Benchmarking & Crash Analysis

Technical Advisory Committee Meeting #2

June 4, 2025

VISION ZERO SACRAMENTO | Fehr & Peers

Agenda

1

Welcome

- Introductions
- Recap status of project
- Purpose of today's meeting

2

Benchmarking Findings

- Approach
- Progress from 2018 Action Plan
- Areas of strength and opportunity

3

Crash Analysis Findings

- Approach to Collision Analysis
- Citywide patterns and trends
- Collision profiles
- Safety Corridor Network

Introductions

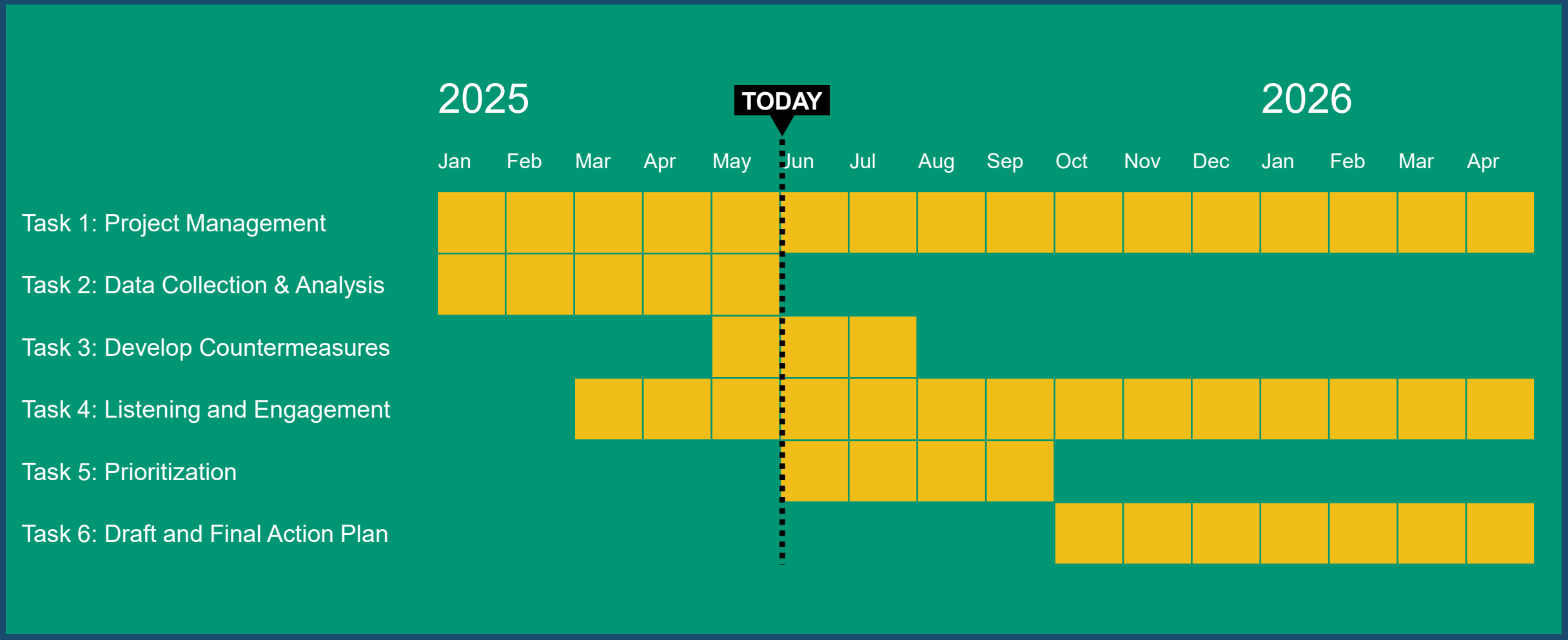
What's your name & department?

What's your favorite Sacramento restaurant outside the grid?

What Does A Safety Action Plan Include?

- Strategic planning, vision statement, and goals
- Internal and external partnerships
- Engagement and discussion with key partners
- Discussion of existing efforts
- Systematic and data-driven analysis
- Engineering, education, and enforcement strategies
- Evaluation and implementation strategies (e.g. funding)
- High-Injury Network (HIN) identification
- Project prioritization or location-specific engineering recommendations

Project Schedule



Purpose of Today's Meeting

- Share outcomes from the benchmarking process and crash data analysis

Benchmarking

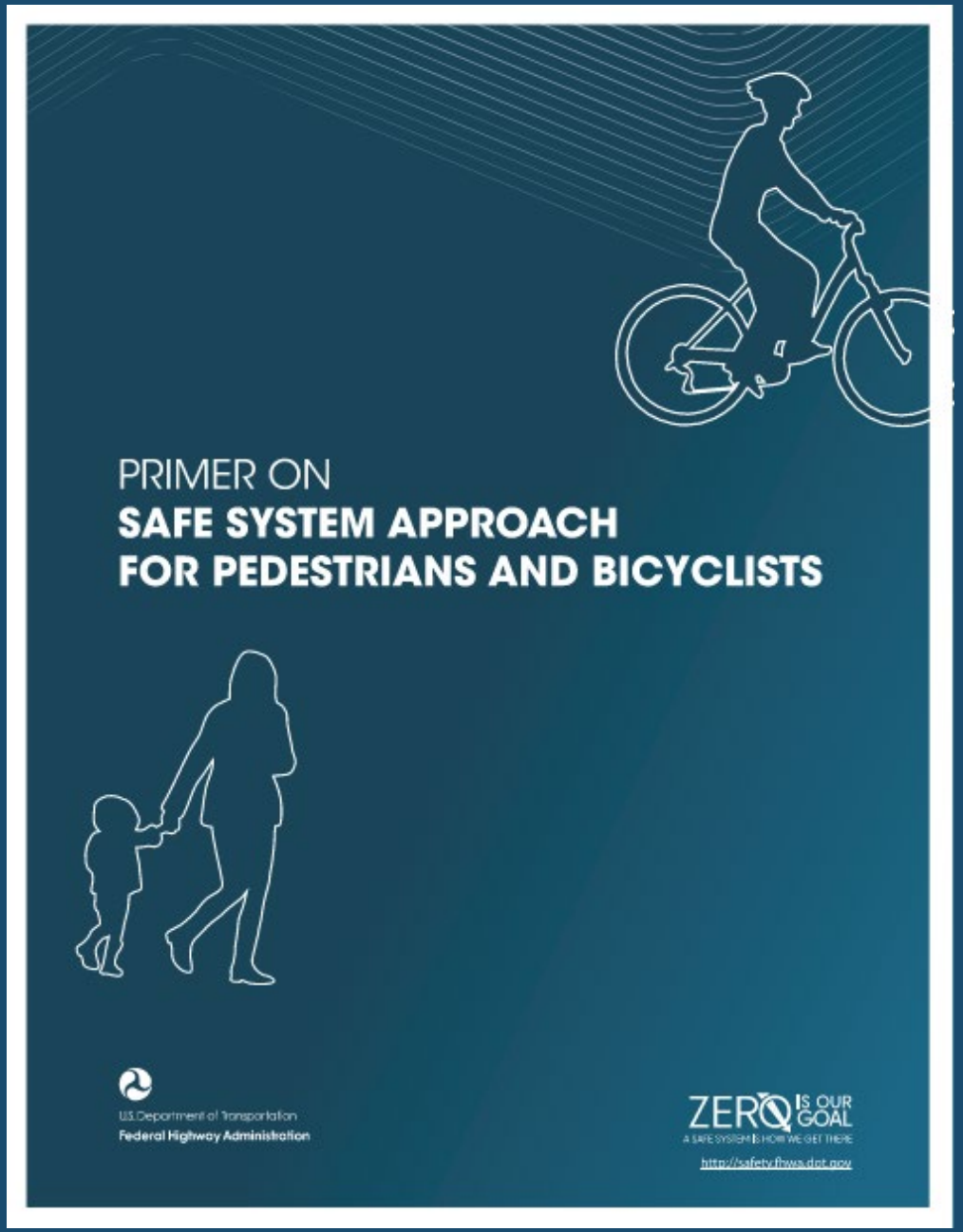
Benchmarking Goals

Review Current Guidance

Review existing policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize safety

Identify Opportunities

Identify where changes in City policies and processes need to occur to put safety at the forefront of trade-offs and decision making



Approach

Core Element	Category	Benchmark	Summary of State of Current Practice in Sacramento (FP Input)	Link/Source	Existing Assessed Level of Commitment/Implementation			Path to Institutionalization			
					Not a Current Practice	Occasional Practice	Institutionalized Practice	No Action Needed	Accomplish with the VZAP	Implement Following VZAP Adoption	No Action Planned for Now
Safe Roadways	Collision avoidance	Systematically implement proven countermeasures to enhance pedestrian and bicyclist safety and connectivity by providing separation in space and time, increasing attentiveness and awareness, and addressing infrastructure gaps. Measures include protected signal phases, clear zones, and vertical and horizontal separation, prioritized based on crash exposure, crash history, roadway characteristics, and adjacent land uses associated with higher levels of use.	Sacramento has developed Pedestrian Crossing Guidelines to improve pedestrians crossings, incorporating treatments such as curb ramps, marked crosswalks, curb extensions, crossing islands, raised pedestrian crossings, and enhanced lighti... The City is also in the process of updating	1.https://www.cityofsacramento.gov/content/dam/portal/pw/Transportation							
	Kinetic energy reduction	Systemically install proven countermeasures to manage motor vehicle speed and collision angles. Measures include roadside appurtenances, roundabouts, refuge islands, hardened center lines, and road diets.	The city has roundabouts... of new traffi... roundabouts Sacramento improvemen... prioritized based on crash history, street characteristics, and adjacent land uses, specifically the Top 10 Injury Corridors identified through the 2018 Vision Zero Plan process.								
		Evaluate intersection design and control decisions in the planning or scoping stage for opportunities to better prioritize reducing kinetic energy transfer, following new FHWA guidance.	The City is also in the process of updating their Design Standards, which should include prioritizing reduction in kinetic energy transfer.			x		x			
	Policies and tradeoffs	Designate functional class and modal priority for roadways to pinpoint the most effective safety countermeasures and streamline tradeoff decisions.	Previous effort as part of the 2018 VZAP, and *current effort as part of this VZAP Update.*				x		x		

Existing Assessed Level of Commitment/Implementation			Path to Institutionalization			
Not a Current Practice	Occasional Practice	Institutionalized Practice	No Action Needed	Accomplish with the VZAP	Implement Following VZAP Adoption	No Action Planned for Now

Sacramento Vision Zero Action Plan (2018)

Progress since 2018

Of the **41 actions** in the 2018 Plan, **29 are completed or in progress**.

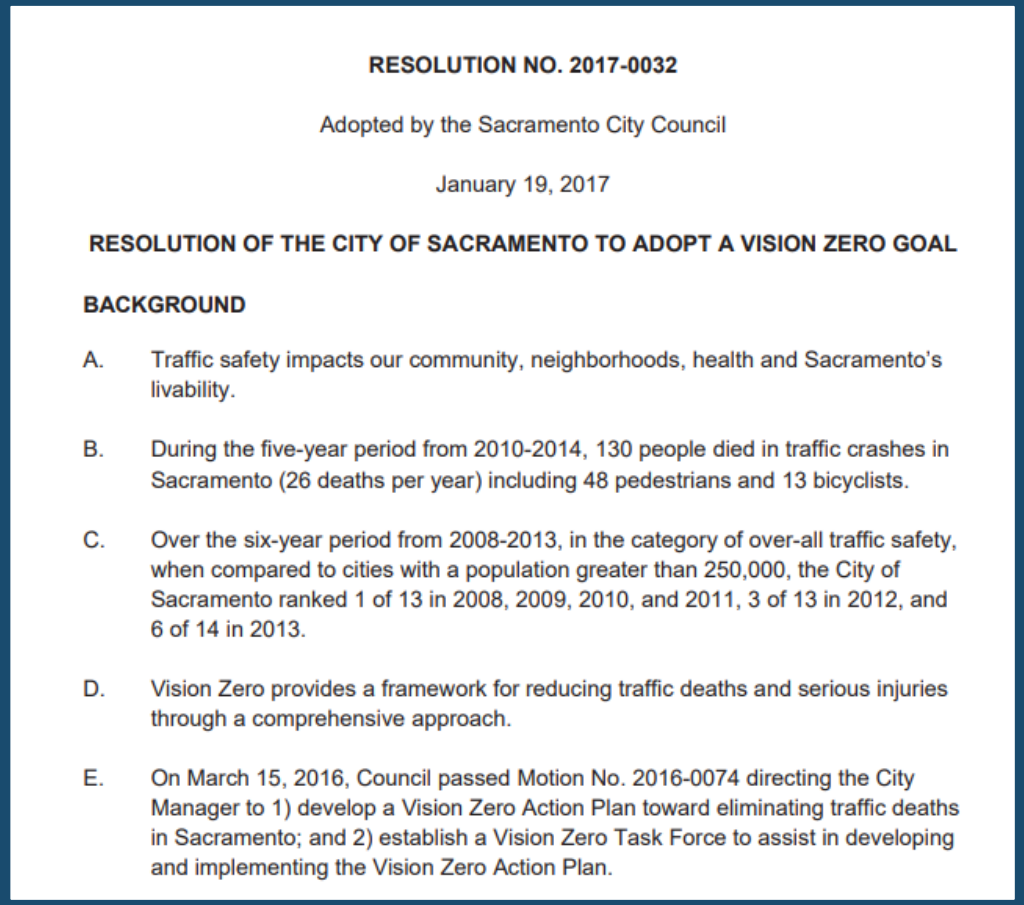
- Progress towards implementation of top corridors
- Of 12 actions that were not completed, some required involvement from outside of Transportation Planning or Public Works
- Other required changes at the State level, such as lowering the legal blood alcohol level

VISION ZERO ACTIONS

	ACTION
1. VISION ZERO PROGRAM	
1.1	Include Vision Zero on agendas for all City sponsored meetings, and education opportunities such as the Planning Academy.
1.2	Convene regular meetings of executive-level departmental representatives to coordinate Vision Zero efforts.
1.3	Develop a workshop for media professionals on how to best communicate about traffic crashes and roadway safety.
1.4	Launch online, interactive crash data map and website.
1.5	Identify a permanent, dedicated funding source for Vision Zero implementation and coordination.
1.6	Incorporate Vision Zero safety principles into all future City plans and design documents.
1.7	Provide ongoing safety related training and support to City staff responsible for street design and enforcement activities.
1.8	Publish an annual report to measure progress against the goals of the Action Plan.
2. STREET DESIGN (ADDRESSES PROFILES 3 & 4)	
2.1	Update City street design standards to reflect complete streets and designs reflective of crash reduction factors.
2.2	Develop designs and secure grant funding for first Top 5 priority corridors, with a focus on roadway designs for reduced speeds.
2.3	Install low-cost safety improvements at 10 locations, including new road markings, signs, and minor signal modifications per year.
2.4	Develop prioritized list and deliver half of engineering safety projects on the HIN in Disadvantaged Communities (commensurate with share of fatal collisions).
2.5	Establish internal process to ensure that Vision Zero countermeasure options are evaluated and implemented where feasible on projects that fall within the HIN.
2.6	Enhance street lighting to improve visibility throughout the HIN.
2.7	Prioritize at least 10 capital project locations on HIN to address roadway designs for reduced speeds; develop project designs and secure funding. Focus on geographic equity and Disadvantaged Communities.
2.8	Work with local, state and federal partners to update the current 85th percentile methodology for setting speed limits.

