



86th Legislature, Interim Charge 2, Request for Information

House Committee on Transportation

September 18, 2020

Interim Charge 2

Study the state's transportation and road safety efforts in support of the Texas Transportation Commission's goal of ending traffic deaths in the state by 2050. Identify the most dangerous roads and transportation corridors in the state and determine opportunities to reduce high rates of traffic accidents and fatalities in these areas. Make recommendations to improve policies, funding strategies, program development, and agency coordination to ensure continuous improvements to road safety.

#EndTheStreakTX

On August 1, 2020, Texas surpassed 2,000 fatalities on our roads due to crashes in calendar year 2020. To give a perspective on when the state passed 2,000 fatalities on Texas roads in previous years, in 2019 Texas surpassed 2,000 fatalities on August 9 and in 2018 on August 4. As of August 28, 2020, the year to year comparison between August 28, 2020, and August 28, 2019, indicates there were 123 more fatalities reported in 2020 versus 2019. The year to date total of fatalities as of August 28, 2020, stands at 2,296 compared to 2,173 in 2019.

With more people working from home and many schools providing virtual learning, transportation experts thought there might be a decrease in fatalities during COVID-19. Unfortunately, Texas and the rest of the nation saw an increase in fatalities. Though fewer people were on the roads, some of those on the road were driving faster. This increased speed combined with other risk factors such as distracted driving, driving under the influence of alcohol or drugs, and lack of seat belt usage, resulted in deadlier crashes.

November 7, 2000, was the last deathless day on roadways in Texas. The [#EndTheStreakTX campaign](#) focuses on encouraging Texans to end this deadly streak of deaths on our roads.¹ As we get closer to November 7, 2020, which is likely to mark 20 years since we had our last deathless day on Texas roads, we must all do our part to spread the word to End the Streak and help us reach the Texas Department of Transportation's (TxDOT) Road to Zero goal by 2050.

Background

Promoting safety and protecting the traveling public's lives is a top priority for TxDOT. TxDOT's key objectives include lowering the state's traffic fatality rate and the total number of traffic fatalities and injuries. By incorporating safety planning into every aspect of highway construction and improvement projects and working closely with a wide range of transportation safety stakeholders, TxDOT strives to protect the lives of the traveling public and our hardworking employees and contractors' lives.

The data represented in this request for information comes from the Crash Records Information System data as of April 15, 2020 as published on TxDOT's website ([Texas Motor Vehicle Crash Statistics – 2019](#)).²

¹ <https://www.txdot.gov/inside-txdot/media-center/psas/end-streak.html>

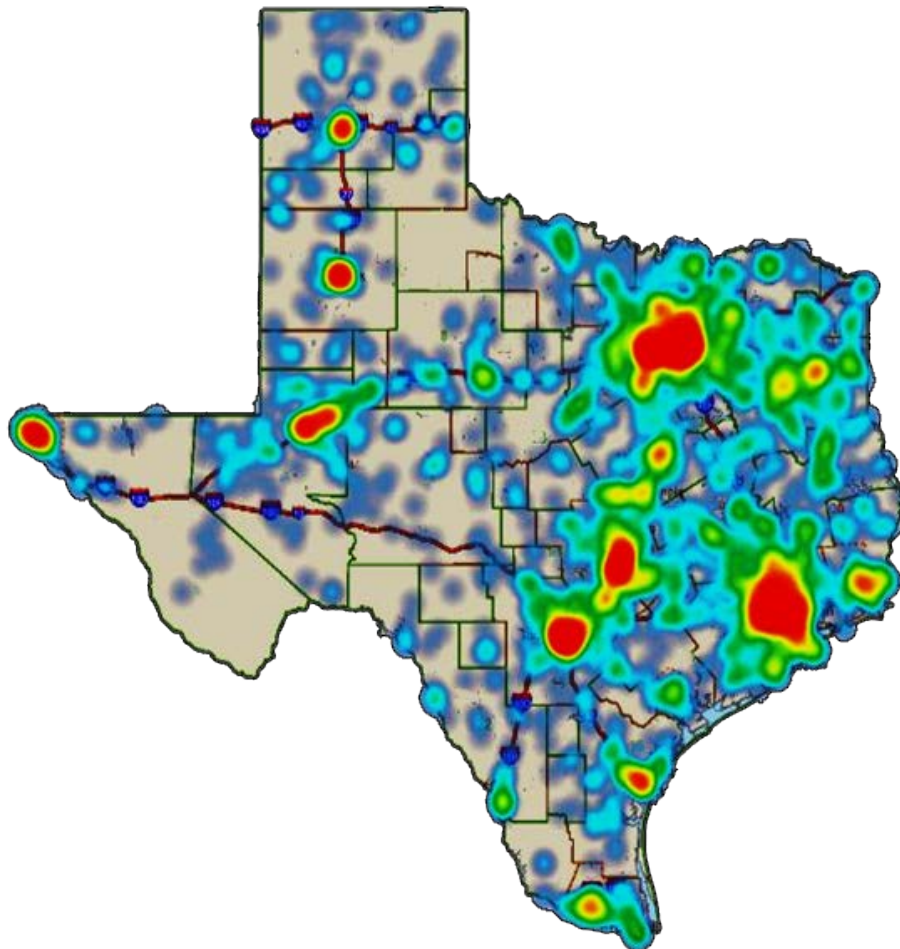
² <https://www.txdot.gov/inside-txdot/forms-publications/drivers-vehicles/publications/annual-summary.html>

