# Follow-along guide: Work with Tableau, Part 2

## This document includes detailed instructions for how to perform the data visualizations described in the video "Work with Tableau, Part 2."

**The following guide points out areas of the video that may require adjustment. These reference guides can also serve as a set of usability reminders for you to recall when using Tableau in your future career.**

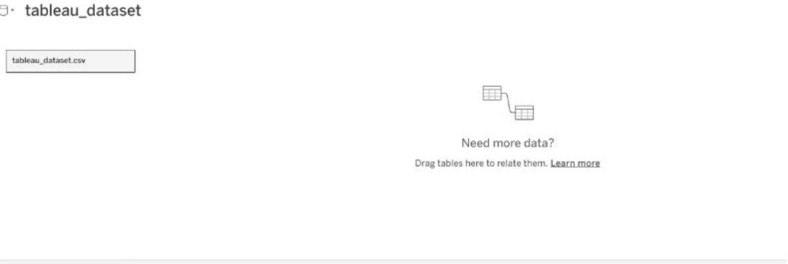
**Instructions**

- Go to https://public.tableau.com/s/
- Since you've already set up your Tableau Public profile, all you need to do is log in and select **Web Authoring** under **Create** in the navigation bar.
- Select the appropriate CSV file provided in the instructions. The dataset you'll use with this instructional video is: tableau_dataset.csv.
  - Please be aware that when you download the zip file folder provided, the computer automatically names that zip file folder with a long string of numbers and letters. You have to open that folder and then upload the individual files that are named correctly and match what's shown in the video.

(**Note:** Please allow several minutes for dataset upload.)

Before you can start designing visualizations, you'll first need to upload your data. You'll need to upload the specific dataset files to Tableau. Do not upload the entire .zip folder. When you download the zip folder from this page, your computer will automatically download a .zip file folder. The .zip folder is automatically named with a series of letters and numbers. Open that .zip folder, then save the individual dataset files. The two files are: tableau_main_2009_to_2018.csv and tableau_dataset.csv. Once you can see the individual dataset files, proceed to upload your dataset for this video to Tableau Public.

Notice on the data source tab that you can see all of your column headers and Tableau icons that help you determine data types. In this case, you'll see a calendar icon, globe icons, and pound signs.

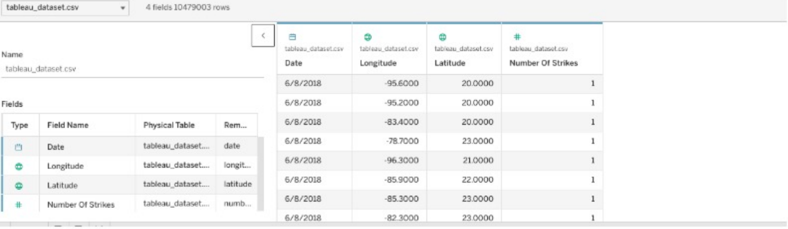


tableau_dataset

tableau_dataset.csv

Need more data?

Drag tables here to relate them. Learn more



tableau_dataset.csv

4 fields 10479003 rows

Name

tableau_dataset.csv

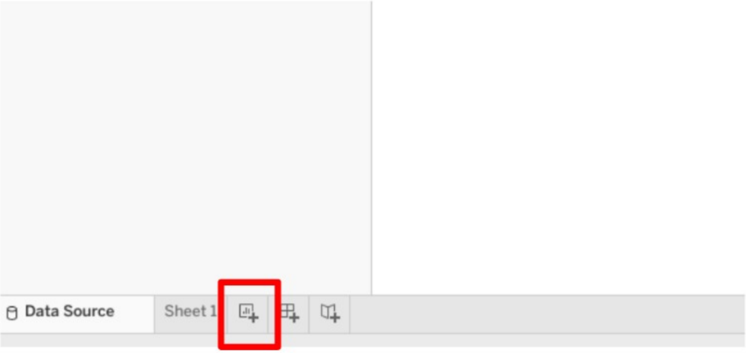
Fields

| Type | Field Name | Physical Table | Rem... |
|---|---|---|---|
| 📅 | Date | tableau_dataset.... | date |
| 🌐 | Longitude | tableau_dataset.... | longit... |
| 🌐 | Latitude | tableau_dataset.... | latitude |
| # | Number Of Strikes | tableau_dataset.... | numb... |

