



# Vision Zero Traffic Fatalities: 2023 End of Year Report

July 2024



Produced by the San Francisco Department of Public Health,  
in collaboration with the San Francisco Municipal Transportation Agency  
and the San Francisco Police Department



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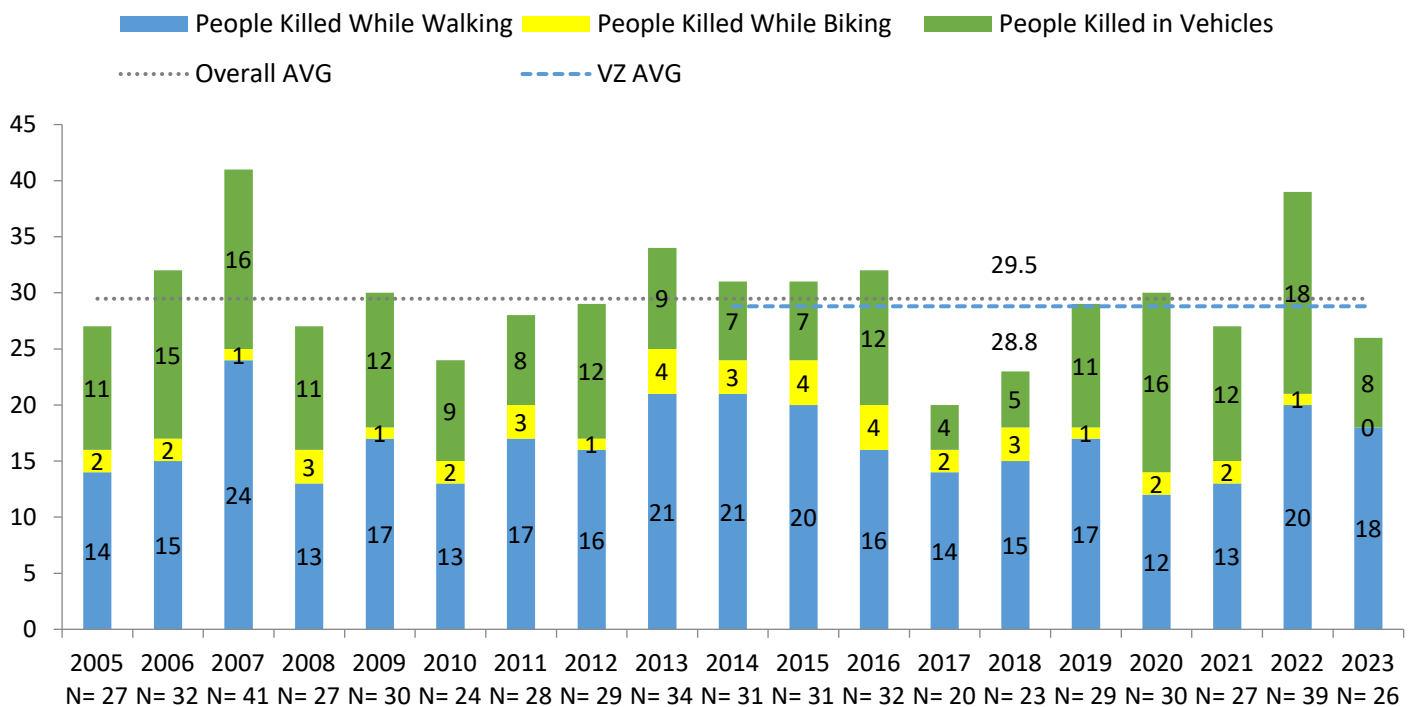
# INTRODUCTION AND NATIONAL CONTEXT

**San Francisco saw 26 traffic-related deaths in 2023.** Twenty-six lives lost is unacceptable. Every death in this report represents indescribable loss suffered by an individual and the community.

**The 26 deaths in 2023 are a 33% decrease since 2022, which had the highest count of fatalities since 2007. San Francisco remains committed to achieving our Vision Zero goal of zero traffic deaths.** This report summarizes traffic death patterns in 2023 and aims to inform Vision Zero initiatives to save lives.

The following chart compares annual fatality data between 2005 and 2023. Vision Zero was adopted in 2014, and the numbers of total traffic deaths were relatively stable between 2014 to 2016, though there were differences by mode of travel. The number of traffic deaths in San Francisco fell notably in 2017 to a period low of 20 deaths. Unfortunately, the number of traffic-related fatalities then rose steadily between 2018 to 2020, with a steep increase observed in 2022 (n=39), the second highest number of fatalities since 2005. Compared to 2022, 2023 saw a 33% decrease in traffic-related fatalities (n=26).

## San Francisco Traffic Deaths, 2005-2023



*NOTE: 2005-2012 deaths sourced from California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS) data, restricting to San Francisco City Streets jurisdiction, including streets that intersect with freeways (i.e., fatalities occurring at freeway ramps in the City jurisdiction). 2013 traffic deaths from SFPD. 2014-2021 traffic deaths reported using the Vision Zero Traffic Fatality Protocol based on data from the Office of the Medical Examiner and SFPD; includes deaths involving above-ground light rail vehicles not routinely reported in SWITRS. Also note that "People Killed in Vehicles" includes external passengers, as well as riders of standup powered micro-mobility devices and skateboards not propelled by a second vehicle.*

Staff from the SF Department of Public Health (SFDPH) work with colleagues from SF Police Department (SFPD) and the SF Municipal Transportation Agency (SFMTA) to report and map official fatality statistics monthly on the following



webpage, utilizing the Vision Zero Traffic Fatality Protocol:<sup>1</sup> <http://visionzerosf.org/maps-data/>. Per the Vision Zero Traffic Fatality Protocol Version 6.2 (2020)<sup>2</sup>, fatalities included have the following characteristics:

- Person(s) killed in or outside of a vehicle (bus, truck, car, motorcycle, moped, bicycle, standup powered device, light rail vehicle (LRV), etc.) involved in a crash or an impact with a vehicle or road structure;
- Occur within the public right of way in the City or County of San Francisco;
- Death takes place within 30 days of the public roadway incident as a result of the injury.

Traffic fatalities on freeways are tracked but are not included in the Vision Zero total counts. Instead, they are reported in an Appendix (see Appendix B) as they are designated State jurisdiction and are investigated by Caltrans and/or the California Highway Patrol. Freeway ramp deaths occurring *within* a San Francisco city intersection or that occur at the limit line within City jurisdiction are counted in Vision Zero Traffic Fatality total counts.

In addition, the Presidio as federal land/roadway, and the San Francisco International Airport (SFO) as private roadway by matter of law which falls under the jurisdiction of San Mateo County, are excluded from official Vision Zero counts. These fatalities are, however, tracked in Appendix B. For more detailed information about exclusion criteria, case definitions, and case classifications please refer to the Vision Zero Traffic Fatality Protocol Version 6.2 (2020).

**This report summarizes characteristics of traffic deaths in San Francisco from 2014 to 2023 to identify patterns and trends to inform Vision Zero SF's data-driven actions and policies.** Note that traffic fatality totals are susceptible to random variation and/or fluctuations due to historical or time-specific factors (e.g., COVID). Year-to-year changes as well as annual patterns in the data where there are small sample sizes may thus display greater variation in trends and cannot rule out root causes due to chance. SFDPH also monitors and reports on severe injuries to understand trends and characteristics of the most severe traffic-related injuries, which serves as an additional metric by which to evaluate the progress of Vision Zero efforts.<sup>3</sup>

**In 2014, San Francisco became the third city in the country to adopt Vision Zero with the goal of zero traffic deaths. This initiative is now implemented by over 50 communities across the United States.** The Federal Government recently joined this movement with the release of the 2022 “National Roadway Safety Strategy” which states: “Zero is the only acceptable number of deaths on our highways, roads, and streets.”<sup>4</sup>

### National Trends

While collision fatality and injury data are not equally available for all jurisdictions, 2022 traffic deaths reported in major news outlets for many cities across the country, including in Oakland, San José, and Los Angeles exceeded or matched

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<sup>1</sup> In 2015, with periodic updates since, the City finalized and standardized the [San Francisco Vision Zero Traffic Fatality Protocol](#), to ensure consistency of fatality tracking and reporting across city agencies. The protocol utilizes the traffic fatality definition in the collision investigation manual of the California Highway Patrol’s Statewide Integrated Traffic Records System (SWITRS). However, it expands the definition to include above ground light rail vehicle (LRV)-involved fatalities that involve collisions with pedestrians and cyclists. Traffic fatalities are any person(s) killed in or outside of a vehicle (bus, truck, car, motorcycle, bike, moped, light rail vehicle, etc.) involved in a crash, or killed within the public roadway due to impact with a vehicle or road structure, or anyone who dies within 30 days of the public roadway incident as a result of the injuries sustained within the City and County of San Francisco.