Key Strength: Leadership & Commitment

- Publicly committing to Vision Zero
- Aligning Vision Zero objectives and citywide transportation policies
- Adopting key performance indicators to evaluate progress



RESOLUTION NO. 2017-0032

Adopted by the Sacramento City Council

January 19, 2017

RESOLUTION OF THE CITY OF SACRAMENTO TO ADOPT A VISION ZERO GOAL

BACKGROUND

A. Traffic safety impacts our community, neighborhoods, health and Sacramento's livability.

B. During the five-year period from 2010-2014, 130 people died in traffic crashes in Sacramento (26 deaths per year) including 48 pedestrians and 13 bicyclists.

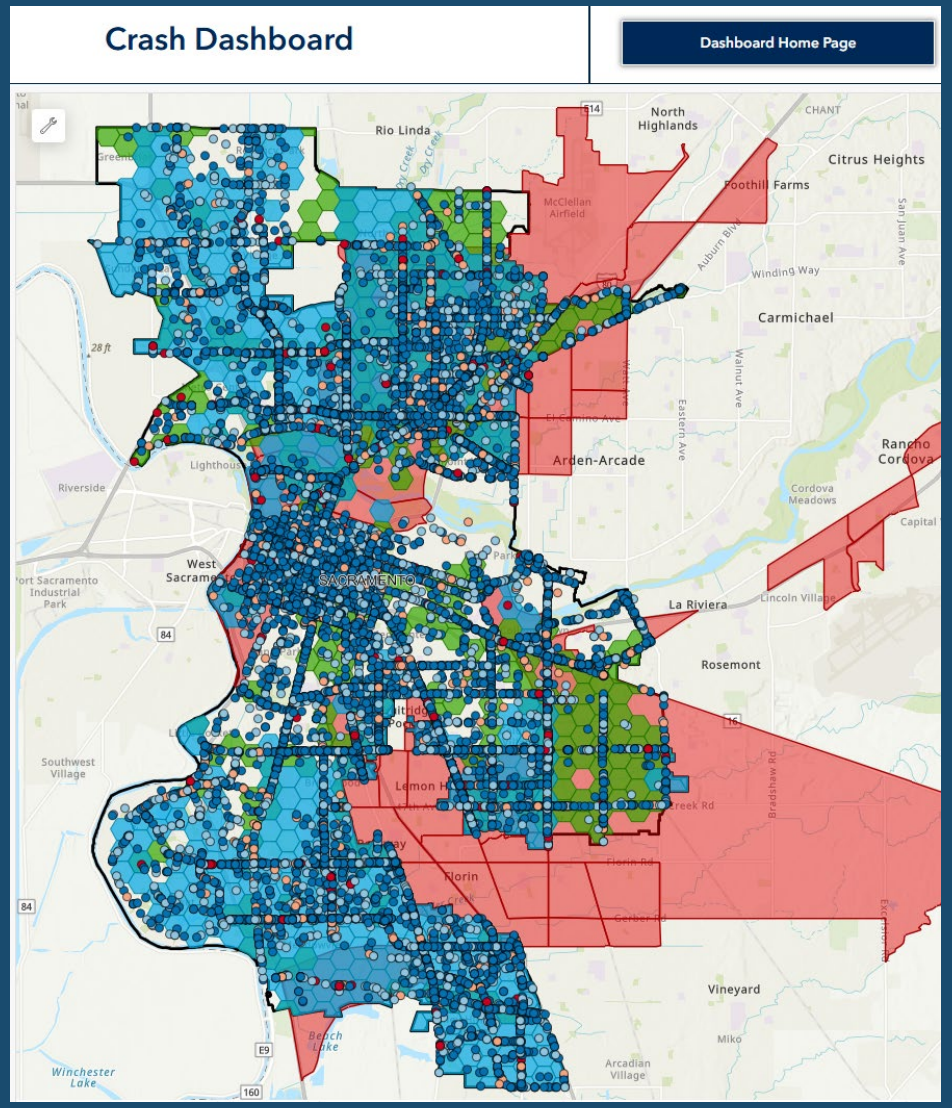
C. Over the six-year period from 2008-2013, in the category of over-all traffic safety, when compared to cities with a population greater than 250,000, the City of Sacramento ranked 1 of 13 in 2008, 2009, 2010, and 2011, 3 of 13 in 2012, and 6 of 14 in 2013.

D. Vision Zero provides a framework for reducing traffic deaths and serious injuries through a comprehensive approach.

E. On March 15, 2016, Council passed Motion No. 2016-0074 directing the City Manager to 1) develop a Vision Zero Action Plan toward eliminating traffic deaths in Sacramento; and 2) establish a Vision Zero Task Force to assist in developing and implementing the Vision Zero Action Plan.

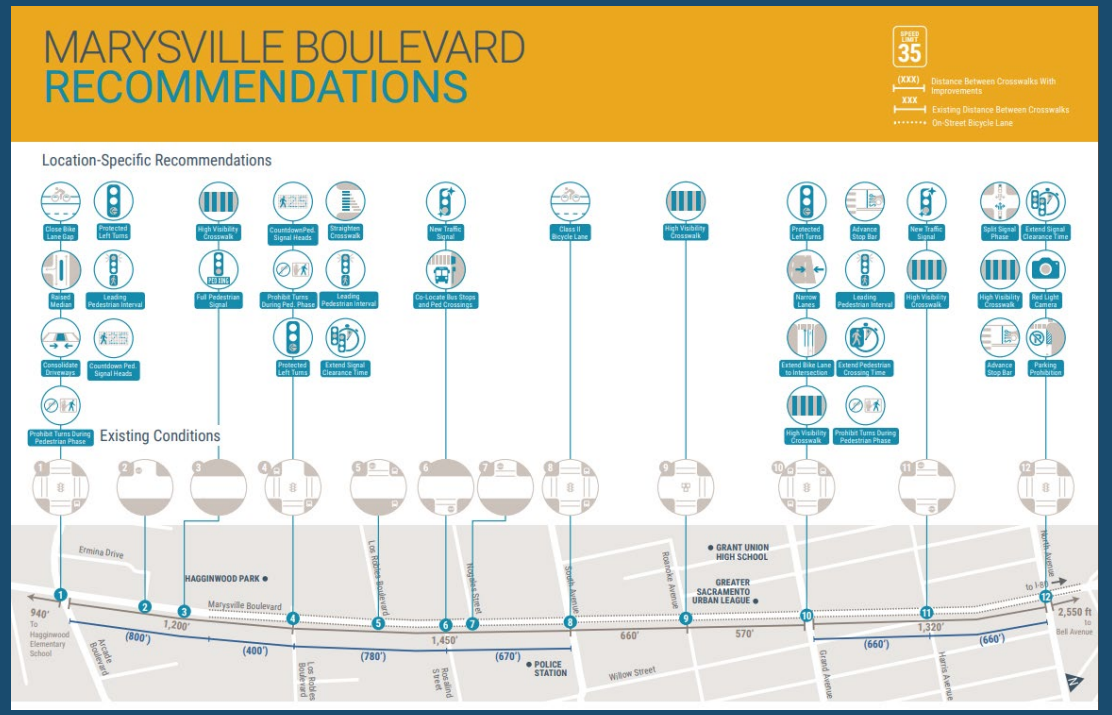
Key Strength: Data-Driven Decision Making

- Focusing on reduction in fatalities and serious injuries
- Utilizing collision data, community input, and other transportation system metrics to inform planning and project development
- Maintaining a comprehensive GIS database of the City's infrastructure



Key Strength: Engineering & Infrastructure Improvements

- Prioritizing safety improvements on Top 10 Injury Corridors
- Integrating engineering countermeasures into Sacramento's transportation projects
- Beginning to use strategies like reducing default speed limit and expanding automated enforcement programs

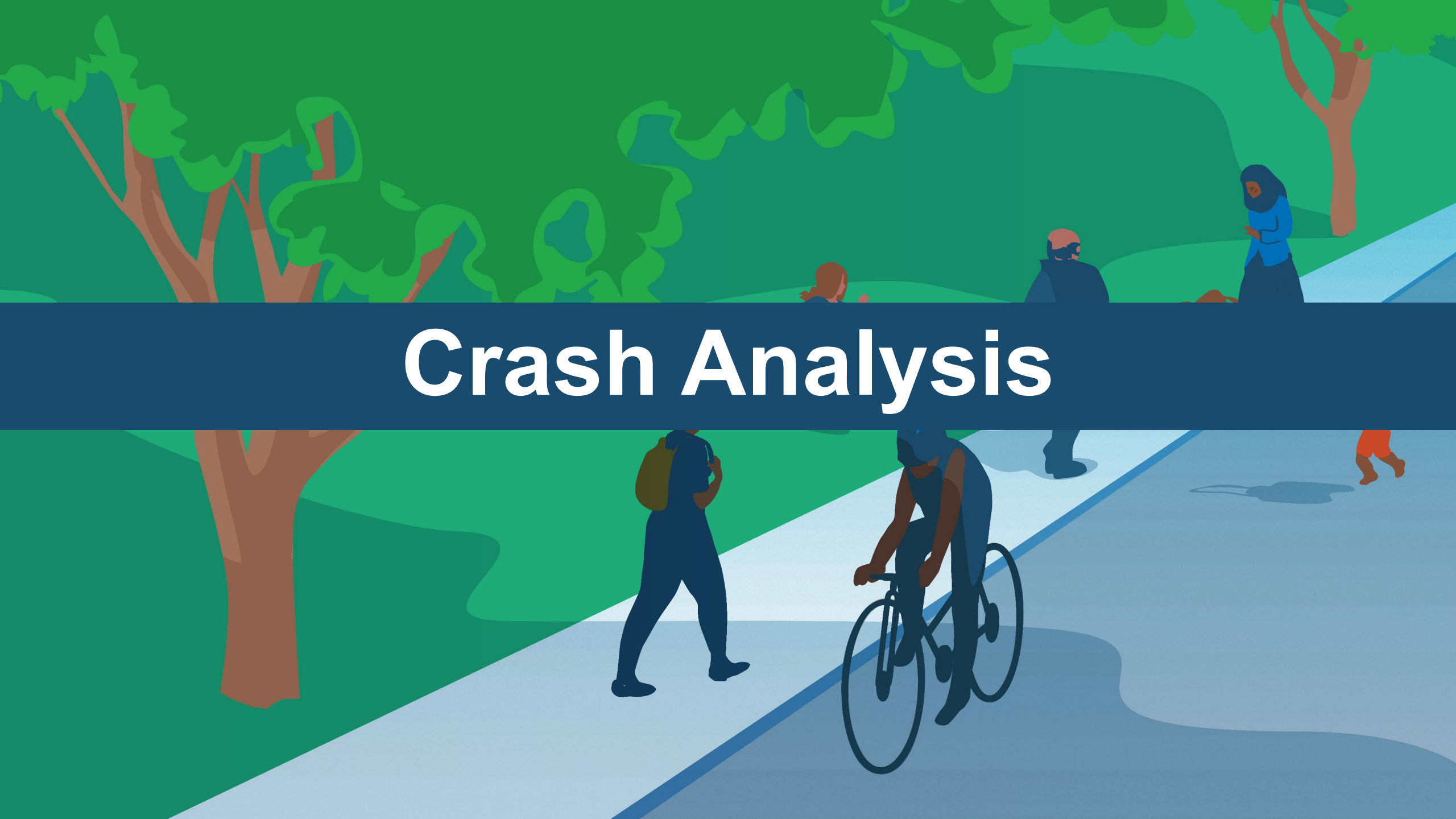


Key Opportunities

- **Sustained Funding**: Expanding funding sources for safety projects and leveraging grants to continue implementation
- **Remove Barriers to Mobility**: Continue to meaningfully engage the public and provide fairness in resource allocation by prioritizing the most dangerous locations
- **Inter-Agency Coordination**: Strengthen collaboration between City transportation engineering and planning, law enforcement, first responders, and public health agencies, as well as outside agencies such as Sacramento County and Caltrans

DISCUSSION

Did we miss any strengths or opportunities?



Crash Analysis

About the Collision Data

How'd we get our data?

- Crossroads data sourced from Sacramento Police Department
- January 2013 – December 2022

What's in the dataset?

