



Simple Visuals in the Power BI (Part II)

Svetlana Gubin
Business Analyst II, Oakland PD

International Association Crime Analysts
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INSTRUCTOR



Svetlana Gubin, Oakland PD

(510) 238-2017

Sgubin@OaklandCA.gov

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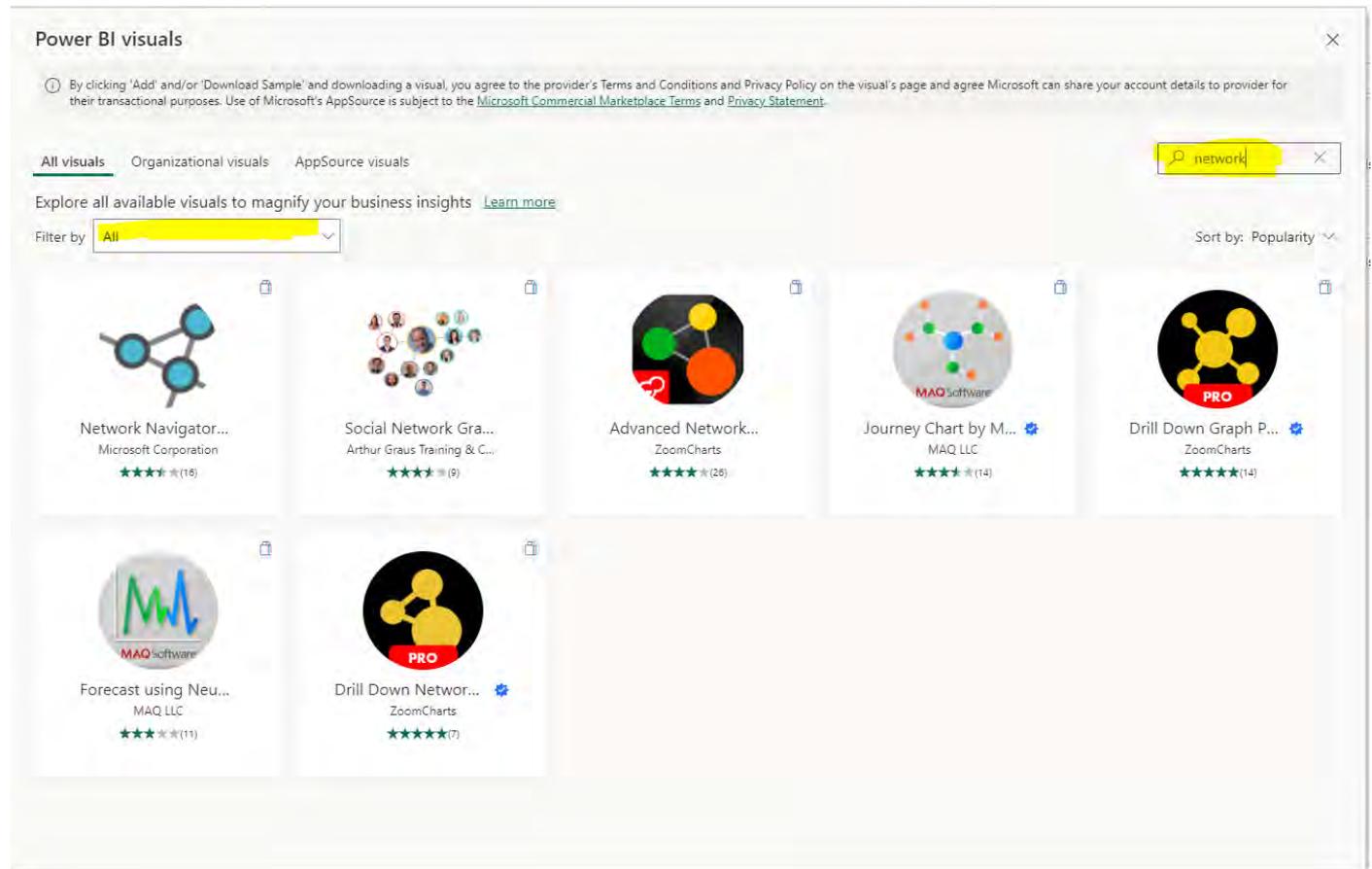
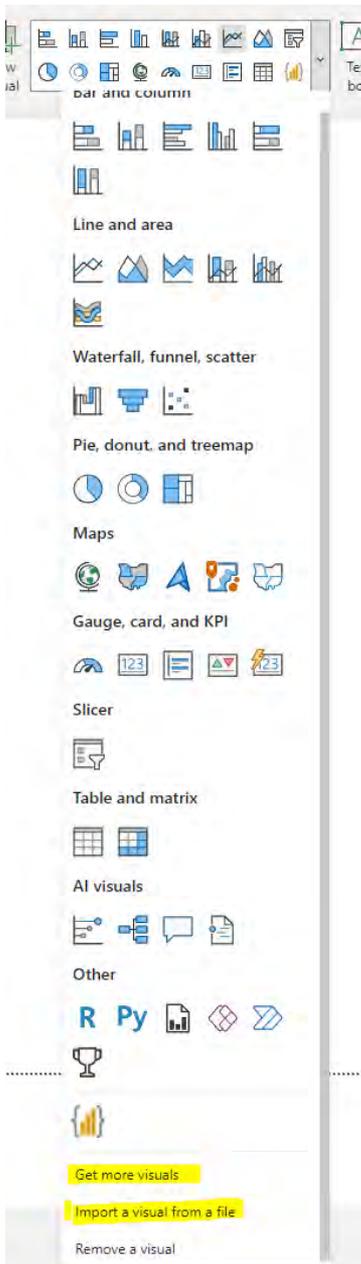
Power BI Visualization Continuing

- ✓ *KPI*
- ✓ *Cards*
- ✓ *Tables*
- ✓ *Matrix*

Additional Information

Conclusion and QA

MORE VISUALS



Attention!!!

- Not all Visuals are free
- Not all are secure
- Look for Power BI Certified



POWER BI – LET'S START

File H
Paste Copy For Clipboard
AU
Data

Power BI Desktop

Power BI has recovered files that you might want to keep

- 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

Search

Svetlana Gubin

Getting started with Power BI Desktop

- Building reports
- Query view concepts
- Uploading your reports
- Create a Phone report

VIEW ALL VIDEOS

✓ Show this screen on startup

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

Page 1 of 1 63%

POWER BI – PAGE FORMAT

The screenshot displays the Power BI Desktop interface. The top ribbon is set to 'View', which includes options for 'Page view', 'Mobile layout', 'Gridlines', 'Snap to grid', 'Lock objects', 'Filters', and 'Pane switcher'. The main workspace shows a 'Add data to your report' prompt with options to import data from Excel, SQL Server, or a sample dataset. On the right, the 'Format' pane is open, and the 'Canvas settings' section is expanded. The 'Type' dropdown menu is highlighted with a red circle and is currently set to '16:9'. Other settings visible include 'Height' at 720 px, 'Width' at 1280 px, and 'Vertical alignment' set to 'Top'.

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

Themes

Page view Mobile layout Scale to fit Mobile

Gridlines Snap to grid Lock objects Page options

Filters Pane switcher

Data Selection Build a visual

Format Performance analyzer

Bookmarks Sync slicers Show panes

Add data to your report
Once loaded, your data will appear in the Data pane.

Import data from Excel Import data from SQL Server Paste data into a blank table Try a sample dataset

Get data from another source →

Format

Search

Page information

Canvas settings

Type 16:9

Height 720 px

Width 1280 px

Vertical alignment Top

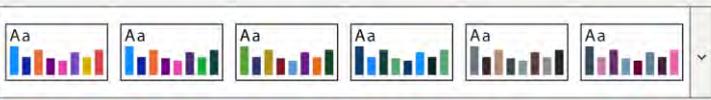
Reset to default

Canvas background

Page 1

POWER BI – LETTER

File Home Insert Modeling View Optimize Help External tools



Themes



Page view



Mobile layout

- Gridlines
- Snap to grid
- Lock objects

Page options



Filters



Pane switcher



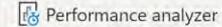
Data



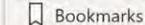
Format



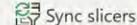
Selection



Performance analyzer



Bookmarks



Sync slicers

Show panes

Build a visual



Add data to your report
Once loaded, your data will appear in the Data pane.



Import data into a blank table

Try a sample dataset

Other source →

Type

Letter

Height

1056 px

Width

816 px

Vertical alignment

Top

Format

Search

Page information

Canvas settings

Type

16:9

16:9

4:3

Letter

Tooltip

Custom

Vertical alignment

Top

Reset to default

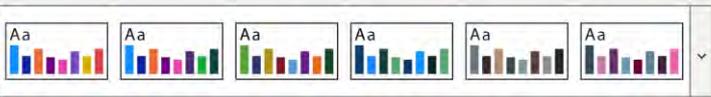
Canvas background

Wallpaper

Page 1

POWER BI – VERTICAL

File Home Insert Modeling View Optimize Help External tools



Themes

Page view
Scale to fit

Mobile layout
Mobile

Gridlines
 Snap to grid
 Lock objects
Page options

Filters

Pane switcher

Data
Format
Bookmarks

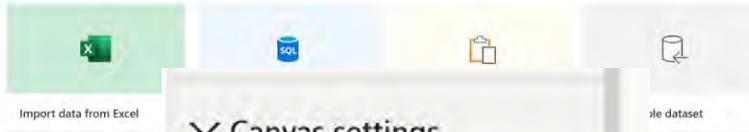
Selection
Performance analyzer
Sync slicers

Build a visual

Show panes

Add data to your report

Once loaded, your data will appear in the Data pane.



Canvas settings

Type
Custom

Height
816 px

Width
1056 px

Vertical alignment
Top

Reset to default

Format

Search

Page information

Canvas settings

Type
16:9
16:9
4:3
Letter
Tooltip
Custom
vertical alignment
Top

Reset to default

Canvas background

Wallpaper

Filters



POWER BI – PAGE VIEW

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

Themes

Page view Mobile layout

Gridlines
Snap to grid
Lock objects

Filters Pane switcher

Data Selection
Format Performance analyzer
Bookmarks Sync slicers

Build a visual

Show panes

Fit to page
Fit to width
Actual size

Add data to your report
(Once loaded, your data will appear in the Data pane.)

From Data Hub From a data source From a data source From a data source

Get data from another source

Format

Search

Page information

Canvas settings

Type
Letter

Height
1056 px

Width
816 px

Vertical alignment
Top

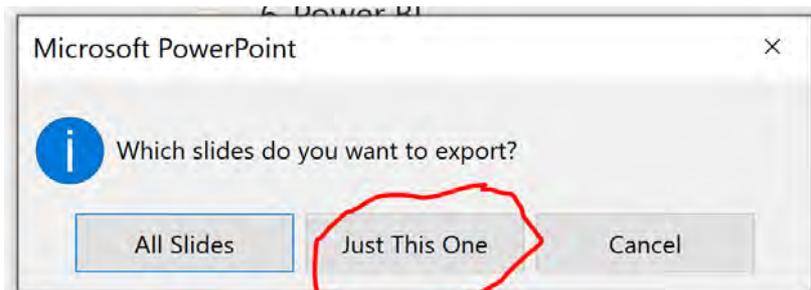
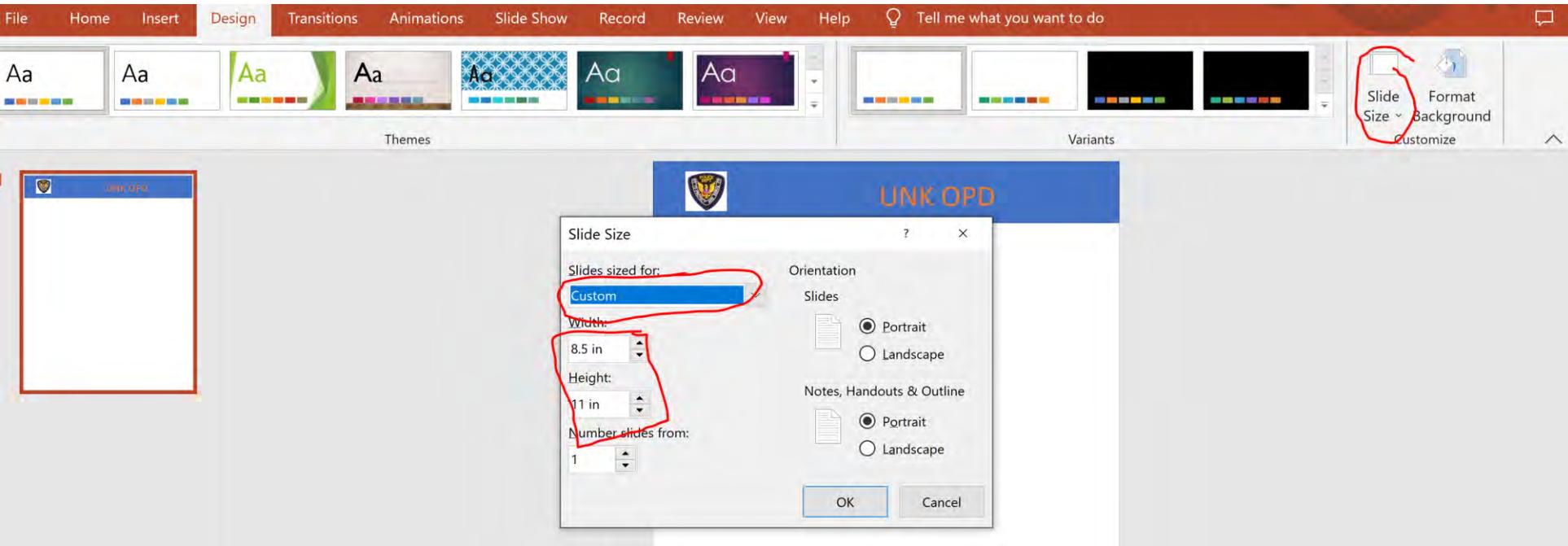
Reset to default

Canvas background

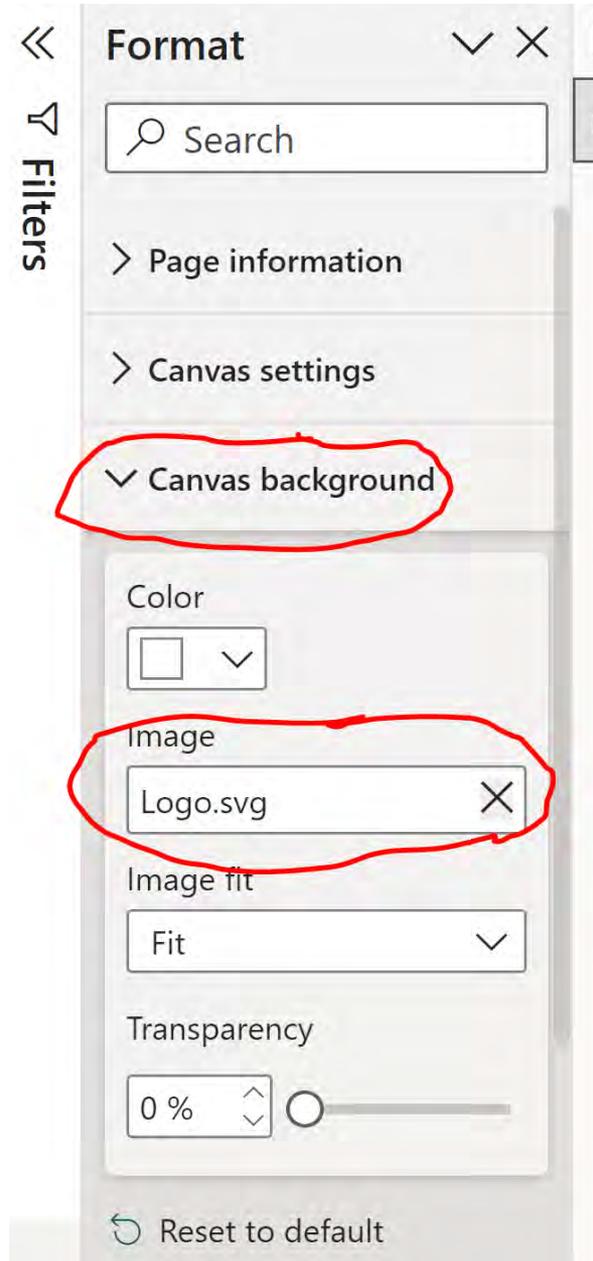
Wallpaper

Page 1 +

POWER BI – LOGO



POWER BI - LOGO



POWER BI – DATA SET

Source:

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

CrimeWatch Data

Public Safety

View Data

Visualize ▾

Export

API

...

