

Louisiana Traffic Records Data Report 2022



Presented by
Dr. Helmut Schneider
September 2023



This Presentation of the Louisiana Traffic Records Data Report
was Funded by the Louisiana Highway Safety Commission

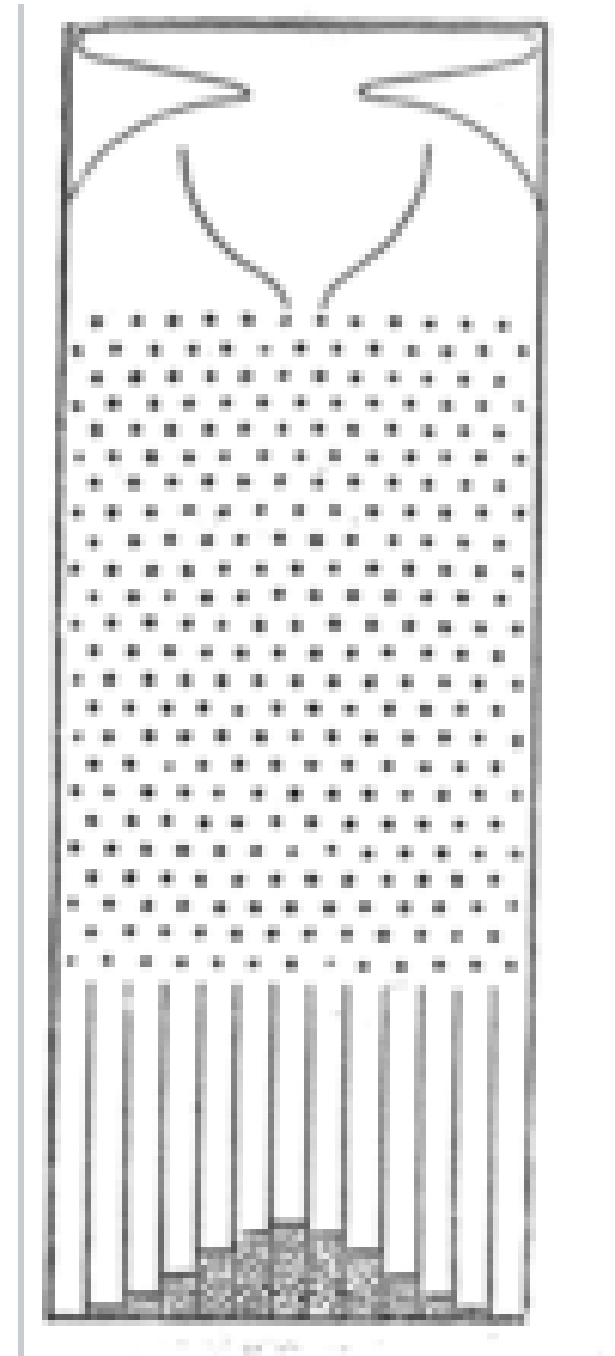
Overview

- Changes in Crash Report
- Trends in Crashes, Fatalities & Injuries
- Predictive Analytics
- Specific Problem identification
- Crash Costs

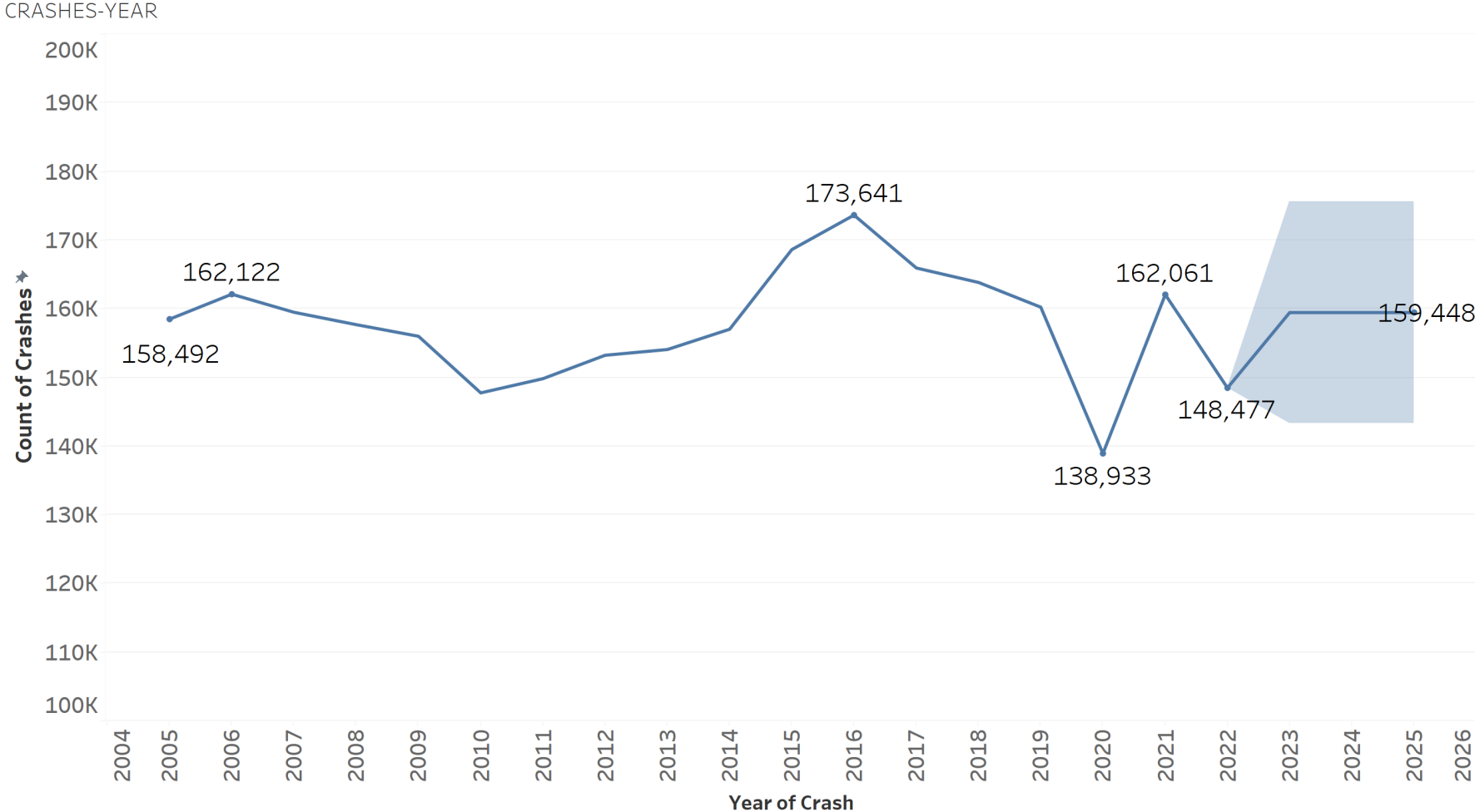


Some Notes about Interpretation of Crash Data

- Regression to the mean
- Explaining: Why did it happen?
- Causation versus correlation and confounding
- Predictions: Does it continue to happen?

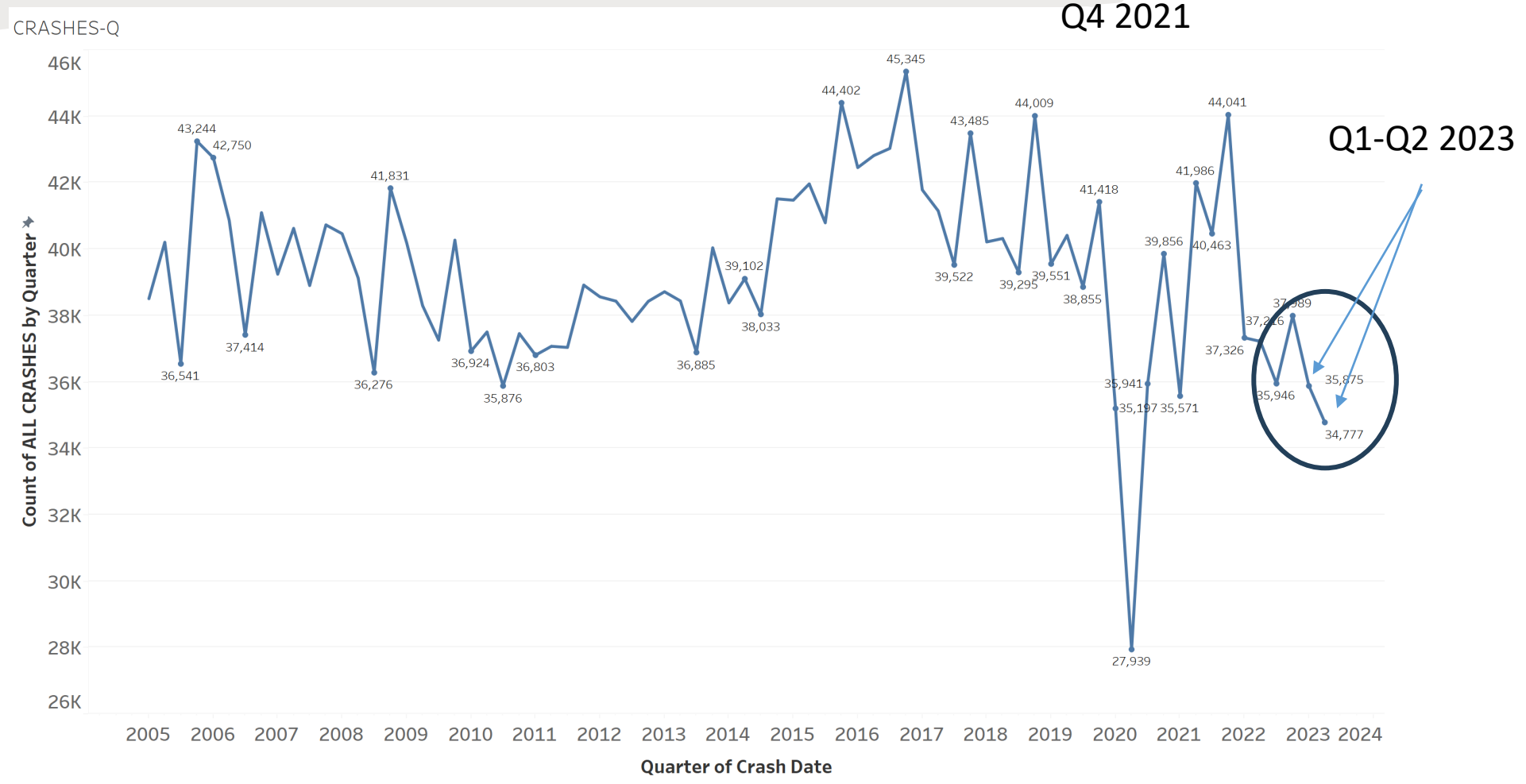


Model for Louisiana Crashes by Year— large amount of data – small variation



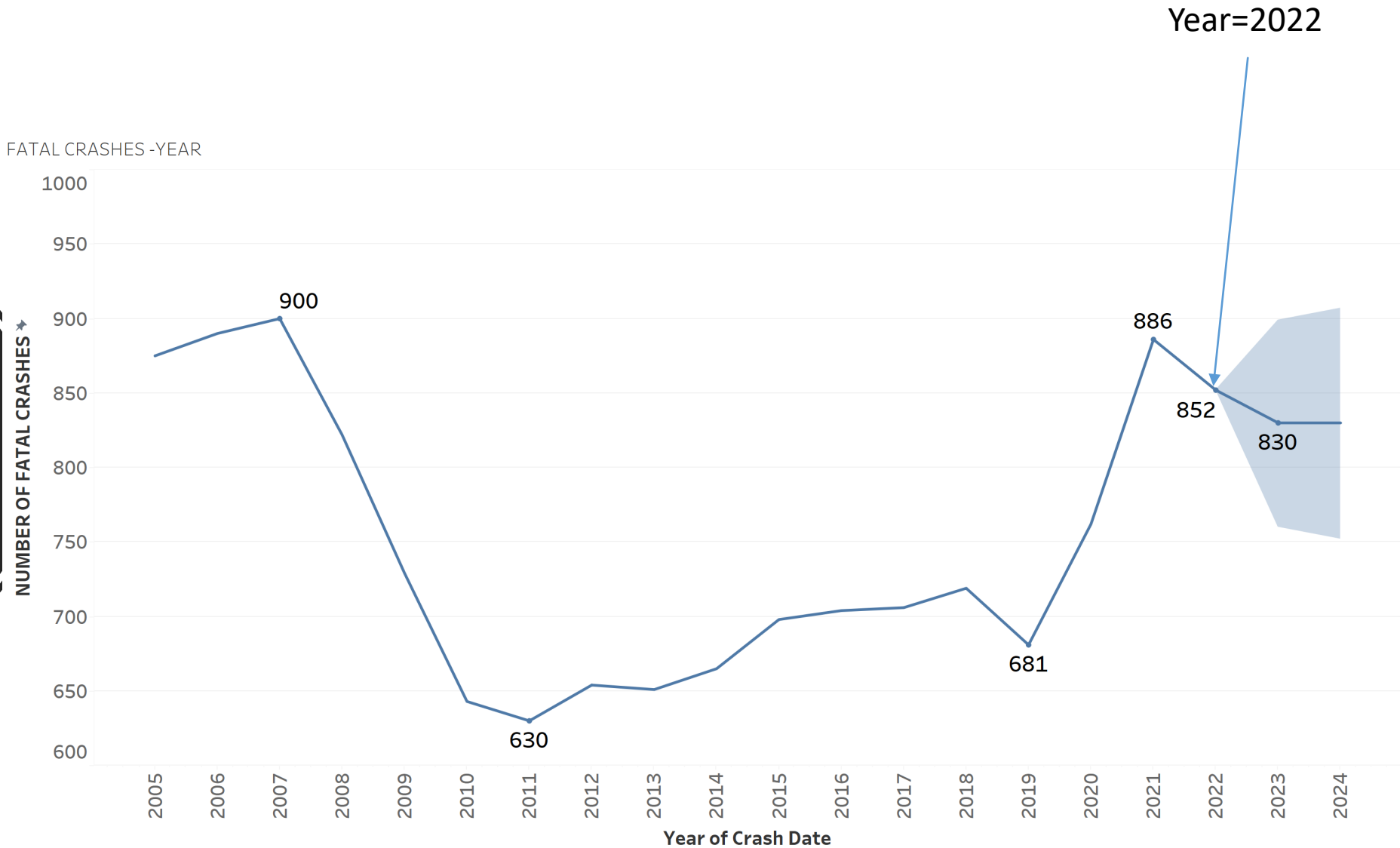
The trend of distinct count of Crash PK (actual & forecast) for Crash Date Year. The data is filtered on Crash Date (MY), which excludes September 2023.

Model for Louisiana Crashes by Quarter– medium amount of data – larger variation



The trend of count of ALLCRASHES for Crash Date Quarter. The data is filtered on Crash Date (MY), which excludes July 2023, August 2023 and September 2023.

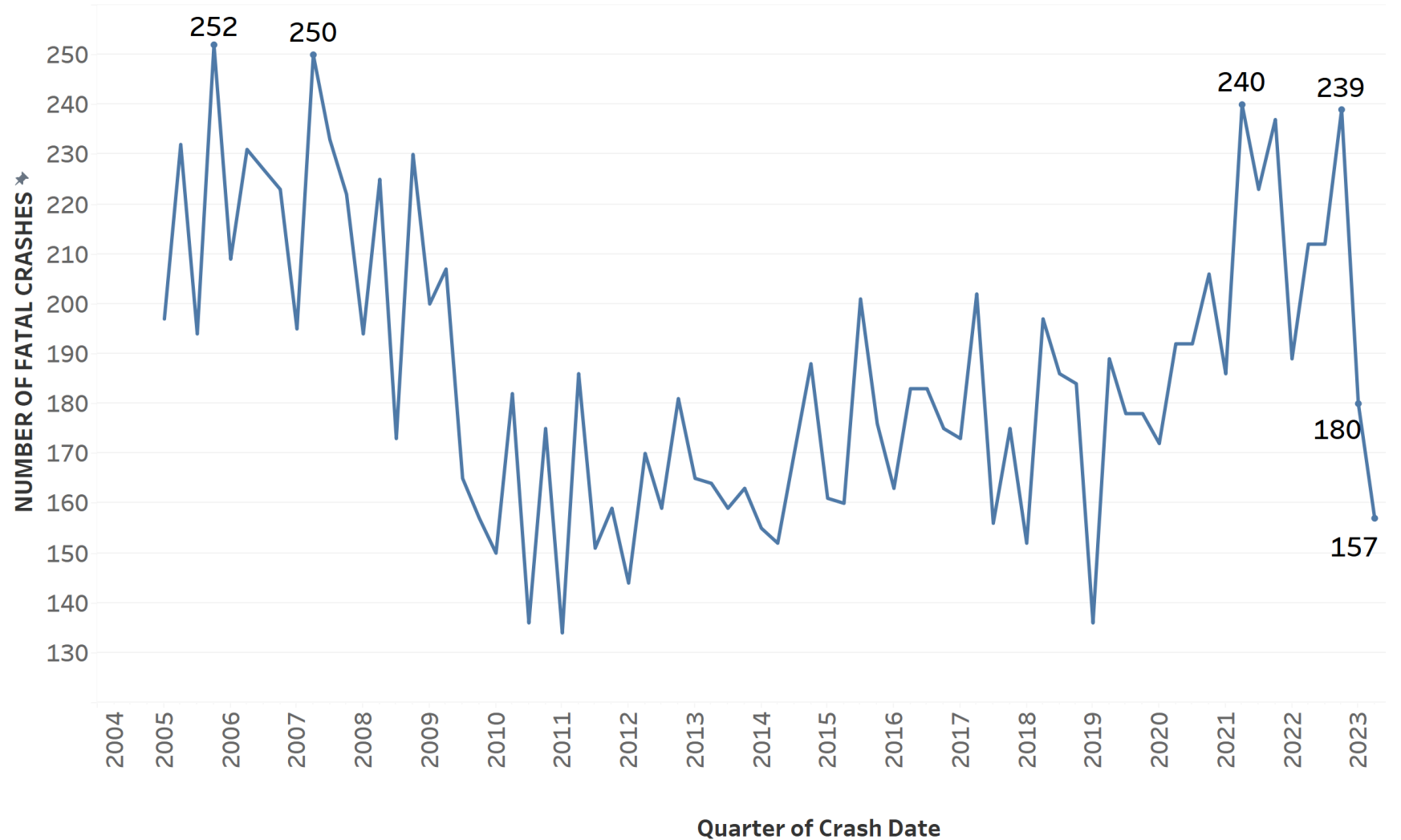
852 Fatal Crashes in 2022
Predictions for fatal crashes in 2023 & 2024 are lower.