- Collision data and time
- Modes involved
- Collision type
- Collision factor/violation
- Primary parties involved

Approach to Systemic Collision Analysis

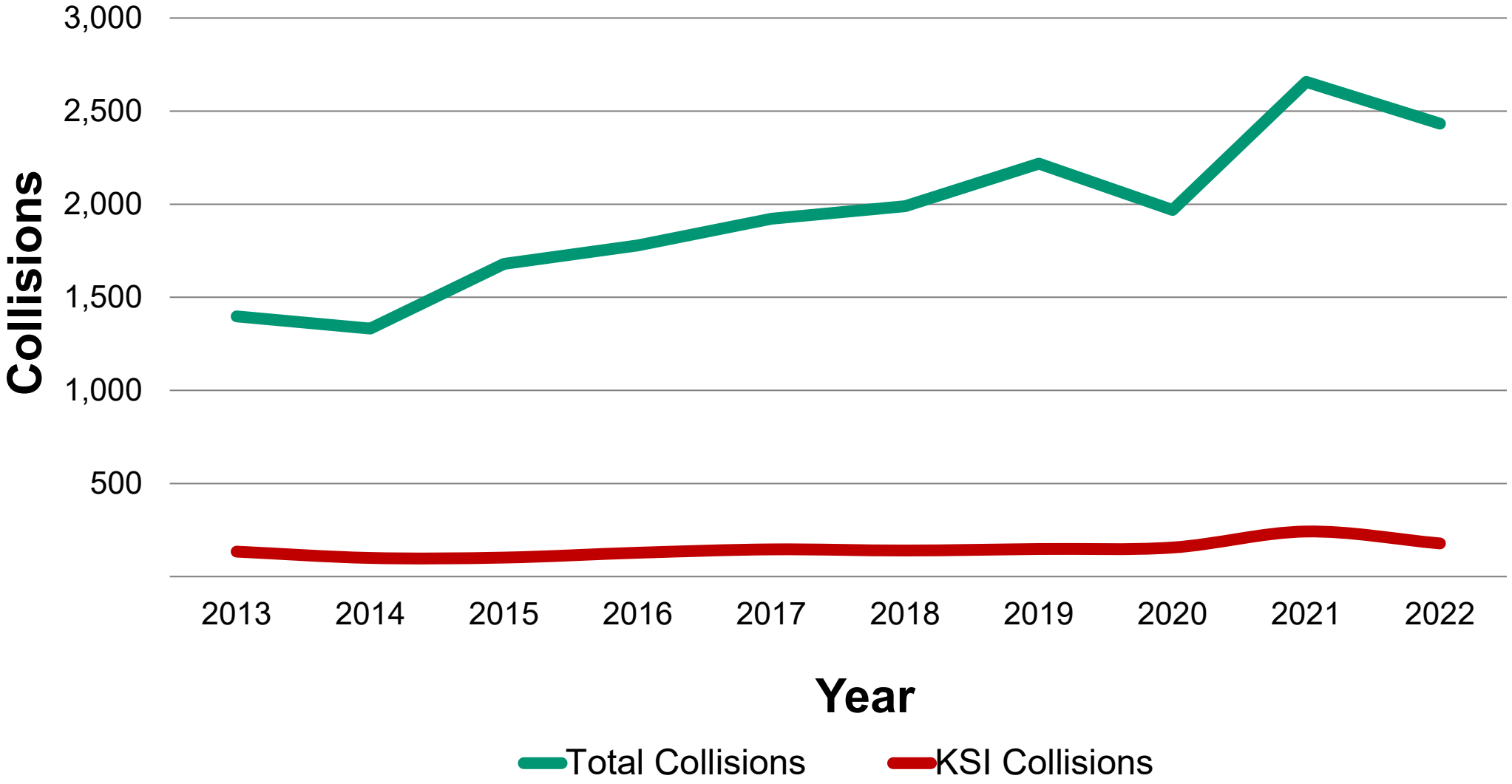
Landscape analysis

Looking at collision data

Contextual analysis

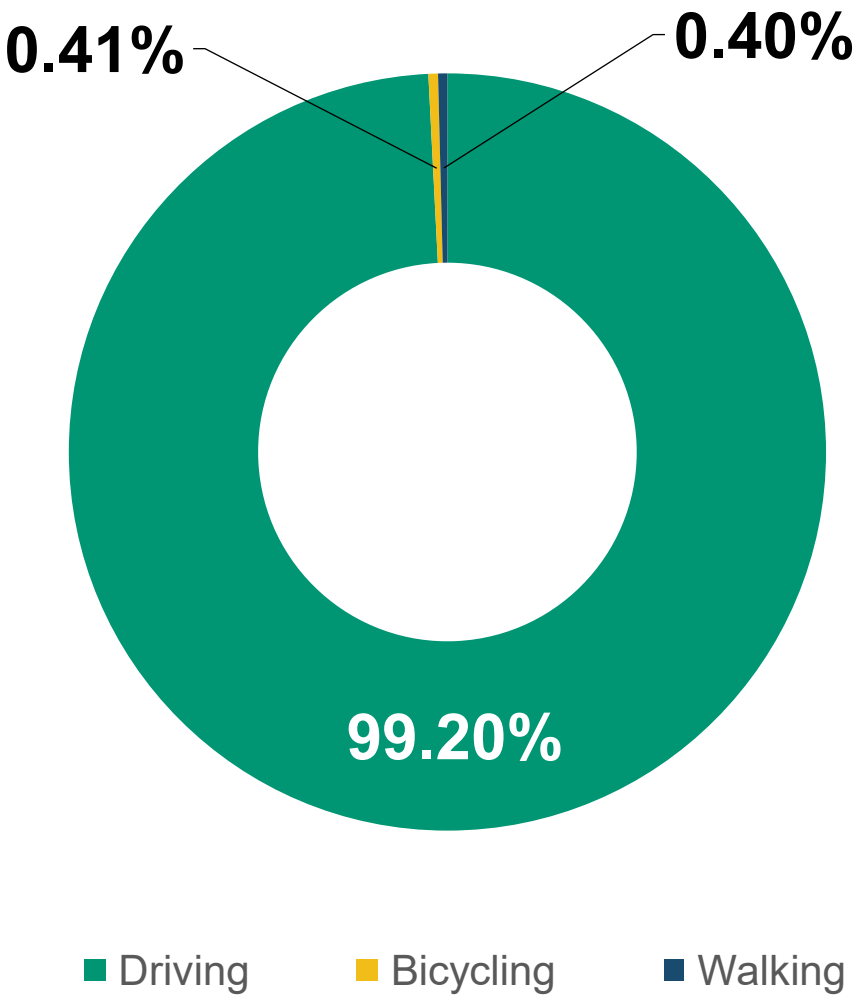
Looking at geographic factors

Total Collisions vs. KSI Collisions, 2013-2022



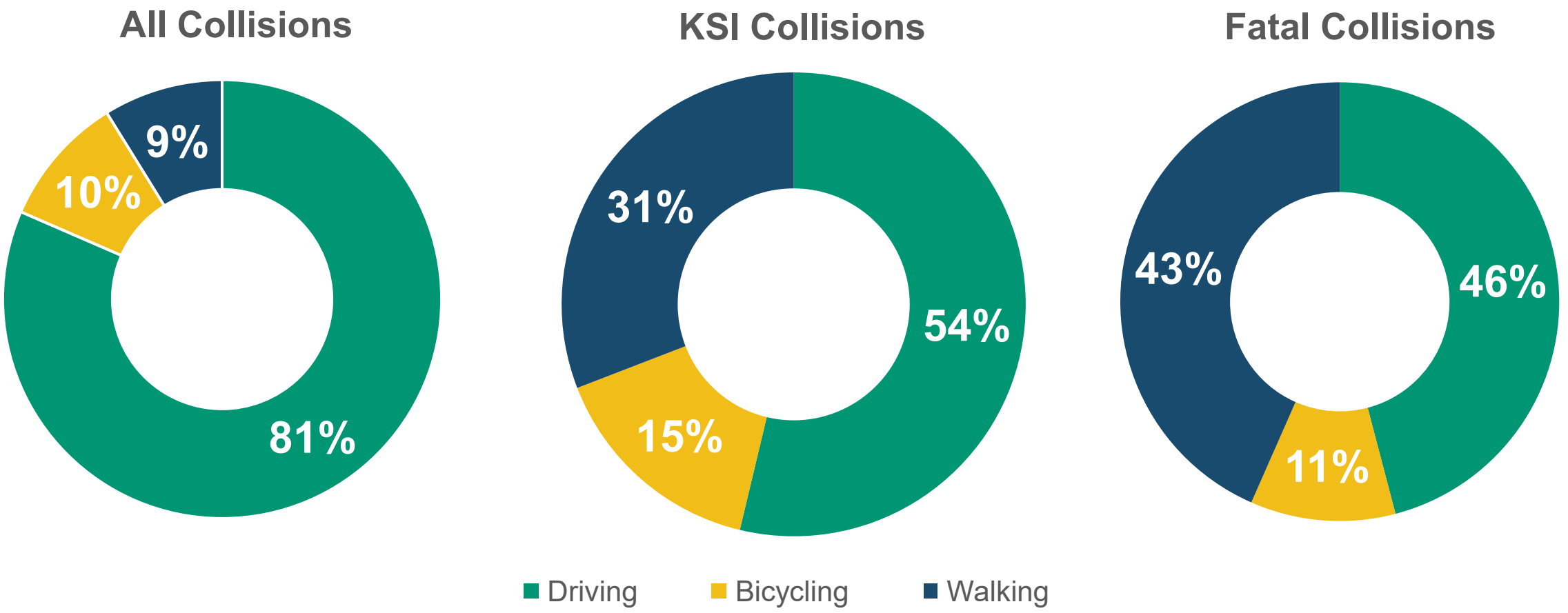
Source: City of Sacramento, Crossroads Data.

Miles Traveled by Travel Mode, 2024



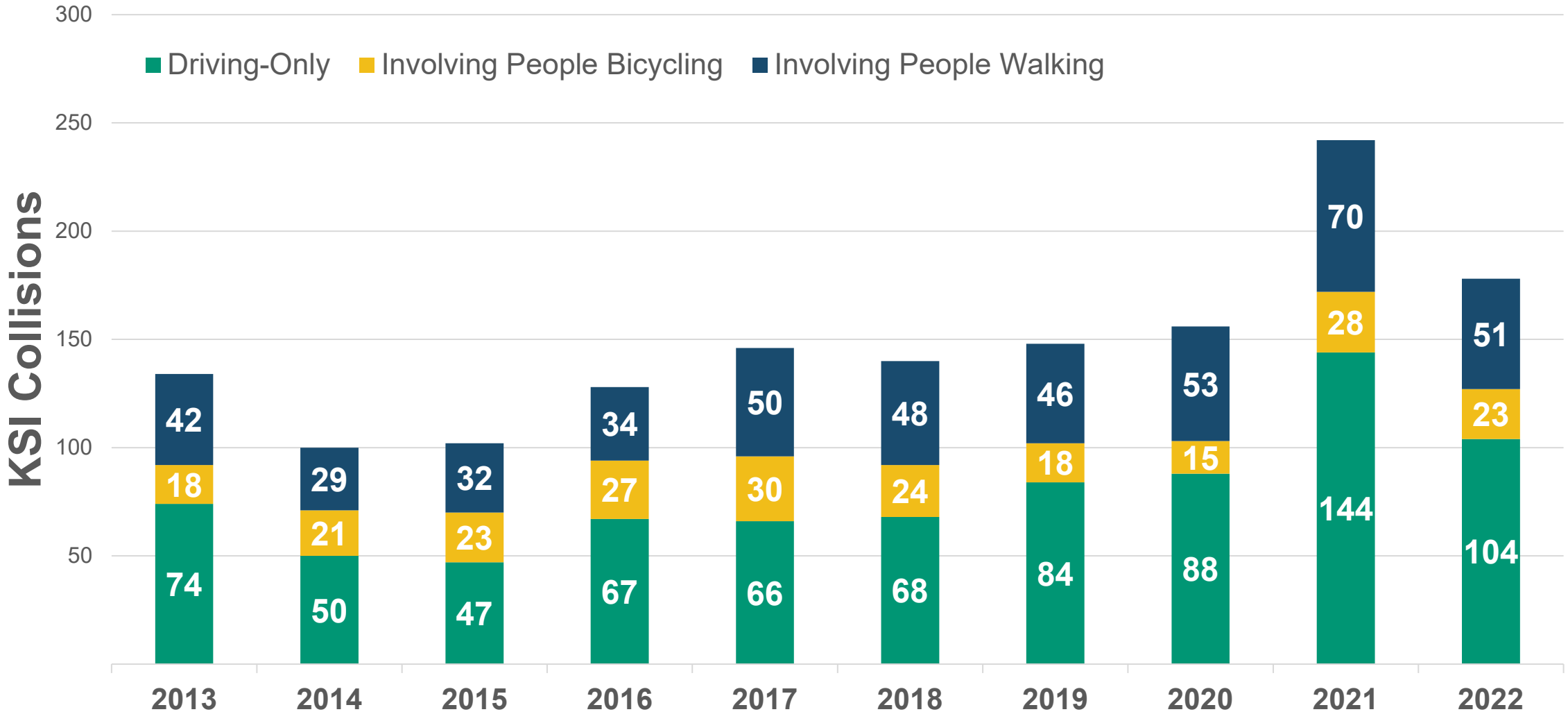
Source: Replica Data, Fall 2024.

Collisions by Travel Mode, 2013-2022



Source: City of Sacramento, Crossroads Data.

