Steps in Tableau:

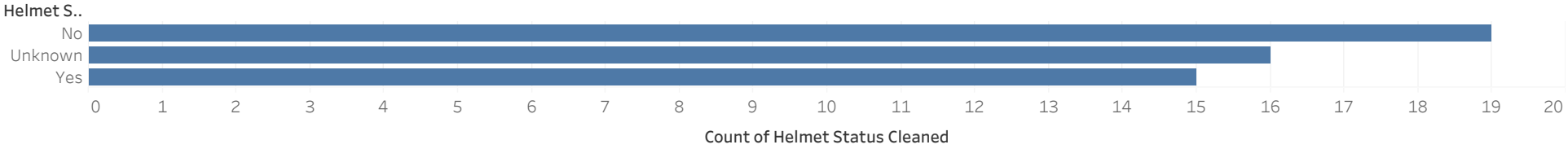
Go to Data Pane → Right-click Helmet Used → Create Calculated Field.

Name it: Helmet Status Cleaned.

Use the formula:

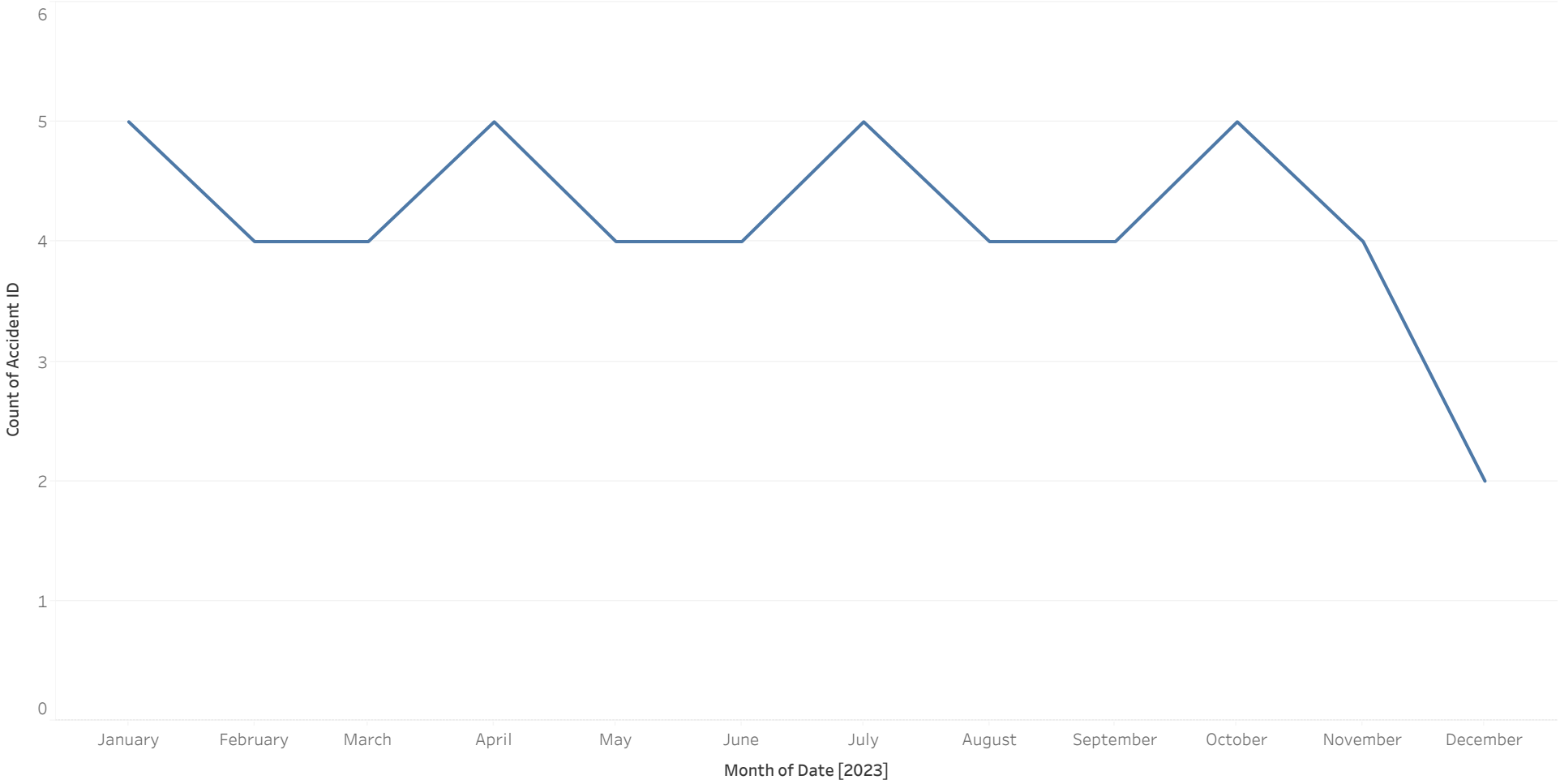
IF ISNULL([Helmet Used])OR [Helmet Used] = 'N/A' THEN "Unknown" ELSE [Helmet Used] END

Use Helmet Status Cleaned in your visualizations instead of the original.



