



RESEARCH

U.S. Firefighters Killed When Struck by Vehicles: 2000–2020

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**U.S. Firefighters Killed When Struck by Vehicles
by Year and Type of Duty, 2000–2020**

Year	Total	Struck by Fire Department Vehicle	Struck by Non-Fire Department Vehicle
2000	5	1	4
2001	4	1	3
2002	7	2	5
2003	6	1	5
2004	8	3	5
2005	3	1	2
2006	3	0	3
2007	1	0	1
2008	4	0	4
2009	4	2	2
2010	4	2	2
2011	3	1	2
2012	3	1	2
2013	6	1	5
2014	3	0	3
2015	4	1	3
2016	2	1	1
2017	10	1	9
2018	4	0	4
2019	4	0	4
2020	1	0	1
Total	89	19	70

Type of Duty	Total	Struck by Fire Department Vehicle	Struck by Non-Fire Department Vehicle
Fire ground	15	6	9
Responding/Returning	14	4	10
Training	5	3	2
Non-fire emergency	48	4	44
Other	7	2	5
Total	89	19	70

Source: NFPA’s Fire Incident Data Organization (FIDO)

Details on Incidents Where U.S. Firefighters Were Struck and Killed by Vehicles
(excerpted from the annual NFPA firefighter fatality reports available at www.nfpa.org)

2000 - Five firefighters were struck by vehicles and killed. In three separate incidents, firefighters were struck while working at the scenes of motor vehicle crashes. One of the three was crossing a highway to reach the crash victim when he was struck by a passing vehicle. Another was directing traffic around the crash vehicle when he was struck. The third was struck by a drunk driver who ignored the flashing lights of the assembled emergency vehicles and drove over the flares, striking the firefighter. One of the five victims was run over by a fire department vehicle at a training session. Excessive speed and horseplay were cited in that incident. And finally, a firefighter working on a broken down apparatus was fatally killed while crossing a highway to bring jumper cables back to the disabled vehicle.

2001 - Four firefighters were struck by vehicles and killed. Three of the victims were directing traffic when they were struck. The first of the three was struck by a vehicle that slid on the icy road on a snowy evening. The victim was wearing dark street clothes with no reflective material. No flares, cones or signs were posted to warn drivers. In the second incident, the victim was struck by a drunk driver who did not see him. The victim was wearing an orange vest, yellow helmet and using a flashlight. In the third incident, the victim was directing traffic in front of the station for apparatus returning from a fire when he was struck by a passing vehicle. He was using an orange-coned flashlight, but there was no information given on whether he was wearing reflective clothing. And finally, the fourth firefighter who was fatally struck was guiding the driver of an engine that was backing down a bridge after a response for a motor vehicle crash. The victim slipped and fell under the wheels of the truck.

2002 - Seven firefighters were struck by vehicles and killed. One firefighter, who was not wearing any reflective clothing and had no emergency lights on his personal vehicle, was struck by a passing vehicle while he tended to an injured person at a motor vehicle crash on an interstate highway in the rain. Two other firefighters were killed while working at the scenes of a motor vehicle crash or fire -- the first when another responding apparatus lost its brakes as he inadvertently stepped into its path and the other when a vehicle that was slowing down as it passed the scene of a car fire was rear-ended, sending it into the fire scene and striking the victim and four other emergency responders. An apprentice firefighter responding to an emergency call on his bike drove into a T-intersection without stopping and was struck and killed by a passing vehicle. Two firefighters were killed at training exercises. In one of the two incidents, firefighters were practicing the extinguishment of aircraft fires when fire department apparatus that had been in pump gear apparently slipped into another gear and moved forward, running over two firefighters, one of whom died as a result of his injuries. In the other training exercise, a driver who was under the influence of prescription drugs and alcohol drove around traffic cones and struck a firefighter who was rolling hose at the side of a street. And finally, a firefighter fighting a grass fire along a highway fell from the front platform of a brush firefighting unit when it was struck by a passing vehicle. He was then run over by the brush unit. There was no safety strap or harness on the front of the brush unit and the road had not been closed to traffic in spite of heavy smoke obscuring visibility.

