Power BI Desktop - Connect to the Datamart (Statewide use)

Purpose: This document contains instructions on how to create a query in Microsoft's Power BI Desktop when accessing the DAS Financial Datamart data.

Important ODBC info: (You must have an ODBC to access data in the DAS Financial Datamart.)
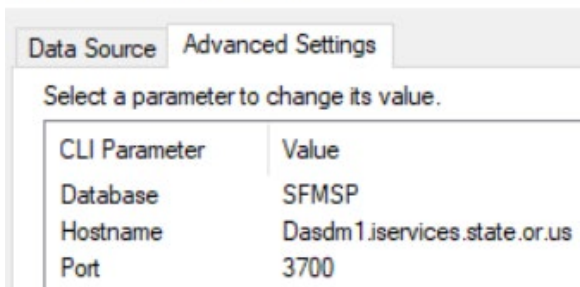Standard Datamart users - use the following ODBC setting:
ODBC: SFMSP (Datamart)
Database name: SFMSPUSR (Datamart)

**If you do not have this ODBC, please contact your agency tech support to request install.

Helpful info for tech support:

CLI/ODBC Settings - SFMSP

Data Source | Advanced Settings

Select a parameter to change its value.

CLI Parameter	Value
Database	SFMSP
Hostname	Dasdm1.iservices.state.or.us
Port	3700

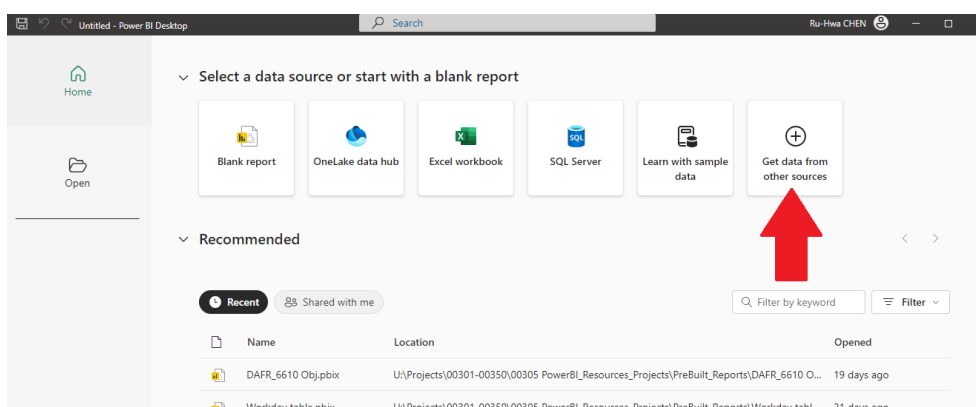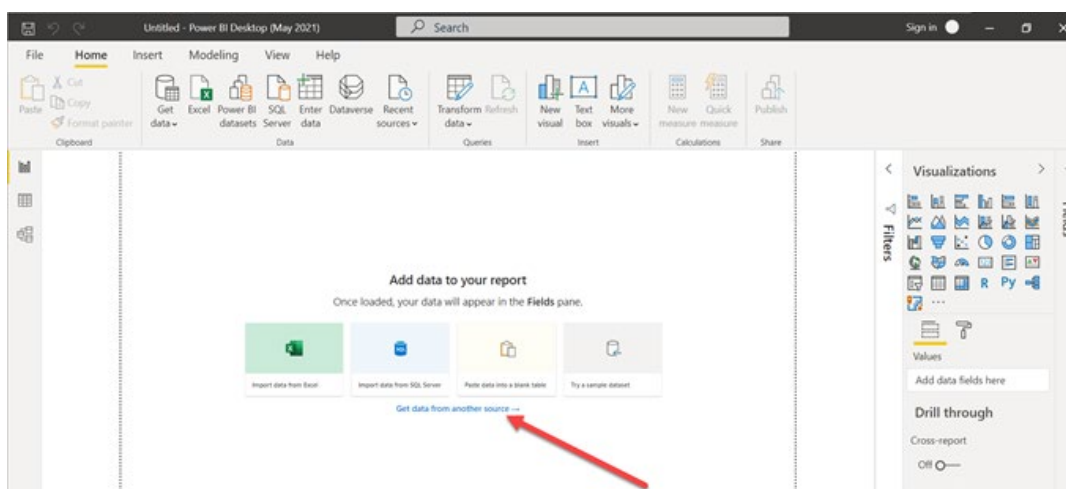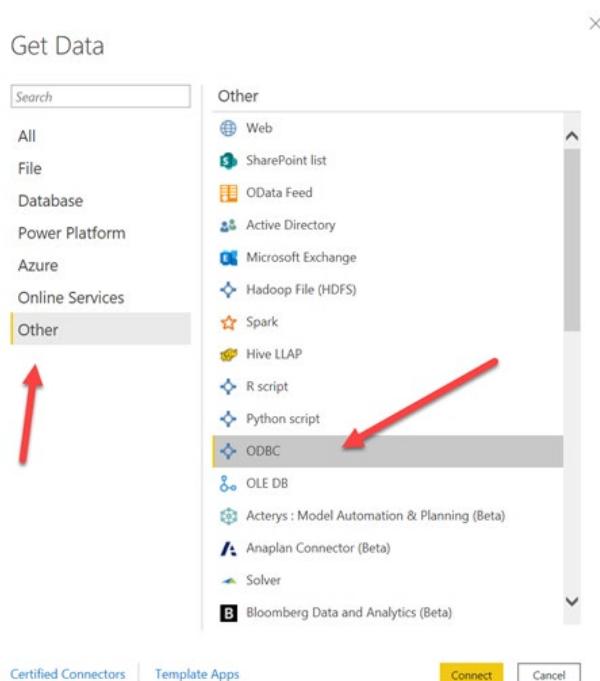===
Instructions:

A. Open 'Power BI Desktop' and click on "Get Data", "Get data from another source", or "Get data from other sources". The option selected will depend, based on which screen is displayed (various views shown below).
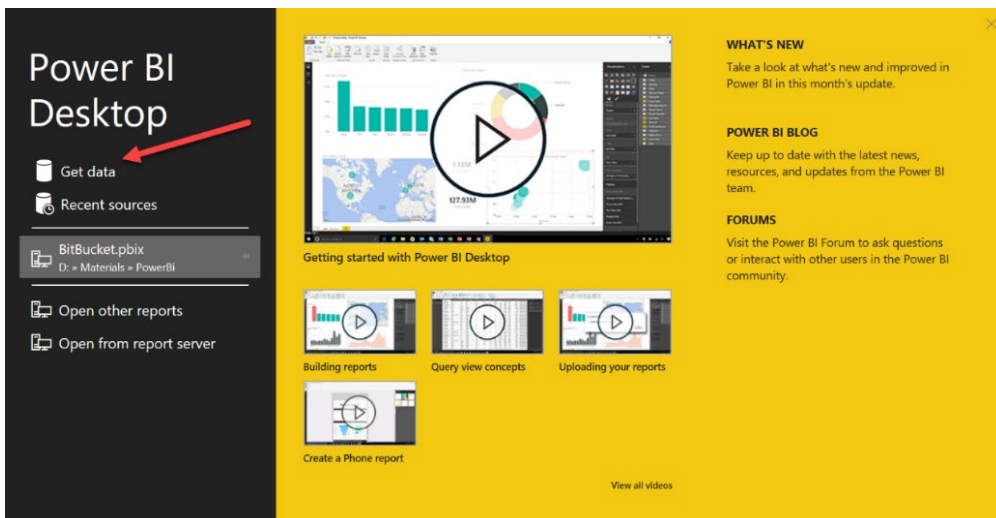
B. Click on "Other", "ODBC", then "Connect".

C. From the drop-down select "SFMSP" for Datamart connection.

D. Log into SFMSP using your RACF ID and Datamart password. Power BI has a feature that will remember your login credentials after the initial login to an ODBC. If your credentials are saved in Power BI, the login pop-up will not display, and it will move to the next step.
    ▪ Each time you update your Datamart password (every 90-days), you will need to update the saved credentials in Power BI Desktop.
   ▪ Make sure to set the password to 8-characters in length.

Note: If the ODBC login fails, you should double check your default 'RACF id'/password that may already be stored by Power BI. If you fail three times, you will be locked out and need to obtain a reset from DAS RACF admin.

