



# Vision Zero Traffic Fatalities: 2019 End of Year Report

March 2020



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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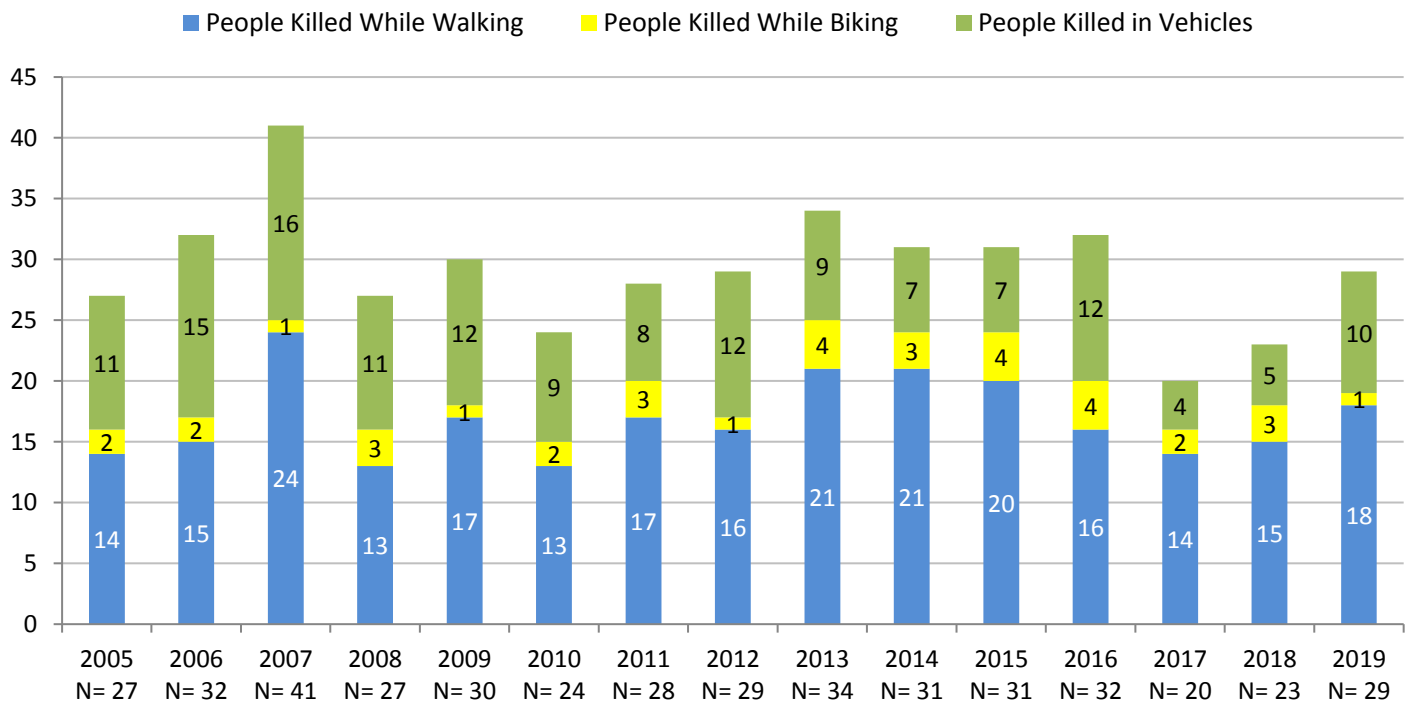
## INTRODUCTION AND NATIONAL CONTEXT

**San Francisco saw 29 traffic-related deaths in 2019.** Twenty-nine people losing their lives is unacceptable. Every death in this report represents indescribable loss suffered by an individual and the community.

**The 29 deaths in 2019 represent a 26% rise compared to 2018; 2018 represented the second lowest number of traffic deaths on San Francisco city streets in over 100 years of record. San Francisco remains committed to achieving our Vision Zero goal of zero traffic deaths.** This report summarizes traffic death patterns in 2019 to inform Vision Zero initiatives to save lives.

The following chart compares annual fatality data 2005 through 2019. After relatively stable numbers of traffic deaths in 2014-2016 following the adoption of Vision Zero, the number of traffic deaths in San Francisco fell notably in 2017 to 20 deaths, then rose in 2018 to 23 deaths, and rose again in 2019 to 29 deaths.

### San Francisco Traffic Deaths, 2005-2019



*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. 2014-2019 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.*

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/>.

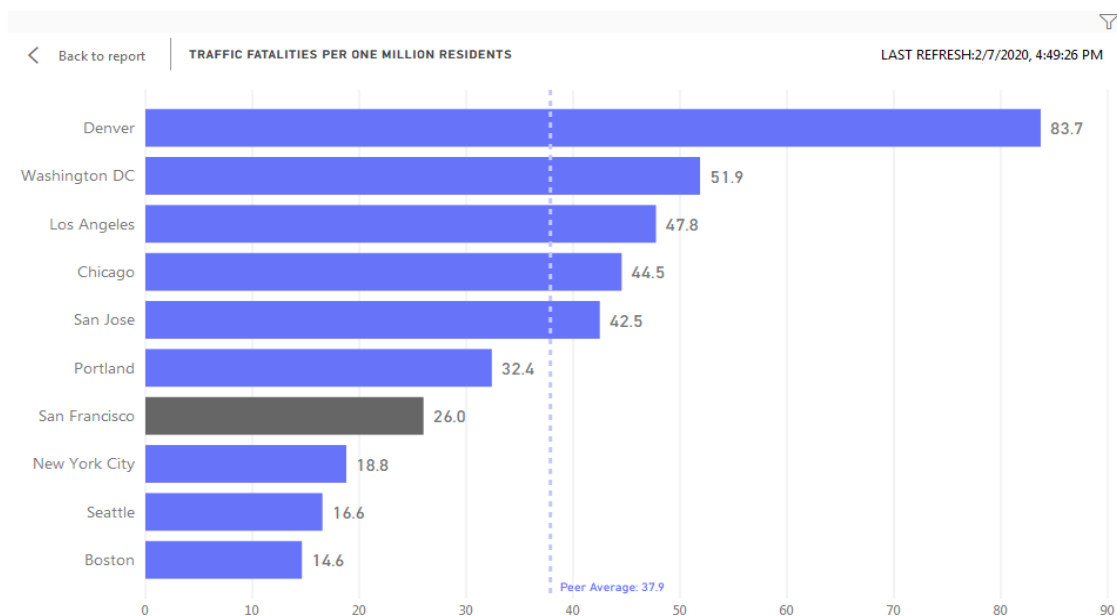
<sup>1</sup> In 2015, with periodic updates since, the City finalized and standardized the [San Francisco Vision Zero Traffic Fatality Protocol](http://visionzerosf.org/maps-data/), to ensure consistency of fatality tracking and reporting across city agencies. The protocol utilizes the traffic fatality 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



