

Power BI Tutorial

Veera Muangsin

Power BI

- A business intelligence software by Microsoft
- <https://powerbi.microsoft.com/>
- <https://community.powerbi.com/t5/Data-Stories-Gallery/bd-p/DataStoriesGallery>



Trade in Europe

a9126030767

like 250



Global Super Store

mwadhwani

like 235



Climate Change is Real

ravalib

like 228



Cancer Analytics

mmatey

like 208



Meat, to eat or not to eat? Narrative statistics

a9126030767

like 180



Executive Insights by Decisive Data

jolsby

like 179



Pharma Sales Analysis

Anonymous

like 158



Inventory Stock Analysis

rkarivalagan

like 153

Power BI Products

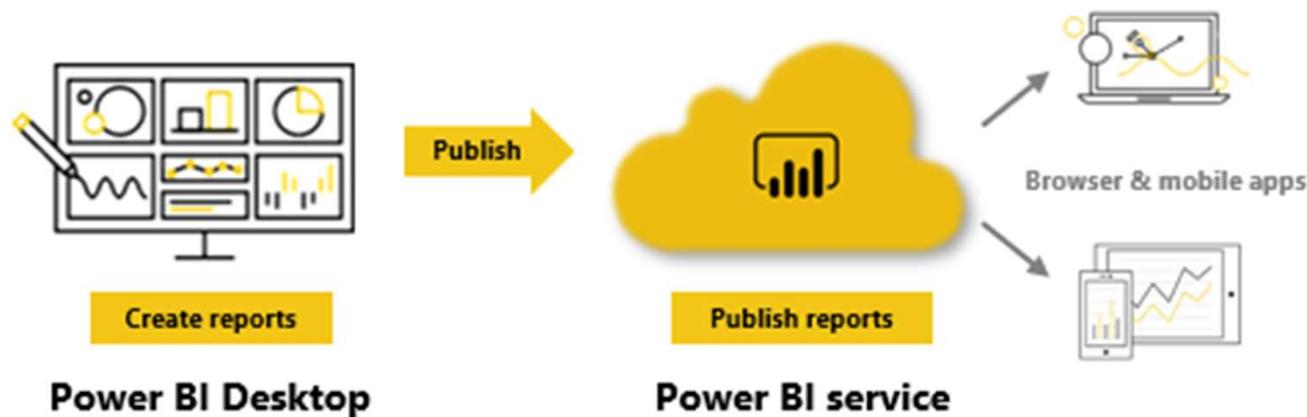
Product Name	Product Type	OS	Main Usage
Power BI Desktop	Installed program	Windows	Creating reports
Power BI Service	Web app	Any (run on browser)	Sharing reports, dashboard
Power BI Mobile	Mobile app	Windows, iOS, Android	Viewing

License

- **Free**
 - Basic cloud services
- **Power BI Pro**
 - Main features: sharing data and reports with other Pro users
 - \$9.99/user/month

Power BI Desktop vs Power BI Service

- Power BI Desktop is for creating content. Power BI Service is for sharing content.
- Power BI Service can also create content, but it lacks data preparation and editing features.
- Most users work with Power BI Desktop to produce reports and make them available to the Power BI Service for collaboration and sharing.



Power BI alternatives

- Tableau
 - Desktop app
 - \$70/month, free for students
 - <https://www.tableau.com/academic/students>
- Google Data Studio
 - Web app
 - Free
 - <https://datastudio.google.com/>

How is this tutorial organized?

- Most contents are based on Power BI Desktop.
- For non-Windows users, some tutorial for Power BI Service is also given.
 - The differences between desktop and online versions are mostly related to storage. The main application is quite the same.
- Due to frequent updates, the screen-captured images may be different from the current version of the program.

Getting Started with Power BI Desktop

For *Getting Started with Power BI Service* [click here](#)

Power BI Desktop

- <https://powerbi.microsoft.com/en-us/desktop/>



Go from data to insight to action with
Power BI Desktop

Create rich, interactive reports with visual analytics at your fingertips—for free.

Download free >

See download or language options >

Power BI Desktop: first page

The screenshot shows the Power BI Desktop application window titled "Untitled - Power BI Desktop". The ribbon bar at the top has tabs for File, Home (which is selected), Insert, Modeling, View, and Help. The Home tab contains several groups of icons: Data (Paste, Cut, Copy, Format painter, Get data from Excel, workbook datasets, Power BI Server, SQL Server, Enter data, Dataverse, Recent sources), Queries (Transform data, Refresh data, New visual, Text box, More visuals), Insert (New measure, Quick measure, Sensitivity, Publish), and Share. On the left, there's a ribbon of icons for navigating between reports. The main workspace is titled "Add data to your report" and includes buttons for "Import data from Excel", "Import data from SQL Server", "Paste data into a blank table", and "Try a sample dataset". Below these buttons is a link "Get data from another source →". On the right side, there are panes for "Visualizations" (with a "Build visual" button and a grid of visualization icons) and "Fields" (with sections for "Values" and "Drill through"). At the bottom, there are navigation buttons for "Page 1" and a plus sign, and a status bar indicating "Page 1 of 1".

Samples

<https://docs.microsoft.com/en-us/power-bi/create-reports/sample-datasets#download-original-sample-power-bi-files>

Download original sample .pbix Power BI files

Six of the built-in samples are also available as Power BI *.pbix* files. The *.pbix* files are designed to be used with Power BI Desktop.

1. Download the files individually using these links. Selecting these links saves the file automatically to your Downloads folder.

- Customer Profitability Sample PBIX ↗
- Human Resources Sample PBIX ↗
- Procurement Analysis Sample PBIX ↗
- **Retail Analysis Sample PBIX ↗**
- Sales and Marketing Sample PBIX ↗
- Supplier Quality Analysis Sample PBIX ↗

2. In Power BI Desktop, select **File > Open**, navigate to the location where you saved the sample *.pbix* file, and select the *.pbix* file to open it in Power BI Desktop.

Retail Analysis Sample PBIX

This workbook and related data is provided by obviEnce.

obviEnce
the science of making things obvious

www.obvience.com

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page selector

Info Overview District Monthly Sales New Stores +

Search Sign in

File Home Insert Modeling View Help

Cut Copy Format painter Paste Clipboard

Get data Excel Power BI SQL Enter Data Recent sources Data

Transform data Refresh data New visual Text box More visuals Insert Calculations Sensitivity Publish

Sensitivity Share

Filters Visualizations Fields

Build visual

Sales District Item Store Time

Add data fields here

Values Drill through Cross-report Keep all filters Add drill-through fields here

Page 1 of 4

Retail Analysis Sample PBIX

Retail Analysis Sample PBIX - Power BI Desktop

Search

Veera Muangsin

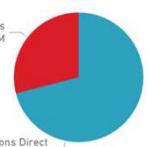
File Home Insert Modeling View Help

Cut Copy Format painter Paste Get data workbook hub Data SQL Server Enter data Dataverse Recent sources Transform Refresh data New visual Text box More visuals New measure Quick measure Sensitivity Publish Share

Clipboard Data

Store Sales Overview

This Year Sales by Chain



104 Total Stores

10 New Stores

This Year Sales by PostalCode and Store Type



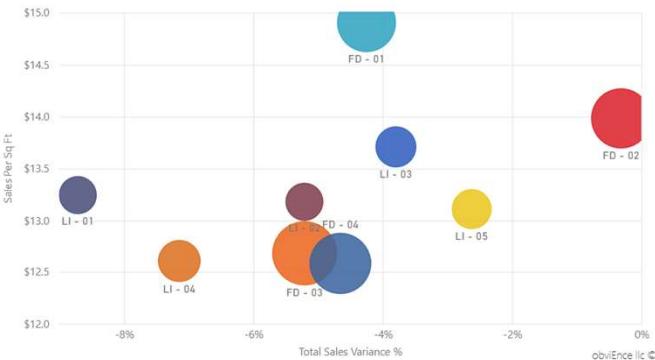
Store Type: ● New Store ○ Same Store

Total Sales Variance by FiscalMonth and District Manager



Legend: DM (Allan Guinot, Andrew Ma, Annelie Zubar, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGurk, Tina Lassila, Valery Ushakov)

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



Sales Per Sq Ft

Total Sales Variance %

Filters

Visualizations

Data

Filters on this page

- Chain is (All)
- City is (All)
- District is (All)
- Name is (All)
- Open Month is (All)
- Store Type is (All)

Add data fields here

Values

Drill through

Cross-report Off

Keep all filters On

Add drill-through fields here

Filters on all pages

Add data fields here

Info Overview District Monthly Sales New Stores +

Page 2 of 4

73%

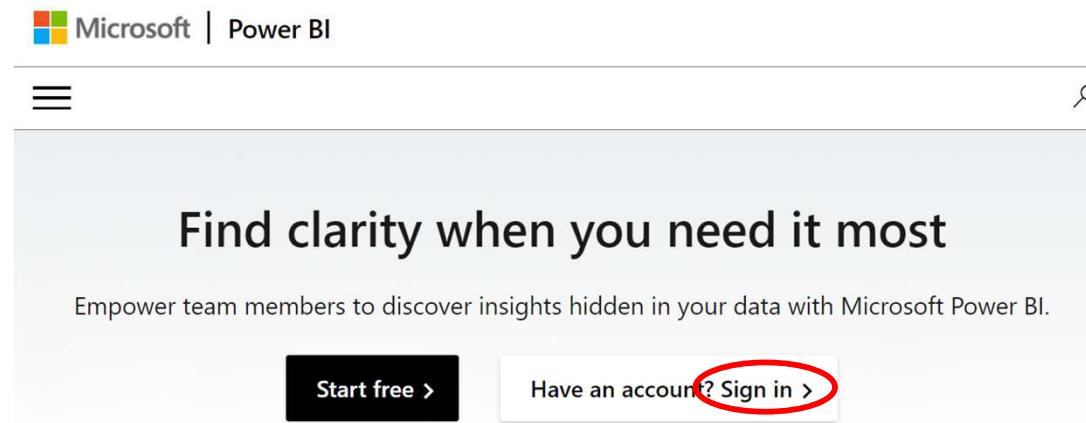
Getting Started with Power BI Service

For *Getting Started with Power BI Desktop* [click here](#)

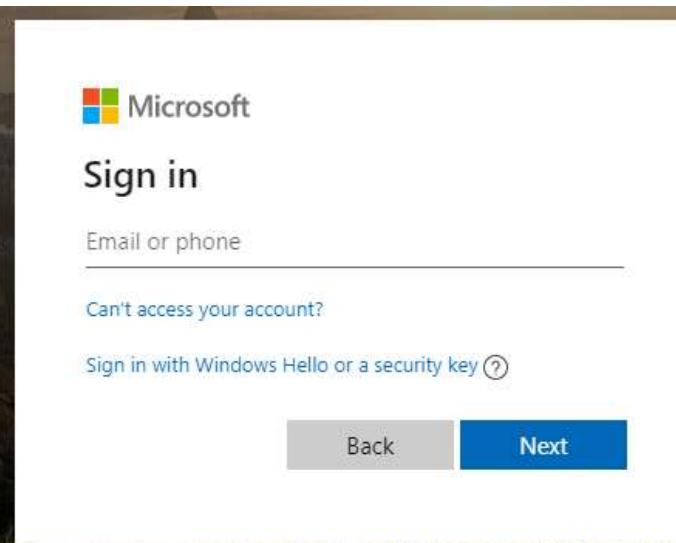
Power BI Service

<https://app.powerbi.com>

<https://powerbi.microsoft.com/en-us/>



Sign-in with Office 365 account



Microsoft Office365 at Chula

- About Microsoft Office365
<https://www.it.chula.ac.th/en/service/en-office365/>
- Sign-in with student account
63xxxxxxxx@student.chula.ac.th
- Same password as CUNET account

Power BI Service: Home

https://app.powerbi.com/home

Power BI Home

+ New report

New items saved to : My workspace

Recommended

You frequently open this

Retail Analysis Sample

You frequently open this

My workspace

Getting started with Power BI

Explore basic Power BI concepts

Explore this data story

Explore the 100 most useful produ...

Explore t

Cancer Analytics Dashboard

Cancer statistics

Recent

Favorites

My apps

Filter by keyword

Filter

	Name	Type	Opened	Location	Endorsement	Sensitivity
	Retail Analysis Sample	Report	now	My workspace	—	—
	income_vs_lifeexpectancy_table.xlsx	Dashboard	now	My workspace	—	—
	My workspace	Workspace	now	Workspaces	—	—

Get a sample report

The screenshot shows the Power BI Learn center interface. On the left, there's a vertical sidebar with icons for Home, Create, Browse, Data hub, Metrics, Apps, Learn (which is highlighted with a red circle and labeled '1'), and Workspaces. Below the sidebar, the title 'Learning center' is displayed, followed by the subtitle 'Your hub for all Power BI training'. There are three main sections: 'Learn how to use Power BI' (with a 'Start learning' button), 'Dig into the documentation' (with a 'Read docs' button), and 'Join the Power BI community' (with a 'Join in' button). At the bottom, there's a section titled 'Sample reports' featuring three sample reports: 'Retail Analysis Sample', 'Sales and Marketing Sample', and 'Supplier Quality Analysis Sample'. A red circle highlights the 'Retail Analysis Sample' report, and a red arrow labeled '2' points to it. A red circle also highlights the navigation arrows at the top right of the sample report cards.

https://app.powerbi.com/learn

Power BI Learn

Search

Home

Create

Browse

Data hub

Metrics

Apps

Learn

Workspaces

My workspace

Learning center

Your hub for all Power BI training

Learn how to use Power BI

Start learning

Dig into the documentation

Read docs

Join the Power BI community

Join in

Sample reports

Retail Analysis Sample

Sales and Marketing Sample

Supplier Quality Analysis Sample

Report

Power BI My workspace Retail Analysis Sample | Data updated 4/10/23

Search

Pages Edit (circled with red arrow)

Overview

District Monthly Sales

New Stores

District Sales Report

Home

Create

Browse

Data hub

Metrics

Apps

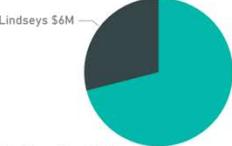
Learn

Workspaces

My workspace

Store Sales Overview

This Year Sales by Chain

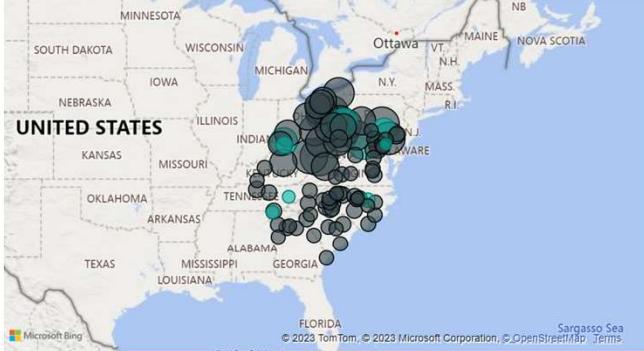


Lindsey's \$6M
Fashions Direct \$16M

10 New Stores

104 Total Stores

This Year Sales by PostalCode and Store Type



Store Type: ● New Store ● Same Store

Map labels: MINNESOTA, SOUTH DAKOTA, IOWA, NEBRASKA, KANSAS, MISSOURI, OKLAHOMA, ARKANSAS, TEXAS, ALABAMA, MISSISSIPPI, LOUISIANA, FLORIDA, MICHIGAN, ILLINOIS, TENNESSEE, GEORGIA, SOUTH CAROLINA, NORTH CAROLINA, VIRGINIA, MARYLAND, DELAWARE, NEW JERSEY, PENNSYLVANIA, NEW YORK, CONNECTICUT, RHODE ISLAND, MASSACHUSETTS, NEW HAMPSHIRE, VERMONT, MAINE, NEW BRUNSWICK, NOVA SCOTIA, SARGASSO SEA.

Total Sales Variance by FiscalMonth and District Manager



Legend: Allan Guinot (teal), Andrew Ma (black), Annelie Zubar (red), Brad Sutton (yellow), Carlos Grilo (dark grey), Chris Gray (light blue), Chris McGurk (orange), Tina Lassila (purple), Valery Ushakov (blue).

Jan Feb Mar Apr May Jun Jul Aug

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



Legend: FD - 01 (teal), FD - 02 (dark grey), LI - 01 (grey), LI - 02 (light blue), LI - 03 (orange), LI - 04 (purple), LI - 05 (blue), FD - 03 (yellow), FD - 04 (red).

Sales Per Sq Ft

Total Sales Variance %

80%

Filters

Search

Filters on this page

- Chain is (All)
- City is (All)
- District is (All)
- Name is (All)
- Open Month is (All)
- Store Type is (All)

Report: Edit mode

Power BI My workspace

Retail Analysis Sample | Data updated 4/10/23

Search

File View Reading view Mobile layout

Home Create Browse Data hub Metrics Apps Learn Workspaces My workspace

Store Sales Overview

This Year Sales by Chain

Lindseys \$6M Fashions Direct \$16M

10 New Stores 104 Total Stores

This Year Sales by PostalCode and Store Type

Store Type: New Store Same Store

Map of the United States showing store locations by postal code.

Total Sales Variance by Fiscal Month and District Manager

District Manager: Allan Guinot, Andrew Ma, Annelie Zubar, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGurk, Tina Lassila, Valery Ushakov

Jan Feb Mar Apr May Jun Jul Aug

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District

Sales Per Sq Ft: LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, FD - 01, FD - 02, FD - 03, FD - 04

Total Sales Variance %: -0%, -6%, -4%

Visualizations

Build visual

Filters on this page

Chain is (All)

City is (All)

District is (All)

Name is (All)

Open Month is (All)

Store Type is (All)

Values

Add data fields here

Drill through

Cross-report

Keep all filters On

Add drill-through fields here

Filters on all pages

Add data fields here

Visualizations pane highlighted with a red border.

Overview District Monthly Sales New Stores District Sales Report +

Page 1 of 4

66%

Upload a report file (.pbix)

Power BI My workspace

My workspace

Upload a .pbix, .rdl, or .xlsx file to your workspace

All

Upload a .pbix, .rdl, or .xlsx file to your workspace

OneDrive for Business

SharePoint

Browse

covid19.csv

income_vs_lifeexpectancy.table

Organize New folder

income_vs_lifeexpectancy

RainDaily_Tabu

This PC

Windows-SSD (C:)

Network

Name Date modified Type Size

covid19 4/10/2023 11:33 AM File folder

income_vs_lifeexpectancy 4/10/2023 11:33 AM File folder

covid19.pbix 3/29/2021 11:41 PM Microsoft.MicrosoftP... 1,161 KB

Retail Analysis Sample.pbix 3/27/2021 11:31 PM Microsoft.MicrosoftP... 13,302 KB

File name: Retail Analysis Sample.pbix

Custom files (*.xlsx;*.pbix;*.rdl)

Open Cancel

The screenshot shows the Power BI 'My workspace' interface. In the top left, there's a 'Home' icon, a 'Create' icon, a 'Browse' icon, a 'Data hub' icon, a 'Metrics' icon, an 'Apps' icon, a 'Learn' icon, and a 'Workspaces' icon. The 'My workspace' icon is highlighted with a red circle. In the top right, there's a search bar and a three-dot menu. The main area is titled 'My workspace' and shows a list of items: 'covid19.csv' (Dashboard), 'income_vs_lifeexpectancy.table' (Dataset), 'covid19' (File folder), 'income_vs_lifeexpectancy' (File folder), 'covid19.pbix' (Microsoft.MicrosoftP...), and 'Retail Analysis Sample.pbix' (Microsoft.MicrosoftP...). Below this is a 'Upload' section with a 'Browse' button highlighted by a red circle. A file selection dialog is open at the bottom, showing 'Retail Analysis Sample.pbix' selected. The 'Open' button in this dialog is also highlighted by a red circle.

Open a report file in My workspace

The screenshot shows the Power BI 'My workspace' interface. On the left, a vertical sidebar lists navigation options: Home, Create, Browse, Data hub, Metrics, Apps, Learn, Workspaces, and My workspace (which is circled in red). The main area displays a table of items under the 'All' tab. The columns are: Name, Type, Owner, Refreshed, Next refresh, Endorsement, and Sensitivity. The items listed are:

Name	Type	Owner	Refreshed	Next refresh	Endorsement	Sensitivity
covid19	Dataset	Veera Muangsin	3/31/22, 11:24:52 AM	N/A	—	—
covid19.csv	Dashboard	Veera Muangsin	—	—	—	—
income_vs_lifeexpectancy_table	Dataset	Veera Muangsin	3/31/22, 11:18:25 AM	N/A	—	—
income_vs_lifeexpectancy_table.xlsx	Dashboard	Veera Muangsin	—	—	—	—
RainDaily_Tabular	Dataset	Veera Muangsin	3/30/22, 11:23:01 PM	N/A	—	—
RainDaily_Tabular.csv	Dashboard	Veera Muangsin	—	—	—	—
Retail Analysis Sample	Dashboard	Veera Muangsin	—	—	—	—
Retail Analysis Sample	Report	Veera Muangsin	3/30/22, 2:59:46 PM	—	—	—
Retail Analysis Sample	Dataset	Veera Muangsin	3/30/22, 2:59:46 PM	N/A	—	—

Right click → Open link in new tab

Learn from Example

Both Power BI Desktop and Power BI Service have similar interface.

The slides are based on Power BI Desktop.

The interface may be a bit different to the current version.

Report Editor Panes

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

Report Canvas

Store Sales Overview

This Year Sales by Chain

Visual

10 New Stores

104 Total Stores

This Year Sales by PostalCode and Store Type

Total Sales Variance by FiscalMonth and District Manager

DM: Allie Gurret, Andrew Mai, Annette Zuber, Brad Lutten, Camryn Grap, Chris Gray, Chris McGrath, Tina Cassella, Valerie Uhlirsky

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District

Filters

Search

Filters on this page

- Chain is (All)
- City is (All)
- District is (All)
- Name is (All)
- Open Month is (All)
- Store Type is (All)

Add data fields here

Values

Drill through

Cross-report Off

Keep all filters On

Add drill-through fields here

Fields

Search

- Sales
- District
- Item
- Store
- Time

Info Overview District Monthly Sales New Stores +

Show/Hide Panes

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

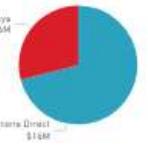
File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

Filters Visualizations Fields

Store Sales Overview

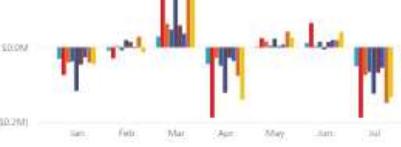
This Year Sales by Chain



10 New Stores

104 Total Stores

Total Sales Variance by Fiscal Month and District Manager



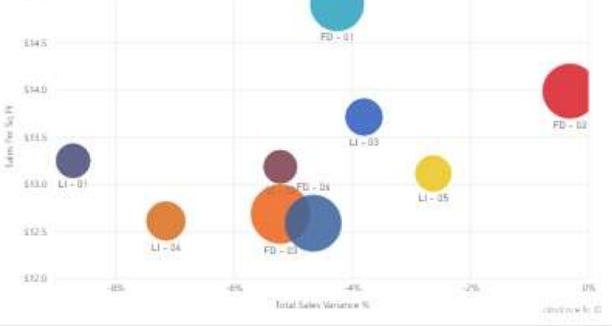
DM: Allie Gurret, Andrew Mai, Annette Zuber, Brad Lutten, Camille Grisp, Chris Gray, Chris McGuire, Tina Cassella, Valerie Uebelholz

This Year Sales by Postal Code and Store Type



Store Type: New Store Game Store

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



Filters on this page

- Chain is (All)
- City is (All)
- District is (All)
- Name is (All)
- Open Month is (All)
- Store Type is (All)

Add data fields here

Drill through

Cross-report

Off

Keep all filters

On

Add drill-through fields here

Filters on all pages

Add data fields here

Info Overview District Monthly Sales New Stores +

The screenshot shows the Power BI Desktop interface with several panes visible. The top navigation bar includes File, Home, Insert, Modeling, View, Help, Get data, Refresh, New visual, New measure, Sensitivity (preview), and Publish. The Home tab is selected. The main workspace displays four visualizations: a pie chart of chain sales, a bar chart of new stores, a bar chart of monthly sales variance, and a map of store locations. The right side features three expandable panes: Filters, Visualizations, and Fields. The 'Filters' pane is expanded, showing dropdown menus for Chain, City, District, Name, Open Month, and Store Type, each set to '(All)'. The 'Visualizations' and 'Fields' panes are also expanded, showing icons for various data types and their respective dropdown menus. Red circles with arrows point to the close buttons of the three expanded panes.

