



Temporal Analysis in the Power BI

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INSTRUCTOR



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- ✓ Matrix of time of day/day of week

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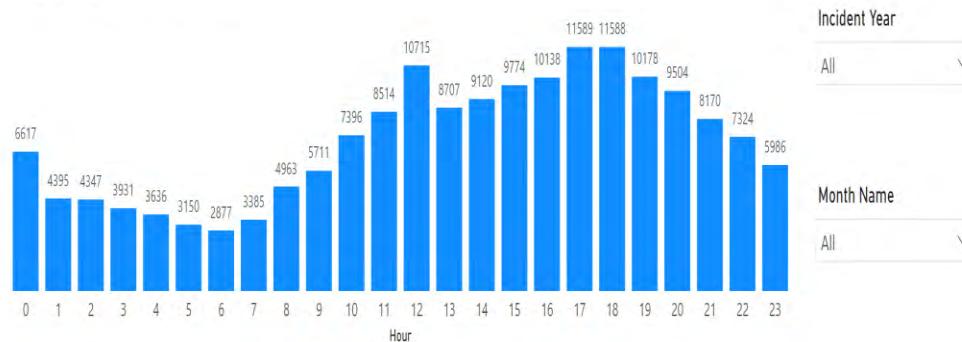
Conclusion and QA

TEMPORAL ANALYSIS



POLICE DEPARTMENT

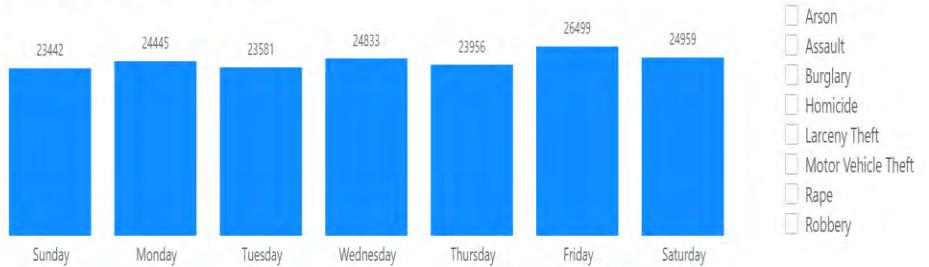
Count of CAD Number by Hour



Incident Year

All

Count of CAD Number by Incident Day of Week



Incident Category

- Arson
- Assault
- Burglary
- Homicide
- Larceny Theft
- Motor Vehicle Theft
- Rape
- Robbery

HR/DOW	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sunday	1,162	850	877	606	535	483	460	389	545	740	947	1,171	1,401	1,083	1,277	1,254	1,297	1,527	1,450	1,242	1,174	1,147	1,048	777	23,442
Monday	885	598	574	538	520	439	421	527	757	844	1,093	1,246	1,567	1,302	1,313	1,314	1,505	1,659	1,708	1,470	1,380	1,094	947	744	24,445
Tuesday	811	487	534	543	485	445	410	505	706	824	996	1,163	1,542	1,203	1,275	1,315	1,364	1,577	1,730	1,457	1,340	1,123	985	761	23,581
Wednesday	806	541	543	525	544	426	431	531	797	835	1,140	1,252	1,596	1,324	1,315	1,473	1,457	1,732	1,698	1,547	1,374	1,179	1,013	754	24,933
Thursday	894	506	488	555	490	425	348	506	762	847	1,022	1,168	1,497	1,213	1,236	1,345	1,481	1,611	1,669	1,467	1,461	1,154	1,048	763	23,956
Friday	967	587	601	558	500	449	392	498	750	882	1,144	1,327	1,609	1,370	1,382	1,659	1,629	1,914	1,777	1,660	1,488	1,258	1,096	1,002	26,499
Saturday	1,092	826	730	606	562	483	415	429	646	739	1,054	1,187	1,503	1,212	1,322	1,414	1,405	1,569	1,556	1,335	1,287	1,215	1,187	1,185	24,959
Total	6,617	4,395	4,347	3,931	3,636	3,150	2,877	3,385	4,963	5,711	7,396	8,514	10,715	8,707	9,120	9,774	10,138	11,589	11,588	10,178	9,504	8,170	7,324	5,986	171,715

TEMPORAL ANALYSIS



POLICE DEPARTMENT

Count of CAD Number by Hour



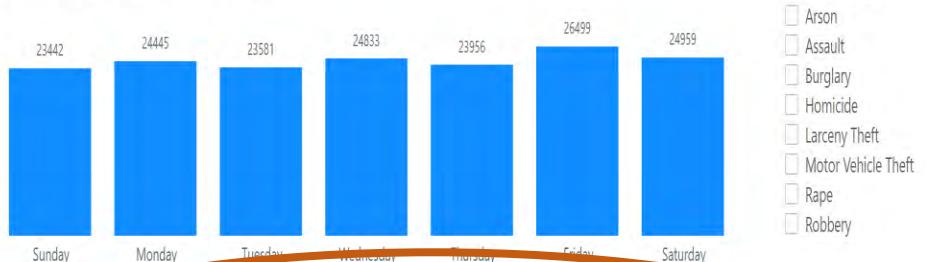
Incident Year

All

Month Name

All

Count of CAD Number by Incident Day of Week



Incident Category

- Arson
- Assault
- Burglary
- Homicide
- Larceny Theft
- Motor Vehicle Theft
- Rape
- Robbery

HR/DOW	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sunday	1,162	850	877	606	535	483	460	389	545	740	947	1,171	1,401	1,083	1,277	1,254	1,297	1,527	1,450	1,242	1,174	1,147	1,048	777	23,442
Monday	885	598	574	538	520	439	421	527	757	844	1,093	1,246	1,567	1,302	1,313	1,314	1,505	1,659	1,708	1,470	1,380	1,094	947	744	24,445
Tuesday	811	487	534	543	485	445	410	505	706	824	996	1,163	1,542	1,203	1,275	1,315	1,364	1,577	1,730	1,457	1,340	1,123	985	761	23,581
Wednesday	806	541	543	525	544	426	431	531	797	835	1,140	1,252	1,596	1,324	1,315	1,473	1,457	1,732	1,698	1,547	1,374	1,179	1,013	754	24,833
Thursday	894	506	488	555	490	425	348	506	762	847	1,022	1,168	1,497	1,213	1,236	1,345	1,481	1,611	1,669	1,467	1,461	1,154	1,048	763	23,956
Friday	967	587	601	558	500	449	392	498	750	882	1,144	1,327	1,609	1,370	1,382	1,659	1,629	1,914	1,777	1,660	1,488	1,258	1,096	1,002	26,499
Saturday	1,092	826	730	606	562	483	415	429	646	739	1,054	1,187	1,503	1,212	1,322	1,414	1,405	1,569	1,556	1,335	1,287	1,215	1,187	1,185	24,959
Total	6,617	4,395	4,347	3,931	3,636	3,150	2,877	3,385	4,963	5,711	7,396	8,514	10,715	8,707	9,120	9,774	10,138	11,589	11,588	10,178	9,504	8,170	7,324	5,986	177,115

POWER BI – LET'S START

The screenshot shows the Power BI Desktop application window. On the left, a dark sidebar displays recovered files: "sample.pbix" (C: » Users » svetl » Desktop » CCIAA) and "SFPD_2018_20201127.pbix" (C: » Users » svetl » Desktop » PO...). Below these are links to "Open other reports" and "Recent sources". The main area features a teal-colored "Getting started with Power BI Desktop" screen with four video thumbnails: "Getting started with Power BI Desktop", "Building reports", "Query view concepts", "Uploading your reports", and "Create a Phone report". A "VIEW ALL VIDEOS" button is at the bottom. The top right corner shows the user's name, Svetlana Gubin, and a profile icon. The bottom right corner includes zoom controls (Off, On, 63%) and a "ds here" button.

Untitled - Power BI Desktop

File Home Insert Clipboard

Paste Copy Paste

Clipboard

Show recovered files

Get data

Recent sources

sample.pbix
C: » Users » svetl » Desktop » CCIAA

SFPD_2018_20201127.pbix
C: » Users » svetl » Desktop » PO...

Open other reports

Power BI Desktop

Power BI has recovered files that you might want to keep

Search

Svetlana Gubin

WHAT'S NEW

Take a look at what's new and improved in Power BI in this month's update.

FORUMS

Visit the Power BI Forum to ask questions or interact with other users in the Power BI community.

POWER BI BLOG

Keep up to date with the latest news, resources, and updates from the Power BI team.

TUTORIALS

Ready to learn more about Power BI?

- Get started with Power BI Desktop
- Download a sample
- Watch our training videos
- See what others have built
- All guided learning

✓ Show this screen on startup

VIEW ALL VIDEOS

ds here

Page 1 of 1

POWER BI – DATA SET

Source:

<https://data.oaklandca.gov/PublicSafety/CrimeWatch-Data/ppgh-7dqv>

CrimeWatch Data

Public Safety

A full dataset of CrimeWatch data.

The Oakland Police Department provides crime data to the public through the City of Oakland's Crime Watch web site. This site presents the data in a geographic format, which allows users of

More

Updated
February 7, 2023

Data Provided by
Oakland Police Department

Mute Dataset

This screenshot shows the 'CrimeWatch Data' dataset page on data.oaklandca.gov. At the top right, there are buttons for 'View Data' (highlighted in blue), 'Visualize', 'Export', 'API', and three dots. Below this, a section titled 'Public Safety' describes the dataset as a full dataset of CrimeWatch data provided by the Oakland Police Department. A 'More' link is present. To the right, the last update is shown as February 7, 2023, and the provider is the Oakland Police Department. At the bottom, there's a 'Mute Dataset' button. The 'About this Dataset' section includes details like the last update (February 7, 2023), data last updated (February 7, 2023), metadata last updated (February 7, 2023), date created (June 17, 2021), and topics (Category: Public Safety, Tags: crime).

About this Dataset

Updated	Topics
February 7, 2023	
Data Last Updated	Category
February 7, 2023	Public Safety
Metadata Last Updated	Tags
February 7, 2023	crime
Date Created	
June 17, 2021	

POWER BI - GET DATA

The screenshot shows the Microsoft Power BI Desktop application interface. The title bar reads "Untitled - Power BI Desktop". The ribbon menu is open, with the "Home" tab selected. The "Data" tab is highlighted with a blue box. The "Data" tab contains icons for "Get data", "Excel", "Data", "SQL Server", "Enter data", "Dataverse", and "Recent sources". Below the ribbon, a central workspace displays a callout box with the heading "Add data to your report" and the sub-instruction "Once loaded, your data will appear in the Data pane." It includes four buttons: "Import data from Excel", "Import data from SQL Server", "Paste data into a blank table", and "Try a sample dataset". At the bottom of this callout is a link "Get data from another source →". To the right of the workspace is a "Visualizations" pane showing various chart and table icons, and a "Filters" pane. The bottom of the screen shows navigation controls for pages and a status bar indicating "Page 1 of 1" and "63%".

