

Agency Priority Goal Action Plan

Reduce Surface Transportation-Related Fatalities

Goal Leaders:

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

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

James Owens, Deputy Administrator, National Highway Traffic Safety Administration (NHTSA)



Overview

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. The number of large truck and bus investigations and
 inspections decreased due to the inability to conduct onsite visits. Fewer violations are being
 reported. The backlog will be cleared as onsite investigations and inspections resume.
- 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.

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.

Overview

- 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 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: 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.

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

Elaine L. Chao DOT Secretary

Nicole R. Nason: FHWA Administrator

James Owens: NHTSA Deputy Administrator

Jim Mullen: FMCSA Administrator (Acting)

Senior Lead

Thomas D. Everett
FHWA Executive Director

Lead

Cheryl Walker FHWA AA for Safety

Agency Partners

American Association of State Highway and Transportation Officials (AASHTO)

Senior Lead

Jack Danielson NHTSA Executive Director

Leads

Cem Hatipoglu IHTSA AA for Vehicle Safety

Jamie Pfister
NHTSA AA for Regional Operation
& Program Delivery

Agency Partners

Governors Highway Safety Association

Senior Lead

Larry Minor FMCSA AA Office of Policy

Leads

Joe Delorenzo
FMCSA AA Office of Enforcement
(Acting)
Kenneth Riddle
FMCSA AA Office of Research
(Acting)

Agency Partners

Motor Carrier Safety Advisory Committee

Medical Review Board

The FY 2020 and FY2021 Agency Priority Goals (APGs) align with the Safety strategic goal in the <u>FY 2018-2022</u> <u>DOT Strategic Plan</u> 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:

Key Strategies

- Pursue data driven, evidence-based solutions to improve the safety of all vehicles and road users;
- Improve and enhance data collection and analysis;
- Research and deploy advanced vehicle technology;
- Develop and enforce vehicle safety standards;
- Collaborate with partners to conduct national safety campaigns to promote safe driving practices;
- Work with State, tribal, and local partners to encourage roadway infrastructure improvements and safer roadway design;
- Boost implementation of proven safety countermeasures and address risks that impact vulnerable road users and rural communities; and
- Provide oversight to commercial operators and drivers.

Strategic Objective: Systemic Safety Approach



Mitigate risks and encourage infrastructure and behavior change by using a datadriven systemic safety approach to identify risks, enhance standards and programs, and evaluate effectiveness.

This APG is measured through the following performance goals and indicators2:

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: Total Transit Fatalities per 100 Million Passenger 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

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

National Highway Traffic Safety Administration (NHTSA)

- 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 serious 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.

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 billion₃ 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 <u>Focused Approach to Safety initiative</u> 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 <u>Proven Safety Countermeasures</u> 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

³ 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.

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

o FHWA focuses on 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.

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 July 27th, 30,917 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. Due to the inability to conduct onsite investigations from March until late May, the number and timeliness of investigations have been impacted. The Agency can now conduct remote onsite visits on some high-risk companies. The Agency will be focusing on the backlog of investigations.
- FMSCA 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. For the first two quarters of FY 2020, FMCSA conducted 20,324 audits. The Agency expects a decrease in audits for the 3rd quarter due to COVID19 restrictions.
- 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 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.
- COVID-19 Response: On March 18, FMCSA issued an expanded national emergency declaration to provide hours-of-service regulatory relief to commercial vehicle drivers transporting emergency relief in response to the nationwide coronavirus (COVID-19) outbreak. On May 13, 2020, FMCSA extended this Declaration to June 14, 2020. On June 8, 2020, FMCSA extended this Declaration to July 14, 2020. On July 13, 2020, FMCSA extended this Declaration to August 14, 2020. This extension of Emergency Declaration No. 2020-002 provides regulatory relief for commercial motor vehicle operations providing direct assistance in support of emergency relief efforts related to COVID-19 and is limited to transportation of (1) livestock and livestock feed; (2) medical supplies and equipment related to the testing, diagnosis and treatment of COVID-19; and (3) supplies and equipment necessary for community safety, sanitation, and prevention of community transmission of COVID-19 such as masks, gloves, hand sanitizer, soap and disinfectants.. Direct assistance does not include routine commercial deliveries, including mixed loads with a nominal quantity of qualifying emergency relief added to obtain the benefits of this emergency declaration. FMCSA has concluded that there is no longer a need for emergency relief with respect to the other categories of supplies. equipment, and persons covered by the May 13 extension and expansion of Emergency Declaration No. 2020-002, and those categories are therefore no longer covered.

