

SIMPLILEARN CRIME ANALYSIS TABLEAU PROJECT

BY- ANKITA KALA-15/07/2025

In this project, I assumed the role of a Data Analyst within the research wing of the police department. The primary objective was to analyze historical crime data using Tableau to uncover patterns, trends, and geographic hotspots of criminal activity. By transforming raw data into interactive dashboards and visual stories, the aim was to assist law enforcement agencies in making informed decisions for criminal investigations, resource allocation, and preventive strategies.

This crime analysis project involves time series analysis, category-wise segmentation of crimes, and geographical mapping to identify high-risk areas. The dashboards are designed to deliver actionable insights in a visually intuitive manner, enabling stakeholders to quickly interpret complex datasets. Ultimately, this analysis supports the department in reducing crime rates and improving public safety through data-driven strategies.

Action

Created four interactive Tableau dashboards to support the police department in analyzing crime data:

1. Overall Crime Statistics Dashboard – Mapped crime locations on a geo-map, highlighted most common incidents, and included a live feed showing total and recent crimes.
2. Time Period Analysis Dashboard – Analyzed crime patterns by day, hour, and time blocks (morning to night) to identify peak crime periods.
3. Trend Analysis Dashboard – Visualized year-over-year changes in crime rates and compared incident trends for the same date/time across years.
4. Comparative Analysis Dashboard – Compared incidents with and without arrests, analyzed severity by category, and added filters for type and location for deeper insights.

Tableau Public - Crime analysis Project

File Data Window Help

Connections Add

Crime_data Microsoft Excel

Sheets

Cleaned with Data Interpreter
Review the results. (To undo changes, clear the check box.)

Sheet1

Sheet1 A1:V10000

Need more data?
Drag tables here to relate them. [Learn more](#)

New Union

New Table Extension

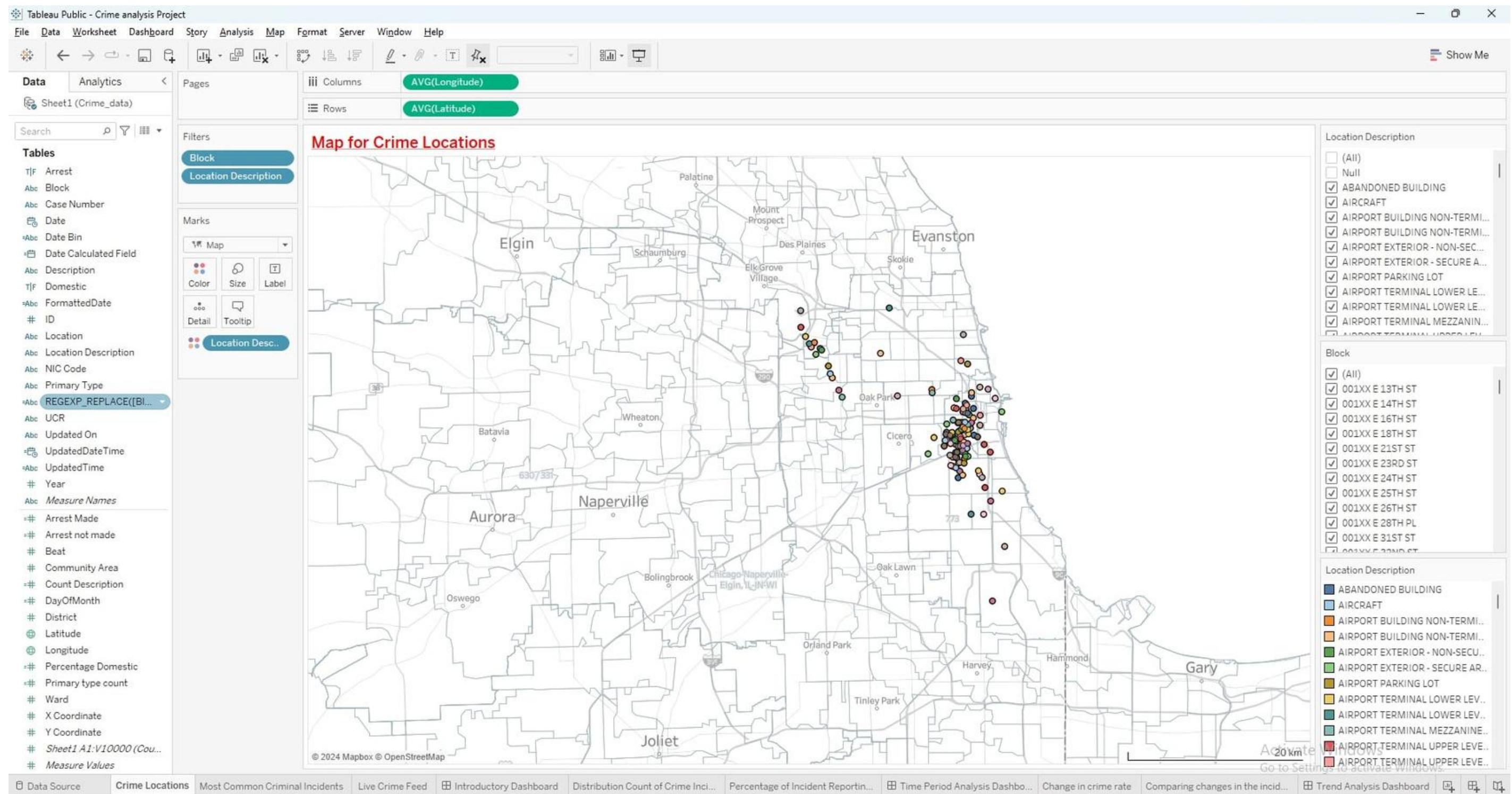
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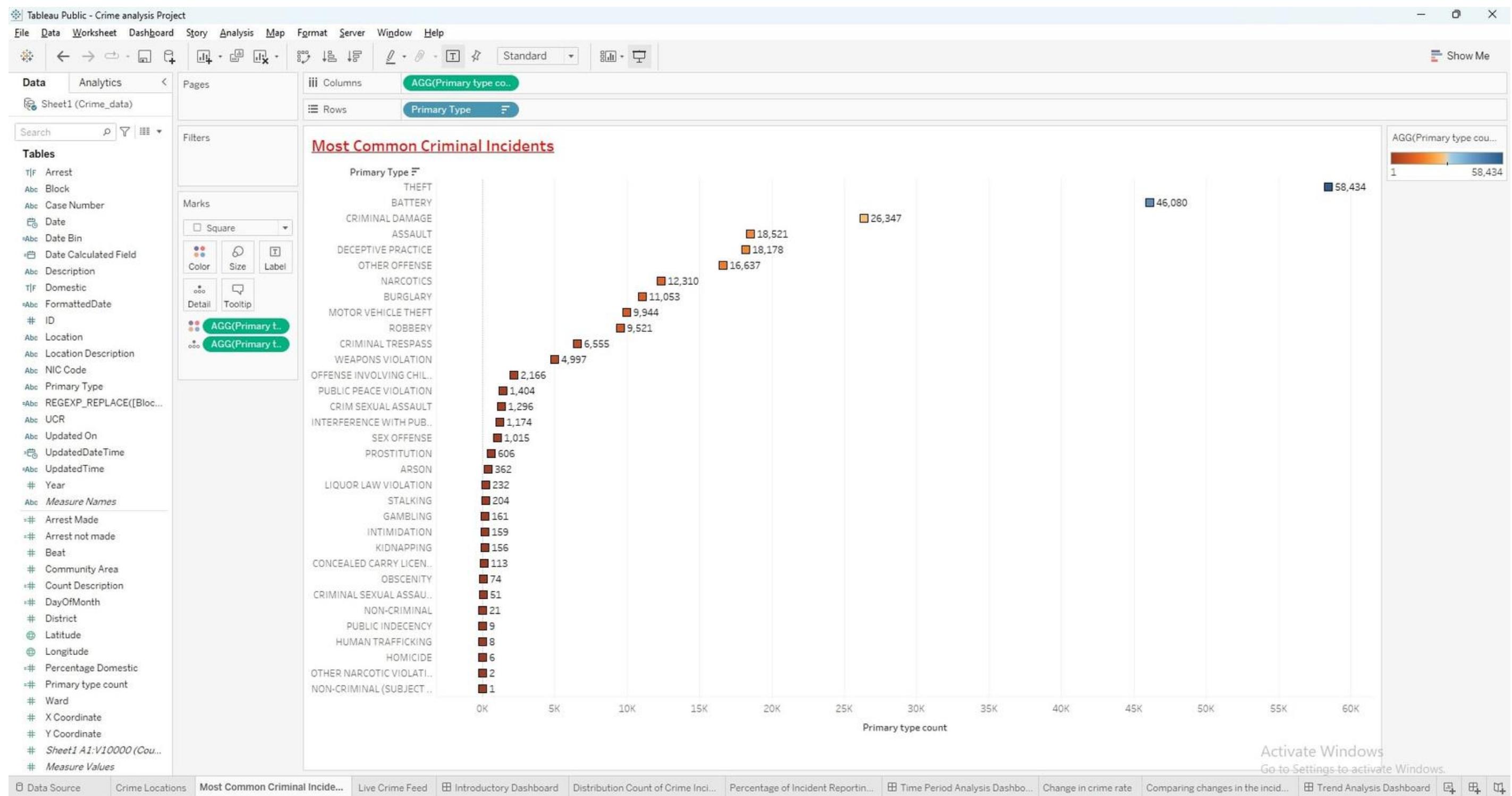
100 rows