Page Selection

Retail Analysis Sample PBIX - Power BI Desktop

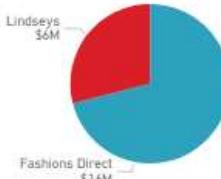
Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

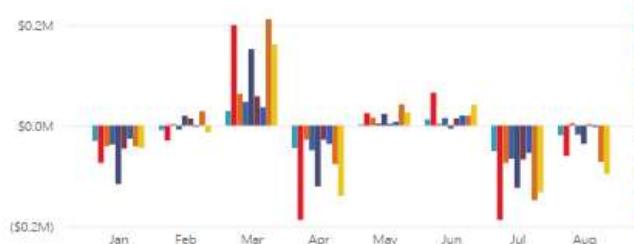


Lindseys \$6M
Fashions Direct \$16M

10 New Stores

104 Total Stores

Total Sales Variance by FiscalMonth and District Manager



DM: Allan Guinot, Andrew Ma, Annalie Zubar, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGurk, Tina Lassila, Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type: New Store (Blue), Same Store (Red)

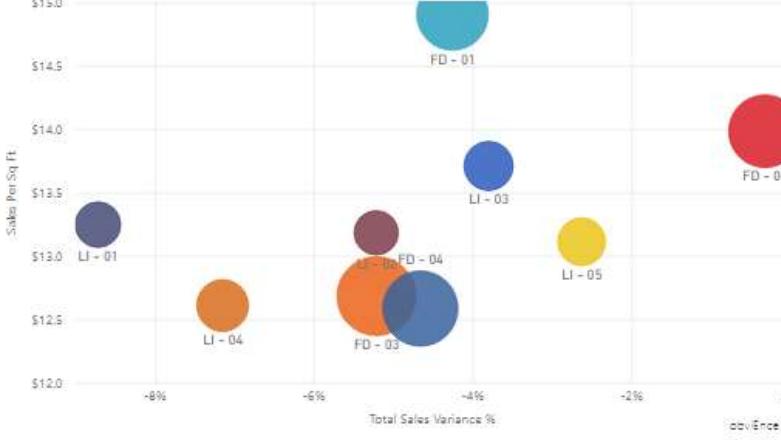


UNITED STATES

SOUTH DAKOTA, WISCONSIN, IOWA, NEBRASKA, KANSAS, OREGON, ARKANSAS, TEXAS, LOUISIANA, MISSISSIPPI, ALABAMA, GEORGIA, FLORIDA, MICHIGAN, OHIO, KENTUCKY, TENNESSEE, ILLINOIS, INDIANA, MARYLAND, DELAWARE, NEW JERSEY, NEW YORK, CONNECTICUT, MASSACHUSETTS, RHODE ISLAND, VERTMONT, NEW HAMPSHIRE, MAINE, NOVA SCOTIA, QUEBEC, BRUNSWICK, NEW BRUNSWICK, PRINCE EDWARD ISLAND, NEWFOUNDLAND AND LABRADOR, NUNAVUT, YUKON, NORTHWEST TERRITORIES.

Bing

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



Districts: LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, FD - 01, FD - 02, FD - 03, FD - 04

Legend: Sales per Sq Ft (Y-axis), Total Sales Variance % (X-axis)

Page 2 of 4

Overview District Monthly Sales New Stores

A red circle highlights the "District Monthly Sales" tab, which is currently selected.

Page Selection

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

District Monthly Sales

This Year Sales by StoreNumberName

District Manager

- Allan Guinot
- Andrew Ma
- Annelie Zubar
- Brad Sutton
- Carlos Grilo
- Chris Gray
- Chris McGurk
- Tina Lassila
- Valerie Ishakov

Total Sales Variance % by FiscalMonth

Last Year Sales and This Year Sales by FiscalMonth

Total Sales Variance %, Avg \$/Unit TY and This Year Sales by Category and Category

Category 010-Womens 020-Mens 030-Kids 040-Junior 050-Shoes 060-Intimate 070-Hosiery 080-Accessori...

Info Overview District Monthly Sales New Stores +

Page 3 of 4

Creating a New Page

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

New Stores Analysis

This Year Sales by City and Chain

Bing © 2021 TomTom / © 2021 Microsoft Corporation. Terms

Open Store Count by Open Month and Chain

Month	Fashions Direct	Lindseys
Jan	1	1
Feb	2	0
Mar	1	0
Apr	1	0
May	0	2
Jun	1	0
Jul	0	1

Sales Per Sq Ft by Name

Name	Sales Per Sq Ft
Cincinnati 2 Fashions Direct	\$12.86
Ft. Oglethorpe Lindseys	\$12.26
Knoxville Lindseys	\$14.75
Monroeville Fashions Direct	\$14.93
Pasadena Lindseys	\$10.92
Sharonville Fashions Direct	\$17.92
Washington Fashions Direct	\$14.25
Wilson Lindseys	\$13.08
Winchester Fashions Direct	\$21.22
York Fashions Direct	\$15.14

This Year Sales by Fiscal Month

Month	Sales
Jan	\$0.05M
Feb	\$0.15M
Mar	\$0.35M
Apr	\$0.32M
May	\$0.35M
Jun	\$0.4M
Jul	\$0.32M
Aug	\$0.4M

Name

- Cincinnati 2 Fashions Direct
- Ft. Oglethorpe Lindseys
- Knoxville Lindseys
- Monroeville Fashions Direct
- Pasadena Lindseys
- Sharonville Fashions Direct
- Washington Fashions Direct
- Wilson Lindseys
- Winchester Fashions Direct
- York Fashions Direct

Info Overview District Monthly Sales New Stores

A red circle highlights the "New Stores" tab, which is currently selected.

New Page

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Publish

Sensitivity (preview)

Visualizations Fields

Filters

Build visuals with your data

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

Values

Add data fields here

Drill through

Cross-report

Off

Keep all filters

On

Add drill-through fields here

Info Overview District Monthly Sales New Stores Page 1 +

Open a visual in Focus Mode

Retail Analysis Sample PBIX - Power BI Desktop

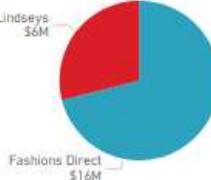
Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

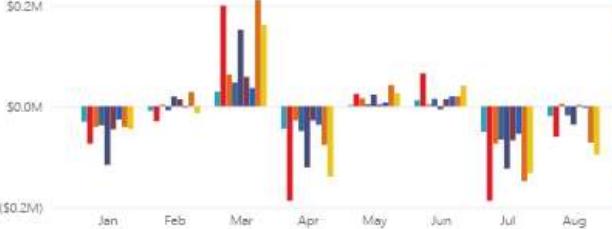


10 New Stores

104 Total Stores

Move your mouse over a visual and these buttons will appear.

Total Sales Variance by FiscalMonth and District Manager



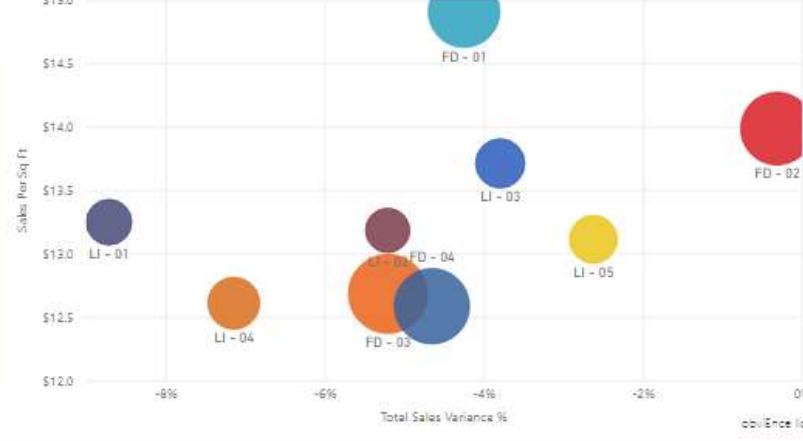
DM Allan Guinot, Andrew Ma, Annelie Zuber, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGuirk, Tina Lassila, Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type • New Store • Same Store



Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, FD - 01, FD - 02, FD - 03, FD - 04, FD - 05

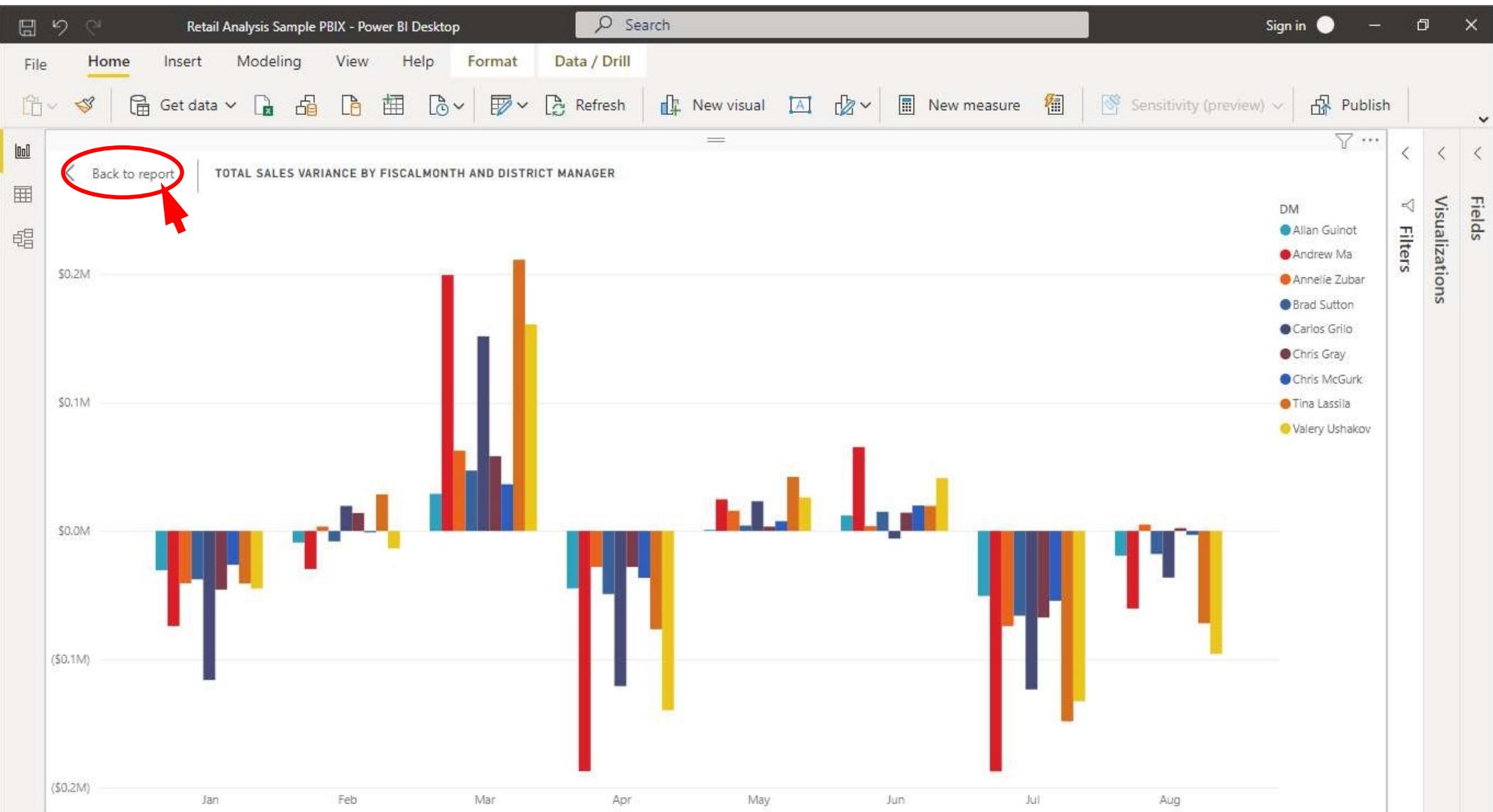
Fields

Visualizations

Filters

Info Overview District Monthly Sales New Stores +

Back to report



Interactive Highlighting

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

Lindseys \$6M Fashions Direct \$16M

Chain Lindseys This Year Sales \$6,393,844 (28.99%)

10 Total Stores 67

Total Sales Variance by FiscalMonth and District Manager

DM Allan Guinot Andrew Ma Annalie Zuber Brad Sutton Carlos Grilo Chris Gray Chris McGurk Tina Lassila Valery Ushakov

\$0.2M \$0.0M (\$0.2M)

Jan Feb Mar Apr May Jun Jul Aug

This Year Sales by PostalCode and Store Type

Store Type New Store Same Store

ILLINOIS INDIANA KENTUCKY TENNESSEE ALABAMA GEORGIA MISSISSIPPI

INDIANAPOLIS COLUMBUS LOUISVILLE MEMPHIS ATLANTA PHILADELPHIA BING

WEST VIRGINIA SOUTH CAROLINA NORTH CAROLINA

Philadelphia, NJ, DE, MD, VA, NC, SC, GA, FL, MS, AL, TN, KY, IN, IL, OH, MI, WI, MN, ND, SD, CO, NM, UT, AZ, HI, PR, GU, MP, VI, PR, GU, MP, VI

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District

Sales Per Sq Ft \$13.8 \$13.6 \$13.4 \$13.2 \$13.0 \$12.8

Total Sales Variance % -9% -8% -7% -6% -5% -4% -3% -2%

LI - 01 LI - 02 LI - 03 LI - 04 LI - 05

Overview District Monthly Sales New Stores

Fields Visualizations Filters

The screenshot displays four interactive visualizations in Power BI Desktop:

- Store Sales Overview:** A pie chart titled "This Year Sales by Chain" showing the distribution of sales between "Lindseys" (\$6M) and "Fashions Direct" (\$16M). A red arrow points to the "Lindseys" slice.
- Total Sales Variance by FiscalMonth and District Manager:** A bar chart showing monthly sales variance from January to August for various district managers. The Y-axis ranges from -\$0.2M to \$0.2M. A legend lists district managers with corresponding colored dots.
- This Year Sales by PostalCode and Store Type:** A map of the Eastern United States showing store locations. Red dots represent "Same Store" locations, and a blue dot represents a "New Store". State abbreviations and major cities are labeled.
- Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District:** A bubble chart showing the relationship between sales variance, sales per square foot, and district ID (LI-01 to LI-05). The X-axis is "Total Sales Variance %", the Y-axis is "Sales Per Sq Ft", and the size of the bubbles corresponds to "This Year Sales".

The interface includes a ribbon with tabs like File, Home, Insert, etc., and a navigation bar with "Sign in", "Search", and "Home". The bottom navigation bar shows tabs for "Overview", "District Monthly Sales", and "New Stores". The right side features "Fields" and "Visualizations" sections, and a "Filters" button.

Interactive Highlighting

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

Lindseys \$6M Fashions Direct \$16M

Chain Fashions Direct This Year Sales \$15,658,108 (71.01%)

10 37 Total Stores

Total Sales Variance by FiscalMonth and District Manager

DM Allan Guinot Andrew Ma Annalie Zuber Brad Sutton Carlos Grilo Chris Gray Chris McGurk Tina Lassila Valery Ushakov

\$0.2M \$0.0M (\$0.2M)

Jan Feb Mar Apr May Jun Jul Aug

This Year Sales by PostalCode and Store Type

Store Type New Store Same Store

MILWAUKEE MILWAUKEE MICHIGAN TORONTO NEW HAMPSHIRE NEW YORK MASS BOSTON CHICAGO DETROIT CINCINNATI INDIANAPOLIS COLUMBUS KENTUCKY LOUISVILLE TENNESSEE PENNSYLVANIA VIRGINIA DELAWARE NORTH CAROLINA

Map showing store locations across the Northeast and Midwest United States.

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District

Sales Per Sq Ft

FD - 01 FD - 02 FD - 03 FD - 04

\$15.0 \$14.5 \$14.0 \$13.5 \$13.0 \$12.5 \$12.0

-5% -4% -3% -2% -1% 0%

Overview District Monthly Sales New Stores

Visualizations Fields Filters

The screenshot displays a Power BI desktop interface with four main visualizations:

- Store Sales Overview:** A pie chart titled "This Year Sales by Chain" showing the distribution between "Lindseys" (\$6M) and "Fashions Direct" (\$16M). A callout box highlights "Fashions Direct" with the text "Chain Fashions Direct This Year Sales \$15,658,108 (71.01%)".
- Total Sales Variance by Fiscal Month and District Manager:** A bar chart showing monthly sales variance from January to August. The Y-axis ranges from -\$0.2M to \$0.2M. The X-axis shows months Jan through Aug. A legend lists district managers (DM) with corresponding color-coded markers.
- This Year Sales by Postal Code and Store Type:** A map of the Northeast and Midwest United States showing store locations. Red dots represent "Same Store" locations, and blue dots represent "New Store" locations.
- Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District:** A bubble chart showing the relationship between sales variance, sales per square foot, and district. The X-axis is "Total Sales Variance %" (-5% to 0%), the Y-axis is "Sales Per Sq Ft" (\$12.0 to \$15.0), and the bubble size represents "This Year Sales". Four bubbles are labeled FD - 01 (top left), FD - 02 (bottom right), FD - 03 (bottom left), and FD - 04 (bottom center).

The interface includes a ribbon menu at the top, a search bar, and various navigation and filter controls on the right side. The bottom navigation bar includes tabs for "Overview", "District Monthly Sales", and "New Stores".

Visuals

Visual: Pie Chart



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

Lindseys \$6M Fashions Direct \$16M

Total Sales Variance by Fiscal Month and District Manager

10 New Stores 104 Total Stores

DM Allan Guinot Andrew Ma Annalie Zuber Brad Sutton Carlos Grilo Chris Gray Tina Lassila Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type New Store Same Store

UNITED STATES

Map showing store locations across the United States.

Select a visual in report canvas and the corresponding icon in visualizations pane will be highlighted

The visualizations pane highlights the pie chart icon.

Visualizations

Filters

Legend

Chain

Details

Add data fields here

Values

This Year Sales

Toolips

Add data fields here

Drill through

Cross-report

Off

Keep all filters

Info Overview District Monthly Sales New Stores +

Visual: Column Chart



Retail Analysis Sample PBIX - Power BI Desktop

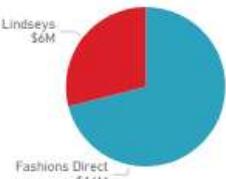
Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain



Lindseys \$6M
Fashions Direct \$16M

10 New Stores

104 Total Stores

Total Sales Variance by FiscalMonth and District Manager



A column chart titled "Total Sales Variance by FiscalMonth and District Manager". The Y-axis ranges from -\$0.2M to \$0.2M. The X-axis shows months from Jan to Aug. The legend lists District Managers (DM) with corresponding color-coded bars: Allan Guinot (blue), Andrew Ma (red), Annella Zubar (orange), Brad Sutton (dark blue), Carlos Grilo (purple), Chris Gray (dark purple), Chris McGurk (dark blue), Tina Lassila (orange), and Valery Ushakov (yellow). A red arrow points to the chart area.

This Year Sales by PostalCode and Store Type

Store Type: New Store (blue), Same Store (red)



A bubble map of the United States where bubbles represent store locations. Bubbles are colored blue for New Stores and red for Same Stores. The size of the bubbles varies, likely representing sales volume. Labels for states like South Dakota, Wisconsin, Michigan, Indiana, Illinois, Missouri, Kansas, Nebraska, Oklahoma, Arkansas, Texas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Tennessee, Kentucky, Ohio, West Virginia, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine, and Nova Scotia are visible.

Bing

FiscalMonth

Legend

DM

Values

Total Sales Variance

Toolips

Add data fields here

Drill through

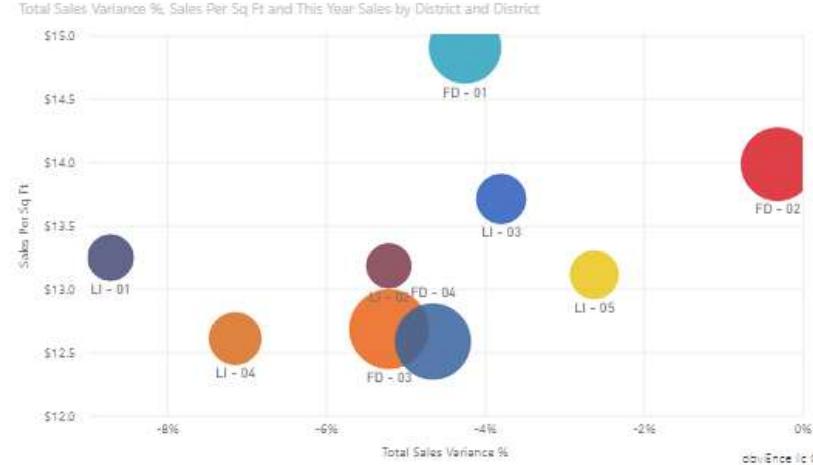
Cross-report

Off

Keep all filters

Info Overview District Monthly Sales New Stores +

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



A bubble chart titled "Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District". The Y-axis is "Sales Per Sq Ft" ranging from \$12.0 to \$15.0. The X-axis is "Total Sales Variance %" ranging from -8% to 0%. Bubbles are labeled with codes such as FD - 01, FD - 02, LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, and FD - 03. The chart uses a color scheme where blue represents FD districts and red/orange represents LI districts.

Visual: Map



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

Lindseys \$6M Fashions Direct \$16M

10 New Stores

104 Total Stores

Total Sales Variance by Fiscal Month and District Manager

DM Allan Guinot Andrew Ma Annalia Zubair Brad Sutton Carlos Grilo Chris Gray Chris McGuirk Tina Lassila Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type New Store Same Store

UNITED STATES

Bing

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District

LI - 01 FD - 01 LI - 02 FD - 02

LI - 03 FD - 03 LI - 04 FD - 04 LI - 05 FD - 05

LI - 06 FD - 06 LI - 07 FD - 07 LI - 08 FD - 08

LI - 09 FD - 09 LI - 10 FD - 10 LI - 11 FD - 11 LI - 12 FD - 12

LI - 13 FD - 13 LI - 14 FD - 14 LI - 15 FD - 15 LI - 16 FD - 16

LI - 17 FD - 17 LI - 18 FD - 18 LI - 19 FD - 19 LI - 20 FD - 20

LI - 21 FD - 21 LI - 22 FD - 22 LI - 23 FD - 23 LI - 24 FD - 24

LI - 25 FD - 25 LI - 26 FD - 26 LI - 27 FD - 27 LI - 28 FD - 28

LI - 29 FD - 29 LI - 30 FD - 30 LI - 31 FD - 31 LI - 32 FD - 32

LI - 33 FD - 33 LI - 34 FD - 34 LI - 35 FD - 35 LI - 36 FD - 36

LI - 37 FD - 37 LI - 38 FD - 38 LI - 39 FD - 39 LI - 40 FD - 40

LI - 41 FD - 41 LI - 42 FD - 42 LI - 43 FD - 43 LI - 44 FD - 44

LI - 45 FD - 45 LI - 46 FD - 46 LI - 47 FD - 47 LI - 48 FD - 48

LI - 49 FD - 49 LI - 50 FD - 50 LI - 51 FD - 51 LI - 52 FD - 52

LI - 53 FD - 53 LI - 54 FD - 54 LI - 55 FD - 55 LI - 56 FD - 56

LI - 57 FD - 57 LI - 58 FD - 58 LI - 59 FD - 59 LI - 60 FD - 60

LI - 61 FD - 61 LI - 62 FD - 62 LI - 63 FD - 63 LI - 64 FD - 64

LI - 65 FD - 65 LI - 66 FD - 66 LI - 67 FD - 67 LI - 68 FD - 68

LI - 69 FD - 69 LI - 70 FD - 70 LI - 71 FD - 71 LI - 72 FD - 72

LI - 73 FD - 73 LI - 74 FD - 74 LI - 75 FD - 75 LI - 76 FD - 76

LI - 77 FD - 77 LI - 78 FD - 78 LI - 79 FD - 79 LI - 80 FD - 80

LI - 81 FD - 81 LI - 82 FD - 82 LI - 83 FD - 83 LI - 84 FD - 84

LI - 85 FD - 85 LI - 86 FD - 86 LI - 87 FD - 87 LI - 88 FD - 88

LI - 89 FD - 89 LI - 90 FD - 90 LI - 91 FD - 91 LI - 92 FD - 92

LI - 93 FD - 93 LI - 94 FD - 94 LI - 95 FD - 95 LI - 96 FD - 96

LI - 97 FD - 97 LI - 98 FD - 98 LI - 99 FD - 99 LI - 100 FD - 100

Info Overview District Monthly Sales New Stores +

Visualizations

Filters

Fields

PostalCode

Legend

Store Type

Latitude

Add data fields here

Longitude

Add data fields here

Size

This Year Sales

Tooltips

Add data fields here

Drill through

Page 2 of 4

Visual: Scatter Chart



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain

10 New Stores

104 Total Stores

Total Sales Variance by Fiscal Month and District Manager

DM

- Allan Guinot
- Andrew Ma
- Annelie Zubar
- Brad Sutton
- Carlos Grilo
- Chris Gray
- Chris McGuirk
- Tina Lassila
- Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type

- New Store
- Same Store

UNITED STATES

Bing

District

StoreNumber

Legend

District

X Axis

Total Sales Variance %

Y Axis

Sales Per Sq Ft

Size

This Year Sales

Play Axis

Add data fields here

Visualizations

Filters

Details

Info Overview District Monthly Sales New Stores +

Page 2 of 4

A scatter chart titled "Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District Manager". The X-axis is "Total Sales Variance %" ranging from -8% to 0%. The Y-axis is "Sales Per Sq Ft" ranging from \$12.0 to \$15.0. Data points are represented by bubbles, each labeled with a code like FD-01, FD-02, LI-01, etc. A red arrow points to the bottom right corner of the chart area.

Visual: Slicer



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

District Manager

- Allan Guinot
- Andrew Ma
- Annelie Zubar
- Brad Sutton
- Carlos Grilo
- Chris Gray
- Chris McGurk
- Tina Lassila
- Valery Ishaknay

This Year Sales by StoreNumberName

Total Sales Variance % by FiscalMonth

Last Year Sales and This Year Sales by FiscalMonth

Total Sales Variance %, Avg \$/Unit TY and This Year Sales by Category and Category

Visualizations

Filters

Fields

DM

Drill through

Cross-report

Keep all filters

On

Add drill-through fields here

Info Overview District Monthly Sales New Stores +

Page 3 of 4

Visual: Area Chart



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

District Manager

- Allan Guinot
- Andrew Ma
- Annelie Zubar
- Brad Sutton
- Carlos Grilo
- Chris Gray
- Chris McGurk
- Tina Lassila
- Valerie Ishakova

This Year Sales by StoreNumberName

Store Number	Store Name	Sales (\$M)
10	St...	\$0.41M
11	Ce...	\$0.49M
12	Ka...	\$0.41M
13	Ch...	\$0.64M
14	Ha...	\$0.57M
15	Yo...	\$0.32M
16	Wi...	\$0.50M
18	Wa...	\$0.52M
19	Bel...	\$0.37M
21	Za...	\$0.45M
22	Wai...	\$0.32M
23	Eri...	\$0.49M
24	No...	\$0.50M
25	Ma...	\$0.39M
26	Akt...	\$0.57M
27	Bo...	\$0.40M
28	Hu...	\$0.40M
31	Pack...	\$0.35M
32	Me...	\$0.35M
33	Alt...	\$0.40M
34	Mo...	\$0.40M
35	Sh...	\$0.14M
36	Be...	