To input your credentials, select the 'Database' option on the left.
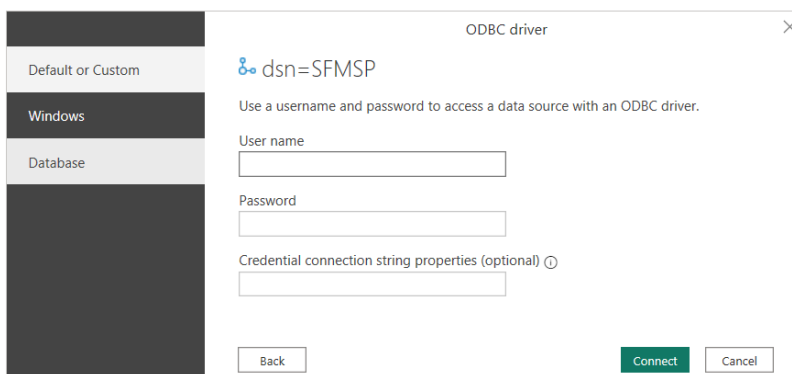

E. When the 'Navigator' pop-up window appears, click the drop-down next to the 'display options' menu. You can uncheck the 'enable data previews' to help speed up this section.
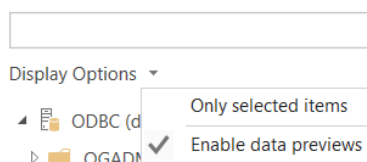
F. To select the standard Datamart tables, open the 'SFMSPUSR', SFMSARCH, or WORKDAY folders and choose the desired financial/profile tables. There will be many other folders viewable; however, they are for admin and testing.
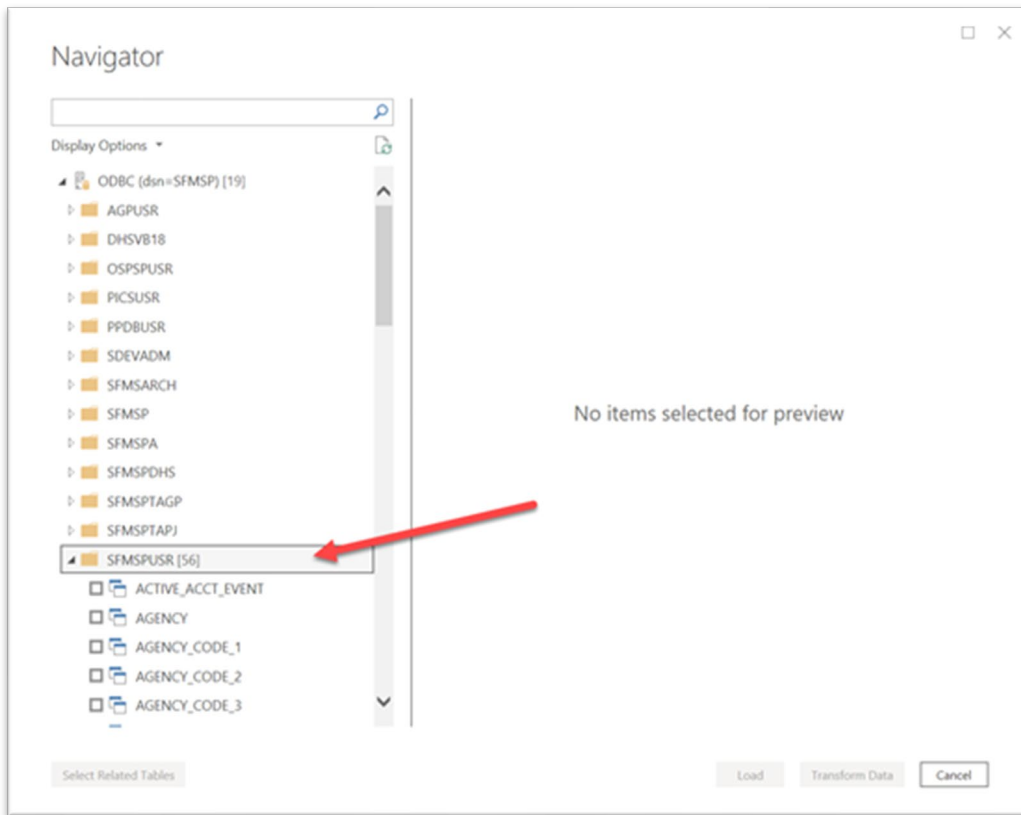

G. Select the desired table or tables and then click "Transform Data". There is another option called 'load' but this is not recommended as we want to initially transform our information.

