

# PHASE III

## CHICAGO CAR CRASHES

### GROUP SEVENTEEN

Caroline Mbugua

Dianna Wangura

Eunita Kolusi

Mark Kuria

Mlati Ochieng'

Rhoda Musyoki





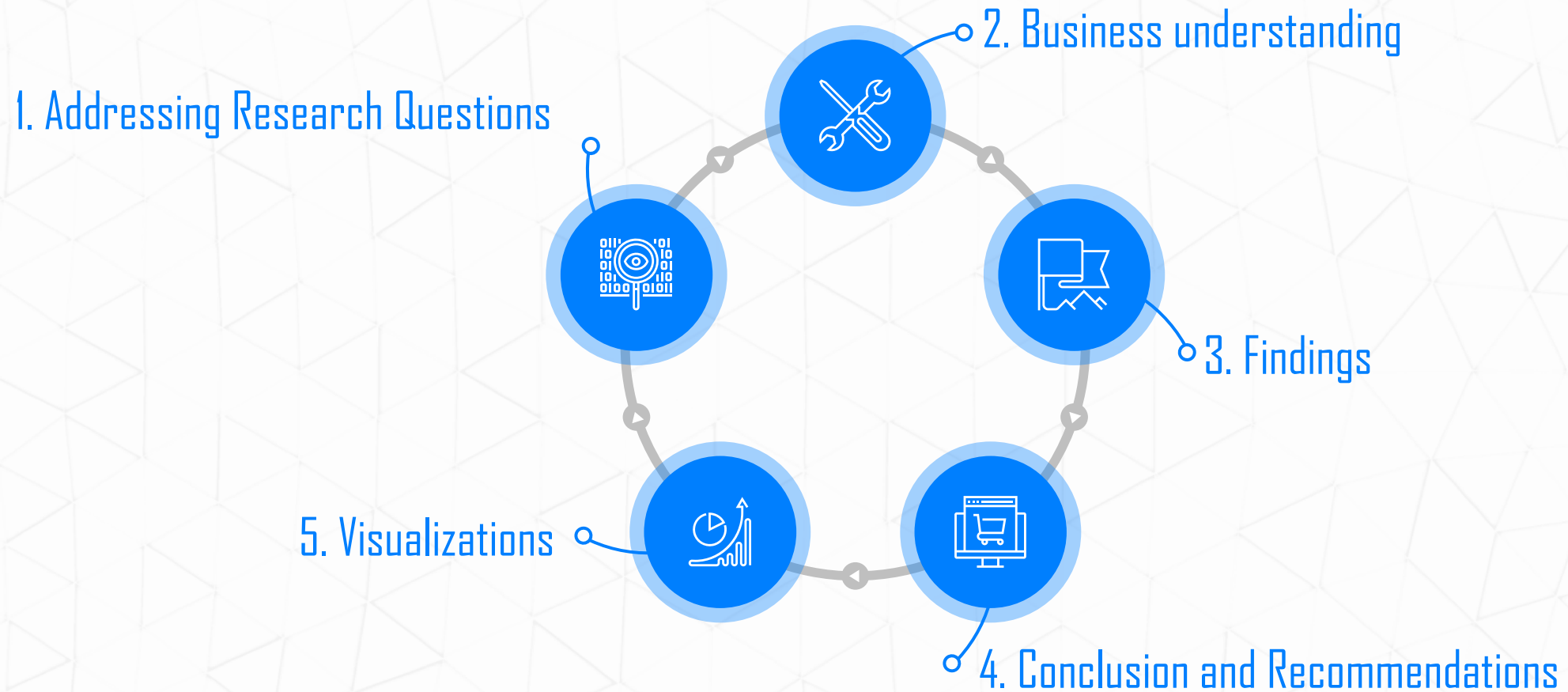
## INTRODUCTION

We fetched crash data from E-Crash showing information about each traffic crash on city streets within the City of Chicago limits and under the jurisdiction of Chicago Police Department (CPD). Data is shown as is from the electronic crash reporting system (E-Crash) at CPD, excluding any personally identifiable information. Records are added to the data portal when a crash report is finalized or when amendments are made to an existing report in E-Crash.

