PROJECT URL : <https://sangeetkhullar.github.io/>

# Messaging

This visualization follows a drill down story. The user is presented with an overview of car thefts data in United States. At first the high-level data is presented through a Pie Chart on the left. User is given multiple opportunities to explore the car thefts data in more details by following triggers / actions and investigate the data by viewing the charts on the right. The drill downs / reset actions are at disposal of the user.

# Narrative Structure

The structure followed here for the visualization is a *drill down story*. The drill down feature is available on the Pie Chart and on the middle right bar chart. The drill down on Pie Chart updates all the 3 charts on the left side. The drill down on the first bar chart updates the data in the second bar chart.

Visual Structure

Following structures are used in this visualization

Pie Chart :

This chart depicts the breakdown of Car Thefts data for the top 5 states in USA. The size of each pie is indicative of the share of thefts by that state. The color of each pie is different to visually distinguish it from its neighbors.

Line Chart :

This chart depicts a line graph for car thefts by different car models. Initially this chart displays the car thefts data for all states. However, clicking on a pie will reflect the data only for the selected state. The title of the chart reflects what data it’s displaying currently.

## Bar Chart 1 :

This chart depicts also the data of car thefts by different car models – however it uses a Bar Chart representation. This makes it easier for user to analyze it. It displays the count of thefts at the top of the bar and it also shows the car model name towards the bottom on X axis. The height of the bar chart maps to the number of thefts.

When you launch the visualization – this bar chart reflects the overall data for all top states. However, user can use the pie drill down feature and this chart will reflect the data only for a given state. The title of the chart reflects what data it’s displaying currently.

## Bar Chart 2 :

This chart further gives the breakdown to the user for car thefts by a given car model “MODEL YEAR”. Looking at this data user can understand if newer cars are more popular among thieves or it’s the older cars. Additionally, user can see this information for a given state – for a given car model.

When you launch the visualization – this bar chart reflects the overall data for all top states. However, user can use the pie drill down feature and this chart will reflect the data only for a given state. The title of the chart reflects what data it’s displaying currently.

# Scenes

Following are the scenes of this visualization in below order

Pie Chart – Total Car Thefts by State

Line and Bar Chart : Car Thefts by Car Make & Model Name

All States

Given Selected State

Bottom Bar Chart : Car Thefts by Car Model Year –

All States

Given Selected Car Make & Model Name for All States

Given Selected Car Make & Model Name for a Given Selected State

# Annotations

## Pie Chart Title :

In the center of the pie. The title remains the same as the PIE always displays the car theft data for top USA states.

## Pie Chart Label :

Each pie is annotated with the name of the state.

## Pie Chart ToolTip:

Hovering on the pie chart will display the name of the state for that pie and the PERCENT share of that state in the over all thefts.

## Line Chart Title & Theft Count :

Above the line chart. The title is dynamic, and changes based on the filters chosen by the user. The Line Chart also displays the SUM of all Thefts for the given display – either all states OR for a given state.

The points on the LINE chart are RED for the lowest theft count and GREEN for the highest theft count. Remaining data points are BLACK.

## Bar Chart 1 Title & Annotations :

Above the bar chart. The title is dynamic, and changes based on the filters chosen by the user.

The top of the bar chart is annotated with the figure of theft count for that model.

The bottom of the bar chart is annotated with the car make and model name.

## Bar Chart 2 Title & Annotations :

Above the bar chart. The title is dynamic, and changes based on the filters chosen by the user.

The top of the bar chart is annotated with the figure of theft count for that model.

The bottom of the bar chart is annotated with the car model manufacturing YEAR.

# Parameters

The visualization does not use any user input parameters. The data is present in the visualization already.

# Triggers

The visualization launches with a default view – present distribution of car thefts data for top states. All the charts reflect the same data but gives different perspective to the end user to understand the data. User can play with the data in multiple ways :

1. Tooltip : User can hover over the Pie Chart and look at PERCENT distribution of car thefts by every state.
2. Drill Down on Pie : User can click on a PIE. The PIE will expand and get highlighted by RED border. Additional all the charts on the LEFT will get updated to reflect the data for the given state.
3. Drill Down on Bar Chart 1: User can click on a given BAR and the bottom bar chart will show the distribution of data for that given CAR MAKE & MODEL by MODEL YEAR.
4. Reset Filters: User can click on the reset filters and restore the view back to original.