Top Three Contributing Factors for Fatal Crashes

The top three contributing factors for fatal crashes from 2014 through 2019 were failing to drive in a single lane, driving under the influence of alcohol, and failing to control speed. Crash factors may be related to roadway geometrics and conditions; human factors, such as driver behavior; vehicle factors; and environmental conditions.

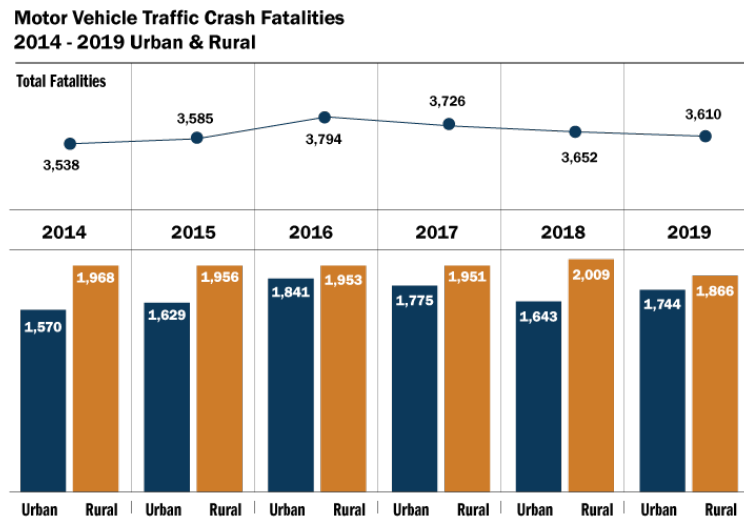
Traffic Fatality Heat Map 2019

The heat map below helps visualize the areas of Texas experiencing fatal crashes by displaying those crashes in red. As you can see, no part of the state is immune to the tragedy of fatalities on Texas public roadways. Still, most fatal crashes (by volume) occur in the “Texas Triangle”, in and around Texas’ population centers, and largest metropolitan regions. There are also “hot-spots” in West Texas in and around Texas’ vibrant oil and gas activity regions, and areas in South and West Texas near international ports of entry that experience high traffic volumes.



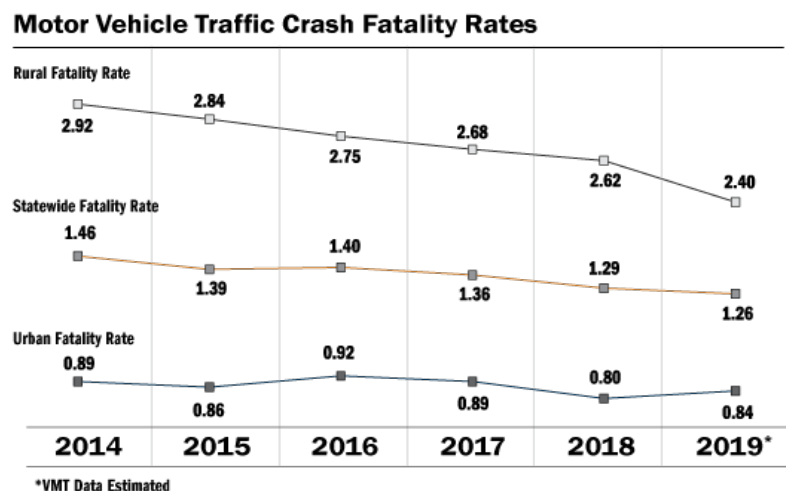
Motor Vehicle Traffic Crash Fatalities 2014 through 2019 – Urban & Rural

