

# BICYCLE SAFETY REPORT



### **Table of Contents**

02

03

Executive Summary

Review of 2022 Bicycle Fatalities

14

19

Key Takeaways Infrastructure & Policy Recommendations

21

24

Conclusion

Appendix: Methodology



## **Executive Summary**

As an auto-centric city, the streets of Los Angeles are not designed for all users. Despite limited efforts from local governments to enhance bicycle infrastructure and a superficial commitment to a future with zero road fatalities, the number of serious collisions each year remains exceptionally high.

This report examines the conditions surrounding the bicycle related fatalities reported on Los Angeles County roadways in 2022. By considering the common characteristics and locations of these collisions, we hope to guide investment decisions and enable community members to advocate for improvements in their neighborhood.

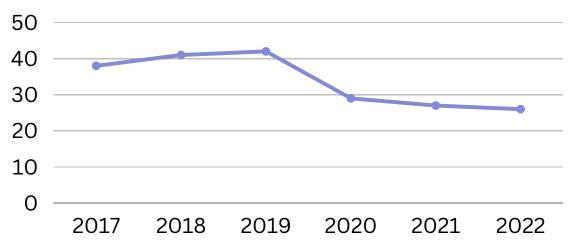
Through our analysis of 26 fatalities from Lancaster to Long Beach, we have identified four factors that are common amongst the majority of crashes including speed, roadway design, and time of day. Moreover, we discovered that many of these collisions are concentrated in historically marginalized communities and along corridors with bike lane gaps. Governments and elected officials need to commit towards addressing the chronic underfunding of active transportation improvements in these neighborhoods as a way to close inequities in the transportation system.

BikeLA is committed to a future where all cyclists and pedestrians have access to safe, enjoyable, and vibrant transportation corridors. We recommend that cities across the county adopt new roadway design standards and policies to address this ongoing problem.

# I. Review of 2022 Bicycle Fatalities

Tragically, **26 bicyclists lost their lives** on Los Angeles County roads last year.

Graph 1: Bicyclist Fatalities on LA County Roads (2017-2022)



Source: UC Berkeley CA Active Transportation Safety Information Pages (CATSIP)

Despite commitments from the <u>county</u> and several <u>city</u> governments to achieve a future with zero traffic fatalities or serious injuries, **Los Angeles still has one of the highest collision death rates nationally**. Stemming from a lack of focus on active transportation and ongoing neglect of disadvantaged communities, it is estimated that <u>\$80 million in new investments annually are needed</u> to achieve a 20% reduction in fatal crashes. Yet, only <u>\$50.6 million</u> was committed last fiscal year. Unfortunately, this shortfall in safety funding and the general predisposition towards designing roads for motorists has contributed towards countless lost lives and dangerous communities for all. Even more concerning is the fact that these <u>deaths are concentrated</u> amongst racial/ethnic minorities, children, seniors, and unhoused populations.

As BikeLA is committed to creating a county transportation network that is safe and accessible for all, this report analyzes the roadway design elements and geographic distribution behind the roadway fatalities in 2022. We also propose infrastructure and policy recommendations to reduce, and eventually eliminate, roadway-related fatalities in the region.

#### **Factors Contributing to Bicycle Fatalities**

Through our initial review of the 26 fatalities from the past year, four key design issues emerged that were present in a significant share of crashes: high speeds, roadways with multiple lanes in each direction, a lack of adequate bicycle facilities, and time of day. Oftentimes, as can be seen in Table 1 (next page), many of these factors overlapped in collisions, amplifying the severity.

High Speed Limits

Speed limits exceeding 35 MPH result in reduced driver visibility and increase crash severity.

SPEED LIMIT 55

Multiple
Travel Lanes

Dangerous lane changes reduce driver attentiveness and create unsafe conditions for cyclists.



Missing Bike Lanes

Gaps in the bicycle lane network and a lack of designated road space pose challenges for riders.



