



## Agency Priority Goal Action Plan

# Reduce Surface Transportation-Related Fatalities

### Goal Leader(s):

Nicole R. Nason, Administrator, Federal Highway Administration (FHWA)

Jim Mullen, Deputy Administrator, Federal Motor Carrier Safety Administration (FMCSA)

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# Overview

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## Goal Statement

- Reduce overall surface transportation-related fatalities. By September 30, 2021, the Department will reduce the rate of motor vehicle fatalities to 1.01 per 100 million vehicle miles traveled (VMT).

## Challenges

- Impact of COVID-19 Virus: In this unprecedented situation, there will likely be fewer fatalities due to less exposure, but it is unknown if the fatality rate will likewise decrease. Anecdotal evidence from law enforcement partners indicates that less traffic has led to excessive speeding by some, which could negatively affect the fatality rate.
- Distracted driving: New forms of consumer communication and entertainment technology within motor vehicles continue to pose distraction risks.
- Drug-impaired driving: As more States relax prohibitions on marijuana use, drug-impaired driving remains an emerging threat.
- Vulnerable road user fatalities: Pedestrian and bicyclist fatalities continue to rise.
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## Opportunities

- New technologies and innovations can improve safety in all modes of surface travel. Automated Driving Systems hold especially great promise for reducing crashes, injuries, and fatalities. The Department will provide national leadership on the testing and safe deployment of these emerging driver assistance technologies. This includes research on the potential of vehicle-to-infrastructure technology to provide faster, more efficient emergency medical service (EMS) and other public safety agency responses, and to equip roadway infrastructure for the future of connected safety technologies.
- The New Car Assessment Program (NCAP) can provide additional tools to help consumers make more informed choices on safety performance when purchasing new vehicles, encourage market-based

# Overview

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incentives for automakers to continue investing in innovative safety technologies, and provide new technologies tied to the safety of pedestrians and other vulnerable road users such as cyclists.

- [Proven safety countermeasures](#) can be promoted and installed across the country to dramatically reduce severe crashes. For example, in a multi-year study of nearly 300 sites across six states, High Friction Surface Treatments<sup>1</sup> reduced the number of injury and fatal crashes by 48 percent at horizontal curves and 63 percent at interchange ramps. More broadly, over the two-year period from January 2018 to December 2019, the average number of states advancing the most recent FHWA proven safety countermeasures beyond the demonstration stage increased from 13 to 19.
- Data-driven approaches are used to develop and disseminate evidence-based safety countermeasures for effective national safety programs.
- New data sources and more robust analytical tools help the Department to identify problem areas and prioritize safety strategies more quickly.

<sup>1</sup> High friction surface treatments (HFST) are pavement treatments that dramatically and immediately reduce crashes, injuries, and fatalities associated with friction demand issues, such as: (1) a reduction in pavement friction during wet conditions, and/or (2) a high friction demand due to vehicle speed and/or roadway geometrics.

# Leadership & Implementation Team

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**Elaine L. Chao**  
DOT Secretary

Nicole R. Nason: FHWA Administrator  
James Owens: NHTSA Deputy Administrator ()  
Jim Mullen: FMCSA Administrator (Acting)

**Senior Lead**  
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**Agency Partners**  
Motor Carrier Safety Advisory  
Committee

# Goal Structure & Strategies

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The FY 2020 and FY2021 Agency Priority Goals (APGs) align with the Safety strategic goal in the [FY 2018-2022 DOT Strategic Plan](#) and the strategic objective, *Systemic Safety Approach*, under that goal. As illustrated in the figure below, the Department will implement the following key strategies to accomplish this objective:



# Goal Structure & Strategies

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This APG is measured through the following performance goals and indicators<sup>2</sup>:

## **Reduce Total Motor Vehicle-Related Fatalities (Overall)**

- Indicator: Total Motor Vehicle-Related Fatalities
- Indicator: Motor Vehicle-Related Roadway Fatalities Per 100 Million VMT

## **Reduce Motor Vehicle-Related Fatalities (by Type)**

- Indicator: Passenger Fatalities Per 100 Million VT
- Indicator: Large Truck and Bus Fatalities Per 100 Million VMT
- Indicator: Non-Occupant Fatalities (Pedestrian, Bicycle) Per 100,000 Population
- Indicator: Motorcycle Fatalities Per 100,000 Motorcycle Registrations

## **Reduce Transit-Related Fatalities**

- Indicator: Total Transit Fatalities
- Indicator: Transit-Related Fatalities per 100 Million Miles

## **Reduce Transit Collisions Involving Persons**

- Indicator: Total Transit Collisions with Persons

## **Reduce Rail-Related Deaths and Injuries**

- Indicator: Highway-Rail Grade Crossing Incidents
- Indicator: Rail Right-of-Way Trespass Incidents

## **Reduce Fatalities Caused by Pipelines and Hazardous Materials**

- Indicator: Fatalities Caused by the Release of Hazardous Materials Transported Via Pipeline or Surface Transportation Conveyance

## **• National Highway Traffic Safety Administration (NHTSA)**

<sup>2</sup> For more information on these performance goals and indicators, please see <https://www.transportation.gov/mission/budget/fy-2019-performance-report-and-fy-2021-performance-plan-main-document>

# Goal Structure & Strategies

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- NHTSA will advance its efforts on Automated Driving Systems (ADS) by facilitating additional safety discussions with stakeholders, researching and developing safety performance measures and testing procedures for these technologies, and identifying unintended and unnecessary barriers to safety innovation within existing standards.
- NHTSA will explore ways to use vehicle-to-infrastructure technology through a pilot to provide faster, more efficient Emergency Medical Services (EMS) and other public safety agency responses, and to equip roadway infrastructure for the future of connected safety technologies. Additionally, the agency plans to update the National EMS Education Standards, a major resource for States to ensure entry-level EMS clinicians are prepared to provide high-quality medical care to injured patients throughout the Nation.
- As new technologies are developed and deployed, it will be important to help consumers make more informed choices on safety performance when purchasing new vehicles. In 2020, the agency will request public comment on its plans to update the New Car Assessment Program (NCAP), including an evaluation of newer crash avoidance technologies.
- While advanced vehicle safety technology holds much promise for the future, it is equally important to remain focused on the behavioral factors involved in crashes, as human error is a primary factor in more than 90 percent of all series crashes. Through its \$600 million State highway safety grant programs, NHTSA partners with State Highway Safety Offices to identify their greatest safety risks and promote the adoption of comprehensive programs that offer proven approaches to achieve State targets and national safety goals.
- Drug-impaired driving prevention continues to be a priority for the agency. NHTSA will continue implementing its Drug Impaired Driving Initiative to raise awareness, educate partners and share best practices (including with partners throughout the criminal justice system) in toxicology and data collection, and motivate State and local partners to focus on drug-impaired driving. NHTSA will also conduct drug-impaired and alcohol-impaired driving media campaigns throughout the year and as part of its impaired driving enforcement mobilizations.

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## Federal Highway Administration (FHWA)

- FHWA administers the \$2.6 billion [Highway Safety Improvement Program \(HSIP\)](#) to States to address their specific safety infrastructure challenges. The 2018 HSIP National Summary Report estimates a national benefit-to-cost ratio ranging from 4.76 to 8.64. States obligated a total of \$4.6 billion<sup>3</sup> on more than 4,700 highway safety improvement projects in 2018 as part of the HSIP. The HSIP provides funds to States to correct safety challenges on all public roads, including rural roads, and provides States the resources to address emerging areas of risk with innovative infrastructure interventions.
- FHWA researches effective roadway safety countermeasures and disseminates them to State and local agencies for deployment.
- FHWA advances a “safe system” approach to roadway safety. This approach integrates the knowledge and efforts of many disciplines to achieve safety progress, and emphasizes partnerships with others sectors responsible for roadway safety. It aims to ensure that human error does not lead to fatalities or serious injuries.
- FHWA implements the [Focused Approach to Safety initiative](#) that addresses the Nation’s most critical safety challenges in three main areas that encompass approximately 90 percent of traffic fatalities in the United States: roadway departures, intersections, and pedestrian/bicycle crashes.
- FHWA encourages widespread implementation of [Proven Safety Countermeasures](#) to increase the use of infrastructure-oriented safety treatments and strategies that significantly reduce crashes and crash severity.
- FHWA promotes two initiatives for safety through [Every Day Counts](#):
  - Safe Transportation for Every Pedestrian: Pedestrians account for an estimated 17 percent of all roadway fatalities, most at non-intersection locations. This innovation helps transportation

<sup>3</sup> The total project costs may include highway safety improvement projects funded from other Federal (e.g. Section 154/164 penalty funds) or State funds, including the non-federal share.