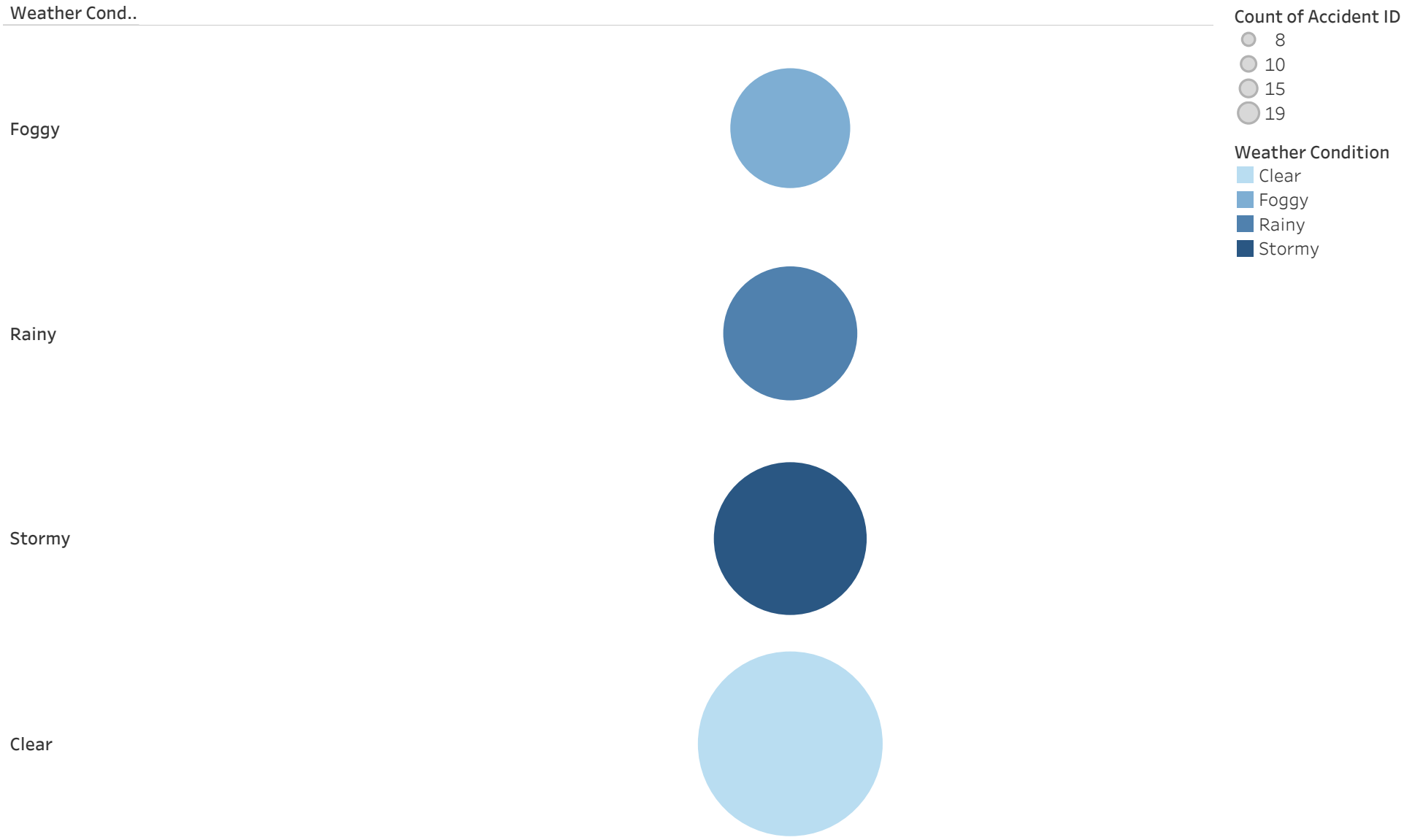
i can also use tableau prep for this cleaning of data

Visualizing Road Accident Trends Over Time (by months)



The trend of count of Accident ID for Date Month.

Impact of Weather Conditions on Accidents



Count of Accident ID broken down by Weather Condition. Colour shows details about Weather Condition. Size shows count of Accident ID. The marks are labelled by count of Accident ID.

Impact of Weather Conditions on Accidents

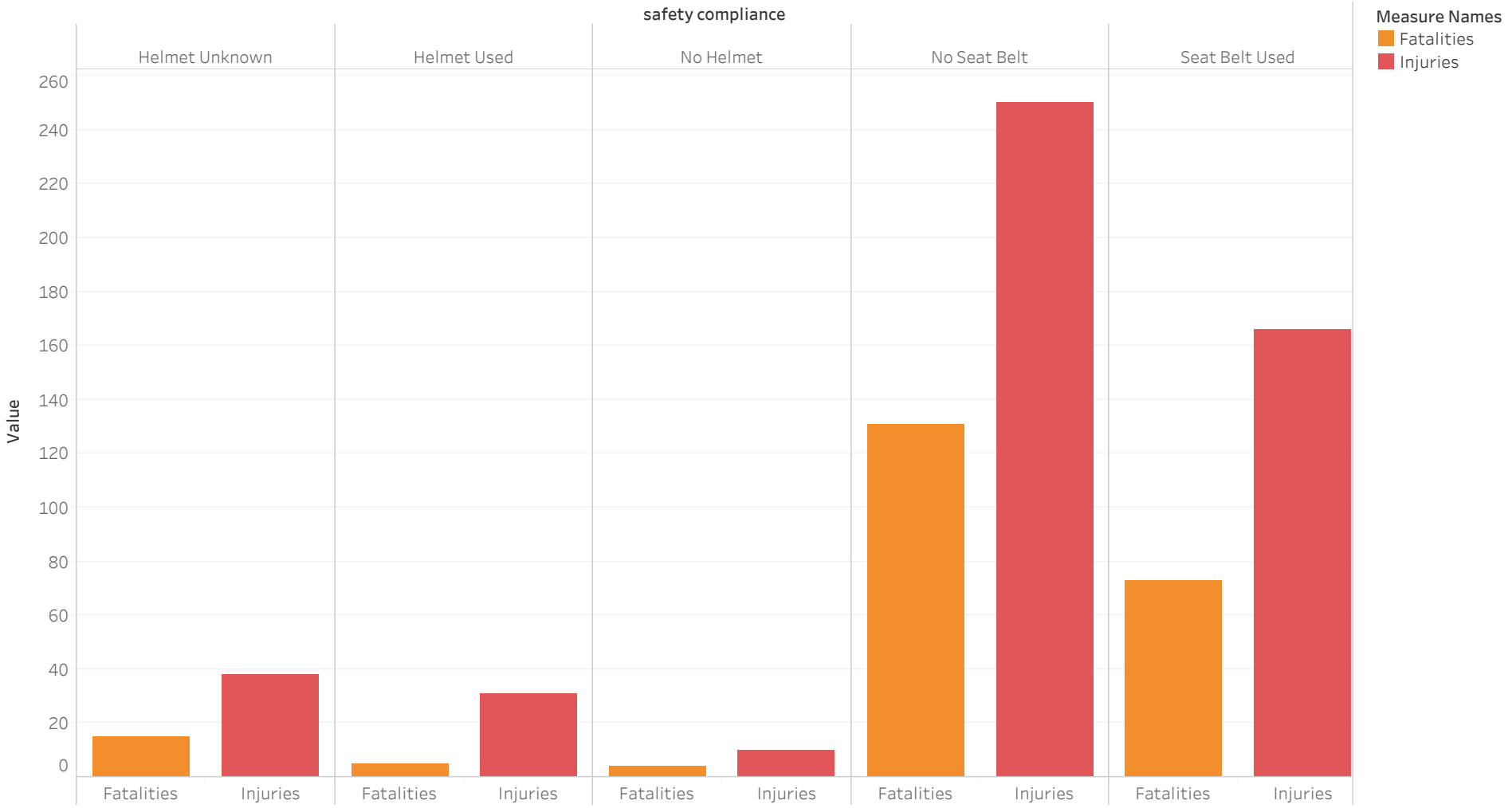
Weather Cond..	
Foggy	8
Rainy	10
Stormy	13
Clear	19