POWER BI - TEXT/CSV

The screenshot shows the Microsoft Power BI desktop application interface. The top navigation bar includes File, Home, Insert, Modeling, View, Optimize, Help, and External tools. The Home tab is selected, indicated by a green underline. On the far left, there's a vertical ribbon of icons for Paste, Clipboard, Home, Insert, Modeling, View, Optimize, Help, and External tools.

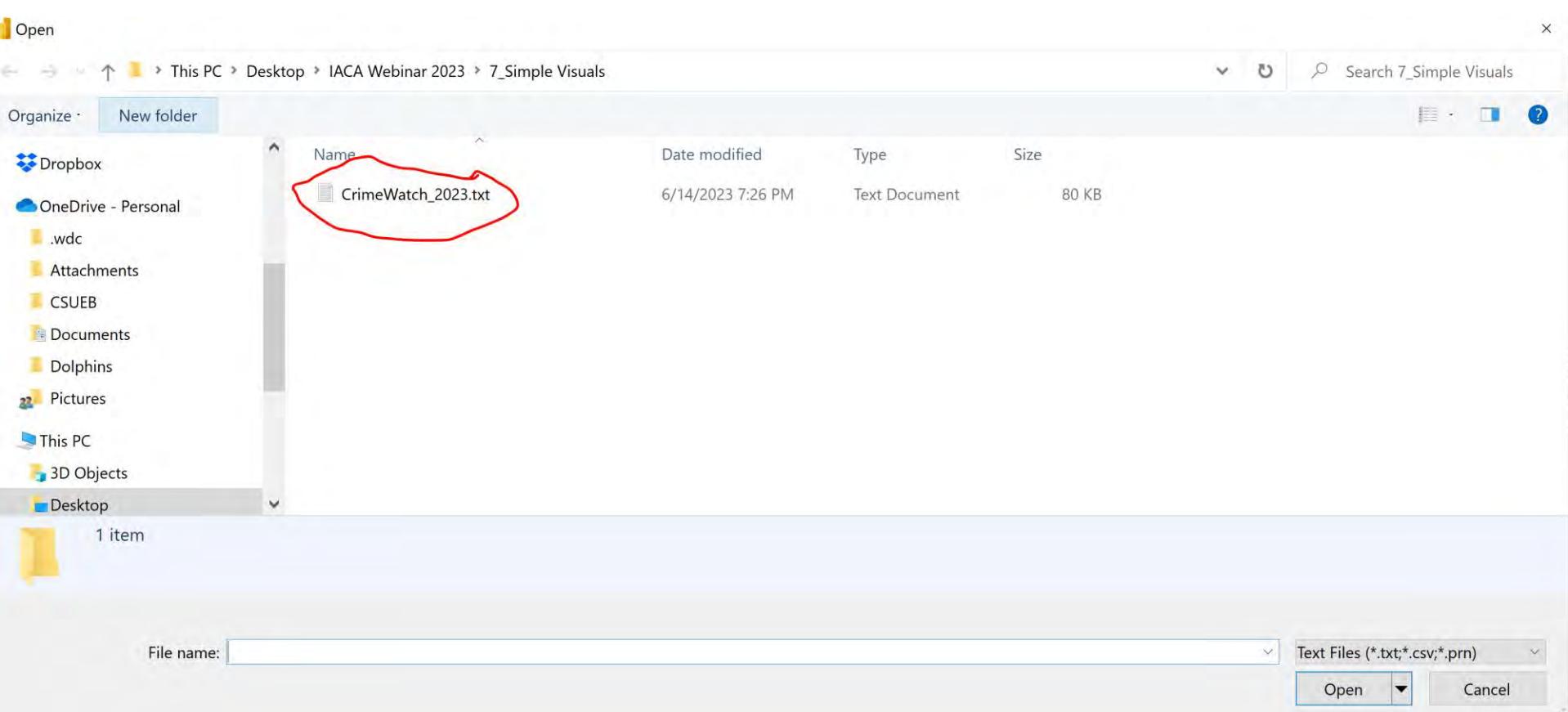
The main workspace is titled "Common data sources". A red circle highlights the "Get data" button, which is located in the "Home" tab's ribbon. Another red circle highlights the "Text/CSV" option under the "Common data sources" list.

In the center, there's a section titled "Add data to your report" with the sub-instruction "Once loaded, your data will appear in the Data pane.". Below this are four buttons: "Import data from Excel" (highlighted in green), "Import data from SQL Server", "Paste data into a blank table", and "Try a sample dataset". A "Get data from another source →" link is also present.

On the right side, there's a "Data" pane with a search bar and a "Filters" section. The status message in the Data pane says, "You haven't loaded any data yet. Get data".

At the bottom, there are navigation controls for "Page 1" and a "+" sign, along with zoom and view settings.

POWER BI – DATA



POWER BI – LOAD DATA

Untitled - Power BI

File Home Insert

Clipboard

Get data v Excel workbook

File Origin Delimiter Data Type Detection

1252: Western European (Windows) Tab Based on first 200 rows

Address CaseNumber City CrimeType DateTime Description Pcs

Address	CaseNumber	City	CrimeType	DateTime	Description	Pcs
1300 MADISON ST	12-004282	Oakland	TOWED VEHICLE	1/25/2023 11:30:00 AM	BURGLARY-AUTO	03
1400 JACKSON ST	22-000412	Oakland	STOLEN VEHICLE	1/2/2023 8:00:00 PM	VEHICLE THEFT - AUTO	04
400 23RD ST	22-002001	Oakland	BURG - AUTO	1/12/2023 12:37:00 PM	BURGLARY-AUTO	08
800 ISABELLA ST	23-000003	Oakland	ROBBERY	1/1/2023 12:37:00 AM	CARJACKING - STRONGARM	07
1500 MADISON ST	23-000024	Oakland	BURG - COMMERCIAL	1/1/2023 3:28:00 AM	BURGLARY-FORCIBLE ENTRY	04
800 MILTON ST	23-000033	Oakland	MISDEMEANOR ASSAULT	1/1/2023 3:00:00 AM	BATTERY	07
2900 MCCLURE ST	23-000036	Oakland	OTHER	1/1/2023 4:15:00 AM	SC UNEXPLAINED DEATH	08
400 7TH ST	23-000038	Oakland	OTHER	1/1/2023 7:55:00 AM	VIOLATION CUSTODY DECREE	03
500 39TH ST	23-000055	Oakland	THREATS	1/1/2023 8:36:00 AM	CRIMINAL THREATS THREATENED CRIME W/INTENT TO TE...	08
500 39TH ST	23-000055	Oakland	THREATS	1/1/2023 8:36:00 AM	EXHIBIT F/ARM THRTNG MANR	08
1400 JACKSON ST	23-000073	Oakland	DOMESTIC VIOLENCE	1/1/2023 11:40:00 AM	BATTERY:SPOUSE/EX SPOUSE/DATE/ETC	04
1400 JACKSON ST	23-000073	Oakland	DOMESTIC VIOLENCE	1/1/2023 11:40:00 AM	KIDNAPPING	04
400 6TH ST	23-000074	Oakland	ROBBERY	1/1/2023 12:02:00 PM	ROBBERY-FIREARM	03
3400 ADELINE ST	23-000154	Oakland	STOLEN VEHICLE	1/1/2023 5:49:00 PM	VEHICLE THEFT - AUTO	07
600 23RD ST	23-000159	Oakland	VANDALISM	1/1/2023 4:00:00 PM	VANDALISM:DEFACE PROPERTY	06
100 14TH ST	23-000183	Oakland	MISDEMEANOR ASSAULT	1/1/2023 2:43:00 AM	FORCE/ADW-OTHER DANGEROUS WEAPON:GBI	04
1000 CLAY ST	23-000190	Oakland	BURG - COMMERCIAL	1/2/2023 4:38:00 AM	BURGLARY-FORCIBLE ENTRY	03
100 13TH ST	23-000193	Oakland	HOMICIDE	1/2/2023 7:16:00 AM	SC UNEXPLAINED DEATH	03
200 29TH ST	23-000195	Oakland	STOLEN VEHICLE	1/2/2023 7:34:00 AM	VEHICLE THEFT - AUTO	08
400 7TH ST	23-000200	Oakland	STOLEN VEHICLE	1/2/2023 8:52:00 AM	VEHICLE THEFT - AUTO	03

Extract Table Using Examples Load Transform Data Cancel

Sensitivity Sensitivity Share

Data Search

Filters

You haven't loaded any data yet. Get data

POWER BI – REPORT VIEW

Untitled - Power BI Desktop

Search

Sign in

File Home Insert Modeling View Optimize Help External tools

Paste Get data workbook OneLake data hub SQL Server Enter data Dataverse Recent sources Transform Refresh data New visual Text box More visuals Calculations Sensitivity Publish Clipboard Data Share

Build visuals with your data

Select or drag fields from the Data pane onto the report canvas.

CrimeWatch_2023

Page 1 +

Page 1 of 1 63%

NEW TABLE – BY DAX

The screenshot shows the Microsoft Power BI desktop application. The ribbon at the top has the 'Modeling' tab selected, indicated by a green underline. Below the ribbon, there are several icons and buttons. A red circle highlights the 'New table' icon, which is located in the 'Calculations' group. To the left of the ribbon, there's a vertical pane labeled 'Relationships' with icons for 'Manage relationships' and 'Relationships'. On the right side of the interface, there are sections for 'Filters' and 'Q&A'. The main workspace is titled 'Build visuals with your data' and contains instructions: 'Select or drag fields from the Data pane onto the report canvas.' A small screenshot of the Data pane is shown, featuring a tree view of fields with a checked checkbox. At the bottom of the screen, there are navigation buttons for 'Template', 'Page 1', and a plus sign, along with a status bar showing 'Page 2 of 2'.

NEW TABLE – BY DAX

File Home Insert Modeling View Optimize Help External tools **Table tools**

Name Mark as date table▼ Manage relationships New measure Quick New measure column New table

Structure Calendars Relationships Calculations

X ✓ 1 Calendar = CALENDAR ("01-01-2018", "12-31-2023")

Build visuals with your data
Select or drag fields from the Data pane onto the report canvas.

