



# DATA VISUALIZATION

## Road Traffic Accidents



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# ROAD TRAFFIC ACCIDENTS

## TABLE OF CONTENT

- SCENARIO
- DATASET
- FINAL DASHBOARD
- CONCLUSION

# 1. SCENARIO

Road traffic accidents constitute a significant global public health crisis, resulting in an estimated 1.35 million fatalities and 50 million injuries annually. The burden of these accidents disproportionately affects low- and middle-income countries, where rapid urbanization, inadequate infrastructure, and limited road safety measures contribute to elevated risk levels. Ethiopia, as a rapidly developing nation, is not immune to this challenge, with road traffic accidents being a leading cause of death and disability.



# 2. DATASET

## Understanding Road Traffic Accidents in Addis Ababa

### BACKGROUND

- Source: Addis Ababa Sub-City police department records (2017-2020)
- Original Format: "RTA Dataset.csv" (32 features)
- Data Collection: Manual transcription from physical reports (potential for errors)
- Dataset Link:  
<https://www.kaggle.com/datasets/saurabhshahane/road-traffic-accidents>

### KEY FEATURES (EXAMPLES)

#### Temporal Information:

- Time and day of accident

#### Driver Information:

- Age, gender, experience, etc.

#### Vehicle Information:

- Type, ownership, condition

#### Accident Circumstances:

- Location, road type, weather

#### Casualty Information:

- Number, demographics, injury severity

#### Accident Outcome:

- Primary cause, severity

# **3. FINAL DASHBOARD**

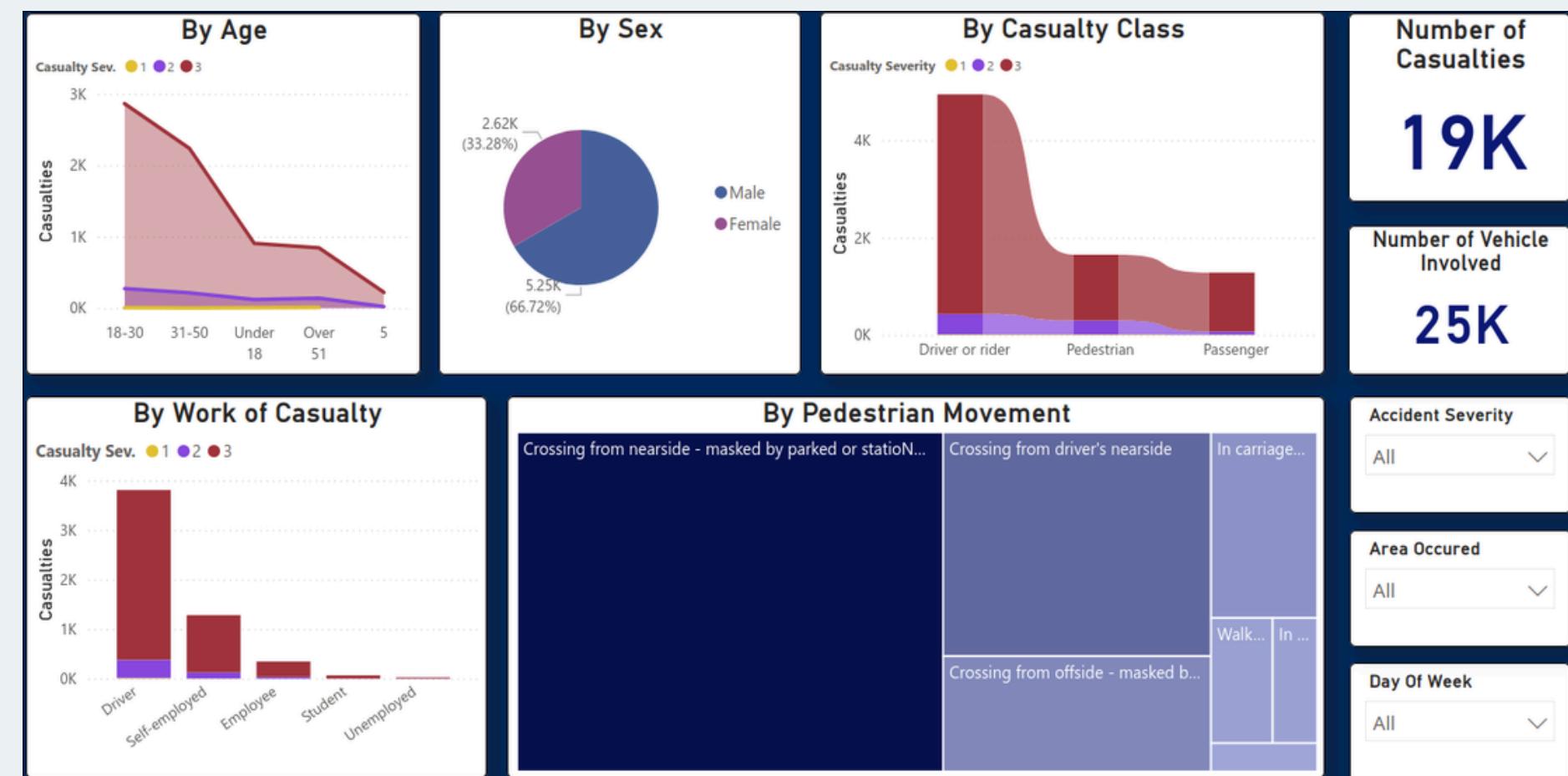
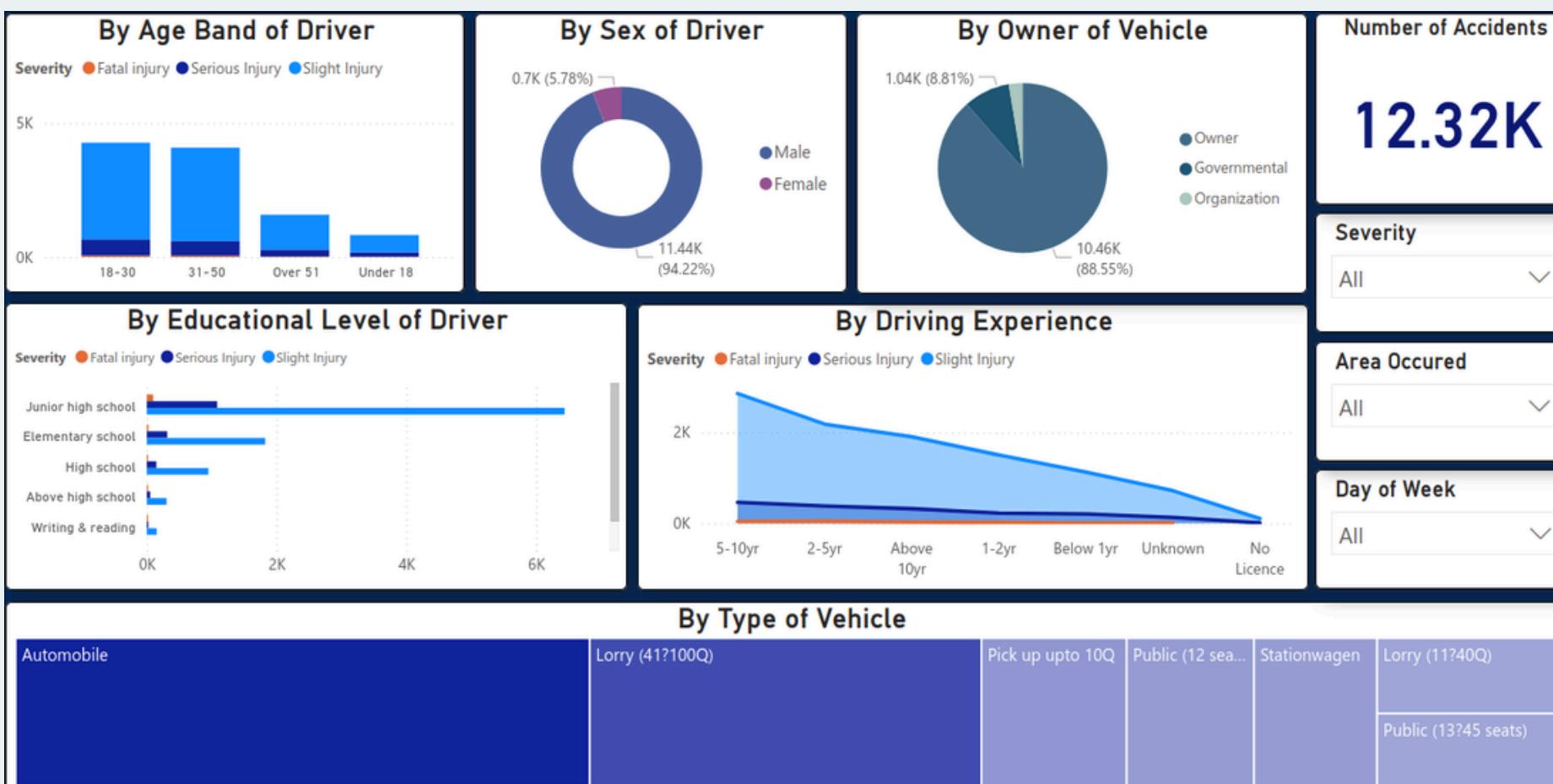
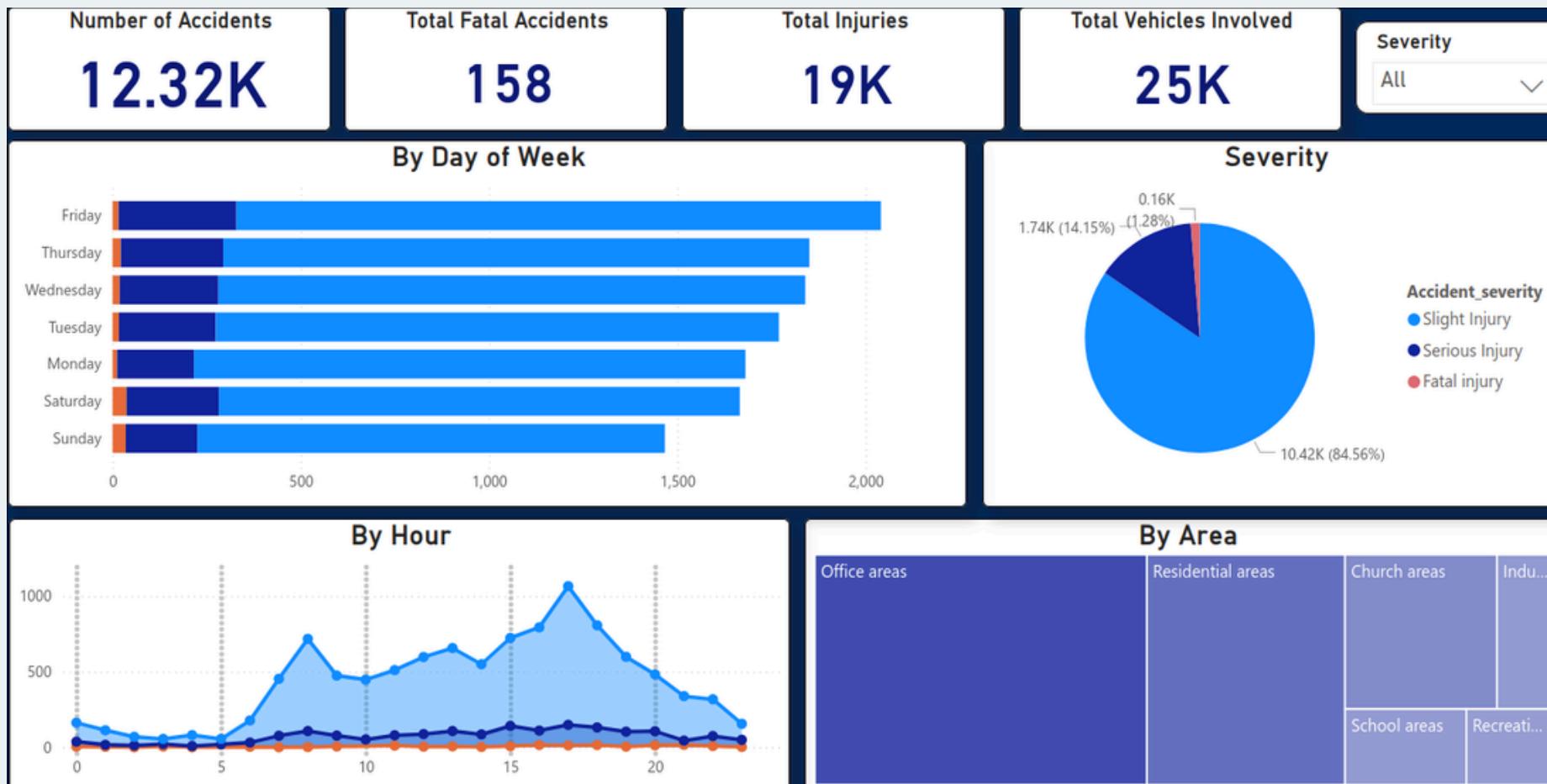
**FINAL DASHBOARD VISUALIZE 4 IN MAIN PART BELOW:**

