rail train at around noontime. He suffered a serious wound to his head and was taken to the hospital. Victim has a history of alcohol abuse.
- ▶ 2021: 37 year old female trespasser struck by MBTA commuter rail. Victim has a history of MH illness, not seriously injured.
- ▶ 2020: 48 year old male trespasser was struck by Boston/Maine (pan am) train after he was trying to trying to cross the tracks to get to the liquor store on River St. Non life threatening injuries.



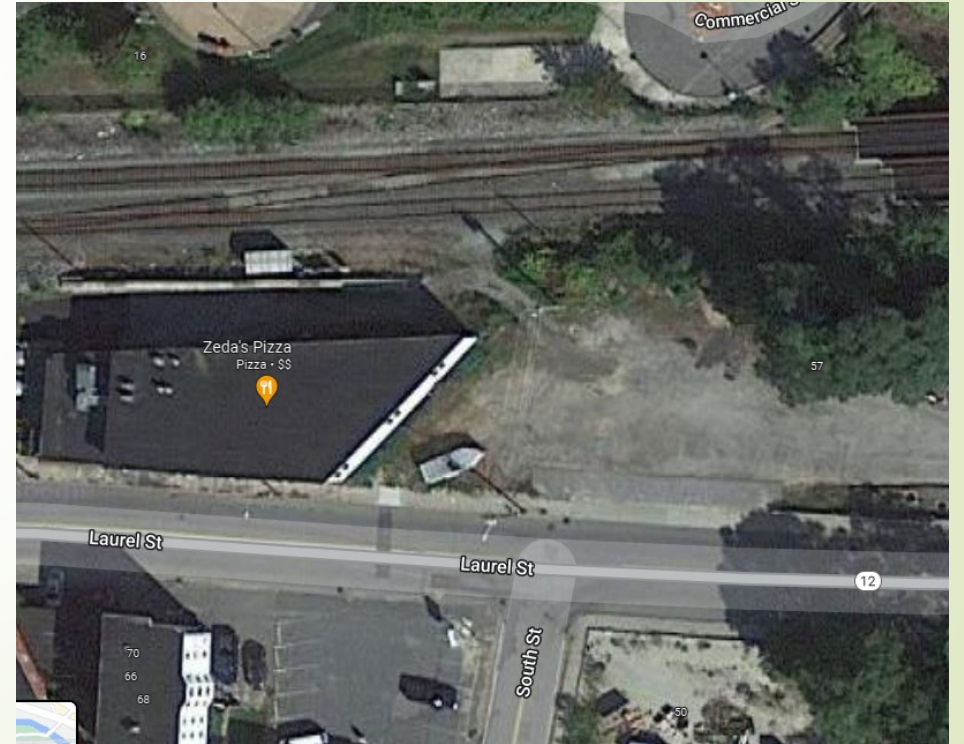
Fitchburg Rail Lines – Recent Notable Incidents

- ▶ 2019: 58 year old female trespasser was killed on a Saturday afternoon by the MBTA commuter train. The deceased left a suicidal note behind.
- ▶ 2018: 33 year old male trespasser was injured after he was struck by a MBTA train near the tracks by Montouri Gas. Injuries were non-life threatening.
- ▶ 2017: 31 year old man was seriously injured after he was struck by a MBTA train near the Intermodal. History of alcohol and mental illness.



Fitchburg Rail Lines – Notable Incidents

- ▶ August 2021: While driving down South St, vehicle's brakes failed and operated crashed onto the train tracks causing a delay.



Trespassers by the tracks



Camp located just off the tracks by the woods



Homeless camps under the bridge by the tracks

Trespassers by the tracks



More camps under the bridge by the Main St area tracks





FPD Grant Program

- Applied for & received \$7500 of grant funding in 2019/2020
- Enforcement activities concentrated along an approximate two mile stretch of area. Primary area – from Intermodal to 5th St bridge. Secondary – along River St
- Warnings, citations, arrests to persons violating rail related trespass laws.

Pictured: Primary area of Hot Spot – Railroad Trespass Enforcement Activities (Approx 1.5 mile railroad area). Most trespassing violations & injuries occur along this track





FPD Grant Program

- Officers spent time along the tracks and educate the homeless/vagrant population as to the dangers of trespassing and loitering by the tracks
- Worked alongside local homeless & transitional shelter organizations to offer assistance & referrals.
- Worked with Boston & Maine Railroad PD

***Secondary area of Hot Spot – Railroad Trespass Enforcement Activities.
(Approximate .75 mile railroad area. River St area***



FPD Grant Results

- During this grant program, officers interacted with 66 individuals. 60 were issued warning in regards to trespassing violations, 5 were arrested and 1 was summonsed to court for trespassing violations. There was one fatal overdose along the tracks during the program period.
- Of the 66 interactions, 35 noted that the primary reason for trespassing was convenience, 30 said it was due to homelessness, and 1 said it was for recreation.

Officer (s) Names: _____ Date: _____
 Shift worked & Railroad Enforcement Call/Dispatch #: _____

Cummulative Totals:	
Total number of summonses:	
Total number of warnings:	
Total number of arrests	

Summons & Warnings per shift			
Total # of	Summons	Warning	Arrest
Defiant Trespass			
Other Violations Moving/Non-Moving			

Reasons for Trepass	Total Numbers
Homeless	
Convenience	
Recreation	
Committing other criminal activity	
Other	

If an arrest was made please list the AR number below

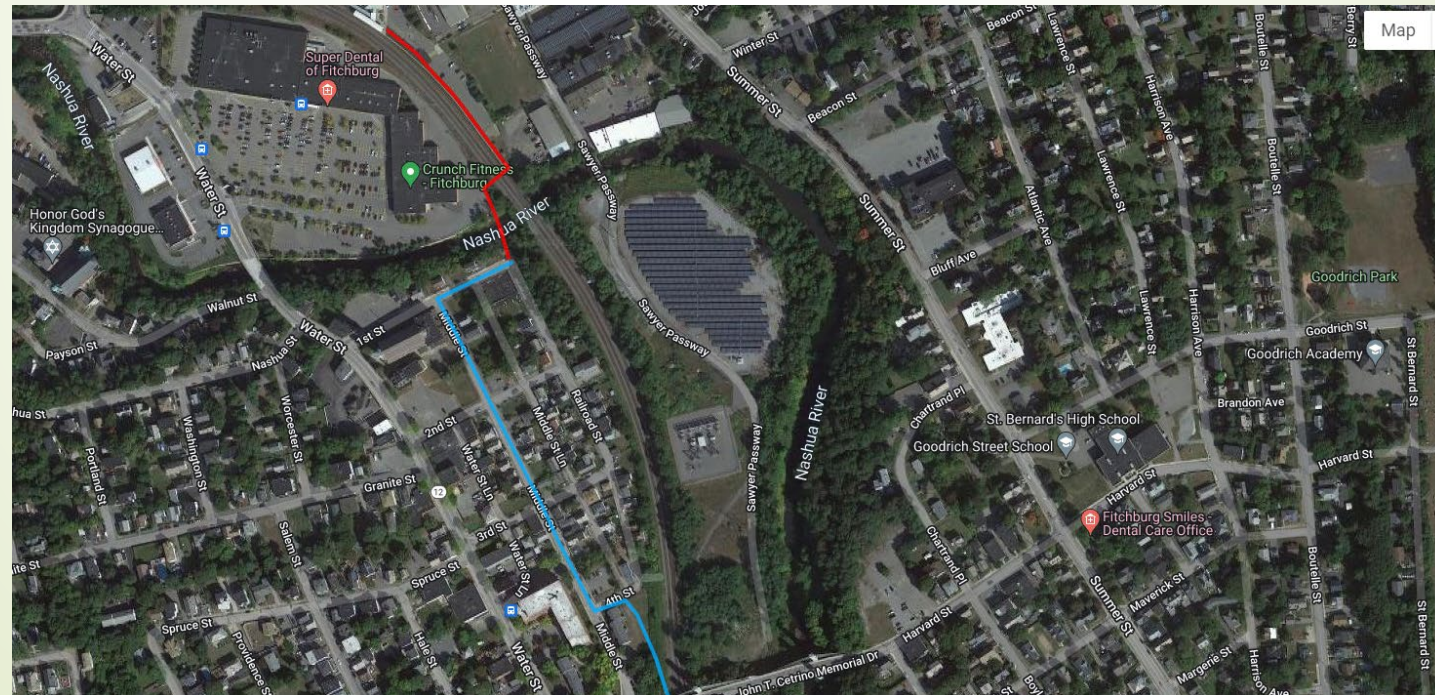
If an summons was issued please list the person's name below (print legible)

If a warning was issued please list the person's name below (print legible)


FPD analyst created an activity worksheet to track programmatic measures during grant period. Worksheet was completed after each deployment

Rail Trail Program

- ▶ The Twin Cities Rail Trail project is approximately 4.7 miles long that would run from downtown Leominster to the Intermodal Train Station in Fitchburg
- ▶ Follows the path of the decommissioned Fitchburg & Worcester Railroad line, which later was owned by CSX Corp.
- ▶ Trail also extends to the Fitchburg train and bus station. A section of the proposed rail trail will be near active railroad tracks, and a section of the trail will have trail users cross the MBTA tracks by the Intermodal Station on Main St



Community & Public Outreach Engagement



Daniel Cahill
Quality of Life Team
Worcester Police Department

Lt. Matt Early
Worcester Police Department

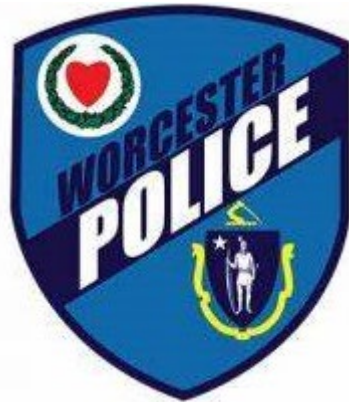
Angel Rivera
Quality of Life Team
Worcester Police Department

Dan Cahill-Team Lead City of Worcester's Quality of Life Task Force. Has been employed by the City of Worcester Department of Inspectional Services since June 2005. Worked in the city's Trash Program, as the first Nuisance Inspector and in the Housing Division before taking the team over in 2015.

