

CITY OF OAKLAND



Bicyclist and Pedestrian Advisory Commission, Policy and Legislative Committee Meeting Agenda Monday, February 10th, 2025; 5:30-7:00 pm

City Hall, Hearing Room 3

- BPAC Home Page: www.oaklandca.gov/boards-and-commissions/bicyclist-and-pedestrian-advisory-commission
- Resources for Commissioners: <https://www.oaklandca.gov/resources/resources-for-bpac-members>
- Previous Meeting Information and Minutes: <https://www.oaklandca.gov/meeting/november-2024-bicyclist-pedestrian-advisory-commission-bpac-policy-and-legislative-committee-meeting>

Commissioner Members (Co-chairs in bold)

Jimmy Jessup, David Ralston, **Nick Whipps**, Kirsten Flagg

Community Members (Co-chairs in bold)

Anwar Baroudi, Ajah Burts, **Kevin Dalley**, Caleb Jones, Alison Knowles, Natalie Mall, Robert Prinz, Alex Frank

This is an in-person meeting. People participating in the meeting must attend in person. Remote participation including public comment via teleconferencing is not available at this time. All Commission meetings will include procedures to comply with the open meeting requirements of the City's [Sunshine Ordinance](#) and the State's [Brown Act](#).

If you have any questions, please email Pierre Gerard (PGerard@oaklandca.gov) or Noel Pond-Danchik (NPond-Danchik@oaklandca.gov), staff liaisons to the Commission.

PARTICIPATION INSTRUCTIONS

Enter City Hall at the entrance on 14th Street. After receiving a security screening, proceed immediately to the left of the security area. Hearing Room 3 is located on the 1st floor of City Hall on the side of the building closest to 14th Street. There will be a sign-in sheet and paper agenda packets for participants.

There is public bicycle parking in the [Dalziel Garage](#) and [throughout Frank H. Ogawa Plaza](#), including 12 [BikeLink](#) eLockers at [the corner of 14th Street and Broadway](#).

To request security escort services anywhere within Frank Ogawa Plaza and locations outside the Plaza within a two- to three-block radius, please visit the City Hall security station. The escort can assist visitors to the 12th Street BART Station stairway/elevator, the Dalziel Garage elevator inside 250 Frank Ogawa Plaza, the City Center West parking garage, and other public parking garages in the nearby area. Escort services are available until 11:30 pm every night and extended on nights coinciding with City Council meetings.

To access the Dalziel Garage elevators inside 250 Frank Ogawa Plaza, please visit the City Hall security station to request access to the gated wheelchair-accessible exit behind City Hall and exit through the gate across from the elevator entrance to the left of the front doors to 250 Frank Ogawa Plaza.

Time	#	Topic
5:30	1	Introductions (5 minutes)
5:35	2	Public Comment (10 minutes) - Members of the public may comment on any issue within BPAC Policy and Legislative Committee's subject matter jurisdiction. Comments on a scheduled agenda item will be heard with that item. To request City services, please contact the City of Oakland Call Center; information at www.oaklandca.gov/services/oak311 .
5:45	3	Tracking current issues and future agenda item suggestions (15 minutes) – The Committee will discuss the status of ongoing issues tracked by the Policy and Legislative Committee. Some examples include Oakland's Fire Code Amendments, tracking 311 service requests, and the pedestrian plan update.
6:00	4	Recommendation to OFD for street trauma prevention <i>Attachment</i> (30 minutes) – The Committee will discuss a recommendation that the Oakland Fire Department (OFD) expand its traditional response mission to include a “street trauma prevention” component. <ul style="list-style-type: none"> • 8/6/24 news article from the Berkeley Scanner: https://www.berkeleyscanner.com/2024/08/06/traffic-safety/berkeley-street-trauma-prevention-program-mike-wilson-meg-schwarzman/ • 2/28/24 meeting agenda of the City of Berkeley Disaster and Fire Safety Commission, which includes presentation on Berkeley Fire Department's street trauma prevention: https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/DFSC%20Agenda%20Packet%2024-02-08.pdf
6:30	5	Improved reporting of traffic injuries and fatalities (30 minutes) The Alameda County Public Health Department (ACPHD) is planning to help Safe Oakland Streets by supplementing the police crash data with EMS and possibly other data sources. This will provide more details on crashes and add injuries where the police were not involved. The plans are just beginning and include (1) collecting EMS data from the Public Health Department's parent agency, Alameda County Health; (2) working with Highland Hospital to get institutional review board (IRB) approval and oversight to protect confidentiality; (3) working with Highland Hospital to get trauma and/or emergency department data; (4) match these data sources; (5) examine the results and share them with Oakland Department of Transportation in an aggregated way. The Alameda County Public Health Department is using the San Francisco Vision Zero program (https://www.visionzerosf.org/) as a model. <p>Speakers: Matt Beyers, Supervising Epidemiologist at Alameda County Public Health Department; Megan Wier, Assistant Director at City of Oakland Department of Transportation (OakDOT)</p>



This meeting location is wheelchair accessible. To request disability-related accommodations or to request an ASL, Cantonese, Mandarin, or Spanish interpreter, please email bikeped@oaklandca.gov or call (510) 238-6313 or 711 (for Relay Service) at least five (5) working days before the meeting. Please refrain from wearing scented products to this meeting as a courtesy to attendees with chemical sensitivities.

Esta reunión es accesible para sillas de ruedas. Si desea solicitar adaptaciones relacionadas con discapacidades, o para pedir un intérprete en español, Cantonés, Mandarín o de lenguaje de señas (ASL) por favor envíe un correo electrónico a bikeped@oaklandca.gov o llame al (510) 238-6313 o al 711 para servicio de retransmisión (Relay Service) por lo menos cinco (5) días hábiles antes de la reunión. Se le pide de favor que no use perfumes a esta reunión como cortesía para los que tienen sensibilidad a los productos químicos. Gracias.

會場有適合輪椅出入設施。需要殘障輔助設施, 手語, 西班牙語, 粵語或國語翻譯服務, 請在會議前五個工作天電郵 bikeped@oaklandca.gov 或致電 (510) 238-6313 或 711 (電話傳達服務)。請避免塗搽香氛產品, 參加者可能對化學成分敏感。請避免塗搽香氛產品, 參加者可能對化學成分敏感。

Địa điểm tổ chức cuộc họp có đường dành riêng cho xe lăn. Để yêu cầu các phương tiện hỗ trợ phục vụ người khuyết tật hoặc yêu cầu thông dịch viên ASL, tiếng Quảng Đông, tiếng Quan Thoại hoặc tiếng Tây Ban Nha, vui lòng gửi email đến địa chỉ bikeped@oaklandca.gov hoặc gọi đến số 711 (với Dịch vụ Tiếp âm) ít nhất năm (5) ngày làm việc trước khi cuộc họp diễn ra. Vui lòng không sử dụng các sản phẩm có mùi thơm khi tham gia cuộc họp này như một phép lịch sự đối với những người tham dự nhạy cảm đối với các chất hóa học.

The City of Oakland Bicyclist and Pedestrian Advisory Commission (BPAC) Policy and Legislative Committee is composed of BPAC Commissioners and other volunteer members of the public. This Committee examines Oakland's streets through the lens of safety and movement challenges faced by pedestrians and bicyclists, and makes policy suggestions that city agencies can implement to these issues.

These meetings are held in public once per quarter, at which topics for subcommittees, which meet ad-hoc for specified periods of time to develop policy recommendations to be presented at the full committee, are decided upon. The quarterly meeting will follow all the requirements for a commissioner meeting, including proper noticing and minutes, and will be held in person.

During the quarterly meeting, the committee will discuss which topics to pursue, continue or close. Ad-hoc working groups will have the freedom to choose how and when they meet in the interim.

Agenda materials, presentations and schematics are distributed in advance of meetings when possible, to assist committee members with formulating questions and ideas. All presentation items used will be linked from the individual meeting notes documents, for public information purposes and as a historical record of the committee meetings, along with the written notes provided.

Topics are prioritized and selected for review by the committee using a number of factors. These factors include but are not limited to:

- Urgency: The risk a situation presents;
- Policy Relevance: Whether the issue can be solved with a change to city agency policy;
- Public interest: As expressed at BPAC meetings or via requests from the public to Commissioners, staff, or elected officials;
- Safety: Whether there is a history of injuries from the policy failure, or significant risk presented.



Photo: David Yee for Berkeleyside, 12/09/2016

Street Trauma Prevention: Implementing Vision Zero at the Berkeley Fire Department

Policy and Legislative Committee
Oakland Bicyclist and Pedestrian Advisory Commission (BPAC)

Prepared by Mike Wilson
Commissioner, Berkeley Disaster and Fire Safety Commission
February 10, 2025



Megan Schwarzman with Oliver Wilson, age 11 months, January 2016.



Photo: Mike Wilson

Transported to Highland Hospital Level 1 Trauma Center.

- 5 pelvic fractures
- 36 rib fractures
- R side Pneumothorax
- L side Hemopneumothorax
- Orbital/facial fracture
- Clavicle fracture
- Lacerated liver
- Multiple abrasions
- Severe internal bleeding



Photo: Wikipedia



Photo: Mike Wilson

Highland Hospital ICU after 8 days and multiple surgeries

“After the crash, time was precious. The trauma surgeon later told her, had it taken five minutes more to get to Highland, she wouldn’t have lived.”

Emily Raguso, *Berkeleyside* (Dec 9, 2016) Unstoppable: Berkeley cyclist’s miraculous recovery after crash that nearly killed her.



Photo: Mike Wilson

Fire Station 2, March 22, 2016

Most of Engine 2, Truck 2, Medic 2, Medic 5, Battalion 2

They saved Meg's life on Feb 2, 2016.