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

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 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 the 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. More than 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 Safety Management Systems 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.

FTA continues to support transit agencies and State DOTs to comply with the regulation. In Q3, the PTASP Technical Assistance Center (TAC):

- Received 349 help desk queries, including 98 Agency Safety Plan review requests;
- Presented 4 webinars and 2 workshops; and
- Published 4 resources: (1) Agency Safety Plan Lessons Learned Table, (2) Safety Performance Target Guide (Version 1.1), (3) Safety Risk Management Webinar, and (4) Safety Assurance Webinar.

As of June 29, 2020, 347 urban recipients have certified compliance, which is 49 percent of the total.

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.
- On November, 19, 2019, 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 that the Secretary of Transportation 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 and servicing of public 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 nine audits so far, for the Colorado, Georgia, Maryland, Massachusetts, Ohio, Texas, Utah, Washington State, and District of Columbia Fire and Emergency Medical Services Department SSO Agencies. The audit of the Ohio SSO Agency began in December 2019.

COVID-19 Response

Regulatory & Administrative Relief to the Transit industry

• FTA deferred enforcement of the Public Transportation Agency Safety Plan (PTASP) Rule through December 31, 2020 and postponed on-sight oversight reviews until FY 2021.

Stakeholder Engagement and Outreach

- Established a COVID-19 landing page on the FTA website.
- Responded to more than 1,000 inquiries and requests through a centralized email (FTAResponse@dot.gov) and Emergency Relief Docket.
- Posted 119 FAQs and collaborated with the CDC, OSHA, and FEMA on the development of fact sheets and FAQs.
- Hosted a listening session to hear operational considerations for reopening transit.
- Convened bi-weekly calls with executive leadership of major transit associations and participated in six industry-wide stakeholder calls.

Transit Worker and Passenger Safety

- Monitored COVID-19 impacts on transit industry frontline workforce.
- Issued Safety Advisory 20-1, Recommended Actions to Reduce the Risk of Coronavirus Disease 2019 (COVID-19) Among Transit Employees and Passengers, which advises transit agencies to develop and implement policies and procedures regarding face coverings, PPE, cleaning and disinfection of frequently touched surfaces, physical separation, and healthy hygiene practices.
- Coordinated with the Office of the Secretary (S-60) to facilitate the distribution of more than 15 million HHS cloth face coverings that supported over 2,200 transit systems.

Federal Railroad Administration (FRA)

For decades, the leading causes of rail-related deaths and injuries have been trespassing on railroad property—including suicides—and collisions at the 202,000 U.S. grade crossings. Trespassing on railroad property and grade crossing incidents represent 97 percent of all rail-related fatalities. Over the past decade, casualties, including injuries and fatalities, related to trespassing have increased from 765 to over 1,100 per year. Over the same period, the number of grade crossing deaths has remained relatively constant, with injuries falling from 1,030 to 850. Human behavior plays an overwhelming role in these tragic incidents, with 93 percent of grade crossing collisions due to the motor vehicle driver's decisions, distraction, fatigue, or drug and alcohol impairment. In addition to the human toll from these incidents, they cause transportation network disruptions and economic losses. FRA's strategies to address this persistent and complex challenge include:

- Funding: Through grants, such as Consolidated Rail Infrastructure and Safety Improvement, FRA
 is supporting safety improvement projects and outreach initiatives to increase public awareness
 about the dangers and consequences of trespassing and driving around grade crossings.
- Research and Data Analysis: To design effective solutions, FRA and stakeholders must first
 understand the root causes of behaviors and risk factors that increase the likelihood of trespass
 and grade crossing incidents.
- o **Development of New Safety Technologies**: FRA is investing in innovative and potentially lifesaving projects, such as using drones to detect and warn about the presence of trespassers.
- Partnerships, Advocacy, and Technical Assistance: Because FRA does not directly influence some significant trespass and grade crossing safety risks, it works with States, local governments, and organizations that can complement FRA activities. In addition, FRA is enhancing law enforcement and first responder strategies, strengthening State crossing safety action plans, and updating FRA's Crossing Handbook.

Pipeline and Hazardous Materials Safety Administration (PHMSA)₄

- 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 Safety Management Systems (SMS) that improve safety culture and performance.

