

**To:** CRCOG Transportation Committee  
**From:** Roger Krahn, Principal Transportation Engineer  
 Devon Lechtenberg, Senior Transportation Planner  
**CC:** Rob Aloise, CRCOG Director of Planning  
**Date:** December 9, 2022  
**Subject:** 2023 Annual CTDOT Safety Performance Targets

In accordance with Federal Highway Administration (FHWA) requirements, the Connecticut Department of Transportation (CTDOT) has established five safety performance targets for calendar year 2023. FHWA requires Metropolitan Planning Organizations (MPOs) to either support the State’s targets or to set their own targets within 180 days of the setting of state-level targets. To achieve this deadline, CRCOG will need to endorse safety targets no later than February 27, 2023. Historically, CRCOG has supported CTDOT’s targets, considering that selecting specific targets for the Capitol Region would require substantial data collection and analysis efforts as well as the allocation of significant MPO resources to meet said targets.

FHWA uses 5-year moving averages to determine the State’s progress towards achieving safety targets. However, states may use any methodology deemed appropriate to calculate the target value for each performance measure. Since 2020, CTDOT uses a modified approach of both a 5-year moving average trendline and annual trendlines to guide the selection of targets. The attached CTDOT technical memo titled “Safety Performance Targets, CTDOT’s proposed targets for year 2023” (16 pages) explains the selection of target values. Note that graphs show annual trendlines (blue) and 5-year moving average trendlines (red).

The table below shows CTDOT’s 2023 target values, compared to previous years’ targets. It should be noted that the term “Target” is used in accordance with the Federal Register. The goal is to reduce the number of traffic related serious injuries and deaths to zero.

Measure	2018 Target	2019 Target	2020 Target	2021 Target	2022 Target	2023 Target
<b>Number of Fatalities</b>	257	274	277	270	270	<b>270</b>
<b>Fatality Rate (per 100 million VMT)</b>	0.823	0.873	0.883	0.885	0.850	<b>0.850</b>
<b>Number of Serious Injuries</b>	1,571	1,574	1,547	1,360	1,300	<b>1,300</b>
<b>Serious Injury Rate (per 100 million VMT)</b>	5.03	5.02	4.93	4.30	4.30	<b>4.30</b>
<b>Number of Non-Motorist Fatalities and Serious Injuries</b>	280	290	307	300	280	<b>280</b>

**CRCOG staff has prepared the attached draft resolution for approval of CTDOT targets by the Policy Board. It is recommended that the Transportation Committee endorse the targets for approval at the Policy Board meeting on January 25, 2023.**

CRCOG will continue to promote regional efforts to reduce fatalities and serious injury crashes, including:

- Integrating highway safety in the standard work tasks, and special studies and projects, which are included in the CRCOG Unified Planning Work Program, such as the Regional Roundabout Safety Screening.
- Supporting the Safety Circuit Rider program and working in partnership with UConn's Training and Technical Assistance (T2) Center to collaborate in promoting safety on local roads and incorporating safety countermeasures in projects.
- Promoting infrastructure safety improvements in projects that utilize CRCOG's Local Transportation Capital Improvement Program (LOTICIP) funding.
- Administering the Greater Hartford Traffic Incident Management (TIM) Coalition.
- Supporting the efforts of the Vision Zero Council of Connecticut, which is an interagency work group tasked with developing statewide policy to eliminate transportation related fatalities and severe injuries involving pedestrians, bicyclists, transit users, motorists, and passengers. The Council was established in 2021 by the Connecticut General Assembly as part of Public Act 21-28. CRCOG staff have participated in several Vision Zero Council subcommittees during 2022.
- Developing procedures for evaluation and implementation of the Regional Transportation Safety Plan, which was amended in 2022.
- Revising the Regional Transportation Safety Plan, if Safe Streets and Roads for All (SS4A) Action Grant funding is received.
- Continuing to support the five municipalities that submitted a joint SS4A Implementation Grant, if funding is received for their projects.
- Advanced planning in preparation to respond to anticipated SS4A funding opportunities in calendar year 2023.
- Identifying opportunities for CRCOG Transportation Committee and Policy Board to support legislative roadway safety proposals.

**RESOLUTION  
SUPPORTING 2023 TARGETS FOR  
SAFETY PERFORMANCE MEASURES ESTABLISHED BY CTDOT**

**WHEREAS**, the Capitol Region Council of Governments (CRCOG) has been designated by the Governor of the State of Connecticut as the Metropolitan Planning Organization (MPO) responsible, together with the State, for the comprehensive, continuing, and cooperative transportation planning process for the Capitol Region; and

**WHEREAS**, as outlined in 23 CRF 490.207 (a), MPOs shall establish annual performance targets for each of the measures identified in the National performance management measures for the Highway Safety Improvement Program (HSIP); and

**WHEREAS**, the Connecticut Department of Transportation (CTDOT) has established the following targets for five safety performance measures:

- (1) Number of fatalities: 270
- (2) Rate of fatalities per 100 million vehicle miles traveled (VMT): 0.850
- (3) Number of serious injuries: 1,300
- (4) Rate of serious injuries per 100 million VMT: 4.30
- (5) Number of non-motorized fatalities and non-motorized serious injuries: 280; and

**WHEREAS**, CTDOT submitted the above five targets to the Federal Highway Administration (FHWA) by August 31, 2022 and MPOs have until February 27, 2023 (180 days) to either support the Department's targets or set their own, by; and

**WHEREAS**, CRCOG strives to reduce the number of roadway fatalities and serious injury crashes in the region; and

**WHEREAS**, the CRCOG Transportation Committee has discussed and endorsed CTDOT's 2023 targets for the five safety performance measures identified above,

**NOW THEREFORE, BE IT RESOLVED**, that the CRCOG Policy Board has agreed to support CTDOT's 2023 targets for these five safety performance measures; and

**BE IT FURTHER RESOLVED**, that the CRCOG Policy Board will plan and program projects that contribute to the accomplishment of the targets.