| tableau_dataset.csv<br>Date | tableau_dataset.csv<br>Longitude | tableau_dataset.csv<br>Latitude | tableau_dataset.csv<br>Number Of Strikes |
|---|---|---|---|
| 6/8/2018 | -95.6000 | 20.0000 | 1 |
| 6/8/2018 | -95.2000 | 20.0000 | 1 |
| 6/8/2018 | -83.4000 | 20.0000 | 1 |
| 6/8/2018 | -78.7000 | 23.0000 | 1 |
| 6/8/2018 | -96.3000 | 21.0000 | 1 |
| 6/8/2018 | -85.9000 | 22.0000 | 1 |
| 6/8/2018 | -85.3000 | 23.0000 | 1 |
| 6/8/2018 | -82.3000 | 23.0000 | 1 |

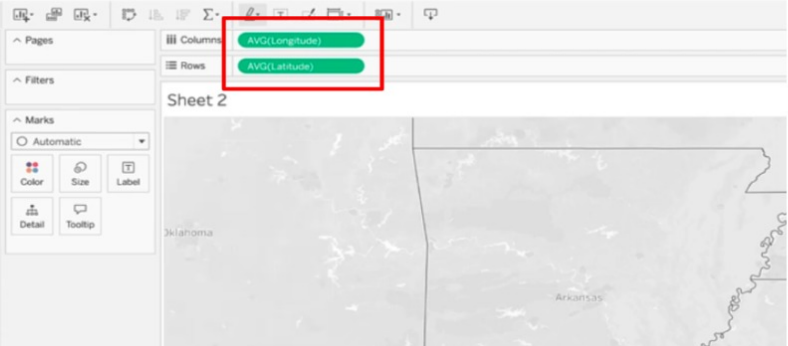
- Click on NEW WORKSHEET.

(**Note:** Please allow several minutes for data import into a new worksheet)


Data Source
Sheet 1

- Drag LONGITUDE into the column field. Drag LATITUDE into the rows field.

(**Note:** Make sure the latitude and longitude fields are set to continuous dimensions)



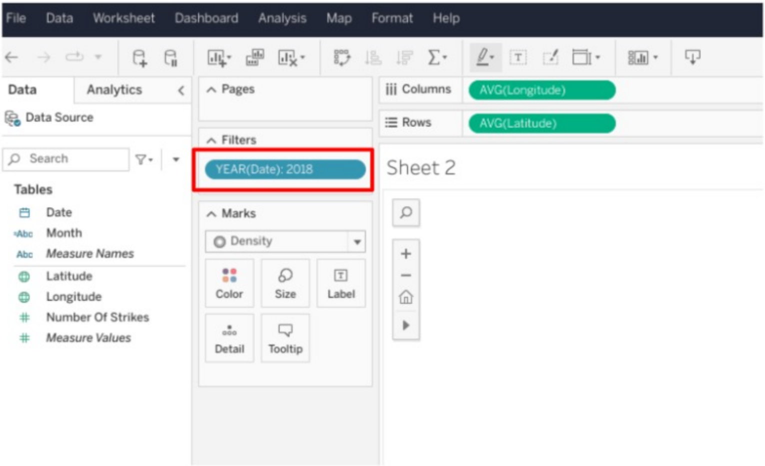
Columns: AVG(Longitude)

Rows: AVG(Latitude)

Sheet 2

Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Oklahoma
Arkansas

- Drag DATE into Filters field. Filter to only 2018.