Template Page 1 +

Page 2 of 2 78%

The screenshot shows the Microsoft Power BI Desktop interface. At the top, there's a ribbon with tabs: File, Home, Insert, Modeling, View, Optimize, Help, External tools, and Table tools (which is underlined in green). Below the ribbon, there's a toolbar with icons for naming the table (Name), marking it as a date table, managing relationships, and creating new measures and tables. A red oval highlights the formula bar, which contains the DAX code: '1 Calendar = CALENDAR ("01-01-2018", "12-31-2023")'. To the left of the formula bar, there are buttons for 'X' and '✓'. On the far left, there are icons for the Data pane and the Report pane. In the center, there's a message: 'Build visuals with your data' followed by the instruction 'Select or drag fields from the Data pane onto the report canvas.' Below this message, there's a small icon showing a dashed box and a checkmark. At the bottom, there are navigation buttons for 'Template', 'Page 1', and '+', along with a page number 'Page 2 of 2' and a zoom level '78%'. The right side of the screen has a vertical scroll bar and a 'Filters' button.

NEW TABLE – BY DAX

File Home Help External tools Table tools **Column tools**

Name: Rank Format: Whole number Summarization: Don't summarize Data category: Uncategorized Sort by column: Sort Groups Manage relationships New column

Structure: Data type: Whole number Formatting: \$ % , . 0 Properties: Sort: Sort by column Groups: Groups Relationships: Relationships Calculations:

Time = {("0", 1), ("1", 2), ("2", 3), ("3", 4), ("4", 5), ("5", 6), ("6", 7), ("7", 8), ("8", 9), ("9", 10), ("10", 11), ("11", 12), ("12", 13), ("13", 14), ("14", 15), ("15", 16), ("16", 17), ("17", 18), ("18", 19), ("19", 20), ("20", 21), ("21", 22), ("22", 23), ("23", 24)}

Hour	Rank
0	1
1	2
2	3
3	4
4	5
5	6
6	7
7	8
8	9
9	10
10	11
11	12
12	13
13	14
14	15
15	16
16	17
17	18
18	19
19	20
20	21
21	22

Data

Search

Calendar

CrimeWatch_2023

DOW

Rank

Time

Hour

Rank

NEW TABLE – BY GET DATA

The screenshot shows the Microsoft Power BI desktop application interface. At the top, the ribbon menu is visible with tabs like File, Home, Help, and External tools. The Home tab is selected. In the ribbon, the 'Get data' icon (represented by a document with a database icon) is circled in red. Below the ribbon, a search bar contains the query: 1 DON = {"("Mon", 1), ("Tue", 2), ("Wed", 3), ("Thu", 4), ("Fri", 5), ("Sat", 6), ("Sun",7)}.

The main workspace displays a 'Data' view pane on the right containing a tree structure with nodes like 'Calendar', 'CrimeWatch_2023', 'DOW', 'Rank', and 'Time'. A file browser window is open in the center, showing a folder path: This PC > Desktop > IACA Webinar 2023 > 10_Temporal. Inside this folder, there is a file named 'Rank_Hour Group.xlsx' which is highlighted with a red circle. The file details at the bottom of the browser window show it is a Microsoft Excel Worksheet, 8.74 KB in size, modified on 11/3/2021 at 7:09 PM, created on 10/7/2023 at 10:49 AM, and has application/vnd.open... content type. The 'File name:' dropdown also contains 'Rank_Hour Group.xlsx' and the 'File type:' dropdown shows 'Excel Files (*.xl;*.xlsx;*.xlsm;*.xl'.

ADD TABLE FROM FILE

The screenshot shows a Microsoft Excel spreadsheet titled "Rank_Hour Group.xlsx". The ribbon menu is visible at the top, with "Home" selected. The formula bar shows the cell reference "A2" and the value "2400 - 0359". The main content area displays a table with two columns: "Hour" and "Rank". The first seven rows of the table are populated with data, while rows 8 through 12 are empty. The "Hour" column lists time intervals, and the "Rank" column lists their corresponding ranks.

	A	B
1	Hour	Rank
2	2400 - 0359	1
3	0400 - 0759	2
4	0800 - 1159	3
5	1200 - 1559	4
6	1600 - 1959	5
7	2000 - 2359	6
8		
9		
10		
11		
12		
13		

ADD COLUMN BY DAX

The screenshot shows the Power BI desktop interface with the 'New column' dialog open. The 'Column tools' tab is selected in the ribbon. A red circle highlights the 'New column' button in the 'Calculations' group. Another red circle highlights the formula bar containing the DAX code: `1 Year = YEAR ('Calendar'[Date])`. The 'Data' view pane on the right shows the 'Calendar' table with columns like Date, Year, Month, and Day.

File Home Help External tools Table tools Column tools

Name: Column
Data type: Whole number

Format: \$ %

Summarization: Don't summarize
Data category: Uncategorized

Sort by column
Data groups
Manage relationships

New column

Structure: 1 Year = YEAR ('Calendar'[Date])

Date Column: Date

Search: Search

Calendar

Column

Date

CrimeWatch_2023

Address

CaseNumber

City

Count

CrimeType

Date

Date.1

DateTime

Description

Description (groups)

Hour

Latitude

Longitude

PoliceBeat

State

Year

NEW GROUP

File Home Insert Modeling View Optimize Help External tools Table tools **Column tools**

Name: Hour Format: Text Summarization: Don't summarize Data category: Uncategorized

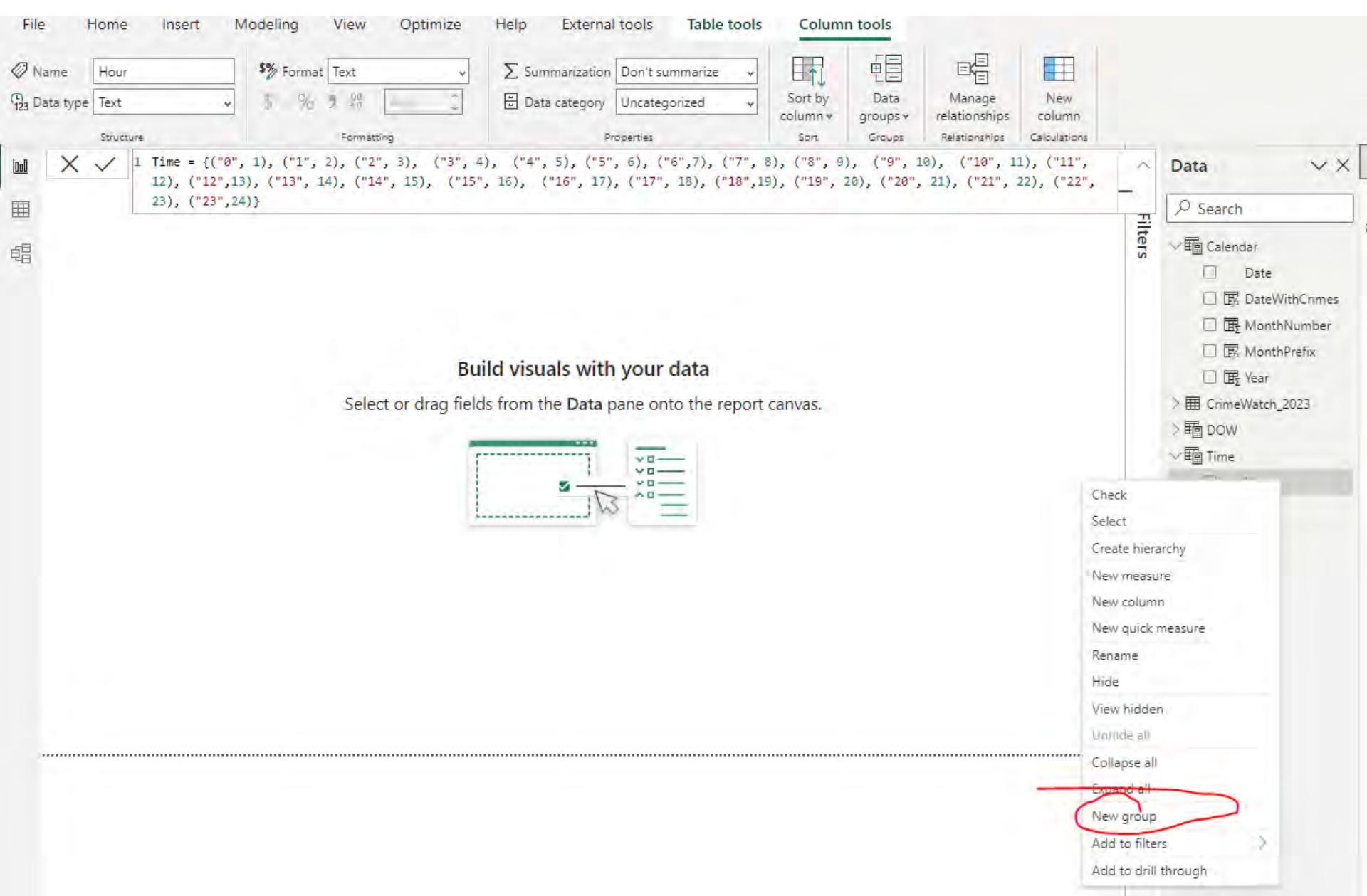
Data type: Text Structure: Formatting Properties Sort by column Sort Groups Data groups Manage relationships Relationships New column Calculations

Time = {("0", 1), ("1", 2), ("2", 3), ("3", 4), ("4", 5), ("5", 6), ("6", 7), ("7", 8), ("8", 9), ("9", 10), ("10", 11), ("11", 12), ("12", 13), ("13", 14), ("14", 15), ("15", 16), ("16", 17), ("17", 18), ("18", 19), ("19", 20), ("20", 21), ("21", 22), ("22", 23), ("23", 24)}

Build visuals with your data
Select or drag fields from the Data pane onto the report canvas.