Lt. Matt Early- Worcester Police Department. Been with the Department for 26 years. Has experience in the Operations Division, Vice Squad and as a Sgt. For the Neighborhood Response Team before serving in current role.

Angel Rivera- Crisis Intervention Officer, Worcester Police Department. Been with the WPD since 2006. Service Division, Operations Division experience before joining CIT in December 2015. Currently part of the Crisis Negotiation Team. CIT-TTAC Coordinator.

Worcester Police Department Crisis Intervention Team Neighborhood Response Team & City of Worcester Quality of Life Task Force



WPD Lieutenant Matthew Early
WPD CIT Officer Angel Rivera
QOL Team Leader Daniel Cahill

How was CIT started?



- ▶ 1988 Memphis
- ▶ NAMI, Memphis Police Department, University of Tennessee, community partners, etc.
- ▶ Known as the “Memphis” Model
 - pre-arrest jail diversion for those in a mental illness crisis
 - partnership with those in mental health care
- ▶ Model reduces both stigma and the need for further involvement with the criminal justice system

- ▶ 2015 WPD CIT

Crisis Intervention Model

- An innovative, first-responder model of police-based crisis intervention training to help persons with mental disorders and/or addictions access treatment rather than place them in the criminal justice system due to illness-related behaviors.
- Assure that encounters between police officers and individuals with behavioral health disorders are safe for all involved
- Basic Goals: Improve Officer and Public Safety / Jail Diversion / Officer Training / Improve Quality of Life.
- Redirect Individuals with Mental Illness / Substance Misuse from the Judicial System to the Health Care System. Reduce the number of times an individual with a behavioral health disorder has contact with police (help people break the cycle).
- A community partnership of:
 - ▶ law enforcement and first responders
 - ▶ mental health and addiction professionals
 - ▶ individuals who live with mental illness and/or addiction disorders
 - ▶ their families
 - ▶ and other advocates

An
Integration
of

Purpose:
Enhance Officer and Citizen Safety

police-based
crisis
stabilization
and
de-escalation

behavioral
health crisis
intervention
services

linkages to
community-based
behavioral health
services

Crisis Intervention

- ▶ Individuals with a mental health disorders such as Schizophrenia, Bipolar Disorder, thought disorders, and Substance Use Disorders are more likely to experience homelessness, suicide, incarceration, victimization, and incidents of violence
 - ▶ Potential risk to themselves or the public
- ▶ **Note:** Law enforcement has borne the brunt of this crisis.

CIT Goals

- Fewer repeat calls for service of patrol officers with mental health / substance use / Connect to Services
- Enhanced working relationship of patrol officers with city crisis workers, community agencies
- Increased involvement - family and friends of the Mentally Ill / Substance use as a crisis response alternative.
- Training of Police Officers / Dispatchers / Community Health Workers
- Improve the Quality of Life Task Force / Railroad Safety



Quick Recap:

CIT Program Goals

Goal 1: Assure that encounters between police officers and individuals with behavioral health disorders are safe for all involved, and are unlikely to include violence and injury.

Goal 2: Reduce the number of times an individual with a behavioral health disorder has contact with police (help people break the cycle).

Goal 3: Assure that behavioral health services effectively support police response to incidents involving individuals with mental illness/substance use disorders in crisis.

Goal 4: Promote ongoing system-wide communication and evaluation in order to improve the response to and successful outcomes for, individuals with behavioral health disorders.

Goal 5: Develop measurable outcomes related to each goal.

Goals Achieved Since January 2016



Since January of 2016 , The Worcester Police Department had developed a Crisis Intervention Team Training Course. We were successful in creating (2) 40 hour of CIT Trainings. (1) CIT-Technical Training Assisting Center) Central MA Police Department

WPD has trained 67 individuals: (WPD Officials / Officers / Dispatchers, St. Vincent Public Safety, Umass University Police, Quality of Life Task Force). (25) Central MA Police Officers. (Thanks to Community Agencies / Partnerships)

Mental Health First Aid Training
(30 WPD Officers / Officials)

Assisted in the training for the Spencer Police Department Recovery Coach program.

Homeless Outreach Program / partnership with the Quality of Life Task Force

What does the CIT training include?

Overview of CIT

De-escalation training and exercises

Information sharing from state agencies- DMH, DCF, DYS, VA, Elder Services, DA's office, specialty courts
And from community providers - ESP,

Specific topics - substance use, mental illness, domestic violence, suicide , developmental disabilities, trauma, Vicarious Trauma

Collaboration with Agencies

- ➔ The Crisis Intervention Team has worked in collaboration with several agencies to include South Middlesex Opportunity Council and the City Quality of Life Task Force to address the issue of Homelessness in the City.



- ➔ Community Health Link, Elder Protective Services, Department of Health and Human Services, Department of Children and Families, Juvenile Probation, Umass Emergency Mental Health, Drug Court, (to Include Serving and assisting families with Section 35), Suicide Prevention Coalition, HUB/COR.



Crisis Intervention Team

Central MA Police



Quality of Life Task Force / Homeless Outreach



Quality of Life Task Force

- Established September 2015 by City Manager Ed Augustus
- Interdepartmental Team made up of members from the Worcester Police Department, Department of Inspectional Services, Department of Public Works, and Health and Human Services Homeless Outreach Team
- Rapidly Respond and Proactively Patrol the city for homeless sites, trash, vacant and problem properties, illegal chop shops, needle removal, and other issues.



Quality of Life Task Force

- With regards to homeless outreach, our mission is to connect individuals to the services they need including but not limited to housing/shelter Services, mental health and or substance use treatment programs
- QOL brings the outreach to the individuals in need. Twice a week, we provide outreach to the homeless population where they stay. Community partners attend and start the process of getting people off the streets and into shelter
- Clinicians, Recovery Coaches, ER Doctors, Shelter Providers, Substance use Treatment, Veterans Services, and Housing Specialists /Case Managers often accompany the team



Quality of Life Task Force

- Use the State Sanitary Code and City of Worcester Nuisance Ordinances as enforcement tools
- Common barriers we see which prevents people from securing housing/treatment include: not wanting to go to one of the shelters in the city, lack of trust with outreach workers, length of time it takes from initial contact to ultimately getting housed, not wanting to get clean, unwillingness to follow rules, and clients unable to keep appointments
- Continue outreach and offering a hand up, not a hand out
- Influx of Homeless population from other communities

Quality of Life Task Force

- The team engages with the individuals, offers services, and explains why we are there
- We DO NOT remove or break down any site without proper notification
- City will store items removed for up to 30 days when on city property
- QOL works with private landowners for timely removal when they are on private property