Total Sales Variance % by FiscalMonth

Last Year Sales and This Year Sales by FiscalMonth

Total Sales Variance %, Avg \$/Unit TY and This Year Sales by Category and Category

Legend: Last Year Sales (light blue), This Year Sales (red)

Values: Last Year Sales, This Year Sales

Secondary values: Add data fields here

Tooltips: Add data fields here

Drill through: Cross-report

Info Overview District Monthly Sales New Stores +

Visual: Clustered Column Chart



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

New Stores Analysis

This Year Sales by City and Chain

NORTH AMERICA EUROPE ASIA AFRICA SOUTH AMERICA AUSTRALIA Pacific Ocean Atlantic Ocean Indian Ocean Bing © 2021 TomTom, © 2021 Microsoft Corporation. All rights reserved.

Open Store Count by Open Month and Chain

Month	Fashions Direct	Lindseys	Total
Jan	1	1	2
Feb	2	0	2
Mar	1	0	1
Apr	1	0	1
May	0	2	2
Jun	1	0	1
Jul	0	1	1

Chain: Fashions Direct, Lindseys

Sales Per Sq Ft by Name

Name	Sales Per Sq Ft
Cincinnati 2 Fashions Direct	\$12.86
Ft. Oglethorpe Lindseys	\$12.26
Knoxville Lindseys	\$14.75
Monroeville Fashions Direct	\$14.93
Pasadena Lindseys	\$10.92
Sharonville Fashions Direct	\$17.92
Washington Fashions Direct	\$14.25
Wilson Lindseys	\$13.08
Winchester Fashions Direct	\$21.22
York Fashions Direct	\$15.14

Open Month: May

Legend: Chain

Values: Open Store Count

Tooltips: Add data fields here

Drill through: Cross-report

Off

Keep all filters

Info Overview District Monthly Sales New Stores +

Page 4 of 4

Visual: Line Chart



Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

New Stores Analysis

This Year Sales by City and Chain

NORTH AMERICA EUROPE ASIA AFRICA SOUTH AMERICA AUSTRALIA

Bing © 2021 TomTom, © 2021 Microsoft Corporation. Términos

Open Store Count by Open Month and Chain

Month	Fashions Direct	Lindsey's
Jan	1	1
Feb	2	0
Mar	1	0
Apr	1	0
May	0	2
Jun	1	0
Jul	0	1

Sales Per Sq Ft by Name

Name	Sales Per Sq Ft
Cincinnati 2 Fashions Direct	\$12.86
Ft. Oglethorpe Lindsey's	\$12.26
Knoxville Lindsey's	\$14.75
Monroeville Fashions Direct	\$14.93
Pasadena Lindsey's	\$10.92
Sharonville Fashions Direct	\$17.92
Washington Fashions Direct	\$14.25
Wilson Lindsey's	\$13.08
Winchester Fashions Direct	\$21.22
York Fashions Direct	\$15.14

This Year Sales by FiscalMonth

Fiscal Month	Total Sales
Jan	\$0.1M
Feb	\$0.15M
Mar	\$0.2M
Apr	\$0.2M
May	\$0.25M
Jun	\$0.35M
Jul	\$0.3M
Aug	\$0.4M

Name

- Cincinnati 2 Fashions Direct
- Ft. Oglethorpe Lindsey's
- Knoxville Lindsey's
- Monroeville Fashions Direct
- Pasadena Lindsey's
- Sharonville Fashions Direct
- Washington Fashions Direct
- Wilson Lindsey's
- Winchester Fashions Direct
- York Fashions Direct

Visualizations

Filters

Fields

Axis

FiscalMonth

Legend

Add data fields here

Values

This Year Sales

Secondary values

Add data fields here

Tooltips

Add data fields here

Drill through

Cross-report

Info Overview District Monthly Sales New Stores +

Page 4 of 4

Fields

Visualizations and Fields

- Each visualization type requires different fields.

Field Names	Used as
Axis, X Axis, Y Axis	Dimension
Value, Size	Measure
Legend, Group, Details	Category breakdown
Location, Latitude, Longitude	Geographic
Tooltips	Pop-up information
Play Axis	Animation

Dimensions: qualitative values (such as names, dates, or geographical data) that give the context of collected data (measures).

Measures: numeric, quantitative values that you can measure. Measures can be aggregated by dimensions.

Pie Chart

Retail Analysis Sample PBIX - Power BI Desktop

Search

Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Publish

Sensitivity (preview)

Visualizations Fields

Search

Legend

Chain

Details

Add data fields here

Values

This Year Sales

Tooltips

Add data fields here

Drill through

Cross-report

Off

Keep all filters

Used fields have a yellow tick symbol.

The screenshot shows the Power BI Desktop application interface. The ribbon at the top includes File, Home, Insert, Modeling, View, Help, Format, Data / Drill, Get data, Refresh, New visual, New measure, Publish, Sensitivity (preview), and a search bar. The main workspace displays four visualizations: 1) A pie chart titled "Store Sales Overview" showing "This Year Sales by Chain" with segments for Lindsey's (\$6M) and Fashions Direct (\$16M). 2) A bar chart titled "Total Sales Variance by FiscalMonth and District Manager" showing monthly variance from Jan to Aug across various district managers. 3) A map titled "This Year Sales by PostalCode and Store Type" showing store locations across the US Northeast. 4) A bubble chart titled "Total Sales Variance % Sales Per Sq Ft and This Year Sales by District and District" showing sales variance and total sales per square foot across four districts (FD-01 to FD-04). The "Fields" pane on the right lists various data items with checkboxes, where "Chain" is checked (indicated by a yellow tick symbol). A red arrow points from the "Chain" checkbox in the Fields pane to its corresponding entry in the Legend of the pie chart visualization.

Column Chart

Retail Analysis Sample PBIX - Power BI Desktop

Search

Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Publish Sensitivity (preview)

Store Sales Overview

This Year Sales by Chain

10 New Stores

104 Total Stores

This Year Sales by PostalCode and Store Type

Store Type: New Store (Blue), Same Store (Red)

Total Sales Variance by FiscalMonth and District Manager

Fiscal Month: Allan Guinot, Andrew Ma, Annelie Zubor, Brad Sutton, Carlos Grin, Chris Gray, Chris McGurk, Tina Lasila, Valery Ushakov

Total Sales Variance % Sales Per Sq Ft and This Year Sales by District and District

Districts: FD - 01, LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, FD - 03, FD - 04

Visualizations Fields

Filters

Search

FiscalMonth

Legend

DM

Values

Total Sales Variance

Toolips

Add data fields here

Drill through

Cross-report

Off

Keep all filters

On

Axis

Axis

District

BusinessUnit... District DistrictID

DM

DM_Pic

DM_Pic_f

Item

Store

Time

FiscalMonth

FiscalYear

A red arrow points from the "FiscalMonth" filter in the Fields pane to the corresponding field in the "Axis" section of the visualization's filter pane.

A red arrow points from the "DM" filter in the Fields pane to the corresponding field in the "Legend" section of the visualization's filter pane.

A red arrow points from the "Total Sales Variance" filter in the Fields pane to the corresponding field in the "Values" section of the visualization's filter pane.

Map

Retail Analysis Sample PBIX - Power BI Desktop

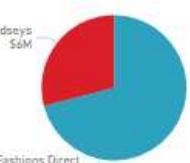
Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Publish Sensitivity (preview)

Store Sales Overview

This Year Sales by Chain



10 New Stores

104 Total Stores

Total Sales Variance by Fiscal Month and District Manager



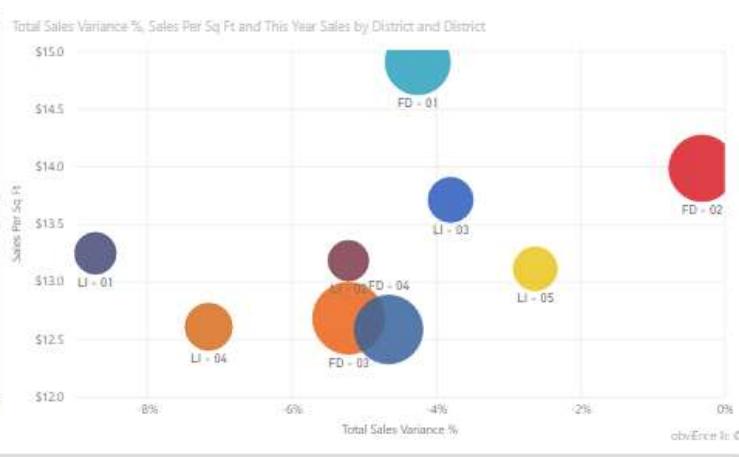
DM: Allan Guinot, Andrew Ma, Annelie Zubar, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGurk, Tina Lasila, Valery Ushakov

This Year Sales by PostalCode and Store Type



Store Type: New Store (Blue), Same Store (Red)

Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District and District



Legend: FD - 01, LI - 01, LI - 02, LI - 03, LI - 04, LI - 05, FD - 02, FD - 03, FD - 04, FD - 05

PostalCode

Store Type

Latitude

Longitude

Size

This Year Sales

Toolips

Drill through

Filters

Visualizations

Fields

Sales

District

Item

Store

Average Sel...

Chain

Count of O...

DistrictID

DM

DM_Pic

Name

New Stores

New Stores ...

Open Month

Open Mont...

Open Store...

Open Year

OpenDate

PostalCode

SellingArea...

Store Type

Page 2 of 4

Scatter Chart

Retail Analysis Sample PBIX - Power BI Desktop

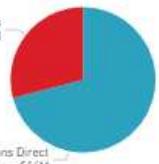
Search Sign in

File Home Insert Modeling View Help Format Data / Drill Table tools

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

Store Sales Overview

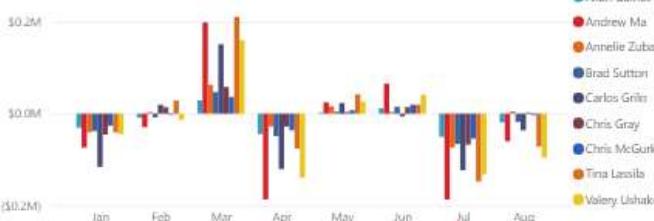
This Year Sales by Chain



10 New Stores

104 Total Stores

Total Sales Variance by Fiscal Month and District Manager



DM: Allan Guinot, Andrew Ma, Annelie Zubar, Brad Sutton, Carlos Grilo, Chris Gray, Chris McGurk, Tina Lassila, Valery Ushakov

This Year Sales by PostalCode and Store Type

Store Type: New Store (Blue), Same Store (Red)



Details

District

StoreNumber

Legend

District

X Axis

Total Sales Variance %

Axes

Sales Per Sq Ft

Size

This Year Sales

Play Axis

Add data fields here

Visualizations

Fields

Search

Annotations:

- A red arrow points from the "This Year Sales" checkbox in the Details section of the Fields pane to the "This Year Sales" checkbox in the Legend section of the Fields pane.
- A red arrow points from the "Sales Per Sq Ft" checkbox in the Axes section of the Fields pane to the "Sales Per Sq Ft" checkbox in the Legend section of the Fields pane.
- A red arrow points from the "Size" checkbox in the Size section of the Fields pane to the "Size" checkbox in the Legend section of the Fields pane.

Info Overview District Monthly Sales New Stores

Page 2 of 4

Filter

Filters

Retail Analysis Sample PBIX - Power BI Desktop

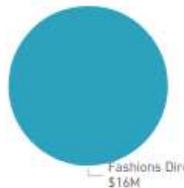
Search Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Sensitivity (preview) Publish

Store Sales Overview

This Year Sales by Chain



Total Stores: 37
New Stores: 10
Fashions Direct: \$16M

This Year Sales by PostalCode and Store Type

Store Type: New Store (Blue), Same Store (Red)



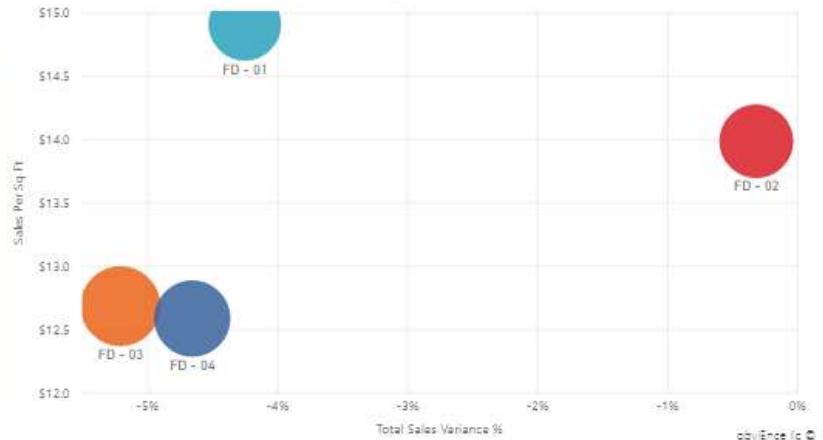
Bing

Total Sales Variance by FiscalMonth and District Manager



DM: Andrew Ma, Carlos Grilo, Tina Lassila, Valery Ushakov

Total Sales Variance %: Sales Per Sq Ft and This Year Sales by District and District



FD-01: ~-4.5%
FD-02: ~-1.5%
FD-03: ~-5.5%
FD-04: ~-3.5%

Filters

Search

Filters on this page

Chain is Fashions Direct

Filter type Basic filtering

Search

Select all Fashions Direct 37

Lindsey's 67

Require single selection

City is (All)

District is (All)

Name is (All)

Visualizations Fields

Data and Model Views

(Only in Power BI Desktop, not in Power BI Service)

Data View

Retail Analysis Sample PBIX - Power BI Desktop

Search Sign in

File Home Help Table tools

Name Sales

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

Data Table

MonthID	ItemID	LocationID	Sum_GrossMarginAmount	Sum-Regular_Sales_Dollars	Sum_Markdown_Sales_Dollars	ScenarioID	ReportingPeriodID	Sum-Regular_Sales_Units	Sum	
201408	256441	568	4.99	9.99	0	1	20140801		1	
201408	289471	24	4.99	9.99	0	1	20140801		1	
201408	289471	27	4.99	9.99	0	1	20140801		1	
1	201408	292637	530	4.99	9.99	0	1	20140801		1
201408	292637	565	4.99	9.99	0	1	20140801		1	
201408	277477	583	4.99	9.99	0	1	20140801		1	
201408	294718	40	4.99	9.99	0	1	20140801		1	
201408	310225	15	4.99	9.99	0	1	20140801		1	
201408	310226	531	4.99	9.99	0	1	20140801		1	
201408	310226	557	4.99	9.99	0	1	20140801		1	
201408	310228	526	4.99	9.99	0	1	20140801		1	
201408	300832	535	4.99	9.99	0	1	20140801		1	
201408	300832	558	4.99	9.99	0	1	20140801		1	
201408	312168	514	4.99	9.99	0	1	20140801		1	
201408	301760	28	4.99	9.99	0	1	20140801		1	
201408	313094	15	4.99	9.99	0	1	20140801		1	
201408	313094	41	4.99	9.99	0	1	20140801		1	
201408	313096	518	4.99	9.99	0	1	20140801		1	
201408	249519	4	4.99	9.99	0	1	20140801		1	
201408	305400	32	4.99	9.99	0	1	20140801		1	
201408	305414	18	4.99	9.99	0	1	20140801		1	
201408	317040	12	4.99	9.99	0	1	20140801		1	
201408	317040	18	4.99	9.99	0	1	20140801		1	
201408	317041	14	4.99	9.99	0	1	20140801		1	
201408	317047	34	4.99	9.99	0	1	20140801		1	
201408	318401	10	4.99	9.99	0	1	20140801		1	
201408	318401	13	4.99	9.99	0	1	20140801		1	

Fields

Search

Sales

District

Item

Store

Time

Select table

1

2

Table: Sales (923,371 rows)

Model View

Retail Analysis Sample PBIX - Power BI Desktop

File Home Help

Get data Refresh Manage relationships Publish

Properties Fields

District

- BusinessUnitID
- District
- DistrictID
- DM
- DM_Pic
- DM_Pic_fl
- DMIImage

Store

- Chain
- City
- City Name
- DistrictID
- DistrictName
- DM
- DM_Pic
- LocationID
- Name
- Open Month
- Open Month No

Sales

- ItemID
- LocationID
- MonthID
- ReportingPeriodID
- ScenarioID
- Sum_GrossMarginAmou
- Sum_Markdown_Sales_D
- Sum_Markdown_Sales_U
- Sum-Regular_Sales_Doll
- Sum-Regular_Sales_Unit
- Average Unit Price

Time

- FiscalMonth
- FiscalYear
- Month
- Period
- ReportingPeriodID

Item

- Buyer
- Category
- FamilyName
- ItemID
- Segment

Relationships between fields in different tables

All tables +

Update available (click to download)

```
graph LR; District --> Sales; Sales --> Item
```

Edit relationship

Retail Analysis Sample PBIX - Power BI Desktop

File Home Help

Get data Refresh Manage relationships Publish

Search Sign in

Double click

1

Store

District

Cardinality: Many to one (*:1)

Cross filter direction: Single

Make this relationship active

Assume referential integrity

OK Cancel

All tables

Update available (click to download)

Search

District

Item

Sales

Store

Time

DM_Pic	DistrictID	Open Year	Store Type	Open Month No	Open Month
https://obvience-public.sharepoint.com/SiteAssets/ima...	4	2010	Same Store	5	M
https://obvience-public.sharepoint.com/SiteAssets/ima...	2	2008	Same Store	2	Fe
https://obvience-public.sharepoint.com/SiteAssets/ima...	1	2006	Same Store	10	Oc

DistrictID	District	DM	DM_Pic_fi	DM
1	FD - 01	Valery Ushakov	http://farm6.staticflickr.com/5502/11550929204_d49a...	https://obvience-public.sh
2	FD - 02	Tina Lassila	http://farm3.staticflickr.com/2811/11551022076_9260...	https://obvience-public.sh
3	FD - 03	Carlos Grilo	http://farm4.staticflickr.com/3682/11550895504_4cfa...	https://obvience-public.sh

Manage relationships

Retail Analysis Sample PBIX - Power BI Desktop

File Home Help

Get data Refresh Manage relationships

Search Sign in

Manage relationships

1

Properties Fields

District BusinessUnitID District DistrictID DM DM_Pic DM_Pic_fi DMIImage

2

Create relationship

Select tables and columns that are related.

3

4

5

6

New... Autodetect...

Cardinality Cross filter direction

All tables +

available (click to download)

District

BusinessUnitID	District	DM	DM_Pic	DM_Pic_fi	DMIImage
1	FD - 01	Valery Ushakov	http://farm6.staticflickr.com/5502/11550929204_d49a...	https://obvience-public.sh...	
2	FD - 02	Tina Lassila	http://farm3.staticflickr.com/2811/11551022076_9260...	https://obvience-public.sh...	
3	FD - 03	Carlos Grilo	http://farm4.staticflickr.com/3682/11550895504_4cfa...	https://obvience-public.sh...	

Autodetect...

Cardinality

Cross filter direction

Properties Fields

Search

District Item Sales Store Time

Learning by Doing

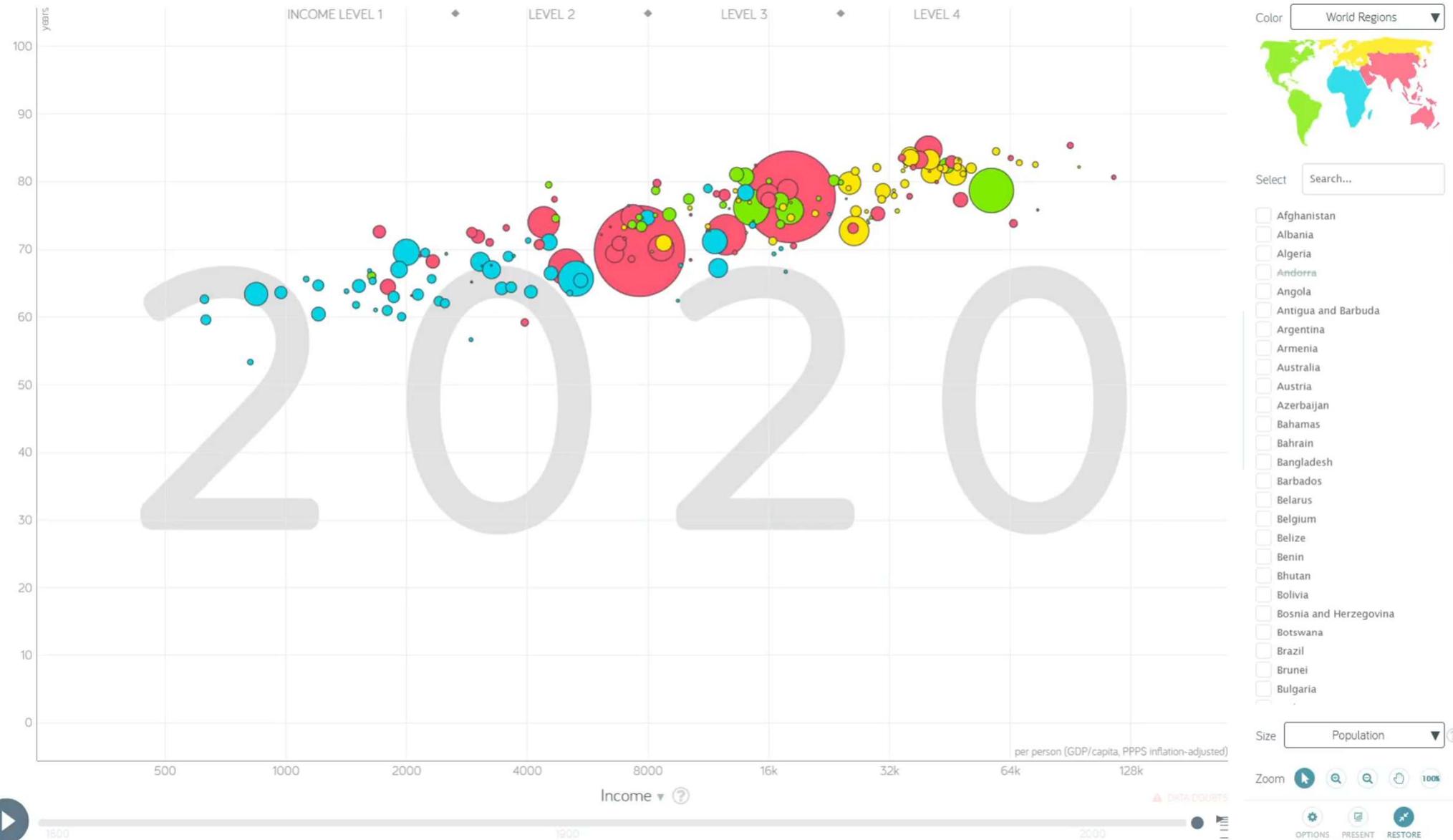
Example: Income vs Life Expectancy

For Power BI Desktop

For Power BI Service [click here](#)

Gap Minder

<https://www.gapminder.org/tools/>



Get Data: Excel File

The screenshot shows the Microsoft Power BI Desktop interface. The title bar reads "Untitled - Power BI Desktop". The ribbon menu is open, with "Home" selected. The main workspace has a central message: "Add data to your report" and "Once loaded, your data will appear in the Fields pane." Below this are four buttons: "Import data from Excel" (highlighted with a red oval and a red arrow pointing to it), "Import data from SQL Server", "Paste data into a blank table", and "Try a sample dataset". To the right of the workspace is a "Visualizations" pane containing icons for various chart types like bar charts, line graphs, and maps. Below that is a "Filters" section with options for "Values", "Drill through", "Cross-report", and "Keep all filters". At the bottom left, there are navigation icons for back, forward, and search, along with a "Page 1" indicator.