⁴ 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.

Surface Safety

- NHTSA released early estimates for motor vehicle fatalities for the first quarter of CY 2020 (January March). See https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812966 for more information. Fatalities decreased by about 1 percent compared to 2019, from 7,850 to 7,780. The impact of COVID-19 pandemic quarantines and shelter-in-place orders, which started in mid-March 2020, resulted in an estimated 5.4 percent decrease in vehicle miles traveled (VMT) for the first quarter, according to preliminary data reported by FHWA₅. As a result, the motor vehicle fatality rate increased to 1.10 fatalities per 100 million VMT compared to 1.05 for the same time period in 2019.6
- An estimated 36,120 people died in motor vehicle traffic crashes in 20197. 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%).
- The first quarter estimate of the number of people killed in traffic fatalities for CY 2020 is 7,780, which is a decrease of 0.9 percent from the first quarter for CY 2019 estimate of 7,850₈.

Increase Adoption of Proven Safety Solutions

• NHTSA and the U.S. Environmental Protection Agency released the final Safer Affordable Fuel-Efficient (SAFE) Vehicles rule setting corporate average fuel economy (CAFE) and CO₂ emissions standards for model year 2021-2026 passenger cars and light trucks by reducing the average price of a new vehicle by about \$1,000, the SAFE Vehicles Rule will make it easier for Americans to afford to buy newer,

⁵ FHWA March 2020 Traffic Volume Trends for 2019 & 2020 VMT

⁶ NHTSA Early Estimate of Motor Vehicle Traffic Fatalities for the First Quarter of 2020

⁷ NHTSA Early Estimate of Motor Vehicle Traffic Fatalities in 2019

⁸ NHTSA Early Estimate of Motor Vehicle Traffic Fatalities for the First Quarter of 2020

cleaner, and safer vehicles. About 3,300 fewer crash fatalities and 397,000 fewer injuries are projected over the lifetimes of vehicles built according to these new standards.

- 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 crashes, 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 originally scheduled for early April was converted to a three-part virtual summit beginning in July; all webinars reached maximum registration capacity of 1,000 participants.
- NHTSA took part in a webinar, Impaired Driving in a Post-COVID-19 World, in May 2020. The event was co-hosted by the Governors Highway Safety Association and the NHTSA-funded National Law Enforcement Liaison Program, to provide the traffic safety community with tools they can use to help deter impaired driving. Nearly 600 participants dialed in to learn about this timely topic.
- FHWA distributed numerous resources on proven safety solutions to address the most common type of pedestrian fatalities. The Safe Transportation for Every Pedestrian (STEP) initiative focuses on proven treatments to make crossing the street safer. In the third quarter, FHWA completed 15 new case studies, 2 informational videos, a podcast, several webinars, numerous articles, and social media messaging. FHWA commenced the STEP UP pedestrian safety awareness campaign in June, encouraging agencies to get involved, hosted two webinars on the campaign (May 27th and June 4th), and developed the STEP Studio a pedestrian safety toolbox.
- Every Day Counts' (EDC) 5's Reducing Rural Roadway Departures (FoRRRwD) began hosting a series of monthly webinars starting in April that will run through November 2020, and provided virtual training to Tribes. A new website provides stakeholders access to data and resources such as videos, brochures, tools and noteworthy practices.

- FHWA notified States, the District of Columbia and Puerto Rico of the results of their 2018 safety performance target determinations. This is the first time safety assessments have been made under the requirements of 23 USC 150(d). A total of 26 States and Puerto Rico met or made significant progress toward their 2018 safety performance targets.
- FHWA continues to offer HSIP Implementation Plan technical assistance to the 24 States and the District of Columbia not meeting or making significant progress toward their 2018 state safety targets. The Implementation Plans are designed to chart a course for States to become successful in meeting future safety targets.

Build Capacity for Innovation in Safety Analysis and Action

- FHWA and NHTSA completed a mapping project of each State's roadway inventory database to determine if each State currently has the capability to accept safety elements into their database. FHWA is working with each State on the results and helping to identify strategies to make further improvements.
- FHWA has long used virtual outreach in its work with State and local agencies and quickly shifted to an entirely virtual approach during coronavirus restrictions. For example, in June, FHWA led a virtual Transportation Safety Planning workshop with Indiana. The workshop brought together planners and safety specialists from State and regional agencies to discuss strategies and identify opportunities to integrate safety in the transportation planning process. A Multilane Roundabouts panel became a virtual meeting on March 24th to discuss progress. Another event, the rollout of our new Quadrant Roadway Intersections Information Guide, drew participation from 400 professionals. In addition, FHWA hosted webinars to build the capacity of safety professionals including a webinar on HSIP implementation plans.