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agencies address these crashes by promoting cost-effective countermeasures with known safety benefits.

- Reducing Rural Roadway Departures: Roadway departures on the rural road network account for one-third of traffic fatalities. Systemic application of proven roadway departure countermeasures, such as rumble strips, friction treatments, and clear zones, help keep vehicles in their travel lanes, reduce the potential for crashes, and reduces the severity of those crashes that do occur.

Key programs to achieve these goals include:

- [Highway Safety Improvement Program \(HSIP\)](#).
- [Safe Transportation for Every Pedestrian \(STEP\)](#)
- [Focused Approach to Safety initiative](#)
- [Proven Safety Countermeasures Initiative](#)
- [Every Day Counts](#)
- [Focus on Reducing Rural Roadways Department Fatalities - FoRRRwD](#)
- [Our Roads, Our Safety \(Sharing the Road with Large Trucks\)](#)
- New Entrant Safety Audits
- High Risk Carrier Investigations
- Drug and Alcohol Clearinghouse
- FMCSA Crash Preventability Determination Program
- FMCSA High Priority Grants Program
- Large Truck Crash Causal Factors Study
- [NHTSA's 5-Star Safety Ratings \(NCAP\)](#)
- [Vehicle Recall Lookup Tool](#)
- [State Highway Safety Plans and Annual Reports](#)

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## Federal Motor Carrier Safety Administration (FMCSA)

- FMCSA administers the Drug and Alcohol Clearinghouse. The final rule established central database requirements for Commercial Driver's License (CDL) holders who have verified positive test results for controlled substances and/or alcohol or who have refused to submit to testing. Implementation of this rule will ensure that CDL holders who have tested positive or who have refused to submit to testing complete the return-to-duty process before operating a commercial motor vehicle. The compliance date was January 6, 2020. As of April 27th, 18,077 violations were reported.
- High-risk carriers are the agency's top investigative priority. Investigative outcomes show that 45 percent of high-risk carrier investigations result in enforcement actions, compared to a 15 percent enforcement rate observed on non-high-risk carriers. In 2019, 2,456 high-risk carriers were investigated.
- FMCSA monitors New Entrants during their initial 18 months of operation and conducts New Entrant Safety Audits. In 2019, FMCSA conducted 39,486 New Entrant Safety Audits.
- FMCSA's grants program is awarding more than \$82 million in grants to improve Commercial Motor Vehicle (CMV) Safety. \$45.9 million was awarded from the High Priority (HP) grant program, which consists of HP-Commercial Motor Vehicle (HP-CMV) grants and HP-Innovative Technology Deployment (HP-ITD) grants. HP-CMV grants are designed to provide financial assistance to state commercial vehicle safety efforts, while HP-ITD grants provide financial assistance to advance the technological capability and promote the deployment of intelligent transportation system applications for CMV operations. The CDL Program Implementation grant program is awarding \$33.2 million to States and others to ensure that only safe and qualified commercial drivers receive and retain a CDL. The Commercial Motor Vehicle Operator Safety Training grants program is awarding \$3.3 million to training institutions to train individuals to become commercial operators, with a focus on training for veterans and their families.
- FMCSA published a request for information (RFI) on January 15, 2020 seeking information on how best to design and conduct a study to identify contributing factors to all FMCSA reportable large

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truck crashes. The Large Truck Crash Factors Study will help improve FMCSA's and its State partners' ability to evaluate crashes involving large trucks and identify emerging trends, monitor crash trends and identify causes and contributing factors, and develop effective safety improvement policies and programs. The RFI period closed on March 16, 2020. 167 comments were received. FMCSA is currently working with NHTSA to develop a project plan.

## **Federal Transit Administration (FTA)**

### **Transit Safety**

Transit remains one of the safest modes of transportation, and FTA is committed to the goal of improving surface transportation safety. FTA has a safety portfolio of initiatives and activities to meet its goal of reducing transit related injuries and fatalities.

- Safety Management System (SMS)
- Public Transportation Agency Safety Plan (PTASP) Certification deadline by December 31, 2020
- Safety Certification Training Program
- Manage the Drug and Alcohol Testing Program
- State Safety Oversight Program

### **Safety Management System (SMS)**

- SMS is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards. For more information, visit <https://www.transit.dot.gov/regulations-and-guidance/safety/safety-management-system-implementation>
- To implement its Safety Management Systems (SMS) approach to enhancing transit safety, FTA established a Safety Assessment Team (SAT). The SAT analyzes risk and recommends actions to an Executive Safety Review Board (ESRB), which then advises the FTA Administrator. The SAT began with four safety issues:

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1. Inward and outward facing cameras for rail transit vehicles. SAT made recommendations for activities to ESRB and the safety office is implementing the activities.
2. Roadway worker protection. SAT is actively reviewing this item and plans to have recommendations at the end of Q3 or in Q4.
3. SAT plans to review transmission-based train control and stop signal overruns in Q3 and Q4 of FY 2020.
4. Stop signal overruns in Q3 and Q4 of FY 20.

## **Public Transportation Agency Safety Plan (PTASP)**

FTA published the PTASP Final Rule on July 19, 2018 and is now implementing the 2018-2021 PTASP. Over 800 transit providers must complete a PTASP by December 31, 2020. This plan includes enhanced technical assistance, training, guidance, tools, templates, webinars, and stakeholder engagement to support transit providers in implementing their SMSs and meeting the December 31, 2020 compliance deadline (the original deadline of July 20, 2020 was extended due to COVID-19).

- In October 2019, FTA launched the Technical Assistance Center (TAC), to offer support through an online community of practice and to address PTASP questions.
- FTA continues to carry out the 2019-2021 PTASP Implementation Plan, including training, guidance, workshops, webinars, and more.

## **Safety Certification Training Program**

- The Public Transportation Safety Certification Training Program Final Rule (Training Rule) establishes a uniform curriculum for safety training that consists of minimum requirements to enhance the technical proficiency of rail transit safety personnel.
  - The Training Rule sets forth federal requirements for the certification and training of State Safety Oversight Agency (SSOA) personnel and contractors who conduct safety audits and examinations of rail transit systems, and rail transit agency personnel and contractors who are directly responsible for safety oversight. For more information, visit:  
<https://www.transit.dot.gov/regulations-and-guidance/safety/safety-training>.

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- On November, 19, 2009, FTA participated in the Federal Railroad Administration's Symposium on Highway-Rail Crossing Safety. The intent of the Symposium was to share grade crossing safety and technology advancements, ideas, and funding solutions. FTA staffed a display and made handouts on Operation Lifesaver, the PTASP TAC, the top ten safety hazards, and data on rail transit grade crossing incidents.

## **Manage the Drug and Alcohol Testing Program**

- The Omnibus Transportation Employee Testing Act of 1991 mandated the Secretary of Transportation to issue regulations to combat prohibited drug use and alcohol misuse in the transportation industry. For that portion of the transportation industry having to do with the provision of and service to the public of mass transportation, FTA is the agency delegated with the authority and responsibility for issuing these implementing rules. For more information, visit: <https://www.transit.dot.gov/drug-alcohol-program>.