The trend of distinct count of Crash PK (actual & forecast) for Crash Date Year. The data is filtered on Crash Date (MY), which excludes July 2023 and August 2023.

Fatal crashes by Quarter 2005-2023 to 2nd Q 2023

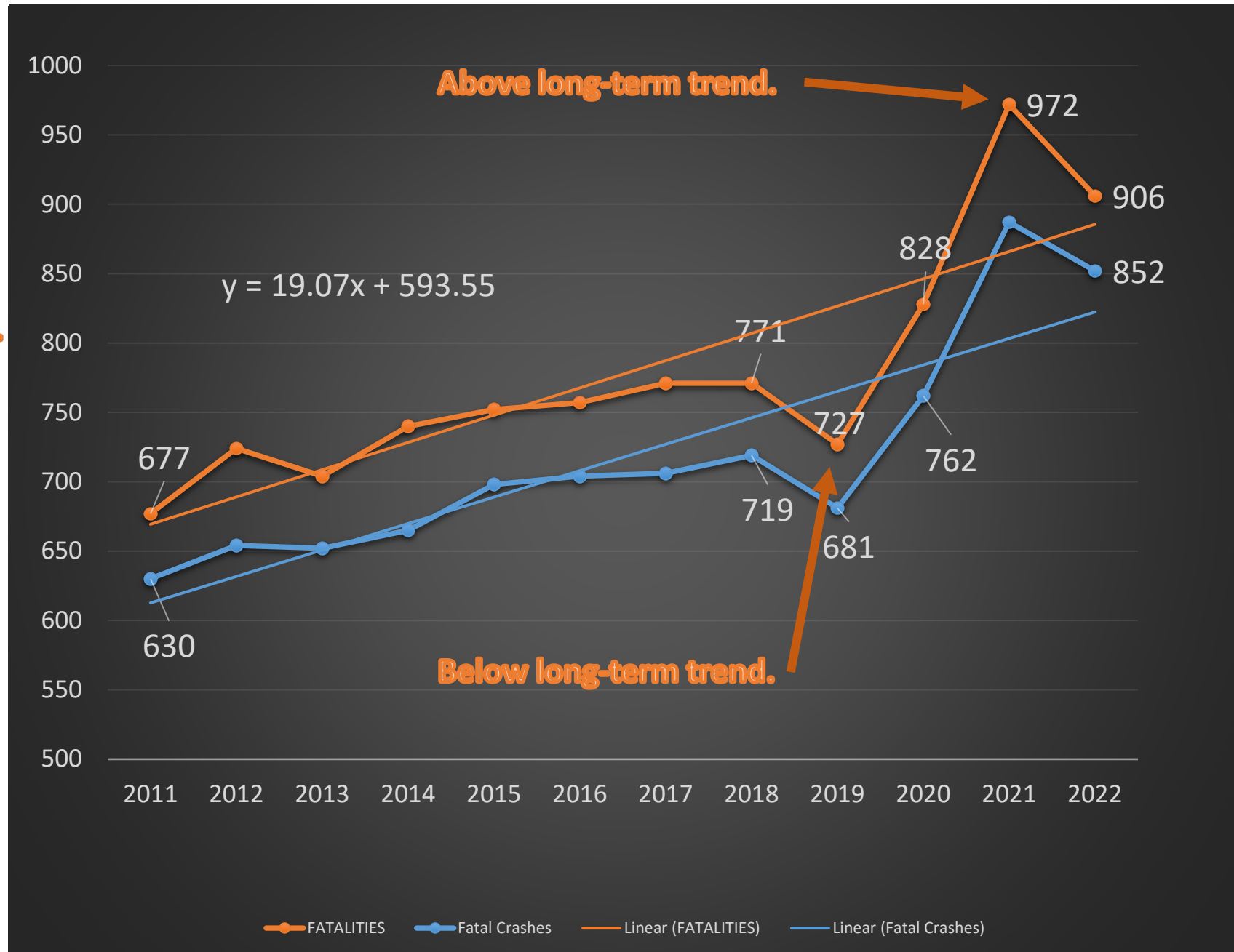
FATAL CRASHES -QUARTER



The trend of distinct count of Crash PK (actual & forecast) for Crash Date Quarter. Color shows details about Forecast indicator.

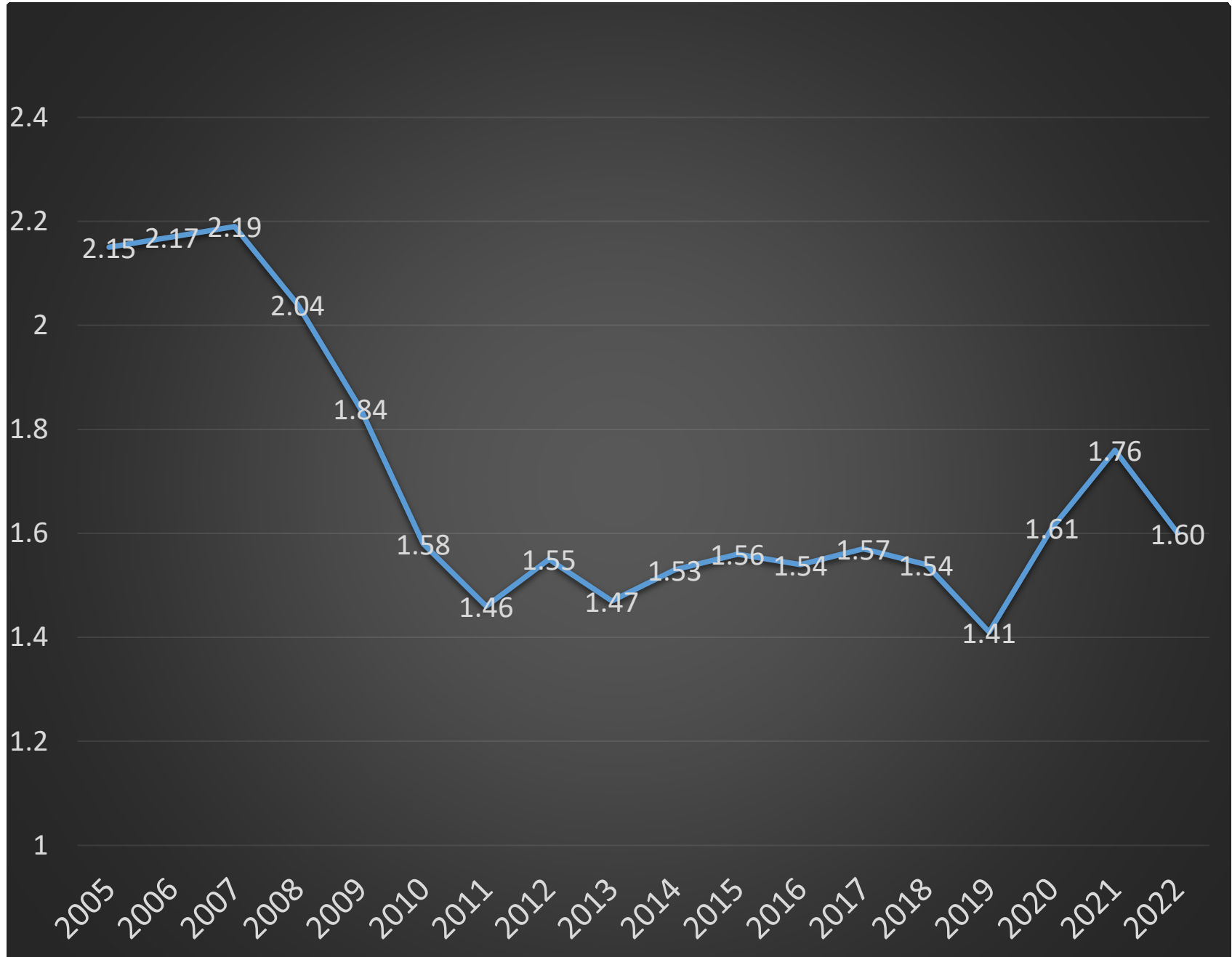
Trends in Fatalities

- The decrease in fatalities from 2021 to 2022 was 6.8%.
- Fatalities increased 19 fatalities per year on average over past decade.



Fatalities per 100 Million Miles Traveled

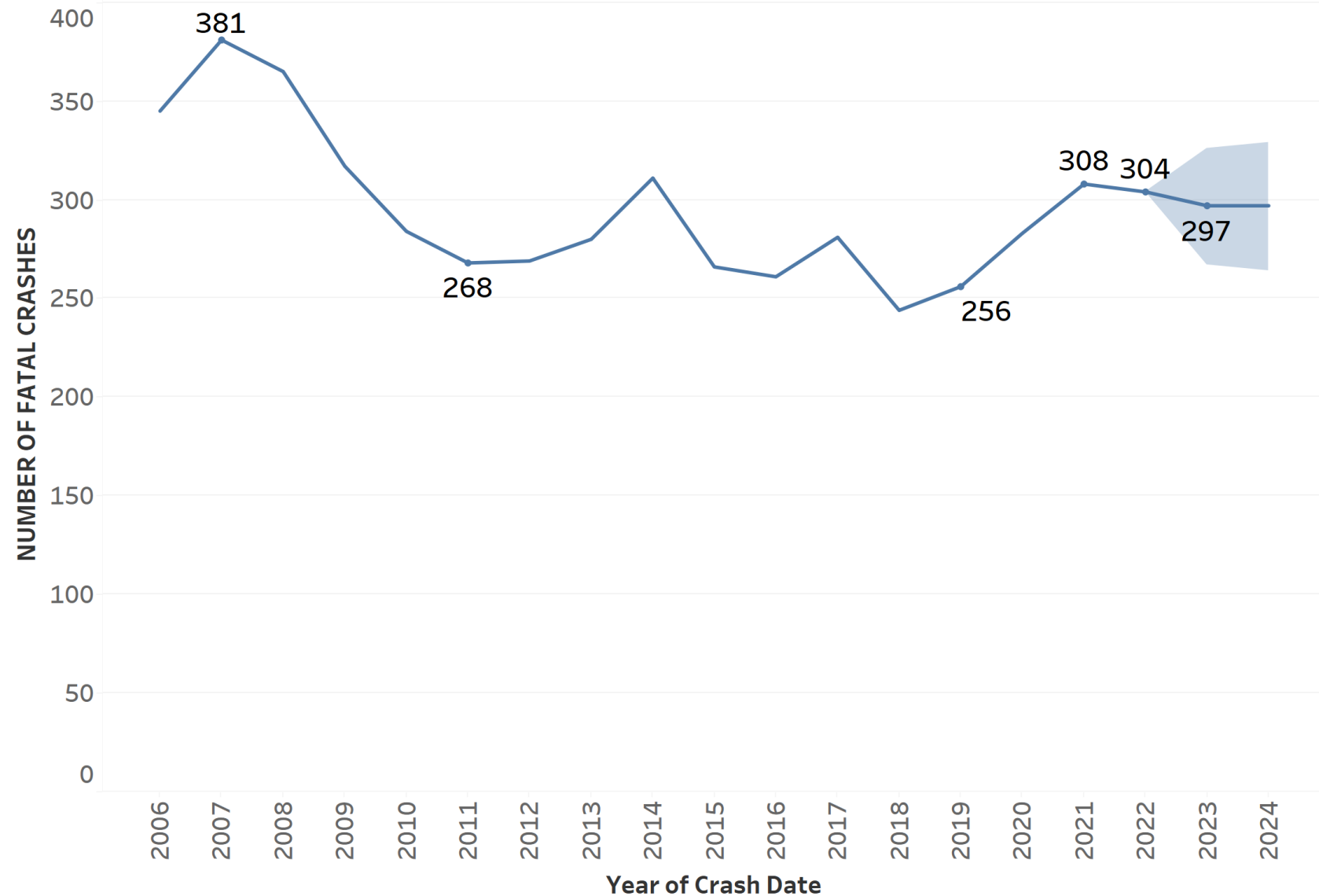
Fatalities per 100 million miles traveled decreased from 1.76 to 1.6 from 2021 to 2022. The rate in 2022 was about the same as in 2020.



Lane Departure Fatal Crashes*

- Fatal lane departure crashes were down from 308 in 2021 to 304 in 2022, a 1.3% decline.

* Definition changed in 2022 to more accurately identify where a vehicle leaves their respective lane.

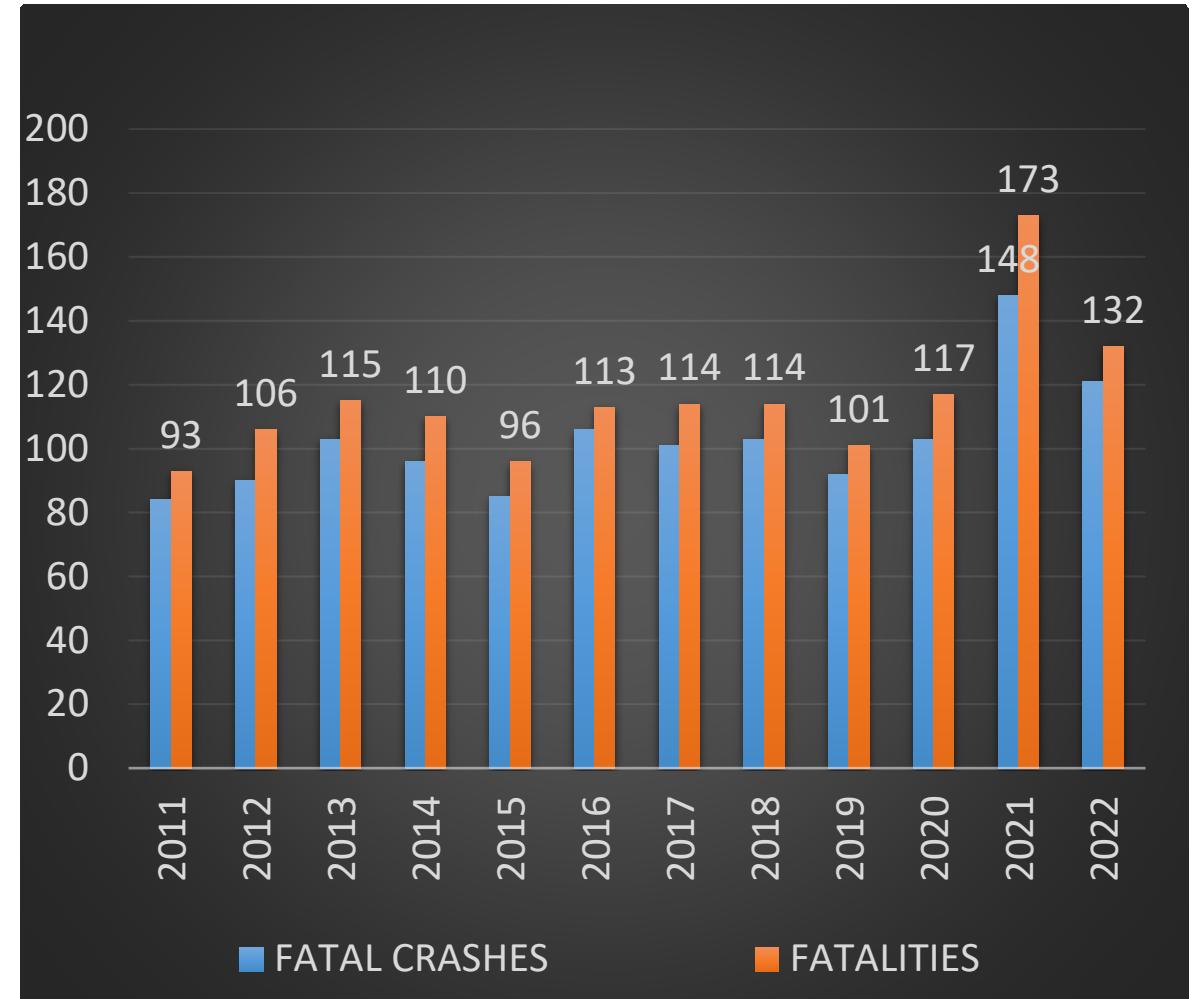


Interstate Fatalities

- **Down** 18.2% from 2021.
- 10.6% **above** 5-year average.