MA DOT / Railway



MA DOT / Railway



CXS Railway Illinois



CXS Railway



OD Story



Neighborhood Response Team



Skate Park



Social Media

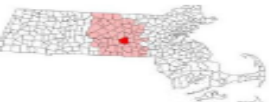
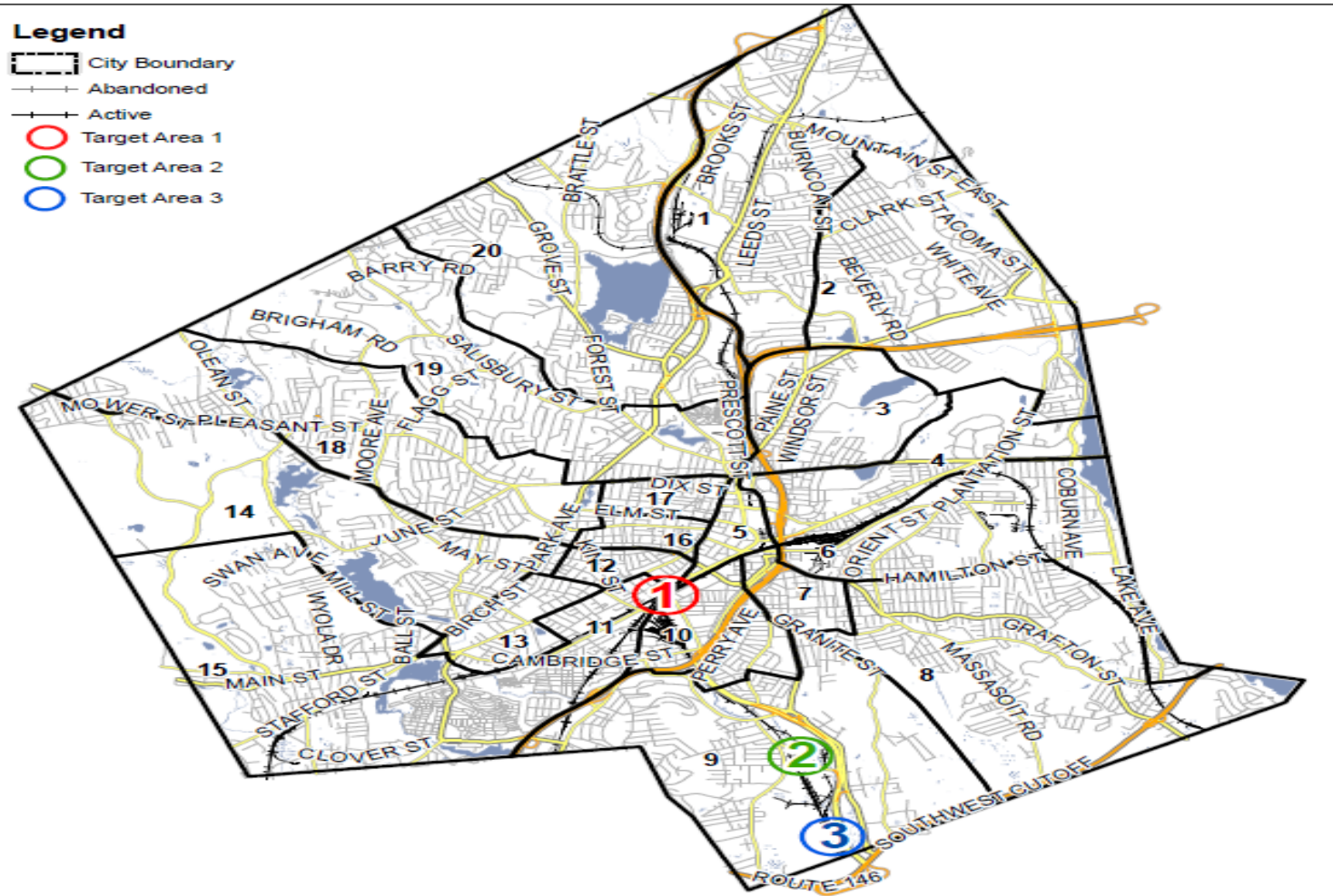


Trespassers

Trespass Target Areas

Legend

-  City Boundary
-  Abandoned
-  Active
-  Target Area 1
-  Target Area 2
-  Target Area 3



1 in = 5,544 ft
 0 0.45 0.9 1.8 Miles

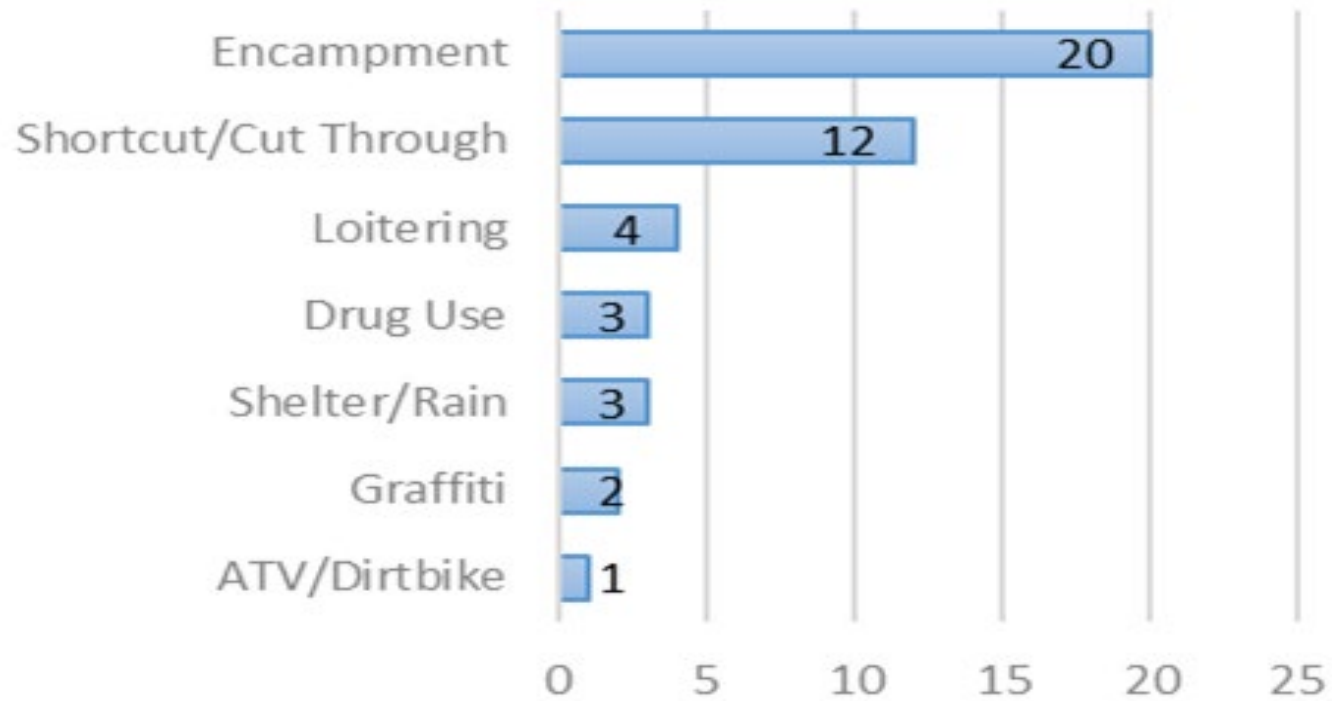
Produced by
 City of Worcester
 Police Department
 Crime Analysis Unit
 Worcester, Massachusetts



