



ENGAGE

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Smartsheet charts unpacked!

Elevate your dashboard game

Solution spotlight



Session presenter



Joe Kristo

Director Solutions Engineering
Asia Pacific and Japan



What you will walk away with...

**Better
understanding of
data visualisations**
and how best to
create them

**Ability to use a
more deliberate
approach** to chart
and dashboard
design

Table of contents

1

Why picking the right visualisation is important.

2

Explore different chart types and learn how to best use them.

3

A closer look at four bonus charts!

4

Preparing your data for visualisation.

Why do we visualise data?

We want to make it easy for people to understand the data.

Why do we visualise data?

Month	Conferenc...	User Groups	Workshops	Other Event	Lunch Events
Feb	0	5	0	0	0
Mar	1	1	1	0	0
Apr	0	0	0	1	0
May	1	2	2	0	0
Jun	3	5	3	1	0
Jul	0	4	0	1	0
Aug	1	4	3	1	2
Sep	1	3	0	0	0
Oct	6	1	3	0	0
Nov	1	2	0	1	0
Dec	0	2	1	0	0
Jan	0	0	0	0	0

For each event type,
how many times
did we have
**more than four
events**
in a single month?

Why do we visualise data?

Month	Conferenc...	User Groups	Workshops	Other Event	Lunch Events
Feb	0	5	0	0	0
Mar	1	1	1	0	0
Apr	0	0	0	1	0
May	1	2	2	0	0
Jun	3	5	3	1	0
Jul	0	4	0	1	0
Aug	1	4	3	1	2
Sep	1	3	0	0	0
Oct	6	1	3	0	0
Nov	1	2	0	1	0
Dec	0	2	1	0	0
Jan	0	0	0	0	0

Using a **colour** attribute makes it easier to see the answer.

Why do we visualise data?

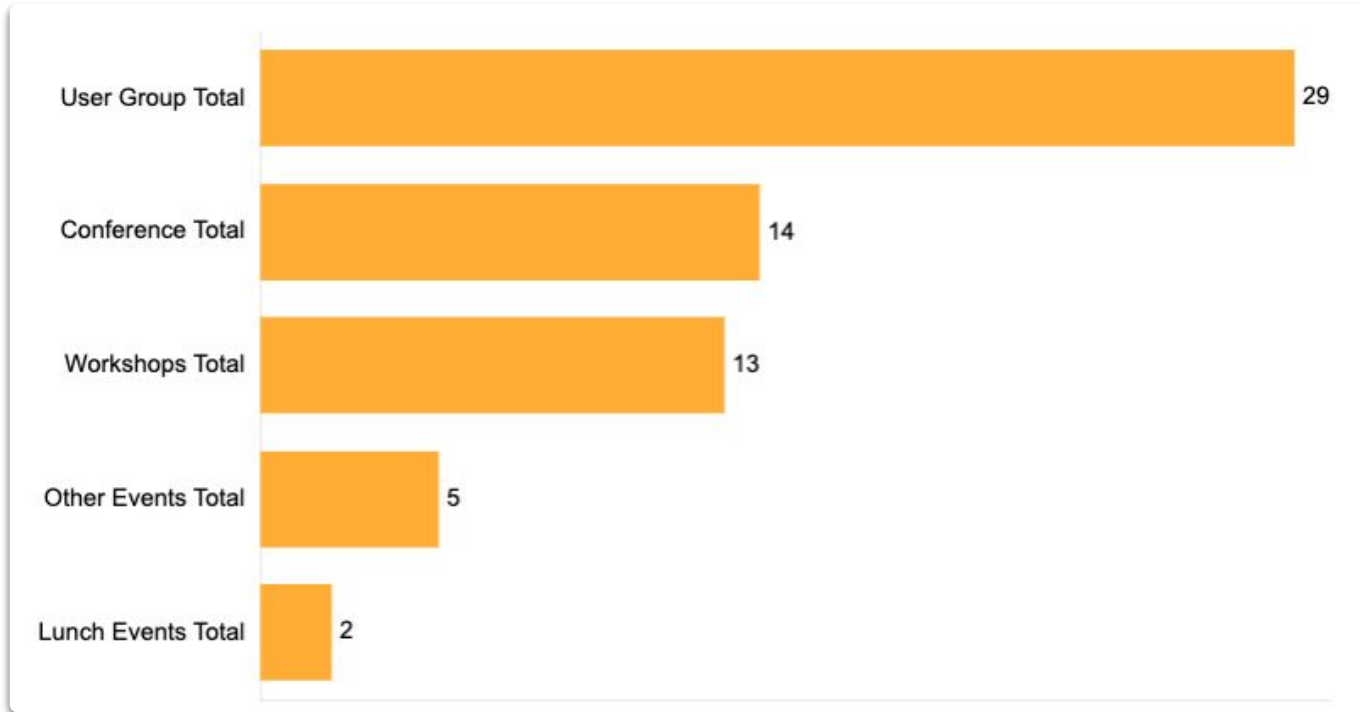
Month	Conferenc...	User Groups	Workshops	Lunch Events	Other Event
Feb	0	5	0	0	0
Mar	1	1	1	0	0
Apr	0	0	0	0	1
May	1	2	2	0	0
Jun	3	5	3	0	1
Jul	0	4	0	0	1
Aug	1	4	3	2	1
Sep	1	3	0	0	0
Oct	6	1	3	0	0
Nov	1	2	0	0	1
Dec	0	2	1	0	0
Jan	0	0	0	0	0

A **heatmap** makes it even easier again.

What about **aggregates**?

E.g. Which event type did I do **second most frequently**?

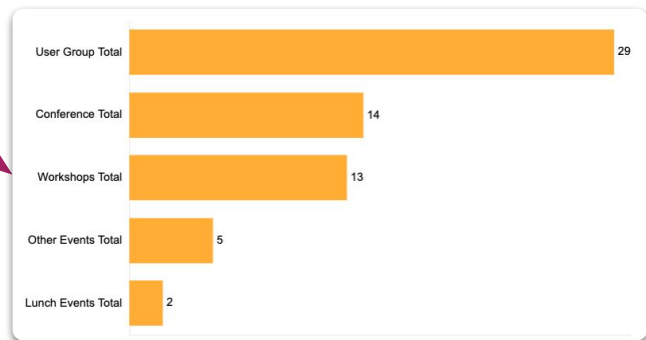
Charts make it easy to see the data.



Why do we visualise data?

Month	Conferenc...	User Groups	Workshops	Other Event	Lunch Events
Feb	0	5	0	0	0
Mar	1	1	1	0	0
Apr	0	0	0	1	0
May	1	2	2	0	0
Jun	3	5	3	1	0
Jul	0	4	0	1	0
Aug	1	4	3	1	2
Sep	1	3	0	0	0
Oct	6	1	3	0	0
Nov	1	2	0	1	0
Dec	0	2	1	0	0
Jan	0	0	0	0	0

Month	Conferenc...	User Groups	Workshops	Lunch Events	Other Event
Feb	0	5	0	0	0
Mar	1	1	1	0	0
Apr	0	0	0	0	1
May	1	2	2	0	0
Jun	3	5	3	0	1
Jul	0	4	0	0	1
Aug	1	4	3	2	1
Sep	1	3	0	0	0
Oct	6	1	3	0	0
Nov	1	2	0	0	1
Dec	0	2	1	0	0
Jan	0	0	0	0	0



Preattentive attributes

Colour Hue



Colour Value



Length



Width



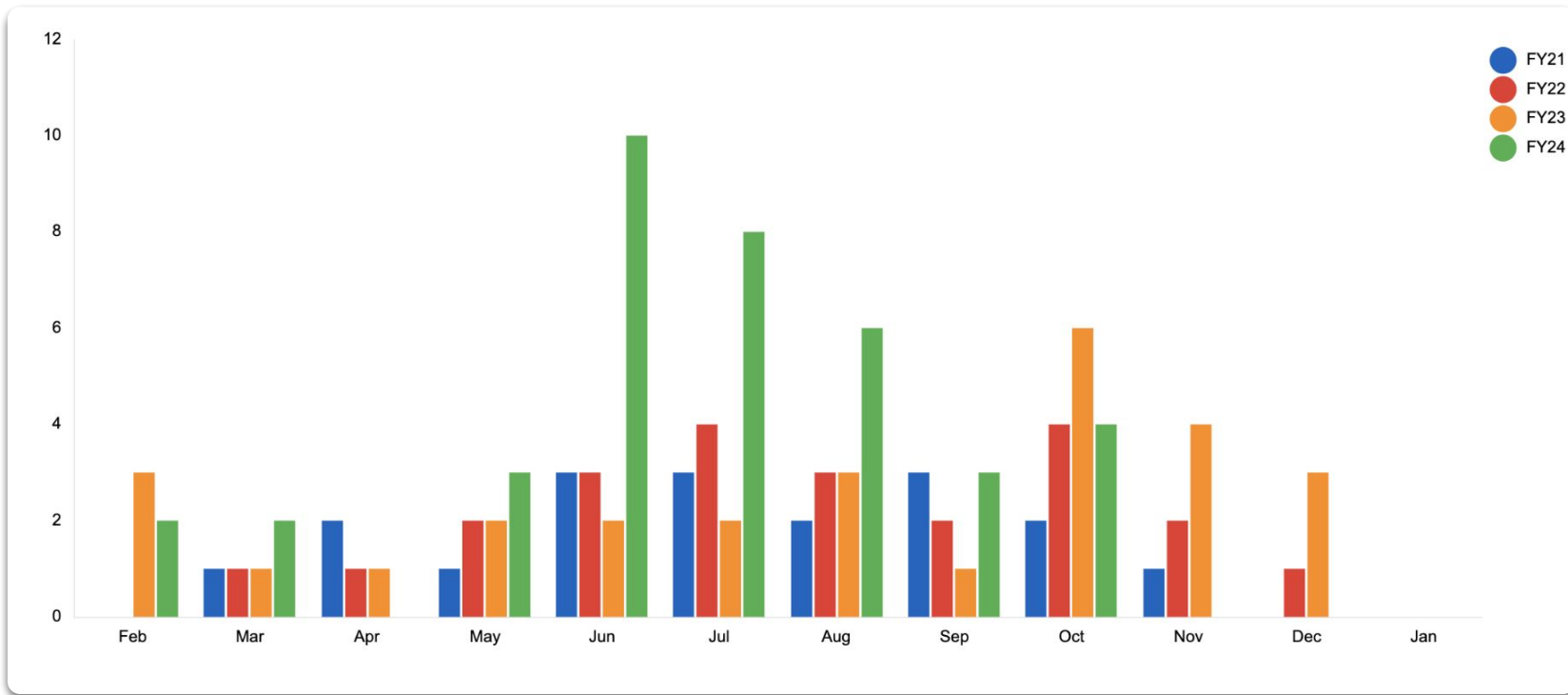
Size



Orientation

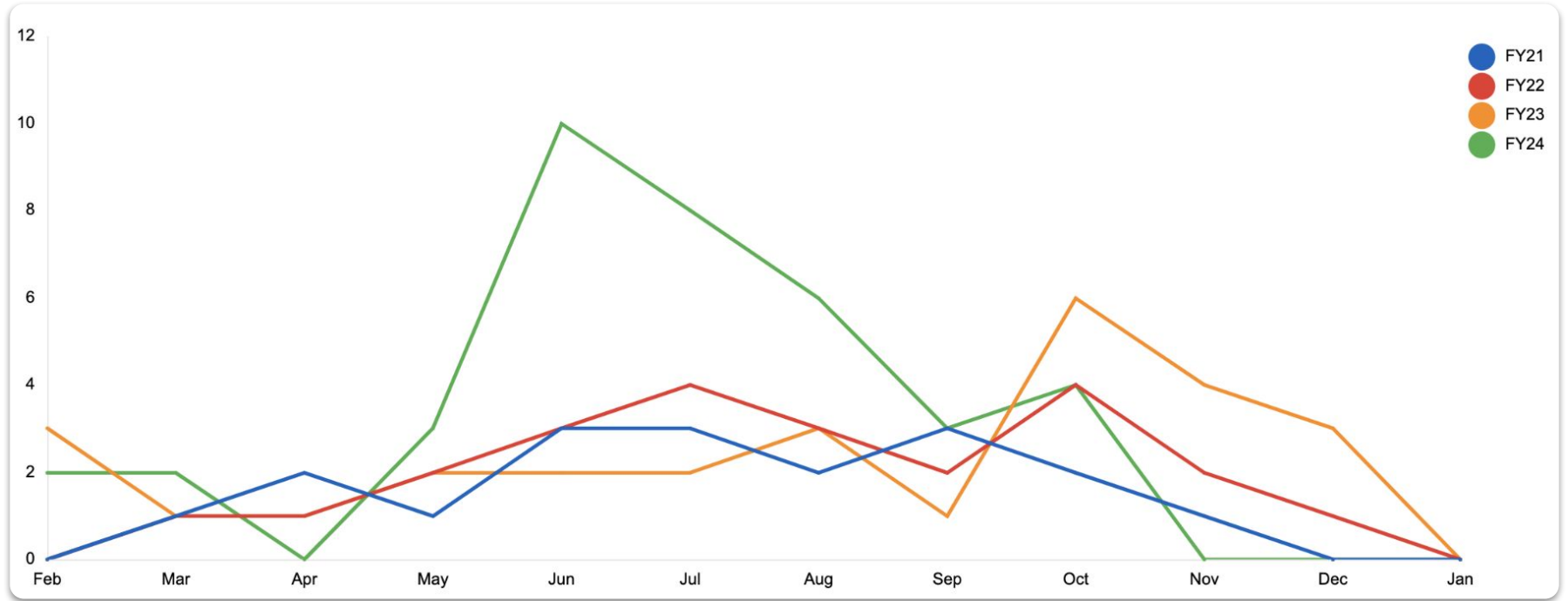


What is the question we are trying to answer here?

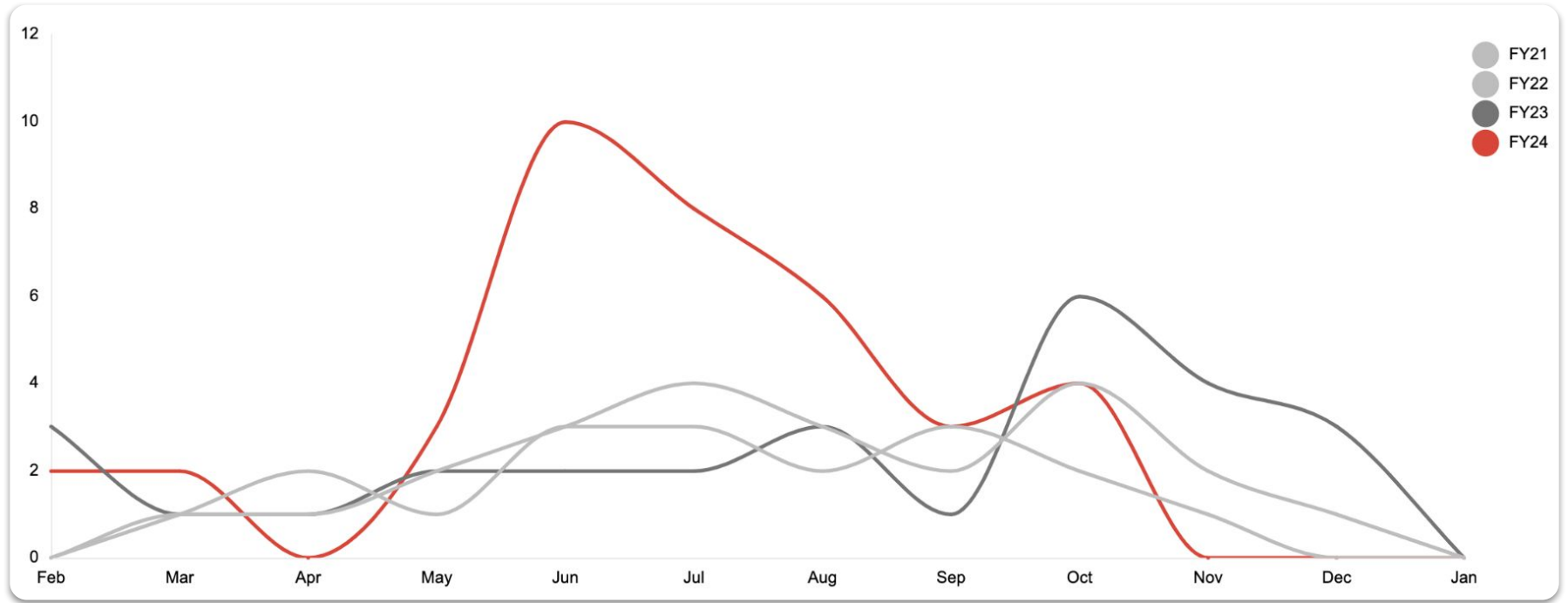


So then, are *all* visualisations good? **Absolutely not.**

Let's assume the *trend* is the most important insight.

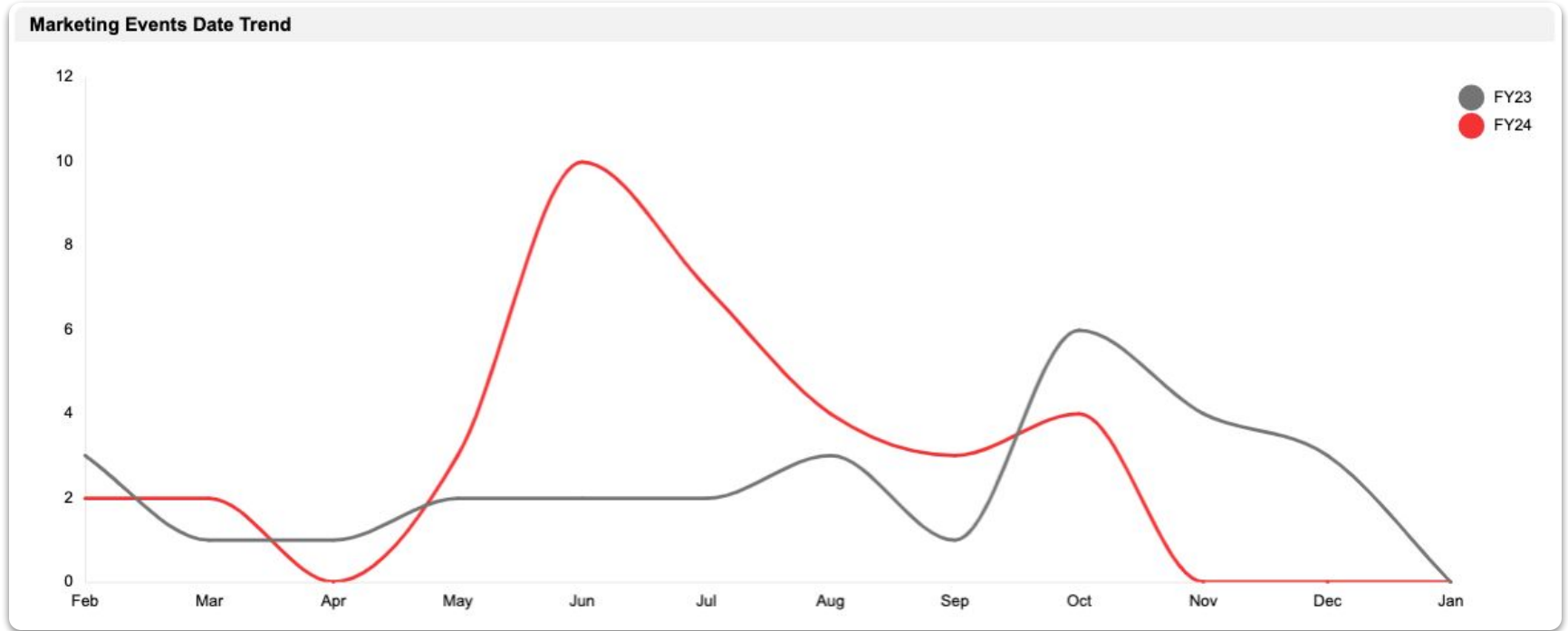


And stepping it up once more...



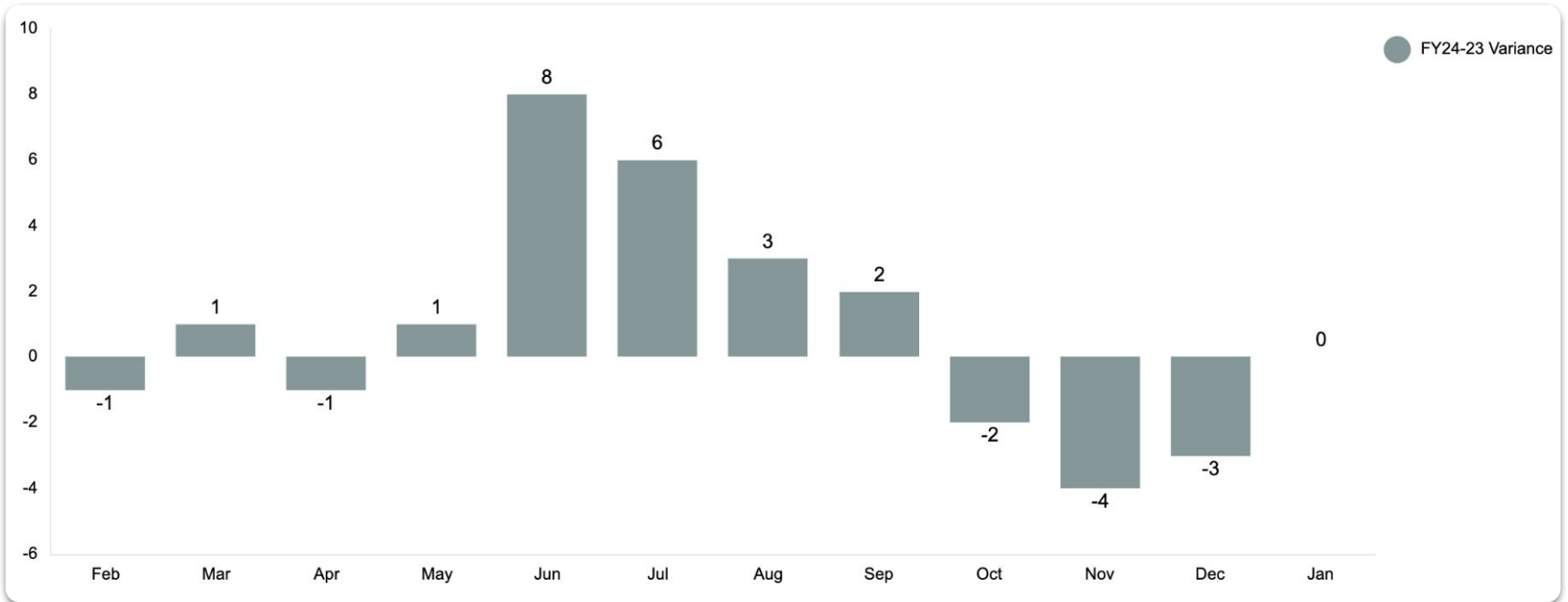
It's all about the question.

What's the overall trend of the current year compared to previous years?



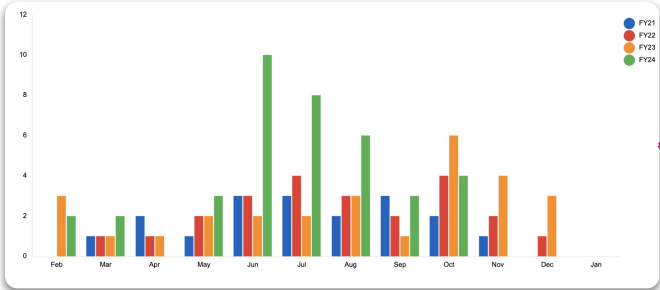
It's all about the question.

What's the actual difference between the current year compared to the previous year?

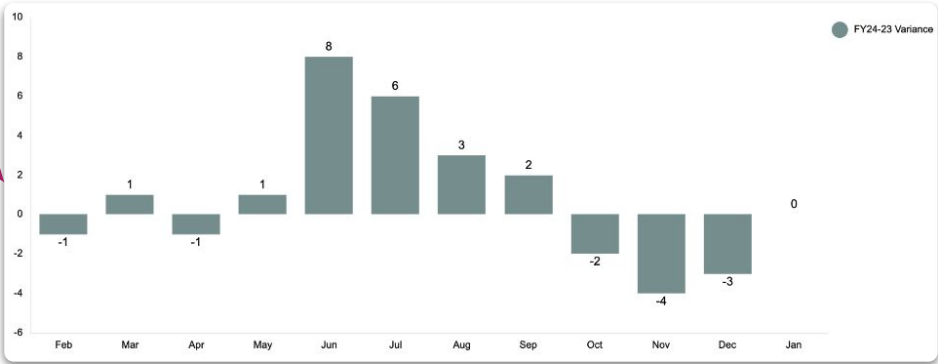
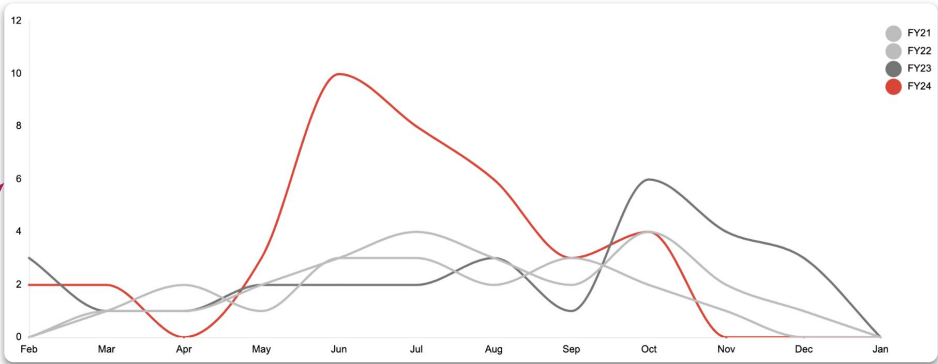


The charts on the right make it easier to understand the *trend* of the data.

Before



After



The charts on the right make it easier to understand the *trend* of the data

Before

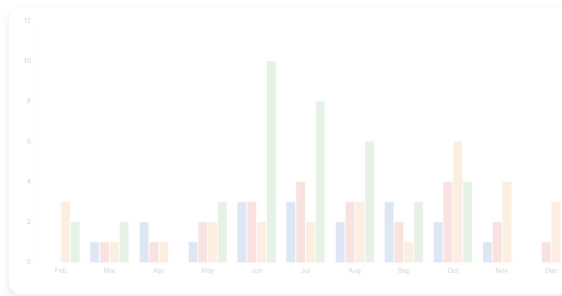
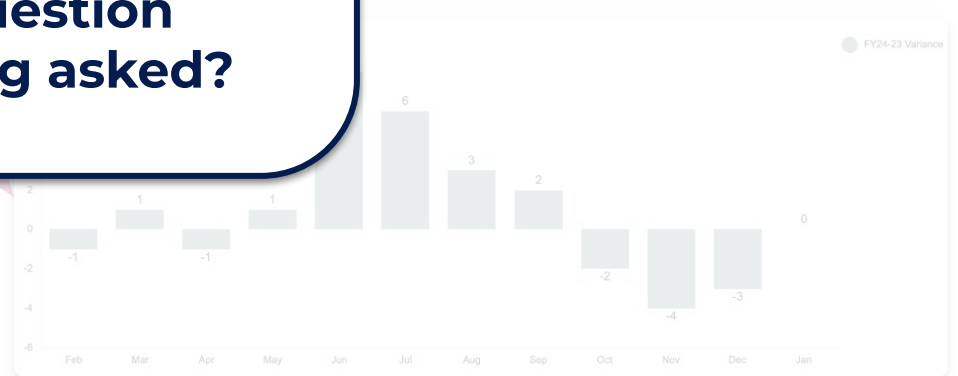
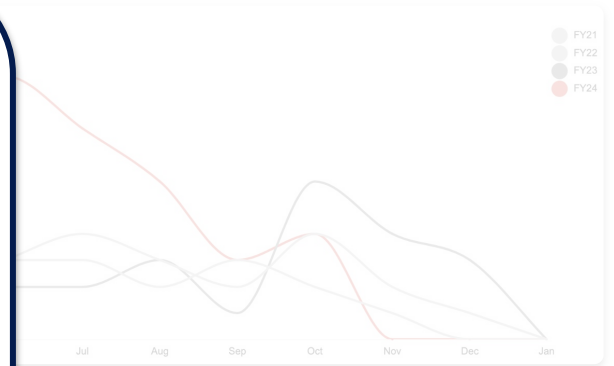


Chart selection ultimately comes down to...

...what is the question being asked?

After



In summary, we visualise because...

1. Charts help people **see** the insights from your data more easily.
2. They help tell the **story** more effectively.
3. Chart design with the **'question'** in mind presents as an answer.

Charts

What are the different chart types and how do you best use them?



Today, we're just focusing on 'Charts'



Add Widget ×









- **Metric**
Display key cell values from a sheet
- **Chart**
Create a meaningful chart from a sheet or report
- **Shortcut**
Link to commonly accessed files, URLs, and Smartsheet items
- **Report**
Display a report on the dashboard with optional Gantt View
- **Title**
Add a title to your dashboard
- **Rich Text**
Enter richly formatted text for updates or instructions
- **Web Content**
Add content to your dashboard from external sources
- **Image**
Add a company logo or any other image to your dashboard

Chart types

Line charts



Line



Smooth Line



Stepped Line

Bar charts



Bar



Stacked Bar



Column



Stacked Column

Pie charts



Pie



Donut

Scatter plot

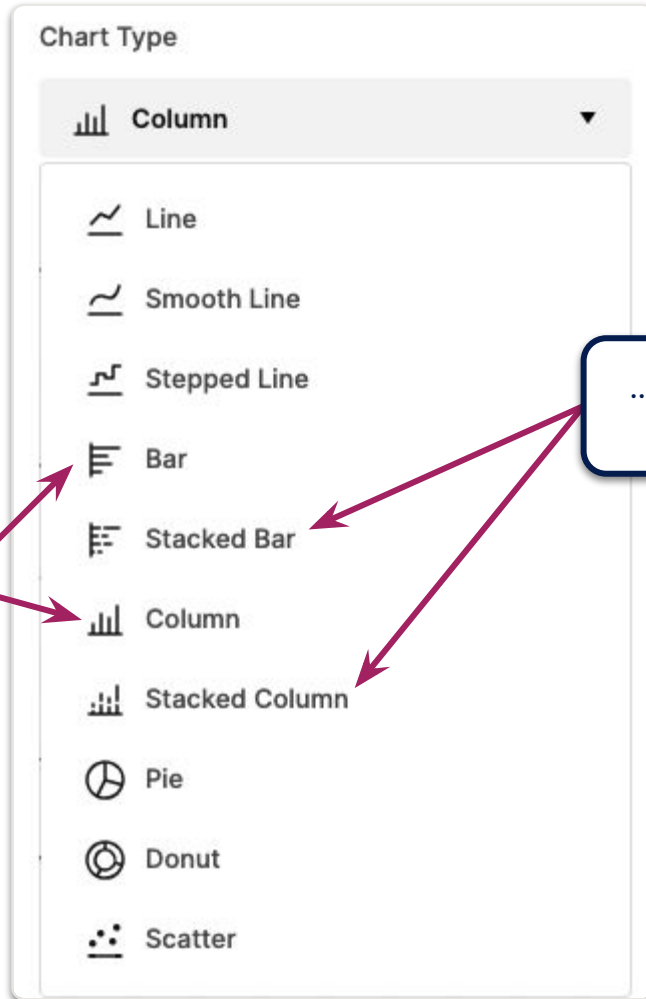


Scatter

Bar charts

Two types of bar charts are available in the chart widget...

...the **Simple Bar chart**...



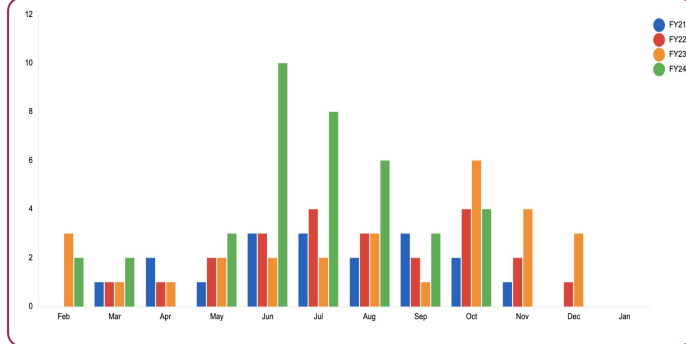
...and the **Stacked Bar chart**

But there's actually a third bar chart type that's not listed...