The graph below represents the number of fatal crashes in urban and rural areas and shows the total number of fatal crashes statewide each year. An urban area is defined as a location within the limits of a city or town having a population of 5,000 or more. A rural area is any location that cannot be classified as urban. While fatalities in rural areas decreased from 2018 to 2019, they accounted for 51.96 percent of the state's traffic fatalities in 2019. Fatalities in urban areas increased from 2018 to 2019.



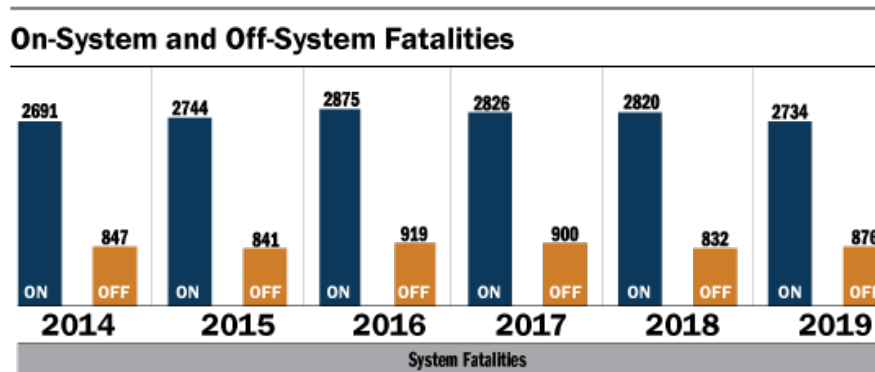
Motor Vehicle Traffic Crash Fatality Rates

The next graph below shows the urban, rural, and statewide fatality rates. An urban area is defined as a location within the limits of a city or town having a population of 5,000 or more. A rural area is any location that cannot be classified as urban. The statewide fatality rate on Texas roadways for 2019 was 1.26 deaths per 100 million vehicle miles traveled. This is a 2.33 percent decrease from 2018. Rural fatality counts are higher than their urban counterparts, though urban vehicle miles traveled counts are significantly higher than in rural areas. As a fatality rate equals $(\text{Fatalities} / ((\text{Daily VMT} \times 365) / 100,000,000))$, a combination of the two aforementioned factors result in rural fatality rates being greater than urban ones.



On-System and Off-System Fatalities

As in past years, significantly more fatalities occurred on the state highway system than on roads that are not under TxDOT's control, such as city streets and county roads. While there are more lane miles of off-system roads in the state, on-system roads have a higher number of daily vehicle miles of travel, generally have higher speeds, and have more truck daily vehicle miles of travel, which helps contextualize the higher number of fatalities on-system as seen on the below graph.

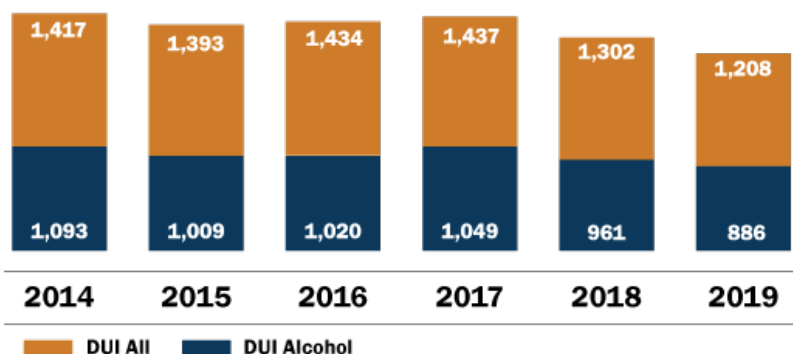


Driving Under the Influence (DUI)

Driving under the influence can have serious consequences, far beyond the legal and financial ones. Thousands of lives are permanently impacted each year because someone decides to get behind the wheel while impaired from the effects of alcohol. Driving under the influence of alcohol is the number two cause of deaths on Texas roads, while failing to drive in a single lane is the number one cause of fatalities.

