AccidentsAnalysis

Total in 2017

Accidents:	Damaged vehicles:	Casualties:
266,603	491,426	352,377

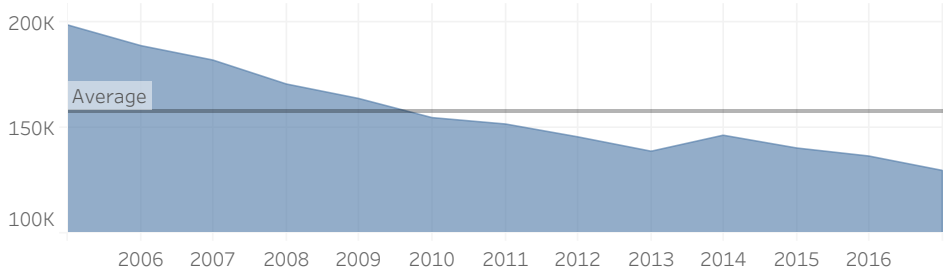
Average per day

Accidents:	Damaged vehicles:	Casualties:
..	1346	965

Every 16 minutes someone is killed or seriously injured on UK roads!*

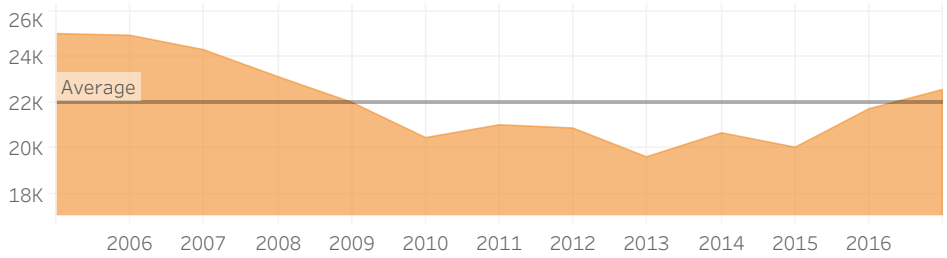
AccidentsAnalysis

Total number of accidents across 2005-2017

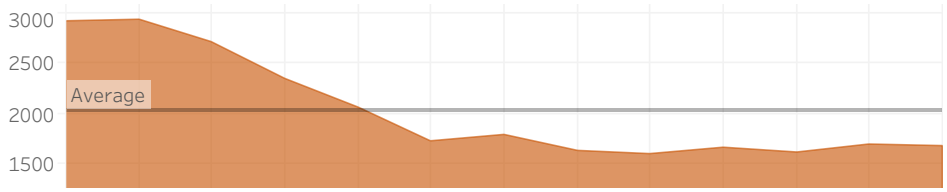


While the overall number of accidents has been decreasing steadily over the years, there has been a concerning trend of a rising fraction of serious and fatal accidents since 2010. It is crucial to address this increase through targeted interventions and sustained efforts to enhance road safety measures.

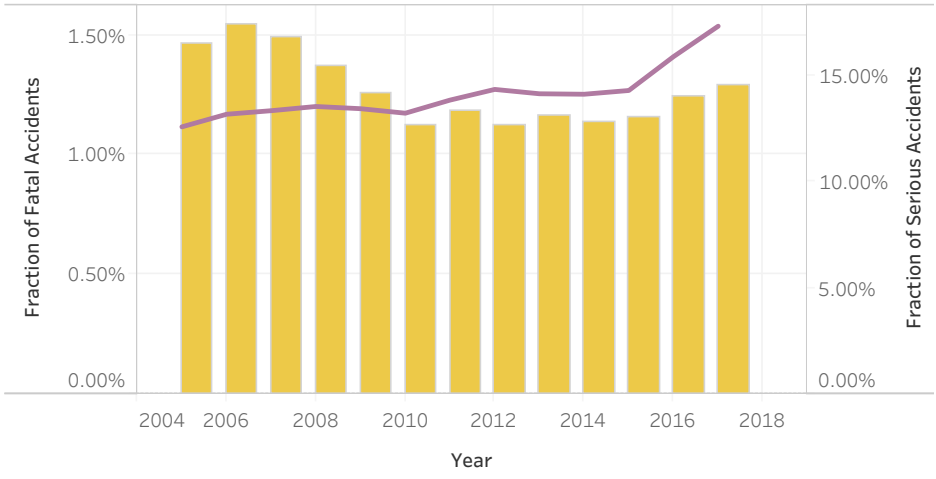
Number of serious accidents across 2005-2017