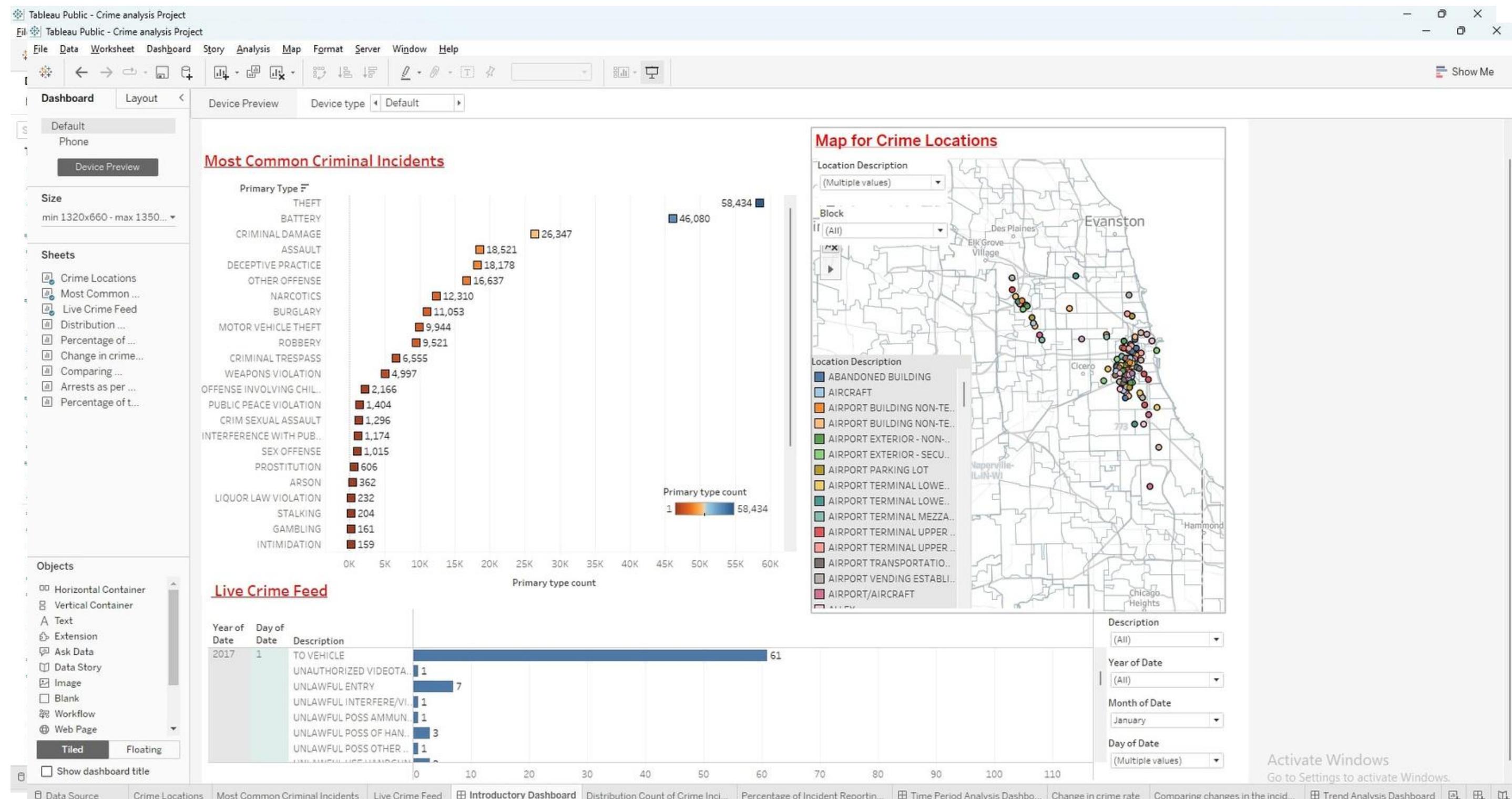
#	Abc	Calculation	Abc	Abc	Abc	Abc	=#
ID	Sheet1 A1:V10000	Sheet1 A1:V10000	Date	FormattedDate	Sheet1 A1:V10000	Sheet1 A1:V10000	Calculation
Name	Sheet1 A1:V10000	Case Number	Case Number	Block	UCR	Primary Type	Primary type count
11614273	JC174951	01-01-2017 12:00:00 am	1/January/2017	018XX S CALIFORNIA AVE	1153	DECEPTIVE PRACTICE	
11622471	JC184902	01-01-2017 12:00:00 am	1/January/2017	013XX S LAWNDALE AVE	1153	DECEPTIVE PRACTICE	
11255786	JB185271	01-01-2017 12:00:00 am	1/January/2017	045XX N HAZEL ST	1155	DECEPTIVE PRACTICE	
11259747	JB190580	01-01-2017 12:00:00 am	1/January/2017	038XX W ARMITAGE AVE	1153	DECEPTIVE PRACTICE	
11267468	JB195629	01-01-2017 12:00:00 am	1/January/2017	017XX W HENDERSON ST	1752	OFFENSE INVOLVING CHILD...	
10824428	JA125662	01-01-2017 12:00:00 am	1/January/2017	047XX S GREENWOOD AVE	1154	DECEPTIVE PRACTICE	
10827683	JA126646	01-01-2017 12:00:00 am	1/January/2017	0000X W TERMINAL ST	810	THEFT	
10801101	JA100031	01-01-2017 12:00:00 am	1/January/2017	074XX S SOUTH CHICAGO A...	1320	CRIMINAL DAMAGE	
10801104	JA100015	01-01-2017 12:00:00 am	1/January/2017	004XX W 66TH ST	486	BATTERY	
10801111	JA100033	01-01-2017 12:00:00 am	1/January/2017	010XX W ADDISON ST	502P	OTHER OFFENSE	