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

About this Dataset

Mute Dataset

Updated

February 7, 2023

Data Last Updated

February 7, 2023

Metadata Last Updated

February 7, 2023

Topics

Category

Public Safety

Tags

crime

Date Created

June 17, 2021

POWER BI – GET DATA

The screenshot displays the Microsoft Power BI Desktop application window. The title bar shows 'Untitled - Power BI Desktop' and the user 'Svetlana Gubin'. The ribbon is set to 'Home', with the 'Get data' group highlighted by a blue box. This group includes options for 'Excel workbook', 'Data hub', 'SQL Server', 'Enter data', 'Dataverse', and 'Recent sources'. Other ribbon groups like 'Transform data', 'New visual', 'Text box', 'More visuals', 'Calculations', and 'Share' are also visible.

In the center of the workspace, a rounded rectangle contains the following text and options:

Add data to your report
Once loaded, your data will appear in the Data pane.

Four data source options are shown as cards:

- Import data from Excel
- Import data from SQL Server
- Paste data into a blank table
- Try a sample dataset

Below these cards is a link: [Get data from another source →](#)

On the right side, the 'Visualizations' pane is open, showing a grid of visualization types and a 'Filters' section with options for 'Values', 'Drill through', 'Cross-report', and 'Keep all filters'.

At the bottom left, the 'Page 1' tab is active, and at the bottom right, the zoom level is set to 63%.

POWER BI – SQL SERVER

The screenshot displays the Microsoft Power BI Desktop interface. The top ribbon includes tabs for File, Home, Insert, Modeling, View, Optimize, Help, and External tools. The 'Common data sources' pane on the left lists various data sources, with 'SQL Server' highlighted in yellow and a tooltip that reads 'Import data from a SQL Server database'. The 'Data' pane on the right shows a list of fields from a 'CrimeWatch' table, including Address, CaseNumber, City, Count, CrimeType, Date, DateTime, Description, Description (gro...), Location, PoliceBeat, PYTDCount, State, Year, YOYTD%, YOYTDCount, and YTDCount. A central text box reads 'Build visuals with your data' and 'Select or drag fields from the Data pane onto the report canvas.' Below this text is an illustration of a hand dragging a field from the 'Data' pane onto a report canvas.

Common data sources

- Excel workbook
- Power BI datasets
- Dataflows
- Dataverse
- SQL Server** - Import data from a SQL Server database
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query
- Power BI Template Apps
- More...

Build visuals with your data

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

Filters

Search

Filters on this page ...

Add data fields here

Filters on all pages ...

Add data fields here

Data

Search

- Calendar
 - Date
 - DateWithCrimes
 - MonthNumber
 - MonthPrefix
 - Year
- CrimeWatch
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (gro...
 - Location
 - PoliceBeat
 - PYTDCount
 - State
 - Year
 - YOYTD%
 - YOYTDCount
 - YTDCount

POWER BI – SQL SERVER

File Home Insert Modeling View Optimize Help External tools

Clipboard Copy Paste

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

Common data sources

- Excel workbook
- Power BI datasets
- Dataflows
- Dataverse
- SQL Server** Import data from a SQL Server database
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query
- Power BI Template Apps
- More...

Build visuals with your data

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

Filters Filters on this page Add data fields here Filters on all pages Add data fields here

Data

- Calendar
 - Date
 - DateWithCrimes
 - MonthNumber
 - MonthPrefix
 - Year
- CrimeWatch
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (gro...
 - Location
 - PoliceBeat
 - PYTDCount
 - State
 - Year
 - YOYTD%
 - YOYTDCount
 - YTDCount

Drag fi

SQL Server database

Server

Database (optional)

Data Connectivity mode Import DirectQuery

Advanced options

Command timeout in minutes (optional)

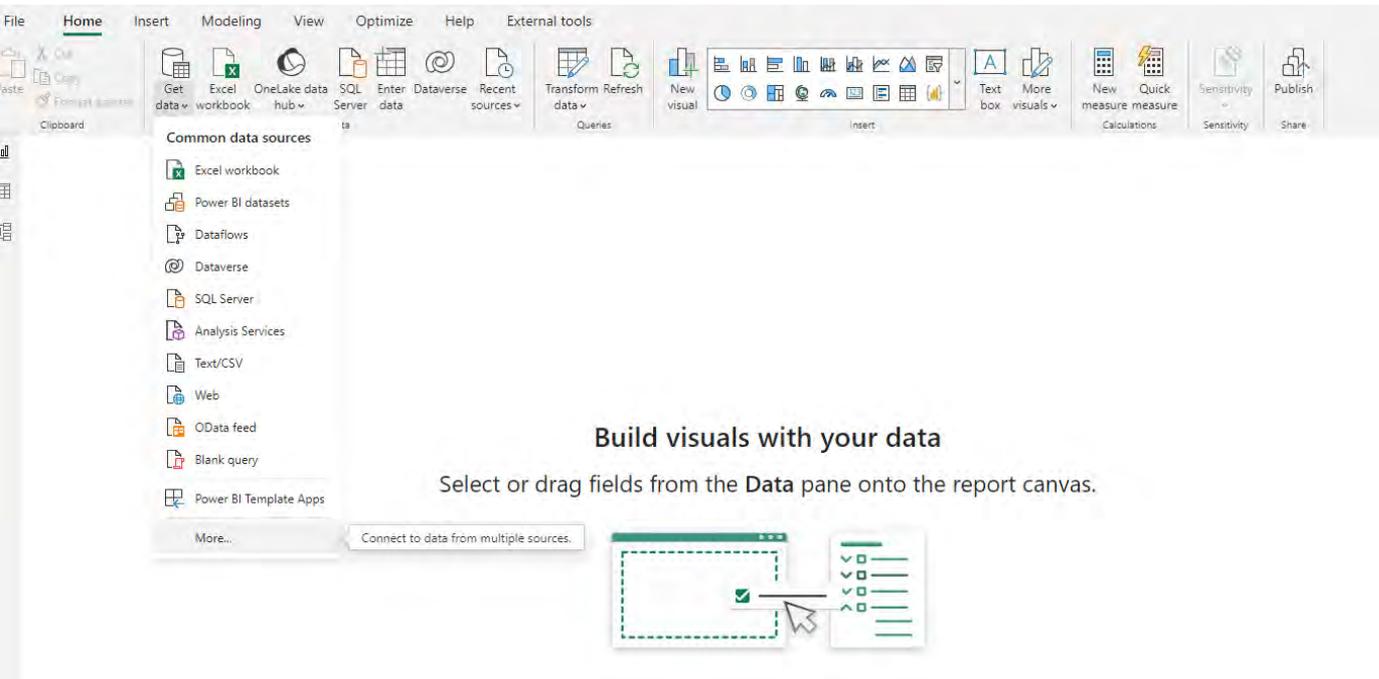
SQL statement (optional, requires database)

Include relationship columns

Navigate using full hierarchy

OK Cancel

POWER BI – SHAREPOINT FOLDER



The image shows the Microsoft Power BI Desktop interface. At the top is the ribbon with tabs: File, Home, Insert, Modeling, View, Optimize, Help, and External tools. The Home tab is active, showing various icons for data sources, queries, and visualizations. Below the ribbon is the 'Common data sources' pane, which lists several options: Excel workbook, Power BI datasets, Dataflows, Dataverse, SQL Server, Analysis Services, Text/CSV, Web, OData feed, Blank query, and Power BI Template Apps. A 'More...' button is located at the bottom of this list. Below the data sources pane, there is a central instruction: 'Build visuals with your data' followed by 'Select or drag fields from the Data pane onto the report canvas.' To the right of this text is a small diagram illustrating the process: a dashed green box represents the report canvas, and a list of fields with checkboxes represents the data pane. A mouse cursor is shown dragging a field from the data pane into the report canvas.

File Home Insert Modeling View Optimize Help External tools

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

Common data sources

- Excel workbook
- Power BI datasets
- Dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query
- Power BI Template Apps

More... Connect to data from multiple sources.

Build visuals with your data

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

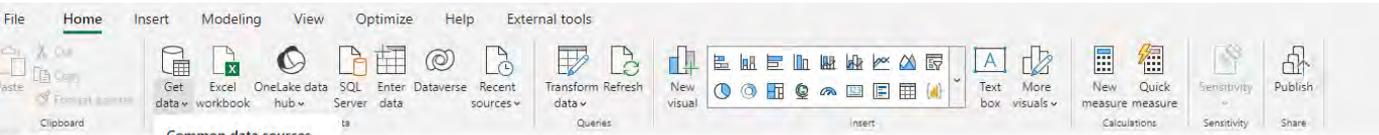
POWER BI – SHAREPOINT FOLDER

The image shows the Microsoft Power BI Desktop interface. The top ribbon includes tabs for File, Home, Insert, Modeling, View, Optimize, Help, and External tools. The 'Home' tab is active, showing various icons for data sources and visualizations. On the left, a sidebar lists 'Common data sources' such as Excel workbook, Power BI datasets, Dataflows, Dataverse, SQL Server, Analysis Services, Text/CSV, Web, OData feed, Blank query, and Power BI Template Apps. A 'More...' button is visible at the bottom of this list.

The 'Get Data' dialog box is open in the center, displaying a search bar at the top. Below it, a list of data sources is shown, with 'SharePoint folder' highlighted in yellow. The list includes: All, Excel Workbook, Text/CSV, XML, JSON, Folder, PDF, Parquet, SharePoint folder, SQL Server database, Access database, SQL Server Analysis Services database, Oracle database, IBM Db2 database, IBM Informix database (Beta), IBM Netezza, and MySQL database. At the bottom of the dialog, there are buttons for 'Certified Connectors', 'Template Apps', 'Connect', and 'Cancel'.

g file

POWER BI – SHAREPOINT FOLDER



- Common data sources**
- Excel workbook
 - Power BI datasets
 - Dataflows
 - Dataverse
 - SQL Server
 - Analysis Services
 - Text/CSV
 - Web
 - OData feed
 - Blank query
 - Power BI Template Apps
 - More...

B
g file

Get Data

Search:

All

- Excel Workbook
- Text/CSV
- XML
- JSON
- Folder
- PDF
- Parquet
- SharePoint folder**
- SQL Server database
- Access database
- SQL Server Analysis Service
- Oracle database
- IBM Db2 database
- IBM Informix database (Be
- IBM Netezza
- MySQL database

Certified Connectors | Template Apps

ag fi

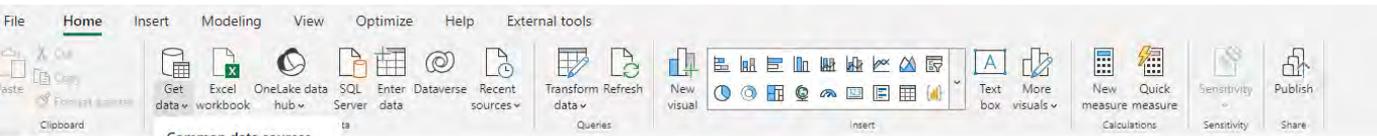
Build visuals with your data

SharePoint folder

Site URL ⁽ⁱ⁾

OK Cancel

POWER BI – SHAREPOINT FOLDER



- Common data sources
- Excel workbook
 - Power BI datasets
 - Dataflows
 - Dataverse
 - SQL Server
 - Analysis Services
 - Text/CSV
 - Web
 - OData feed
 - Blank query
 - Power BI Template Apps
 - More...

B
g file

Get Data

Search:

All

- Excel Workbook
- Text/CSV
- XML
- JSON
- Folder
- PDF
- Parquet
- SharePoint folder**
- SQL Server database
- Access database
- SQL Server Analysis Service
- Oracle database
- IBM Db2 database
- IBM Informix database (Be
- IBM Netezza
- MySQL database

Certified Connectors | Template Apps

Build visuals with your data

SharePoint folder

Site URL (1)

OK Cancel

Root URL for the folder

POWER BI – TEXT/CSV

The screenshot displays the Microsoft Power BI Desktop interface. The top ribbon is set to 'Home', with the 'Get data' button circled in red. Below the ribbon, the 'Common data sources' list is visible, with 'Text/CSV' also circled in red. The central workspace area shows the 'Add data to your report' dialog, which includes options for 'Import data from Excel', 'Import data from SQL Server', 'Paste data into a blank table', and 'Try a sample dataset'. The right-hand pane is titled 'Data' and contains a search bar and a message: 'You haven't loaded any data yet. Get data'. The bottom status bar shows 'Page 1' and a zoom level of 63%.

POWER BI – DATA

Open

This PC > Desktop > IACA Webinar 2023 > 7_Simple Visuals

Search 7_Simple Visuals

Organize · New folder

Name	Date modified	Type	Size
CrimeWatch_2023.txt	6/14/2023 7:26 PM	Text Document	80 KB

File name: Text Files (*.txt;*.csv;*.prn)

Open Cancel

POWER BI – LOAD DATA

Untitled - Power BI

File Home Insert

Paste Get data Excel workbook

Clipboard

Page 1 +

Page 1 of 1

CrimeWatch_2023.txt

File Origin: 1252: Western European (Windows) | Delimiter: Tab | Data Type Detection: Based on first 200 rows

Address	CaseNumber	City	CrimeType	DateTime	Description	Pc
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 THREATED 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 ADELIN 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

Data

Search

You haven't loaded any data yet. [Get data](#)