**1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS**

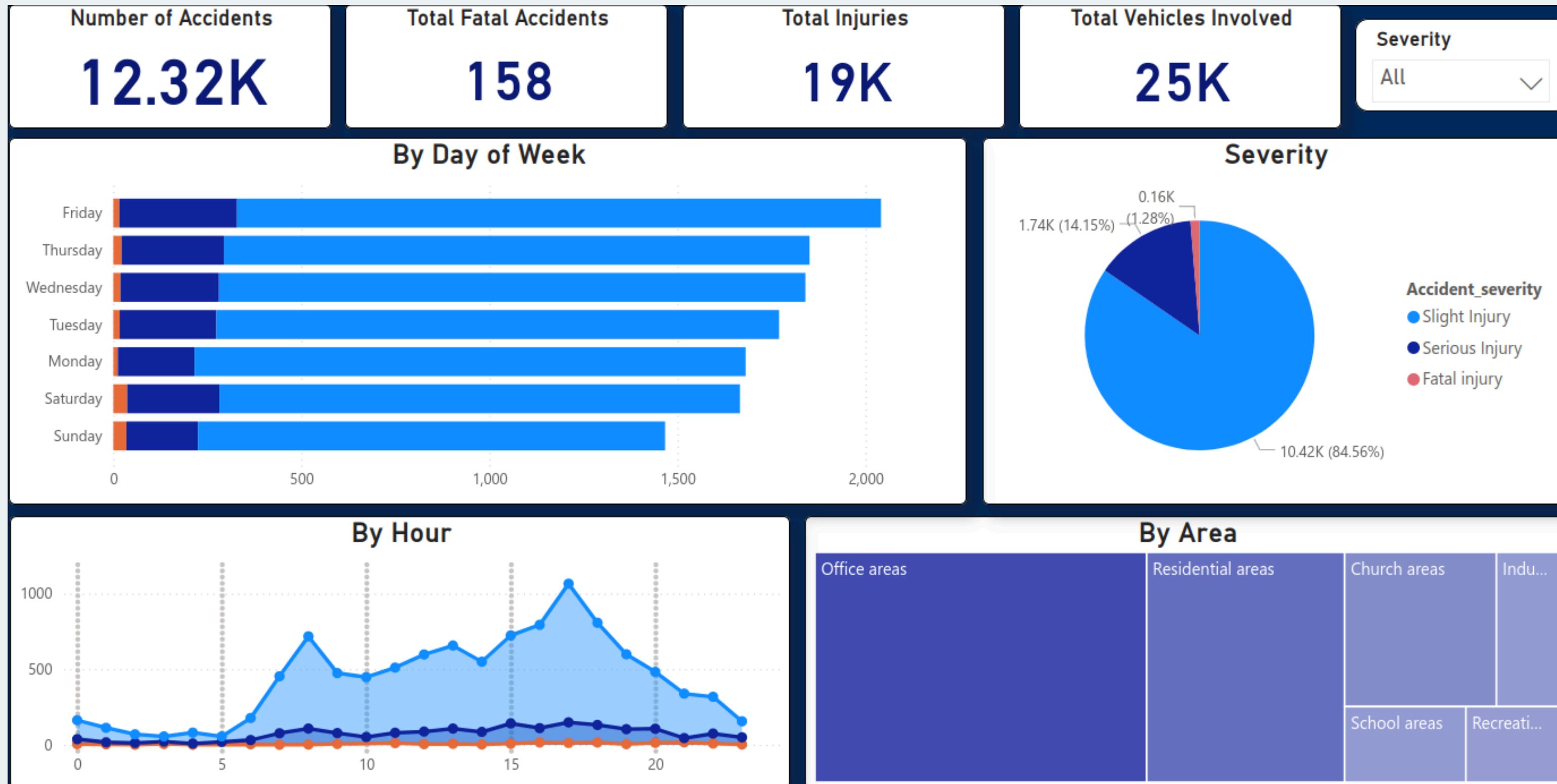
**2. CAUSES AND CONTRIBUTING FACTORS**

**3. DEMOGRAPHIC ANALYSIS**

**4. CASUALTY ANALYSIS**



# 3.1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS



## 