Photo: Mike Wilson

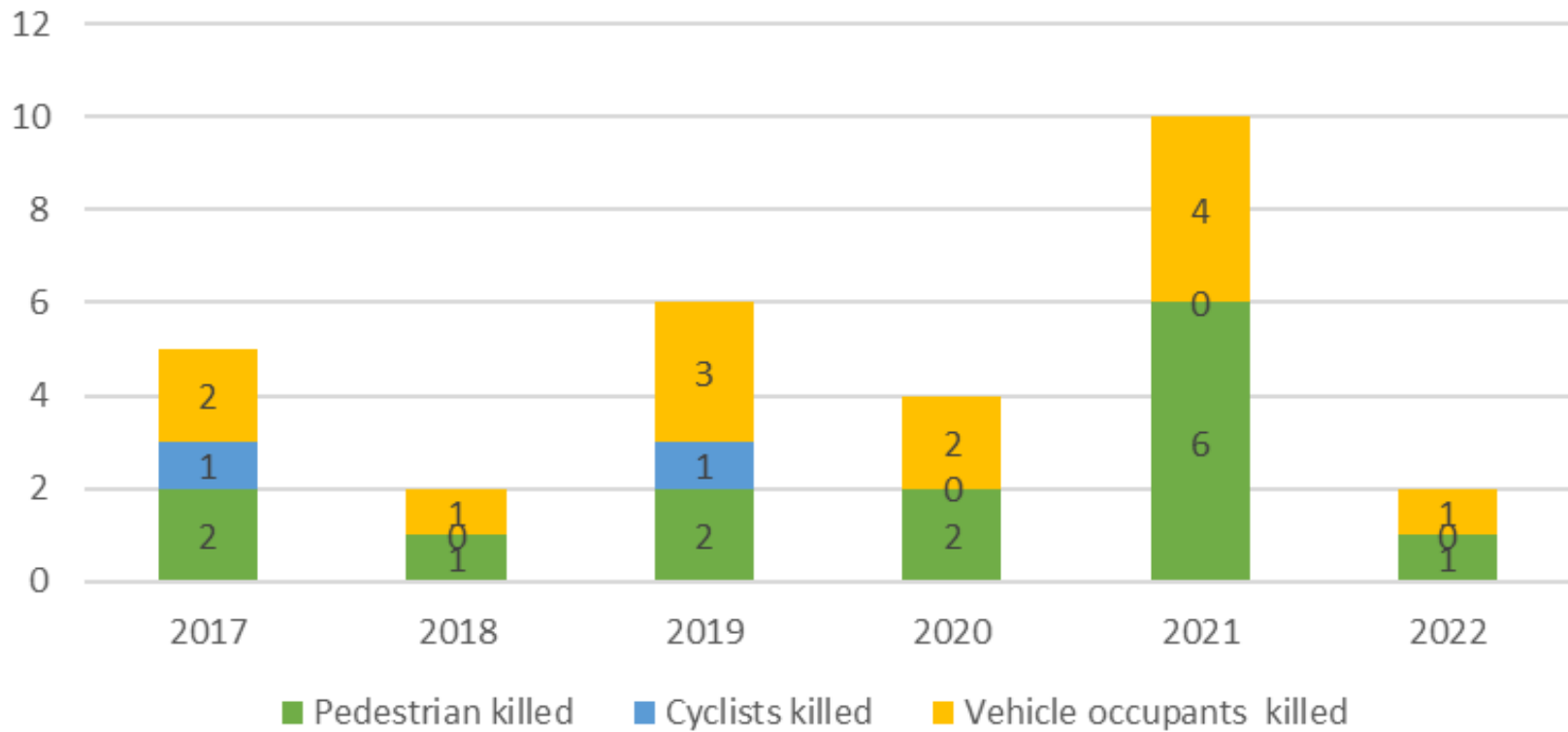
A Celebratory Dinner at Station 2, March 22, 2016



Photos: Mike Wilson

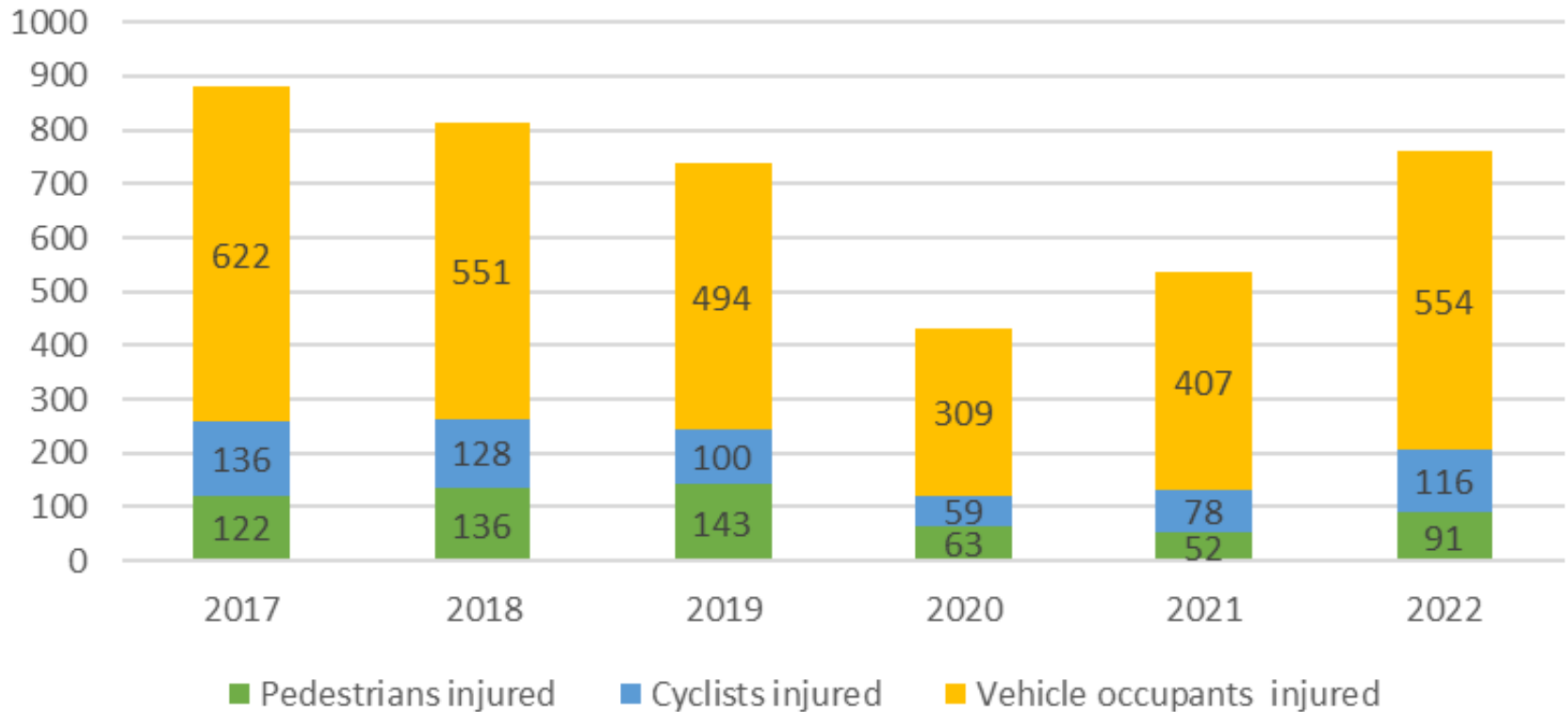
Berkeley Fire Department and Highland Hospital saved this family. Our recovery continues.

Annual deaths in collisions in Berkeley CA



Annual average of 5 collisions causing fatal injuries to vehicle occupants, cyclists and pedestrians, 2017-2022.

Annual injuries in collisions in Berkeley CA



Annual average of 694 collisions involving injuries to vehicle occupants, cyclists and pedestrians, 2017-2022.



Photo: Mike Wilson



Photo: Mike Wilson

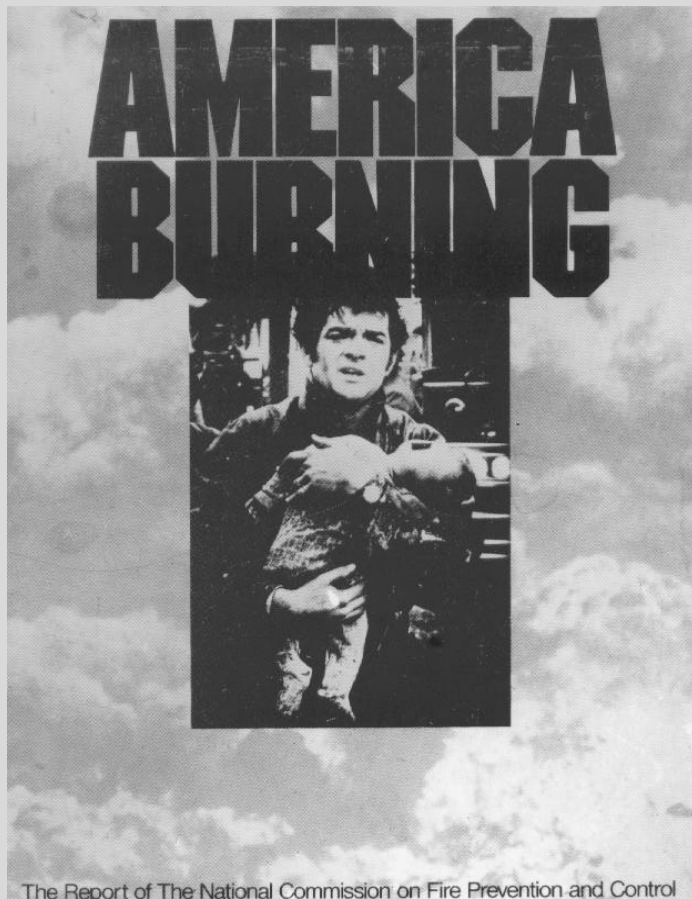
Average Annual Injuries in Berkeley

Vehicle occupants, cyclists
and pedestrians in collisions:
694 per year, 2017-2022

Persons in structure fires:
2 per year, 2010-2022

Fire data: <https://firecares.nfors.org/departments/74866/berkeley-fire-department?page=1>

Collision data: <https://bpd-transparency-initiative-berkeleypd.hub.arcgis.com/pages/traffic-safety>



America Burning: 50 Years of Fire Safety and Prevention (1973)

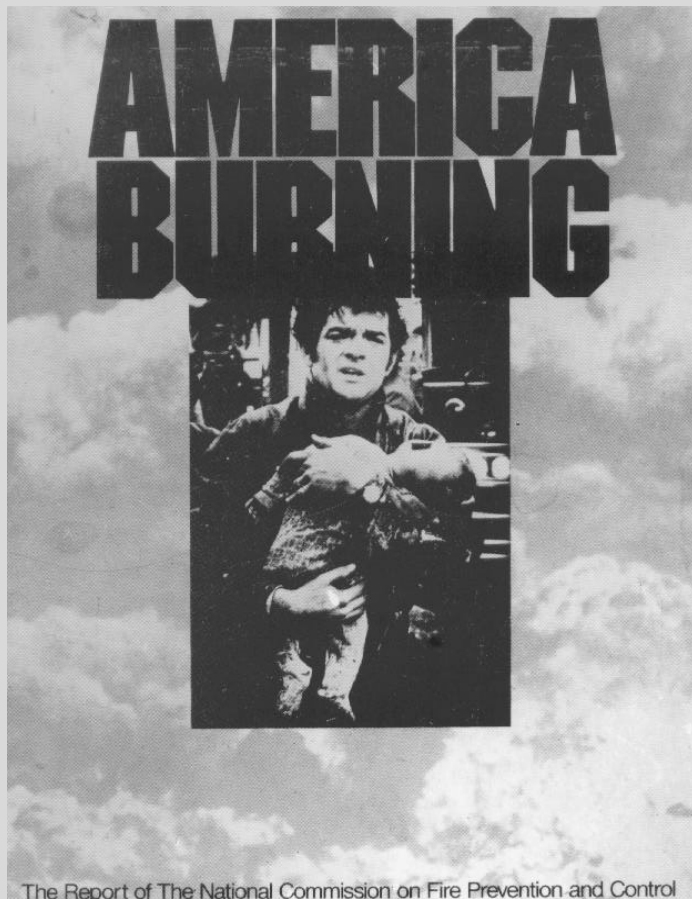
Launched the U.S. Fire Administration and National Fire Academy under the Federal Fire Prevention and Control Act of 1974

May 4, 2023 marked the 50th anniversary of the release of *America Burning*, the National Commission on Fire Prevention and Control's comprehensive study of fire safety and prevention.