Data Search:
Filters: Calendar
 Date
 DateWithCrimes
 MonthNumber
 MonthPrefix
 Year
 > CrimeWatch_2023
 > DOW
 > Time

Check
Select
Create hierarchy
New measure
New column
New quick measure
Rename
Hide
View hidden
Unhide all
Collapse all
Expand all
New group (circled)
Add to filters
Add to drill through



NEW GROUP

Groups

Name * Field

Hour (groups) Hour

Group type

List

Ungrouped values

Groups and members

- ▶ 0400-0759
- ▶ 0800-1159
- ▶ 1200-1559
- ▶ 1600-1959
- ▶ 2000-2359
- ▶ 2400-0359

Group Ungrouped Include Other group ⓘ

OK **Cancel**

NEW GROUP

File Home Help External tools Table tools **Column tools**

Name: Hour (groups) Format: Text Summarization: Don't summarize Data category: Uncategorized Sort by column: Sort by column Groups: Data groups Manage relationships: Relationships New column: New column

Structure: DateWithCrimes = 'Calendar'[Date]<=MAX('CrimeWatch_2023'[Date])

Hour	Rank	Hour (groups)
0	1	2400-0359
1	2	2400-0359
2	3	2400-0359
3	4	2400-0359
4	5	0400-0759
5	6	0400-0759
6	7	0400-0759
7	8	0400-0759
8	9	0800-1159
9	10	0800-1159
10	11	0800-1159
11	12	0800-1159
12	13	1200-1559
13	14	1200-1559
14	15	1200-1559
15	16	1200-1559
16	17	1600-1959
17	18	1600-1959
18	19	1600-1959
19	20	1600-1959
20	21	2000-2359
21	22	2000-2359
22	23	2000-2359
23	24	2000-2359

Data Search: Search

Calendar: Date, DateWithCrimes, MonthNumber, MonthPrefix, Year

CrimeWatch_2023: Address, CaseNumber, City, Count, CrimeType, Date, Date.1, DateTime, Description, Description (groups), Hour, Latitude, Longitude, PoliceBeat, State, Year

DOW: DOW, Rank

Time: Hour

Hour (groups): Hour (groups)

NEW GROUP

Screenshot of a data analysis tool interface showing the creation of a new column named "Hour (groups) (groups)".

The "Column tools" ribbon tab is selected.

Properties for the new column:

- Name: Hour (groups) (gro...
- Data type: Text
- Summarization: Don't summarize
- Data category: Uncategorized
- Sort by column: Sort by column
- Groups: Data groups
- Relationships: Manage relationships
- New column: New column

The table view shows the following data:

Hour	Rank	Hour (groups)	Hour (groups) (groups)
0	1	2400-0359	1
1	2	2400-0359	1
2	3	2400-0359	1
3	4	2400-0359	1
4	5	0400-0759	2
5	6	0400-0759	2
6	7	0400-0759	2
7	8	0400-0759	2
8	9	0800-1159	3
9	10	0800-1159	3
10	11	0800-1159	3
11	12	0800-1159	3
12	13	1200-1559	4
13	14	1200-1559	4
14	15	1200-1559	4
15	16	1200-1559	4
16	17	1600-1959	5
17	18	1600-1959	5
18	19	1600-1959	5
19	20	1600-1959	5
20	21	2000-2359	6
21	22	2000-2359	6
22	23	2000-2359	6
23	24	2000-2359	6

The "Hour (groups) (groups)" column header is circled in red.

The right pane displays the data source structure:

- Calendar
- Date
- DateWithCrimes
- MonthNumber
- MonthPrefix
- Year
- CrimeWatch_2023
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - Date.1
 - DateTime
 - Description
 - Description (groups)
 - Hour
 - Latitude
 - Longitude
 - PoliceBeat
 - State
 - Year
- DOW
- Rank
- Time
 - Hour
 - Hour (groups)

ADD DATE AND HOUR FROM DATE-TIME

Screenshot of Power BI Data Editor showing the steps to add Date and Hour from Date-Time.

Power BI ribbon:

- Add Column (highlighted with a red circle)
- Date & Time (highlighted with a red circle)
- Hour (highlighted with a red circle)

Applied Steps pane:

- Inserted Date1 (highlighted with a red circle)
- Inserted Hour (highlighted with a red circle)

Data Preview:

Index	Time Group	PoliceBeat	CaseNumber	CrimeType	Description	Date	Year	Date.1	Hour
1		77X	22-921124	VANDALISM	VANDALISM	9/25/2012 12:00:00 PM	2012	9/25/2012	12
2		03X	18-018835	STOLEN VEHICLE	VEHICLE THEFT - AUTO	4/15/2018 11:30:00 AM	2018	4/15/2018	12
3		03X	18-052031	DOMESTIC VIOLENCE	BATTERY: SPOUSE/EX SPOUSE/DATE/ETC	12/9/2018 8:30:00 AM	2018	12/9/2018	8
4		03X	18-052031	DOMESTIC VIOLENCE	THREAT CRIME/INT:TERROIZE	12/9/2018 8:39:00 AM	2018	12/9/2018	8
5		03X	19-007555	DOMESTIC VIOLENCE	BATTERY: SPOUSE/EX SPOUSE/DATE/ETC	2/12/2019 1:28:00 PM	2019	2/12/2019	13
6		03X	19-012622	THREATS	BATTERY	8/13/2019 12:20:00 AM	2019	8/13/2019	0
7		03X	19-012622	THREATS	CRIMINAL THREATS THREATENED CRIME W/INTENT TO TERRORIZE	8/13/2019 12:20:00 AM	2019	8/13/2019	0
8		03X	19-014312	THREATS	BATTERY	3/22/2019 10:49:00 PM	2019	3/22/2019	22
9		03X	19-014312	THREATS	THREAT CRIME:INT:TERROIZE	3/22/2019 10:49:00 PM	2019	3/22/2019	22
10		03X	19-014502	STOLEN VEHICLE	VEHICLE THEFT - AUTO	3/21/2019 9:00:00 PM	2019	3/21/2019	21
11		03X	19-053070	ROBBERY	ROBBERY-FIREARM	10/12/2019 9:38:00 PM	2019	10/12/2019	20
12		03X	19-059909	STOLEN VEHICLE	VEHICLE THEFT - AUTO	11/14/2019 10:30:00 PM	2019	11/14/2019	22
13		03X	19-064728	BURG - AUTO	BURGLARY-AUTO	12/12/2019 12:40:00 PM	2019	12/12/2019	12
14		03X	19-065196	DOMESTIC VIOLENCE	FORCE/ADV OTHER DANGEROUS WEAPON/GUN	12/15/2019 10:15:00 AM	2019	12/15/2019	10
15		03X	19-065196	DOMESTIC VIOLENCE	INFCT CORPORAL INJURY ON SPOUSE/COHABITANT	12/15/2019 10:15:00 AM	2019	12/15/2019	10
16		03X	20-010231	DOMESTIC VIOLENCE	CRIMINAL THREATS THREATENED CRIME W/INTENT TO TERRORIZE	2/22/2020 12:06:00 AM	2020	2/22/2020	0
17		03X	20-018525	THREATS	THREAT CRIME INT:TERROIZE	4/10/2020 1:02:00 AM	2020	4/10/2020	1
18		03X	20-042364	DOMESTIC VIOLENCE	BATTERY:SPOUSE/ETC	8/26/2020 8:30:00 AM	2020	8/26/2020	8
19		03X	21-009816	ARSON	MAL SET/ETC FIRE PROP/ETC	8/2/2021 5:30:00 AM	2021	8/2/2021	5
20		03X	21-041087	DISORDERLY CONDUCT	CONTEMPT OF COURT DISRESPECT COURT ORDER/ETC	8/31/2021 7:46:00 PM	2021	8/31/2021	19
21		03X	21-041758	DOMESTIC VIOLENCE	CONTEMPT OF COURT VIOLATE PROTECTIVE ORDER/ETC	9/5/2021 3:58:00 PM	2021	9/5/2021	15
22		03X	21-045033	THREATS	CRIMINAL THREATS THREATENED CRIME W/INTENT TO TERRORIZE	9/25/2021 3:49:00 PM	2021	9/25/2021	15
23		03X	23-057564	BURG - COMMERCIAL	BURGLARY-PORCHABLE ENTRY	12/7/2021 3:28:00 PM	2021	12/7/2021	15
24		03X	23-901647	PETTY THEFT	THEFT	2/3/2022 11:00:00 AM	2022	2/3/2022	11

CHANGE DATE TYPE

File Home Help External tools **Table tools** Colur

Name Format

Data type

Structure Formatting

X ✓ 1 Calendar = CALENDAR ("01-01-2018", "12-31-2023")

Date	Year	MonthPrefix	MonthNumber
01/01/2018	2018	Jan	1
02/01/2018	2018	Jan	1
03/01/2018	2018	Jan	1
04/01/2018	2018	Jan	1
05/01/2018	2018	Jan	1
06/01/2018	2018	Jan	1

MANAGE RELATIONSHIP

Screenshot of the Power BI Data view interface showing the 'Manage relationships' feature.

The ribbon menu is visible at the top, with the 'Home' tab selected. The 'Relationships' section is highlighted with a yellow box, containing the 'Manage relationships' button.

Two tables are open in the Data view:

- CrimeWatch** table:
 - Address
 - CaseNumber
 - City
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (groups)
 - Location
- Calendar** table:
 - Date
 - MonthNumber
 - MonthPrefix
 - Year