File
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Worksheet
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Analysis
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Analytics
Data Source
Search
Tables
Date
Month
Measure Names
Latitude
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Number Of Strikes
Measure Values
Pages
Filters
YEAR(Date): 2018
Marks
Density
Color
Size
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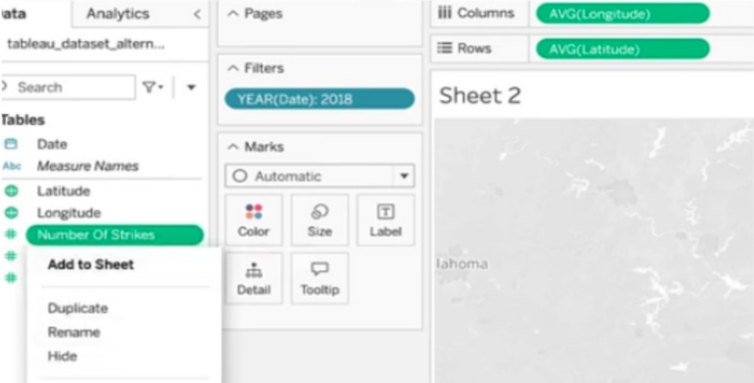
Detail
Tooltip
Columns
AVG(Longitude)
Rows
AVG(Latitude)
Sheet 2

- Click on NUMBER OF STRIKES dropdown.
- Select "Convert to Dimension."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Latitude
Longitude
Number Of Strikes
Add to Sheet
Duplicate
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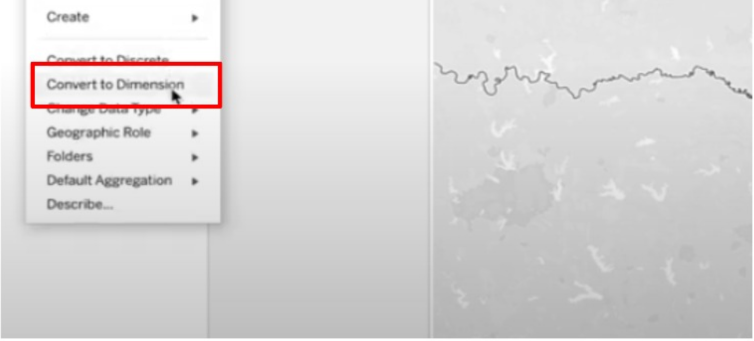
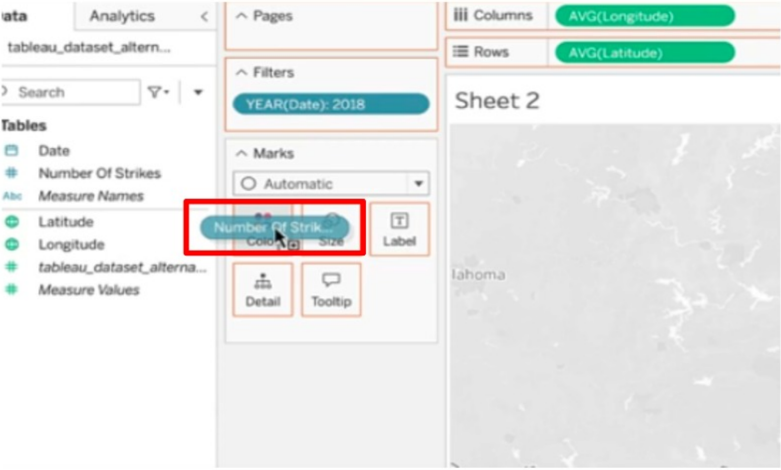
Pages
Filters
YEAR(Date): 2018
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
AVG(Longitude)
Rows
AVG(Latitude)
Sheet 2
lahoma


Create
Convert to Discrete
Convert to Dimension
Change Data Type
Geographic Role
Folders
Default Aggregation
Describe...