2003 - Six firefighters were struck by vehicles and killed. One firefighter was struck by a speeding driver who swerved around barriers at the site of a hazmat spill. Another firefighter arriving at the scene of a motor vehicle crash stepped onto the highway into the path of an oncoming tractor trailer. The driver of the truck had no time to react. The victim had left his reflective safety vest in his vehicle. A firefighter directing traffic in heavy fog was struck by a vehicle. He was wearing his safety vest; no other details were reported. A firefighter rolling hose at the station with another firefighter after an incident was run over by a fire truck that was backing into the station, in spite of the operating backup lights and alarm. A firefighter replacing road barriers at a construction site was struck by a passing vehicle that failed to negotiate the detour. And a firefighter returning from a training exercise got out of his vehicle to retrieve

an object that fell from the truck and stepped into the other travel lane and was struck by a passing vehicle. He was not wearing a safety vest.

2004 - Eight firefighters were struck by vehicles and killed. Two of the eight were killed by backing apparatus. The first of the two was standing on the tailboard, acting as tailboard safety member, when she fell or stepped off the slow-moving vehicle and was run over. The other firefighter was standing behind a new piece of apparatus after a training session when the driver, thinking he had gone into the station, began to back up and struck him. In separate incidents, three firefighters working at incident scenes were struck and killed by passing vehicles. In the first of the three incidents, the victim was directing traffic at a crash scene on a highway when a motorist changed lanes to avoid hitting a slowing vehicle, and struck him. The victim was standing in the right lane, holding a flashlight and stop/slow sign and wearing an orange mesh safety vest. In the second incident, a firefighter was struck on a highway at the scene of a fire involving an abandoned van. The responding engine was parked in front of the burning vehicle. In neither of these two cases were details available on if, or how, traffic around the incident scene was controlled. The third victim was helping a fire truck back up at a crash scene when he was struck by a passing vehicle. There were no other details available on that incident at this time. While assisting at a portable water tank at a fire scene, a firefighter was pinned between two fire apparatus when the driver of one vehicle inadvertently released the emergency vehicle and it rolled back into the other. A firefighter returning from duty on a wildland fire was struck and killed by a semi-trailer truck while crossing an interstate near his motel late in the evening. A firefighter working on the fire/rescue crew at a speedway was killed by a race car while retrieving debris from the track. The sun's glare was cited as a factor in that incident.

2005 - Three firefighters were struck by vehicles and killed. The first was directing traffic at a chemical spill at a high school when he was struck by a drunk driver. He was wearing his reflective safety vest and using a flashlight when he was struck. The other two firefighters were struck by driverless vehicles. The first was working as a safety officer at a racetrack. He was run over on the track by a service vehicle that he was trying to stop as it was rolling backwards toward a crowd of spectators. (A crash had occurred moments before on the track, and the driver of the service vehicle had left his vehicle's engine running while he spoke to one of the race drivers stopped on the track. The race car driver backed into the service vehicle while trying to get out of its way, causing it to begin rolling.) The other firefighter, who was driving a vehicle shuttling water to the scene of a structure fire, had arrived with his fourth load of water. When he got out of his truck to wait to unload the water tank, the truck rolled forward into a ditch, pinning him underneath.

2006 - Three firefighters were struck by vehicles and killed. In the first incident, the victim had responded to a pre-dawn multi-car crash that occurred when moisture on the highway froze suddenly. Vehicles traveling 65-70 mph on the highway could not see the pileup until they came around a curve in the road. The driver of the truck that struck the firefighter was trying to avoid another vehicle in front of him, and slid sideways across all traffic lanes. The victim, who was wearing personal protective equipment, lost her helmet when she was struck and suffered fatal head injuries. At the time of the fatal crash, a police officer was trying to place flares along the roadway to warn oncoming traffic. In the second incident, the victim was spray painting markings on a highway to indicate the location of hydrants. He stopped his brush truck in the passing lane of the roadway, leaving the hazard lights operating, and worked in front of the truck. A vehicle approaching at close to the speed limit in the same lane rear-ended the truck, which crushed the firefighter. In the third incident, a firefighter was struck by a vehicle backing out of a space in the parking lot of a bank while he was headed to deposit the fire department's bingo money. Careless driving and deficiencies in the vehicle's braking system were cited as factors in the incident.