<sup>2</sup> [https://www.visionzerosf.org/wp-content/uploads/2024/02/Vision-Zero-Traffic-Fatality-Protocol\\_2020\\_6.2.pdf](https://www.visionzerosf.org/wp-content/uploads/2024/02/Vision-Zero-Traffic-Fatality-Protocol_2020_6.2.pdf)

<sup>3</sup> Severe Injury Trends Report available at: [www.visionzerosf.org/wp-content/uploads/2021/11/Severe-Injury-Trends\\_2011-2020\\_final\\_report.pdf](http://www.visionzerosf.org/wp-content/uploads/2021/11/Severe-Injury-Trends_2011-2020_final_report.pdf)  
New data will be added to these trends in a report due out later this year.

<sup>4</sup> U.S. Department of Transportation (2020, January). National Roadway Safety Strategy. [https://www.transportation.gov/sites/dot.gov/files/2022-01/USDOT\\_National\\_Roadway\\_Safety\\_Strategy\\_0.pdf](https://www.transportation.gov/sites/dot.gov/files/2022-01/USDOT_National_Roadway_Safety_Strategy_0.pdf)



five-year highs.<sup>5,6,7</sup> Meanwhile, some cities who saw record high fatality counts in 2022, saw lower fatalities in 2023, such as was recorded locally in San Francisco and reported in New York City, Long Beach, and San Diego.<sup>8,9,10</sup>

The National Highway Traffic Safety Administration (NHTSA) traffic fatality estimates suggest that 2021 counts marked a 16-year high across the country and indicated that the nation is facing a “crisis on our roads [that] is urgent and preventable.”<sup>11</sup> In 2022, NHTSA also estimates that vehicle miles traveled have returned to their 2019 pre-pandemic level,<sup>12</sup> and 2022 seems to show a leveling off in the total traffic fatality counts; nationwide, there was a 0.2% decrease from 31,850 traffic fatalities in the first nine months of 2021 to 31,785 in the same time period of 2022. Despite this 0.2% decrease overall, fatality rates increased year-over-year on rural interstates, and among crashes involving large trucks, cyclists, motorcyclists, and pedestrians in 2022.<sup>13</sup> As people shift their transportation modes, non-vehicular parties remain the most vulnerable on our streets. The Federal Highway Administration projects a moderate growth year-over-year in vehicle miles traveled from 2019 to 2049,<sup>14</sup> except for 2020 due to the pandemic and its associated lockdowns.

The National Highway Traffic Safety Administration (NHTSA) estimates of traffic fatalities suggest that 2023 recorded a 4.5% increase in total motor vehicle related fatalities compared to 2022.<sup>15</sup> Preliminary estimates from the Federal Highway Administration (FHWA) suggest that vehicle miles travelled (VMT) during the first nine months of 2023 increased by 2.2%, or 52.4 billion miles. The projected rate of fatalities decreased from 1.34 per 100 million VMT between January and September in 2022 to 1.25 per 100 million VMT during the same period in 2023.

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<sup>5</sup> <https://www.oaklandca.gov/topics/traffic-fatality-tracking>

<sup>6</sup> <https://www.sanjoseca.gov/your-government/departments-offices/transportation/safety/vision-zero/maps-data>

<sup>7</sup> <https://www.latimes.com/california/story/2023-01-14/traffic-deaths-rise-again-in-2022-with-marked-increase-in-pedestrian-fatalities>

<sup>8</sup> <https://www.nyc.gov/html/dot/html/pr2023/vision-zero-fatalities-dropped-2022.shtml>

<sup>9</sup> <https://lbpost.com/news/traffic-deaths-have-spiked-in-recent-years-with-45-in-2021>

<sup>10</sup> <https://data.sandiego.gov/datasets/police-collisions-details/>

<sup>11</sup> <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities>

<sup>12</sup> <https://afdc.energy.gov/data/10315>

<sup>13</sup> <https://www.nhtsa.gov/press-releases/nhtsa-estimates-traffic-deaths-2022-third-quarter>

<sup>14</sup> [https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt\\_forecast\\_sum.cfm](https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.cfm)

<sup>15</sup> <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813530>



## KEY FINDINGS (2023)

Twenty-six collisions resulted in 26 traffic deaths on San Francisco streets in 2023.

### High Injury Network and Communities of Concern

- Of the 26 traffic deaths in 2023, the majority (65%; n=17) occurred on the 2022 Vision Zero High Injury Network (VZHIN).<sup>16</sup>
- Just under half of all fatalities (42%; n=11) occurred in an Equity Priority Community as defined by the Metropolitan Transportation Commission.

### Travel Mode

- Eighteen people were killed while walking in San Francisco, comprising the largest road user group impacted by traffic fatalities (69%).
  - Compared to 2022's twenty fatalities, two fewer people were killed while walking in 2023, a 10% reduction.
- One person was killed while riding a motorcycle and one person was killed riding a moped.
  - Compared to 2022's seven motorcyclist deaths, six fewer people were killed while riding a motorcycle or moped, an 86% reduction.
- Four people were killed while travelling in a motor vehicle (15%): two drivers and two passengers.
  - Compared to 2022's seven deaths while travelling in a motor vehicle, three fewer motor vehicle drivers or passengers died while riding in this mode in 2023, a 12% reduction.
- No one was killed while bicycling in San Francisco overall in 2023.
  - By comparison, there was one cyclist fatality recorded in the Vision Zero network in San Francisco in 2022.
- Two riders of standing powered scooters (8%) died on San Francisco streets in 2023, representing nine total traffic deaths associated with this mode in the City since tracking started in 2017.

### Demographics: Homelessness, Sex, Age and Race/Ethnicity

- Two people without a fixed address were among 2023 Vision Zero traffic fatalities, comprising 8% of all fatalities. *Separate from the Vision Zero count, one person without a fixed address died on freeways and no one died on rail right of ways within San Francisco in 2023.*
- The majority of those killed in traffic collisions in 2023 were male (77%; n=20).
  - All six female fatalities were pedestrians, compared to 12 out of 20 male fatalities. In other words, among women, walking was the highest risk travel mode.
  - All those killed while riding mopeds (n=1), motorcycles (n=1), or as passengers in motor vehicles (n=2) were male.
  - Two men were killed as drivers of motor vehicles.
  - The two fatalities on standup powered micro mobility devices were male.
- Over one-third of fatalities (n=10, 38%) were among older adults (people aged 65 years or older). A majority of seniors killed in 2023 (n=9) were pedestrians, and one senior died while riding a moped.
- Persons who identify as Black are overrepresented among traffic fatalities: 12% of those killed in 2023 were Black, despite representing only 5% of the city's population. People killed in traffic collisions were predominantly of White race (38%), followed by Asian (35%), and Hispanic (12%).

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<sup>16</sup> Source: San Francisco Department of Public Health-Program on Health, Equity and Sustainability. 2017. Vision Zero High Injury Network: 2017 Update – A Methodology for San Francisco, California. San Francisco, CA. Available at: <https://www.sfdph.org/dph/eh/PHES/PHES/TransportationandHealth.asp>. While a 2022 update for the VZHIN was released last November, because it came out so late in the year, and because MTA is also using 2017 for all the project mileage tracking for 2022, this report continues to use the 2017 VZHIN as reference. Beginning in February 2023 and in 2023's EOY report, we'll be using the 2022 VZHIN update



## Primary Collision Factors

- Among the collisions resulting in 26 fatalities, the collision factors in 2023 that were cited most often by SFPD were failure of pedestrians to yield the right-of-way outside of crosswalks, failure of drivers yielding right-of-way at crosswalks, influence of alcohol, and starting or backing vehicles while unsafe.
  - The consistently most cited primary collision factor was pedestrians must yield right-of-way outside of crosswalks (CVC 21954(a)), which was cited in 5 of 26 fatalities (19%).
  - The next most cited collision factors were failure by driver to yield right-of-way at crosswalks (CVC 21950(a)) (n=3, 12%), driving under influence of alcohol (CVC 23152(a)) (n=3, 12%), and starting or backing vehicle while unsafe (CVC 22106) (n=3, 12%).
  - There is one pending DUI investigation of a pickup driver involved in a hit and run incident.
  - No collisions were dual-fault according to the SFPD incident reports.

## Driver Characteristics (for Drivers Determined to be at Fault)

- The most common movement preceding a collision when a driver was determined to be at fault was proceeding straight (n=14 out of 23; 61%), followed by making either a left (n=4 out of 23; 17%) or making a right turn (n=2 out of 23; 9%). Three collisions did not include driver movement information.
- At-fault drivers spanned the age spectrum. One was a youth under age 18, three were young adults (13%, defined as age 18-24), and one was a senior (4%, age 65 or more).
- Of the motor-vehicle/motorcycle vs. non-motor-vehicle collisions (pedestrian, cyclist, or e-scooter), (n=22), 15 (68%) involved a motor-vehicle driver at fault, six (27%) involved a pedestrian at fault, and one (5%) fatality had an unknown at-fault party due to a hit and run with no witnesses.

