Road Accident Analysis Report

Introduction

I analysed 307,973 road accidents using Power BI to identify high-risk locations, causes, and trends. This report presents key insights from the data, focusing on accident distribution, severity, and contributing factors across districts in the UK.

Findings

- Birmingham has 6,165 accidents, the highest in the dataset, indicating a critical need for targeted interventions in this district.

- Fine no high winds accounts for 79.37% of accidents (244,496 cases), suggesting that weather conditions play a significant role in road safety.

- Slight severity accidents are 85.48% of the total (263,280 cases), showing that most accidents result in minor injuries but still require attention.

- Accidents peak on Fridays with 50,529 cases, highlighting a pattern that may be linked to increased traffic or behavioural factors at the end of the workweek.

Recommendations

- Increase patrols in Birmingham to reduce accidents, focusing on high-traffic areas and known accident hotspots.

- Educate drivers about safety in fine weather, as many accidents occur under these conditions, possibly due to overconfidence.

- Focus on reducing slight severity accidents through awareness campaigns and stricter enforcement of traffic rules.

- Enhance traffic management on Fridays by deploying additional resources to manage peak traffic and prevent accidents.

Conclusion

Targeting these areas—geographic hotspots, weather-related risks, minor accidents, and peak days—can significantly enhance road safety across the UK.

Figure 1: Overview Dashboard

Figure 2: Details Dashboard