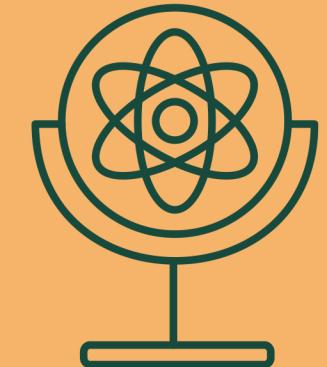


Road

Accidents

In INDIA



Group Members

Kanika

220364

Payal Dabas

220314

Anika Sharma

220324

Himanshu Mohanty

220329



Agenda

This statistical analysis examines road accidents in India, with a focus on the years 2014 to 2017. The data was collected from various sources, including the National Crime Records Bureau (NCRB) and the Ministry of Road Transport and

Highways. The analysis includes an examination of the number of accidents, fatalities, and injuries, as well as an exploration of the factors that contribute to accidents, such as driver behavior, road conditions, and vehicle safety features.

The analysis also includes a comparison of accident rates across different regions of India, and a discussion of the policy implications of the findings. The results of the analysis underscore the urgent need for improvements in road safety in India, and provide insights into the most effective strategies for reducing the number of accidents and fatalities on Indian roads.

Methodology

The methodology for statistical analysis of road accidents in India is as follows:

Data collection

The first step is to collect data on road accidents in India. This data can be collected from a variety of sources, such as the police, government agencies, and insurance companies. The data should include information on the number of accidents, the number of injuries, and the number of fatalities.

Data cleaning

Once the data has been collected, it needs to be cleaned. This involves checking for errors and inconsistencies in the data. The data may also need to be formatted in a way that is suitable for statistical analysis.

Data analysis

The next step is to analyze the data. This involves using statistical methods to identify patterns and trends in the data. The analysis may focus on factors such as the time of day, the day of the week, the location, and the weather conditions.

Interpretation of results

The final step is to interpret the results of the analysis. This involves explaining what the results mean and how they can be used to improve road safety in India. The results may be used to identify areas where road safety improvements are needed, such as in certain areas of the country or during certain times of the day.

The methodology for statistical analysis of road accidents in India is a complex and time-consuming process. However, it is an essential step in improving road safety in the country. By collecting, cleaning, analyzing, and interpreting data on road accidents, it is possible to identify patterns and trends that can be used to prevent future accidents.

Data

O1 https://docs.google.com/spreadsheets/d/17g_0XcyJz3KKIFOvDuF68jNqQlcdpPNJuumPhY4DfJY/edit#gid=0

O2 <https://docs.google.com/spreadsheets/d/13WqfF3gfQhEgc1RWaS6VzJ8wtTWm2R7oeScadhxtUjs/edit#gid=0>

O3 https://docs.google.com/spreadsheets/d/17g_0XcyJz3KKIFOvDuF68jNqQlcdpPNJuumPhY4DfJY/edit#gid=0

O4 <https://www.kaggle.com/code/greeshmagirish/analysis-of-road-accidents-in-india-2014-2017/notebook>

Analysis

Descriptive Data Analysis: Since there was only one type of data, bar graphs were employed to describe the sample data. The bar graph unmistakably displayed the highest number of individuals hurt or killed in traffic accidents between 2014 and 2017. It is disappointing to see how nearly identical the graphs are for each year. This demonstrates how the trend held steady over the course of four years.

Road accidents that result in fatalities are more common in the south, north, and west. Road accidents that result in injuries are more common in the south. Let's look at state-by-state counts in the Southern Zone.

Most fatal accidents that resulted in fatalities took place in good weather or under clear skies. In 2016, there were about 38k accidents where fatalities occurred in clear weather. It is obvious that we won't encounter weather conditions like "hail or snow" because we are gazing at the southern zone. The graph indicates that rainy/cloudy weather is most often.

Let's search for injuries similarly. The X axis or feature differences won't be significant.

Poor weather (1.7%), defective automobiles (2.3%), and municipal body negligence (2.8%) all contribute to fewer accidents.

Results

Result 1: Number of people killed in Road Accidents (2014)

Result 2: Number of people killed in Road Accidents (2015)

Result 3: Number of people killed in Road Accidents (2016)

Result 4: Number of people killed in Road Accidents (2017)

Result 5: Weather Conditions - No. of People Killed in Road Accidents (South Zone)

Result 6: Weather Conditions - No. of People Injured in Road Accidents (South Zone)

Conclusion

In conclusion, a number of significant conclusions have been drawn from the statistical analysis of road accidents in India. First, India is experiencing an alarming rise in the number of traffic accidents. Second, human error, such as speeding, intoxicated driving, and distracted driving, is to blame for the vast majority of traffic accidents. Thirdly, the lives of victims and their families are severely affected by traffic accidents. Fourth, a variety of practical steps can be taken to lower the number of traffic accidents in India, including enhancing road infrastructure, enforcing traffic regulations, and instructing drivers in safe driving techniques.

It's crucial to remember that the statistical study of traffic accidents in India is only the beginning. More investigation is required to pinpoint the precise causes of the nation's road accidents and to create workable solutions to lower the accident rate. However, the results of the statistical analysis offer a useful framework for further study and the creation of successful road safety regulations in India.

thank you