- Drag NUMBER of STRIKES to the box labeled COLOR.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Latitude
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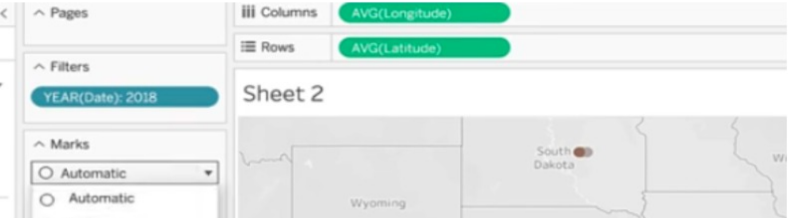
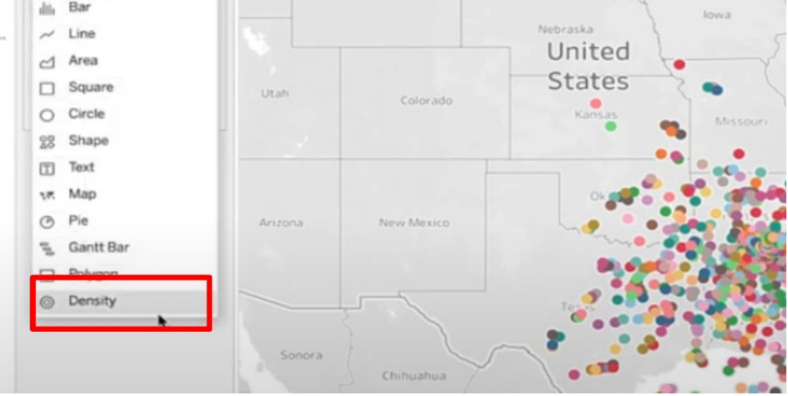
Measure Values
Pages
Filters
YEAR(Date): 2018
Marks
Automatic
Number Of Strik...
Color
Size
Label
Detail
Tooltip
Columns
AVG(Longitude)
Rows
AVG(Latitude)
Sheet 2
lahoma

- Select Density in MARKS dropdown.


Pages
Filters
YEAR(Date): 2018
Marks
Automatic
Automatic
Columns
AVG(Longitude)
Rows
AVG(Latitude)
Sheet 2
South Dakota
Wyoming


Bar
Line
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Shape
Text
Map
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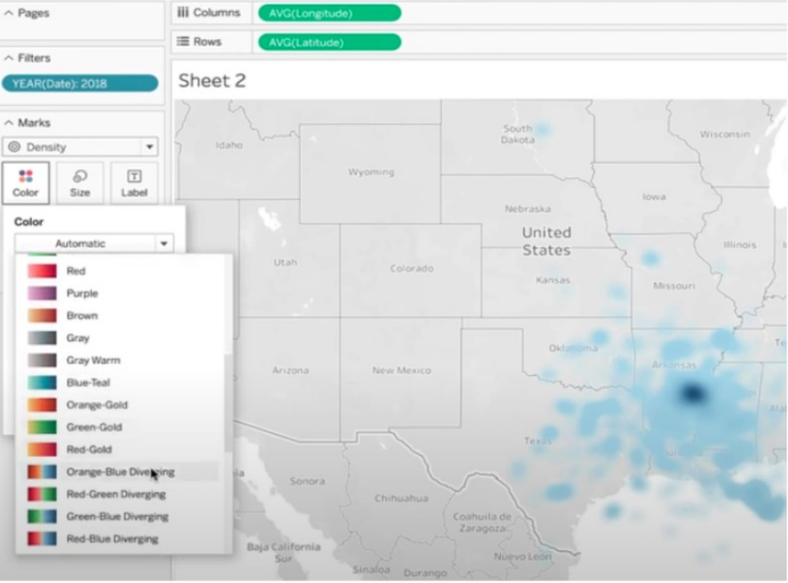
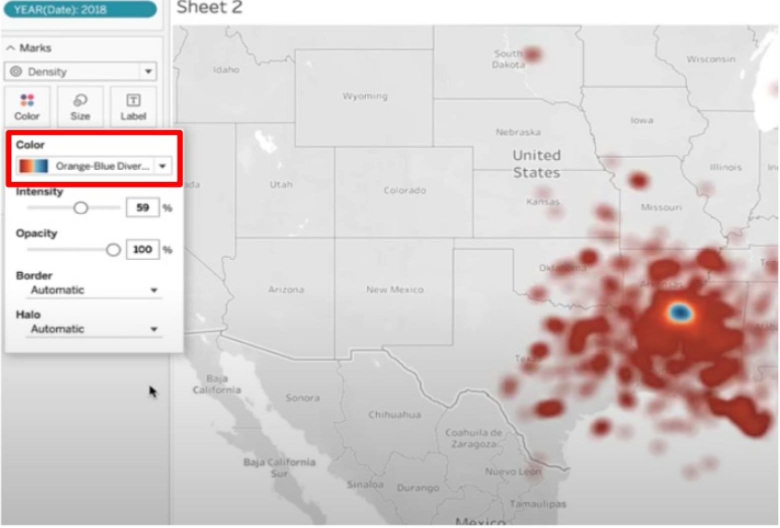
Polygon
Density
Nebraska
United States
Iowa
Utah
Colorado
Kansas
Missouri
Arizona
New Mexico
Ok
Texas
Sonora
Chihuahua