Count of Accident ID
8
10
15
19

Weather Condition
Clear
Foggy
Rainy
Stormy

Count of Accident ID broken down by Weather Condition. Colour shows details about Weather Condition. Size shows count of Accident ID. The marks are labelled by count of Accident ID.

task 4




```
IF [Vehicle Type] = ”Bike” THEN
   IF [Helmet Used] = ”Yes” THEN ”Helmet Used”
   ELSEIF [Helmet Used] = ”No” THEN ”No Helmet”
   ELSE ”Helmet Unknown”
   END
ELSEIF [Vehicle Type] = ”Car” OR [Vehicle Type] = ”Truck” OR [Vehicle Type] = ”Bus” OR [Vehicle Type] = ”Auto-rickshaw” THEN
   IF [Seat Belt Used] = ”Yes” THEN ”Seat Belt Used”
   ELSEIF [Seat Belt Used] = ”No” THEN ”No Seat Belt”
   ELSE ”Seat Belt Unknown”
   END
END
```

task 4


```
IF [Vehicle Type] = ”Bike” THEN
   IF [Helmet Used] = ”Yes” THEN ”Helmet Used”
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   ELSEIF [Seat Belt Used] = ”No” THEN ”No Seat Belt”
   ELSE ”Seat Belt Unknown”
   END
END
```
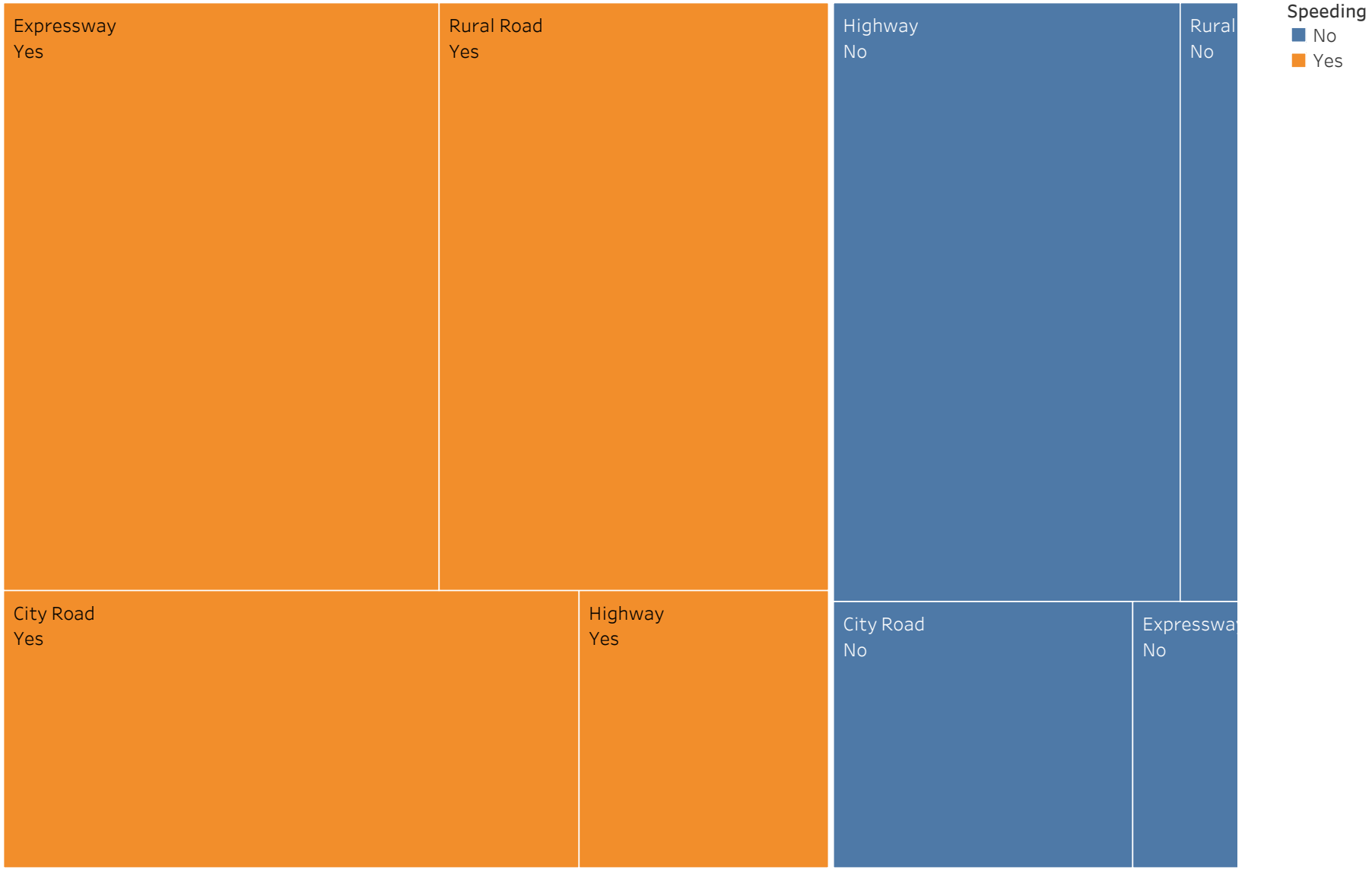
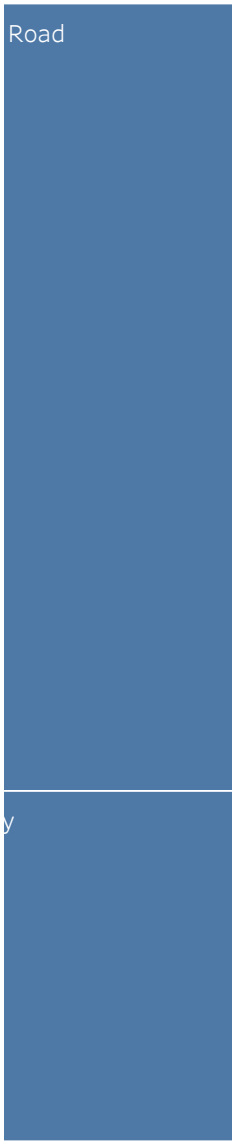