## **State Safety Oversight (SSO) Program**

- The purpose of the SSO program is to oversee safety at rail transit systems. The SSO program is administered by eligible states with rail transit systems in their jurisdiction. FTA provides federal funds through the SSO Formula Grant Program for eligible states to develop or carry out their SSO programs. For more information, visit: <https://www.transit.dot.gov/state-safety-oversight>
- In June 2019, FTA initiated its first round of program audits of certified SSO Agencies. FTA has conducted seven audits so far, for the Colorado, Georgia, Maryland, Massachusetts, Texas, Utah, and Washington SSO Agencies. The audit of the Ohio SSO Agency began in December 2019.

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## Federal Railroad Administration (FRA)

- Highway-rail grade crossing and trespass incidents account for almost all rail-related deaths. The number of grade crossing deaths has averaged more than 250 per year and the number of trespass deaths has averaged more than 450 per year since 2009. FRA initiated the [National Strategy to Prevent Trespassing on Railroad Property](#) that includes four strategic focus areas: data gathering and analysis, community site visits, funding, and partnerships with stakeholders. FRA's strategies include:
  - **Education:** Increasing public awareness through programs about the dangers and consequences of trespassing and safe driving around highway-rail grade crossings.
  - **Engineering:** Recommending installation of lights, gates, and dividers, and separating highways from train tracks.
  - **Partnerships:** Because FRA does not directly influence some significant grade crossing safety risks, including highway vehicle miles traveled and driver behavior, and has jurisdictional limitations regarding trespass activities, the Agency will work with States, local governments, and organizations that can complement FRA activities. In addition, FRA is validating crossing latitude and longitude data, developing human behavior predictive modeling, enhancing law enforcement and first responder strategies, strengthening State crossing safety action plans, and updating FRA's [Crossing Handbook](#).

# Goal Structure & Strategies

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## **Pipeline and Hazardous Materials Safety Administration (PHMSA)<sup>4</sup>**

- PHMSA assesses all incident data to identify potential contributing causes and acts where necessary and prudent to help protect people and the environment.
- The agency focuses on top safety rulemakings, the safe transportation of energy products, risk-based inspections, and outreach activities.
- PHMSA will continue to urge operators to be vigilant in their operating practices to prevent accidents.
- PHMSA will also continue to engage with regulated industry to encourage the implementation of SMS that improve safety culture and performance.

<sup>4</sup> Beginning in FY 2019, PHMSA replaced a key Surface Safety APG indicator with a new one that more closely aligns with the key Surface Safety APG indicators of the Department's other operating administrations. More details on this are provided in the Key Indicators section.

# Summary of Progress – FY 20 Q1-Q2

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## Surface Safety

- A statistical projection of traffic fatalities for 2019 shows that an estimated 36,120 people died in motor vehicle traffic crashes. This represents an estimated decrease of about 1.2 percent as compared to the 36,560 fatalities that were reported in 2018. The fatality rate for 2019 was 1.10 fatalities per 100 million VMT, down from 1.13 fatalities per 100 million VMT in 2018.
- An analysis of estimated changes for specific segments reveals slight decreases in driver (3%), passenger (4%), motorcyclist (1%), pedestrian (2%), and bicyclists (3%) deaths for the Nation in 2019 as compared to 2018. Fatalities in crashes each involving at least one large truck are projected to increase slightly (1%). Older drivers (65+) involved in fatal crashes also saw a slight increase (1%).
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## Increase Adoption of Proven Safety Solutions

- The revised Pavement Markings Rule is currently going through agency concurrence. It is expected to help prevent roadway departures, which are the most common type of fatal crash, accounting for more than half (52 percent) of all roadway fatalities.
- A high-level Summit on Pedestrian Safety involving FHWA, NHTSA, other Departmental modes, State and local governments, academia, private industry, and leading national transportation stakeholder groups was postponed. More than 120 participants representing over 50 diverse stakeholders registered for the Summit. The DOT Pedestrian Safety Initiative team is developing contingency plans for a virtual summit.
- The EDC5 Safe Transportation for Every Pedestrian (STEP) initiative has completed 13 outreach items, including videos, countermeasure tech sheets, articles, social media and case studies to promote the proven safety countermeasures. STEP has provided technical assistance to 38 states and localities and led more than a dozen workshops in Florida in January-February 2020. Technical assistance included leading Road Safety Audits in Kentucky, West Virginia, Virginia, Washington and North Carolina, and sponsoring a Peer Exchange in Little Rock, AK, in late October for eight communities from seven States. As a result of the STEP activities, 12 states have advanced implementation.



# Summary of Progress – FY 20 Q1-Q2

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- The EDC 5Focus on Reducing Rural Roadway Departures (FoRRRwD), as of October 2019 through March 2020, FHWA delivered technical assistance to 18 States, 14 LTAP Centers, and 47 counties. In addition, peer exchanges were held with 21 States, 23 local agencies, and all 3 Federal Lands Divisions.

## **Improve and Implement HSIP**

- FHWA notified States of their preliminary results of the 2018 safety performance target determinations. This is the first time safety assessments have been made under the requirements of 23 USC 150(d).
- FHWA and NHTSA held a joint Safety Performance Management Webinar on April 29, 2020 for States to discuss target setting methods, coordination and collaboration. Over 400 stakeholders from State DOTs, State Highway Safety Offices, Metropolitan Planning Organizations and others participated.

## **Build Capacity for Innovation in Safety Analysis and Action**

- FHWA is working in collaboration with NHTSA on a mapping project to help States identify strategies to improve their roadway inventory database for safety analyses.
- FHWA has long used virtual outreach in its work with State and local agencies and quickly shifted to an entirely virtual approach during recent weeks. For example, a Multilane Roundabouts panel became a virtual meeting on March 24 to discuss progress. Another event, the rollout of our new Quadrant Roadway Intersections Information Guide, drew participation by 400 professionals. In addition, FHWA hosted webinars to build the capacity of safety professionals including a webinar on HSIP implementation plans.

## **Promote a Safe System Approach**

- In December 2019, FHWA hosted the second Motorcyclist Advisory Council (MAC). Members developed a list of recommendations on infrastructure issues of concern to motorcyclists including barrier design, road design, construction, maintenance practices, and the architecture and implementation of intelligent transportation system technologies. FHWA is reviewing the recommendations and determining implementation strategies.

# Summary of Progress – FY 20 Q1-Q2

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- FHWA is developing resources to help stakeholders better understand the Safe System approach and how it aligns with the work already being done through the HSIP.
- FHWA has advanced the Safe System approach through work with jurisdictions and States that have committed to a zero deaths goals. Since October, FHWA has worked with City of Daly City, CA and the City of Macon-Bibb County, GA to develop Vision Zero Action Plans and has coordinated with other Vision Zero jurisdictions and zero deaths States to highlight their successful efforts. FHWA also conducted a peer exchange with MPOs/COGs that have made a Vision Zero commitment, sponsored a workshop with a follow up webinar to improve coordination among Colorado State transportation agencies and four local Vision Zero jurisdictions (Denver Region Council of Governments, City of Denver, City of Ft. Collins, and City of Boulder), and led a webinar on STEP for Vision Zero jurisdictions.

## **Advanced Driver Assistance Systems (ADAS)**

- Tech-Celerate NOW Project: FMCSA's Technology Division, in partnership with the Department's ITS Joint Program Office, has initiated a project with a team that includes Noblis (a not-for-profit technical organization), the American Trucking Associations, Owner-Operator Independent Drivers Association, and Virginia Tech Transportation Institute to:
  - Educate and promote the safety benefits of driver assistance technologies such as automatic emergency braking for trucking fleets; and
  - Measure the impact of the outreach campaign in terms of ADAS adoption rates and truck crash reduction.

Since the project kicked-off in early October 2019, the team has provided information in various formats (e.g., meetings, presentations, webinars, and emails) to over 140,000 contacts and in February 2020 participated in an hour-long segment on a trucker satellite radio show that reached over one million listeners nationwide. The project team is surveying the motor carrier companies to assess current levels of ADAS awareness and use and has drafted a report on market and technical barriers to ADAS adoption by fleets.