- Click on color and show the dropdown. Select any color you'd like.


Columns AVG(Longitude)
Rows AVG(Latitude)
Filters YEAR(Date): 2018
Marks Density
Color Automatic
Pages
Sheet 2
Color
Size
Label
Red
Purple
Brown
Gray
Gray Warm
Blue-Teal
Orange-Gold
Green-Gold
Red-Gold
Orange-Blue Diverging
Red-Green Diverging
Green-Blue Diverging
Red-Blue Diverging
Idaho
South Dakota
Wisconsin
Wyoming
Iowa
Nebraska
United States
Illinois
Utah
Colorado
Kansas
Missouri
Oklahoma
Arkansas
Arizona
New Mexico
Texas
Sonora
Chihuahua
Coahuila de Zaragoza
Baja California Sur
Nuevo Leon
Sinaloa
Durango

- And here is your geographic map of the location of lightning strikes in the U.S. in 2018.

Rows AVG(Latitude)


YEAR(Date): 2018
Sheet 2
Marks
Density
Color
Size
Label
Idaho
Wyoming
South Dakota
Wisconsin
Nebraska
Iowa
United States
Illinois
Utah
Colorado
Kansas
Missouri
Arizona
New Mexico
Oklahoma
Arkansas
Texas
Baja California
Sonora
Chihuahua
Coahuila de Zaragoza
Baja California Sur
Sinaloa
Durango
Nuevo Leon
Tamaulipas
Mexico

Color: Orange-Blue Diver...

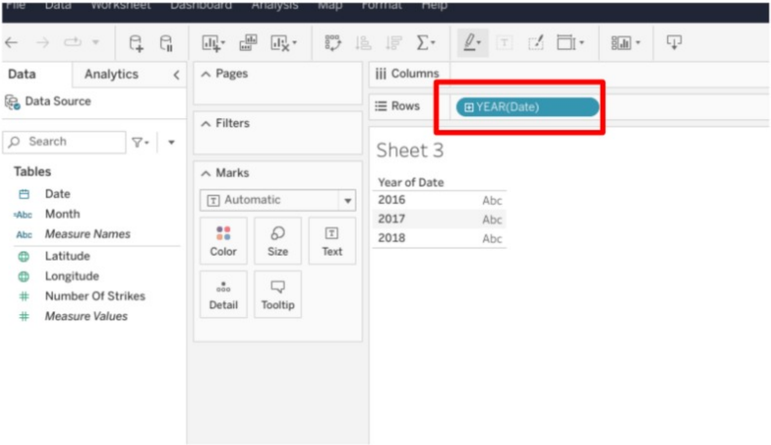
Intensity: 59 %

Opacity: 100 %

Border: Automatic

Halo: Automatic

- Click on “new worksheet.”
- Drag DATE to the ROW field and select YEAR.