This report summarizes characteristics of traffic deaths in San Francisco from 2014-2019, in order 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. Year-to-year changes as well as annual patterns in the data where there are small sample sizes may thus be due to chance. Analyzing longer-term trends helps address this issue. SFDPH also monitors and reports on severe injuries to understand trends and characteristics of the most serious traffic-related injuries, which serves as an additional metric by which to evaluate the progress of Vision Zero efforts.<sup>2</sup>

San Francisco was the second city in the country to adopt Vision Zero and the goal of zero traffic deaths, now adopted by over 40 cities across the United States. San Francisco is frequently asked how we compare to other cities. In 2018 the Vision Zero SF team worked with the San Francisco Controller’s Office to update their Transportation Benchmarking analysis to reflect data from Vision Zero peer cities with comparable reporting systems.<sup>3</sup> Among peer cities reporting data for 2018, San Francisco ranked fourth-lowest with 26 fatalities per 1 million residents, a rate above that of Boston, Seattle and New York City and below cities including Portland, San Jose, Los Angeles and Washington DC. Data is not yet available for 2019.

## TRAFFIC FATALITIES



San Francisco’s fatality trends are in the larger context of a growing residential population, increased traffic on city streets including from transportation network companies Uber and Lyft, as well as crises on city streets related to substance use and people without housing. **In recent years in San Francisco fatalities to people walking or biking have decreased or held steady in contrast with national trends of increases in fatalities to people walking and biking – with 2018 analyses by the U.S. Department of Transportation’s National Highway Traffic Safety Administration finding the highest numbers of deaths to people walking and biking in since 1990.**<sup>4</sup>

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> Severe Injury Trends Report available at: [www.visionzerosf.org/wp-content/uploads/2019/09/Severe-Injury-Trends\\_2011-2018\\_final\\_report.pdf](http://www.visionzerosf.org/wp-content/uploads/2019/09/Severe-Injury-Trends_2011-2018_final_report.pdf)

<sup>3</sup> Benchmarking available at: <https://sfgov.org/scorecards/benchmarking/transportation>

<sup>4</sup> National Center for Statistics and Analysis. (2019, October). 2018 fatal motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 826). Washington, DC: National Highway Traffic Safety Administration.



## KEY FINDINGS

28 collisions resulted in 29 traffic deaths on San Francisco Streets in 2019.

### **High Injury Network and Communities of Concern**

- Of the 29 traffic deaths in 2019, the majority (66%, n=19) occurred on the Vision Zero High Injury Network.
- Over two-thirds (69%, n=20) of fatalities occurred in a Community of Concern in 2019, and of those about half (48%, n=14) were also on the High Injury Network.

### **Travel Mode**

- Eighteen people (inclusive of one skateboarder) were killed while walking in San Francisco, comprising the largest road user group impacted by traffic fatalities (62%).
  - Compared to 2018's fifteen fatalities, three additional people were killed while walking in 2019, in contrast to a steady decrease in pedestrian deaths seen 2014-2017.
- One person was killed while biking, comprising 3% of all traffic fatalities.
  - Compared to 2018's three fatalities, there were two fewer cyclist deaths.
- One person was killed while riding a motorcycle, comprising 3% of all traffic fatalities.
  - Compared to 2018's two motorcyclist deaths, one less person was killed while riding a motorcycle.
- Nine people were killed while travelling in a motor vehicle.
  - This contrasts notably with 2018, when three people were killed while travelling in a motor vehicle as a driver or passenger.

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

- No people without a fixed address were among 2019 Vision Zero traffic fatalities, down from 22% (n=5) of traffic fatalities in 2018. *Four people experiencing homelessness died on SF freeways or Caltrain right of way within San Francisco in 2019.*
- For the first year since year-end reporting began in 2016, the majority of traffic fatalities were female in 2019 (52%, n=15). Fifty-five percent of people killed while walking were female (n=10). The one person killed while cycling was female (n=1), while the one person killed while riding a motorcycles was male (n=1). People killed while driving were slightly more likely to be male than female (n=5 and 4, respectively).
- Forty-one percent of fatalities were of people aged 65 years or older (n=12). Half of people killed while walking were at least 65 years old (n=9/18).
- People killed in traffic collisions were predominantly of Asian (31%) and White (31%) race. By comparison, the demographic profile of San Francisco at large is approximately 34% Asian and 47% White. One in five people killed was of Hispanic ethnicity (21%, n=6), compared to 15% of San Francisco's population.

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

- Three quarters of fatal collisions involved an at fault driver, by police determination (n=21, 75%).
- The most common turn movement preceding a collision was proceeding straight (52%), followed by turning left (38%).
- At fault drivers spanned the age spectrum. Three were young adults (14%, defined as age 18-24), and four were seniors (19%, age 65 or more).

### **Hit and Run Collisions**

- Four traffic fatalities (14%) from three hit and run collisions resulted in the death of two pedestrians and two occupants of a motor vehicle in 2019. This is a decrease from 2018, during which 7 fatalities resulted from hit and run collisions.



**Primary Collision Factors**

- Among 28 collisions leading to 29 fatalities, the most-cited collision factors were driver failure to yield at crosswalks, unsafe speed, and failure to stop at a red signal— the same three collision factors that have topped the list each year since reporting began in 2016.
  - The most commonly-cited primary collision factor was failure by a driver to yield right-of-way at crosswalks (CVC 21950(a)), cited as the primary or secondary factor in 31% (n=9) of fatalities. This was also the leading collision factor 2017-2018.
  - The second most commonly-cited primary collision factors were unsafe speed (CVC 22350) and driver failure to stop at a red signal (CVC 21453(a)), at 14% (n=4) and 10% (n=3), respectively.
  - Two fatalities (7%) resulted from collisions primarily caused by pedestrian signal violations. Two fatalities (7%) resulted from collisions primarily caused by a driver under the influence (DUI) of alcohol, according to police assessment. DUI is a focus of further analysis for Vision Zero in 2020.