3.1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS

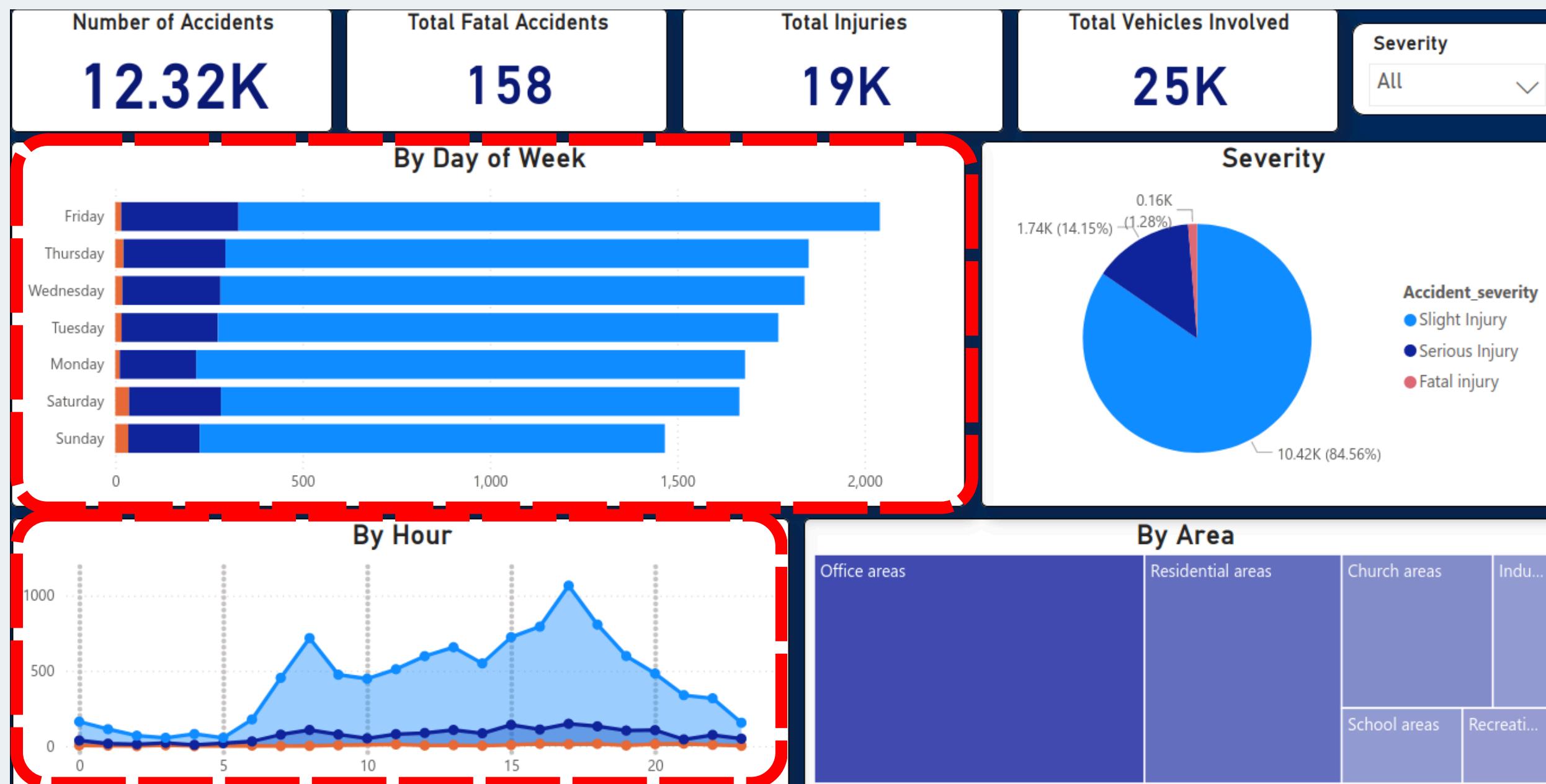
Number of Accidents <b>12.32K</b>	Total Fatal Accidents <b>158</b>	Total Injuries <b>19K</b>	Total Vehicles Involved <b>25K</b>
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### Summary of Key Metrics