Number of fatal accidents across 2005-2017



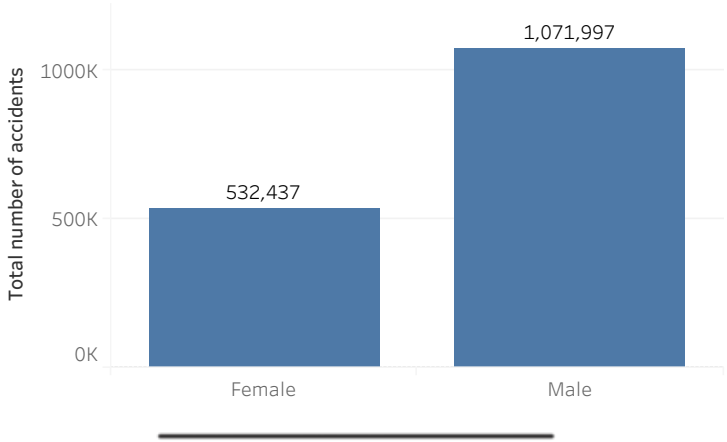
Percentege of Serious and Fatal to All Accidents Across 2005-2017



Severity

AccidentsAnalysis

Distribution of accidents by sex of the driver (2005-2017)



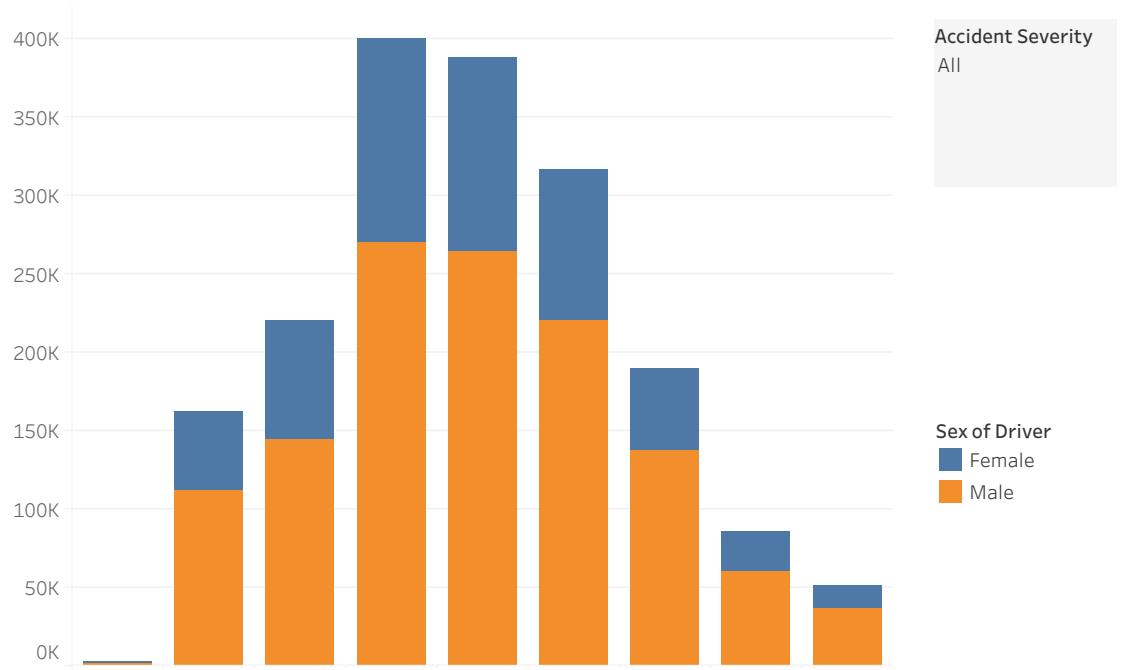
Accidents severity ratio by sex of the driver (2005-2017)