63%

POWER BI – POWER QUERY

File Home Transform **Add Column** View Tools Help

Column From Custom Invoke Custom
Examples Column Function

General Conditional Column Index Column Duplicate Column

Format Merge Columns Extract Parse From Text

Statistics Standard Scientific Trigonometry Rounding Information

Date Time Duration Text Analytics Vision Azure Machine Learning

Queries [1] CrimeWatch

	Address	City	State	CaseNumber	CrimeType	Description	DateTime	Location
1	00 WEBSTER ST	Oakland		22-921124	VANDALISM	VANDALISM	9/23/2022 12:00:00 PM	POINT (-122.27486 37.79349)
2	00 10TH ST	Oakland		18-018835	STOLEN VEHICLE	VEHICLE THEFT - AUTO	4/15/2018 11:30:00 AM	POINT (-122.25971 37.79638)
3	00 10TH ST	Oakland		18-062031	DOMESTIC VIOLENCE	BATTERY:SPOUSE/EX SPOUSE/DATE/ETC	12/9/2018 8:30:00 AM	POINT (-122.25971 37.79638)
4	00 10TH ST	Oakland	CA	18-062031	DOMESTIC VIOLENCE	THREAT CRIME:INT:TERRORIZE	12/9/2018 8:30:00 AM	POINT (-122.25971 37.79638)
5	00 10TH ST	Oakland	CA	19-007535	DOMESTIC VIOLENCE	BATTERY:SPOUSE/EX SPOUSE/DATE/ETC	2/12/2019 1:28:00 PM	POINT (-122.25971 37.79638)
6	00 10TH ST	Oakland	CA	19-012622	THREATS	BATTERY	3/13/2019 12:20:00 AM	POINT (-122.25971 37.79638)
7	00 10TH ST	Oakland	CA	19-012622	THREATS	CRIMINAL THREATS THREATED CRIME W/INTENT TO TERRORIZE	3/13/2019 12:20:00 AM	POINT (-122.25971 37.79638)
8	00 10TH ST	Oakland	CA	19-014312	THREATS	BATTERY	3/22/2019 10:49:00 PM	POINT (-122.25971 37.79638)
9	00 10TH ST	Oakland	CA	19-014312	THREATS	THREAT CRIME:INT:TERRORIZE	3/22/2019 10:49:00 PM	POINT (-122.25971 37.79638)
10	00 10TH ST	Oakland	CA	19-014502	STOLEN VEHICLE	VEHICLE THEFT - AUTO	3/21/2019 9:00:00 PM	POINT (-122.25971 37.79638)
11	00 10TH ST	Oakland	CA	19-053070	ROBBERY	ROBBERY-FIREARM	10/11/2019 8:38:00 PM	POINT (-122.25971 37.79638)
12	00 10TH ST	Oakland	CA	19-059909	STOLEN VEHICLE	VEHICLE THEFT - AUTO	11/14/2019 10:30:00 PM	POINT (-122.25971 37.79638)
13	00 10TH ST	Oakland	CA	19-064728	BURG - AUTO	BURGLARY-AUTO	12/12/2019 12:40:00 PM	POINT (-122.25971 37.79638)
14	00 10TH ST	Oakland	CA	19-065196	DOMESTIC VIOLENCE	FORCE/ADW-OTHER DANGEROUS WEAPON:GBI	12/15/2019 10:15:00 AM	POINT (-122.25971 37.79638)
15	00 10TH ST	Oakland	CA	19-065196	DOMESTIC VIOLENCE	INFLECT CORPORAL INJURY ON SPOUSE/COHABITANT	12/15/2019 10:15:00 AM	POINT (-122.25971 37.79638)
16	00 10TH ST	Oakland	CA	20-010231	DOMESTIC VIOLENCE	CRIMINAL THREATS THREATED CRIME W/INTENT TO TERRORIZE	2/22/2020 12:06:00 AM	POINT (-122.25971 37.79638)
17	00 10TH ST	Oakland	CA	20-018525	THREATS	THREAT CRIME:INT:TERRORIZE	4/10/2020 1:02:00 AM	POINT (-122.25971 37.79638)
18	00 10TH ST	Oakland	CA	20-042364	DOMESTIC VIOLENCE	BATTERY:SPOUSE/ETC	8/26/2020 8:30:00 AM	POINT (-122.25971 37.79638)
19	00 10TH ST	Oakland	CA	21-009816	ARSON	MAL SET/ETC FIRE PROP/ETC	3/2/2021 5:30:00 AM	POINT (-122.25971 37.79638)
20	00 10TH ST	Oakland	CA	21-041087	DISORDERLY CONDUCT	CONTEMPT OF COURT-DISOBEY COURT ORDER/ETC	8/31/2021 7:46:00 PM	POINT (-122.25971 37.79638)
21	00 10TH ST	Oakland	CA	21-041758	DOMESTIC VIOLENCE	CONTEMPT OF COURT-VIOLATE PROTECTIVE ORDER/ETC	9/5/2021 3:58:00 PM	POINT (-122.25971 37.79638)
22	00 10TH ST	Oakland	CA	21-045033	THREATS	CRIMINAL THREATS THREATED CRIME W/INTENT TO TERRORIZE	9/25/2021 3:49:00 PM	POINT (-122.25971 37.79638)
23	00 10TH ST	Oakland	CA	21-057364	BURG - COMMERCIAL	BURGLARY-FORCIBLE ENTRY	12/7/2021 3:28:00 PM	POINT (-122.25971 37.79638)
24	00 10TH ST	Oakland	CA	21-901647	PETTY THEFT	THEFT	2/3/2021 11:00:00 AM	POINT (-122.25971 37.79638)
25	00 10TH ST	Oakland	CA	21-918603	BURG - RESIDENTIAL	BURGLARY-FORCIBLE ENTRY	11/1/2021 7:35:00 AM	POINT (-122.25971 37.79638)
26	00 10TH ST	Oakland	CA	21-921208	BURG - RESIDENTIAL	BURGLARY-FORCIBLE ENTRY	12/7/2021 8:10:00 AM	POINT (-122.25971 37.79638)

Create a new column containing the date component of each Date/Time value in the selected column.

- Date Only
- Quarter
- Week
- Day
- Subtract Days
- Combine Date and Time
- Earliest
- Latest

POWER BI – POWER QUERY

The screenshot displays the Power BI interface with the 'Add Column' ribbon selected. The 'Date' dropdown menu is open, showing options like 'Date Only', 'Parse', 'Month', 'Quarter', 'Week', 'Day', 'Subtract Days', 'Combine Date and Time', 'Earliest', and 'Latest'. The 'Year' option is highlighted. A tooltip for the 'Year' function is visible, stating: 'Create a new column containing the year corresponding to each Date/Time value in the selected column.' The main data table has columns 'NameType', 'Description', and 'Location'. The 'Year' column is highlighted in the table. The 'Query Settings' pane on the right shows 'Properties' and 'Applied Steps'.

NameType	Description	Year	Location
1 JSM	VANDALISM	Year	2:00:00 PM POINT (-122.27486 37.79349)
2 VEHICLE	VEHICLE THEFT - AUTO	Year	1:30:00 AM POINT (-122.25971 37.79638)
3 TIC VIOLENCE	B	Year	8:30:00 AM POINT (-122.25971 37.79638)
4 TIC VIOLENCE	T	Year	8:30:00 AM POINT (-122.25971 37.79638)
5 TIC VIOLENCE	B	Year	1:28:00 PM POINT (-122.25971 37.79638)
6 S	BATTERY	Year	2:20:00 AM POINT (-122.25971 37.79638)
7 S	CRIMINAL THREATS THREATED CRIME W/INTENT TO	Year	2:20:00 AM POINT (-122.25971 37.79638)
8 S	BATTERY	Year	0:49:00 PM POINT (-122.25971 37.79638)
9 S	THREAT CRIME:INT:TERRORIZE	Year	0:49:00 PM POINT (-122.25971 37.79638)
10 VEHICLE	VEHICLE THEFT - AUTO	Year	9:00:00 PM POINT (-122.25971 37.79638)
11 Y	ROBBERY-FIREARM	Year	8:38:00 PM POINT (-122.25971 37.79638)
12 VEHICLE	VEHICLE THEFT - AUTO	Year	11/14/2019 10:30:00 PM POINT (-122.25971 37.79638)
13 AUTO	BURGLARY-AUTO	Year	12/12/2019 12:40:00 PM POINT (-122.25971 37.79638)
14 TIC VIOLENCE	FORCE/ADW-OTHER DANGEROUS WEAPON:GBI	Year	12/15/2019 10:15:00 AM POINT (-122.25971 37.79638)
15 TIC VIOLENCE	INFLECT CORPORAL INJURY ON SPOUSE/COHABITANT	Year	12/15/2019 10:15:00 AM POINT (-122.25971 37.79638)
16 TIC VIOLENCE	CRIMINAL THREATS THREATED CRIME W/INTENT TO TERRORIZE	Year	2/22/2020 12:06:00 AM POINT (-122.25971 37.79638)
17 S	THREAT CRIME:INT:TERRORIZE	Year	4/10/2020 1:02:00 AM POINT (-122.25971 37.79638)
18 TIC VIOLENCE	BATTERY:SPOUSE/ETC	Year	8/26/2020 8:30:00 AM POINT (-122.25971 37.79638)
19	MAL SET/ETC FIRE PROP/ETC	Year	3/2/2021 5:30:00 AM POINT (-122.25971 37.79638)
20 ERLY CONDUCT	CONTEMPT OF COURT:DISOBEY COURT ORDER/ETC	Year	8/31/2021 7:46:00 PM POINT (-122.25971 37.79638)
21 TIC VIOLENCE	CONTEMPT OF COURT:VIOLATE PROTECTIVE ORDER/ETC	Year	9/5/2021 3:58:00 PM POINT (-122.25971 37.79638)
22 S	CRIMINAL THREATS THREATED CRIME W/INTENT TO TERRORIZE	Year	9/25/2021 3:49:00 PM POINT (-122.25971 37.79638)

POWER BI – QUERY

The screenshot displays the Power BI Desktop interface. The 'Add Column' ribbon is active, with the 'Date' dropdown menu open. The data table below shows a 'DateTime' column with various dates. The 'Query Settings' pane on the right shows the 'Applied Steps' section with 'Inserted Year' selected.

Description	DateTime
1 JSM	9/23/202
2 THEFT - AUTO	4/15/201
3 Y:SPOUSE/EX SPOUSE/DATE/ETC	12/9/20
4 CRIME:INT:TERRORIZE	12/9/20
5 Y:SPOUSE/EX SPOUSE/DATE/ETC	2/12/20
6 Y	Day
7 AL THREATS THREATED CRIME W/INTENT TO TERRO	Day of Week
8 Y	Day of Year
9 CRIME:INT:TERRORIZE	Start of Day
10 THEFT - AUTO	End of Day
11 Y-FIREARM	Name of Day
12 THEFT - AUTO	12/12/2019 10:30:00 PM
13 Y-AUTO	12/12/2019 12:40:00 PM
14 ADW-OTHER DANGEROUS WEAPON:GBI	12/15/2019 10:15:00 AM
15 CORPORAL INJURY ON SPOUSE/COHABITANT	12/15/2019 10:15:00 AM
16 AL THREATS THREATED CRIME W/INTENT TO TERRORIZE	2/22/2020 12:06:00 AM
17 CRIME:INT:TERRORIZE	4/10/2020 1:02:00 AM
18 Y:SPOUSE/ETC	8/26/2020 8:30:00 AM
19 T/ETC FIRE PROP/ETC	3/2/2021 5:30:00 AM
20 MPT OF COURT:DISOBEY COURT ORDER/ETC	8/31/2021 7:46:00 PM
21 MPT OF COURT:VIOLATE PROTECTIVE ORDER/ETC	9/5/2021 3:58:00 PM
22 AL THREATS THREATED CRIME W/INTENT TO TERRORIZE	9/25/2021 3:49:00 PM
23	

POWER BI – QUERY

1 ² ₃ Day of Week	A ^B _C Day Name
2	5 Friday
3	0 Sunday
3	0 Sunday
3	0 Sunday
3	2 Tuesday
3	3 Wednesday
3	3 Wednesday
3	5 Friday
3	5 Friday
3	4 Thursday
3	5 Friday
3	4 Thursday
3	4 Thursday

POWER BI – REPORT VIEW

Untitled - Power BI Desktop

Search

Sign in

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 data Refresh data New visual

Clipboard Data Queries Insert Text box More visuals

Calculations New measure Quick measure Sensitivity Publish

Build visuals with your data

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

Data

Search

CrimeWatch_2023

Page 1

Page 1 of 1 63%

POWER BI – DATA VIEW

File Home Help External tools **Table tools**

Name

Structure Calendars Relationships Calculations

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

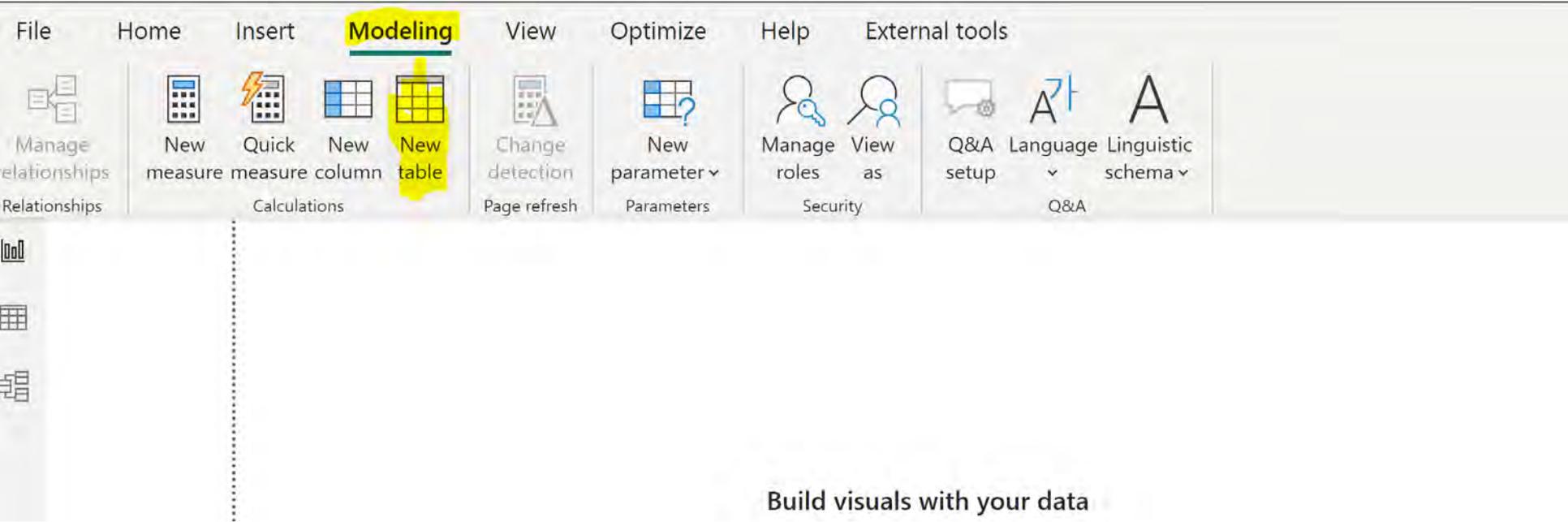
Address	City	State	PoliceBeat	CaseNumber	CrimeType	Description	DateTime	Location
100 E 12TH ST	Oakland	CA	19X	20-033252	STOLEN VEHICLE	VEHICLE THEFT - AUTO	7/7/2020 5:38:00 PM	POINT (-122.25808 37.798)
100 INTERNATIONAL BLVD	Oakland	CA	19X	20-021909	STOLEN VEHICLE	VEHICLE THEFT - AUTO	5/30/2020 5:30:00 PM	POINT (-122.25683 37.7984)
100 INTERNATIONAL BLVD	Oakland	CA	19X	20-052672	STOLEN VEHICLE	VEHICLE THEFT - AUTO	10/25/2020 11:15:00 AM	POINT (-122.25683 37.7984)
1000 22ND AV	Oakland	CA	19X	20-027455	STOLEN VEHICLE	VEHICLE THEFT - AUTO	5/21/2020 12:30:00 AM	POINT (-122.24009 37.7820:
1000 22ND AV	Oakland	CA	19X	20-031356	STOLEN VEHICLE	VEHICLE THEFT - AUTO	6/26/2020 7:30:00 PM	POINT (-122.24009 37.7820:
1000 4TH AV	Oakland	CA	19X	20-000441	STOLEN VEHICLE	VEHICLE THEFT - AUTO	1/2/2020 5:30:00 PM	POINT (-122.2574 37.79457)
1000 4TH AV	Oakland	CA	19X	20-028743	STOLEN VEHICLE	VEHICLE THEFT - AUTO	6/11/2020 8:30:00 PM	POINT (-122.2574 37.79457)
1000 4TH AV	Oakland	CA	19X	20-042405	STOLEN VEHICLE	VEHICLE THEFT - AUTO	8/23/2020 5:00:00 PM	POINT (-122.2574 37.79457)
1000 5TH AV	Oakland	CA	19X	20-017362	STOLEN VEHICLE	VEHICLE THEFT - AUTO	4/1/2020 3:00:00 PM	POINT (-122.25656 37.7938)
1000 5TH AV	Oakland	CA	19X	20-027512	STOLEN VEHICLE	VEHICLE THEFT - AUTO	6/4/2020 9:00:00 AM	POINT (-122.25656 37.7938)
1000 8TH AV	Oakland	CA	19X	20-005607	STOLEN VEHICLE	VEHICLE THEFT - AUTO	1/29/2020 1:00:00 PM	POINT (-122.25403 37.7916:
1000 9TH AV	Oakland	CA	19X	20-009786	STOLEN VEHICLE	VEHICLE THEFT - AUTO	2/18/2020 10:00:00 PM	POINT (-122.25322 37.7909:
1000 COTTON ST	Oakland	CA	19X	20-012500	STOLEN VEHICLE	VEHICLE THEFT - AUTO	3/3/2020 5:00:00 PM	POINT (-122.23919 37.7796:
1000 COTTON ST	Oakland	CA	19X	20-069444	STOLEN VEHICLE	VEHICLE THEFT - AUTO	12/2/2020 5:00:00 PM	POINT (-122.23919 37.7796:

Data

Search

> CrimeWatch_2023

NEW TABLE



Build visuals with your data

NEW TABLE

The screenshot displays the Microsoft Power BI Desktop interface. The ribbon at the top includes 'File', 'Home', 'Insert', 'Modeling', 'View', 'Optimize', 'Help', 'External tools', and 'Table tools'. The 'Table tools' ribbon is active, showing options like 'Mark as date table', 'Manage relationships', 'New measure', 'Quick measure', 'New column', and 'New table'. The 'Name' field is set to 'Calendar'. Below the ribbon, the DAX formula bar contains the following formula: `Calendar = CALENDAR ("01-01-2018", "12-31-2023")`. The main workspace area contains the text: 'Build visuals with your data' and 'Select or drag fields from the Data pane onto the report canvas.' Below this text is a small icon representing a report canvas with a data pane.