Sheet 5



Road Type and Speeding. Colour shows details about Speeding. Size shows sum of Fatalities. The marks are labelled by Road Type and Speeding.

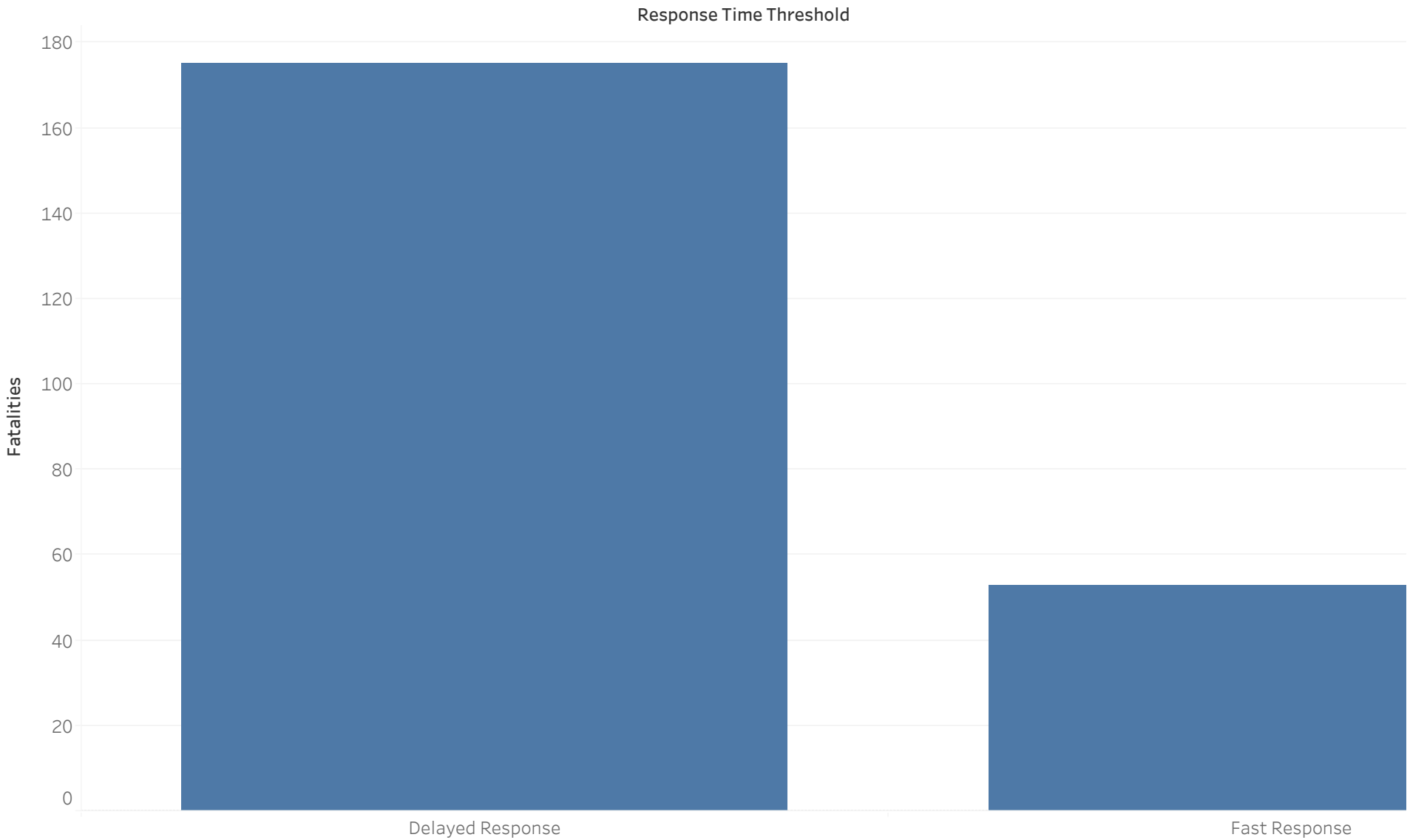
Sheet 5



Speeding
No
Yes

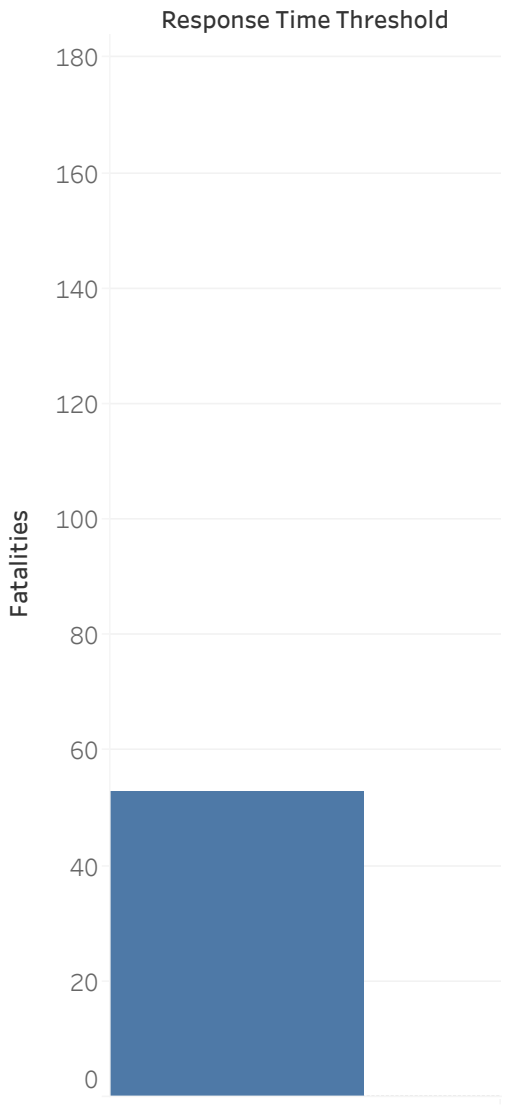
Road Type and Speeding. Colour shows details about Speeding. Size shows