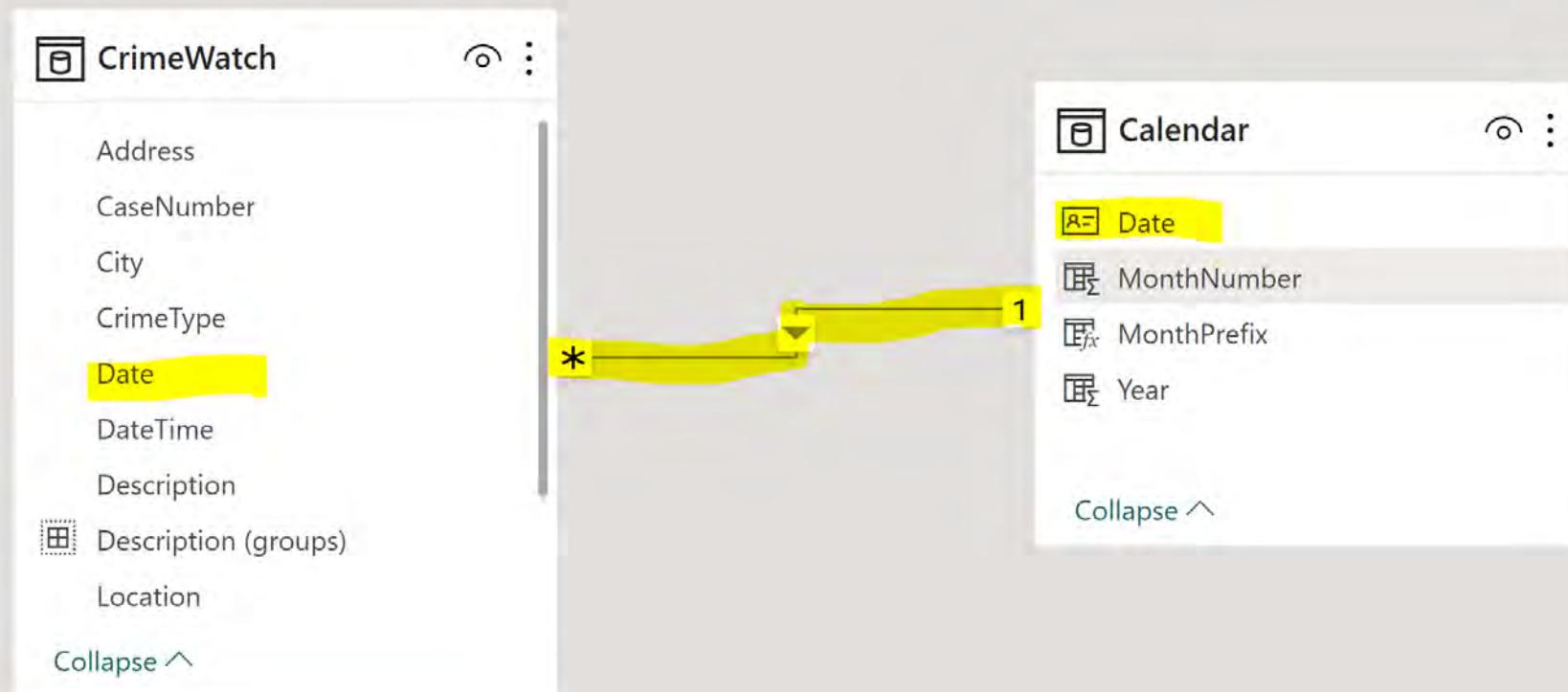
A 'Manage relationships' dialog box is open between the two tables, also highlighted with a yellow box. It displays the message "There are no relationships defined yet." and contains buttons for "New...", "Autodetect...", "Edit...", and "Delete".

The Properties pane on the right shows the following columns:

- Search bar: Search
- Calendar: Date, MonthNumber, MonthPrefix, Year
- CrimeWatch

Bottom right corner: Close

MANAGE RELATIONSHIP



MANAGE RELATIONSHIP

File Home Help External tools

Paste Get data from workbook OneLake data hub SQL Server Enter data Refresh recent sources Transform data Manage relationships New measure column New table Manage roles View as Q&A setup Language schema Sensitivity Publish

Clipboard Data

X ✓ 1 DOWPrefix = FORMAT(('Calendar' [Date]), "DDD")

CrimeWatch_2023

Address
CaseNumber
City
CrimeType
Date
Date.1
DateTime
Description
Description (groups)
Collapse ▲

Time
Hour
Hour (group)
Hour (group)
Rank
Collapse ▲

Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Calendar (DOWNumber)	DOW (Rank)
<input checked="" type="checkbox"/>	CrimeWatch_2023 (Date.1)	Calendar (Date)
<input checked="" type="checkbox"/>	CrimeWatch_2023 (Hour)	Time (Hour)
<input checked="" type="checkbox"/>	Time (Hour (groups) (groups))	Time Group (Rank)

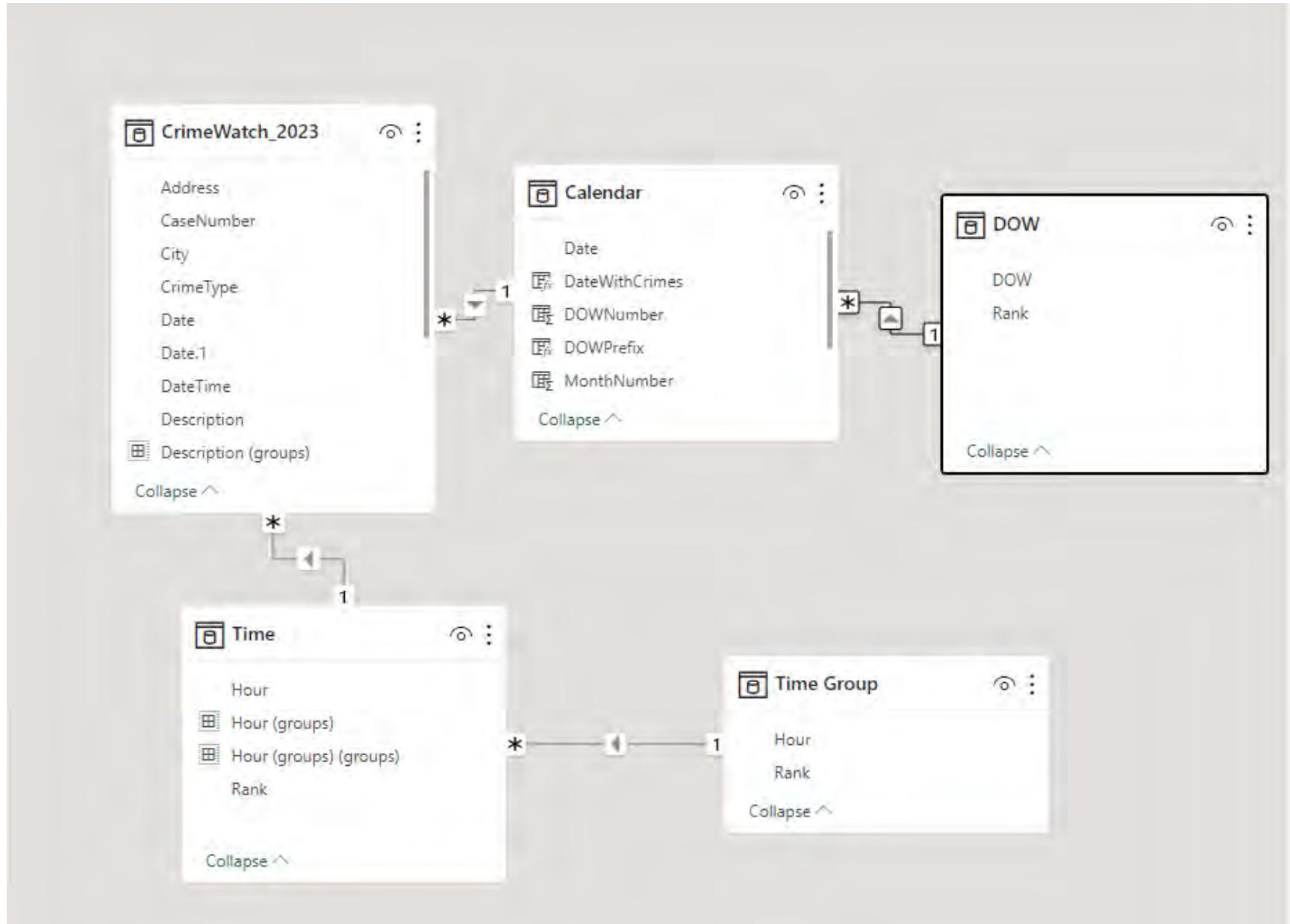
New... Autodetect... Edit... Delete Close

Properties

Search

Calendar Date
DateWithCrimes
DOWNumber
DOWPrefix
MonthNumber
MonthPrefix
Year
CrimeWatch_2023
DOW
DOW
Rank
Time
Hour
Hour (group)
Hour (group)
Rank
Time Group
Hour
Rank

MANAGE RELATIONSHIP



TEMPORAL ANALYSIS

Screenshot of Power BI desktop interface showing a temporal analysis setup.

Clipboard: Contains a table titled "DOWPrefix" with data from Sunday to Saturday across 20 columns (0 to 20).

DOWPrefix	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Sun	314	161	137	130	86	84	53	130	162	144	156	142	186	180	178	188	190	232	157	172	184
Mon	274	114	92	93	84	53	91	164	176	219	193	200	222	185	174	237	174	214	251	208	221
Tue	255	126	86	94	64	87	129	142	227	215	230	206	233	221	164	198	226	237	271	254	228
Wed	252	142	117	89	105	83	119	148	188	227	197	210	212	205	201	239	229	257	197	212	248
Thu	244	95	113	124	73	85	103	137	208	223	202	192	239	191	207	193	208	213	215	198	199
Fri	223	147	107	105	92	85	81	154	172	182	219	207	270	182	192	207	196	259	231	211	237
Sat	283	170	158	119	104	86	63	110	153	152	160	157	206	171	182	203	224	190	236	193	229
Total	1845	955	810	754	608	563	639	985	1286	1362	1357	1314	1568	1335	1298	1465	1447	1602	1558	1448	1546

Build a visual: A modal window showing the configuration for a new visual.

- Visual types:** Suggest a type (radio button off).
- Rows:** DOWPrefix
- Columns:** Hour
- Values:** Count

Data: Filter pane showing available fields categorized by source.

- Calendar:** Date, DateWithCrimes, DOWNumber, MonthNumber, MonthPrefix, Year
- CrimeWatch_2023:** Address, CaseNumber, City, Count, CrimeType, Date, Date.1, DateTime, Description, Description (gr...), Hour, Latitude, Longitude, PoliceBeat, State

CONDITIONAL FORMATTING

Screenshot of the Power BI interface showing the 'Build a visual' pane and the 'Format' context menu.

The 'Build a visual' pane shows a table with columns DOWPrefix (0-19) and rows Sun, Mon, Tue, Wed, Thu, Fri, Sat, Total. The 'Values' section is selected, showing 'Count'.

The 'Format' context menu is open over the 'Count' field, with several options circled in red:

- Conditional formatting
- Background color
- Font color

The 'Filters' pane on the right lists various filters applied to the visual, including:

- DOWPrefix is (All)
- Hour is (All)
- Count is (All)
- PoliceBorough is (All)
- CrimeWatch_2 is (All)
- True

The 'Data' pane on the right shows the available fields from the data source:

- Address
- CaseNumber
- City
- Count (selected)
- CrimeType
- Date
- Date1
- Date2
- DateTime
- Description
- Descript
- Hour
- Latitude
- Longitude
- PoliceBorough

CONDITIONAL FORMATTING

Visualizations > Fields

HR/DOW	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sunday	44	34	43	35	38	27	22	16	13	13	27	22	22	26	26	36	14	38	31	21	32	38	35	36	689
Monday	36	20	13	31	45	25	15	24	18	17	27	12	35	16	22	25	32	32	39	35	50	32	43	28	672
Tuesday	39	23	27	35	27	25	20	11	15	25	15	19	30	22	25	24	34	43	34	32	22	21	39	25	632
Wednesday	13	25	28	40	24	21	17	16	14	17	19	20	44	21	35	25	52	52	37	32	34	24	33	17	660
Thursday	29	30	28	34	35	18	12	14	17	14	25	11	23	23	12	22	37	60	40	31	36	21	26	23	621
Friday	34	30	37	38	27	30	18	15	17	17	17	21	32	22	25	47	34	50	49	38	37	41	23	24	723
Saturday	33	30	28	28	44	33	23	11	11	16	28	25	23	17	21	27	32	25	30	43	24	34	37	33	656
Total	228	192	204	241	240	179	127	107	105	119	158	130	209	147	166	206	235	300	260	232	235	211	236	186	4653

Background color - Background color

Format style: Gradient | Apply to: Values only

What field should we base this on? Count of CAD Number | Summarization: Count | How should we format empty values? As zero

Minimum: Lowest value | Enter a value | Maximum: Highest value | Enter a value

Add a middle color:

Learn more about conditional formatting | OK | Cancel

Visual General ...