During 2019 more DUI – Alcohol-related crashes were reported in the hour between 2:00 am and 2:59 am than any other hour of the day. Also, more of these crashes occurred on Saturday than any other day of the week.

Motor Vehicle Traffic Fatalities Driving Under the Influence (DUI)



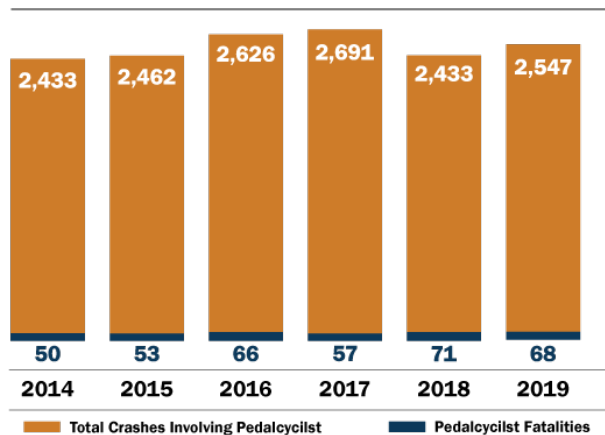
The chart above illustrates motor vehicle traffic fatalities that included Driving Under the Influence as a contributing factor, from 2014 through 2019. In 2019, 886 people were killed in motor vehicle traffic crashes

where a driver was under the influence of alcohol. This is 25 percent of the total number of people killed in motor vehicle traffic crashes.

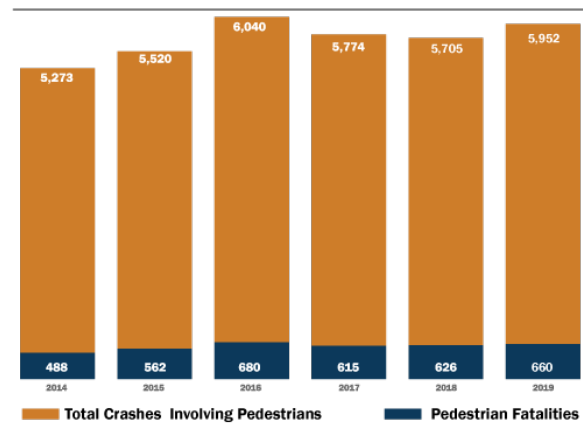
Pedalcyclist and Pedestrian Fatalities

Pedalcyclist and pedestrian facilities are important components of the Texas transportation system and serve as growing transportation modes, especially in urbanized areas. TxDOT is committed to planning, designing, and constructing facilities to accommodate pedalcyclists and pedestrians with safer and more convenient facilities.

2014 - 2019 Pedalcyclist Fatalities and Total Crashes



2014-2019 Pedestrian Fatalities and Total Crashes



As shown above, in 2019 pedalcyclist fatalities totaled 68, a 4.23 percent decrease from 2018. Pedestrian-related traffic crashes remain a serious problem in Texas. In 2019 there were 5,954 crashes involving pedestrians in our state, resulting in 660 deaths, a 5.43 percent increase from 2018.

Strategic Highway Safety Plan

Promoting safety and protecting the lives of the traveling public is a top priority for TxDOT. Safety is built into every aspect of all TxDOT's projects.

[The Strategic Highway Safety Plan](#) (SHSP) is the umbrella highway safety plan guided by an executive committee and a stakeholder group representing a diverse assembly of road safety agencies, organizations, advocates, and experts that provides goals, strategies, countermeasures, and targets.³

The Strategic Highway Safety Plan is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The plan identifies key safety needs and guides investment decisions towards strategies and countermeasures with the most potential to save lives and prevent injuries.

³ <http://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/gov/shsp.pdf>

The Texas Strategic Highway Safety Plan identifies the serious crash types that the [Highway Safety Improvement Program](#) (HSIP) focuses on to meet the state's goals and objectives of reducing fatal and serious injury crashes in Texas.⁴ The Highway Safety Improvement Program gives states the flexibility to target funds to their most critical safety needs. This means Texas can address engineering factors that can improve safety on its roads.

TxDOT also develops the [Highway Safety Plan](#) (HSP), which directs traffic safety funds to driver education campaigns and law enforcement grants.⁵

Traffic Safety Campaigns

On May 29, 2020, the Texas Transportation Commission approved [approximately \\$84.6 million for an estimated 356 Highway Safety Plan traffic education and enforcement grants](#).⁶ Studies have shown that supporting law enforcement efforts with public information and driver education is the key to making a difference and having an impact.