Heavy traffic on Interstate 10 in Lafayette near the exit for I-49. Advertiser File Photo

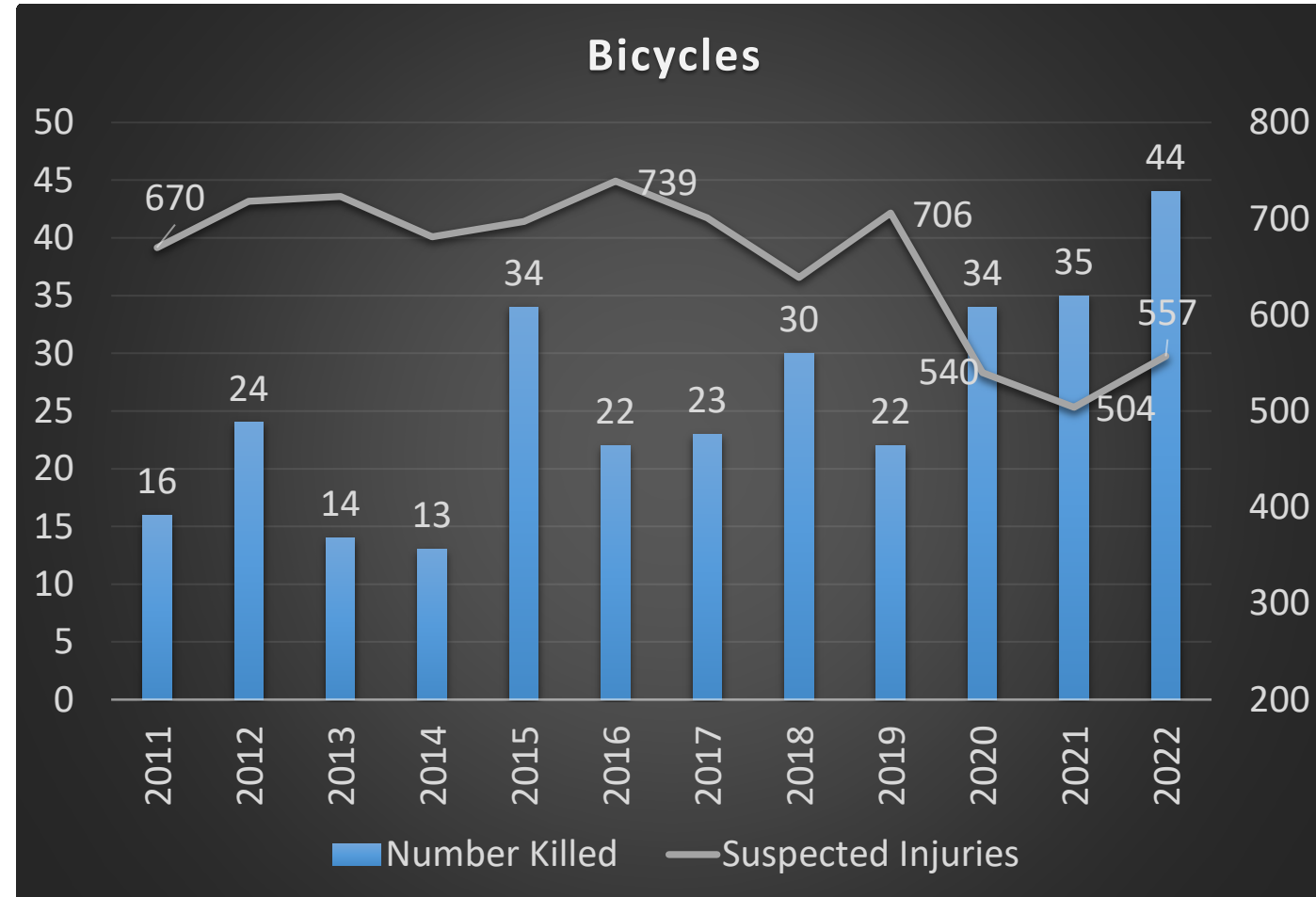




BICYCLE

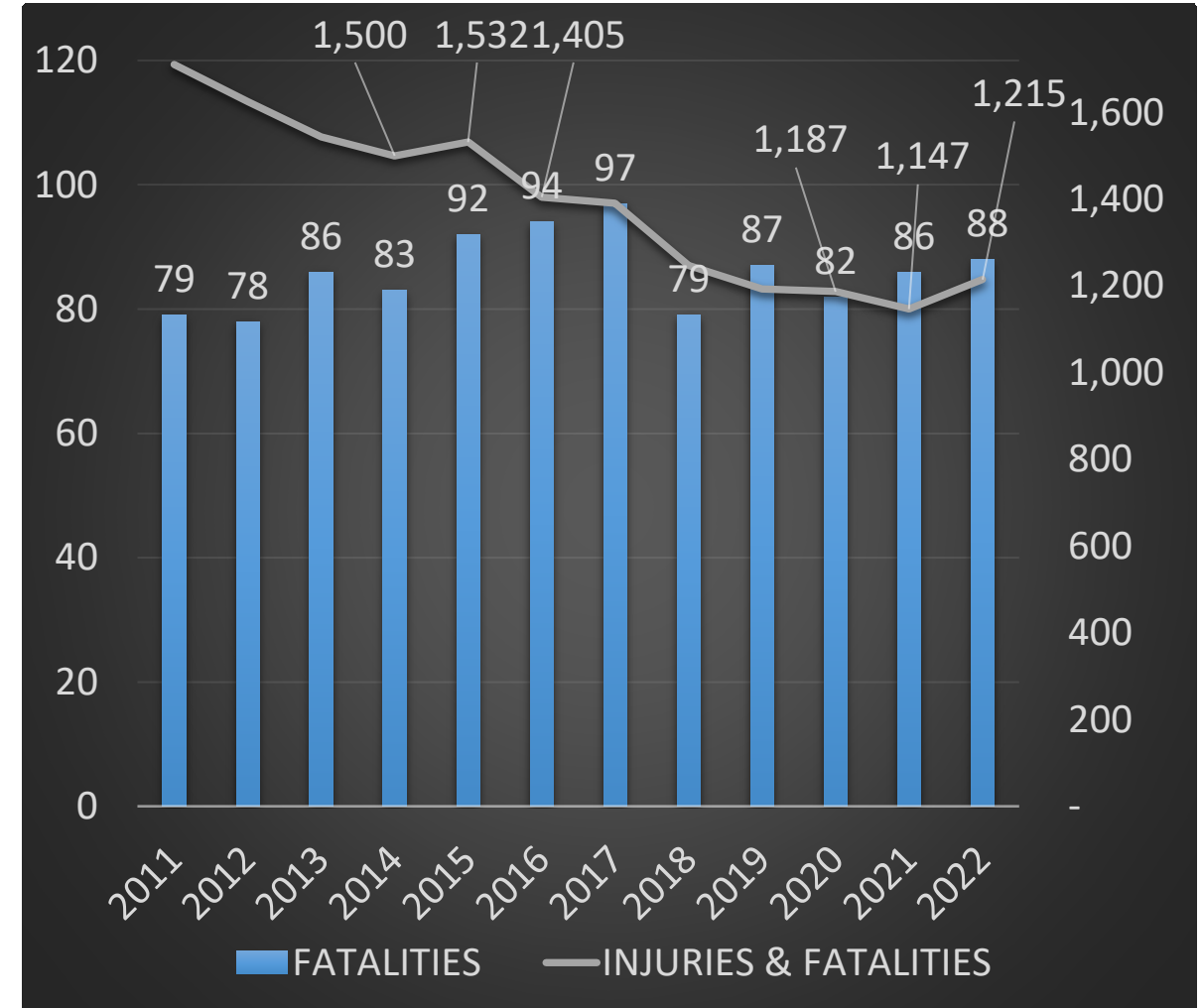
Bicyclist Fatalities

- Fatalities were **up 25.8%** from 2021.
- Bicyclist fatalities **52.8% above** 5-year average.
- Injuries were **up 10.5%** from 2021, but **down 9.9%** from the 5-year average.
- E-bikes



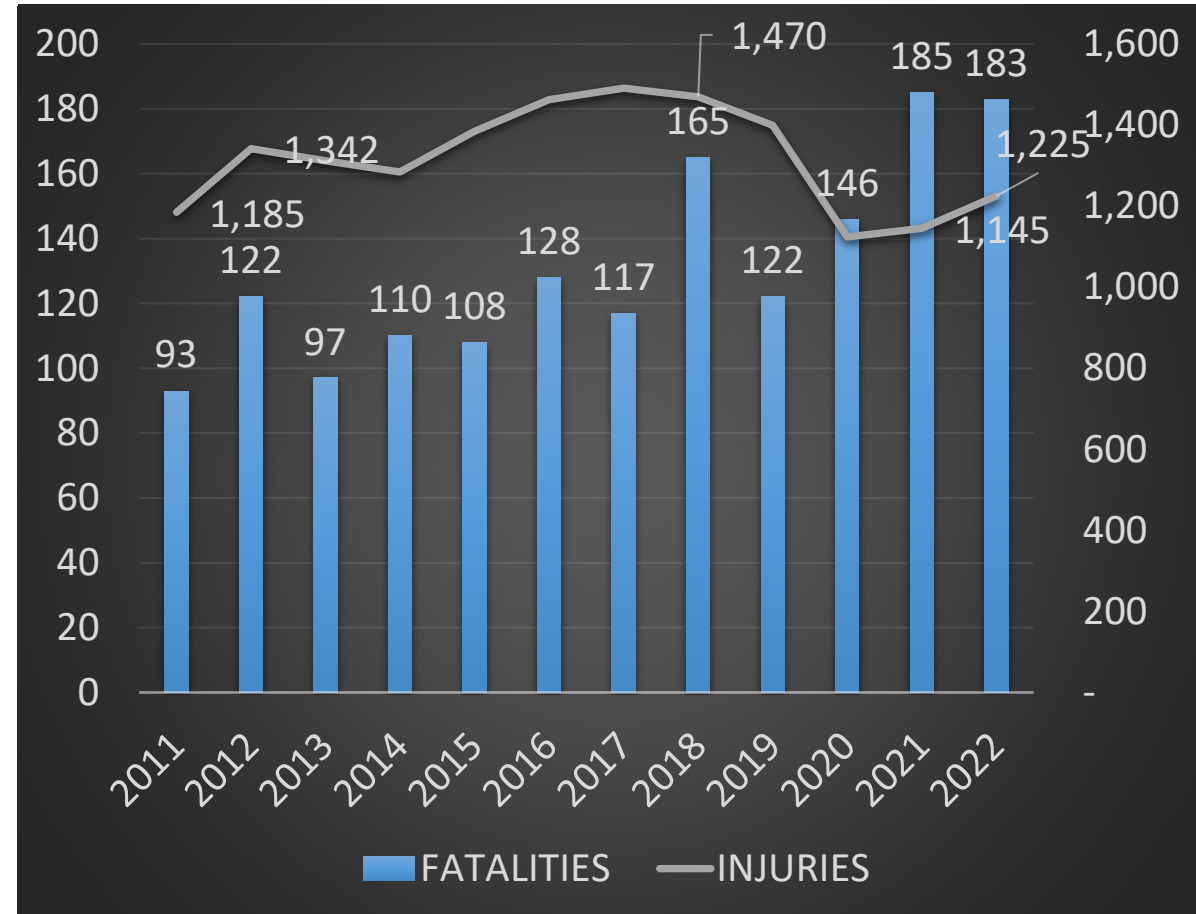
Motorcyclist Fatalities

- Motorcyclist fatalities **up 2.3%**
- Alcohol involved motorcyclist's death **down 26.7%**
- Injuries **up 5.9%**
- Injuries have been trending downward for the past decade.
- Helmet use among fatalities was 86.5%.
- Alcohol involvement of the fatal motorcycle driver was estimated to be 25% in 2022.



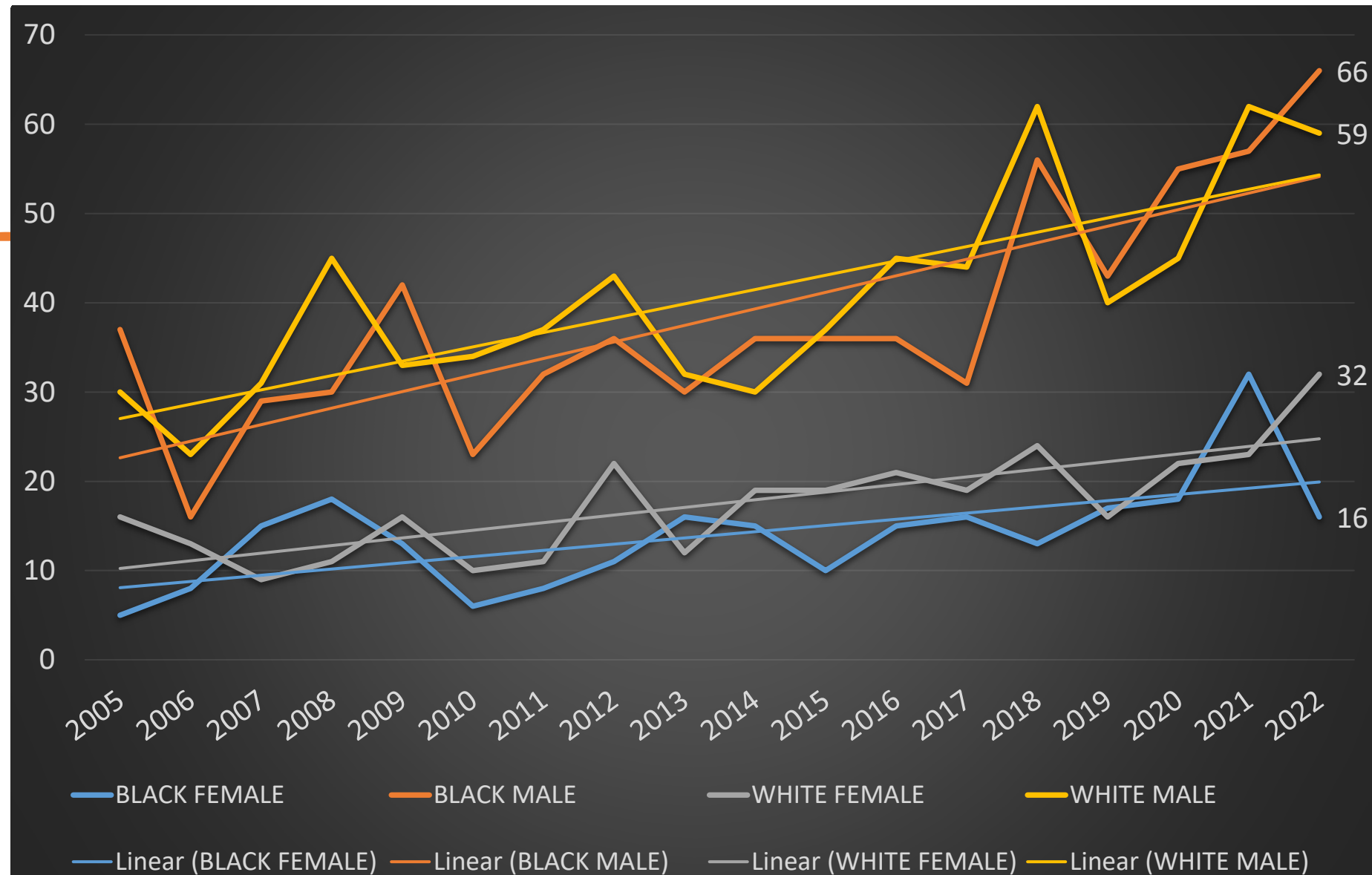
Pedestrian Fatalities & Injuries

- Pedestrian fatalities were 183 in 2022, **down** 1.1 percent from the all-time high of 185, in 2021
- Pedestrian fatalities were still 24.5% above the past 5-year average.
- But injuries were **up 7.0%**.
- Pedestrian fatalities involving alcohol was estimated to be 48% based on 18% for which test results were available).



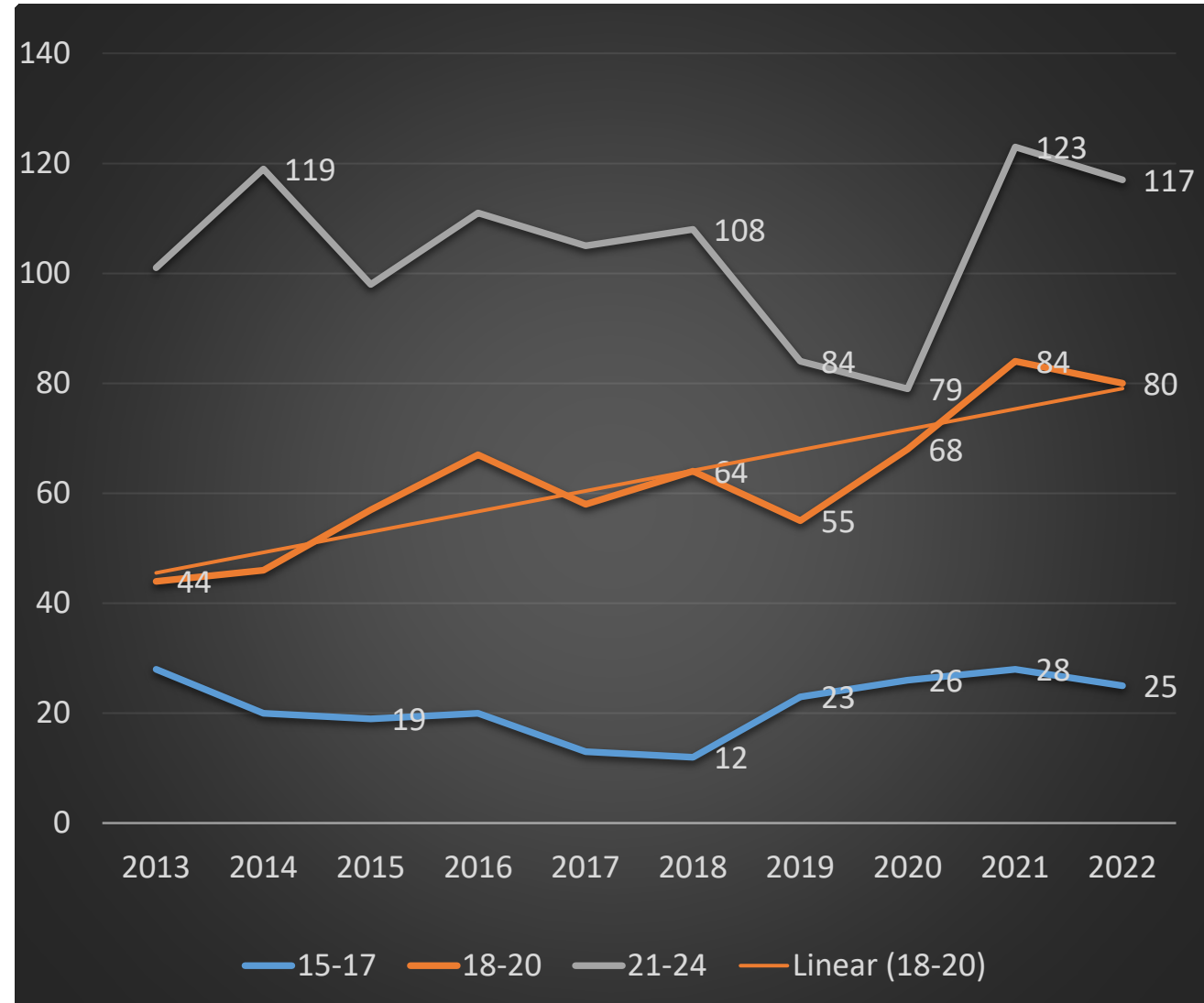
Trend in Pedestrian Fatalities

- Increase of about 9 fatalities per year over the past 10 years.
- Black male fatalities were at an all-time high at 66.