Poor Street Lighting

With over half of all fatalities occurring at night, it is clear that improvements need to be made to improve visibility.



#### **Table 1: Bicycle Fatalities on LA County Roads**

	High Speed Limit(>35 MPH)	Multi-Lane Road	No Bike Lane	Nighttime Crash
Matthew Zink & Unnamed Cyclist (Plummer St & Lurline Ave, Los Angeles)	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Unnamed Cyclist (Cienega Ave & Sunflower Ave, Covina)		<b>✓</b>	<b>√</b>	<b>✓</b>
Unnamed Cyclist (110 Freeway North of Ave 60)				<b>✓</b>
Unnamed Cyclist (Avenue H and Division St, Lancaster)	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>
Ruben Castano (4200 Block of S Figuroa, Los Angeles)		<b>✓</b>	<b>✓</b>	
Brian Martinez (E Victoria St & S Avalon Blvd, Carson)	<b>√</b>	<b>✓</b>	<b>√</b>	
Unnamed Cyclist (San Fernando Rd & Pepper St, Los Angeles)	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>
Andrew Jelmert (Crystal Springs Dr in Griffith Park, Los Angeles)		<b>✓</b>		
Leonidas Accip Serech (Olympic Blvd & Mariposa, Los Angeles)		<b>✓</b>	<b>✓</b>	<b>✓</b>

	High Speed Limit(>35 MPH)	Multi-Lane Road	No Bike Lane	Nighttime Crash
John Hermoso (21500 Block of San Canyon Rd, Santa Clarita)	<b>✓</b>		<b>√</b>	
<b>32-year old male Cyclist</b> (Anaheim St & Coronado Ave, Long Beach)		<b>✓</b>	<b>✓</b>	<b>✓</b>
Glen Brown (800 N Ogden Dr, Los Angeles)				
Unnamed Cyclist (MLK Jr Blvd & Hoover St, Los Angeles)		<b>✓</b>	<b>✓</b>	<b>✓</b>
Ronald Zarate (Avenue J & Cedar Ave, Lancaster)	<b>✓</b>	<b>✓</b>		<b>✓</b>
Stephen Naftilan (Mile Marker 24.1 on San Gabriel Cyn Rd, Azusa)	<b>✓</b>		<b>√</b>	
Unnamed Cyclist (1900 Block of Echo Park Ave, Los Angeles)			<b>√</b>	
Unnamed Cyclist (Val Vista St and Paige Dr, Pomona)	<b>✓</b>	<b>✓</b>	<b>√</b>	
Unnamed Cyclist (Centinela Ave & Mitchell Ave, Los Angeles)		<b>✓</b>	<b>√</b>	<b>✓</b>
Unnamed Cyclist (Chestnut St & W 7th St, Long Beach)		<b>✓</b>	<b>✓</b>	

	High Speed Limit(>35 MPH)	Multi-Lane Road	No Bike Lane	Nighttime Crash
James Ledford (61st St & Wall St, Los Angeles)			<b>✓</b>	<b>✓</b>
Robert Abraham Salas (San Fernando Rd & Meyers St, San Fernando)		<b>✓</b>	<b>✓</b>	
Sergio Cordova (6th St & Mateo St, Los Angeles)		<b>√</b>	<b>√</b>	
Jesus Vazquez Ontiveros (Adams Blvd & Hauser Blvd, Los Angeles)		<b>√</b>	<b>√</b>	<b>✓</b>
Samuel Juarez Rivera (Anaheim St & Walnut Ave, Long Beach)		<b>√</b>	<b>✓</b>	<b>✓</b>
Unnamed Cyclist (Pacific Coast Highway & California Incline, Santa Monica)	<b>√</b>	<b>✓</b>	<b>✓</b>	
Charles Mullins (3rd Street & 110 Freeway Offramp, Los Angeles)	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
	10	20	22	14
TOTAL	38%	77%	85%	54%

While not exhaustive as the conditions behind each collision are unique, it is clear that most collisions (81%) involved two or more of these factors. Elements including speed and time of day are especially critical as individual driver behavior influences the severity of the collision. Conversely, the fact that most crashes took place on roads with multiple lanes and/or no bike lanes suggests that infrastructure deficiencies are the main culprit behind the dangerous conditions on our roads.