	Fatal	Serious	Slight
Female	0.78%	10.59%	88.62%
Male	1.50%	14.21%	84.29%

Statistically, male drivers are involved in a higher number of accidents compared to female drivers. However, this disparity is primarily due to the lower ratio of female drivers. Interestingly, the fraction of fatal accidents is lower among females, suggesting potential differences in

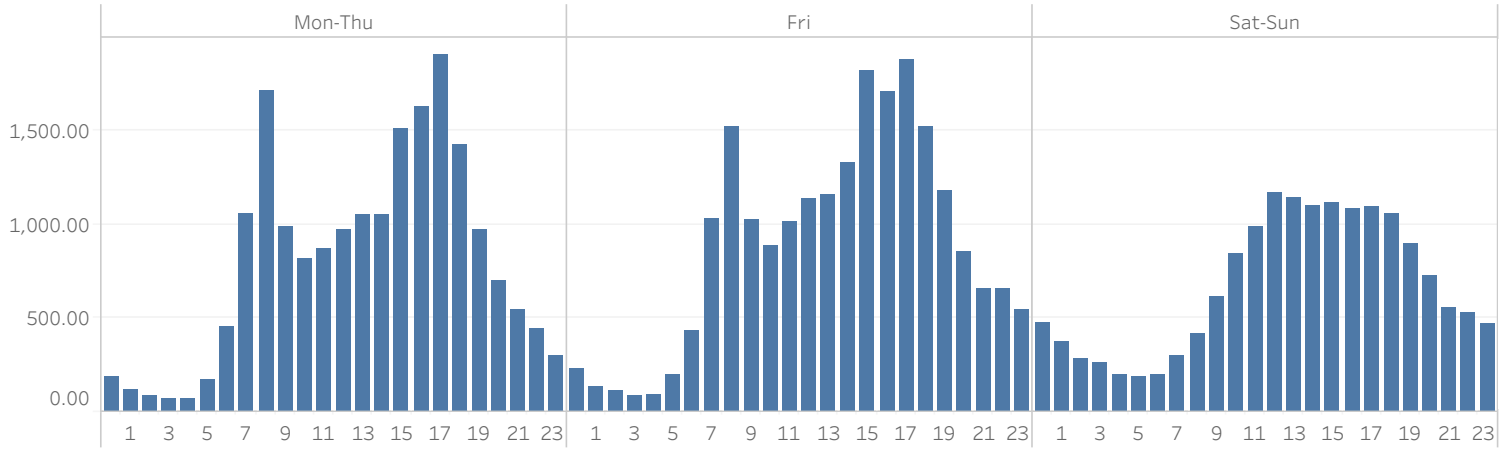
While the age band of 26-55 accounts for the majority of accidents overall, the distribution varies by severity. Specifically, the age group of 36-45 is responsible for the highest number of fatal accidents, highlighting the importance of understanding age-related patterns in accident data.