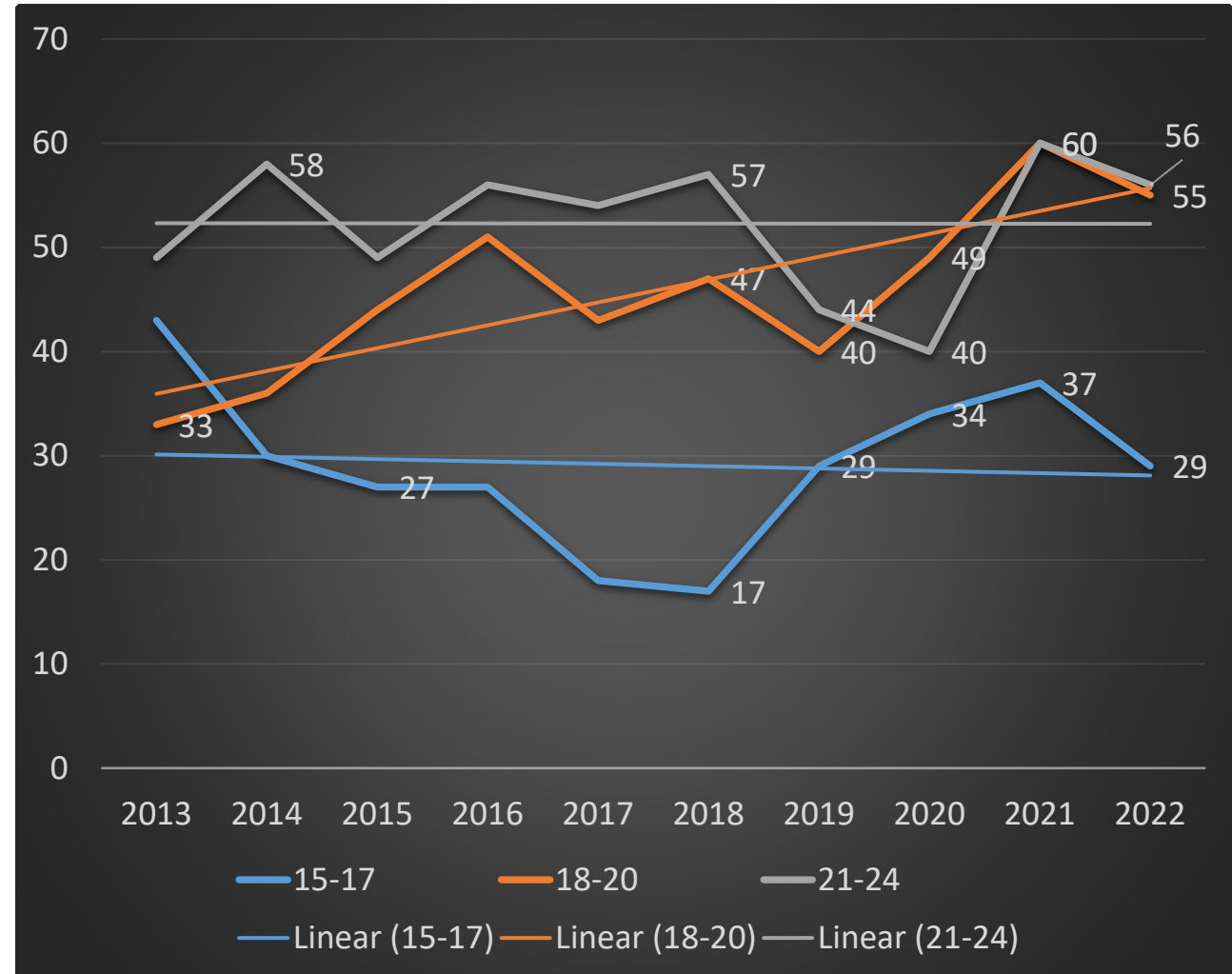
Young Drivers in Fatal Crashes

Trending upwards between 2013 and 2022



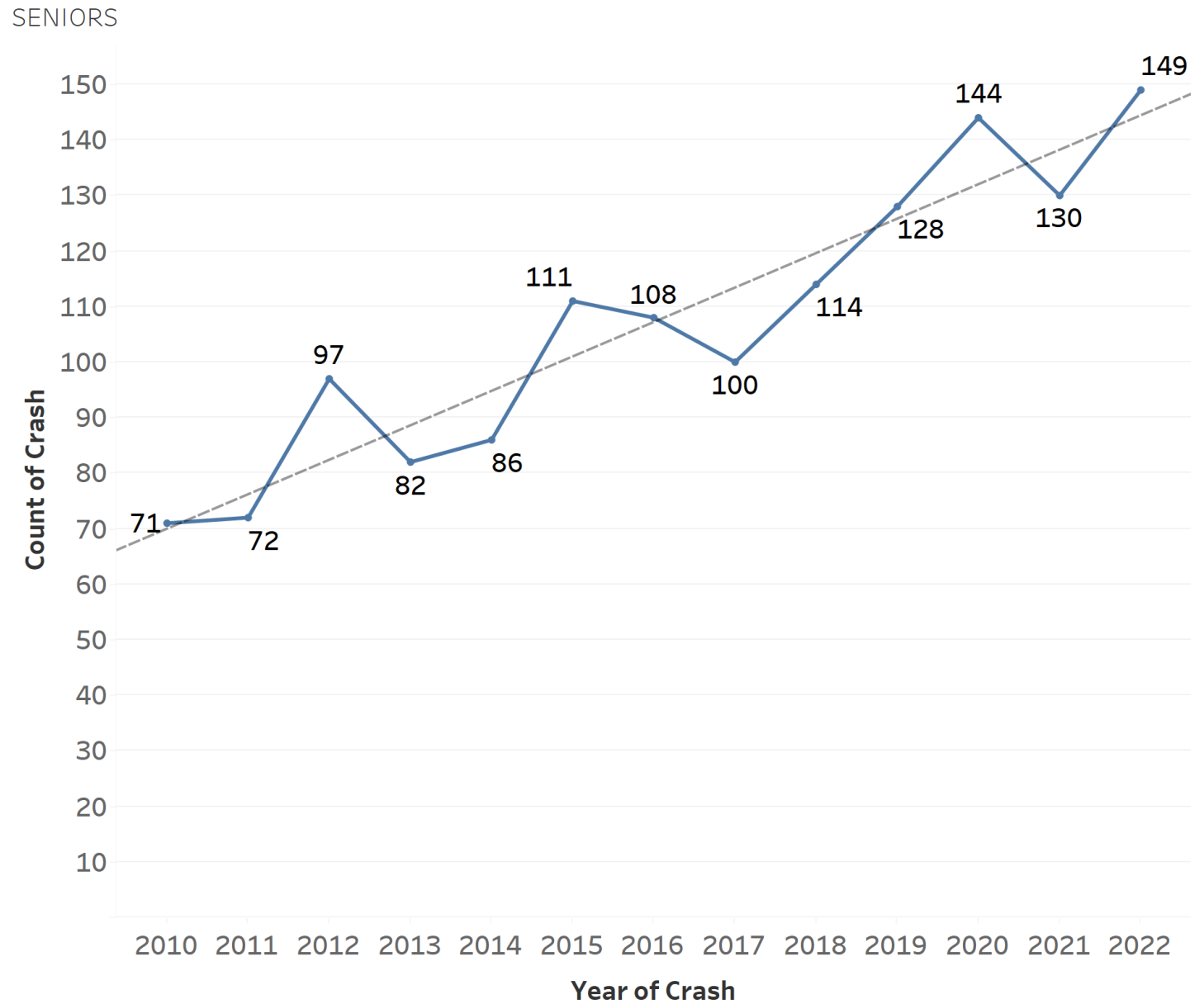
Fatal Crash Rates Per 100,000 licensed Drivers

- The increase has been especially pronounced among 18-20 year- old drivers.



Senior in Fatal Crashes
109% increase 2010 to 2022

Louisiana – Seniors (Age 65 and up)

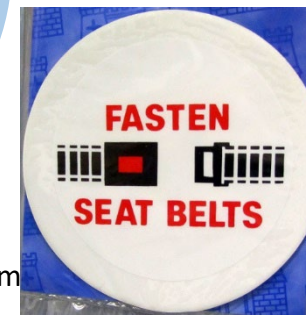


The four Major Contributing Factors

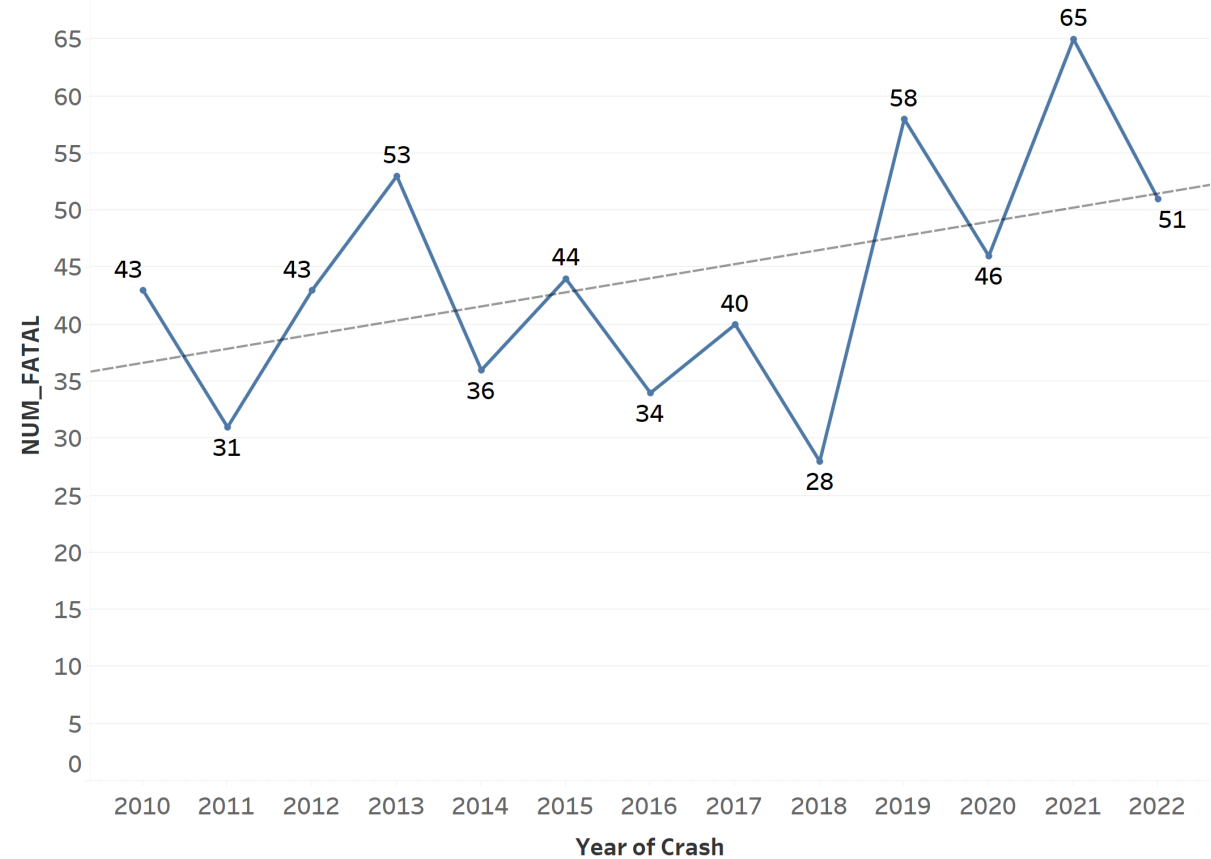
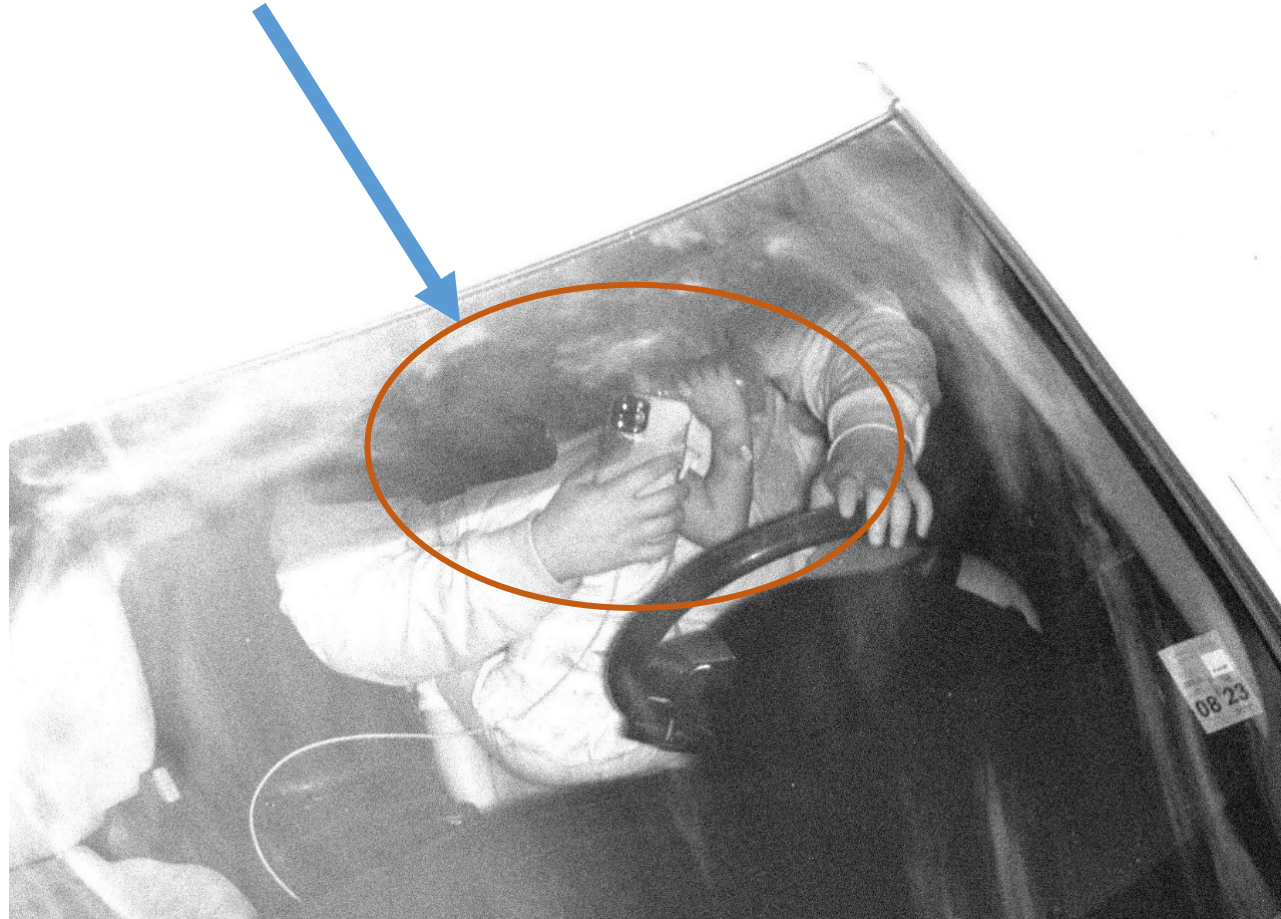


shutterstock - 157826705

In 2022 84% of non-pedestrian fatal crashes involves one of the four factors.