Row headers

Column subtotals

Row subtotals

Column grand total

Row grand total

Specific column

Cell elements

Apply settings to: CAD Number

Background color

Font color

Data bars

Icons

Web URL

CONDITIONAL FORMATTING

10_PBI • Last saved: Today at 10:24 AM ▾

Search

Sign in

File Home Insert Modeling View Optimize Help External tools Format Data / Drill

Paste Get data workbook OneLake data hub SQL Server Enter data Dataverse Recent sources Transform Refresh data New visual Text box More visuals New measure measure Quick Sensitivity Calculations Share

DOWPrefix 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Sun 314 161 137 130 86 84 53 130 162 144 156 142 186 180 178 188 190 232 157 178
Mon 274 114 92
Tue 255 126 86
Wed 252 142 117
Thu 244 95 113
Fri 223 147 107
Sat 283 170 158
Total 1845 955 810

Background color - Count

Format style Apply to

Gradient Values only

What field should we base this on? Count

How should we format empty values? As zero

Minimum Lowest value Enter a Value Add a middle color

Maximum Highest value Enter a Value

Learn more about conditional formatting

OK Cancel

Build a visual Filters Data

search

Calendar Date DateWithCrimes DOWNumber DOWPrefix MonthNumber MonthPrefix Year CrimeWatch_2023 Address CaseNumber City Count CrimeType Date Date.1 DateTime Description Description (gr... Hour Latitude Longitude PoliceBeat State Year DOW Time

CONDITIONAL FORMATTING

10_PBI • Last saved: Today at 10:24 AM

File Home Insert Modeling View Optimize Help External tools Format Data / Drill

Paste Get data from workbook OneLake data hub SQL Server Enter data Dataverse Recent sources Transform Refresh data New visual Text box More visuals New measure Calculations Sensitivity Share Publish

Clipboard Data Queries Insert Build a visual Filters Data

DOWPrefix 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 Sun 314 161 137 130 86 84 53 130 162 144 156 142 186 180 178 188 190 232 157 178 Mon 274 114 92 255 126 86 Tue 252 142 117 Wed 244 95 113 Fri 223 147 107 Sat 283 170 158 Total 1845 955 810

Background color - Count

Format style Apply to Gradient Values only

What field should we base this on? Count

How should we format empty values? As zero

Minimum Center Maximum

Custom Custom Highest value

0 Enter a value

Add a middle color

Learn more about conditional formatting

OK Cancel

Time Hour Hour (groups) User-defined

CONDITIONAL FORMATTING

10_PBI • Last saved: Today at 10:24 AM ▾ Search

File Home Insert Modeling View Optimize Help External tools

Paste Get data Excel workbook OneLake data hub SQL Server Enter data Dataverse Recent sources Transform Refresh data New visual

Clipboard Data Queries Insert

DOWPrefix	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sun	314	161	137	130	86	84	53	130	162	144	156	142	186	180	178	188	190	232	157	172	184	234	227	188	4015
Mon	274	114	92	93	84	53	91	164	176	219	193	200	222	185	174	237	174	214	251	208	221	230	232	185	4286
Tue	255	126	86	94	64	87	129	142	227	215	230	206	233	221	164	198	226	237	271	254	228	153	177	175	4398
Wed	253	142	117	89	105	83	119	148	183	327	197	210	212	205	201	239	229	237	197	212	248	188	213	142	4420
Thu	244	95	113	124	73	85	103	137	208	223	202	192	239	191	207	193	208	213	215	198	199	180	211	199	4252
Fri	223	147	107	105	92	85	81	154	172	182	219	207	270	182	192	207	196	259	231	211	237	191	228	218	4396
Sat	283	170	158	119	104	86	63	110	153	152	160	157	206	171	182	203	224	180	236	193	229	225	219	240	4233
Total	1845	955	810	754	608	563	639	985	1286	1362	1357	1314	1568	1335	1298	1465	1447	1602	1558	1448	1546	1401	1507	1347	30000

CONDITIONAL FORMATTING

10_PBI • Last saved: Today at 10:24 AM

Search

Sign in

File Home Insert Modeling View Optimize Help External tools

Paste Get data workbook OneLake data hub SQL Server Enter Dataverse Recent sources Transform data New visual Text box More visuals New measure Quick Calculations

DOWPrefix 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Total

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sun	15	7	12	7	4	3	2	5	3	5	4	11	6	9	7	7	5	7	7	16	15	16	8	179	
Mon	7	3		3	7	2	4	2	4	9	7	3	3	8	3	7	6	9	5	8	11	12	11	8	148
Tue	7	6		3	2	2	3	1	7	1	7	5	5	9	6	11	7	7	11	6	14	8	9	5	142
Wed	4	10	2		7	4	3	5	5	10	3	5	8	7	2	8	7	10	10	12	8	7		137	
Thu	5	7	2	4	3	1	3	5	2	5	5	10	8	11	5	8	8	6	7	9	15	12	12		154
Fri	5	1	6	2	3	2	5	8	3	4	10	10	3	4	7	4	9	7	13	8	14	11	11	11	161
Sat	10	10	8	7	6	3	5	7	3	7	9	5	7	6	11	9	9	2	11	12	9	12	8	15	198
Total	51	44	30	26	25	13	27	29	27	29	48	43	48	46	55	50	48	46	60	58	83	85	75	68	1114

Filters Data

Search

Filters on this page

DateWithCrimes is True

Description (gro... is ROBBERY

Filter type ⓘ Basic filtering

Search

Select all

Other 28474

ROBBERY 1114

SHOOT 412

Require single selection

SHOW ITEMS WITH NO DATA

The screenshot shows a Power BI interface with a heatmap visualization and a filter pane.

Heatmap Visualization:

- Legend:** Date Prefix: 0, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 23, Total.
- Data:** A grid showing counts for each day of the week (Sun to Sat) across different date ranges. The total count for all categories is 23.

Filter Pane:

- Filters on this page:**
 - DateWithCrimes is True
 - Description is ADW WITH FORCE: ...
- Filter type:** Basic filtering
- Search:** ADW WITH FORCE: ... 23 (checkbox checked)
- Other filters:** ACQUIRE ACCESS C..., ACQUIRE LOST/ETC..., ADDICT DRIVE VEH..., ADW NOT F/ARM:P..., ADW/ETC ON SCHO..., ADW WITH FORCE:P..., ADW WITH FORCE:...
- Checkboxes:** Require single selection

Show Items with No Data

The screenshot shows the Microsoft Power BI desktop interface. A data grid visual titled "DOWPrefix" is displayed, showing a count of items for each day of the week and hour prefix. The columns represent hours (0-23) and the rows represent days (Sun-Sat). The "Total" row shows the sum of all values.

	0	3	4	8	9	10	11	12	13	14	16	17	18	20	23	Total	
Sun	1	1												1	3	3	
Mon																1	
Tue			1													1	
Wed			1													5	
Thu		1														2	
Fri					1											3	
Sat					1											3	
Total		1	1	1	1	2	1	3	2	2	2	1	1	1	3	1	23

A context menu is open over the "DOWPrefix" visual, specifically over the "Hour" column header. The menu includes options like "Remove field", "Rename for this visual", "Move to", "New quick measure", "Show items with no data" (which is circled in red), and "New group".

On the right side of the screen, there are several filter panes and a search bar, which are partially visible.

Show Items with No Data

The screenshot shows the Microsoft Power BI desktop application interface. The ribbon at the top includes tabs like File, Home, Insert, Modeling, View, Optimize, Help, External tools, Format, and Data / Drill. The Home tab is selected.

The main area displays two data grids. The top grid is titled "DOWPrefix" and has columns from 0 to 23 and a "Total" column. The bottom grid is also titled "DOWPrefix" and has similar columns. Both grids show various numerical values across rows for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and a "Total" row.

A context menu is open over the top grid, specifically over the "DOWPrefix" column header. The menu items include:

- Remove field
- Rename for this visual
- Move to
- New quick measure
- Show items with no data** (This item is circled in red)
- New group

On the right side of the screen, there are several filter panes and a "Build a visual" pane. The "Build a visual" pane shows the current visual structure with "DOWPrefix" as the primary column, "Hour" as a secondary column, and "Count" as the value. It also includes options for "+Add data" and "New group".