As community members and leaders look to improve upon the safety of our county's roads, they must make targeted investments and changes that address the fundamental flaws in roadway design and enhance our roads to prevent dangerous driving behavior. A series of strategies and recommendations are described later in this report.

#### **Geographic Distribution of Fatalities**

Tragically, many of the bicycle related fatalities recorded in 2022 occurred in historically marginalized, racial minority, and low-income communities. Likely stemming from a lack of investment in road safety, these communities disproportionately experience the burden of dangerous streets and simultaneously lack the political and financial capital to drive investments in their communities. To address this concerning pattern, transportation officials at all levels of government must make a concerted effort to prioritize investments in these communities and involve local residents in the planning and design process. A detailed breakdown of collisions by county supervisorial district, local jurisdiction, and LA City Council District can be found below.

Graph 2: Distribution of Collisions by LA County Supervisorial District

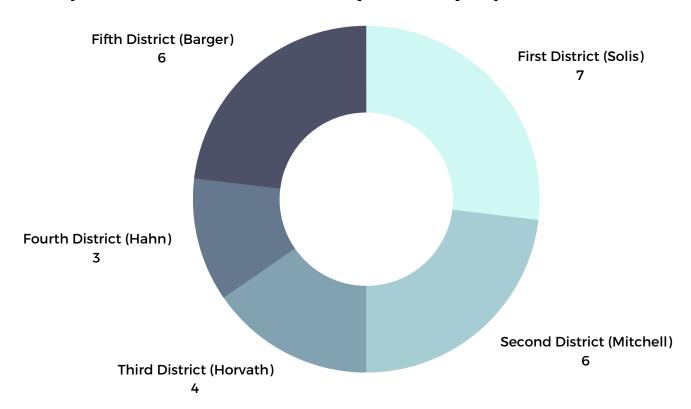


Table 2: Collisions by City/Local Jurisdiction

Collisions by City/Local Jurisdiction			
City of Los Angeles	14	City of Covina	1
City of Long Beach	3	City of San Fernando	1
City of Lancaster	2	City of Santa Monica	1
City of Carson	1	City of Pomona	1
City of Santa Clarita	1	Unincorporated County	1

**Table 3: Collisions by LA City Council District** 

Collisions by LA City Council District			
District 1 (Hernandez)	1	District 9 (Price)	3
District 2 (Krekorian)	0	District 10 (Hutt)	2
District 3 (Blumenfield)	0	District 11 (Park)	1
District 4 (Raman)	1	District 12 (Lee)	1
District 5 (Yaroslavsky)	1	District 13 (Soto- Martinez)	1
District 6 (Vacant)	0	District 14 (de Leon)	3
District 7 (Rodriguez)	0	District 15 (McOsker)	O
District 8 (Harris-Dawson)	0	Non-City of LA Collisions	12

Even more concerning is the fact that many of the fatalities were clustered along major corridors and occurred in close proximity to each other. Many of these corridors are included in the regional High Injury Network (HIN), a "subset of the street network where most (>65%) fatal and serious injuries occur" (see map below). The HIN is managed by the Southern California Association of Governments (SCAG) in collaboration with local governments and is used to prioritize corridor investments. For instance, just 6% of roadways in the City of Los Angeles are included in the HIN, yet these streets account for 70% of roadway deaths and severe injuries. As part of the city's Livable Streets Initiative, the city is prioritizing roadway investments on these streets with a commitment towards safety and facilitating inclusive access. While these and other measures are certainly appreciated, more must be done to address the region's highest need corridors.