KSI Collisions By Mode, 2013-2022

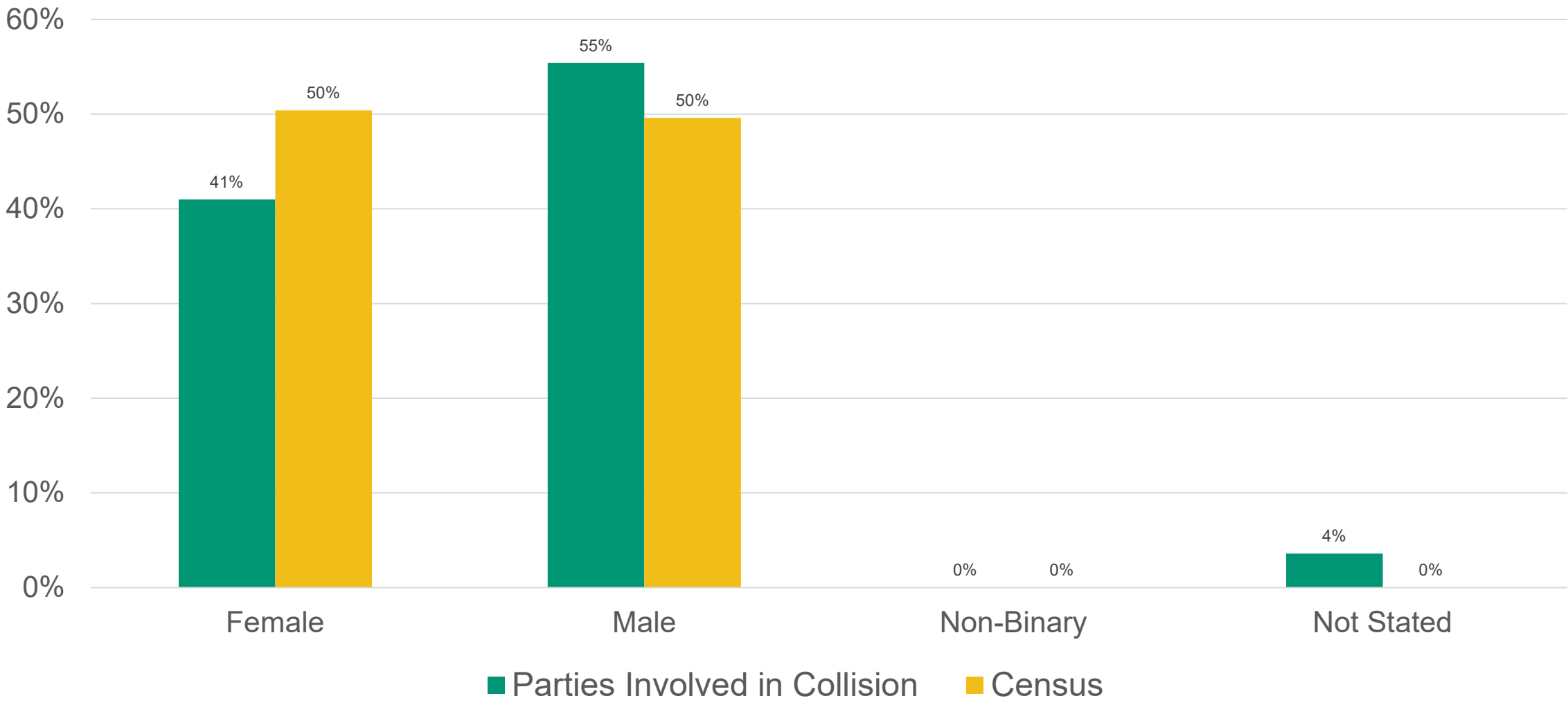


Source: City of Sacramento, Crossroads Data.

DISCUSSION

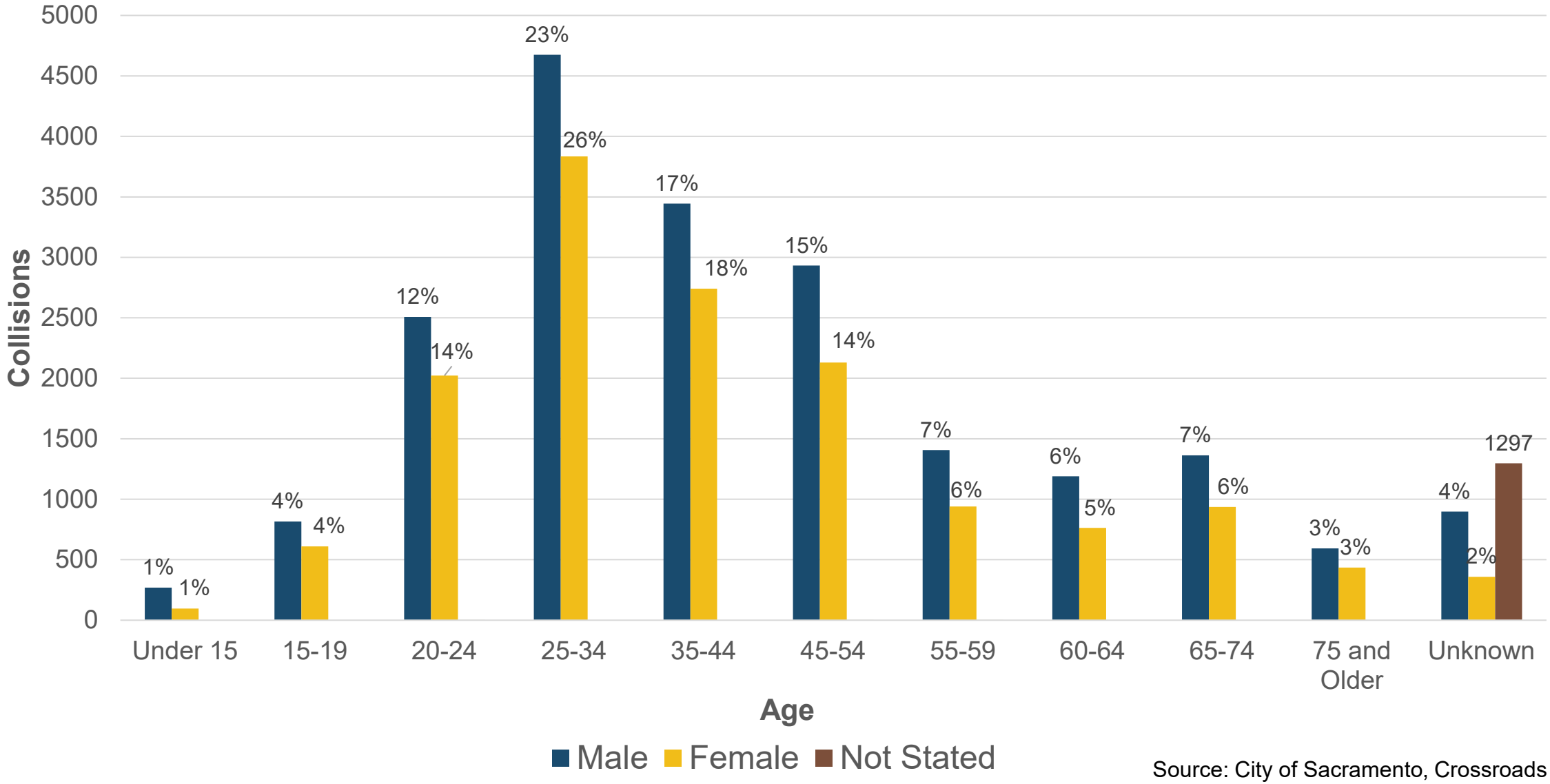
How do these trends compare to your experience?

Collision Parties by Gender, 2013-2022



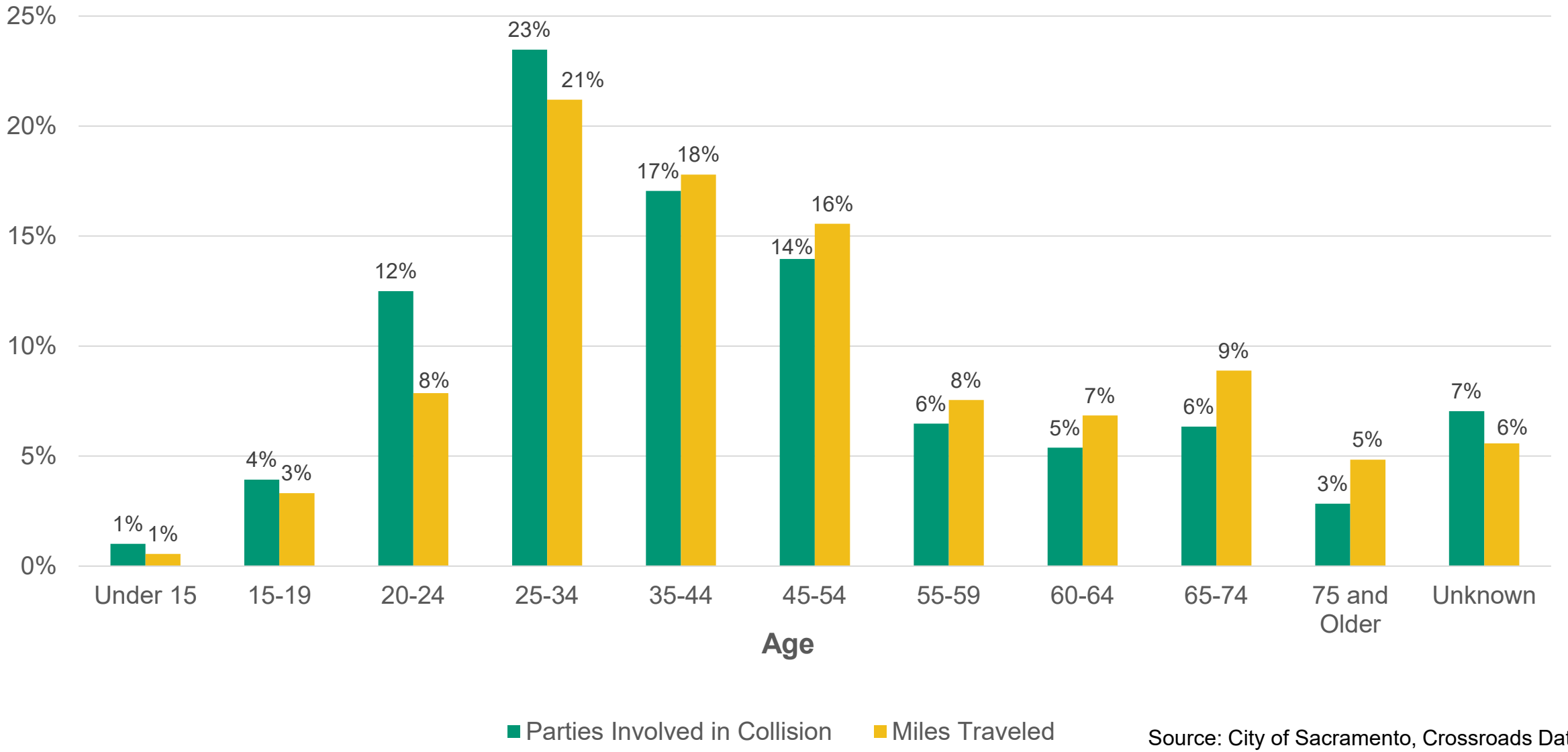
Source: City of Sacramento, Crossroads Data.

Collision Parties by Age and Gender, 2013-2022



Source: City of Sacramento, Crossroads Data.

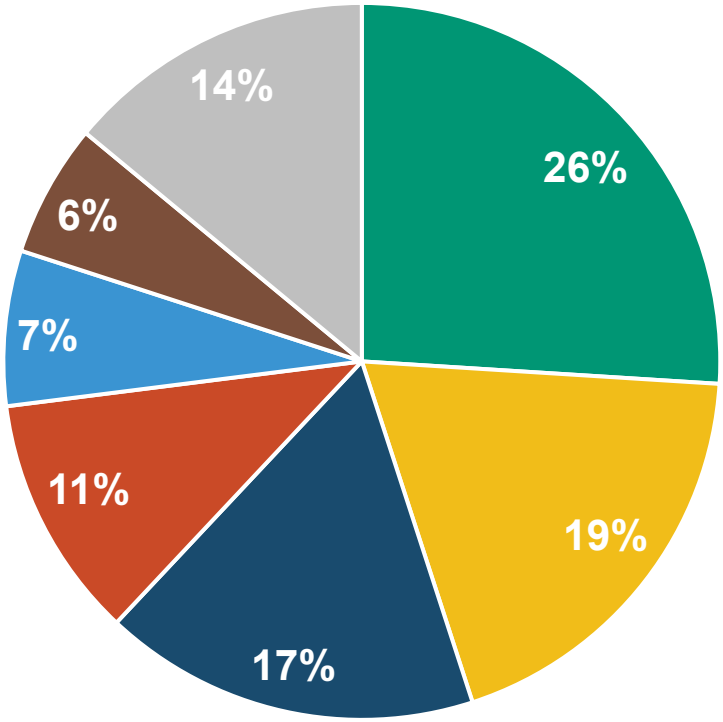
Collision Parties by Age, 2013-2022



Source: City of Sacramento, Crossroads Data.