**CERTIFICATE**

I certify the above is a true copy of a resolution adopted by the Policy Board at its meeting held on January 25, 2023.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
Jason Bowsza, Secretary

# Safety Performance Targets

CTDOT's proposed targets for year 2023

April 2022

*This technical memo documents the safety target selection process used by CTDOT to select the 5 safety performance targets for 2023 that CTDOT will submit to USDOT in two separate reports.*

- *The Safety Engineering Section within the Division of Traffic Engineering will submit the targets through the annual report of its Highway Safety Improvement Program (HSIP) that is submitted to FHWA.*
- *The Highway Safety Office (HSO) in the Policy and Planning Bureau will submit the targets through the annual update of its Highway Safety Plan (HSP) that is submitted to NHTSA.*

***It is important to note that the term “Target” used in this technical memo is in accordance with the [Federal Register](#). The Federal Highway Administration (FHWA) determines whether a State has met its Safety Performance Targets based on the 5-year moving average.***

The USDOT requires that each State DOT evaluate highway safety in the state using 5 highway safety performance “measures” and data from motor vehicle crashes in the state for the previous 5 years.

1. **Number of traffic fatalities**
2. **Fatality rate (Fatalities/100 million vehicle miles traveled)**
3. **Number of serious (A) injuries**
4. **Serious (A) injury rate (Serious Injuries/100 million vehicle miles traveled)**
5. **Number of non-motorist fatalities and serious injuries<sup>1</sup>**

Every year the State DOT must establish a specific performance “target” for each performance measure. The Safety Engineering Section in the Bureau of Engineering and Construction, and the Highway Safety Office in the Bureau of Policy and Planning must work collaboratively to establish a single common set of five (5) performance targets. The shared targets are subsequently submitted to and tracked by the USDOT through the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA). FHWA and NHTSA encourage setting objectives that are Specific, Measurable, Action-oriented, Reasonable and Time-Bound (S.M.A.R.T). Federal regulations require that states must achieve their targets or risk penalties applied to Federal Highway safety funds. There are two (2) penalties, if states fail to meet four (4) of the five (5) targets:

- States lose the ability to “flex” some of their FHWA safety funds to other programs and are required to spend 100% of their safety funds on safety projects.

---

<sup>1</sup> Non-motorists include pedestrians, other pedestrians (wheelchair, person in a building, skater, pedestrian conveyance), bicyclists, and other cyclist (non-motorist using a non-motorized pedal-powered vehicle other than a bicycle, such as a unicycle or adult tricycle), per the MMUCC investigators guide.

- This penalty has no real impact on CTDOT since safety is a priority and our goal for the last few years has been to spend all of our federal safety funds on safety projects.
- States must prepare an HSIP Implementation Plan which details how the safety funds will be spent and how the proposed program will improve safety.

The CTDOT tries to balance the target-setting process by selecting targets that:

- impact safety programing in a way that accomplishes the overall goal of reducing serious injuries and fatalities on the State’s roadways, and
- are still practical and achievable.

**Smoothing Data with 5-Year Moving Averages.** FHWA uses 5-year moving averages to determine the State’s progress towards achieving safety targets. However, States may use any methodology deemed appropriate to calculate the target value for each performance measure. States are encouraged to review data sets, trends, anticipated funding, and consider other factors that may affect targets. The use of 5-year moving averages smooths out what can sometimes be significant fluctuations in data from one year to the next. Since large annual fluctuations in data are relatively common, basing performance targets on “annual” data alone can result in the selection of faulty targets and an inability to achieve the selected performance targets. The 5-year moving average is one method that can help avoid or reduce the problem caused by large “annual” fluctuations.

For this year’s Safety Performance Target submittals to FHWA and NHTSA, CTDOT is required to report on the 5-year period from 2016 to 2020. The preliminary 2021 data, where available, are used for better decision-making regarding target selection. While the targets are determined jointly, separate submittals are made to each federal agency. Policy and Planning’s Highway Safety Office submits a report to NHTSA, and the Safety Engineering Section submits a report to FHWA.

**Disadvantage of 5-year Moving Average.** Connecticut has not been satisfied with the prior practice of using the 5-year moving average as the sole indicator to set the future years’ safety performance targets. While the moving average does smooth fluctuations, the use of a 5-year period means that some fatality and serious injury data included in the moving averages are 4 and 5 years old. During that timeframe, motor vehicle crash trends might have changed. In fact, Connecticut has experienced a change in trend for some performance measures in just the last 2 years with the COVID-19 pandemic. Connecticut believes that the 5-year moving average is a “lagging indicator” that cannot serve as the sole or even primary guideline for setting safety performance targets.

**Target Setting Approach.** Since 2020, Connecticut has been using a modified approach to target setting using both a 5-year moving average trendline and an annual trendline to guide the selection of targets. In addition, since 2021, CTDOT has used 10 years of data for annual forecasting to assist with better decision making. The final target selection is also based on professional judgement and a strengthened commitment to advancing CTDOT’s overall safety goal of improving the safety of all roadway users. The Department is committed to setting “aggressive” safety targets and then developing a strong program to achieve the targets.

