

ADD A SECONDARY CALCULATION

With **Running Total** and **Moving Calculation** table calculations, we have the option to transform values **twice** to obtain the result that we want that is, to add a **secondary table calculation** on top of the **primary table calculation**.

For example, we could add an initial table calculation to calculate the running total for sales for a month-on-month basis within each individual year, and then a secondary calculation to calculate the year-over-year percent of total (to find the contribution of each year).

STEPS TO ADD A SECONDARY CALCULATION

Step 1: Drag and drop **Order Date** to **Columns Shelf**

iii Columns

YEAR(Order Date)

≡ Rows

Add secondary calculation to a Quick Table Calculation

Order Date			
2018	2019	2020	2021
Abc	Abc	Abc	Abc

STEPS TO ADD A SECONDARY CALCULATION

Step 2: Right-click and drag & drop **Order Date** to **Rows** Shelf,
Select **MONTH** date part

The screenshot shows the Tableau interface with a table view. The 'Columns' shelf contains 'YEAR(Order Date)' and the 'Rows' shelf is empty. A dialog box titled 'Drop Field' is open, asking 'Which field do you want to drop?'. The dialog box lists various date parts for 'Order Date'. The 'MONTH(Order Date)' option is highlighted. The background table has columns for years (2018, 2019, 2020) and a row with 'Abc' values.

Order Date		
2018	2019	2020
Abc	Abc	Abc

Drop Field

Which field do you want to drop?

- Order Date (Continuous)
- Order Date (Discrete)
- YEAR(Order Date)
- QUARTER(Order Date)
- MONTH(Order Date)**
- DAY(Order Date)
- WEEK(Order Date)
- WEEKDAY(Order Date)
- MY(Order Date)
- MDY(Order Date)
- CNT(Order Date)
- CNTD(Order Date)
- MIN(Order Date)
- MAX(Order Date)
- YEAR(Order Date)
- QUARTER(Order Date)
- MONTH(Order Date)
- WEEK(Order Date)
- DAY(Order Date)
- ATTR(Order Date)

OK Cancel

STEPS TO ADD A SECONDARY CALCULATION

Step 4: Double-click **Sales** from Data pane

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

Month of Order Date	Order Date			
	2018	2019	2020	2021
January	14,237	18,174	18,542	43,971
February	4,520	11,951	22,979	20,301
March	55,691	38,726	51,716	58,872
April	28,295	34,195	38,750	36,522
May	23,648	30,132	56,988	44,261
June	34,595	24,797	40,345	52,982
July	33,946	28,765	39,262	45,264
August	27,909	36,898	31,115	63,121
September	81,777	64,596	73,410	87,867
October	31,453	31,405	59,688	77,777
November	78,629	75,973	79,412	118,448
December	69,546	74,920	96,999	83,829

STEPS TO ADD A SECONDARY CALCULATION

Step 5: Right-click Sales, Quick Table Calculation > Running Total

The screenshot shows the Tableau interface with the following components:

- Columns Shelf:** YEAR(Order Date)
- Rows Shelf:** MONTH(Order Date)
- Marks Shelf:** SUM(Sales)
- Table:** A table showing sales data by month and year.
- Context Menu:** A right-click menu is open over the 'SUM(Sales)' pill, with the 'Quick Table Calculation' option selected, and the 'Running Total' option highlighted in the submenu.

Add secondary calculation to a Quick Table Calculation

Month of Order Date	2018	2019	2020	2021
January	14,237	18,174	18,542	43,971
February	4,520	11,951	22,979	20,301
March	55,691	38,726	51,716	58,872
April	28,295	34,195	38,750	36,522
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June	34,595	24,797	40,345	52,982
July	33,946	28,765	39,262	45,264
August	27,909	36,898	31,115	63,121
September	81,777	64,596	73,410	87,867
	31,453	31,405	59,688	77,777
	78,629	75,973	79,412	118,448
	69,546	74,920	96,999	83,829