Number of accidents by age band and sex of drivers

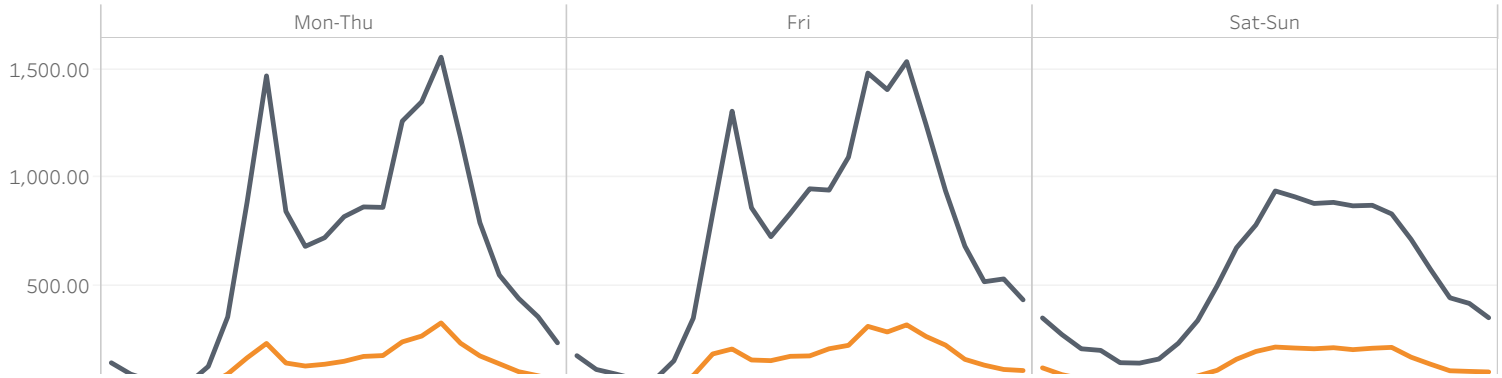


AccidentsAnalysis

Distribution of Accidents by Day of Week and Hour of Day (2017)



Trend Analysis: Accidents by Day and Hour, by Severity (2017)



- During weekends, expected trends emerge with heightened activity during the daytime and a corresponding decrease in accident rates at night.
- Weekdays (Monday to Thursday) exhibit patterns, characterized by prominent peaks during morning and afternoon rush hours.
- Notably, Friday diverges from this pattern by initiating the afternoon rush hour an hour earlier and introducing an additional peak at 7 pm.

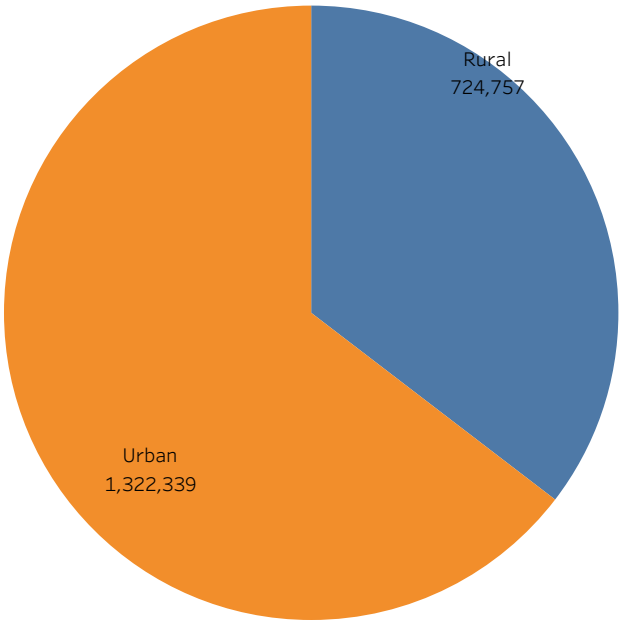
Recognizing and understanding these nuanced patterns is paramount for optimizing traffic management strategies and implementing targeted safety measures during periods of heightened risk.

