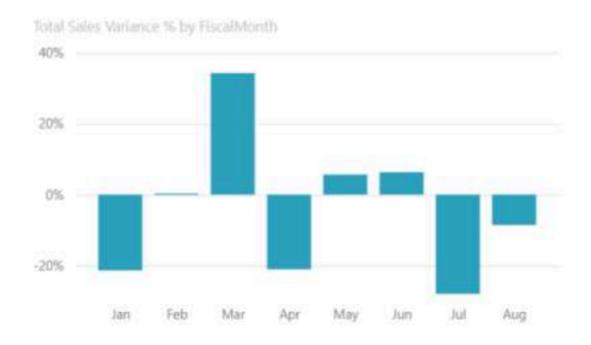
# VISUALIZATION IN POWER BI

# Area charts: Basic (Layered) and Stacked

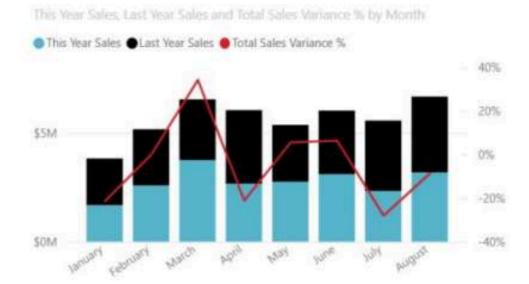






Bar charts are the standard for looking at a specific value across different categories.

Average Selling Area Size

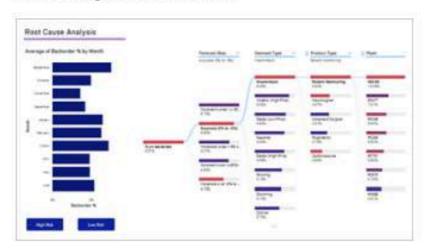


A combo chart combines a column chart and a line chart. Combining the two charts into one lets you make a quicker comparison of the data. Combo charts can have one or two Y axes, so be sure to look closely.

Combo charts are a great choice:

- When you have a line chart and a column chart with the same X axis.
- To compare multiple measures with different value ranges.
- To illustrate the correlation between two measures in one visual.
- To check whether one measure meets the target which is defined by another measure.
- To conserve canvas space.

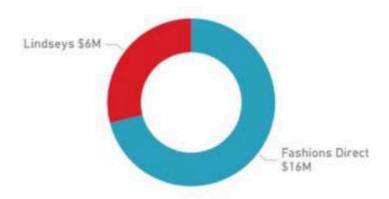
### **Decomposition tree**



The decomposition tree visual lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions

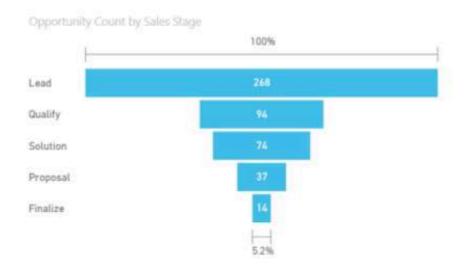
#### Doughnut charts

This Year Sales by Chain



Doughnut charts are similar to pie charts. They show the relationship of parts to a whole. The only difference is that the center is blank and allows space for a label or icon.

#### Funnel charts

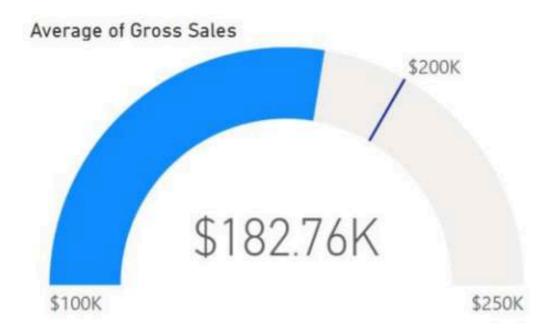


Funnels help visualize a process that has stages, and items flow sequentially from one stage to the next. One example is a sales process that starts with leads and ends with purchase fulfillment.