2007 - One firefighter was struck by a vehicle and killed. He was at the scene of a vehicle fire shortly after 4:00 am, loading hose back onto fire apparatus in the right-hand lane on an interstate highway when he was struck by a bus traveling approximately 65 mph. The driver of the bus had not noticed the emergency lights of fire apparatus parked on the shoulder and in the right-hand travel lane or traffic cones set up near the fire scene, and was traveling in the right-hand lane. When he belatedly tried to change lanes, he sideswiped the first apparatus and struck the firefighter. The fire department had declined traffic control on the highway during their operations at the vehicle fire because there was no traffic on the road.

2008 - Four firefighters were struck by vehicles while assisting at crash scenes. Weather was a factor in one of the incidents, where an oncoming vehicle skidded on ice, striking and killing the firefighter and her patient. In two of the cases, the drivers of oncoming vehicles were not able to see the crash scenes -- in one case due to smoke and fog on the road and in the other because of the position of the wreck on one side of the road, and emergency lights on a vehicle on the opposite side of the road. There were no details provided in the fourth case.

2009 - Four firefighters were struck by vehicles.

- A firefighter was run over at a fire scene as he guided a pumper that was backing up. The area was well-lit and the victim was wearing turnout gear with reflective trim and lettering. The driver, who had been maintaining eye contact with the victim, may have been momentarily distracted by a passing vehicle. The victim might not have realized how close he was to the vehicle and might have lost his footing.
- In rain and poor visibility, a firefighter wearing a safety vest while clearing a tree from a roadway was struck by a car that came around a curve over a rise of a hill. The driver saw the headlights, flashers and yellow light on the firefighter's vehicle and slowed down but never saw the victim.
- A firefighter working at the scene of a motor vehicle crash collapsed for an unknown reason and was run over by a fire department apparatus that was backing up. No other details were reported.
- In the fourth incident, as a firefighter was assisting the victim of a crash, a truck crested the hill and could not stop on the ice, went off the road and struck him.

2010 - Four firefighters were struck by vehicles.

- A firefighter who was directing traffic at the scene of a motor vehicle crash was struck by a vehicle whose driver drove over traffic cones that had been set out to close the road. A flare had been placed near the cones. The victim was wearing coveralls with some reflective material and a high-visibility hat, and was using a flashlight with a traffic wand. However, he had his back to oncoming traffic and had positioned his vehicle, with emergency lights operating, beyond the point where the road was closed. Factors in the death included no advance warning to drivers, inconspicuousness of the victim and careless driving.
- A firefighter operating at a grass fire on a highway median was struck by a vehicle after it was involved in a crash and slid between the parked apparatus and the guardrail.
- While a vehicle was being repaired at the fire station, a firefighter standing between the vehicle and a wall was struck when the vehicle unexpectedly lurched forward.
- A fire chief was struck and crushed between two apparatus when one of the vehicles was backing into a narrow space in the fire station. Factors in the incident included inadequate policies for backing apparatus (e.g., no spotter was used, visual contact was not maintained), inadequate space for the number of apparatus and no backup warning system.

2011 - Three firefighters were struck by vehicles.

- A firefighter was struck by an emergency vehicle in heavy smoke conditions when he was trying to escape a fast-moving wildland fire. The victim and other firefighters were trying to escape in their vehicles when they found they were blocked in at a closed gate and fence. He and others then tried to escape on foot when he was struck.
- A firefighter directing traffic at a motor vehicle crash on a highway was struck while trying to keep the left-hand lane closed to traffic. A driver came over the hill, tried to maneuver around slowed traffic and struck the victim, who was wearing personal protective equipment and a reflective vest. Speed and alcohol were not factors in the incident.
- Another firefighter was directing traffic at the scene of a motor vehicle crash when she was struck by a driver who never saw her standing in the middle of the intersection. The victim had come upon the crash while on her way to work, and was wearing an orange vest that she borrowed from another driver. Although she left her flashers and headlights on, her clothing was dark, she did not have a flashlight and conditions were still dark.