Accident Severity
Fatal
Serious

Accident Severity
All

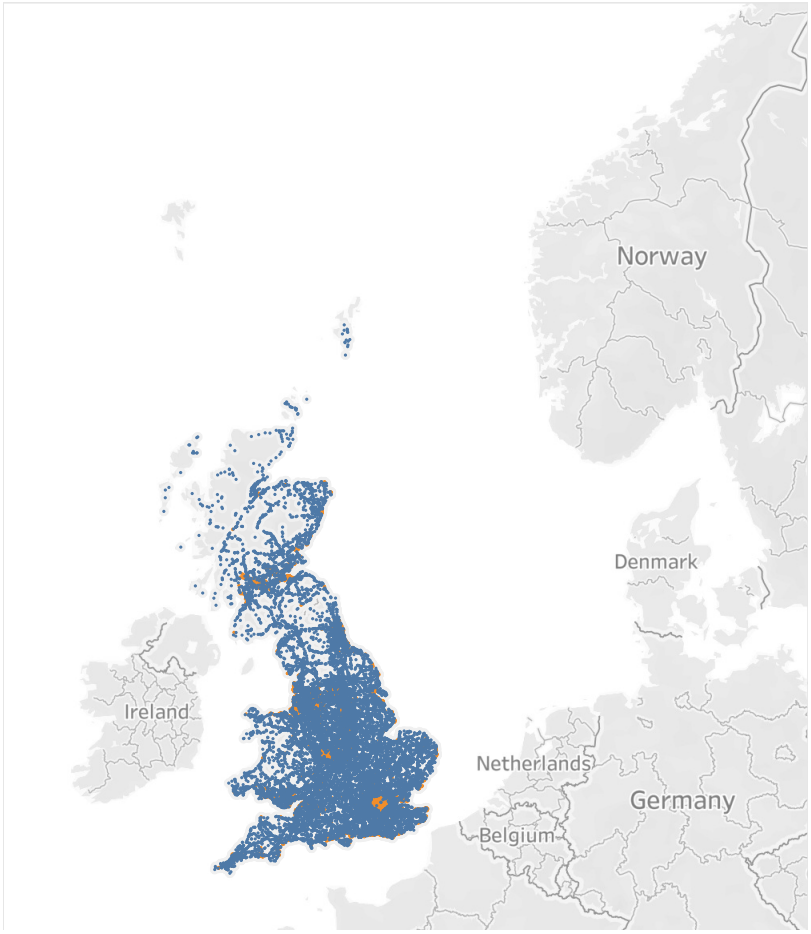
AccidentsAnalysis

Distribution of accidents between urban and rural areas



Accident Severity
All

While the majority of accidents occur in urban areas, it's noteworthy that a larger proportion of fatal accidents occur in rural areas. This disparity underscores the importance of addressing road safety issues in rural settings and implementing targeted interventions to reduce the incidence of fatal



Year
2005 to 2017

Accident Severity
- (●) Fatal
- ( ) Serious
- ( ) Slight

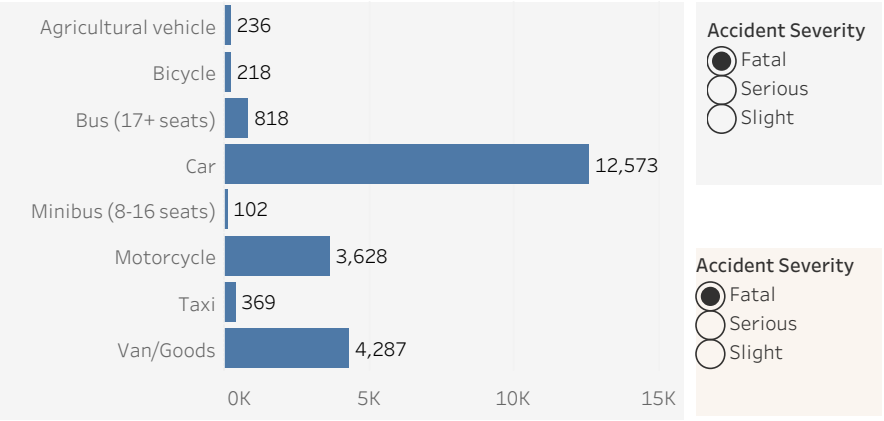
Urban or Rural Area
- Rural
- Urban

Percent of fatal accidents in rural vs urban areas:

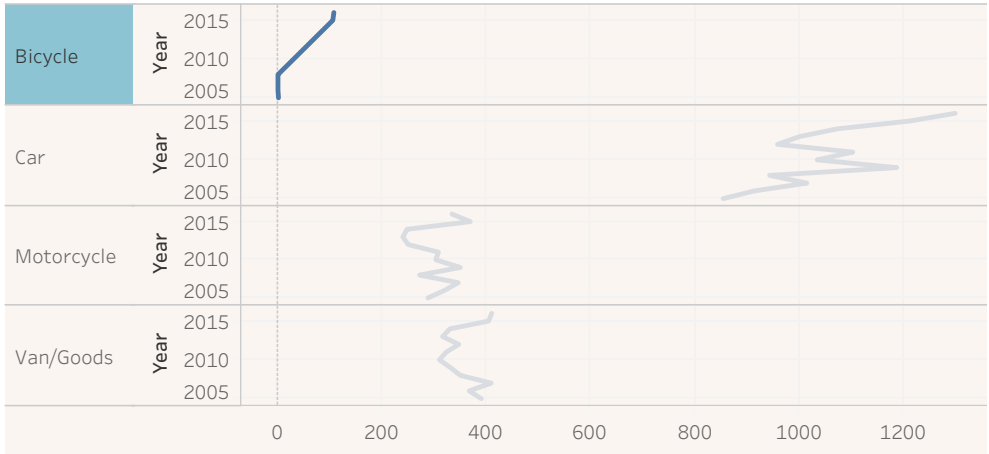
Rural	2.35%
Urban	0.71%

AccidentsAnalysis

Number of accidents by vehicle type



Temporal trends in accidents across vehicle types



Top 10 car makes by number of accidents

	Total number of accidents	Fraction of fatal accidents
HONDA	95,185	1.60%
MERCEDES	83,024	1.56%
RENAULT	104,437	1.13%
FORD	214,822	1.13%
CITROEN	74,854	1.12%
PEUGEOT	117,115	1.06%
NISSAN	65,591	1.04%
VAUXHALL	217,649	1.03%

- Analysis suggests that Honda vehicles have been involved in a higher number of accidents compared to Toyota, indicating a potential safety discrepancy between the two brands.

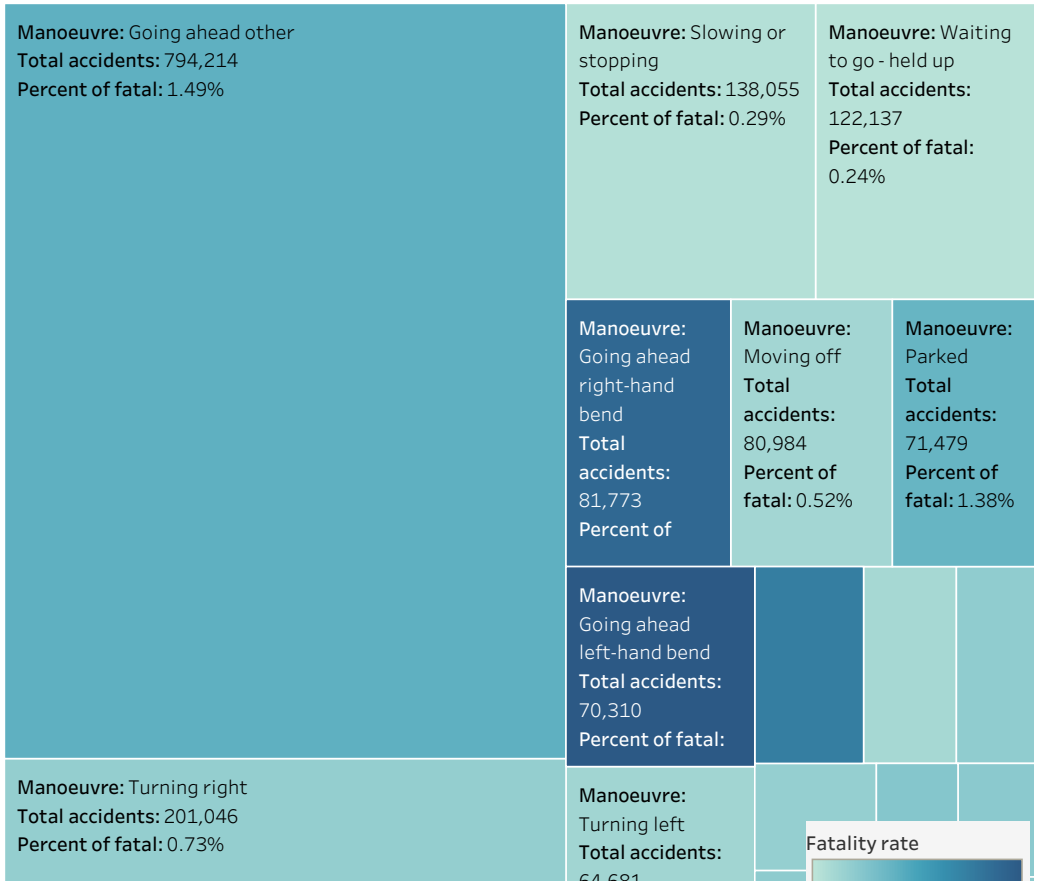
- A concerning trend emerges with a significant rise in fatal accidents involving bicycles over the years, calling for increased attention and preventive measures in bicycle safety.