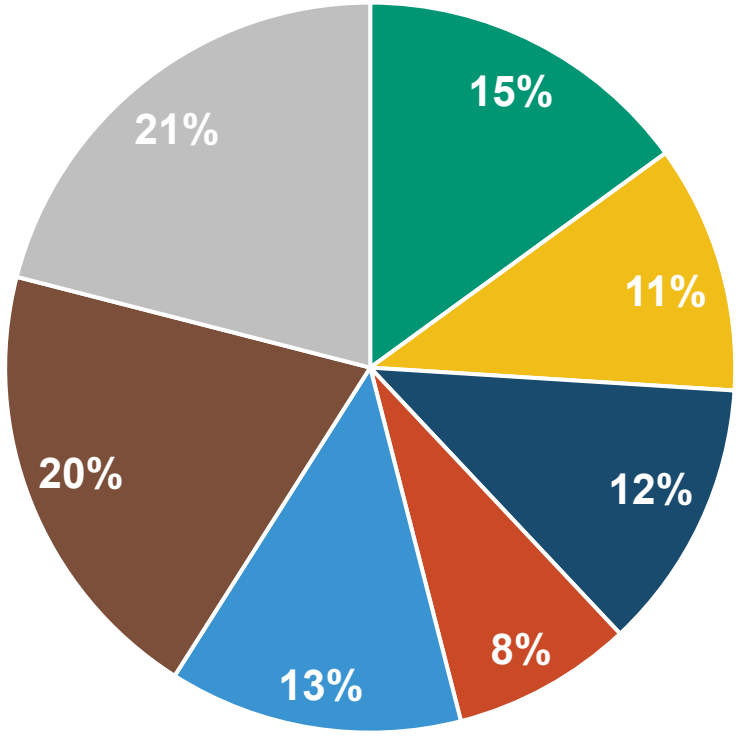
Primary Collision Factors of Total v. KSI Collisions, 2013-2022

Total Collisions



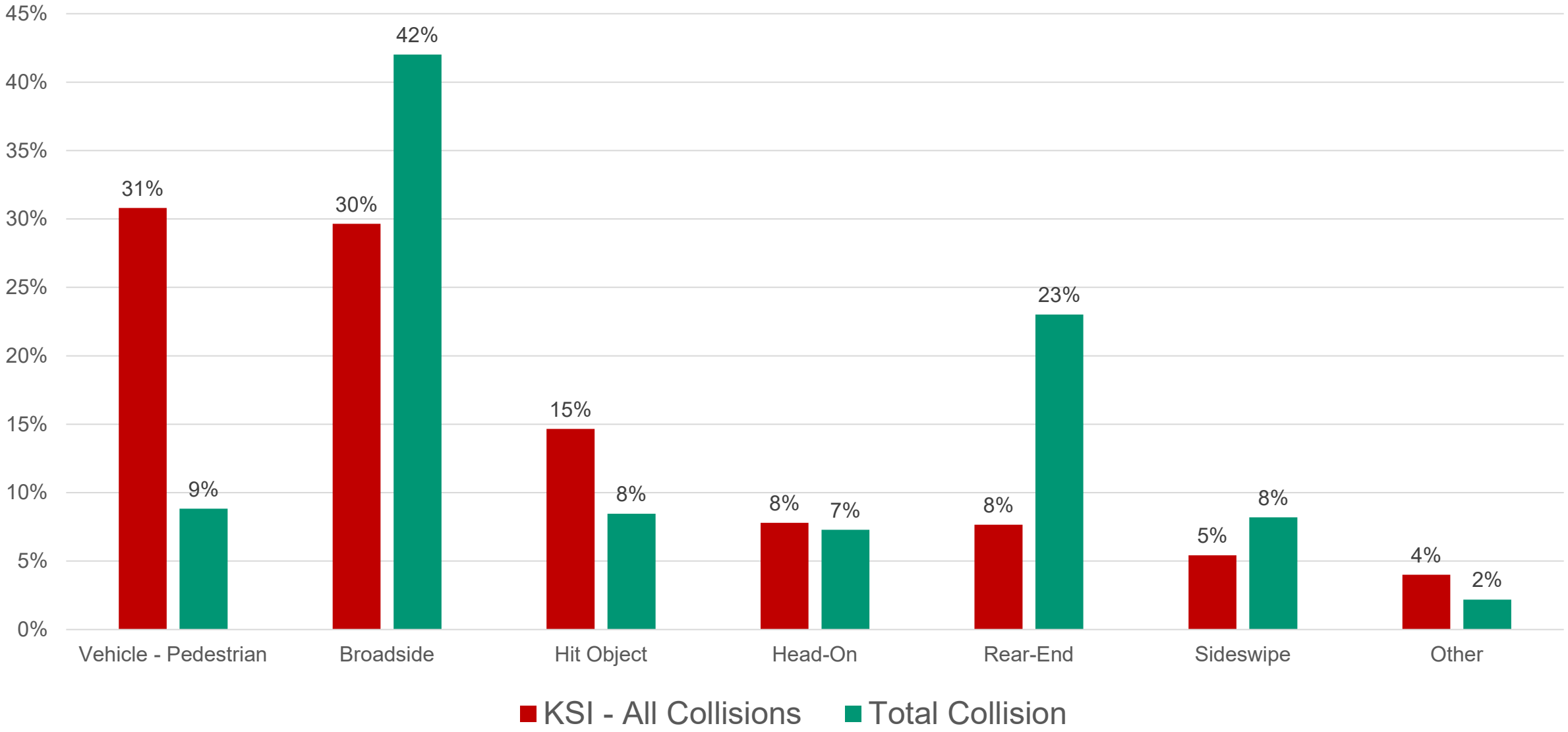
- Unsafe Speed
- Vehicle Right of Way Violation
- Traffic Signals & Signs
- Improper Turning
- Under the Influence
- Pedestrian-Related
- Other/Not Stated

KSI Collisions



Source: City of Sacramento, Crossroads Data.

Top Collision Types, 2013-2022



Source: City of Sacramento, Crossroads Data.

Collision Types at Intersections

Total Collisions

Near intersections

46%
Broadside

21%
Rear-end

Away from intersections

34%
Rear-end

24%
Broadside

KSI Collision Types at Intersections

KSI Collisions

Near intersections

33%
Broadside

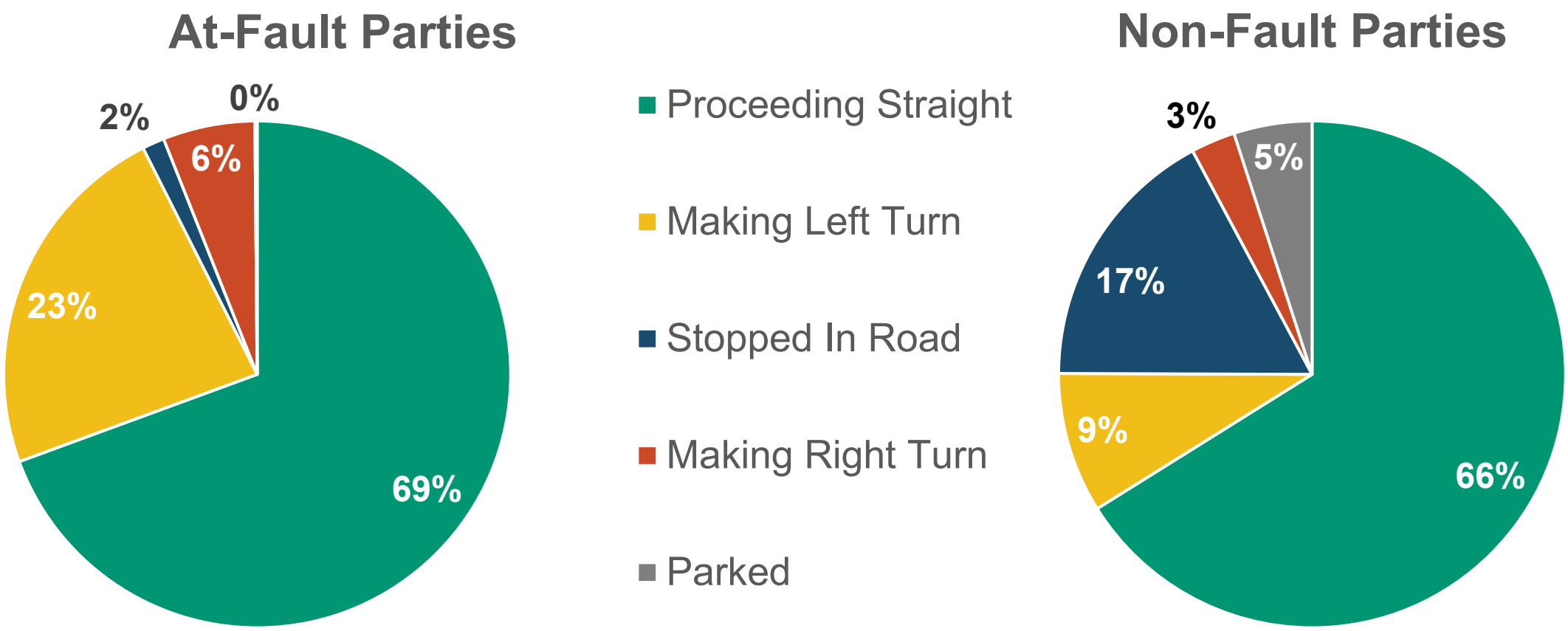
31%
Vehicle-pedestrian

Away from intersections

31%
Vehicle-pedestrian

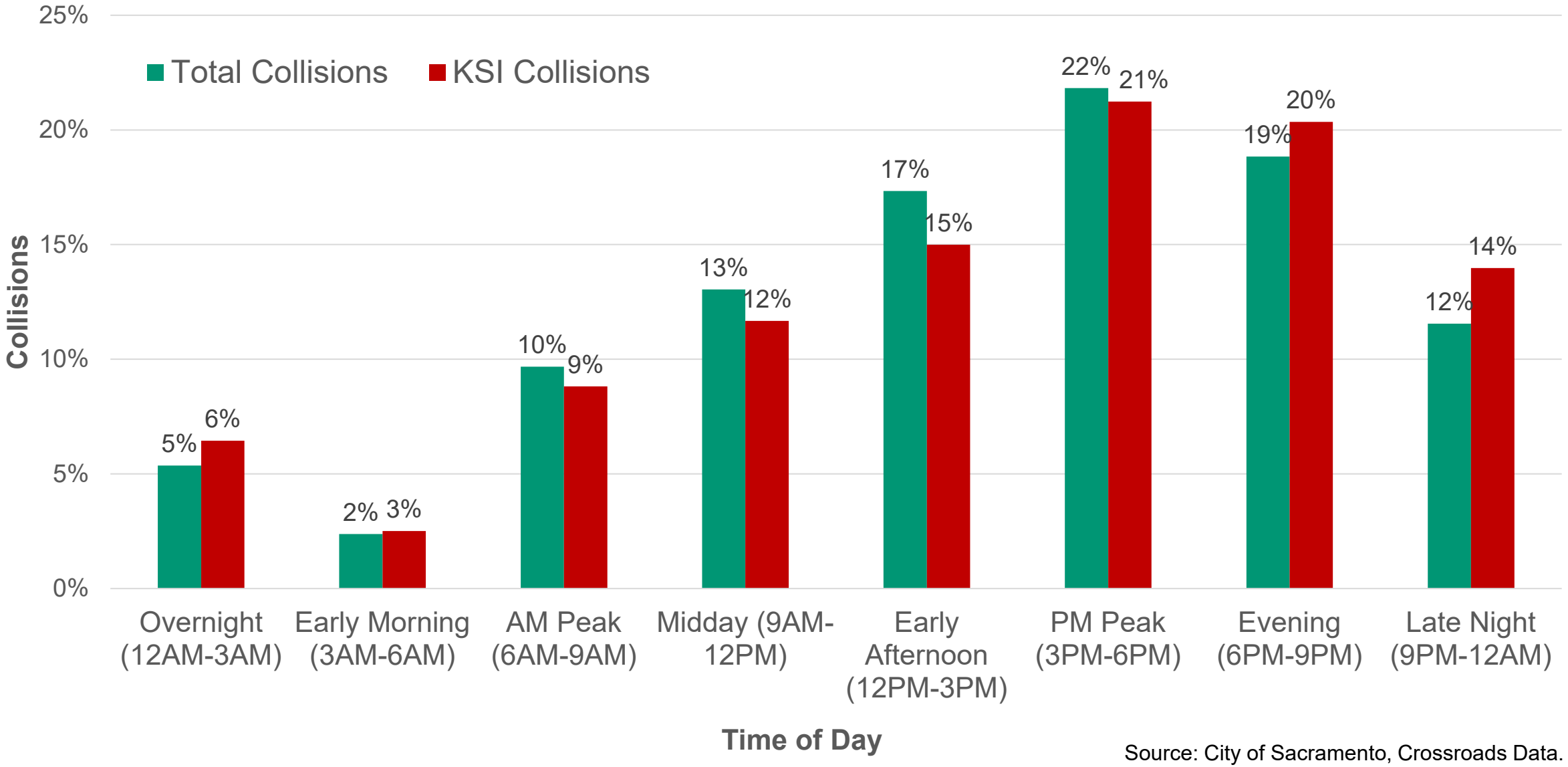
21%
Hit-object

Actions Before Collisions, 2013-2022



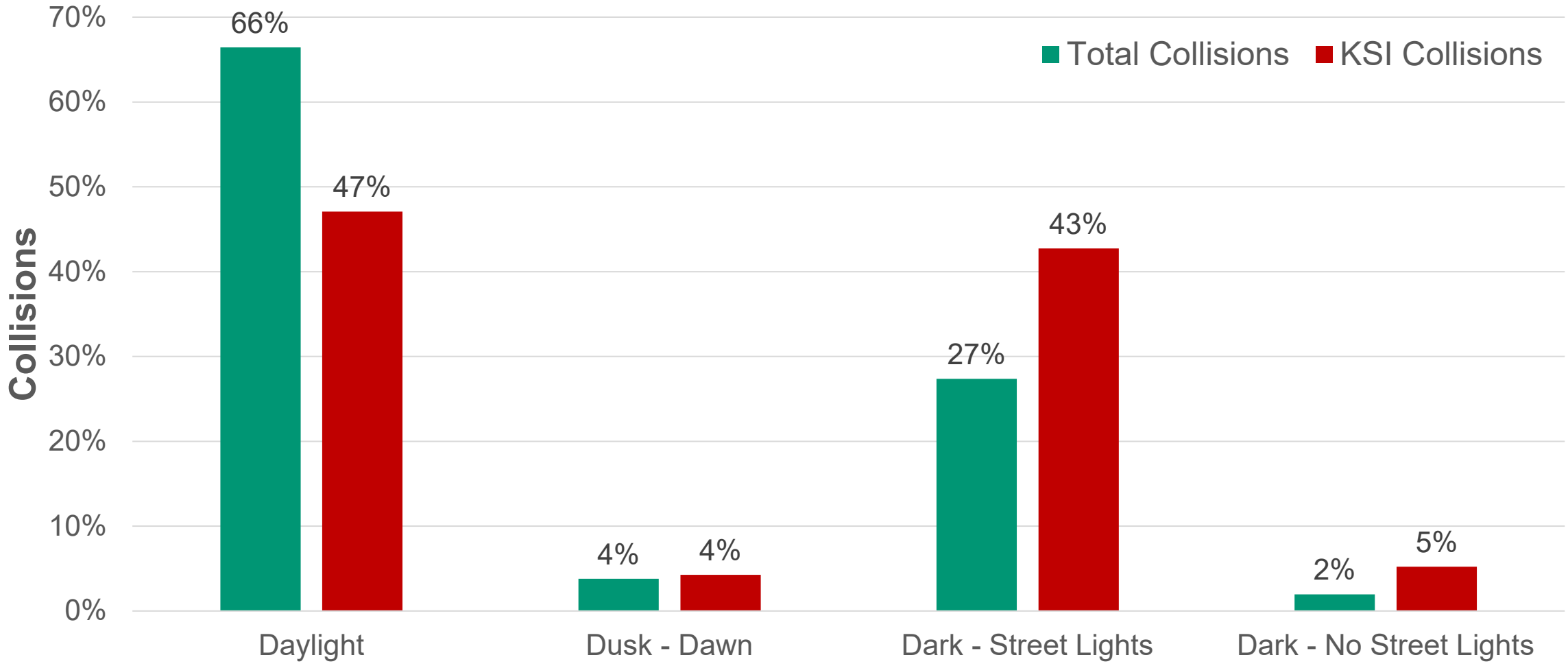
Source: City of Sacramento, Crossroads Data.