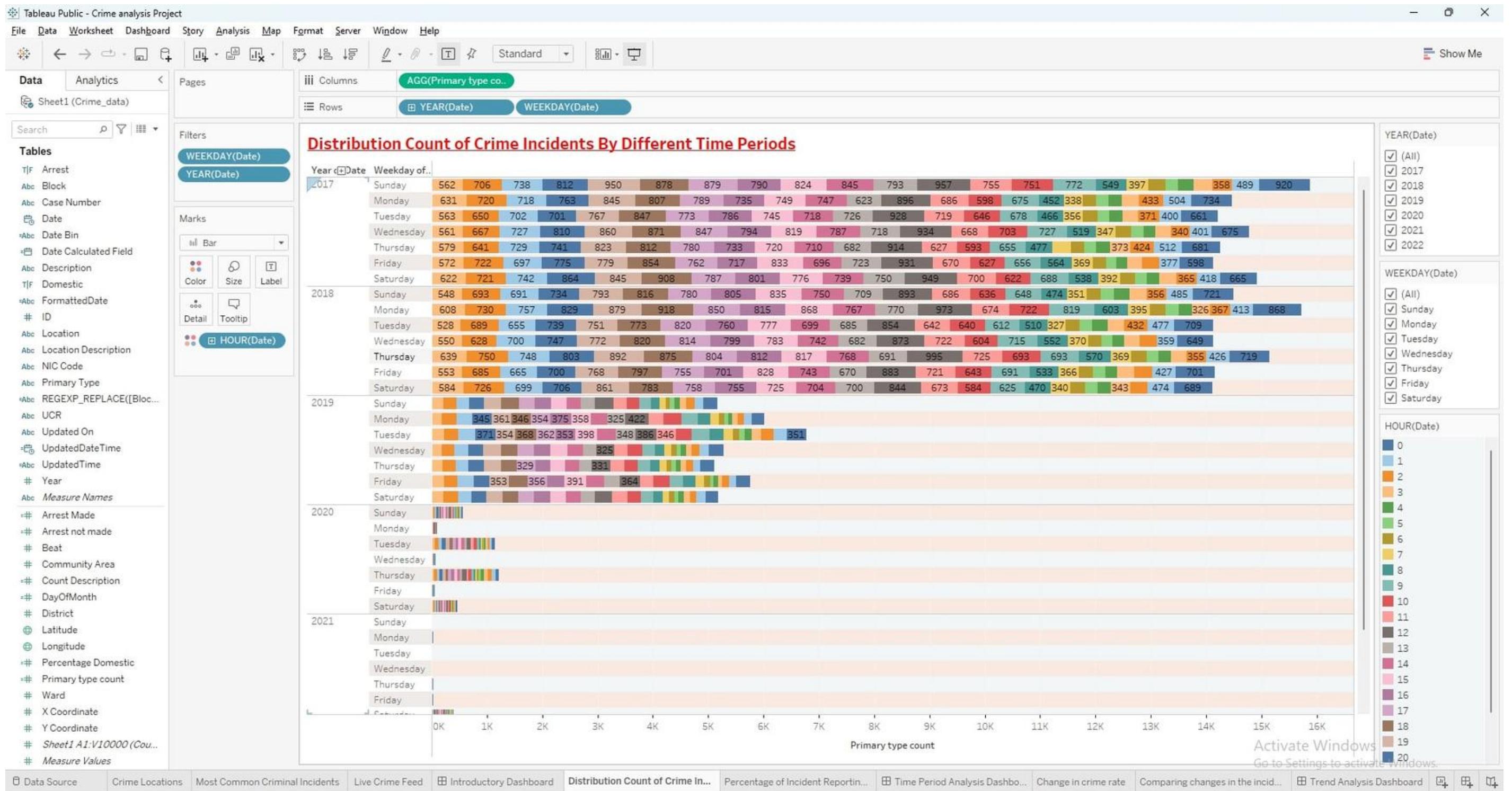
Distribution Count of Crime Inci... Percentage of Incident Reportin... Time Period Analysis Dashbo... Change in crime rate Comparing changes in the incid... Trend Analysis Dashboard