This aggressive target setting increases the risks of not achieving targets, but it is consistent with the high priority that CTDOT has given to advancing its safety program. Additionally, FHWA recognizes states may choose to set aggressive targets as part of their strong commitment to safety. *See inset.*

**Considerations for Aggressive Safety Targets**

A State that chooses a very aggressive target is making a very strong commitment to safety. This approach will require aggressive implementation efforts to improve performance. While an aggressive target introduces greater risk of missing the target, it is an opportunity to emphasize commitment to safety, strengthen safety policies, and improve consideration of safety in investment decisions.

*The above FHWA statement is taken from page 14 of “Safety Target Setting Coordination Report,” FHWA, 2016.*

**Special Challenge Posed by the Pandemic.** The COVID-19 pandemic has posed an unusual challenge to state DOTs. During the initial phase of the COVID-19 pandemic, traffic volumes fell 40-50% from normal in March and April of 2020, followed by a slow increase in traffic volumes from the month of May onwards in Connecticut. However, the traffic volume had not returned to 2019 levels by the end of 2020. While reduced traffic volumes should have resulted in a similar decrease in crashes, injuries, and fatalities; that was not necessarily the case. The total number of crashes and serious injuries decreased, but the number of fatalities increased in 2020. This might have been caused by significant increases in the percentage of drivers driving in excess of 85 mph observed on Connecticut roadways, which is considered reckless driving. The change in roadway travel and changes in driver’s behavior was also observed at the national level in 2020 as documented by the special report from NHTSA<sup>2</sup>. NHTSA also published the overview of the 2020 crashes which shows an increase in fatalities at the national level in 2020 compared to 2019<sup>3</sup>. However, in 2021, as traffic volumes returned closer to the 2019 levels, the increase in fatalities continued to go up in Connecticut. National data suggest an increase in fatalities of approximately 18.4% in the first six months of 2021 compared to 2020<sup>4</sup>. The special report from NHTSA suggests that speeding, driving impaired and not using seat belts along with a potential reduction in law enforcement presence on the roadways, as possible factors which created an environment contributing to risky driving behavior and increased traffic fatalities during the on-going COVID-19 pandemic.

<sup>2</sup> NHTSA Report No. DOT HS 813 011. Examination of the Traffic Safety Environment During the Second Quarter of 2020: Special Report

<sup>3</sup> NHTSA Report No. DOT HS 813 266. Overview of Motor Vehicle Crashes in 2020

<sup>4</sup> NHTSA Report No. DOT HS 813 199. Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (January – June) of 2021

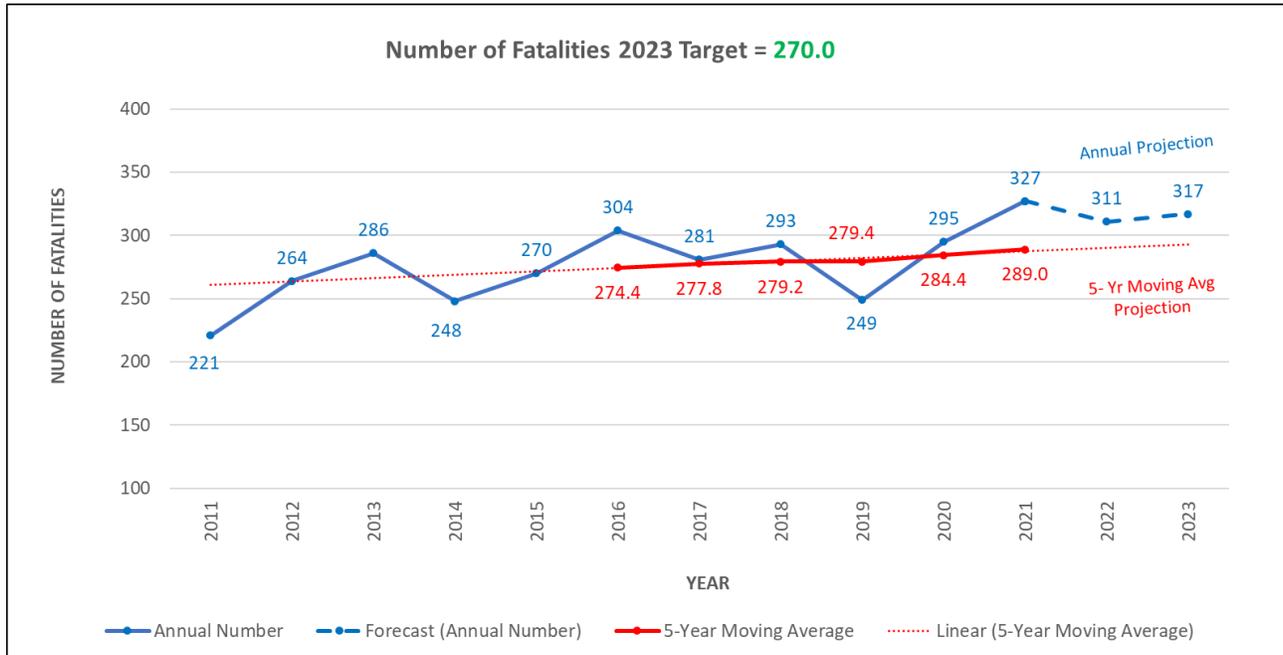
**Vision Zero Council of Connecticut.** CTDOT is committed to eliminating traffic fatalities and is leading the effort with the Vision Zero Council. The [Vision Zero Council of Connecticut](#) is an interagency work group tasked with developing statewide policy to eliminate transportation-related fatalities and severe injuries involving pedestrians, bicyclists, transit users, motorists, and passengers.