Untitled - Power BI Desktop

File Home Insert Modeling View Help

Get data New visual Refresh New measure Publish

Search

Sign in

Add data fields here

Drill through

Cross-report

Off

Keep all filters

On

Add drill-through fields here

Import data from Excel

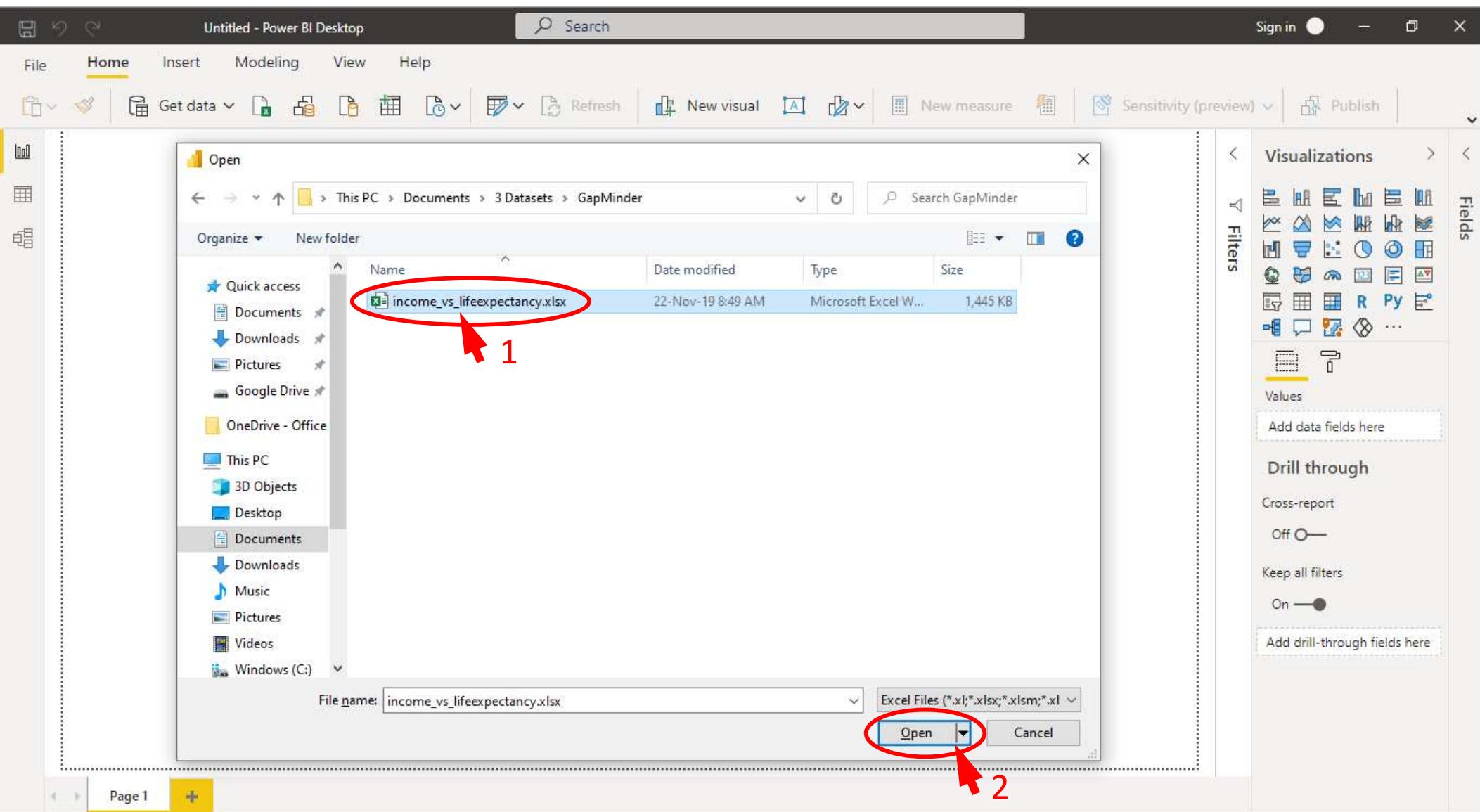
Import data from SQL Server

Paste data into a blank table

Try a sample dataset

Get data from another source →

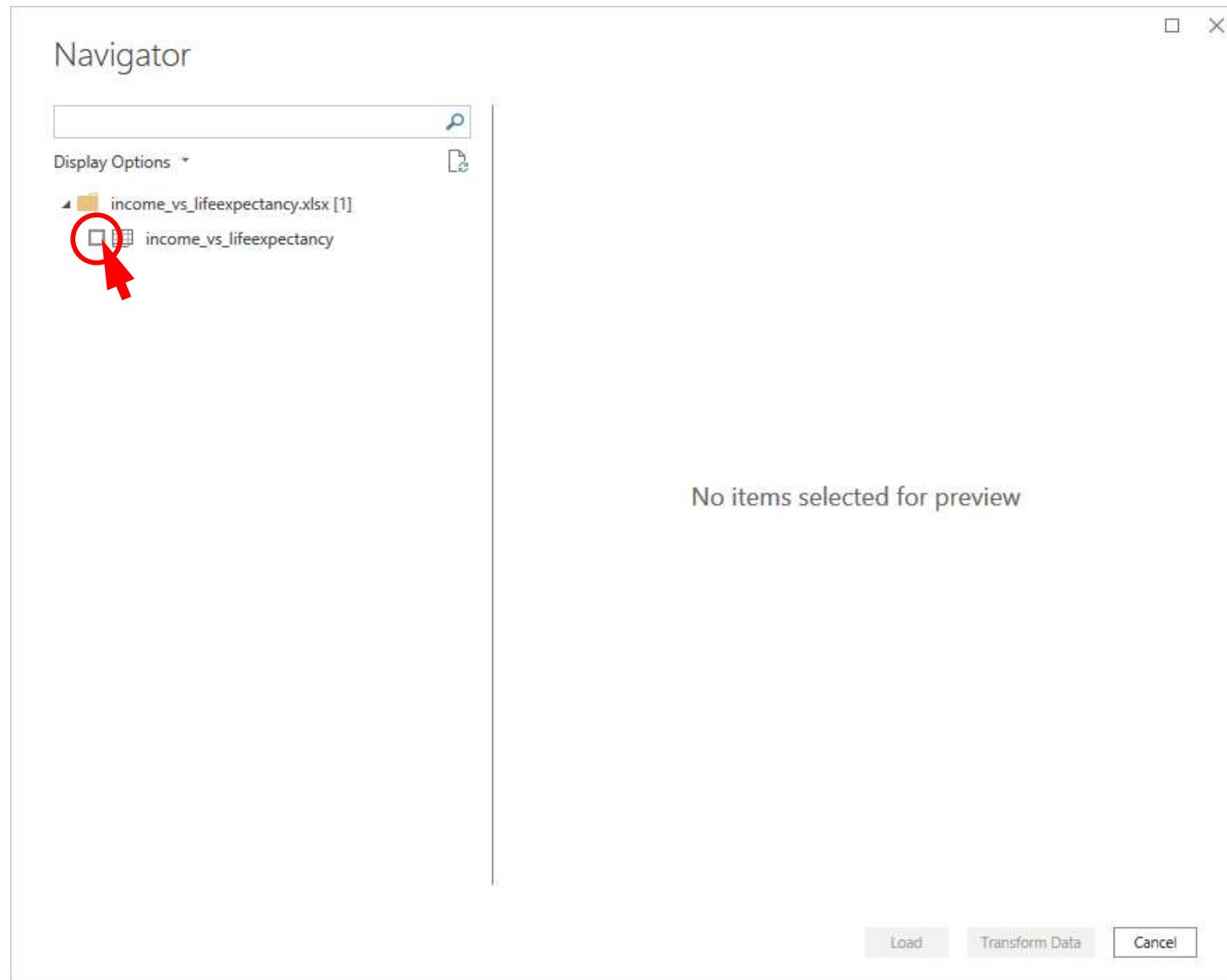
Page 1



Get Data: income_vs_lifeexpectancy.xlsx

The screenshot shows the Power BI Desktop interface with the title bar "Income and Life Expectancy - Power BI Desktop". The ribbon menu is visible with tabs like File, Home, View, Modeling, and Help. The "File" tab is selected, showing options for Paste, Cut, Copy, Format Painter, and Clipboard. The "Data" tab is also visible. The main workspace shows a navigation pane on the left with options like Excel, Power BI datasets, Power BI dataflows, SQL Server, Analysis Services, Text/CSV, Web, OData feed, Blank Query, and More... A central area displays a file selection dialog titled "Open" with the path "GDBI > gapminder". The file "income_vs_lifeexpectancy.xlsx" is selected. To the right, there are panes for "Visualizations" and "Fields", both showing various icons and search bars. The bottom status bar indicates "Page 1" and has a yellow plus sign button.

Select Excel Sheet



Transform Data

Navigator

Display Options ▾

- income_vs_lifeexpectancy.xlsx [1]
- income_vs_lifeexpectancy

income_vs_lifeexpectancy

year	country	region	income per person
1800	Afghanistan	asia_west	60
1800	Albania	europe_east	66
1800	Algeria	africa_north	71
1800	Angola	africa_sub_saharan	61
1800	Antigua and Barbuda	america_north	75
1800	Argentina	america_south	151
1800	Armenia	europe_east	51
1800	Australia	east_asia_pacific	81
1800	Austria	europe_west	185
1800	Azerbaijan	europe_east	77
1800	Bahamas	america_north	145
1800	Bahrain	asia_west	124
1800	Bangladesh	asia_west	87
1800	Barbados	america_north	91
1800	Belarus	europe_east	60
1800	Belgium	europe_west	241
1800	Belize	america_north	57
1800	Benin	africa_sub_saharan	59
1800	Bhutan	asia_west	62
1800	Bolivia	america_south	85
1800	Bosnia and Herzegovina	europe_east	66
1800	Botswana	africa_sub_saharan	39
1800	Brazil	america_south	111

Load Transform Data Cancel



Power Query Editor: check type

Screenshot of the Power Query Editor showing a query named "income_vs_lifeexpectancy". The "Home" tab is selected. A red box highlights the column headers: "year", "country", "region", "income per person", "life expectancy", and "population".

	year	country	region	income per person	life expectancy	population
1	1800	Afghanistan	asia_west	603	28.2	3280000
2	1800	Albania	europe_east	667	35.4	410000
3	1800	Algeria	africa_north	715	28.8	2500000
4	1800	Angola	africa_sub_saharan	618	27	1570000
5	1800	Antigua and Barbuda	america_north	757	33.5	37000
6	1800	Argentina	america_south	1510	33.2	534000
7	1800	Armenia	europe_east	514	34	413000
8	1800	Australia	east_asia_pacific	814	34	351000
9	1800	Austria	europe_west	1850	34.4	3210000
10	1800	Azerbaijan	europe_east	775	29.2	880000
11	1800	Bahamas	america_north	1450	35.2	27400
12	1800	Bahrain	asia_west	1240	30.3	64500
13	1800	Bangladesh	asia_west	876	25.5	19200000
14	1800	Barbados	america_north	913	32.1	81700
15	1800	Belarus	europe_east	608	36.2	2360000
16	1800	Belgium	europe_west	2410	40	3140000
17	1800	Belize	america_north	579	26.5	25500
18	1800	Benin	africa_sub_saharan	597	31	637000
19	1800	Bhutan	asia_west	629	28.8	90000
20	1800	Bolivia	america_south	854	33	1100000
21	1800	Bosnia and Herzegovina	europe_east	669	35.1	852000
22	1800	Botswana	africa_sub_saharan	397	33.6	121000
23	1800	Brazil	america_south	1110	32	3640000
24	1800	Brunei	east_asia_pacific	1510	29.2	2130
25	1800	Bulgaria	europe_east	1090	35.8	1990000
26	1800	Burkina Faso	africa_sub_saharan	480	29.2	1670000
27	1800	Burundi	africa_sub_saharan	418	31.5	899000

The "Properties" pane shows the query name is "income_vs_lifeexpectancy". The "Applied Steps" pane shows a step named "Changed Type".

6 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 1:42 PM

Change data type if incorrect

In this example, every column has a correct type.

The screenshot shows the Microsoft Power Query Editor interface. A context menu is open over the 'region' column header, which contains the value 'europe_west'. The menu options include:

- 1.1 Decimal Number
- \$ Fixed decimal number
- 1.2 Whole Number
- % Percentage
- Date/Time
- Date
- Time
- Date/Time/Timezone
- Duration
- A^BC Text
- X True/False
- Binary
- Using Locale...

The 'Text' option is highlighted with a red arrow. The rest of the interface shows a table with columns: year, country, region, income per person, life expectancy, and population. The 'income_vs_lifeexpe...' query is selected in the Queries list. The 'Transform' tab is active. The 'Properties' pane on the right shows the query name as 'income_vs_lifeexpectancy'.

Close & Apply Changes

Screenshot of the Power Query Editor interface showing a query named "income_vs_lifeexpectancy".

The ribbon menu is visible at the top, with the "File" tab selected. The "Close & Apply" button is highlighted with a red circle and a red arrow pointing to it.

The main area displays a table with the following columns:

	year	country	region	income per person	life expectancy	population
1	1800	Afghanistan	asia_west	603	28.2	3280000
2	1800	Albania	europe_east	667	35.4	410000
3	1800	Algeria	africa_north	715	28.8	2500000
4	1800	Angola	africa_sub_saharan	618	27	1570000
5	1800	Antigua and Barbuda	america_north	757	33.5	37000
6	1800	Argentina	america_south	1510	33.2	534000
7	1800	Armenia	europe_east	514	34	413000
8	1800	Australia	east_asia_pacific	814	34	351000
9	1800	Austria	europe_west	1850	34.4	3210000
10	1800	Azerbaijan	europe_east	775	29.2	880000
11	1800	Bahamas	america_north	1450	35.2	27400
12	1800	Bahrain	asia_west	1240	30.3	64500
13	1800	Bangladesh	asia_west	876	25.5	19200000
14	1800	Barbados	america_north	913	32.1	81700
15	1800	Belarus	europe_east	608	36.2	2360000
16	1800	Belgium	europe_west	2410	40	3140000
17	1800	Belize	america_north	579	26.5	25500
18	1800	Benin	africa_sub_saharan	597	31	637000
19	1800	Bhutan	asia_west	629	28.8	90000
20	1800	Bolivia	america_south	854	33	1100000
21	1800	Bosnia and Herzegovina	europe_east	669	35.1	852000
22	1800	Botswana	africa_sub_saharan	397	33.6	121000
23	1800	Brazil	america_south	1110	32	3640000
24	1800	Brunei	east_asia_pacific	1510	29.2	2130
25	1800	Bulgaria	europe_east	1090	35.8	1990000
26	1800	Burkina Faso	africa_sub_saharan	480	29.2	1670000
27	1800	Burundi	africa_sub_saharan	418	31.5	899000

The "Query Settings" pane on the right shows the following applied steps:

- Source
- Navigation
- Promoted Headers
- Changed Type

At the bottom left, it says "6 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows". At the bottom right, it says "PREVIEW DOWNLOADED AT 1:42 PM".

Data is ready.

Untitled - Power BI Desktop

File Home Insert Modeling View Help

Get data Refresh New visual New measure Publish

Visualizations Fields

Filters

Build visuals with your data

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

Values

Add data fields here

Drill through

Cross-report

Off —

Keep all filters

On —

Add drill-through fields here

income_vs_lifeex...

- country
- Σ income per ...
- Σ life expecta...
- Σ population
- region
- Σ year

Page 1 +

Create a Scatter Chart

The screenshot shows the Power BI Desktop interface with the title bar "income_vs_lifeexpectancy - Power BI Desktop". The ribbon menu is visible with "Home" selected. On the left, there's a preview of a scatter chart with several data points. A red circle labeled "2" points to the "..." button at the bottom right of the chart area. To the right is the "Visualizations" pane, which is open and displays various chart types. A red circle labeled "3" points to the "Scatter chart" icon in this list. A red arrow labeled "1" points to the same icon in the list. The "Fields" pane is also visible on the far right.

income_vs_lifeexpectancy - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Select or drag fields to populate this visual

Filters > Visualizations >

Search

Filters on this visual

Add data fields here

Filters on this page

Add data fields here

Filters on all pages

Add data fields here

Scatter chart

1

2

3

country
Σ income per ...
Σ life expecta...
Σ population
region
year

Details

Legend

X Axis

Y Axis

Size

Play Axis

Tooltips

Page 1

Page 1 of 1

Assign fields to X and Y Axes

The screenshot shows the Power BI Desktop interface with the title bar "income_vs_lifeexpectancy - Power BI Desktop". The ribbon menu is visible with "Home" selected. On the left, there's a visualization area with a bubble chart and a message "Select or drag fields to populate this visual". The main workspace contains a scatter plot with several gray bubbles of varying sizes. To the right is the "Fields" pane, which lists fields from the data source "income_vs_lifeexpectancy": country, income per person, life expectancy, population, region, and year. The "Visualizations" pane is also open, showing various chart types like bar charts, line charts, and pie charts. A red arrow points from the text "Drag & Drop" to the "X Axis" section in the Fields pane, indicating where to place a field to define the horizontal axis.

income_vs_lifeexpectancy - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

Back to report

Select or drag fields to populate this visual

Visualizations

Filters

Details

Add data fields here

Legend

Add data fields here

X Axis

Add data fields here

Y Axis

Add data fields here

Size

Add data fields here

Play Axis

Add data fields here

Toolips

Search

income_vs_lifeexpectancy

- country
- income per person
- life expectancy
- population
- region
- year

Drag & Drop

Assign fields to X and Y Axes

The screenshot shows the Power BI Desktop interface with the following details:

- File Bar:** Home, Insert, Modeling, View, Help, Format, Data / Drill.
- Toolbar:** Get data, Refresh, New visual, New measure, Sensitivity (preview), Publish.
- Report Title:** INCOME PER PERSON AND LIFE EXPECTANCY.
- Visualizations Panel:** Shows various chart types like bar, line, pie, etc.
- Fields Panel:** A tree view of data fields:
 - income_vs_lifeexpectancy
 - country
 - Σ income per person
 - Σ life expectancy
 - Σ population
 - region
 - Σ year
- Plot Area:** A scatter plot with "life expectancy" on the Y-axis (ranging from 0.1M to 2M) and "income per person" on the X-axis (ranging from 0.1bn to 0.2bn). A single blue dot is plotted at approximately (0.15bn, 1.5M).
- Annotations:** Three red circles highlight specific elements:
 - A red circle around the Y-axis label "life expectancy".
 - A red circle around the X-axis label "income per person".
 - A red circle around the blue data point on the plot.

Change calculation of income

The screenshot shows the Power BI Desktop interface with a scatter plot titled "INCOME PER PERSON AND LIFE EXPECTANCY". The Y-axis is labeled "life expectancy" and ranges from 0.1bn to 2M. The X-axis is labeled "income per person" and ranges from 0.2bn to 0.4bn. A single data point is plotted at approximately (0.35bn, 1.5M). A context menu is open over this point, with two red arrows indicating specific options:

- Arrow 1 points to the "income per person" entry in the "Y Axis" section of the menu.
- Arrow 2 points to the "Average" option in the "Summarize" dropdown menu.

The context menu includes the following options for the Y Axis:

- Remove field
- Rename for this visual
- Move to
- Don't summarize
- Sum (selected)
- Average (highlighted with arrow 2)
- Minimum
- Maximum
- Count (Distinct)
- Count
- Standard deviation
- Variance
- Median
- Show value as
- New quick measure

The context menu also includes sections for Details, Legend, X Axis, Size, Play Axis, and Tooltips.

Change calculation of life expectancy

The screenshot shows the Power BI Desktop interface with a scatter plot titled "AVERAGE OF INCOME PER PERSON AND LIFE EXPECTANCY". The X-axis is labeled "Average of income per person" and ranges from 4K to 6K. The Y-axis is labeled "life expectancy" and ranges from 1M to 2M. A single blue dot is plotted at approximately (5K, 1.5M). On the right side, a context menu is open for the Y-axis, listing various aggregation functions: Sum, Average, Minimum, Maximum, Count (Distinct), Count, Standard deviation, Variance, Median, Show value as, New quick measure, and Size. The "Average" option is highlighted with a red arrow labeled "2". Another red arrow labeled "1" points to the "Size" option at the bottom of the menu.

income_vs_lifeexpectancy - Power BI Desktop

File Home Insert Modeling View Help Format Data / Drill

Get data Refresh New visual New measure Sensitivity (preview) Publish

AVERAGE OF INCOME PER PERSON AND LIFE EXPECTANCY

Back to report

life expectancy

2M

1M

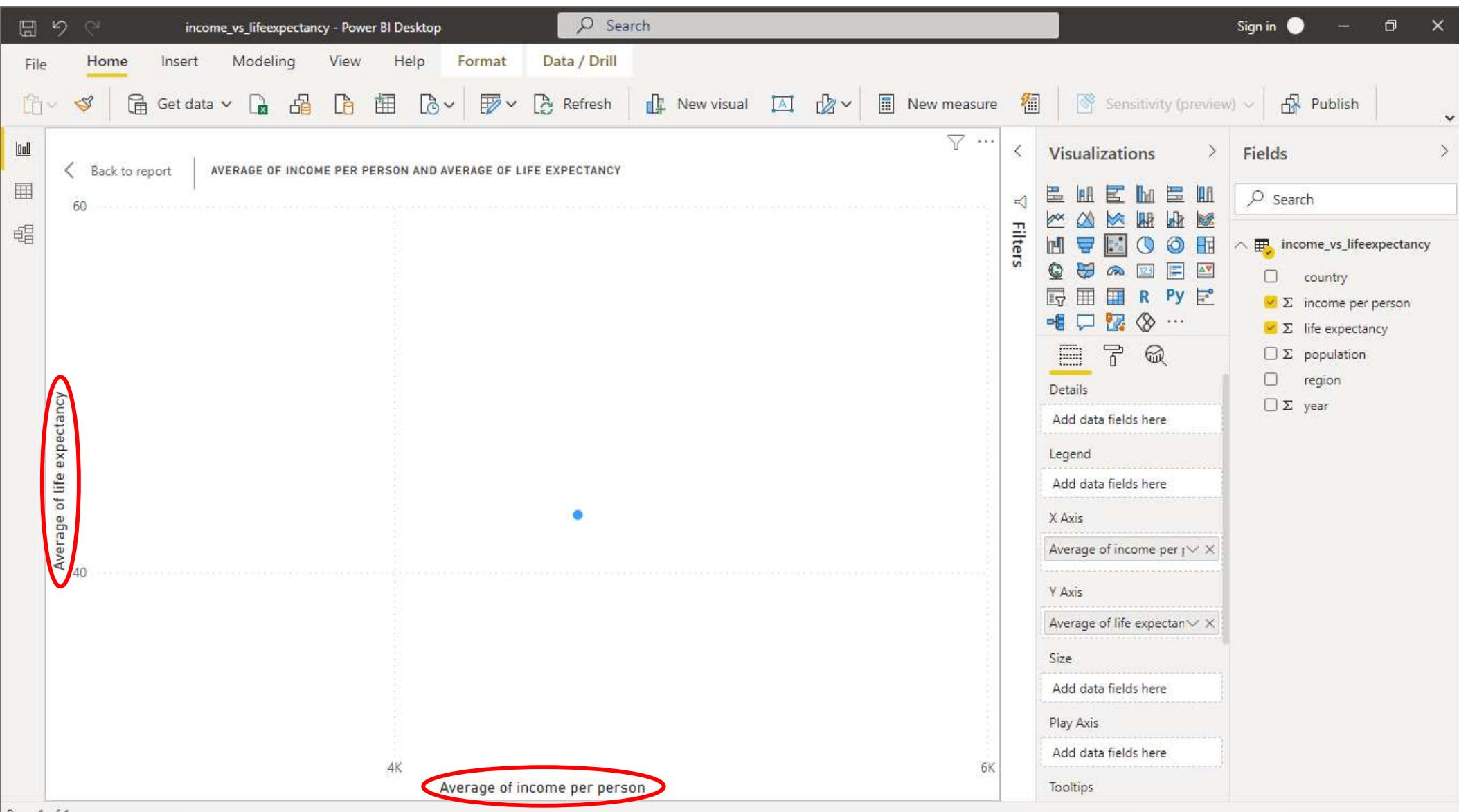
4K 6K

Average of income per person

Visualizations Fields

Remove field Rename for this visual Move to Don't summarize Sum Average Minimum Maximum Count (Distinct) Count Standard deviation Variance Median Show value as New quick measure Size Play Axis Tooltips

1 2



Use Country as Legend

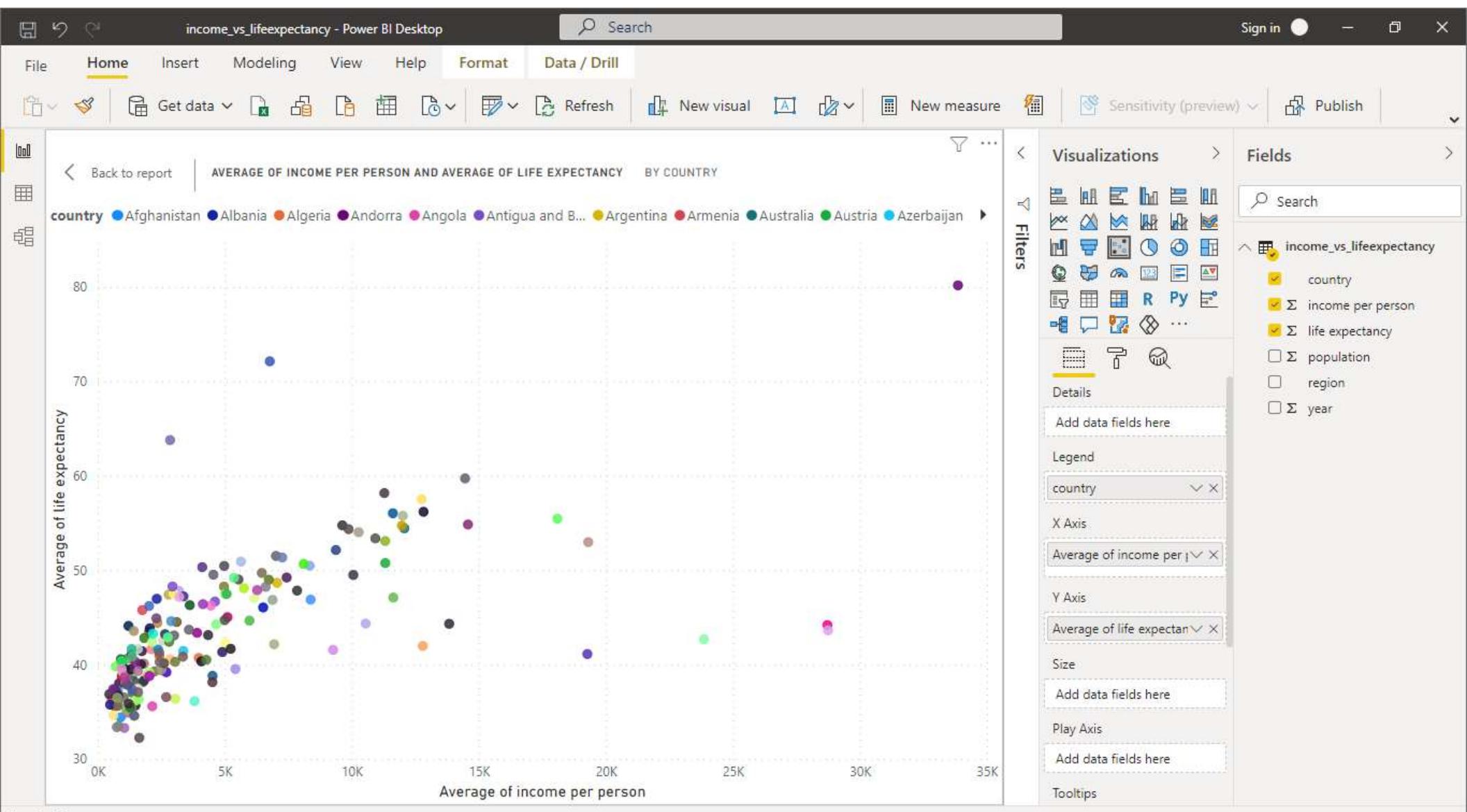
The screenshot shows the Power BI Desktop interface with a report titled "AVERAGE OF INCOME PER PERSON AND AVERAGE OF LIFE EXPECTANCY". The visual is a scatter plot with "Average of income per person" on the X-axis (ranging from 4K to 6K) and "Average of life expectancy" on the Y-axis (ranging from 40 to 60). A single blue dot is plotted at approximately (5K, 45).