Total Collisions by Time of Day, 2013-2022



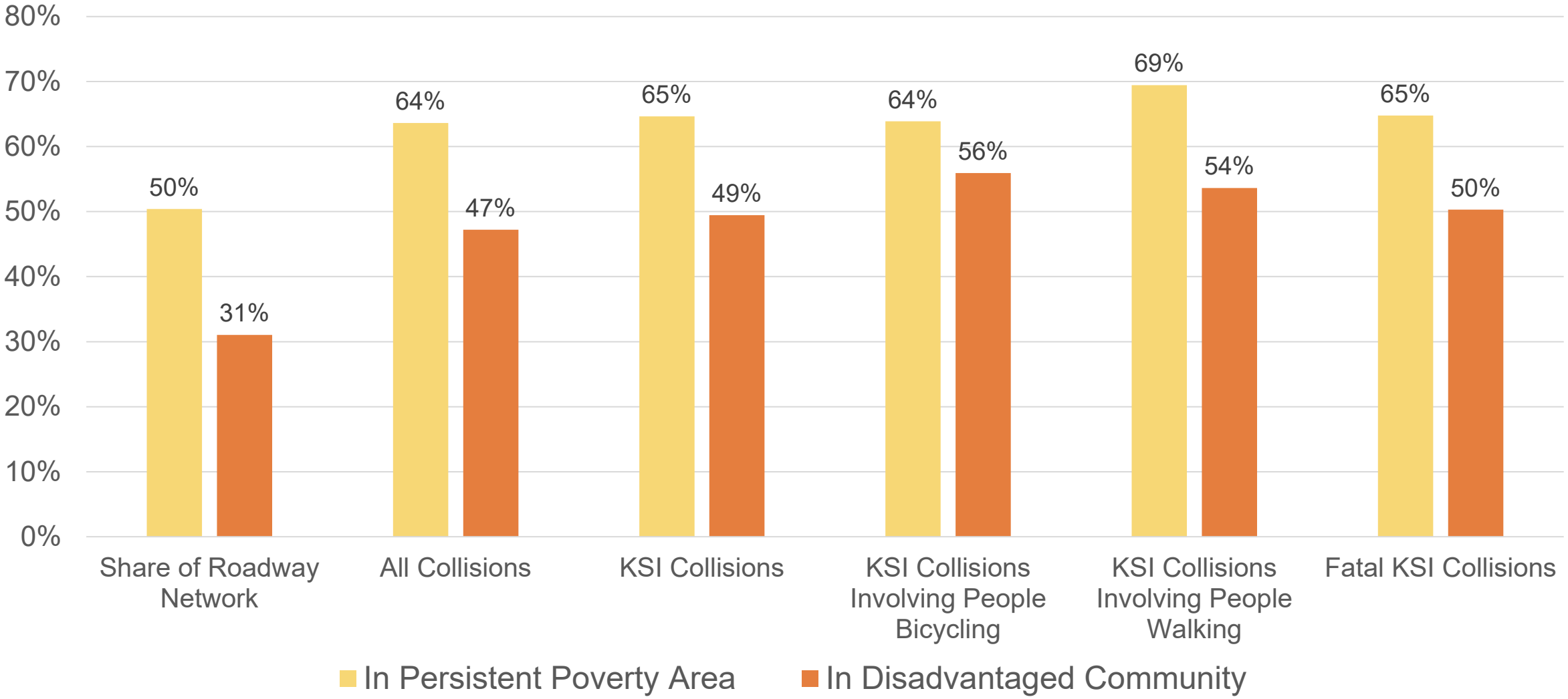
Source: City of Sacramento, Crossroads Data.

Total Collisions by Lighting Conditions, 2013-2022



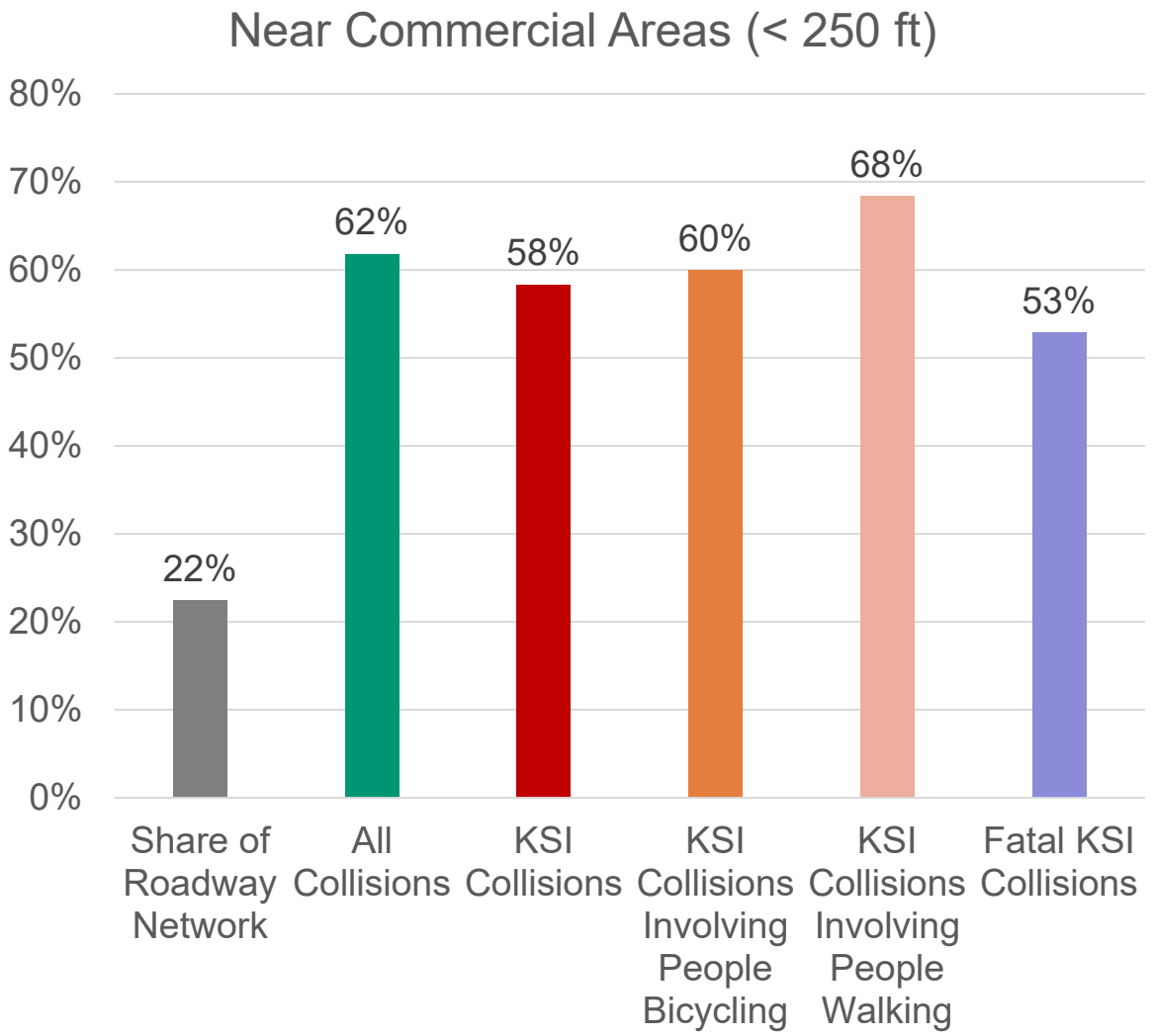
Source: City of Sacramento, Crossroads Data.

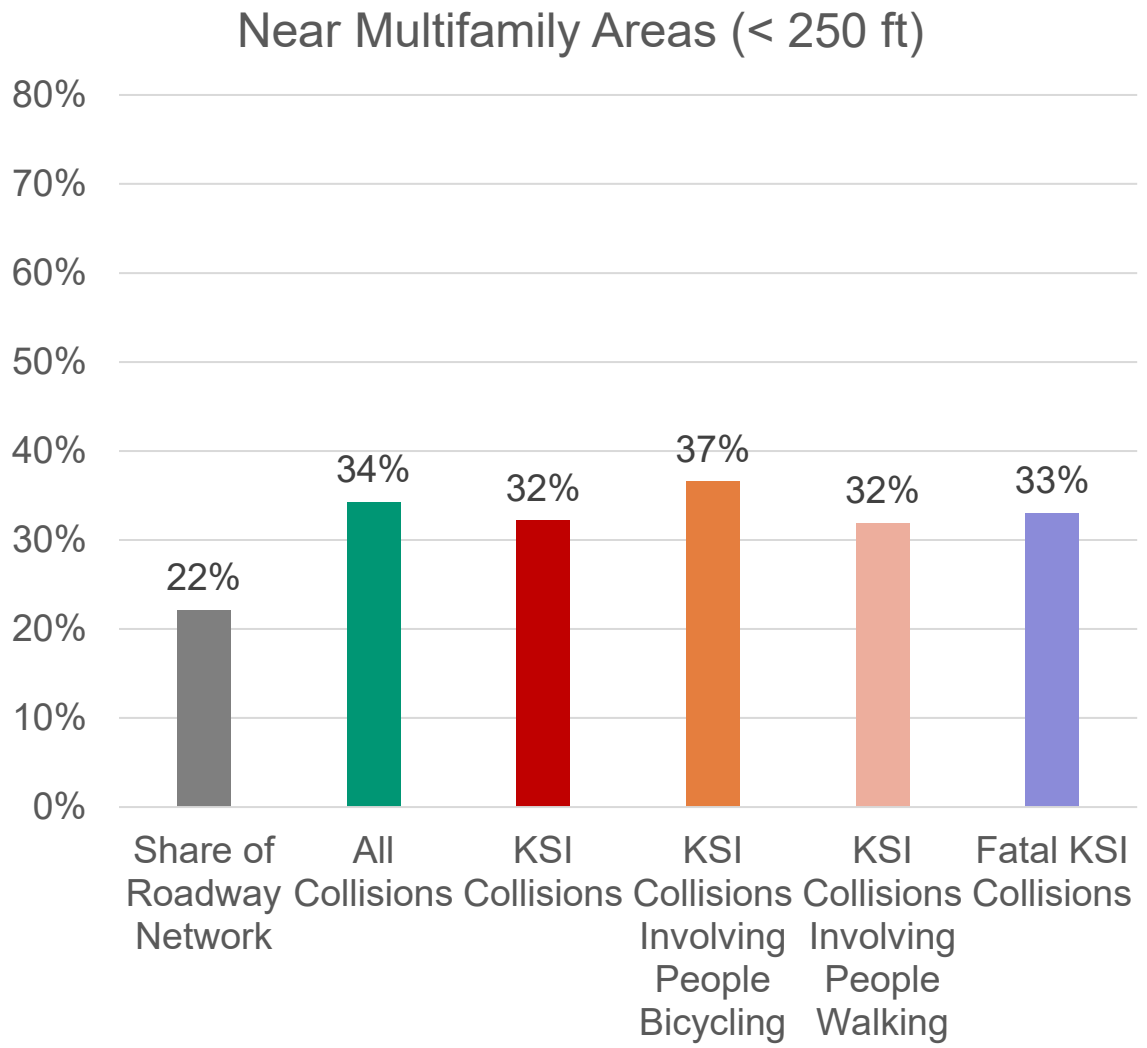
Collisions in Disadvantaged Communities, 2013-2022



Source: City of Sacramento, Crossroads Data.