## **CDL Drug and Alcohol Clearinghouse**

# Summary of Progress – FY 20 Q1-Q2

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- The Drug and Alcohol Clearinghouse final rule established requirements for a central database for verified positive controlled substances and alcohol test results for CDL holders and refusals by such drivers to submit to testing. Implementation of this rule will ensure that CDL holders who have tested positive or have refused to submit to testing complete the return-to-duty process before operating a commercial motor vehicle. The compliance date was January 6, 2020. As of April 27th, 18,077 violations were reported.

## Partnerships (Grants)

- FMCSA accomplishes its mission through strong State partnerships. In FY2020 over \$391M in annual grant dollars fund the States' motor carrier investigations, roadside driver and vehicle safety inspections, and the identification and apprehension of traffic violators. FMCSA also provides competitive grant funding that spurs innovative ideas and supports technological advancements through high-priority safety initiatives, CDL program improvements, and driver training facilities.
- The agency's State partners conduct approximately 3.5 million inspections, more than 35,000 new entrant safety audits, and more than 6,000 carrier investigations annually.

## Research

- FMCSA is conducting a study that will provide an estimate of the number of potentially non-preventable crashes that occur annually involving commercial motor carriers. This study's assessment of State crash data systems' effectiveness in identifying crashes that meet the criteria for consideration under the Crash Preventability Demonstration Program will inform resource needs and possible changes to the Demonstration Program. Work began in FY 2020.

## Transit Safety

- In June 2019, FTA initiated its first round of certified SSO Agencies program audits.

# Summary of Progress – FY 20 Q1-Q2

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- To date, FTA has conducted nine audits for the Colorado, Georgia, Maryland, Massachusetts, Texas, Utah, Ohio, Washington State, and District of Columbia Fire and Emergency Medical Services Department SSO Agencies.
- The audit of the Oregon SSO Agency is scheduled for March 2020.
- More than 700 transit providers must complete a PTSAP by July 20, 2020.
  - In October 2019, FTA launched the TAC. FTA continues to carry out the 2019-2021 PTASP Implementation Plan, which includes training, guidance, workshops, webinars, and more. FTA has held more than 50 events with 7,000+ participants.
- To implement its Safety Management Systems (SMS) approach to enhancing transit safety, FTA established a Safety Assessment Team (SAT). The SAT analyzes risk and recommends actions to an Executive Safety Review Board (ESRB), which then advises the FTA Administrator. The SAT began with four safety issues:
  1. Inward and outward facing cameras for rail transit vehicles. SAT made recommendations for activities to ESRB and the safety office is implementing the activities.
  2. Roadway worker protection. SAT is actively reviewing this item and plans to have recommendations at the end of Q2.
  3. SAT plans to review transmission-based train control in Q3 or Q4 of FY20
  4. Stop signal overruns in Q3 and Q4 of FY 20.
- In 2019, FTA launched its [Human Trafficking Awareness and Public Safety Initiative](#) and, in January 2020, awarded \$5.4 million in grant selections to 24 organizations. The funding focuses on innovative projects and public awareness campaigns to help prevent human trafficking and other crimes on public transportation. FTA is also supporting the Department's Transportation Leaders against Human Trafficking pledge campaign to capture more public transportation leaders' signatures, which should lead to increased industry awareness and training. The Human Trafficking campaign began in FY 2019, and 133 transit organizations have joined the campaign. In FY 20 FTA completed its human trafficking activities in Q2.

## Rail Safety

# Summary of Progress – FY 20 Q1-Q2

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- In FY 2020, FRA will host six two-day summits to raise awareness about the dangers and impacts of rail trespassing, seek low-cost solutions to local trespassing issues, and discuss practicable ideas for technological improvements at grade crossings. On the first day of each summit, FRA, railroad officials, and local representatives will share leading industry practices and explore local strategies to reduce the number of trespasser and grade crossing incidents and fatalities. Participants will also discuss trespassing impacts on their communities, roots of trespassing, and recommendations to reduce incidents. On the second day, FRA and railroad stakeholders will share results from FRA's FY 2019 listening sessions about technological innovations at grade crossings. Presenters will explain how to implement such technologies, identify funding sources and opportunities, and provide a framework for achieving desired outcomes.

## **Pipeline and Hazardous Materials Safety**

- PHMSA continues to assess incident data, advance safety through rulemakings, and work closely with stakeholders to promote safe operations. In FY 2020, PHMSA's performance goal is to reduce fatalities resulting from the transport of hazardous materials by all modes, including pipeline, to less than 24. In Q1 and Q2, there have been a total of seven fatalities, including five for pipeline systems and two for the transport of hazardous materials by other surface transportation modes. The overall goal is on target for this metric.

# Key Milestones

NHTSA, FHWA, and FMCSA conduct a range of research, program development and dissemination, evaluation, education, and outreach activities to reduce motor vehicle crash fatalities and injuries.

Milestone Summary					
Milestone	Deadline	Status	Change from Previous Quarter	Owner	Notes
NHTSA: Stakeholder Public Meeting on agency research priorities	FY 2020 Q1	Completed	Not applicable	NHTSA	Closed on 2/20/20 for comments.
NHTSA: Auto Industry Stakeholder Meeting and Cybersecurity Roundtable	FY 2020 Q2	Completed	Not applicable	NHTSA	Supports ongoing dialogue with auto industry on vehicle safety research.
NHTSA: Early Estimates of Motor Vehicle Traffic Fatalities released	FY 2020 Q3	Completed	Data released in May 2020.	NHTSA	Comprehensive overview of number of fatalities, trends and rates in 2019.
NHTSA “Drive Sober or Get Pulled Over” National Mobilization	FY 2020 Q4	Not completed (Will run 8/19-9/7/20)	Not applicable	NHTSA	An impaired driving enforcement effort in partnership with law enforcement agencies nationwide.
NHTSA: Major updates to the National EMS Educational Standards released	FY 2021 Q1	Not completed (In progress)	Not applicable	NHTSA	Education and training framework for EMS professionals.
FHWA: Update and publish the Crash Modification Clearinghouse (CMF)	FY 2020 Q4	Not completed	Not applicable	FHWA	Repository of the CMFs for transportation professionals to use as they are selecting safety countermeasures.
Milestone	Deadline	Status	Change from	Owner	Notes

# Key Milestones

			Previous Quarter		
FHWA: Deliver the EDC-5 FoRRRwD Implementation Plan	FY 2020 Q4	Not completed	Not applicable	FHWA	Providing technical assistance and products needed by States and locals to achieve their EDC goal.
FHWA: Deliver the EDC-5 STEP Implementation Plan	FY 2020 Q4	Not completed	Not applicable	FHWA	Providing technical assistance and products needed by States and locals to achieve their EDC goal.
FHWA: Provide technical assistance to Vision Zero communities	FY 2020 Q4	Not completed	Not applicable	FHWA	To implement activities that support zero deaths goals at the local level.
FMCSA: Transportation Research Board Annual Meeting	FY2020 Q2	Completed	Not applicable	FMCSA	Presenting FMCSA's 2020 Analysis, Research and Technology initiatives.
FMCSA: Motor Carrier Safety Advisory Committee meetings	FY2020 Q3	Not completed	Not applicable	FMCSA	Provides advice and recommendations to the FMCSA Administrator on motor carrier safety programs and motor carrier safety regulations.