The Visualizations pane on the right side of the screen displays various chart types. A red arrow points to the "Legend" section, which is currently empty. The Fields pane shows the data model:

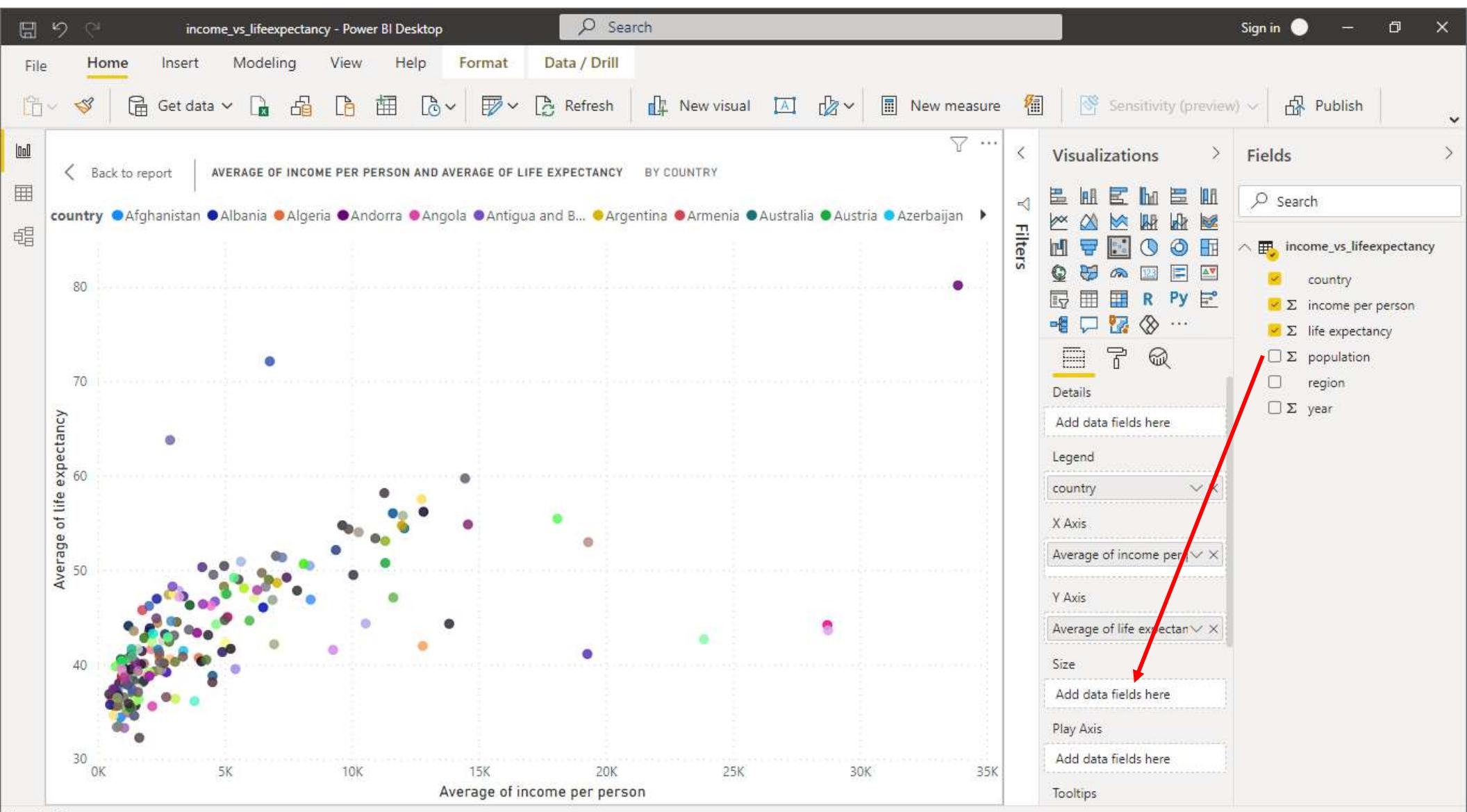
- income_vs_lifeexpectancy:
 - country
 - Σ income per person
 - Σ life expectancy
 - Σ population
 - region
 - Σ year

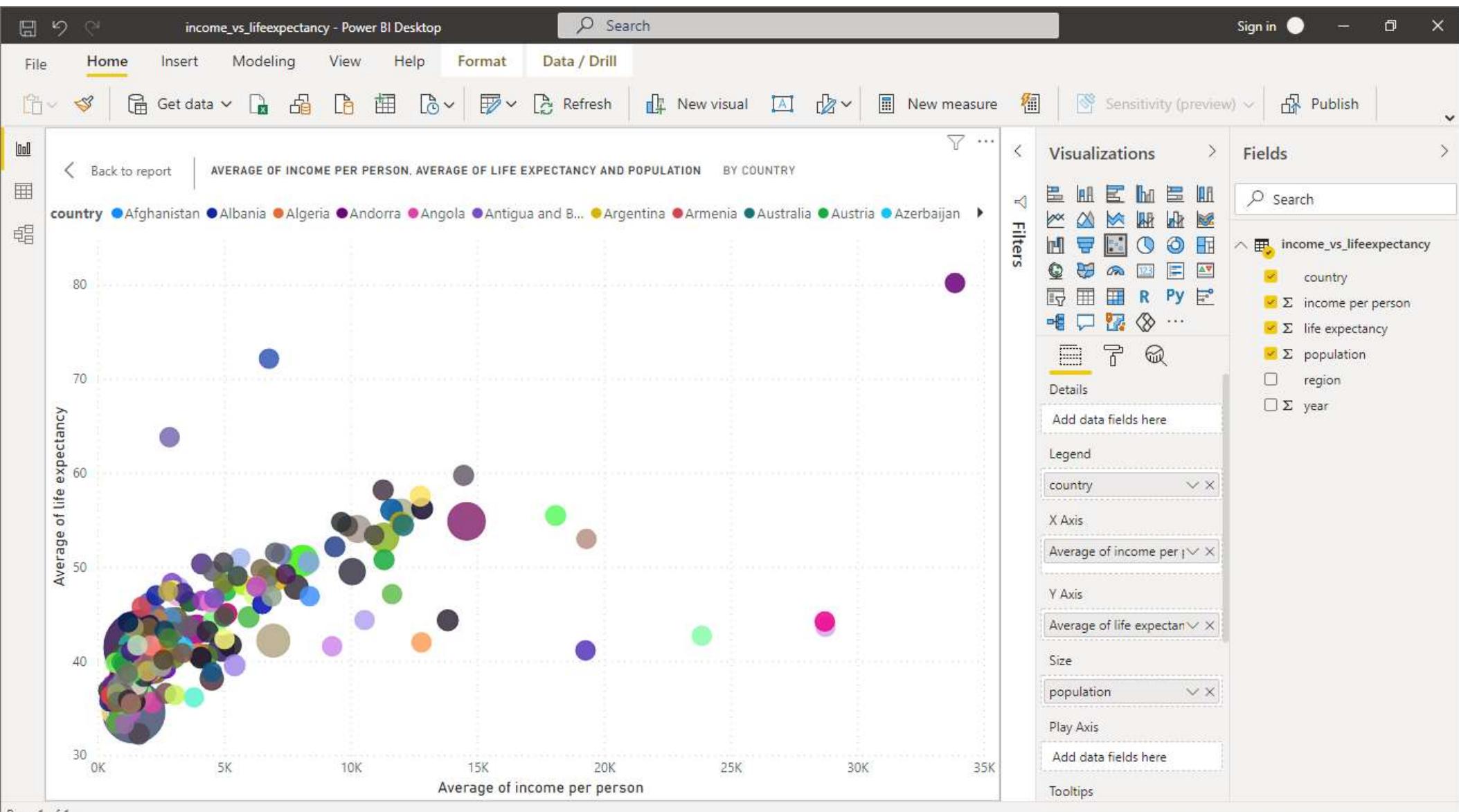
The report title is "income_vs_lifeexpectancy - Power BI Desktop". The top navigation bar includes File, Home, Insert, Modeling, View, Help, Format, Data / Drill, Get data, Refresh, New visual, New measure, Sensitivity (preview), and Publish.

Income vs Life Expectancy by Country



Size by population





Change X axis scale

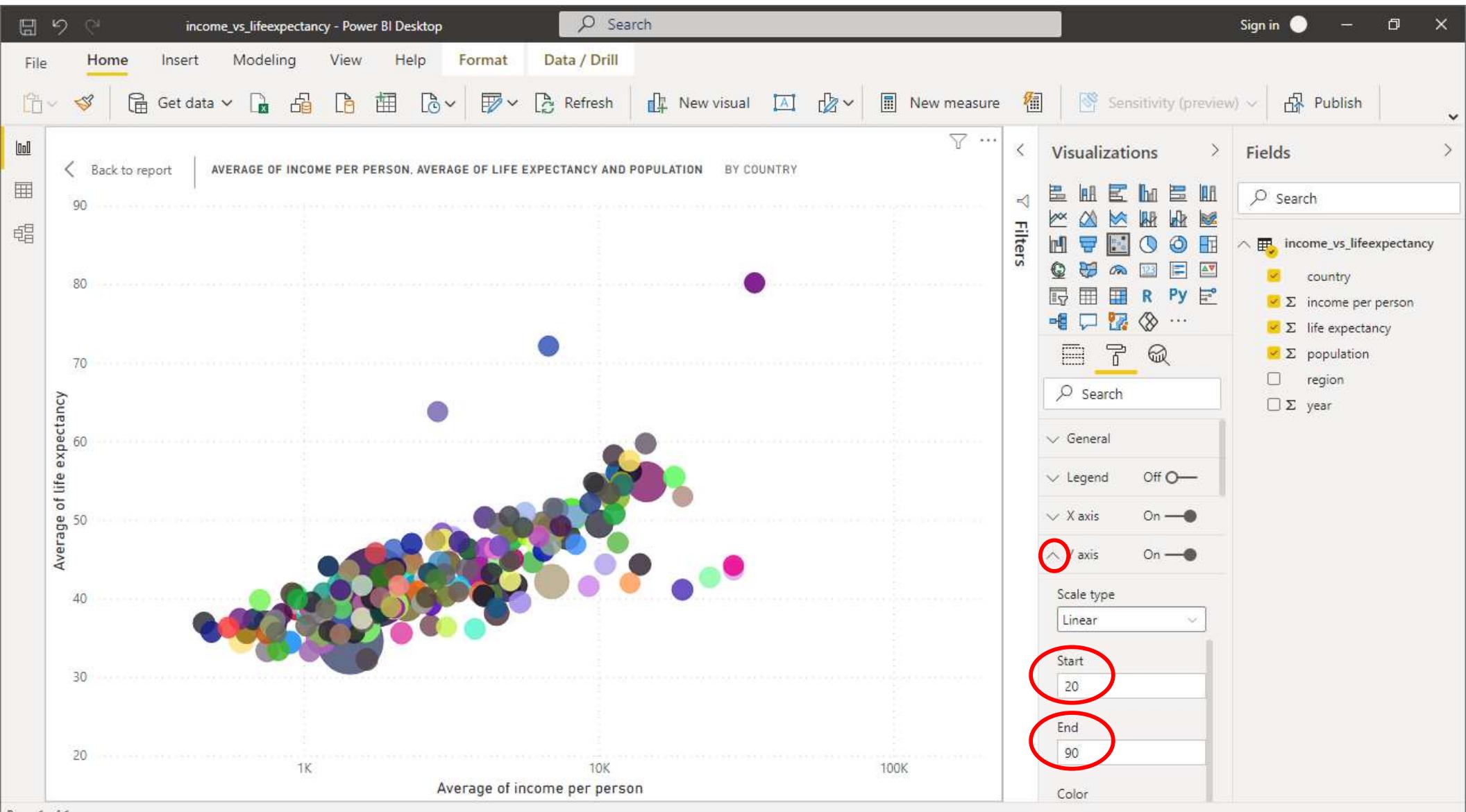
The screenshot shows a Power BI Desktop interface with a bubble chart titled "AVERAGE OF INCOME PER PERSON, AVERAGE OF LIFE EXPECTANCY AND POPULATION BY COUNTRY". The chart displays a positive correlation between average income per person (X-axis) and average life expectancy (Y-axis). The X-axis is logarithmic, with major ticks at 1K, 10K, and 100K. The Y-axis ranges from 30 to 80. Data points are represented by colored bubbles of varying sizes.

The ribbon menu is visible at the top, showing "income_vs_lifeexpectancy - Power BI Desktop" and various tabs like File, Home, Insert, Modeling, View, Help, Format, and Data / Drill. The "Home" tab is selected.

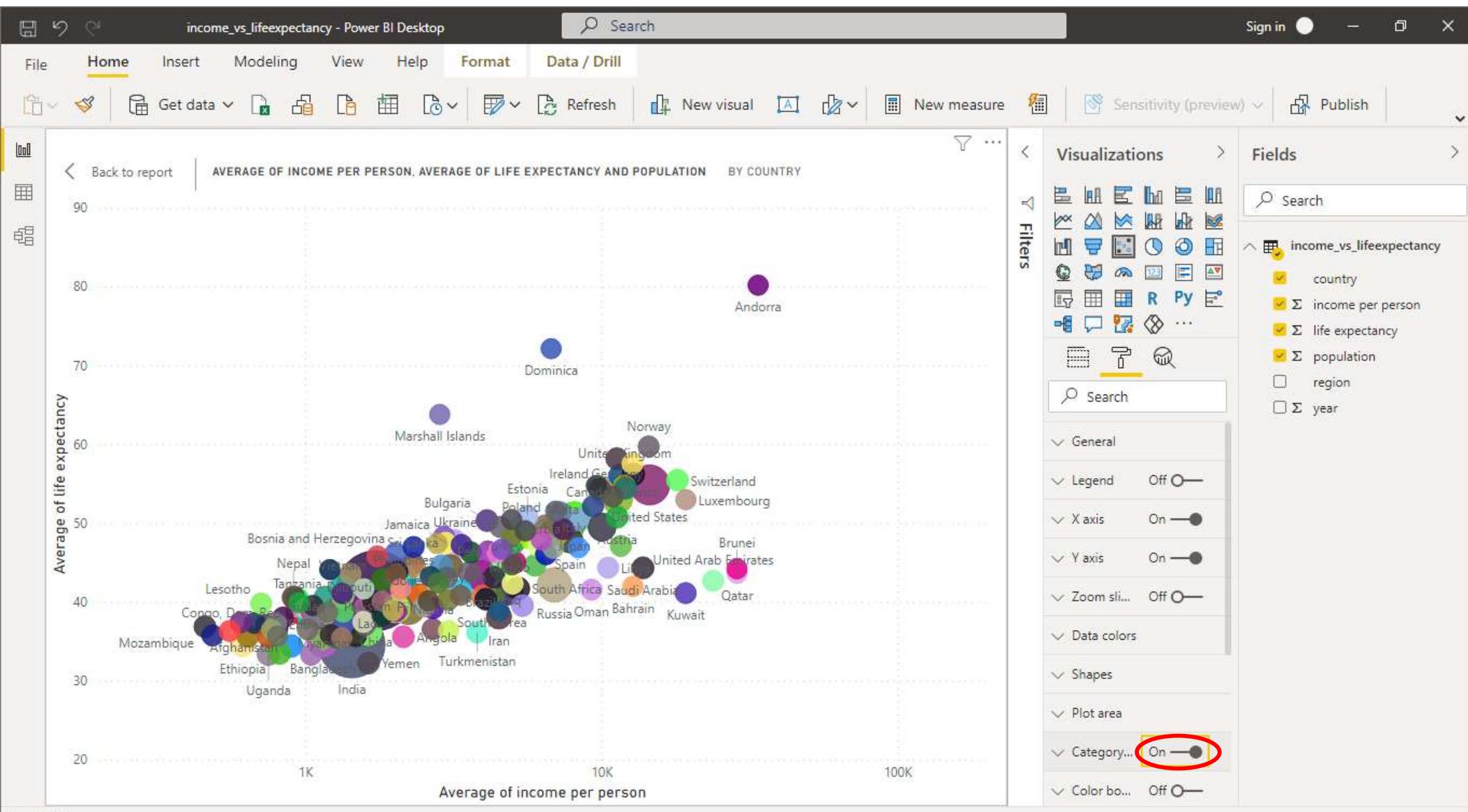
The "Visualizations" pane on the right lists various chart types, and the "Fields" pane shows the data source structure with checked fields: country, Σ income per person, Σ life expectancy, Σ population, and unchecked fields: region and Σ year.

The "Format" pane on the right is open, specifically the "X axis" section. It includes settings for "Scale type" (set to "Log"), "Start" (set to 200), and "End" (set to 200000). A red circle highlights the "Scale type" dropdown, and another red circle highlights the "End" input field. A red arrow labeled "1" points to the "Search" input field, which is also highlighted with a red circle.