• FHWA has selected two offers for Phase I awards in response to a Small Business Innovation and Research (SBIR) solicitation for developing a "physical intervention system" to prevent wrong-way driving (WWD) crashes.

Promote a Safe System Approach

- In December 2019, FHWA hosted a meeting with members of the Motorcyclist Advisory Council (MAC), and discussed a list of recommendations on infrastructure issues of concern to motorcyclists. In May 2020, FHWA started the process to conduct research and develop a synthesis for implementing MAC recommendations.
- FHWA has advanced the Safe System approach through work with jurisdictions and States that have committed to zero deaths goals. . Since April, FHWA continued its work with Daly City, CA and Macon-Bibb County, GA to develop Vision Zero Action Plans. Based on previous work with States and Vision Zero communities, FHWA is also developing a report presenting strategies that strengthen State and local coordination to advance the shared goal of zero traffic deaths. FHWA is developing Safe System marketing and educational materials for a variety of audiences; the materials include a flyer, video, and presentation.

Advanced Driver Assistance Systems (ADAS)

- NHTSA launched the Automated Vehicle Transparency and Engagement for Safe Testing (AV TEST) Initiative in June 2020. U.S. Department of Transportation Secretary Elaine L. Chao and other Department leaders helped kick off the initiative, which featured a series of virtual stakeholder events. The AV TEST Initiative aims to increase transparency by providing an online, public-facing platform for the voluntary sharing of automated driving system on-road testing activities and other pertinent information with the public. Online mapping tools eventually will show testing locations at the local, State, and national levels, as well as testing activity data, such as vehicle types and uses, dates, frequency, vehicle counts, and routes.
- NHTSA issued a notice of proposed rulemaking (NPRM) to modernize numerous Federal Motor Vehicle Safety Standards and clarify ambiguities in current occupant protection standards for vehicles

equipped with automated driving systems that are designed without traditional manual controls. This NPRM is an historic first step for the Department in its efforts to remove unnecessary and unintended barriers to innovative vehicle designs. This proposal is one of a series of regulatory actions that NHTSA is considering to further modernize vehicle standards for new technologies.

- 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 Advanced Driving Assistance Systems (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, E-mailings) to more than 1 million contacts with hour-long features on a national trucker satellite radio show. The project team has conducted a baseline survey of motor carrier companies and drivers to assess current levels of ADAS awareness. In general, fleets and company drivers are more aware of ADAS than independent/owner-operator drivers, and awareness is correlated with positive perspectives. Project deliverables received to date include: a national outreach plan, a report on technical and market barriers to greater ADAS use by fleets, and storyboards and scripts for planned ADAS educational videos that address these barriers. Outreach materials are planned for completion by November 2020, with the outreach and educational campaign kicking off in January 2021.

CDL Drug and Alcohol Clearinghouse

• The Drug and Alcohol Clearinghouse final rule established requirements for a central database of CDL holders with verified-positive controlled substance and alcohol test results. Records on CDL holders who refused to submit to testing are also contained in the database. 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 July 27th, 30,917 violations were reported.

Partnerships (Grants)

- FMCSA accomplishes its mission through strong State partnerships. In FY 2020, more than \$391 million in annual grant dollars funded 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 6,000carrier investigations annually.
- In FY 2020, NHTSA awarded\$562 million in grants for highway safety programs to Offices of Highway Safety in all 50 states, the District of Columbia, United States territories, and the U.S. Department of the Interior's Bureau of Indian Affairs. These highway safety grants will help save lives by addressing impaired driving, promoting seat belt use, improving pedestrian and bicyclist safety, and funding other important traffic safety efforts.
- NHTSA announced a new State demonstration grant program to help drivers learn about and repair open safety recalls on their vehicles in May 2020. This builds on a prior demonstration program done with the State of Maryland, and will provide \$1.5 million for as many as six States to notify consumers of open recalls during vehicle registration. The States will notify owners of vehicles with open recalls along with registration notices. . The States will also provide a brief description of the

defect, the nature of the recall, and information on getting it fixed immediately at an authorized dealer. The States will implement the program for a two-year period and evaluate the results.