TIME BY GROUPS

DOWPrefix	2400 - 0359	0400 - 0759	0800 - 1159	1200 - 1559	1600 - 1959	2000 - 2359	Total
Sun	1	1			1	1	3
Mon			1				1
Tue			1		2	2	5
Wed		1			1		2
Thu			2			1	3
Fri	1		1	1			3
Sat			3	3			6
Total	2	1	7	6	3	4	23

DAX FORMULAS

New Table by DAX

```
Calendar = CALENDAR ("01-01-2018", "12-31-2023")
```

```
DOW = {("Mon", 1), ("Tue", 2), ("Wed", 3), ("Thu",  
4), ("Fri", 5), ("Sat", 6), ("Sun", 7)}
```

```
Time = {("0", 1), ("1", 2), ("2", 3), ("3",  
4), ("4", 5), ("5", 6), ("6", 7), ("7", 8), ("8",  
9), ("9", 10), ("10", 11), ("11", 12), ("12", 13),  
("13", 14), ("14", 15), ("15", 16), ("16", 17),  
("17", 18), ("18", 19), ("19", 20), ("20", 21),  
("21", 22), ("22", 23), ("23", 24)}
```

DAX FORMULAS

```
Time = {("00", 1), ("01", 2), ("02", 3), ("03",  
4), ("04", 5), ("05", 6), ("06", 7), ("07", 8),  
("08", 9), ("09", 10), ("10", 11), ("11", 12),  
("12", 13), ("13", 14), ("14", 15), ("15",  
16), ("16", 17), ("17", 18), ("18", 19), ("19",  
20), ("20", 21), ("21", 22), ("22", 23), ("23", 24)}
```

DAX FORMULAS

Add Column to Calendar Table

```
Year = YEAR ('Calendar'[Date])
```

```
MonthNumber = MONTH ('Calendar' [Date])
```

```
MonthPrefix = FORMAT ('Calendar' [Date], "MMM")
```

```
DOWNumber = WEEKDAY( ('Calendar' [Date]))
```

```
DOWPrefix = FORMAT( ('Calendar' [Date]), "DDD")
```

```
DateWithCrimes =  
'Calendar'[Date]<=MAX('CrimeWatch_2023'[Date])
```

PATTERN PAGE

Shooting - Pattern 1

DATE: 1/1/2023 - 10/3/2023

BFO: All Area: All BeatNum: All Case RD: All

Code: All PersonCategory: All Race: All Sex: All VictimType: All Age: All

Description: All Shooting Group: All VehicleRole: All Color: All BodyType: All VehYear: All

Model: All

EvidensType: All ArticleType: All Color: All Manufacturer: All

All

Count of CaseNumber: 1878

Count of CaseNumber by HOUR:

HOUR	CaseNumber
00	186
01	168
02	141
03	117
04	80
05	60
06	30
07	23
08	27
09	19
10	23
11	29
12	39
13	32
14	34
15	43
16	40
17	50
18	51
19	79
20	109
21	139
22	174
23	183

Count of CaseNumber by DOW:

DOW	CaseNumber
Mon	249
Tue	236
Wed	215
Thu	220
Fri	269
Sat	346
Sun	341

CaseNumber EventDateTime DOW HOUR Description Code Shooting Group

				WILLFUL DISCHARGE FIREARM IN NEGLIGENT MANNER	PC246.3	Shooting Other
				WILLFUL DISCHARGE FIREARM IN NEGLIGENT MANNER	PC246.3	Shooting Other
				SHOOT AT INHABITED DWELLING/VEHICLE/ETC	PC246	Shooting at Inhabited Dwelling/Vehicle
				SHOOT AT INHABITED DWELLING/VEHICLE/ETC	PC246	Shooting at Inhabited Dwelling/Vehicle
				SHOOT AT UNOCCUPIED	PC247 (B)	Shooting at Unoccupied Dwelling/Vehicle

Map of the San Francisco Bay Area showing shooting locations. The map includes cities like El Cerrito, Albany, Berkeley, Walnut Creek, Lafayette, and Martinez. Shooting locations are marked with colored dots (blue, red, orange, purple) corresponding to the shooting group categories defined in the table above.

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PATTERN - SELECTIONS

Shooting - Pattern 1

DATE: 1/1/2023 - 10/3/2023

BFO: All Area: All BeatNum: All Case RD: All

Code: All PersonCategory: All Race: All Sex: All VictimType: All Age: All

Description: All Shooting Group: All VehicleRole: All Color: All VehYear: All Model: All

Multiple selections: Select all (Blank) Abandoned Observed Other Stolen Stolen/Recovered Used In Crime

ArticleType: All Color: All Manufacturer: All Model: All

Evidence Description: All

Count of CaseNumber: 21

Count of CaseNumber by HOUR:

HOUR	CASE NUMBER
00	2
01	3
02	2
03	1
05	1
06	1
08	1
10	1
11	1
13	1
14	1
15	1
18	1
20	1
21	1
22	1
23	2

Count of CaseNumber by DOW:

DOW	CASE NUMBER
Mon	3
Tue	3
Wed	6
Thu	1
Fri	2
Sat	1
Sun	5

Map of San Francisco Bay Area showing shooting locations. Legend: Blue circle = Shooting at Inhabited Dwelling/Vehicle, Orange circle = Shooting at Unoccupied Dwelling/Vehicle, Purple circle = Shooting Other.

CaseNumber EventDateTime DOW HOUR Description Code Shooting Group

SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	PC247 (B)	Shooting at Unoccupied Dwelling/Vehicle
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	PC247 (B)	Shooting at Unoccupied Dwelling/Vehicle
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	PC247 (B)	Shooting at Unoccupied Dwelling/Vehicle
SC ADW - OTHER DANGEROUS WEAPON	SC245	Shooting

PATTERN - SELECTIONS

Shooting - Pattern 1

Code	PersonCategory	Race	Sex	VictimType	Age																			
All	All	All	All	All	All																			
Description	Shooting Group	VehicleRole	Color	BodyType	VehYear																			
All	All	Multiple selections	WHI	All	All																			
Count of CaseNumber		EvidensType	ArticleType	Color	Manufacturer																			
		All	All	All	All																			
Count of CaseNumber by HOUR																								
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CaseNumber		EventDateTime	DOW	HOUR	Description																			
					PC247 (B) Shooting at Unoccupied Dwelling/Vehicle																			
					SC245 Shooting																			
					PC246 Shootig at Inhabited Dwelling/Vehicle																			
					PC246 Shootig at Inhabited Dwelling/Vehicle																			
					PC247 (B) Shooting at Unoccupied Dwelling/Vehicle																			