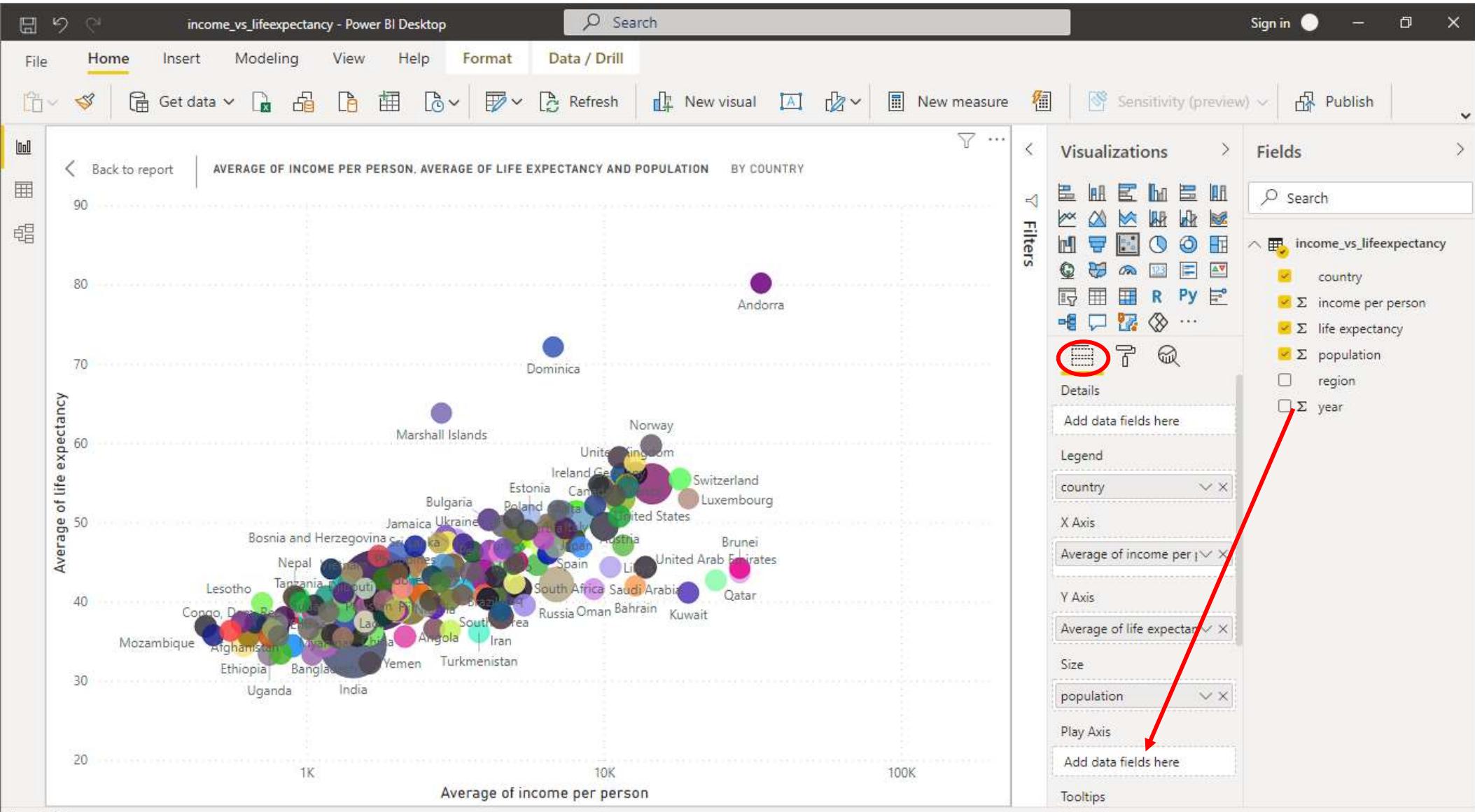
Change Y axis range



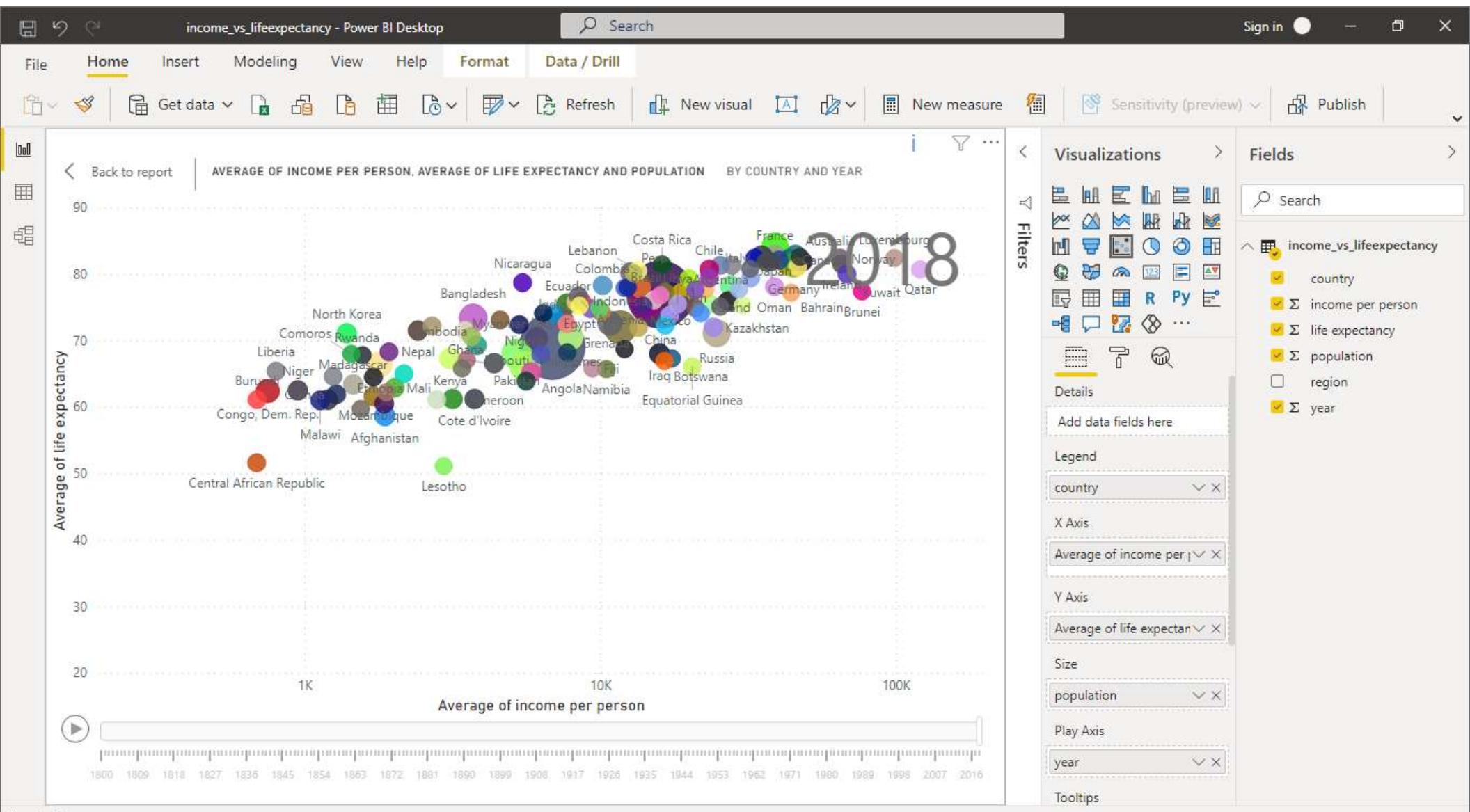
Show country names



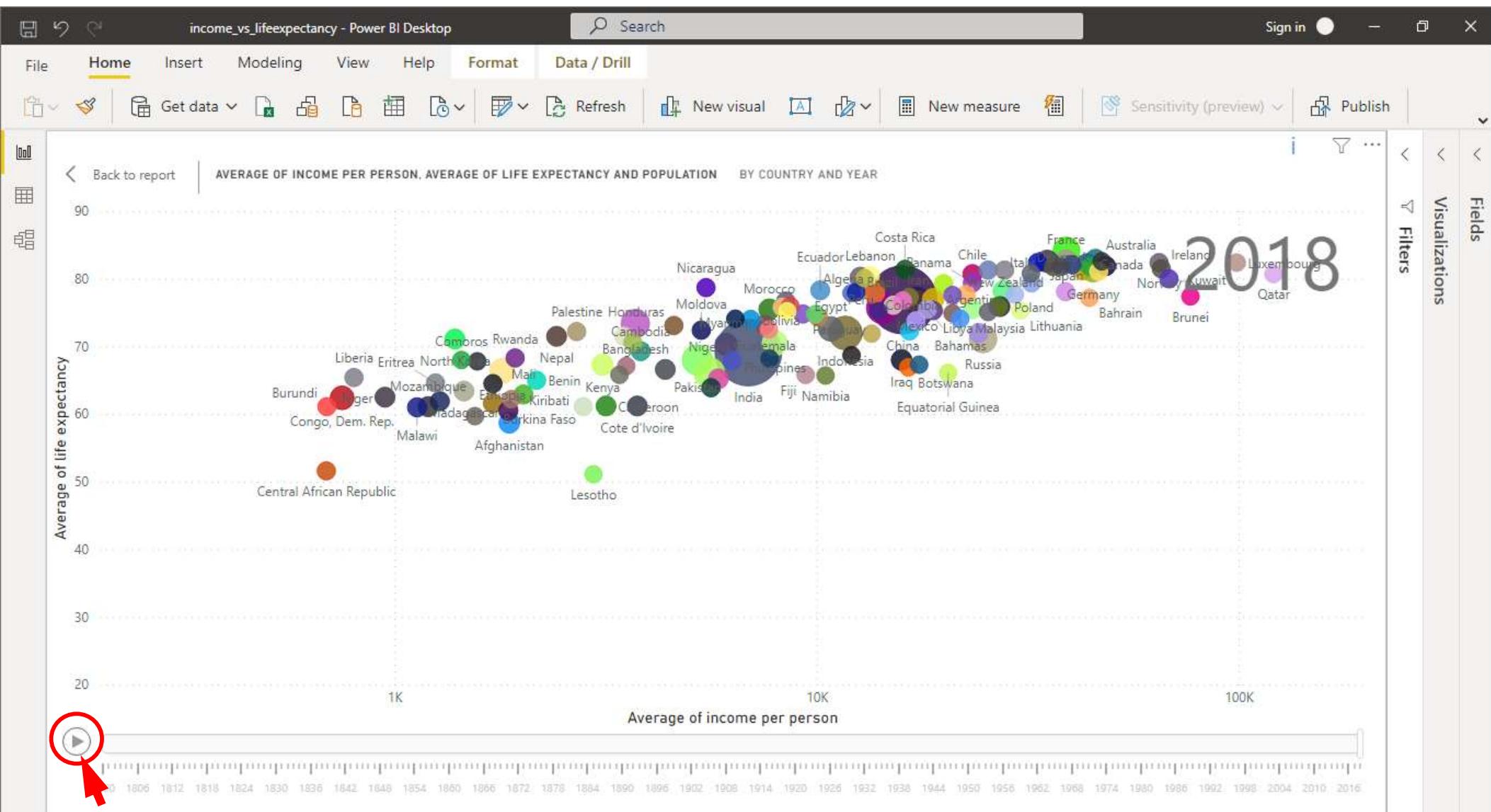
Play Axis



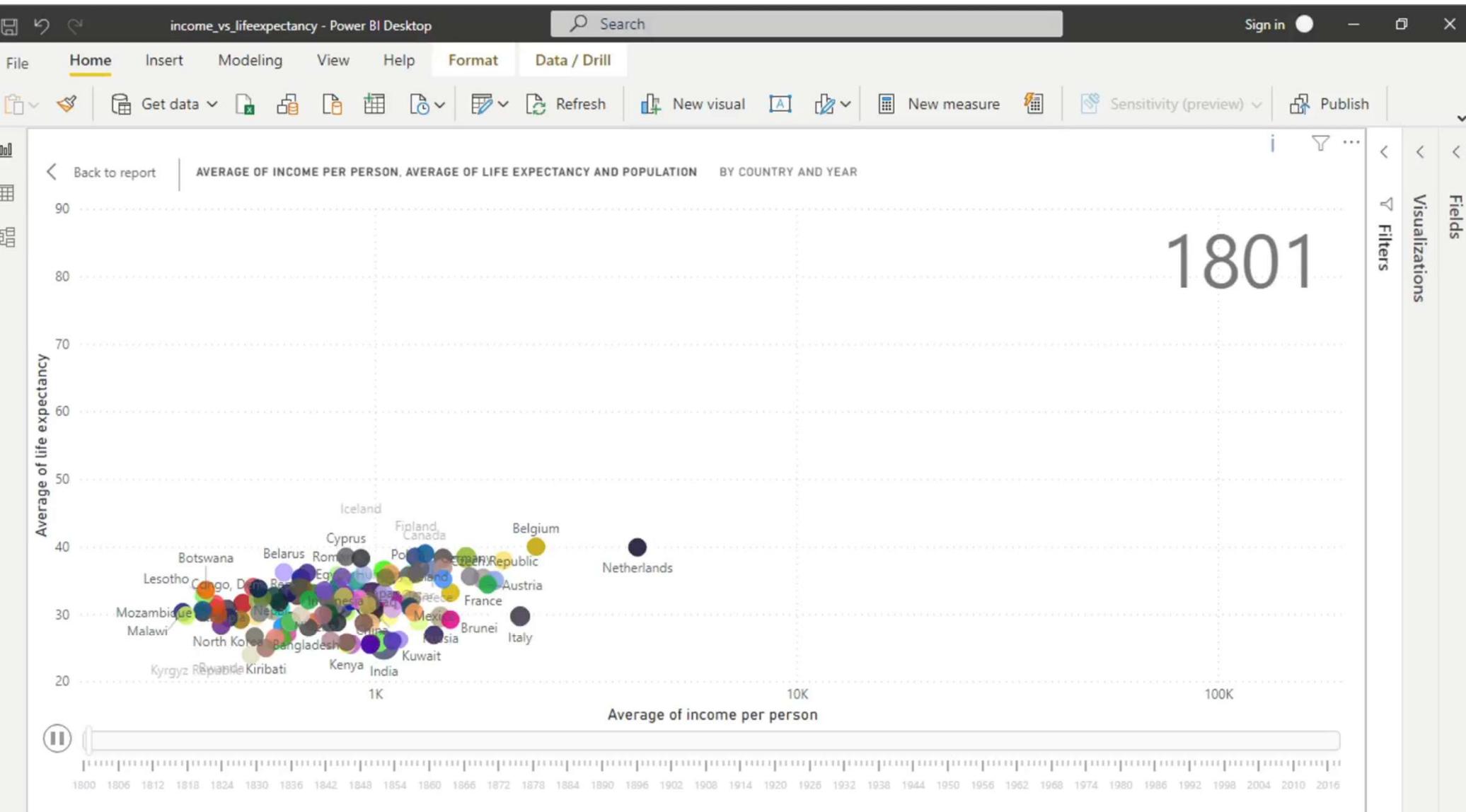
Play Axis



Play



Play



Example: Income vs Life Expectancy

For Power BI Service

For Power BI Desktop [click here](#)

Prepare an Excel File

The Excel file must be in **Table format** to work with Power BI Online.
In Excel, select a cell and do Home → Format as Table

This screenshot shows the Microsoft Excel ribbon with the 'Home' tab selected. In the 'Cells' group of the ribbon, the 'Format as Table' button is highlighted with a red circle. Below the ribbon, a table of data is displayed. The first row contains column headers: 'year', 'country', 'region', 'income_per_capita', 'life_expectancy', and 'population'. The second row contains data for Afghanistan in 1800. The third row contains data for Albania in 1800. The fourth row contains data for Algeria in 1800. The fifth row contains data for Angola in 1800.

year	country	region	income_per_capita	life_expectancy	population
1800	Afghanistan	asia_west	603	28.2	3280000
1800	Albania	europe_e	667	35.4	410000
1800	Algeria	africa_nor	715	28.8	2500000
1800	Angola	africa_sub	618	27	1570000

This screenshot shows the Microsoft Excel ribbon with the 'Home' tab selected. A dialog box titled 'Format As Table' is open in the foreground. It asks 'Where is the data for your table?' with a dropdown menu showing the range '\$A\$1:\$F\$40438'. The checkbox 'My table has headers' is checked. At the bottom of the dialog box are 'OK' and 'Cancel' buttons. The background shows the same table of data as the previous screenshot, with rows 1 through 8 visible. Row 1 is the header row, and rows 2 through 8 contain data for various countries in 1800.

year	country	region	income_per_capita	life_expectancy	population
1800	Afghanistan	asia_west	603	28.2	3280000
1800	Albania	europe_e	667	35.4	410000
1800	Algeria	africa_nor	715	28.8	2500000
1800	Angola	africa_sub	618	27	1570000
1800	Antigua and Barbuda	america_r	757	33.5	370000
1800	Argentina	america_s	1510	33.2	5340000
1800	Armenia	europe_e	514	34	413000

Save file

income_vs_lifeexpectancy.xlsx

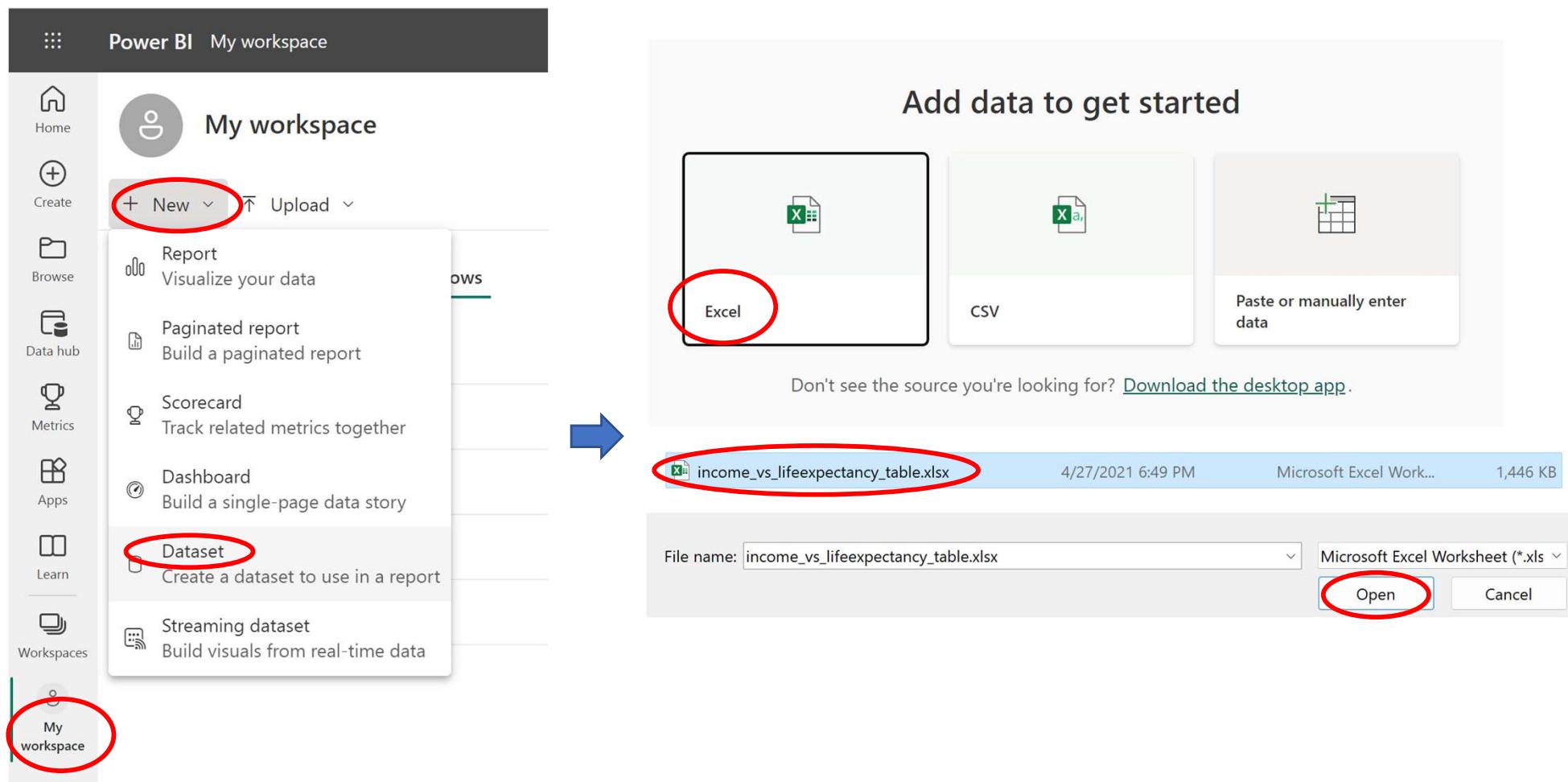
Veera Muangsin VM

File Home Insert Page Layout Formulas Data Review View Developer Help Acrobat Power Pivot Team Share Comments

year	country	region	income per person	life expectancy	population
1800	Afghanista	asia_west	603	28.2	3280000
1800	Albania	europe_e	667	35.4	410000
1800	Algeria	africa_nor	715	28.8	2500000
1800	Angola	africa_sub	618	27	1570000
1800	Antigua and	america_r	757	33.5	37000
1800	Argentina	america_s	1510	33.2	534000
1800	Armenia	europe_e	514	34	413000
1800	Australia	east_asia	814	34	351000
1800	Austria	europe_w	1850	34.4	3210000
1800	Azerbaijan	europe_e	775	29.2	880000
1800	Bahamas	america_r	1450	35.2	27400
1800	Bahrain	asia_west	1240	30.3	64500
1800	Bangladesh	asia_west	876	25.5	19200000
1800	Barbados	america_r	913	32.1	81700
1800	Belarus	europe_e	608	36.2	2360000
1800	Belgium	europe_w	2410	40	3140000
1800	Belize	america_r	579	26.5	25500
1800	Benin	africa_sub	597	31	637000
1800	Bhutan	asia_west	629	28.8	90000
1800	Bolivia	america_s	854	33	1100000
1800	Bosnia and	europe_e	669	35.1	852000
1800	Botswana	africa_sub	397	33.6	121000
1800	Brazil	america_s	1110	32	3640000
1800	Brunei	east_asia	1510	29.2	2130
1800	Bulgaria	europe_e	1090	35.8	1990000
1800	Burkina Faso	africa_sub	480	29.2	1670000
1800	Burundi	africa_sub	418	31.5	899000
1800	Cambodia	east_asia	903	35	2090000

Create Dataset from Excel file

My workspace → New → Dataset
Add data to get started → Excel



Create Report from the Dataset

The screenshot shows the Power BI 'My workspace' interface. On the left is a vertical navigation bar with icons for Home, Create, Browse, Data hub, Metrics, Apps, Deployment pipelines, Learn, Workspaces, and 'My workspace', which is circled in red. The main area is titled 'My workspace' and contains sections for '+ New' and 'Upload'. Below these are tabs for 'All', 'Content', and 'Datasets + dataflows', with 'All' selected. A table lists items: 'covid19' (Dataset), 'covid19.csv' (Dashboard), 'income_vs_lifeexpectancy_table' (Workbook), and another entry for 'income_vs_lifeexpectancy_table' (Dataset). The dataset row has a context menu open, with the 'Create report' option highlighted by a red circle and a red arrow pointing to it. Other options in the menu include 'Analyze in Excel', 'Auto-create report', 'Create operational report', and 'Delete'.

	Name	Type
	covid19	Dataset
	covid19.csv	Dashboard
	income_vs_lifeexpectancy_table	Workbook
	income_vs_lifeexpectancy_table	Dataset

An open context menu for the last dataset row shows the following options:

- Analyze in Excel
- Create report (highlighted)
- Auto-create report
- Create operational report
- Delete

Data is ready

File View Reading view Mobile layout

Home Create Browse Data hub Metrics Apps Deployment pipelines Learn Workspaces My workspace

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

The screenshot shows the Power BI desktop application interface. On the left is the ribbon with various icons. The main area has a title 'Build visuals with your data' and instructions to select or drag fields from the Data pane onto the report canvas. Below this is a visual representation of a data flow with a dashed yellow box and a cursor. To the right are three panes: 'Filters', 'Visualizations', and 'Data'. The 'Data' pane is highlighted with a red box around its search bar and the first item in the list, 'income_vs_lifeexpectancy'. This item has a small icon next to it. The list also includes other fields: country, income per pers..., life expectancy, population, region, and year. Each item has a checkbox to its left.

Filters

Visualizations

Data

income_vs_lifeexpectancy

country

income per pers...

life expectancy

population

region

year

Create a Scatter Chart

The screenshot shows the Power BI desktop interface. On the left, the navigation pane includes Home, Favorites, Recent, Create, Datasets, Apps, Shared with me, Learn, Workspaces, and My workspace (which is currently selected). The main canvas displays a scatter plot with several gray circular data points. A red circle labeled '2' highlights the 'Add data fields here' placeholder text at the bottom of the plot area. To the right, the ribbon menu has tabs like File, View, Reading view, Mobile layout, Ask a qu..., Ex..., Text..., Sh..., Bu..., Visual inter..., Ref..., Duplicate thi..., Save, and a search bar. The ribbon also has sections for Visualizations (with a scatter chart icon circled in red and labeled '1') and Fields. The Fields section lists fields from a dataset: income_vs_lifeex... (expanded), country, income per ..., life expecta..., population, region, and year. The 'Visualizations' pane shows various chart types, and the 'Fields' pane shows the structure of the data being used.

Assign fields to X and Y Axes

The screenshot shows the Power BI desktop application interface. On the left, the navigation pane includes Home, Favorites, Recent, Create, Datasets, Apps, Shared with me, Learn, Workspaces, and My workspace (which is expanded to show Dashboards, Retail Analysis Sample, and Get data). The main canvas displays a bubble chart with several gray bubbles of varying sizes scattered across a grid. Above the chart, a message says "Select or drag fields to populate this visual". To the right of the canvas is the Fields pane, which lists data fields from a dataset named "income_vs_lifeexp...". The fields listed are country, income per ..., life expecta..., population, region, and year. The Fields pane also contains sections for Visualizations, Filters, Details, Legend, X Axis, Y Axis, Size, Play Axis, and Tooltips. A red arrow points from the text "Drag & Drop" to the "Add data fields here" section under the X Axis category.

Power BI My workspace

File Reading view Mobile layout

Back to report

Select or drag fields to populate this visual

Visualizations

Filters

Details

Add data fields here

Legend

Add data fields here

X Axis

Add data fields here

Y Axis

Add data fields here

Size

Add data fields here

Play Axis

Add data fields here

Tooltips

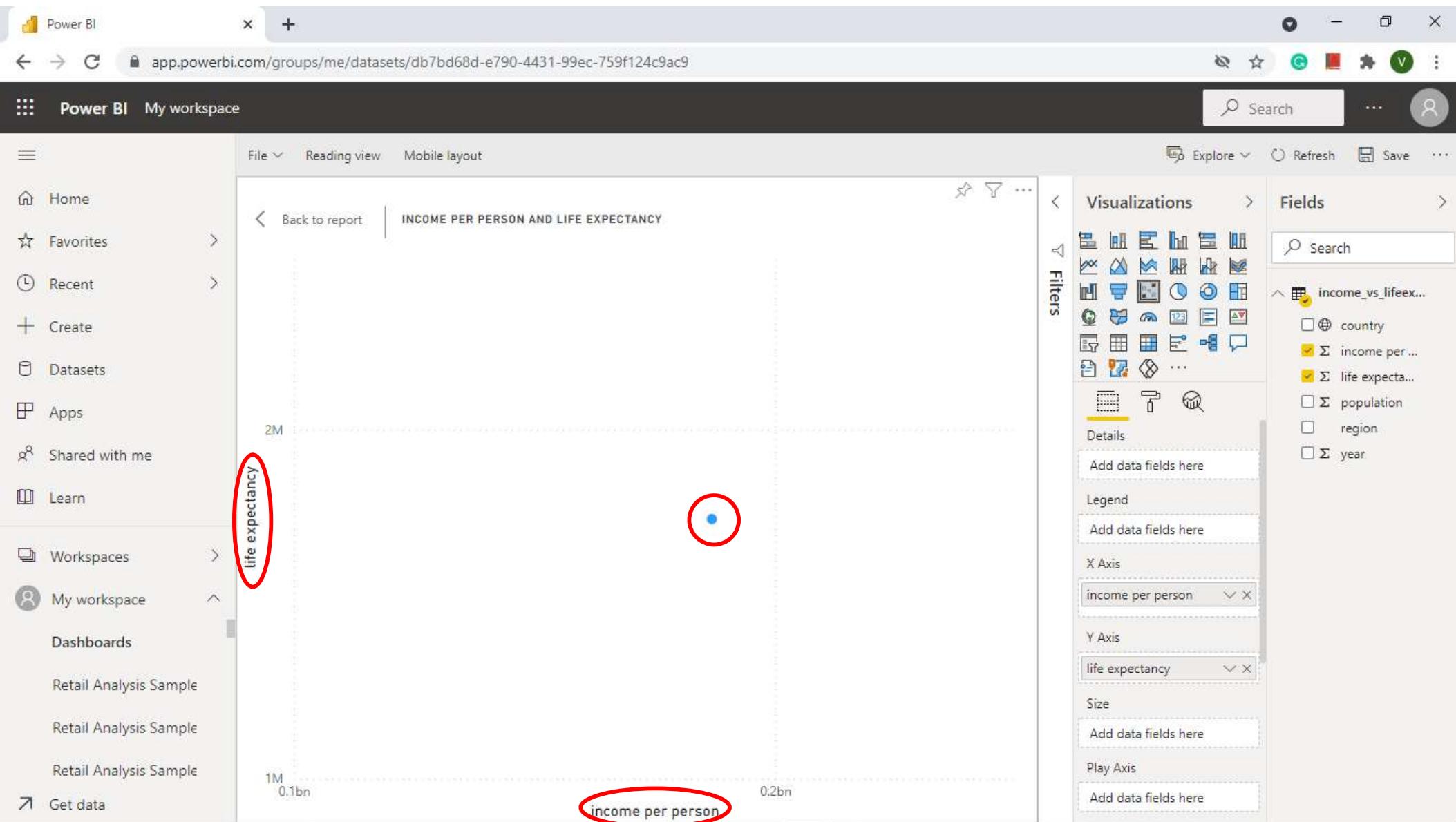
Search

Explore Refresh Save

income_vs_lifeexp...

- country
- income per ...
- life expecta...
- population
- region
- year

Drag & Drop



Change calculation of income

The screenshot shows a Power BI report titled "INCOME PER PERSON AND LIFE EXPECTANCY". The report contains a scatter plot with "income per person" on the X-axis and "life expectancy" on the Y-axis. A context menu is open over the Y-axis, specifically under the "Visualizations" section. The menu lists various aggregation functions: Sum (checked), Average, Minimum, Maximum, Count (Distinct), Count, Standard deviation, Variance, Median, and Show value as. Red arrows labeled 1 and 2 point to the "income per person" field in the X-axis details and the "Average" option in the context menu, respectively.

Power BI My workspace

File Reading view Mobile layout

INCOME PER PERSON AND LIFE EXPECTANCY

Back to report

life expectancy

income per person

Visualizations

Filters

Remove field

Rename for this visual

Move to

Don't summarize

Sum

Average **2**

Minimum

Maximum

Count (Distinct)

Count

Standard deviation

Variance

Median

Show value as

income per person **1**

life expectancy

Size

Play Axis

Add data fields here

Details

Legend

Add data fields here

X Axis

Y Axis

Add data fields here

Standard deviation

Variance

Median

Show value as

Count (Distinct)

Count

Standard deviation

Variance

Median

Show value as

Change calculation of life expectancy

The screenshot shows a Power BI report titled "AVERAGE OF INCOME PER PERSON AND LIFE EXPECTANCY". The report contains a scatter plot with "Average of income per person" on the X-axis and "life expectancy" on the Y-axis. A single data point is visible at approximately (4K, 2M). On the right side of the screen, the "Visualizations" pane is open, displaying various chart and map types. A context menu is open over the Y-axis, specifically under the "Details" section. The menu lists several aggregation options: Sum (checked), Average (highlighted with a red arrow labeled 2), Minimum, Maximum, Count (Distinct), Count, Standard deviation, Variance, Median, and Show value as. Arrows labeled 1 and 2 point to the "Sum" and "Average" options respectively.