# Key Indicators

## Surface Safety

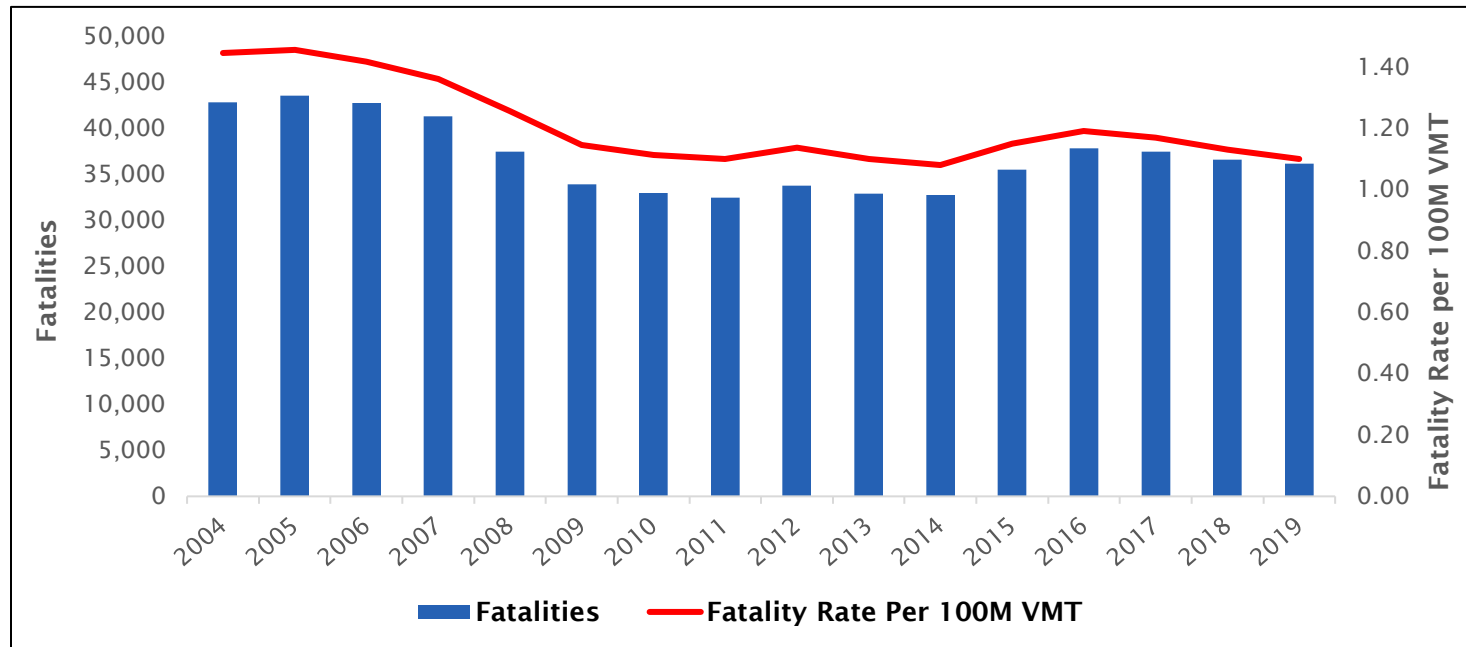


Figure 1: Total Fatalities and Fatality Rate per 100 Million Vehicle Miles Traveled

The Nation has made progress in reducing overall transportation-related fatalities and injuries, even as the U.S. population and travel rates increased significantly. Over the past 16 calendar years (2004 to 2019), the number of fatalities on the Nation's roadways has dropped by 16 percent, from 42,884 to 36,120.



# Key Indicators

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Performance Goal: Reduce Motor Vehicle-Related Fatalities (Overall)							
Motor Vehicle-Related Roadway Fatalities Per 100 Million Vehicle Miles Traveled		CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021
	<b>Targets</b>	1.02	1.02	1.02	1.02	1.01	1.01
	<b>Actuals</b>	1.19	1.16	1.11	1.10	N/A	N/A

*\*2019 Statistical projection for 2019. .*

The fatality rate declined 7.6 percent from 2016 to 2019, and the Department continued to make progress in reducing the motor vehicle fatality rate in FY 2019. While it did not meet the goal for that period, the decline reflects the impact that ongoing safety efforts have had.

# Key Indicators

Performance Goal: Reduce Motor Vehicle-Related Fatalities by Type (FHWA, NHTSA, FMCSA)							
		CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021
Passenger Fatalities Per 100 Million VMT	<b>Targets</b>	0.75	0.75	0.75	0.74	0.74	TBD**
	<b>Actuals</b>	0.75	0.74	0.70	N/A	N/A	N/A
Large Truck and Bus Fatalities Per 100 Million Vehicle Miles Traveled	<b>Targets</b>	0.114	0.114	0.114	0.114	0.114	0.114
	<b>Actuals<sup>s</sup></b>	0.155	0.160	0.160	N/A	N/A	N/A
Non- Occupant Fatalities (Pedestrian, Bicycle) Per 100,000 Population	<b>Targets</b>	2.19	2.15	2.15	2.10	2.10	TBD**
	<b>Actuals</b>	2.19	2.15	2.25	N/A	N/A	N/A
Motorcycle Fatalities Per 100,000 Motorcycle Registrations	<b>Targets</b>	62	62	62	62	61	TBD**
	<b>Actuals</b>	60.9	59.34	57.5	N/A*	N/A	N/A

\*CY 2019 data should be available in late CY 2020.

\*\*CY 2021 targets will be provided by Q3, FY 2020.

<sup>s</sup> Beginning with data for 2016, NHTSA implemented changes to revise vehicle classification based on gross vehicle weight rating (GVWR), which reclassified 329 light pickup trucks as large trucks. Due to this methodology change, comparisons of the 2016 (and later) Fatality Analysis Reporting System (FARS) large truck data with prior years should be performed with caution.

# Key Indicators

## Transit Safety

Performance Goal: Reduce Transit-Related Fatalities (FTA)							
		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total Fatalities*	<b>Targets</b>	---	278	278	260	255	255
	<b>Actuals</b>	257	239	249	245	N/A	N/A
Total Transit Fatalities per 100 Million Passenger Miles*	<b>Targets</b>	---	0.607	0.601	0.596	0.596	0.596
	<b>Actuals</b>	.570	.565	.616	.602	N/A	N/A

\*Targets for these indicators were changed in FY 2018. N/A not available.

(Actual) Fatalities by Mode										
	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020*
Bus (MB)	92	97	104	87	88	95	84	72	80	16
Heavy Rail (HR)	94	102	111	93	97	105	88	129	126	20
Light Rail (LR)	36	45	35	39	46	39	49	41	51	8
Other Modes	4	21	23	18	23	18	18	12	13	3
<b>Total</b>	<b>226</b>	<b>265</b>	<b>273</b>	<b>237</b>	<b>254</b>	<b>257</b>	<b>239</b>	<b>254</b>	<b>270</b>	<b>47</b>

Data are based on Calendar Years, January through December, and reporters are required to report within two months of a fatality.

\*Data is for CY2020, as of March 31, 2020. This table will be updated throughout the year to capture late reporters. (Reporters have one month after an incident to report to the National Transit Database (NTD)).

# Key Indicators

The following are excluded (which are regulated by FRA): All Commuter Rail modes, PATH Heavy Rail, Portland Tri-Met Hybrid Rail, and Austin Capital Metro Hybrid Rail.

Data are based on Calendar Years, January through December, and reporters are required to report within two months of a fatality.

<b>(Actual) Fatalities by Subgroup</b>										
	<b>CY 2011</b>	<b>CY 2012</b>	<b>CY 2013</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>	<b>CY 2019</b>	<b>CY 2020</b>
Suicides	62	63	71	61	74	80	70	79	73	9
Passengers	12	12	18	23	12	14	16	13	15	4
Revenue Facility Occupants	30	55	38	34	17	35	26	25	40	6
Total Employee*	3	5	11	5	4	8	3	11	6	1
Bicyclists	5	6	11	14	7	9	1	5	7	0
Pedestrian in Crossing	16	14	12	21	19	15	17	15	12	4
Pedestrian Not in Crossing	19	24	17	13	28	10	6	13	16	3
Pedestrian Crossing Tracks	5	8	5	9	12	0	0	0	0	0
Pedestrian Walking Along Tracks	7	11	7	13	9	10	6	4	7	1
Other Vehicle Occupant	35	47	52	35	51	48	61	40	40	5
Other	32	20	31	9	21	29	23	48	54	14
<b>Total</b>	<b>226</b>	<b>265</b>	<b>273</b>	<b>237</b>	<b>254</b>	<b>257</b>	<b>239</b>	<b>254</b>	<b>270</b>	<b>47</b>

\*Total Employee is the combined count of Employees and Others Workers

# Key Indicators

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Performance Goal: Reduce Transit Collisions Involving People						
		FY 2017**	FY 2018	FY 2019	FY 2020	FY 2021
Total Rail Transit Collisions with Persons	Targets	---	450	420	430	430
	Actuals	408	425	466	107*	N/A

Source: National Transit Database, data pulled as of May 2019. Data are reported by Federal Fiscal Year. Rail transit collisions with persons includes suicides. Targets for FY 2019 and FY 2020 were revised downward in December 2018 based on FTA exceeding its targets in FY 2018. Targets for FY2020 were slightly revised after review of FY 2019 data.