California Vehicle Code (CVC)	Primary Collision Factor Description	Count (N=29)
21950(a)	Driver failure to yield right-of-way at crosswalks	8
22350	Unsafe speed for prevailing conditions	4
21453(a)	Red signal - driver responsibilities	3
23152(a)	Driver under the influence of alcohol	2
21456(c)	Pedestrian violation of Walk or Wait signals	2
21954(a)	Pedestrians must yield right-of-way outside of crosswalks	1
21460(a)	Remain at right of double parallel solid yellow lines - driver responsibility	1
22107	Unsafe turn or lane change prohibited	1
21453(d)	Red signal - pedestrian responsibilities	1
21804(a)	Entering highway from alley or driveway	1
21954(b)	Failure of driver or bicyclist to exercise due care for safety of pedestrian on roadway	1
22517	Opening door on traffic side when unsafe	1
21203	Illegal to hitch a ride on other vehicle	1
n/a	Unknown, Pending, or None	2

**Large Vehicle Involvement**

Of 28 fatal traffic collisions in 2019, four (14%) involved a large vehicle. In one of those crashes, the driver (of a semi-truck) was determined to be at fault.

**Ride-Hail Involvement**

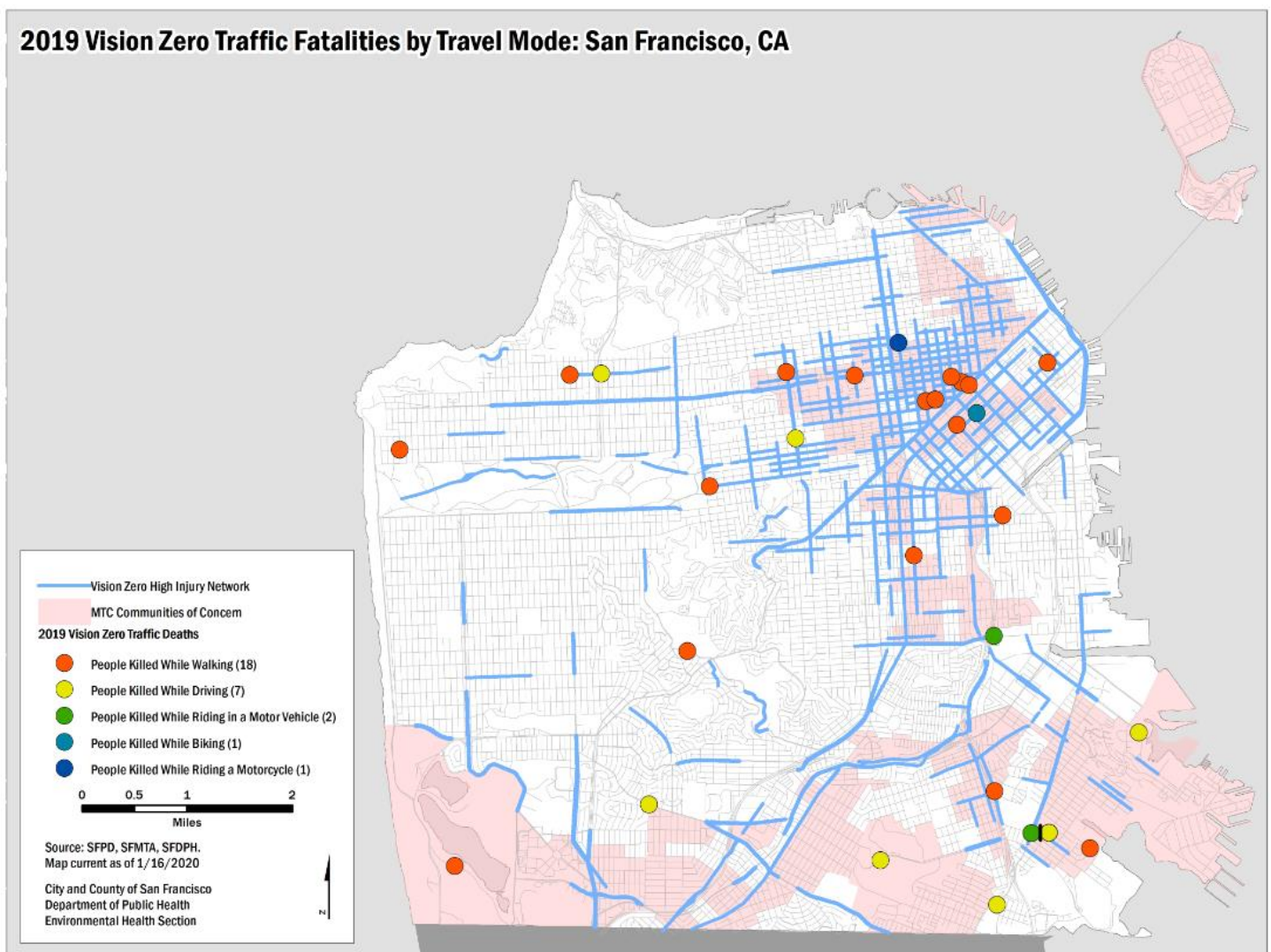
No drivers of Transportation Network Company (TNC, i.e. Uber or Lyft) or taxi vehicles were determined to be at fault in a fatal collision in 2019; one fatal collision involved a taxi and two others involved a TNC vehicle.



## THE VISION ZERO HIGH INJURY NETWORK AND COMMUNITIES OF CONCERN

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>5</sup> incorporates both police and hospital data and represents the 13% of San Francisco streets where more than 75% of severe and fatal traffic injuries occur. The majority (52%, or 66/128 miles) of the VZHIN is in the Metropolitan Transportation Commission's (MTC) Communities of Concern,<sup>6</sup> which contain 31% of the city's surface streets. Communities of Concern are areas with high concentrations of poverty, communities of color, seniors and other vulnerable populations.

- In 2019, two-thirds (66%; n=19) of traffic fatalities occurred on the Vision Zero High Injury Network.
- Similarly, two-thirds (69%, n=20) fatalities occurred in a Community of Concern in 2019, 48% (n=14) of which were on the VZHIN.



<sup>5</sup> Source: San Francisco Department of Public Health-Program on Health, Equity and Sustainability. 2018. Vision Zero High Injury Network: 2018 Update – A Methodology for San Francisco, California. San Francisco, CA. Available at:

<https://www.sfdph.org/dph/eh/PHES/PHES/TransportationandHealth.asp>.