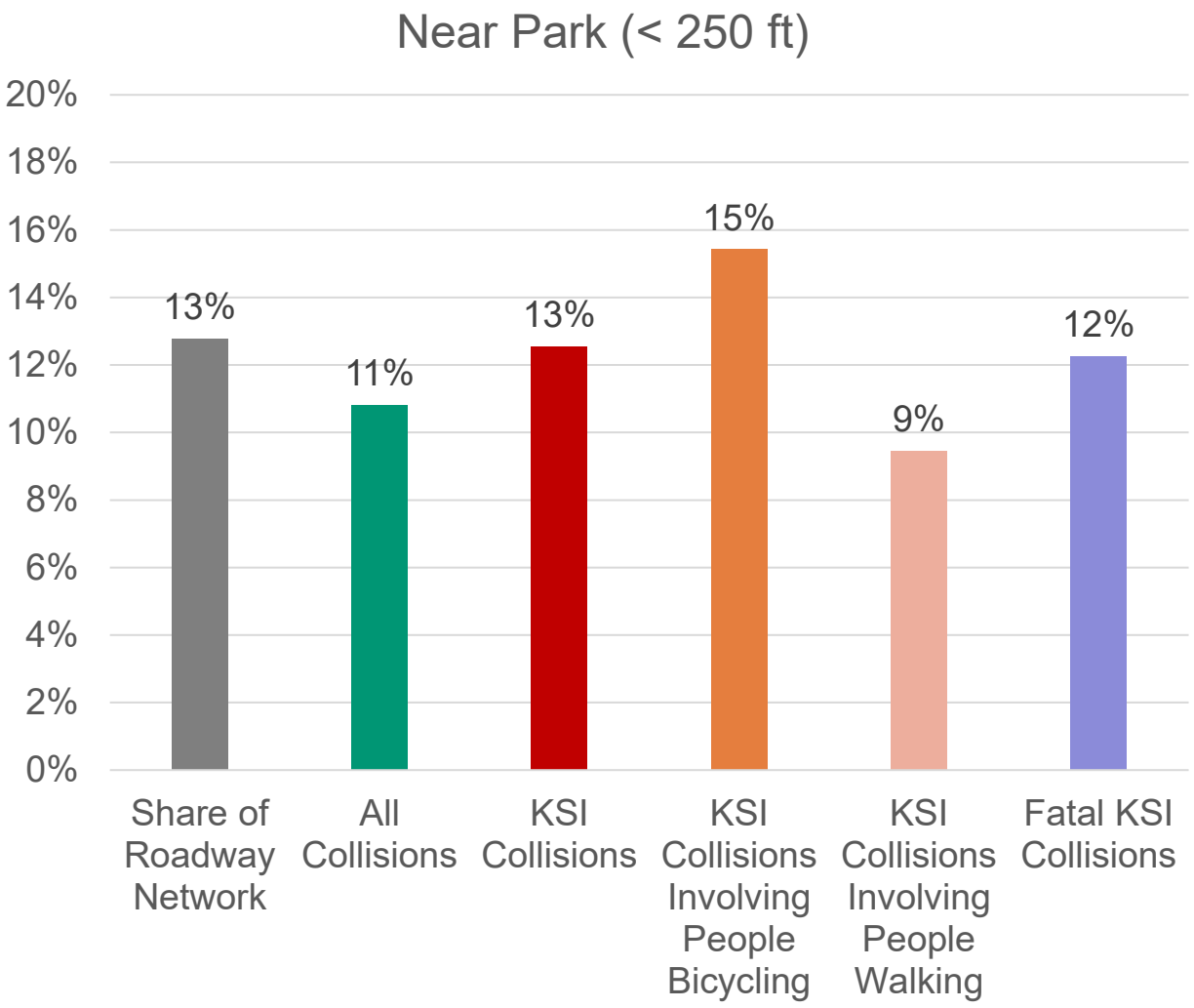
Collisions Near Commercial and Multifamily Areas, 2013-2022

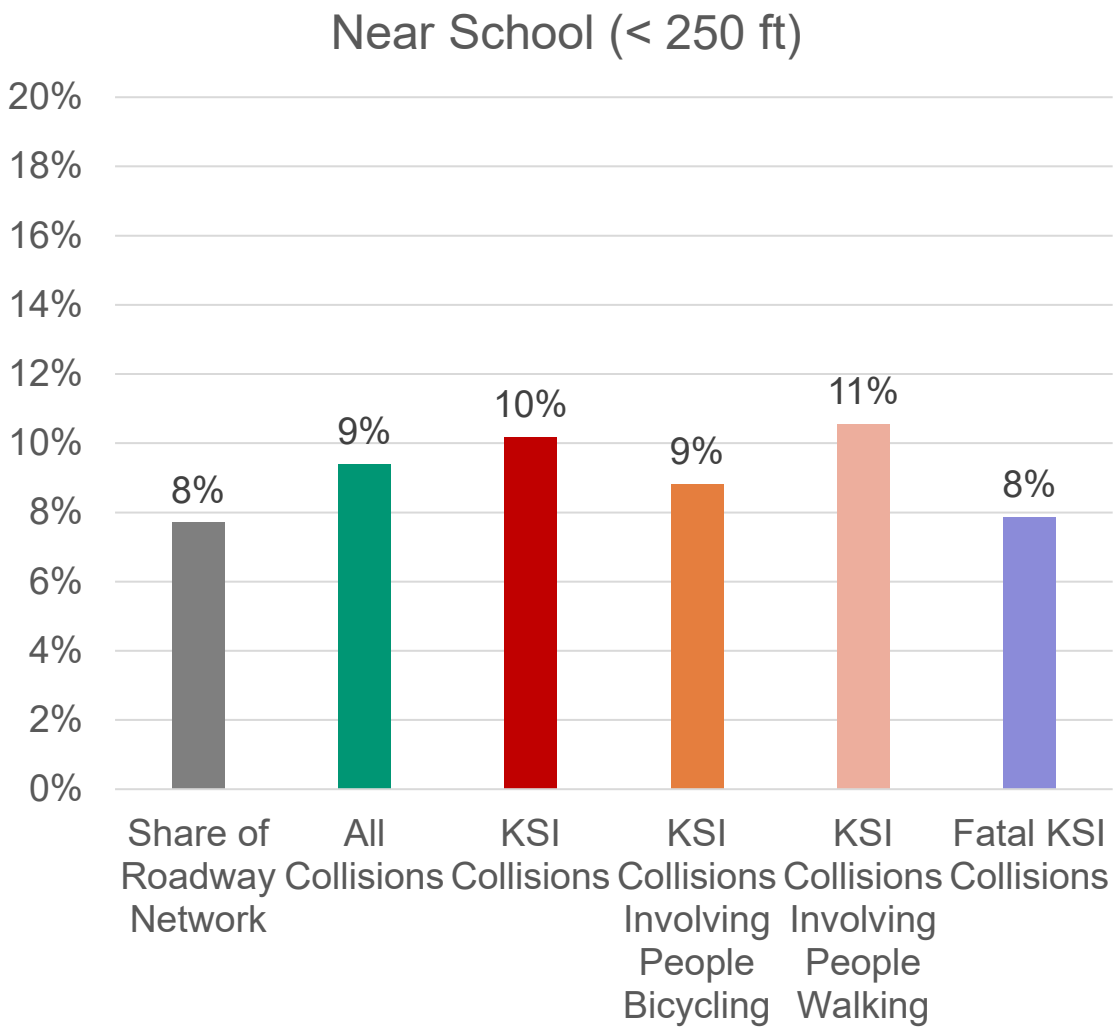




Source: City of Sacramento, Crossroads Data.

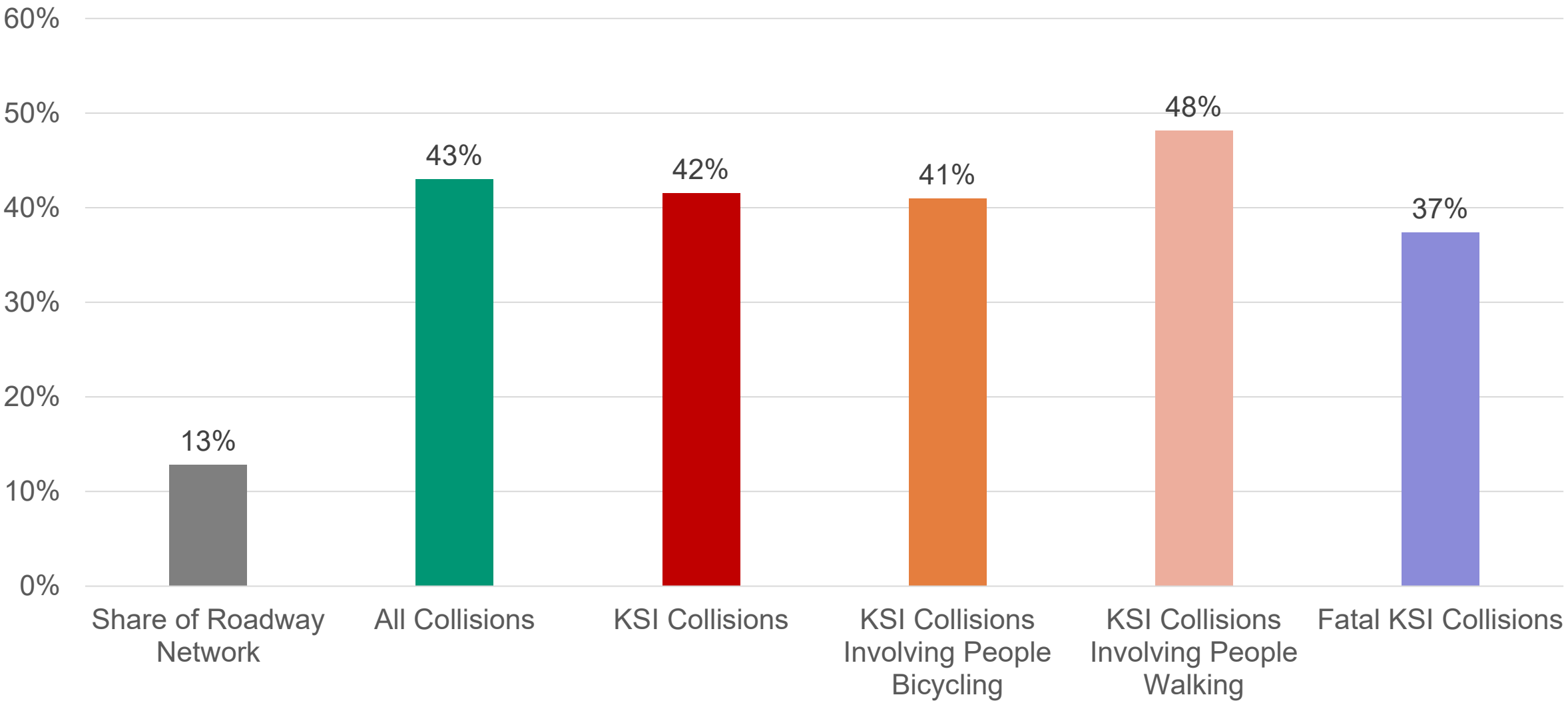
Collisions Near Parks and Schools, 2013-2022





Source: City of Sacramento, Crossroads Data.

Collisions Near Transit Stations (< 250ft), 2013-2022



Source: City of Sacramento, Crossroads Data.

DISCUSSION

How does this data compare to your experience and concerns?

Identifying Collision Profiles

Collision Concentration

Number of collisions and over-representation of KSI collisions

Geographic Context

Collisions that are a larger % than share of roadway network (e.g., % of road miles by speed or % of intersections by land use)

Combination of Factors

Combination of collision characteristics and contextual factors that can lead to countermeasure recommendations

Top Collision Profiles

KSI Collisions Involving People Walking and Biking

19% (3,581)
Of injury Collisions

46% (682)
Of KSI Collisions

Broadside Collisions Near Intersections in Commercial Areas

24% (4,578)
Of injury Collisions

16% (244)
Of KSI Collisions

Top Collision Profiles

Conflict Management at Intersections

35% (6,750)
Of injury Collisions

11% (162)
Of KSI Collisions

Auto Right of Way & Traffic Signals and Signs Primary Collision Factors + within 150 feet of an intersection