## Hit and Run Collisions

- There were seven (27%) of 26 hit and run collisions in 2023, resulting in the death of six people walking, and one standup powered device rider. This is a 36% decrease from 2022, during which 11 fatalities resulted from hit and run collisions.

## Large Vehicle Involvement

- Of the 26 fatal traffic fatalities in 2023, two (8%) involved a large vehicle (e.g., truck or van > 8000 lbs). This is down 2%, compared to four of 39 fatalities (10%) with large vehicle involvement in 2022.

## Single-Party Collisions

- Four traffic fatalities (15%) were a single-party incident where the victim collided with an inanimate roadway object such as a concrete barrier, utility pole, streetlight pole, or ejected from motorcycle. This count represents a 50% decrease from 2022.



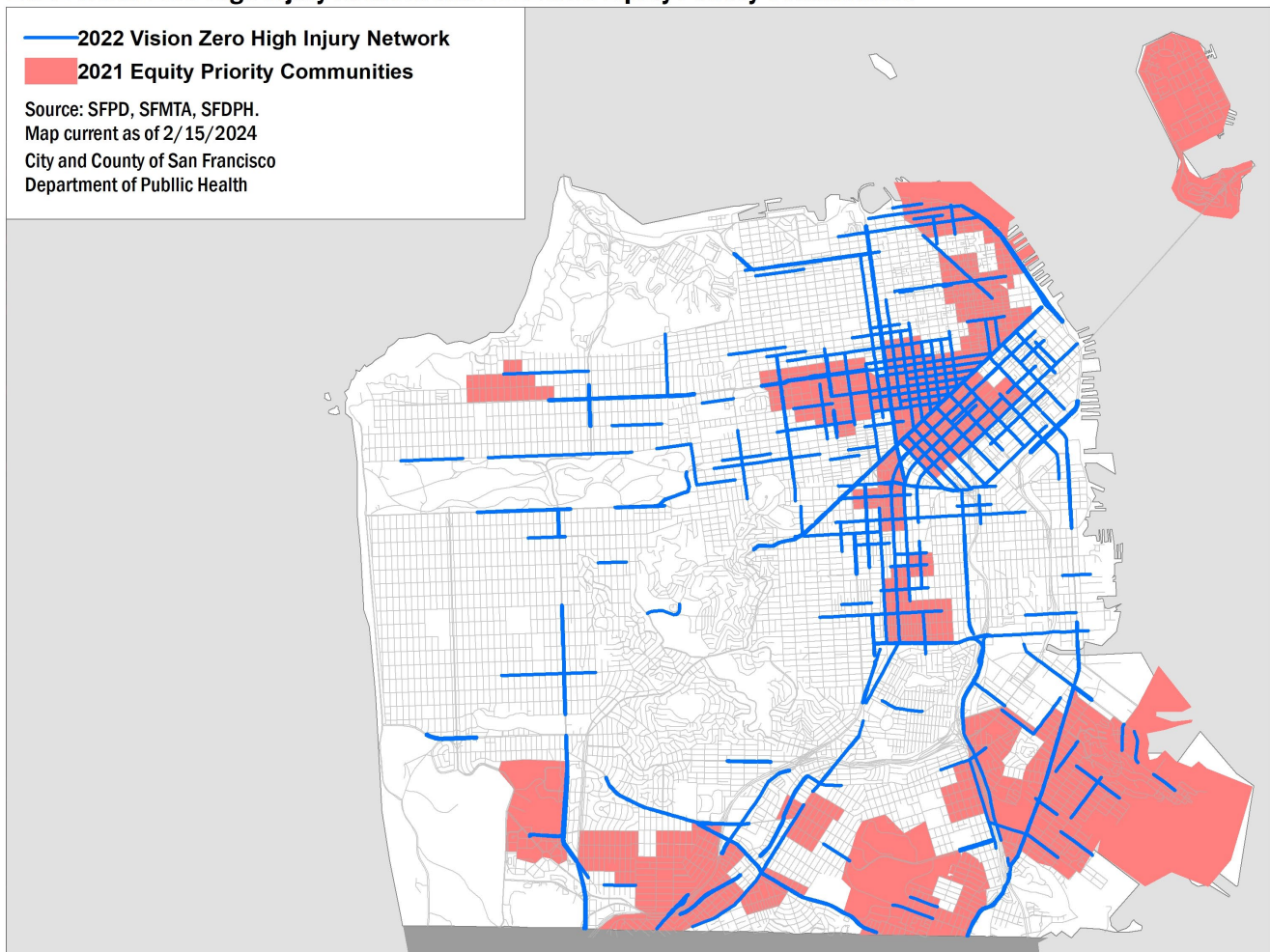


# THE VISION ZERO HIGH INJURY NETWORK AND EQUITY PRIORITY COMMUNITIES

The Vision Zero High Injury Network (VZHIN) identifies the corridors where the most severe and fatal injuries in San Francisco are concentrated and is used to identify and prioritize where improvements in engineering, education, enforcement, and policy are focused to realize Vision Zero. The VZHIN<sup>17</sup> incorporates both police and hospital data and represents the 12% of San Francisco streets where more than 68% of severe and fatal traffic injuries occur. The majority (44%, or 56 out of 128 miles) of the VZHIN is in the Metropolitan Transportation Commission’s (MTC) Equity Priority Communities,<sup>18</sup> which contain 29% of the city’s surface streets. Equity Priority Communities are areas with high concentrations of poverty, communities of color, seniors, and other vulnerable populations.

- In 2023, 65% (n=17) of traffic fatalities occurred on the Vision Zero High Injury Network.
- In 2023, 42%, (n=11) of traffic fatalities occurred in Equity Priority Communities. Of these 11 fatalities, 45% (n=5) were on the VZHIN.

## 2022 Vision Zero High Injury Network and 2021 MTC Equity Priority Communities



<sup>17</sup> Source: San Francisco Department of Public Health-Center for Data Science. 2022. Vision Zero High Injury Network: 2022 Update – A Methodology for San Francisco, California. San Francisco, CA. Available at: [https://www.visionzerosf.org/wp-content/uploads/2023/03/2022\\_Vision\\_Zero\\_Network\\_Update\\_Methodology.pdf](https://www.visionzerosf.org/wp-content/uploads/2023/03/2022_Vision_Zero_Network_Update_Methodology.pdf).

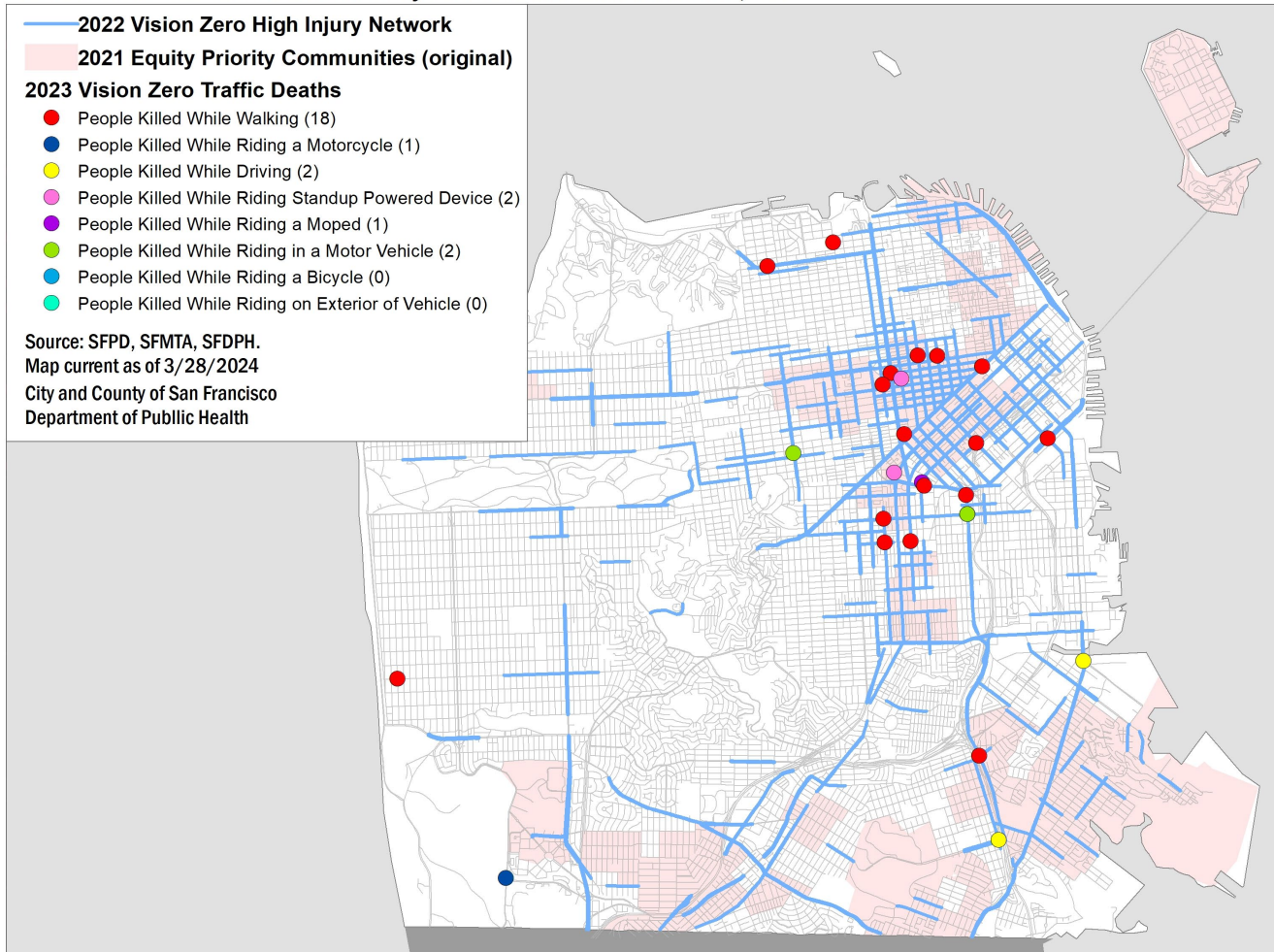
<sup>18</sup> Source: Plan Bay Area: 2040 Plan, 2018. <http://www.planbayarea.org/2040-plan/plan-details/equity-analysis>