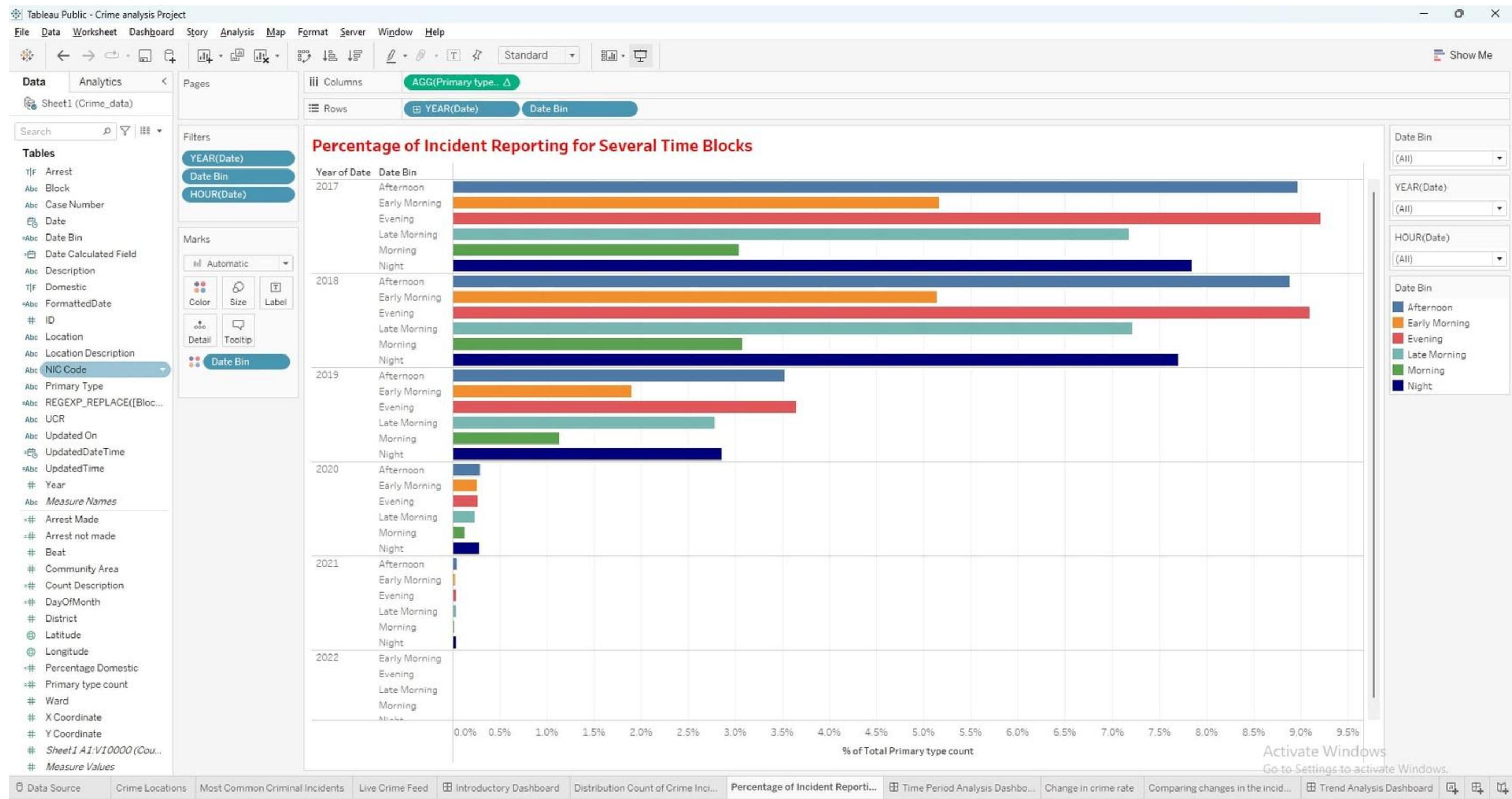
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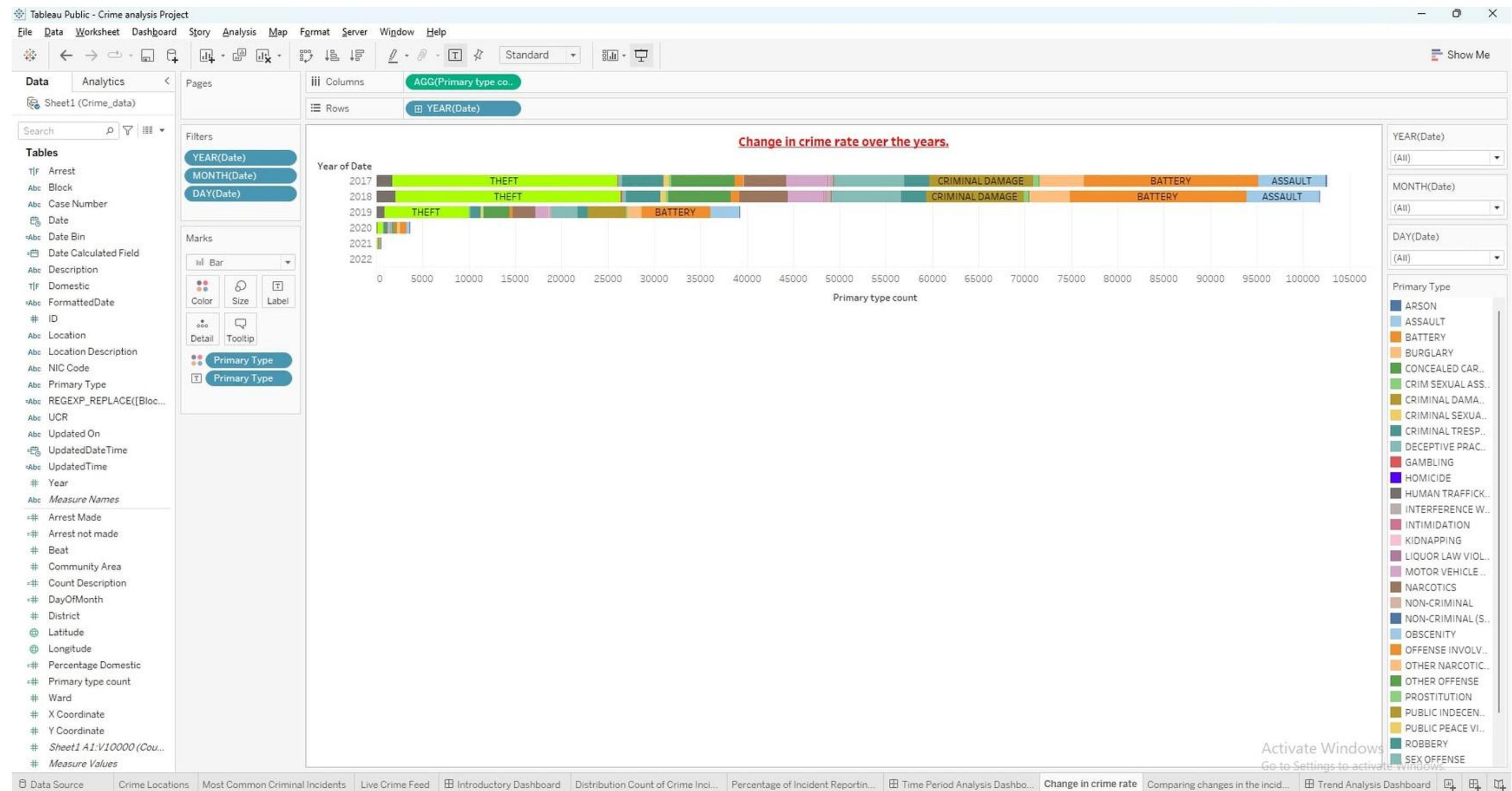