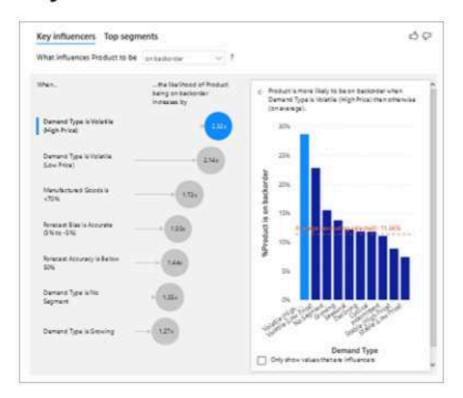
For example, a sales funnel that tracks customers through stages: Lead > Qualified Lead > Prospect > Contract > Close. At a glance, the shape of the funnel conveys the health of the process you're tracking. Each funnel stage represents a percentage of the total. So, in most cases, a funnel chart is shaped like a funnel -- with the first stage being the largest, and each subsequent stage smaller than its predecessor. A pear-shaped funnel is also useful -- it can identify a problem in the process. But typically, the first stage, the "intake" stage, is the largest.

process, pactypicany, the mot stage, the make stage, is the largest

# **Gauge charts**



# Key influencers chart



A key influencer chart displays the major contributors to a selected result or value.

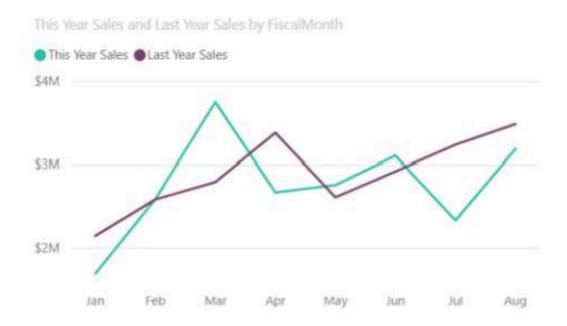
Key influencers are a great choice to help you understand the factors that influence a key metric. For example, what influences customers to place a second order or why were sales so high last June.

A Key Performance Indicator (KPI) is a visual cue that communicates the amount of progress made toward a measurable goal.

KPIs are a great choice:

- To measure progress (what am I ahead or behind on?).
- To measure distance to a metric (how far ahead or behind am I?).

### Line charts



Line charts emphasize the overall shape of an entire series of values, usually over time.

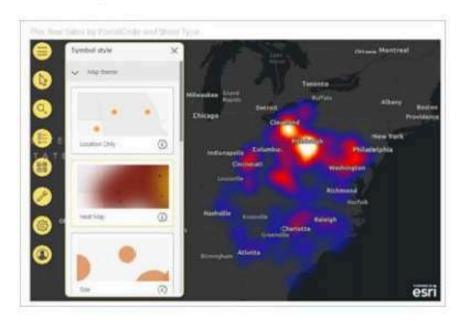
# Maps

#### Basic map



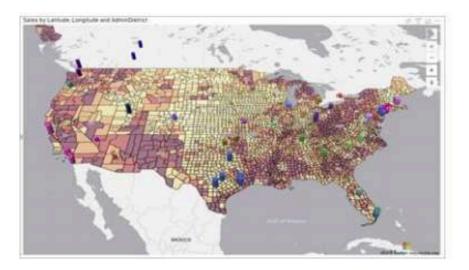
Use a basic map to associate both categorical and quantitative information with spatial locations.

#### ArcGIS map



The combination of ArcGIS maps and Power BI takes mapping beyond the presentation of points on a map to a whole new level. The available options for base maps, location types, themes, symbol styles, and reference layers creates gorgeous informative map visuals. The combination of authoritative data layers (such as census data) on a map with spatial analysis conveys a deeper understanding of the data in your visual.

#### Azure map



#### Tip

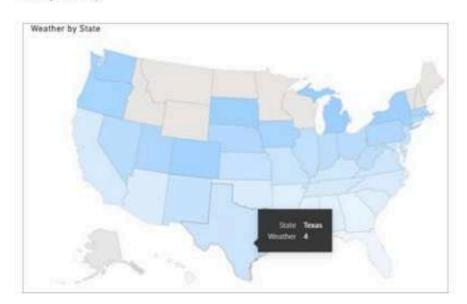
Used to associate both categorical and quantitative information with spatial locations.

#### Filled map (Choropleth)



A filled map uses shading or tinting or patterns to display how a value differs in proportion across a geography or region. Quickly display these relative differences with shading that ranges from light (less-frequent/lower) to dark (more-frequent/more).