- Notable is the sharp decline in fatal accidents involving motorcycles in 2013, prompting further investigation to identify contributing factors and potential interventions that led to this decrease.

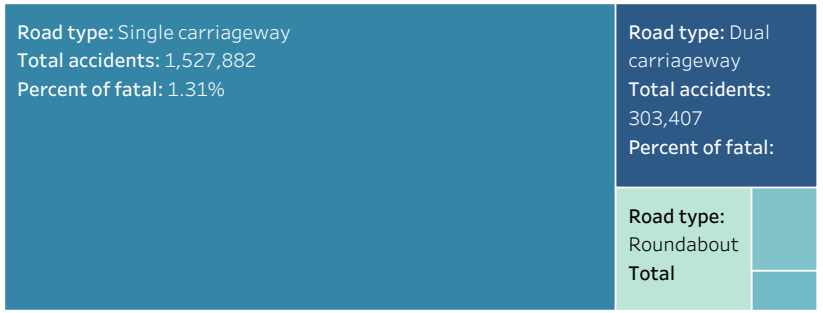
- The fluctuating trend in fatal accidents involving vans, with a notable decrease from 2010 to 2014 followed by a subsequent increase, warrants detailed investigation to understand the underlying causes and inform targeted road safety strategies.

AccidentsAnalysis

Number and percent of fatal accidents by driver's manoeuvre (2005-2016)



Number and percent of fatal accidents by road type (2005-2016)