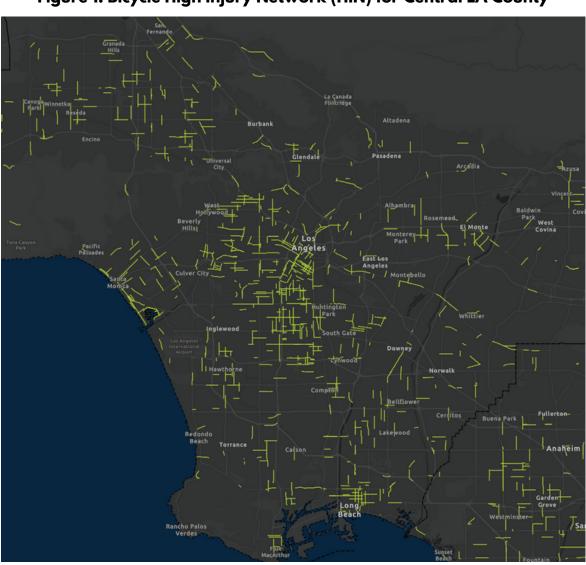


Figure 1: Bicycle High Injury Network (HIN) for Central LA County

Source: SCAG Regional Data Platform HIN Map

# Several notable areas of concern from this year's collisions include:

**East Anaheim Street in Long Beach.** Two fatalities were reported along a one mile stretch between Walnut Ave and Obispo Ave in Downtown Long Beach this past year. As a major arterial in the city, Anaheim Street lacks several complete street features including bike lanes, high visibility crosswalks, and traffic calming measures. Considering all of Downtown Long Beach, a total of five bicyclists have lost their lives since 2021.

Martin Luther King Jr Blvd & Figueroa Street in Los Angeles. Two fatalities occurred within a ¼ mile radius of this intersection, which is located immediately adjacent to Exposition Park and the 110 Harbor Freeway. While Figueroa has received bike lane improvements north of MLK Blvd, they abruptly end at this intersection of two major arterials. Most drivers use these corridors to access the freeway, and the high speed limit (35 MPH) makes conditions particularly difficult for bicyclists and pedestrians.

Figueroa Street in Downtown LA. Since 2021, a total of three fatalities have been recorded on a four block stretch of Figueroa between 3rd Street and 7th Street. As this street parallels the 110 Harbor Freeway, many drivers accessing downtown must cross this heavily traveled street. Additionally, drivers leaving Downtown frequently use this corridor to access the freeway as the one way street contains up to 7 northbound lanes. Despite a buffer separated bike lane, the auto-centric design and high speeds of freeway-exiting traffic make this stretch particularly challenging.

Avenues H & J in Lancaster. These two suburban streets each recorded a bicycle fatality in 2022. Although both provide buffer separated bike lanes, these two streets have exceptionally high speed limits that increase the severity of collisions. Avenue H has a posted speed limit of 60 MPH and Avenue J has a posted speed limit of 40 MPH (despite being in a business district). Bicyclists must also contend with broken gaps in cycling infrastructure and heavy turning traffic.