File
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Date
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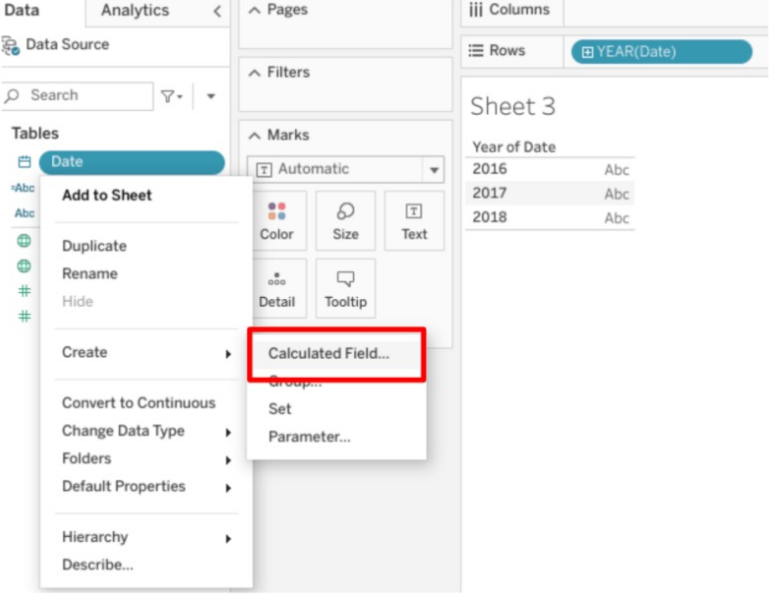
Measure Names
Latitude
Longitude
Number Of Strikes
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns

Rows: YEAR(Date)

Sheet 3

| Year of Date | |
|---|---|
| 2016 | Abc |
| 2017 | Abc |
| 2018 | Abc |

- Click on DATE dropdown in the “Tables” menu. Click CREATE and select Calculated Field.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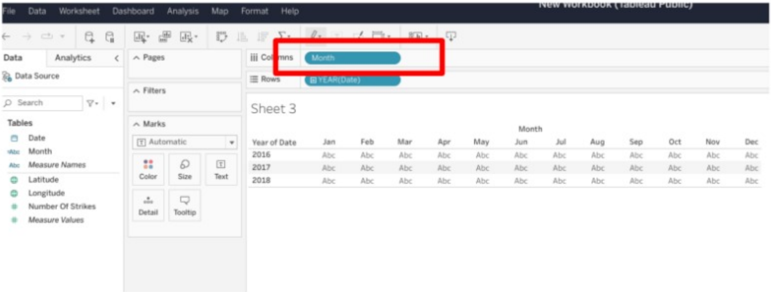
YEAR(Date)
Add to Sheet
Duplicate
Rename
Hide
Create
Convert to Continuous
Change Data Type
Folders
Default Properties
Hierarchy
Describe...
Calculated Field...
Group...
Set
Parameter...