STEPS TO ADD A SECONDARY CALCULATION

Step 6: Running Total for Sales is now present

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

Month of Order Date	Order Date			
	2018	2019	2020	2021
January	14,237	32,411	50,953	94,925
February	4,520	16,471	39,450	59,751
March	55,691	94,417	146,133	205,005
April	28,295	62,491	101,241	137,762
May	23,648	53,780	110,768	155,029
June	34,595	59,392	99,737	152,719
July	33,946	62,712	101,974	147,238
August	27,909	64,808	95,923	159,044
September	81,777	146,373	219,783	307,650
October	31,453	62,858	122,546	200,323
November	78,629	154,601	234,013	352,461
December	69,546	144,465	241,464	325,294

STEPS TO ADD A SECONDARY CALCULATION

Step 7: From **Analytics** pane double-click **Totals**

Data

Analytics

Summarize

Constant Line

Average Line

Median with Quartiles

Box Plot

Totals

Model

Average with 95% CI

Median with 95% CI

Trend Line

Forecast

Cluster

Custom

Reference Line

Reference Band

Distribution Band

Box Plot

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

	Order Date			
Month of Order Date	2018	2019	2020	2021
January	14,237	32,411	50,953	94,925
February	4,520	16,471	39,450	59,751
March	55,691	94,417	146,133	205,005
April	28,295	62,491	101,241	137,762
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July	33,946	62,712	101,974	147,238
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Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

	Order Date				
Month of Order Date	2018	2019	2020	2021	Grand Total
January	14,237	32,411	50,953	94,925	94,925
February	4,520	16,471	39,450	59,751	59,751
March	55,691	94,417	146,133	205,005	205,005
April	28,295	62,491	101,241	137,762	137,762
May	23,648	53,780	110,768	155,029	155,029
June	34,595	59,392	99,737	152,719	152,719
July	33,946	62,712	101,974	147,238	147,238
August	27,909	64,808	95,923	159,044	159,044
September	81,777	146,373	219,783	307,650	307,650
October	31,453	62,858	122,546	200,323	200,323
November	78,629	154,601	234,013	352,461	352,461
December	69,546	144,465	241,464	325,294	325,294
Grand Total	484,247	954,780	1,563,986	2,297,201	2,297,201

STEPS TO ADD A SECONDARY CALCULATION

Step 8: Right-click Sales, Edit Table Calculation

The screenshot shows the Tableau interface with a table calculation. The Columns shelf contains `YEAR(Order Date)` and the Rows shelf contains `MONTH(Order Date)`. The Marks card is set to `SUM(Sales)`. A right-click context menu is open over the table, with the **Edit Table Calculation...** option selected.

Add secondary calculation to a Quick Table Calculation

Month of Order Date	2018	2019	2020	2021	Grand Total
January	14,237	32,411	50,953	94,925	94,925
February	4,520	16,471	39,450	59,751	59,751
March	55,691	94,417	146,133	205,005	205,005
April	28,295	62,491	101,241	137,762	137,762
May	23,648	53,780	110,768	155,029	155,029
June	34,595	59,392	99,737	152,719	152,719
July	33,946	62,712	101,974	147,238	147,238
August	27,909	64,808	95,923	159,044	159,044
September	81,777	146,373	219,783	307,650	307,650
October	31,453	62,858	122,546	200,323	200,323
November	78,629	154,601	234,013	352,461	352,461
December	69,546	144,465	241,464	325,294	325,294
Total	484,247	954,780	1,563,986	2,297,201	2,297,201

Context menu options:

- Filter...
- Show Filter
- Format...
- ☒ Include in Tooltip
- Dimension
- Attribute
- ☒ Measure (Sum) ▸
- Discrete
- ☒ Continuous
- Edit in Shelf**
- Compute Using ▸
- △ Edit Table Calculation...**
- Clear Table Calculation
- Quick Table Calculation ▸
- Total using (Automatic) ▸
- Remove