### DATASETS:

- Traffic Crashes- Vehicle
- Traffic Crashes- People
- Traffic Crashes- Crashes

# CONTENTS:





# 01

## Addressing Research Questions

1. Does lack of traffic control device influence accidents and injuries?
2. In which weather conditions do most injuries and accidents occur?
3. Does the number of years since manufacture of a car influence the accidents?
4. In most accidents and injuries occurring do they relate to a certain age group of drivers?



# 02

## Business Understanding

Business understanding involves gaining a comprehensive understanding of the campaign's goals, objectives, and the broader context of the initiative. Here are key components of the business understanding:





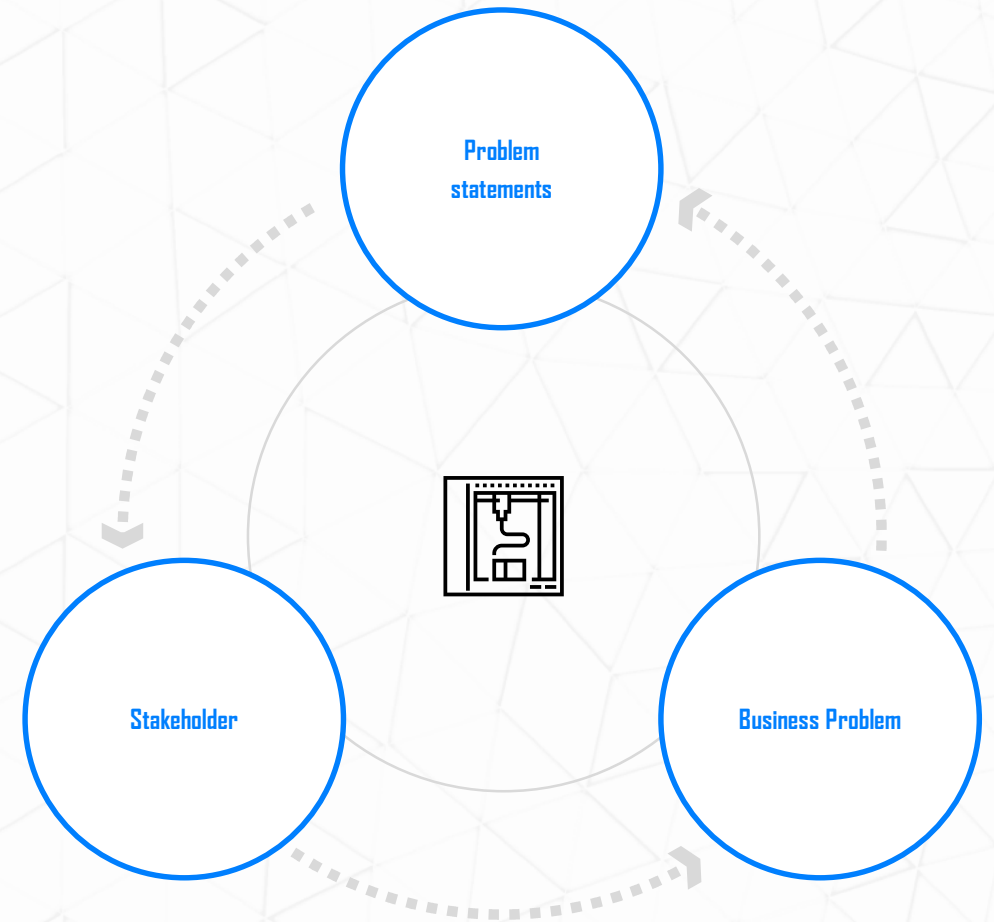
**Problem Statement:** The city of Chicago main goal is to be able to come up with solutions to help end or reduce number of accidents. The city of Chicago seeks to develop a predictive model that will help identify the major causes of accidents



**Stakeholder:** The primary stakeholder in this scenario is the Vehicle Safety Board of Chicago. They are launching a new campaign with the goal of reducing car crashes in the city.



**Business problem:** Build a classifier to predict the primary contributory cause of a car accident, given information about the car, the people in the car, the road conditions etc.