Sheet 3

| Year of Date | |
|---|---|
| 2016 | Abc |
| 2017 | Abc |
| 2018 | Abc |

- Type in Month for Calculated Field name.
- Type into field:
  - `LEFT(DATENAME('month',[date]),3)`
  - Click Apply.
  - Click OK.
- Drag month to column field.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New Workbook (Tableau Public)
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Longitude
Number Of Strikes
Measure Values
Pages
Filters
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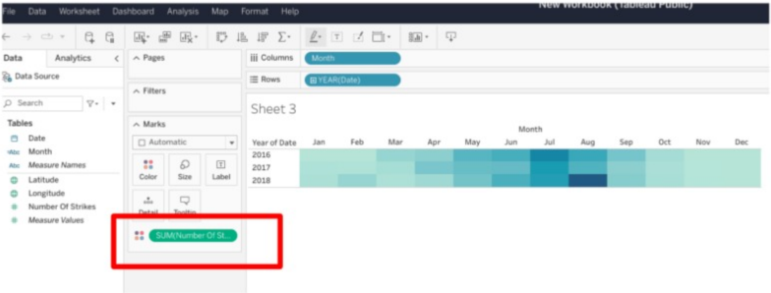
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Month
Rows
YEAR(Date)

Sheet 3

| | Month | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year of Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2016 | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc |
| 2017 | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc |
| 2018 | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc | Abc |

- Drag NUMBER of STRIKES to the color square under the MARKS field.

- Make sure NUMBER of STRIKES is converted to Measure. To do so, right click on Number of Strikes field and select ‘Convert to Measure.’



File Data Worksheet Dashboard Analysis Map Format Help
New Workbook (Tableau Public)
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Measure Values
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Color
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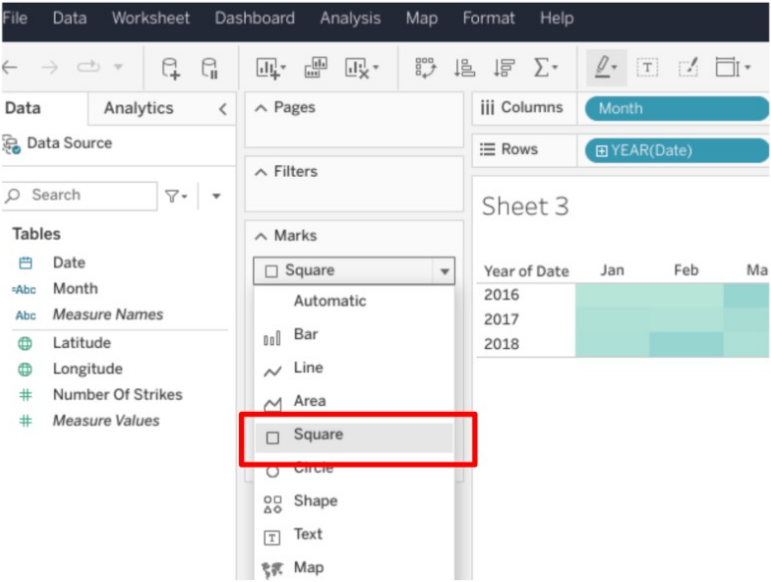
Tooltip
SUM(Number Of St...
Columns
Month
Rows
YEAR(Date)
Sheet 3
Month
Year of Date
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2016
2017
2018

- In Marks dropdown, select SQUARE.



File Data Worksheet Dashboard Analysis Map Format Help
Data
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Text
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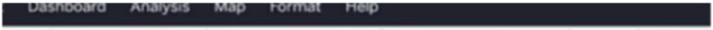
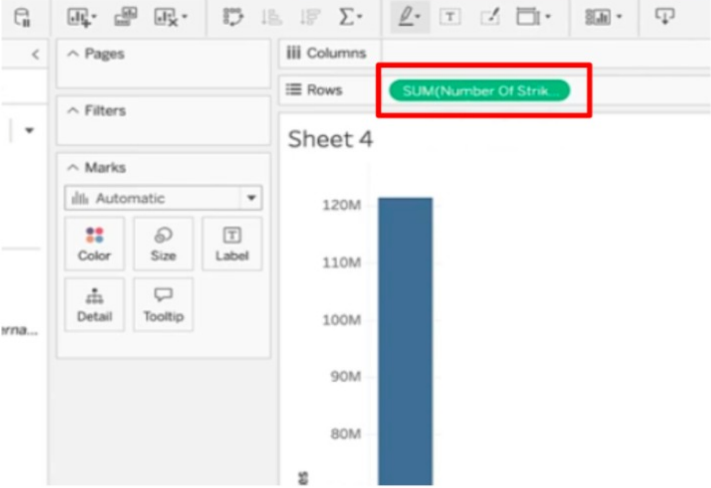
Columns
Month
Rows
YEAR(Date)
Sheet 3
Year of Date
Jan
Feb
Ma
2016
2017
2018