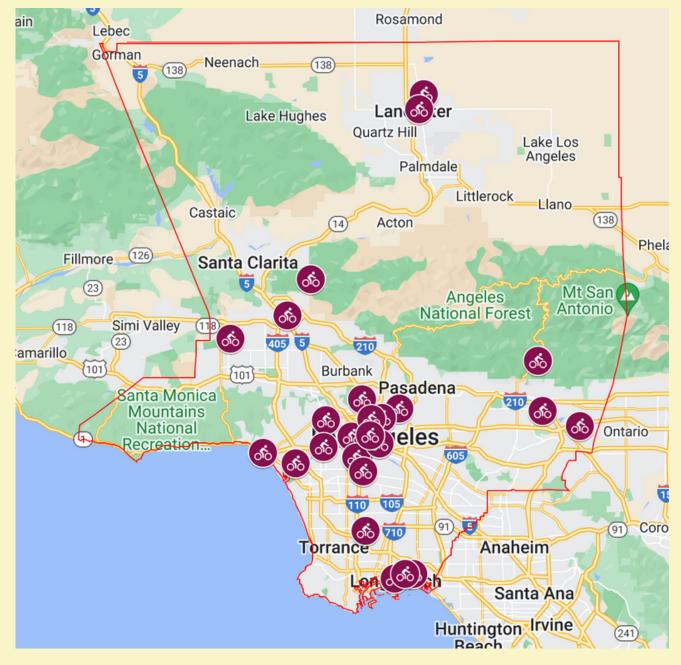
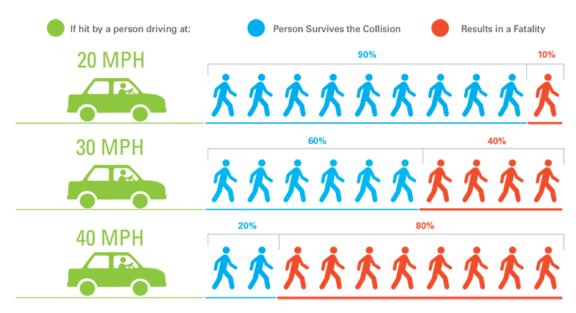


Figure 2: Map of 2022 Bicycle Fatalities in LA County

An interactive version of this map is available online at www.bike-la.org and via this link.



## II. Key Takeaways



Source: San Francisco MTA Vision Zero Action Plan, February 2015: https://view.joomag.com/vision-zero-san-francisco/0685197001423594455?short

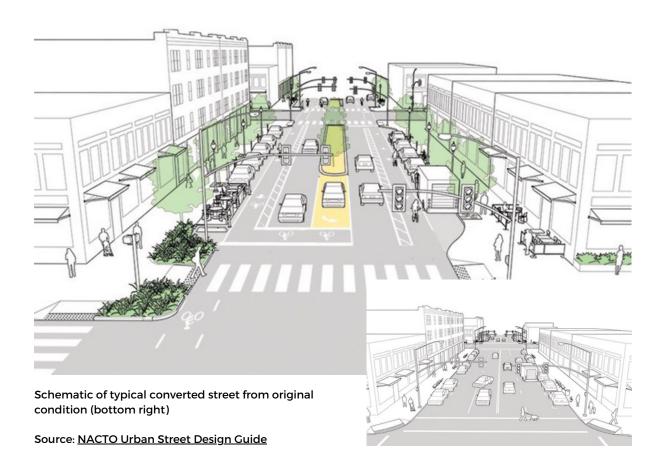
<u>Key Takeaway #1:</u> Excessive speed and high speed limits contribute significantly to the severity of road collisions, especially for those involving bicyclists and pedestrians.

- Recent data on the primary cause of LA City traffic collisions highlights that unsafe speed was the number one factor behind serious collisions in 2021 (34.78% of all crashes).
- Moreover, a <u>2018 meta-analysis</u> on the impact of speed limits on road safety argues that the mean speed of traffic is strongly associated with the prevalence of fatality and injury crashes. While drivers who exceptionally exceed the speed limit pose particular challenges, our roads remain constantly dangerous when most drivers are traveling at high speeds.
- Lowering speed limits and installing speed mitigation infrastructure
   (i.e. automated speed enforcement technology\*, radar speed signs, and
   traffic calming devices) on major roads can deter reckless driver
   behavior, increase awareness of bicyclists and pedestrians, and make
   the street more comfortable for all users.

<sup>\*</sup>By moving towards automated speed enforcement, we can also address concerns surrounding traditional enforcement methods including inequitable and racially targeted enforcement practices.

<u>Key Takeaway #2:</u> The vast majority (77%) of bicycle fatalities on LA County roads took place on multi-lane roads, often with three or more lanes in each direction. These major arterials signify to drivers that the road is designed for them, rather than for all users.