The Council was established in 2021 by the Connecticut General Assembly as part of *Public Act 21-28*, a landmark transportation safety bill. Members of the council include the commissioners (or their designees) of the Departments of Transportation, Public Health, Emergency Services and Public Protection, Motor Vehicles, Education, Aging and Disability Services, Office of Early Childhood, and Deputy State's Attorney.

Currently, the Council is developing subcommittees focused on five "E's" of traffic safety: Equity, Enforcement, Engineering, Education and Emergency Medical Services. Each subcommittee will be co-chaired by a state agency member and will include interested safety stakeholders and members of the public.

## Performance Measure: Number of Traffic Fatalities

The trends in number of fatalities are illustrated in the graph below. Annual fatalities are shown in blue, and the 5-year moving average is shown in red. These two lines are compared and used to select a target for 2023 as described below.



Source: FARS Final files 2011-2019, FARS Annual Report File 2020, Preliminary 2021 CTDOT Data as of 03/18/2022.

### “Annual” Fatalities

- The annual number of fatalities has fluctuated from year to year. There was a declining trend until 2019 after a high point of 304 fatalities in the year 2016. However, the trend started to reverse in 2020 with the COVID-19 pandemic. The years 2020 and 2021 saw a dramatic increase in fatalities in Connecticut and was observed at the national level as well. The 2021 preliminary data suggest 327 fatalities which is a 11% increase over 2020 in Connecticut.
- A time series regression analysis was conducted to project the likely number of fatalities in 2022 and 2023 (our target year). Based on this regression analysis, the projected fatalities are around 317, but there is a significant amount of statistical variance around the projection.

### 5-Year Moving Average

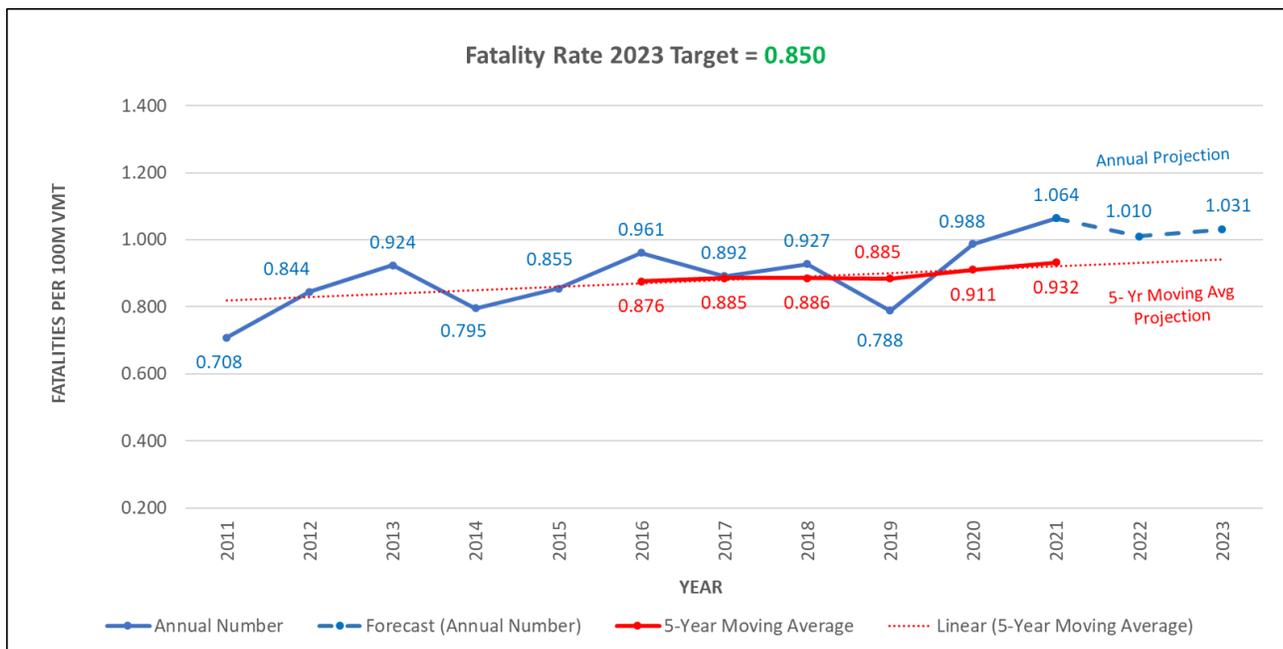
- The 5-year moving average trendline shows the projected fatalities of around 292, lower than the projection with the annual numbers for the target year of 2023.

## TARGET

- CTDOT is choosing to maintain a 2023 fatality target of **270.0**. The selection is based on careful consideration of the following:
  1. CTDOT has chosen to set an aggressive target that will move the state back toward fatality levels experienced in 2014-2015 and 2019 before the impact of the COVID-19 pandemic.
  2. Prior to the COVID-19 pandemic, there had been a decreasing trend in the number of fatalities for the past couple of years with safety related infrastructure projects as well as enforcement and educational campaigns. CTDOT recognizes that 2020 and 2021 were unusual years with the COVID-19 pandemic which resulted in higher-than-expected traffic fatalities. This was an unexpected consequence observed in most of the states in the U.S.