- Total Number of Accidents: 12.32K
- Total Fatal Accidents: 158
- Total Injuries: 19K
- Total Vehicles Involved: 25K

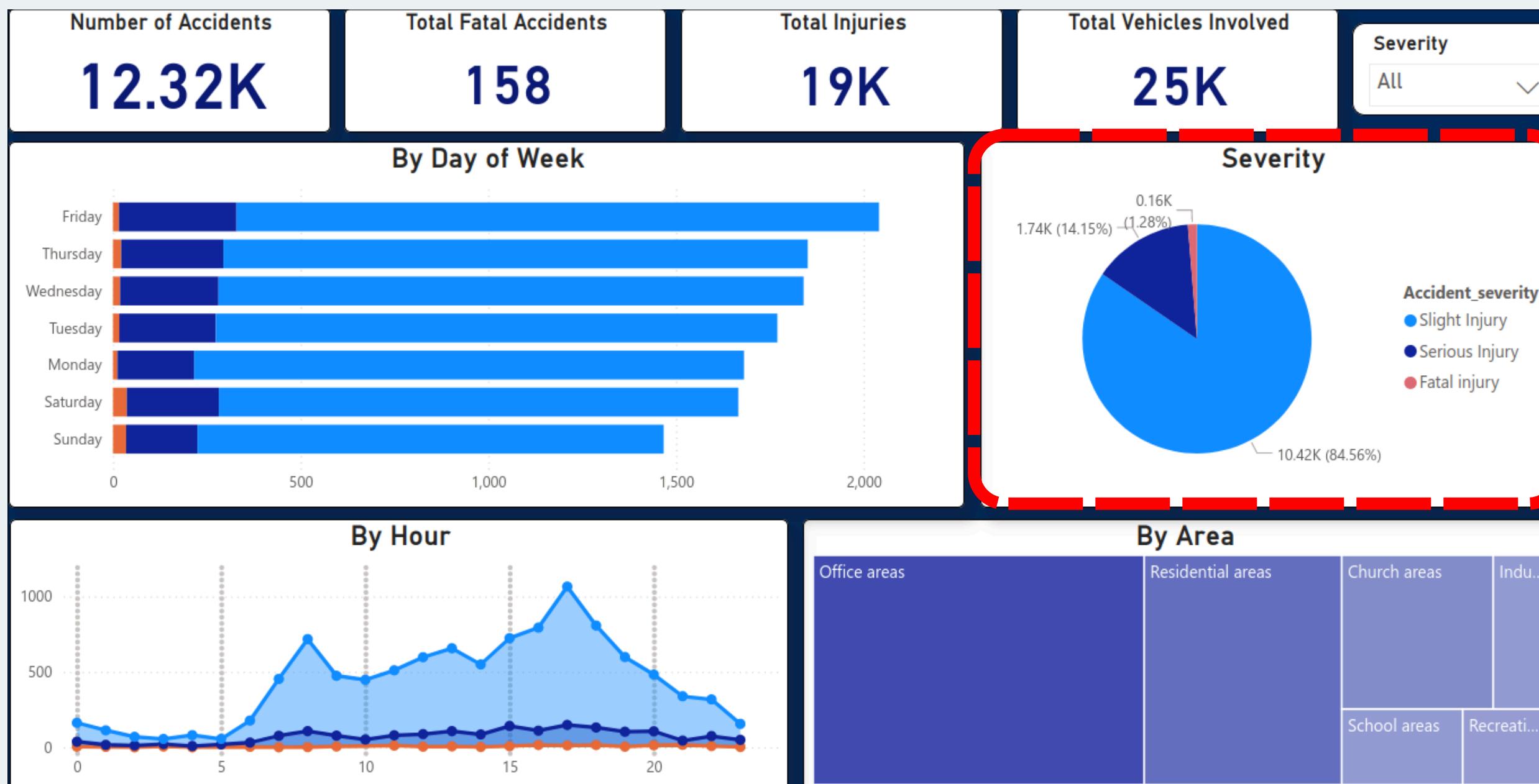
# 3.1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS

## Time



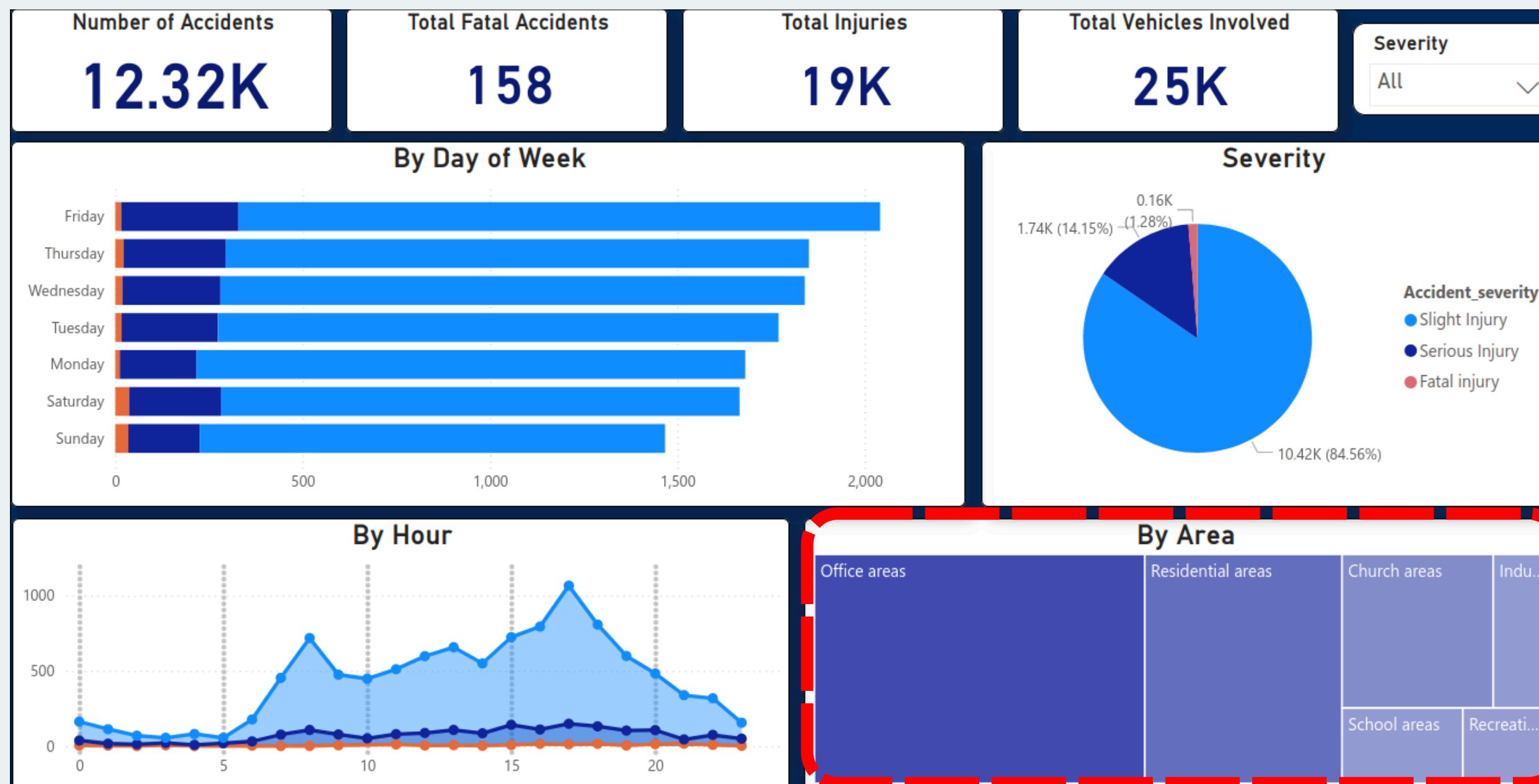
# 3.1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS

## Severity

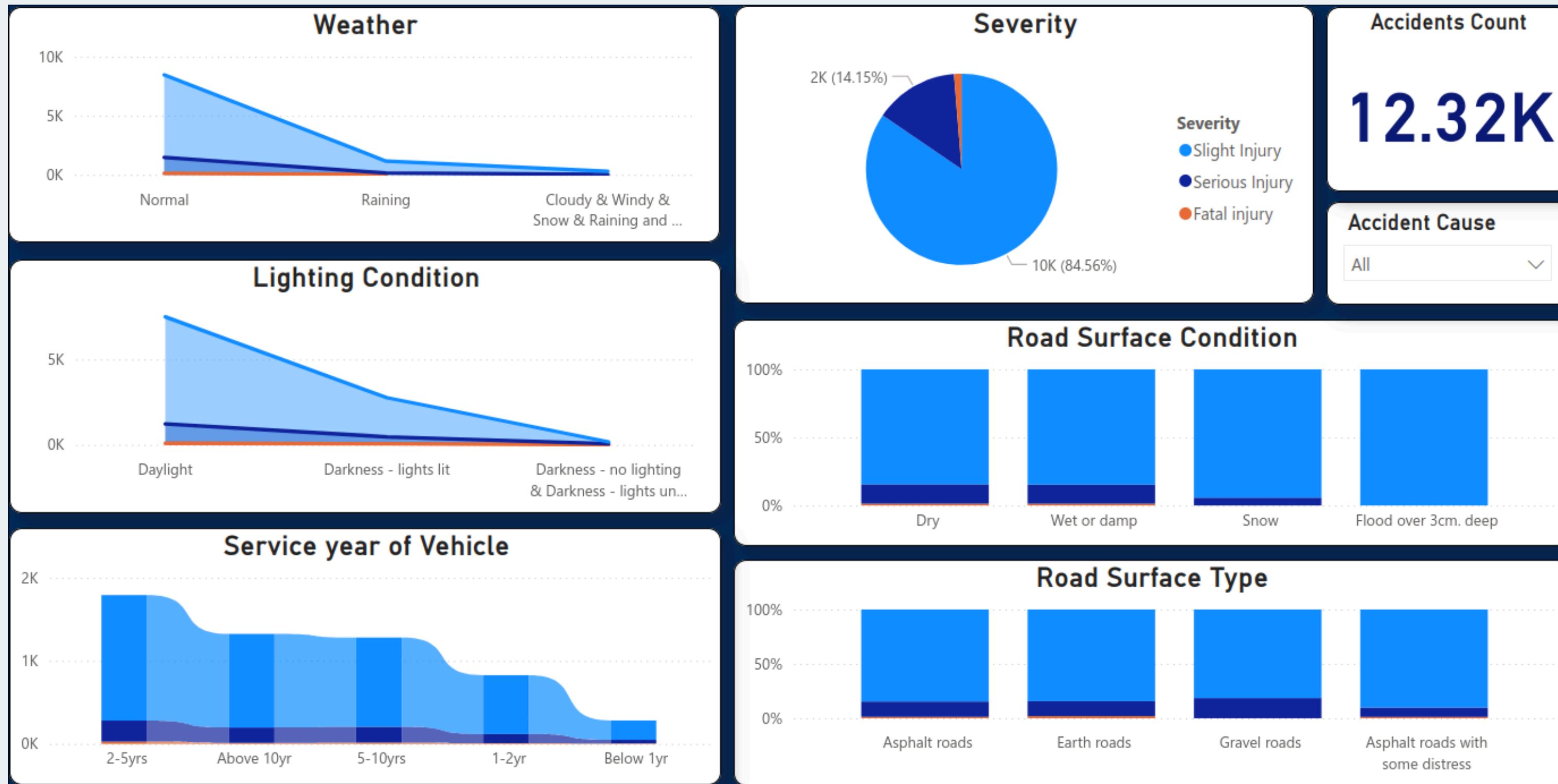


# 3.1. OVERVIEW OF ROAD TRAFFIC ACCIDENTS

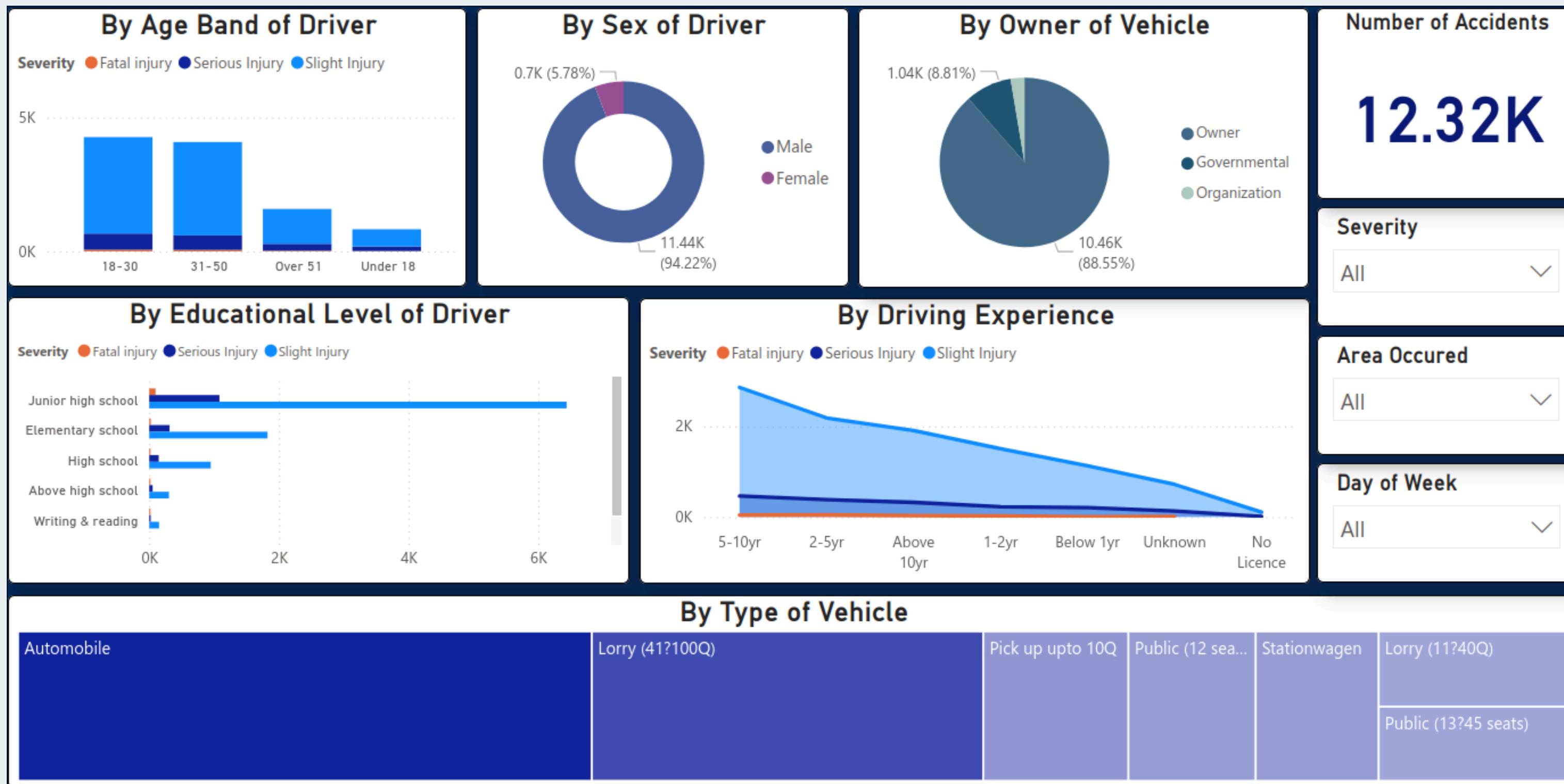
## Area



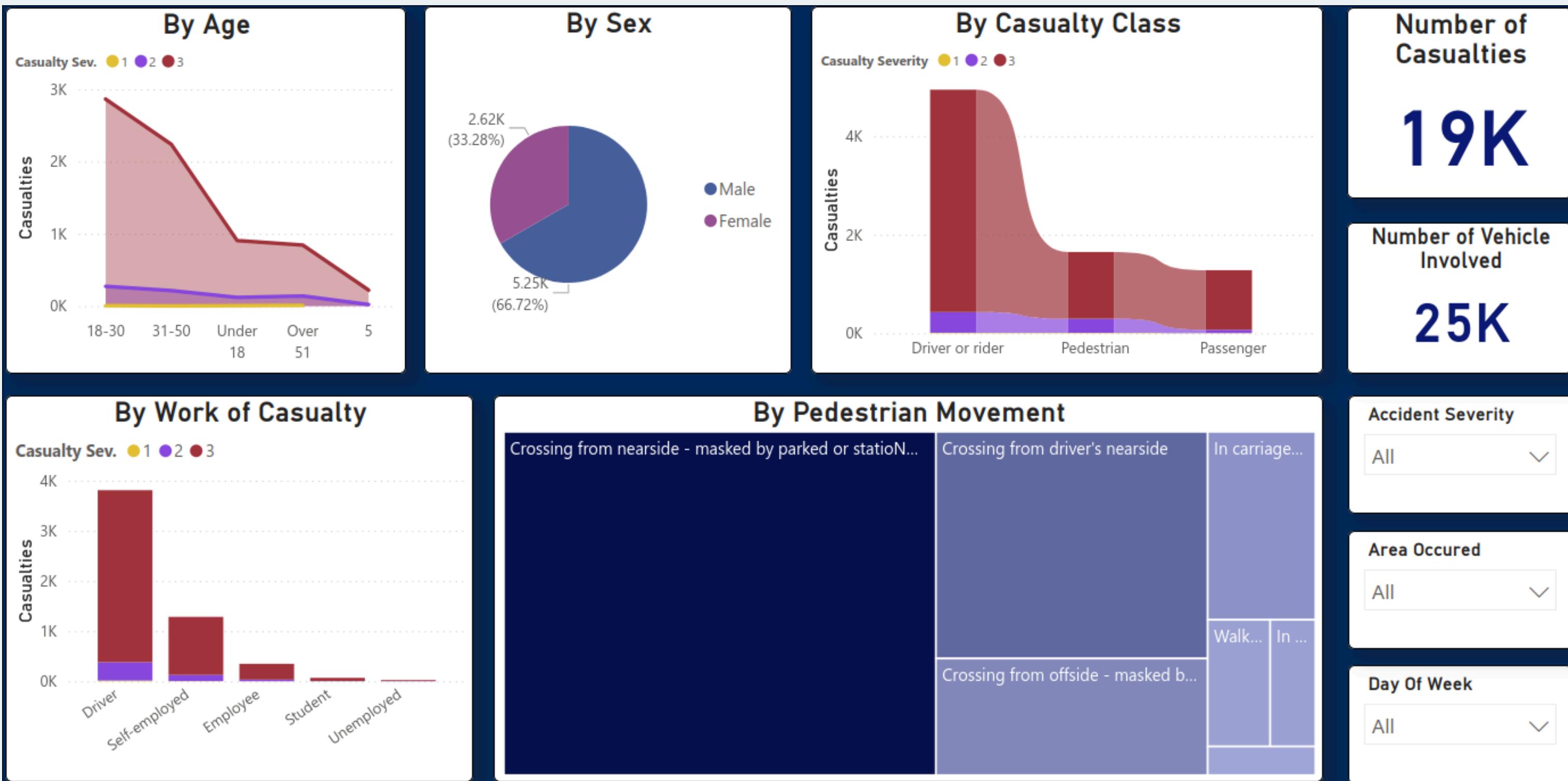
## 3.2. CAUSES AND CONTRIBUTING FACTORS



### 3.3. DEMOGRAPHIC ANALYSIS



## 3.4. CASUALTY ANALYSIS



# 4. CONCLUSION

THROUGH THE DASHBOARD'S FOUR DISTINCT SECTIONS, WE HAVE UNVEILED A MULTI-FACETED UNDERSTANDING OF ROAD TRAFFIC ACCIDENTS IN ADDIS ABABA:

1. **Overview:** A snapshot of the scale and severity of accidents, highlighting trends over time and spatial distributions.
2. **Causes and Contributing Factors:** A deep dive into the primary causes, including environmental conditions, vehicle factors, and driver demographics.
3. **Demographic Analysis:** An exploration of the demographics of individuals involved in accidents, particularly drivers, shedding light on potential risk factors.
4. **Casualty Analysis:** An examination of casualty demographics and injury severity, emphasizing the human impact of these accidents.

# 4. CONCLUSION

IN CONCLUSION, THIS DATA VISUALIZATION PROJECT SERVES AS A FOUNDATION FOR EVIDENCE-BASED DECISION-MAKING IN ROAD SAFETY INITIATIVES IN ADDIS ABABA. BY EMPOWERING STAKEHOLDERS WITH ACCESSIBLE AND ACTIONABLE INSIGHTS, WE ASPIRE TO CONTRIBUTE TO A FUTURE WHERE ROAD TRAFFIC ACCIDENTS ARE SIGNIFICANTLY REDUCED, AND THE CITY'S STREETS BECOME SAFER FOR ALL.

# THANKS FOR LISTENING

## QnA

### ROAD TRAFFIC ACCIDENTS