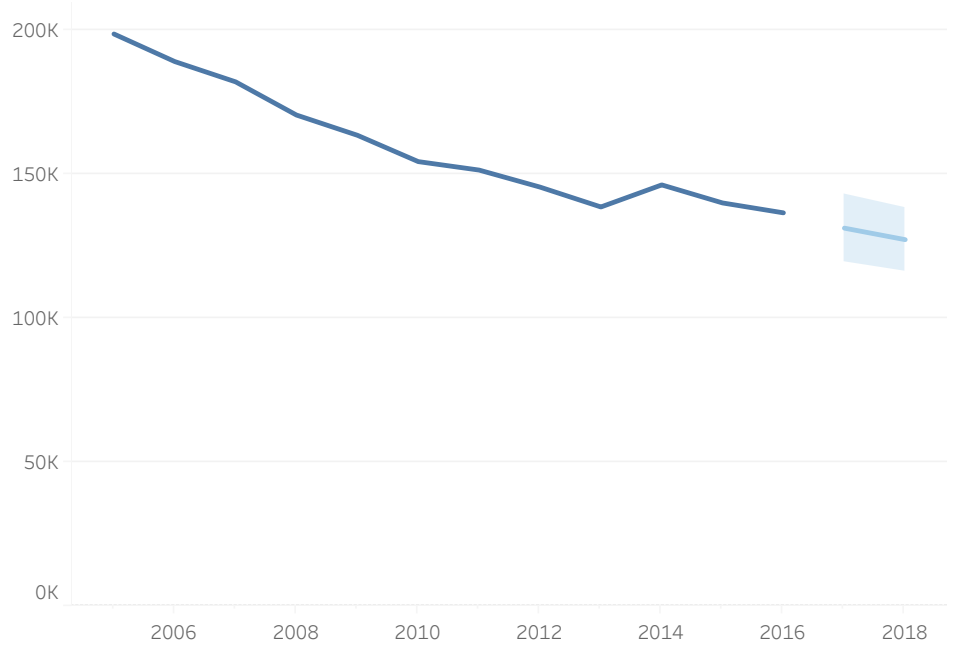


'Going ahead' is the most common accident manoeuvre. The average rate of fatal accidents across the years is 1.49%, representing a typical figure across all manoeuvres. In contrast, 'Turning right' is the second most common manoeuvre, yet its rate of fatal accidents is lower at 0.73%.
However, the data reveals that 'Going ahead left-hand' (3.44%) and 'right-hand' (3.09%) turns are the most perilous manoeuvres, with significantly higher rates of fatal accidents. This underscores the importance of targeted safety measures an..

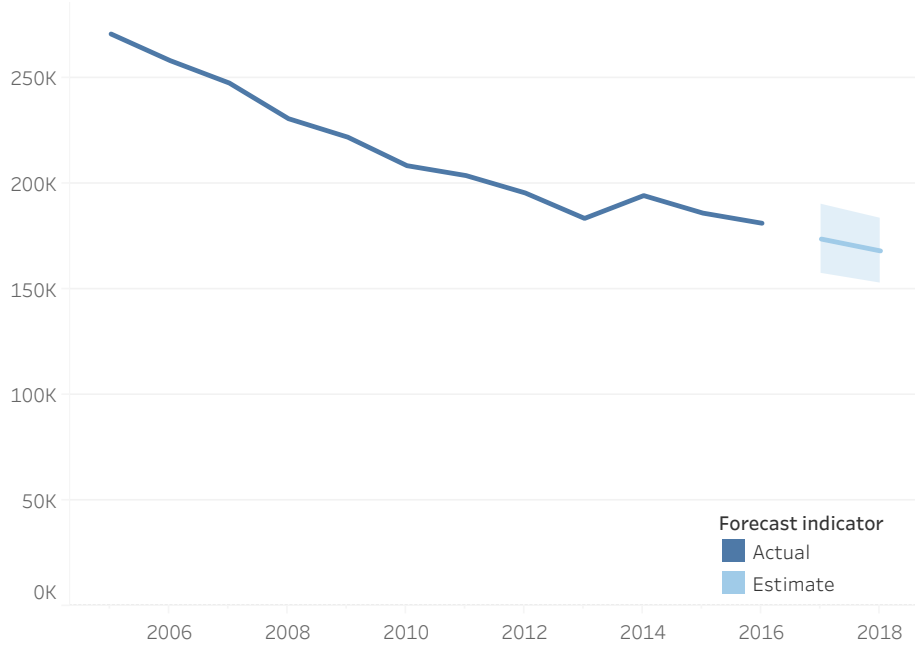
Number and percent of fatal accidents by speed limit (2005-2016)

AccidentsAnalysis

Forecast of number of accidents in 2017-2018



Forecast of number of casualties in 2017-2018



Based on data from 2005 to 2016, Tableau forecasts the number of accidents in 2017 and 2018 to be 131,305 and 127,301 respectively, while the actual numbers are 129,982 and 122,635*.
Similarly, forecasted casualties for the same years are 173,889 and 168,266, compared to actual casualties of 170,993 and 160,597*.

The close alignment between forecasted and actual figures suggests that the forecast model is reliable and can be utilized effectively in planning and

AccidentsAnalysis

Conclusions:

- The analysis highlights the importance of understanding and addressing specific risk factors associated with transport load during rush hours, speed, location and different driving behaviors. Targeted interventions tailored to address these factors can help reduce the incidence of accidents and improve overall road safety.

- Moreover, the forecasted values for 2017 and 2018 demonstrate the potential utility of predictive modeling in anticipating future trends and guiding proactive decision-making. By leveraging such forecasts, policymakers and stakeholders can implement preemptive measures to mitigate risks and enhance road safety outcomes.

- Overall, the findings underscore the multifaceted nature of road safety and the need for a comprehensive approach that encompasses regulatory, infrastructural, educational, and behavioral interventions. By working collaboratively across sectors and prioritizing evidence-based strategies, we can strive towards a future with fewer accidents, injuries, and fatalities on our roads.