<sup>6</sup> Source: Plan Bay Area: 2040 Plan, 2018. <http://www.planbayarea.org/2040-plan/plan-details/equity-analysis>



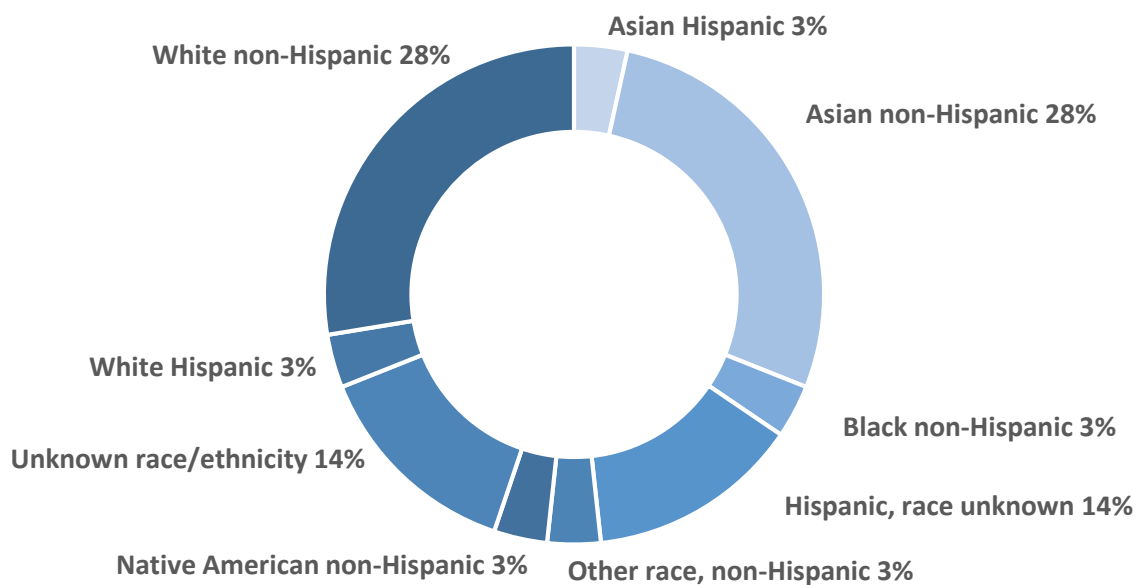


## RACE AND ETHNICITY

People killed in traffic collisions in 2019 were predominantly of White (31%, n=9) or Asian (31%, n=9) races. In addition, of those who died, 3% (n=1) were Black, 3% (n=1) were Native American, 3% (n=1) were of another race, and 28% (n=8) were of unknown race. Compared to the demographic profile of San Francisco at large (approximately 34% Asian, 47% White, 5% Black, and under 1% Native American among people reporting a single race),<sup>7</sup> White individuals are slightly under-represented and Native American individuals are over-represented in these fatality data. Black and Asian individuals are represented among traffic fatalities in similar proportion to their presence in the San Francisco population. Regarding ethnicity, 15% of San Francisco's population is Hispanic while a higher proportion (21%, n=6) of those killed in traffic in 2019 were Hispanic.<sup>8,9</sup>

Race and Ethnicity\* of 2019 Traffic Fatalities (N=29)

\*Race and ethnicity per Office of the Medical Examiner



<sup>7</sup> Source: U.S. Census Bureau, 2009-2018 American Community Survey 5-Year Data

<sup>8</sup> Source: U.S. Census Bureau, 2009-2018 American Community Survey 5-Year Data

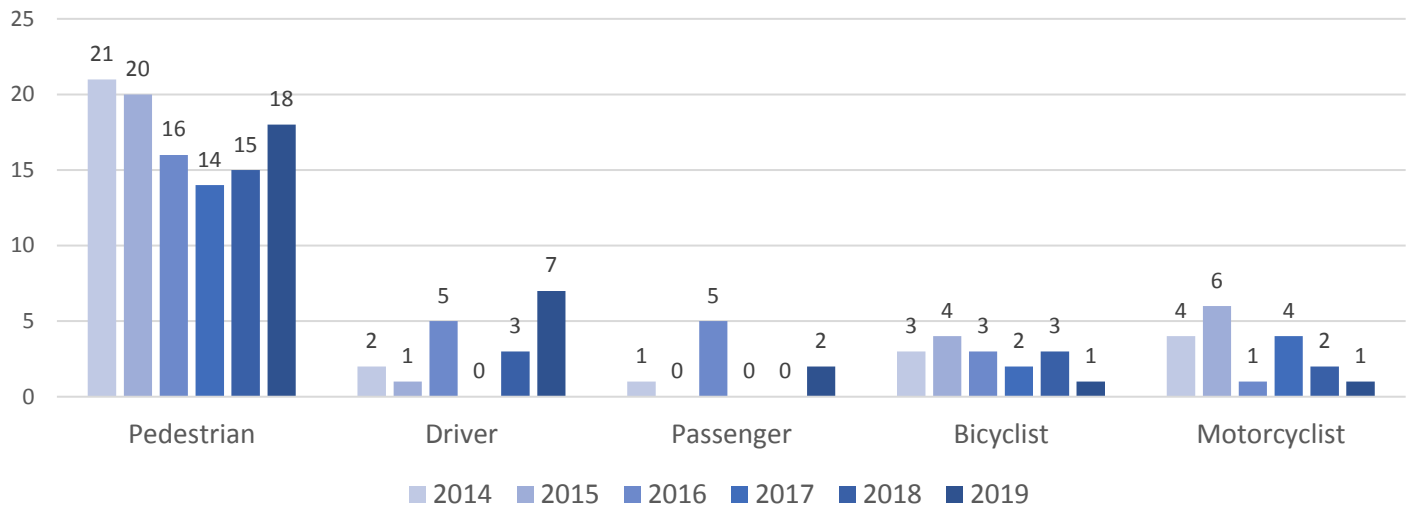
<sup>9</sup> Note: San Francisco is a city with significant tourist and commuter populations. Though members of these groups are also at risk of injury or death while traveling on San Francisco streets, they are not reflected in the Census population estimates for San Francisco.