Bar charts

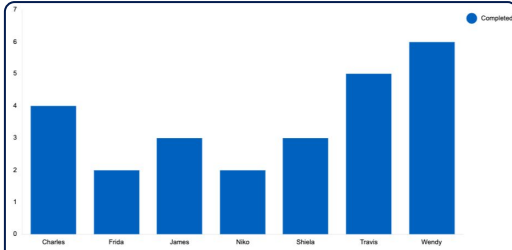
Cluster bar

Completed YoY

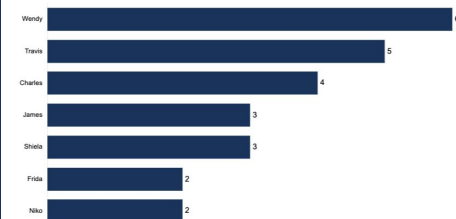


Bar charts

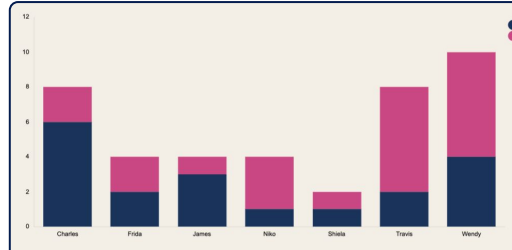
Simple bar



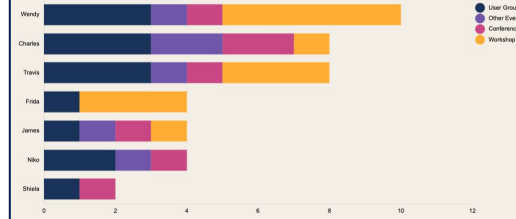
Number of Completed Events by Consultant FY24



Stacked bar

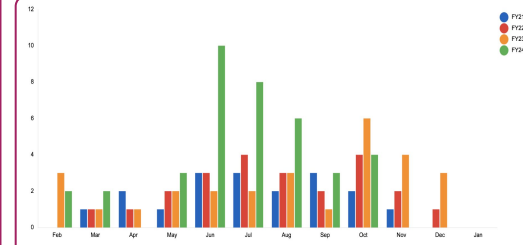


Engage Consultant Event Type Report 2

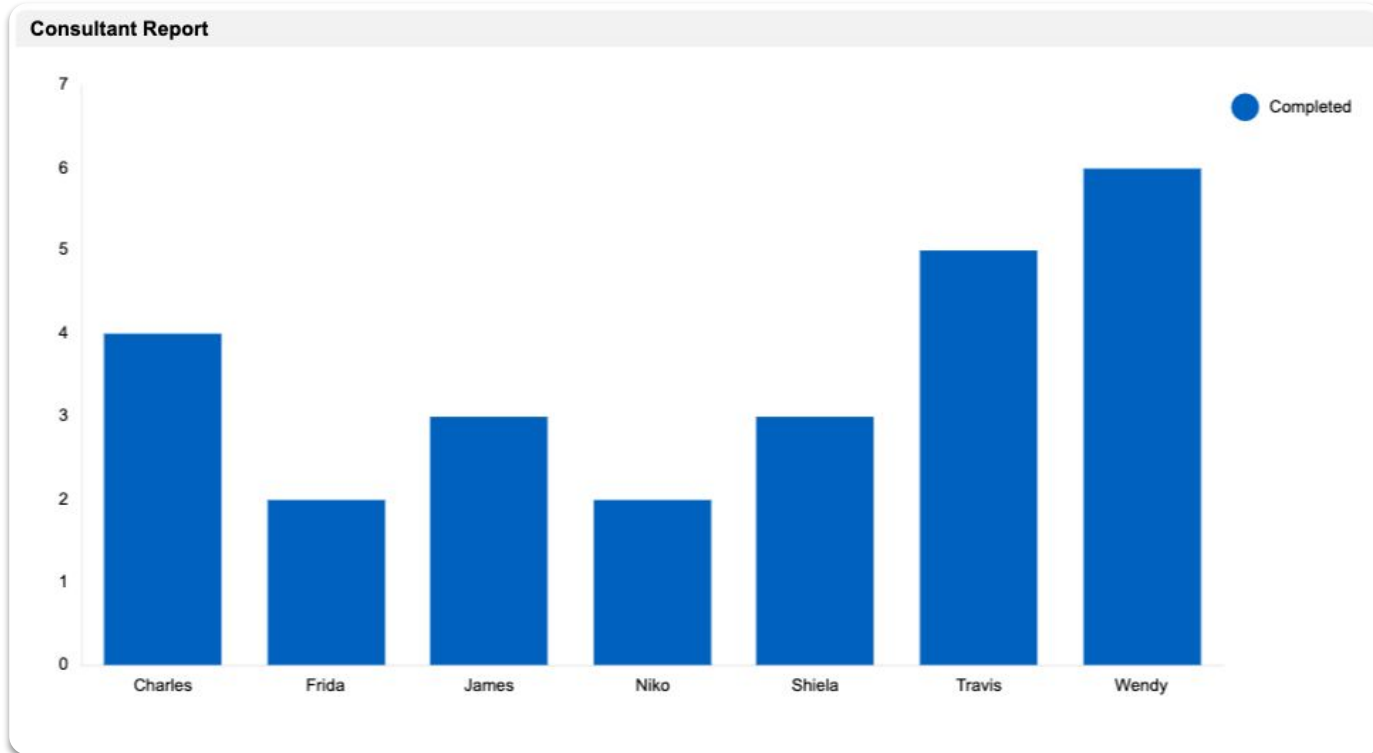


Cluster bar

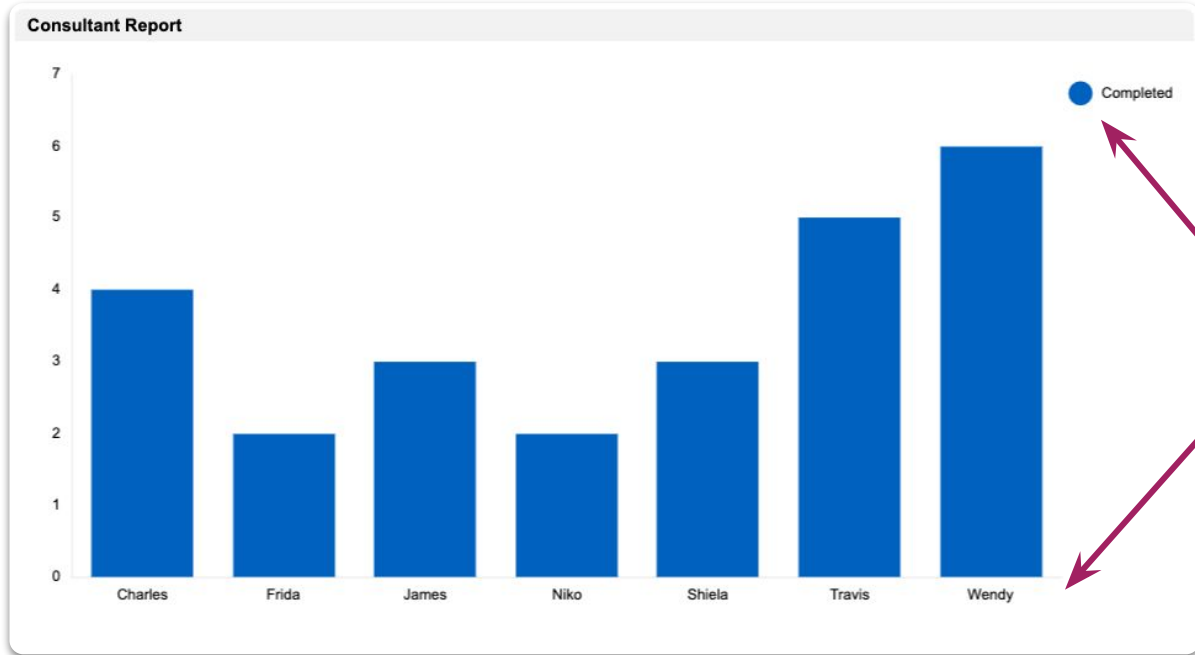
Completed YoY



Simple bar chart



Simple bar chart



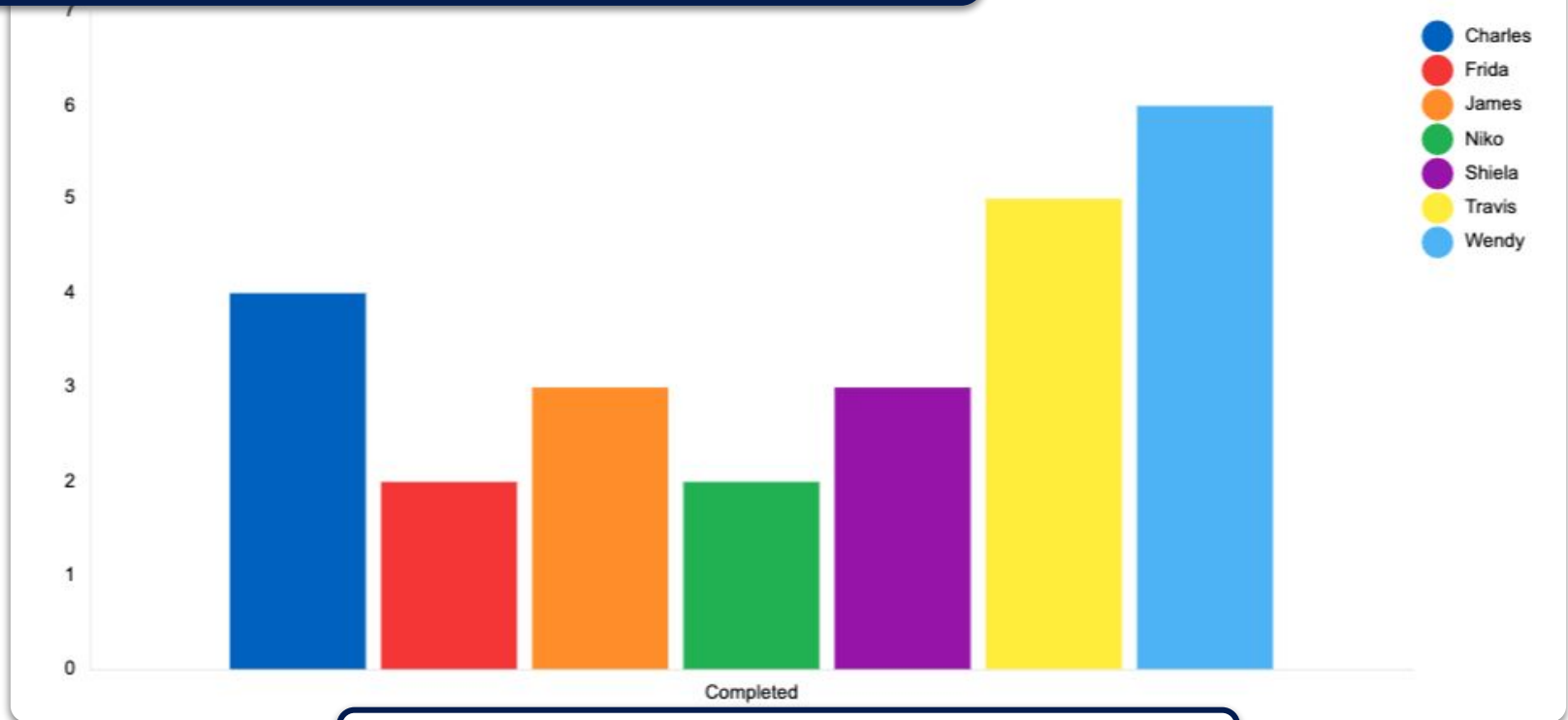
Columns Included ⓘ

All columns ✕

- Use column names as category labels
- Use first column as series labels
- Switch rows & columns

A common
misconfiguration I see...

Does introducing colour make it easier to read this chart? In this case, it actually makes it harder.



!!! Avoid using colour for colour's sake !!!

Red

Blue

Blue

Purple

Green

Blue

Purple

Red

Pink

Blue

Green

Pink

Red

Blue

Green

Purple

Pink

Green

Blue

Purple

Blue

Red

Blue

Pink

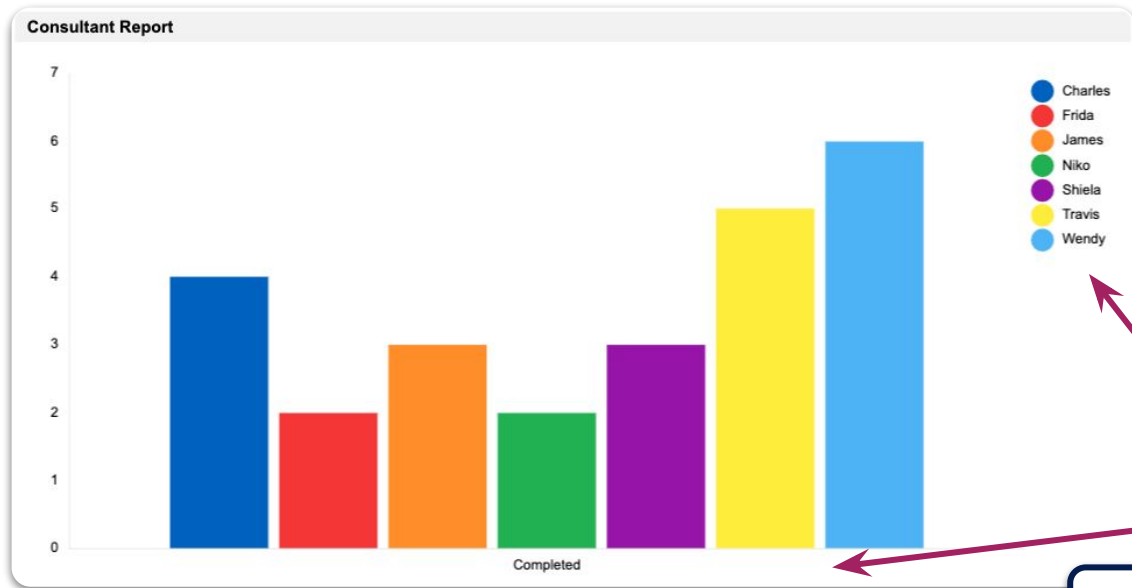


Chart Widget

Data & Chart Type

Data Source

E Consultant Report [Edit](#)

Columns Included ⓘ

All columns ×

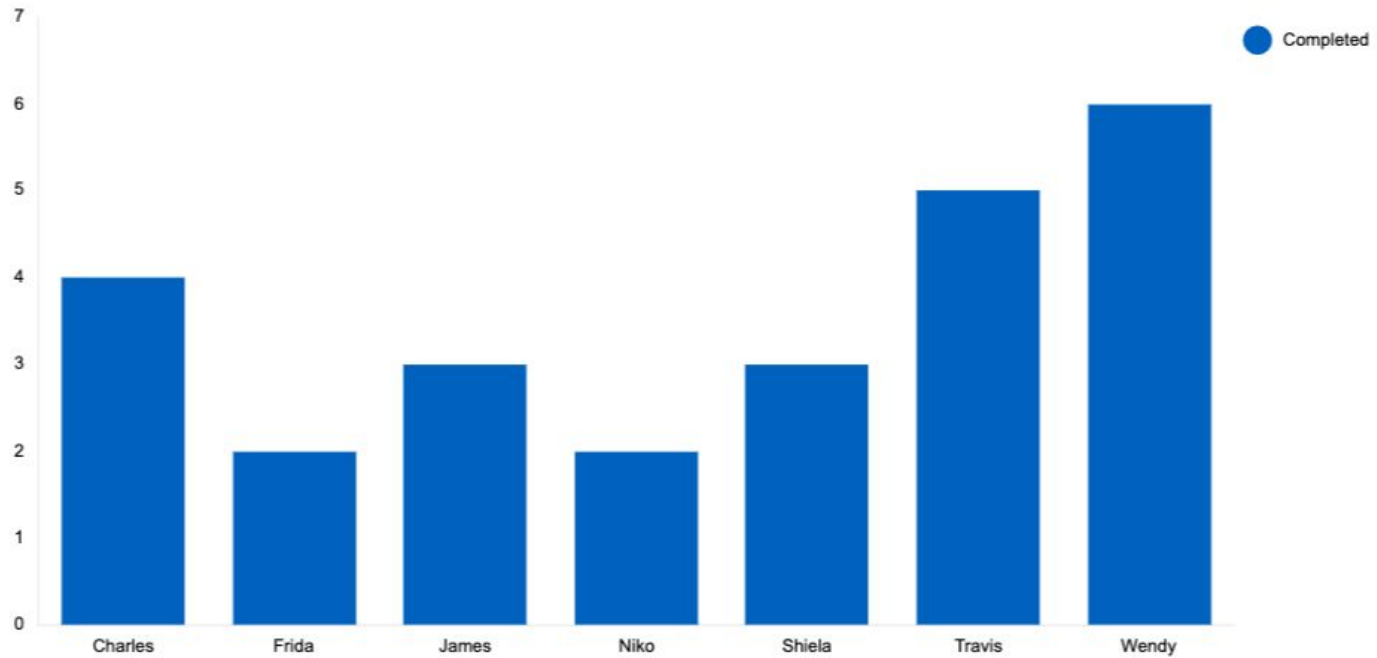
Use column names as category labels

Use first column as series labels

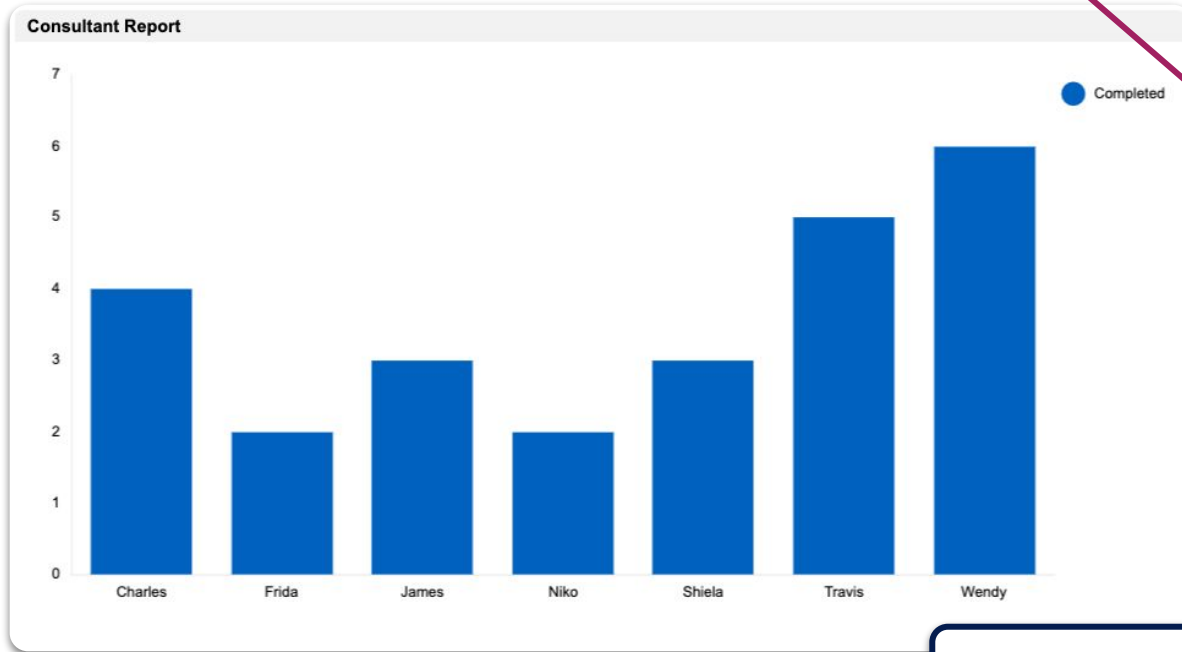
Switch rows & columns

Let's switch it back.

Consultant Report



Switch rows and columns again



Columns Included ⓘ

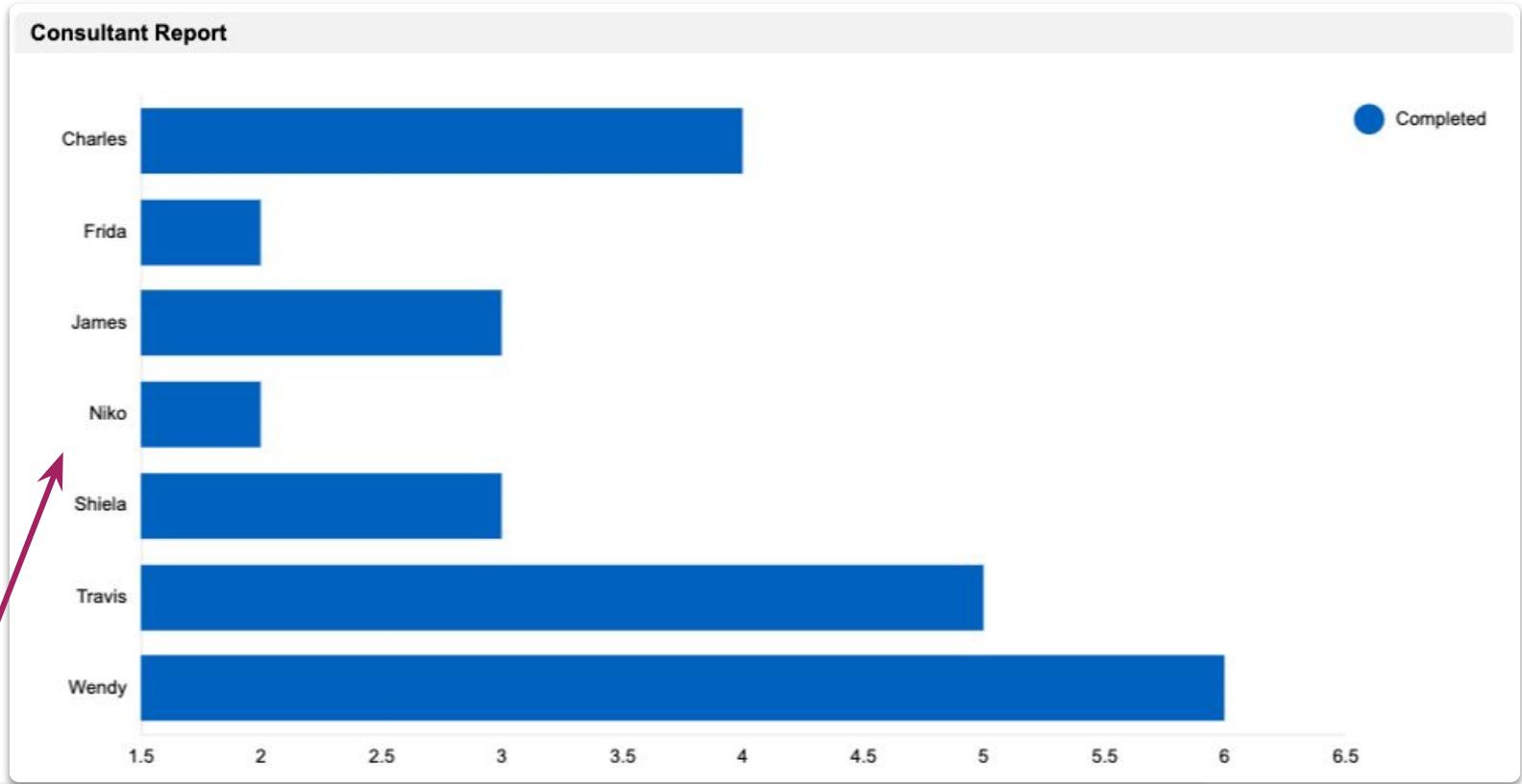
All columns ✕

- Use column names as category labels
- Use first column as series labels
- Switch rows & columns

Chart Type

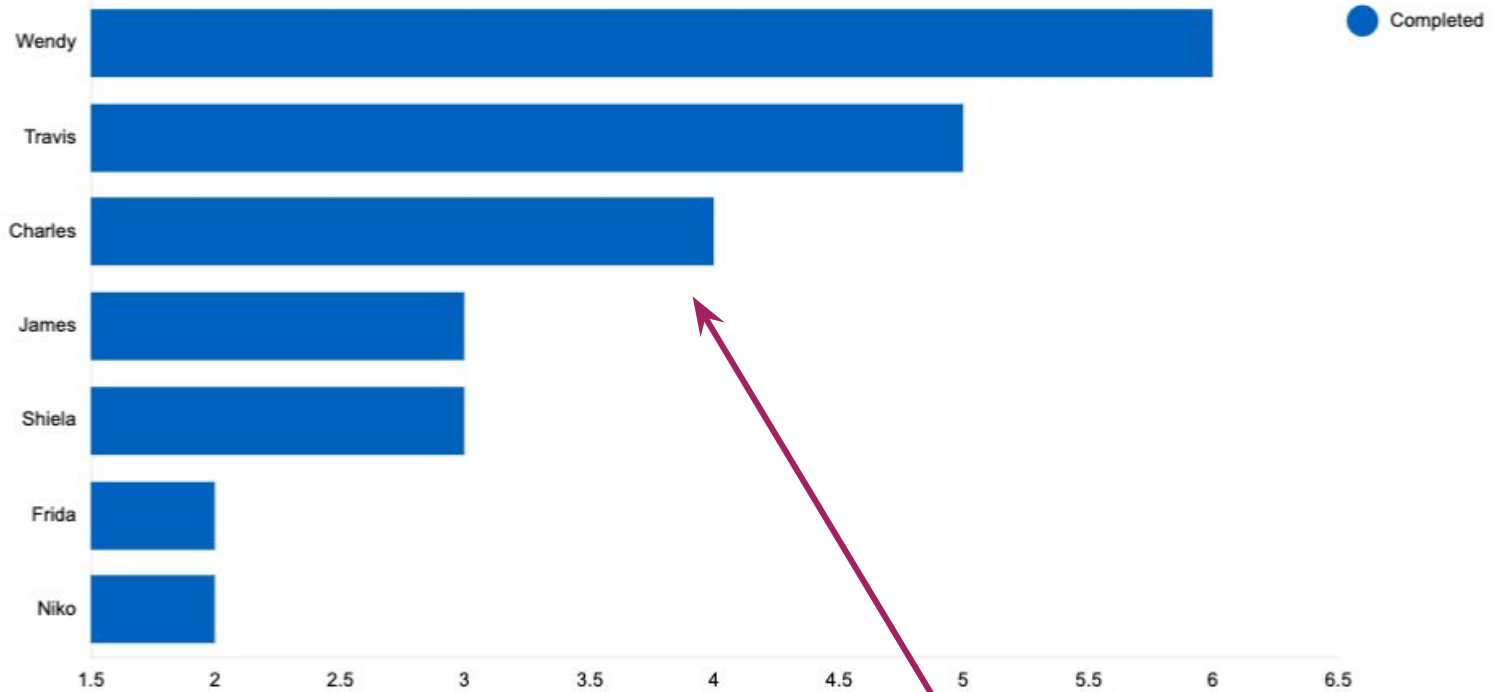
Bar

Switch from **Column** to **Bar**



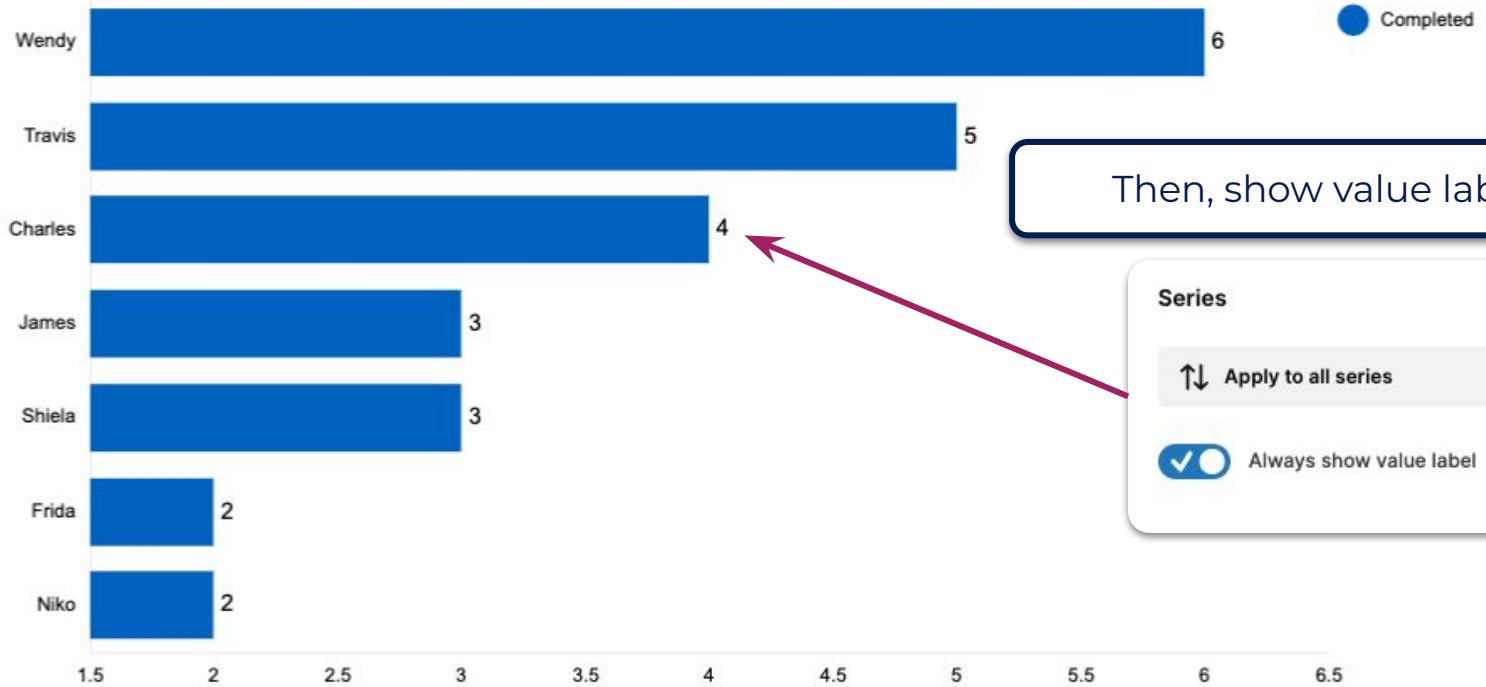
Using the horizontal bar chart makes category labels easier to read.

Consultant Report



Now, let's sort the bars...

Consultant Report



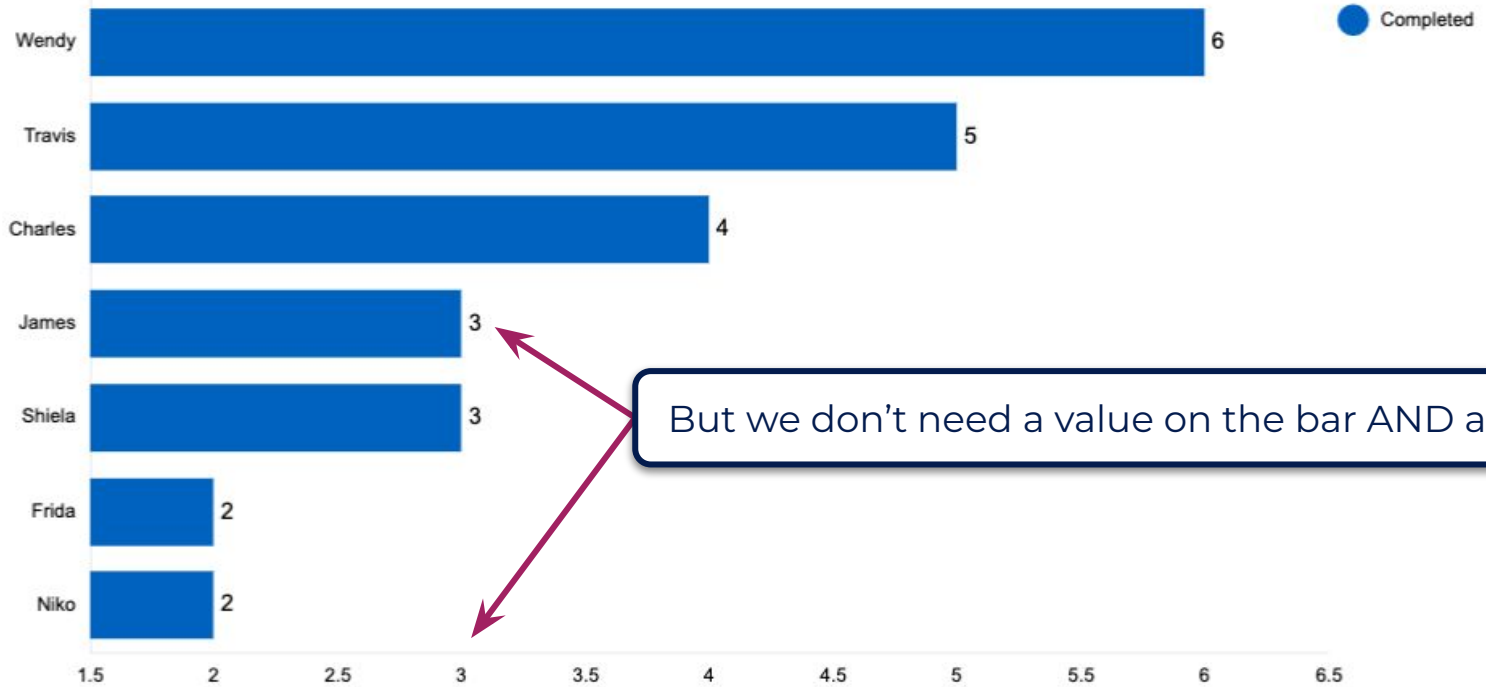
Then, show value label...