\*Data as of Q1 FY2020. N/A not available.

\*\*FY 2017 was baseline year.

# Key Indicators

## Rail Safety

Performance Goal: Reduce Rail-Related Fatalities (FRA) <sup>6</sup>				
		FY 2019	FY 2020	FY 2021
Highway-Rail Grade Crossing Incidents	Targets	---	2,156	2,048
	Actuals*	2,269	2,320	N/A
Rail Right-Of Way Trespass Incidents	Targets	---	1,070	1,017
	Actuals*	1,126	1,060	N/A

*A highway-rail incident is any impact regardless of severity between rail and highway users (vehicles, pedestrians, and bicycles) at a public or private crossing. A trespasser incident is any event that causes a death or injury in a rail right-of-way, other than at a highway-rail grade crossing.*

*\*Actual data are subject to change and might differ from prior-year materials based on the latest information available. FY 2020 Q2 data will be available in July 2020. Number shown for FY 2020 Actual is the Q1 total annualized for four quarters.*

<sup>6</sup> In FY 2020, FRA changed its grade crossing and trespass indicators from incidents per million train-miles to number of incidents. To reduce casualties, FRA is focused on engaging communities that experience higher numbers of grade crossing and trespasser incidents. Therefore, the number of incidents is a better metric to gauge FRA effectiveness going forward than the rate of incidents per total U.S. train-miles.

# Key Indicators

## Pipeline and Hazardous Materials Safety

Performance Goal: Reduce Pipeline and Hazardous Materials Safety-Related Fatalities (PHMSA)							
		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Fatalities Caused by the Release of Hazardous Materials Transported via Pipeline or Surface Transportation Conveyance <sup>7</sup>	<b>Targets</b>	---	---	---	25	24	22
	<b>Actuals</b>	25	16	18	25(p)	7(p)	N/A

*(p) preliminary (actual data for FY 2019 will be available in October 2020)*

*In Q1-Q2, of the seven fatalities reported, five are related to pipeline and two are related to hazardous materials transported by other modes. N/A not available.*

<sup>7</sup> Beginning in FY 2019, PHMSA replaced its APG measure of “incidents involving fatalities and major injury resulting from the transport of hazardous materials by all modes, including pipelines” with “confirmed fatalities caused by the release of hazardous materials transported via pipeline or surface transportation conveyance.” Surface transportation conveyance includes road, rail, water, and air transport. The revised measure focuses on fatalities only, rather than incidents, and more closely aligns with the Department’s other operating administrations. Please note that while these data were tracked prior to FY 2019, targets were not set until the new performance indicator was implemented in FY 2019.

# Key Indicators

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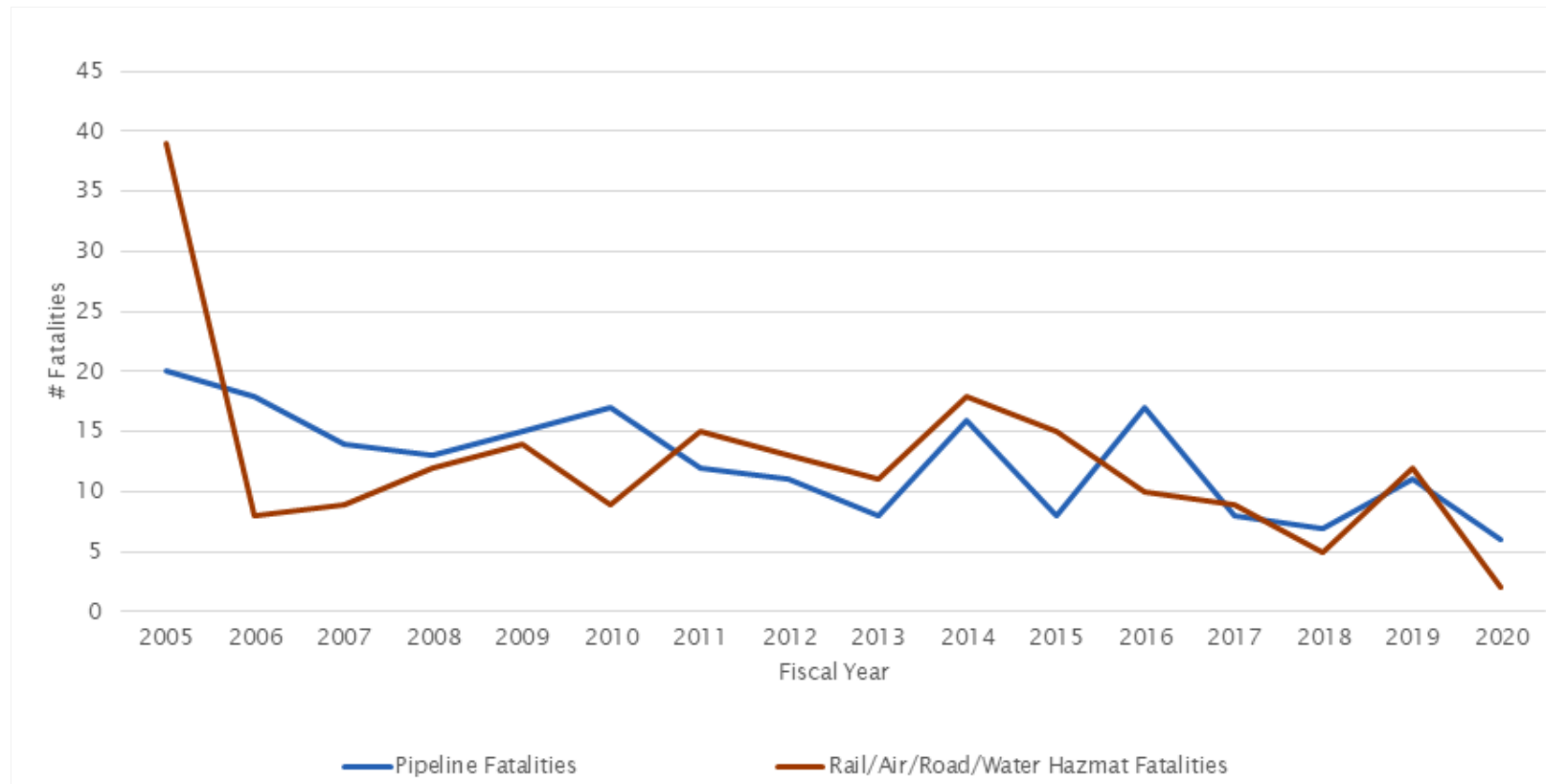


Figure 2: Fatalities Caused by Release of Hazardous Materials (All Modes)



# Data Accuracy & Reliability

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## Surface Fatalities

### Measures

- Passenger vehicle occupant fatalities per 100 million VMT
- Passenger Fatalities Per 100 Million VMT
- Large Truck and Bus Fatalities Per 100 Million VMT
- Non-Occupant Fatalities (Pedestrian, Bicycle) Per 100,000 Population
- Motorcycle Fatalities Per 100,000 Motorcycle Registrations

### Methodologies

Roadway fatalities per 100 million VMT are calculated for each calendar year (CY). The number of fatalities included in national reports is a count of deaths of a motorist or a non-motorist occurring within 30 days of a crash involving a motor vehicle traveling on a traffic-way customarily open to the public within the 50 states, the District of Columbia, and Puerto Rico.

