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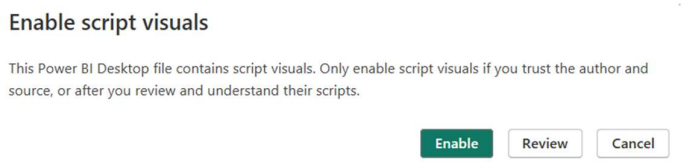
Introduction

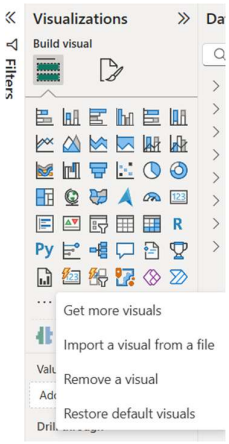
This document provides some useful information to help a user navigate and utilize the Power BI Dashboard.

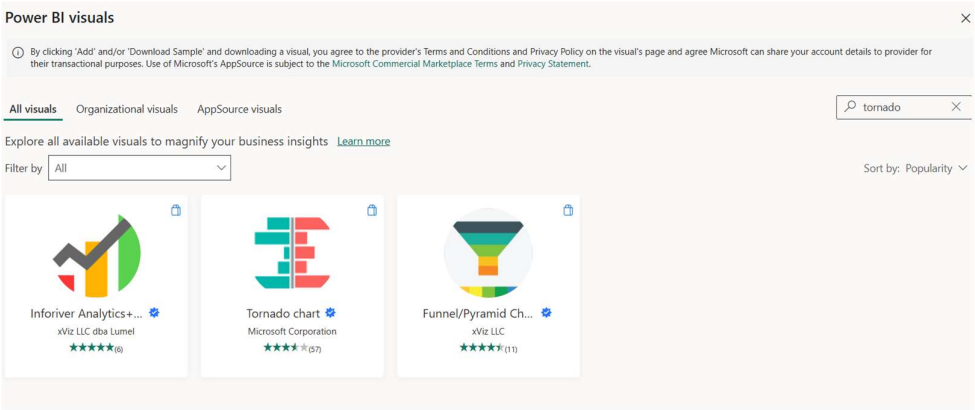
Caveats

- If you are using the current dashboard, then you must be having Power BI Desktop on your computer.
- At start up, you will need to enable this option to see the visuals in the “ICSEA” tab.



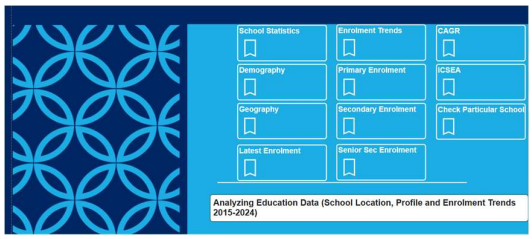
- The dashboard uses a custom visual called “Tornado chart”, you can get it by clicking on “Get more visuals” from the Visualizations pane and then search for “tornado” and use the second option as seen in the screen shot below.





Guidance

- Use filters such as LGA, Suburb, School Sector and School Type if you would like to further drill down further. You can also type some text to triangulate specific values.
- When you see the tool tip icon in a visual, like so  - you can find some helpful information if you hover over it.
- The "Home" tab has links to help you jump into one of the various tabs in the dashboard. Press CTRL+ click on the bookmark icon within each box (this is required for desktop interaction)



- Each tab has a "Home" icon on the top right like so,  pressing CTRL+click on it, will take you back to the "Home" tab.

Data Dictionary

- The data dictionary for the data fields in raw data can be referred from the data files.
- The table below provides details for some data fields utilized in the visuals.

Data Field	Description
ACARA SML ID	ID used to uniquely identify a school
Suburb, LGA	Suburb and Local Government Area to identify the location of a school
School Sector	One of three types, Government, Catholic and Independent Schools
School Type	One of three categories – Primary school, secondary school, combined school
ABS Remoteness Area/Geo Location	Used to represent the geographical location classification for the school, values are Major Cities, Inner Regional, Outer Regional, Remote, Very Remote

ICSEA	Index of Community Socio-Educational Advantage score for a school, values range from 500-1300.
Enrollments – Total, Girls, Boys	Total number of enrolments (full time, part time) of students in the calendar year.
Indigenous Enrolments	Enrolment when the student identifies as belonging to the Aboriginal and/or Torres Strait Islander descent
Language Background Other Than English - Yes (%) / No (%)	% derived using the student population based on the language spoken at home as being English or non-English.

Visual Types in Power BI

Visual	Details
Bar Chart	Useful for showing counts or proportions for categories, for example, compare number of schools and % of schools across school sector categories like Government schools, independent schools and Catholic schools
Pie Chart	When we have a few categories, this chart is useful to show proportions of some value between the categories.
KPI Visuals	Helpful to represent a single value that is of interest. For example, number of enrolments in the latest year, number of schools.
Table Visual, Matrix Visual	Useful to summarize information across rows and columns. This was used to display information for LGAs, for example CAGR by school type
Slicer	This visual in Power BI help users select one or more values to filter visuals
Map Visual	When we have information that involves geographical locations, it is good to use map visuals as they provide a visual context. Bubbles are frequently used in map visuals to denote data points pertaining to locations, with the bubble size being proportional to the value of the data point. This helps to visually compare values across locations.
Tornado Chart	A custom visual , I found it useful to represent multi-dimensional information effectively. For example, I used it to show the % of boys' enrollments an % girls' enrolments to total enrolment year over year.
Line Chart	Line charts are useful when we want to show trends over time. The X axis represents the unit of time, and the Y axis represents the numeric value plotted over time. It helps to bring out trends over time.
Combo Chart	This is a combination of a bar chart and a line chart. Helps us visualize a categorical field using bar charts along with a numeric field using a secondary axis. For example, if a company wants to see the sales amount year on year, as well as the net profit margin – then a combo chart is ideal.
Gauge	This is like the KPI visual but focused on showing the value of a metric against a targeted value. I used the gauge visual to show the minimum, maximum and median values of ICSEA.
Box Plot Visual (Python based visual)	The boxplot provides descriptive statistics for a numeric field of interest. We can see the median (50^{th} percentile), 25^{th} and 75^{th} percentile values, as well outlier values if present in the distribution of a numeric field. Grouped box plots present the summary for the same numeric field, but across categories, and so are helpful to see how the distributions are different between the categories.