“Currently, about 95 cents of every dollar spent on the fire services is used to extinguish fires; only about 5 cents is spent on efforts...to prevent fires from starting. Much more energy and funds need to be devoted to fire prevention, which could yield huge payoffs in lives and property saved.”

“Clearly, fire safety lags behind other considerations, such as aesthetics and economy, in the design of buildings.”

America Burning, Prevention Needs Priority. pp. 7 & 71
<https://www.usfa.fema.gov/blog/america-burning-50th-anniversary/>

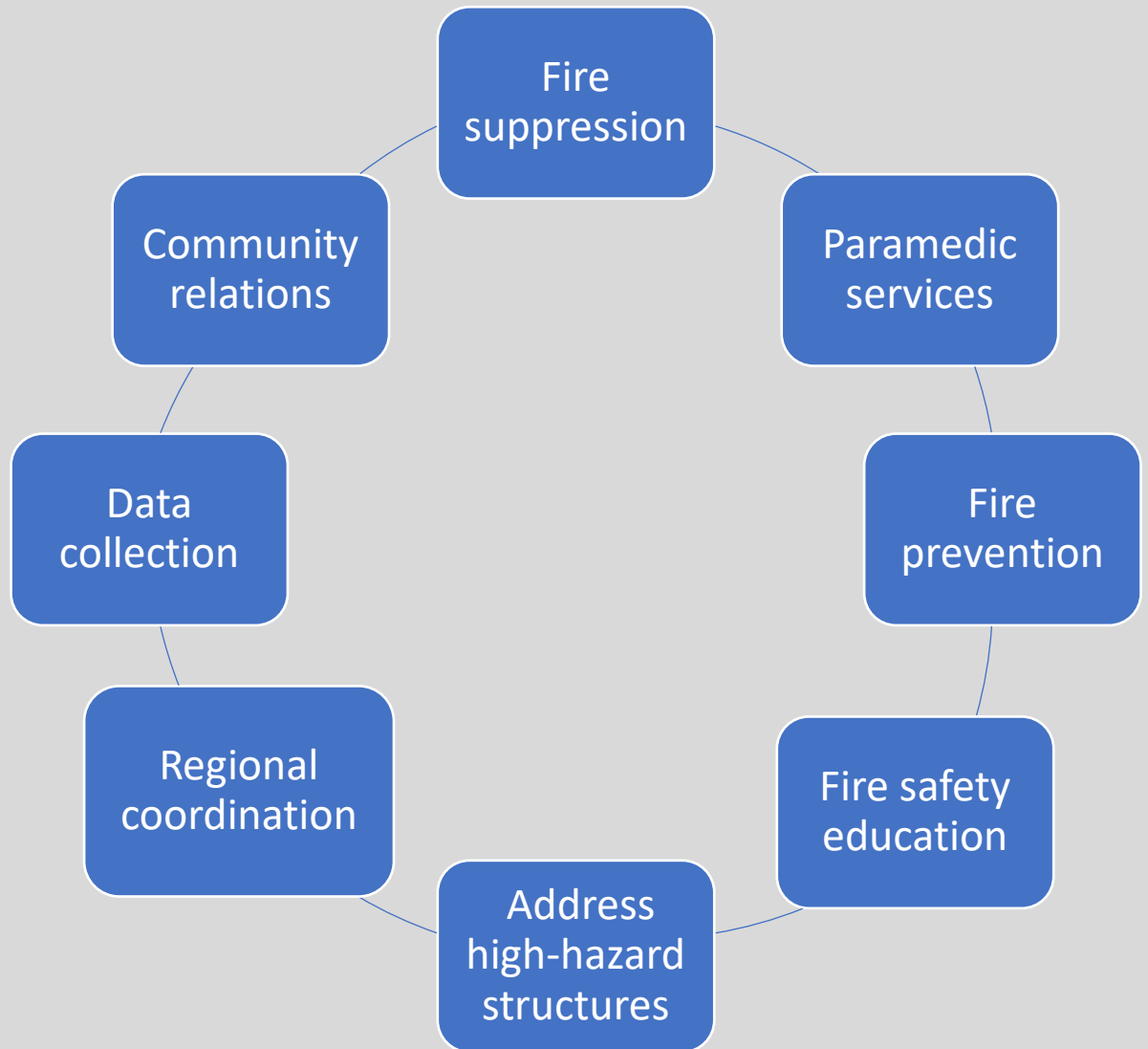
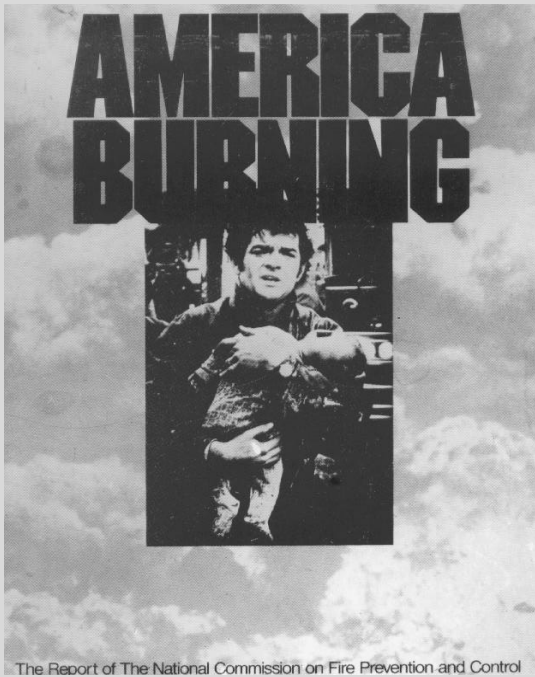


America Burning: 50 Years of Fire Safety and Prevention (1973)

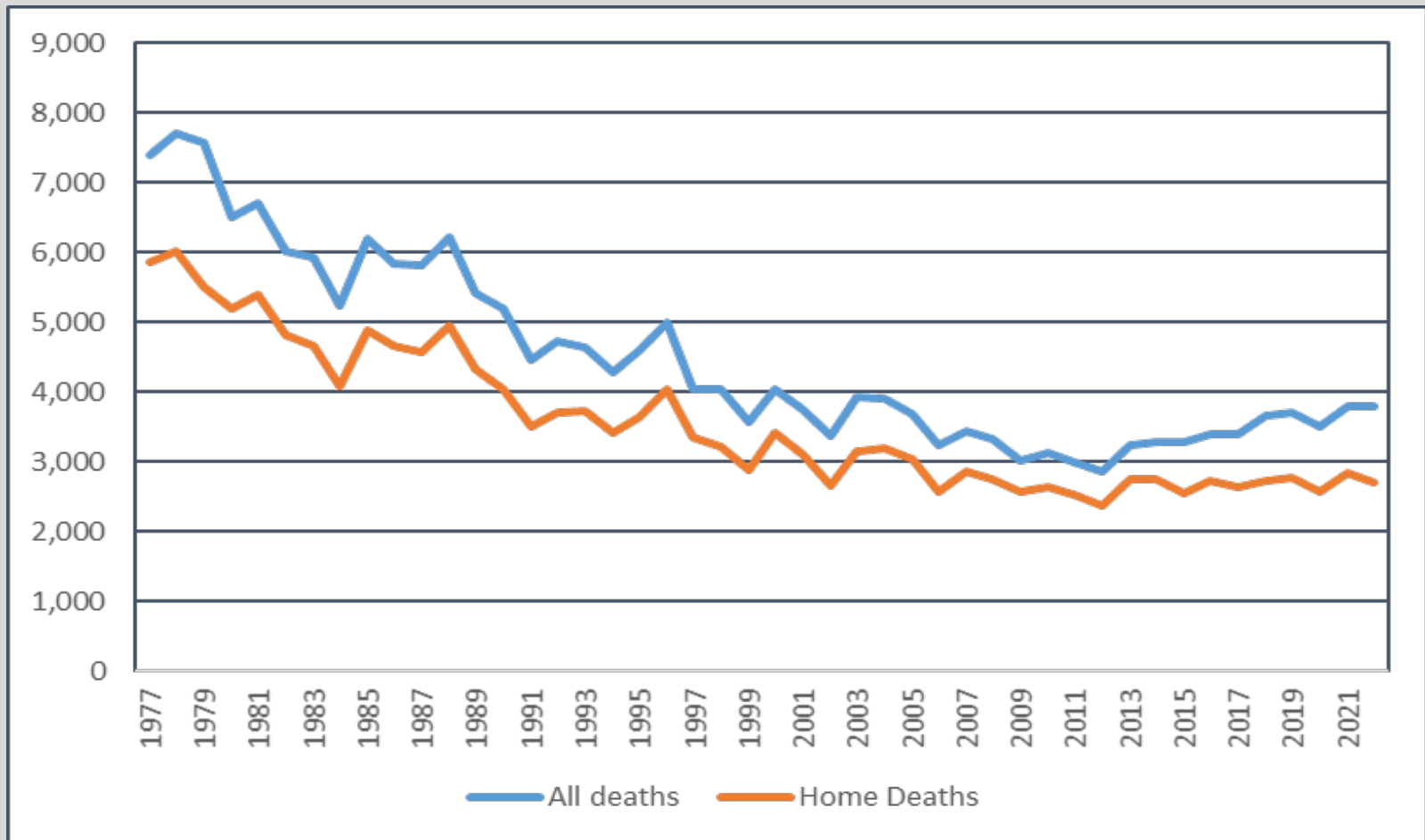
In 1796, the city of New Orleans, then a Spanish province, passed an ordinance against the use of wood roofs.

