

TRAFFIC CRASHES IN NIGERIA (2020 - 2024)

Overview:

This analysis explored the road traffic crashes in Nigeria. It measured the frequency of crashes, total crashes, fatalities and Injuries. It highlighted the leading factors for crashes, which included speed violations, driving under alcohol/drug influence, poor weather conditions etc., it provided recommendations to curb car crashes in Nigerian roads. This analysis provides insights into the factors influencing road safety in Nigeria.

About Dataset:

This dataset offers an examination of road traffic crashes in Nigeria, covering the period from Q4 2020 to Q1 2024. It includes quarterly data on the total number of crashes, injuries, fatalities, and vehicles involved, along with key contributing factors such as speed violations, etc. This data is sourced from official traffic records and.

Link: <https://www.kaggle.com/datasets/akinniakinwande/nigerian-traffic-crashes-2020->

Insight:

The most traffic crashes were observed in the year 2022, consequently, it had the highest number of injured (38,930) crash victims and also highest fatality(6,456).

The 4th quarter of every year saw huge increase in traffic crashes, at 30.17% , followed closely by the 1st quarter 27.83%, this could perhaps, be attributed to the festivities within these periods in Nigeria.

Total Crashes

43,262

Total Injured

127,237

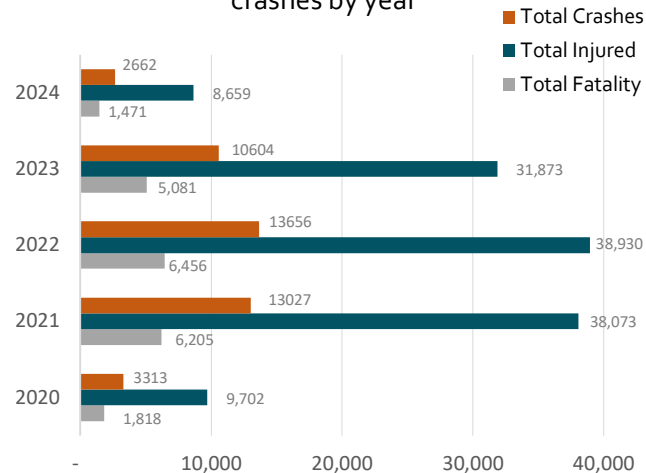
Total Deaths

21,031

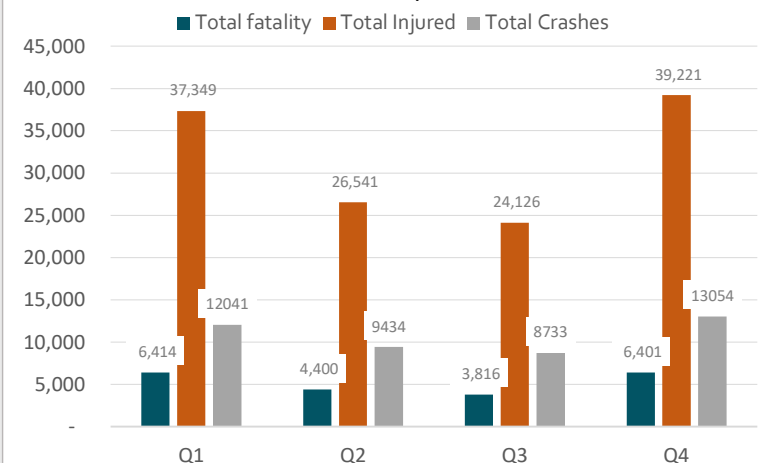
Total Vehicles involved

52,146

Total fatality, Total injured and Total crashes by year



Total fatality, Total injured and Total crashes by Quater of year



Insight:

All 36 states were grouped into their various geo-political zones. The "north-central" and "south-west" zones had the the most traffic crashes and vehicles involved in the crash.