## Performance Measure: **Fatality Rate** (Fatalities/100 million vehicle miles traveled)

The trends in the fatality rate<sup>5</sup> are illustrated in the graph below. Annual fatality rates are shown in blue, and the 5-year moving average is shown in red. These two lines are compared and used to select a target for 2023 as described below.



Source: FARS Final files 2011-2019, FARS Annual Report File 2020. Preliminary 2021 CTDOT Data as of 03/18/2022.

Note: The data points for 2021 are based on the VMT average of 2019 and 2020 since 2021 VMT information is not available at this time.

### “Annual” Fatality Rate

- The annual fatality rate has fluctuated from year to year, but the annual data suggest an upward trend since the start of the COVID-19 pandemic. In 2020, the VMT dropped by approximately 6% compared to 2019. However, the number of fatalities continued to increase reaching high points of 0.988 fatalities/100 million VMT in 2020 during the COVID-19 pandemic. Preliminary 2021 data suggest a further increase in the fatality rate.
- A time series regression analysis was conducted to project the likely number of fatalities in 2022 and 2023 (our target year). Based on the regression analysis the projected fatality rate is around 1.031, but there is a significant amount of statistical variance around the projection.

<sup>5</sup> Fatality rate is calculated as the number of fatalities per 100 million Vehicle Miles Traveled annually. Comparing the number of fatalities relative to the volume of annual travel eliminates annual fluctuations in fatalities that one might expect due to differences in travel volumes from year to year. It adjusts for one source of variation that is known to directly impact the number of fatalities.

### 5-Year Moving Average

- In parallel with the annual numbers, the 5-year moving average is exhibiting an upward trend. The trendline for the 5-year moving average suggests the fatality rate could increase to 0.942 in 2023.

### TARGET

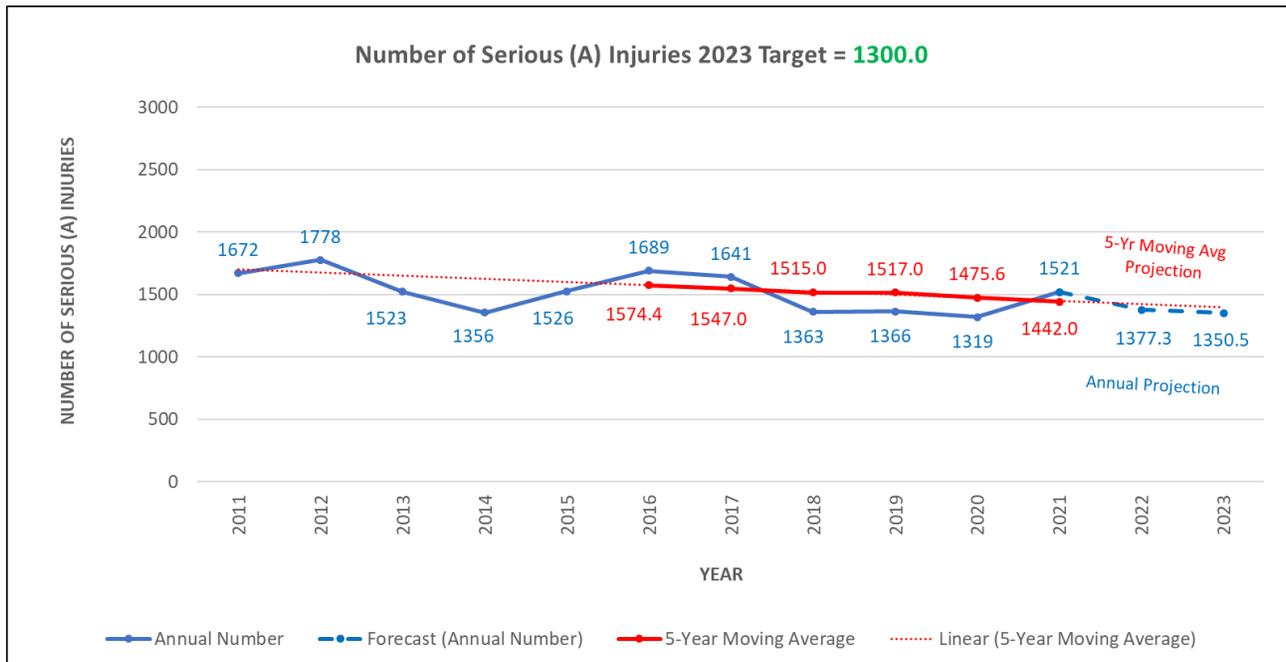
- CTDOT is choosing to maintain an aggressive target of **0.850** in 2023. The selection is based on careful consideration of the following:
  1. The 2 trendlines in the graph suggest the actual value may be between 0.942 and 1.031. These trends are higher due to the impact of the COVID-19 pandemic on the number of fatalities and the VMT.
  2. CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2014-2015 and 2019 time periods before the impact of the COVID-19 pandemic.
  3. CTDOT recognizes that 2020 and 2021 were unusual years with the COVID-19 pandemic when Connecticut saw an increase in traffic fatalities even though the traffic volume dropped. This resulted in higher fatality rate in 2020 and the increase in fatalities has continued in 2021 which will likely push the fatality rate even higher.
  4. The latest available NHTSA data for 2019 suggest that historically, Connecticut has one of the lowest fatality rates in the country. In 2019, it had a fatality rate of 0.788 that was the 8<sup>th</sup> lowest rate nationwide, while the national fatality rate of 1.11 was 41% higher than Connecticut. In 2020, during the COVID-19 pandemic, Connecticut's fatality rate increased to 0.988. Early estimates from NHTSA suggest a national fatality rate of 1.37 in 2020 which is 39% higher than Connecticut.<sup>6</sup> Connecticut is choosing to strive for a lower rate by setting a target at 0.850 for 2023. The goal is to return to pre-COVID-19 pandemic levels.