# DETAILED FINDINGS: 2023 FATALITY TRENDS

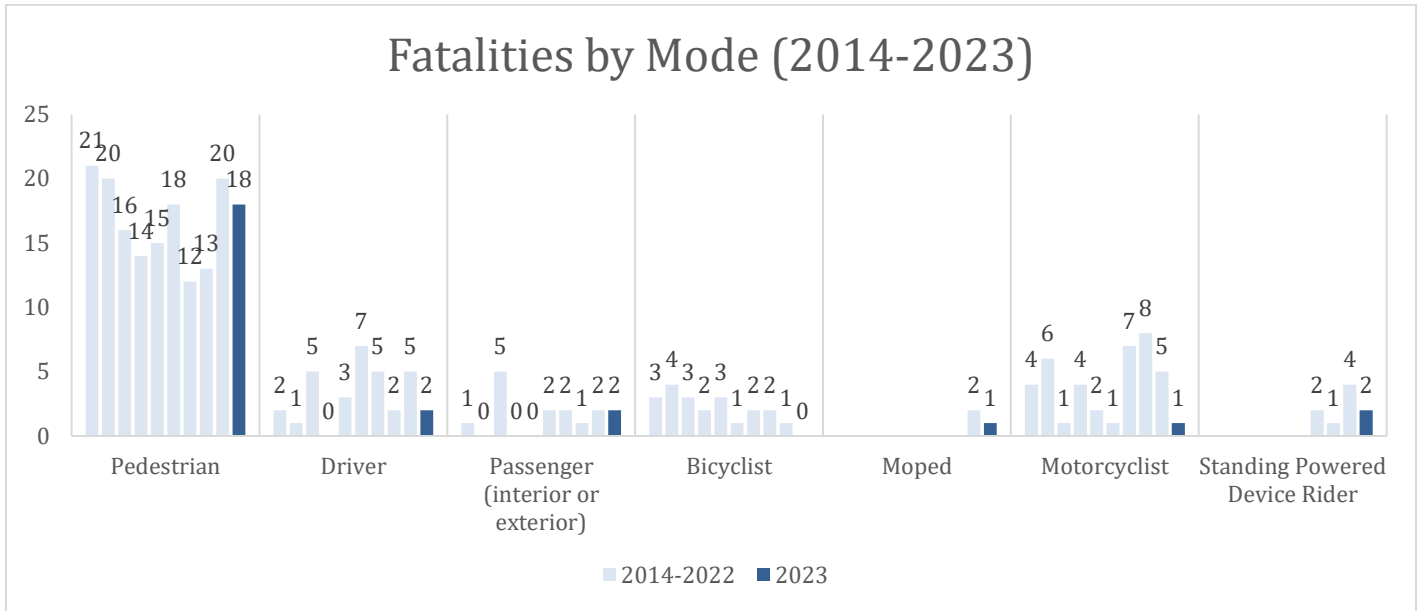
## Travel Mode

2023 Vision Zero Traffic Fatalities by Travel Mode: San Francisco, CA



A majority of fatalities (65%, n = 17) from 2023 occurred on the 2022 Vision Zero High Injury Network. **Pedestrians** are consistently among the most vulnerable road users in San Francisco, accounting for 69% of all fatalities in 2023 (n=18). There were two fewer pedestrian deaths in 2023 than in 2022. Of the eighteen pedestrian fatalities, 15 (83%) resulted from collisions with a motor vehicle or motorcycle, two (11%) resulted from a collision with a MUNI bus, and one (6%) resulted from a collision with a standup powered device.

Four people were killed in **motor vehicles** in 2023 (two drivers and two passengers), down from seven people in 2022. No one was killed while **bicycling** in the Vision Zero Network in 2023 (one fewer than 2022). **Motorcyclist** fatalities decreased by four, for a total of one fatality in 2023 compared to five in 2022. One person was killed while riding a moped. One person was killed while riding a standing e-scooter in 2023, which brings the total e-scooter deaths to eight since tracking began in 2018.



## Race and Ethnicity

When traffic related fatalities are examined by race/ethnicity, White and Asian individuals represent the majority of fatalities in 2023, and Black individuals are disproportionately represented in our fatality reporting in San Francisco relative to their proportion of the city’s population. Of people killed in traffic collisions in 2023, 12% (n=3) were Black, 35% (n=9) were Asian, and 38% (n=10) were White. However, the demographic profile of San Francisco is approximately 6% Black, 36% Asian, and 37% White among people reporting a single race, and 6% reporting two or more races).<sup>19</sup> Regarding ethnicity, 16% of San Francisco’s population is Hispanic but a slightly smaller proportion (12%; n=3) of those killed in traffic in 2023 were Hispanic.<sup>20,21,22</sup> One fatality (4%) involved an individual where race or ethnicity could not be determined.

<sup>19</sup> Source: U.S. Census Bureau (2022). Hispanic or Latino Origin by Race American Community Survey 1-year estimates. Retrieved from <<https://censusreporter.org>>. Note that the Census does not report Latinx or Latino/a as a racial group.

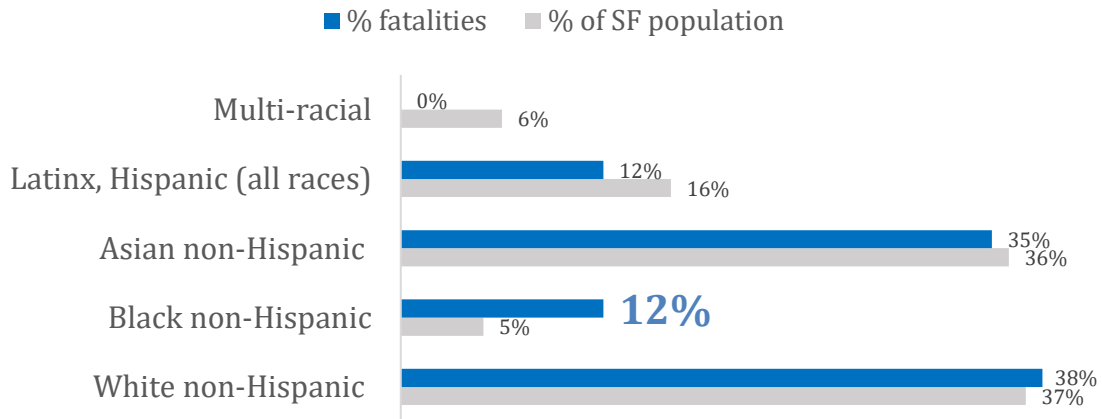
<sup>20</sup> Source: U.S. Census Bureau (2022). Hispanic or Latino Origin by Race American Community Survey 1-year estimates. Retrieved from <<https://censusreporter.org>>. Note that the Census does not report Latinx or Latino/a as a racial group.

<sup>21</sup> Note: San Francisco is a city with significant tourist and commuter populations. Though members of these groups are also at risk of injury or death while traveling on San Francisco streets, they are not reflected in the Census population estimates for San Francisco.