#### Shape map



Shape maps compare regions on a map using color. A shape map can't show precise geographical locations of data points on a map. Instead, its main purpose is to show relative comparisons of regions on a map by coloring them differently..

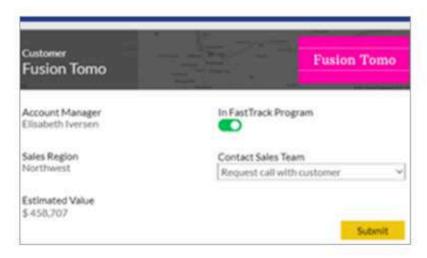
#### Pie charts

This Year Sales by Chain



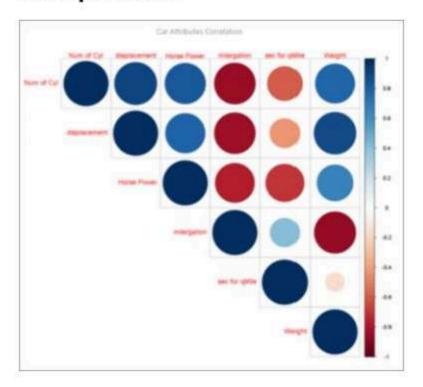
Pie charts show the relationship of parts to a whole.

## **Power Apps visual**

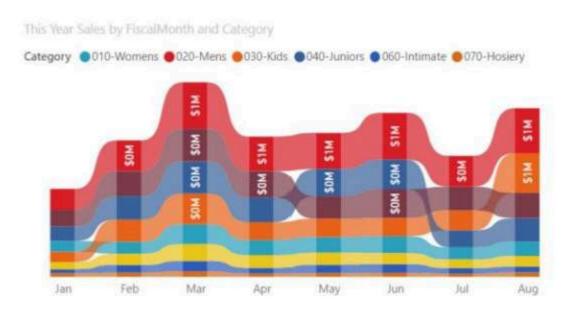


Report designers can create a Power App and embed it into a Power BI report as a visual. Consumers can interact with that visual within the Power BI report.

# R script visuals



## Ribbon chart

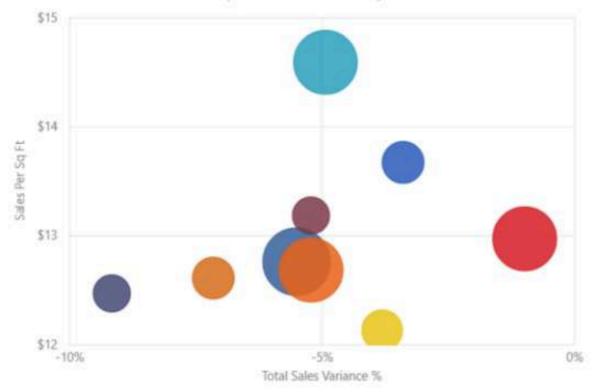


Total Sales Variance % and Sales Per Sq Ft by District

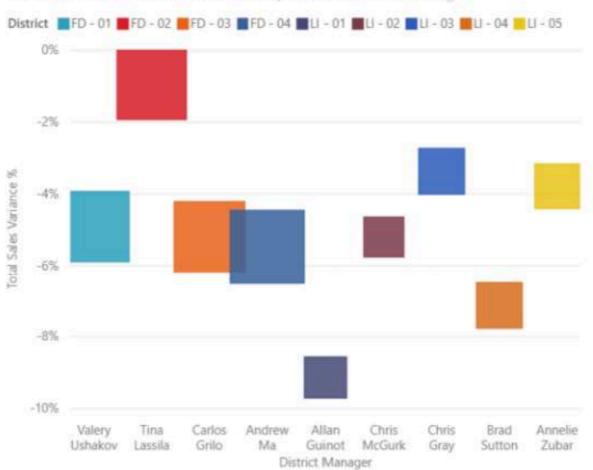


A bubble chart replaces data points with bubbles, with the bubble size representing an additional dimension of the data.