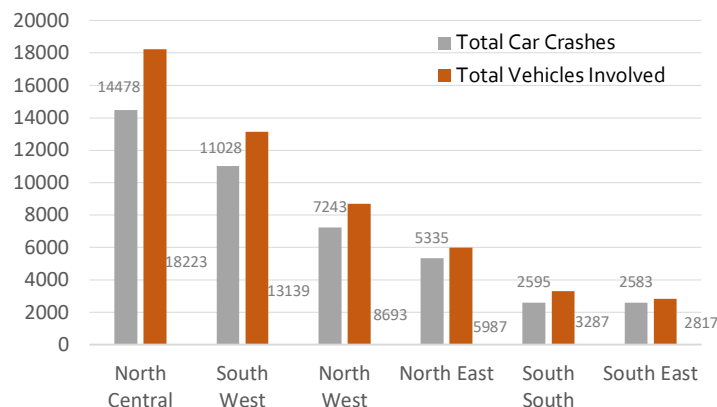
However, the "north-central", and "north-west" zones had the most fatalities and injured crash victims.

FCT, Abuja which is located in the "north-central" zone had the most traffic crashes, 4,852, and amounting 19.3% of the top 10 figures.

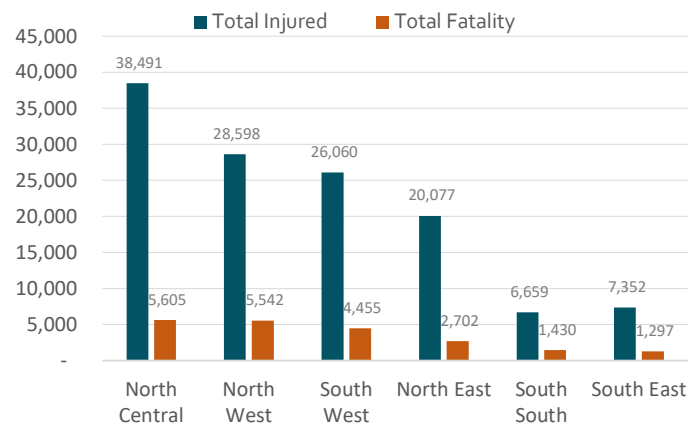
This is followed by Ogun state in the "north-west" region, 3,780.

These are high figures. View the charts by your right for details.

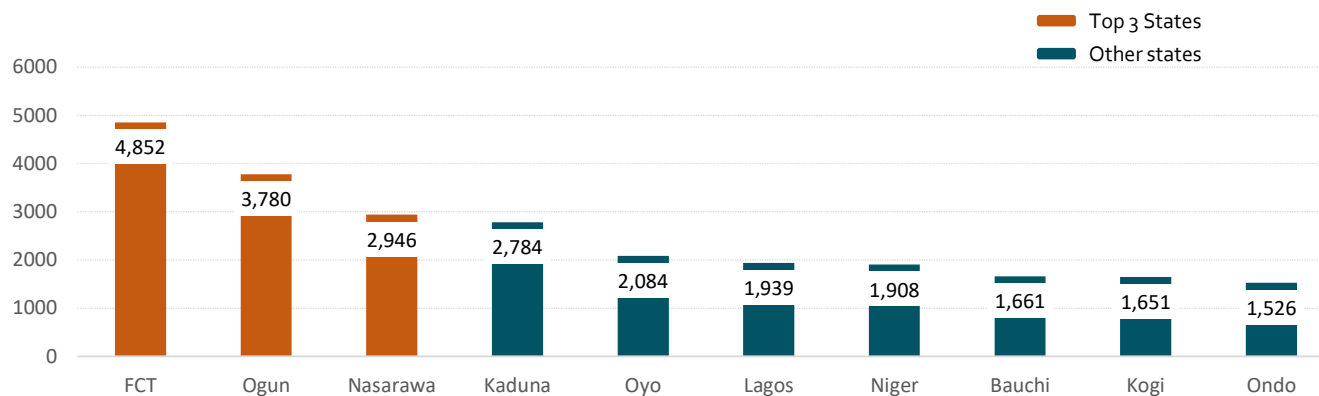
Total Car Crashes, and Total Vehicles Involved by Geo-political zone