## TRAVEL MODE

Pedestrians are consistently the most vulnerable road users in San Francisco, accounting for over half of all fatalities (62%; n=18). In 2019, there were three more pedestrian deaths relative to the year prior. All pedestrian fatalities resulted from collisions with a motor vehicle. One person was killed while biking, representing two fewer cyclist deaths than in 2018. Motorcyclist fatalities saw a second year of decline, with one motorcyclist death in 2019. Those killed in motor vehicles (comprised of drivers and passengers) increased notably from three people in 2018 to nine people in 2019. The fatality count rise in 2019 - from 23 to 29 deaths - *largely reflects this marked increase in deaths among occupants of motor vehicles.*

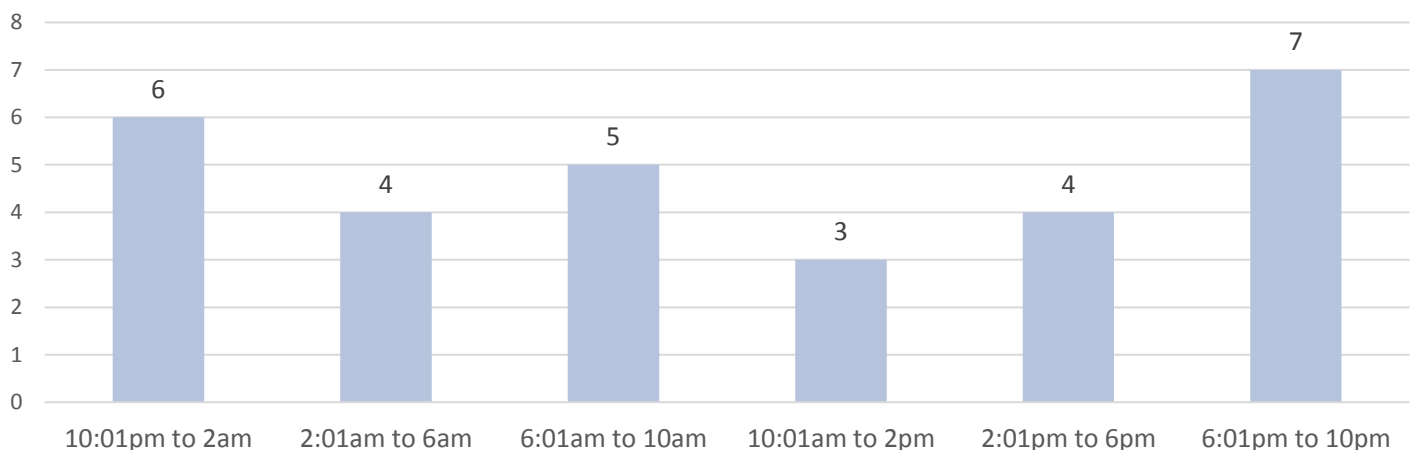
Fatalities by Mode (2014-2019)



## TIME OF DAY

Collisions resulting in traffic fatalities in 2019 occurred more frequently in the evening and early morning hours with peak numbers occurring between 6:01pm and 10pm (24%, n=7). Fatal collision time of day has shown notable variation from year to year.

Fatalities by Collision Time of Day (2019; N=29 collisions)



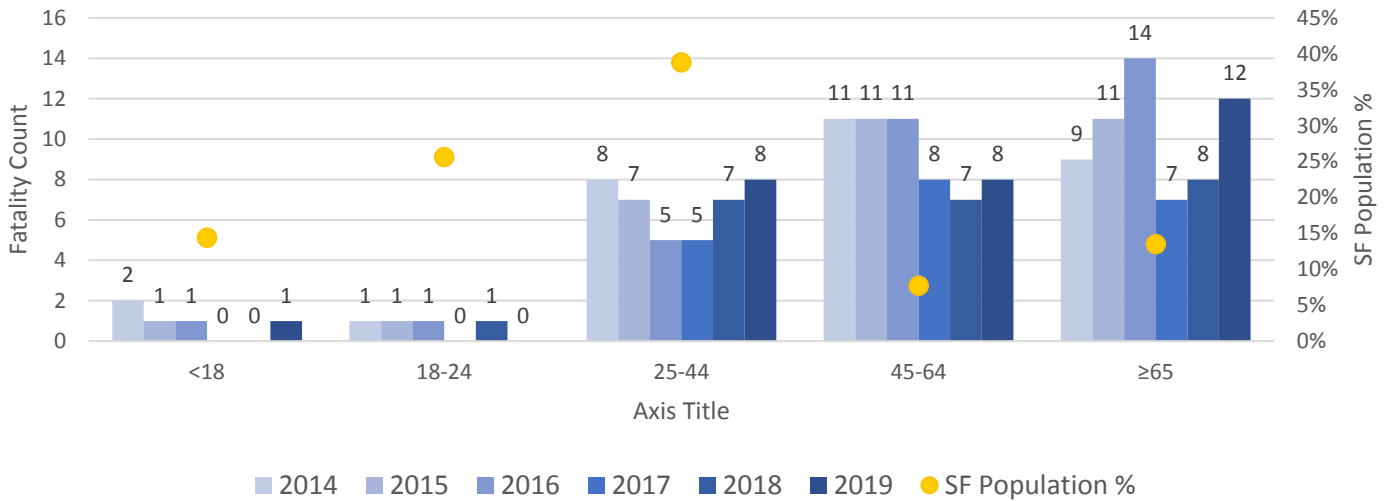


## AGE

Seniors (aged 65 and up) suffer a disproportionate rate of traffic fatalities. While only 15% of San Francisco’s total population<sup>10</sup>, seniors accounted for 41% (n=12) of all traffic fatalities in 2019. Looking specifically at pedestrian fatalities in 2019, half (n=9/18) were people age 65 and older and about three-quarters (72%, n=13) were people age 50 and older (data in Appendix A).

Notably, one youth (under 18 years) died as a result of a traffic collision in 2019. Historically, fewer youth die from traffic injury than people in other age groups in San Francisco.

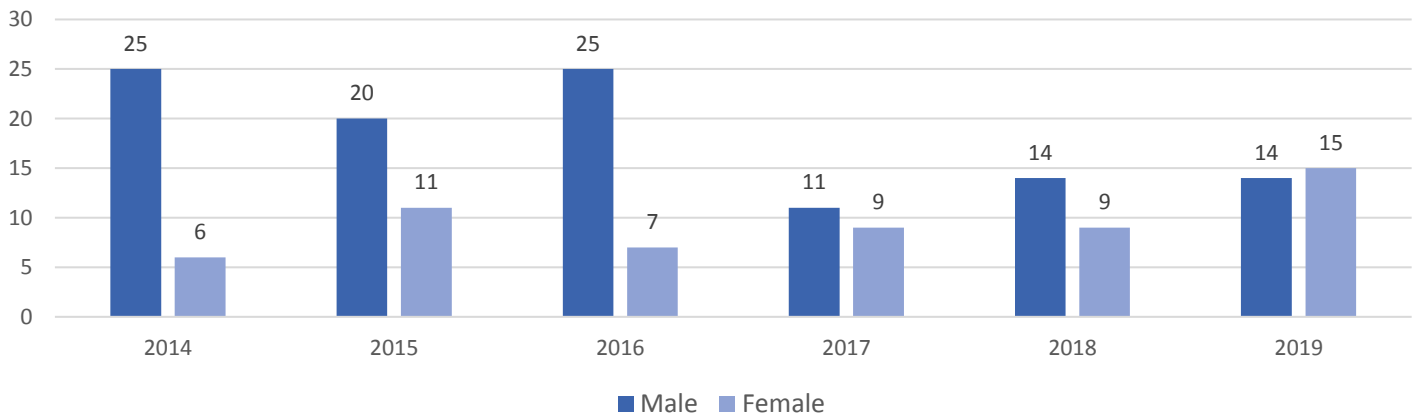
Fatalities by Age (2014-2019)