# 04

## Conclusion and Recommendations

The following are our recommendations ;

1. The city to put restrictions on vehicles allowed in roads to be below ten years
2. The city lowers the speed limit during afternoon/rush hour or more patrol in the 30-40 mph zones.
3. The city should increase the traffic control devices to reduce in accidents occurrences



## Recommendations:

The following are our recommendations ;

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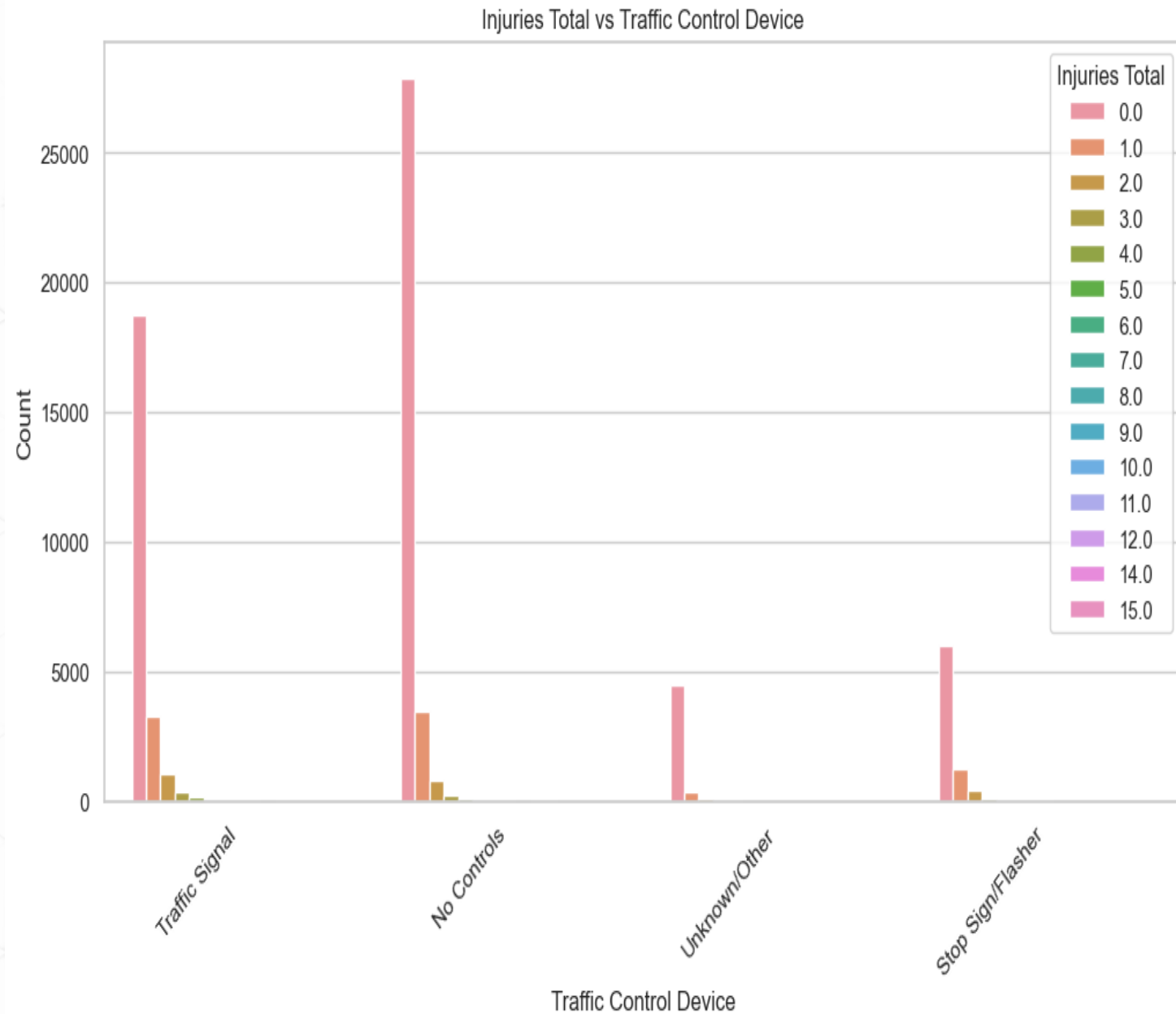