MANAGE RELATIONSHIP

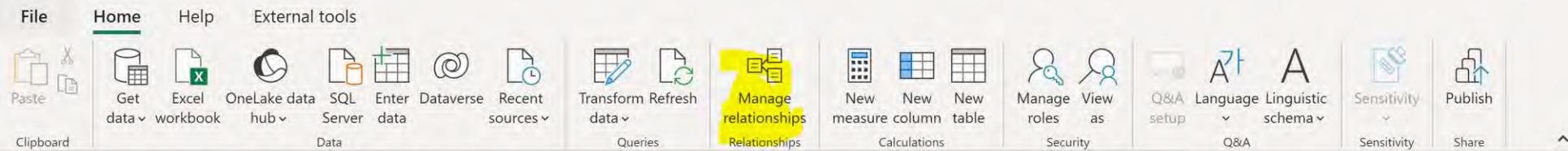
The screenshot displays the Microsoft Power BI Desktop interface. The top ribbon is set to 'Home', and the 'Manage relationships' tab is highlighted in yellow. The ribbon includes options for 'Get data', 'Excel workbook', 'OneLake data hub', 'SQL Server', 'Enter data', 'Dataverse', 'Recent sources', 'Transform data', 'Refresh data', 'Manage relationships', 'New measure', 'New column', 'New table', 'Manage roles', 'View as', 'Q&A setup', 'Language', 'Linguistic schema', 'Sensitivity', and 'Publish'.

Two data tables are visible in the main workspace:

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

The right-hand 'Properties' pane is open to the 'Data' section, showing a search bar and a list of data sources. The 'Calendar' source is expanded, and 'MonthNumber' is selected.

MANAGE RELATIONSHIP



CrimeWatch

- Address
- CaseNumber
- City
- CrimeType
- Date
- DateTime
- Description
- Description (groups)
- Location
- Collapse ^

Calendar

- Date
- MonthNumber
- MonthPrefix
- Year
- Collapse ^

Data

Search

- Calendar
 - Date
 - MonthNumber
 - MonthPrefix
 - Year
- CrimeWatch

Manage relationships

Active	From: Table (Column)	To: Table (Column)
There are no relationships defined yet.		

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

Close

MANAGE RELATIONSHIP



Create relationship

Select tables and columns that are related.

CrimeWatch

on	DateTime	Location	Description (groups)	Date	Year
T - AUTO	7/7/2020 5:38:00 PM	POINT (-122.25808 37.798)	Other	Tuesday, July 7, 2020	2020
T - AUTO	5/30/2020 5:30:00 PM	POINT (-122.25683 37.7984)	Other	Saturday, May 30, 2020	2020
T - AUTO	10/25/2020 11:15:00 AM	POINT (-122.25683 37.7984)	Other	Sunday, October 25, 2020	2020

Calendar

Date	Year	MonthPrefix	MonthNumber
1/1/2018 12:00:00 AM	2018	Jan	1
1/2/2018 12:00:00 AM	2018	Jan	1
1/3/2018 12:00:00 AM	2018	Jan	1

Cardinality

Many to one (*:1)

Cross filter direction

Single

Make this relationship active

Apply security filter in both directions

Assume referential integrity

OK Cancel

MANAGE RELATIONSHIP

Create relationship

Select tables and columns that are related.

CrimeWatch

on	DateTime	Location	Description (groups)	Date	Year
T - AUTO	7/7/2020 5:38:00 PM	POINT (-122.25808 37.798)	Other	Tuesday, July 7, 2020	2020
T - AUTO	5/30/2020 5:30:00 PM	POINT (-122.25683 37.7984)	Other	Saturday, May 30, 2020	2020
T - AUTO	10/25/2020 11:15:00 AM	POINT (-122.25683 37.7984)	Other	Sunday, October 25, 2020	2020

Calendar

Date	Year	MonthPrefix	MonthNumber
1/1/2018 12:00:00 AM	2018	Jan	1
1/2/2018 12:00:00 AM	2018	Jan	1
1/3/2018 12:00:00 AM	2018	Jan	1

Cardinality: Many to one (*:1)
Cross filter direction: Single

- Make this relationship active
- Apply security filter in both directions
- Assume referential integrity

OK

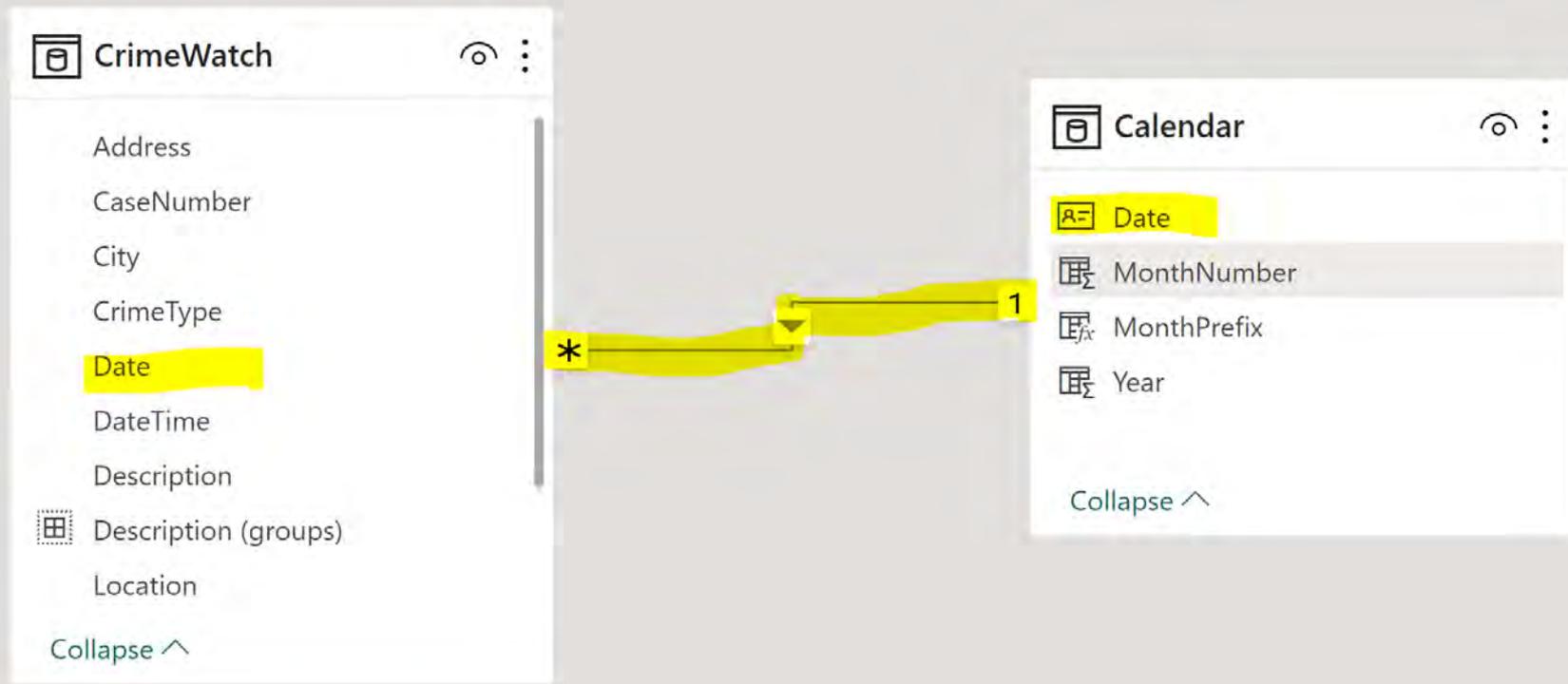
Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	CrimeWatch (Date)	Calendar (Date)

- New...
- Autodetect...
- Edit...
- Delete

Close

MANAGE RELATIONSHIP



CHANGE DATE TYPE

File Home Help External tools **Table tools** Colour

Name

Data type

Format

Structure Formatting

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

ADD TABLE AND ADD COLUMN

New Table

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

Add Column

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

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

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

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

MEASURES

```
Count = Count('CrimeWatch'[CaseNumber])
```

```
YTDCount = TOTALYTD([Count], 'Calendar'[Date])
```

```
PYTDCount = CALCULATE([YTDCount],  
CALCULATETABLE(DATEADD('Calendar'[Date], -1, YEAR),  
'Calendar'[DateWithCrimes] = TRUE))
```

```
YOYTDCount = IF(NOT ISBLANK([YTDCount]) && NOT  
ISBLANK([PYTDCount]), [YTDCount] - [PYTDCount])
```

```
YOYTD% = IF([PYTDCount] = 0, "NC",  
DIVIDE([YOYTDCount], [PYTDCount]))
```

VISUALS

Gauge, card, and KPI



KPI

KPI - Key Performance Indicators

KPI

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KPIs are quantifiable metrics used to measure the performance of a business or a specific aspect of it.

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KPIs help organizations evaluate their progress toward achieving strategic goals and objectives.

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KPIs help organizations evaluate their progress toward achieving strategic goals and objectives.

They provide a straightforward way to assess performance and make informed decisions based on data.

KPI

2023 YTD

1875

2021 YTD: 1932 (-2.95%)

08/06/2023

KPI

2023 YTD

1875

2021 YTD: 1932 (-2.95%)

08/06/2023

2023 YTD

2314

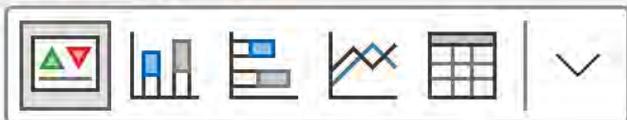
2021 YTD: 1850 (+25.08%)

08/06/2023

KPI

Build a visual ▼

Visual types



Off Suggest a type

Value

+Add data

Trend axis

+Add data

Target

+Add data

KPI

Build a visual ▼

Visual types



Off Suggest a type

Value

+Add data

Trend axis

+Add data

Target

+Add data

2023 YTD

2314

2021 YTD: 1850 (+25.08%)

08/06/2023

KPI

Build a visual ▼

Visual types



Off Suggest a type

Value

+Add data

Trend axis

+Add data

Target

+Add data

2023 YTD

2314

2021 YTD: 1850 (+25.08%)

08/06/2023

KPI

Build a visual ▼

Visual types



Off Suggest a type

Value

+Add data

Trend axis

+Add data

Target

+Add data

2023 YTD

2314

2021 YTD: 1850 (+25.08%)

08/06/2023

KPI

Build a visual

Visual types



Off Suggest a type

Value

+Add data

Trend axis

+Add data

Target

+Add data

2023 YTD

2314

2021 YTD: 1850 (+25.08%)

08/06/2023



KPI

Format ∨ ×

Visual Properties ⋮

> Size and style

> Title On

> Callout value

> Icons On

> Trend axis On

> Target label On

> Date On

KPI

Format ∨ ×

Visual Properties ...

> Size and style

> Title

> Callout value

> Icons

> Trend axis

> Target label

> Date



Current YTD

KPI

Format ∨ ×

Visual Properties ...

> Size and style

> Title

> Callout value

> Icons

> Trend axis

> Target label

> Date



Current YTD



Date

KPI

Format ∨ ×

Visual Properties ...

> Size and style

> Title

> Callout value

> Icons

> Trend axis

> Target label

> Date



Current YTD

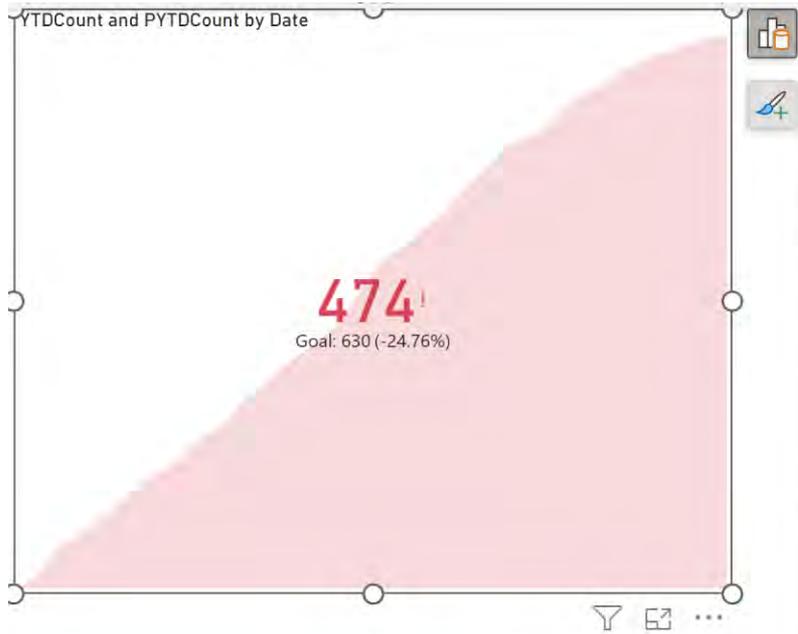


Date



Previous YTD

KPI



Build a visual

Visual types

Off Suggest a type

Value

YTDCount

Trend axis

Date

Target

PYTDCount

+Add data

Filters

Search

Filters on this visual

Date is (All)

DateWithCrimes is True

PYTDCount is (All)

Year is 2023

YTDCount is (All)

Add data fields here

KPI

Visual Properties ...

✓ Trend axis On

Direction

Low is good

Good Color

Green fx

Neutral Color

Yellow fx

Bad Color

Red fx

Transparency

20 %

Reset to default

KPI

Visual Properties ...

✓ Trend axis On

Direction

Low is good

Good Color

Neutral Color

Bad Color

Transparency

20 %

Reset to default

✓ Date On

Font

Segoe UI 9

Font color

Reset to default

KPI

∨ Target label

On

∨ Values

Font

Segoe UI ∨

12



Font color



fx

Label

Previous Year

KPI

Target label

On

Values

Font

Segoe UI

12

Font color



fx

Label

Previous Year

Target label

On

Values

Distance to goal

On

Style

Both

Value decimal places

2

Distance direction

Decreasing is positive

Font

Segoe UI

12

Font color

YTDCount and PYTDCount by Date



CARD



Card



Multi-Row Card



Card (new)

CARD

A single number, such as the total number of incidents, or total victims, is sometimes the most important thing you want to track such incidents per type.

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A type of visualization in Power BI called a *card* may be the best way to view that number.

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A type of visualization in Power BI called a *card* may be the best way to view that number.

As with almost all the native Power BI visualizations, cards can be created using:

- Q&A
- the report editor.

CARD

The screenshot displays the Microsoft Power BI interface. On the left side, a vertical list of seven blue buttons contains the following natural language queries:

- Ask a question about your data
- what is the count by location
- what is the count by crime type
- show me count for the last month
- show me PYTD count for the last week
- show me YTD count for the last month
- show me yoytd% for the last week
- show me yoytd% for the last

The top of the interface shows the ribbon with tabs: File, Home, Insert, Modeling, View, Optimize, Help, External tools, Format, and Data / Drill. The 'Data / Drill' tab is active, showing a 'Filters' pane on the right. The 'Filters' pane has two sections: 'Filters on this page' and 'Filters on all pages', both with 'Add data fields here' buttons. The 'Data' pane on the right lists the following fields:

- Calendar
- CrimeWatch
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (gr...
 - Location
 - PoliceBeat
 - PYTDCount
 - State
 - Year
 - YOYD5
 - YOYDCount
 - YTDCount

CARD

This screenshot shows the Power BI Desktop interface with a list of seven natural language queries in a card view. The queries are:

- Ask a question about your data
- what is the count by location
- what is the count by crime type
- show me count for the last month
- show me PYTD count for the last week
- show me YTD count for the last month
- show me YOYd% for the last week
- show me YOYd% for the last

The interface includes a ribbon with tabs for Home, Insert, Modeling, View, Optimize, Help, External tools, Format, and Data / Drill. A 'Build a visual' pane is open, and a 'Filters' pane on the right shows the 'Data' table with fields like Calendar, CrimeWatch, Address, CaseNumber, City, Count, CrimeType, Date, DateTime, Description, Location, PoliceBeat, PYTDCount, State, Year, YOYD%, YOYDCount, and YTDCount.