“The public interest justifies these intrusions on individual liberty.”

“The Commission recommends that all local governmental units in the United States have in force an adequate building code and fire prevention code or adopt whichever they lack.”



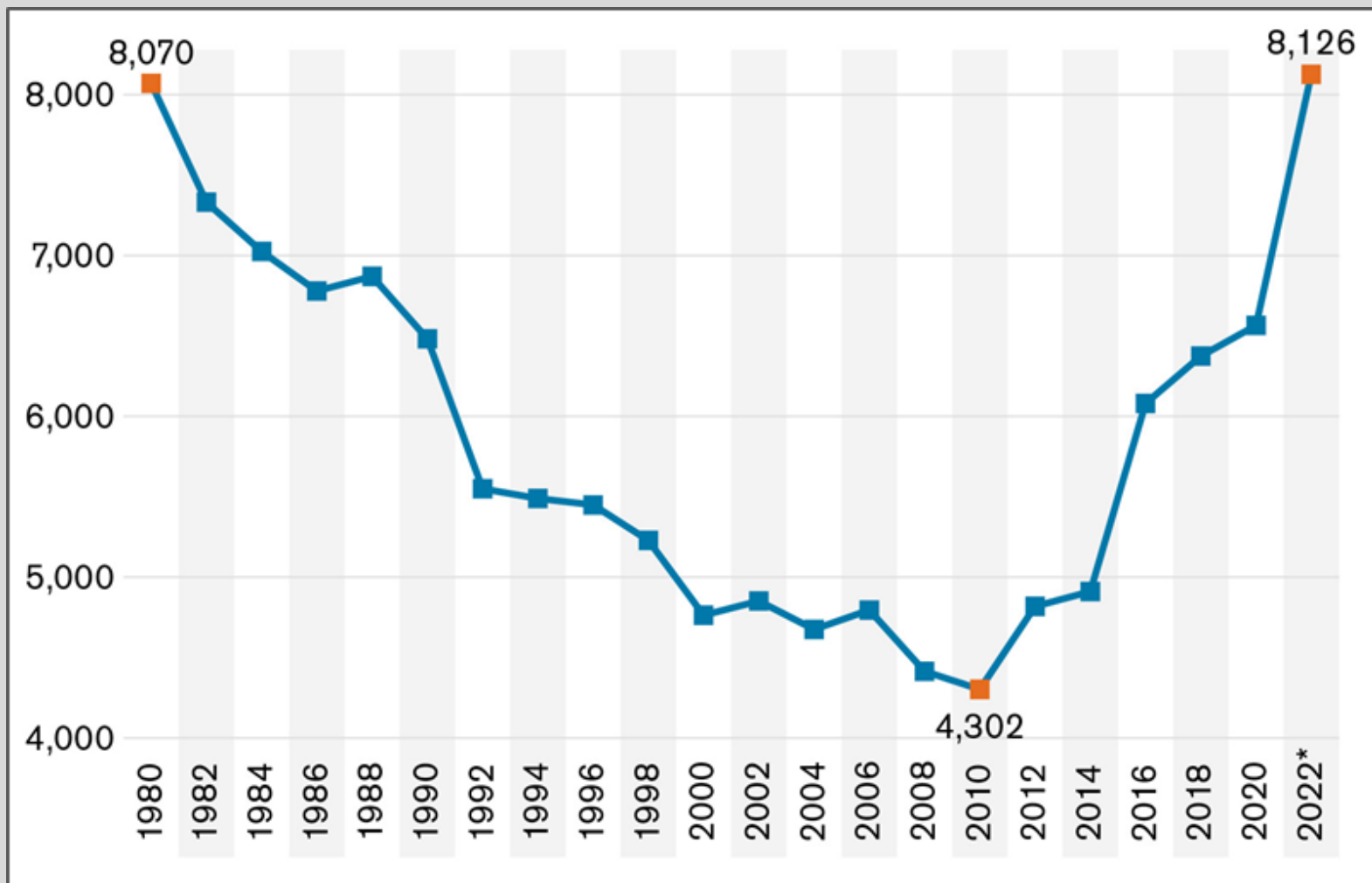
Fire departments must build a comprehensive approach to fire safety.



All U.S. Civilian Fire Deaths and Home Fire Deaths, 1977-2022*
 ~5,000 fewer deaths between 1979 and 2012 = 64% decline over 33 years.

*2,451 deaths on 9/11/2001
 not included in "All deaths."

Hall, S. (November 2023). Fire loss in the United States during 2022. Quincy, MA: National Fire Protection Association. <https://injuryfacts.nsc.org/home-and-community/safety-topics/fire-related-fatalities-and-injuries/>



U.S. Pedestrian Fatalities, 1980-2022

An 89% increase between 2010 and 2022, after a 40% reduction, 1980-2010

*2022 is projected based on 6 months of data.

Governor's Highway Safety Association (2023). Pedestrian Traffic Fatalities by State—2022 Preliminary Data [Pedestrian Traffic Fatalities by State: 2022 Preliminary Data | GHSA](#).

In Berkeley, Pedestrians and Bicyclists are Uniquely Vulnerable

- Severe and fatal collisions disproportionately affect pedestrians and bicyclists. Residents report that they walk or bike for 40% of trips, but pedestrians and bicyclists suffer 60% of severe and fatal collisions.
- Drivers operating at unsafe speeds and failing to yield at crosswalks are the two most common violations contributing to severe and fatal collisions, amounting to 33% of incidents over the period 2011-2020.
- While 71% of Berkeley residents report being interested in relying on bicycles for daily use, most are too concerned about safety to act on this choice.

City of Berkeley, Vision Zero Annual Report, June 2022. https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf. (p. 13).

City of Berkeley, Vision Zero Annual Report, June 2022. *ibid* (p. 14).

Berkeley City Manager Dee Williams-Ridley (June 29, 2022). Consent Calendar on Vision Zero Annual Report, 2021-2022. Environmental Sustainability and Climate Impacts https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf. (p. 3).

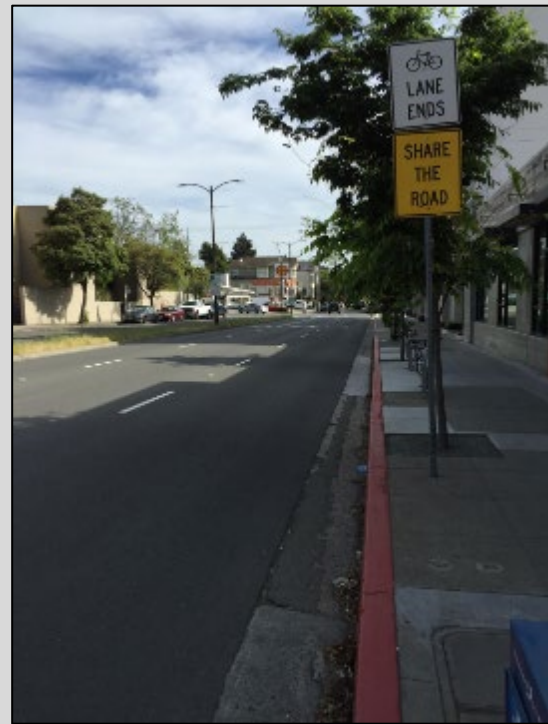


Berkeley must now apply the lessons of fire prevention to preventing street trauma.

Principle 1.
Quick Response
Times are
Essential to
Save Lives.



Photos: Mike Wilson



Principle 2.
Trauma prevention
is also essential.

Bancroft and Fulton
where Meg was run
over from behind.

Photos: Mike Wilson



Photo: Mike Wilson

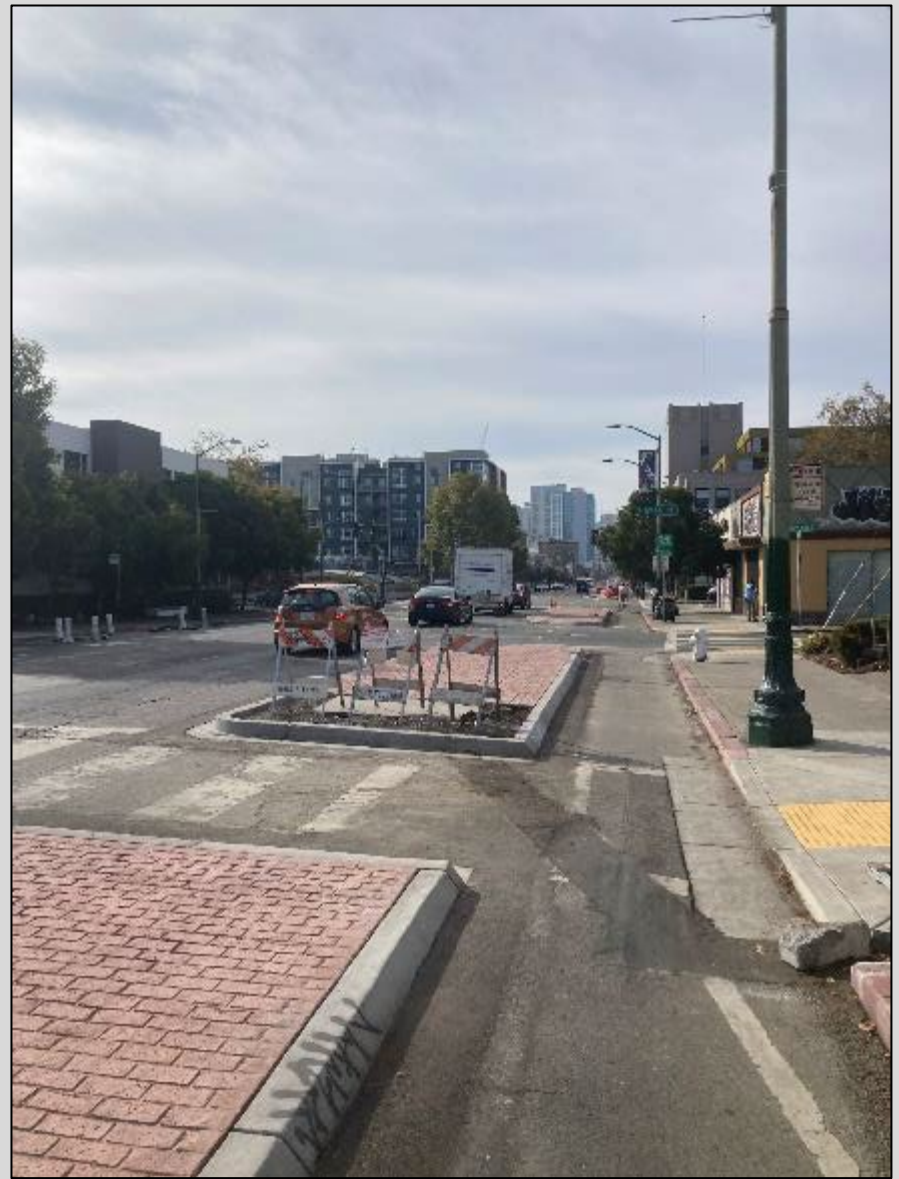


Photo: Mike Wilson

Designing safer streets for walkers and cyclists greatly reduces serious injuries and fatalities, including for vehicle occupants.