sum of Fatalities. The marks are labelled by Road Type and Speeding.

Sheet 6



Sum of Fatalities for each Response Time Threshold.

Sheet 6

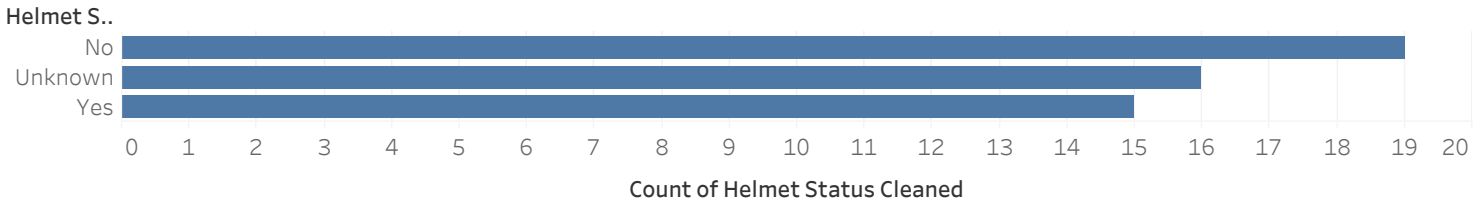


Sum of Fatalities for each Response Time Threshold.

Sheet 7

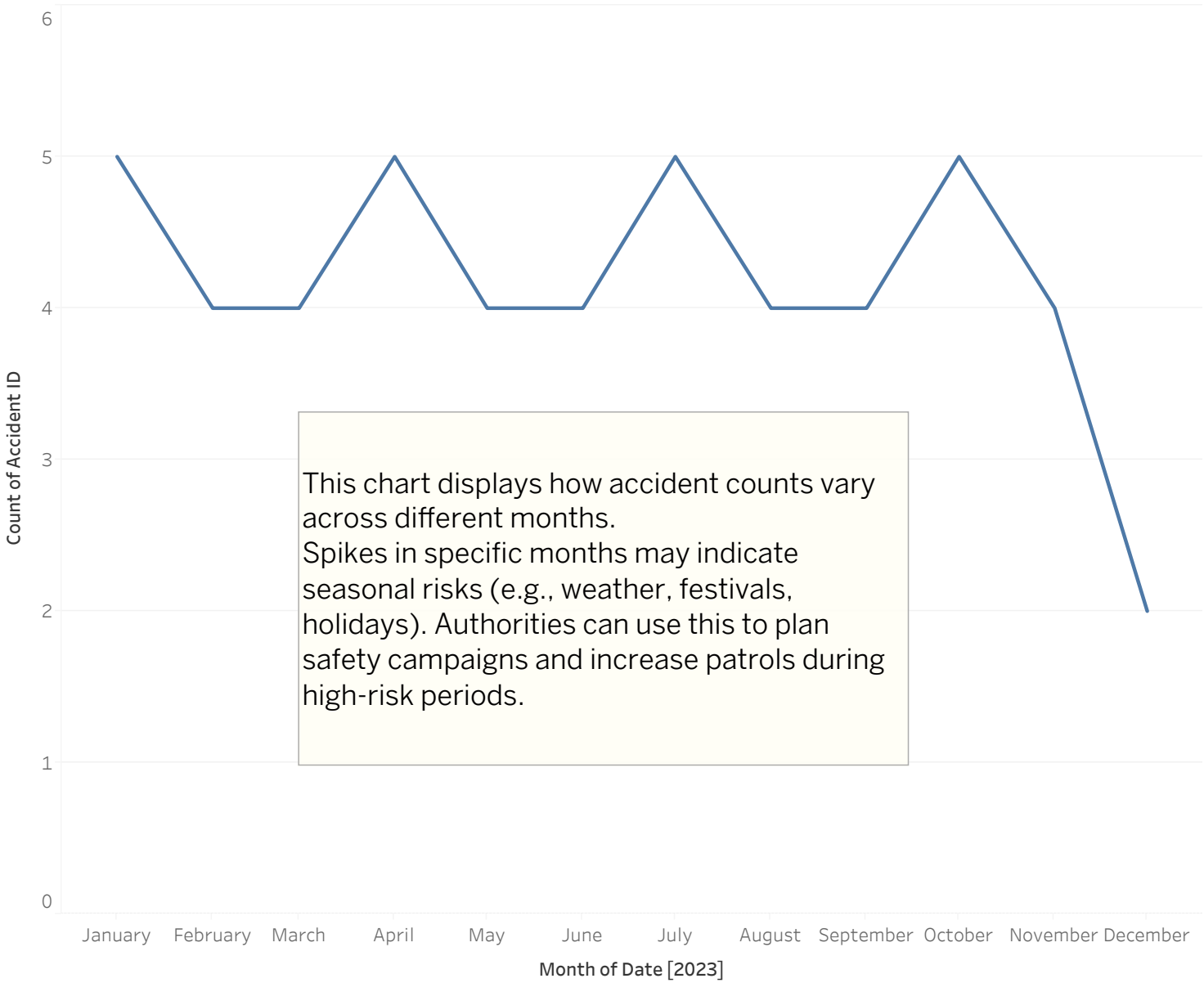
Road Accident Insights – A Data-Driven Story