This screenshot shows the Power BI Desktop interface with a single card displaying the result of a query. The card contains the text:

show me YTD count for 2023

474
YTDCount

The interface is similar to the first screenshot, but the 'Build a visual' pane is now closed, and the 'Filters' pane on the right is also closed. The ribbon and other UI elements remain the same.

CARD

The screenshot displays the Microsoft Power BI Desktop interface. The ribbon at the top includes tabs for File, Home, Insert, Modeling, View, Optimize, Help, External tools, Format, and Data / Drill. The 'Home' tab is active, showing various toolbars for actions like Cut, Copy, Paste, and formatting options. A card visual is placed on the report page, displaying the text 'show me total CaseNumber in 2023' and the value '363' with the subtitle 'Count of CaseNumber'. A 'Build a visual' pane is open, showing visual type suggestions. On the right, the 'Filters' pane is open, showing a search bar and a list of fields for the 'CrimeWatch' table, including Address, CaseNumber, City, Count, CrimeType, Date, DateTime, Description, Description (gro-), Location, PoliceBeat, PYTDCount, State, Year, YOYTD%, YOYTDCount, and YTDCount.

CARD

This screenshot shows the Power BI Desktop interface. The main area displays a card visual with the text "show me total CaseNumber in 2023" and the value "363" with the subtitle "Count of CaseNumber". A "Build a visual" dialog box is open, showing "Visual types" and a "Suggest a type" button. The right-hand pane shows the "Filters" and "Data" sections. The "Data" section lists various fields from the "CrimeWatch" table, including Address, CaseNumber, City, Count, CrimeType, Date, DateTime, Description, Description (grouped), Location, PoliceBeat, PYTDCount, State, Year, YOYTD%, YOYTDCount, and YTDCount.

This screenshot shows the same Power BI Desktop interface as above, but with a context menu open over the "Count of CaseNumber" field in the "Data" pane. The context menu options are: "Remove field", "Rename for this visual", "First", "Last", "Count (Distinct)", "Count", "Show values as", and "New quick measure". The "Count (Distinct)" option is highlighted in yellow. The card visual in the background still shows the value "363" and the subtitle "Count of CaseNumber".

CARD

This screenshot shows the Power BI Desktop interface. A card visual is displayed on the left with the value "363" and the label "Count of CaseNumber". A tooltip above the card reads "show me total CaseNumber in 2023". The "Build a visual" menu is open, showing options for visual types and fields. A red arrow points from the "Build a visual" menu to the card visual.

This screenshot shows the same Power BI Desktop interface as the top image, but with the "Build a visual" menu open and the "Count (Distinct)" option selected. A red arrow points from the "Count (Distinct)" option to the card visual. The "Filters" pane on the right shows the "Year is in 2023" filter applied to the "Count of CaseNumber is (all)" field.

CARD

The image shows the Microsoft Power BI Desktop interface. At the top, the ribbon includes tabs for File, Home, Insert, Modeling, View, Optimize, Help, External tools, Format, and Data / Drill. The main workspace contains a card visualization with the text "16-012757" and "First CaseNumber" below it. The "Build a visual" pane is open, displaying "Visual types" with a table icon selected, a "Suggest a type" toggle, and a "Fields" list. The "Fields" list includes "First CaseNum...", "Remove field", "Rename for this visual", "First", "Last", "Count (Distinct)", "Count", and "New quick measure". The right-hand pane is divided into "Filters" and "Data" sections. The "Filters" section has three "Add data fields here" buttons. The "Data" section shows a search bar and a list of fields from the "CrimeWatch" table, including "Address", "CaseNumber" (checked), "City", "Count", "CrimeType", "Date", "DateTime", "Description", "Description (gro...", "Location", "PoliceBeat", "PYTDCount", "State", "Year", "YOYD%", "YOYDCount", and "YTDCount".

CARD

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

Clipboard: Cut, Copy, Format painter

Data: Get data, Excel workbook, OneLake data hub, SQL Server, Enter data, Dataverse, Recent sources

Queries: Transform data, Refresh data

Visual: New visual

Text box, More visuals

Calculations: New measure, Quick measure

Sensitivity: Sensitivity, Publish

Share

Build a visual

Visual types

Suggest a type

Fields

- First CaseNum... Remove field
- Rename for this visual
- First
- Last
- Count (Distinct)
- Count
- New quick measure

16-012757
First CaseNumber

Filters

Search

Filters on this visual

- First CaseNumber is (All)

Add data fields here

Filters on this page

Add data fields here

Filters on all pages

Add data fields here

Data

Search

- Calendar
- CrimeWatch
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (gro...
 - Location
 - PoliceBeat
 - PYTDCount
 - State

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

Clipboard: Cut, Copy, Format painter

Data: Get data, Excel workbook, OneLake data hub, SQL Server, Enter data, Dataverse, Recent sources

Queries: Transform data, Refresh data

Visual: New visual

Text box, More visuals

Calculations: New measure, Quick measure

Sensitivity: Sensitivity, Publish

Share

Build a visual

Visual types

Suggest a type

Fields

- Count of Case... X | >

474
Count of CaseNumber

Filters

Search

Filters on this visual

- Count of CaseNumber is (All)

Year is 2023

Filter type: Basic filtering

<input checked="" type="checkbox"/> Select all	
<input type="checkbox"/> 2018	4856
<input type="checkbox"/> 2019	5643
<input type="checkbox"/> 2020	5743
<input type="checkbox"/> 2021	6447
<input type="checkbox"/> 2022	6837
<input checked="" type="checkbox"/> 2023	474

Require single selection

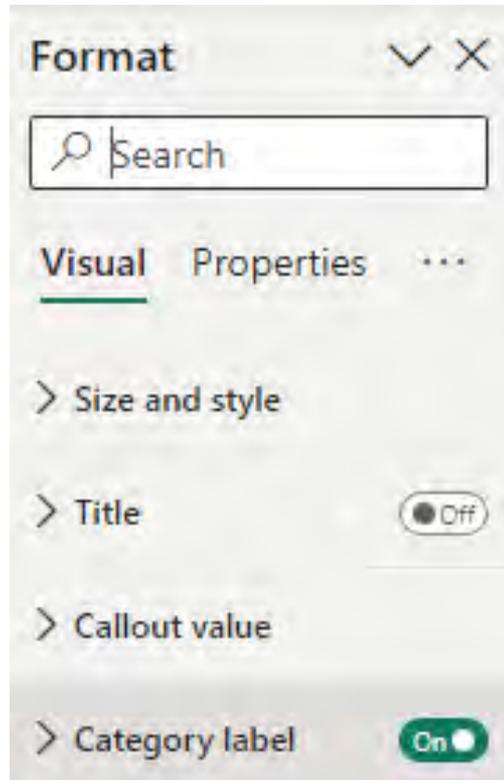
Add data fields here

Data

Search

- Calendar
- CrimeWatch
 - Address
 - CaseNumber
 - City
 - Count
 - CrimeType
 - Date
 - DateTime
 - Description
 - Description (gro...
 - Location
 - PoliceBeat
 - PYTDCount
 - State
 - Year
 - YOYTD%
 - YOYTDCount
 - YTDCount

CARD

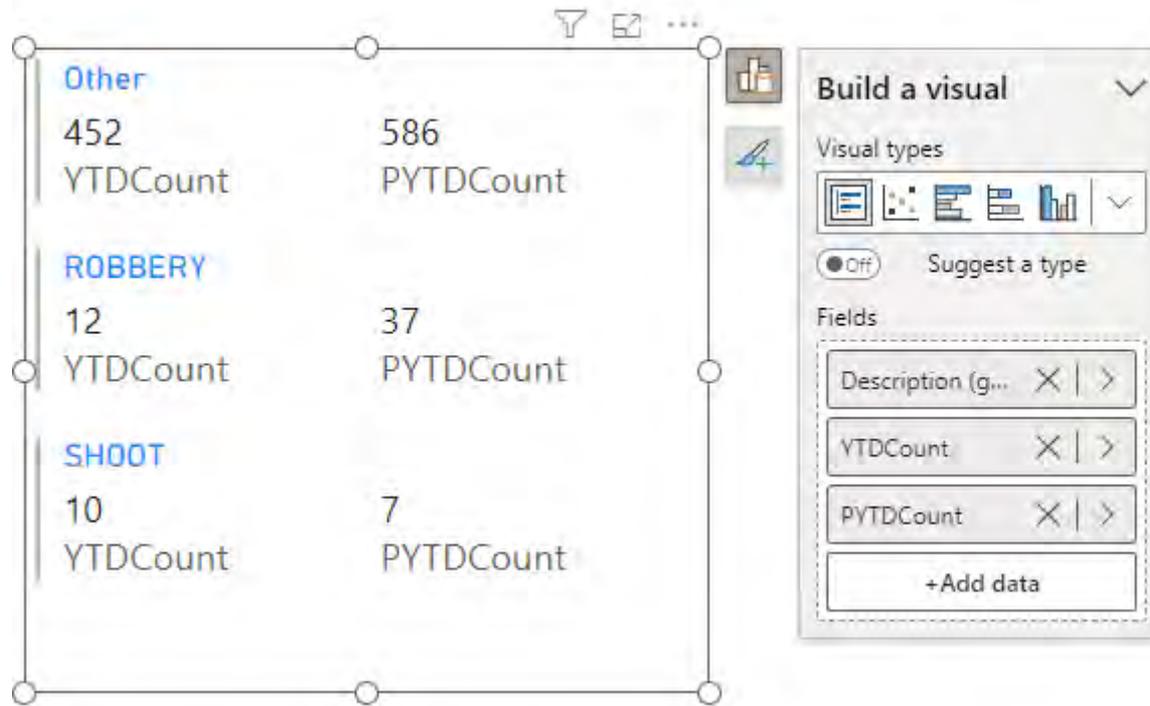


CARD

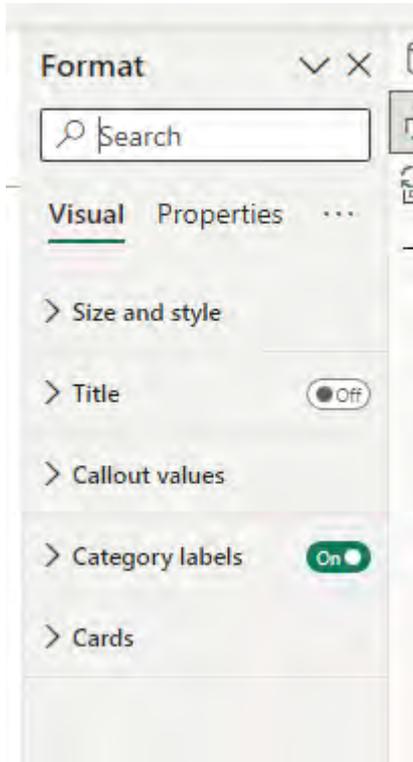
Total Number of Incidents 2023 YTD

474

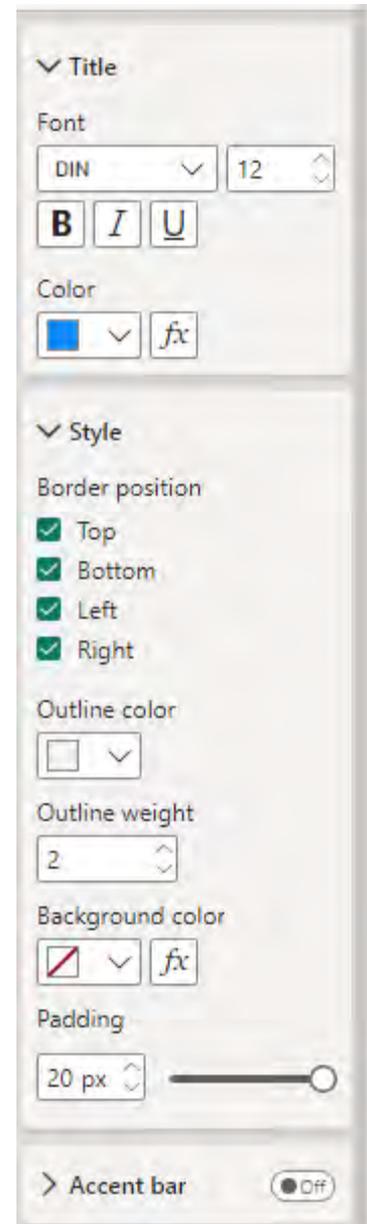
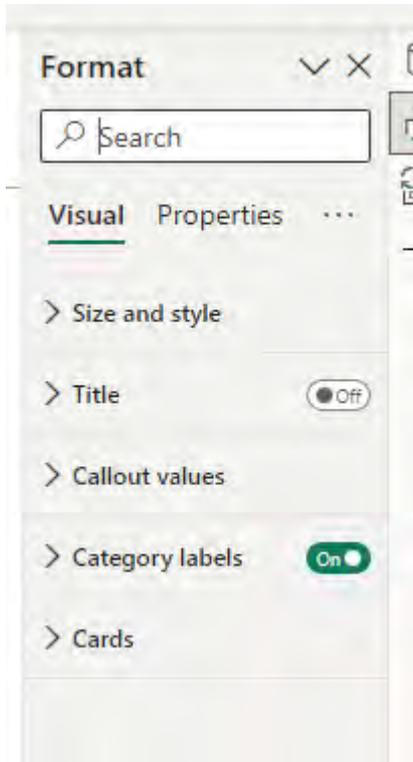
MULTI-ROW CARD



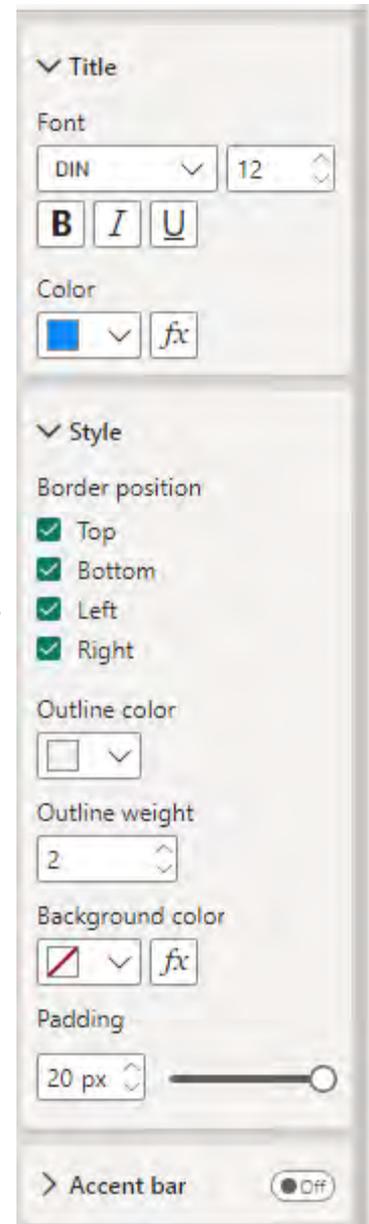
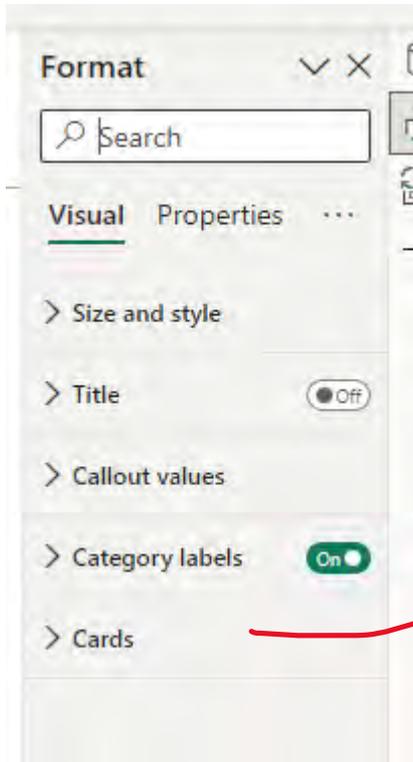
MULTI-ROW CARD



MULTI-ROW CARD



MULTI-ROW CARD



CARDS (NEW) - 2023

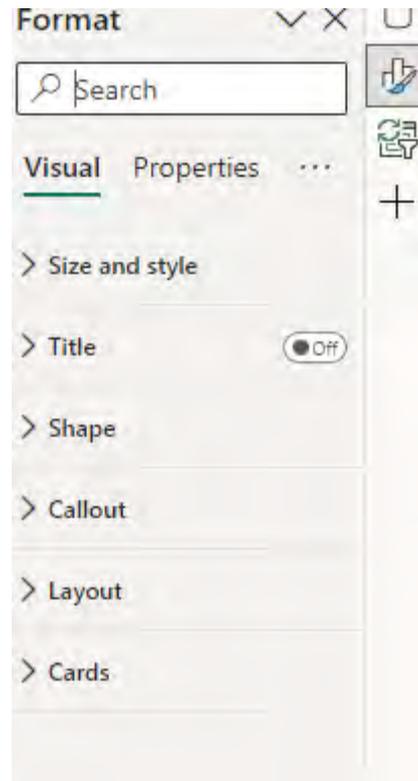
The screenshot displays the Microsoft Power BI Desktop interface. The ribbon at the top includes 'File', 'Home', 'Insert', 'Modeling', 'View', 'Optimize', 'Help', 'External tools', 'Format', 'Data / Drill', 'Table tools', and 'Measure tools'. The 'Measure tools' tab is active, showing options for Name, Format (set to Percentage), Data category (Uncategorized), and Home table (CrimeWatch). The formula bar contains the DAX measure: $1 \text{ YOYD\%} = \text{IF}([\text{PYTDCount}] = 0, \text{"NC"}, \text{DIVIDE}([\text{YOYDCount}], [\text{PYTDCount}]])$.

