

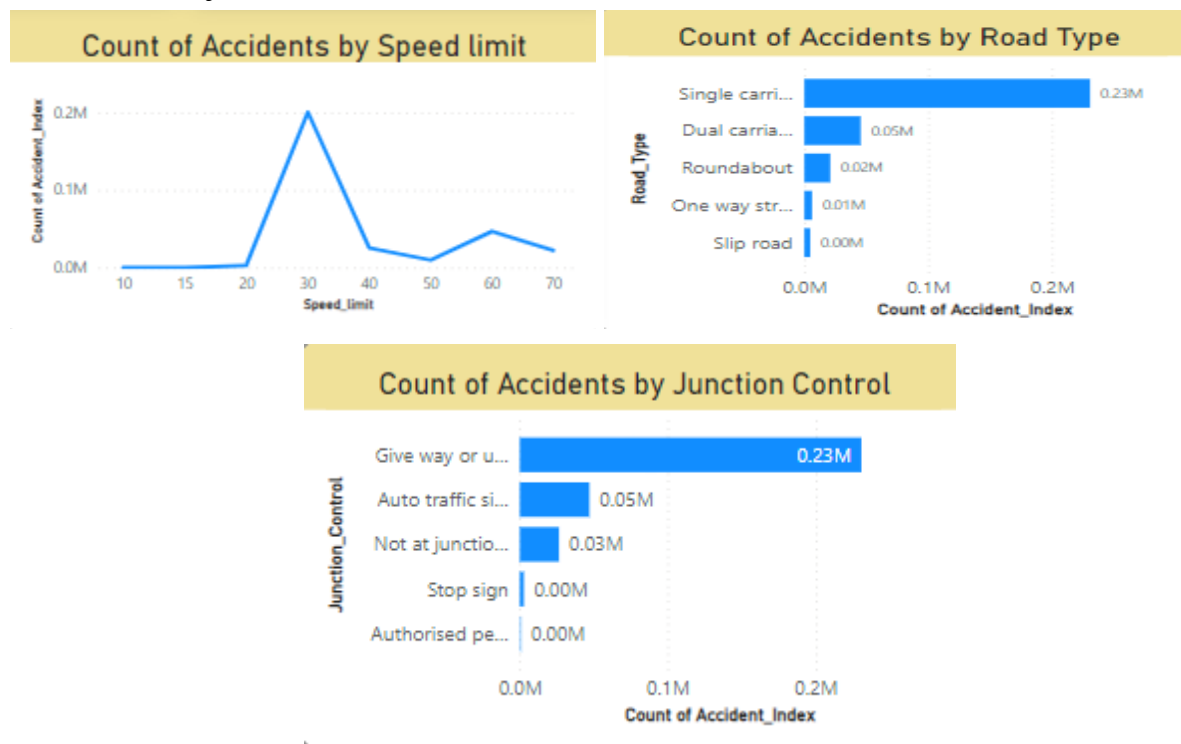
Road Accident Analysis

Road accidents are one of the major causes of death across the world. This report analyzes the pattern of road accidents on the UK's data. Though the data might contain many potential factors that might affect the accidents occurring on the roads, all of them do not contribute towards it.

Majorly contributing factors

From the analysis of the data, it is found that, the number of road accidents are majorly contributed by,

- Speed limit
- Type of the road
- Kind of junction control



Factors	Maximum Accidents	Minimum Accidents
Speed Limit	30kmph	<=20kmph
Type of road	Single Carriageway	Slip road
Kind of junction control	Uncontrolled	Authorized person

Factual Observations

- 307973 accidents have occurred in the UK in 2021 and 2022 combined.
- Among them, 53% of the accidents had occurred in 2021 and 46% in 2022.
- Accidents occur more in urban areas than the rural areas.
- The graph of speed limit per accident count almost follows normal distribution.
- Metropolitan police have handled the most accident cases.
- Birmingham district has seen the most road accidents.
- Least number of accidents happen on Sunday while the most accidents occur on Friday.
- Median number of casualties per accident is 1.
- Median number of vehicles involved per accident is 2.
- Most of the accidents result in slight injuries and least accidents result in fatal injuries.

Surprising observations

- Highest number of accidents, 123K accidents have occurred in non junction areas.
- Presence or absence of light do not contribute to the occurrence of accidents as 73.8% of accidents occur in daylight.
- Road surface conditions do not affect the accident occurrence as highest accidents take place on dry roads.
- Similarly, weather conditions do not affect the occurrence of accidents as most of the accidents occur in fine weather with high winds.

Conclusion

- As the number of accidents have drastically decreased from 2021 to 2022, it means that there might be a 3rd variable which has caused this. It was also the pandemic period.
- The graph of speed limit per accident count almost follows normal distribution with peak at 30kmph, indicating that not only increasing speed increases the number of accidents but the mean speed can also contribute.
- Birmingham district must take more actions to reduce the road accidents.
- People must be extra careful while driving on single carriageway roads.
- Junctions must be assigned with an authorized person if possible as a precautionary measure as it will decrease the number of accidents that might occur.

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