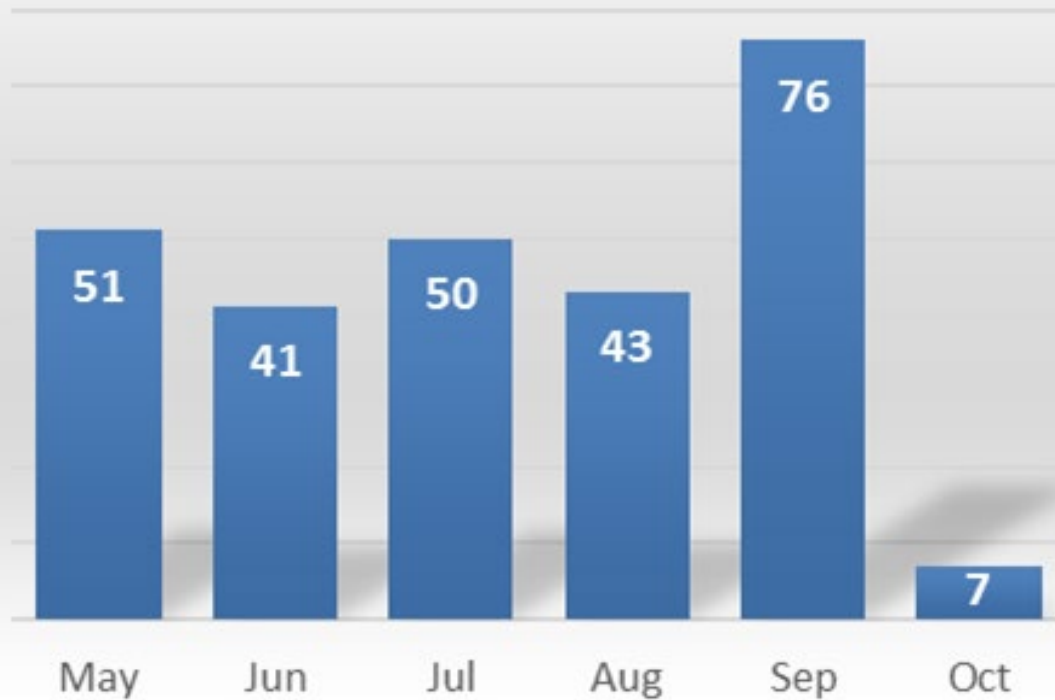
Camera Initiative



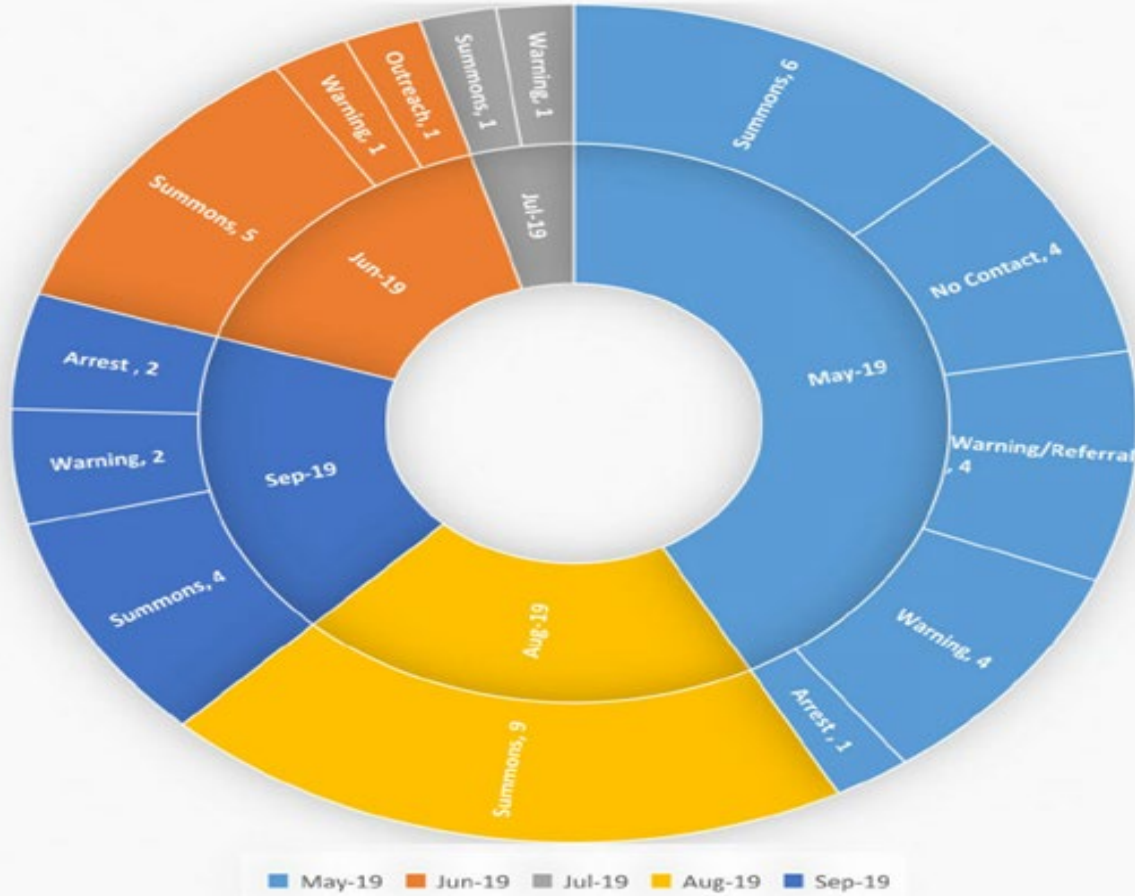
Worcester Police Department 2019 Railroad Trespass Encounter Reasons



Worcester Police Department 2019 Railroad Trespass Incidents



Worcester Police Department 2019 Railroad Trespass Initiative Outcomes By Month



Any Questions ?

WPD CIT

508-799-8682

Extension 28182

Quality of Life Task Force

774-696-1811



TRESPASSER SUMMIT 2022

Kellie Andrews

Vice President Safety, Security & Environment

—
APRIL 29, 2022



KEOLIS

Community & Public Outreach Engagement

Kellie Andrews has a career that spans 23 years in the transport domains. Her analytical nature was a natural fit for accident/incident investigation, and she ultimately found a passion in Systems Safety. Kellie was on the development team for the first fully certified Safety Management System in the United Arab Emirates and went on to enhance the Safety System with Dubai Airports introducing robust investigation methodologies, operational risk management and human factors. In 2011, she explored the impact of national culture on safety culture in the United Arab Emirates and continued the cultural focus with work on effective Team Resource Management in multi-cultural environments. She has worked on the integration of drones into civil airspace, emergency response and planning, airspace management in fires/floods, airspace design, and human factors test planning to name a few. In 2016, Kellie was the subject matter expert in the design of a new industry leading Incident Investigation Course, that was sponsored by the International Civil Aviation Organization (ICAO). Kellie was invited to South Africa in 2018 to participate in ICAO's inaugural Global Gender Summit, where the industry gathered to strategize and address gender balance within the industry. She is a full member of the International Society of Air Safety Investigators and as an avid learner, holds a bachelor's degree in Management, a master's in Science & Technology (Safety) and is currently completing a Masters in Human Factors. Kellie pivoted to rail in April 2021, joining Keolis Commuter Services as Vice President of Safety, Security & Environment, where her focus in the last year has been to establish and enhance governance for the future direction of systems safety and sustainability.

Kellie Andrews
Vice President of Safety
Keolis Commuter Rail Services



TRESPASSER SUMMIT 2022

Kellie Andrews

Vice President Safety, Security & Environment

—
APRIL 29, 2022



KEOLIS

SAFE ROW: Sensitive Communities Management

- Program implementation by Keolis in 2014 (first six months in operations)
 - 23 locations, ~87 cubic yards of material removed, >2000 needles, Yawkey Station >2 cubic yards of MSW, car parts and bio haz removed.
 - Specific areas were identified for monitoring (Brockton, Boston and Lynn)
- Environmental Department developed program in 2015 to address recurring demand of sensitive communities and at-risk locations & leads coordination between internal and external parties for cleanup / removal and disposal.
- Engineering Department leads all station cleaning and collection of needles
- Transit Police aligns protection and liaise with different community organizations
 - Intervention and Community organization form part of the process from planning to post operation

SAFE ROW: Sensitive Communities Management

- At-risk stations are monitored weekly by Engineering department and at times daily removal of needles is required

- At-risk recurring sensitive communities are monitored/identified by Engineering and Environmental-Fairmount Line (3 stations), Lowell, Brockton, Boston, Lynn, Somerville, Gloucester

- Resources
 - Transit Police assigns officers pre and during operation to secure areas and liaise with other PDs
 - Community organizations provide support by engaging directly with members
 - Boston, Cambridge, Somerville and other Police Departments support Transit Police
 - Keolis provides cleanup crews, track protection, equipment and coordination
 - Cities and Towns Board of Health and other depending on location

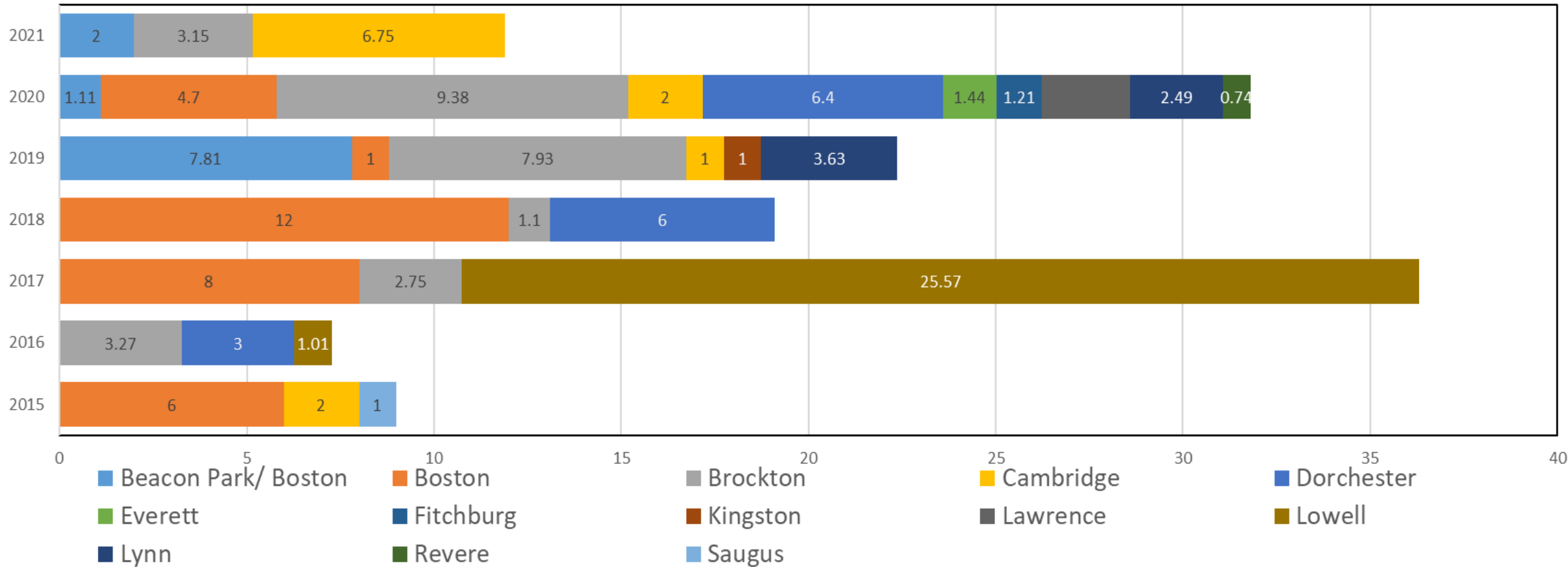
SAFE ROW: Sensitive Communities Management

- Since 2017, a Coalition was initiated to address criminal activities along the BU bridge and large sensitive communities along Memorial Bridge:
 - Transit Police: Francis Murray & Steven D. O'Hara
 - State Police: John Kiley & John Kelly
 - Cambridge PD: Anthony Bongiorno & Robert Lowe; Elizabeth Mengers (City)
 - DCR: Kevin Thibeault & Janice Parlon
 - Boston University: Robert McCarthy & Kelly O'Connell
 - ARE (Private Company): Chris Wagner
 - Bay Cove

ROW CLEANUPS AND WASTE REMOVAL

Total sensitive communities' materials removal and illegal dumping related waste removed from ROW 2015-Sept 2021- >\$400K

Tons of Waste Per Year, Per Area



Date

SAFE ROW: Sensitive Communities Management

Along Grand Junction, behind 640 Memorial Drive, Cambridge

Start of Cleanup: 09/08/2021, 8am



End of cleanup: 09/09/2021, 10am



❖ Collection of over 5 tons of waste and (4) 5-gallon buckets of used needles.

RAIL

MOVING AMERICA FORWARD



Questions for our Panelist

RAIL

MOVING AMERICA FORWARD



Break

RAIL

MOVING AMERICA FORWARD



Finding Opportunities

How do we pay for this strategies?