Average of income per person

life expectancy

AVERAGE OF INCOME PER PERSON AND LIFE EXPECTANCY

File ▾ Reading view Mobile layout

Back to report

Visualizations Fields

Details

Add data fields here

Legend

Add data fields here

X Axis

Average of income per person

Y Axis

life expectancy

Size

Add data fields here

Play Axis

Add data fields here

Remove field

Rename for this visual

Move to

Don't summarize

Sum

Average **2**

Minimum

Maximum

Count (Distinct)

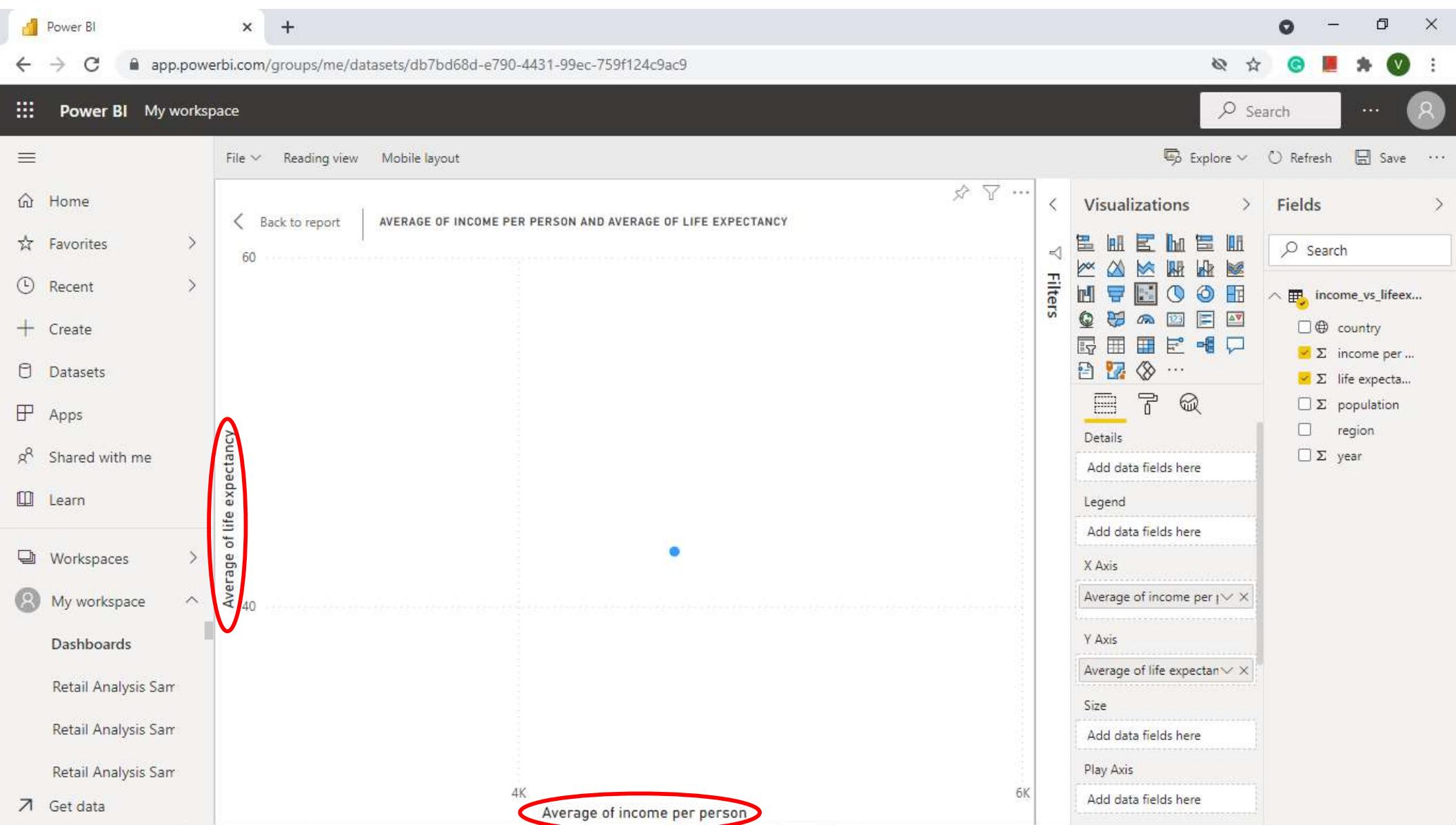
Count

Standard deviation

Variance

Median

Show value as **1**



Use Country as Legend

The screenshot shows the Power BI desktop interface with a report titled "AVERAGE OF INCOME PER PERSON AND AVERAGE OF LIFE EXPECTANCY". The report contains a scatter plot with "Average of life expectancy" on the Y-axis and "Average of income per person" on the X-axis. Both axes have scale markers at 40, 4K, 60, and 6K.

The Visualizations pane on the right side of the screen displays various chart and visualization options. A red arrow points from the "Legend" section of the Visualizations pane towards the scatter plot area, indicating where the "country" field should be added to serve as the legend for the data points.

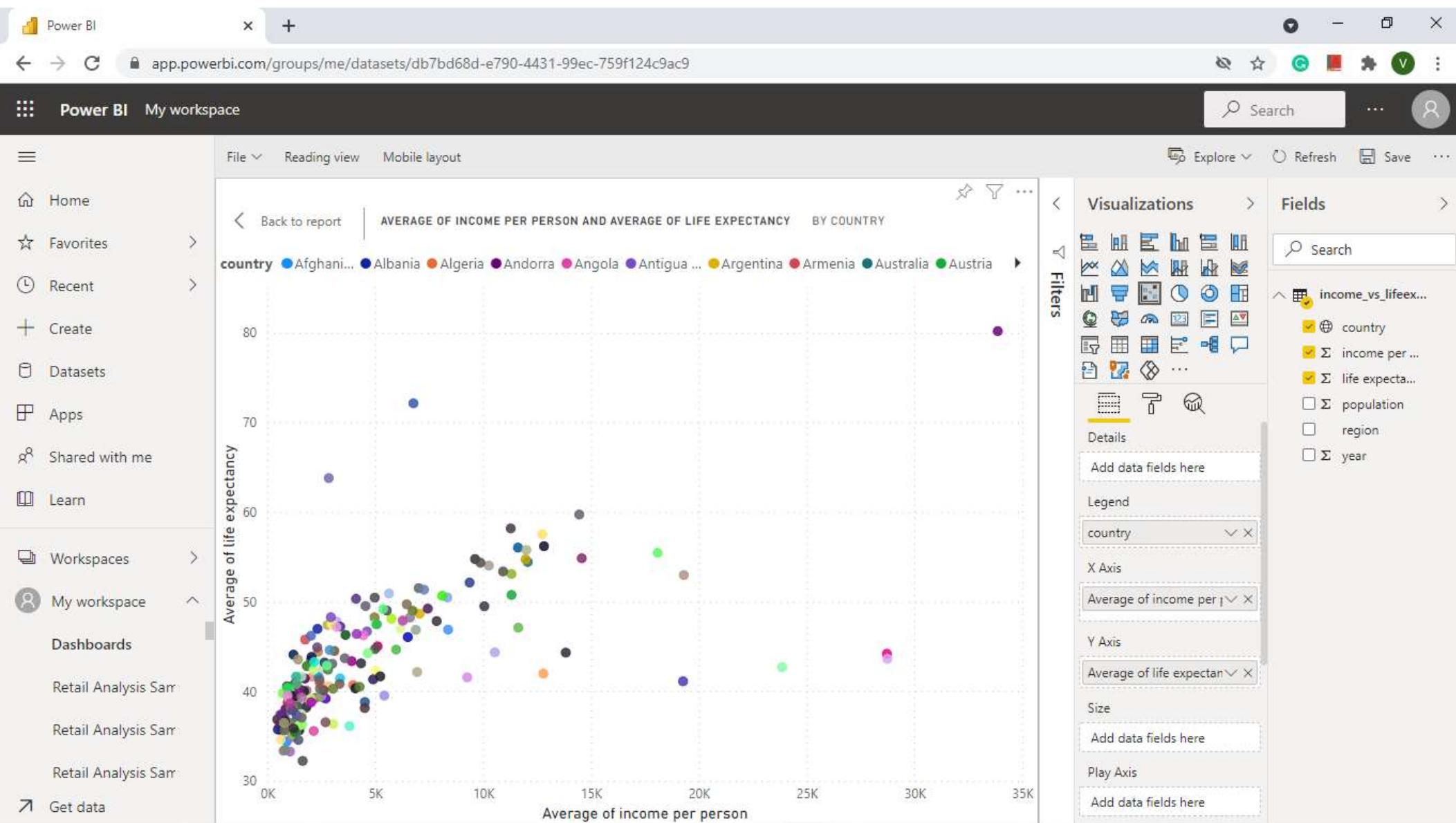
Visualizations pane details:

- Legend:** Contains "Add data fields here".
- X Axis:** Contains "Average of income per person" (selected).
- Y Axis:** Contains "Average of life expectancy" (selected).
- Size:** Contains "Add data fields here".
- Play Axis:** Contains "Add data fields here".

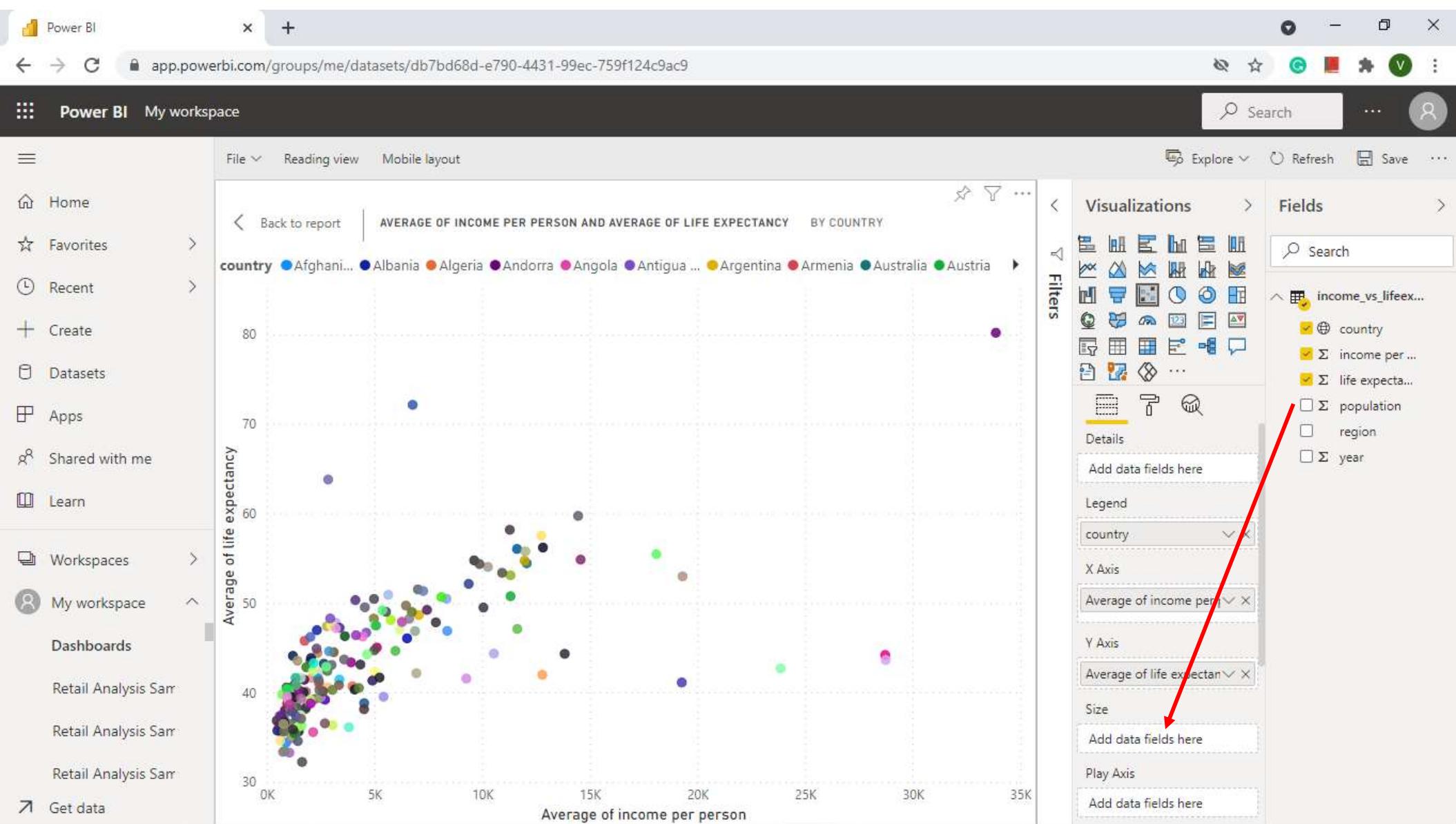
Fields pane details:

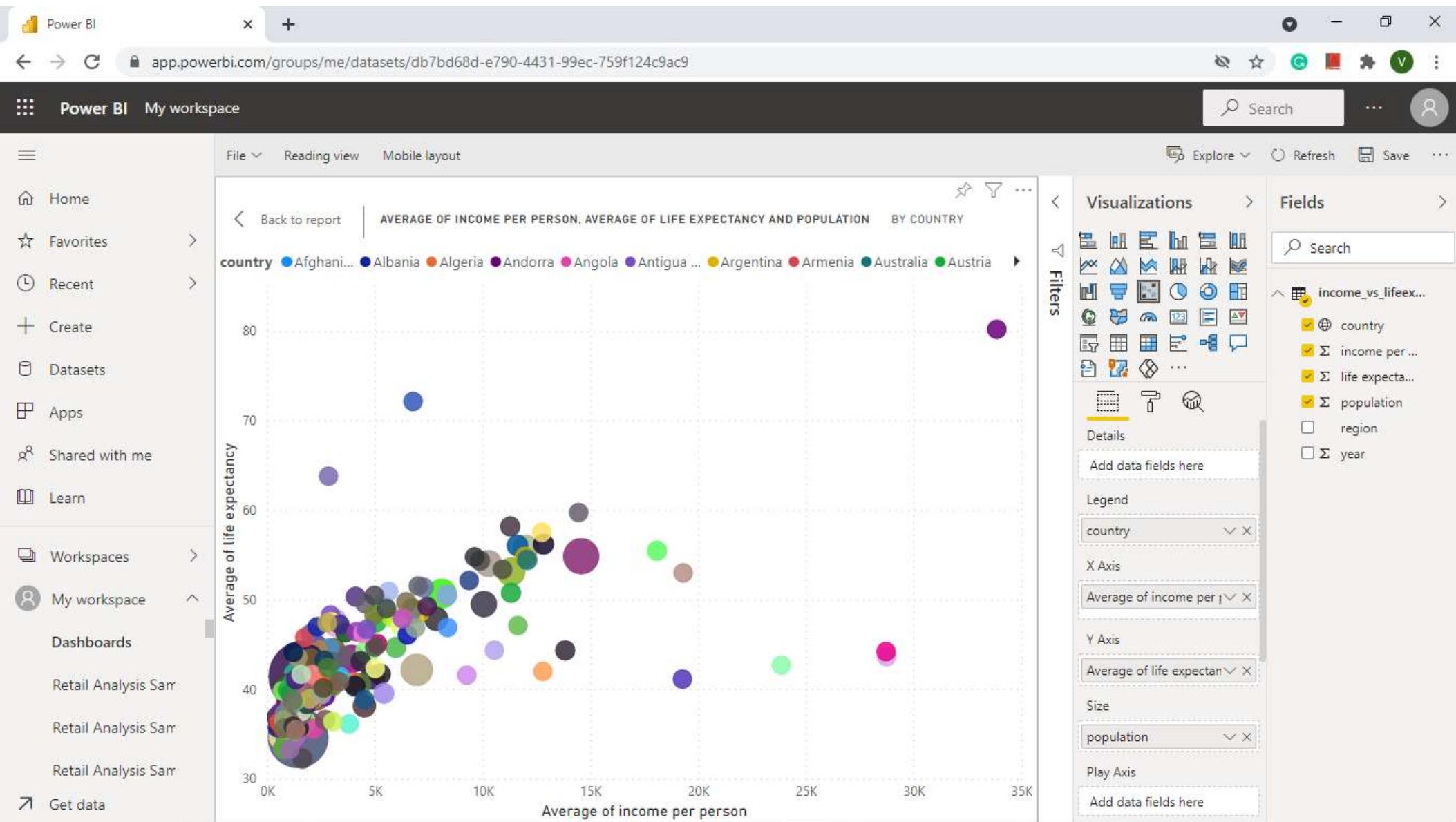
- income_vs_lifeex...** (selected):
 - country
 - Σ income per ...
 - Σ life expecta...
 - Σ population
 - region
 - Σ year