---

<sup>6</sup> NHTSA Report No. DOT HS 813 118. Early Estimates of Motor Vehicle Traffic Fatalities and Fatality Rate by Sub-Categories in 2020

## Performance Measure: **Number of Serious (A) Injuries**

The trends in number of serious injuries are illustrated in the graph below. Annual serious injuries are shown in blue, and the 5-year moving average is shown in red. These two lines are compared and used to select a target for 2023 as described below.



Source: CT Crash Data Repository as of 03/18/2022.

*Note: The definition of "Serious (A) Injury" was changed in 2015 to match MMUCC 4<sup>th</sup> edition. Prior to 2015, Serious (A) Injury was defined as Incapacitating Injury (prevents return to normal). In 2015, a Serious (A) Injury was defined as any injury other than fatal which results in one or more of the following: severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood; broken or distorted extremity (arm or leg); crush injuries; suspected skull, chest or abdominal injury other than bruises or minor lacerations; significant burns (second and third degree burns over 10% or more of the body); unconsciousness when taken from the crash scene; paralysis.*

### "Annual" Serious Injuries

- The annual number of serious injuries has fluctuated from year to year, but the annual data also suggest a downward trend since a high point of 1778 in 2012.
- A time series regression analysis was conducted to project the likely number of serious injuries in 2022 and 2023 (our target year). The preliminary data for 2021 suggest an uptick in the number of serious injuries but based on the regression analysis, we should expect a reduction in serious injuries. This decrease is expected to bring the annual number down to around 1350, but there is a significant amount of statistical variance around the projection.

### 5-Year Moving Average

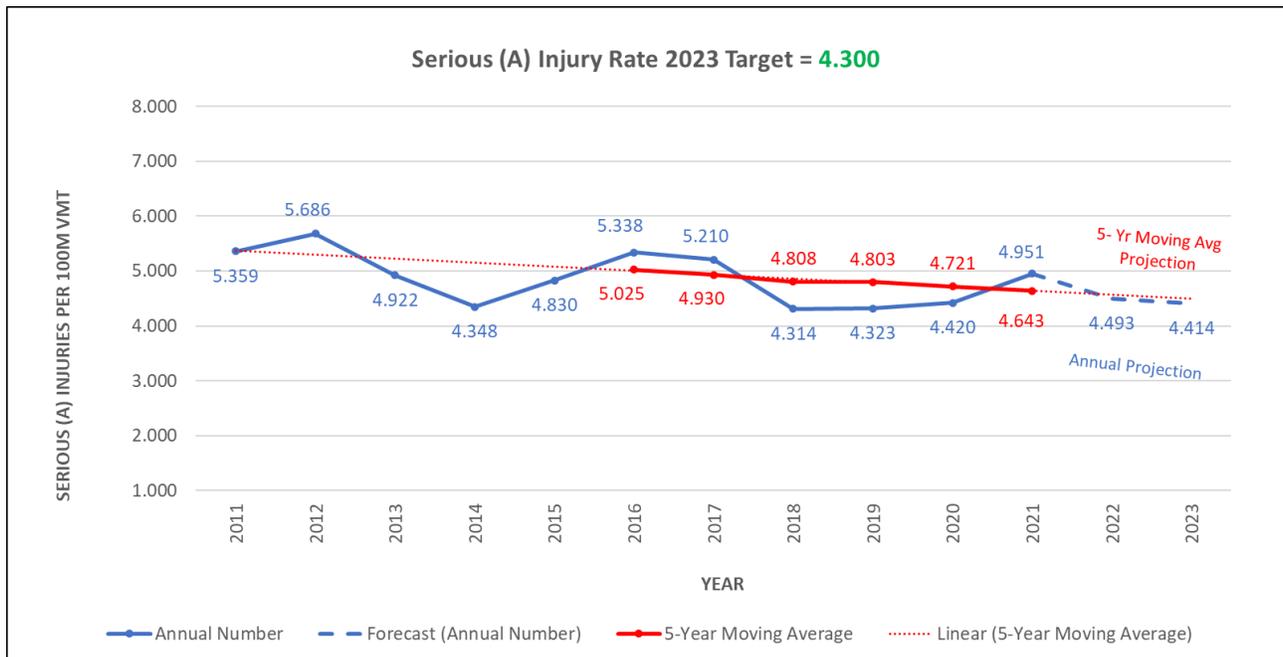
- Unlike the case for *fatalities*, the 5-year moving average for *serious injuries* is exhibiting a steady downward trend. Nonetheless, there is still a small difference between the 5-year average trendline and the annual regression analysis forecast. The 5-year average is expected to fall to around 1399, while the regression forecast is around 1350.

### TARGET

- CTDOT is choosing to maintain a 2023 target of **1300.0** serious injuries. The selection is based on careful consideration of the following:
  1. The 2 trendlines in the graph suggest the actual value should fall closer to 1350-1399.
  2. CTDOT wants to set an aggressive target that will move the state back toward serious injury levels experienced in 2020 and lower. At the beginning of the COVID-19 pandemic in 2020 the number of fatalities increased but the number of serious injuries decreased.