USDOT Finding Opportunities



Sergio Coronado
Transportation Industry Analyst
Federal Railroad Administration

Sergio Coronado joined FRA, RPD-21 as a Transportation Industry Analyst in 2022. Before coming to FRA, he worked at the Region 1 FTA Office in Boston as Transportation Program Specialist, where he worked closely with various stakeholders such as the Connecticut Department of Transportation, the Vermont Agency of Transportation and various small transit agencies on planning and program development. Sergio also served as the Tribal Liaison to the New England region working directly with the 9 federally recognized tribes in the area assisting in the development of their transit programs. He received his Masters in Public Administration from UMass Boston and undergrad degree from the University of California, Merced. He also spent six years in the Army Reserves, deploying overseas as a Civil Affairs Officer in 2020-2021.

Departmental Funding Programs

USDOT Grant Program Opportunities

Programs	Purpose	Appropriated	Additional Authorized Over Five Years	Highway Trust Fund	Total
National/Regional Significance (MEGA Projects)	Support multi-modal, multi-jurisdictional projects of national or regional significance.	\$5 billion (\$1 billion annually)	\$10 billion (\$2 billion annually)	N/A	\$15 billion
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Support surface transportation projects of local and/or regional significance.	\$7.5 billion (\$1.5 billion annually)	\$7.5 billion (\$1.5 billion annually)	N/A	\$15 billion
Infrastructure for Rebuilding America (INFRA)	Offers aid to freight infrastructure by providing funding to state and local government for projects of regional or national significance. Cap on multimodal projects has been raised to 30% of program funds.	\$3.2 billion	\$6 billion	\$4.8 billion	\$14 billion
SMART Grants	Provides grants to conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.	\$500 million (\$100 million annually)	\$500 million (\$100 million annually)	N/A	\$1 billion

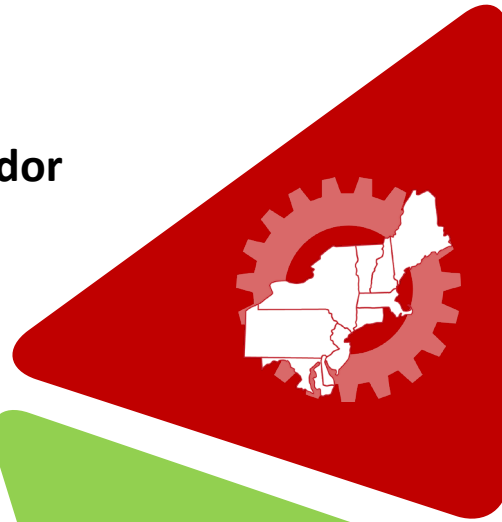
USDOT Multimodal Projects Discretionary Grant NOFO

- On March 23, DOT announced \$2.9B through a combined NOFO to reduce the application burden applicants with a single application for three programs.
 - **MEGA** funds projects that are too large or complex for traditional program and may cut across multiple modes of transportation. (\$1B – new program).
 - **INFRA** funds multimodal freight and rail projects, focuses on improving safety, generating economic benefits, reducing congestion, enhancing resiliency. (\$1.55B – existing program).
 - **RURAL** funds highway, bridge, and tunnel projects that help improve freight, safety, and provide or increase access to an agricultural, commercial, energy, or transportation facilities that support the economy of a rural area. (\$300M – new program).
- DOT hosted several webinars on how to apply, recordings and presentation materials are available online.
- NOFO deadline is May 23

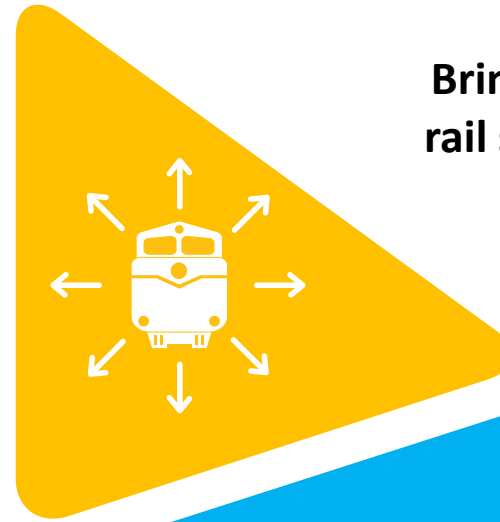
Rail Goals and Funding Programs

Bipartisan Infrastructure Law: Rail Development Goals

**Modernize the
Northeast Corridor**



**Bring world-class passenger
rail service to regions across
the country**



**Grow a safer, cleaner, more
equitable rail system**



**Renew Amtrak's fleet & facilities
and deliver high-quality intercity
passenger rail service**



**Build the foundation for a
long-term rail program**



Bipartisan Infrastructure Law: Rail Funding Overview

[ADVANCED APPROPRIATIONS]

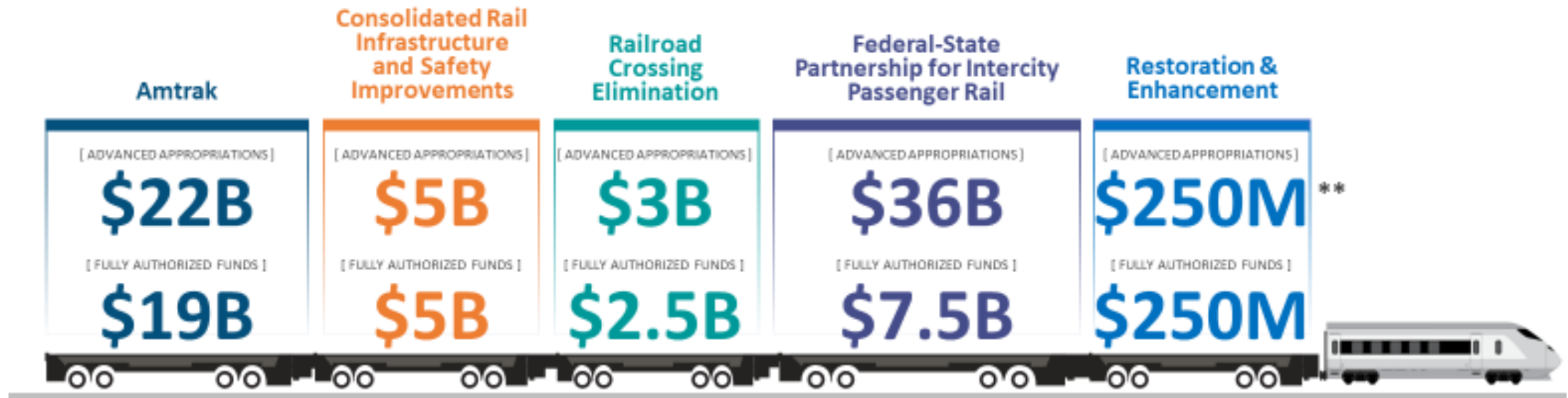
From FY22-FY26

\$66B in total funding

[FULLY AUTHORIZED FUNDS]

From FY22-FY26

\$36B* in total funding



* \$34.5 billion for grant programs; additional \$1.5 billion is authorized for FRA operations and R&D – not included in this graphic.
 ** Grants for Restoration & Enhancement (advanced appropriations portion) are funded through “takedowns” from Amtrak NN account; not included in totals to avoid double-counting.

FRA Grant Program Opportunities Under BIL

Programs	Purpose	Appropriated	Additional Authorized Over Five Years	Total
Consolidated Rail Infrastructure and Safety Improvements (CRISI)	To fund projects that improve the safety, efficiency, or reliability of intercity passenger and freight rail.	\$5 billion (\$1 billion annually)	\$5 billion (\$1 billion annually)	\$10 billion
Railroad Crossing Elimination (New)	To promote highway rail or pathway-rail grade crossing improvement projects that focus on improving the safety and mobility of people and goods.	\$3 billion (\$600 million annually)	\$2.5 billion (\$500 million annually)	\$5.5 billion
Federal-State Partnership for Intercity Passenger Rail (Significantly Changed)	To fund capital projects that reduce the state of good repair backlog, improve performance, or expand or establish new intercity passenger rail service, including privately operated intercity passenger rail service if an eligible applicant is involved.	\$36 billion (\$7.2 billion annually)	\$7.5 billion (\$1.5 billion annually)	\$43.5 billion
Restoration & Enhancement	To provide operating assistance to initiate, restore, or enhance intercity passenger rail service.	\$250 million (\$50 million annually from Amtrak National Network fund)	\$250 million (\$50 million annually)	\$500 million
Interstate Rail Compacts (New)	This program will provide funding for interstate rail compacts' administrative costs and to conduct railroad systems planning, promotion of intercity passenger rail operations, and the preparation of grant applications.	\$15 million (\$3 million annually)	\$15 million (\$3 million annually)	\$30 million

FRA Grant Programs

Railroad Crossing Elimination – Program Overview

PROGRAM PURPOSE

- To fund highway-rail or pathway-rail grade crossing improvement projects that focus on **improving the safety and mobility of people and goods.**

Upcoming Funding Opportunities

BIL Authorization & Appropriations in millions (M)

	FY22
Appropriations	\$600
Authorized	\$500

Status of Funding Opportunities

Year	Currently Available Funding (M)	Status
FY22	\$600	NOFO Expected Late Spring 2022

Railroad Crossing Elimination – Eligible Applicants

ELIGIBLE APPLICANTS

- States, including the District of Columbia, Puerto Rico, and other U.S. territories and possessions.
- Political subdivision of a State.
- Federally recognized Indian Tribe.
- A unit of local government or a group of local governments.
- A public port authority.
- A metropolitan planning organization.
- A group of the entities described above.