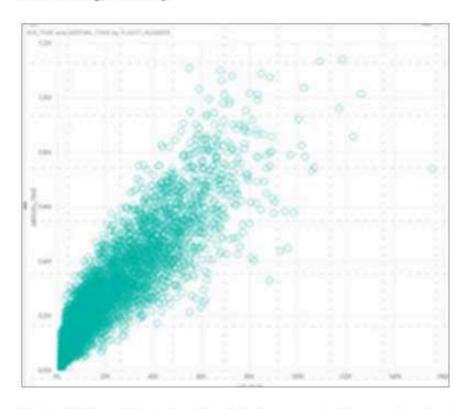
Total Sales Variance %, Sales Per Sq Ft and This Year Sales by District.







#### Scatter-high density



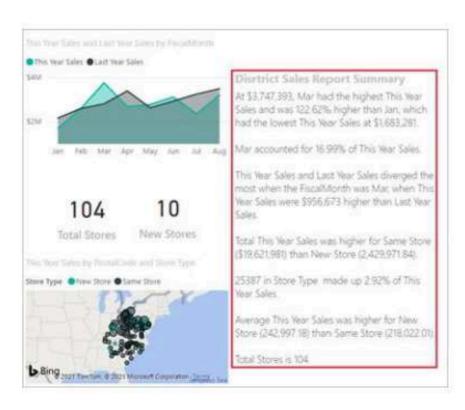
By definition, high-density data is sampled to create visuals reasonably quickly that are responsive to interactivity. High-density sampling uses an algorithm that eliminates overlapping points, and ensures that all points in the data set are represented in the visual. It doesn't just plot a representative sample of the data.

This ensures the best combination of responsiveness, representation, and clear preservation of important points in the overall data set.

# **Slicers**



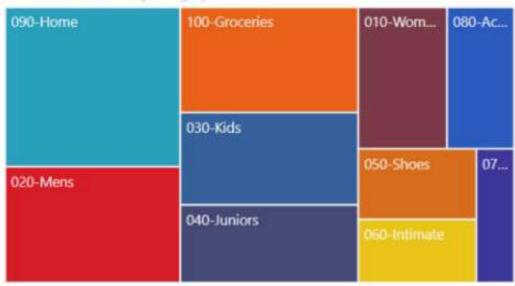
#### Smart narrative



The Smart narrative adds text to reports to point out trends, key takeaways, and add explanations and context. The text helps users to understand the data and identify the important findings quickly.

# **Treemaps**



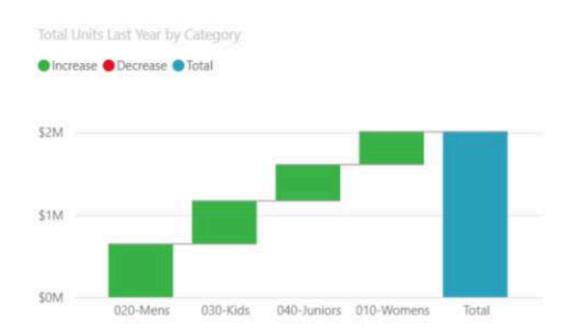


Treemaps are charts of colored rectangles, with size representing value. They can be hierarchical, with rectangles nested within the main rectangles. The space inside each rectangle is allocated based on the value being measured. And the rectangles are arranged in size from top left (largest) to bottom right (smallest).

#### Treemaps are a great choice:

- To display large amounts of hierarchical data.
- When a bar chart can't effectively handle the large number of values.
- . To show the proportions between each part and the whole.
- To show the pattern of the distribution of the measure across each level of categories in the hierarchy.
- To show attributes using size and color coding.
- To spot patterns, outliers, most-important contributors, and exceptions.

#### Waterfall charts



A waterfall chart shows a running total as values are added or subtracted. It's useful for understanding how an initial value (for example, net income) is affected by a series of positive and negative changes.

The columns are color coded so you can quickly tell increases and decreases. The initial and the final value columns often start on the horizontal axis, while the intermediate values are floating columns. Because of this "look", waterfall charts are also called bridge charts.

#### Waterfall charts are a great choice:

- When you have changes for the measure across time or across different categories.
- · To audit the major changes contributing to the total value.
- To plot your company's annual profit by showing various sources of revenue and arrive at the total profit (or loss).
- To illustrate the beginning and the ending headcount for your company in a year.
- To visualize how much money you make and spend each month, and the running balance for your account.