# 05

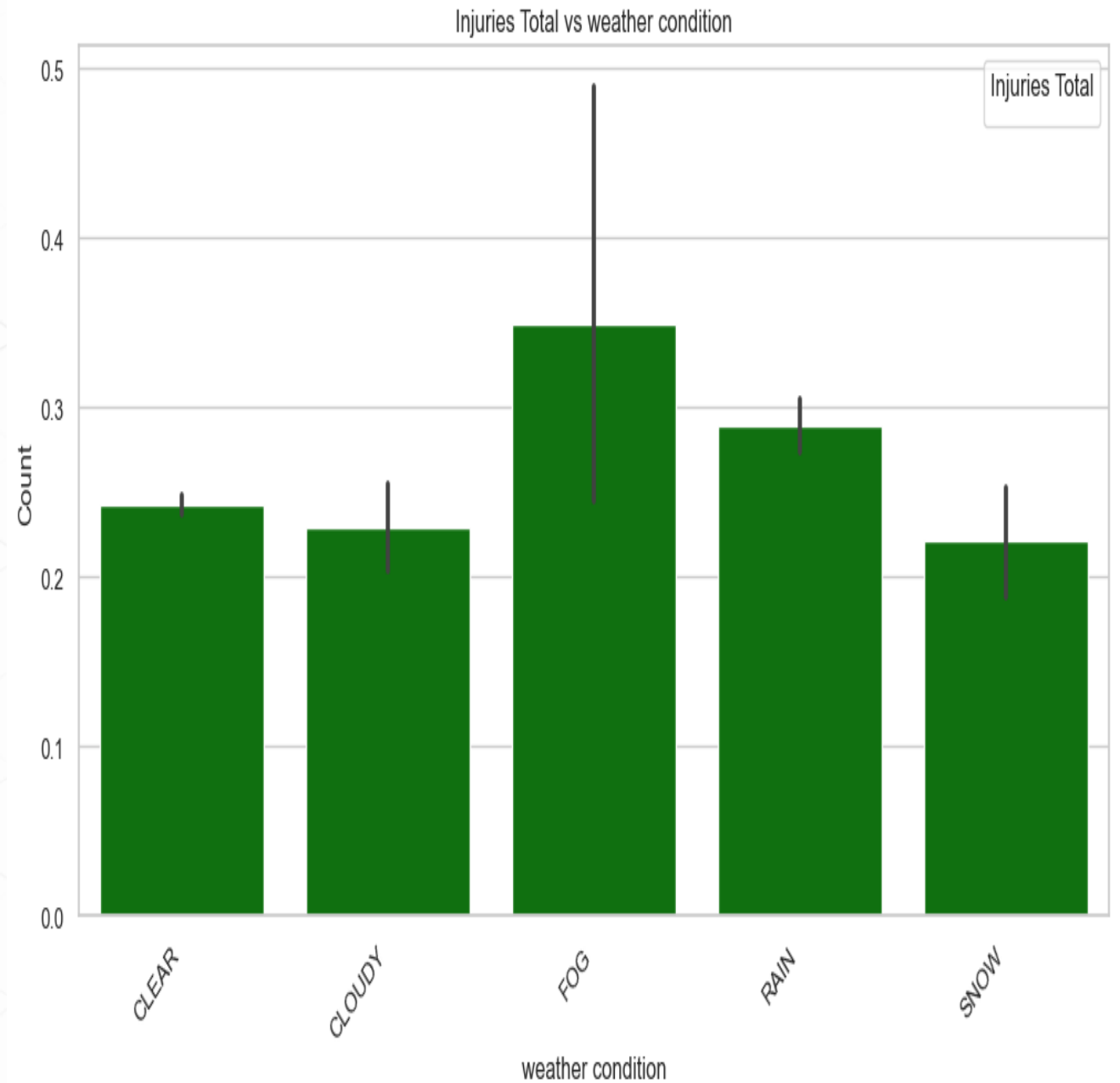
## Visualizations

To visualize this we will use 4 diagrams we extracted from the several in the notebook