1 2 3 4 5 6 7

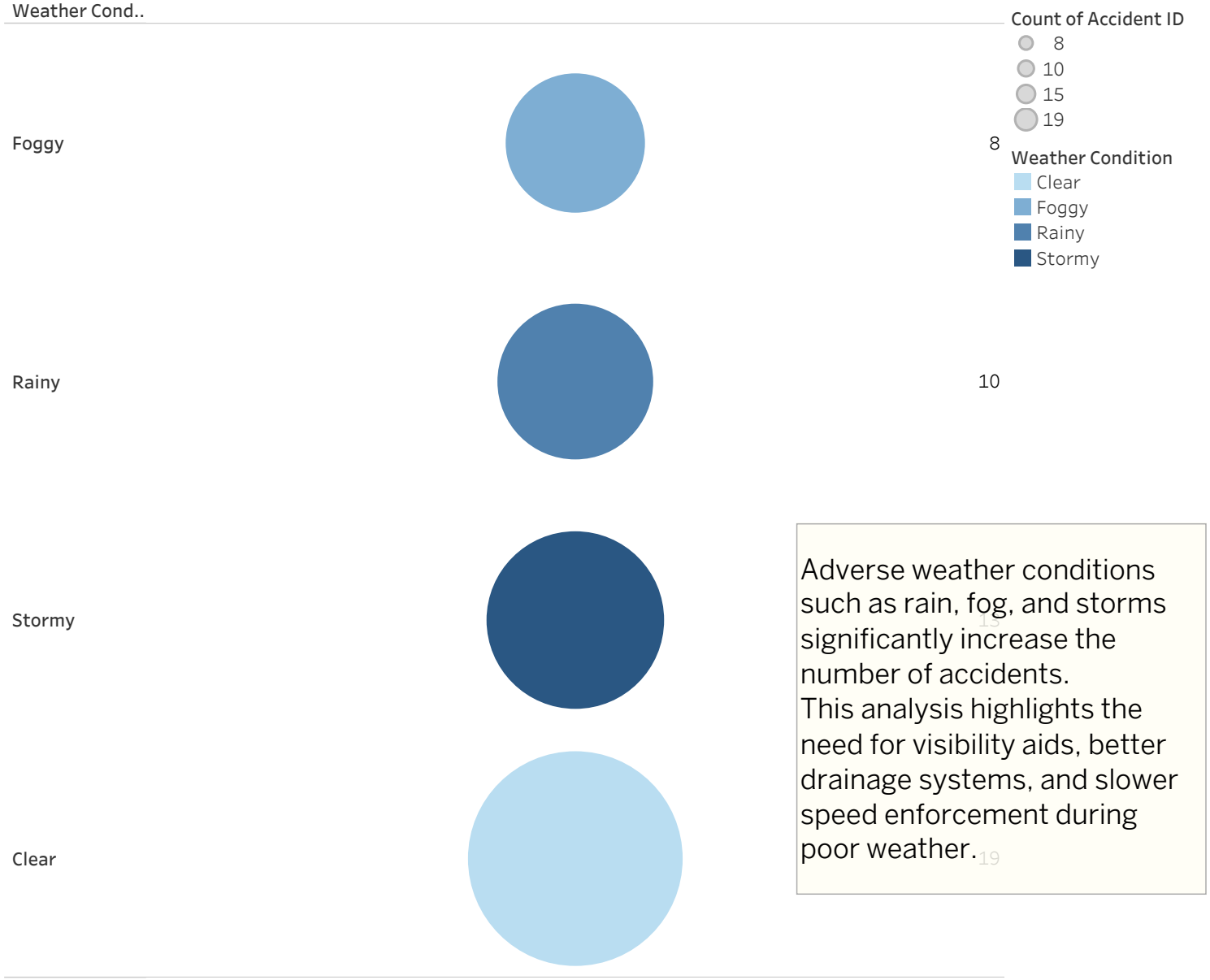


Road Accident Insights – A Data-Driven Story

1 2 3 4 5 6 7



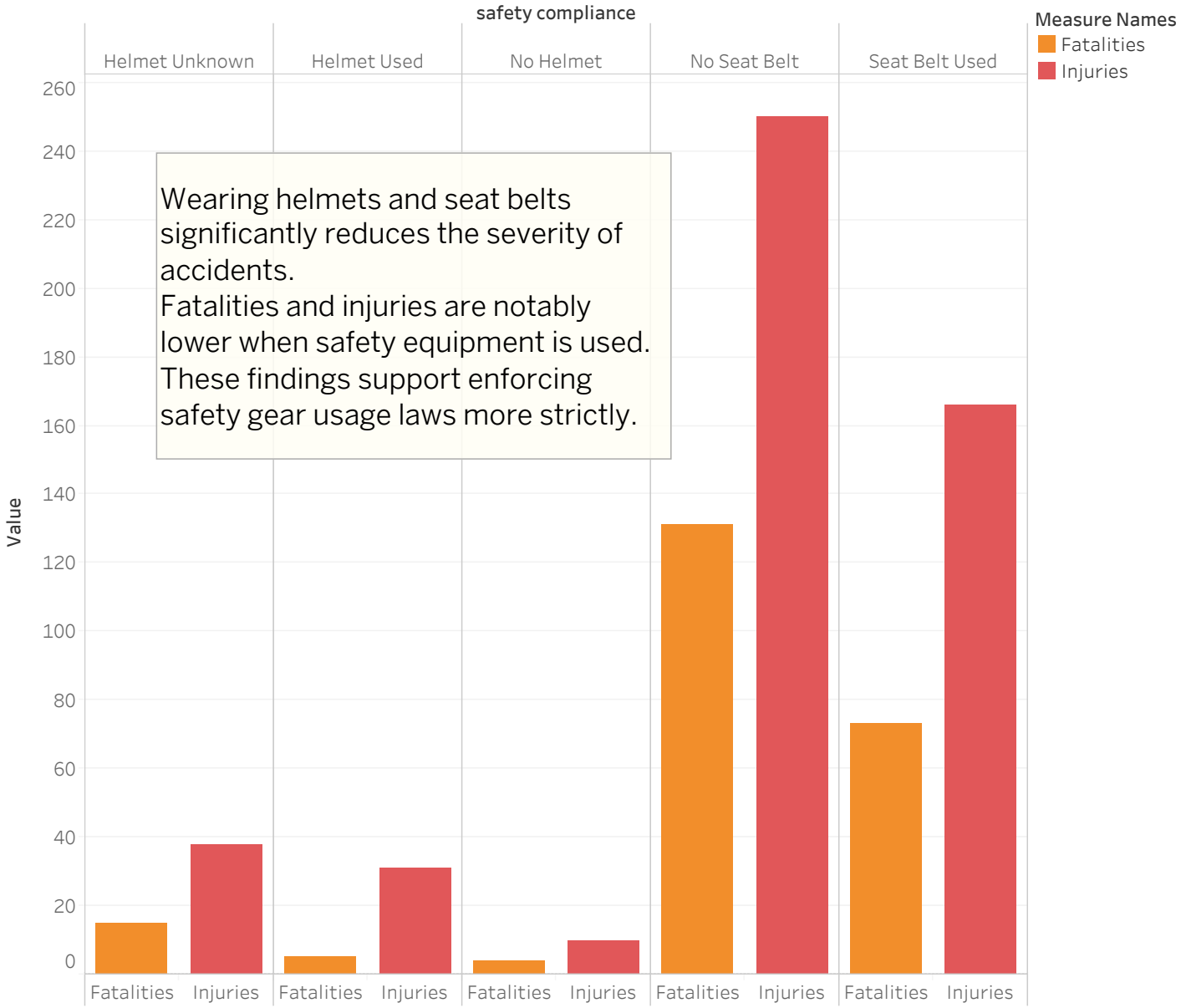
Road Accident Insights – A Data-Driven Story



Adverse weather conditions such as rain, fog, and storms