Fatalities Involving Distracted Driving

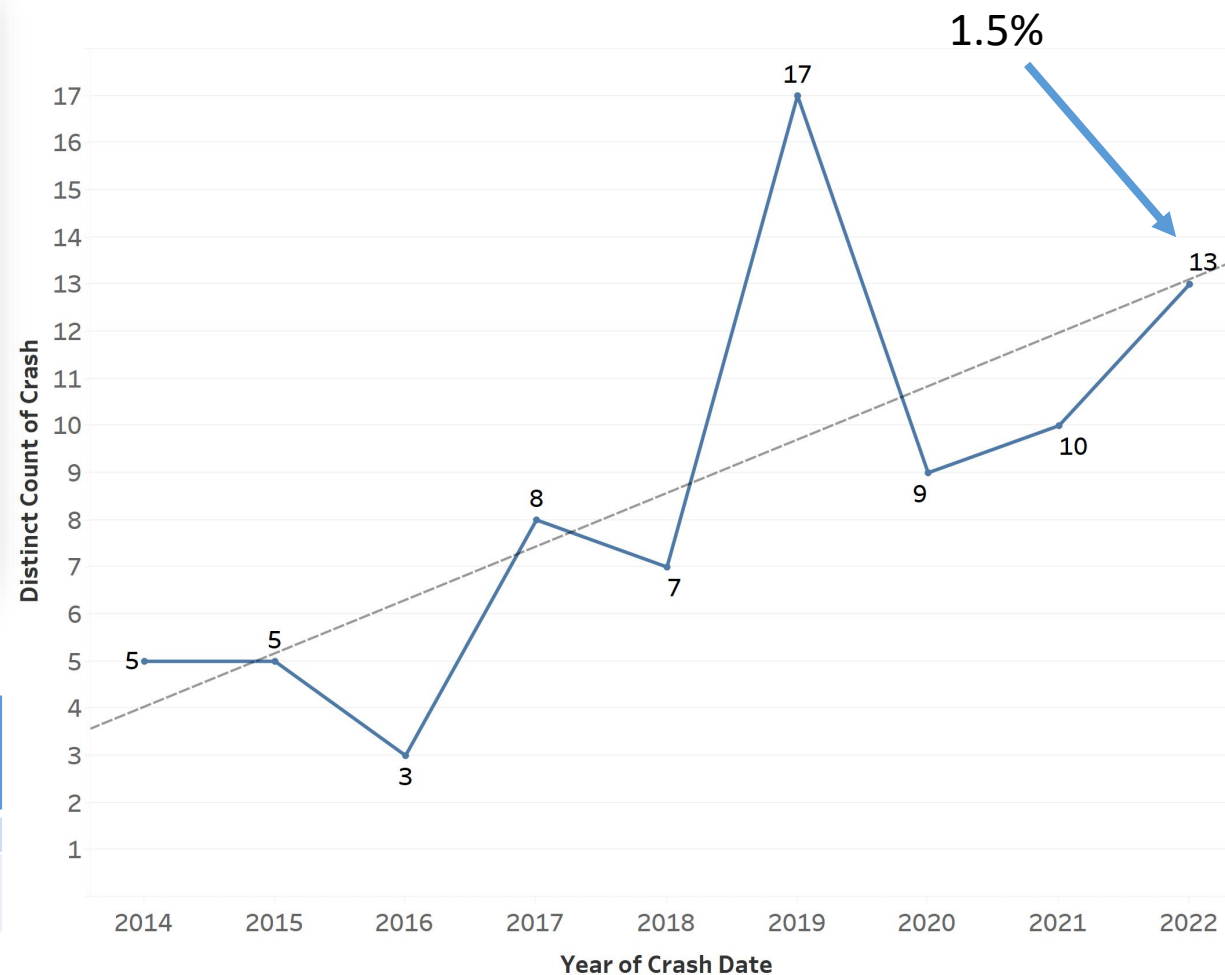




Cell Phone Distraction



Total # Vehicles	# Illegal Phone Offenses		Total Distraction Offenses	
	#	%	#	%
6527	380	5.8%	482	7.4%



Aggressive Driving

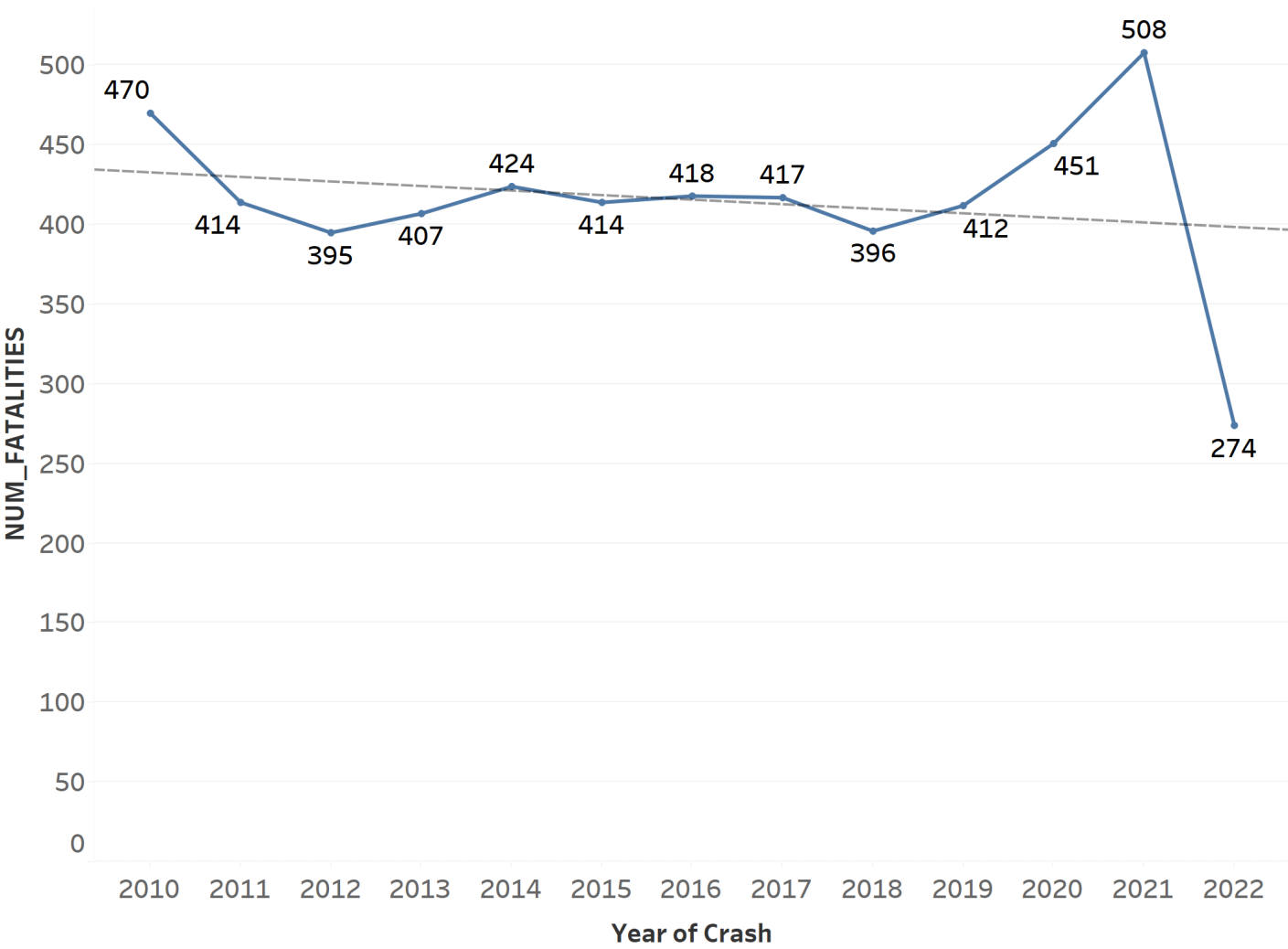
Aggressive Driving

- 2005-2021 Def:
 - Exceeding stated speed limit
 - Exceeding safe speed limit
 - Failure to Yield
 - Following too closely
 - Improper passing
 - Disregarded traffic control
 - Careless operation
- 2022- New attribute Driver Action
 - Operated Motor Vehicle in Reckless or Aggressive Manner.



Fatalities & Aggressive Driving Violations

Aggressive driving violations were coded differently in 2022.

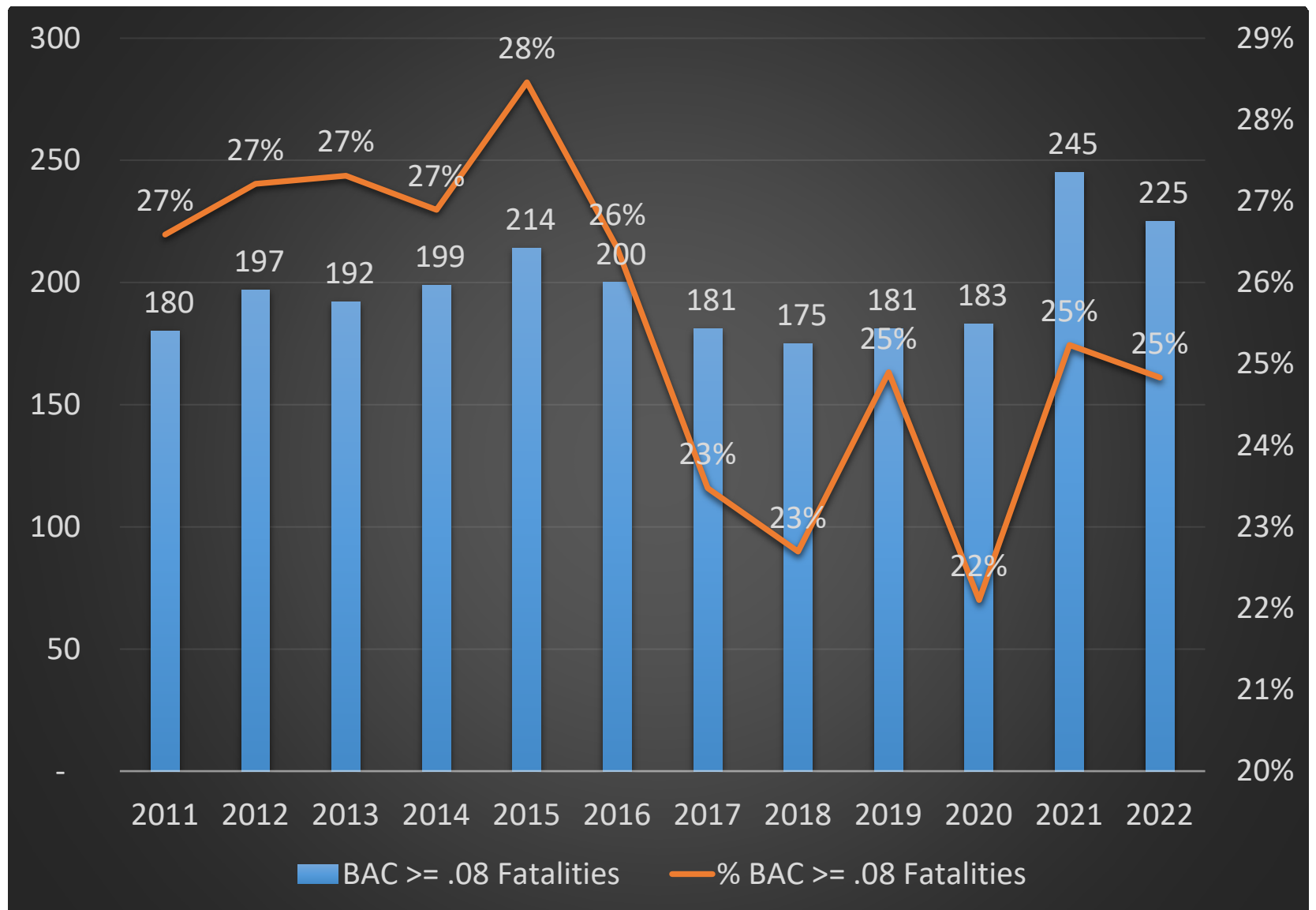


Drinking and Driving



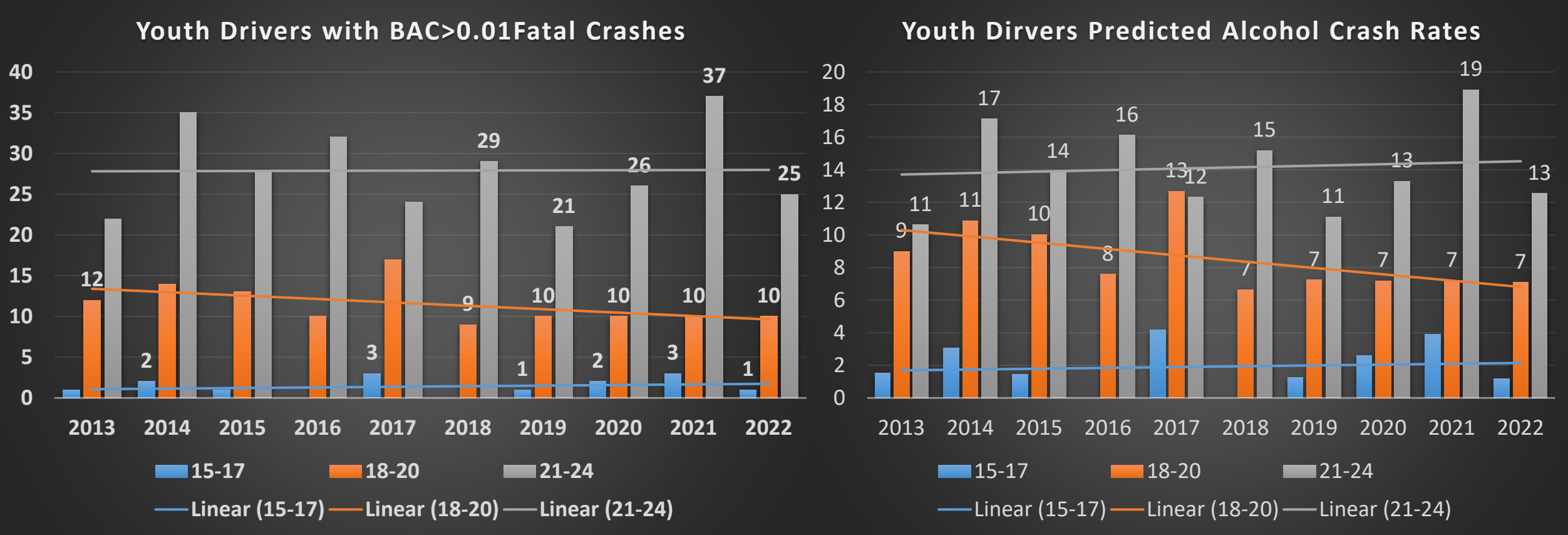
shutterstock · 157826705

Fatalities in Crashes with Driver BAC >= 0.08

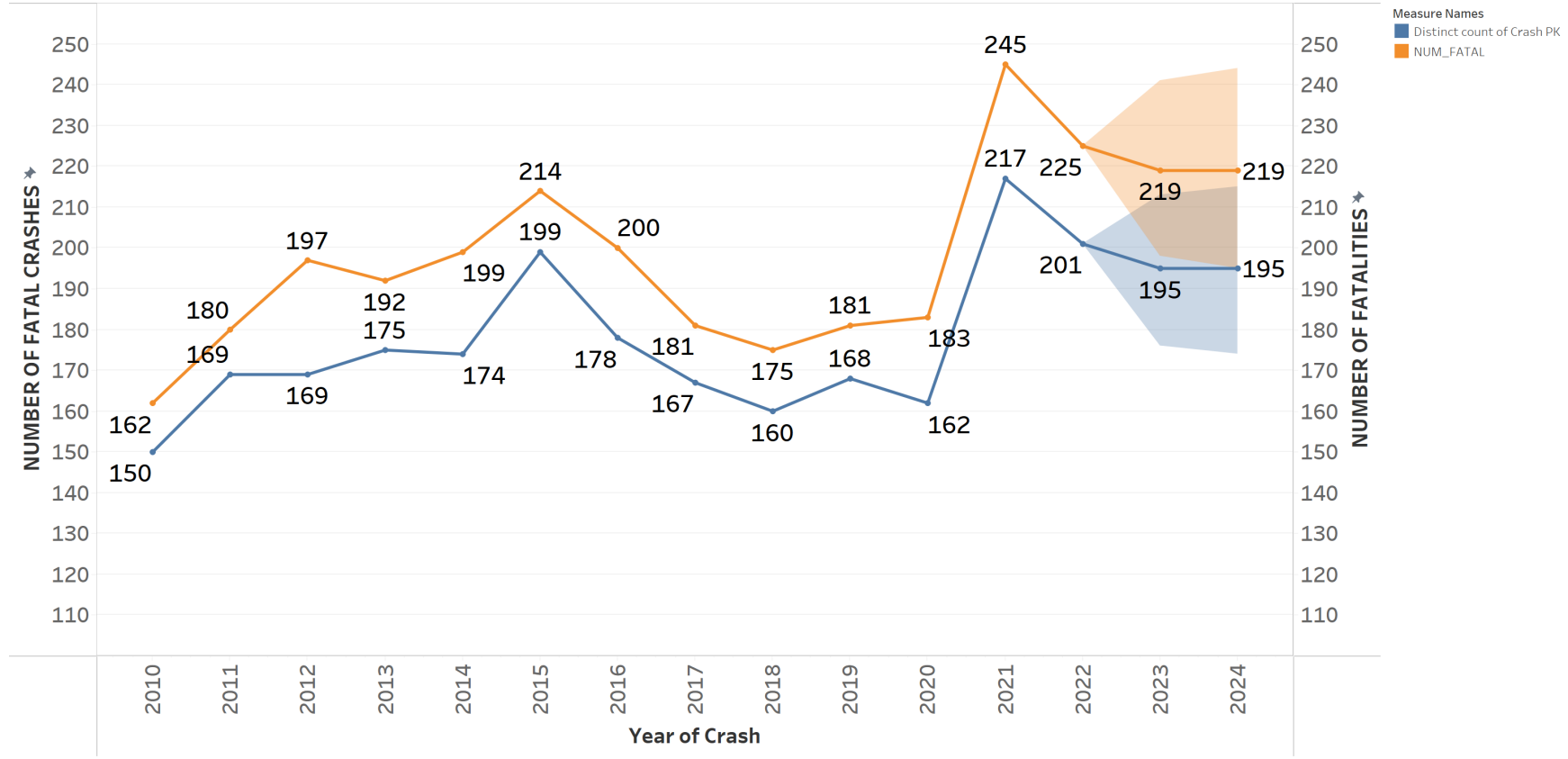


Percentage is based only on crashes with known BAC for all drivers.