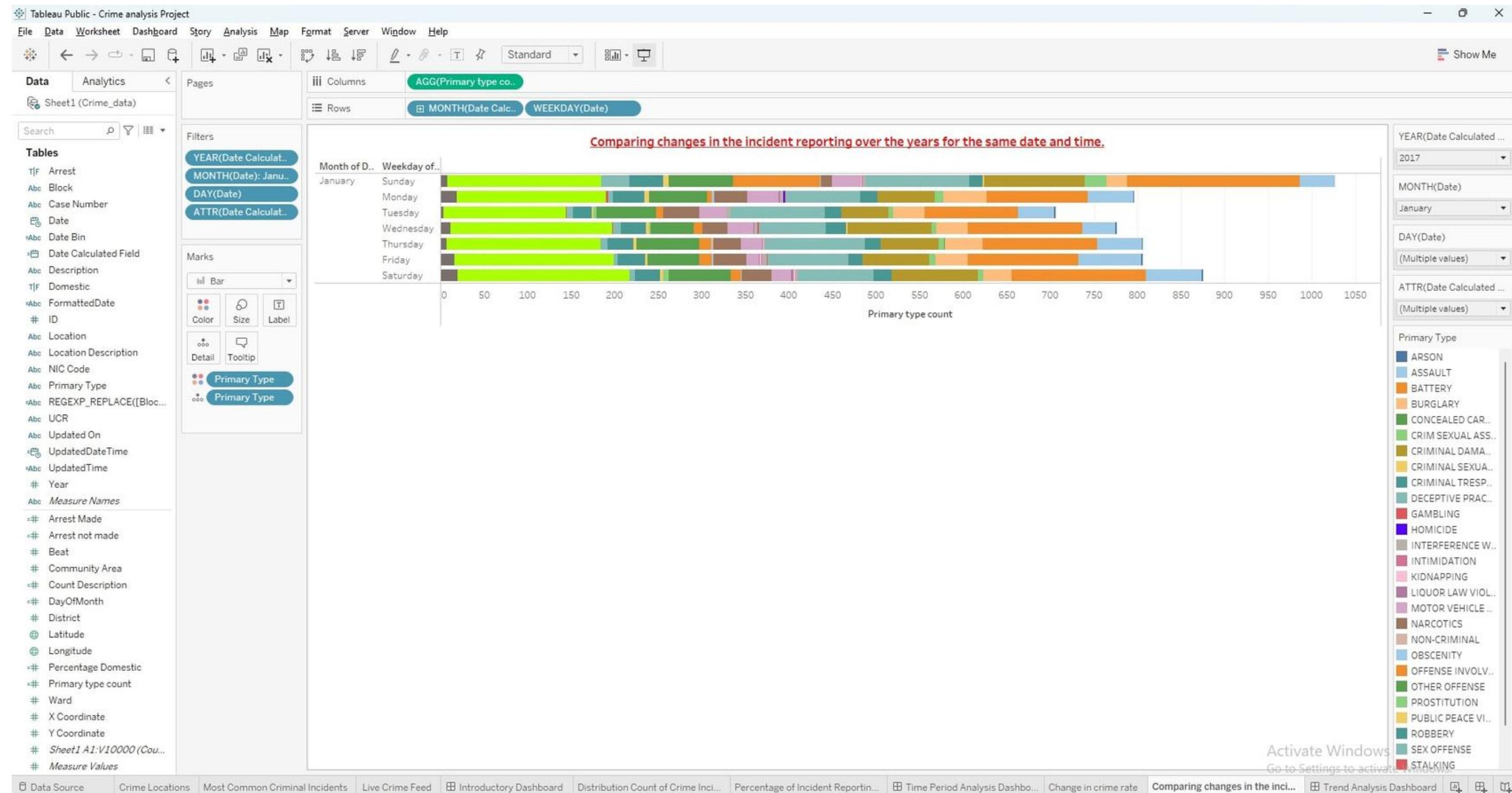












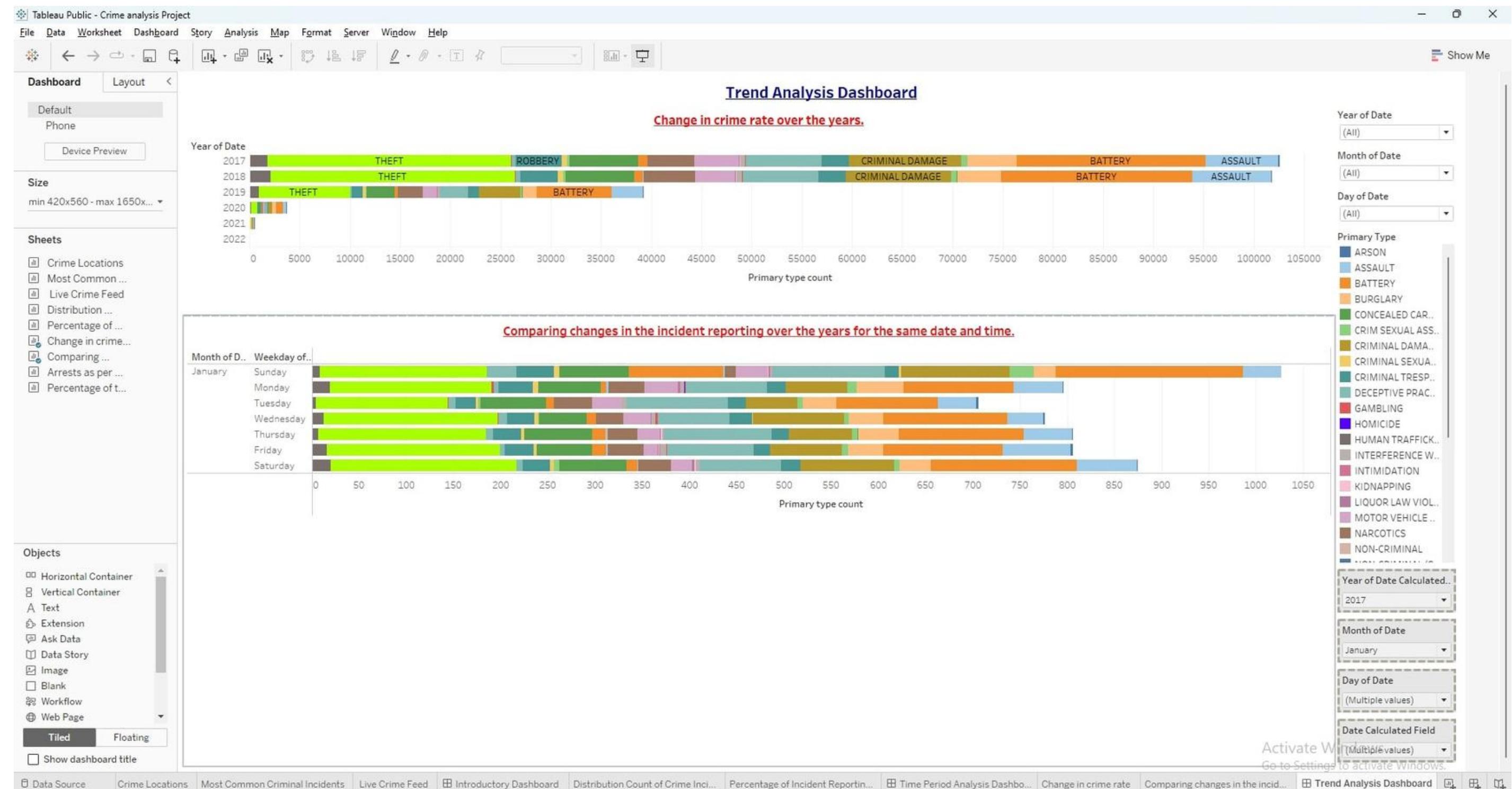


Tableau Public - Crime analysis Project

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Data Analytics <

Sheet1 (Crime_data)

Search

Tables

- Arrest
- Block
- Case Number
- Date
- Date Bin
- Date Calculated Field
- Description
- Domestic
- FormattedDate
- ID
- Location
- Location Description
- NIC Code
- Primary Type
- REGEXP_REPLACE([Bloc...]
- UCR
- Updated On
- UpdatedDateTime
- UpdatedTime
- Year
- Measure Names
- Arrest Made
- Arrest not made
- Beat
- Community Area
- Count Description
- DayOfMonth
- District
- Latitude
- Longitude
- Percentage Domestic
- Primary type count
- Ward
- X Coordinate
- Y Coordinate
- Sheet1 A1:V10000 (Cou...
- Measure Values

Pages Columns Arrest

Rows Primary Type

Filters Arrest

Marks Automatic

Color Size Text

Detail Tooltip

AGG(Primary t..

Arrests as per reported Incident.