## Performance Measure: **Serious (A) Injury Rate** (Serious Injuries/100 million vehicle miles traveled)

The trends in the serious injury rate<sup>7</sup> are illustrated in the graph below. Annual serious injury rates are shown in blue, and the 5-year moving average is shown in red. These two lines are compared and used to select a target for 2023 as described below.



Source: CT Crash Data Repository as of 03/18/2022.

Note: 1.) The data points for 2021 are based on the VMT average of 2019 and 2020 since the 2021 VMT information is not available at this time; 2.) The definition of “Serious (A) Injury” was changed in 2015 to match MMUCC 4<sup>th</sup> edition. Prior to 2015, Serious (A) Injury was defined as Incapacitating Injury (prevents return to normal). In 2015, a Serious (A) Injury was defined as any injury other than fatal which results in one or more of the following: severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood; broken or distorted extremity (arm or leg); crush injuries; suspected skull, chest or abdominal injury other than bruises or minor lacerations; significant burns (second and third degree burns over 10% or more of the body); unconsciousness when taken from the crash scene; paralysis.

### “Annual” Serious Injury Rates

- The annual serious injury rates have fluctuated from year to year, but the annual data suggest a downward trend since a high point of 5.686 serious injuries/100 million VMT in 2012.

<sup>7</sup> The serious injury rate is calculated as the number of serious injuries per 100 million Vehicle Miles Traveled annually. Comparing the number of serious injuries relative to the volume of annual travel eliminates annual fluctuations in injuries that one might expect due to differences in travel volumes from year to year. It adjusts for one source of variation that is known to directly impact the number of serious injuries.

- A time series regression analysis was conducted to project the likely serious injury rates in 2022 and 2023 (our target year). Based on the regression analysis, we should expect a continuing reduction in serious injury rates. This decrease is expected to bring the annual rate down to 4.414-4.495, but there is a significant amount of statistical variance around the projection.

#### 5-Year Moving Average

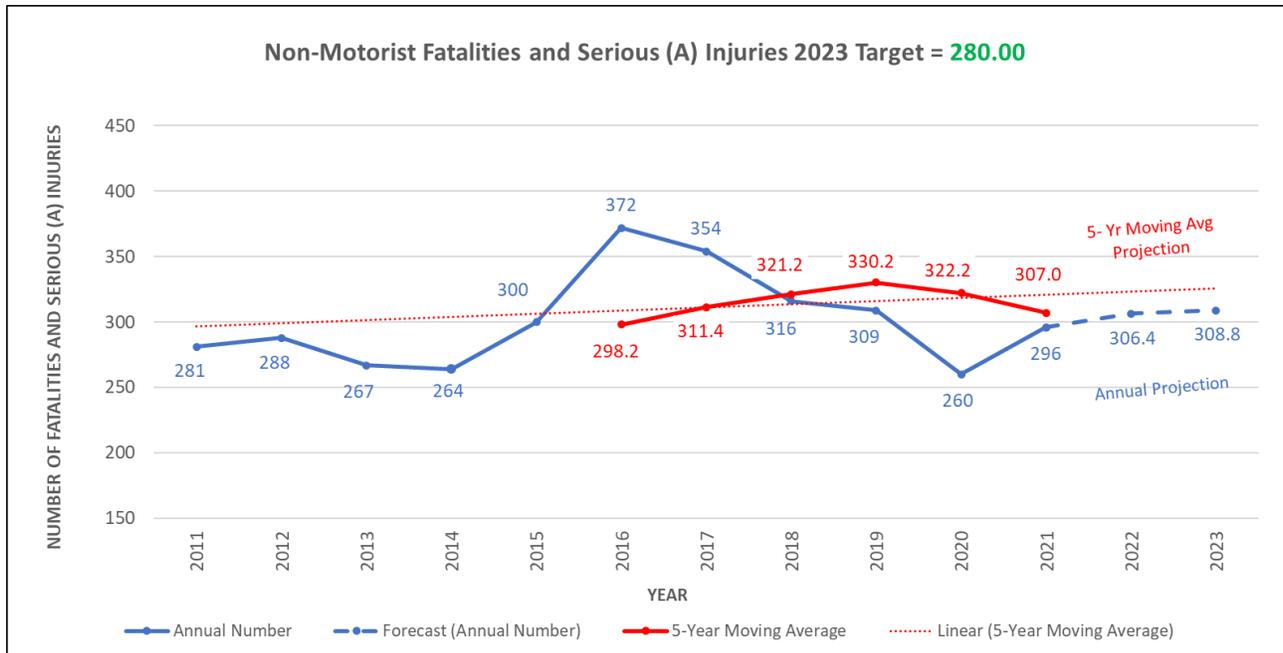
- Unlike the case for *fatality rates*, the 5-year moving average for *serious injury rates* is exhibiting a steady downward trend. Nonetheless, there is still a small difference between the 5-year average trendline and the annual regression analysis forecast. The 5-year average is expected to fall to around 4.495, while the regression forecast is 4.414.

#### TARGET

- CTDOT is choosing to maintain a 2023 target of **4.300** serious injuries/100 million VMT. The selection is based on careful consideration of the following:
  1. The 2 trendlines in the graph suggest the actual value should fall between 4.414-4.495, but CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2018 and lower.
  2. CTDOT recognizes that 2020 and 2021 were unusual years with the COVID-19 pandemic. There was a decrease in the number of serious injuries likely due to a reduction in traffic volume in 2020 whereas, the preliminary data for 2021 suggest an increase in the number of serious injuries with the traffic volume returning closer to the pre-COVID-19 pandemic times.