Research

- NHTSA submitted a Driver Alcohol Detection System for Safety (DADSS) Report to Congress in May 2020. This annual report describes progress made in carrying out collaborative research efforts on in-vehicle technology to prevent alcohol-impaired driving from October 2017 through September 2018.
- 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 State Safety Oversight (SSO) agencies' program audits.
 - 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.
 - Due to the COVID-19 pandemic, in Q3 FTA suspended all enforcement activities until FY 2021 to provide administrative relief to transit agencies.
- More than 700 transit providers must complete a PTASP by December 31, 2020. This deadline was
 extended from its original date of June 20, 2020, to provide administrative relief due to COVID-19,
 as directed by OMB M-20-17.
 - 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. The SAT made recommendations for activities to ESRB and the safety office is implementing the activities.
 - 2. Roadway worker protection. The SAT is actively reviewing this item and made recommendations to the policy council at the end of Q2 of FY 2020.
 - 3. The SAT plans to review transmission-based train control in Q4 of FY 2020.
 - 4. Stop signal overruns in Q4 of FY 2020.
- In 2019, FTA launched its <u>Human Trafficking Awareness and Public Safety Initiative</u>. In January 2020, FTA awarded \$5.4 million in grants to 24 selected organizations. The funding focuses on innovative projects and public awareness campaigns to help prevent human trafficking and other crimes on public transportation. FTA supported 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. As a part of the Secretary's "100 Pledges in 100 Days" initiative, FTA secured more than 104 commitments from transit agencies to fight human trafficking by training more than 110,000 transit employees and through public education. The Human Trafficking campaign began in FY 2019, and 133 transit organizations have joined the campaign. In FY 2020, FTA completed human trafficking activities in Q2.

Rail Safety

- In FY 2020, FRA planned to host 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. Due to the pandemic health emergency, the summits were postponed. FRA is exploring alternatives to face to face meetings, including remote or hybrid sessions.
- In FY 2020, FRA began awarding targeted grants to assist local efforts to prevent trespassing and to support mental health organizations' campaigns to reduce rail-related suicides. In July, FRA announced than \$530,000 for 11 projects in 6 states (California, Florida, Massachusetts, Montana, North Carolina and New Jersey) to deter people from taking unnecessary risks around railroad tracks, while focusing on specific populations at higher risks around railroad tracks.

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 through Q3, there have been a total of twelve fatalities, including six for pipeline systems and six 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	In Progress	Not Applicable	NHTSA	Education and training framework for EMS professionals.				

Key Milestones

Milestone	Deadline	Status	Change from Previous Quarter	Owner	Notes
FHWA: Update and publish the Crash Modification Factors (CMF) Clearinghouse	FY 2020 Q4	In Progress	FHWA added 83 new Crash Modification Factors to the Clearinghouse and updated the website to include CMF-related safety analysis videos and updated the list of States with CMFs. Efforts focused on transitioning to a new CMF rating criteria and hosted a focus group with CMF stakeholders to better understand how this transition might affect their work	FHWA	Repository of the CMFs for transportation professionals to use as they are selecting safety countermeasures.
FHWA: Deliver the EDC-5 FoRRRwD Implementation Plan	FY 2020 Q4	In Progress	Published Spanish version of trading cards, developed new web pages, hosted three webinars each attended by over 300 individuals and drafted two technical feature articles to be published in the Autumn and Winter editions of Public Roads.	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	In Progress	FHWA developed STEP Studio - a pedestrian safety toolbox that connects to the many resources developed through STEP	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	In Progress	Provided technical assistance to support the creation of 2 additional Vision Zero Action plans. A report on strategies to strengthen State and local coordination is underway.	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.

Key Milestones

Milestone	Deadline	Status	Change from Previous Quarter	Owner	Notes
FMCSA: Motor Carrier Safety Advisory Committee meetings	FY2020 Q3	CCompleted (7/13-7/14,20)	Not Applicable	FMCSA	Provides advice and recommendations to the FMCSA Administrator on motor carrier safety programs and motor carrier safety regulations.
FMCSA 2020 Trucking Safety Summit	FY2020 Q3	Completed (8/5/20)	Not Applicable	FMCSA	Provide an opportunity to share stakeholders' ideas on improving trucking safety.