<sup>22</sup> Four traffic fatality victims (15%) in 2023 had a home address outside San Francisco’s city limits.



## Race/Ethnicity of 2023 Traffic Fatalities (N=26)



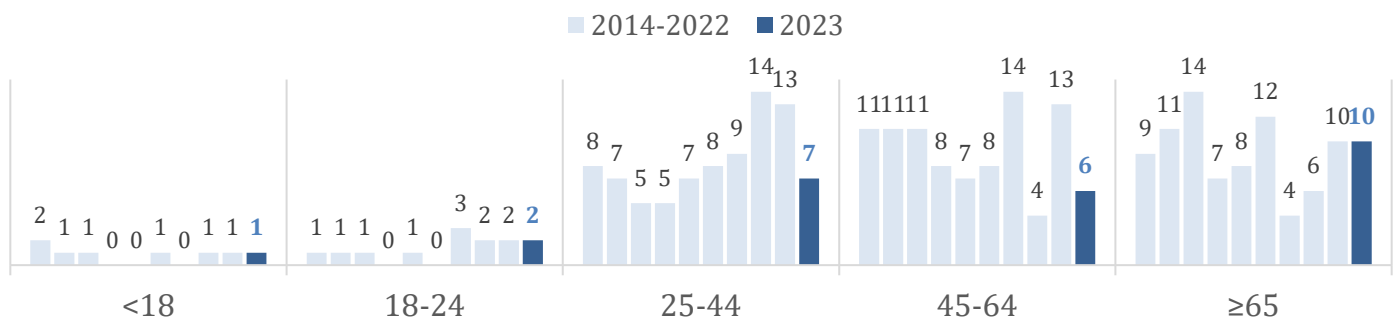
## Age

Seniors (aged 65 and up) are disproportionately represented in traffic fatality reporting.<sup>23</sup> Despite currently representing 18% of San Francisco’s total population,<sup>24</sup> seniors accounted for 38% (n=10) of all traffic fatalities in 2023, up significantly from 26% of all traffic fatalities in 2022. As investigated in other jurisdictions, data reveal that seniors die at a higher rate when struck by motor vehicles because they are more likely to succumb to injuries than younger pedestrians.<sup>25</sup> Looking specifically at pedestrian fatalities in 2023, 50% (n=9 of 18) were people aged 65 and up (*data in Appendix A*).

The age group with the greatest decrease in their fatality count were the 45-64 year olds; the fatalities in this group declined from 13 deaths in 2022 to six deaths in 2023—a 54% year over year decrease.

Fatalities among children (under age 18) (n=1) and 18-24 year olds (n=2) remained constant compared to last year.

## Age Composition of 2023 Traffic Fatalities from 2014 to 2023



<sup>23</sup> Sklar DP, Demarest GB, McFeeley P. Increased pedestrian mortality among the elderly. *Am J Emerg Med.* 1989 Jul;7(4):387-90. doi: 10.1016/0735-6757(89)90044-2. PMID: 2735985.

<sup>24</sup> Source: U.S. Census Bureau, 2022 American Community Survey 1-Year Estimate

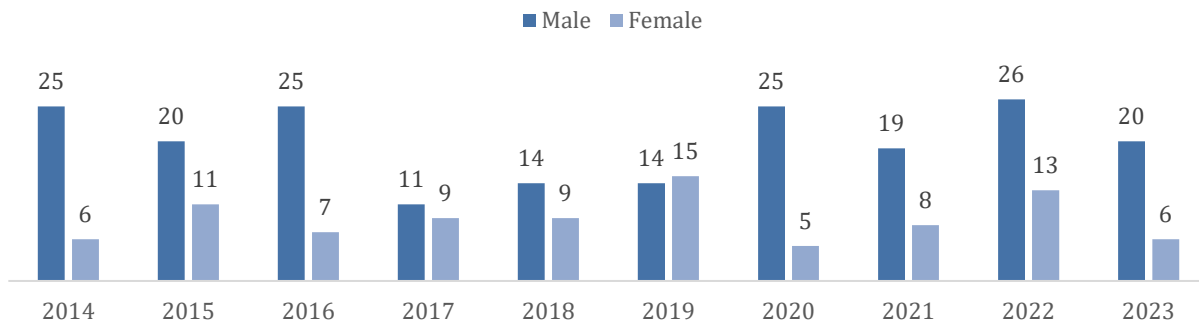
<sup>25</sup> Basem Y. Henary, Johan Ivarsson & Jeff R. Crandall (2006) The Influence of Age on the Morbidity and Mortality of Pedestrian Victims, *Traffic Injury Prevention*, 7:2, 182-190, DOI: 10.1080/15389580500516414



## Sex

In 2023, males continue to be overrepresented in traffic fatalities. The year's traffic fatalities were 77% male and 23% female, varying slightly from 2022's 70:30 split. As historically the case (excepting 2019), more males than females are killed on San Francisco streets. Examination of fatality by mode reveals different patterns between males and females: approximately two-thirds of people killed while walking were male (67%; n=12/18). Both people who were killed while riding a motorcycle (n=1) or moped (n=1) were male. The two people who were killed while riding a standing powered scooter micro mobility device (n=2) were also male. Finally, all four of the motor vehicle fatalities in 2023 were male.

### Fatalities by Sex (2014-2023)



## Homelessness

Vision Zero SF tracks the proportion of traffic fatalities affecting people with no fixed address as a conservative proxy for people experiencing homelessness who die in traffic-related crashes. In 2023, three people without a fixed address were killed on city streets (12%) as a result of a traffic collision, down from seven in 2022. Additionally, there were four fatalities among people potentially experiencing homelessness but for whom we could not confirm their housing status. The homeless population of San Francisco is estimated to be 7,754,<sup>26</sup> making up approximately 0.9% of the city population.<sup>27</sup> Thus, there is still a large overrepresentation of fatalities among those unstably housed in the city. In 2023, there were two fatalities that occurred on SF freeways that involved people without a fixed address.

<sup>26</sup> Source: Applied Survey Research, San Francisco Homeless Count & Survey 2022 Comprehensive Report. <https://hsh.sfgov.org/wp-content/uploads/2022/08/2022-PIT-Count-Report-San-Francisco-Updated-8.19.22.pdf>

<sup>27</sup> San Francisco population estimate of 865,933. Source: U.S. Census Bureau, 2017-2021 5-year American Community Survey, December 8, 2022



## Primary Collision Factors

The top primary collision factor in 2023 was pedestrians not yielding right-of-way outside of crosswalks (n=5 out of 26, 19%).

Other top primary collision factors included:

- 1) driver failing to yield the right-of-way at crosswalks (12%)
- 2) influence of alcohol (12%), or
- 3) starting or backing vehicle while unsafe (12%)

California Vehicle Code (CVC)*	Primary Collision Factor Description	Count (N=26)
21954(a)	Pedestrians must yield right-of-way outside of crosswalks	5
21950(a)	Driver failure to yield right-of-way at crosswalks	3
23152(a)	Under the influence of alcohol	3
22106	No starting or backing vehicle while unsafe	3
22350	Unsafe speed for prevailing conditions	2
21453(a,c)	Red signal - driver or bicyclist responsibilities	2
21456(a,b,c)	Pedestrian violation of Walk or Wait signals	2
21658(a)	Lane straddling or failure to use specified lanes	1
21657	Going against one-way traffic patterns	1
21801(a)	Violation of right-of-way - left turn	1
22411	Operating motorized scooter at speed in excess of 15MPH	1
23152(f)	Driving under influence of drugs	1
Unknown	Unknown	1

\* This vehicle code number refers to official California Vehicle Codes (CVC). Descriptions provided are shorthand and not verbatim from the CVC code.

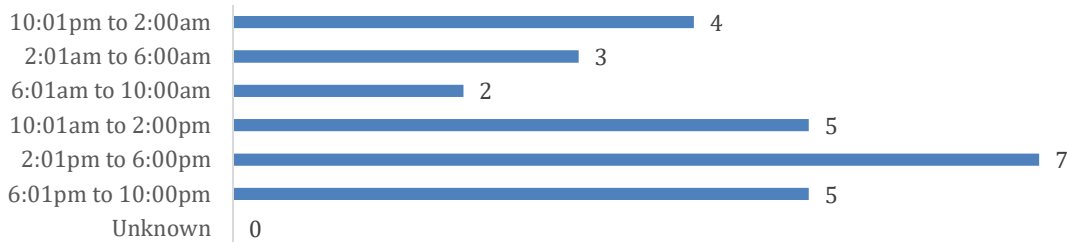
Of pedestrian fatalities (n=18) which have vehicle code information available, police classified 28% (n=5 out of 18) as caused primarily by the driver of a vehicle and 11% where the pedestrian was at fault (n=2 out of 18). No collisions in 2023 were considered dual-fault. Counts of primary collision factors by year can be found in Appendix C.