- "***Load***" - You are importing a copy of the data onto your Power BI desktop. This is **not recommended**.

- "***Transform Data***" – **(Recommended)** In Power BI, data transformations are vital for preparing and shaping your data into a usable format for the analysis and visualization. **Transform allows you to modify/filter the data BEFORE loading it into Power BI.**
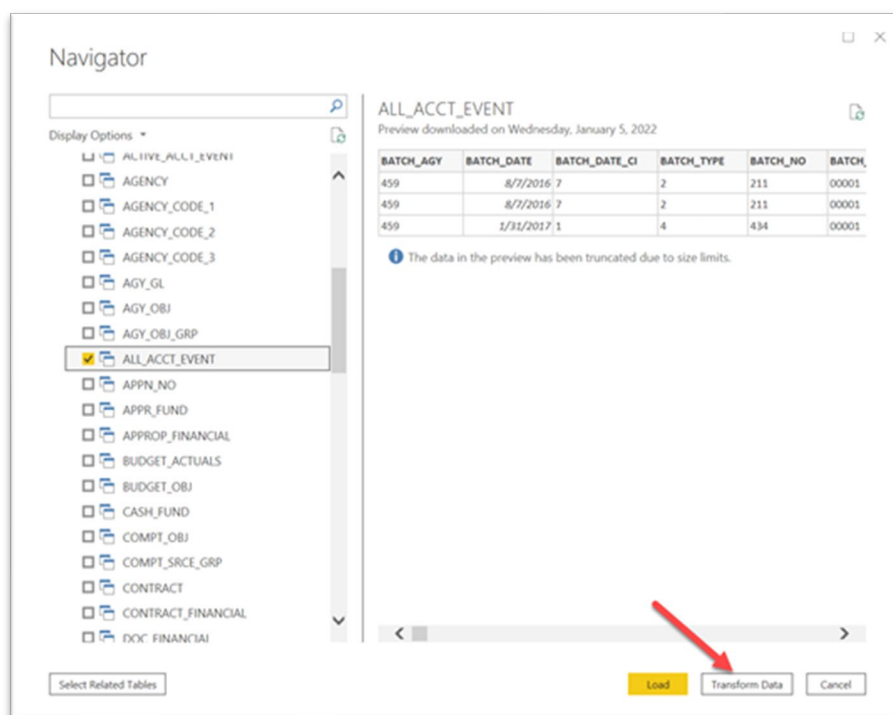
Once Power BI obtains the data, you need to filter and limit the fields.

H. Select 'Choose Columns' – This option should be selected first to help filter down the number of fields of data. 'Choose Columns' is under the 'Manage Columns' ribbon section.