Railroad Crossing Elimination – Eligible Projects

ELIGIBLE PROJECT CRITERIA

- Grade separation or closure including through use of a bridge, embankment, tunnel or combination thereof.
- Track relocation.
- Improvement or installation of protective devices, signals, signs, or other measures to improve safety related to a separation, closure, or track relocation project.
- Other means to improve the safety if related to the mobility of people and goods at highway-rail grade crossings (including technological solutions).
- The planning, environmental review, and design of an eligible project type.

CRISI – Program Overview

GRANT PURPOSE

- To fund projects that improve the safety, efficiency, and/or reliability of intercity passenger and freight rail systems

CRISI – Recent & Upcoming Funding Opportunities

Authorization & Appropriations (M)

	FY18	FY19	FY20	FY21
Authorization	\$230	\$255	\$330	\$330
Appropriation	\$592.5	\$255	\$325	\$375

Status of Funding Opportunities

Year	Available Funding (M)	Status	
FY18 (PTC)	\$250	<input checked="" type="checkbox"/>	Awards announced August and December 2018
FY18	\$318	<input checked="" type="checkbox"/>	Awards announced June 2019
FY19	\$244	<input checked="" type="checkbox"/>	Awards announced March 12, 2020
FY20	\$311	<input checked="" type="checkbox"/>	Awards announced September 23, 2020
FY21	\$362	<input type="checkbox"/>	Awards expected Spring 2022
FY22	\$1,000	<input type="checkbox"/>	Notice of Funding Opportunity expected Summer 2022

CRISI – Program Overview

ELIGIBLE APPLICANTS

- A State (including the District of Columbia) or group of States.
- An Interstate Compact.
- Public agencies or publicly chartered authorities established by 1 or more States.
- Political subdivision of a State.
- Amtrak or other intercity passenger rail carrier.
- Class II or III railroads and associations that represent a Class II or III railroad.
- Any rail carrier or equipment manufacturer in partnership with at least one state entity, public agency, and/or local government.
- Federally recognized Indian Tribe.
- The Transportation Research Board (TRB) together with any entity with which it contracts in the development of rail-related research, including cooperative research programs.
- A university transportation center engaged in rail-related research.
- A non-profit labor organization representing a class or craft of employees of rail carriers or rail carrier contractors.

CRISI – Program Overview

ELIGIBLE PROJECT CRITERIA

- **Wide Range of Rail Capital Projects**
 - Congestion mitigation
 - Ridership growth facilitation
 - Enhancements to multimodal connections
 - Improvements to short-line or regional railroad infrastructure
- **Railroad Safety Technology**
- **Track, Station, and Equipment Improvements for Intercity Passenger Rail**
- **Grade Crossing Improvements**
- **Rail Line Relocation and Improvement**
- **Regional and Corridor Service Planning and corresponding Environmental Analyses**
- **Safety Programs and Institutes**
- **Research**
- **Workforce Development and Training**
- **New in BIL:**
 - Measures that prevent trespassing
 - Preparation of emergency plans for hazardous materials are transported by rail
 - Rehab or procurement of locomotives, provided that such activities result in a significant reduction of emissions.

At least 25% of funds is reserved for rural projects

Federal-State Partnership (non-NEC) – Program Overview

GRANT PURPOSE

- To fund capital projects that reduce the state of good repair backlog, improve performance, or expand or establish new intercity passenger rail service, including privately operated intercity passenger rail service if an eligible applicant is involved.

FSP – Recent & Upcoming Funding Opportunities

Authorization & Appropriations (B)

	FY22	FY23	FY24	FY25	FY26
Appropriation	\$2.4	\$2.4	\$2.4	\$2.4	\$2.4
Authorization	\$.75*	\$.75	\$.75	\$.75	\$.75

Status of Funding Opportunities

Year	Available Funding (B)	Status
FY21	\$	<input type="checkbox"/> Awards expected Summer 2022
FY22	\$2.4	<input type="checkbox"/> Notice of Funding Opportunity expected Fall 2022

* \$7,500 million authorized over 5 years with at least 45% for NEC projects and 45% for non-NEC projects. For illustrative purposes, a 50% split is shown.

Federal-State Partnership (non-NEC) – Program Overview

ELIGIBLE APPLICANTS

- A State (including the District of Columbia) or group of States.
- An Interstate Compact.
- Public agencies or publicly chartered authorities established by 1 or more States.
- Political subdivision of a State.
- Amtrak, acting on its own behalf or under a cooperative agreement with 1 or more States.
- Class II or III railroads and associations that represent a Class II or III railroad.
- Federally recognized Indian Tribe.
- Any combination of the entities above.

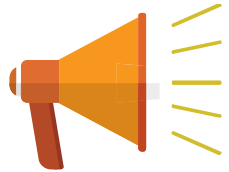
Federal-State Partnership (non-NEC) – Program Overview

ELIGIBLE PROJECT CRITERIA

- **A project to replace, rehabilitate, or repair infrastructure, equipment, or a facility used for providing intercity passenger rail service to bring such assets into a state of good repair.**
- **A project to improve intercity passenger rail service performance, including reduced trip times, increased train frequencies, higher operating speeds, improved reliability, expanded capacity, reduced congestion, electrification, and other improvements, as determined by the Secretary.**
- **A project to expand or establish new intercity passenger rail service.**
- **A group of related projects as described above.**
- **The planning, environmental review, and final design of an eligible project or group of projects described above.**

FRA Application Process

Competitive Grants Application Process



**NOTICE OF FUNDING
OPPORTUNITY (NOFO)
ANNOUNCED**

PHASE 1

TYPICAL TIMEFRAME: UP TO 1 MONTH

STEP
1

Get a Dun&Bradstreet
Number (DUNS)



866-705-5711

OR

fedgov.dnb.com

Register with System for
Award Management (SAM)



To register, go to
www.sam.gov

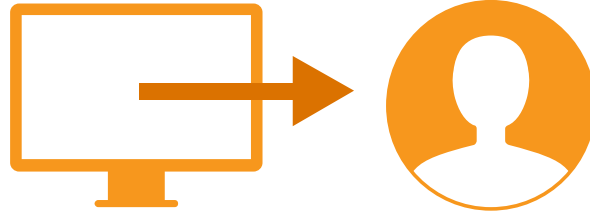
After registering, send SAM:

- A notarized letter
- An Employer Identification Number (EIN)/
Tax Identification Number (TIN)

STEP
2

STEP
3

Create an Authorized Organization Representative (AOR) profile on Grants.gov



Grants.gov will send email containing a temporary registration code to AOR

AOR must respond to the registration email to complete the registration process

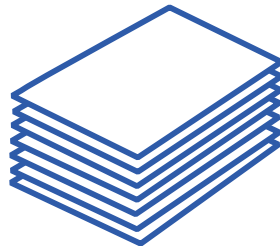


PHASE 2

TYPICAL TIMEFRAME: 1 MONTH

STEP
4

Complete and submit application to Grants.gov addressing all NOFO requirements



APPLICATION RESOURCES

- FRA NOFO
- Workspace on Grants.gov
- FRA Training and Guidance

Best Practices and Next Steps

How to Apply and Available Grant Resources

Information on how to apply:

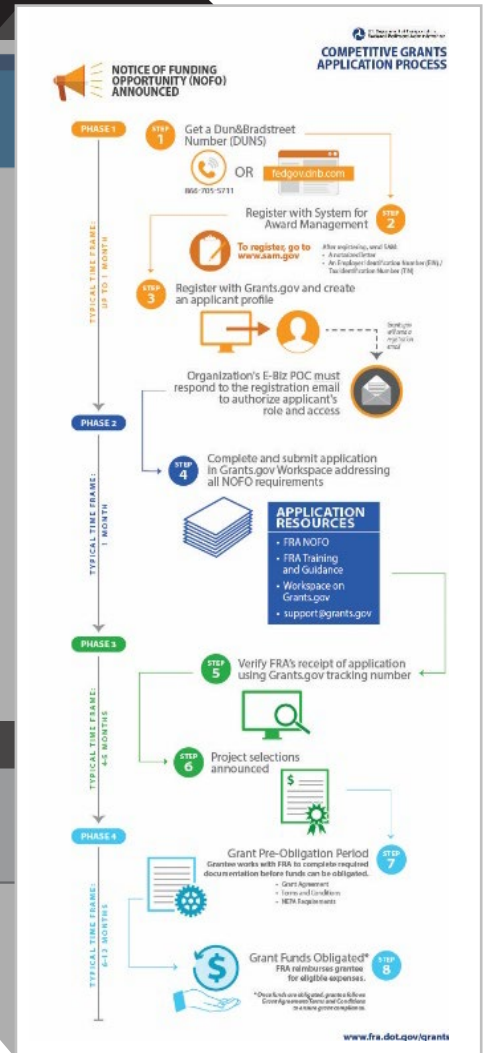
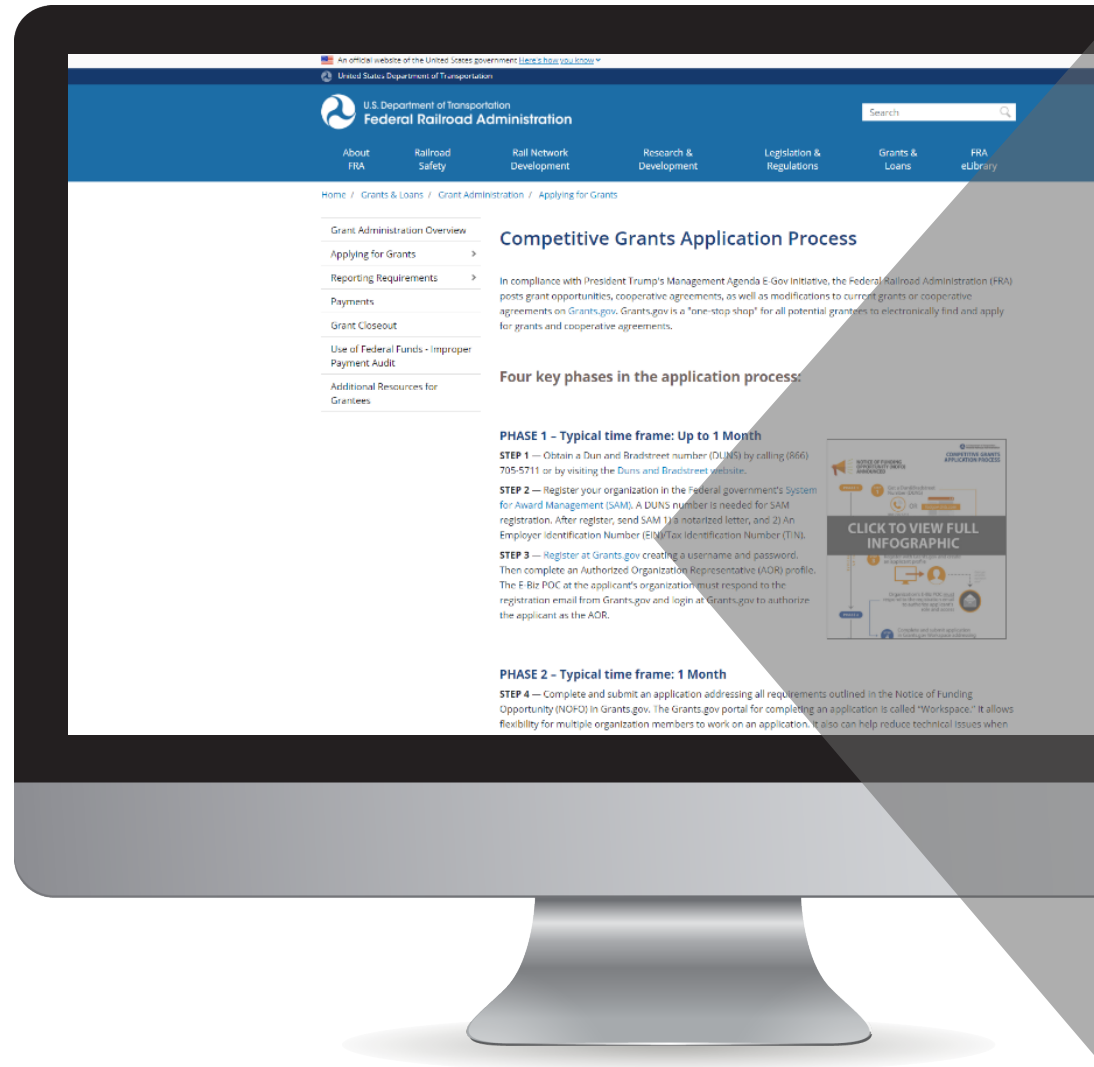
<https://railroads.dot.gov/grant-administration/applying-grants/competitive-grants-application-process>

Webinars and Technical Assistance:

<https://railroads.dot.gov/rail-network-development/training-guidance/webinars-0>

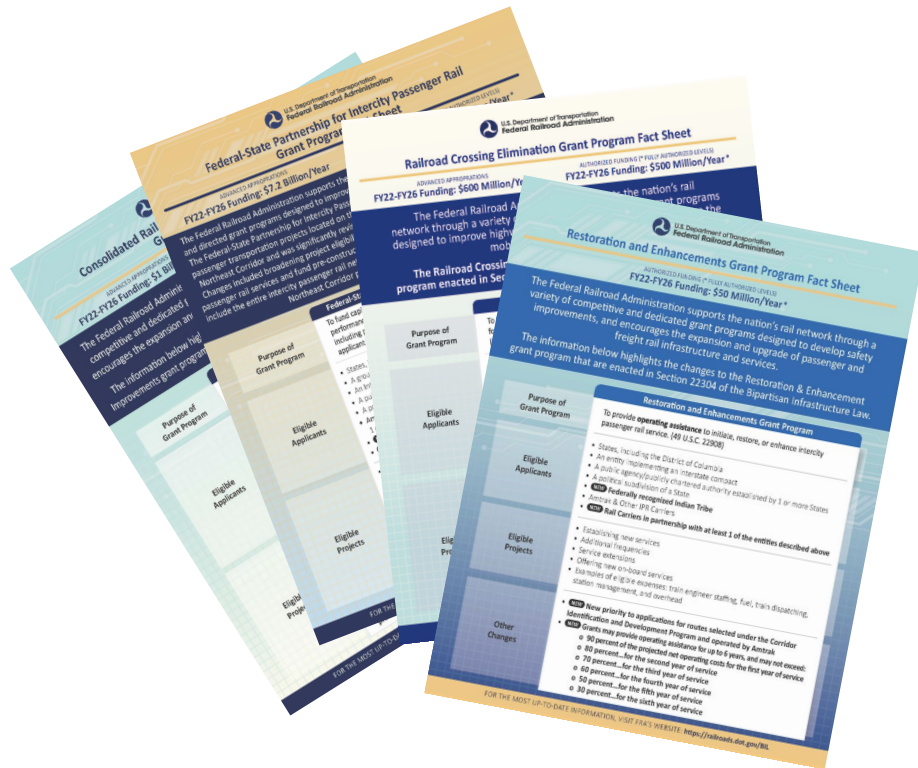
White House Guidebook:

https://www.whitehouse.gov/wp-content/uploads/2022/01/BUILDING-A-BETTER-AMERICA_FINAL.pdf#page=55



FRA Bipartisan Infrastructure Law Website

For more information about the Bipartisan Infrastructure Law and rail, please visit our website.



U.S. Department of Transportation
Federal Railroad Administration

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Bipartisan Infrastructure Law Information from FRA

On November 15, 2021, President Joseph R. Biden signed the Bipartisan Infrastructure Law—a generational investment in America’s intermodal transportation system of which freight and passenger rail is an integral part and an engine of our economy. The investments will:

- Help make our nation’s rail network safer, more reliable, resilient, sustainable, and equitable.
- Improve the lives of Americans, create good paying jobs, and lay the foundation for America to compete in the 21st Century.

What Does This Mean For FRA?

The Bipartisan Infrastructure Law will provide unprecedented Federal funding for rail improvement projects in America. Over the next five years, that means greatly expanding existing FRA programs and creating new programs to enhance our nation’s rail network. The Bipartisan Infrastructure Law includes \$102 billion in total rail funding, including \$66 billion from advanced appropriations, and \$36 billion in authorized funding.

Learn More

To learn more about the Bipartisan Infrastructure Law and rail, watch the video from FRA Deputy Administrator Amit Bose and view the links for additional information about FRA’s programs.



Expand All | Collapse All

- FRA Bipartisan Infrastructure Law Information
- Other Government Resources

Last updated: Monday, November 15, 2021

<https://railroads.dot.gov/BIL>

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U.S. Department of Transportation
Federal Railroad Administration

MA DOT Funding Opportunities

Meredith Slesinger joined MassDOT in August 2020 and now serves as the Rail and Transit Administrator. The Rail & Transit Division oversees the Commonwealth's passenger and freight rail programs and the 15 Regional Transit Authorities.

Previously, she was the senior director of strategic planning at Amtrak and managed special projects such as developing Amtrak's five-year business plans and staffing the Board of Directors.

As the director of policy and outreach at the Northeast Corridor Commission, she authored the Commission's first cost sharing policy, establishing the first dedicated capital funding for Northeast Corridor infrastructure and a policy framework for coordinated regional planning. She also managed the Commission's legislative affairs and media relations. Prior to working at the Commission, she was part of the government affairs team at the American Public Transportation Association.

Meredith Slesinger
Administrator for Rail and Transit Division
MA DOT

FRA Greater Boston Railroad Trespassing Summit MassDOT Funding Opportunities

Meredith Slesinger
Rail & Transit Administrator

April 27, 2022

Industrial Rail Access Program

The purpose of the program is to provide funding for projects **that increase access to rail freight service** and preserve or stimulate economic development through the generation of new or expanded rail service.

Economic development could include:

- New commercial development,
- Retaining/growing businesses in Massachusetts,
- Retaining manufacturing jobs, or
- Creating new jobs through increased efficiency, production capacity, or improved distribution logistics.



Catania Spagna - Ayer, MA



NER (Track Under Construction)

Industrial Rail Access Program Overview / History

Competitive grant program created by the Massachusetts Legislature in 2012.

Provides financial assistance for investment in rail improvement projects connected to the Massachusetts freight rail transportation network and focused on increasing or improving rail transportation to Massachusetts shippers.



New England Recycling Transfer Station



PVRR DCP Track

Industrial Rail Access Program Overview / History

MassDOT can award up to \$3 million in funding annually. Grants require a minimum 40% share from local sponsor (Railroad, Shipper, Local Government)

Since 2013 awards have supported 51 projects totaling ~ \$18 million

In 2022 the seven projects awarded funding will result in:

1. *Adding of over 5,000 annual railcar deliveries supporting MA businesses*
2. *Eliminating 19,000 annual truck trips on the Commonwealth's roads*
3. *Supporting over 100 new jobs in Massachusetts*



PVRR Easthampton Yard (New Siding)



Sherwood Lumber (Train being unloaded)

Eligible Projects

- Provide a sustained public benefit or facilitate economic growth through improved use of the rail transportation network within the Commonwealth;
- Have Independent Utility; and
- Have an estimated useful life of at least 20 years.