A roadway fatality is the death of any vehicle occupant (driver, passenger, or person riding on the exterior of a motor vehicle), including motorcycle (two- or three-wheeled motor vehicle) riders or passengers, and any non-occupants (any person not an occupant of a motor vehicle in transport, such as a pedestrian or cyclist) in a motor vehicle crash.

VMT include all vehicle miles traveled by all types of vehicles including:

- Passenger cars
- Motorcycles
- Buses
- All two-axle four tire vehicles (including vans, pickup trucks, and sport/utility vehicles)
- Single unit two-axle six tires or more trucks
- Combination trucks

# Data Accuracy & Reliability

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## Sources

Roadway fatality data are obtained from NHTSA's Fatality Analysis Reporting System (FARS). The FARS database is a census of fatal traffic crashes within the 50 states, the District of Columbia, and Puerto Rico and is based on Police Crash Reports (PCRs).

Annual VMT are estimated using data from FHWA's Highway Performance Monitoring System (HPMS). The HPMS compiles data from the states annually concerning the condition and performance of all roads in the United States. HPMS includes the annual average daily traffic (AADT) by road segment. States provide AADT on all federal-aid highway sections. These data are based on traffic counts taken at least once every three years on the National Highway System (NHS), interstate, and principal arterials and at least once every six years on minor arterials and collectors. Traffic counts are adjusted by States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. When these AADTs are multiplied by the length of each road segment and summed for all road segments and days of the year, they yield the annual VMT.

Monthly VMT are calculated using the annual VMT from HPMS and the monthly traffic counts states submit to FHWA from their automated traffic recorders (ATRs). These ATRs are permanent traffic counting devices such as inductive loops in the roadway. There are about 4,000 ATRs reported to FHWA each month. ATR data are submitted and processed using the Travel Monitoring Analysis System (TMAS). Monthly average daily traffic (MADT) is computed from the ATR traffic counts. Each MADT is compared with the MADT for the same month the previous year to yield a change rate. The change rates are averaged by functional class of road. If a State does not provide traffic data in time, its change rates are estimated from the surrounding states. Monthly VMT are estimated and reported in FHWA's Traffic Volume Trends (TVT) by combining the change rates for each month with the most recent annual VMT from HPMS. The TVT report is available to the public within 60 days after the close of the month. Data that covers a minimum of 30 states and 70 percent of the VMT are required for publication.

## Statistical Issues

Both HPMS and TVT are based on samples of the traffic; there are associated sampling errors.

# Data Accuracy & Reliability

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## **Completeness**

Annual traffic fatalities are currently available through CY 2017, published in October 2018. VMT are completed through 2017. The final 2017 VMT estimate was made available in March 2019.

## **Reliability**

NHTSA is careful to ensure consistency in FARS data by establishing trainings, numerous quality control measures, and standard data coding guidelines, thereby assuring adequate national data to facilitate accurate analyses. For example, to complete each FARS case, the analyst applies specific definitions and guidelines and inputs the appropriate element values for each data element into the data entry system. In this way, all data contained in the FARS system are uniform, eliminating state differences in collecting and maintaining relevant crash records.

# Data Accuracy & Reliability

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## Transit-Related Fatalities

### Measures

- Total transit fatalities
- Total transit fatalities per 100 million passenger-miles

### Scope

These data only include that for rail transit systems subject to FTA's SSO Program (see "Reduce Transit Collisions Involving Persons" for systems excluded from oversight).

Additionally, fatalities are collected from all other non-rail transit systems. These data exclude fatalities from rural transit systems and from small urbanized systems that receive a small system reporting waiver.

Transit fatality data include passengers, revenue facility occupants, trespassers, employees, other transit workers (e.g., contractors), pedestrians, occupants of third-party vehicles, and others. A transit fatality is a death within 30 days of an incident on transit right-of-way, in a transit revenue facility, in a transit maintenance facility, or involving a transit revenue vehicle. Excluded are deaths due to medical conditions or natural causes occurring on public transportation systems. Also excluded are occupational safety deaths occurring inside administrative buildings.

### Sources

These data are sourced from NTD Monthly Safety Reports.

### Statistical Issues

Fatality rates are calculated by dividing CY fatalities by NTD report year passenger miles for those systems reporting monthly fatalities. The major source of uncertainty in the measure relates to passenger-miles traveled. Passenger-miles are an estimate typically derived from reported unlinked passenger trips and average trip length by each transit authority. Differences in measurement occur across transit authorities.

# Data Accuracy & Reliability

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To approximate passenger-miles, total unlinked trips are multiplied by average trip length. An unlinked trip is recorded each time a passenger boards a transit vehicle, even though the rider may be transferring from one transit vehicle to another on the same journey.

Transit authorities do not routinely record trip length. To obtain an average trip length for their bus routes, transit authorities use Automatic Passenger Counters with Global Positioning System (GPS) Technology or an FTA-approved sampling technique. To obtain passenger mile data on rail systems, ferryboats, and paratransit, transit authorities often use computerized tracking systems, such as the Smart Card. In some cases, such as small fare-free systems or large free-transfer systems (e.g., the New York City subway), passenger-miles are sampled directly, as a 100 percent count of unlinked passenger trips is not available. Validation based on annual trend analysis is performed on the passenger mile inputs from the transit industry. The validation is performed by analysts at the NTD program.

## **Completeness**

Within the scope defined above, the fatality count data are complete. Transit systems must report reportable safety events to the NTD within 30 days of the event.

## **Reliability**

Transit systems must report reportable safety events to the NTD within 30 days of the event. Rail safety events are reconciled against SSSO Investigatory Reports. Data reports are self-certified by a designate of the transit system's Chief Executive Officer.

## **Verification and Validation**

FTA employs an NTD Validation Services contractor that verifies and validates safety event reports. Passenger mile data are validated against the operations and financial data in the rest of the annual NTD report to ensure consistency and are validated against the prior year's reported passenger miles.

# Data Accuracy & Reliability

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## Rail-Related Fatalities

### Measures

- Highway-rail grade crossing incident rate per million train-miles
- Rail right-of way trespass incident rate per million train-miles

### Scope

The railroad accident/incident reporting subsystem compiles rail-related accident and incident data from railroads subject to FRA oversight. Railroads subject to oversight must have an accident and incident record-keeping system that meets or exceeds federal standards. Requirements to report an event to FRA apply when the event's consequences exceed the annually adjusted damage threshold. The reporting threshold for CY 2016 was \$10,500. A rail equipment (including train) accident is any collision, derailment, fire, explosion, act of God, or other event involving the operation of railroad on-track equipment (standing or moving) that results in damages greater than the current reporting threshold to railroad on-track equipment, signals, track, track structures, or roadbed. Railroads must also maintain internal records on accountable events (those that are generally less impactful than reportable events), employee on-duty injuries, and occupational illnesses that are not required to be reported to FRA. These internal records are subject to FRA review.

Railroads report train accidents on FRA form F6180.54, Rail Equipment Accident/Incident Report and operational data, including train-miles, on FRA form F6180.55, Railroad Injury and Illness Summary.

### Sources

FRA's railroad accident/incident reporting subsystem compilation of railroad-reported data that railroads submit as required under 49 Code of Federal Regulations (CFR) Part 225. This subsystem contains approximately 40 years of data on railroad casualties, train accidents, highway-rail grade crossing collisions, and operating statistics, including train-miles.

### Statistical Issues

Highway-rail grade crossing incident rate is calculated in terms of train miles (operated). Adding vehicle exposure would provide a more accurate picture.

### Completeness

# Data Accuracy & Reliability

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Railroad systems that do not connect with the general rail system are excluded from reporting to FRA. Examples include subway systems (e.g., Washington, D.C. Metro and New York City Subway), track existing inside an industrial compound, and insular rail (e.g., rail not connected to the general system and not intersecting a public highway-rail grade crossing or navigable waterway).