STAND DOWN FOR SUICIDE PREVENTION & AWARENESS

MAY 22-26



California Fire Service Behavioral Health Task Force: Fire Service Stand Down, May 22-26

Under SB 542 (Stern) CA created a rebuttable presumption that PTSD in firefighters and peace officers is a work-related injury and thus compensable under workers' compensation.

Safer streets that prevent severe injuries and fatalities are also essential for firefighter wellness.

STAND DOWN FOR SUICIDE PREVENTION & AWARENESS

MAY 22-26

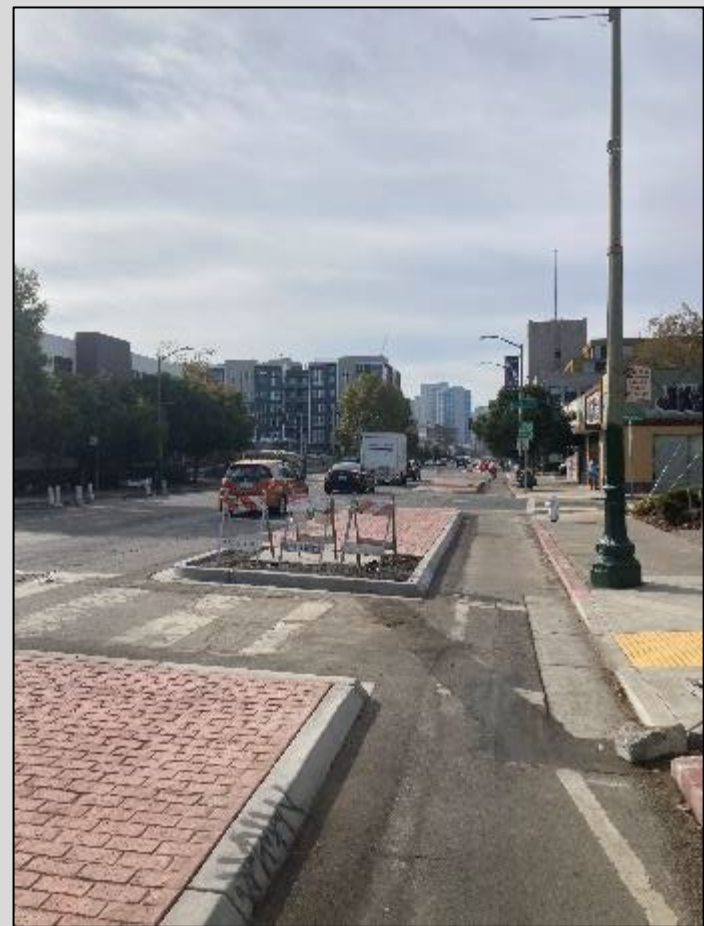


SB 542 (Stern) Oct 1, 2019:

“Trauma-related injuries can become overwhelming and manifest in post-traumatic stress, which may result in substance use disorders and even, tragically, suicide.”

“The fire service is four times more likely to experience a suicide than a work-related death in the line of duty in any year.”

Safer streets that prevent severe injuries and fatalities are also essential for firefighter wellness.



Advocating for safer streets is squarely within the Fire Department's public safety mission and builds on decades of success in fire prevention.

MOTION

The Disaster and Fire Safety Commission will:

- (1) Establish a Vision Zero work group that will adopt the February 28, 2024 Vision Zero briefing document as an overarching framework; and,
- (2) In consultation with a representative of the Transportation and Infrastructure Commission, the Vision Zero work group will draft a recommendation to Council requesting additional resources for the Department to establish a Street Trauma Prevention (STP) program, which will coordinate with other City departments and commissions, including the Disaster and Fire Safety Commission, to integrate the Department's perspectives on both prevention and response into the City's traffic safety projects related to Vision Zero and other policies.



Disaster and Fire Safety Commission

CONSENT CALENDAR
May 7, 2024

To: Honorable Mayor and Members of the City Council
From: Disaster and Fire Safety Commission
Submitted by: Weldon Bradstreet, Chairperson, Disaster and Fire Safety Commission
Subject: Support the Fire Department to Fund a Program Manager II Position

RECOMMENDATION

The Disaster and Fire Safety Commission (DFSC) supports the request by the Fire Department to fund a Program Manager II.

SUMMARY

The Program Manager II position will be responsible for building a Street Trauma Prevention (STP) program in the Department. This program is necessary to meet the City's Vision Zero goal of eliminating severe and fatal traffic crashes by 2028.

The STP program is a new initiative within the Department to support the transportation and infrastructure projects of Vision Zero in order to steadily reduce the 694 injuries that occur on Berkeley streets each year, on average, among people walking, riding bikes and riding in vehicles, including an average of five fatalities.

This position will allow the Department to: (1) engage consistently and constructively in the City's Vision Zero planning and implementation processes; (2) collaborate with other City departments, as well as the Fire Marshal, to advance Vision Zero and other policies; and (3) build an evidence-based approach to balancing street trauma response and prevention.

The STP program will require sufficient staff and resources to support the Department's capacity to perform analysis, interdepartmental coordination, program design, and implementation. The Program Manager II position represents the first step in establishing and building this program. The STP Program Manager would also participate in department decision-making regarding department equipment and operations, to the extent that those decisions intersect with preventing, or responding to, street trauma and the City's Vision Zero policy. The STP Program Manager would report every six months, or as needed, to the DFSC regarding the activities of the STP Program.

FISCAL IMPACTS OF RECOMMENDATION

Sufficient funding will be needed to support a Program Manager II position for an initial period of five years. The Department and budget office will need to determine the total amount of funding required to meet this objective.

CURRENT SITUATION AND ITS EFFECTS

An average of 694 persons are injured in street trauma each year in Berkeley, and five are killed

During the period 2017 to 2022, street trauma resulted in injuries to 490 people in vehicles, 103 people riding bikes, and 101 pedestrians on average each year (Figure 1), including an annual average of five fatalities (Figure 2).¹ During this same period, there were no deaths and an average of two persons injured each year in fires in Berkeley, a testament to the effectiveness of the Department’s decades of effort in fire prevention and response.

Figure 1. Annual average collisions causing injuries to vehicle occupants, cyclists and pedestrians, 2017—2022, Berkeley, CA.

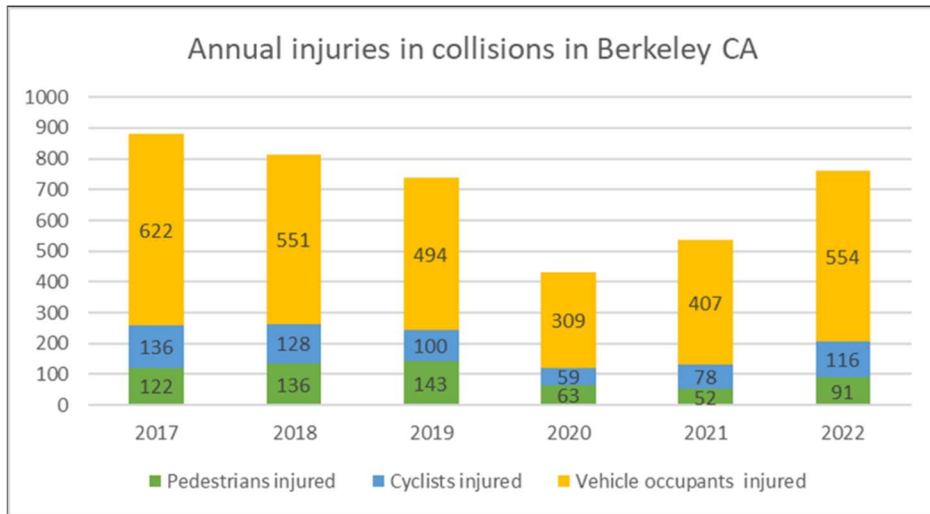
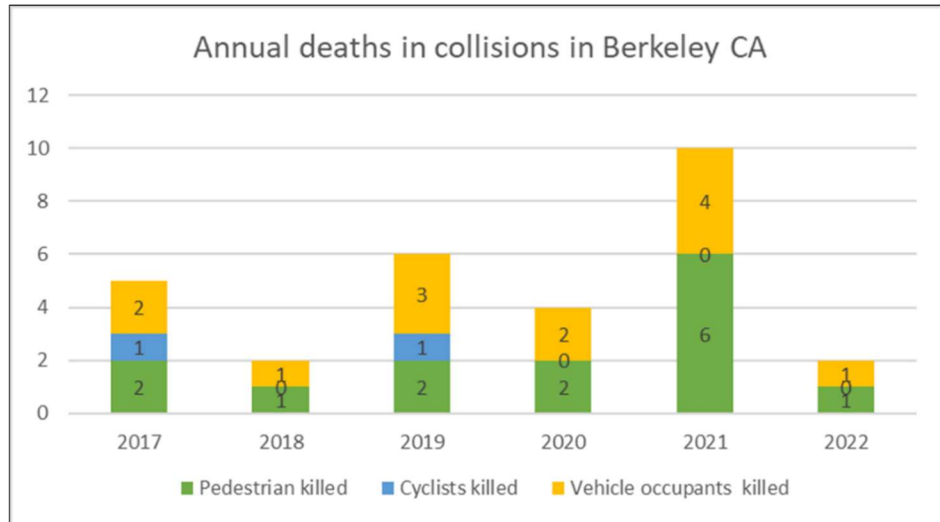


Figure 2. Annual average collisions causing fatal injuries to vehicle occupants, cyclists and pedestrians, 2017—2022, Berkeley, CA.