- To counter this, BikeLA supports investments in complete streets and road diets, whereby excess travel lanes are replaced with bike lanes and widened sidewalks.
- A recent <u>report</u> by the UCLA Institute of Transportation Studies supports this strategy by arguing that "road dieted corridors [have] 44% fewer collisions than comparison corridors" and a negligible "11 second per mile" delay for drivers.
- In their Vision Zero strategy, the City and County of LA should consider narrowing roadways to provide expanded space for bicycles and allow road diet strategies on corridors with more than 20,000 average daily traffic (ADT) when appropriate.





Source: City of Vancover Transportation Design Guidelines All Ages and Abilities Cycling Routes

<u>Key Takeaway #3:</u> An astounding 85% of fatalities in 2022 occurred on roadways without bike lanes. Regionwide strategies must be adopted to close significant gaps in our existing network.

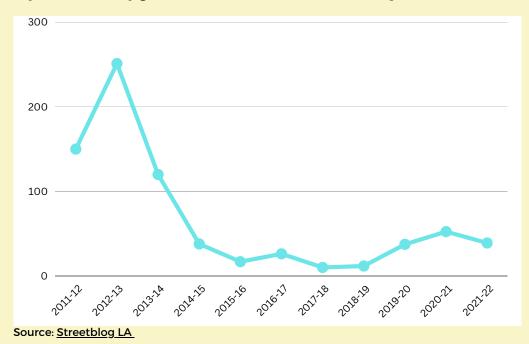
- When space on the road is designated for cyclists, travel patterns for all road users become more predictable and awareness of cyclists increases.
- Several collisions occurred where bike lane improvements end. This
  includes the area near the new Sixth Street Bridge and the end of the
  Figueroa Street bike lanes at MLK Jr Blvd. The region should continue to
  identify gaps in our bicycle lane network and prioritize high-need
  segments first.
- Even on roads with bike lanes, the quality of the dedicated infrastructure matters. A <u>2021 study</u> highlights that "protected bicycle lanes are 10 times more effective than painted bicycle lanes" and stresses the exceptional risk bicyclists face at untreated intersections.
- Strategies including cycle tracks, protected bicycle intersections, and neighborhood bicycle boulevards that parallel arterials can help provide safe alternatives for bicyclists and should be considered as part of a comprehensive solution to the lack of bicycle-specific infrastructure.

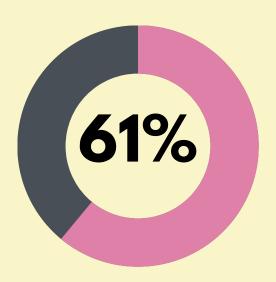
<u>Key Takeaway #4:</u> With over half of all fatalities occurring at night, the region must focus on strategies that address night-time road safety.

- Kim et. al. report that there is <u>110.9% increase</u> in the probability of a fatal injury on a road without street lights compared to a road with complete streetlight coverage.
- Road operating agencies need to ensure that lighting infrastructure is sufficient and adequately maintained to ensure our roads remain safe at night.
- Providing bicyclists with headlights, such as with <u>Operation Firefly</u>, and increasing education on how to ride safely at night can also help increase visibility.
- Beyond street lighting, there are several concerns that are more prevalent at night including driver impairment, distraction, and fatigue that must be addressed through ongoing enforcement and education efforts, with a focus on equity and deploying new technology.

Despite growing concerns over roadway safety, the City of LA added and upgraded just 39.1 miles of bike lanes, down 90% since 2012-13.

Graph 3: New/Upgraded Miles of Bike Lanes in City of LA, 2011-2022





# Percent of Crashes That Occured In Neighborhoods with >65% POC

<u>Key Takeaway #5:</u> Bicycle fatalities are heavily concentrated in low-income, Black and Latinx neighborhoods and along arterials with high traffic volumes.