## Time of Day

Collisions resulting in traffic fatalities in 2023 occurred more frequently in the evening hours with peak numbers occurring between 2:01pm and 6pm (27%; n=7). Fatal collision time of day has shown notable variation from year to year.



### Fatalities by Collision Time of Day (2023; N=26 collisions)



### Turn Movement Preceding Driver At-Fault Collisions

In 17 driver-at-fault fatal traffic collisions, 65% of cases involved drivers proceeding straight prior to collision (n=11 out of 17). Two (12%) involved a left-turning vehicle or motorcycle, two involved a right-turning vehicle (12%), one involved a vehicle backing up (6%), and one was not stated (6%). For the eight driver-not-at-fault fatal collisions, the at-fault parties included six pedestrians, one e-scooter rider proceeding straight, and one e-scooter rider traveling the wrong direction of traffic. Three of the pedestrians were crossing in a crosswalk at an intersection, and three were crossing the street mid-block. One collision had no at-fault party identified.

### Driver Age (for Drivers Determined to be at Fault)

Approximately two-thirds of the 26 fatal collisions were determined by police to be the responsibility of a driver or motorcyclist (65%; n=17 out of 26 collisions). At fault drivers spanned the age spectrum, with a median age of 45. Two (8%) were young adults identified in the 18-24 age range, and three were seniors (12%, defined as age 65 or older). One at-fault driver had an unknown age. Of the 26 total fatal collisions, 4 (15%) were single-party collisions that involved only a motor vehicle or motorcycle, and these four had a mean age of 28.75 years (see Appendix A).

### Hit and Run Collisions

In 2023, 27% (n=7) of all traffic fatalities resulted from a collision in which the driver left the scene. Across these hit and run deaths, six were pedestrians and one was a rider of a standup e-scooter. This represents a decrease of four hit and run collisions from 11 in 2022.

### Sharing Technology Involvement and Ride-hail Involvement

Sharing technology includes app-based services for ride-hailing as well as e-scooters and e-bikes. In 2023, there were no ride-hailing passenger fatalities or rider fatalities of rental standing powered devices. Ride-hail includes Transportation Network Companies (TNCs) like Uber and Lyft, as well as traditional taxis. In 2023, there were no passengers of a TNC involved in fatal traffic collisions. No taxis were determined by police to be a party in any fatal traffic collisions.



## Large Vehicle Involvement

Of 26 traffic fatalities in 2023, two (8%) involved a pedestrian victim and a large vehicle—both were buses.<sup>28</sup> These two fatalities are a decrease from four of 39 fatalities (10%) involving large trucks and one fatality involving a light rail vehicle in 2022.

## Safety Equipment

Use of personal safety equipment as recorded in police collision reports varied by mode. Among four fatalities involving a driver of a motor vehicle, three involved unbelted persons. There was one fatal motorcycle crash, and the rider was wearing a helmet. The one fatal moped crash involved a helmeted rider. Finally, none of the two standing powered scooter fatalities were wearing a helmet. Note that state law does not require helmets to be worn by adults of powered scooter riders. However, these data may point to different helmet usage patterns by travel mode.

## Single-party Collisions

Single-party collisions are traffic fatalities that involve only one party and may include collisions with unoccupied parked vehicles; trips or falls from a means of conveyance; colliding with inanimate objects such as buildings, streetlights, and center medians; or falling from environmental hazards such as steep cliffs or embankments. In 2023, four traffic fatalities (n=4 out of 26; 15%) were single-party collisions. Of these four single-party traffic collisions resulting in a fatality: three were people in motor vehicles (75%) and one was riding a motorcycle (25%).

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<sup>28</sup> Large vehicles are defined as those larger than a pickup truck (with unladen weight of over 8,000 lbs) or a van designed to carry 10 or more people. Note that vehicle size information was unavailable for two hit and run collisions.





## APPENDIX A – TABLE OF 2023 VISION ZERO TRAFFIC FATALITIES

#	Collision Date	Collision Time	Collision Location	Collision Type	Primary (Secondary) Collision Factor	Hit and Run	Deceased	Victim Age	Victim Sex	Collision Description
1	1/1/2023	20:19	Alameda St and Potrero Ave	Motor Vehicle & Pedestrian	21456(a)(3)	Yes	Pedestrian	50	unknown	A driver of a blue passenger car was traveling northbound and the victim, who was crossing against the red hand eastbound in the south crosswalk. The driver fled the scene and the investigation is ongoing.
2	1/10/2023	17:51	16th St & Valencia St	Motor Vehicle & Pedestrian	21456(b)	no	Pedestrian	65	Female	A driver of a van made a southbound left turn and struck the victim. The victim was a pedestrian crossing southbound in the east sidewalk against a solid red hand signal. The victim fell to the ground prior to being struck by the turning vehicle.
3	1/22/2023	2:11	16th St & Potrero Ave	Motor Vehicle Collision (solo)	23152 (a)	No	Passenger	39	Male	A driver of an SUV was speeding eastbound on 16th St near Capp St and rear-ends vehicle #2, sending vehicle #2 into vehicle #3 and onto the sidewalk that results in serious injuries to two pedestrians at Capp St. The driver then flees and continues eastbound on 16th and rear-ends the vehicle #4 at Potrero Ave. The passenger of vehicle #4 sustained fatal injuries. The suspect was charged for driving under the influence.
4	1/23/2023	5:43	Franklin St between Ellis and Eddy Sts	Motor Vehicle & Pedestrian	21954(a)	No	Pedestrian	44	Female	A driver of an SUV was traveling northbound and struck the victim midblock between Eddy and Ellis Sts. Prior to the collision, the victim was walking midblock and for unknown reasons laid down in the roadway. The victim may have been experiencing homeless.
5	2/10/2023	23:54	Divisadero St between Fell and Oak Sts	Motor Vehicle & Pedestrian	23152 (a)	No	Passenger	36	Male	A driver of a sedan was speeding southbound and struck a streetlight pole. The passenger sustained fatal injuries. The driver was charged for driving under the influence.
6	4/11/2023	12:13	Jones St between Post and Geary Sts.	Motor Vehicle & Pedestrian	22106	No	Pedestrian	66	Male	The driver of the run-away U-Haul truck became pinned between the truck and another vehicle. The truck continued rolling down the hill until the truck was maneuvered into another truck. The driver sustained fatal injuries.
7	5/23/2023	1:05	Lombard and Divisadero Sts	Motor Vehicle & Pedestrian	23152(a)	Yes	Pedestrian	51	Male	The driver of a pickup truck was traveling westbound under the influence, ran a red light, and struck the victim, who was skateboarding northbound. The driver fled the scene towards the Golden Gate Bridge and was apprehended.
8	5/23/2023	10:21	16th St and Potrero Ave	Standup Powered Device &	21453(a)	No	Pedestrian	58	Male	The driver carjacked a City pickup truck at Folsom and Mabini Sts and was evading San Francisco Sheriffs and Police. Towards the end of the pursuit, the driver was



				Motor Vehicle						speeding, ran a red light traveling westbound on 16th Street at Potrero Avenue, and was struck by a northbound vehicle. The City truck then collides with the bus shelter at the northwest corner and collides with multiple pedestrians, one of whom succumbed to their injuries. The driver was apprehended.
9	5/24/2023	16:36	Laguna and Francisco Sts	Motor Vehicle Collision (solo)	22106	No	Pedestrian	84	Female	A driver of an SUV was traveling northbound and began a U-turn. When reversing in order to park, the driver struck the victim, who was crossing westbound in the north side crosswalk.
10	6/2/2023	21:39	Otis St between Gough and McCoppin Sts and Duboce Avenue	Standup Powered Device & Pedestrian	21657	No	Standup Powered Device Rider	23	Male	A driver of an SUV traveling southbound from Gough St proceeded onto Otis St, merged into the transit lane, and struck the victim, who was riding a standup powered scooter. The victim was traveling the wrong-way, northbound, on Otis Street.
11	6/24/2023	14:44	3rd St, Arthur Ave, and Cargo Way	Motor Vehicle & Pedestrian	22350	No	Driver	24	Male	A driver of an SUV was speeding southbound on 3rd St and struck a utility pole at the southwest corner of the intersection.
12	7/8/2023	10:55	Market St, 100 feet east of 4th and Stockton Sts	Motor Vehicle & Pedestrian	22411	No	Pedestrian	55	Male	A privately-owned standup powered scooter rider was speeding westbound and struck the victim, who was crossing from the north side of the sidewalk to the transit island hatching approximately 100 feet east of the intersection.
13	7/9/2023	2:40	18th St and South Van Ness Ave	MUNI Bus & Pedestrian	unknown	Yes	Pedestrian	28	Male	A pedestrian was struck at the intersection by a driver, who fled the scene.
14	8/6/2023	0:10	Fell St btwn Van Ness Ave and Market St	Motor Vehicle & Pedestrian	21954(a)	Yes	Pedestrian	49	Male	A driver of a sedan was traveling eastbound and struck a skateboarder, who was crossing the street from the north side to the south side. The driver fled the scene and was later arrested.
15	8/14/2023	22:42	7th St and Harrison St	Motorcycle Collision (solo)	21954(a)	Yes	Pedestrian	69	Male	A driver of a MUNI bus was stopped westbound on Harrison Street in lane #2. A pedestrian left the sidewalk midblock, walked around the rear section of the bus, and then proceeded in close proximity on the right side of bus. As the bus began moving, the pedestrian lost their balance and made contact with the bus. The pedestrian succumbed to their injuries. The crash was originally categorized as a hit and run. The victim was experiencing homelessness.
16	8/15/2023	17:15	4th St and King St	Motor Vehicle & Pedestrian	21950(a)	No	Pedestrian	4	Female	A driver of an SUV made a southbound right turn from lane #2 and struck two southbound pedestrians in the west side crosswalk, one of whom succumbed to their injuries.