The main workspace shows a table with four columns, each containing a card visualization:

YTDCount	PYTDCount	YOYDCount	YOYD%
474	630	-156	-25%

The YOYD% card is circled in yellow. To the right of the table is the 'Visual types' pane, which is currently empty. Further right is the 'Data' pane, which shows the 'CrimeWatch' data source with various fields listed. The 'YOYD%' field is highlighted in the 'Filters on this page' section.

CARDS (NEW)



CARDS (NEW)

2023 Vs 2022

YTDCount

474

PYTDCount

630

YOYTDCount

-156

YOYTD%

-25%

TABLE AND MATRIX

Table and matrix

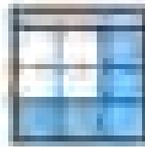
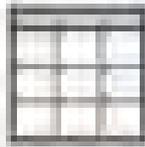


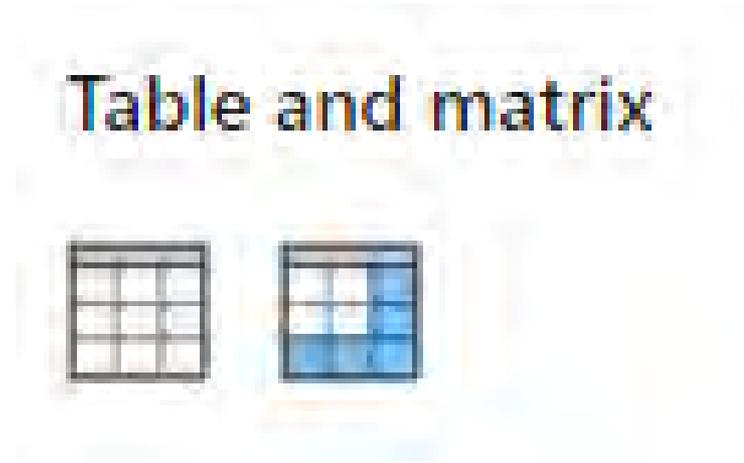
TABLE AND MATRIX



Table

The table is a basic 2-dimensional visual representing tabular data.

TABLE AND MATRIX



Table

The table is a basic 2-dimensional visual representing tabular data.

Matrix

The matrix is the name given to Excel's pivot table in the world of Power BI. In Matrix visual, you can add rows, columns, and values, unlike Table.

TABLE

The image shows a software interface for creating a table visualization. On the left, a table visual is displayed with a header row and several data rows. The table is currently empty. Above the table, there is a prompt: "Select or drag data to populate this visual". To the right of the table is a configuration panel titled "Build a visual". This panel includes a "Visual types" section with icons for various chart types, including a table icon. Below this, there is a toggle for "Suggest a type" which is currently turned "Off". The "Columns" section is highlighted in yellow and contains a "+Add data" button. At the bottom right of the table area, there are icons for filtering, editing, and a menu.

Select or drag data to populate this visual

Build a visual

Visual types

Off Suggest a type

Columns

+Add data

TABLE

DateTime	CaseNumber	Address	Description (groups)	PoliceBeat
1/2/2020 12:20:00 PM	16-012757	100 2ND ST	Other	01X
1/3/2018 5:00:00 PM	17-000495	1200 66TH AVE	Other	26Y
1/29/2018 1:40:00 PM	17-005142	1500 40TH AVE	Other	23X
1/1/2018 12:00:00 AM	17-066265	1200 80TH AV	Other	26Y
1/1/2018 12:09:00 AM	18-000001	1000 91ST AV	Other	33X
1/1/2018 12:04:00 AM	18-000002	105TH AV & INTERNATIONAL BLVD	Other	32X
1/1/2018 12:03:00 AM	18-000011	1300 64TH AV	Other	26Y
1/1/2018 12:01:00 AM	18-000016	1300 99TH AV	Other	32X
1/1/2018 1:36:00 AM	18-000026	1100 82ND AV	Other	33X
1/1/2018 2:26:00 AM	18-000036	1400 8TH AV	Other	19X
1/1/2018 4:23:00 AM	18-000046	1300 97TH AV	Other	33X
1/1/2018 6:52:00 AM	18-000050	1300 81ST AV	Other	26Y
1/1/2018 6:15:00 AM	18-000063	1400 65TH AV	Other	27Y
1/1/2018 1:00:00 AM	18-000088	100 KERWIN AV	Other	31Z
1/1/2018 2:08:00 PM	18-000093	1300 INTERNATIONAL BLVD	Other	19X
1/1/2018 6:39:00 PM	18-000118	00 SWAN WY	Other	31X
1/1/2019 7:58:00 PM	18-000142	10600 RUSSETT	Other	31X
1/1/2019 7:58:00 PM	18-000142	10600 RUSSETT	SHOOT	31X
1/1/2018 2:00:00 PM	18-000156	1200 102ND AV	SHOOT	32X
1/1/2018 4:00:00 PM	18-000266	1400 37TH AV	Other	23X
1/2/2018 3:56:00 PM	18-000276	1300 88TH AV	Other	33X
1/1/2018 6:00:00 PM	18-000359	100 FRANKLIN ST	Other	01X
1/2/2018 11:40:00 PM	18-000367	100 HEGENBERGER LOOP	Other	31Y
1/3/2018 1:30:00 AM	18-000375	1500 27TH AV	Other	20X
1/3/2018 5:00:00 AM	18-000398	1300 81ST AV	Other	26Y
1/2/2018 1:45:00 PM	18-000410	10100 INTERNATIONAL BLVD	Other	32X
1/1/2018 12:00:00 AM	18-000422	1100 65TH AV	Other	26Y
1/3/2018 4:30:00 AM	18-000429	100 98TH AV	Other	31Y
1/3/2018 12:17:00 PM	18-000451	1100 11TH AV	Other	19X
1/3/2018 2:19:00 PM	18-000474	100 98TH AV	Other	31Y
1/3/2018 2:35:00 PM	18-000478	1400 17TH AV	Other	19X

Build a visual

Visual types

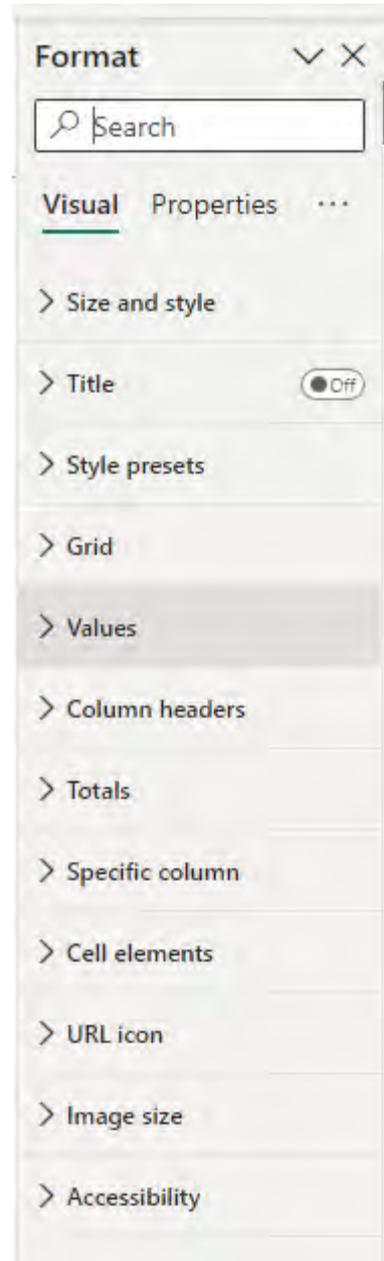
Off Suggest a type

Columns

- DateTime
- CaseNumber
- Address
- Description (g...
- PoliceBeat

+Add data

TABLE



TABLE

Description (groups)	YTD	PYTD	YOYTD%
Other	452	586	-23%
ROBBERY	12	37	-68%
SHOOT	10	7	43%
Total	474	630	-25%

Build a visual

Visual types

Off Suggest a type

Columns

- Description (g... X | >
- YTD X | >
- PYTD X | >
- YOYTD% X | >

+Add data

TABLE CONDITIONAL FORMATTING

The image shows a Power BI table with conditional formatting applied to the 'YOYTD%' column. The table data is as follows:

Description (groups)	YTD	PYTD	YOYTD%
Other	452	586	-23%
ROBBERY	12	37	-68%
SHOOT	10	7	43%
Total	474	630	-25%

The 'YOYTD%' column is highlighted in yellow in the original image. The 'Build a visual' pane is open, and the 'Conditional formatting' menu is displayed over the 'YOYTD%' field. The menu options are:

- Remove field
- Rename for this visual
- Move
- Add a sparkline
- Conditional formatting (highlighted)
- Remove conditional formatting
- Show value as
- New quick measure

The 'Conditional formatting' sub-menu is open, showing the following options:

- Background color (highlighted)
- Font color
- Data bars
- Icons
- Web URL

TABLE

Background color - YOYTD%



Format style

Apply to

What field should we base this on?

Rules

Reverse color order

+ New rule

If value	>	0	Number	and	<	100	Number	then	
If value	>	-100	Number	and	<	0	Number	then	

[Learn more about conditional formatting](#)

OK

Cancel

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

Clipboard: Paste, Copy, Format painter, Get data, Excel workbook, OneLake data hub, SQL Server data, Enter Data, Dataverse, Recent sources, Transform data, Refresh data, New visual, Text box, More visuals, New measure, Quick measure, Sensitivity, Publish

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
ROBBERY	205	212	231	228	226	12	12
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474

Build a visual

Visual types: [Table icon]

Rows: Description (g...), Description

Columns: Year

Values: YTDCount

Filters

Filters on this visual: Description is (All), Description (groups) is (All), Year is (All), YTDCount is (All)

Filters on this page: Add data fields here

Filters on all pages: Add data fields here

Data

Calendar: Date, DateWithCrimes, MonthNumber, MonthPrefix, Year

CrimeWatch: Address, CaseNumber, City, Count, CrimeType, Date, DateTime, Description, Description (gro...), Location, PoliceBeat, PYTDCount, State, Year, YOYTD%, YOYTDCount, YTDCount

+ 114%

MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	14	25	25	54	45	4	4
ROBBERY	205	212	231	228	226	12	12
ROBBERY-OTHER DANGEROUS WEAPON	8	4	10	9	8		
ROBBERY-KNIFE OR CUTTING INSTRUMENT	19	9	16	16	8		
ROBBERY-FIREARM	89	100	101	124	130	7	7
ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	1	3	3	6		
ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT		1		1	3	1	1
ROBBERY/INHABITED DWELLING - KNIFE OR CUTTING INSTRUMENT	1		2				
ROBBERY/INHABITED DWELLING - FIREARM	5	5	5	5	8		
ROBBERY/ATM - STRONGARM (HANDS, FISTS, FEET)				1	1		
ROBBERY/ATM - FIREARM			1				
ROBBERY - STRONG ARM (HANDS, FISTS, FEET, ETC.)	79	92	93	69	62	4	4
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474



MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
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ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT		1		1	3	1	1
ROBBERY/INHABITED DWELLING - KNIFE OR CUTTING INSTRUMENT	1		2				
ROBBERY/INHABITED DWELLING - FIREARM	5	5	5	5	8		
ROBBERY/ATM - STRONGARM (HANDS, FISTS, FEET)				1	1		
ROBBERY/ATM - FIREARM			1				
ROBBERY - STRONG ARM (HANDS, FISTS, FEET, ETC.)	79	92	93	69	62	4	4
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474



Filters and slicers affecting this visual
There aren't any filters applied right now.

MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	14	25	25	54	45	4	4
ROBBERY	205	212	231	228	226	12	12
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ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	1	3	3	6		
ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT		1		1	3	1	1
ROBBERY/INHABITED DWELLING - KNIFE OR CUTTING INSTRUMENT	1		2				
ROBBERY/INHABITED DWELLING - FIREARM	5	5	5	5	8		

Filters and slicers affecting this visual
There aren't any filters applied right now.

Description (groups)	2018	2019	2020	2021	2022	2023	Total
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MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	14	25	25	54	45	4	4
ROBBERY	205	212	231	228	226	12	12
ROBBERY-OTHER DANGEROUS WEAPON	8	4	10	9	8		
ROBBERY-KNIFE OR CUTTING INSTRUMENT	19	9	16	16	8		
ROBBERY-FIREARM	89	100	101	124	130	7	7
ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	1	3	3	6		
ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT		1		1	3	1	1
ROBBERY/INHABITED DWELLING - KNIFE OR CUTTING INSTRUMENT	1		2				
ROBBERY/INHABITED DWELLING - FIREARM	5	5	5	5	8		

Filters and slicers affecting this visual
There aren't any filters applied right now.