2012 - Three firefighters were struck and killed by vehicles.

- One of the three had stepped out of the responding apparatus, walked behind it as it was being repositioned and was struck by the apparatus.
- Another firefighter was operating at a motor vehicle crash on an icy highway when a passing vehicle lost control and struck him.
- The third victim was killed at the scene of a motor vehicle crash when another driver deliberately struck him and two other emergency responders. The victim was wearing a high-visibility vest, was standing close to traffic and was not protected by the positioning of the emergency apparatus.

2013 - Six firefighters were struck and killed by vehicles. Four were working at the scenes of motor vehicle crashes and two were operating at fires.

- One firefighter was operating at a motor vehicle crash on an icy highway when a passing tractor-trailer lost control and struck him. Actions of the driver, the weather, inadequate protection of the highway work area and inadequate traffic management were cited as factors in the death.
- A drunk driver struck a firefighter while he was directing traffic at a crash scene on a highway.
- A firefighter was struck at a crash scene by a passing vehicle as he was putting on his personal protective equipment.
- A firefighter directing traffic 100 feet (30 meters) from a crash scene was struck from behind. He was wearing a safety vest.
- Smoke obscured visibility at the scene of a prescribed burn as a firefighter stepped out of his vehicle. He was struck by a passing vehicle. The victim was not wearing a high-visibility retroreflective vest at the time and the travel lane was not protected.
- A firefighter was retrieving his gear from the back of his rescue vehicle at a fire scene when he became pinned against the vehicle by another apparatus that was backing up. Inattention, lack of situational awareness, vehicle placement and lack of a backer guiding the apparatus were cited as factors in the incident.

2014 - Three firefighters were struck and killed by vehicles.

- One firefighter was checking on victims at a motor vehicle crash on an icy highway overpass when a passing vehicle lost control and struck him, causing him to fall more than 50 feet (15 meters) to the roadway below. Actions of the driver, the weather, inadequate protection of the highway work area and inadequate traffic management were cited as factors in the death.
- A firefighter was struck on a highway at the scene of a motor vehicle fire by a passing tractor-trailer truck. The emergency lights of the fire apparatus were operating at the time, but no other details about the incident were available.
- A firefighter searching along railroad tracks for a missing person was struck by one of two trains that passed simultaneously.

2015 - Five other firefighters were struck and killed by vehicles.

- A firefighter was participating in a charity fundraiser in an intersection when a driver who was annoyed by the slowed traffic deliberately struck him with his vehicle.
- One firefighter was directing traffic at the scene of a motor vehicle crash within a safe zone that was established using fire apparatus and police vehicles when he was struck by a drunk driver who drove into the safe zone.
- At another motor vehicle crash, a firefighter was killed on a highway by a driver who swerved to avoid hitting a parked fire truck and struck the victim.
- A firefighter, wearing a fire police vest, was directing traffic at a fire station while department vehicles were responding to a call when he was hit by a driver who did not see him. Solar glare was cited as a factor in the incident.
- In violation of fire department policy, a firefighter rode on the back step of an engine while it was driven to a helicopter landing site during a medical aid call. The driver was not aware that the firefighter was on the back step. The victim slipped or fell on dismounting and was crushed when the driver reversed the vehicle to put it in position.

2016 - Two firefighters were struck and killed by vehicles.

- A firefighter was guiding the driver of a tanker as he backed into the station when the driver lost sight of the firefighter and ran him over.
- The other firefighter was working at the scene of a motor vehicle crash on an interstate highway when a bus crashed into the scene. The responding firefighters had used one of the apparatus to block the right lane, but the bus driver clipped the truck and hit other vehicles at the scene, and then struck three firefighters, knocking them over the guardrail and into water below, killing one and injuring the other two.

2017 – Ten firefighters were struck and killed by vehicles.