Surface Safety

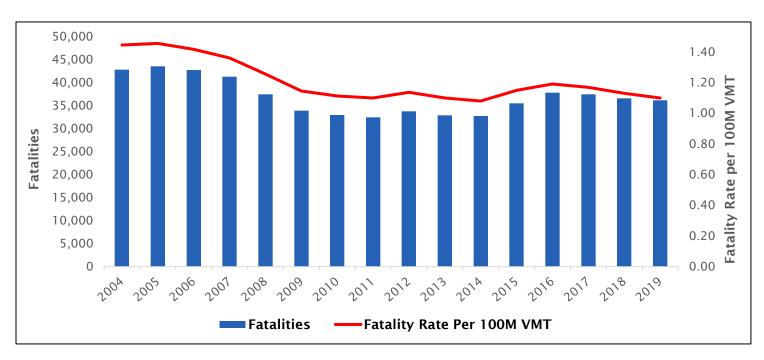


Figure 1: Total Fatalities and Fatality Rate per 100 Million Vehicle Miles Traveled

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.

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		
	Targets	1.02	1.02	1.02	1.02	1.01	1.01		
	Actuals	1.19	1.16	1.11	1.10*	N/A	N/A		

^{*}Statistical projection for 2019. Final CY 2019 data will be available in late CY 2020. CY 2020 data will be available by May 2021.

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.

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	Targets	0.75	0.75	0.75	0.74	0.74	0.74		
Million VMT	Actuals	0.75	0.74	0.70	N/A	N/A	N/A		
Large Truck and Bus Fatalities Per 100 Million	Targets	0.114	0.114	0.114	0.114	0.114	0.114		
Vehicle Miles Traveled	Actuals ₉	0.155	0.160	0.160	N/A	N/A	N/A		
Non- Occupant Fatalities (Pedestrian, Bicycle) Per	Targets	2.19	2.15	2.15	2.10	2.10	2.10		
100,000 Population	Actuals	2.19	2.15	2.25	N/A	N/A	N/A		
Motorcycle Fatalities Per	Targets	62	62	62	62	61	61		
100,000 Motorcycle Registrations	Actuals	60.9	59.34	57.5	N/A	N/A	N/A		

^{*}CY 2019 data should be available in late CY 2020.

⁹ 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.

Transit Safety

Performance Goal: Reduce Transit-Related Fatalities (FTA)									
		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021		
Total Transit Fatalities*	Targets		278	278	260	255	255		
Total Transit ratanties	Actuals	259	259	245	255	203**	N/A		
Total Transit Fatalities per 100 Million Passenger Miles*	Targets		0.607	0.601	0.596	0.596	0.596		
	Actuals	.594	.613	.601	.632	.950**	N/A		

N/A not available.

FTA expects to end FY 2020 off-target for several reasons. Total fatalities for Q1 were 20 percent higher than in 2019, while the number of passenger miles remained even (<1% change). This spike caused the fatality rate to increase. The spike in fatalities in Q1, combined with a decrease in passenger miles of 11 percent over 2019 (42 percent decrease in March due to COVID-19), caused the increased Q2 rate. Total fatalities for April/May 2020 were lower than April/May 2019; however, passenger miles decreased by 81 percent, due to COVID-19.

^{*}Targets for these indicators were changed in FY 2018. . .

^{**}An estimate of FY 2020 fatalities will be available in December 2020.

^{***}As of July 1, 2020. Q4 dataexpected November 10, 2020..

(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	86	88	95	84	76	80	42
Heavy Rail (HR)	94	102	111	93	97	105	88	132	124	60
Light Rail (LR)	36	45	35	39	46	39	49	40	51	17
Other Modes	4	21	23	18	23	18	18	12	13	6
Total ₁₀	226	265	273	236	254	257	239	260	268	125

^{*}Data are based on Calendar Years, January through December, and reporters are required to report within 30 days of a fatality.

^{*}CY 2020 data, as of July 1, 2020. This table will be updated throughout the year to capture late reporters. [(Reporters have 30 days after an incident to report to the National Transit Database (NTD.)]

¹⁰ The following are excluded (and are regulated by FRA): All commuter rail modes, PATH heavy rail, Portland Tri-Met hybrid rail, and Austin Capital Metro hybrid rail.