DATE: 1/1/2023 - 10/3/2023

BF0: All

Area: All

BeatNum: All

Case RD: All

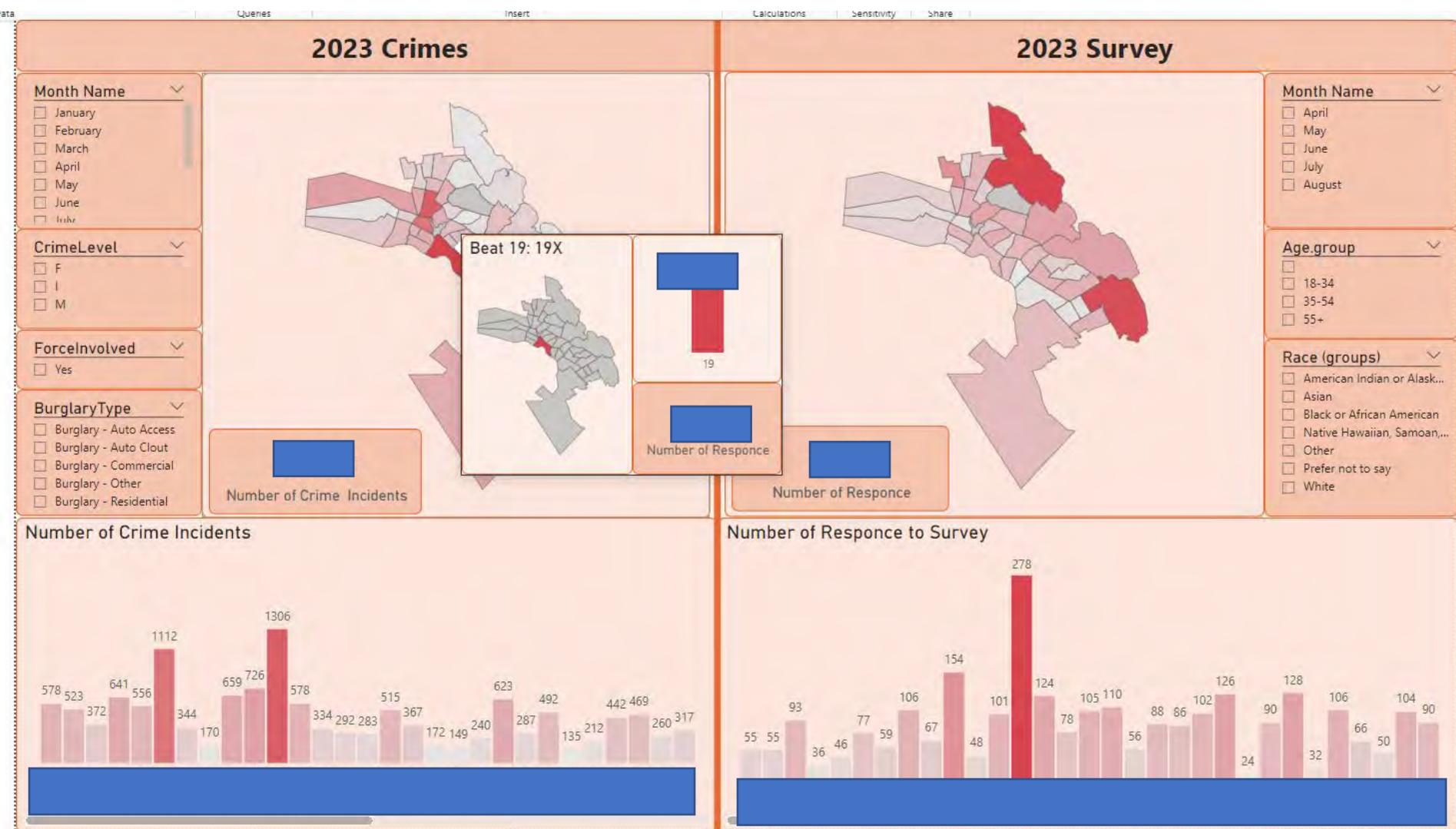
Count of CaseNumber by DOW

Mon	Tue	Wed	Thu	Fri	Sat	Sun
		3				3

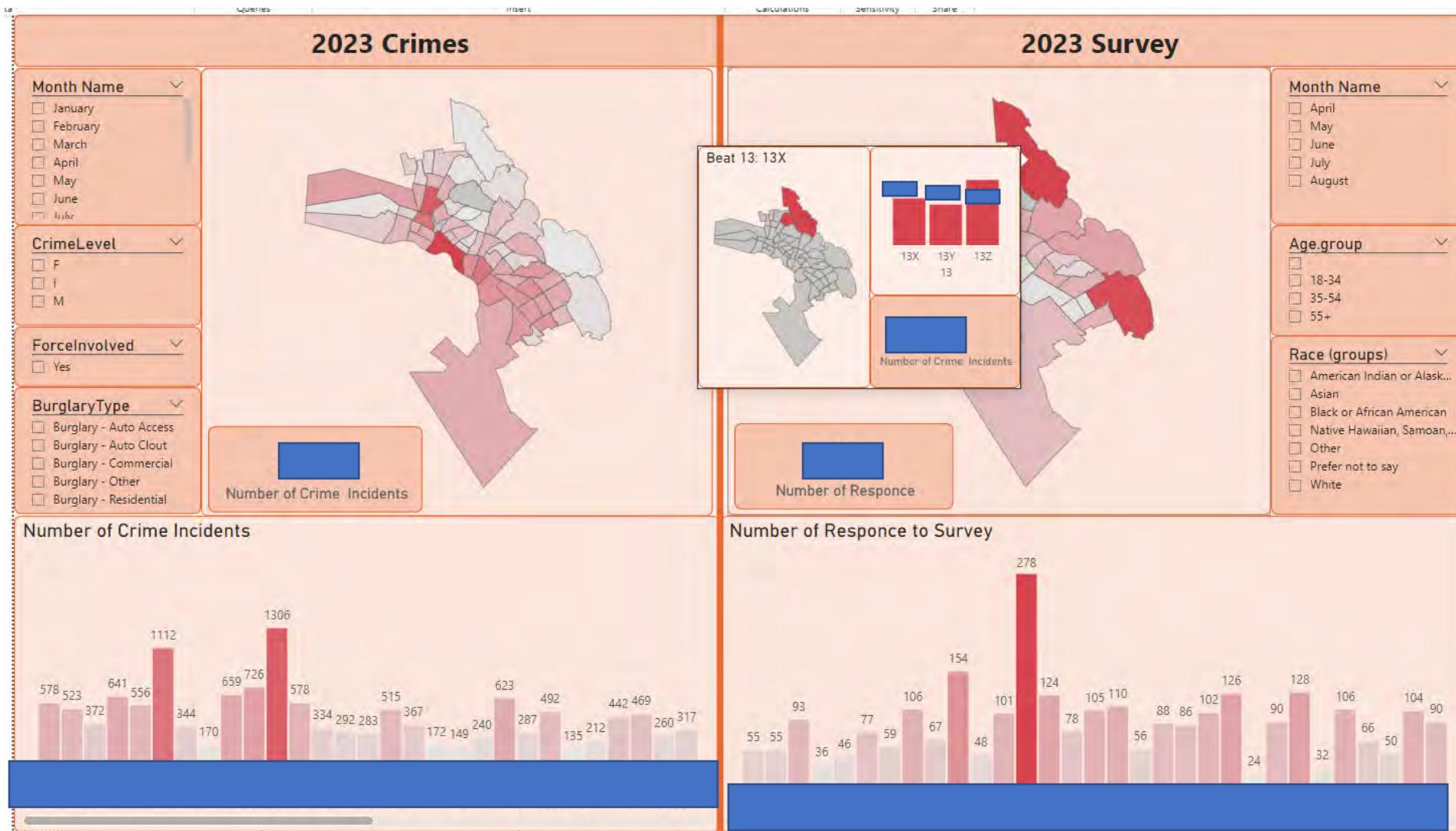
Count of CaseNumber by HOUR

Map of the San Francisco Bay Area showing shooting locations. Labels include El Cerrito, Albany, Berkeley, Oakland, Fruitvale, Alameda, and Walnut Creek. A legend indicates shooting types: blue dots for 'Shooting at Inhabited Dwelling/Vehicle' and orange dots for 'Shooting at Unoccupied Dwelling/Vehicle'.

SHAPE MAP



SHAPE MAP



INTERACTIVE TITLE

MONTHLY STATISTICAL REPORT
CITYWIDE



January 1, 2023

May 31, 2023

Build a visual

Visual types: Suggest a type

Fields: Latest MONTH_END

Latest MONTH_END is (All)

Add data fields here

Filters on this page: January 1, 2023

Filters on all pages: DEPARTMENT is (All)

Is between five... is True

Year is not 2018

Add data fields here

Size and style

Title

Text: January 1, 2023

Heading: Heading 3

Font: DIN 45

B I U

Text color: Black

Background color: White

Horizontal alignment: Left

Is between five-year frame Start	MMM_YYYY	MONTH_START	MONTH-END	Month Name Short	DAY_NUMBER	YYYYMM	DOW_Number	Day of Week	Year	Year Qua
False	Sep-2018	Saturday, September 1, 2018	September 30, 2018	Sep	7	201809	5	Friday, January 12, 1900	2018	Q3-2018
False	Sep-2018	Saturday, September 1, 2018	September 30, 2018	Sep	14	201809	5	Friday, January 12, 1900	2018	Q3-2018
False	Sep-2018	Saturday, September 1, 2018	September 30, 2018	Sep	21	201809	5	Friday, January 12, 1900	2018	Q3-2018
False	Sep-2018	Saturday, September 1, 2018	September 30, 2018	Sep	28	201809	5	Friday, January 12, 1900	2018	Q3-2018
False	Oct-2018	Monday, October 1, 2018	October 31, 2018	Oct	5	201810	5	Friday, January 12, 1900	2018	Q4-2018
True	Oct-2018	Monday, October 1, 2018	October 31, 2018	Oct	12	201810	5	Friday, January 12, 1900	2018	Q4-2018
True	Oct-2018	Monday, October 1, 2018	October 31, 2018	Oct	19	201810	5	Friday, January 12, 1900	2018	Q4-2018
True	Oct-2018	Monday, October 1, 2018	October 31, 2018	Oct	26	201810	5	Friday, January 12, 1900	2018	Q4-2018
True	Nov-2018	Thursday, November 1, 2018	November 30, 2018	Nov	2	201811	5	Friday, January 12, 1900	2018	Q4-2018
True	Nov-2018	Thursday, November 1, 2018	November 30, 2018	Nov	9	201811	5	Friday, January 12, 1900	2018	Q4-2018
True	Nov-2018	Thursday, November 1, 2018	November 30, 2018	Nov	16	201811	5	Friday, January 12, 1900	2018	Q4-2018
True	Nov-2018	Thursday, November 1, 2018	November 30, 2018	Nov	23	201811	5	Friday, January 12, 1900	2018	Q4-2018

INTERACTIVE TITLE

File Home Help External tools Table tools **Column tools**

Name Mont End
Data type Date/time

Format *3/14/2001 1:30:55...
Summarization Don't summarize
Data category Uncategorized

Sort by column
Sort
Data groups
Groups
Manage relationships
Relationships

Structure
Formatting Properties

Mont End = ENDOFMONTH(Calendar[Date])

Date	Year	MonthNumber	MonthPrefix	DateWithCrimes	DOWNumber	DOWPrefix	Mont End
2018-01-01	2018	1	Jan	True	2	Mon	1/31/2018 12:00:00 AM
2018-01-02	2018	1	Jan	True	3	Tue	1/31/2018 12:00:00 AM
2018-01-03	2018	1	Jan	True	4	Wed	1/31/2018 12:00:00 AM
2018-01-04	2018	1	Jan	True	5	Thu	1/31/2018 12:00:00 AM
2018-01-05	2018	1	Jan	True	6	Fri	1/31/2018 12:00:00 AM
2018-01-06	2018	1	Jan	True	7	Sat	1/31/2018 12:00:00 AM
2018-01-07	2018	1	Jan	True	1	Sun	1/31/2018 12:00:00 AM
2018-01-08	2018	1	Jan	True	2	Mon	1/31/2018 12:00:00 AM
2018-01-09	2018	1	Jan	True	3	Tue	1/31/2018 12:00:00 AM
2018-01-10	2018	1	Jan	True	4	Wed	1/31/2018 12:00:00 AM
2018-01-11	2018	1	Jan	True	5	Thu	1/31/2018 12:00:00 AM
2018-01-12	2018	1	Jan	True	6	Fri	1/31/2018 12:00:00 AM
2018-01-13	2018	1	Jan	True	7	Sat	1/31/2018 12:00:00 AM
2018-01-14	2018	1	Jan	True	1	Sun	1/31/2018 12:00:00 AM
2018-01-15	2018	1	Jan	True	2	Mon	1/31/2018 12:00:00 AM
2018-01-16	2018	1	Jan	True	3	Tue	1/31/2018 12:00:00 AM
2018-01-17	2018	1	Jan	True	4	Wed	1/31/2018 12:00:00 AM
2018-01-18	2018	1	Jan	True	5	Thu	1/31/2018 12:00:00 AM
2018-01-19	2018	1	Jan	True	6	Fri	1/31/2018 12:00:00 AM
2018-01-20	2018	1	Jan	True	7	Sat	1/31/2018 12:00:00 AM
2018-01-21	2018	1	Jan	True	1	Sun	1/31/2018 12:00:00 AM
2018-01-22	2018	1	Jan	True	2	Mon	1/31/2018 12:00:00 AM

Month End = ENDOFMONTH(Calendar[Date])

INTERACTIVE TITLE

Filters > D

Search

Month Name
is January, February, ...

Filter type ⓘ

Basic filtering

Search

Month	Days
January	31
February	28
March	31
April	30
May	31
June	30

Select all

January 31

February 28

March 31

April 30

May 31

June 30

Require single selection

Year
is 2023

Filter type ⓘ

Basic filtering

Search

Year	Count
2019	151
2020	152
2021	151
2022	151
2023	151

Select all

2019 151

2020 152

2021 151

2022 151

2023 151

Require single selection

INTERACTIVE TITLE

OAKLAND POLICE DEPARTMENT
OFFICE of INTERNAL ACCOUNTABILITY

MONTHLY STATISTICAL REPORT
CITYWIDE



January 1, 2023 -

March 31, 2023

Distribution: Interim Chief of Police O. Allison

Filters »

Search:

Filter type: Basic filtering

Search:

Month	Days in Month
<input type="checkbox"/> January	31
<input checked="" type="checkbox"/> February	28
<input type="checkbox"/> March	31
<input type="checkbox"/> April	30
<input type="checkbox"/> May	31
<input type="checkbox"/> June	30

Require single selection

Year: is 2023

Filter type: Basic filtering

Year	Count
<input checked="" type="checkbox"/> Select all	90
<input type="checkbox"/> 2019	90
<input type="checkbox"/> 2020	91
<input type="checkbox"/> 2021	90
<input type="checkbox"/> 2022	90
<input checked="" type="checkbox"/> 2023	90

ADDITIONAL INFORMATION (LINKS)

- ✓ Websites, Blogs, and YouTube channels
 - ✓ Power Query documentation
<https://docs.microsoft.com/en-us/power-query>
 - ✓ Power BI documentation
<https://docs.microsoft.com/en-us/power-bi/>
 - ✓ Power BI Tips
<https://powerbi.tips/>
 - ✓ RADACAD
<https://radacad.com/>
 - ✓ SQLBI
<https://www.sqlbi.com/>
 - ✓ Guy in a Cube
<https://guyinacube.com/>
 - ✓ Curbal
<https://www.youtube.com/channel/UCJ7UhloHSA4wAqPzyi6TOkw>

NEXT WEBINAR

Modeling in Power BI

- ✓ Star modeling
- ✓ Manage relationships
- ✓ Cardinality
- ✓ Cross-filter direction

CONCLUSIONS & QUESTIONS

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