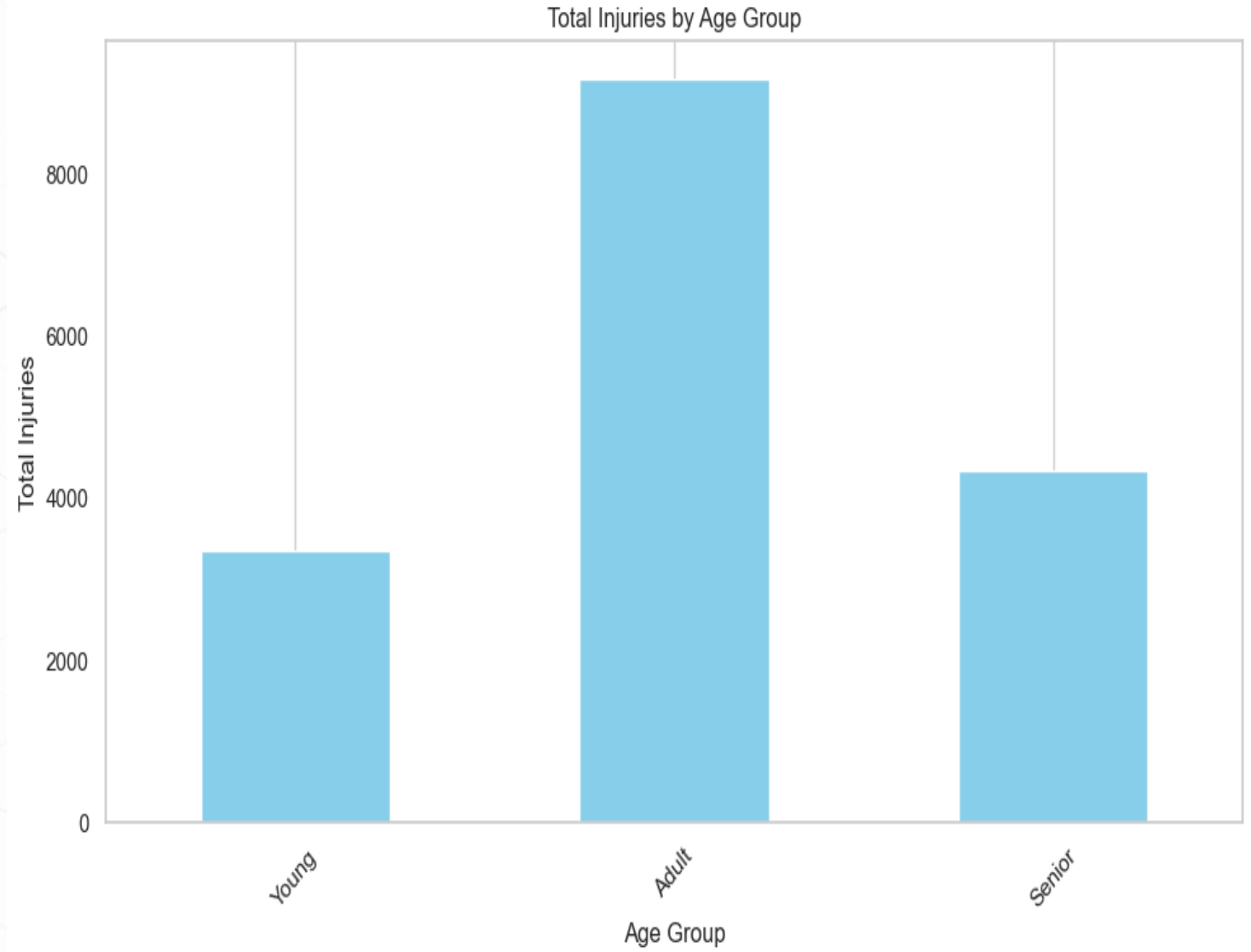


# INJURIES TOTAL vs WEATHER CONDITION

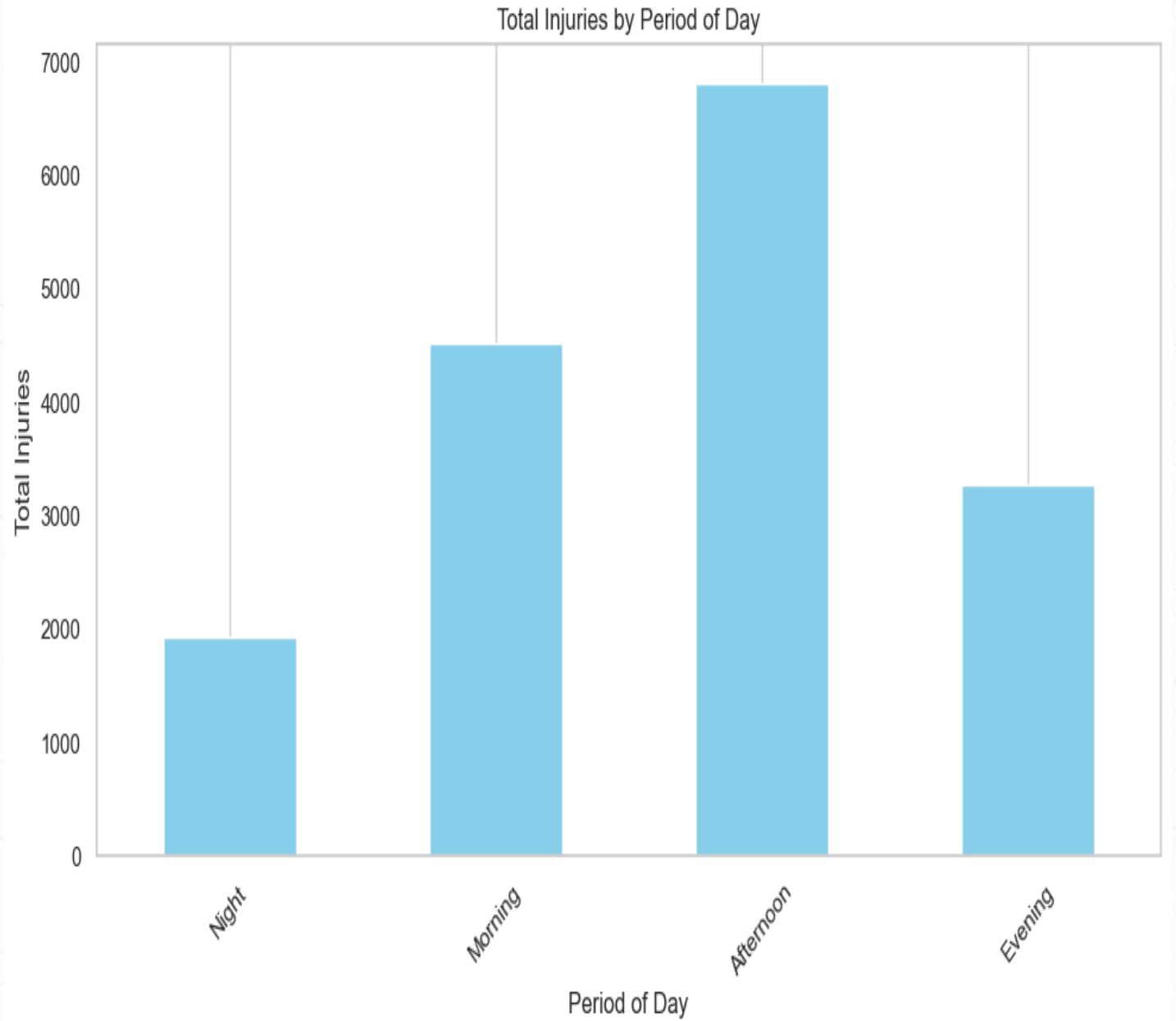




# TOTAL INJURIES BY AGE GROUP



# TOTAL INJURIES BY PERIOD OF DAY



# 03

## Findings and Conclusions

1. Most of the injuries recorded were caused by drivers between the age of 25 to 50 years falling into the adult category
2. Based on the data, it shows that most accidents occur in the afternoon/rush hour.
3. It also shows that most accidents occur in speed limit zones labeled between 30-40 mph.
4. Most of the vehicles involved in the accidents fell into the old category that is they were in the road for a period of more than ten years
5. Most of the accidents occurred where there were no traffic signals but less injuries were observed





# THANK YOU

**Project:** Chicago Car Crashes

**Group:** 17