Primary Type	False	True
ARSON	321	41
ASSAULT	15,334	3,187
BATTERY	36,333	9,747
BURGLARY	10,554	499
CONCEALED CARRY LICEN..	5	108
CRIM SEXUAL ASSAULT	1,212	84
CRIMINAL DAMAGE	24,781	1,566
CRIMINAL SEXUAL ASSAULT	49	2
CRIMINAL TRESPASS	2,802	3,753
DECEPTIVE PRACTICE	17,367	811
GAMBLING		161
HOMICIDE		6
HUMAN TRAFFICKING	7	1
INTERFERENCE WITH PUB..	57	1,117
INTIMIDATION	149	10
KIDNAPPING	146	10
LIQUOR LAW VIOLATION		232
MOTOR VEHICLE THEFT	9,290	654
NARCOTICS	8	12,302
NON-CRIMINAL	21	
NON-CRIMINAL (SUBJECT ..)		1
OBScenity	10	64
OFFENSE INVOLVING CHI..	1,881	285
OTHER NARCOTIC VIOLAT..	1	1
OTHER OFFENSE	13,009	3,628
PROSTITUTION		606
PUBLIC INDECENCY		9
PUBLIC PEACE VIOLATION	448	956
ROBBERY	8,780	741
SEX OFFENSE	833	182
STALKING	181	23
THEFT	52,625	5,809
WEAPONS VIOLATION	1,339	3,658

Activate Windows
Go to Settings to activate Windows.

Data Source Reportin... Time Period Analysis Dashbo... Change in crime rate Comparing changes in the incid... Trend Analysis Dashboard Arrests as per reported Incident Percentage of the reported incid... Comparative Analysis Dashb... Story 1 Story 2 Story 3 Story 4



File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Dashboard Layout <

Default Phone Device Preview

Size min 420x560 - max 1550x... Sheets Crime Locations Most Common ... Live Crime Feed Distribution ... Percentage of ... Change in crime... Comparing ... Arrests as per ... Percentage of t... Objects Horizontal Container Vertical Container Text Extension Ask Data Data Story Image Blank Workflow Web Page Tiled Floating Show dashboard title

Comparative Analysis Dashboard

Arrests as per reported Incident.

Primary Type	False	True	Arrest Made
ARSON	321	41	0
ASSAULT	15,334	3,187	0
BATTERY	36,333	9,747	Arrest not made
BURGLARY	10,554	499	0
CONCEALED CARRY LICEN..	5	108	0
CRIM SEXUAL ASSAULT	1,212	84	
CRIMINAL DAMAGE	24,781	1,566	
CRIMINAL SEXUAL ASSAULT	49	2	
CRIMINAL TRESPASS	2,802	3,753	
DECEPTIVE PRACTICE	17,367	811	
GAMBLING		161	
HOMICIDE		6	
HUMAN TRAFFICKING	7	1	
INTERFERENCE WITH PUB..	57	1,117	
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ROBBERY	8,780	741	
SEX OFFENSE	833	182	
STALKING	181	23	
THEFT	52,625	5,809	
WEAPONS VIOLATION	1,339	3,658	

Percentage of the reported incidents which are domestic.

Primary Type	Domestic	Arrest
ASSAULT	True	1.000
BATTERY	False	
BURGLARY	False	
CONCEALED CARRY LICEN..	False	
CRIM SEXUAL ASSAULT	False	
CRIMINAL DAMAGE	False	
CRIMINAL SEXUAL ASSAULT	False	
CRIMINAL TRESPASS	False	
DECEPTIVE PRACTICE	False	
GAMBLING	False	0.000
HOMICIDE	False	0.000
HUMAN TRAFFICKING	False	
INTERFERENCE WITH PUBLIC OFFICER	True	1.000
INTIMIDATION	False	
KIDNAPPING	False	
LIQUOR LAW VIOLATION	False	0.000
MOTOR VEHICLE THEFT	False	
NARCOTICS	False	
NON-CRIMINAL	False	0.000

0.00% 20.00% 40.00% 60.00% 80.00% 100.00% 120.00% 140.00% 160.00% 180.00% 200.00% Percentage Domestic

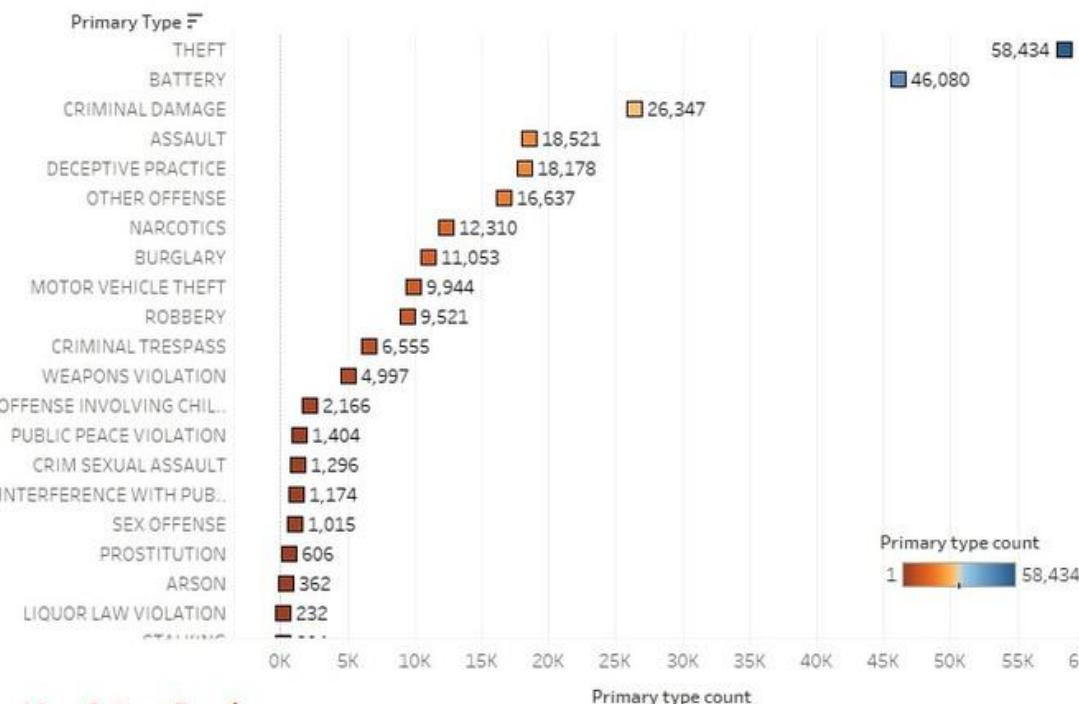
Activate Windows Go to Settings to activate Windows.