## SEX

Females and males are about equally represented among traffic fatalities in 2019. For the first time since Vision Zero was adopted, more females than males were killed on San Francisco streets (n=15 female deaths). However, fatality mode reveals different patterns between males and females: Almost three quarters of drivers who died were male (71%; n=5/7), and 100% of motorcyclists who died were male (n=1). By contrast, a slight majority of pedestrians who died were female (55%, N=10/18), and all bicyclists and motor vehicle passengers killed were female (n=1 and 2, respectively).

Fatalities by Sex (2014-2019)



<sup>10,9</sup> Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



## 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 crashes. In 2019, no people without a fixed address were killed on City streets, down from 22% of fatalities in 2018. The homeless population of San Francisco is estimated to be 8,011<sup>11</sup>, making up only 0.9% of the City population<sup>12</sup>. While no people experiencing homelessness were among Vision Zero deaths, over a quarter of fatalities occurring on SF freeways were to people without a fixed address (27%, n=3/11, Appendix B). In addition, one person who died on Caltrain right of way had no fixed address. People experiencing homelessness are particularly vulnerable to traffic injury.

## PRIMARY COLLISION FACTORS

Driver failure to yield, unsafe speed and not stopping at a red signal were top primary collision factors in 2019, as in prior years. Two fatalities resulted from collisions primarily caused by a driver under the influence (DUI) of alcohol, according to police assessment. DUI is a focus of further analysis for Vision Zero in 2020. Six fatal collisions involved a secondary collision factor (*noted in Appendix A*). Of pedestrian fatalities which have vehicle code information available, police classified three quarters (n=12/16) as caused primarily by the driver of a vehicle. Counts of primary collision factors by year can be found in Appendix C.

## DRIVER AGE (FOR DRIVERS DETERMINED TO BE AT FAULT)

Three quarters of fatal collisions were determined by police to be the responsibility of a driver or motorcyclist (75%, n=21/28)<sup>13</sup>. At fault drivers spanned the age spectrum. Three were young adults (14%, defined as age 18-24), and four were seniors (19%, age 65 or more).

## TURN MOVEMENT PRECEDING COLLISION

In 21 driver-at-fault fatal traffic collisions, just over half of cases involved drivers proceeding straight prior to collision (52%, n=11). Eight (38%) involved a left-turning vehicle or motorcycle, and one each involved a door of a parked vehicle opening into the roadway, or an unknown movement preceding collision (5% each).

## LARGE VEHICLE INVOLVEMENT

Of 28 fatal traffic collisions in 2019, four (14%) involved a large vehicle<sup>14</sup>. Two involved semi-trucks, one involved a Golden Gate transit bus, and one involved a paratransit vehicle. Of 21 fatal collisions with a driver at fault, one involved a large vehicle (a semi-truck).

## RIDE-HAIL INVOLVEMENT

Ride-hail includes Transportation Network Companies (TNCs) like Uber and Lyft, as well as traditional taxis. In 2019, TNCs and taxis were not determined by police to be at fault in any fatal traffic collisions. A TNC was a party in a fatal collision involving the deaths of one driver and a passenger. A taxi was a party in a fatal collision involving the death of a pedestrian.

## HIT AND RUN COLLISIONS

In 2019, 14% (n=4) of traffic fatalities resulted from a collision in which the driver left the scene, comprising two motor vehicle occupant and two pedestrian deaths. While this represents a decline from seven hit and run collisions in 2018, the issue remains concerning. In 2018 over 30% of all traffic fatalities resulted from a collision in which a driver left the scene. In 2017, a single fatality resulted from a hit and run collision.

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<sup>11</sup> Source: Applied Survey Research, 2019 San Francisco Homeless Count & Survey Comprehensive Report. [http://hsh.sfgov.org/wp-content/uploads/2019HIRDReport\\_SanFrancisco\\_FinalDraft.pdf](http://hsh.sfgov.org/wp-content/uploads/2019HIRDReport_SanFrancisco_FinalDraft.pdf)

<sup>12</sup> San Francisco population estimate of 883,305. Source: U.S. Census Bureau, Population Estimates Program, July 1, 2019

<sup>13</sup> At the time of publication, one of 28 fatal collisions was still pending determination of the responsible party.

<sup>14</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.



## APPENDIX A – TABLE OF 2019 VISION ZERO TRAFFIC FATALITIES

#	Collision Date	Collision Time	Deceased	Victim Sex	Victim Age	Collision Type	Primary (Secondary) Collision Factor	Hit and Run	Collision Location <sup>15</sup>
1	1/1/2019	1800	Pedestrian	F	84	Vehicle vs. Pedestrian	21804	N	Haight Street and Stanyan Street
2	1/28/2019	1755	Pedestrian	F	84	Vehicle vs. Pedestrian	21950(a)	N	46th Avenue and Cabrillo Street
3	2/9/2019	720	Driver	F	78	Motor Vehicle Collision	22107	N	IFO 2189 Bayshore Boulevard
4	2/26/2019	2007	Pedestrian	F	64	Pedestrian vs. Vehicle	21950(a)	Y	18th Avenue and California Street
5	3/1/2019	1908	Driver	M	44	Motor vehicle collision	21460(a)	N	Mansell Street near Visitacion Avenue
6	3/1/2019	1225	Pedestrian	M	37	Pedestrian vs. Vehicle	21954(a)	N	IFO 255 Woodside Avenue
7	3/5/2019	1029	Pedestrian	F	58	Pedestrian vs. Vehicle	21954(b) (21955)	N	Golden Gate Avenue at Leavenworth Street
8	3/8/2019	819	Bicyclist	F	30	Bicyclist vs. Vehicle	22517	N	IFO 992 Howard Street
9	3/15/2019	1816	Pedestrian	F	14	Pedestrian vs. Vehicle	21950(a)	N	IFO 655 John Muir Drive
10	3/31/2019	303	Passenger	F	31	Motor Vehicle Collision	22350	N	Cesar Chavez Street near Kansas Street
11	4/23/2019	1216	Pedestrian	M	26	Pedestrian vs. Vehicle	21203	N	IFO 160 7th Street
12	5/1/2019	830	Pedestrian	F	77	Pedestrian vs. Vehicle	21950(a)	N	Divisadero Street and Sutter Street
13	5/11/2019	1900	Pedestrian	M	66	Pedestrian vs. Vehicle	None	N	Hyde Street and Golden Gate Avenue
14	5/11/2019	2212	Motorcyclist	M	47	Motorcycle Collision	22350	N	Polk Street and Pine Street
15	5/29/2019	525	Pedestrian	F	85	Pedestrian vs. Vehicle	21456(c) (21950(a))	N	Geary Boulevard and Laguna Street
16	6/23/2019	120	Driver	M	27	Motor vehicle collision	21453(a)	Y	Third Street and Paul Avenue
17	6/23/2019	120	Passenger	F	49	Motor vehicle collision	21453(a)	Y	Third Street and Paul Avenue