STEPS TO ADD A SECONDARY CALCULATION

Step 9: Table Calculation dialog box appears

Pages

Filters

Marks

Columns

Rows

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

YEAR(Order Date)

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

	Order Date				
Month of Order Date	2018	2019	2020	2021	Grand Total
January	14,237	32,411	50,953	94,925	94,925
February	4,520	16,471	39,450	59,751	59,751
March	55,691	94,417	146,133	205,005	205,005
April	28,295	62,491	101,241	137,762	137,762
May	23,648	53,780	110,768	155,029	155,029
June	34,595	59,392	99,737	152,719	152,719
July	33,946	62,712	101,974	147,238	147,238
August	27,909	64,808	95,923	159,044	159,044
September	81,777	146,373	219,783	307,650	307,650
October	31,453	62,858	122,546	200,323	200,323
November	78,629	154,601	234,013	352,461	352,461
December	69,546	144,465	241,464	325,294	325,294
Grand Total	484,247	954,780	1,563,986	2,297,201	2,297,201

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Cell

Specific Dimensions

☒ Year of Order Date

☐ Month of Order Date

Restarting every

☐ Add secondary calculation

☒ Show calculation assistance

STEPS TO ADD A SECONDARY CALCULATION

Step 10: Select Compute Using > Specific Dimensions > Month of Order Date

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

Month of Order Date	Order Date				Grand Total
	2018	2019	2020	2021	
January	14,237	18,174	18,542	43,971	94,925
February	18,757	30,125	41,521	64,273	154,676
March	74,448	68,852	93,237	123,145	359,682
April	102,743	103,047	131,987	159,666	497,444
May	126,391	133,179	188,975	203,928	652,473
June	160,987	157,976	229,319	256,909	805,191
July	194,933	186,741	268,581	302,174	952,429
August	222,842	223,640	299,697	365,295	1,111,473
September	304,620	288,236	373,107	453,161	1,419,123
October	336,073	319,640	432,795	530,938	1,619,446
November	414,702	395,613	512,207	649,386	1,971,907
December	484,247	470,533	609,206	733,215	2,297,201
Grand Total	484,247	470,533	609,206	733,215	2,297,201

Table Calculation

Running Sum of Sales

Calculation Type

Running Total

Sum

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Cell

Specific Dimensions

☐ Year of Order Date

☒ Month of Order Date

Restarting every

Sort order

Specific Dim...

☐ Add secondary calculation

☒ Show calculation assistance

STEPS TO ADD A SECONDARY CALCULATION

Step 11: Running Total for Sales for a Month-on-Month basis within each year (since the **Compute Using** is done using **Month of Order Date**)

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..

Add secondary calculation to a Quick Table Calculation

	Order Date				
Month of Order Date	2018	2019	2020	2021	Grand Total
January	14,237	18,174	18,542	43,971	94,925
February	18,757	30,125	41,521	64,273	154,676
March	74,448	68,852	93,237	123,145	359,682
April	102,743	103,047	131,987	159,666	497,444
May	126,391	133,179	188,975	203,928	652,473
June	160,987	157,976	229,319	256,909	805,191
July	194,933	186,741	268,581	302,174	952,429
August	222,842	223,640	299,697	365,295	1,111,473
September	304,620	288,236	373,107	453,161	1,419,123
October	336,073	319,640	432,795	530,938	1,619,446
November	414,702	395,613	512,207	649,386	1,971,907
December	484,247	470,533	609,206	733,215	2,297,201
Grand Total	484,247	470,533	609,206	733,215	2,297,201

STEPS TO ADD A SECONDARY CALCULATION

Step 12: Right-click Sales, Edit Table Calculation Select the Add secondary calculation

Pages

Filters

Marks

Columns

Rows

YEAR(Order Date)

MONTH(Order Date)