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	318**	N/A		

Source: National Transit Database. Data are reported by Federal fiscal year. Rail transit collisions with persons include suicides. Targets for FY 2019 and FY 2020 were revised downward in December 2018, based on FTA exceeding targets in FY 2018. Targets for FY 2020 were slightly revised after review of FY 2019 data.

N/A not available.

^{*}FY 2017 was the baseline year.

^{**}Data as of July 1, 2020.

¹¹ The following are excluded (and are regulated by FRA): All commuter rail modes, PATH heavy rail, Portland Tri-Met hybrid rail, and Austin Capital Metro hybrid rail.

Rail Safety

Performance Goal: Reduce Rail-Related Fatalities (FRA) ₁₂							
	FY 2019	FY 2020*	FY 2021				
Highway-Rail Grade Crossing Incidents	Targets		2,156	2,048			
	Actuals	2,277	2,198	N/A			
Rail Right-Of Way Trespass Incidents	Targets		1,070	1,017			
	Actuals	1,080	1,008	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 rail right-of-way trespass 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 Q3 data will be available in October 2020. FY 2020 Actual is the Q1 and Q2 total annualized for four quarters.

N/A not available.

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.

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 Conveyance13	Targets				25	24	22	
	Actuals	25	16	18	25*	12*	N/A	

^{*}Preliminary. Actual data for FY 2019 will be available in October 2020, and actuals for FY 2020 will be available in October 2021.

N/A not available.

^{**}In FY 2020 Q1-Q3, twelve fatalities were reported, including six related to hazardous materials transported by pipeline and six related to transport by other modes.

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.

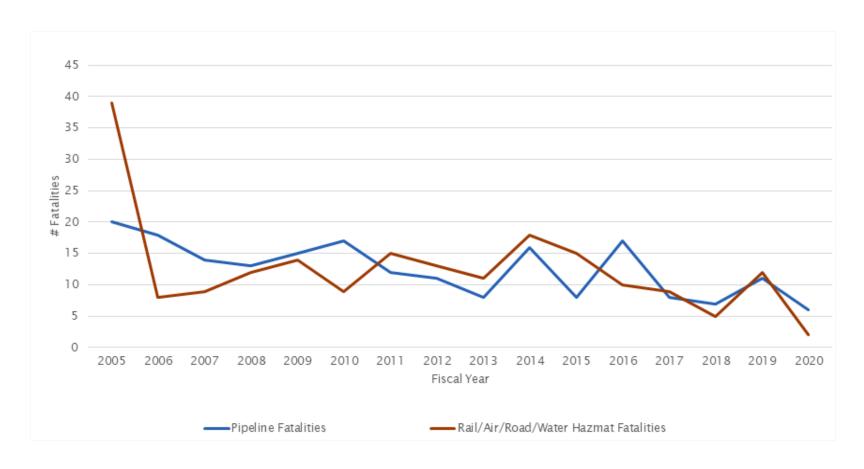


Figure 2: Fatalities Caused by Release of Hazardous Materials (All Modes)

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

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.

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.

Transit-Related Fatalities

Measures

- Total Transit Fatalities
- Total Transit Fatalities per 100 Million Passenger Miles

Scope

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

Fatality data are also 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 a 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. The number of passenger miles is an estimate typically derived from data on reported unlinked passenger trips and average trip length provided by each transit authority. Differences in measurement occur across transit authorities.

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, because data for a 100 percent count of unlinked passenger trips are 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 SSO 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 to verify and validate 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.

Rail-Related Fatalities

Measures

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

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

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.

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 (CO₂) 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, CO₂, 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.

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 fiscal year.

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**

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

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 July 13-14, 2020. Issues discussed included changes to the package and small goods delivery sector; the impact of the aging demographic of the commercial motor vehicle driver workforce on the truck and bus industries and whether this trend will exacerbate the driver shortage problem; and the impact of the legalization of hemp on the safety oversight of CMV drivers.
- FMCSA's other advisory committee, the Medical Review Board (MRB), required by statute, met April 27-28, 2020 to review Medical Examiner refresher training questions and to review the Medical Examiner's Handbook Like MCSAC, MRB meets approximately two times per year.
- FTA: partners with the American Public Transportation Association and the Transportation Research Board 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 the National Transit Institute and other DOT modes to provide training to the industry and access to data and

Additional Information

industry trends. FTA partners with the State DOTs who are required to create State Safety Oversight programs for rail transit safety.

- 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.