- This concentration of collisions is associated with a lack of bicycle
  infrastructure in these communities. Zooming out, a <u>study of 22 U.S.</u>
  <u>cities</u> reveals that neighborhoods in Los Angeles with a higher
  proportion of black and Hispanic residents and lower levels of
  educational attainment were 42% less likely to contain bike lanes.
- While bicycling has several known positive health benefits, including an overall reduction in mortality due to increased physical activity, the benefits are greatly reduced for marginalized groups. In fact, a 2022 report by Braun et. al. reveals that in the absence of infrastructure improvements, bicycling actually increases risk of mortality in Black, Hispanic, and high poverty areas due to unsafe conditions.
- Plans to expand bicycle infrastructure must incorporate and uplift the voices of historically underrepresented communities through measures including participatory budgeting, targeted infrastructure funding, and community education.

#### III. Recommendations

BikeLA recognizes that there is no single solution that will address the unsafe conditions on our roadways. By pairing infrastructure upgrades with policy changes, our region can hopefully move closer to Vision Zero for all road users. In subsequent reports, we will provide details on how community members, government agencies, and policymakers can successfully advance these proposals.

#### Infrastructure/Road Design Suggestions:



#### Lower Speed Limits On Arterial Roadways

We need to move away from standardizing speed limits based on the <u>rigid formulas</u> and instead consider each corridor's context and bicycle usage.



#### Embrace Road Diets and Street Conversions

Converting underutilized vehicle lanes into protected bike facilities will increase bicycle safety and enhance overall livability for cyclists and pedestrians.



## Improve Bicycle Lane Design Standards

Traditional bike lanes alone are not sufficient for most riders. Planners should update standards and prioritize gaps in the regional bike lane network.



## Focus on Street Light Quality and Reliability

City agencies should have up-todate information on street light status and ensure that ALL intersections have high quality LED bulbs.

#### **Policy Suggestions:**

In addition to making improvements to our transportation infrastructure, BikeLA recommends several policy changes including:

Policy Idea	Description
Participatory Budgeting	Developing new opportunities for neighborhood residents to democratically decide how to best allocate funding towards needed projects
Short-Term Roadway Enhancements	Utilizing less expensive, quick build designs (i.e. restriping, plastic delineators) to make immediate improvements before more comprehensive projects are carried out
Targeting of Infrastructure Funding Programs	Ensuring grant funding for infrastructure projects are directed towards low-income, high need communities
Education And Rider Empowerment	Providing cyclists with tools, strategies, and techniques to safely and confidently navigate road traffic

#### IV. Conclusion

Our roads are incredibly unsafe for cyclists and pedestrians. Yet, even with recent investments in bicycle and safety projects, there remains a large shortfall, especially in marginalized communities.

# 26 Cyclists Lost Their Lives in 2022 on LA County Roadways

# Most Crashes Involved 2+ Factors

- High Speed Limits
- Multiple Lane Roadways
- Missing Bicycle Lanes
- Nighttime Conditions

# Crashes Were Heavily Concentrated

- Low-income, Black/Latinx Neighborhoods
- Major Arterials
- High Injury Network

# Infrastructure Solutions

- Lower Speed Limits
- Road Diets
- Improved Bike Lane Design
- Street Lighting

# Policy Solutions

- Participatory Budgeting
- Short-Term Improvements
- Targeting of Funding
- Rider Education

Together with BikeLA, you can help advocate for safer roads and inclusive infrastructure in your community.



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# **Appendix: Methodology**

Our methodology to conduct this analysis involved using a Google News Web Scraper to identify news articles of bicycle-related fatalities in LA County. We then added each collision to a spreadsheet and filled in the relevant information (i.e. local government representative, accident description, etc). At the same time, we added the collision to the interactive map (linked below) to help visualize the locations of each of the fatalities. Then, we used Google Maps Street View to investigate the environment of each crash site and noticed several commonalities that led to our conclusions.

We encourage you to view our <u>interactive Google Map</u> to visualize the locations of the 26 fatalities.

#### **Authors & Acknowledgments:**

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BikeLA thanks all of their members and partners for their continued support and shared vision to make Los Angeles County a healthy, safe, and fun place to ride a bike for all.

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