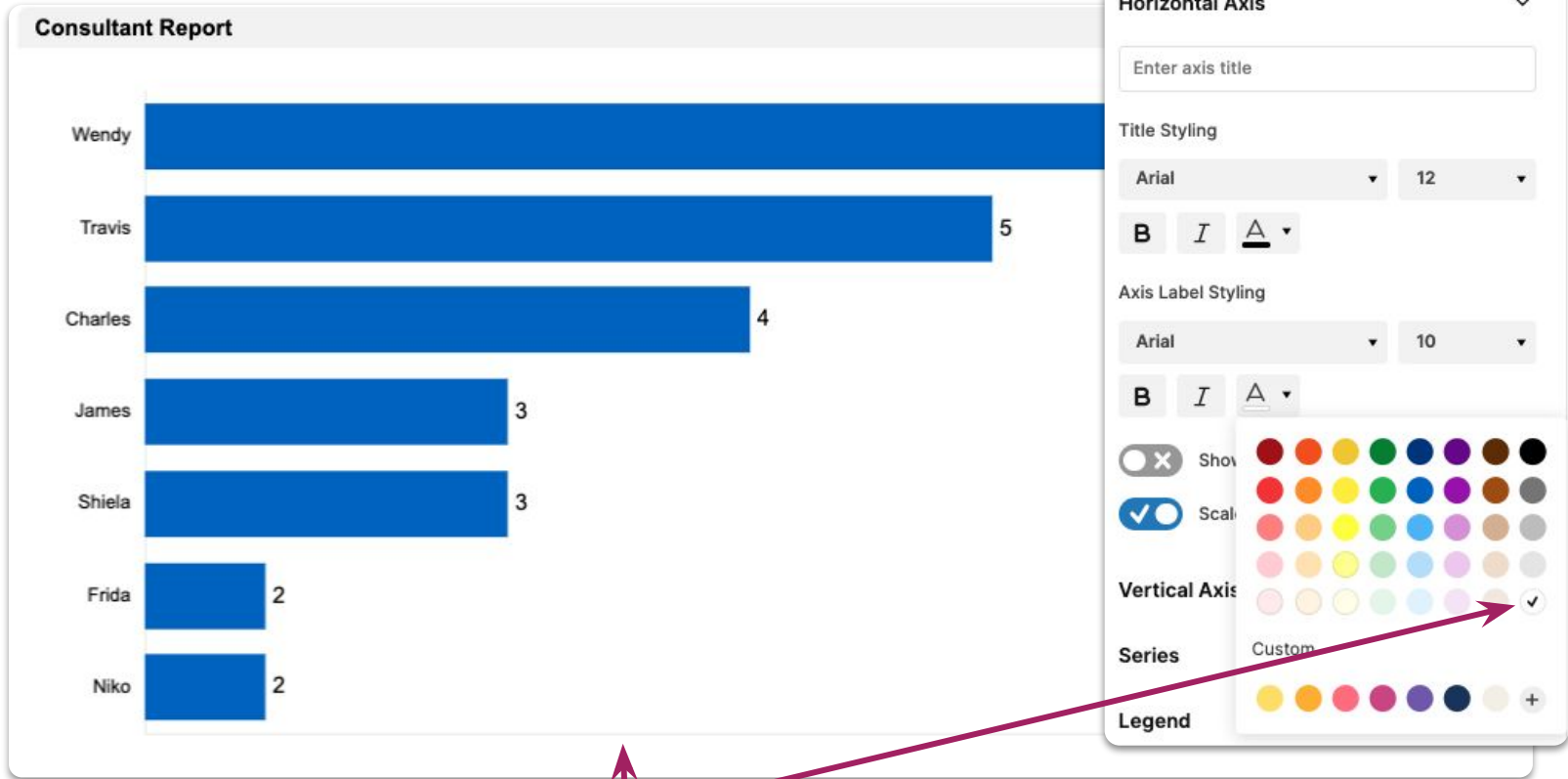
Series

↑↓ Apply to all series

Always show value label

Consultant Report

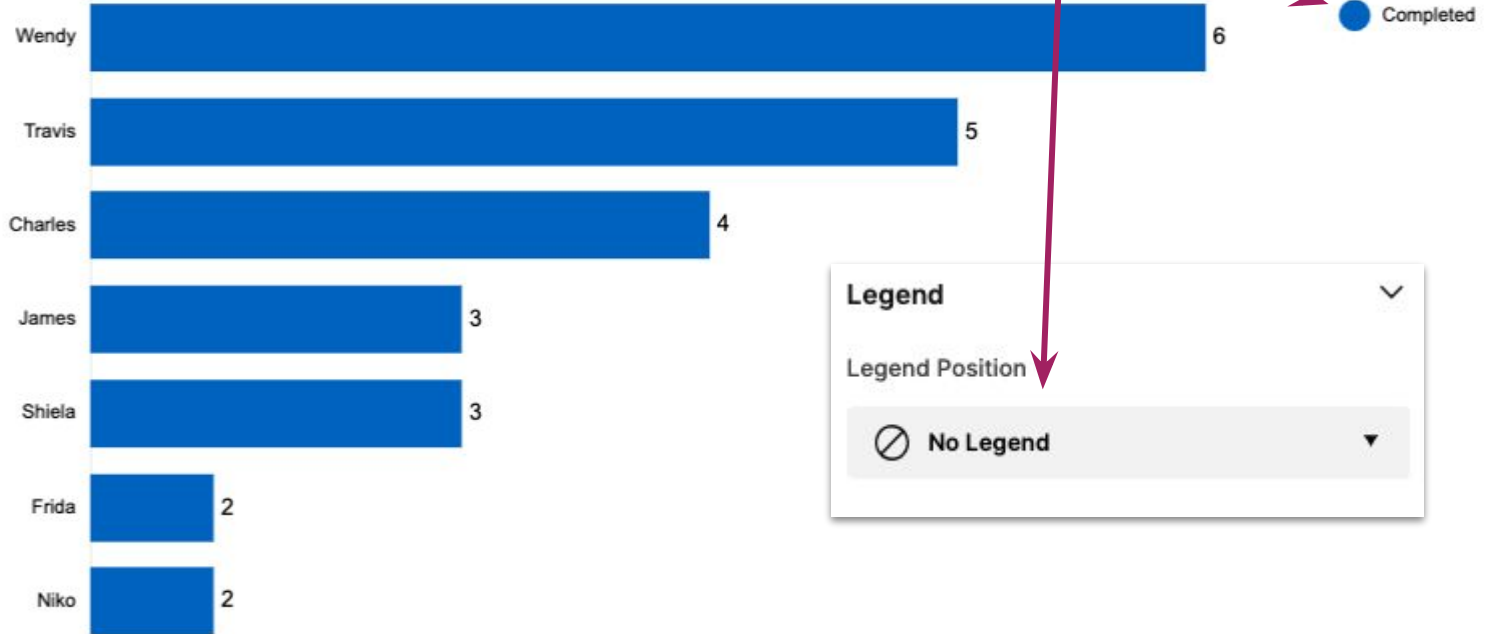




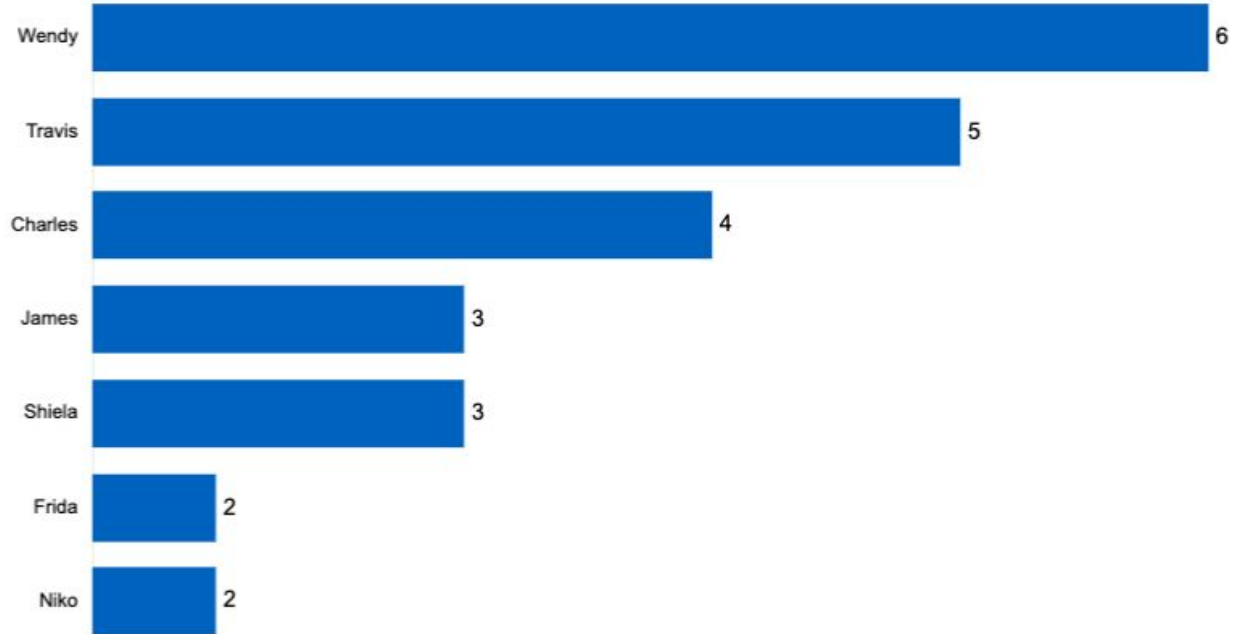
Tip: To remove axis label, make numbers the same colour as the background.

The legend is redundant, so we can remove that too.

Consultant Report



Consultant Report

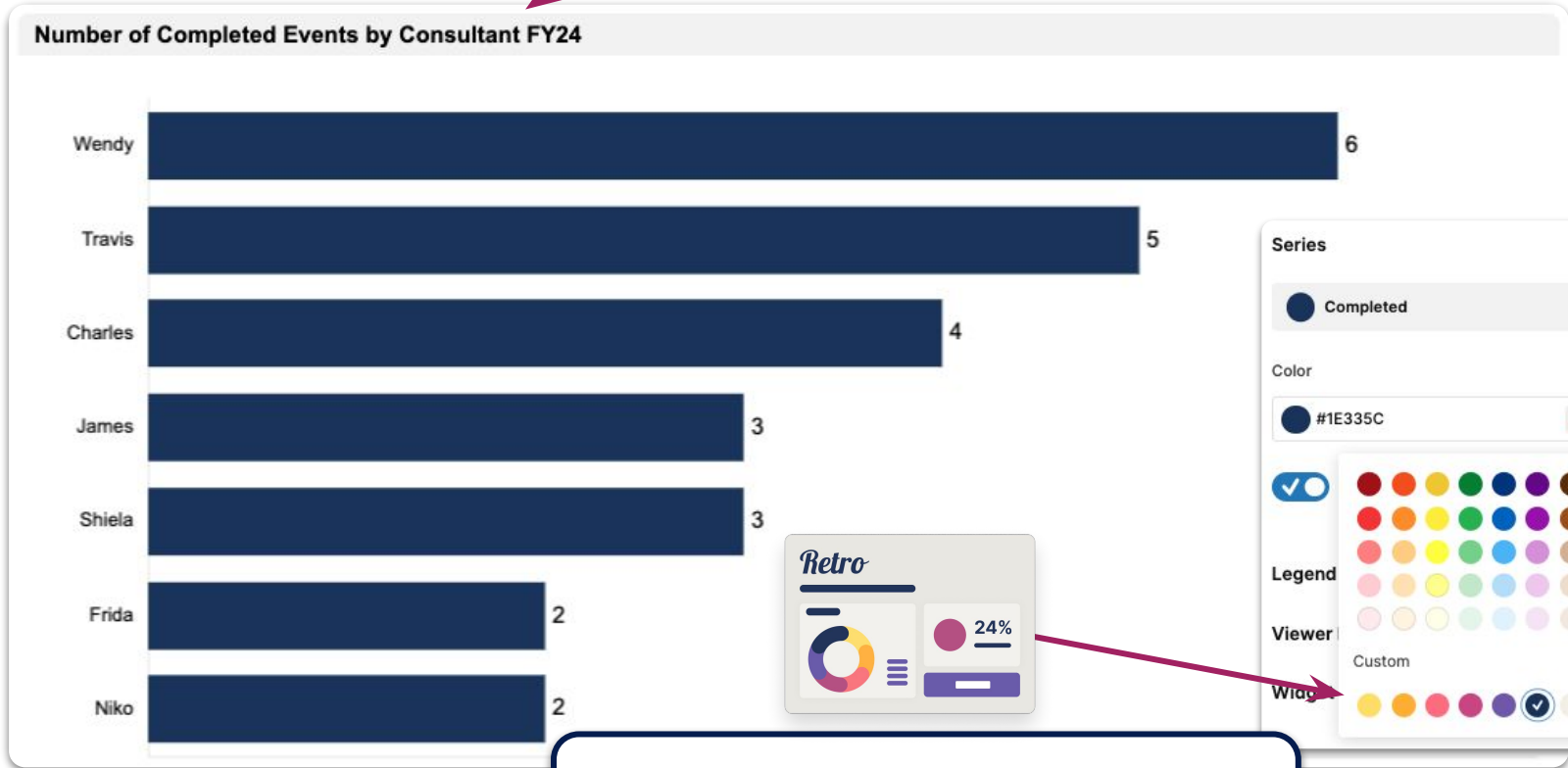




Take your dashboards to the next level

[Smartsheet.com/dashboard-design-guide](https://smartsheet.com/dashboard-design-guide)

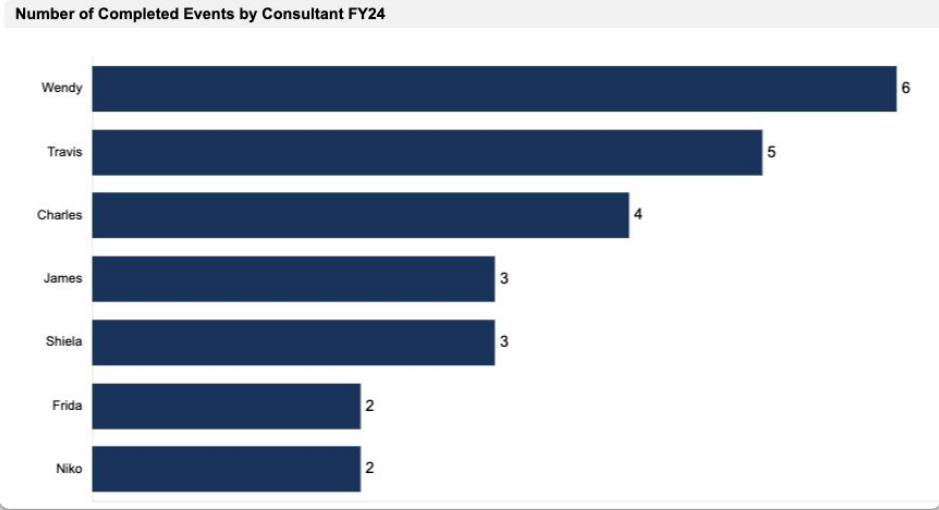
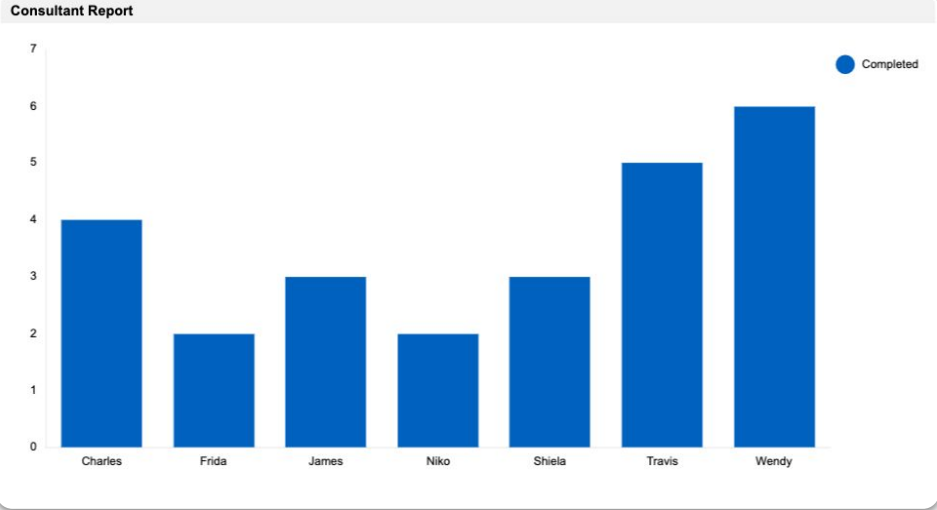
Rename the title to something more meaningful.



Add the 'Retro' palette as custom colours on your dashboard.

Before

After



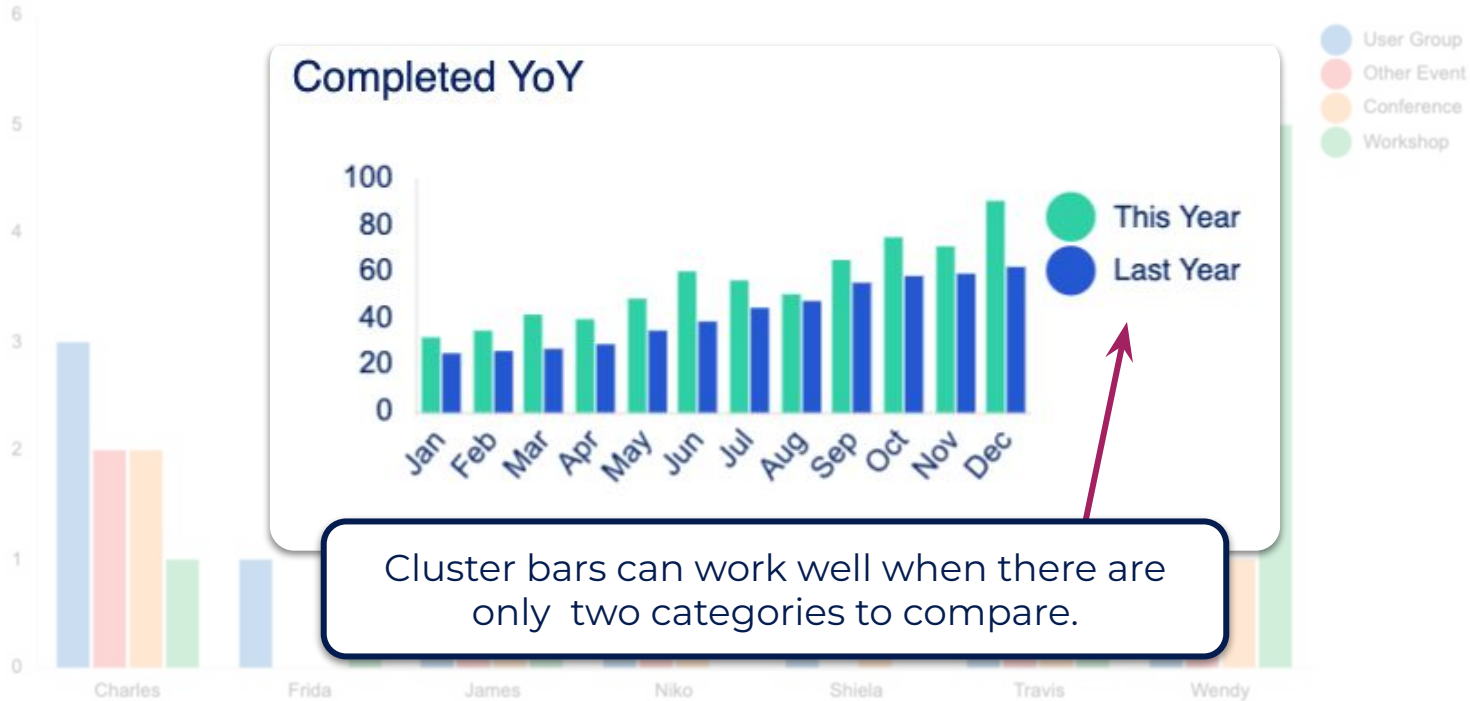
The resulting chart makes it **easier to compare values** across consultants.

Cluster bar chart



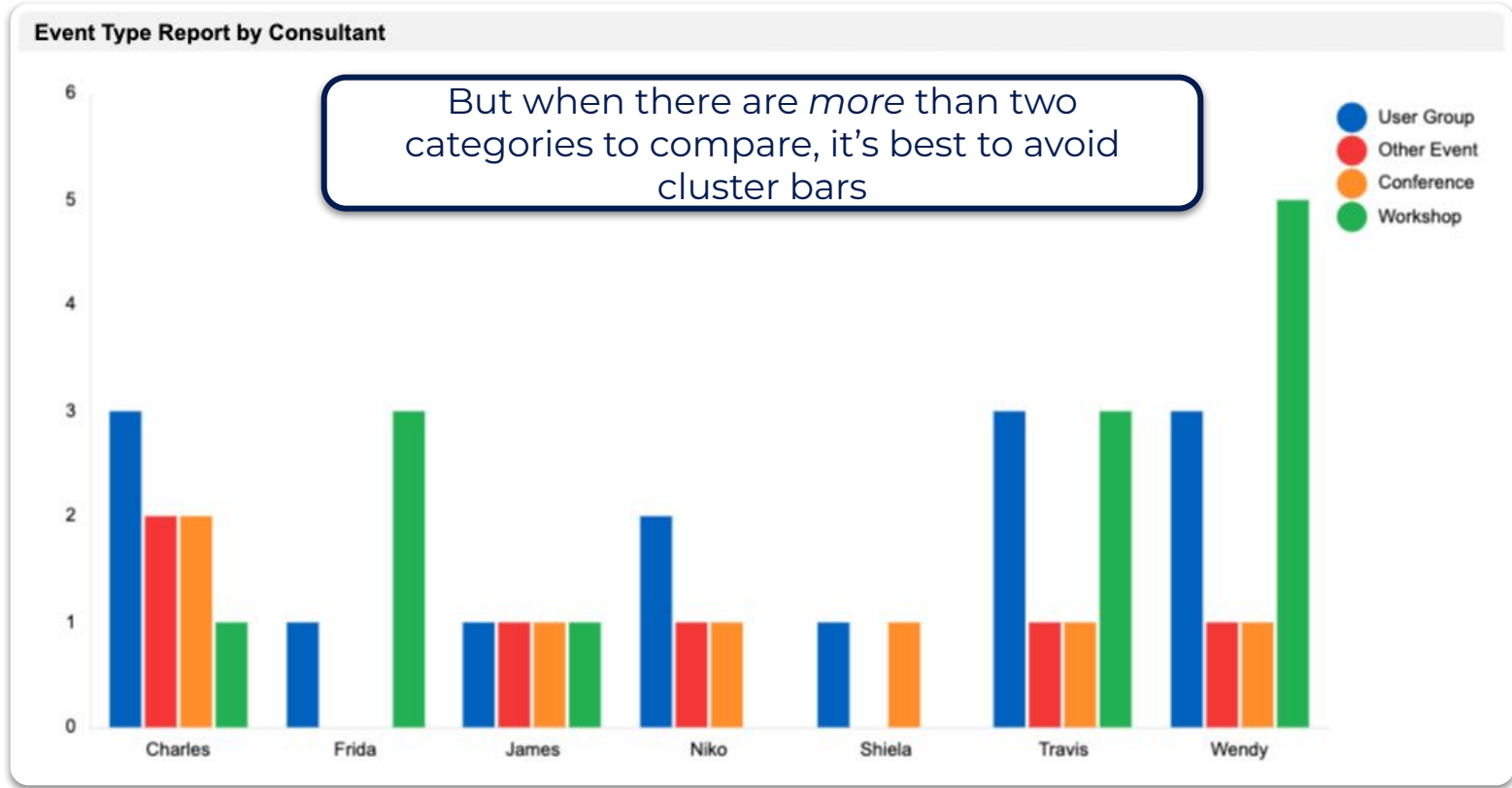
Cluster bar chart

Event Type Report by Consultant

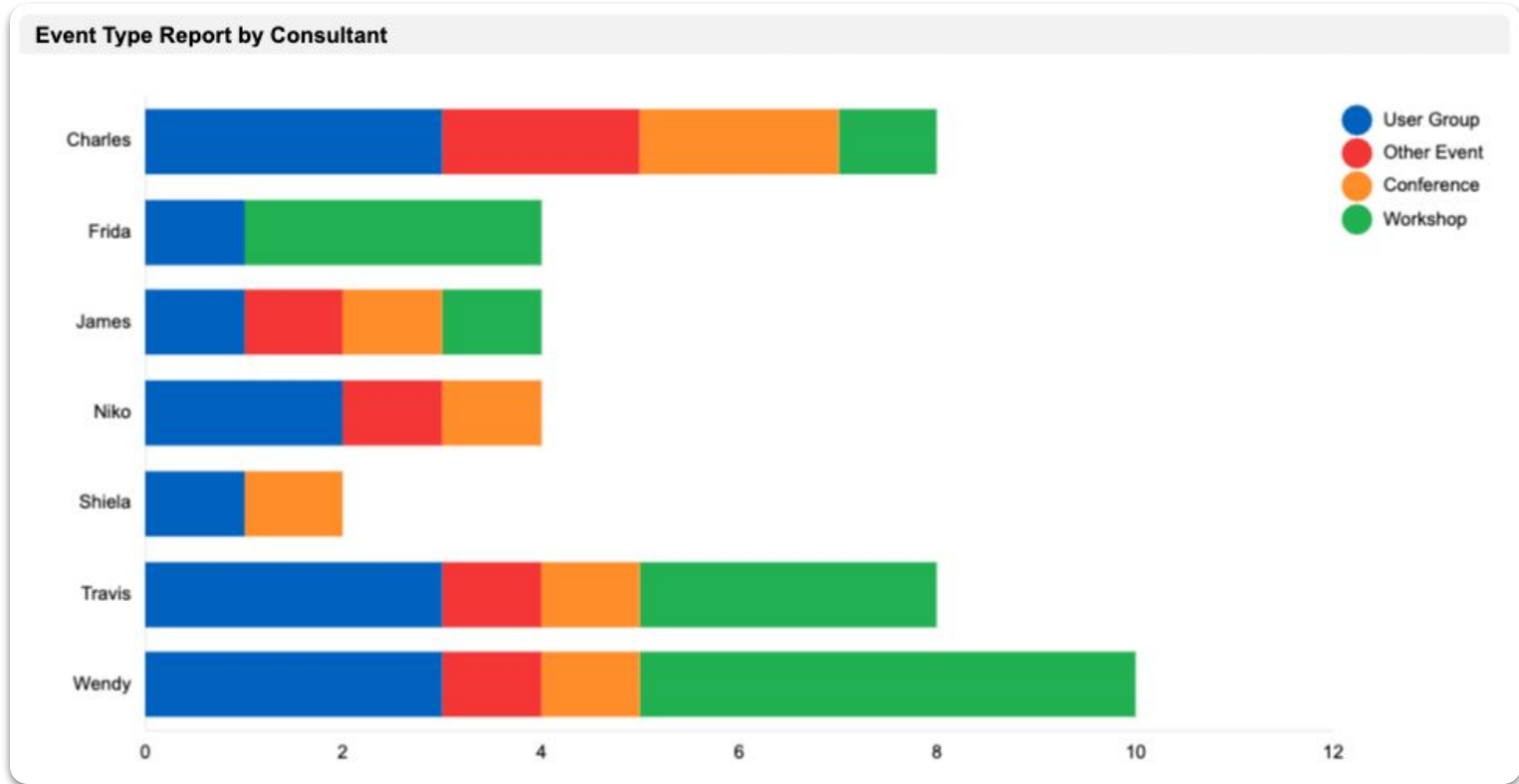


Cluster bars can work well when there are only two categories to compare.