Total fatality, and Total injured by Geo-political zone



Top 10 states by Total Traffic Crashes (2020-2024)



Insight:

With emphasis on the speed violation factor, it was found:

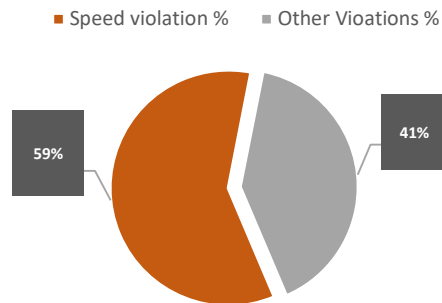
From 2023 to the first quarter of 2024, speed violation has accounted for 59% of the traffic crashes, while other factors make up the rest. An alarming statistic.

Upon checking the various zones and their speed violations account, the "north-central"(6,205) and "south-west"(5,705) geopolitical zones take up 60.66% of speed violations.

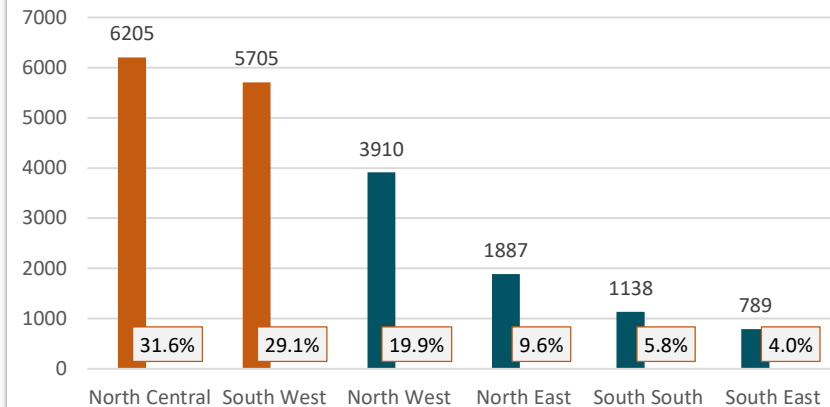
Once again, FCT, Abuja in "north-central" and Ogun state in "South-west" are the top 2 perpetrators of this act. with percentages of 18% and 21% in their various zones respectively.

View the charts by your right for details.

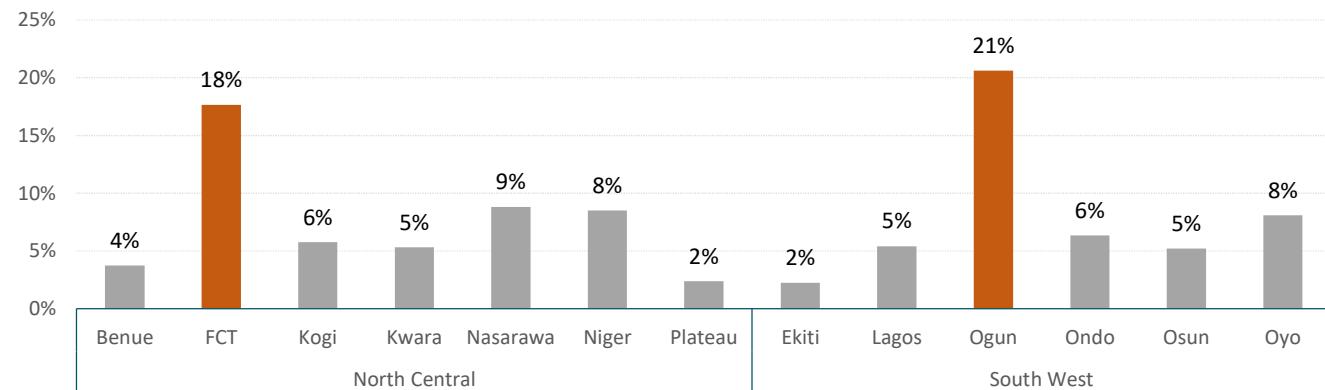
Percentage of crashes caused by speed violations vs other violations from 2023- Q1,2024