In addition, IRAP funds may be used for:

- engineering/design services,
- environmental permitting, and
- limited right-of-way acquisition needed to ready a project for construction.

Rail safety and environmental improvements can be eligible elements of an IRAP project to the extent they are required to achieve the goals of the IRAP project.



Tri-County Recycling (Track Extension Outside Building)



Boremco (Unloading Platform)

FY23 - Industrial Rail Access Program

- Application period will open soon
- Applications are available on MassDOT website

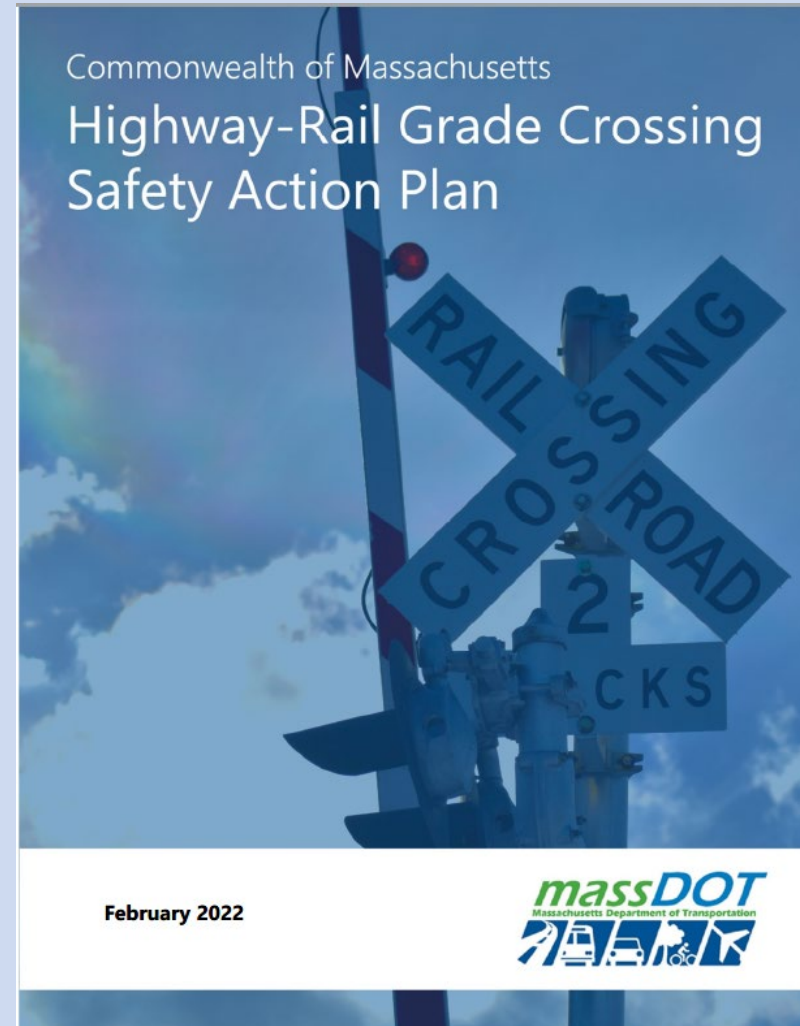
www.mass.gov/industrial-rail-access-program

- Anticipate awards in July

Grade Crossing Action Plan

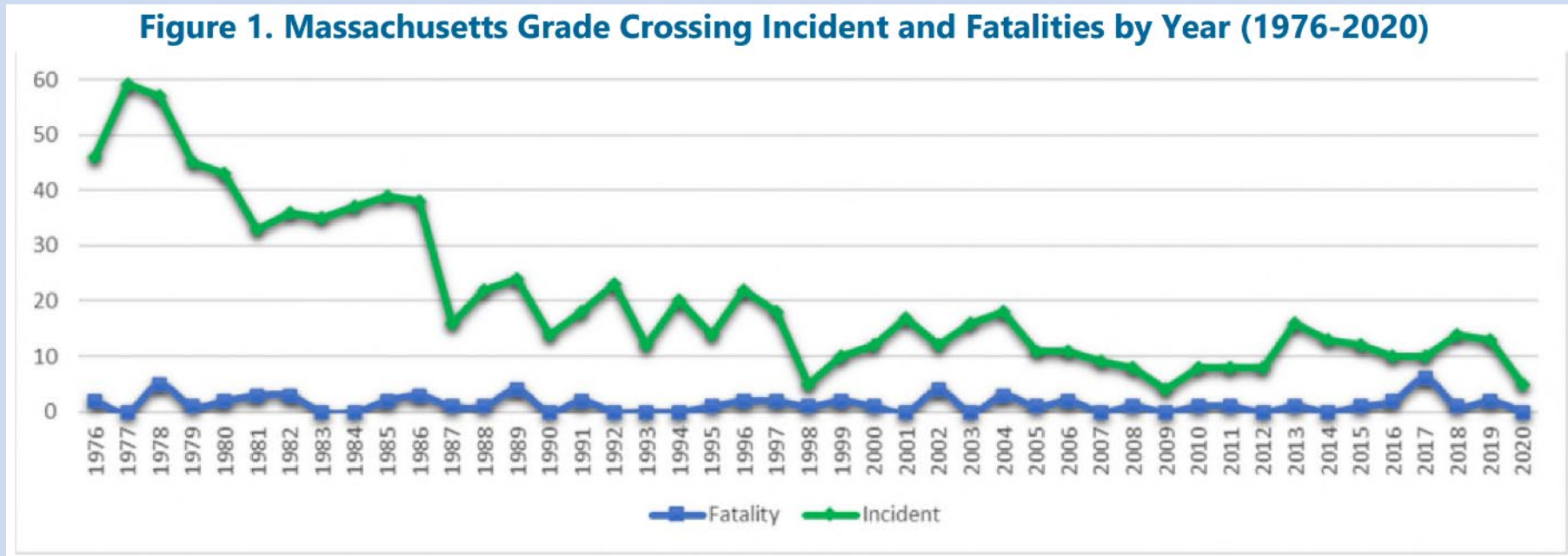
Massachusetts recently completed a Highway-Rail Grade Crossing Action Plan

The goal of the Action Plan is to identify specific strategies (implemented over the next 5 years) that will **reduce collisions, accidents or incidents between trains or on-track equipment, and vehicles, pedestrians, or bicyclists at grade crossings.**



Grade Crossing Action Plan

History of Grade Crossing Incidents and Fatalities in Massachusetts



Crossing Safety Improvement Strategies

1. Improve/maintain safety at the **most highly-used crossings**
2. Minimize **pedestrian** risk at crossings
3. Reduce incidents that involve **grade crossing area incursions**
4. Reduce incidents that involve **drivers on the tracks**
5. Reduce risk for **older drivers** at grade crossings
6. Reduce **the total number of grade crossings** and/or the risk exposure from grade crossings across the Commonwealth.
7. Continue raising **public awareness** or the dangers associated with trains, railroad tracks and crossings.

Rail-Highway Crossing Program (Section 130)

Grade Crossing Safety Improvement Program – Administered by Massachusetts Department of Transportation utilizing Federal Highway Administration Funding

Massachusetts receives approximately \$2.5 million annually to support grade crossing safety improvements. – Typically supports 5 to 7 projects annually.

Historically required 10% state/railroad/local share – BIL modified program to be 100% federal funding.



Rail-Highway Crossing Program (Section 130)

Typical Activities:

- Installation / Upgrade of highway-railroad grade crossing signals.
- Improvement to crossing surfaces
- Installation of pedestrian and vehicular gates.
- Installation of regulatory signage (W10 series, yield/stop signs and crossbucks)
- Pavement markings
- Traffic signal interconnection/preemption.



Rail-Highway Crossing Program Municipal Coordination

In Massachusetts grade crossing signage and pavement markings on public roadways are the responsibility of municipalities.

For all new installations/upgrade projects – new signage and pavement markings included.

MassDOT will provide technical support for municipal compliance with Manual of Uniform Traffic Control Devices (MUTCD)



Rail-Highway Crossing Program Municipal Coordination

Additional Activities – all requiring close coordination with municipalities:

- Support for crossing consolidations / closures.
- Installation of grade separations at crossings or repair of existing grade separations.
- Sight distance or geometric improvements.



Rail-Highway Crossing Program

Crossing Elimination

Interested in working with Municipalities to identify candidate crossing closures / consolidations / grade separations.

Benefits for crossing closure:

- Public safety benefits by closing, consolidating, or grade separating at-grade crossings. The safest at-grade crossing is one that does not exist.
- Elimination of community disruption resulting from train horns.
- Infrastructure improvements supported through Section 130 program
- Municipality can be provided an incentive payment of up to \$100,000

Crossing Elimination Projects that require significant capital improvements should be considered for new Crossing Elimination Program

RAIL

MOVING AMERICA FORWARD



Questions for our Panelist

Closing

- **Next Steps**
- **Topics for future webinars/meetings**
- **Fall of 2022**

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**Thank you to our safety partners at the MBTA & Keolis
Commuter Rail Services for assisting with this summit.**

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