Income vs Life Expectancy by Country

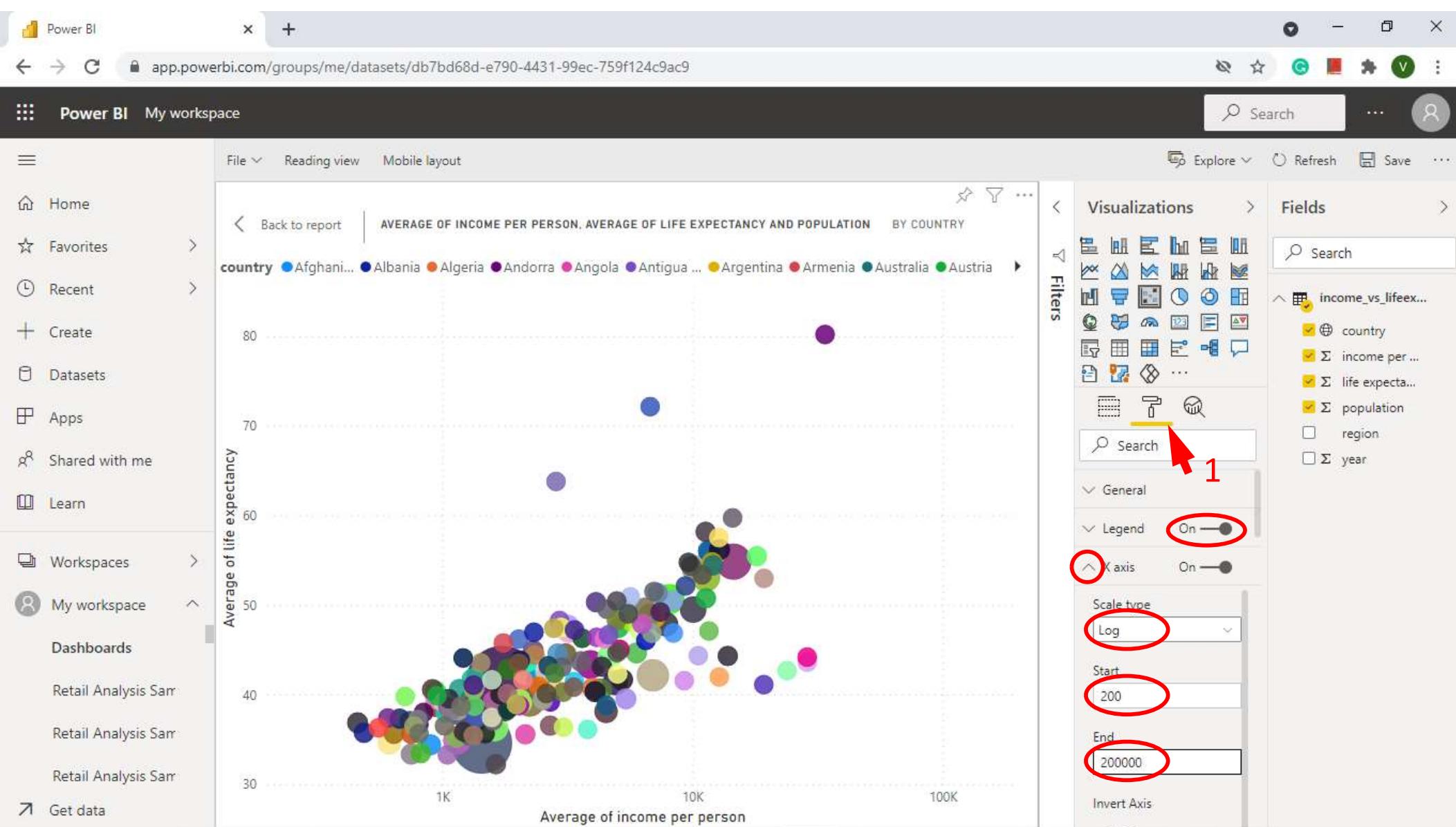


Size by population

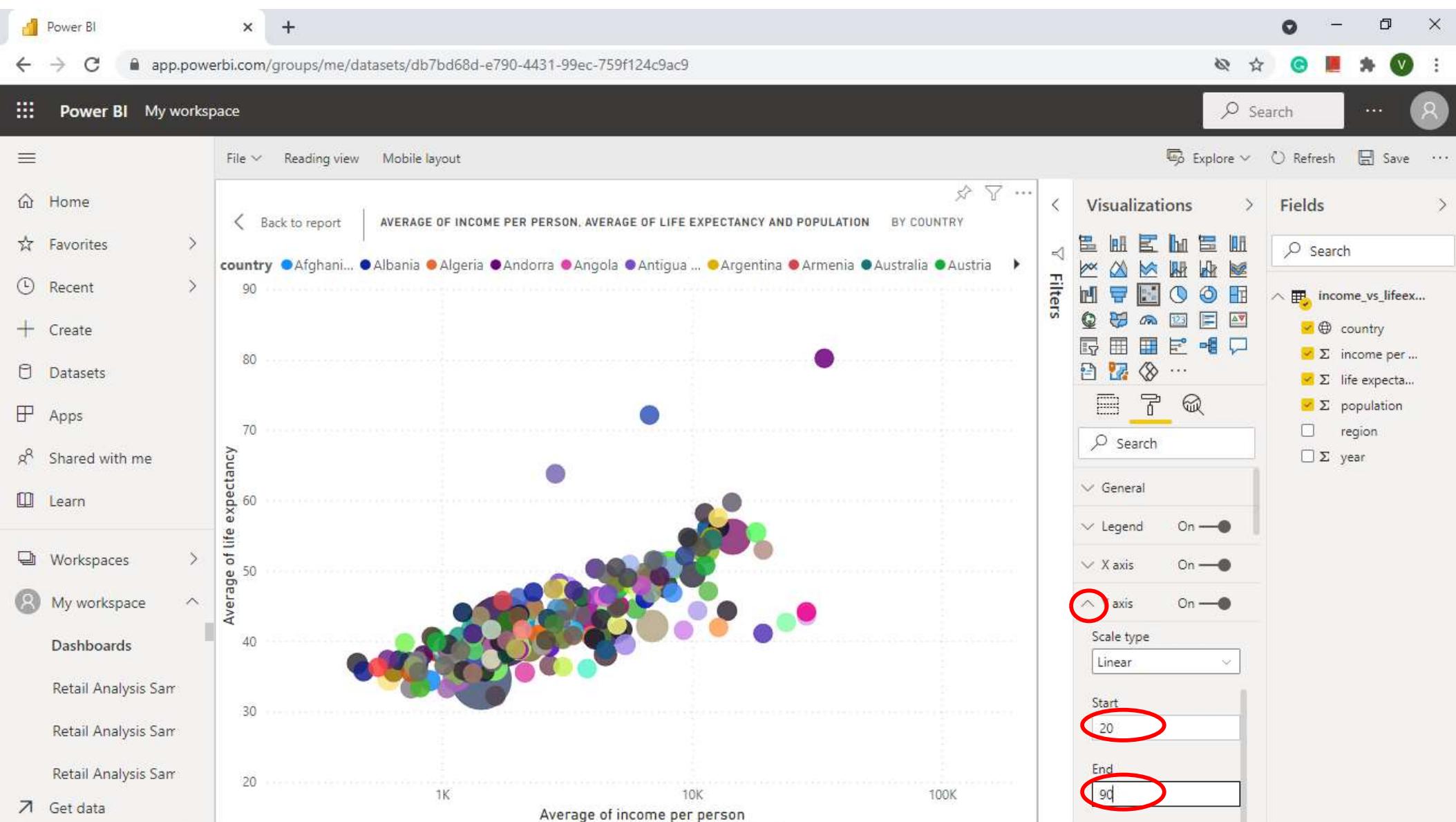




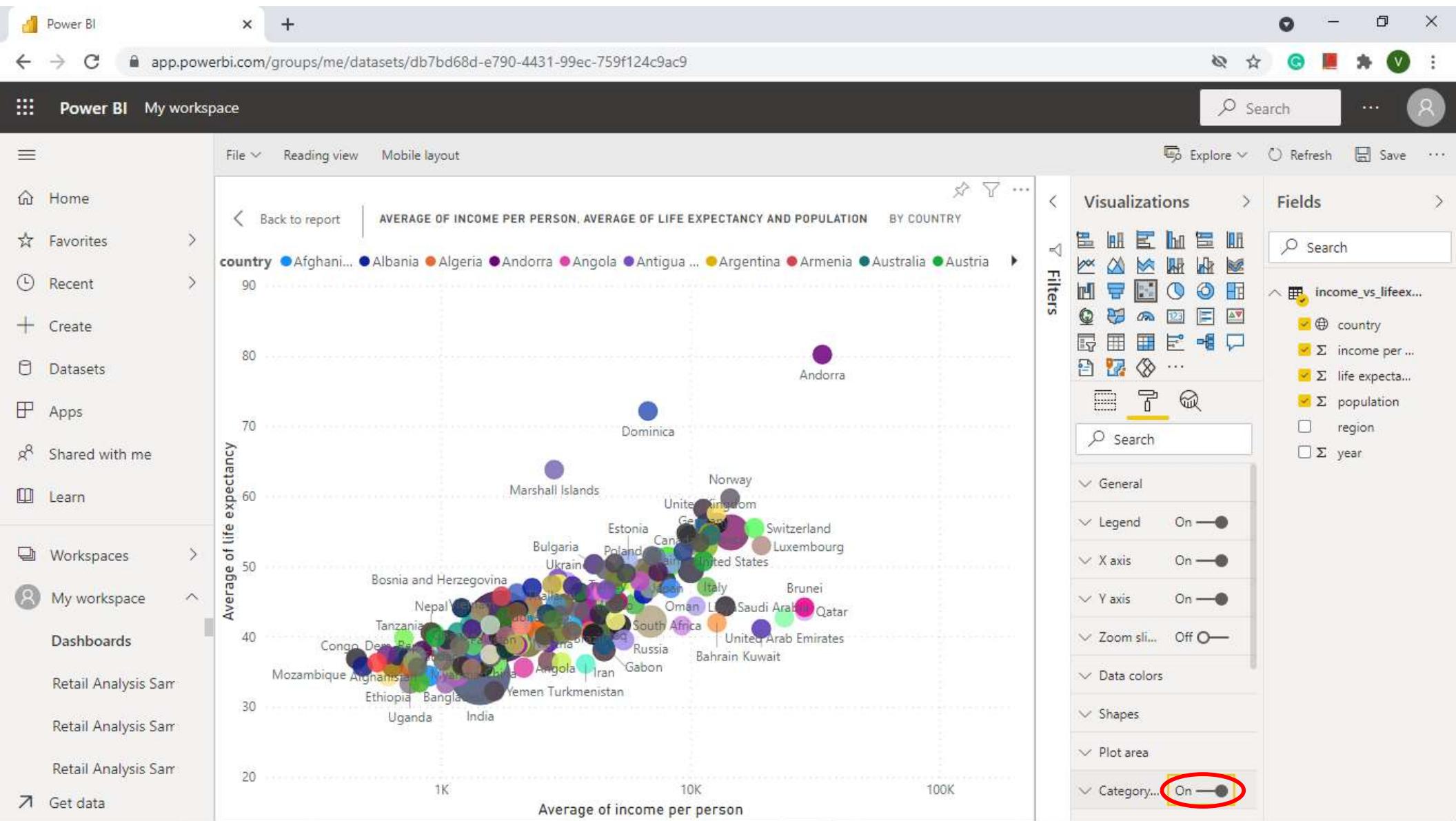
Change X axis scale



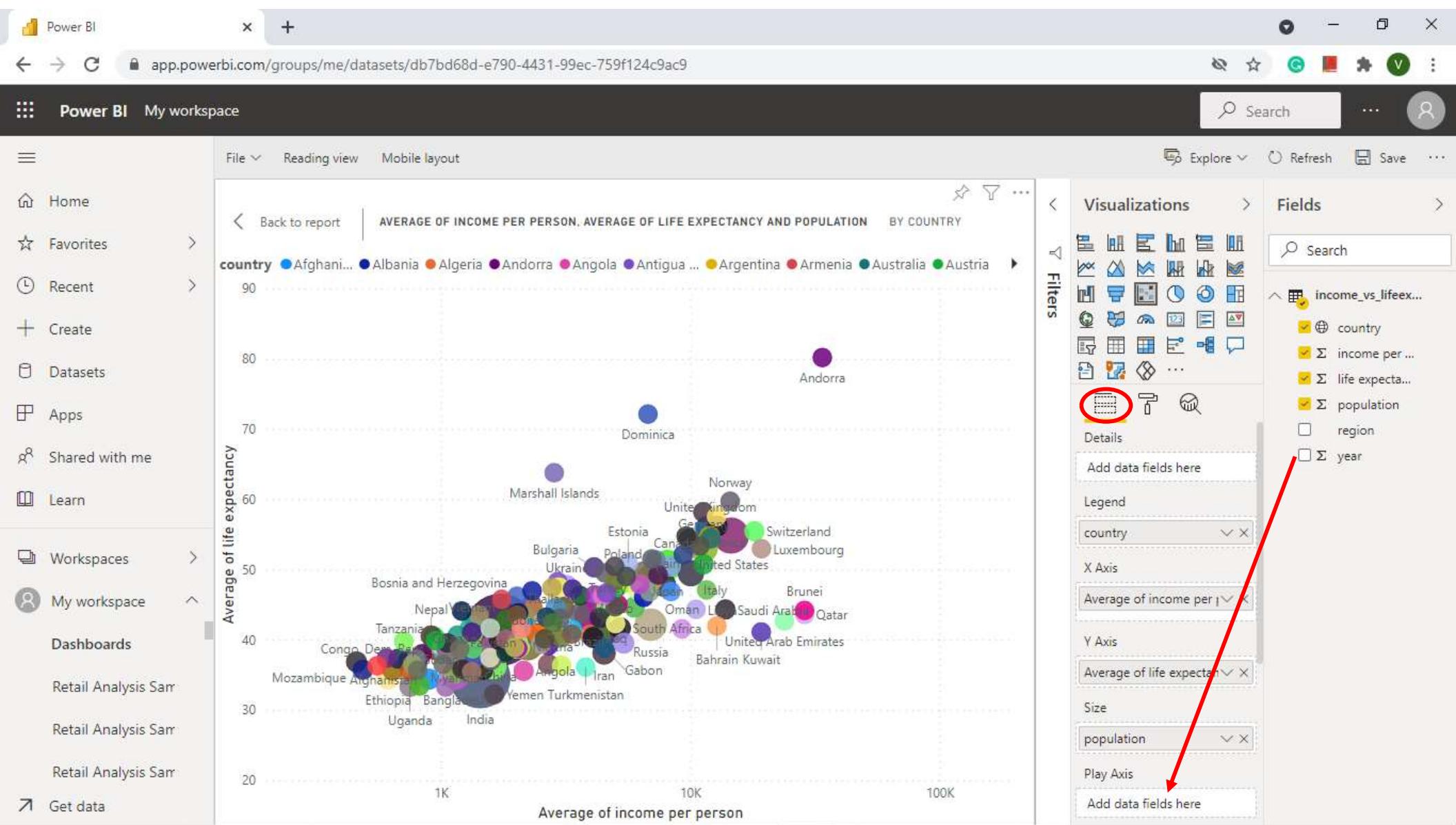
Change Y axis range



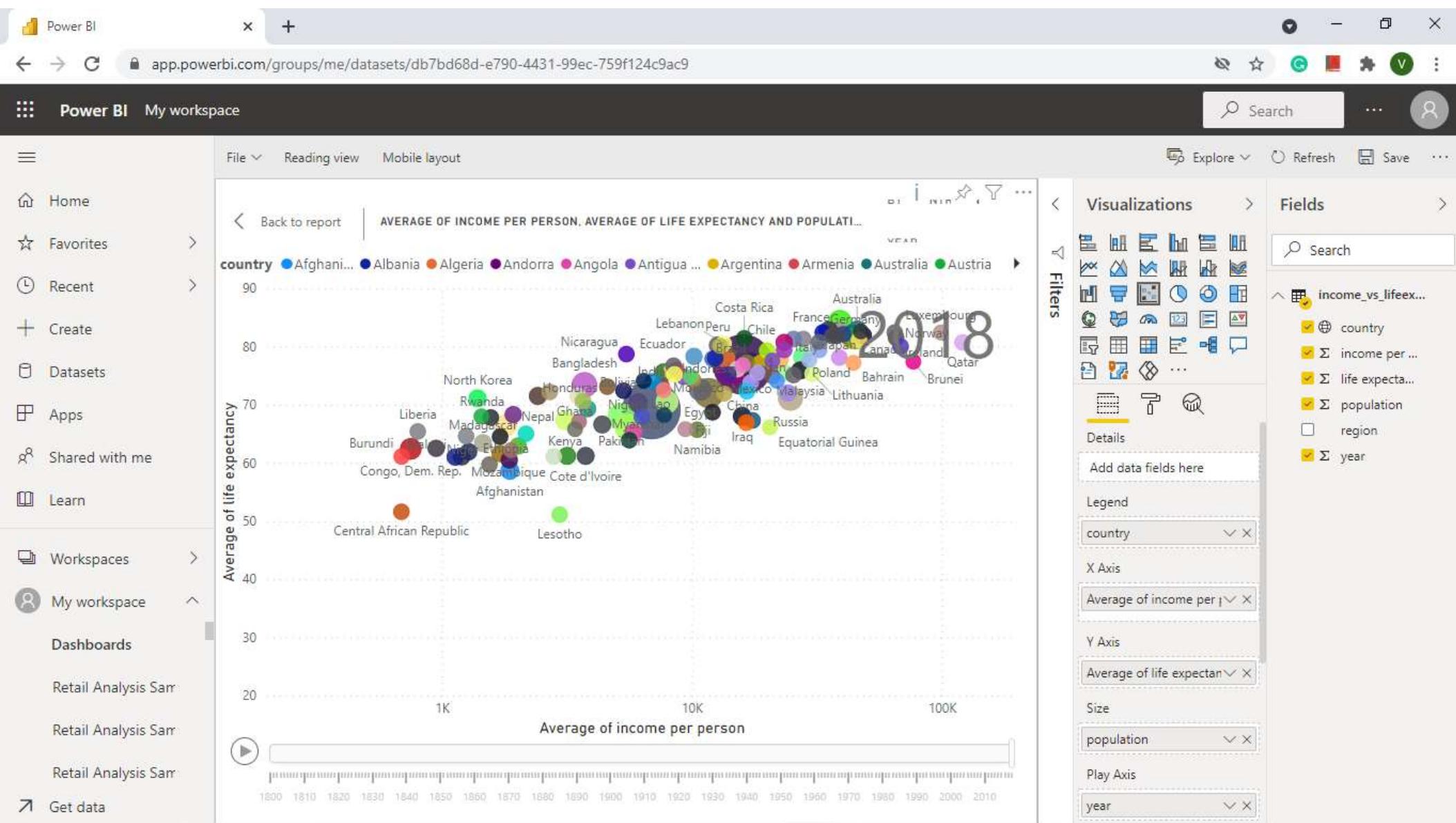
Show country names



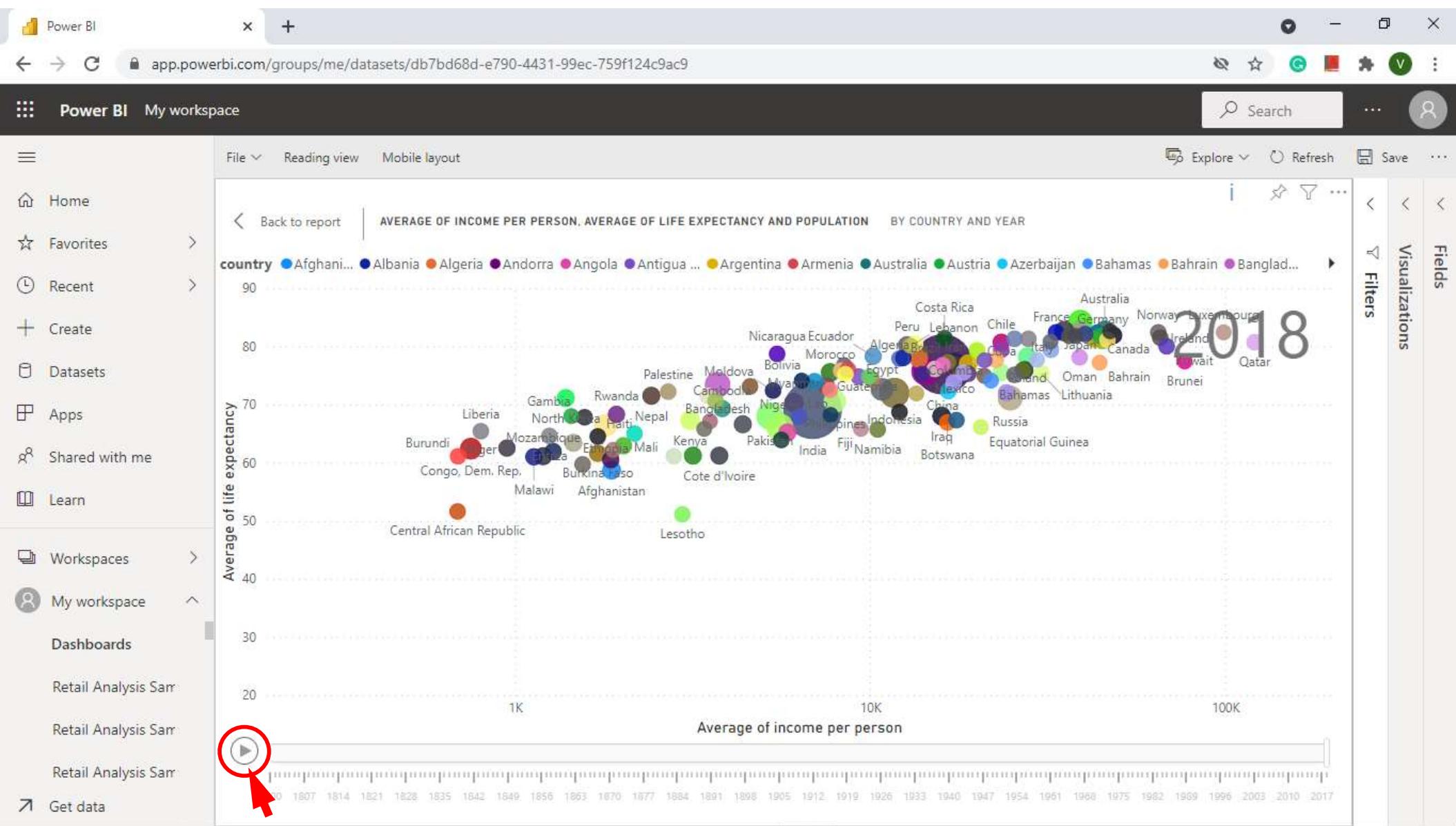
Play Axis



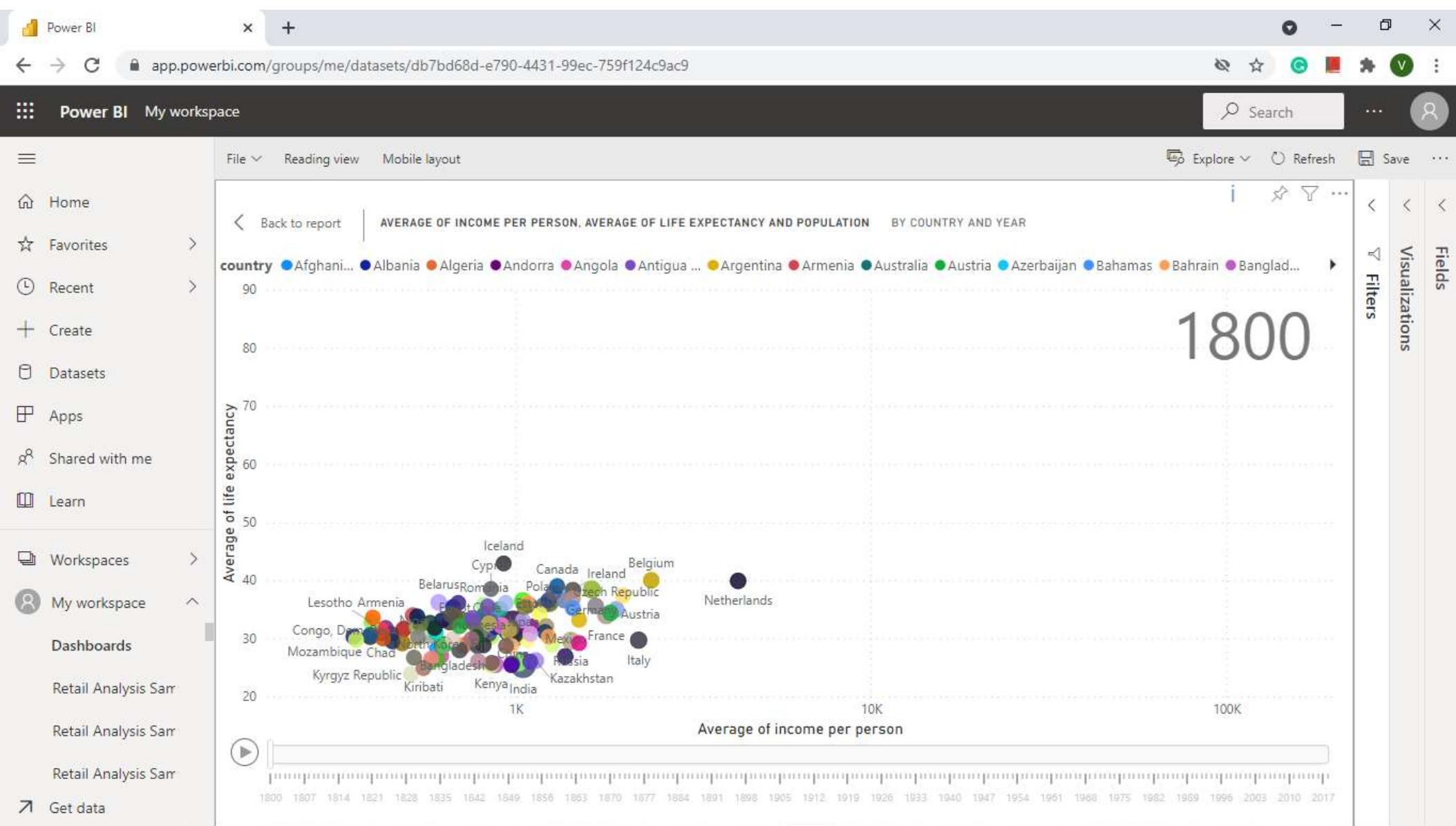
Play Axis

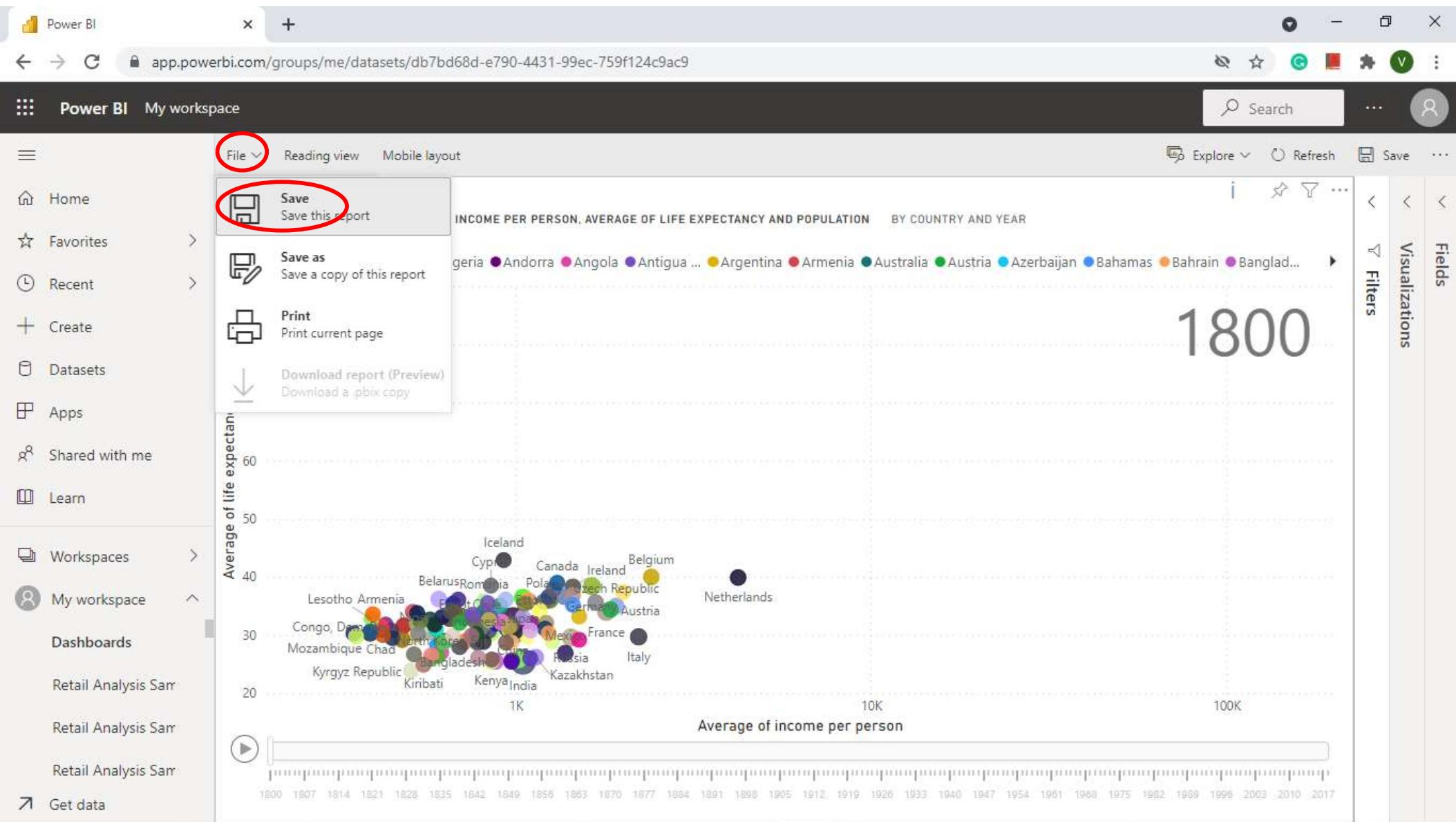


Play



Play





Power BI

app.powerbi.com/groups/me/list/dashboards

Power BI My workspace

My workspace

+ New

All Content Datasets + dataflows

	Name	Type	Owner	Refreshed	Next refresh	Endorsement
	income_vs_lifeexpectancy	Report				
	income_vs_lifeexpectancy_table	Dataset				

View Filters Search

Home Favorites Recent Create Datasets Apps Shared with me Learn Workspaces My workspace Dashboards Retail Analysis Sam Retail Analysis Sam Retail Analysis Sam Get data

A red circle highlights the "income_vs_lifeexpectancy" report entry in the list.

Exercise

Covid-19 Dashboard

JHU COVID-19 Dashboard

JOHNS HOPKINS
UNIVERSITY & MEDICINE

CORONAVIRUS
RESOURCE CENTER

Home Tracking Testing Tracing Vaccines By Region Events & News About

Tracking Home

Critical Trends

Global Map

U.S. Map

Data in Motion

Tracking FAQ



COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins Universit...



Global Cases
127,285,692

Cases by
Country/Region/Sovereignty

30,262,717 US

12,534,688 Brazil

12,039,644 India

4,606,196 France

4,477,916 Russia

4,347,014 United
Kingdom

3,532,057 Italy

3,255,324 Spain

Admin0

Last Updated at (MM/DD/YYYY)
3/29/2021, 7:25 PM



192
countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Data sources: [Full list](#). Downloadable database: [GitHub](#), [Feature Layer](#). Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support:

Global Deaths
2,785,365

549,335 deaths
US

312,206 deaths
Brazil

201,623 deaths
Mexico

161,843 deaths
India

126,831 deaths
Global Deaths

Total Test Results in US
388,603,313

53,384,553 tests
California US

44,379,816 tests
New York US

21,159,863 tests
Texas US

20,704,019 tests
Florida US

20,134,295 tests
US Test Results



Daily Cases

<https://coronavirus.jhu.edu/map.html>

COVID-19 Dashboard with Power BI

covid19 - Power BI Desktop

Search

Sign in

File Home Insert Modeling View Help

Get data Refresh New visual New measure Publish Sensitivity (preview)

COVID-19 Dashboard

Global Cases
127185164

Confirmed Cases by Country

Cases	Country/Region
30262377	US
22554688	Brazil
22039644	India
4605395	France
4469327	Russia
4447013	United Kingdom
3532057	Italy
3255324	Spain
3208175	Turkey
2784653	Germany
2382730	Colombia
2308597	Argentina
2259991	Poland
2206550	Mexico
1855974	Iran
1654568	Ukraine
1545431	South Africa
1529882	Peru
1515039	Czechia
1496085	Indonesia
1271580	Netherlands

Last Updated on
Sunday, March 28, 2021

Global Deaths
2783800

US
549335
Brazil
312206
Mexico
201623
India
161843
United Kingdom
126834
Italy
107933
Russia
96123

esri

Cumulative Cases

Daily Cases

Page 1

Fields

Visualizations

Filters

The dashboard displays the following key figures:

- Global Cases:** 127,185,164
- Global Deaths:** 278,3800
- Confirmed Cases by Country (Top 20):**
 - US: 30,262,377
 - Brazil: 22,554,688
 - India: 22,039,644
 - France: 4,605,395
 - Russia: 4,469,327
 - United Kingdom: 4,447,013
 - Italy: 3,532,057
 - Spain: 3,255,324
 - Turkey: 3,208,175
 - Germany: 2,784,653
 - Colombia: 2,382,730
 - Argentina: 2,308,597
 - Poland: 2,259,991
 - Mexico: 2,206,550
 - Iran: 1,855,974
 - Ukraine: 1,654,568
 - South Africa: 1,545,431
 - Peru: 1,529,882
 - Czechia: 1,515,039
 - Indonesia: 1,496,085
 - Netherlands: 1,271,580
- Last Updated on:** Sunday, March 28, 2021

The dashboard also features a world map showing the density of confirmed COVID-19 cases across the globe, with red dots indicating the location and size of outbreaks. Below the map are two line charts: "Cumulative Cases" and "Daily Cases". The "Cumulative Cases" chart shows a steady increase from April 2020 to January 2021, reaching approximately 1.27 billion. The "Daily Cases" chart shows a more volatile pattern, with significant spikes occurring throughout the period.

ArcGIS Map

covid19 - Power BI Desktop

Search

Sign in

File Home Insert Modeling View Help Format Data / Drill

Get data New visual New measure Publish

Sensitivity (preview)

COVID-19 Dashboard

Global Cases
127185164

Confirmed Cases by Country

Cases	Country/Region
30262377	US
12544685	Brazil
12339844	India
4636185	France
4468832	Russia
4347013	United Kingdom
3332057	Italy
3330324	Spain
3286173	Turkey
2784451	Germany
2682753	Colombia
2608597	Argentina
2530991	Poland
2228550	Mexico
1835874	Iran
1694568	Ukraine
1545431	South Africa
1329882	Peru
1315029	Czechia
1249605	Indonesia
12171580	Netherlands

Last Updated on
Sunday, March 28, 2021

Global Deaths
2783800

US
549335
Brazil
312206
Mexico
201623
India
161843
United Kingdom
126834
Italy
107933
Russia
96123

esri

Cumulative Cases

Daily Cases

Visualizations

Filters

Fields

Search

cases

- Σ Cases
- Country/Region
- Σ Cumulative ...

Date

- Σ Lat
- Σ Long
- Province/State

Location

Add data fields here

Latitude

Longitude

Long

Size

Cases

Color

Add data fields here

Time

Add data fields here

Toolips

Page 1