In this introductory dashboard, includes Most common crimes, Crime location and live crime feed

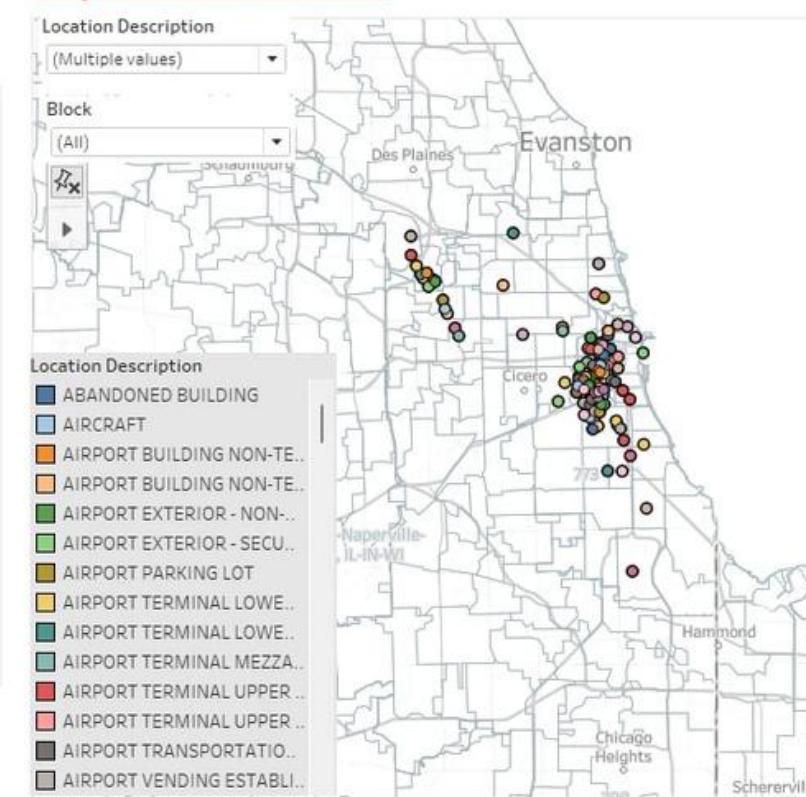
Time Analysis

Overall Crime Statistics Dashboard

Most Common Criminal Incidents



Map for Crime Locations



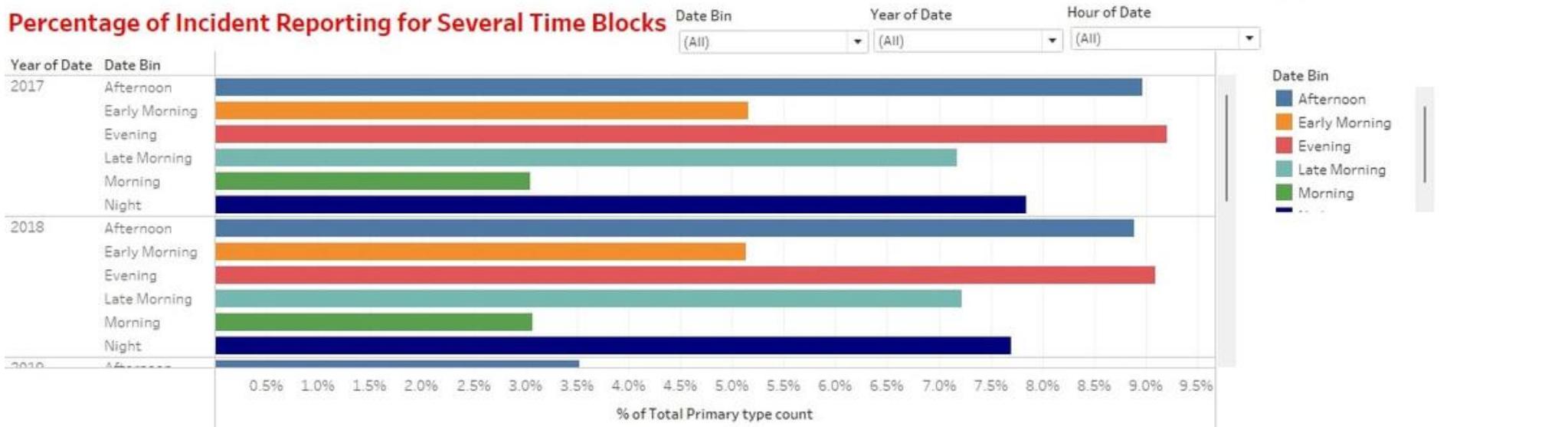
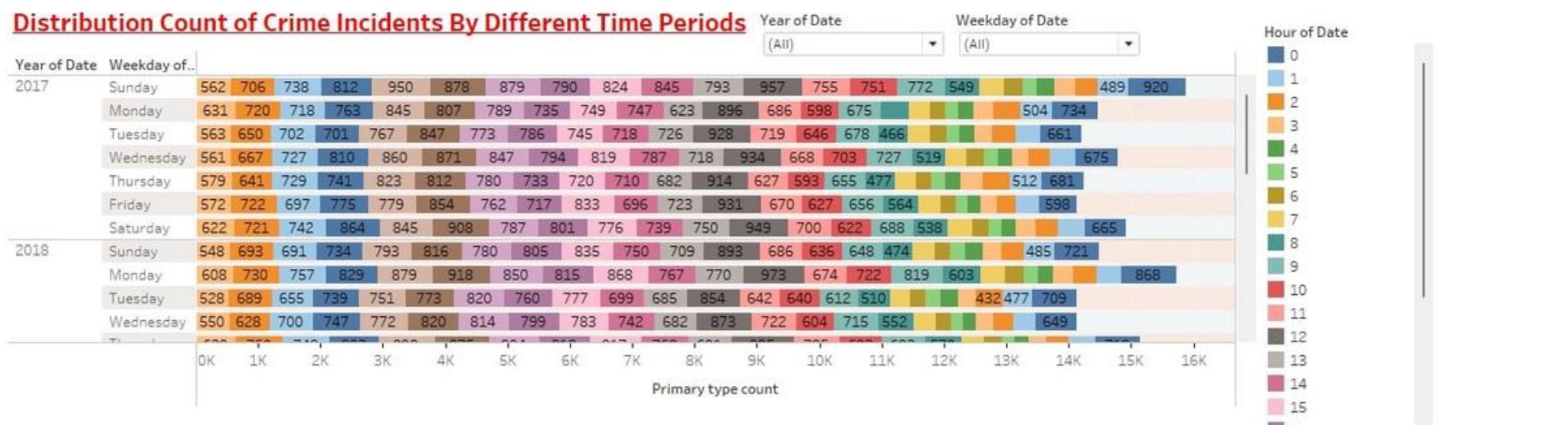
Live Crime Feed