¹ Collision data from the Collisions Stats tab of the Berkeley Police Transparency Portal - Traffic Safety website: (<https://bpd-transparency-initiative-berkeleypd.hub.arcgis.com/pages/traffic-safety>). Death & severe injury collision data from the UC Berkeley SafeTREC Transportation Injury Management System (TIMS) Query & Map (<https://tims.berkeley.edu/tools/query/index.php?clear=true>). All data accessed 5/18/2023 – 5/20/2023 and prepared by Tom Lent.



Severe and fatal collisions disproportionately affect people walking and biking.

Berkeley residents report that they walk or bike for 40% of trips made in the city, but people walking and biking suffer 61% of severe and fatal collisions.² Drivers operating at unsafe speeds and drivers failing to yield at crosswalks are the two most common violations contributing to severe and fatal collisions in Berkeley, amounting to 33% of such incidents over the period 2011-2020.³ While 71% of Berkeley residents report being interested in relying on bicycles for daily use, most are too concerned about safety to act on this choice.⁴

A subset of injuries that result from street trauma cause immense suffering and financial hardship for those affected, and they require extensive Department and medical resources. On the current trajectory, traffic-related street trauma, and the demand for the Department's EMS services that accompany it, is expected to increase alongside increases in housing density. The Department already reports that the growing number of EMS calls is taxing its resources and personnel.

² City of Berkeley, Vision Zero Annual Report (June 2022). (https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf). (p. 13).

³ City of Berkeley, Vision Zero Annual Report (June 2022). *ibid* (p. 14).

⁴ Berkeley City Manager Dee Williams-Ridley (June 29, 2022). Consent Calendar on Vision Zero Annual Report, 2021-2022. Environmental Sustainability and Climate Impacts (https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf). (p. 3).

Responding to critically injured persons also takes a toll on emergency responders.

People struck by vehicles while walking or riding bikes are often seriously or critically injured. Providing emergency medical care for these patients, as well as for those injured while riding in vehicles, takes a toll on the mental health of firefighters and paramedics. California Senate Bill 542 (Stern) created a rebuttable presumption that post-traumatic stress injuries among firefighters and peace officers are work-related and thus compensable under workers' compensation. The bill, signed by Governor Newsom in 2019, noted that "trauma-related injuries can become overwhelming and manifest in post-traumatic stress, which may result in substance use disorders and even, tragically, suicide." ⁵

The bill reports that "the fire service is four times more likely to experience a suicide than a work-related death in the line of duty in any year." Reducing the frequency of exposure to critically injured persons is an effective response to this occupational hazard for responders.

BACKGROUND

The fire service understands the power of prevention.

Data since 2010 shows that the Department's Fire Prevention Bureau has reduced fire-related injuries to an average of two per year.⁶ This success has resulted in large part from decades of advancements in fire prevention, prompted in 1973 by the report of the National Commission on Fire Prevention and Control, which found that "95 cents of every dollar spent on the fire services is used to extinguish fires; only about 5 cents is spent on efforts...to prevent fires from starting," and concluded that "much more energy and funds need to be devoted to fire prevention, which could yield huge payoffs in lives and property saved." ⁷

The National Commission's recommendations spurred a steady stream of advancements in fire protection codes that required the use of passive and active fire protection systems, including design specifications for buildings, fire resistant building

⁵ Senate Bill No. 542. Chapter 390, Stern. Workers' Compensation.

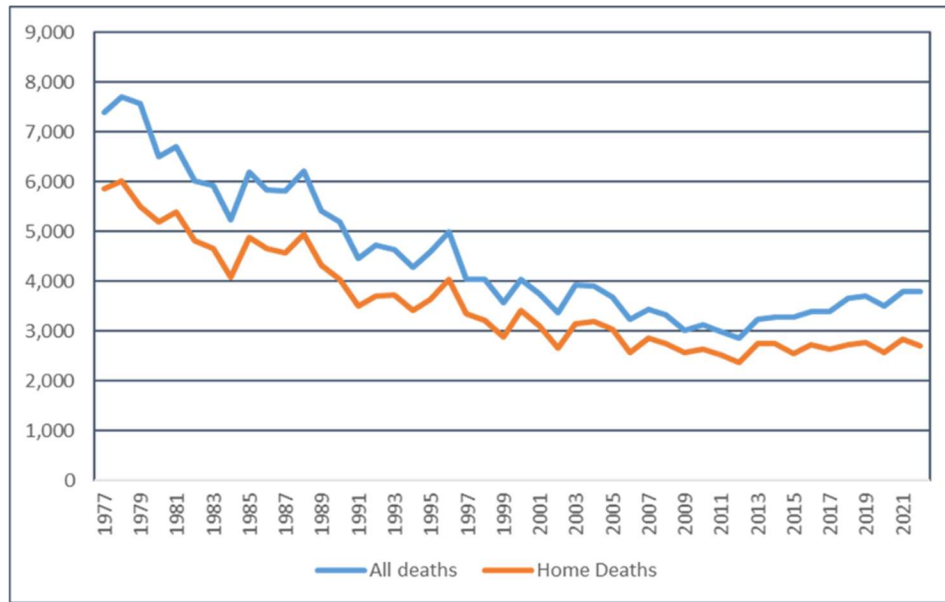
(https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB542). See subsection (1)(e).

⁶ FireCARES. Berkeley Fire Department (<https://firecares.nfors.org/departments/74866/berkeley-fire-department?page=1>).

⁷ National Commission on Fire Prevention and Control (May 4, 1973). America Burning. (<https://www.usfa.fema.gov/blog/america-burning-50th-anniversary/>) p. 7

materials, exit systems, fire sprinkler and smoke control systems, smoke and heat alarm systems, and fire suppression systems. Altogether, these changes reduced civilian fire deaths by 60% between 1979 and 2012, resulting in 5,000 fewer deaths per year by 2012 (Figure 3).⁸

Figure 3. All U.S. civilian fire deaths and home fire deaths, 1977-2022.



Street trauma is a serious public safety problem that is worsening nationally, particularly among pedestrians.

After a 40% decline over the 21 years between 1988 and 2009, national trends show a 77% increase in pedestrian fatalities from traffic collisions over the 11 year period from 2010 to 2021, with preliminary data showing a spike in 2022 that will bring the total increase during this period to 89% (Figure 4).⁹ All other traffic fatalities increased 25% during the period 2010 to 2021.¹⁰ This striking increase in pedestrian deaths is

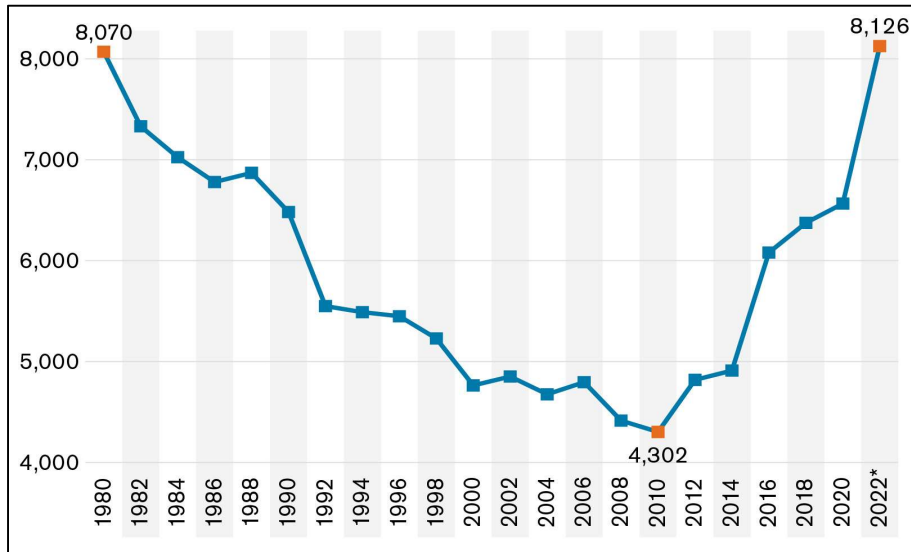
⁸ Hall, S. (November 2023). Fire loss in the United States during 2022. Quincy, MA: National Fire Protection Association. <https://injuryfacts.nsc.org/home-and-community/safety-topics/fire-related-fatalities-and-injuries/>

⁹ Governor’s Highway Safety Association (June 2023). Pedestrian Traffic Fatalities by State—2022 Preliminary Data, January-December. ([Pedestrian Traffic Fatalities by State: 2022 Preliminary Data | GHSA](#)). (p. 11).

¹⁰ Governor’s Highway Safety Association (June 2023). *Ibid.* (p. 5).

attributed to multiple causes, the most fundamental being a U.S. transportation system that is “designed to move cars quickly, not to move people safely.”¹¹

Figure 4. U.S. pedestrian fatalities resulting from traffic collisions, 1980—2022.



*Projected based on data for the first six months of 2022.

ENVIRONMENTAL SUSTAINABILITY

No impacts to the environment.

RATIONALE FOR RECOMMENDATION

The Department has an important role to play in preventing street trauma, while also ensuring an effective response to it.

¹¹ Emily Badger and Alicia Parlapiano (Nov 27, 2022). The Exceptionally American Problem of Rising Roadway Deaths. The New York Times (<https://www.nytimes.com/2022/11/27/upshot/road-deaths-pedestrians-cyclists.html>). See also: Amanda Holpuch (June 27, 2022). U.S. Pedestrian Deaths Are at Highest Level in 41 Years, Report Says. The New York Times (<https://www.nytimes.com/2023/06/27/us/pedestrian-deaths-2022.html>). Simon Romero (Feb 14, 2022) Pedestrian Deaths Spike in U.S. as Reckless Driving Surges. The New York Times (<https://www.nytimes.com/2022/02/14/us/pedestrian-deaths-pandemic.html?action=click&module=RelatedLinks&pgtype=Article>).

Research shows that street trauma can be reduced through hardened, engineered traffic controls.^{12,13,14} There is concern, however, that such protections could affect Department response times to critical emergency medical incidents, as well as response times and access by fire equipment to structural fires. Travel time from the scene of an emergency to the hospital by the Department's paramedic ambulances could also be affected. These concerns warrant careful evaluation because the survival of a subset of persons who call 911 can hinge on the speed of fire response and subsequent transport to the hospital.

Implementing a street trauma prevention (STP) program will require a mission change within the Department.

Building a street trauma prevention (STP) program is essential to meeting the City's stated goals of Vision Zero. It will require sufficient staff and resources to support the Department's ability to perform analysis, interdepartmental coordination, program design, and implementation.