Although railroads are generally required to report accidents and incidents within 30 days after the end of the month in which the event occurred, FRA keeps its data files open for amendment for five years to capture late reports, audit findings, and other updates. Data must be updated if the costs of an accident are more than 10 percent higher or lower than the initially reported cost. Data processing requires up to 30 days to prepare the information for merging into the database. As a result, FRA measures are subject to change and might differ from previous reports. A more detailed explanation of this process is available in FRA's Guide for Preparing Accident/Incident Reports at <http://safetydata.fra.dot.gov>.

## Reliability

FRA audits railroads' reporting and internal records. If railroads do not report accurately, completely, and timely, FRA can assess civil monetary penalties.

## Validation and Verification

FRA's systems and periodic audits help validate railroad-submitted data to ensure that they are timely, complete, accurate, and reliable. Every two years, FRA conducts a data reporting audit of each of the seven largest carriers, known as Class I railroads, and Amtrak. FRA also audits the smaller railroads about every five years. The purpose of these audits is to check for properly completed reports and verify the reported data, including identifying accidents or incidents that meet thresholds, but were not reported. After verification and validation, FRA provides public access to the data through its website at <http://safetydata.fra.dot.gov>.

# Data Accuracy & Reliability

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## Pipeline and Hazardous Materials Fatalities

### Measure

Confirmed Fatalities Caused by the Release of Hazardous Materials Transported via Pipeline or Surface Transportation Conveyance

### Scope

Incidents on gas pipeline systems, liquefied natural gas facilities, and underground natural gas storage facilities must be reported to PHMSA under 49 CFR 191.15. Hazardous liquid and carbon dioxide (CO<sub>2</sub>) pipeline system accidents must be reported to PHMSA under 49 CFR 195.50. Both interstate and intrastate pipeline systems are subject to the reporting requirements. Additionally, any person in possession of a hazardous material(s) during air, water, rail, or highway transportation, including loading, unloading, and storage incidental to transportation, must disclose them if certain conditions are met under 49 CFR 171.15 and 171.16.

A fatality resulting from a failure in a hazardous materials transportation system in which there is a release of a hazardous liquid, CO<sub>2</sub>, or natural gas must be reported. This includes operator employees, contractors working for the operator, other workers in the right of way, emergency responders, and the public. If an injured person dies within 30 days of the incident date, it is counted as a death, not as an injury. PHMSA partners with operators, state partners, and other stakeholders to identify/confirm deaths that occurred due to a release of hazardous liquid, gas, or other hazardous materials regulated by PHMSA.

### Sources

DOT/PHMSA incident data are used for this measure. For pipeline incidents, these data are derived from pipeline operator reports submitted on PHMSA Forms, F-7100.1, F-7100.2, F-7100.3, and F-7000-1. PHMSA regulations require incidents to be reported online through the PHMSA Portal. For incidents involving all other modes of transportation, hazardous materials transportation incident data are derived from reports submitted on Form DOT F 5800.1 and maintained in the Hazardous Materials Information System (HMIS). In addition, PHMSA's Office of Hazardous Materials Safety seeks information and data to identify potentially reportable incidents through the National Response Center (NRC), as well as the monitoring print, television, and social media daily.



# Data Accuracy & Reliability

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## Statistical Issues

Results in any single year should be interpreted with caution. There is some normal variation in the number of reported incidents each year, particularly given the small number of these fatalities, and this variation might not reflect real changes in the underlying risk.

Targets are presented as ranges to account for this variation. The target each year is set at one standard deviation from the trend line estimated based on best-fit function to account for normal variation year-to-year. This provides about 80 percent probability of achieving the target if the risk continues to follow the trend line. The trend line is evaluated and calibrated at the end of every FY.

The performance measure is not normalized for changes in exposure—external factors like changes in pipeline mileage, energy consumption, or U.S. population—that could affect the number of incidents with fatality.

## Completeness

Compliance in reporting is very high and most incidents that meet reporting requirements are submitted. Operators must submit reports within 30 days of an incident or face penalties for non-compliance. There is typically a 30-day lag between the date of the pipeline incident and PHMSA receipt of the incident report. Pipeline operators can supplement incident reports at any time after original submittal. For other modes, there may be a 30- to 60-day lag in reporting, verifying, validating, and compiling information in the database for analysis, as many companies do not file incident reports on time. Filers have one year to modify their 5800.1 submission.

## Reliability

PHMSA routinely cross checks incident reports against other sources of data, such as immediate notifications provided to the NRC and media outlets. PHMSA inspectors also regularly discuss accidents with operator personnel during routine inspections. PHMSA continues to work to improve the quality of the incident data.

## Verification and Validation

# Data Accuracy & Reliability

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All incident data are collected on Office of Management and Budget (OMB)-approved forms online. Detailed OMB-approved instructions for incident reports are available on the PHMSA website. Validation checks are run in the online instrument prior to submittal to ensure all required data fields have been populated.

PHMSA staff are responsible for reviewing each incident report to ensure the data matches information gained during PHMSA investigation or media reports. Pipeline operators have online access to each report they have submitted. On the PHMSA website, the public can download all the incident raw data or view 20-year trend lines of pipeline incident data with views of individual report data available.

# Additional Information

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## Stakeholder / Congressional Consultations

- FHWA, NHTSA, and FMCSA leadership teams and their Government Affairs Offices provide briefings and technical assistance for Congressional members and staff on highway safety issues when requested. State, local, and tribal stakeholder engagement and dialogue is an essential element for the success of the Department's strategic safety initiatives. FHWA, NHTSA, and FMCSA regularly engage with the public and other stakeholders (industry, safety advocates, State and local agencies, advisory committees) to seek feedback and input into current and future initiatives. These three agencies have also have partnered with the National Safety Council to support the development of a coalition that has brought together more than 900 State and local organizations to focus on developing short and long-term strategies to reduce crashes and fatalities.
- FMCSA holds regular listening sessions with the public and stakeholders throughout the year on a variety of issues pertinent to motor carrier safety and rulemakings the agency is contemplating or undertaking. Most recently, FMCSA held a series of listening sessions on Hours of Service, the last of which was held at Department headquarters in September 2019. Additionally, FMCSA's Motor Carrier Safety Advisory Committee (MCSAC), its advisory committee of stakeholders from the safety advocacy, safety enforcement, industry, and labor sectors of motor carrier safety, meets two to three times per year. The MCSAC held its last meeting on September 30-October 1, 2019. Issues discussed included Hours of Service, FMCSA Research and Technology, and the CDL Test System Modernization project. FMCSA's other advisory committee, the Medical Review Board (MRB), required by statute, met last July to consider revisions to the Medical Examiners Handbook and potential changes to the vision standard for commercial motor vehicle drivers. Like MCSAC, MRB meets approximately two times per year.
- FTA: partners with APTA and TRB for research on industry standards and best practices. FTA works with transit agencies to assist with safety certification programs and staff training. FTA also partners with NTI and other DOT modes to provide training to the industry and access to data and industry trends. We partner with the State DOTs who are required to create SSO for rail transit safety.

# Additional Information

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- FRA works with dozens of stakeholder organizations, representing all segments of the railroad community, including management, labor, safety advocates, suppliers, manufacturers, and large and small railroad. Stakeholder engagement includes meetings of the Rail Safety Advisory Committee and issue-specific activities, such as positive train control collaboration sessions and grade crossing symposiums. FRA consults with Members of Congress and their professional staff at least quarterly, through briefings, teleconferencing, and correspondence.
- PHMSA works closely with its stakeholders to collect and share data to provide a standard of reference for safety performance, improve data quality, and motivate changes in behavior. PHMSA also cooperates with other federal agencies, including the Departments of Homeland Security, Energy, State, Interior, and Labor, the Environmental Protection Agency, and others on all pipeline and hazardous materials safety matters.