- Five of the firefighters were at the scene of motor vehicle crashes.
 - A firefighter directing traffic on a dark road at the scene of a motor vehicle crash was struck by a driver who did not see him until it was too late to avoid him.
 - A firefighter guiding an engine that was backing along the road at the scene of a crash was struck by the engine. It was not clear if he tripped or fell beneath the vehicle.
 - A firefighter who was returning to his vehicle after operating at a crash scene was killed by a vehicle that lost control while traveling at a high rate of speed on a dark, wet, slippery road.
 - A firefighter reportedly walking down the middle of the road after finishing up at a scene was struck by a passing vehicle. The driver was not cited.
 - A firefighter retrieving his gear from his vehicle was struck by another responding firefighter who was intoxicated.
- Three of the firefighters fatally struck by vehicles were at the scene of downed wires.
 - Two firefighters were killed in one incident when they, and another firefighter, were standing off the road but were struck by a vehicle that veered off the main road. The driver was intoxicated.
 - In the other incident involving downed wires, the victim was standing in front of a parked fire department vehicle that was struck in a chain reaction crash when a driver failed to stop for another vehicle that had slowed at the scene.
- During a pre-dawn check of flooding conditions, a firefighter was struck and killed by a passing driver traveling at a high rate of speed.
- At the scene of a downed tree, a firefighter was killed when a driver struck his vehicle which then struck a brush truck that pinned the firefighter underneath. All emergency vehicles at the scene had lights operating and the victim was wearing appropriate reflective clothing. The driver was cited for impaired and reckless driving.

2018 - Four firefighters were killed when struck by vehicles while operating at crash scenes.

- One firefighter had just arrived at a highway crash scene when a tractor trailer rear-ended his fire apparatus which then struck the victim and two other firefighters who were standing in front of it. Another firefighter in the truck suffered minor injuries. All emergency lights on the apparatus reportedly were operating and firefighters followed all standard operating procedures.
- A firefighter who had responded to a crash on an icy highway was struck by a second vehicle whose driver lost control and crashed into the scene, pinning the victim under a vehicle.
- The third victim was directing traffic at a crash scene on a highway on-ramp when he was struck by a passing vehicle. No other details are available.
- The fourth firefighter was struck by a passing dump truck while directing traffic at a crash scene and died of his injuries one year later.

2019 - Four firefighters were killed when struck by vehicles — two while operating at crash scenes, one at the scene of a structure fire, and one while returning from a fire.

- One firefighter stopped at the scene of a motor vehicle crash while responding to a medical call. While checking the driver of one of the two vehicles involved in the crash, he was struck by the side mirror of a passing semi-tractor trailer truck and pinned between the two vehicles. He was wearing a traffic safety vest. No other details about scene security were reported.
- A firefighter was struck at the scene of a pre-dawn motorcycle crash. The road had been closed to passing traffic, with emergency vehicles parked with their lights flashing. The driver of a semi-tractor trailer failed to stop and struck two parked cars at the scene before striking the firefighter who was standing near the original crash site. The driver said that he thought the lights ahead of him were the lights of an oncoming ambulance and that faulty brakes on his truck prevented him from stopping in time.
- A firefighter was retrieving a tool from his fire truck that was parked at the scene of a structure fire. He tripped getting out of the driver's side of the truck, fell into the path of a passing vehicle, and was run over. The driver did not have time to react and could not avoid him.
- Two firefighters were in a tanker returning from a fire call when they got out of the truck to check the tires after hearing a strange noise. While standing on the dark, unlit narrow road, they were struck by the personal vehicle of another firefighter who did not see them standing in the road. One of the firefighters was killed and the other was injured.

2020 - One firefighter was killed when struck by a vehicle while operating at the scene of a crash on an interstate highway. While he was working in the median, a vehicle veered out of its lane and into the median, striking the victim, a police officer and another firefighter. The police officer was also killed, and the other firefighter was critically injured.

Source: NFPA's Fire Incident Data Organization (FIDO)

To learn more about research at NFPA visit www.nfpa.org/research.

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