The Berkeley Fire Department is a progressive department that is well-positioned to offer the citizens of Berkeley, and of California, a new vision of the fire service that calls attention to the importance of both rapid response and effective prevention in the area of street trauma. To be successful, this will require the Department to adopt street trauma prevention as a core element of its public safety mission, just as the fire service adopted a prevention function within its fire suppression mission over the last 50 years, with remarkable success.

A Program Manager II is needed to establish and build the STP program. The STP program will coordinate with other City departments and commissions to integrate the Department's perspectives on both response and prevention into the City's traffic safety projects related to Vision Zero and other policies.

¹² Marshall W, Ferencak N (2019). Why cities with high bicycling rates are safer for all road users. *J. of Transport and Health* 13:285-301. (<https://www.sciencedirect.com/science/article/abs/pii/S2214140518301488?via%3Dihub>). Accessed January 28, 2024.

¹³ Aaron Short (May 29, 2019) Separated bike lanes means safer streets, study says. *Streetsblog*. (<https://usa.streetsblog.org/2019/05/29/protect-yourself-separated-bike-lanes-means-safer-streets-study-says>). Accessed January 28, 2024.

¹⁴ City of Cambridge, MA, Environmental and Transportation Planning Division (October 2023). *Bicycling in Cambridge. Data Report 2023*. (https://www.cambridgema.gov/-/media/Files/CDD/Transportation/Bike/bikereports/20231023bicyclingincambridgedatareport_final.pdf). Accessed January 28, 2024.

ALTERNATIVE ACTIONS CONSIDERED

No alternative actions. Relying on existing staff to establish and build the STP program is not sustainable, given existing workloads.

CITY MANAGER

The City Manager refers this recommendation to the Budget Process.

CONTACT PERSON

Dave Sprague, Fire Chief, Fire Department, 510-981-3473

Keith May, DFSC Secretary, Fire Department, 510-981-5508

Street Trauma Prevention: Implementing Vision Zero at the Berkeley Fire Department

Policy and Legislative Committee
Oakland Bicyclist and Pedestrian Advisory Commission (BPAC)

Prepared by Mike Wilson
Commissioner, Berkeley Disaster and Fire Safety Commission
February 10, 2025



At Fulton and Bancroft, Berkeley firefighters extricated a critically injured cyclist from under a vehicle, Feb 2, 2016.¹ Photo: David Yee for *Berkeleyside*

SUMMARY

This paper points to the substantial toll of traffic-related street trauma in the City of Berkeley and recommends that the Berkeley Fire Department (Department) expand its traditional response mission to include a “street trauma prevention” component. This recommendation builds on the successes of the Department’s fire prevention activities in preventing fire-related injuries and deaths and applies it to the problem of street trauma. Applying a prevention approach to the problem of street trauma could substantially reduce its impacts on the public as well as on Department operations and the long-term mental health of firefighters. If adopted, the recommendation would allow the Department to be a more effective partner in reducing injury and death resulting from street trauma.

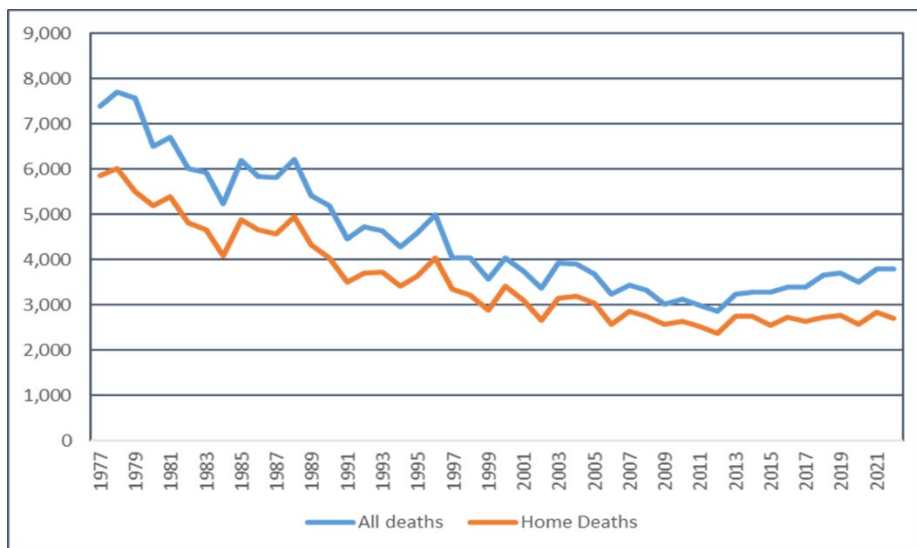
¹ Emily Raguso (Dec 9, 2016). Unstoppable: Berkeley cyclist’s miraculous recovery after crash that nearly killed her. *Berkeleyside*. (<https://www.berkeleyside.org/2016/12/09/unstoppable-berkeley-cyclists-miraculous-recovery-after-crash-that-nearly-killed-her/>). Accessed Jan 17, 2024.

The fire service understands prevention: in Berkeley, an average of two persons are injured each year in fires.

Data since 2010 shows that the Department’s Fire Prevention Bureau has reduced fire-related injuries to an average of two per year.² This success has resulted in large part from decades of national advancements in fire prevention, prompted in 1973 by the report of the National Commission on Fire Prevention and Control, which found that “95 cents of every dollar spent on the fire services is used to extinguish fires; only about 5 cents is spent on efforts...to prevent fires from starting,” and concluded that “much more energy and funds need to be devoted to fire prevention, which could yield huge payoffs in lives and property saved.”³

The commission’s recommendations spurred a steady stream of advancements in fire protection codes that required the use of passive and active fire protection systems, including design specifications for buildings, fire resistant building materials, exit systems, fire sprinkler and smoke control systems, smoke and heat alarm systems, and fire suppression systems. Altogether, these changes reduced civilian fire deaths by 60% between 1979 and 2012, resulting in 5,000 fewer deaths per year by 2012 (Figure 1).⁴

Figure 1. All U.S. civilian fire deaths and home fire deaths, 1977-2022.



An average of 694 persons are injured in street trauma each year in Berkeley.

There is now a need to direct similar prevention efforts toward traffic-related trauma in Berkeley, which during the period 2017 to 2022 resulted in injuries to 490 motorists, 103 cyclists and 101

² FireCARES. Berkeley Fire Department (<https://firecares.nfors.org/departments/74866/berkeley-fire-department?page=1>).

³ National Commission on Fire Prevention and Control (May 4, 1973). America Burning. (<https://www.usfa.fema.gov/blog/america-burning-50th-anniversary/>) p. 7

⁴ Hall, S. (November 2023). Fire loss in the United States during 2022. Quincy, MA: National Fire Protection Association. <https://injuryfacts.nsc.org/home-and-community/safety-topics/fire-related-fatalities-and-injuries/>

pedestrians on average each year (Figure 2), including an annual average of five fatalities (Figure 3).⁵

Figure 2. Annual average collisions causing injuries to vehicle occupants, cyclists and pedestrians, 2017—2022, Berkeley, CA.

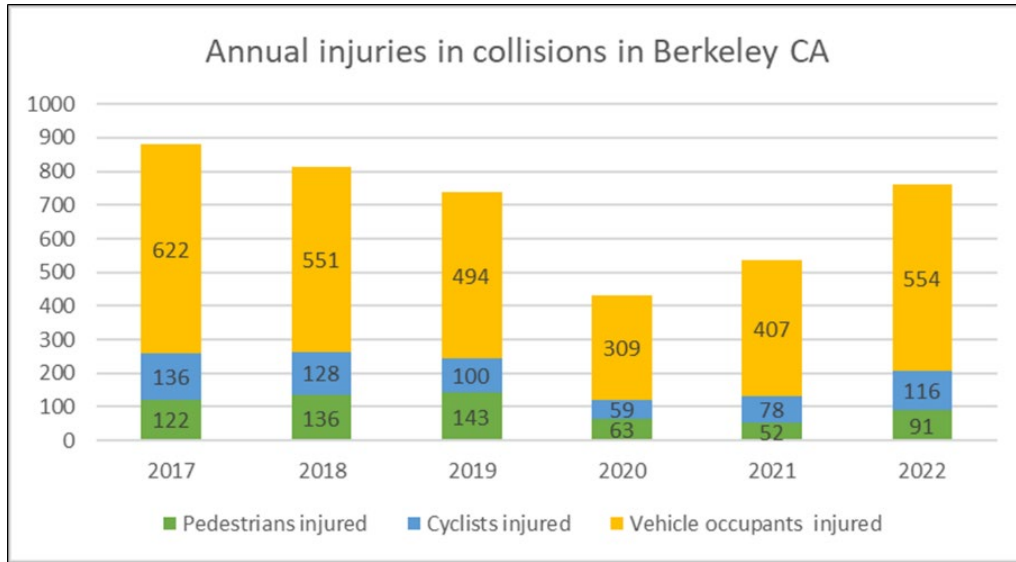
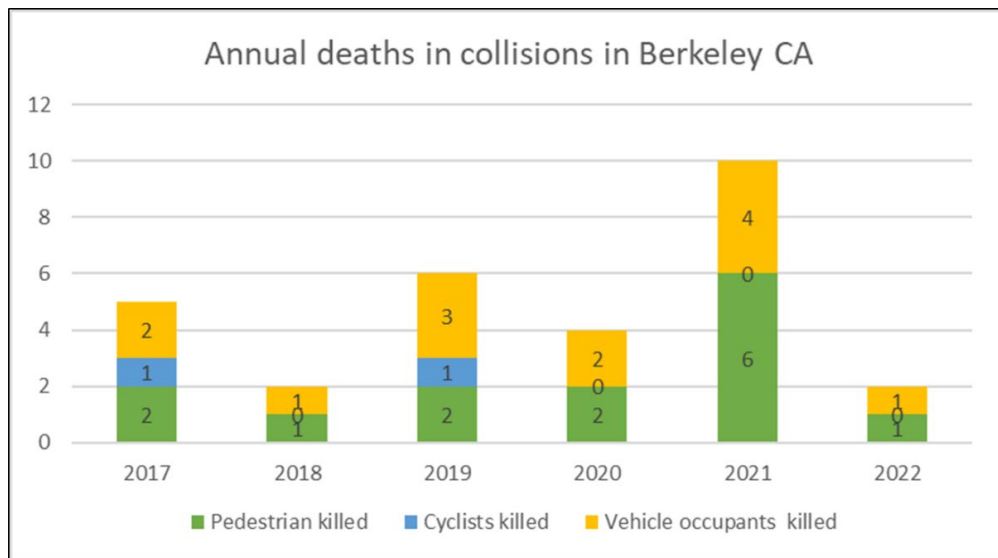


Figure 3. Annual average collisions causing fatal injuries to vehicle occupants, cyclists and pedestrians, 2017—2022, Berkeley, CA.