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
ROBBERY	205	212	231	228	226	12	12
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
ROBBERY	205	212	231	228	226	12	12
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474

Description (groups)	2018	2019	2020	2021	2022	2023	Total
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ROBBERY	205	212	231	228	226	12	12
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474

- Export data
- Show as a table
- Remove
- Spotlight
- Sort descending
- Sort ascending
- Sort by
- Format

MATRIX

Clipboard Data Queries Insert

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
ROBBERY	205	212	231	228	226	12	12
Other	4610	5377	5431	6086	6518	452	452
Total	4856	5643	5743	6447	6837	474	474

Drill on Rows

Build a visual

Visual types

Off Suggest a type

Rows

- Description (g... X | >
- Description X | >
- +Add data

Columns

- Year X | >
- MonthPrefix X | >
- +Add data

Values

- YTDCount X | >
- +Add data

MATRIX EXTENDED COLUMNS

Year	2018												Total	2019											
	Description (groups)	Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May	Nov	Oct		Sep	Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May		
SHOOT	15	30	41	7	6	20	19	11	19	37	33	30	41	23	36	54	6	4	35	33	14				
ROBBERY	63	130	205	34	12	117	102	44	81	183	164	145	205	65	139	212	30	22	122	101	46				
Other	1491	3036	4610	778	413	2616	2239	1124	1873	4174	3812	3415	4610	1597	3337	5377	762	395	2874	2438	1166	15			
Total	1569	3196	4856	819	431	2753	2360	1179	1973	4394	4009	3590	4856	1685	3512	5643	798	421	3031	2572	1226	21			

Build a visual

Visual types

Off Suggest a type

Rows

- Description (g... X | >
- Description X | >
- +Add data

Columns

- Year X | >
- MonthPrefix X | >
- +Add data

Values

- YTDCount X | >
- +Add data

MATRIX EXTENDED ROWS AND COLUMNS

Year	2018													2019
Description (groups)	Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May	Nov	Oct	Sep	Total	Apr
SHOOT	15	30	41	7	6	20	19	11	19	37	33	30	41	
SHOOT:INHAB DWELL/VEH/ETC			3							2	1		3	
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	10	18	24	3	3	12	12	7	12	21	19	18	24	
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	5	12	14	4	3	8	7	4	7	14	13	12	14	
ROBBERY	63	130	205	34	12	117	102	44	81	183	164	145	205	
ROBBERY-OTHER DANGEROUS WEAPON	4	4	8			4	4	1	4	8	6	5	8	
ROBBERY-KNIFE OR CUTTING INSTRUMENT	5	11	19	3		10	9	4	6	18	17	14	19	
ROBBERY-FIREARM	32	64	89	20	9	58	48	24	42	78	73	67	89	
Total	1569	3196	4856	819	431	2753	2360	1179	1973	4394	4009	3590	4856	1179

Drill on Columns

Build a visual ▼

Visual types

Off Suggest a type

Rows

Description (g... X | >

Description X | >

+Add data

Columns

Year X | >

MonthPrefix X | >

+Add data

Values

YTDCount X | >

+Add data

MATRIX



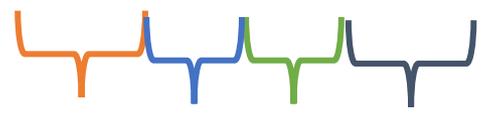
Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474



MATRIX



Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474



MATRIX



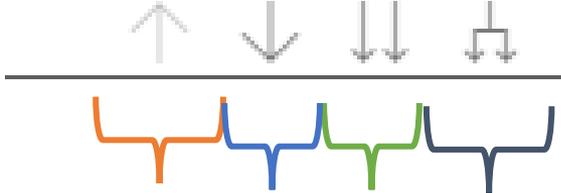
Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474



Return back

MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474

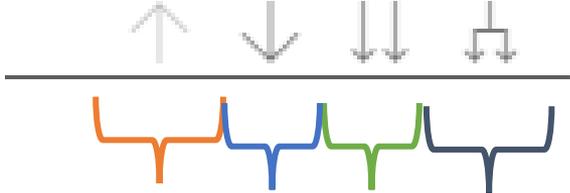


Return back

Turn on Drill Down

MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474



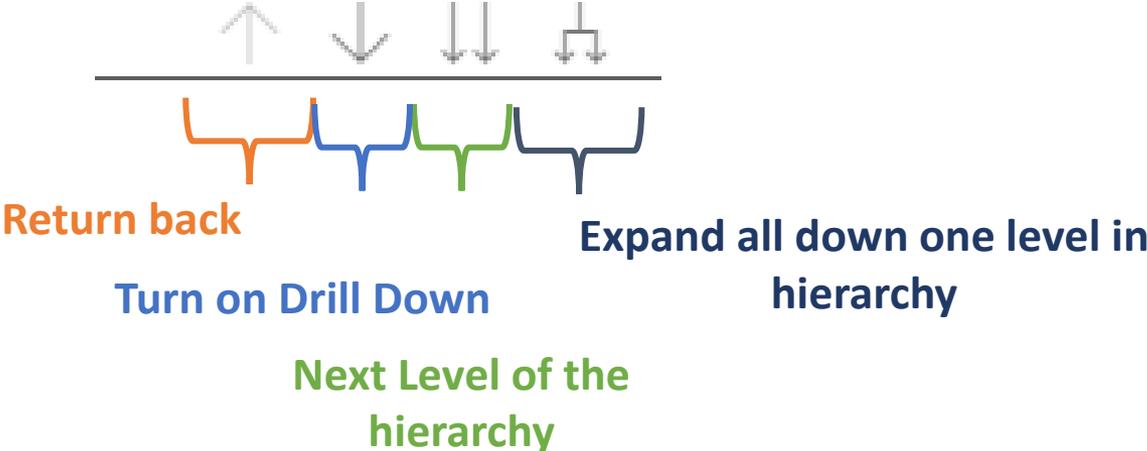
Return back

Turn on Drill Down

Next Level of the hierarchy

MATRIX

Description (groups)	2018	2019	2020	2021	2022	2023	Total
Other	4610	5377	5431	6086	6518	452	452
ROBBERY	205	212	231	228	226	12	12
SHOOT	41	54	81	133	93	10	10
Total	4856	5643	5743	6447	6837	474	474

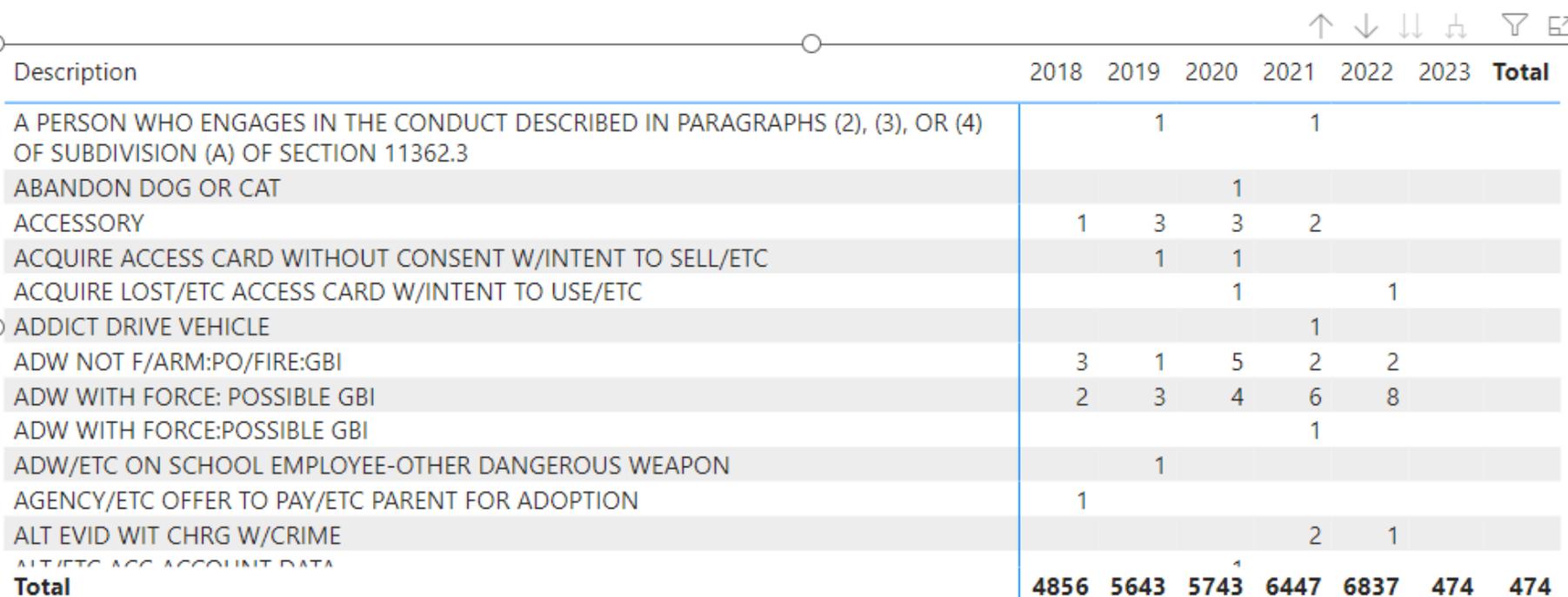


MATRIX

Using the drill-down buttons, the visual user can dive deeply between dimensions. You can switch from one size to another using this capability.

MATRIX

Using the drill-down buttons, the visual user can dive deeply between dimensions. You can switch from one size to another using this capability.



The image shows a screenshot of a data matrix interface. At the top right, there are several navigation icons: an upward arrow, a downward arrow, a double downward arrow, a refresh icon, a funnel icon, a share icon, and a more options icon. Below these icons is a table with the following structure:

Description	2018	2019	2020	2021	2022	2023	Total
A PERSON WHO ENGAGES IN THE CONDUCT DESCRIBED IN PARAGRAPHS (2), (3), OR (4) OF SUBDIVISION (A) OF SECTION 11362.3		1		1			
ABANDON DOG OR CAT			1				
ACCESSORY	1	3	3	2			
ACQUIRE ACCESS CARD WITHOUT CONSENT W/INTENT TO SELL/ETC		1	1				
ACQUIRE LOST/ETC ACCESS CARD W/INTENT TO USE/ETC			1		1		
ADDICT DRIVE VEHICLE				1			
ADW NOT F/ARM:PO/FIRE:GBI	3	1	5	2	2		
ADW WITH FORCE: POSSIBLE GBI	2	3	4	6	8		
ADW WITH FORCE:POSSIBLE GBI				1			
ADW/ETC ON SCHOOL EMPLOYEE-OTHER DANGEROUS WEAPON		1					
AGENCY/ETC OFFER TO PAY/ETC PARENT FOR ADOPTION	1						
ALT EVID WIT CHRGR W/CRIME				2	1		
ALT/ETC ACC ACCOUNT DATA			1				
Total	4856	5643	5743	6447	6837	474	474

MATRIX

Using a tree-like looking button, a user can expand all the dimensions in the Matrix giving a concise way to represent and compare data across dimensions.

MATRIX

Using a tree-like looking button, a user can expand all the dimensions in the Matrix giving a concise way to represent and compare data across dimensions.

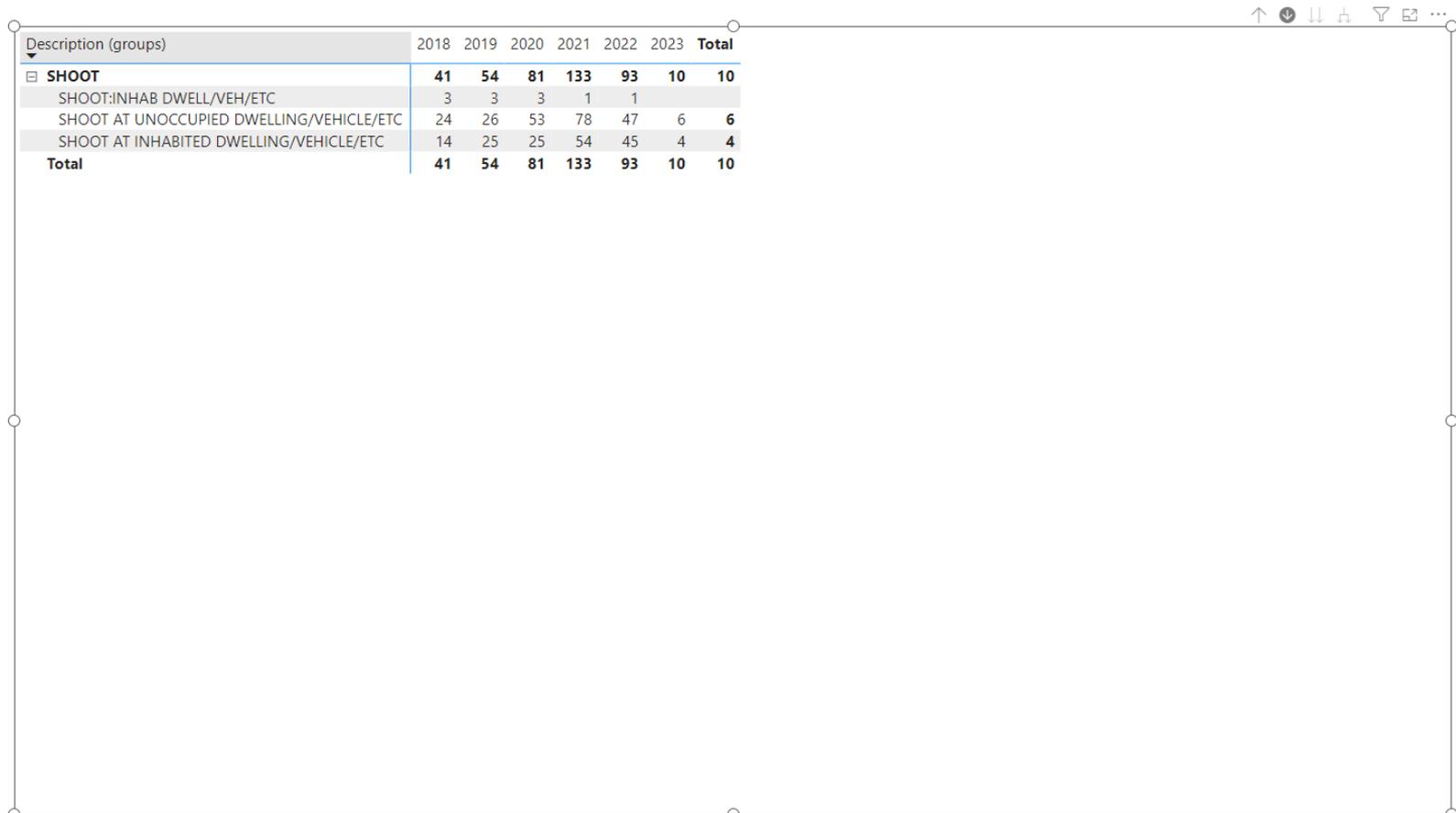
Description (groups)	2018	2019	2020	2021	2022	2023	Total
▾ SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	14	25	25	54	45	4	4
▾ ROBBERY	205	212	231	228	226	12	12
ROBBERY-OTHER DANGEROUS WEAPON	8	4	10	9	8		
ROBBERY-KNIFE OR CUTTING INSTRUMENT	19	9	16	16	8		
ROBBERY-FIREARM	89	100	101	124	130	7	7
ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	1	3	3	6		
ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT		1		1	3	1	1
ROBBERY/INHABITED DWELLING - KNIFE OR CUTTING INSTRUMENT	1		2				
ROBBERY/INHABITED DWELLING - FIREARM	5	5	5	5	8		
ROBBERY/ATM - STRONGARM (HANDS, FISTS, FEET)				1	1		
ROBBERY/ATM - FIREARM			1				
ROBBERY - STRONG ARM (HANDS, FISTS, FEET, ETC.)	79	92	93	69	62	4	4
▾ Other	4610	5377	5431	6086	6518	452	452
WPN POSS PROHIB GROUNDS	1						
WITH INTENT TO DEFRAUD ACQUIRE ID OF PERS DEPLOYED OUT OF STATE (AMENDED TO:COMMIT MAIL THEFT)			2	8	2		
WILLFULLY DISCHARGE FIREARM IN A GROSSLY NEG MANNER	1		2				
WILLFUL DISCHARGE FIREARM IN NEGLIGENT MANNER	66	87	141	275	171	25	25
WILLFUL CRUELTY TO CHILD:POSSIBLE INJURY/DEATH			5		4		
WILLFUL CRUELTY TO CHILD WITH POSSIBLE INJURY/DEATH (AMENDED)				1	1		
WILLFUL CRUELTY TO CHILD	7	5	2	1	2		
VOL PROTECTIVE ORDER:MNR	1	6	5	1	1		
VIOLENT FELON POSSESS/OWN/PURCHASE BODY ARMOR			2	1			
VIOLATION PAROLE:FELONY	10	4	6	5	2		
VIOLATION OF TOBACCO RETAIL LICENSE	1	1	1	1			
VIOLATION OF PROBATION-MISD	18	19	10	8	9	1	1
VIOLATION OF PROBATION-FELONY	45	43	23	13	14		
VIOLATION CUSTODY DECREE	1	1					
VIOLATE PROTECTIVE ORDER:DOMESTIC VIOLENCE:W/PRIOR			1				
VIOLATE COURT ORDER TO PREVENT DOMESTIC VIOLENCE W/PR	2	2	2		4		
VIOLATE COURT ORDER TO PREVENT DOMESTIC VIOLENCE	41	58	42	33	36	4	4
Total	4856	5643	5743	6447	6837	474	474

MATRIX

Using a drill-down button, a user can expand the dimensions in the Matrix for a specific subgroup.

MATRIX

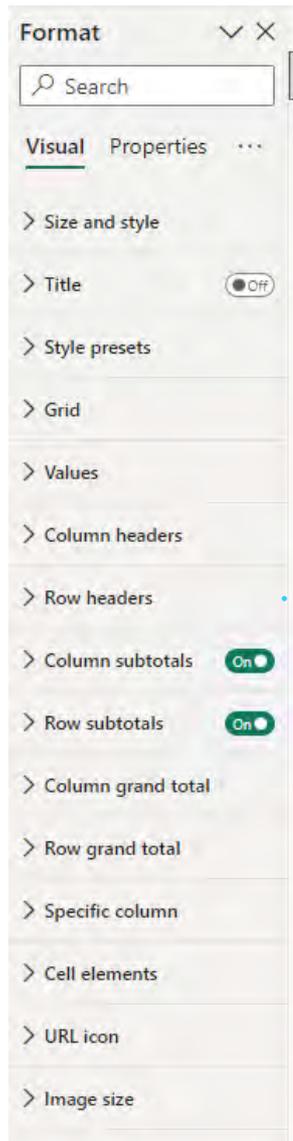
Using a drill-down button, a user can expand the dimensions in the Matrix for a specific subgroup.