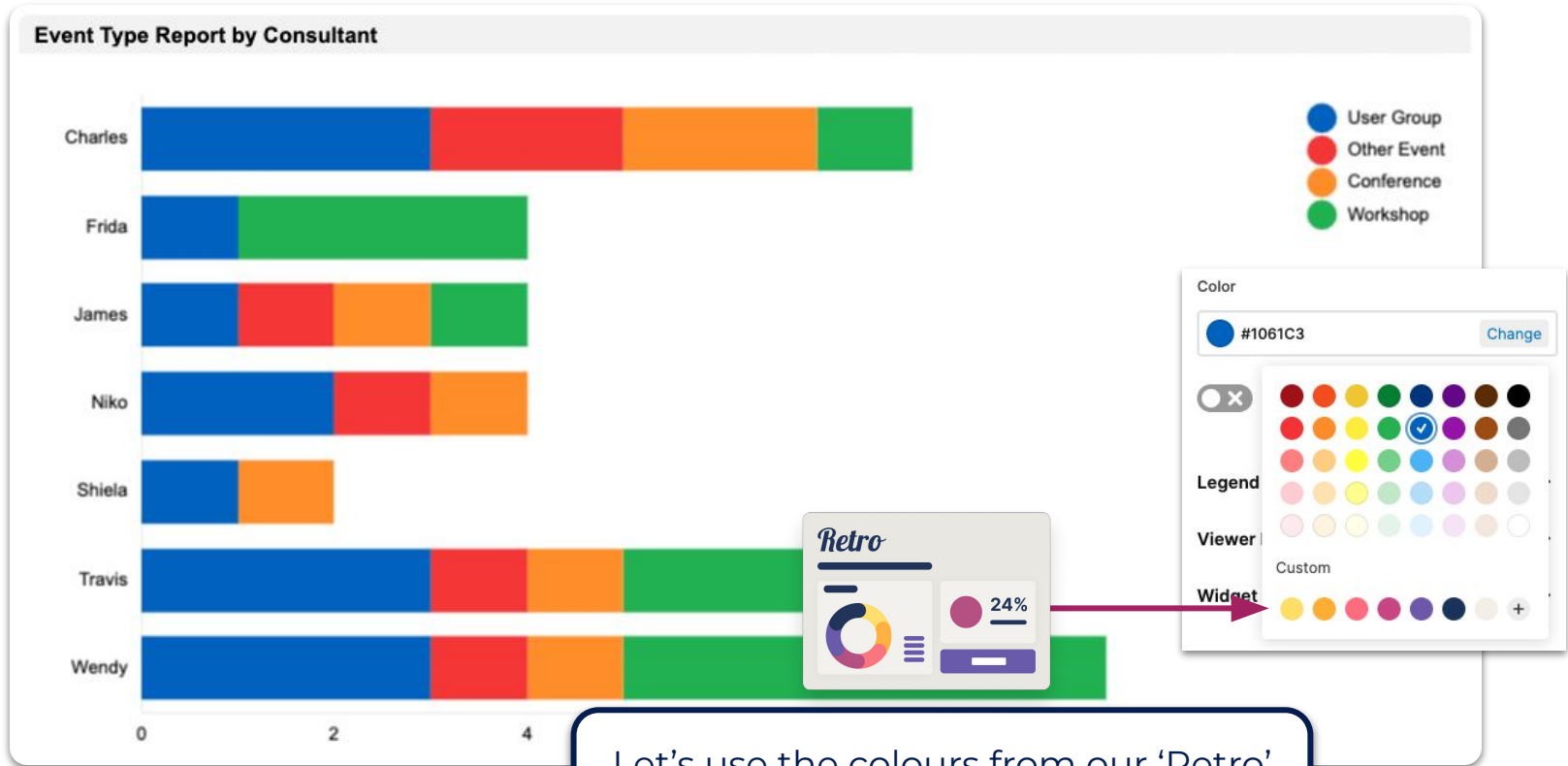
Cluster bar chart



Stacked bar chart

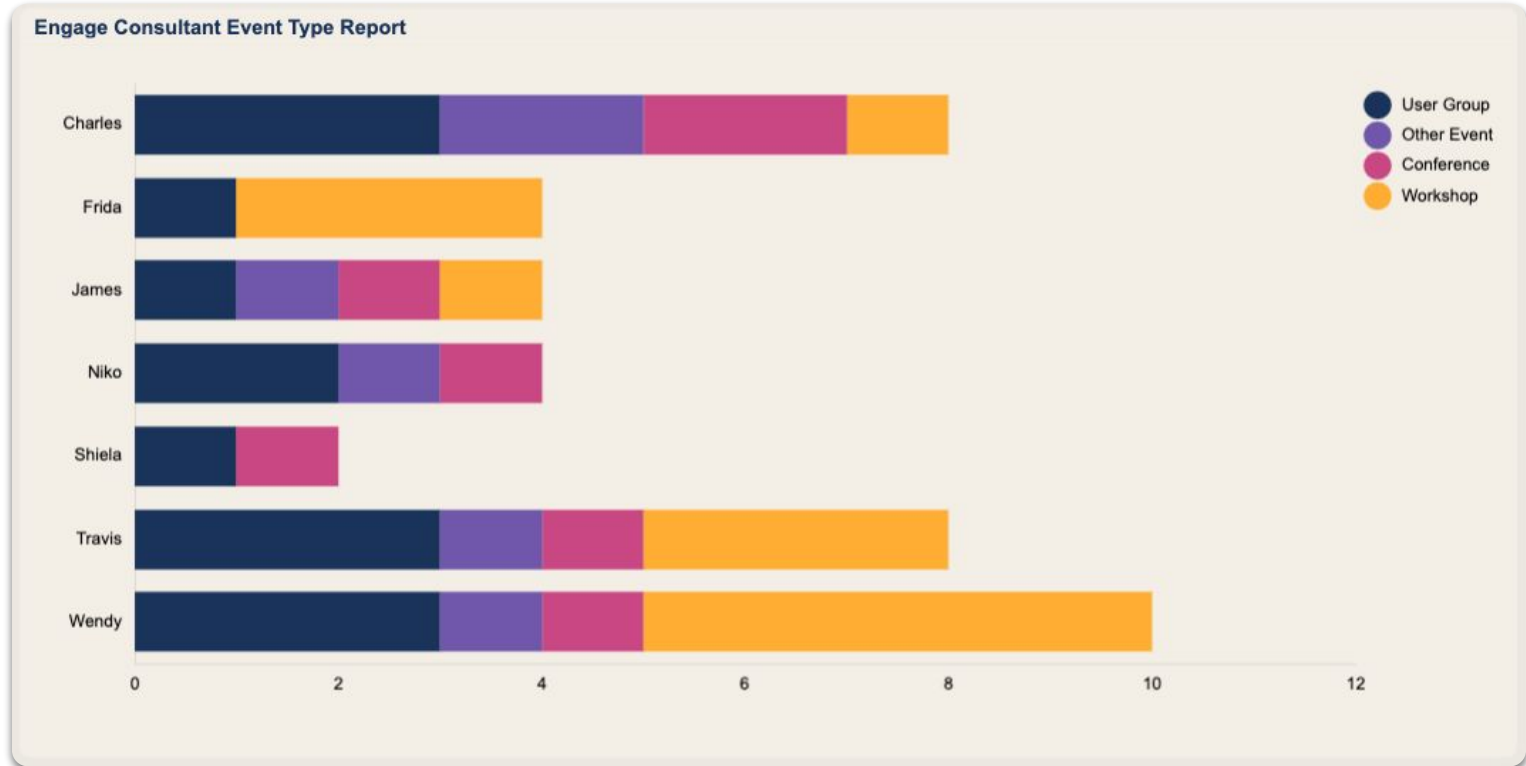


Stacked bar chart

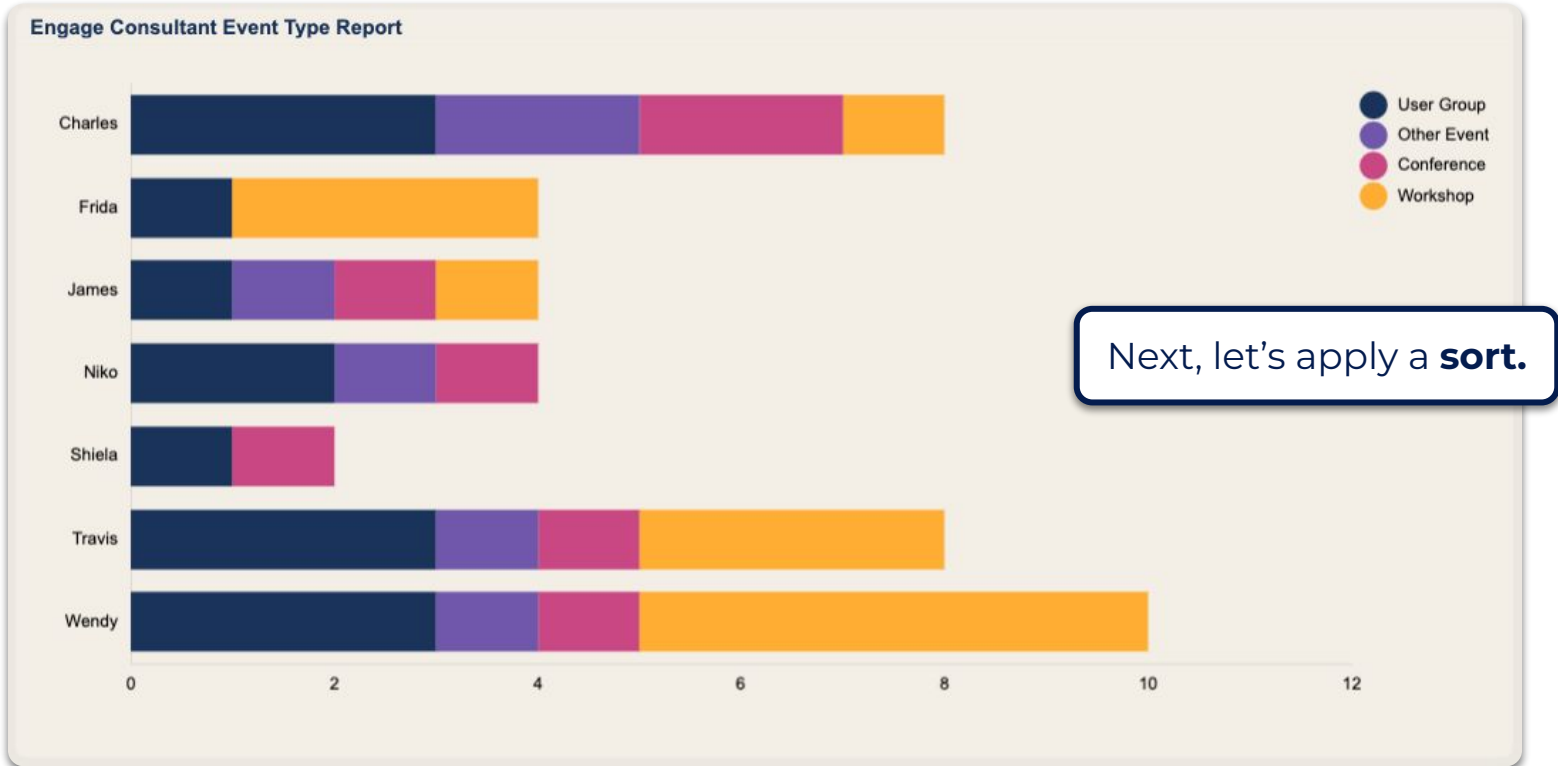


Let's use the colours from our 'Retro' palette again.

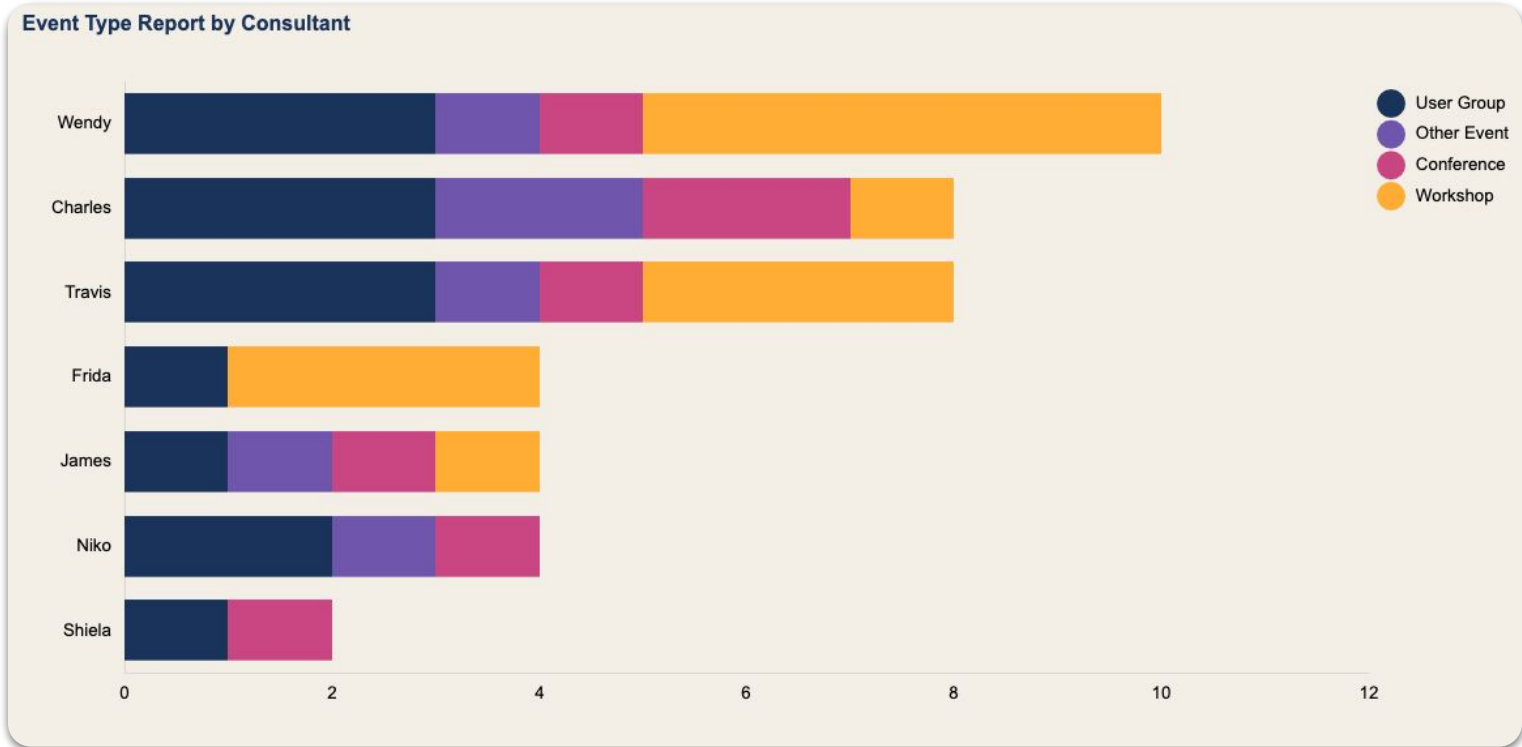
Stacked bar chart



Stacked bar chart



Stacked bar chart



To apply the sort to your chart...

Primary	User Group	Other Event	Conference	Workshop	Grand Total
Wendy	3	1	1	5	10
Charles	3	2	2	1	8
Travis	3	1	1	3	8
Frida	1	0	0	3	4
James	1	1	1	1	4
Niko	2	1	1	0	4
Shiela	1	0	1	0	2

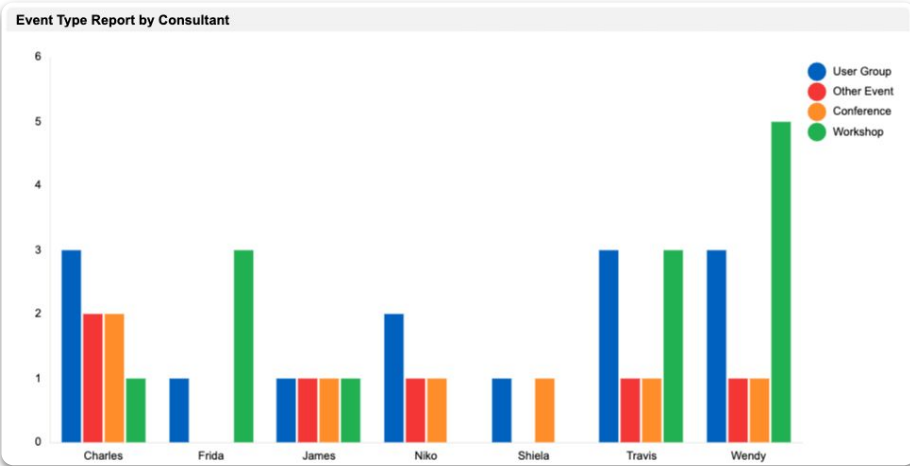
Create a '**Total**' column which you then use to **sort** in your report but isn't displayed on the chart.

Sort by

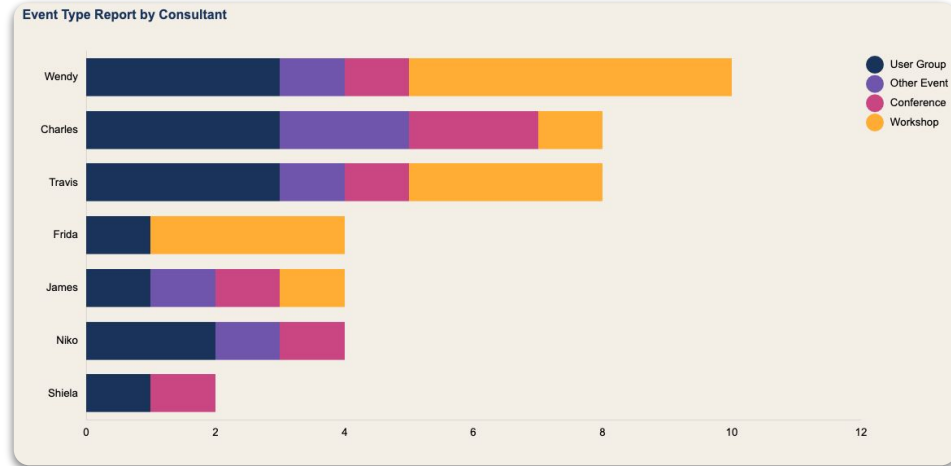
Grand Total ▼ Sort Descending ▼ ×

+ Sort by another column

Before

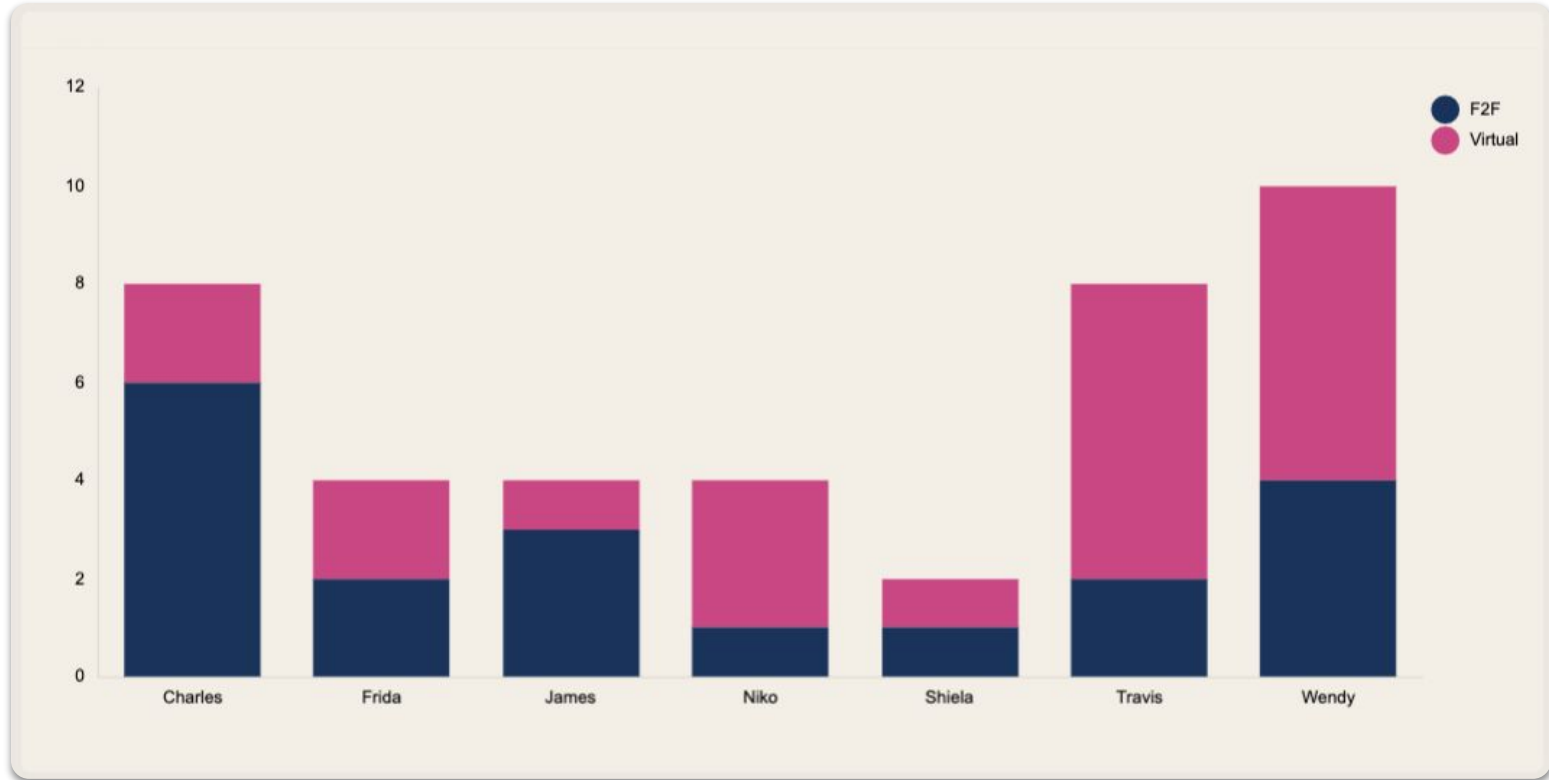


After

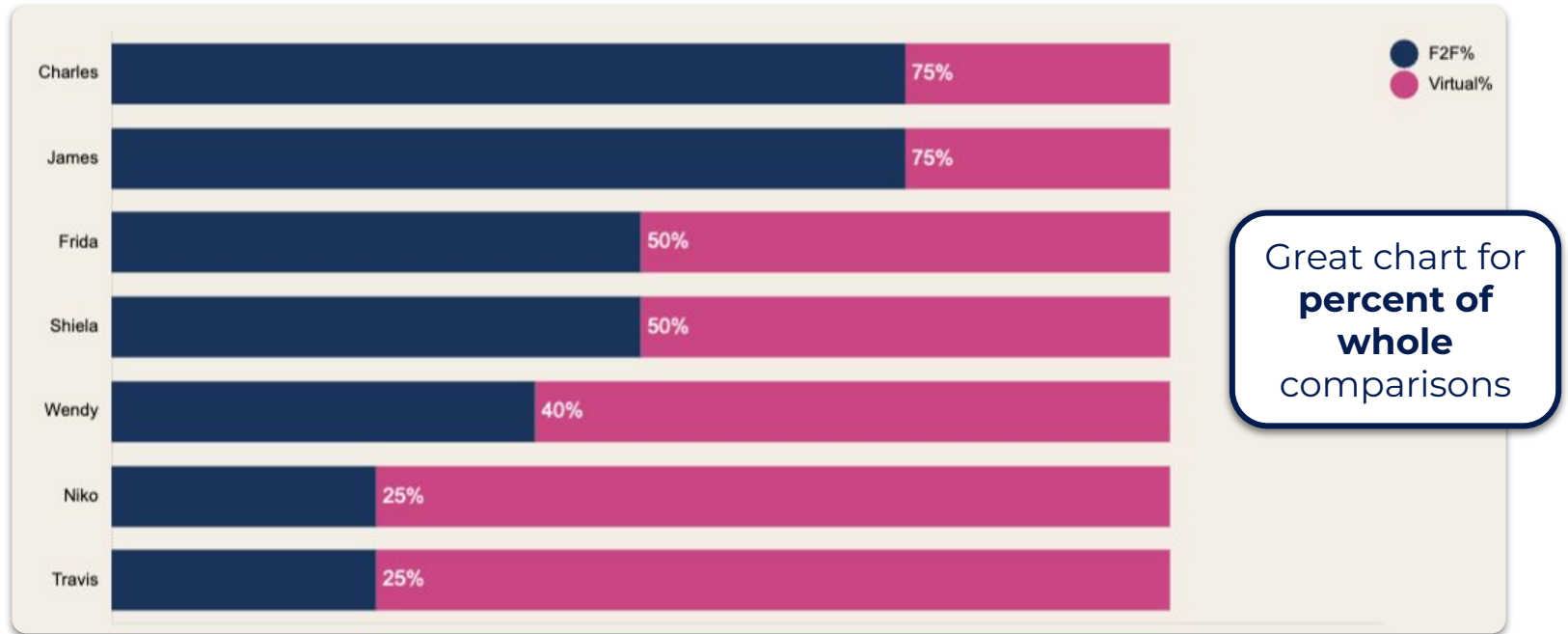


When you have more than two categories, it's recommended to use a stacked bar chart instead of a cluster bar chart.

Stacked bar chart with only two categories



BONUS CHART: 100% stacked bar chart

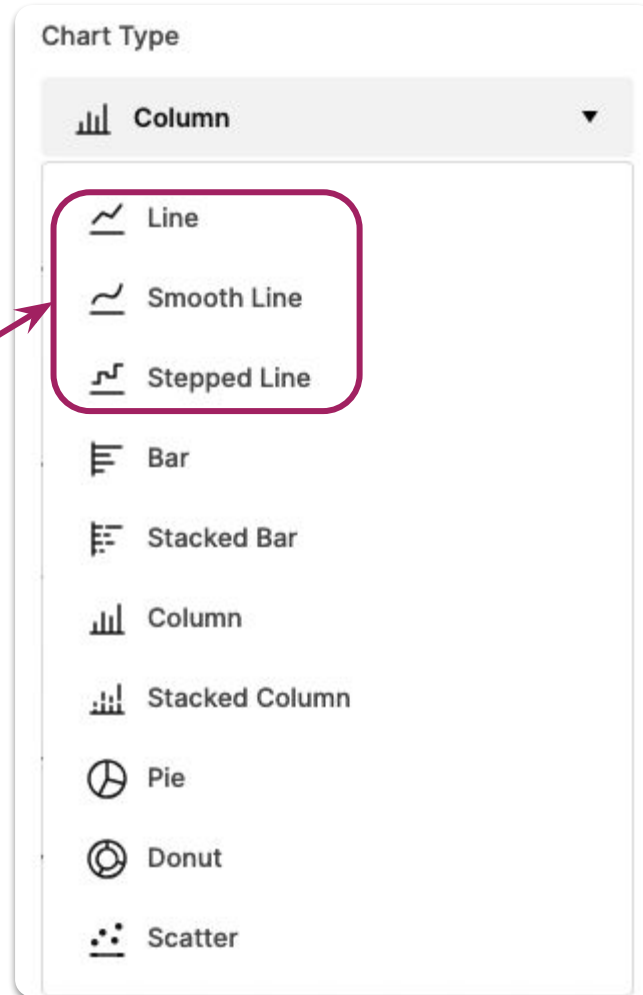


Bar chart summary

- **Direct comparisons** of values across categories are ideal
- **Simplicity** is best
- **Colour** should be used thoughtfully
- **Horizontal bars** make it easier to read labels

Line charts

We have three line chart types listed:
...**Line**,
Smooth, and
Stepped



Line charts: 'Line'

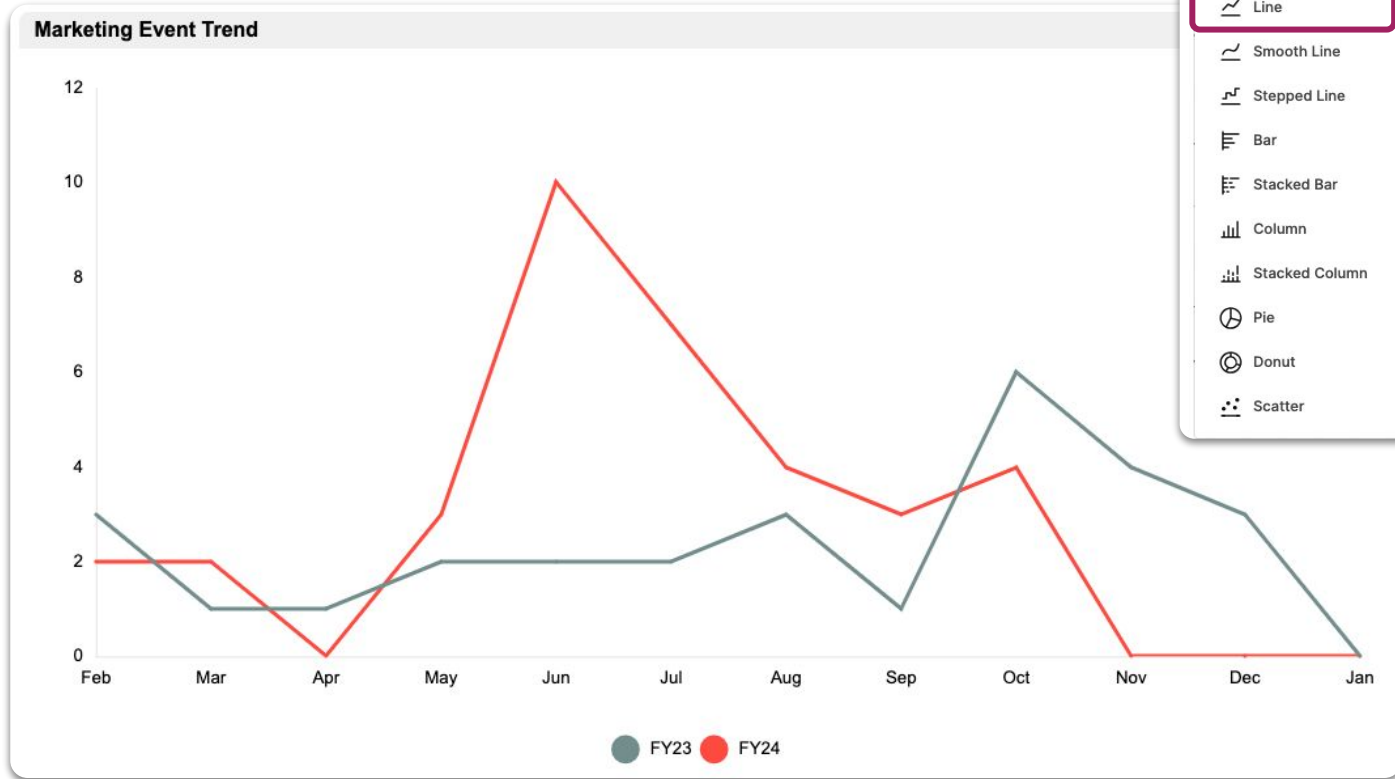


Chart Type

- Column
- Line**
- Smooth Line
- Stepped Line
- Bar
- Stacked Bar
- Column
- Stacked Column
- Pie
- Donut
- Scatter

Line charts: 'Smooth line'

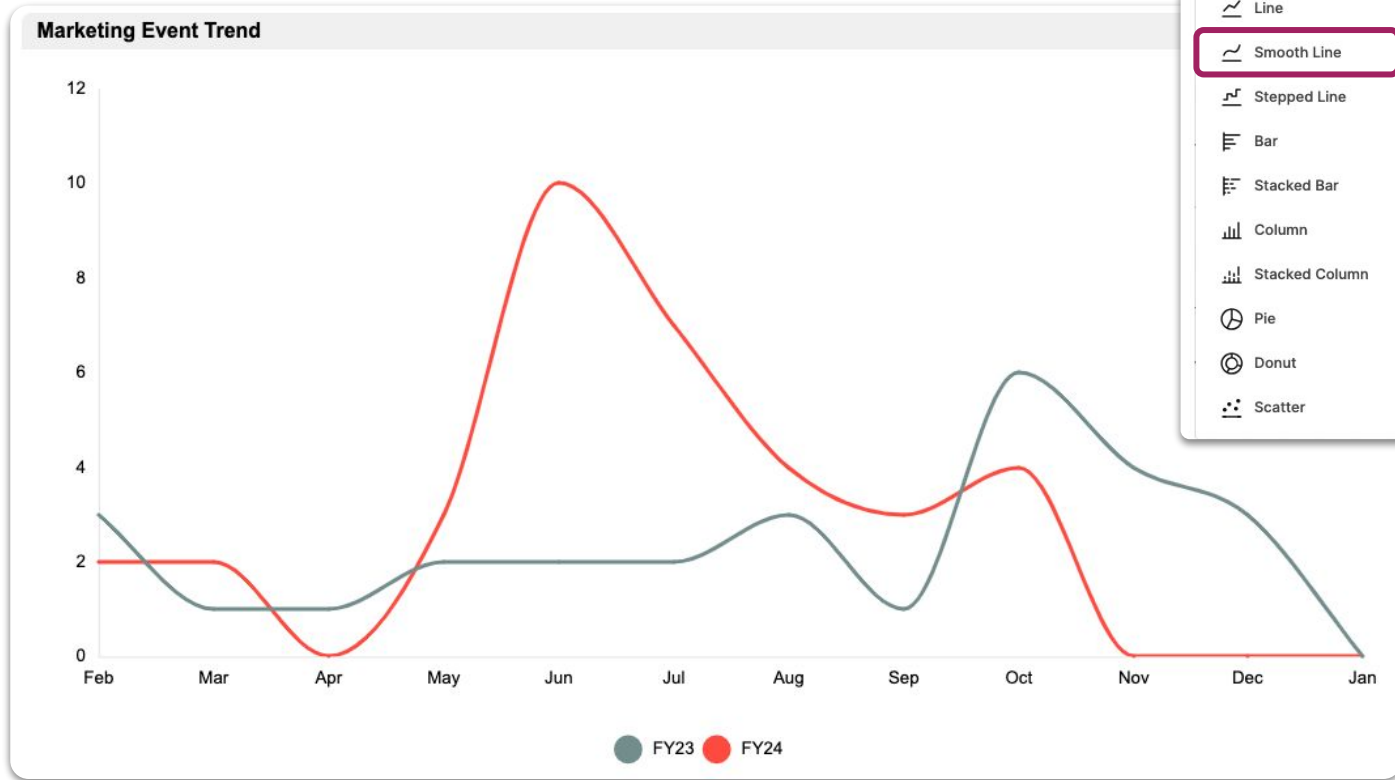
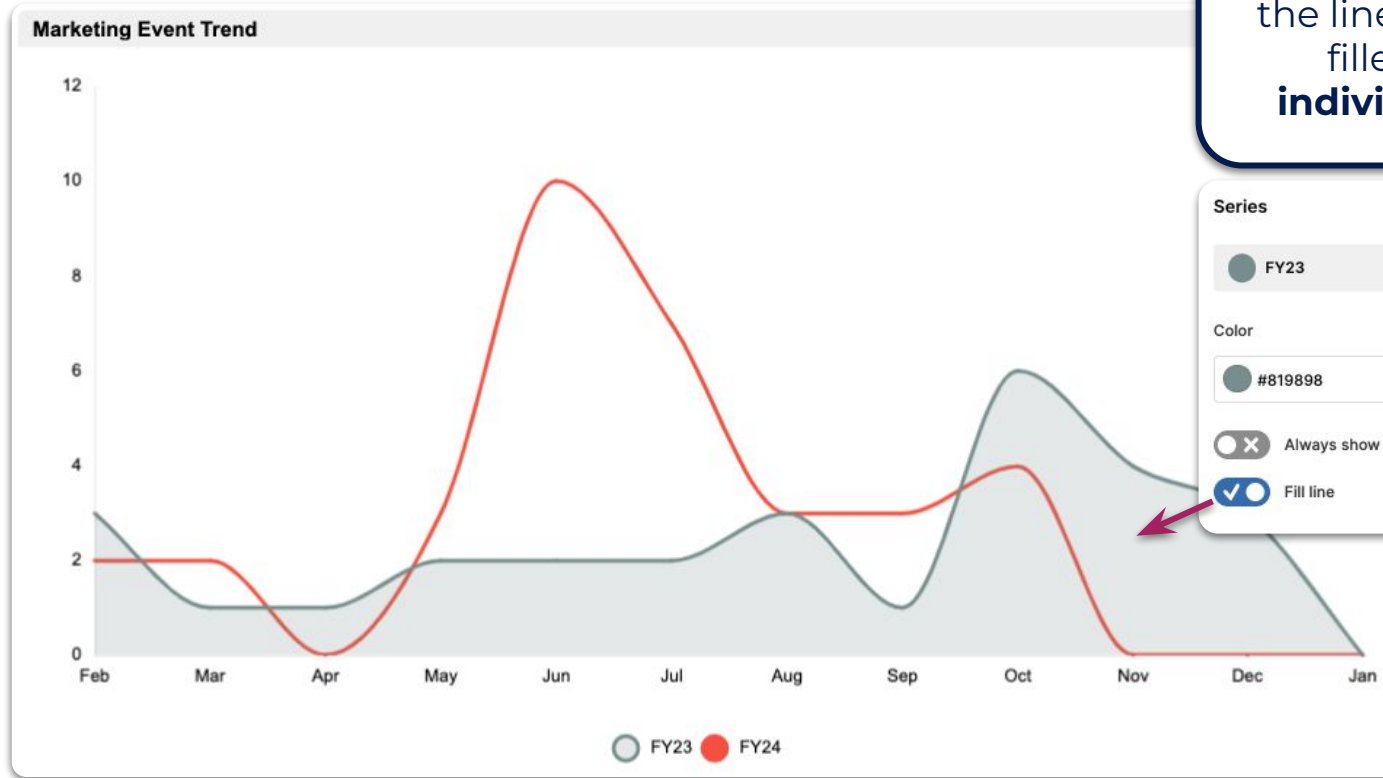


Chart Type

- Column
- Line
- Smooth Line**
- Stepped Line
- Bar
- Stacked Bar
- Column
- Stacked Column
- Pie
- Donut
- Scatter

Line charts: 'Smooth line'



The **area** under the line can be filled in **individually**.