Add secondary calculation to a Quick Table Calculation

	Order Date				
Month of Order Date	2018	2019	2020	2021	Grand Total
January		3,937	368	25,429	
February		11,369	11,396	22,751	
March		-5,596	24,385	29,908	
April		304	28,940	27,679	
May		6,787	55,796	14,953	
June		-3,011	71,344	27,590	
July		-8,192	81,840	33,592	
August		797	76,057	65,598	
September		-16,384	84,871	80,054	
October		-16,433	113,154	98,144	
November		-19,089	116,594	137,179	
December		-13,715	138,673	124,010	
Grand Total		-13,715	138,673	124,010	

Table Calculation

Difference in Running Sum of Sales

Primary Calculation Type

Running Total

Sum

Secondary Calculation Type

Difference From

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Cell

Specific Dimensions

Month of Order Date

Year of Order Date

Restarting every

Sort order

Specific Dim...

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Cell

Specific Dimensions

Year of Order Date

Month of Order Date

At the level

Relative to

Previous

Add secondary calculation

Show calculation assistance

STEPS TO ADD A SECONDARY CALCULATION

Step 13: Select Secondary Calculation Type as Percent of Total Select Compute Using > Specific Dimensions > Year of Order Date

Pages

Filters

Marks

Columns

Rows

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

YEAR(Order Date)

MONTH(Order Da..)

Add secondary calculation to a Quick Table Calculation

	Order Date				
Month of Order Date	2018	2019	2020	2021	Grand Total
January	15.00%	19.15%	19.53%	46.32%	100.00%
February	12.13%	19.48%	26.84%	41.55%	100.00%
March	20.70%	19.14%	25.92%	34.24%	100.00%
April	20.65%	20.72%	26.53%	32.10%	100.00%
May	19.37%	20.41%	28.96%	31.25%	100.00%
June	19.99%	19.62%	28.48%	31.91%	100.00%
July	20.47%	19.61%	28.20%	31.73%	100.00%
August	20.05%	20.12%	26.96%	32.87%	100.00%
September	21.47%	20.31%	26.29%	31.93%	100.00%
October	20.75%	19.74%	26.72%	32.79%	100.00%
November	21.03%	20.06%	25.98%	32.93%	100.00%
December	21.08%	20.48%	26.52%	31.92%	100.00%
Grand Total	21.08%	20.48%	26.52%	31.92%	100.00%

Table Calculation

% of Total Running Sum of Sales

Primary Calculation Type

Running Total

Sum

Secondary Calculation Type

Percent of Total

☐ Compute total across all pages

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Cell

Specific Dimensions

☒ Month of Order Date

☐ Year of Order Date

Restarting every

Sort order

Specific Dim...

☒ Add secondary calculation

☒ Show calculation assistance

Compute Using

Table (across)

Table (down)

Table

Cell

Specific Dimensions

☒ Year of Order Date

☐ Month of Order Date

At the level

Sort order

Specific Dimensions

STEPS TO ADD A SECONDARY CALCULATION

Step 14: Now we have a secondary calculation of Year-over-Year Percent of Total for Sales (to find the Sales % contribution of each year)

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Sales)

Columns

YEAR(Order Date)

Rows

MONTH(Order Da..

Add secondary calculation to a Quick Table Calculation

Month of Order Date	Order Date				Grand Total
	2018	2019	2020	2021	
January	15.00%	19.15%	19.53%	46.32%	100.00%
February	12.13%	19.48%	26.84%	41.55%	100.00%
March	20.70%	19.14%	25.92%	34.24%	100.00%
April	20.65%	20.72%	26.53%	32.10%	100.00%
May	19.37%	20.41%	28.96%	31.25%	100.00%
June	19.99%	19.62%	28.48%	31.91%	100.00%
July	20.47%	19.61%	28.20%	31.73%	100.00%
August	20.05%	20.12%	26.96%	32.87%	100.00%
September	21.47%	20.31%	26.29%	31.93%	100.00%
October	20.75%	19.74%	26.72%	32.79%	100.00%
November	21.03%	20.06%	25.98%	32.93%	100.00%
December	21.08%	20.48%	26.52%	31.92%	100.00%
Grand Total	21.08%	20.48%	26.52%	31.92%	100.00%