Note: Try to limit the number of columns (recommend 5 - 10), to help alleviate stress on the server. In addition, in the next step it will be easier to set the filters or formulas, since the user navigates through less columns.
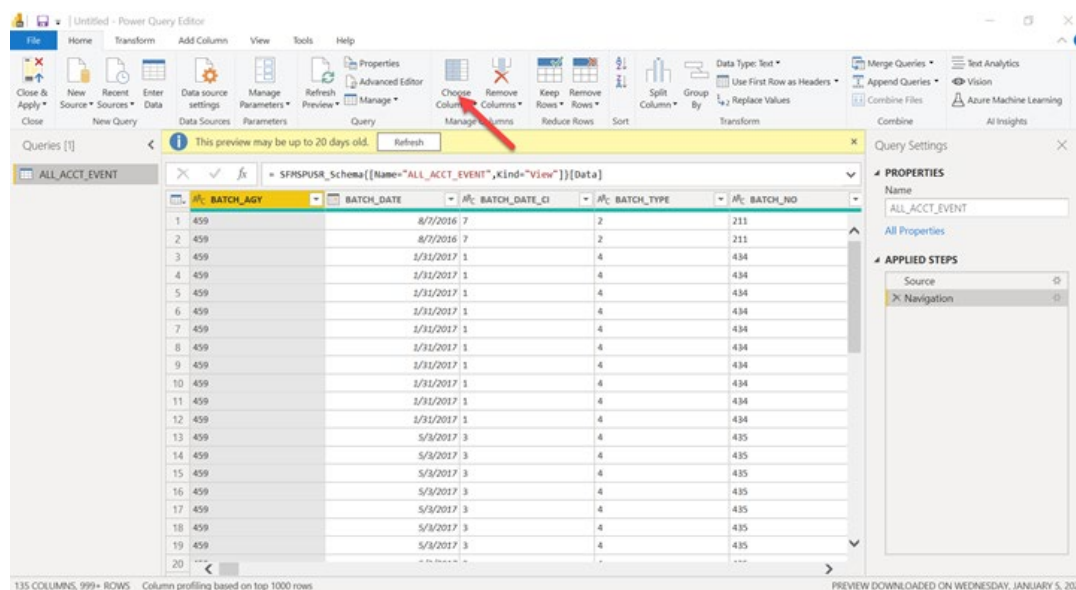
Note: Highly recommended to update the view to alpha order by selecting the A/Z drop-down menu and click 'name'. It makes it much easier to view the fields.
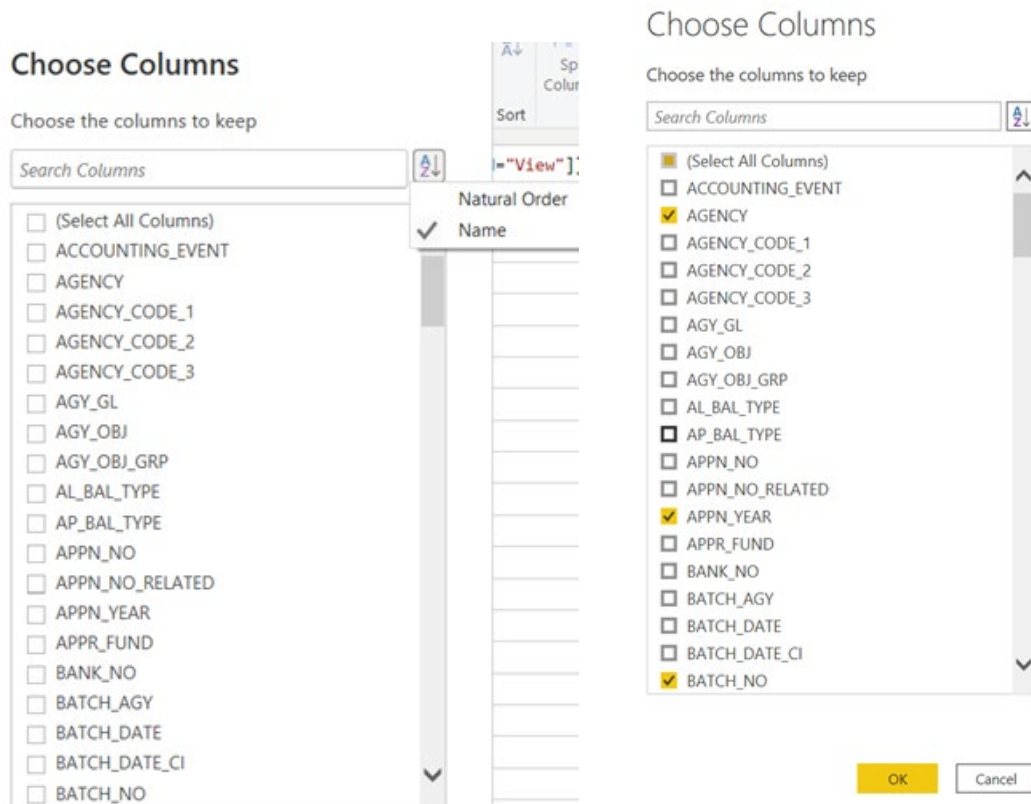
I. Filter your data. Click on the first drop-down menu within a column. The 'Agency' field below is highlighted and there is a drop-down menu next to the field. Click the drop-down to start adding filters.
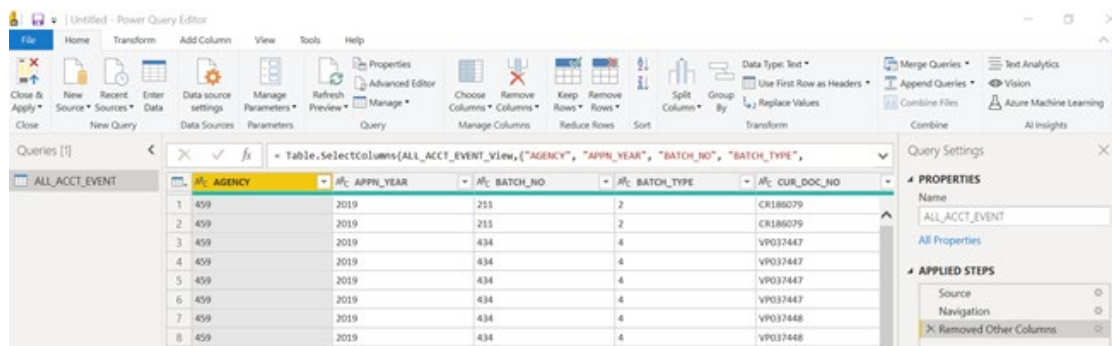
J. Click on the 'Advanced' option and add multiple filters. **'Agency' and 'Fiscal Year' should be on every query;** however, the more filters the better. This is a key step, so make sure to add the proper filters.