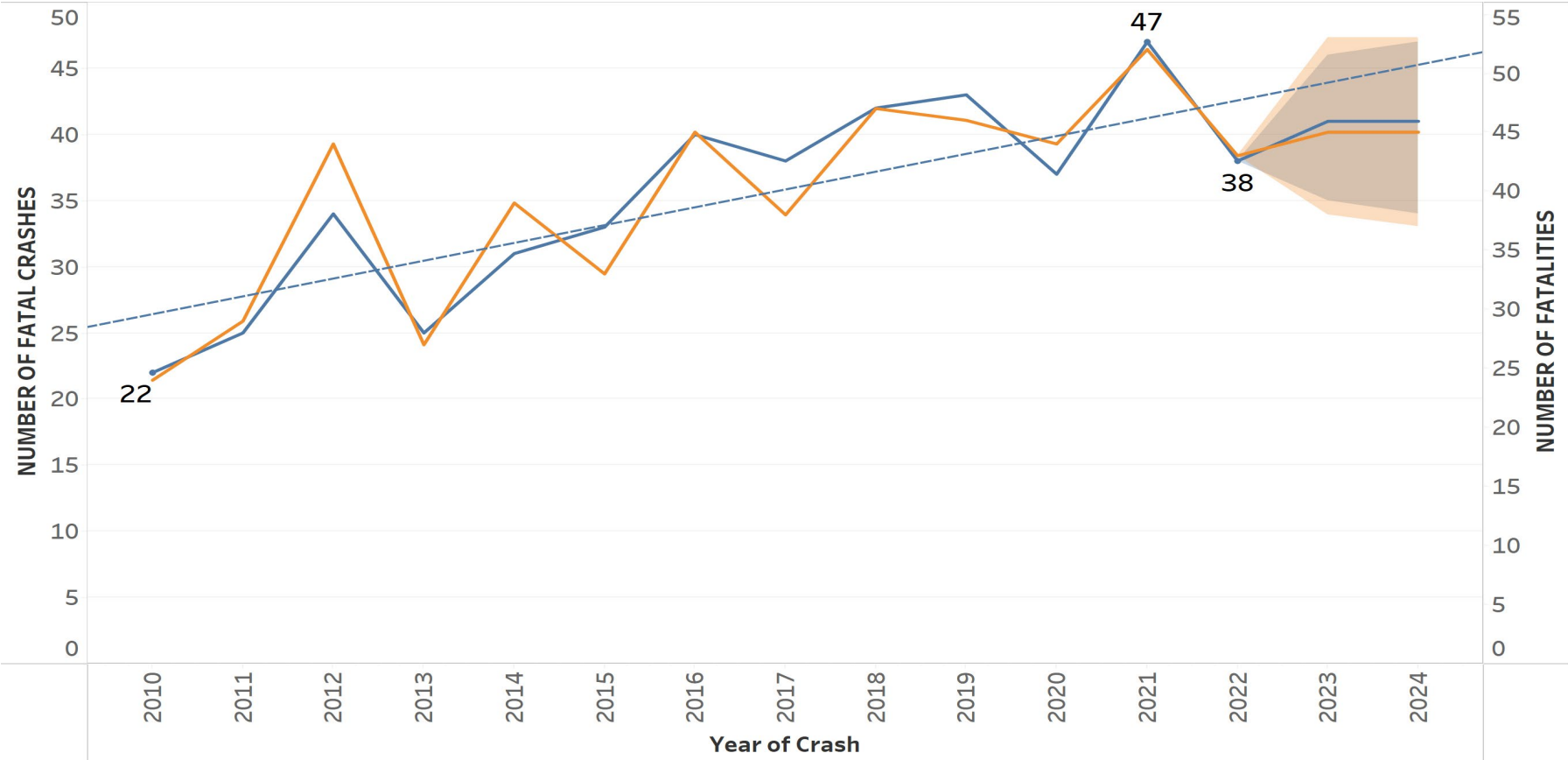
Rate (per 100,000 lic. Drivers) Youth Drivers and Alcohol Involvement in Fatal Crashes



DWI (BAC>=0.08)
 Fatal Crashes and
 Fatalities
 with forecast for
 2023-2024 and
 95% Confidence
 Interval



DWI (BAC \geq 0.08) Fatal Crashes and Fatalities in Troop A with forecast for 2022-2023 and 95% Confidence Interval



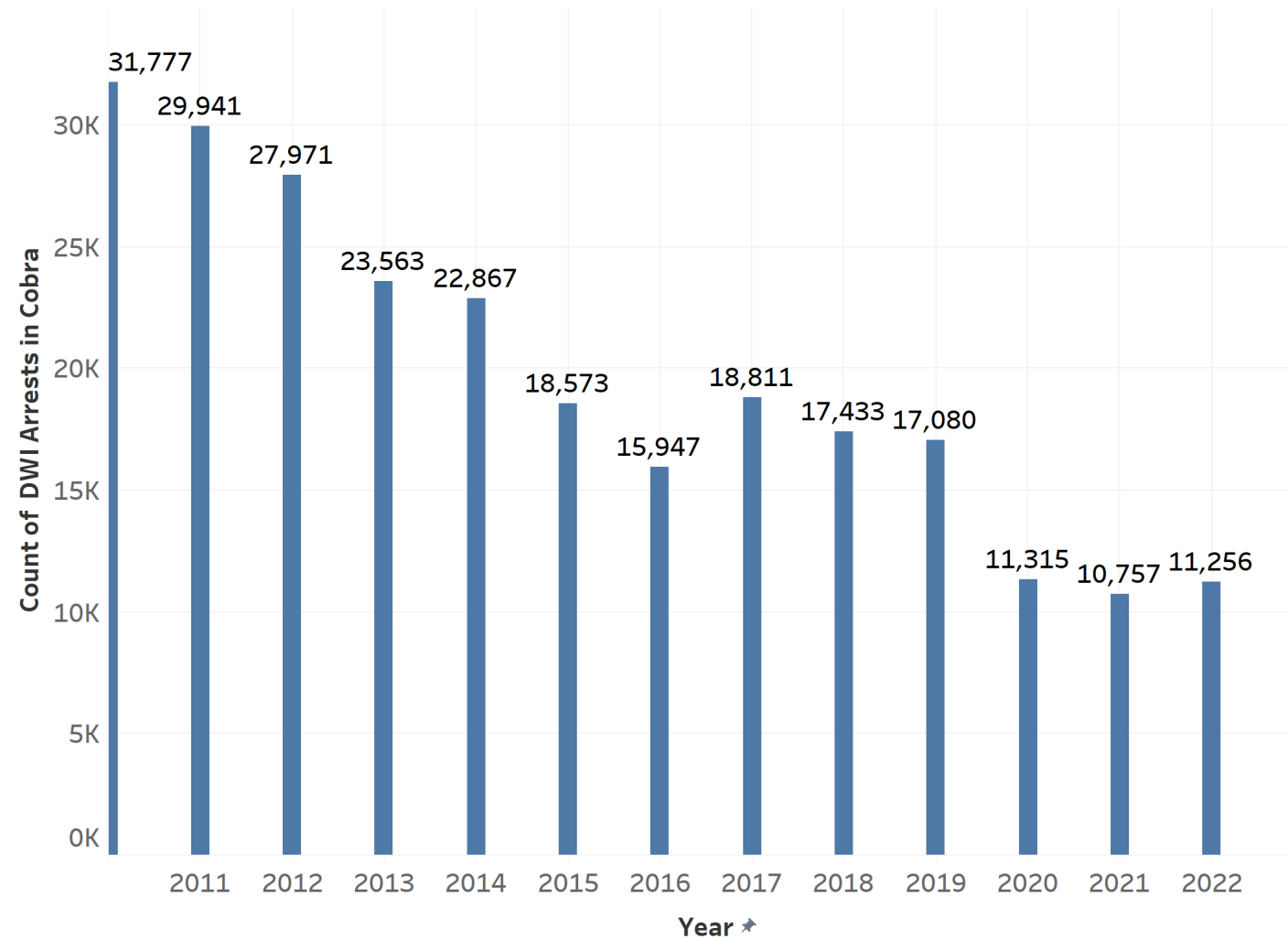
DWI Arrests from COBRA

Rule of Thumb:

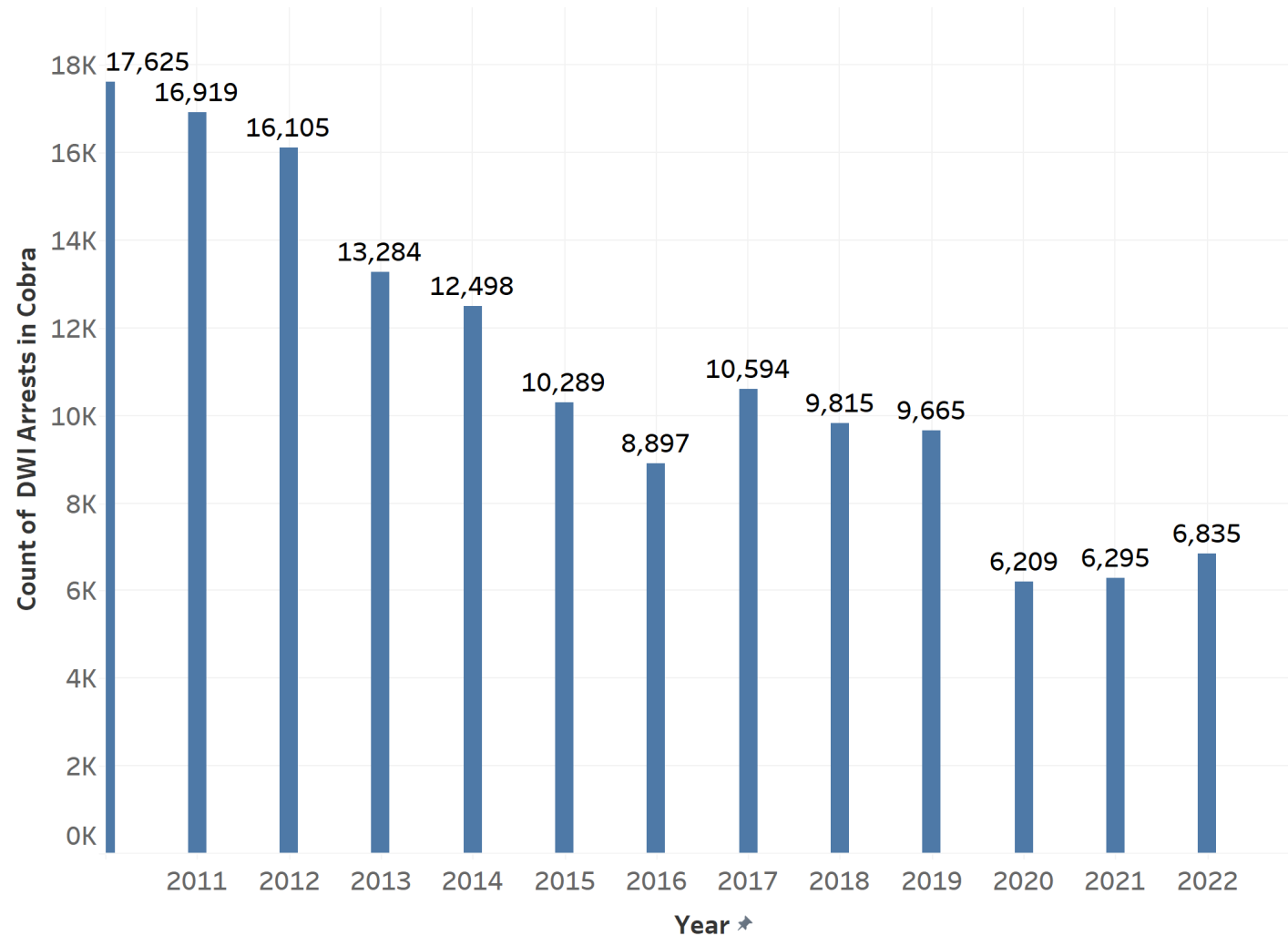
**For every 1,000 hours
Saturation Patrol 4 fewer fatalities.**

**For every SFST conducted
3 fewer fatalities.**

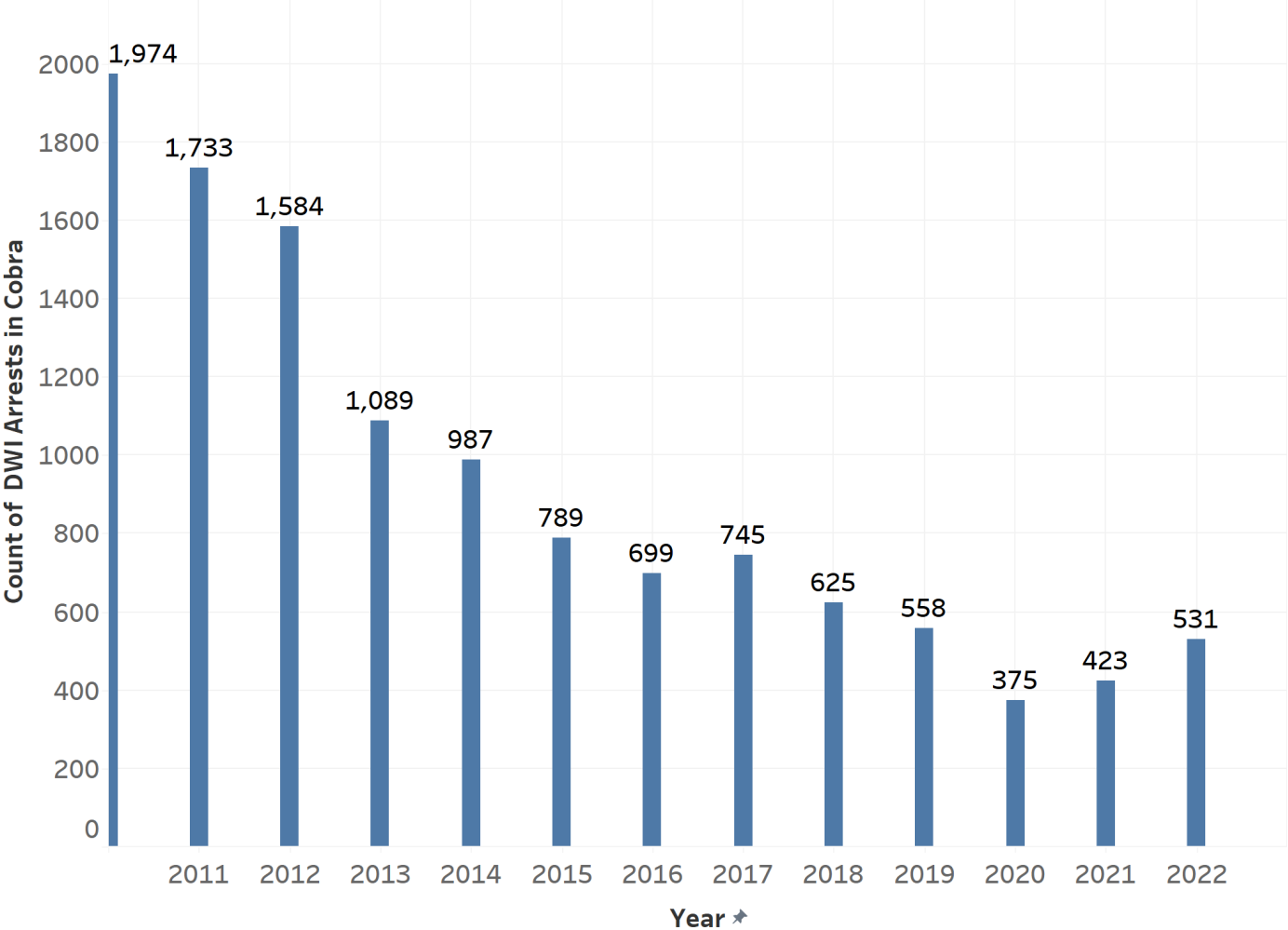
Source: Target of Opportunity Report.