## Performance Measure: **Number of Non-Motorist Fatalities and Serious (A) Injuries**

The trends in number of non-motorist fatalities and serious injuries are illustrated in the graph below. Annual fatalities and serious injuries for non-motorists are shown in blue, and the 5-year moving average is shown in red. These two lines are compared and used to select a target for 2023 as described below.



Source: FARS Final files 2011-2019, FARS Annual Report File 2020, CT Crash Data Repository, Preliminary 2021 CT DOT data as of 03/18/2022.

### “Annual” Non-Motorist Fatalities and Serious Injuries

- The annual number of non-motorist fatalities and serious injuries has fluctuated from year to year, but the annual data suggest a downward trend since a high point of 372 in 2016.
- A time series regression analysis was conducted to project the likely number of non-motorist fatalities and serious injuries in 2022 and 2023 (our target year). The regression analysis, suggest a small increase to around 306.4-308.8 similar to the 2019 pre-COVID-19 pandemic number. There is a significant amount of statistical variance around the projection.

### 5-Year Moving Average

- Similar to the “annual” projection, the 5-year moving average for non-motorist fatalities and serious injuries is projecting an increase although there is a significant difference between the 5-year moving average trendline and the annual regression analysis forecast. The 5-year

moving average is expected to increase to around 326.0, while the regression forecast is 308.8 for the year 2023.

## TARGET

- CTDOT is choosing to maintain a 2023 target of **280.0** non-motorist fatalities and serious injuries. The selection is based on careful consideration of the following:
  1. High Priority for Pedestrian Safety. The safety of pedestrians became a major issue in Connecticut when pedestrian fatalities unexpectedly jumped in 2014. While it was part of a larger national trend, it raised great concern in a state that is heavily urbanized and where walking and bicycling are essential modes of transport for many residents. These forms of active transportation are also increasingly popular forms of physical exercise. CTDOT adopted pedestrian safety as a high priority and has a major program to improve safety and expand opportunities for walking and bicycling. Several safety-related infrastructure projects were undertaken from 2015-2021 to improve the conspicuity of traffic control devices for non-motorized road users including but not limited to marked crosswalk enhancements and other signing. Connecticut remains committed to these goals.

In addition, there were several changes to the non-motorist Safety Laws in Connecticut in 2021 with the *Connecticut House Bill No. 5429*, which included the following:

- *Pedestrian Law – § 1 – YIELDING TO PEDESTRIANS AT CROSSWALKS: Expands the circumstances under which drivers must yield to pedestrians at uncontrolled crosswalks*
  - *Dooring Law – § 4 – DOORING: Prohibits causing physical contact with moving traffic by (1) opening a vehicle door or (2) leaving it open longer than necessary to load or unload passengers*
  - *Speed Limit Law – §§ 6-12 – LOCAL ROAD SPEED LIMITS AND PEDESTRIAN SAFETY ZONES: Allows municipalities to establish speed limits on local roads without OSTA approval and allows for the establishment of pedestrian safety zones with speed limits as low as 20 mph in downtown districts, community centers, and areas around hospitals*
2. Aggressive Target. The CTDOT wants to set an aggressive target that will move the state back toward fatality rate levels experienced in 2014 and lower.

## CTDOT Safety Performance Targets Reported to FHWA

Targets Reported	2018	2019	2020	<b>2021</b> <i>CTDOT Adopted New Target Setting Methodology</i>	2022	2023
Target Years	2014-2018	2015-2019	2016-2020	2017-2021	2018-2022	2019-2023
Performance Assessment Year	2020	2021	2022	2023	2024	2025
Number of Traffic Fatalities	257.0	274.0	277.0	270.0	270.0	270.0
Fatality Rate	0.823	0.873	0.883	0.850	0.850	0.850
Number of Serious (A) Injuries	1571.0	1574.0	1547.0	1360.0	1300.0	1300.0
Serious (A) Injury Rate	5.033	5.024	4.931	4.300	4.300	4.300
Number of Non-motorized Fatalities & Serious (A) Injuries	280.0	290.0	307.2	300.0	280.0	280.0

## 2018 & 2019 Safety Performance Target Assessment Summaries from FHWA Website

### 2018 Connecticut Safety Performance Target Assessment Summary

Performance Measure	2014-2018 Target	2014-2018 Outcome	2012-2016 Baseline	Met Target?	Better Than Baseline?	Met or Made Significant Progress?
Number of Fatalities	257	279.4	274.4	No	No	No
Rate of Fatalities	0.823	0.886	0.874	No	No	
Number of Serious Injuries	1,571.00	1,496.60	1,573.00	Yes	N/A	
Rate of Serious Injuries	5.033	4.752	5.02	Yes	N/A	
Number of Non-Motorized Fatalities and Serious Injuries	280	311.8	298	No	No	

### 2019 Connecticut Safety Performance Target Assessment Summary

Performance Measure	2015-2019 Target	2015-2019 Actual	2013-2017 Baseline	Met Target?	Better Than Baseline?	Met or Made Significant Progress?
Number of Fatalities	274	279.4	277.8	No	No	No
Rate of Fatalities	0.873	0.884	0.884	No	No	
Number of Serious Injuries	1,574.00	1,510.40	1,547.00	Yes	N/A	
Rate of Serious Injuries	5.024	4.782	4.93	Yes	N/A	
Number of Non-Motorized Fatalities and Serious Injuries	290	329.6	311.4	No	No	