<sup>15</sup> IFO stands for “in front of”



#	Collision Date	Collision Time	Deceased	Victim Sex	Victim Age	Collision Type	Primary (Secondary) Collision Factor	Hit and Run	Collision Location
18	6/24/2019	302	Driver	M	56	Motor vehicle collision	23152(a) (22350)	N	California Street and Funston Avenue
19	6/27/2019	200	Pedestrian	M	30	Pedestrian vs. Motor Vehicle	21950(a)	N	First Street and Howard Street
20	7/18/2019	542	Pedestrian	M	54	Pedestrian vs. Motor Vehicle	21950(a)	N	Eddy Street and Mason Street
21	7/21/2019	1410	Pedestrian	M	39	Pedestrian vs. Motor Vehicle	21453(a) (22350)	N	Taylor Street at O'Farrell Street
22	8/4/2019	2356	Pedestrian	M	59	Pedestrian likely struck by motor vehicle	Pending	Y	1150 Carroll Street/ Carroll and Giant Streets
23	8/10/2019	2050	Pedestrian	F	79	Pedestrian vs. Motor Vehicle	21453(d)	N	Market Street and 5th Street
24	10/6/2019	1539	Driver	M	50	Motor Vehicle Collision	22350 (21460(a))	N	Westbound Hunter's Point Boulevard at Evans Avenue
25	10/13/2019	1957	Driver	F	70	Motor Vehicle Collision	23152(a) (21453(a))	N	Divisadero Street and Grove Street
26	10/31/2019	1526	Pedestrian	F	69	Pedestrian vs. Motor Vehicle	21950(a)	N	19th Street and South Van Ness Avenue
27	11/2/2019	848	Pedestrian	M	77	Pedestrian vs. Motor Vehicle	21950(a)	N	16th Street at De Haro Street
28	12/7/2019	607	Pedestrian	F	79	Pedestrian vs. Motor Vehicle	21456(c)	N	Bacon Street and Bayshore Boulevard
29	12/21/2019	100	Driver	M	66	Motor Vehicle Collision	22350	N	Ocean Avenue and Ashton Avenue



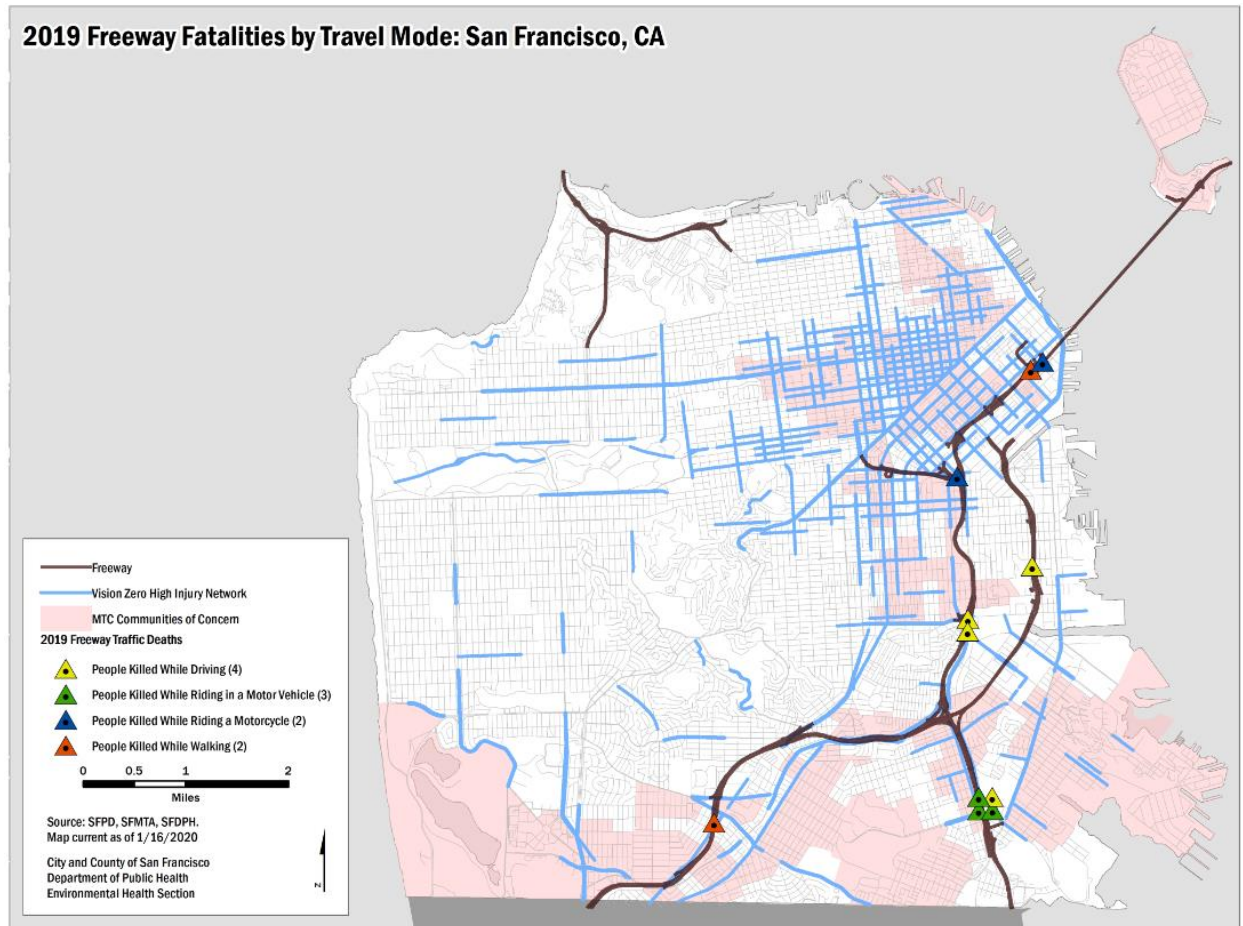
## APPENDIX B – TRACKING SEPARATE FROM VISION ZERO TOTALS: FATALITIES ON FREEWAYS, AT SAN FRANCISCO INTERNATIONAL AIRPORT, AND IN THE PRESIDIO

Eleven people (2 people walking, 3 people riding in a motor vehicle, 4 drivers, and 2 people riding motorcycles) were killed in transportation-related collisions on freeways in San Francisco in 2019. In 2019 wrong-way freeway driving resulted in two separate collisions with multiple fatalities, with one killing two people and another killing four.