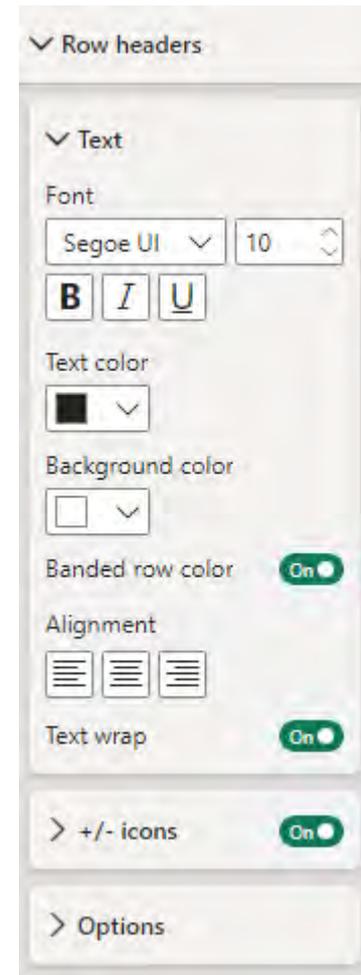
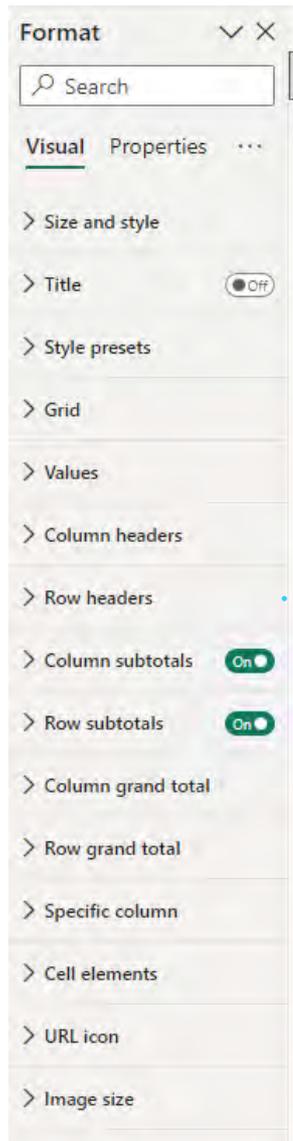
The screenshot shows a data matrix interface. At the top right, there is a toolbar with icons for navigation and filtering. The main table has columns for years (2018-2023) and a 'Total' column. The 'SHOOT' group is expanded, showing its subgroups: 'SHOOT:INHAB DWELL/VEH/ETC', 'SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC', and 'SHOOT AT INHABITED DWELLING/VEHICLE/ETC'. A 'Total' row is also present at the bottom of the expanded group.

Description (groups)	2018	2019	2020	2021	2022	2023	Total
SHOOT	41	54	81	133	93	10	10
SHOOT:INHAB DWELL/VEH/ETC	3	3	3	1	1		
SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	24	26	53	78	47	6	6
SHOOT AT INHABITED DWELLING/VEHICLE/ETC	14	25	25	54	45	4	4
Total	41	54	81	133	93	10	10

MATRIX FORMAT



MATRIX FORMAT



MATRIX FORMAT

Format

Search

Visual Properties

- > Size and style
- > Title
- > Style presets
- > Grid
- > Values
- > Column headers
- > Row headers
- > Column subtotals
- > Row subtotals
- > Column grand total
- > Row grand total
- > Specific column
- > Cell elements
- > URL icon
- > Image size

Row headers

Text

Font

Segoe UI 10

B *I* U

Text color

Background color

Banded row color

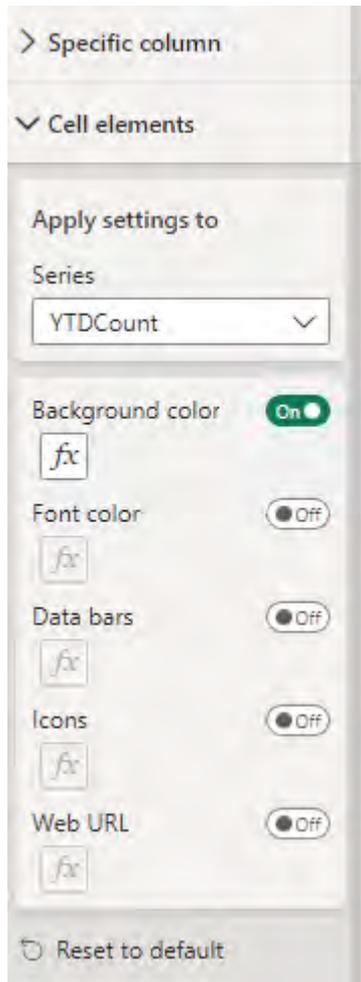
Alignment

Text wrap

> +/- icons

> Options

MATRIX CONDITIONAL FORMATTING



MATRIX CONDITIONAL FORMATTING

> Specific column

Cell elements

Apply settings to

Series

YTDCount

Background color On

Font color Off

Data bars Off

Icons Off

Web URL Off

Reset to default

Background color - Background color

Format style: Gradient

Apply to: Values only

What field should we base this on?: YTDCount

How should we format empty values?: As zero

Minimum: Custom (0)

Center: Custom (1)

Maximum: Highest value

Add a middle color



[Learn more about conditional formatting](#)

OK Cancel

MATRIX

		Year 2022												Total Incidents		
Description (groups)	Description	Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May	Nov	Oct	Sep	Total Incidents	Total Incidents	
SHOOT	SHOOT-INHAB DWELL/VEH/ETC			1							1			1	1	
	SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	20	34	47	7	1	32	26	12	25	46	45	40	47	47	
	SHOOT AT INHABITED DWELLING/VEHICLE/ETC	19	30	45	7	4	29	24	13	21	42	39	35	45	45	
	Total per Month	39	64	93	14	5	61	52	25	46	89	84	75	93	93	
ROBBERY	ROBBERY-OTHER DANGEROUS WEAPON	3	6	8	1			4	4	3	4	7	7	6	8	8
	ROBBERY-KNIFE OR CUTTING INSTRUMENT	1	4	8	1			3	2	1	2	8	8	5	8	8
	ROBBERY-FIREARM	62	99	130	33	21	90	81	48	72	119	115	108	130	130	
	ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	6	6	3	2	5	5	3	4	6	6	6	6	6	6
	ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT	2	2	3	2	1	2	2	2	2	3	3	3	3	3	3
	ROBBERY/INHABITED DWELLING - FIREARM	5	6	8	3	1	5	5	5	5	7	7	7	7	8	8
	ROBBERY/ATM - STRONGARM (HANDS, FISTS, FEET)		1	1								1	1	1	1	1
	ROBBERY - STRONG ARM (HANDS, FISTS, FEET, ETC.)	27	42	62	12	8	36	31	17	30	57	53	45	62	62	
	Total per Month	104	166	226	55	33	145	130	79	119	208	200	181	226	226	
Other	2112	4368	6518	1007	471	3825	3211	1592	2626	6057	5496	4936	6518	6518		
Total per Month	2255	4598	6837	1076	509	4031	3393	1696	2791	6354	5780	5192	6837	6837		

POWER BI – REPORT PAGE



LINK POLICE DEPARTMENT

YTDCount and PYTDCount by Date

474

Previous Year: 630 (+156 +24.76%)
05/02/2023

Total Number of Incidents 2023 YTD

474

2023 Vs 2022

YTDCount

474

PYTDCount

630

YOYTDCount

-156

YOYTD%

-25%

Description (groups)	Description	Year 2022												Total Incidents	Total Incidents
		Apr	Aug	Dec	Feb	Jan	Jul	Jun	Mar	May	Nov	Oct	Sep		
SHOOT	SHOOT:INHAB DWELL/VEH/ETC			1							1			1	1
	SHOOT AT UNOCCUPIED DWELLING/VEHICLE/ETC	20	34	47	7	1	32	28	12	25	46	45	40	47	47
	SHOOT AT INHABITED DWELLING/VEHICLE/ETC	19	30	45	7	4	29	24	13	21	42	39	35	45	45
	Total per Month	39	64	93	14	5	61	52	25	46	89	84	75	93	93
ROBBERY	ROBBERY-OTHER DANGEROUS WEAPON	3	6	8	1		4	4	3	4	7	7	6	8	8
	ROBBERY-KNIFE OR CUTTING INSTRUMENT	1	4	8	1		3	2	1	2	8	8	5	8	8
	ROBBERY-FIREARM	62	99	130	33	21	90	81	48	72	119	115	108	130	130
	ROBBERY/INHABITED DWELLING - STRONGARM (HANDS, FISTS, FEET)	4	6	6	3	2	5	5	3	4	6	6	6	6	6
	ROBBERY/INHABITED DWELLING - OTHER DANGEROUS INSTRUMENT	2	2	3	2	1	2	2	2	2	3	3	3	3	3
	ROBBERY/INHABITED DWELLING - FIREARM	5	6	8	3	1	5	5	5	5	7	7	7	8	8
	ROBBERY/ATM - STRONGARM (HANDS, FISTS, FEET)			1	1						1	1	1	1	1
	ROBBERY - STRONG ARM (HANDS, FISTS, FEET, ETC.)	27	42	62	12	8	36	31	17	30	57	53	45	62	62
	Total per Month	104	166	226	55	33	145	130	79	119	208	200	181	226	226
Other	2112	4368	6518	1007	471	3825	3211	1592	2626	6057	5496	4936	6518	6518	
Total per Month	2255	4598	6837	1076	509	4031	3393	1696	2791	6354	5780	5192	6837	6837	

POWER BI – REPORT PAGE



UNK POLICE DEPARTMENT

YTDCount and PYTDCount by Date

474 ✓

Previous Year: 630 (+156 +24.76%)
05/02/2023

Description (groups)	YTD	PYTD	YOYTD%
Other	452	586	-23%
ROBBERY	12	37	-68%
SHOOT	10	7	43%
Total	474	630	-25%

Total Number of Incidents 2023 YTD

474

DateTime	CaseNumber	Address	Description (groups)	PoliceBeat
1/1/2023 00:30	23-000868	1200 61ST AV	SHOOT	26Y
1/1/2023 15:10	23-000101	1100 88TH AV	SHOOT	33X
1/2/2023 11:29	23-000237	10400 JUNE CT	SHOOT	31Z
1/2/2023 15:00	23-000713	1200 53RD AV	ROBBERY	26X
1/2/2023 15:48	23-000274	10900 INTERNATIONAL BLVD	ROBBERY	32X
1/3/2023 03:10	23-000350	10000 MACARTHUR BLVD	ROBBERY	32Y
1/3/2023 12:12	23-000434	11200 GOLF LINKS RD	ROBBERY	35Y
1/7/2023 20:03	23-001182	1000 102ND AV	SHOOT	32X
1/8/2023 00:00	23-001304	1400 105TH AV	ROBBERY	32X
1/8/2023 18:00	23-001457	1000 CALCOT PL	SHOOT	20X
1/11/2023 11:03	23-001785	1200 INTERNATIONAL BLVD	ROBBERY	19X
1/14/2023 23:00	23-002584	1300 92ND AV	ROBBERY	33X
1/17/2023 13:12	23-002867	100 98TH AV	ROBBERY	31Y
1/17/2023 20:56	23-002906	1300 INTERNATIONAL BLVD	SHOOT	19X
1/18/2023 11:35	23-002999	1300 98TH AV	ROBBERY	32X
1/20/2023 10:20	23-003364	100 HEGENBERGER RD	ROBBERY	31Y
1/24/2023 14:20	23-004125	1400 79TH AV	ROBBERY	30X
1/27/2023 06:00	23-004923	1500 12TH AV	SHOOT	19X
1/30/2023 02:30	23-005118	1400 13TH AV	SHOOT	19X
2/1/2023 12:45	23-005578	100 10TH ST	ROBBERY	03X

TABLE



UNK POLICE DEPARTMENT



YTDCount and PYTDCount by Date

474

Previous Year: 630 (+156 +24.76%)
05/02/2023

Total Number of Incidents 2023 YTD

474

2023 Vs 2022

YTDCount

474

PYTDCount

630

YOYTDCount

-156

YOYTD%

-25%

DateTime	CaseNumber	Address	Description (groups)	PoliceBeat
1/1/2023 00:30	23-000868	1200 61ST AV	SHOOT	26Y
1/1/2023 15:10	23-000101	1100 88TH AV	SHOOT	33X
1/2/2023 11:29	23-000237	10400 JUNE CT	SHOOT	31Z
1/2/2023 15:00	23-000713	1200 53RD AV	ROBBERY	26X
1/2/2023 15:48	23-000274	10900 INTERNATIONAL BLVD	ROBBERY	32X
1/3/2023 03:10	23-000350	10000 MACARTHUR BLVD	ROBBERY	32Y
1/3/2023 12:12	23-000434	11200 GOLF LINKS RD	ROBBERY	35Y
1/7/2023 20:03	23-001182	1000 102ND AV	SHOOT	32X
1/8/2023 00:00	23-001304	1400 105TH AV	ROBBERY	32X
1/8/2023 18:00	23-001457	1000 CALCOT PL	SHOOT	20X
1/11/2023 11:03	23-001785	1200 INTERNATIONAL BLVD	ROBBERY	19X
1/14/2023 23:00	23-002584	1300 92ND AV	ROBBERY	33X
1/17/2023 13:12	23-002867	100 98TH AV	ROBBERY	31Y
1/17/2023 20:56	23-002906	1300 INTERNATIONAL BLVD	SHOOT	19X
1/18/2023 11:35	23-002999	1300 98TH AV	ROBBERY	32X
1/20/2023 10:20	23-003364	100 HEGENBERGER RD	ROBBERY	31Y
1/24/2023 14:20	23-004125	1400 79TH AV	ROBBERY	30X
1/27/2023 06:00	23-004923	1500 12TH AV	SHOOT	19X
1/30/2023 02:30	23-005118	1400 13TH AV	SHOOT	19X
2/1/2023 12:45	23-005578	100 10TH ST	ROBBERY	03X

TABLE



UNK POLICE DEPARTMENT

YTDCount and PYTDCount by Date

1
Previous Year: 4 (+3 +75%)
05/02/2023

Total Number of Incidents 2023 YTD

1

2023 Vs 2022

YTDCount	PYTDCount	YOYDCount	YOYD%
1	4	-3	-75%

DateTime	CaseNumber	Address	Description (groups)	PoliceBeat
1/11/2023 11:03	23-001785	1200 INTERNATIONAL BLVD	ROBBERY	19X

Filters
🔍

Filters on this page ...

Description (gro...
is not Other or SHOOT

Filter type ⌵

Basic filtering ⌵

- Select all
- Other 4443
- ROBBERY 215
- SHOOT 62

Require single selection

PoliceBeat
is 19X

Filter type ⌵

Basic filtering ⌵

- 18X 5
- 18Y 3
- 19X 215
- 20X 70
- 23X 100
- 25Y 6
- 26X 36

Require single selection

Add data fields here

Filters on all pages ...

ADDITIONAL INFORMATION (BOOKS)

✓ **Power Query**

- ✓ *Collect, Combine, and Transform Data Using Power Query in Excel and Power BI* (2018) by Gil Raviv

✓ **Entry Level**

- ✓ *Learn Power BI: Step by Step Guide to Building Your Own Reports* (2022) by Derek Wilson
- ✓ *Power BI - Business Intelligence Clinic: Create and Learn* Paperback (2018) by Roger F. Silva
- ✓ *Microsoft Power BI Dashboards Step by Step* (2018) by Errin O'Connor

✓ **Advance Level**

- ✓ *Analyzing Data with Power BI and Power Pivot for Excel* (2017), Marco Russo and Alberto Ferrari
- ✓ *The Definitive Guide to DAX: Business Intelligence for Microsoft Power BI, SQL Server Analysis Services, and Excel* (2019) by Marco Russo and Alberto Ferrari

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

Power BI Mapping in Power BI

- ✓ *General Map*
- ✓ *ESRI Map*
- ✓ *Other options*

CONCLUSIONS & QUESTIONS

Svetlana Gubin, Oakland PD

Sgubin@OaklandCA.gov