Series

FY23

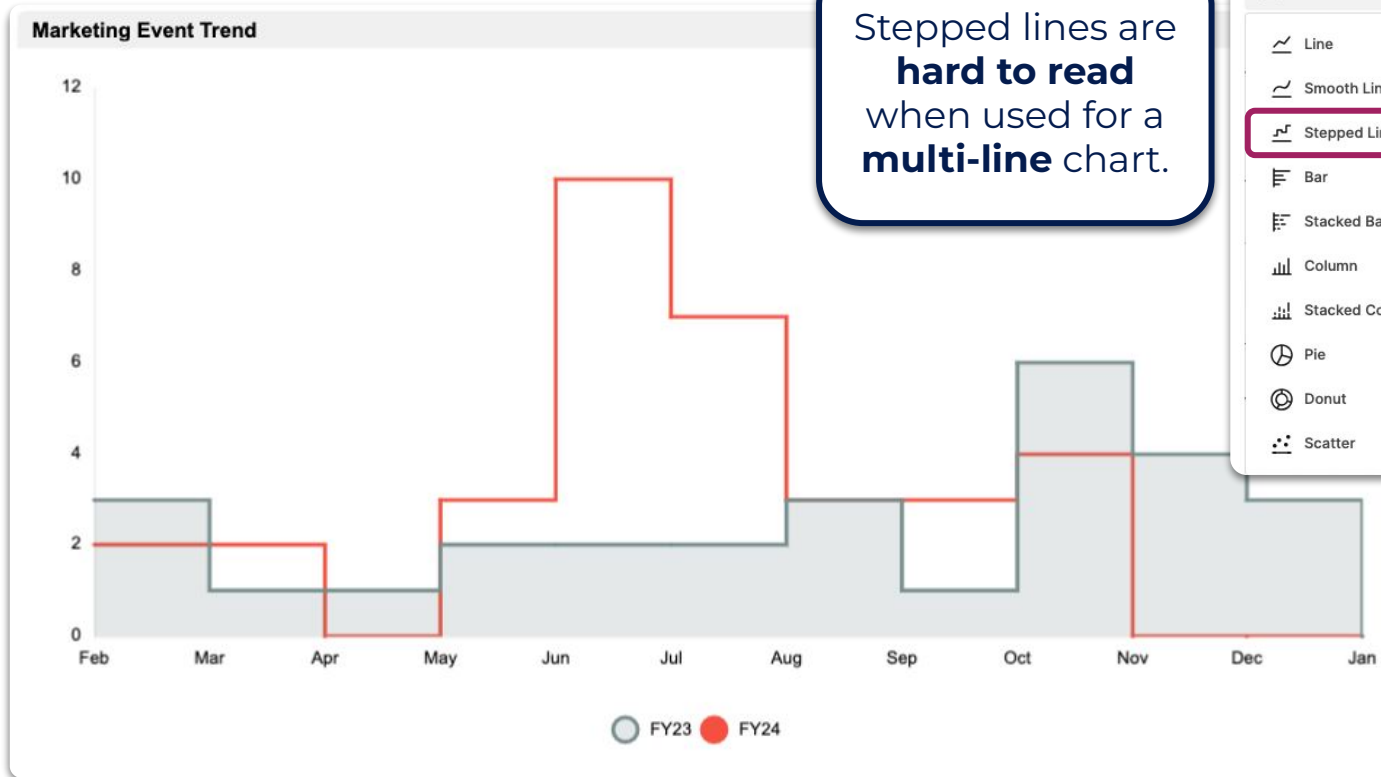
Color

#819898 [Change](#)

Always show value label

Fill line

Line charts: 'Stepped line'

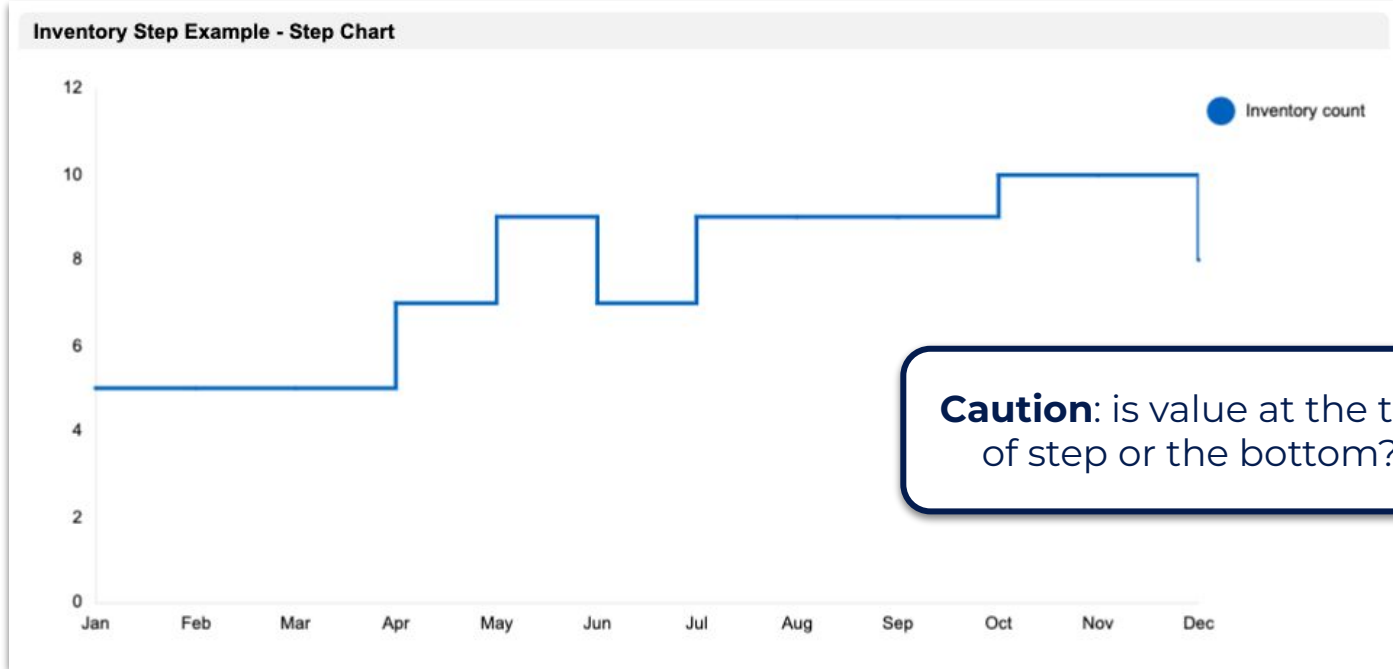


Stepped lines are **hard to read** when used for a **multi-line** chart.

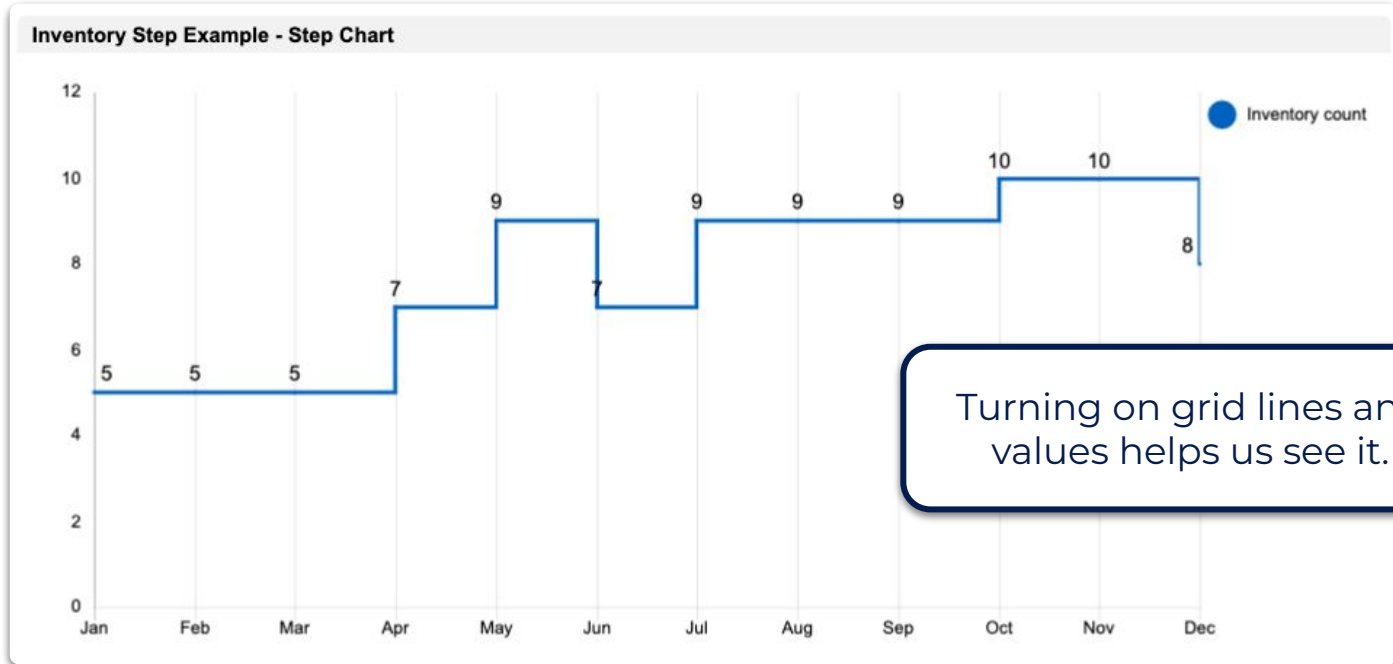
Chart Type

- Column
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- Scatter

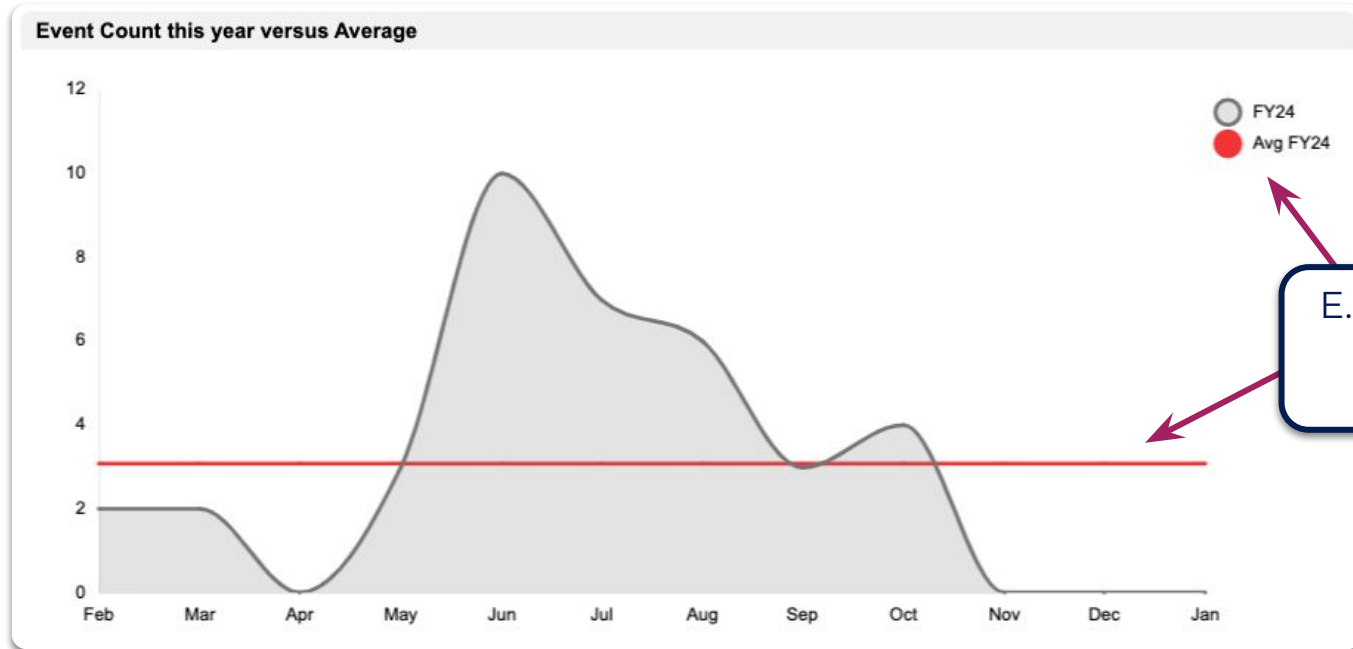
Line charts: 'Inventory example - stepped line'



Line charts: 'Inventory example - stepped line'



BONUS CHART: Chart with reference lines



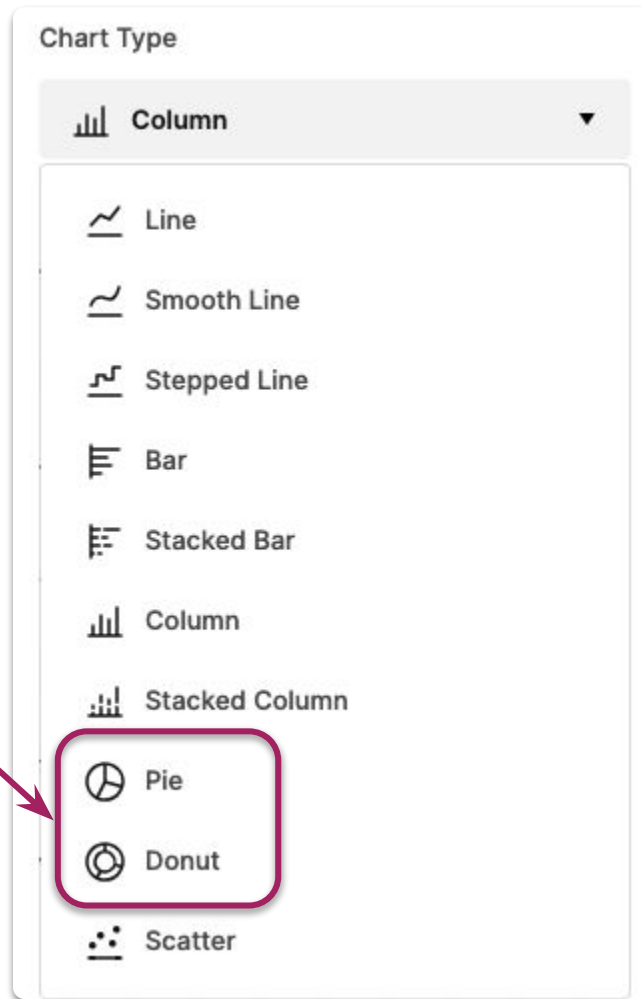
E.g. Compare
against
Average

Line chart summary

- Use to visualise **trends** when you have data containing **dates**
- Utilise to show **changes over time**
- Avoid **too many lines**, since they're harder to read
- Avoid “rainbow lines” and **use colour mindfully**

Pie charts

These are
both pie
charts...



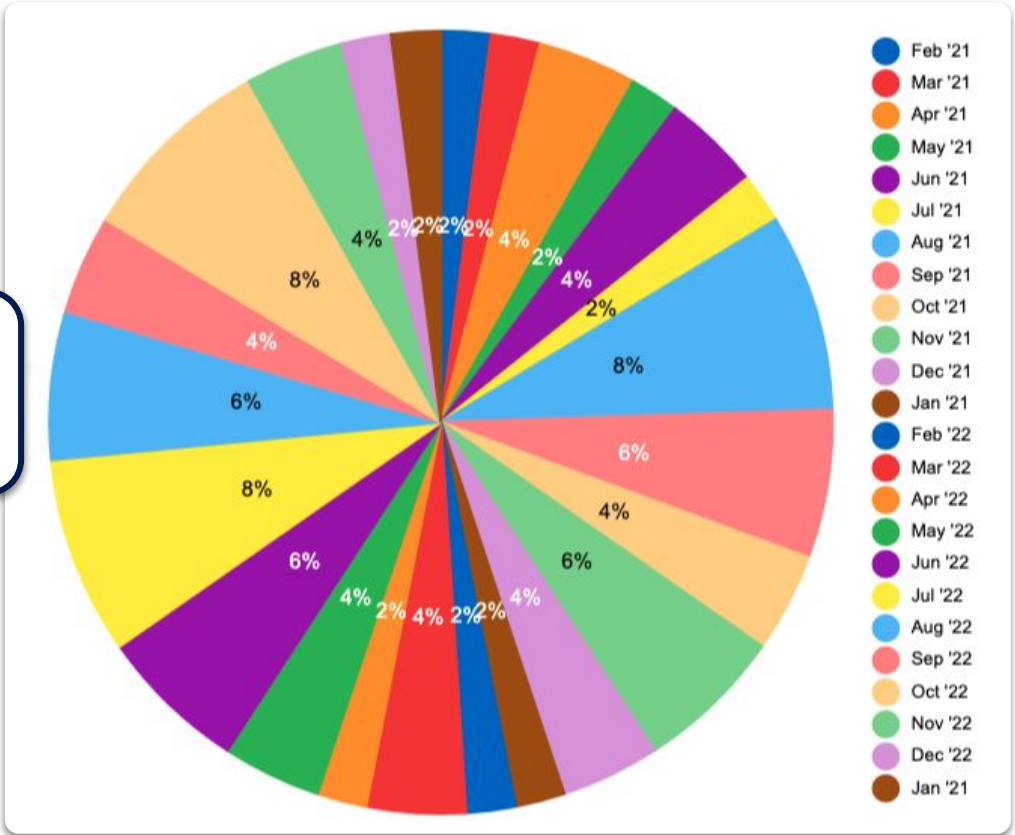
Pie charts

Warning! Pie charts have a bad reputation!

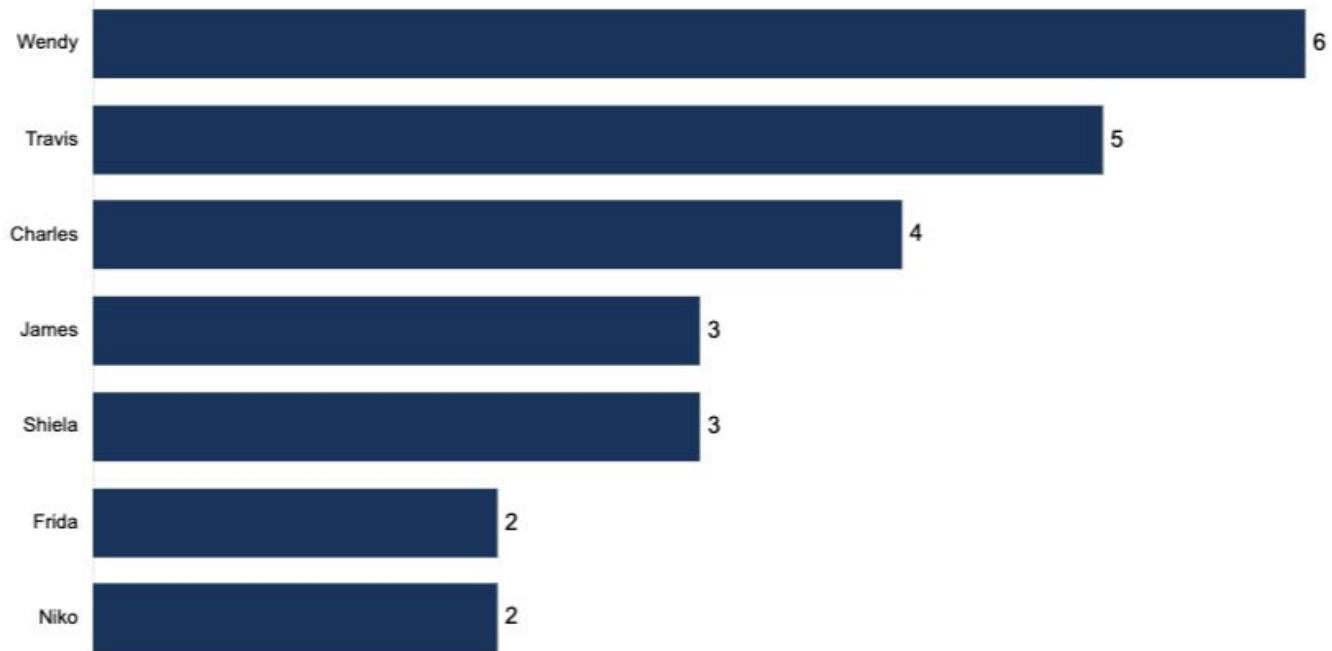


Pie charts

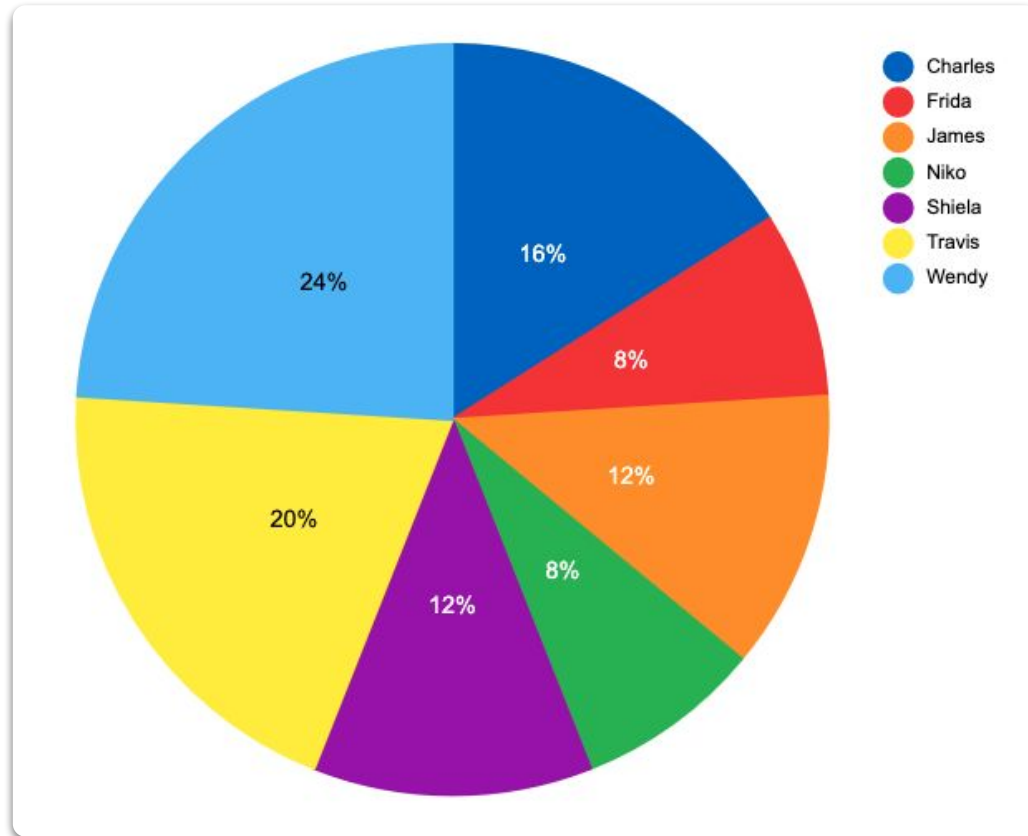
Pie charts have a **bad reputation** for good reason!!



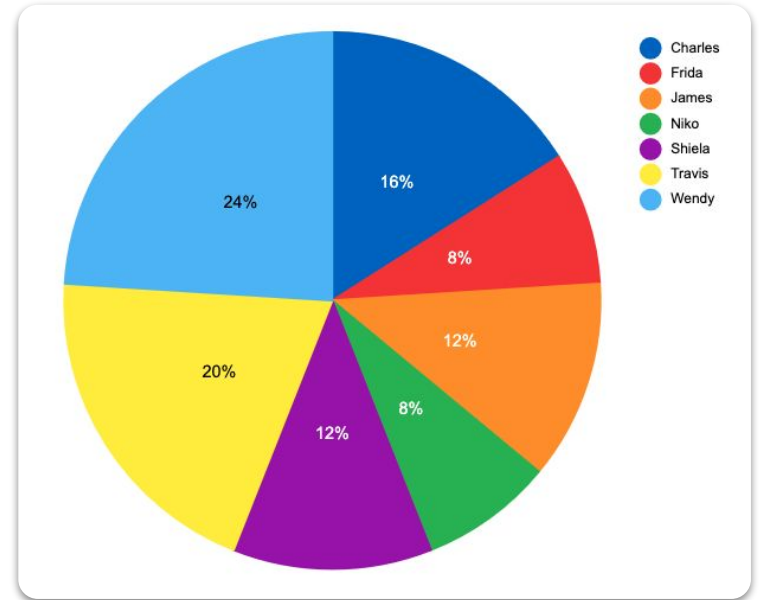
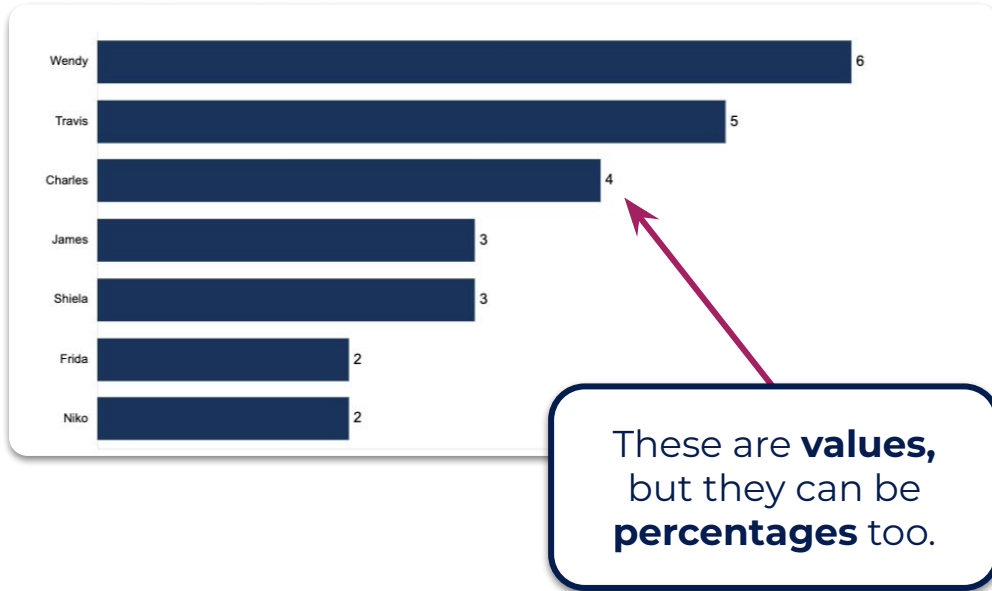
Number of Completed Events by Consultant FY24



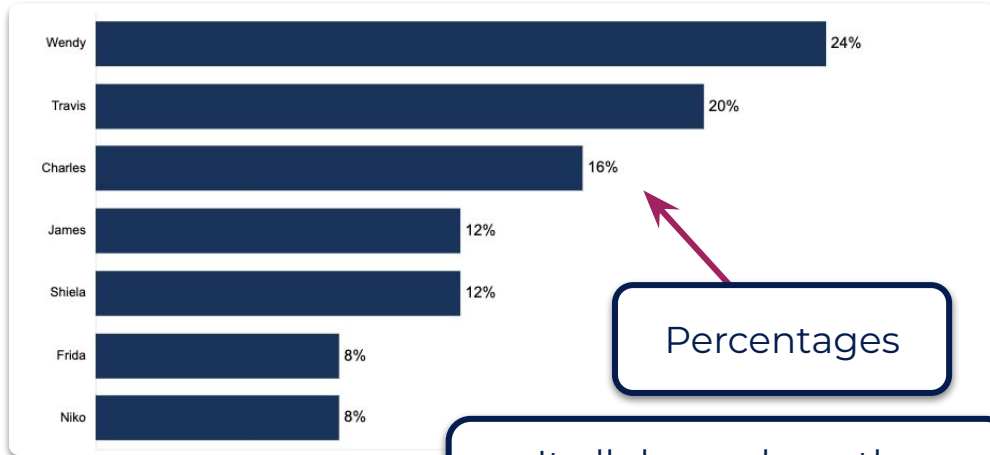
Pie charts



Pie charts

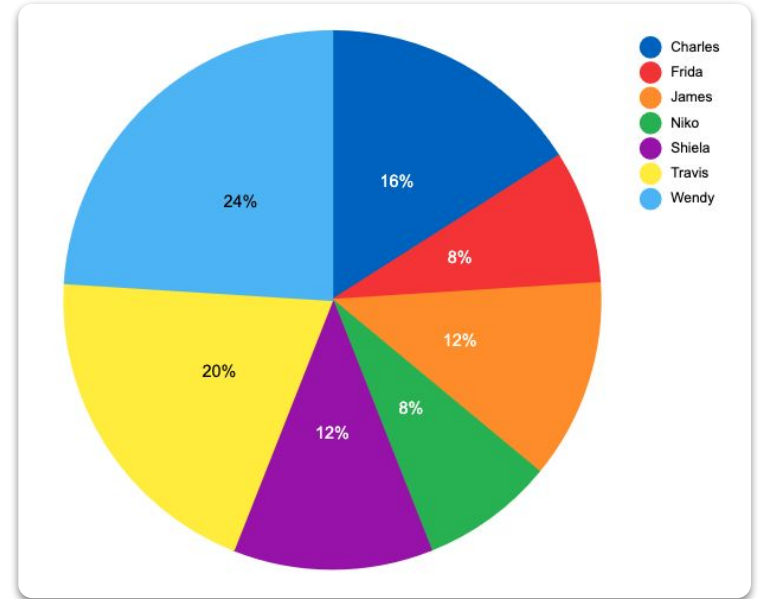


Pie charts



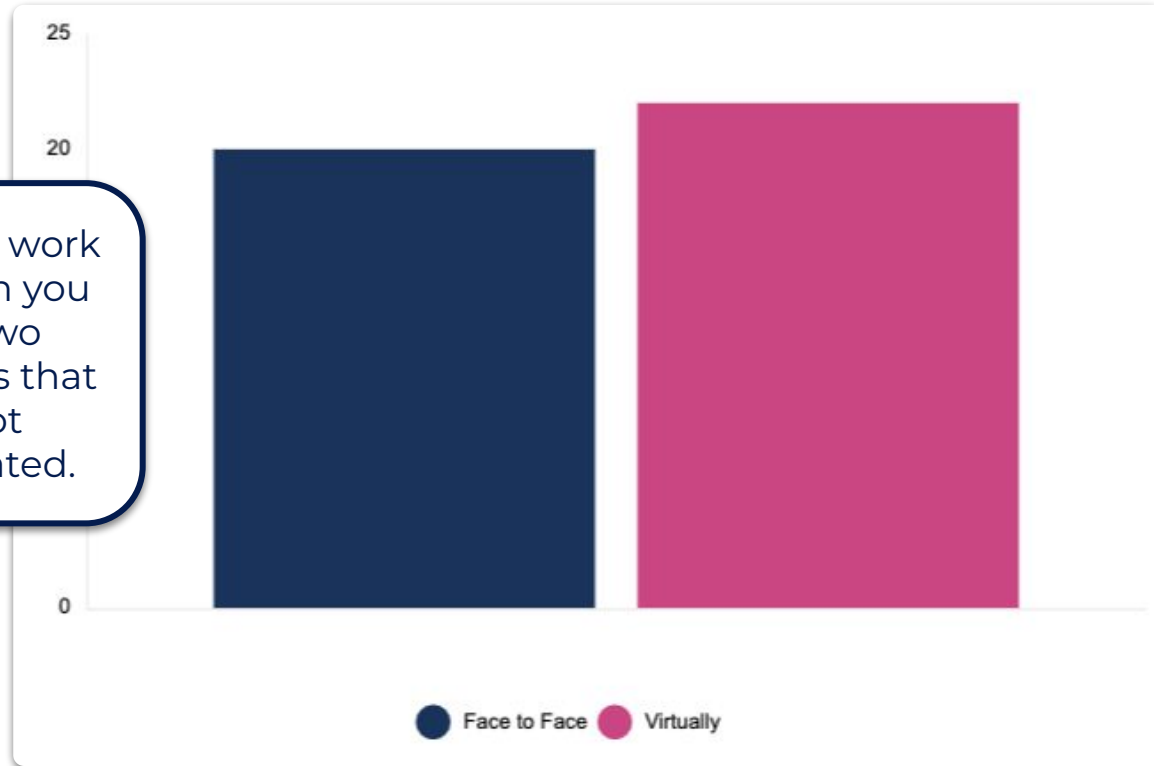
Percentages

It all depends on the question being answered.



So when can you use pie charts?

Pie charts work well when you have two categories that are not date-related.



Make **horizontal** but beware of **axis scale change**...