Separate from the freeway fatality count, one person walking died at San Francisco International Airport (private property under San Mateo County jurisdiction) in 2019. There were no traffic deaths in the Presidio in 2019.

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. 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 right-of-ways in San Francisco.

**2019 Freeway Fatalities by Travel Mode: San Francisco, CA**





FATALITIES ON FREEWAYS

#	Collision Date	Deceased	Collision Type	Victim Age	Victim Sex	Collision Time	Collision Location
1	1/7/2019	Pedestrian	Pedestrian vs. Auto	32	F	2345	Eastbound 80 east of the 1st Street on ramp
2	2/3/2019	Driver	Motor Vehicle Collision	21	F	0230	Northbound US 101 south of Vermont Street
3	2/3/2019	Driver	Motor Vehicle Collision	40	M	0230	Northbound US 101 south of Vermont Street
4	4/30/2019	Motorcyclist	Motor Vehicle Collision (Motorcycle)	36	M	0738	Westbound 80 at Bay Bridge and Fremont Street
5	7/4/2019	Pedestrian	Pedestrian vs. Motor Vehicle	53	M	1705	Northbound 280 at Geneva Avenue exit
6	9/15/2019	Motorcyclist	Motorcycle collision with fall	29	M	0130	Westbound 80 to NB 101 near San Bruno Avenue at Division Street
7	10/3/2019	Passenger	Motor Vehicle Collision	57	F	0024	Northbound 101 north of Paul Avenue (at Bayshore Boulevard overpass)
8	10/3/2019	Passenger	Motor Vehicle Collision	62	M	0024	Northbound 101 north of Paul Avenue (at Bayshore Boulevard overpass)
9	10/3/2019	Driver	Motor Vehicle Collision	43	M	0024	Northbound 101 north of Paul Avenue (at Bayshore Boulevard overpass)
10	10/3/2019	Driver	Motor Vehicle Collision	34	F	0024	Northbound 101 north of Paul Avenue (at Bayshore Boulevard overpass)
11	12/1/2019	Driver	Motor Vehicle Collision	31	M	0415	Southbound 280 at 25th Street exit ramp

FATALITIES AT SAN FRANCISCO INTERNATIONAL AIRPORT

#	Collision Date	Deceased	Collision Type	Victim Age	Victim Sex	Collision Time	Collision Location
1	7/1/2019	Pedestrian	Pedestrian vs. Auto	33	M	1515	San Francisco International Airport arrival terminal





## APPENDIX C – PRIMARY COLLISION FACTORS BY YEAR

CA Vehicle Code	Primary Collision Factor Description	2014	2015	2016	2017	2018	2019
21950(a)	Driver failure to yield right-of-way at crosswalks	6	9	6	7	5	8
22350	Unsafe speed for prevailing conditions	6	7	3	4	3	4
21453(a,c)	Red signal - driver or bicyclist responsibilities	2	4	8	1	2	3
21456(b,c)	Pedestrian violation of Walk or Wait signals	1	1	2	0	1	2
23152(a)	Under the influence of alcohol or drug	1	1	2	0	1	2
21954(a)	Pedestrians must yield right-of-way outside of crosswalks	2	2	1	0	3	1
21460(a)	Remain at right of double parallel solid yellow lines - driver responsibility	0	0	0	0	1	1
22107	Unsafe turn or lane change prohibited	0	2	0	0	0	1
21453(d)	Red signal - pedestrian responsibilities	1	0	2	0	0	1
21804(a)	Entering highway from alley or driveway	0	1	0	0	0	1
21954(b)	Failure of driver or bicyclist to exercise due care for safety of pedestrian on roadway	0	0	0	0	0	1
22517	Opening door on traffic side when unsafe	0	0	0	0	0	1
21203	Illegal to hitch a ride on other vehicle	0	0	0	0	0	1
n/a	Unknown, Pending, or None	3	0	4	1	1	2
21650	Failure to keep to right side of road	1	1	2	0	2	0
21955	Crossing between controlled intersections (Jaywalking)	3	1	1	2	1	0
21956	Pedestrian upon roadway	0	0	0	0	1	0
22102	Illegal U-turn in business district	0	0	0	1	1	0
22106	No starting or backing vehicle while unsafe	0	0	0	0	1	0
22101(d)	Violating special traffic control markers (illegal turning movement)	0	0	0	1	0	0
22515(a)	Leaving vehicle unattended without setting the brakes or stopping the motor	0	0	0	1	0	0
21650.1	Bicycle to travel in same direction as vehicles (riding wrong way)	0	0	0	1	0	0
21950(b)	Pedestrian suddenly entering into vehicle path close enough to create an immediate hazard	3	0	0	1	0	0
21208(a)	Riding outside bicycle lane prohibited	0	1	0	0	0	0



CA Vehicle Code	Primary Collision Factor Description	2014	2015	2016	2017	2018	2019
21651(b)	Wrong way driving	0	0	1	0	0	0
21658(a)	Lane straddling or failure to use specified lanes	1	0	0	0	0	0
21712(b)	Unlawful riding on vehicle or bicycle prohibited	1	0	0	0	0	0
21801(a)	Violation of right-of-way - left turn	0	1	0	0	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: In the event that 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 2019, with reasons for exclusion. *Fatalities may fall into multiple exclusion categories.* Fatalities included in Appendix B are not represented here.

**2019 Suicide and Railway deaths:** Six deaths were associated with railways (specifically BART (n=3) and Caltrain (n=3)) in 2019. Three-quarters of traffic deaths determined to be suicides in 2019 were also railway collisions (n=3/4).

Vision Zero Traffic Fatality Protocol Exclusions (2019)  
N=12 Total; Fatalities within SF may fall in multiple categories