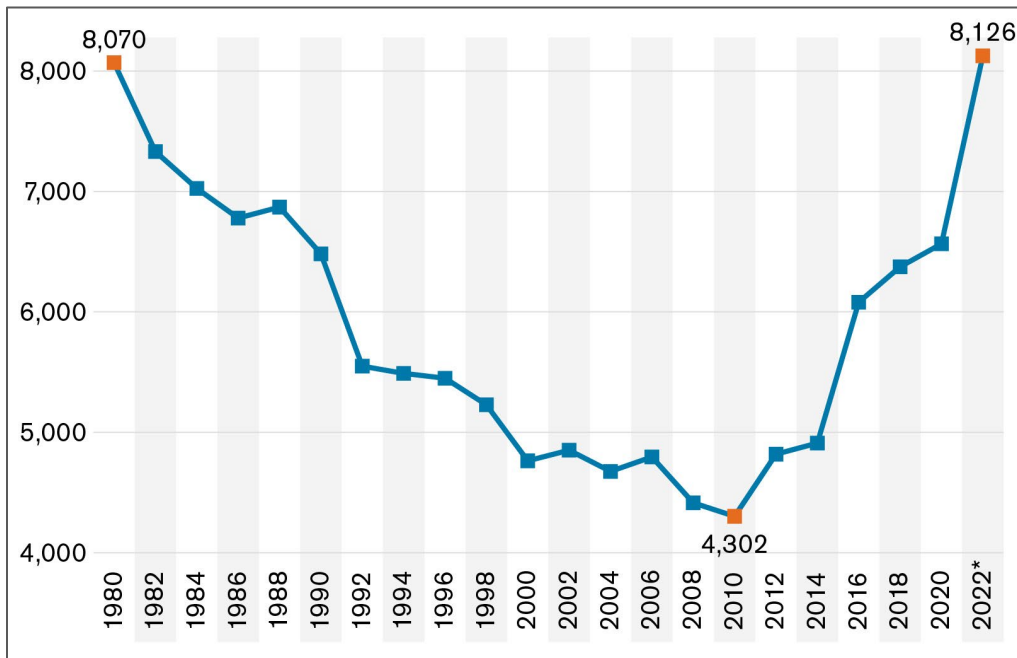


⁵ Collision data from the Collisions Stats tab of the Berkeley Police Transparency Portal - Traffic Safety website: (<https://bpd-transparency-initiative-berkeleypd.hub.arcgis.com/pages/traffic-safety>). Death & severe injury collision data from the UC Berkeley SafeTREC Transportation Injury Management System (TIMS) Query & Map (<https://tims.berkeley.edu/tools/query/index.php?clear=true>). All data accessed 5/18/2023 – 5/20/2023 and prepared by Tom Lent.

Severe and fatal collisions disproportionately affect pedestrians and cyclists.

Following a 40% decline over the 21 years between 1988 and 2009, national trends show a 77% increase in pedestrian fatalities from traffic collisions over the 11 year period from 2010 to 2021, with preliminary data showing a spike in 2022 that would bring the total increase during this period to 89% (Figure 4).⁶ All other traffic fatalities increased 25% during the period 2010 to 2021.⁷ This striking increase in pedestrian deaths is attributed to multiple causes, the most familiar being a U.S. transportation system that is “designed to move cars quickly, not to move people safely.”⁸

Figure 4. U.S. pedestrian fatalities resulting from traffic collision, 1980—2022.



*Projected based on data for the first six months of 2022.

In Berkeley, residents report that they walk or bike for 40% of trips made in the city, but pedestrians and bicyclists suffer 60% of severe and fatal collisions.⁹ Drivers operating at unsafe speeds and failing to yield at crosswalks are the two most common violations contributing to severe and fatal collisions in Berkeley, amounting to 33% of such incidents over the period 2011-

⁶ Governor’s Highway Safety Association (June 2023). Pedestrian Traffic Fatalities by State—2022 Preliminary Data, January-December. ([Pedestrian Traffic Fatalities by State: 2022 Preliminary Data | GHSA](https://www.ghsa.org/2023/06/27/pedestrian-traffic-fatalities-by-state-2022-preliminary-data)). (p. 11).

⁷ Governor’s Highway Safety Association (June 2023). *Ibid.* (p. 5).

⁸ Emily Badger and Alicia Parlapiano (Nov 27, 2022). The Exceptionally American Problem of Rising Roadway Deaths. The New York Times (<https://www.nytimes.com/2022/11/27/upshot/road-deaths-pedestrians-cyclists.html>). See also: Amanda Holpuch (June 27, 2022). U.S. Pedestrian Deaths Are at Highest Level in 41 Years, Report Says. The New York Times (<https://www.nytimes.com/2023/06/27/us/pedestrian-deaths-2022.html>). Simon Romero (Feb 14, 2022) Pedestrian Deaths Spike in U.S. as Reckless Driving Surges. The New York Times (<https://www.nytimes.com/2022/02/14/us/pedestrian-deaths-pandemic.html?action=click&module=RelatedLinks&pgtype=Article>).

⁹ City of Berkeley, Vision Zero Annual Report (June 2022). (https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf). (p. 13).

2020.¹⁰ Perhaps not surprisingly, while 71% of Berkeley residents report being interested in relying on bicycles for daily use, most are too concerned about safety to act on this choice.¹¹

A subset of injuries that result from street trauma cause immense suffering and financial hardship for those affected, and they require extensive Department and medical resources. On the current trajectory, traffic-related street trauma, and the demand for the Department's EMS services that accompany it, is expected to increase alongside increases in housing density. The Department already reports that the growing number of EMS calls is taxing its resources and personnel.

Responding to critically injured persons also takes a toll on emergency responders.

California Senate Bill 542 (Stern) created a rebuttable presumption that post-traumatic stress injuries among firefighters and peace officers are work-related and thus compensable under workers' compensation. The bill, signed by Governor Newsom in 2019, noted that "trauma-related injuries can become overwhelming and manifest in post-traumatic stress, which may result in substance use disorders and even, tragically, suicide." The bill reports that "the fire service is four times more likely to experience a suicide than a work-related death in the line of duty in any year."¹² Reducing the frequency of exposure to critically injured persons is an effective response to this occupational hazard for responders.

The Department has an important role to play in preventing street trauma, while also ensuring an effective response to it.

Research continues to show that street trauma is largely *preventable* through hardened, engineered traffic controls, which reduce vehicle speeds and separate vehicles from cyclists and pedestrians.^{13,14,15} There is concern, however, that such protections could affect Department response times to critical emergency medical incidents, as well as response times and access by fire equipment to structural fires. Travel time from the scene of an emergency to the hospital by the Department's paramedic ambulances could also be affected. These concerns warrant careful evaluation because the survival of a subset of persons who call 911 can hinge on the speed of fire response and subsequent transport to the hospital.

¹⁰ City of Berkeley, Vision Zero Annual Report (June 2022). *ibid* (p. 14).

¹¹ Berkeley City Manager Dee Williams-Ridley (June 29, 2022). Consent Calendar on Vision Zero Annual Report, 2021-2022. Environmental Sustainability and Climate Impacts (https://berkeleyca.gov/sites/default/files/documents/2022-06-28%20Item%2023%20Vision%20Zero%20Annual%20Report_0.pdf). (p. 3).

¹² Senate Bill No. 542. Chapter 390, Stern. Workers' Compensation. (https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB542). See subsection (1)(e).

¹³ Marshall W, Ferenchak N (2019). Why cities with high bicycling rates are safer for all road users. *J. of Transport and Health* 13:285-301. (<https://www.sciencedirect.com/science/article/abs/pii/S2214140518301488?via%3Dihub>). Accessed January 28, 2024.

¹⁴ Aaron Short (May 29, 2019) Separated bike lanes means safer streets, study says. *Streetsblog*. (<https://usa.streetsblog.org/2019/05/29/protect-yourself-separated-bike-lanes-means-safer-streets-study-says>). Accessed January 28, 2024.

¹⁵ City of Cambridge, MA, Environmental and Transportation Planning Division (October 2023). *Bicycling in Cambridge. Data Report 2023*. (https://www.cambridgema.gov/-/media/Files/CDD/Transportation/Bike/bikereports/20231023bicyclingincambridgedatareport_final.pdf). Accessed January 28, 2024.

Improving the design of streets substantially reduces street trauma.

In a 2019 study of street trauma in twelve major metropolitan areas between 2000 and 2012, investigators analyzed 17,000 fatalities and 77,000 severe injuries and found that areas with the most extensive networks of separated bike lanes experienced 44% fewer deaths and 50% fewer serious injuries compared to cities where such infrastructure was lacking. The benefits were felt among vehicle occupants as well as cyclists and pedestrians because separated bike lanes also reduced the speed of traffic. Crashes that killed vehicle occupants, cyclists, and pedestrians dropped 61% in Seattle, 49% in San Francisco, 40% in Denver and 38% in Chicago as these cities added more protected and separated bike lanes as part of their Vision Zero plans.¹⁶

Implementing a street trauma prevention program will require a mission change within the Department.

Integrating a street trauma prevention function into the fire department’s mission will require a structural change within the Department. A new Division or sub-division will likely need to be established with sufficient staff and resources allocated to support the Department’s capacity to perform analysis, interdepartmental coordination, program design, and implementation.

The Berkeley Fire Department is a progressive department that is well-positioned to offer the citizens of Berkeley a new vision of the fire service that calls attention to the importance of both rapid response and effective prevention. To be successful, this will require the Berkeley Fire Department to adopt street trauma prevention as a core element of its public safety mission, just as the fire service adopted a prevention function within its fire suppression mission for more than 50 years, with remarkable success.

The Disaster and Fire Safety Commission can support the Department in building a street trauma prevention program.

In consultation with a representative of the Transportation and Infrastructure Commission, the Disaster and Fire Safety Commission will:

- (1) Establish a Vision Zero work group that will adopt this brief as an overarching framework; and,
- (2) Draft a recommendation to Council requesting additional resources for the Department to establish a street trauma prevention program. This program would be responsible for coordinating with other City departments and commissions to integrate the Department’s perspectives on both response and prevention into the City’s traffic safety projects related to Vision Zero and other policies.

* * * * *

¹⁶ Marshall W, Ferenchak N (2019), *op cit*. See Table 1, p. 288, and Results section 4.2.2, p. 294.