- Face to Face
- Virtually



19.5 20 20.5 21 21.5 22 22.5

Horizontal Axis

Enter axis title

Title Styling

Arial

12

B

I

A

Axis Label Styling

Arial

10

B

I

A

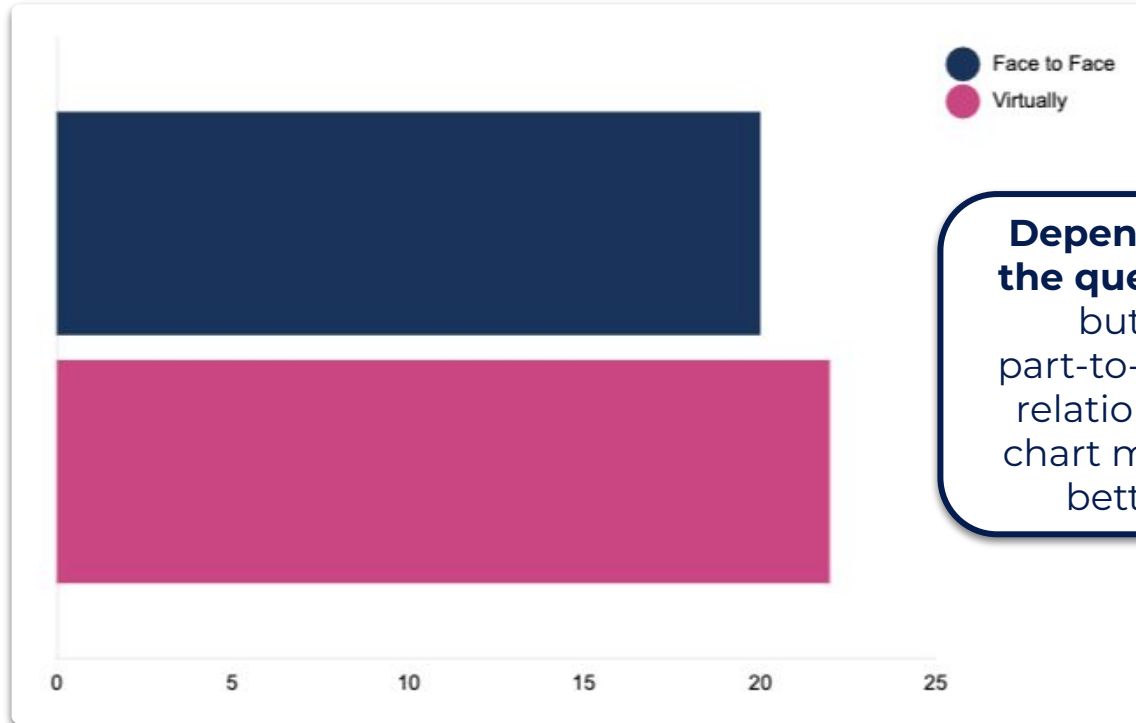


Show tick mark lines



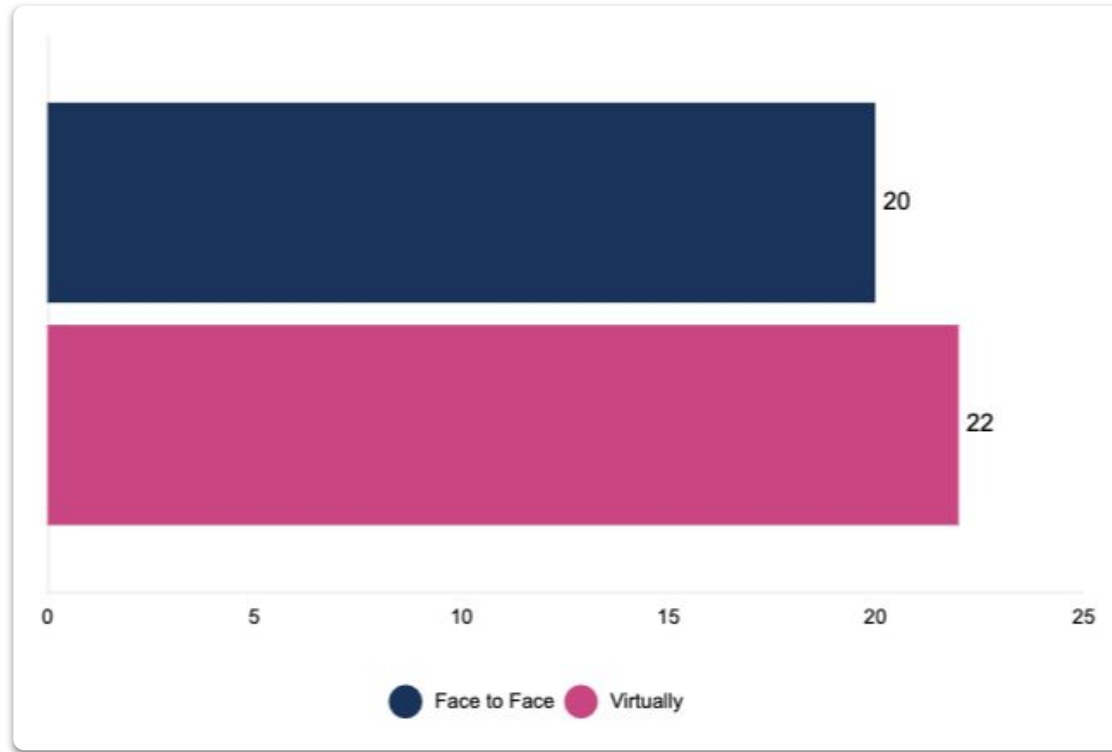
Scale to data values

Fixed scaling... but it's still not necessarily better

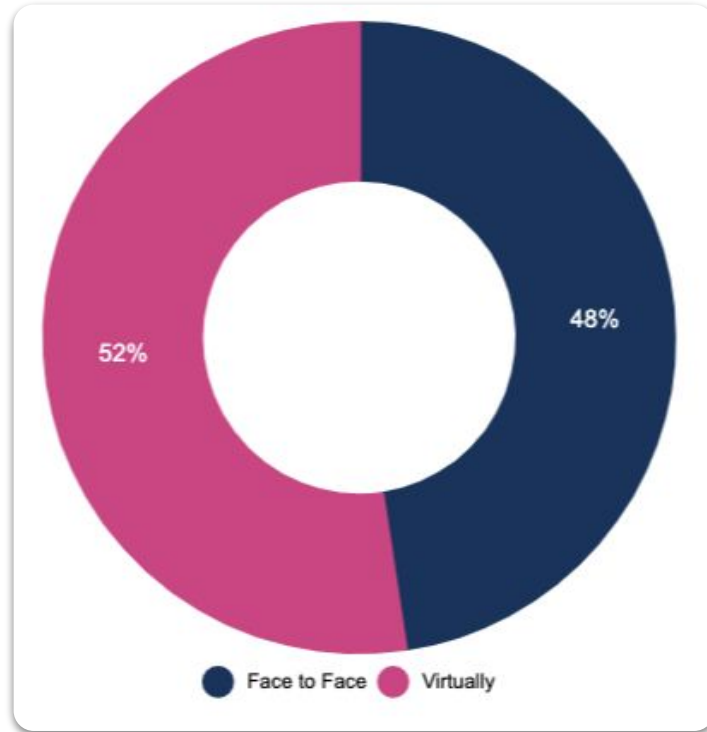


Depends on the question,
but a
part-to-whole
relationship
chart may be
better.

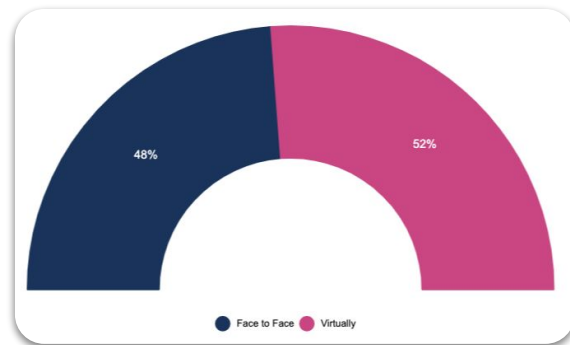
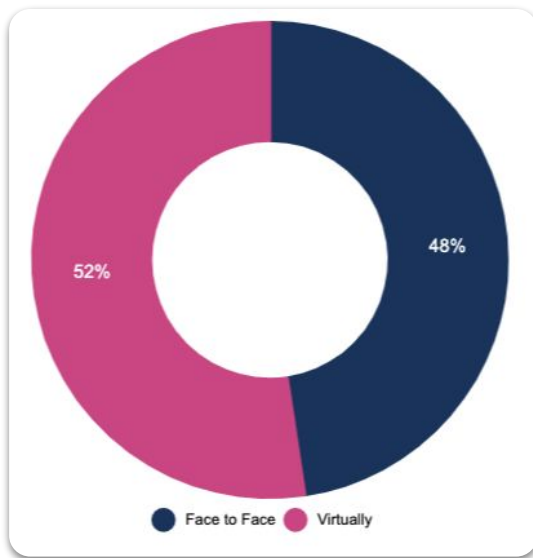
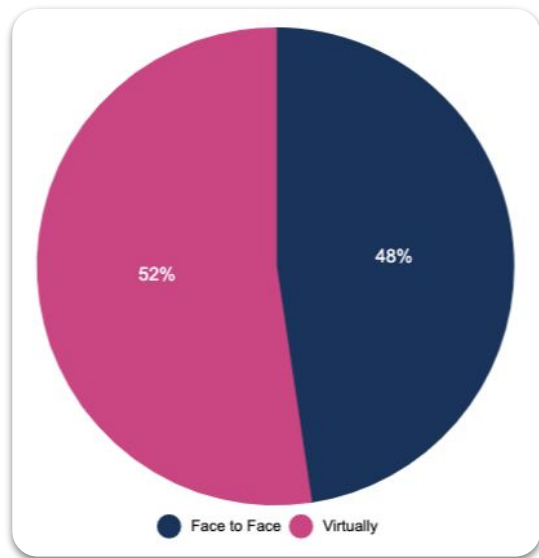
How many events are face-to-face vs virtual?



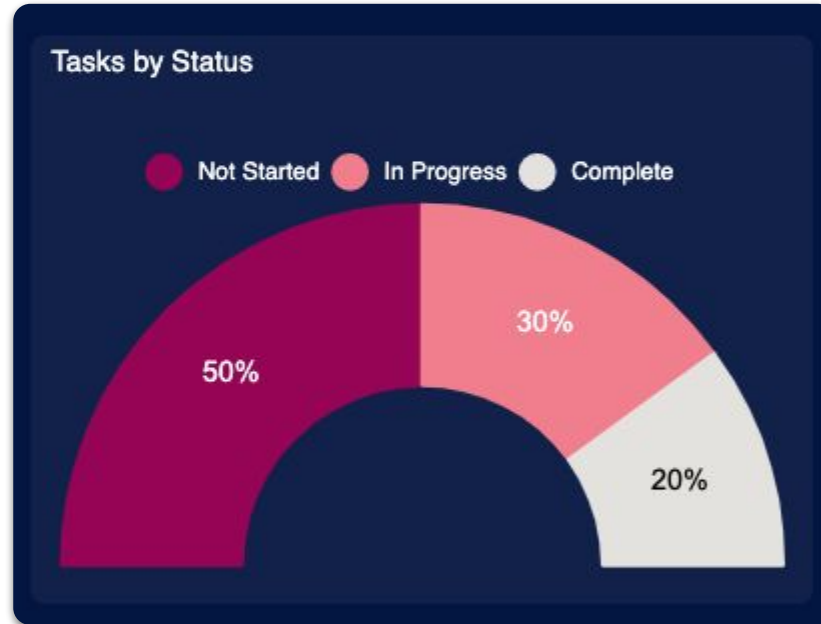
What proportion of events are held face-to-face?



Where pie charts can work is if it's just 2 to 3 categories



Where pie charts can work is if it's just 2 to 3 categories



Pie chart summary

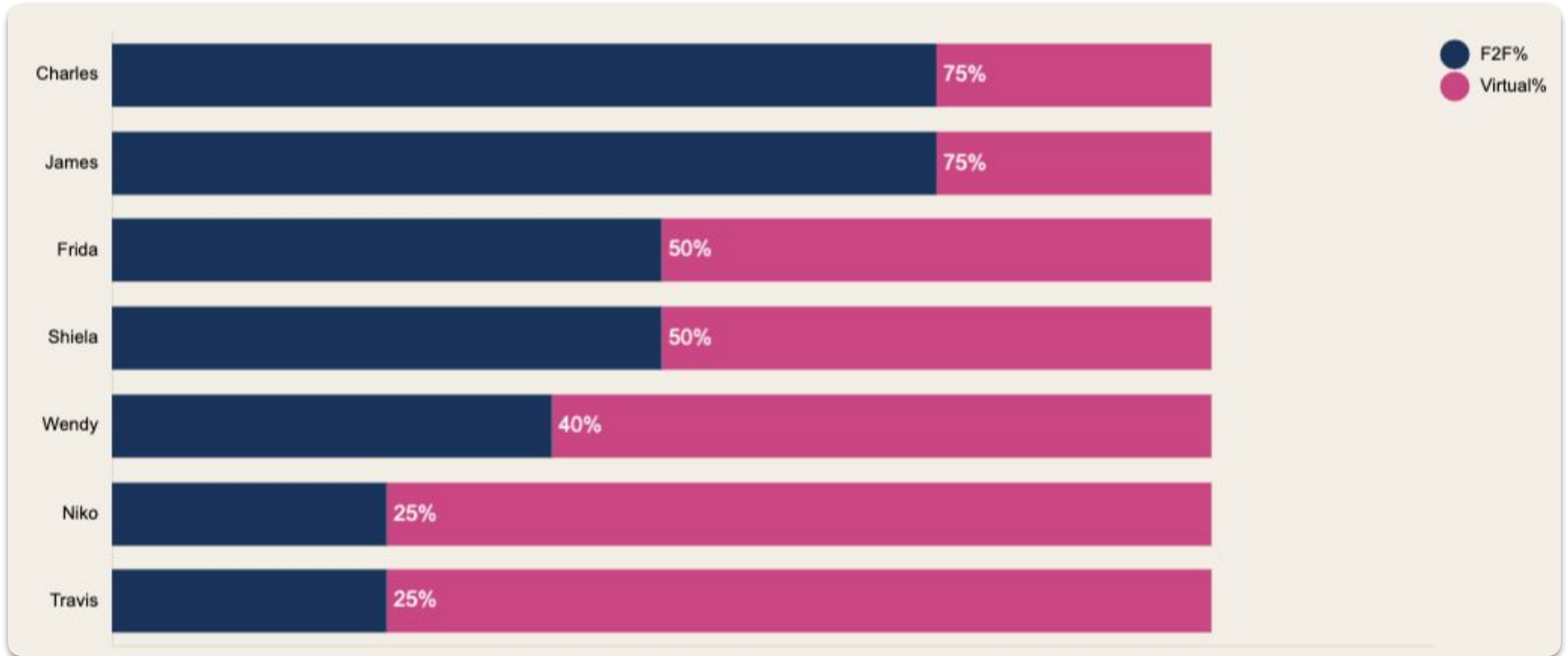
- Used for showing **part-to-whole** relationships.
- It's best to **limit to two to three** categories only.
- If **more than three categories**, then consider using a **bar chart** instead.



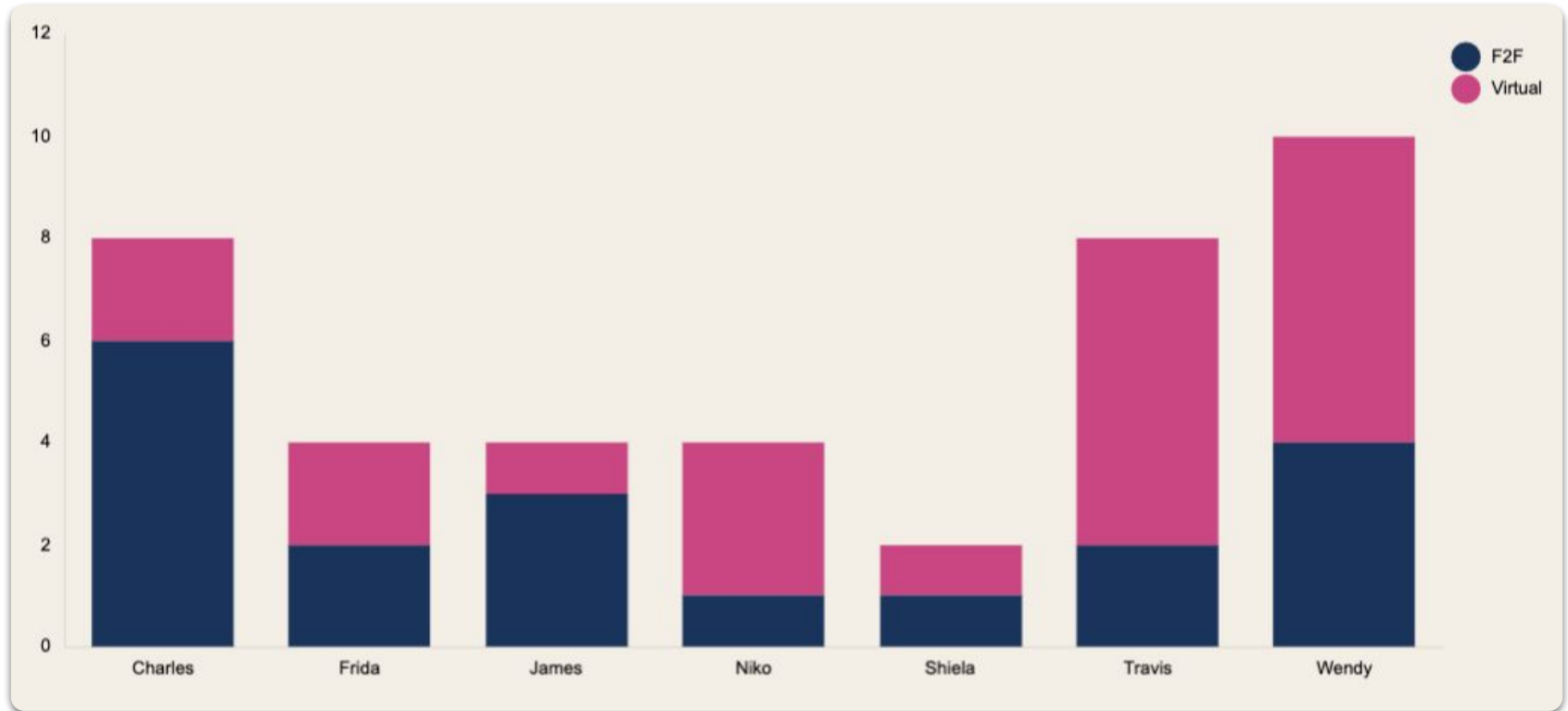
Bonus charts

How to build them

BONUS 1: 100% stacked bar chart



Started originally with this bar chart...



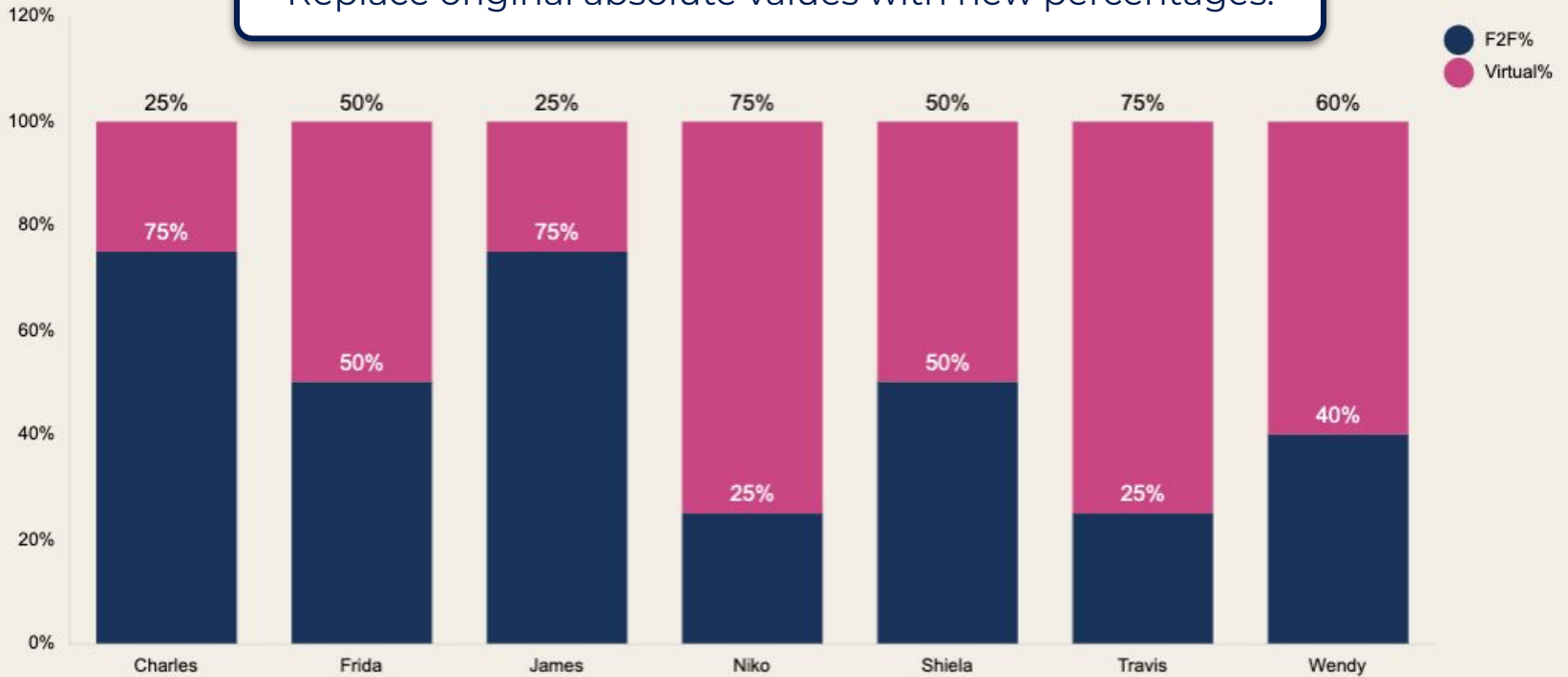
Let's go back to the metric sheet.

Original columns

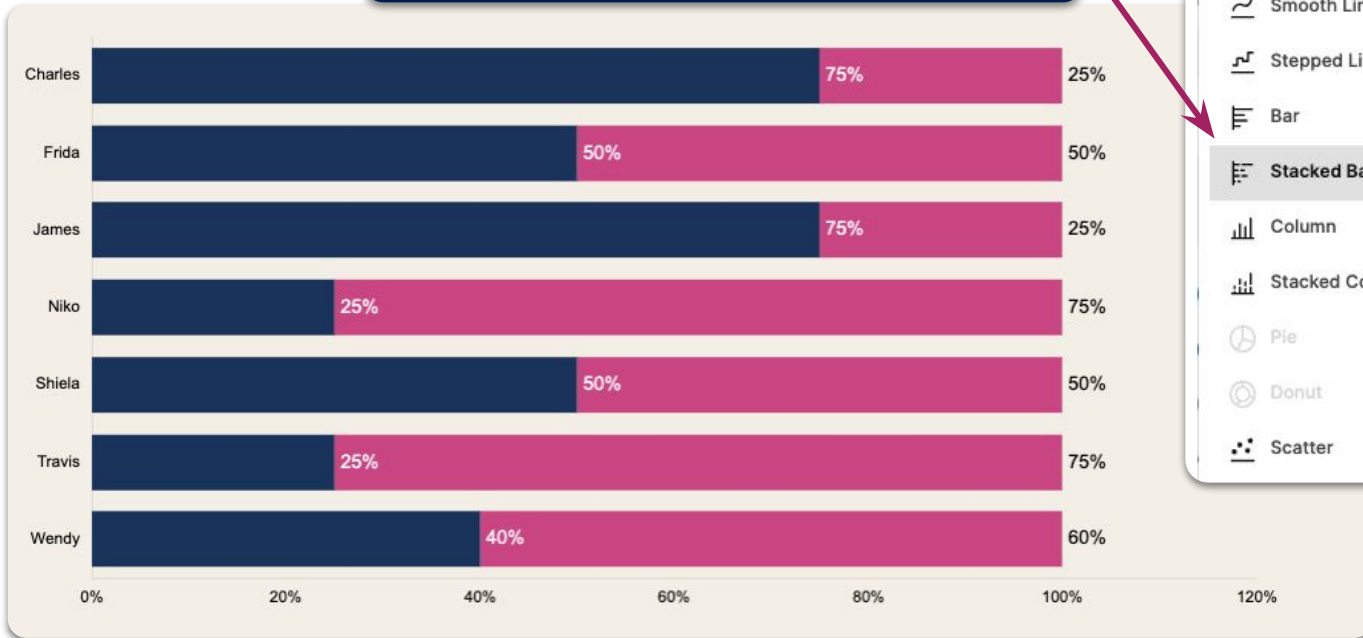
Name	Face to Face	Virtually	F2F%	Virtual%
Charles	6	2	75%	25%
Frida	2	2	50%	50%
James	3	1	75%	25%
Niko	1	3	25%	75%
Shiela	1	2	50%	50%
Travis	3	6	25%	75%
Wendy	4	6	40%	60%
Total	20	22		

Add two new columns

Replace original absolute values with new percentages.

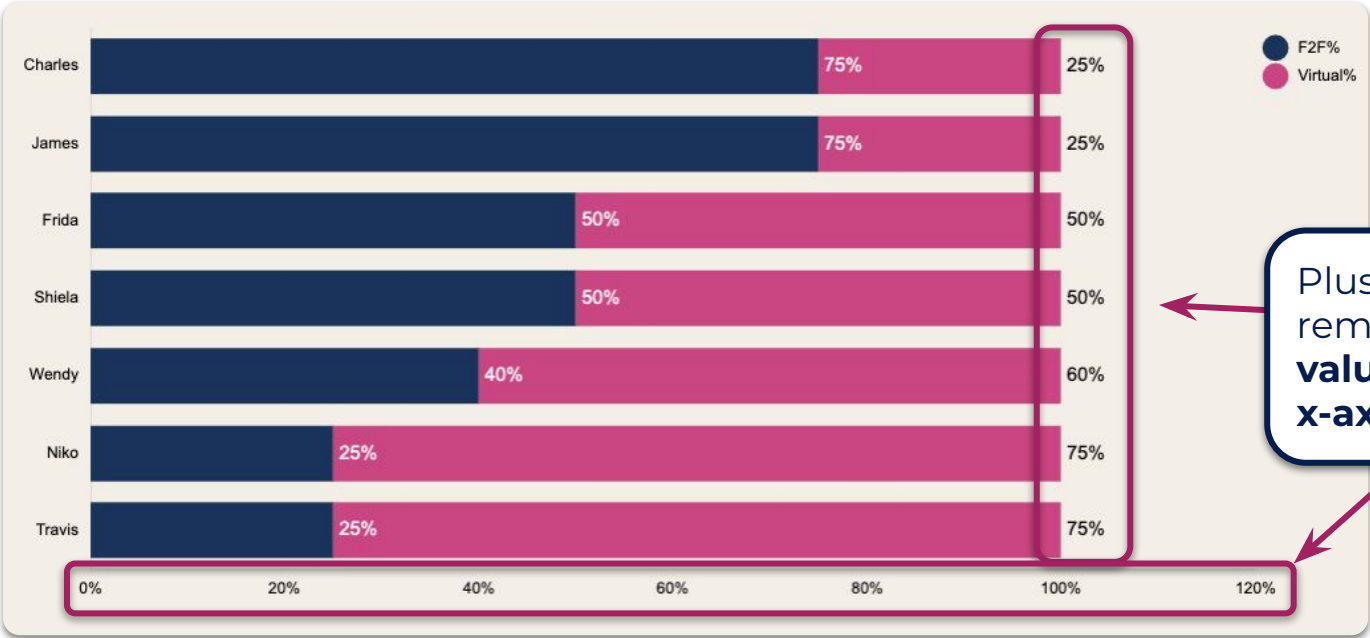


Change to horizontal stacked bar



- Line
- Smooth Line
- Stepped Line
- Bar
- Stacked Bar**
- Column
- Stacked Column
- Pie
- Donut
- Scatter

Sort...



Plus we can remove these **values** and **x-axis labels**.



Turn off values for second segment.

Series

Virtual%

Color

#C24684 [Change](#)

Always show value label

Horizontal Axis

Enter axis title

Title Styling

Arial 12

B **I** **A**

Axis Label Styling

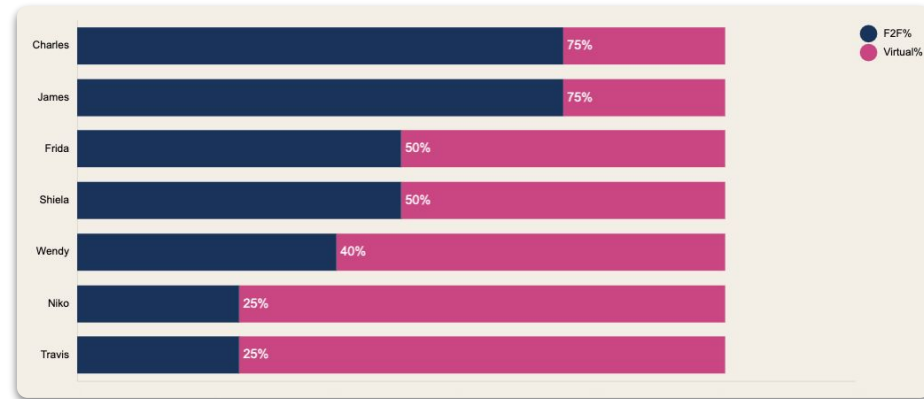
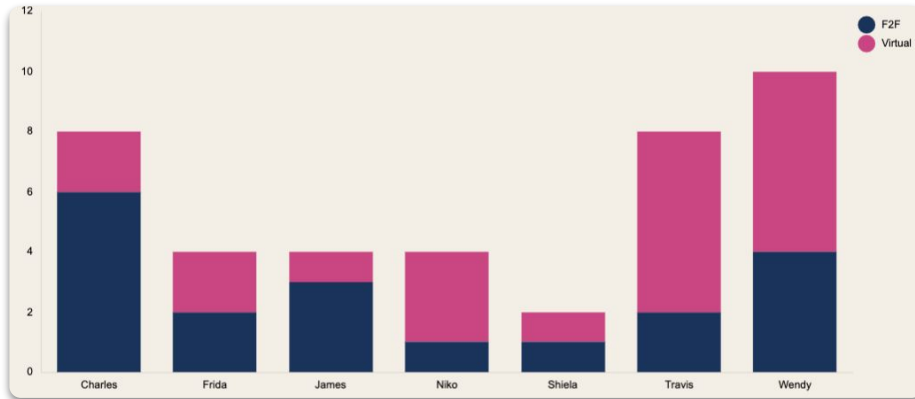
Arial 10

B **I** **A**

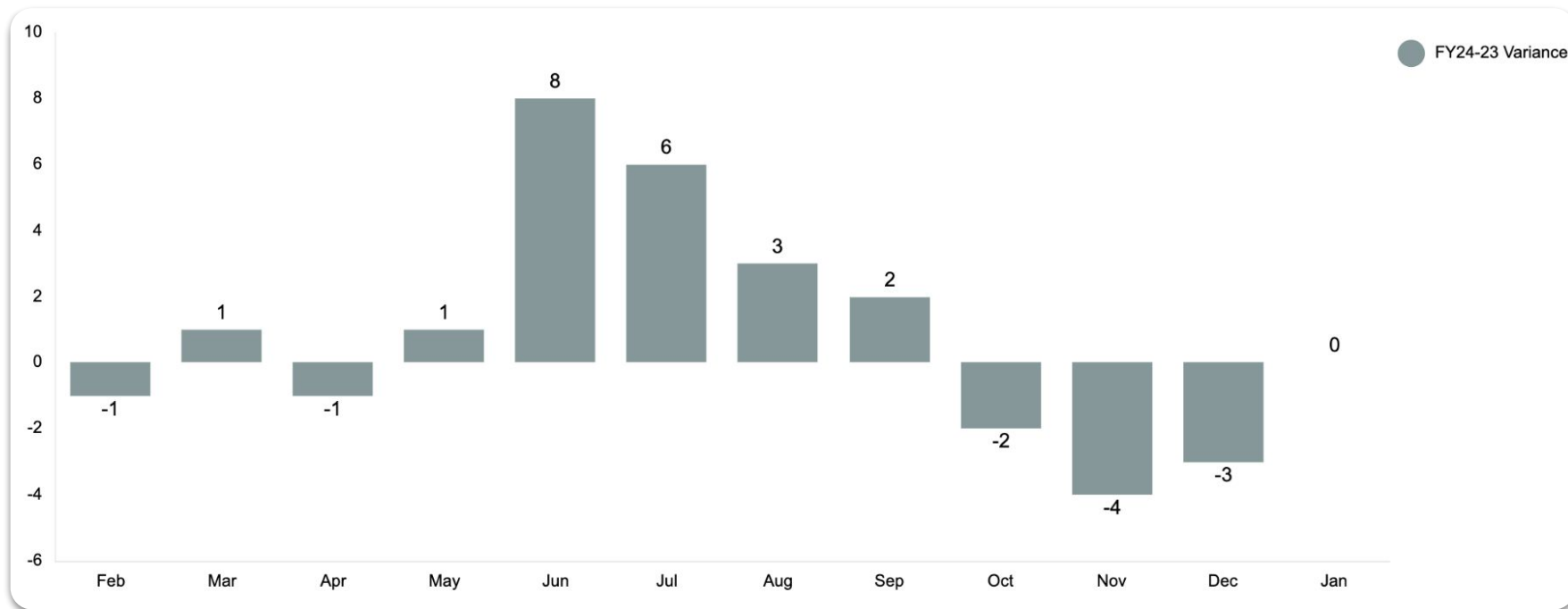
Make same colour as background

Same data, different view

As always, choice depends on the question you're trying to answer.