significantly increase the number of accidents.
This analysis highlights the need for visibility aids, better drainage systems, and slower speed enforcement during poor weather.

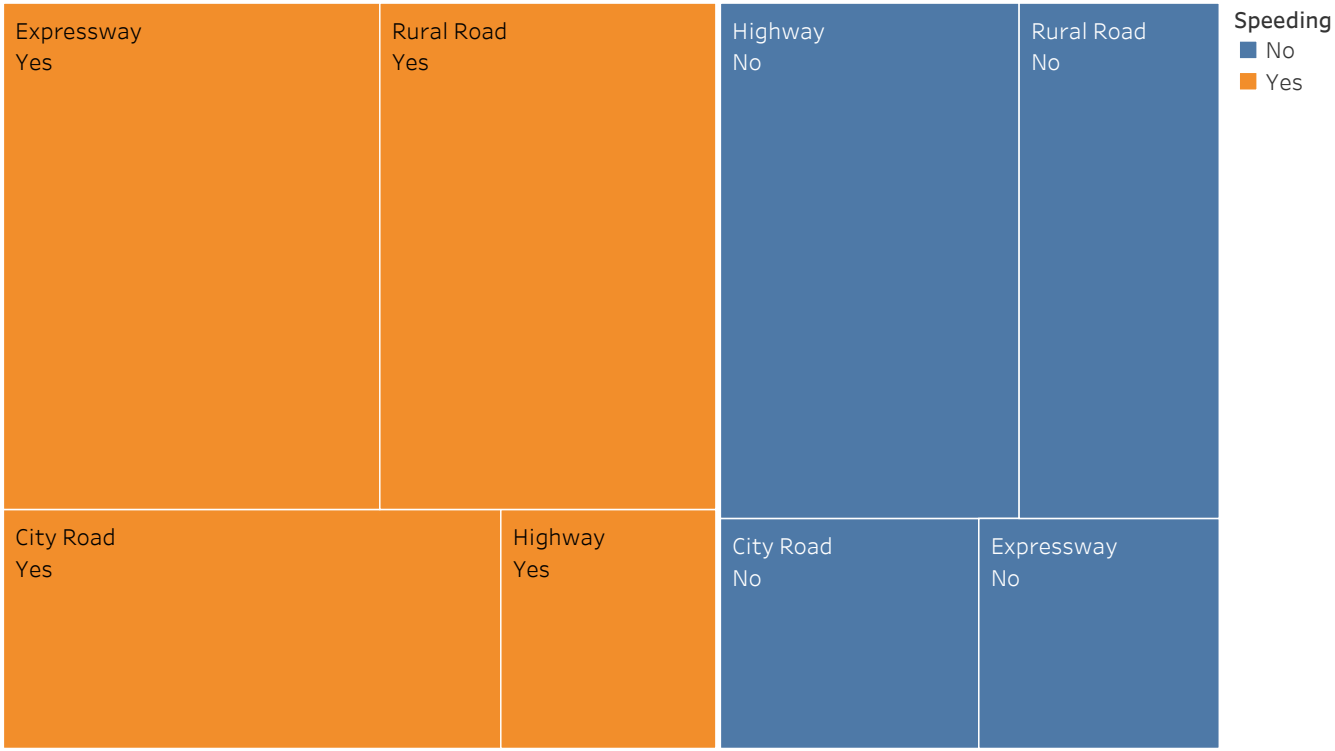
Road Accident Insights – A Data-Driven Story