Collisions Near Transit Stops

45% (8,874)
Of injury Collisions

21% (310)
Of KSI Collisions

Top Collision Profiles

Collisions Near Parks and Schools

Within 250 Feet of a Park

11% (2,094)
Of injury Collisions

11% (185)
Of KSI Collisions

Within 250 Feet of a School

9% (1,819)
Of injury Collisions

9% (150)
Of KSI Collisions

Unsafe Speed Collisions on Arterial Roads

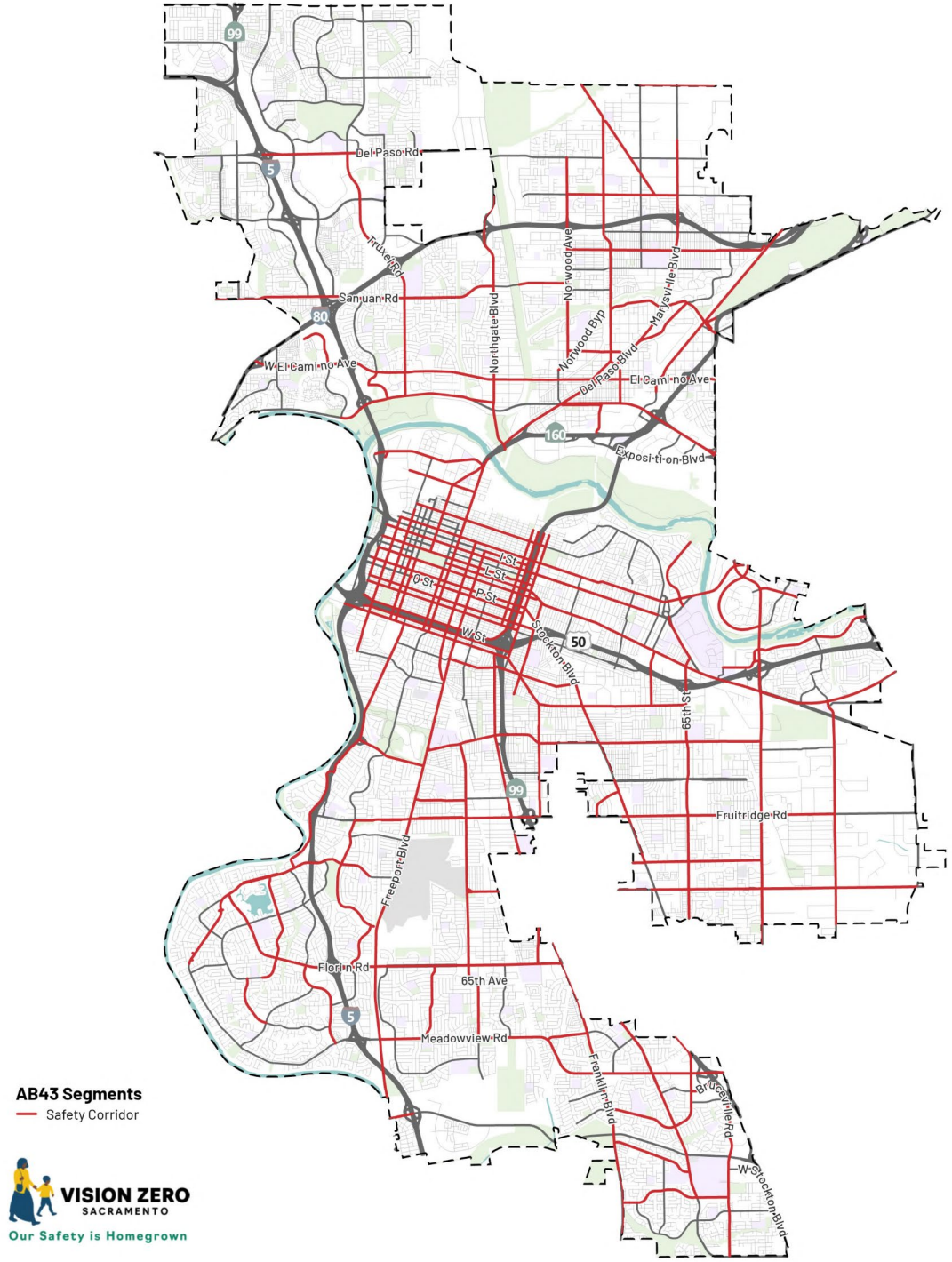
16% (3,173)
Of injury Collisions

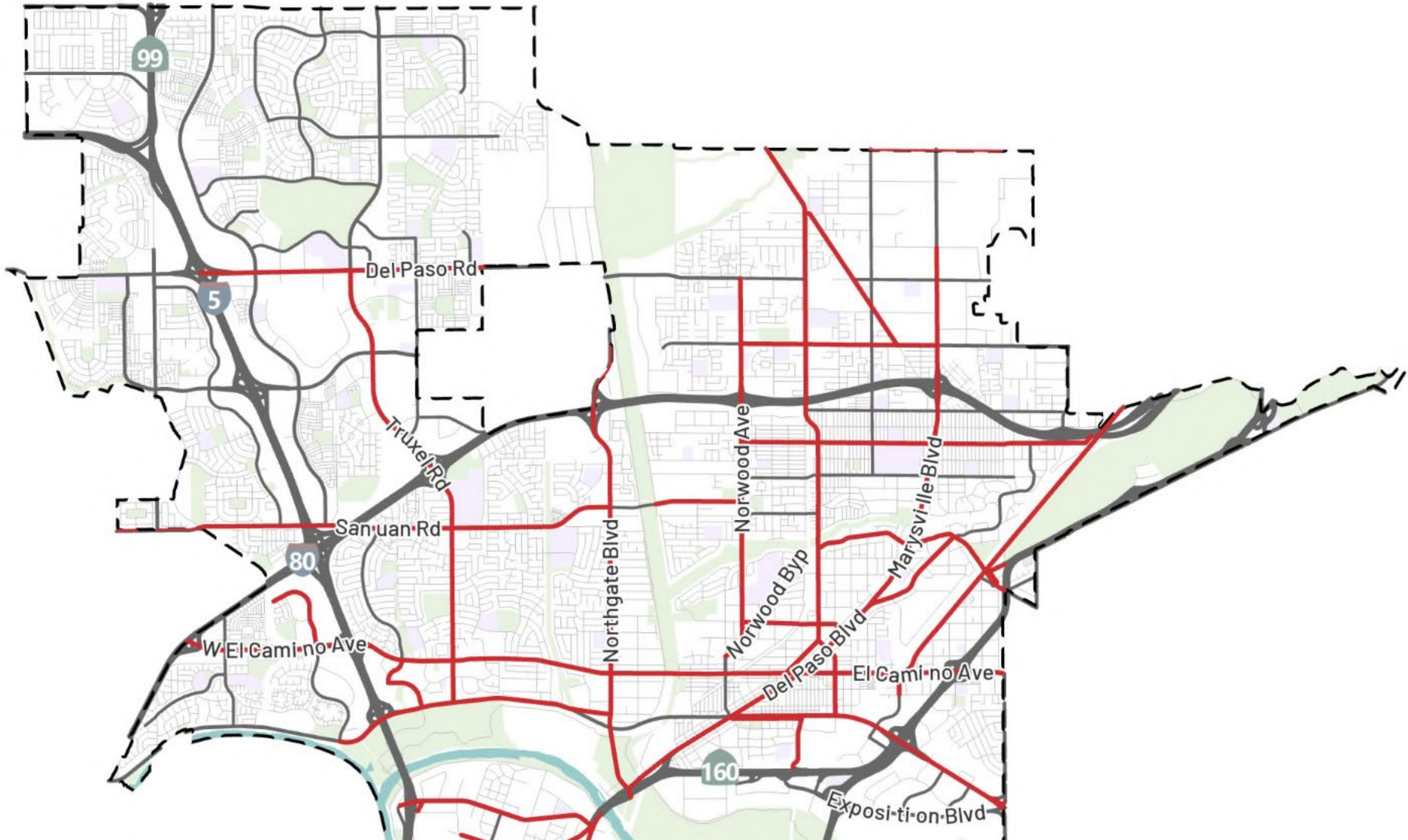
5% (67)
Of KSI Collisions

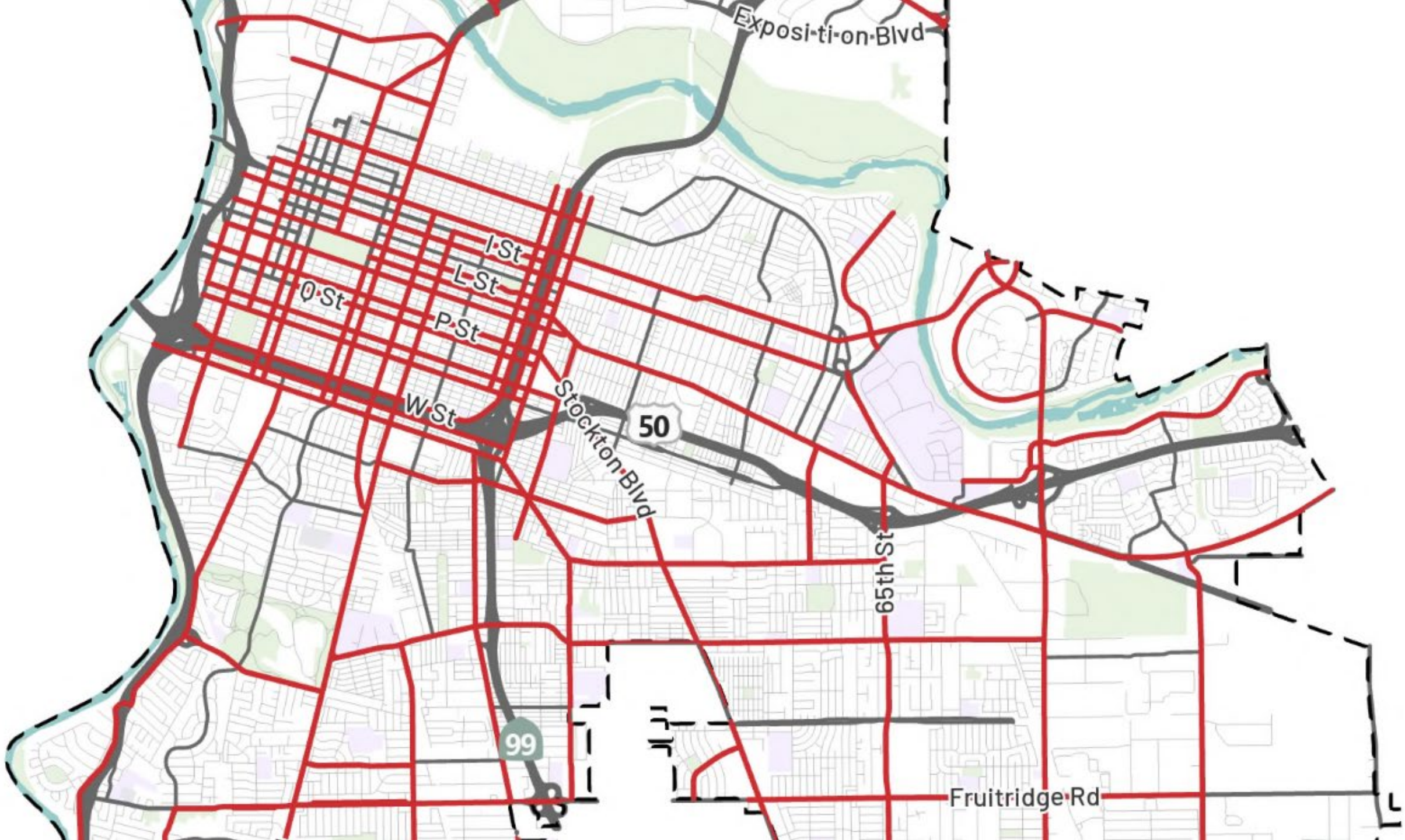
Primary Collision Factor of Unsafe Speed + On an Arterial

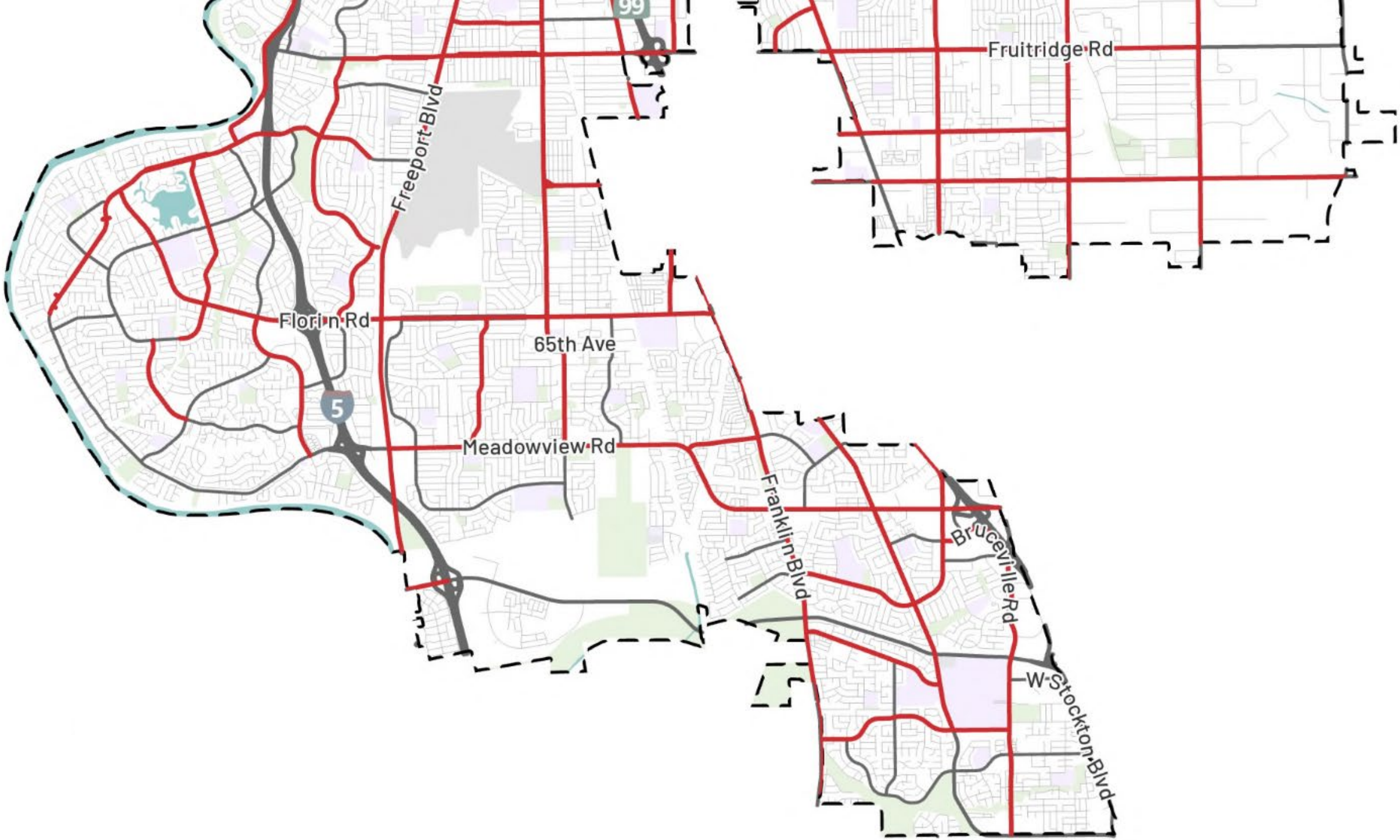
Safety Corridor Network

- Recent state law allows cities to lower speed limits under certain conditions
  - On a “Safety Corridor Network”
  - Near areas with potential demand for walking and biking
  - In business activity districts
- City is developing a *Safety Corridor Network* to inform speed limit setting as well as the updated Vision Zero Action Plan




99
Del Paso Rd
5
Truxel Rd
San Juan Rd
80
W El Camino Ave
Northgate Blvd
Norwood Ave
Norwood Byp
Del Paso Blvd
Marysville Blvd
El Camino Ave
160
Exposition Blvd


Exposi-ti-on Blvd
I St
L St
O St
P St
W St
Stockton Blvd
50
65th St
99
Fruitridge Rd


99
Fruitridge Rd
Freeport Blvd
Florin Rd
65th Ave
5
Meadowview Rd
Franklin Blvd
Brucerville Rd
W Stockton Blvd

DISCUSSION

How closely does this map align with your perception of the “high-injury network”?

Next Steps

Next Steps

Identify High-Risk Areas and Interventions

Use collision data and profiles to identify countermeasures, guiding targeted interventions and safety improvements

Safety Improvement Strategies Working Meeting on Wednesday, June 18th

+ Additional session with Public Works staff on June 19th

Engage with Community Partners

Collaborate with the public, enforcement agencies, and stakeholders to develop and implement targeted safety initiatives and Vision Zero goals