These traffic safety public information campaigns include deterring drunk driving, improving motorcycle safety, encouraging seatbelt use, and decreasing the incidence of distracted driving, including texting while driving.

To address the increase in pedestrian fatalities TxDOT plans 17 pedestrian and pedalcyclist safety grants worth \$7 million for Fiscal Year 2021. Many are locally based in the metropolitan areas of the state, where most of these fatalities occur. There is also \$2.75 million identified in four other program areas with pedestrian and bike components, increasing the total to almost \$10 million for this category.

Safety in the Unified Transportation Program

The [2021 10-year Unified Transportation Program \(UTP\)](#) identifies approximately 8,000 planned projects totaling \$74.65 billion.⁷ Each project has safety considerations and elements built into it regardless of the funding category.

More than \$3.7 billion is allocated specifically to Category 8 (Safety Programs) in the current Unified Transportation Program. Common Category 8 project types include new median barriers and widening narrow roadway shoulders, enhanced signals, lighting, and signs, guard rails, and rumble strips.

Road to Zero -Texas Transportation Commission Efforts

Texas Transportation Commission [Minute Order 115481](#), adopted in May 2019, directs TxDOT to work toward the goal of reducing the number of deaths on Texas roadways by half by the year 2035 and to zero by the year

⁴ http://onlinemanuals.txdot.gov/txdotmanuals/hsi/highway_safety_improvement_program.htm

⁵ https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/tx_fy20_hsp.pdf

⁶ <http://ftp.dot.state.tx.us/pub/txdot/commission/2020/0528/5.pdf>

⁷ <https://www.txdot.gov/inside-txdot/division/transportation-planning/utp.html>

2050.⁸ This action acknowledges that many motor vehicle crashes can be prevented, thereby reducing fatalities, and directs TxDOT to develop and implement strategies to achieve this goal.

The Texas Transportation Commission supported the Road to Zero goal by allocating an additional \$600 million in Category 8 (Safety Programs) into the 10-year Unified Transportation Program being allotted in the first two years of the 2020 UTP (2020 and 2021).

The Texas Traffic Safety Task Force used crash data to evaluate eligible Road to Zero projects for the fiscal year 2020 \$300 million portion of the additional funding. These projects were selected by evaluating areas using crash data to determine common causes of crashes and expertise was used to incorporate additional safety improvements, such as rumble strips and median barriers, in those projects. In the recently adopted 2021 Unified Transportation Program, the Texas Transportation Commission retained the remaining \$300 million for the Road to Zero initiative.

Of the total additional \$600 million, the Safety Task Force has allocated \$530 million to 155 projects. The remaining \$70 million will focus on pedestrian and intersection safety project improvements during the Safety Task Force's third project call, in response to the increase in pedestrian crashes and fatalities in the state.

Traffic Safety Solutions Used in Other States

The 2016 [Solutions for Saving Lives on Texas Roads](#) report by the Texas Traffic Safety Task Force cited laws that have proved successful in reducing crashes in other states, such as variable speed limits, motorcycle helmet laws, automated speed enforcement, and sobriety checkpoints. The details of these solutions begin on page 27 of that report.⁹

Addressing Traffic Safety with Technology Solutions

Increasingly, transportation technology solutions involving both vehicles and transportation infrastructure are being looked to as key solutions for reducing crashes and fatalities. The rapid acceleration in technology and communications in the transportation arena are saving lives today and will save many more lives in the future. These technologies are helping to prevent crashes before they happen, by enabling vehicles to actively warn drivers, monitoring driving conditions and actively communicating with other vehicles and infrastructure. TxDOT has been actively engaged in this area and is working with stakeholders that include the U.S. Department of Transportation (USDOT), other state departments of transportation, national industry groups and research institutions. A summary of some of the opportunities for improving traffic safety with transportation technology solutions is outlined in this USDOT [Fact Sheet](#).¹⁰

⁸ <http://ftp.dot.state.tx.us/pub/txdot/commission/2019/0530/4.pdf>

⁹ <http://ftp.dot.state.tx.us/pub/txdot-info/trf/trafficsafety/saving-lives.pdf>

¹⁰ <https://www.its.dot.gov/factsheets/pdf/ITS%20ITS%20Saves%20Lives.pdf>