DWI Arrests from COBRA BAC \geq 0.08

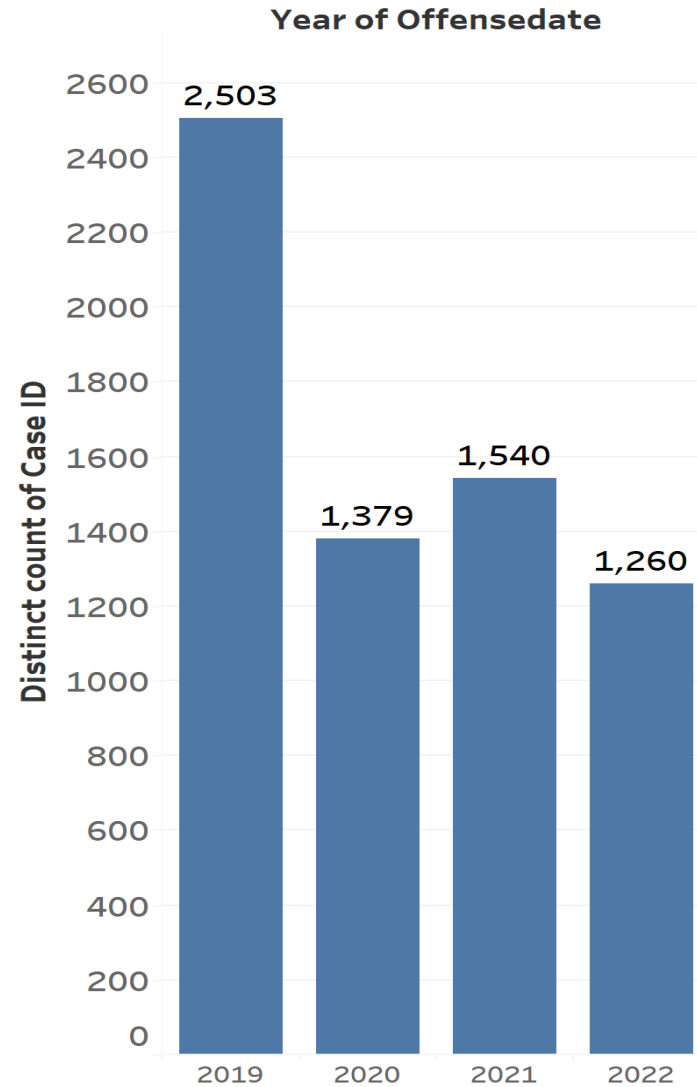


DWI Arrests Age <21 with BAC>=0.02



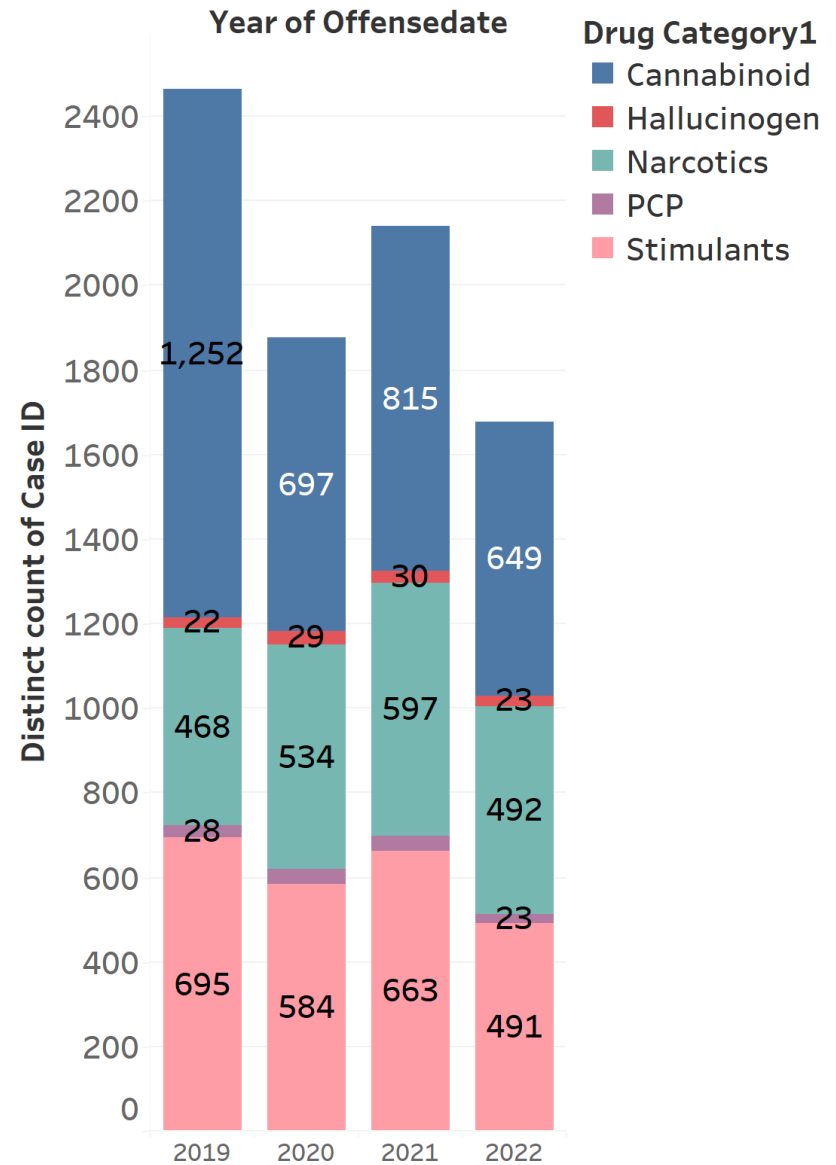
Drug use In Crashes and Traffic Violations

All Drugs
(Crime Lab
Data)



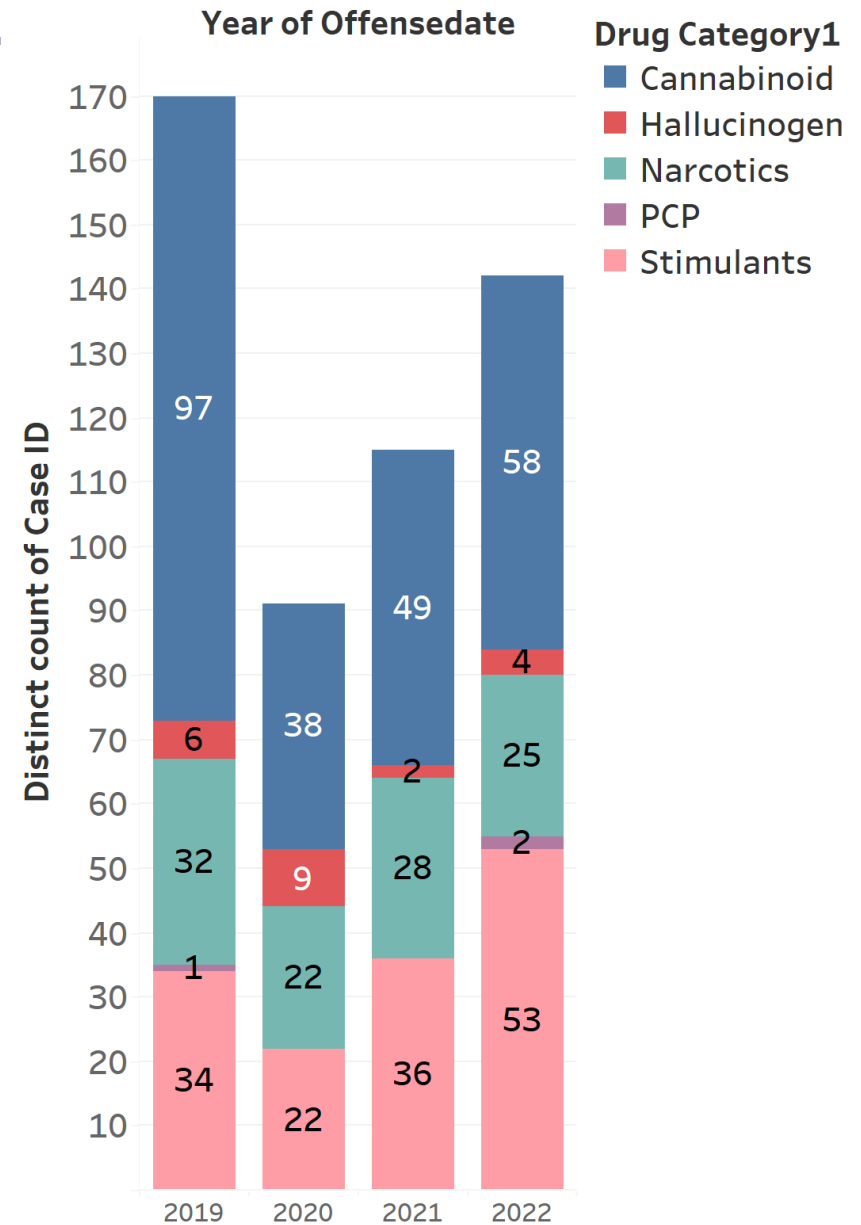
All Drugs (Crime Lab Data)

Includes multiple drugs.
In Crashes and Traffic Violations.

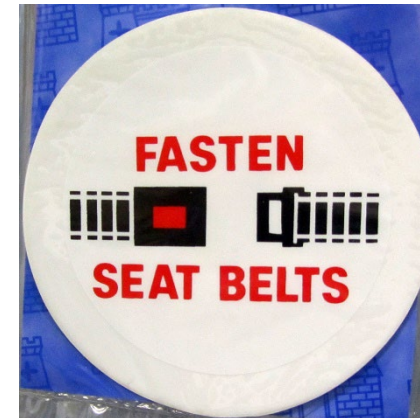


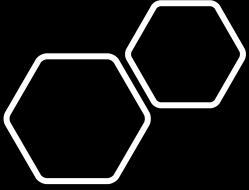
Drugs in Fatal Crashes (Crime Lab Data)

Includes multiple drugs.



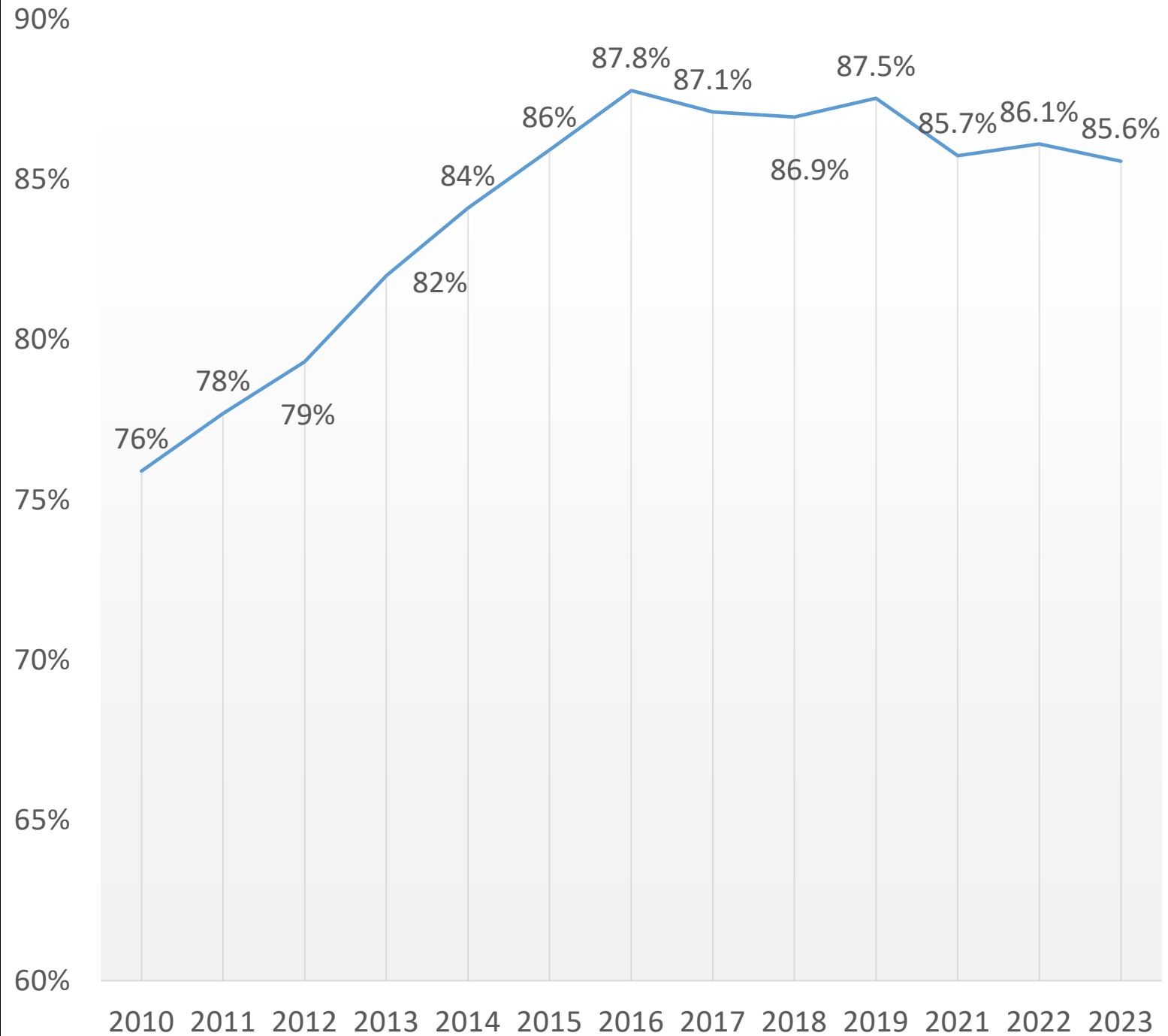
Occupant Protection





Seat Belt Usage (1999-2023)

No Survey in 2020

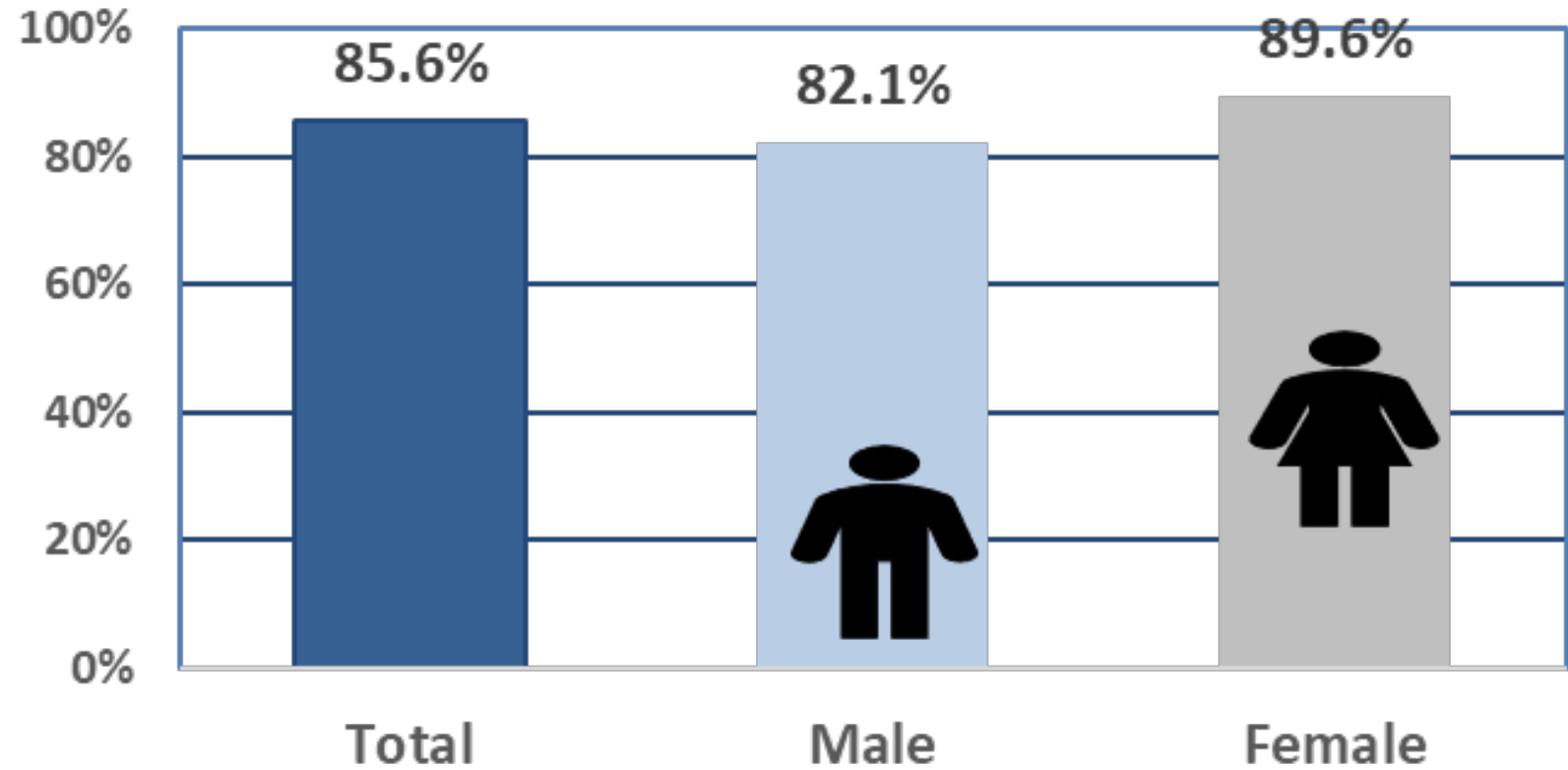


Seat Belt Use by Region 2023 and Difference to 2022

Region	Estimate	STD Error	LCL	UCL	Diff	Significance
1-New Orleans	88.4%	0.9%	86.6%	90.2%	0.1%	NO
2-Baton Rouge	80.5%	1.2%	78.2%	82.8%	-1.9%	NO
3-Houma	88.0%	0.7%	86.6%	89.4%	1.5%	NO
4-Lafayette	88.5%	1.0%	86.5%	90.4%	4.0%	NO
5-Lake Charles	90.1%	2.8%	84.6%	95.6%	4.4%	NO
6-Alexandria	77.0%	1.6%	73.8%	80.2%	3.3%	NO
7-Shreveport	85.1%	1.9%	81.3%	88.8%	-2.7%	NO
8-Monroe	79.2%	1.9%	75.4%	83.0%	-9.1%	YES
LA total	85.6%	0.5%	84.6%	86.6%	-0.5%	NO