Frequency and Percentages of Car Crashes caused by speed violations by Geo-political zone



States contributing most to car crashes from the top 2 zones with high speeding violations



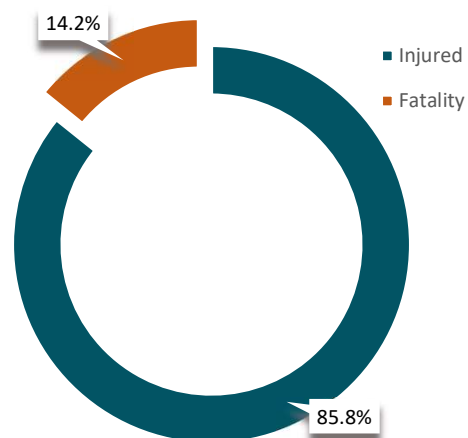
Insight:

For the traffic crash outcomes caused by speed violations, 85.8% of victims got injured, and while 14.2% resulted in fatalities(death).

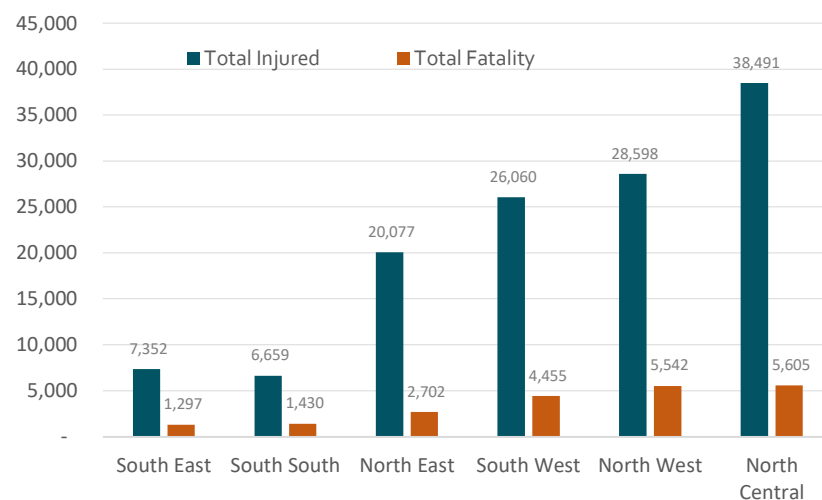
Once again, "north-central" and "north-west" zones had very high numbers in this department.

View the charts by your right for details.

Percentage of crash outcomes due to speed violations



Traffic crash outcomes due to speed violations by geo-political zone



Conclusion:

This analysis explored the road traffic crashes in Nigeria. The results show a high traffic crash rate especially in the north-central and south-west geo-political zones. States such as Abuja and Ogun are high perpetrators of speed violations that has led to thousands of crashes within this period.

From 2023 to Q1 2024, 51% of crashes have been as a result of speed violation; Of the crashes that has occurred due to speed violation, 85.8% of victims have been injured and 14.2% have met their deaths.

Recommendations:

- > Implement automated speed enforcement systems, such as speed cameras, in high-risk states like Ogun state and FCT.
- > Introduce speed limiters in commercial vehicles.
- > Implement crash monitoring systems using GPS, telematics, and AI-driven data analytics to detect high-risk driving behaviors like speeding, aggressive driving, and sudden braking.
- > Ban the use of mobile phones while driving. Increase the number of patrol officers focusing on distracted driving offenses.
- > Enforce mandatory jail time for serious offenders, especially those involved in crashes with injuries or fatalities. Repeat offenders should face license suspension or/and longer jail time.