K. If you have completed all the criteria set up, click 'Close & Apply'.
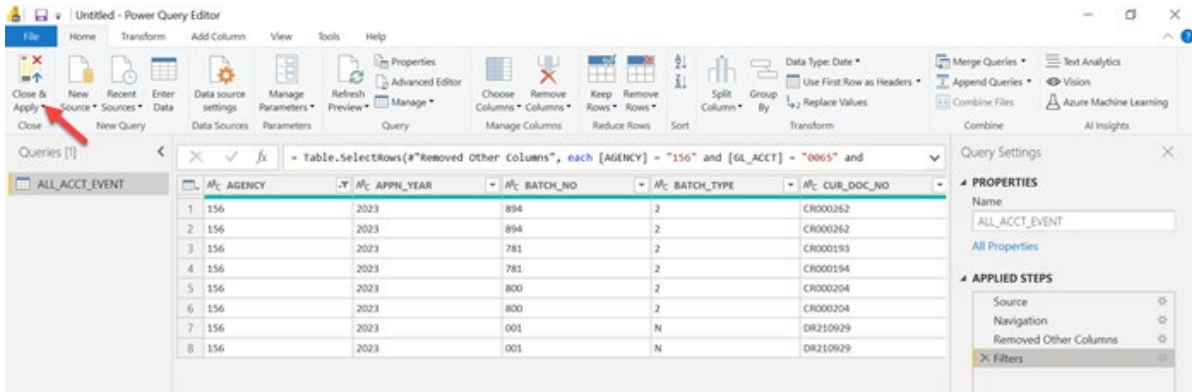
L. It will load the results. (Note: The data will not load if you did not limit/filter the data, due to the Datamart containing billions of rows of records.) Hit the 'enter' key to stop this process.
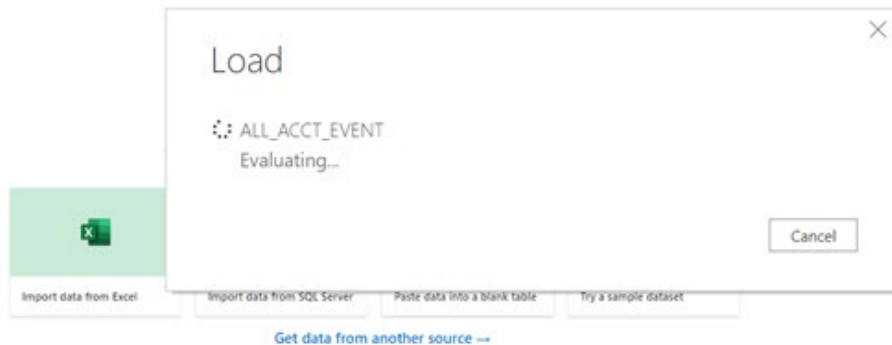
M. After the closing and applying data load is completed, you should save the query results using the "save as" function. The query can be saved in any local or network folder.