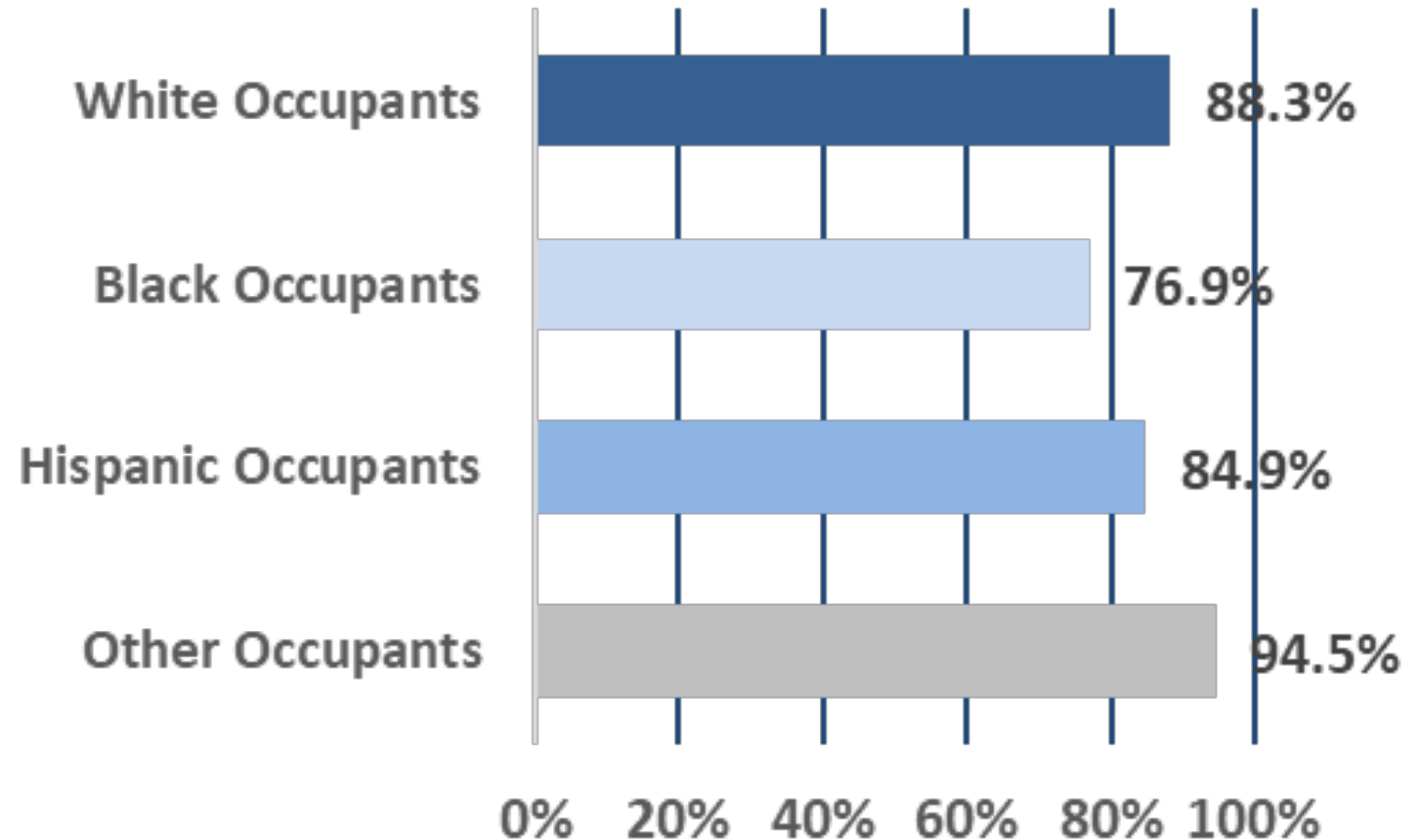
Seat Belt Use by Sex 2023

Male Belt use 7.5 percentage points lower than that of females

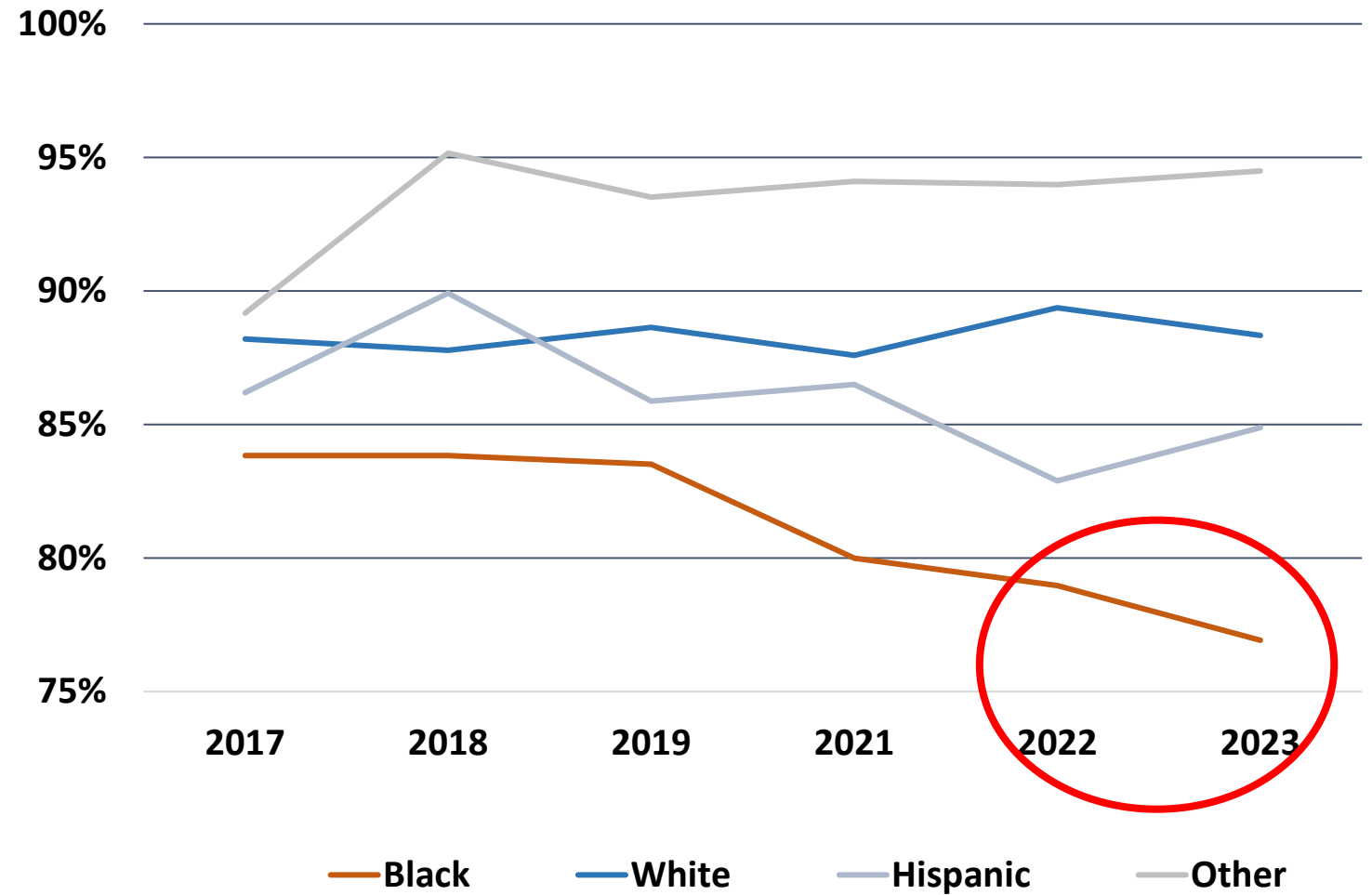


Seat Belt Use by Race 2023

Seat belt use of black occupants lowest since 2015.

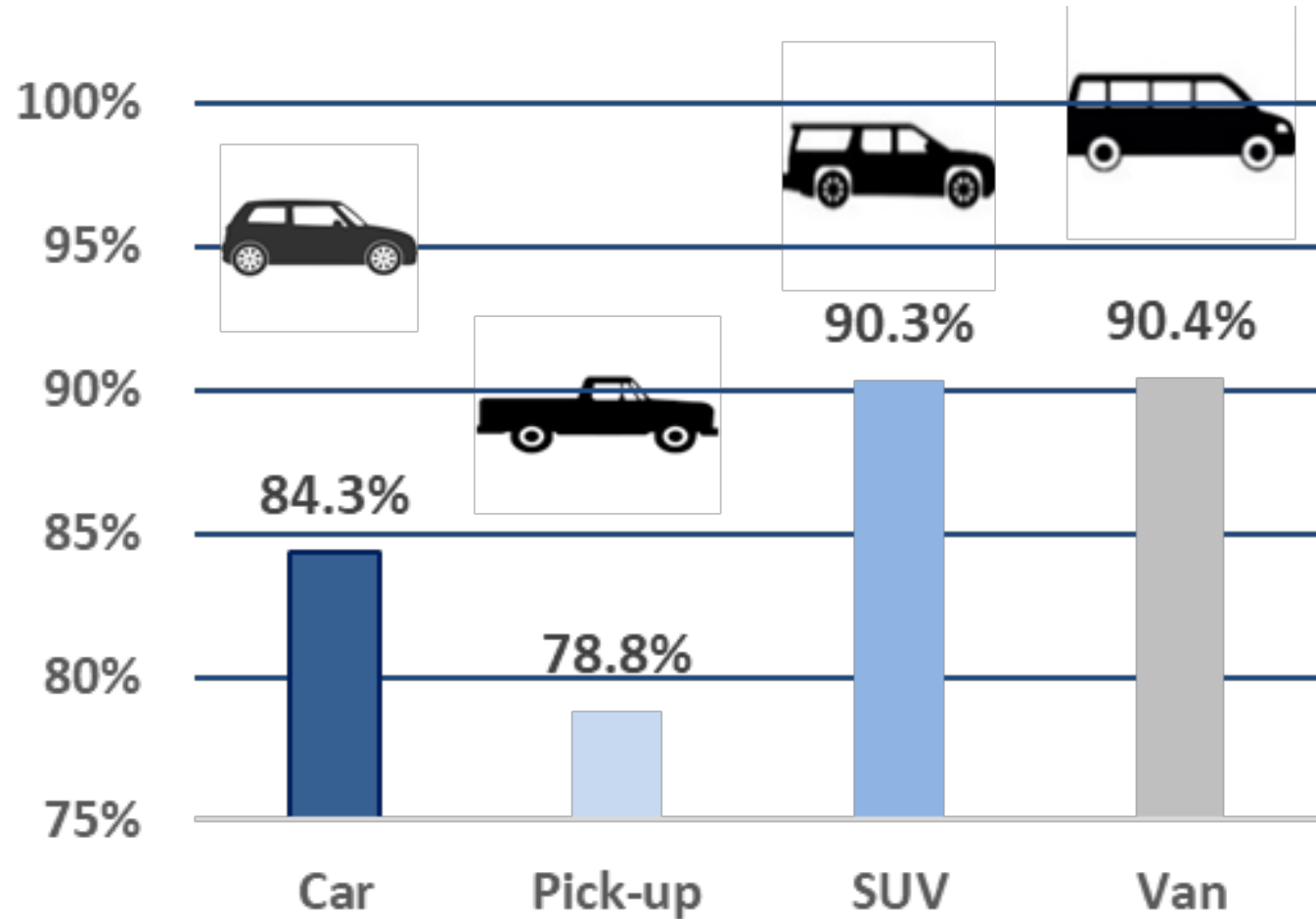


Seat Belt Use by Race 2023



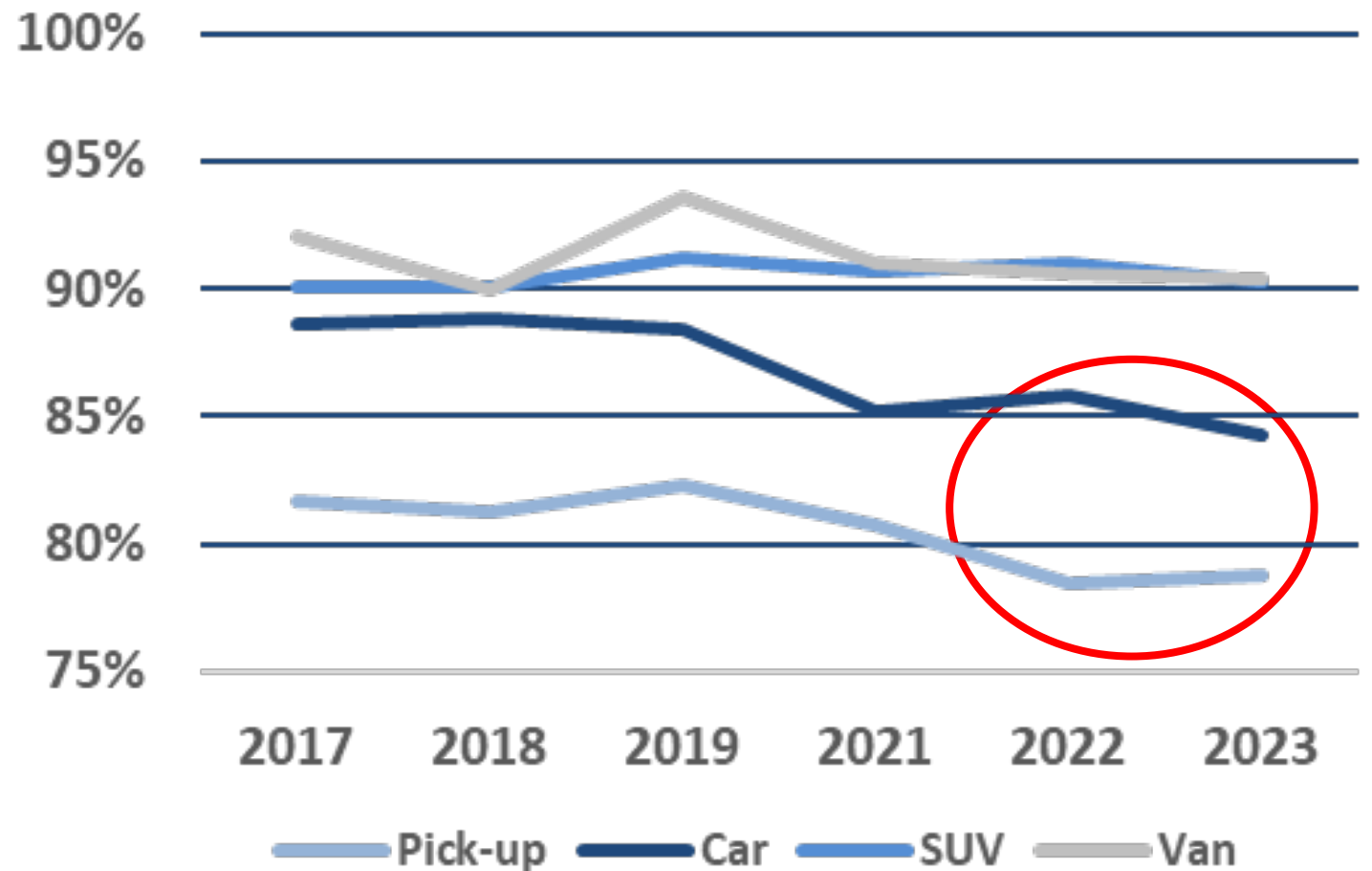
Seat Belt Use by Vehicle Type 2023

Seat belt use in pick-up trucks was 11 percentage points lower than that of SUVs and Vans and 5.5 percentage points lower than that of cars.



Seat Belt Use by vehicle Type 2022

- Seat-belt use of occupants of pickup trucks and cars was lower in 2021 - 2023 compared to 2016 to 2019, while seat belt use of occupants of SUVs and Vans remained high.



Rear Seat Belt Use by vehicle Type 2022

Seat-belt use of passengers in the rear seats of passenger vehicles has declined over the past three years for Pickup trucks and cars.



Crashes result in economic cost to all drivers, but also affect the quality of life for those directly affected.



Total Cost of Crashes

- The Economic and Societal Impact Of Motor Vehicle Crashes,
 - 2010, page 12, unit cost are adjusted by CPI.

Type	Average Cost per Person	Injuries	Total Cost by Injury Category in Billion Dollars	Total Cost by Injury Category in Billions Including Loss of Quality of Life
Fatal Injuries	\$1,902,526	906	\$1.7	\$11.3
Serious Injuries	\$486,635	2,573	\$1.3	\$5.4
Suspected Minor Injuries	\$142,765	14,509	\$2.1	\$8.8
Possible Injuries	\$30,979	50,919	\$1.6	\$3.2
Occupants with No Injury	\$5,957	317,359	\$1.9	\$1.9
Property Damage	\$8,263	283,409	\$2.3	\$3.2
Grand Total Cost		669,675	\$10.9	\$33.7
Cost per licensed Driver			\$3,508	\$10,894
Increase from past year			-1.4%	6.4%

Cost of DWI Crashes

- The Economic and Societal Impact Of Motor Vehicle Crashes,
 - 2010, page 12, unit cost are adjusted by CPI.

Type	Average Cost per Person	Injuries	Total Cost by Injury Category in Million Dollars	Total Cost by Injury Category in Millions Including Loss of Quality of Life
Fatal Injuries	\$1,902,526	255	\$485	\$3,172
Severe Injuries	\$486,635	126	\$61	\$263
Moderate Injuries	\$142,765	404	\$58	\$245
Complaint Injuries	\$30,979	915	\$28	\$57
Occupants with No Injury	\$5,957	2,844	\$17	\$17
Property Damage	\$8,263	3,572	\$30	\$30
Grand Total Cost		8,116	\$679	\$3,784
Cost per licensed Driver			\$219	\$1,223

Cost of Injuries for not Wearing Seat Belt

Type	Average Cost per Person	Injuries	Total Cost by Injury Category in Million Dollars	Total Cost by Injury Category in Millions Including Loss of Quality of Life
Fatal Injuries	\$1,902,526	297	\$565	\$3,694
Severe Injuries	\$486,635	486	\$237	\$1,016
Moderate Injuries	\$142,765	1,503	\$215	\$911
Complaint Injuries	\$30,979	2,533	\$78	\$159
Grand Total Cost		4,819	\$1,095	\$5,780
Cost per licensed Driver			\$354	\$1,868

Cost per Crashes

- The Economic and Societal Impact Of Motor Vehicle Crashes,
 - 2010, page 12, unit cost are adjusted by CPI.

Highest Severity	Unit Economic Crash Costs	Unit Crash Costs including Loss of Life
Fatal Crash	2,155,975	13,721,625
Serious Injury Crash	633,123	2,628,193
Suspected Minor Injury Crash	215,169	814,414
Possible Injury Crash	71,509	120,121
PDO Crash	29,929	29,929



The 2022 LOUISIANA TRAFFIC RECORDS DATA REPORT indicates the following:

- 852 fatal crashes
- 906 fatalities
- 42.4 thousand injury crashes
- 68.0 thousand injuries
- 105.3 thousand property-damage-only crashes
- 48.7% of all vehicle occupants who died in a crash did not use a safety belt in cases where safety belt use is known.
- 225 people died in DWI (BAC \geq 0.08) crashes (25% of fatalities).

Q & A