1 2 3 4 5 6 7



Road Accident Insights – A Data-Driven Story

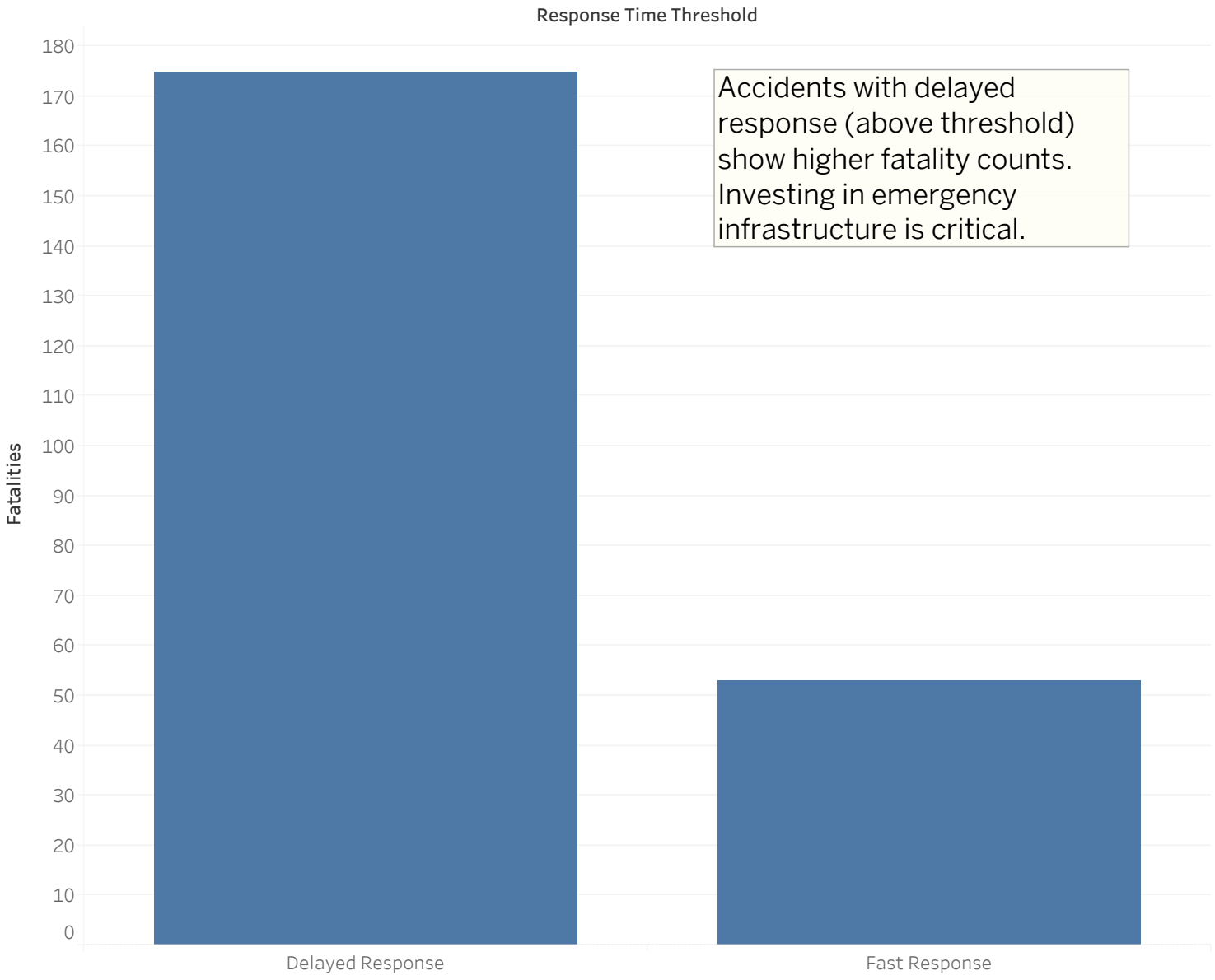
1 2 3 4 5 6 7



Speeding significantly increases fatalities on certain road types.
Highways and urban roads have the highest fatality rates when speeding is involved.
Speed control measures on these roads could save lives.

Road Accident Insights – A Data-Driven Story

1 2 3 4 5 6 7



Road Accident Insights – A Data-Driven Story

Key Insights:
Safety gear reduces injuries and deaths.
Speeding is a major factor in fatalities on certain roads.
Delayed emergency response correlates with higher fatalities.
Recommendations:
Enforce helmet and seat belt laws with penalties.
Introduce smart speed monitoring systems.
Improve emergency response systems, especially in rural areas.