N. Once loaded, you can view the relationships between tables by clicking on the 'Model view'.
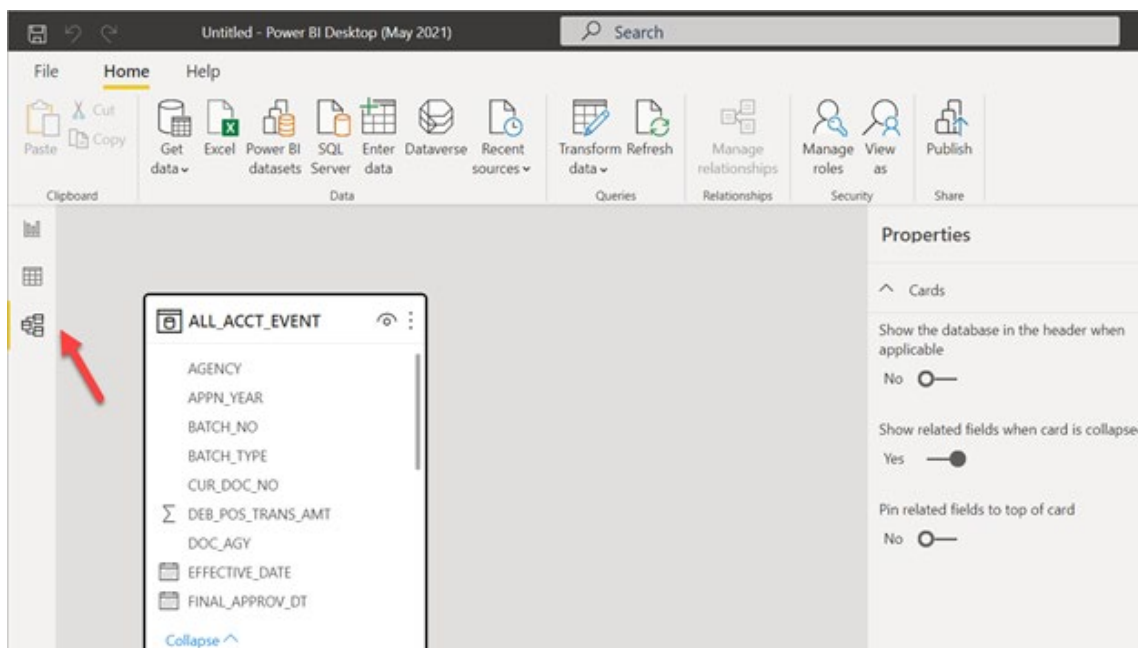
O. On the left-hand side you can click on 'Table view' to see data within your selected tables.
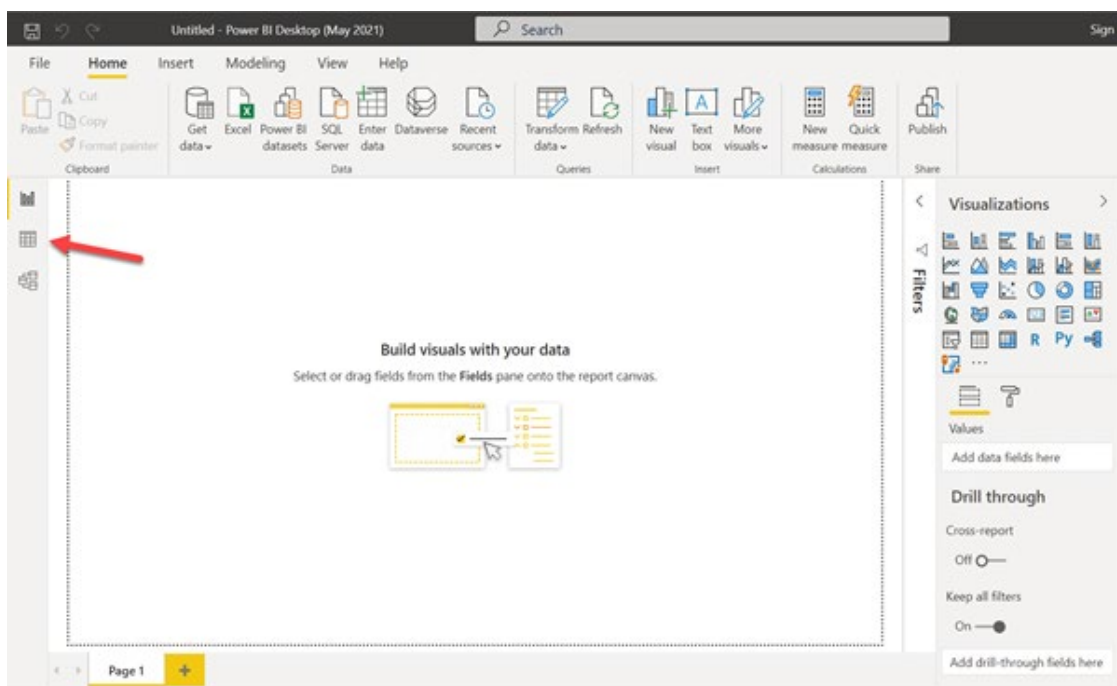
P. Within the 'Table view' is a good place to update the formatting of fields.
Example: Alter the number format: #,##0.00;(#,##0.00) by clicking the