BONUS 2: Variance chart with colours



Nothing wrong with this, but **adding colour to negative values** can make it even more impactful.

In my metric sheet I have a simple variance calculation (FY24-FY23)

Month	FY21	FY22	FY23	FY24	Upcoming	Variance	Var Pos	Var Neg
Month	FY21	FY22	FY23	FY24	Upcoming	FY24-23	Var Pos	Var Neg
Feb	0	0	3	2	0	-1	0	-1
Mar	1	1	1	2	0	1	1	0
Apr	2	1	1	0	0	-1	0	-1
May	1	2	2	3	0	1	1	0
Jun	3	3	2	10	0	8	8	0
Jul	3	4	2	7	0	5	5	0
Aug	2	3	3	4	4	1	1	0
Sep	3	2	1	3	3	2	2	0
Oct	2	4	6	4	4	-2	0	-2
Nov	1	2	4	0	0	-4	0	-4
Dec	0	1	3	0	0	-3	0	-3
Jan	0	0	0	0	0	0	0	0

Chart Widget



Data & Chart Type




Data Source




E Marketing Date Trend

Edit

Columns Included

Variance 

Primary 



Use column names as category labels



Use first column as series labels

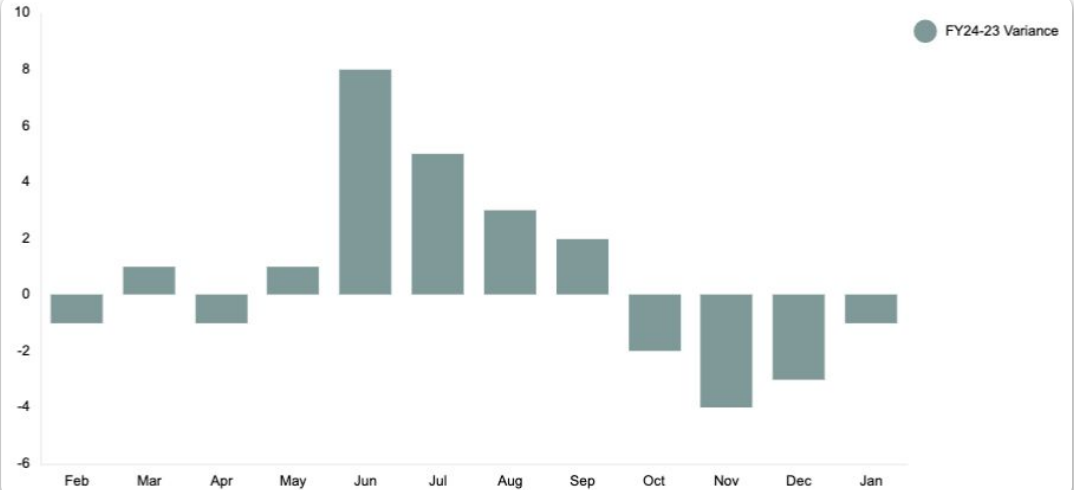


Switch rows & columns

Chart Type



Column



Having just the **Month** and **Variance** selected will give you the chart above.

This is a **column chart type**.

But to do a different colour for negative vs positive values, I need to **add new calculated columns**.

Month	FY21	FY22	FY23	FY24	Upcoming	Variance	Var Pos	Var Neg
Month	FY21	FY22	FY23	FY24	Upcoming	FY24-23	Var Pos	Var Neg
Feb	0	0	3	2	0	-1	0	-1
Mar	1	1	1	2	0	1	1	0
Apr	2	1	1	0	0	-1	0	-1
May	1	2	2	3	0	1	1	0
						8	8	0
						5	5	0
						1	1	0
						2	2	0
						-2	0	-2
						-4	0	-4
						-3	0	-3
Jan	0	0	0	0	0	0	0	0

In the **Var Pos** column, if Variance is **positive** then copy it over, else 0.

And in the **Var Neg** column, if Variance is **negative** then copy it over, else 0.

Chart Widget

Data & Chart Type

Data Source

E Marketing Date Trend

Edit

Columns Included ⓘ

Primary

Var Neg

Var Pos

FY21

FY22

FY23

FY24

Variance

Var Neg

Var Pos

Change colour

Series

Var Neg

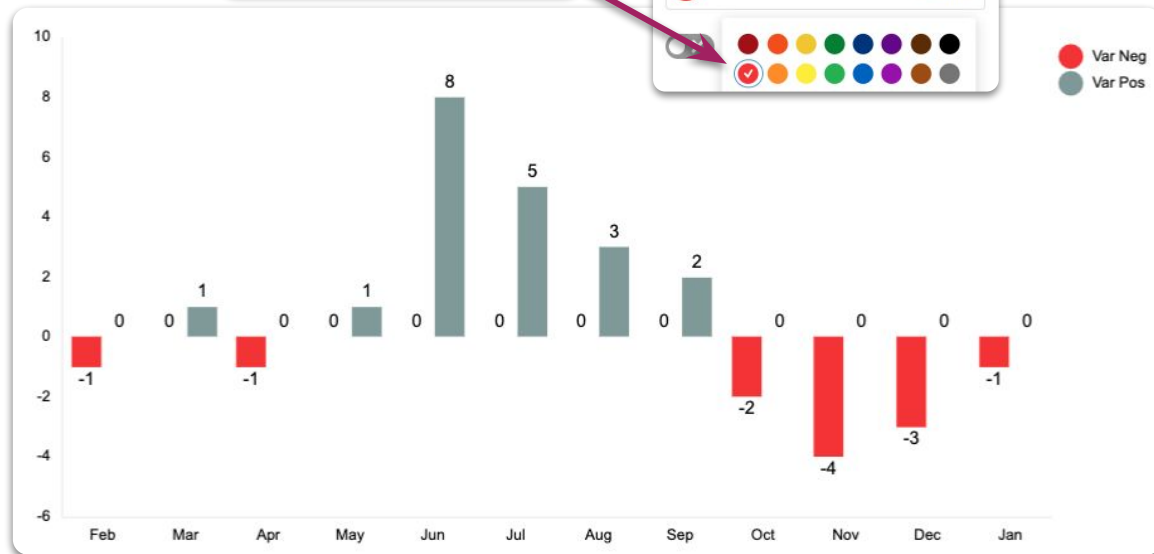
Color

#EA352E

Change



Var Neg
Var Pos



Deselect Variance

Add Var Neg and Var Pos

Chart Widget



Line



Smooth Line



Stepped Line



Bar



Stacked Bar



Column



Stacked Column



Pie



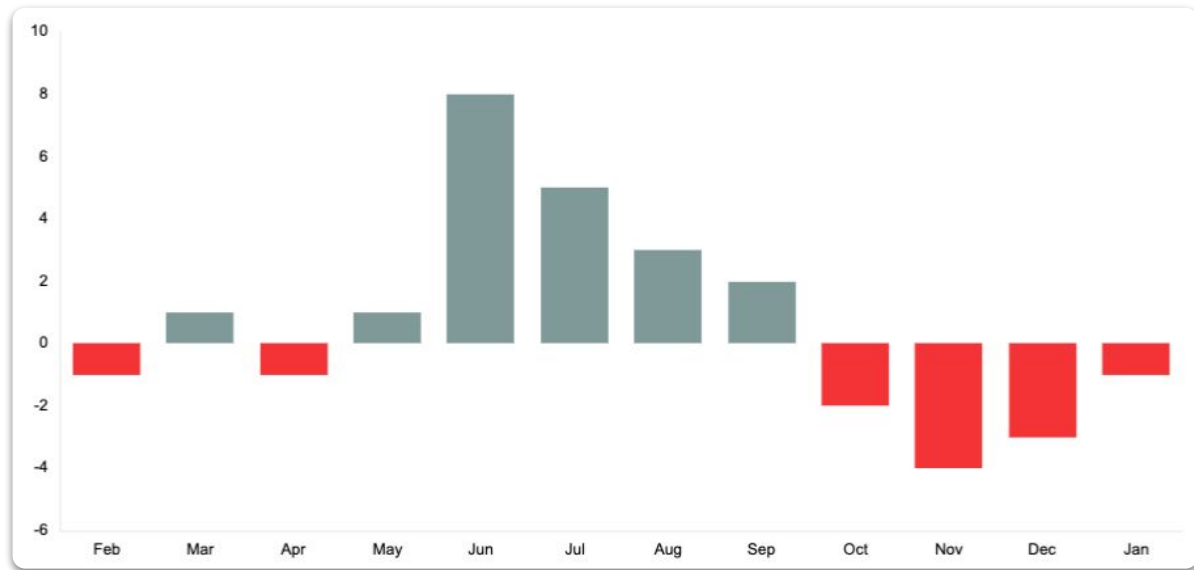
Donut



Scatter

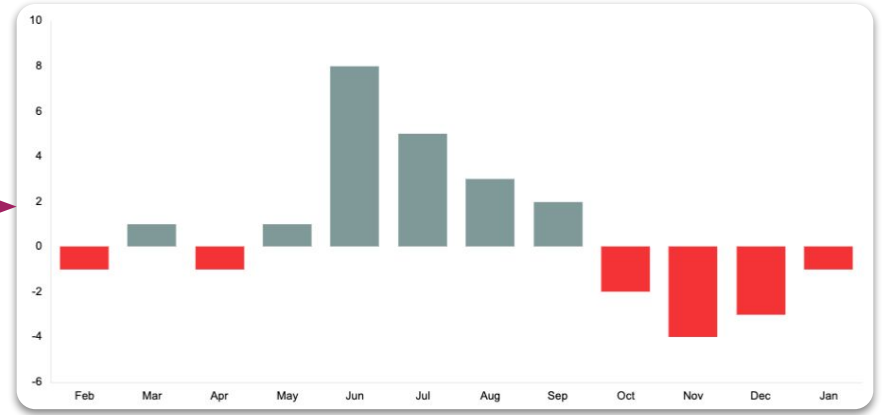
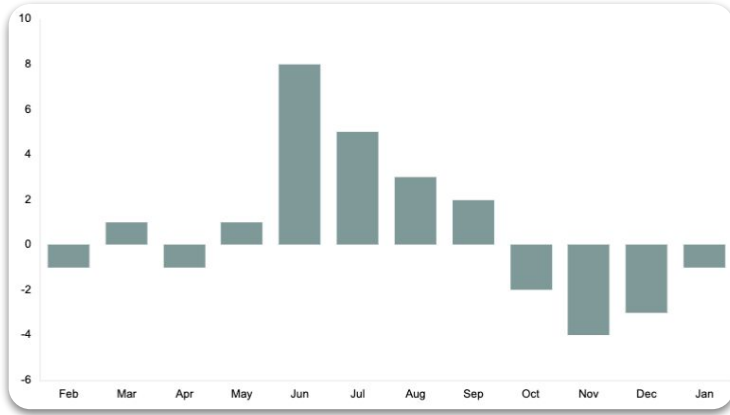


Column

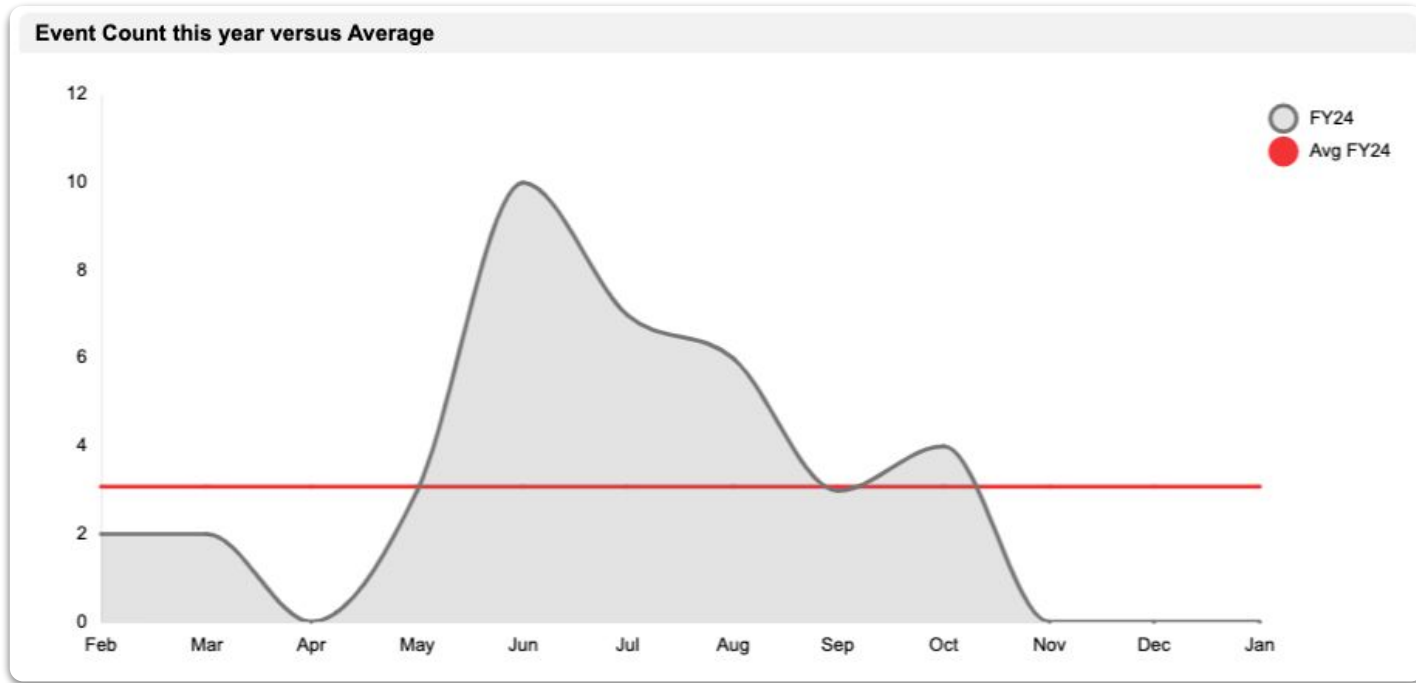


Change from Column to **Stacked Column**.

Simple example of using **colour** to help visualise negative values more easily.



BONUS 3: Chart with reference lines



BONUS 3: Chart with reference lines

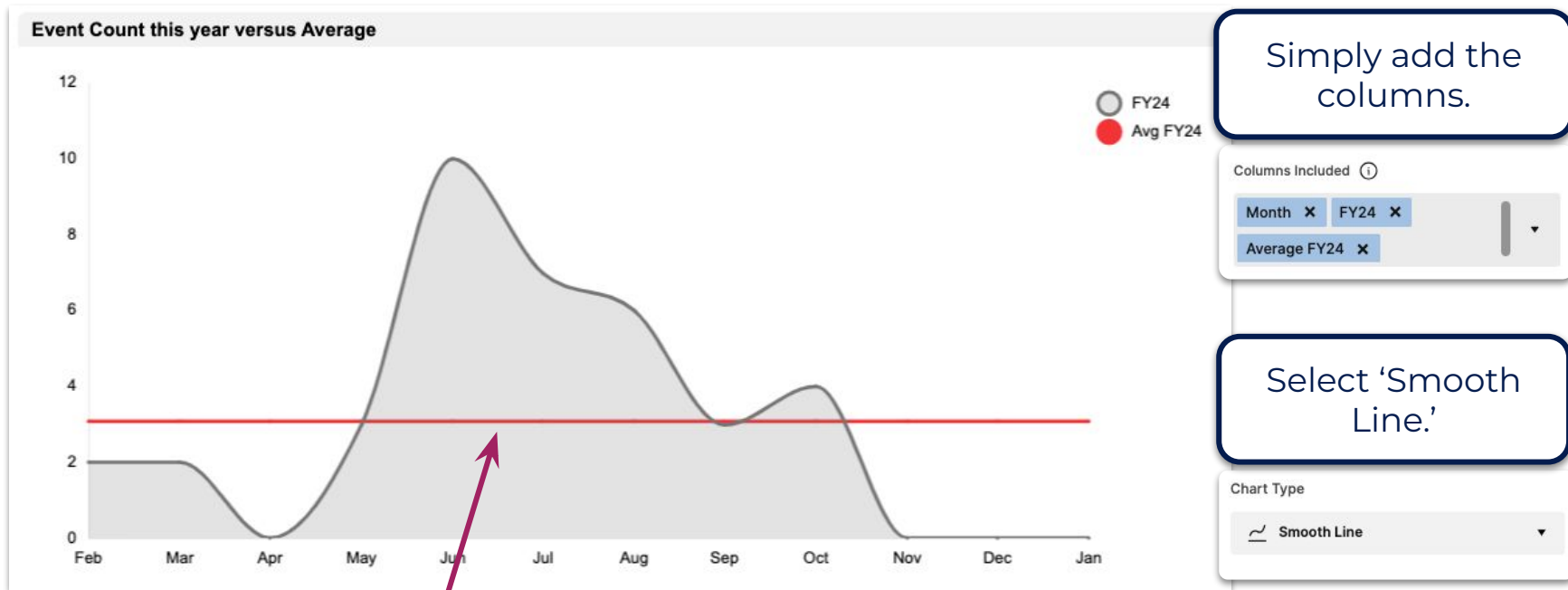
Month	FY21	FY22	FY23	FY24	Average FY24
Feb	0	0	3	2	3.08
Mar	1	1	1	2	3.08
Apr	2	1	1	0	3.08
May	1	2	2	3	3.08
Jun	3	3	2	10	3.08
Jul	3	4	2	7	3.08
Aug	2	3	3	6	3.08
Sep	3	2	1	3	3.08
Oct	2	4	6	4	3.08
Nov	1	2	4	0	3.08
Dec	0	1	3	0	3.08
Jan	0	0	1	0	3.08

Simply **add the calculation** you want for the reference line and repeat for each month.

Can be **calculation** or **constant**.

Can have more than 1.

BONUS 3: Chart with reference lines

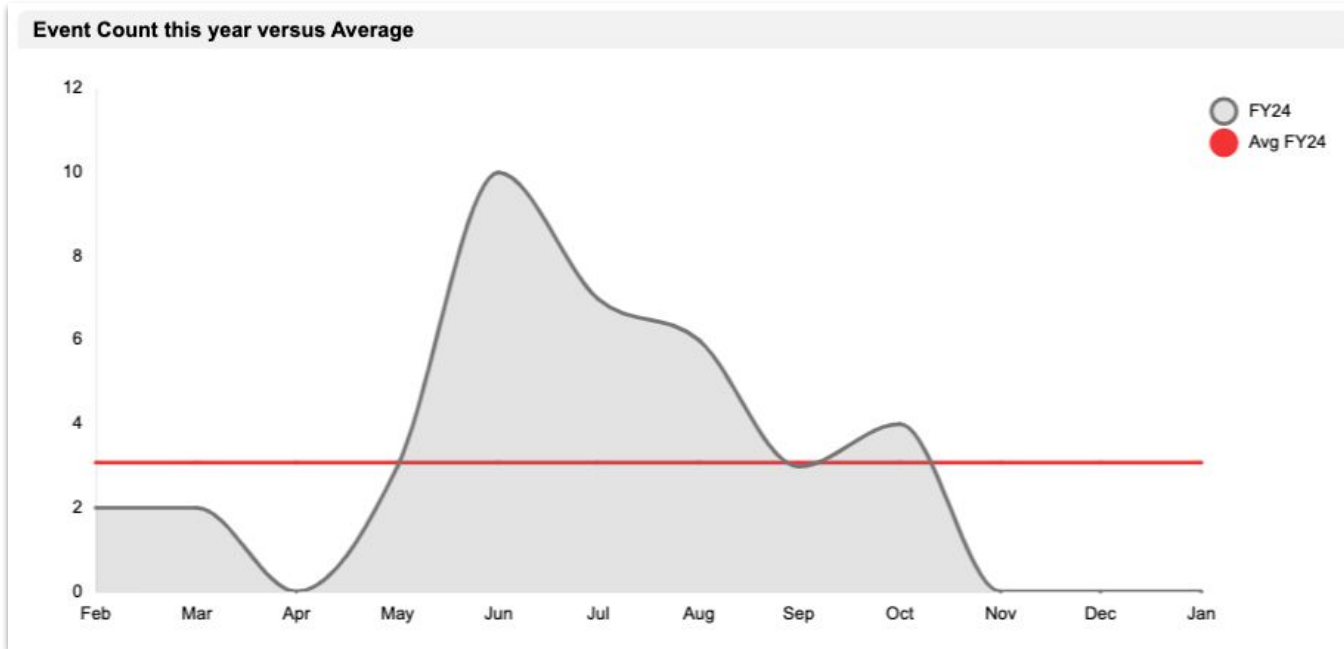


Simply add the columns.

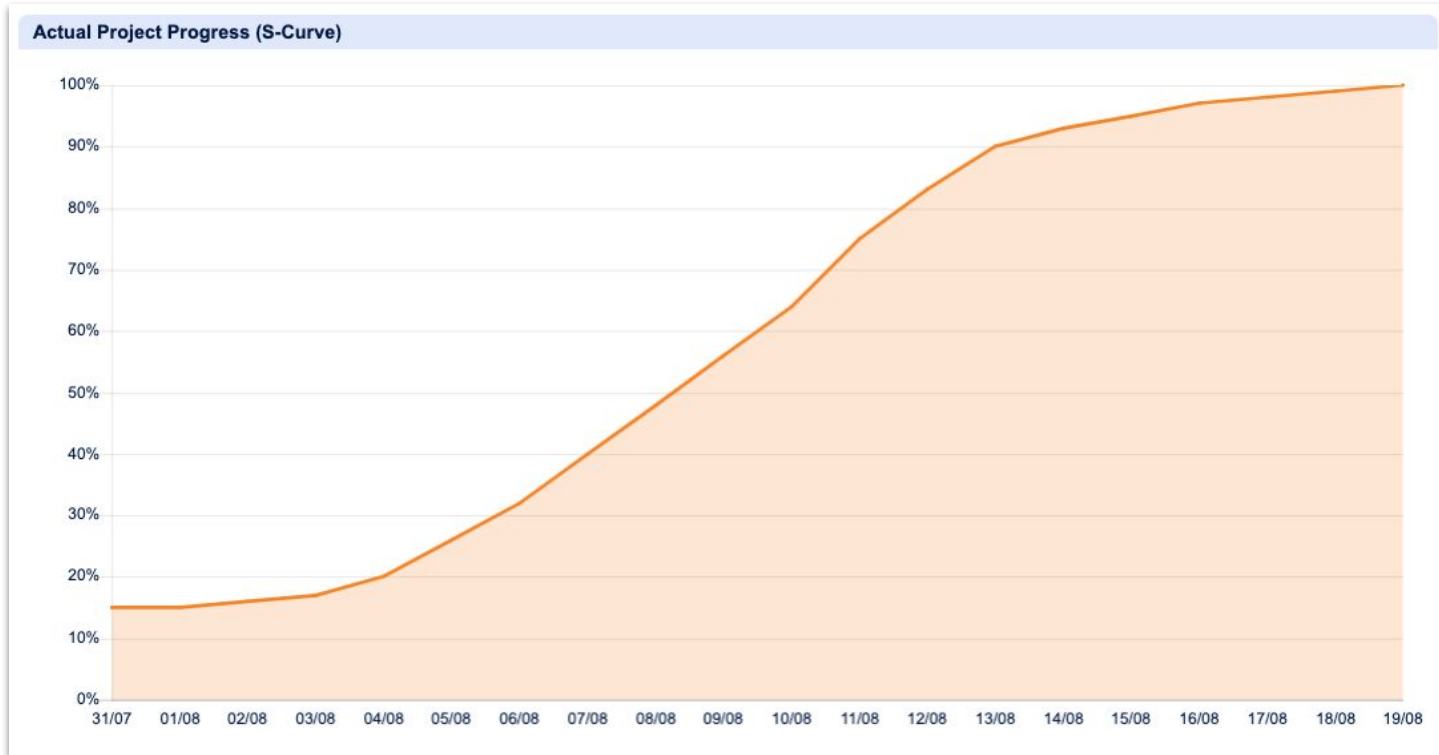
Select 'Smooth Line.'

Fill line only for FY24

BONUS 3: Chart with reference lines



BONUS 4: S-Curve chart



BONUS 4: S-Curve chart

Task Name	Status	Assigned To	Start Date	End Date	% Complete	Durati...	Predeces	Jul 31							Aug 7							Aug 14						
								F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
- Onboarding Plan			01/08/22	10/10/22	3%	50d																						
- Initiation			01/08/22	03/08/22	50%	3d																						
Statement of Work	Complete	BW Blair Watts	01/08/22	01/08/22	100%	1d																						
Establish Onboarding Team	In Progress	BW Blair Watts	02/08/22	02/08/22	20%	1d	3																					
- Welcome Email	In Progress	SW Samuel Williar	02/08/22	03/08/22	40%	2d																						
Prepare Welcome Email	In Progress	JS Janis Sharpe	02/08/22	03/08/22	40%	2d	3																					
Send Welcome Email	Not Started	JS Janis Sharpe	03/08/22	03/08/22	0%	0	6																					
- Plan			08/08/22	18/08/22	0%	8d																						
- Kickoff Call	Not Started	TBD	08/08/22	10/08/22	0%	3d																						
Conduct Kickoff Call	Not Started	TBD	08/08/22	08/08/22	0%	1d	7FS +2d																					
Kickoff Call Follow-up	Not Started	TBD	10/08/22	10/08/22	0%	1d	10FS +1d																					
- Onboarding Milestones	Not Started	TBD	12/08/22	18/08/22	0%	5d																						
Update Onboarding Milestones	Not Started	TBD	12/08/22	16/08/22	0%	3d	11																					
Flag Onboarding Milestones	Not Started	TBD	17/08/22	18/08/22	0%	2d	13																					
- Pre-Launch			19/08/22	28/09/22	0%	29d																						
- Product and Process Framework	Not Started	TBD	19/08/22	24/08/22	0%	4d																						
Design and Draft Framework	Not Started	TBD	19/08/22	23/08/22	0%	3d	14																					
Review with Customer	Not Started	TBD	23/08/22	23/08/22	0%	1d	17FS -1d																					
Update and Finalize Framework	Not Started	TBD	24/08/22	24/08/22	0%	1d	18																					
- Proof Of Concept	Not Started	TBD	25/08/22	21/09/22	0%	20d																						
Initial Proof of Concept	Not Started	TBD	25/08/22	14/09/22	0%	15d	19																					
Review and Update with Customer	Not Started	TBD	15/09/22	21/09/22	0%	5d	21																					
Final Customer Sign-off of POC	Not Started	TBD	21/09/22	21/09/22	0%	0	22FF																					

BONUS 4: S-Curve chart

% Complete

Task Name	Status	Assigned To	Start Date	End Date	% Complete	Durati...	Predeces	Jul 31							Aug 7							Aug 14						
								F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
Onboarding Plan			01/08/22	10/10/22	3%	50d		[Gantt chart bars for Onboarding Plan]																				
Initiation			01/08/22	03/08/22	50%	3d		[Gantt chart bars for Initiation]																				
Statement of Work	Complete	BW Blair Watts	01/08/22	01/08/22	100%	1d		[Gantt chart bar for Statement of Work]																				
Establish Onboarding Team	In Progress	BW Blair Watts	02/08/22	02/08/22	20%	1d	3	[Gantt chart bar for Establish Onboarding Team]																				
Welcome Email	In Progress	SW Samuel Williar	02/08/22	03/08/22	40%	2d		[Gantt chart bars for Welcome Email]																				
Prepare Welcome Email	In Progress	JS Janis Sharpe	02/08/22	03/08/22	40%	2d	3	[Gantt chart bar for Prepare Welcome Email]																				
Send Welcome Email	Not Started	JS Janis Sharpe	03/08/22	03/08/22	0%	0	6	[Gantt chart bar for Send Welcome Email]																				
Plan			08/08/22	18/08/22	0%	8d		[Gantt chart bars for Plan]																				
Kickoff Call	Not Started	TBD	08/08/22	10/08/22	0%	3d		[Gantt chart bars for Kickoff Call]																				
Conduct Kickoff Call	Not Started	TBD	08/08/22	08/08/22	0%	1d	7FS +2d	[Gantt chart bar for Conduct Kickoff Call]																				
Kickoff Call Follow-up	Not Started	TBD	10/08/22	10/08/22	0%	1d	10FS +1d	[Gantt chart bar for Kickoff Call Follow-up]																				
Onboarding Milestones	Not Started	TBD	12/08/22	18/08/22	0%	5d		[Gantt chart bars for Onboarding Milestones]																				
Update Onboarding Milestones	Not Started	TBD	12/08/22	16/08/22	0%	3d	11	[Gantt chart bar for Update Onboarding Milestones]																				
Flag Onboarding Milestones	Not Started	TBD	17/08/22	18/08/22	0%	2d	13	[Gantt chart bar for Flag Onboarding Milestones]																				
Pre-Launch			19/08/22	28/09/22	0%	29d		[Gantt chart bars for Pre-Launch]																				
Product and Process Framework	Not Started	TBD	19/08/22	24/08/22	0%	4d		[Gantt chart bars for Product and Process Framework]																				
Design and Draft Framework	Not Started	TBD	19/08/22	23/08/22	0%	3d	14	[Gantt chart bar for Design and Draft Framework]																				
Review with Customer	Not Started	TBD	23/08/22	23/08/22	0%	1d	17FS -1d	[Gantt chart bar for Review with Customer]																				
Update and Finalize Framework	Not Started	TBD	24/08/22	24/08/22	0%	1d	18	[Gantt chart bar for Update and Finalize Framework]																				
Proof Of Concept	Not Started	TBD	25/08/22	21/09/22	0%	20d		[Gantt chart bars for Proof Of Concept]																				
Initial Proof of Concept	Not Started	TBD	25/08/22	14/09/22	0%	15d	19	[Gantt chart bar for Initial Proof of Concept]																				
Review and Update with Customer	Not Started	TBD	15/09/22	21/09/22	0%	5d	21	[Gantt chart bar for Review and Update with Customer]																				
Final Customer Sign-off of POC	Not Started	TBD	21/09/22	21/09/22	0%	0	22FF	[Gantt chart bar for Final Customer Sign-off of POC]																				

BONUS 4: S-Curve chart

Really just interested in the overall % completed

Task Name	Status	Assigned To	Start Date	End Date	% Complete	Durati...	Predeces	Jul 31							Aug 7							Aug 14						
								F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
- Onboarding Plan			01/08/22	10/10/22	3%	50d		[Gantt bars for Onboarding Plan]																				
- Initiation			01/08/22	03/08/22	50%	3d		[Gantt bars for Initiation]																				
Statement of Work	Complete	BW Blair Watts	01/08/22	01/08/22	100%	1d		[Gantt bar for Statement of Work]																				
Establish Onboarding Team	In Progress	BW Blair Watts	02/08/22	02/08/22	20%	1d	3	[Gantt bar for Establish Onboarding Team]																				
- Welcome Email	In Progress	SW Samuel Williar	02/08/22	03/08/22	40%	2d		[Gantt bars for Welcome Email tasks]																				
Prepare Welcome Email	In Progress	JS Janis Sharpe	02/08/22	03/08/22	40%	2d	3	[Gantt bar for Prepare Welcome Email]																				
Send Welcome Email	Not Started	JS Janis Sharpe	03/08/22	03/08/22	0%	0	6	[Gantt bar for Send Welcome Email]																				
- Plan			08/08/22	18/08/22	0%	8d		[Gantt bars for Plan tasks]																				
- Kickoff Call	Not Started	TBD	08/08/22	10/08/22	0%	3d		[Gantt bars for Kickoff Call tasks]																				
Conduct Kickoff Call	Not Started	TBD	08/08/22	08/08/22	0%	1d	7FS +2d	[Gantt bar for Conduct Kickoff Call]																				
Kickoff Call Follow-up	Not Started	TBD	10/08/22	10/08/22	0%	1d	10FS +1d	[Gantt bar for Kickoff Call Follow-up]																				
- Onboarding Milestones	Not Started	TBD	12/08/22	18/08/22	0%	5d		[Gantt bars for Onboarding Milestones tasks]																				
Update Onboarding Milestones	Not Started	TBD	12/08/22	16/08/22	0%	3d	11	[Gantt bar for Update Onboarding Milestones]																				
Flag Onboarding Milestones	Not Started	TBD	17/08/22	18/08/22	0%	2d	13	[Gantt bar for Flag Onboarding Milestones]																				
- Pre-Launch			19/08/22	28/09/22	0%	29d		[Gantt bars for Pre-Launch tasks]																				
- Product and Process Framework	Not Started	TBD	19/08/22	24/08/22	0%	4d		[Gantt bars for Product and Process Framework tasks]																				
Design and Draft Framework	Not Started	TBD	19/08/22	23/08/22	0%	3d	14	[Gantt bar for Design and Draft Framework]																				
Review with Customer	Not Started	TBD	23/08/22	23/08/22	0%	1d	17FS -1d	[Gantt bar for Review with Customer]																				
Update and Finalize Framework	Not Started	TBD	24/08/22	24/08/22	0%	1d	18	[Gantt bar for Update and Finalize Framework]																				
- Proof Of Concept	Not Started	TBD	25/08/22	21/09/22	0%	20d		[Gantt bars for Proof Of Concept tasks]																				
Initial Proof of Concept	Not Started	TBD	25/08/22	14/09/22	0%	15d	19	[Gantt bar for Initial Proof of Concept]																				
Review and Update with Customer	Not Started	TBD	15/09/22	21/09/22	0%	5d	21	[Gantt bar for Review and Update with Customer]																				
Final Customer Sign-off of POC	Not Started	TBD	21/09/22	21/09/22	0%	0	22FF	[Gantt bar for Final Customer Sign-off of POC]																				


BONUS 4: S-Curve chart






Need 3 helper columns with data in new 1st row

Task Name	Status	Assigned To	Start Date	End Date	% Complete	Date	Comp	Comp...
						12/09/24	Completion:	3%
- Onboarding Plan			01/08/22	10/10/22	3%			
- Initiation			01/08/22	03/08/22	50%			
Statement of Work	Complete	BW Blair Watts	01/08/22	01/08/22	100%			
Establish Onboarding Team	In Progress	BW Blair Watts	02/08/22	02/08/22	20%			
- Welcome Email	In Progress	SW Samuel Williar	02/08/22	03/08/22	40%			
Prepare Welcome Email	In Progress	JS Janis Sharpe	02/08/22	03/08/22	40%			
Send Welcome Email	Not Started	JS Janis Sharpe	03/08/22	03/08/22	0%			
- Plan			08/08/22	18/08/22	0%			

BONUS 4: S-Curve chart

Simple TODAY() formula



Task Name	Status	Assigned To	Start Date	End Date	% Complete	Date	Comp	Comp...
						12/09/24	Completion:	3%
- Onboarding Plan			01/08/22	10/10/22	3%			
- Initiation			01/08/22	03/08/22	50%			
Statement of Work	Complete	 Blair Watts	01/08/22	01/08/22	100%			
Establish Onboarding Team	In Progress	 Blair Watts	02/08/22	02/08/22	20%			
- Welcome Email	In Progress	 Samuel Williar	02/08/22	03/08/22	40%			
Prepare Welcome Email	In Progress	 Janis Sharpe	02/08/22	03/08/22	40%			
Send Welcome Email	Not Started	 Janis Sharpe	03/08/22	03/08/22	0%			
- Plan			08/08/22	18/08/22	0%			

BONUS 4: S-Curve chart

Simple formula pointing to Complete % of parent

Task Name	Status	Assigned To	Start Date	End Date	% Complete	Date	Comp	Comp...	Durat
						12/09/24	Completion:	=[% Complete]2	
- Onboarding Plan			01/08/22	10/10/22	3%				
- Initiation			01/08/22	03/08/22	50%				
Statement of Work	Complete	BW Blair Watts	01/08/22	01/08/22	100%				
Establish Onboarding Team	In Progress	BW Blair Watts	02/08/22	02/08/22	20%				
- Welcome Email	In Progress	SW Samuel Williar	02/08/22	03/08/22	40%				
Prepare Welcome Email	In Progress	JS Janis Sharpe	02/08/22	03/08/22	40%				
Send Welcome Email	Not Started	JS Janis Sharpe	03/08/22	03/08/22	0%				
- Plan			08/08/22	18/08/22	0%				

BONUS 4: S-Curve chart

Simple automation to copy row with Completed % metric on schedule needed.