17	8/19/2023	18:45	Lake Merced Blvd and Brotherhood Way	Moped & Motor Vehicle	21658(a)	No	Motorcyclist	29	Male	A driver of a motorcycle was traveling southbound, swerved right, and was ejected from the motorcycle. The driver succumbed to his injuries.
18	9/11/2023	8:07	46th Ave and Taraval St	Motor Vehicle & Pedestrian	21950(a)	No	Pedestrian	80	Female	A driver of a minivan traveling eastbound stopped at the STOP sign, continued eastbound, and struck the victim, who was walking northbound in the east side crosswalk.
19	9/12/2023	15:36	Folsom St north of 13th St	Motor Vehicle Collision (solo)	21801(a)	No	Moped	66	Male	A driver traveling northbound on Folsom Street was turning left into the parking lot of 1690 Folsom. The victim, who was riding a modified bicycle with a gas powered engine, was traveling southbound, swerved around the driver, and struck a delivery van. The delivery van was parked in the bicycle lane. The victim succumbed to their injuries twelve days later.
20	9/20/2023	13:28	18th St and Valencia St	MUNI Bus & Pedestrian	21950(a)	No	Pedestrian	80	Male	A driver of an SUV making a westbound left turn struck the victim, who was crossing eastbound in the south side crosswalk.
21	9/30/2023	18:00	Mansell St and San Bruno Ave	Motor Vehicle & Pedestrian	21954(a)	No	Driver	26	Male	Suspects of a car jacking crew were fleeing authorities and were speeding on the freeway. The suspects entered the Paul Avenue exit, struck the concrete barrier, and came to rest in the median on Mansell Street.
22	10/19/2023	0:51	O'Farrell St and Van Ness Ave	Standup Powered Device & Motor Vehicle	21954(a)	No	Pedestrian	61	Male	A driver of a MUNI bus was traveling southbound in the transit-only lane during a green signal and struck the victim, who was crossing westbound outside of the north side crosswalk against a solid red hand.
23	10/28/2023	10:53	Hyde St and Post St	Motor Vehicle & Pedestrian	23152(f)	No	Pedestrian	65	Male	A driver was speeding eastbound on Post Street, ran the red light, was struck by a southbound vehicle, and struck the victim, who was walking in the east side crosswalk.
24	12/6/2023	1:46	Polk St and Ellis St	Motor Vehicle & Pedestrian	21453(a)	Yes	Standup Powered Device Rider	34	Male	A driver was speeding westbound, drove onto the wrong side of Ellis Street, ran the red light, and struck the victim, who was also running the red light going northbound on a privately-owned, standup powered scooter.
25	12/11/2023	14:50	13th St entrance for 1745 Folsom St	Motor Vehicle & Pedestrian	22106	No	Pedestrian	74	Male	A driver traveling eastbound on 13th Street was turning right into the parking lot serving 1745 Folsom St and struck the victim, who was on the sidewalk.
26	12/26/2023	6:35	Bayshore Blvd and Silver Ave	Motor Vehicle & Pedestrian	22350	Yes	Pedestrian	72	Male	A driver making a westbound left turn struck the victim, who was crossing in the south side crosswalk. The driver fled the scene. A second driver making an eastbound right turn also struck the victim. The victim succumbed to their injuries a few days later.

\*TC refers to City and County of San Francisco Traffic Code. This collision did not require a California Vehicle Code classification.



## APPENDIX B – TRACKING SEPARATE FROM VISION ZERO TOTALS: FATALITIES ON FREEWAYS, AT SAN FRANCISCO INTERNATIONAL AIRPORT, AND IN THE PRESIDIO

Nine people (three people walking, three people riding in a motor vehicle, one person riding in a vehicle as a passenger, one person on a motorcycle, and one person who was found with an accompanying bicycle but who was determined to be a pedestrian fatality) were killed in transportation-related collisions on freeways in San Francisco in 2023. This number is up from eight people in 2022.

There was one traffic death in the Presidio and one on San Francisco International Airport (SFO) roadways in 2023.

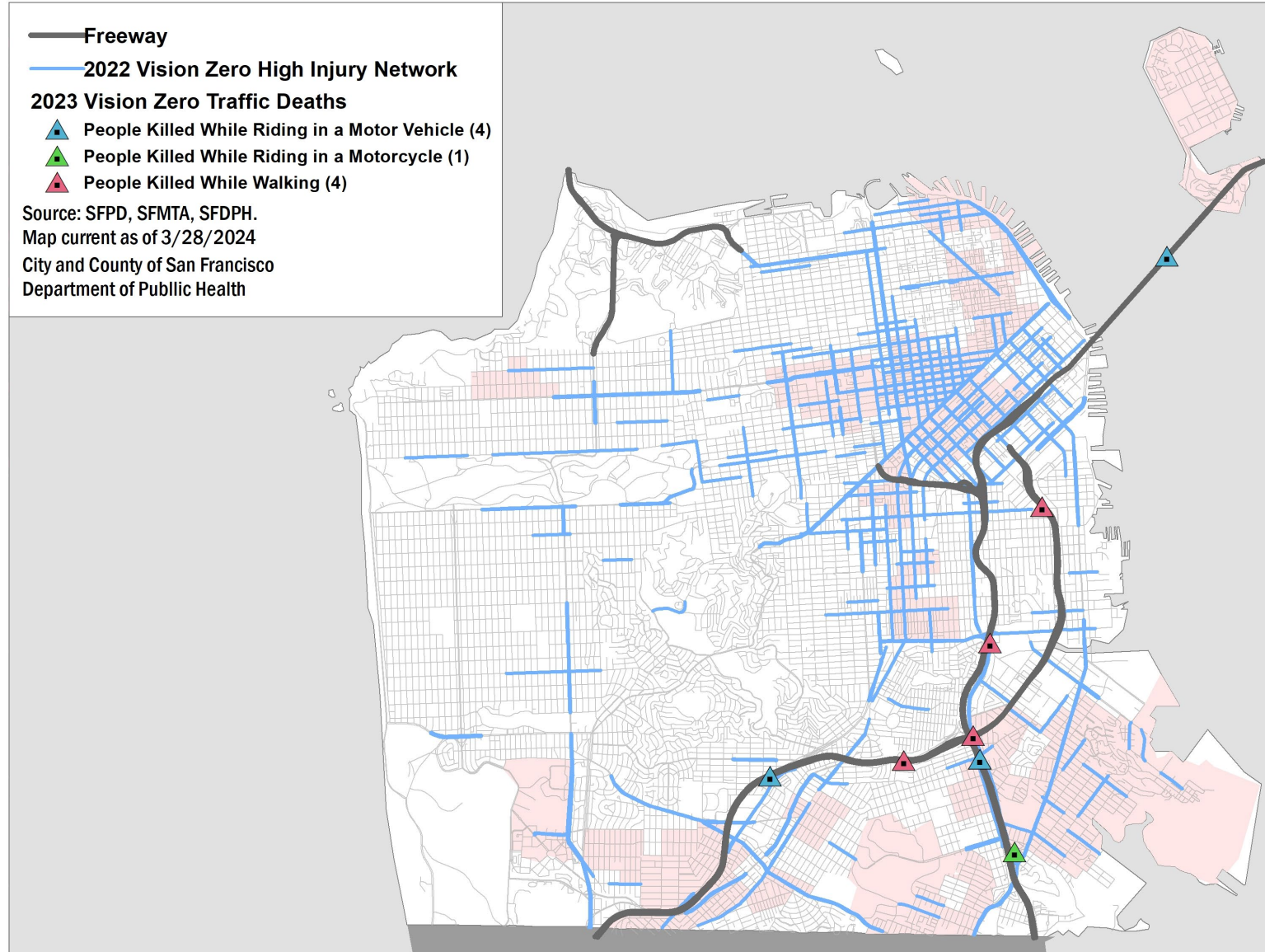
Freeways are defined as grade separated highway with high-speed vehicular traffic and controlled ingress/egress. Traffic fatalities on freeways and in the Presidio are tracked, but not included in the Vision Zero SF Fatality counts, as these areas are serviced by various state and federal agencies. Caltrans is the state agency responsible for freeway operation, maintenance and improvements, and the California Highway Patrol (CHP) is the state agency responsible for traffic law enforcement. SFO and its roadways are private property under San Mateo County jurisdiction. Within the Presidio, the National Park Service’s US Park Police officers perform law enforcement and public safety functions. Additionally, the Presidio Trust is responsible for operation, maintenance, and improvement of all roadways within the Presidio. The City engages with these agencies regarding transportation safety issues and freeway rights-of-way in San Francisco.