field and updating the format within the 'column tools' ribbon section.
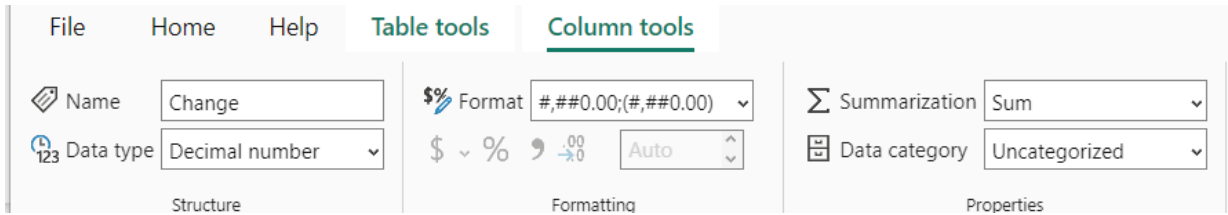
Q. Within the 'Report view', you can create various 'visualizations', which are displayed on the right-hand side of the page. You can also add multiple report views to the canvas.
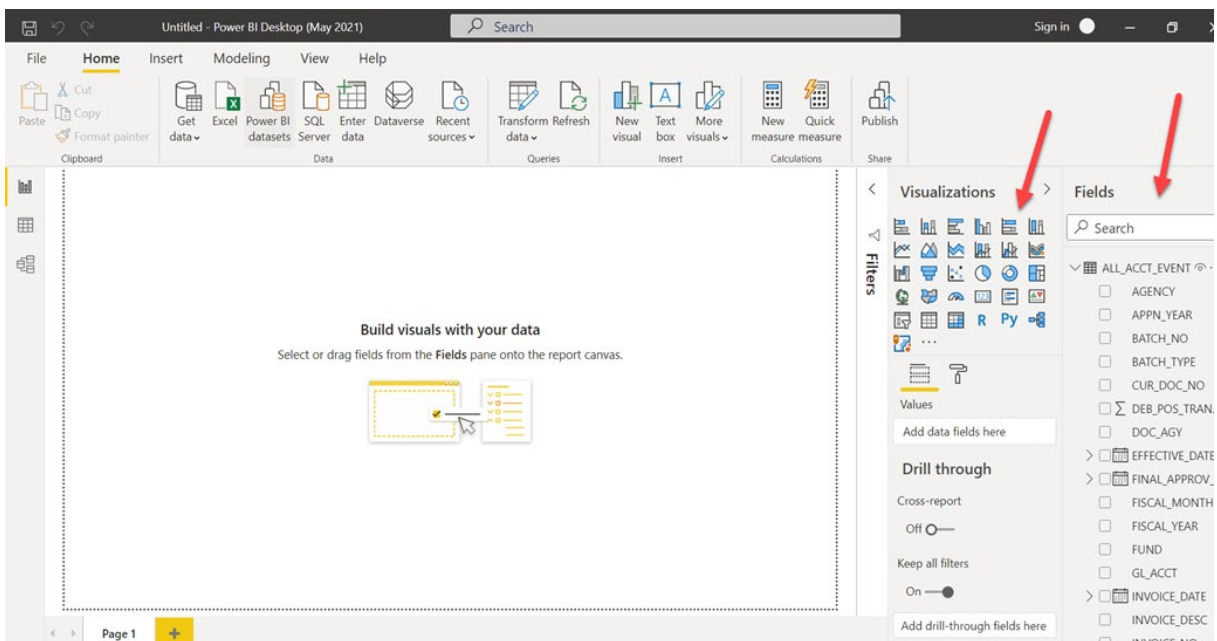
Report view examples: The first visualization is called 'Matrix', and the second is 'Table'.