This example copies the row daily

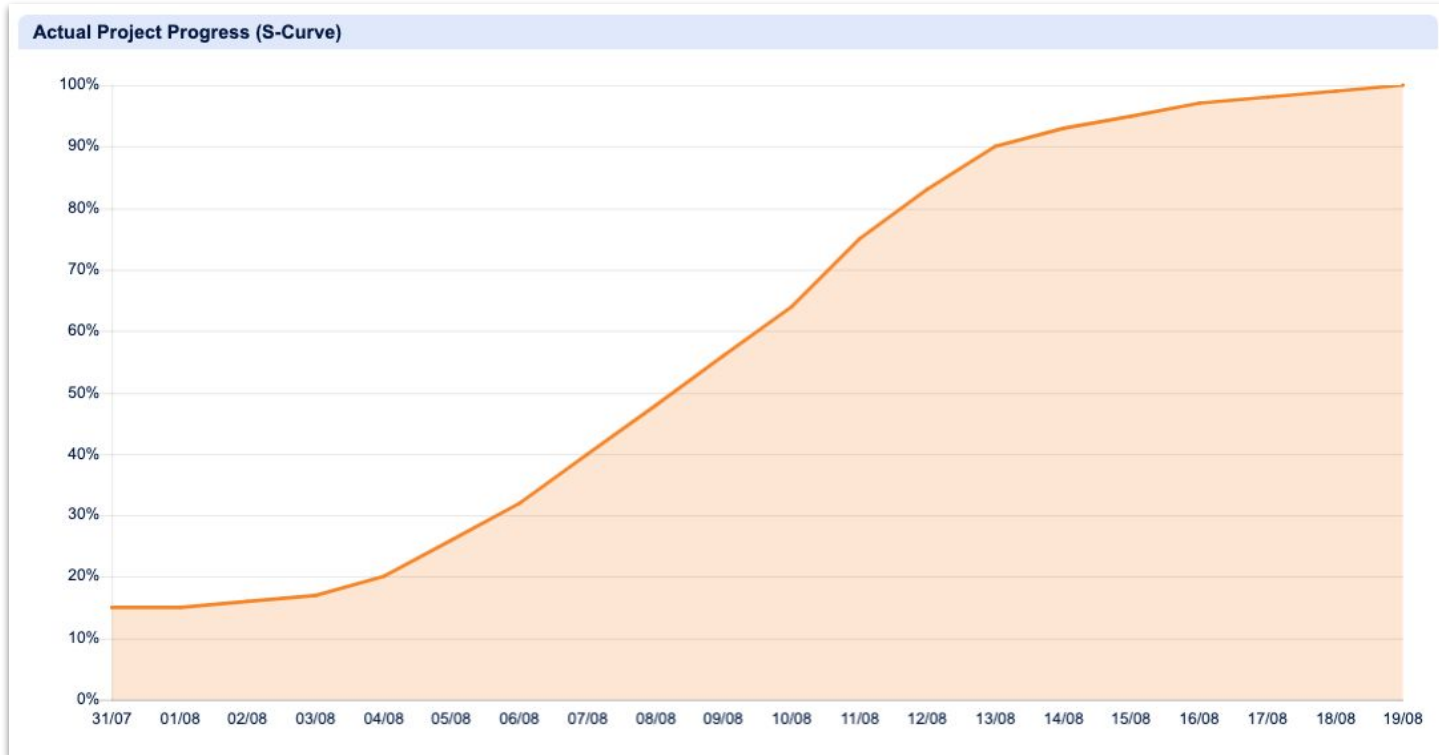
The screenshot displays a workflow titled "Copy Completion %". The workflow is triggered by a calendar icon and the text "When a date is reached". The trigger is configured to run "Every day starting on 12/09/24" at "10:00 PM" in the "Australia/NSW (GMT+10)" time zone. The workflow then branches into two paths: a main path and an "Otherwise" path. The main path includes a "Conditions (1)" step with the logic "Where Comp is one of" and a "Completion:" field. This is followed by a "Copy rows" step where the data is copied to the "Completion Data Sheet". The "Otherwise" path is currently empty.

BONUS 4: S-Curve chart

Primary Column	Date	Actual
Completion	31/07/24	13%
Completion	01/08/24	13%
Completion	02/08/24	14%
Completion	03/08/24	14%
Completion	04/08/24	17%
Completion	05/08/24	22%
Completion	06/08/24	27%
Completion	07/08/24	34%
Completion	08/08/24	41%
Completion	09/08/24	48%
Completion	10/08/24	54%
Completion	11/08/24	64%
Completion	12/08/24	71%
Completion	13/08/24	77%
Completion	14/08/24	79%

This is what your destination chart data sheet will look like

BONUS 4: S-Curve chart

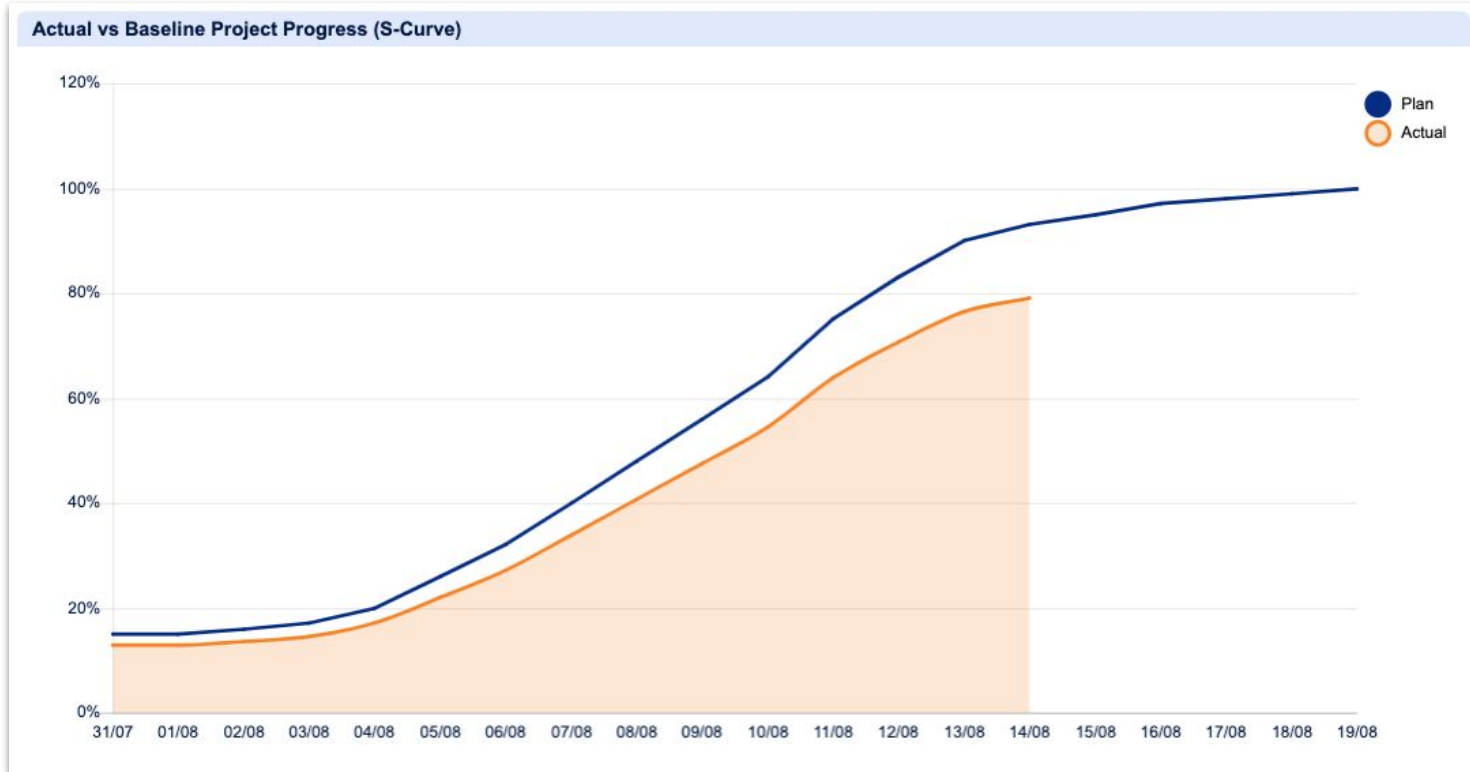


BONUS 4: S-Curve chart

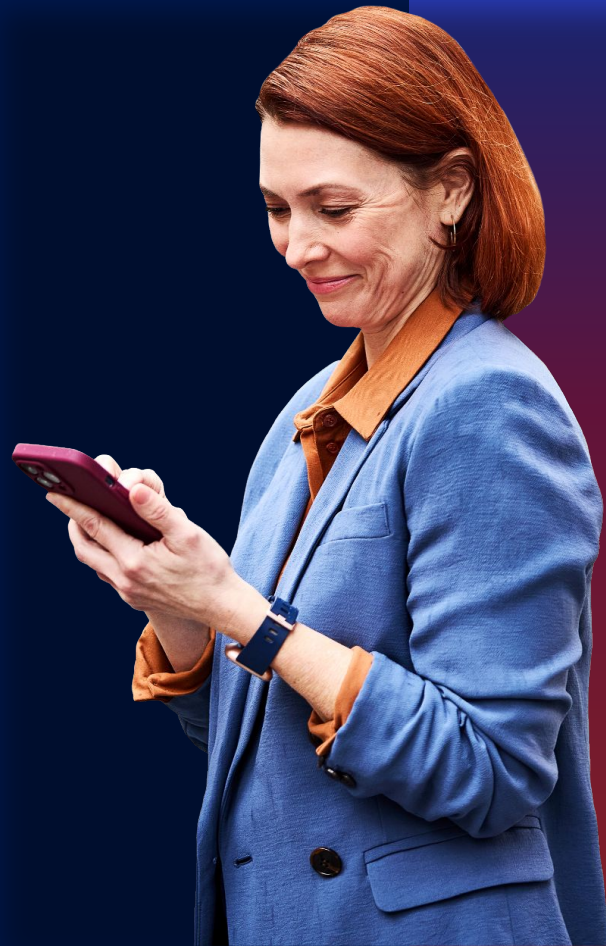
Primary Column	Date	Plan	Actual
Completion	31/07/24	15%	13%
Completion	01/08/24	15%	13%
Completion	02/08/24	16%	14%
Completion	03/08/24	17%	14%
Completion	04/08/24	20%	17%
Completion	05/08/24	26%	22%
Completion	06/08/24	32%	27%
Completion	07/08/24	40%	34%
Completion	08/08/24	48%	41%
Completion	09/08/24	56%	48%
Completion	10/08/24	64%	54%
Completion	11/08/24	75%	64%
Completion	12/08/24	83%	71%
Completion	13/08/24	90%	77%
Completion	14/08/24	93%	79%
Completion	15/08/24	95%	
Completion	16/08/24	97%	
Completion	17/08/24	98%	
Completion	18/08/24	99%	
Completion	19/08/24	100%	

Take it up a level by including a baseline/target/forecast etc.

BONUS 4: S-Curve chart



Data preparation



Two main ways to get data into your chart:



1. Sheet

Either directly from the **source sheet** or, alternatively, the **metric sheet**

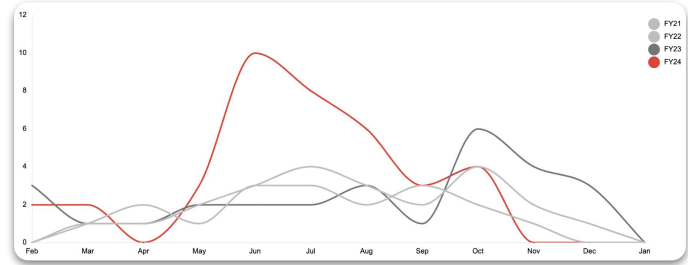


2. Report

A report is very flexible and can source from sheet summaries too.

Metric sheet

- Useful when the data you need is in **more than one sheet**.
- Uses **cross-sheet formulas** to calculate metrics needed from one or more source sheets.
- Can create data specifically for chart requirements (e.g. **trend**).
- Allows for more **flexibility** and **advanced charting**

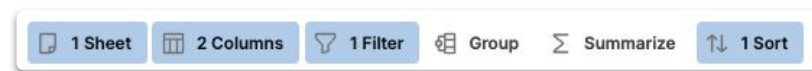
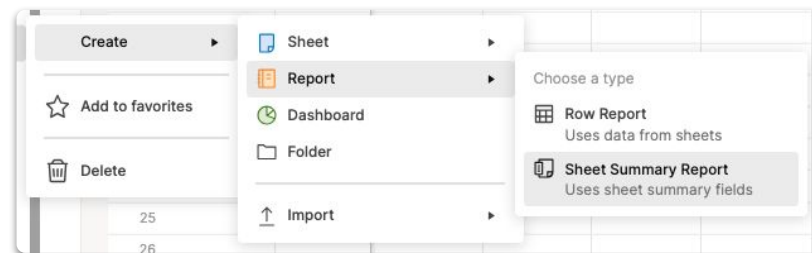


Month	FY21	FY22	FY23	FY24	Average FY24
Feb	0	0	3	2	3.08
Mar	1	1	1	2	3.08
Apr	2	1	1	0	3.08
May	1	2	2	3	3.08
Jun	3	3	2	10	3.08
Jul	3	4	2	7	3.08
Aug	2	3	3	6	3.08
Sep	3	2	1	3	3.08
Oct	2	4	6	4	3.08
Nov	1	2	4	0	3.08
Dec	0	1	3	0	3.08
Jan	0	0	1	0	3.08

Report

Useful when:

- Need data from **more than one sheet**
- Can leverage **sheet summaries** via Sheet Summary Report
- Want to leverage **filters** for just a slice of the data or relative time (e.g. last 90 days)
- Can **sort** columns

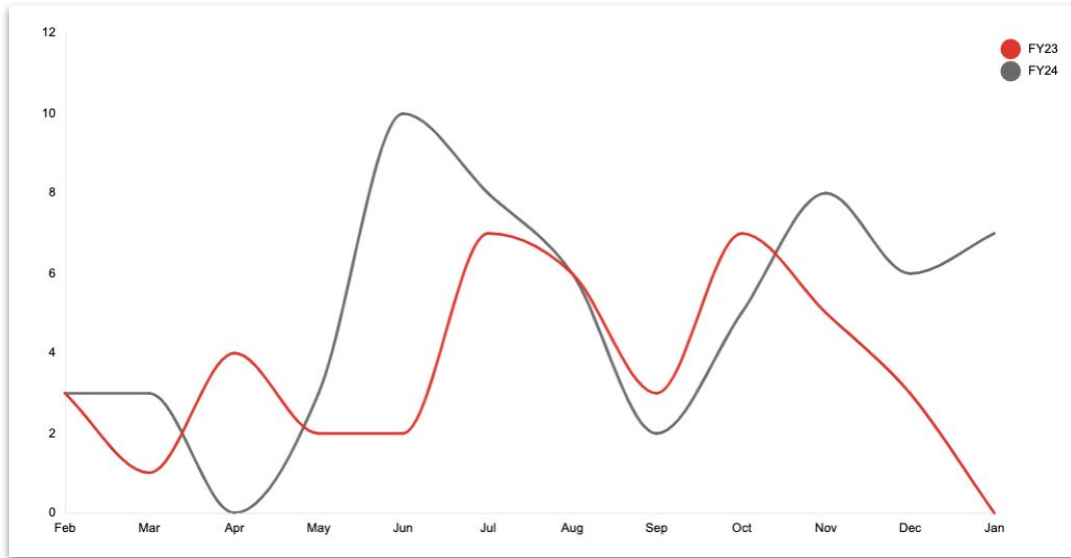


Let's look at an end-to-end example...

Type	Format	Location	Start Date	End Date	Duration	Status	Assigned Consultant
User Group	Virtual	Virtual	02/01/22	02/01/22	1 hour	Confirmed	Frida
User Group	Virtual	Virtual	02/09/22	02/09/22	1 hour	Confirmed	Charles
User Group	Virtual	Virtual	02/10/22	02/10/22	1 hour	Confirmed	Niko
Test Drive	Virtual	Virtual	03/03/22	03/03/22	2 hours	Confirmed	Charles
Other Event	F2F	Melbourne	04/07/22	04/11/22		Confirmed	Charles
Conference	F2F	Melbourne	05/11/22	05/11/22	1 day	Confirmed	Shiela
User Group	Virtual	Virtual	05/18/22	05/18/22	1 hour	Confirmed	Wendy
User Group	Virtual	Virtual	06/22/22	06/22/22	1 hour	Confirmed	Wendy
Conference	F2F	Sydney	06/22/22	06/22/22	1 day	Confirmed	Charles
User Group	Virtual	Virtual	07/26/22	07/26/22	1 hour	Confirmed	Frida
User Group	Virtual	Virtual	07/27/22	07/27/22	1 hour	Confirmed	Charles
Test Drive	F2F	Sydney	08/04/22	08/04/22	2.5 hours	Confirmed	Frida
User Group	F2F	Melbourne	08/18/22	08/18/22	2 hours	Confirmed	Shiela
Test Drive	F2F	Melbourne	08/18/22	08/18/22	2.5 hours	Confirmed	Shiela
User Group	Virtual	Virtual	09/14/22	09/14/22	1.5 hours	Confirmed	Charles
Test Drive	F2F	Sydney	09/27/22	09/27/22	2.5 hours	Completed	Charles
Test Drive	F2F	Singapore	10/11/22	10/11/22	2.5 hours	Confirmed	Travis
Conference	F2F	Singapore	10/12/22	10/13/22	16 hours	Confirmed	Travis
Conference	F2F	Melbourne	10/25/22	10/26/22	16 hours	Confirmed	Charles
Test Drive	F2F	Sydney	10/25/22	10/25/22	2.5 hours	Confirmed	James

Let's start with a **typical intake sheet**

Want to build a trend chart comparing number of events supported this year vs last year



I have **two years** worth of data here that I would like to **visualise** like this.

We need some date columns

< **f⁺ Formulas** 🔊 ⓘ ✕

📍 Row 1 | Fiscal Year

Calculate the year using **Start Date** and shorten to just last 2 digits and append 'FY' as prefix. Adjust for fiscal year when year begins in February







```
= "FY" + RIGHT(IF(MONTH([Start Date]@row) >= 2, YEAR([Start Date]@row) + 1, YEAR([Start Date]@row)), 2)
```

First we need **'Fiscal Year'**

Let's use **generate formulas!**

Next we need 'Month'

< **Formulas**   

Row 1 | Month contains an AI formula 

Determine month from **Start Date** and convert month number to month name. Display month name in short format



```
=IF(MONTH([Start Date]@row) = 1, "Jan", IF(MONTH([Start Date]@row) = 2, "Feb", IF(MONTH([Start Date]@row) = 3, "Mar", IF(MONTH([Start Date]@row) = 4, "Apr", IF(MONTH([Start Date]@row) = 5, "May", IF(MONTH([Start Date]@row) = 6, "Jun", IF(MONTH([Start Date]@row) = 7, "Jul", IF(MONTH([Start Date]@row) = 8, "Aug", IF(MONTH([Start Date]@row) = 9, "Sep", IF(MONTH([Start Date]@row) = 10, "Oct", IF(MONTH([Start Date]@row) = 11, "Nov", "Dec"))))))))))))
```

Here's how the sheet looks now.

Type	Format	Location	Start Date	End Date	Duration	Status	Assigned Consultant	Fiscal Year	Month
User Group	Virtual	Virtual	02/01/22	02/01/22	1 hour	Confirmed	Frida	FY23	Feb
User Group	Virtual	Virtual	02/09/22	02/09/22	1 hour	Confirmed	Charles	FY23	Feb
User Group	Virtual	Virtual	02/10/22	02/10/22	1 hour	Confirmed	Niko	FY23	Feb
Test Drive	Virtual	Virtual	03/03/22	03/03/22	2 hours	Confirmed	Charles	FY23	Mar
Other Event	F2F	Melbourne	04/07/22	04/11/22		Confirmed	Charles	FY23	Apr
Conference	F2F	Melbourne	05/11/22	05/11/22	1 day	Confirmed	Shiela	FY23	May
User Group	Virtual	Virtual	05/18/22	05/18/22	1 hour	Confirmed	Wendy	FY23	May
User Group	Virtual	Virtual	06/22/22	06/22/22	1 hour	Confirmed	Wendy	FY23	Jun
Conference	F2F	Sydney	06/22/22	06/22/22	1 day	Confirmed	Charles	FY23	Jun
User Group	Virtual	Virtual	07/26/22	07/26/22	1 hour	Confirmed	Frida	FY23	Jul
User Group	Virtual	Virtual	07/27/22	07/27/22	1 hour	Confirmed	Charles	FY23	Jul
Test Drive	F2F	Sydney	08/04/22	08/04/22	2.5 hours	Confirmed	Frida	FY23	Aug
User Group	F2F	Melbourne	08/18/22	08/18/22	2 hours	Confirmed	Shiela	FY23	Aug
Test Drive	F2F	Melbourne	08/18/22	08/18/22	2.5 hours	Confirmed	Shiela	FY23	Aug
User Group	Virtual	Virtual	09/14/22	09/14/22	1.5 hours	Confirmed	Charles	FY23	Sep
Test Drive	F2F	Sydney	09/27/22	09/27/22	2.5 hours	Completed	Charles	FY23	Sep
Test Drive	F2F	Singapore	10/11/22	10/11/22	2.5 hours	Confirmed	Travis	FY23	Oct
Conference	F2F	Singapore	10/12/22	10/13/22	16 hours	Confirmed	Travis	FY23	Oct
Conference	F2F	Melbourne	10/25/22	10/26/22	16 hours	Confirmed	Charles	FY23	Oct
Test Drive	F2F	Sydney	10/25/22	10/25/22	2.5 hours	Confirmed	James	FY23	Oct
Test Drive	F2F	Melbourne	10/27/22	10/27/22	2.5 hours	Confirmed	Charles	FY23	Oct
Conference	F2F	Melbourne	10/28/22	10/28/22	8 Hours	Confirmed	Charles	FY23	Oct
User Group	Virtual	Virtual	11/09/22	11/09/22	1 hour	Confirmed	Frida	FY23	Nov
Other Event	Virtual	Virtual	11/10/22	11/10/22	1 hour	Confirmed	Niko	FY23	Nov

Two new columns added:
Fiscal Year
and **Month**

I now need either a metric sheet or report... ...which one?



1. Sheet

Either directly from the **source sheet**
or, alternatively, the **metric sheet**



2. Report

A report is very flexible and can source
from Sheet Summaries too.

Because the data
needs to be
aggregated to month
I'll need to create
those in one of two
ways.

We'll use the metric sheet...

Month	FY23 <i>f_x</i>	FY24 <i>f_x</i>
Feb	3	3
Mar	1	3
Apr	4	0
May	2	3
Jun	2	10
Jul	7	8
Aug	6	6
Sep	3	2
Oct	7	5
Nov	5	8
Dec	3	6
Jan	0	7

How to build it...

Month
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan

Start a new sheet and simply **type** out the **months** in a column.

Next calculate for your first fiscal year...

Month	FY23 fx
Feb	3
Mar	1
Apr	4
May	2
Jun	2
Jul	7
Aug	6
Sep	3
Oct	7
Nov	5
Dec	3
Jan	0

This will be a **cross-sheet formula**.

Formula is simply if the **month** matches and it's in **FY23** then **count it**.

```
=COUNTIFS({EventMonth}, Month@row, {FiscYr}, "FY23")
```

Calculate second fiscal year...

Month	FY23 fx	FY24 fx
Feb	3	3
Mar	1	3
Apr	4	0
May	2	3
Jun	2	10
Jul	7	8
Aug	6	6
Sep	3	2
Oct	7	5
Nov	5	8
Dec	3	6
Jan	0	7

Repeat formula but
change for **'FY24'**

```
=COUNTIFS({EventMonth}, Month@row, {FiscYr}, "FY24")
```


And we now have everything we need.

Month	FY23 <i>f_x</i>	FY24 <i>f_x</i>
Feb	3	3
Mar	1	3
Apr	4	0
May	2	3
Jun	2	10
Jul	7	8
Aug	6	6
Sep	3	2
Oct	7	5
Nov	5	8
Dec	3	6
Jan	0	7

Can see the shape

Legend

Axis

Data for two lines

Month	FY23 f_x	FY24 f_x
Feb	3	3
Mar	1	3
Apr	4	0
May	2	3
Jun	2	10
Jul	7	8
Aug	6	6
Sep	3	2
Oct	7	5
Nov	5	8
Dec	3	6
Jan	0	7

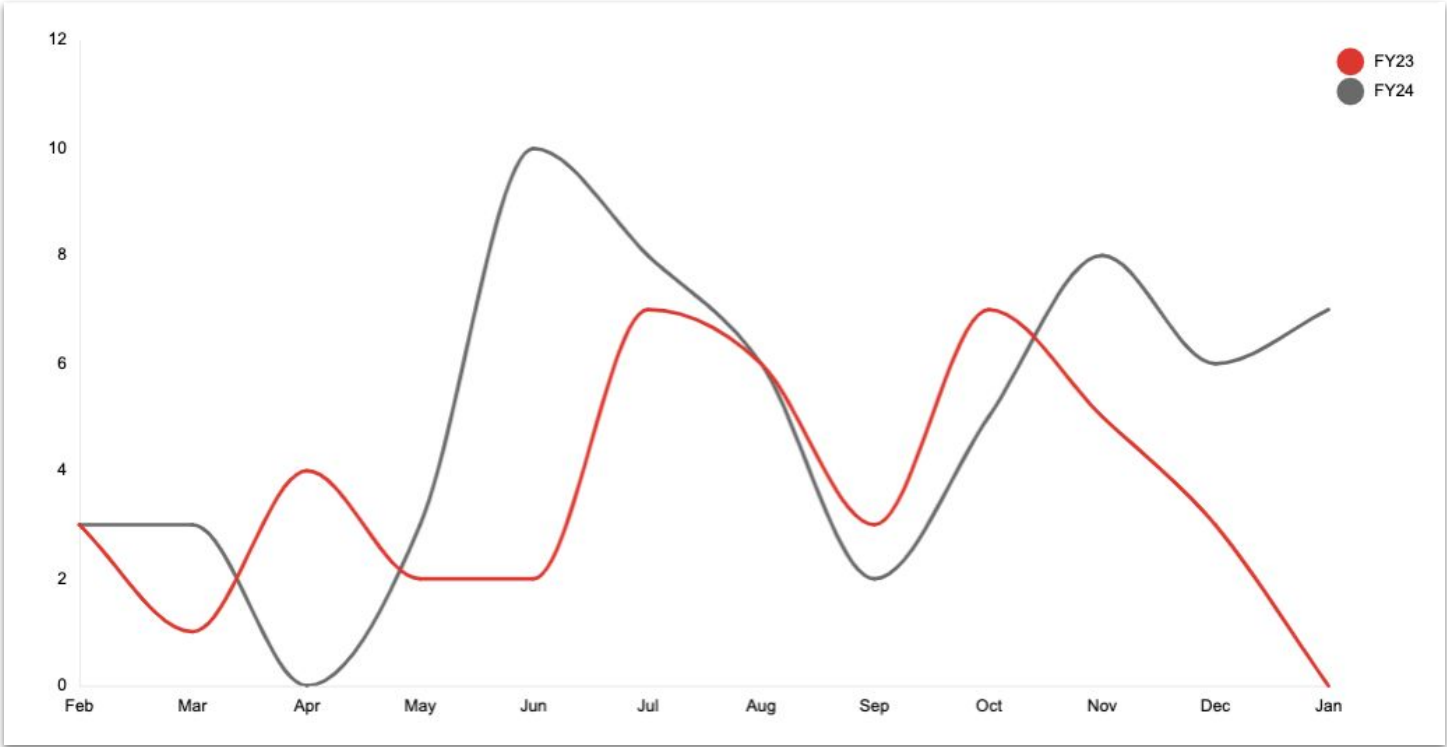
Dashboard chart widget

The screenshot shows the 'Chart Widget' configuration panel. At the top, there is a title 'Chart Widget' with a menu icon and a close button. Below this is a section titled 'Data & Chart Type' with a dropdown arrow. Underneath, the 'Data Source' is set to 'Event Date Metric Sheet', with an 'Edit' link to its right. A red arrow points from a callout box to this 'Event Date Metric Sheet' text. Below the data source, there is a section for 'Columns Included' with an information icon, showing 'All columns' with a close button and a dropdown arrow. Further down are three toggle switches: 'Use column names as category labels' (checked), 'Use first column as series labels' (checked), and 'Switch rows & columns' (unchecked). At the bottom, the 'Chart Type' is set to 'Smooth Line' with a dropdown arrow.

Select the metric sheet as the source.

Don't need to change anything as all now in the right **'shape.'**

Trend chart



Recap

1

Why picking the right visualisation is important.

2

Explore different chart types and learn how to best use them.

3

A closer look at four bonus charts!

4

Preparing your data for visualisation.

Key takeaways

- Design with **question in mind**.
- Embrace **simplicity**.
- Reduce **noise** (ink to data ratio).
- Don't make users **work to interpret** the chart.
- Leverage **metric sheets** for more **visualisation control**.

Where to go from here...

Building a dashboard for the first time?

Great! **Design** your charts **intentionally** using these tips to make them easy to read and understand your question.

Already built some?

Fantastic — a chance for a **refresh**! Go and **review**, and ask: Do the charts effectively communicate the insight you'd hoped? Or is there a better way to visualise them?

Most importantly of all — HAVE FUN DASHBOARDING!

Thank you!

Take the survey

We'd love to hear your thoughts on the session.

**Open this session in the mobile app, click "Survey,"
and answer two questions — it's that easy!**

Thank you.

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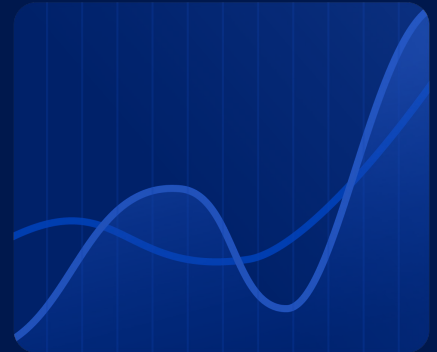
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