### FATALITIES ON FREEWAYS

#	Collision Date	Deceased	Collision Type	Victim Age	Victim Sex	Collision Time	Collision Location
1	1/6/2023	Passenger	Motor Vehicle & Motor Vehicle	18	Female	1:58 AM	Northbound I-280 near San Jose Ave/Bosworth exit
2	5/30/2023	Driver	Motor Vehicle & Motor Vehicle	30	Male	10:35 PM	Westbound Bay Bridge I-80
3	7/29/2023	Motorcyclist	Motorcycle & Motor Vehicle	41	Male	2:30 AM	Southbound US 101 On-ramp Near 3rd Street
4	8/25/2023	Pedestrian	Motor Vehicle & Pedestrian	53	Male	6:10 AM	Bayshore / Marin On-Ramp
5	8/27/2023	Pedestrian	Motor Vehicle & Pedestrian	26	Male	2:30 AM	Southbound I-280 just North of US 101
6	8/27/2023	Driver	Motor Vehicle & Motor Vehicle	26	Male	2:56 AM	Northbound US 101 South of Silver Avenue
7	8/27/2023	Driver	Motor Vehicle & Motor Vehicle	53	Male	2:56 AM	Northbound US 101 South of Silver Avenue
8	9/11/2023	Pedestrian	Motorcycle & Pedestrian	33	Male	2:10 AM	Southbound I-280 near the 16th Street under crossing
9	10/14/2023	Pedestrian	Motor Vehicle & Pedestrian	41	Female	12:29 AM	Northbound I-280 near Alemany Blvd Off Ramp



## 2023 Freeway Fatalities by Travel Mode: San Francisco, CA





## APPENDIX C – PRIMARY COLLISION FACTORS BY YEAR

Darker shades represent higher counts. The table below suggests that overall, unsafe speed has consistently been a primary collision factor since 2014. Driver failure to yield right of way to pedestrians at crosswalks was a top primary collision factor prior to 2020, and while still representing an ongoing issue, it is so at a lower average count in 2022 and 2023 than the trend recorded before 2020. The trends below suggest that non-pedestrian commuters also still collide following moving violations at a red signal.

CA Vehicle Code	Primary Collision Factor Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
21954(a)	Pedestrians must yield right-of-way outside of crosswalks	2	2	1	0	3	1	1	3	1	4
22106	No starting or backing vehicle while unsafe	0	0	0	0	1	0	0	1	0	3
21950(a)	Driver failure to yield right-of-way at crosswalks	6	9	6	7	5	8	4	0	4	3
23152(a)	Under the influence of alcohol	1	1	2	0	1	2	2	2	2	3
22350	Unsafe speed for prevailing conditions	6	7	3	4	3	4	9	9	8	2
21453(a,c)	Red signal - driver or bicyclist responsibilities	2	4	8	1	2	3	4	4	4	2
21456(a,b,c)	Pedestrian violation of Walk or Wait signals	2	1	2	0	1	2	1	1	3	2
n/a	Unknown, Pending, or None	3	0	4	1	1	2	4	0	5	2
22411	Operating motorized scooter at speed in excess of 15MPH	0	0	0	0	0	0	0	0	0	1
21657	Going against one-way traffic patterns	0	0	0	0	0	0	0	0	0	1
21658(a)	Lane straddling or failure to use specified lanes	1	0	0	0	0	0	0	0	0	1
21801(a)	Violation of right-of-way - left turn	0	1	0	0	0	0	0	0	3	1
23152(f)	Under the influence of drugs	0	0	0	0	0	0	0	0	0	1
21203	Illegal to hitch a ride on another vehicle	0	0	0	0	0	1	0	0	0	0
21650	Failure to keep to right side of road	1	1	2	0	2	0	0	0	0	0
21650.1	Bicycle to travel in same direction as vehicles (riding wrong way)	0	0	0	1	0	0	0	0	0	0
21663	Operating vehicle or bicycle on sidewalk prohibited	0	0	0	0	0	0	0	0	1	0
21955	Crossing between controlled intersections (Jaywalking)	3	1	1	2	1	0	0	1	1	0
21956	Pedestrian upon roadway	0	0	0	0	1	0	0	0	0	0
22102	Illegal U-turn in business district	0	0	0	1	1	0	0	0	0	0
22107	Unsafe turn or lane change prohibited	0	2	0	0	0	1	0	0	1	0
22517	Opening door on traffic side when unsafe	0	0	0	0	0	1	1	0	0	0
20001(a)	Duty to stop when involved in accident with injury or death	0	0	0	0	0	0	0	2	0	0
21208(a)	Riding outside bicycle lane prohibited	0	1	0	0	0	0	0	0	0	0
21453(d)	Red signal - pedestrian responsibilities	1	0	2	0	0	1	1	0	0	0
21460(a)	Remain at right of double parallel solid yellow lines - driver responsibility	0	0	0	0	1	1	0	0	0	0
21651(a,b)	Wrong way driving	0	0	1	0	0	0	0	1	0	0
21651(b)	Wrong way driving	0	0	1	0	0	0	0	0	0	0
21712(b)	Unlawful riding on vehicle or bicycle prohibited	1	0	0	0	0	0	0	0	0	0
21755(a)	Unsafe overtaking or passing by driver	0	0	0	0	0	0	1	0	0	0
21804(a)	Entering highway from alley or driveway	0	1	0	0	0	1	1	0	0	0
21950(b)	Pedestrian suddenly entering into vehicle path close enough to create an immediate hazard	3	0	0	1	0	0	0	1	1	0
21954(b)	Failure of driver or bicyclist to exercise due care for safety of pedestrian on roadway	0	0	0	0	0	1	1	0	2	0
22100(a)	Turn at intersection from wrong position	0	0	0	0	0	0	0	1	2	0
22101(d)	Violating special traffic control markers (illegal turning movement)	0	0	0	1	0	0	0	0	0	0



22450(a)	Failure to stop at STOP sign	0	0	0	0	0	0	0	0	0	1	0
22515(a)	Leaving vehicle unattended without setting the brakes or stopping the motor	0	0	0	1	0	0	0	0	0	0	0
7.213(c)13 TC	Other improper driving	0	0	0	0	0	0	0	0	1	0	0



# APPENDIX D – EXCLUSIONS: APPLYING THE VISION ZERO TRAFFIC FATALITY PROTOCOL

Data provided from San Francisco’s Office of the Medical Examiner may include fatalities that: occurred in a motor vehicle but are not directly attributable to a traffic collision; occurred outside San Francisco; or occurred more than 30 days after the collision. The Vision Zero Traffic Fatality Protocol provides exclusion criteria for these cases, consistent with national and international best practices. The purpose of the protocol is to ensure consistent reporting of traffic fatalities through uniform application of agreed-upon criteria for defining a traffic death. A shared and consistent definition ensures that we can objectively evaluate trends and the impact of our efforts over time.

Cases are excluded if the death: occurs outside of the City and County of San Francisco; occurs on private property (including Caltrain right of way); occurs in the underground MUNI or BART transportation infrastructure; is reported as a suicide based on investigation; is reported as a homicide in which the ‘party at fault’ intentionally inflicted serious bodily harm that caused the victim’s death; or is a fatality caused directly and exclusively by a medical condition or where the fatality is not attributable to road user movement on a public roadway. (Note: If a person driving suffers a medical emergency and consequently hits and kills another road user, the latter is included although the driver suffering a medical emergency is excluded.) Below is a chart of fatalities excluded from Vision Zero counts in 2022, with reasons for exclusion. *Fatalities may fall into multiple exclusion categories.*

**2023 Railway deaths:** Ten deaths excluded from the Vision Zero fatality total were associated with railways (one on Caltrain’s right of way and nine on BART’s right of way) in 2023. None of these ten were determined to be a suicide. The number of railway associated fatalities is up from two in 2022.