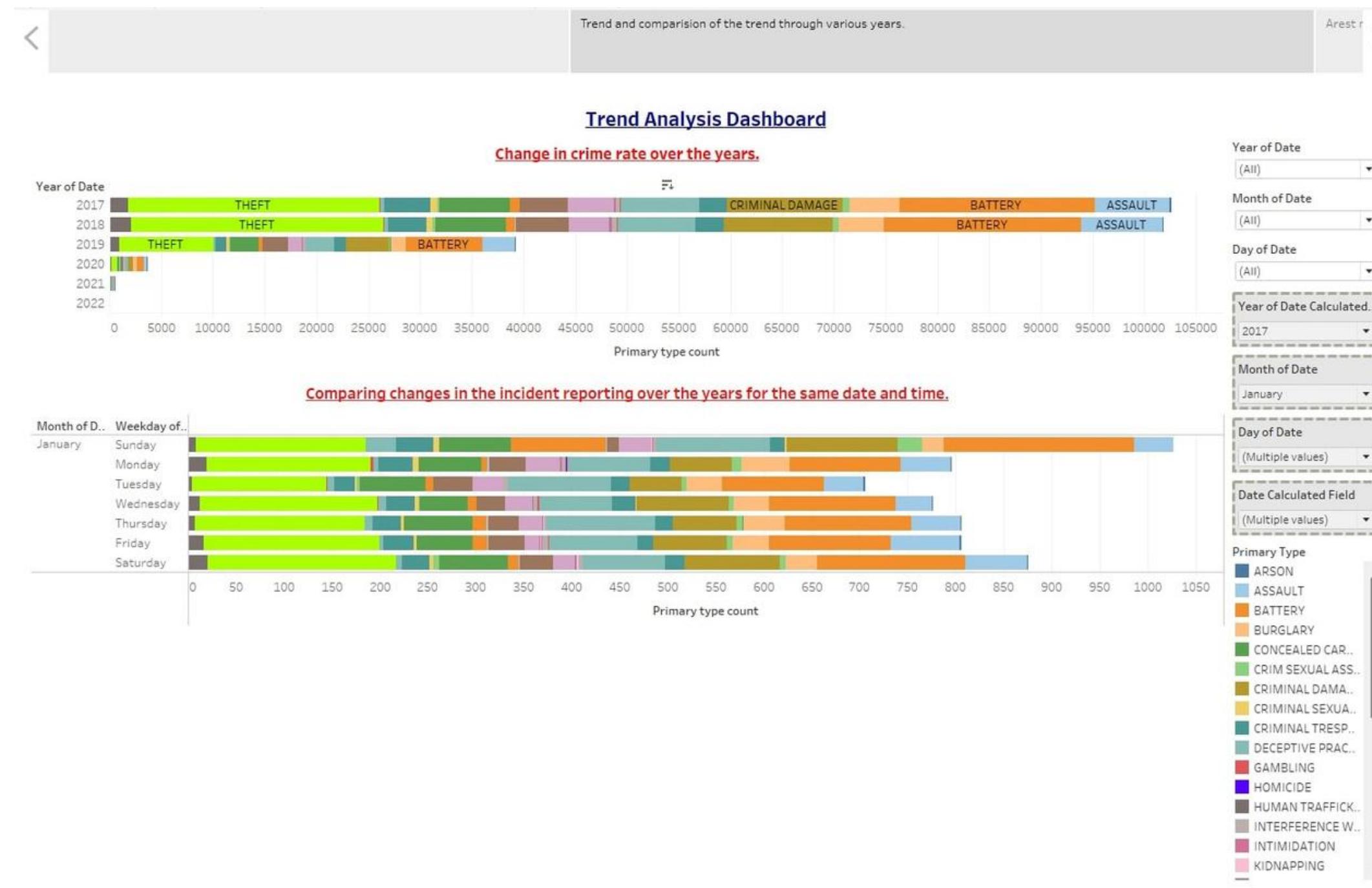
Year of Date	Day of Date	Description	Count
2017	1	TO VEHICLE	61
		UNAUTHORIZED VIDEO TAPE	1
		UNLAWFUL ENTRY	7
		UNLAWFUL INTERFER/VIOL	1
		UNLAWFUL POSS AMMUNICAT	1
		UNLAWFUL POSS OF HAN...	3

Percentage of Incident Reporting | Time Period Analysis Dashboard | Change in crime rate | Comparing changes in the incident | Trend Analysis Dashboard | Arrests as per reported Incident | Percentage of the reported incident | Comparative i

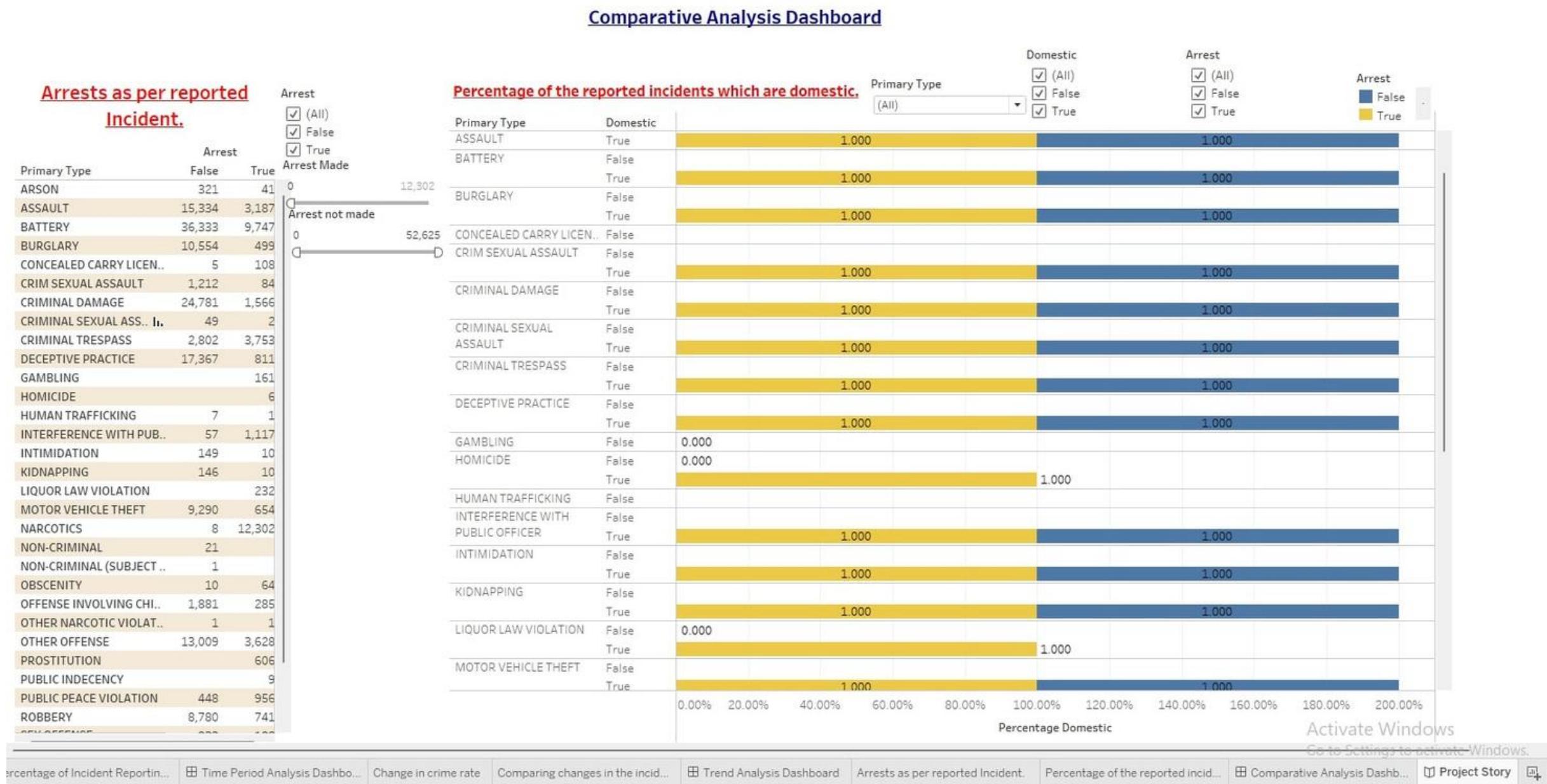


Time Period Analysis Dashboard





	Trend and comparison of the trend through various years.	Arrest made and details of domestic report.
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THANK YOU