- Feel free to change the color. You’ve completed a heatmap.
- Click on NEW WORKSHEET.
- Drag NUMBER OF STRIKES to the rows field.



Dashboard Analysis Map Format Help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Color
Size
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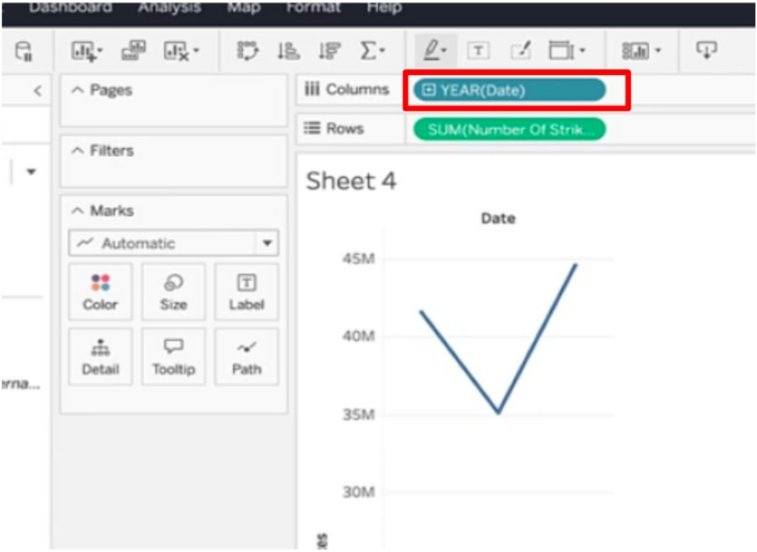
rna...
Columns
Rows
SUM(Number Of Strik...
Sheet 4
120M
110M
100M
90M
80M

- Drag DATE to the column field and select YEAR.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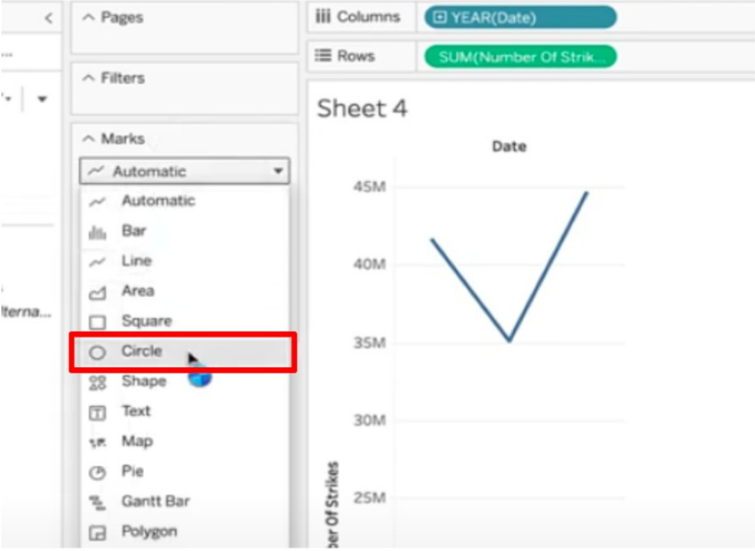
Columns
YEAR(Date)
Rows
SUM(Number Of Strik...
Sheet 4
Date
45M
40M
35M
30M

- **Note:** If nothing is shown in the Columns field, drag YEAR back to the Columns filter again.

- Select CIRCLE from MARKS dropdown.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YEAR(Date)
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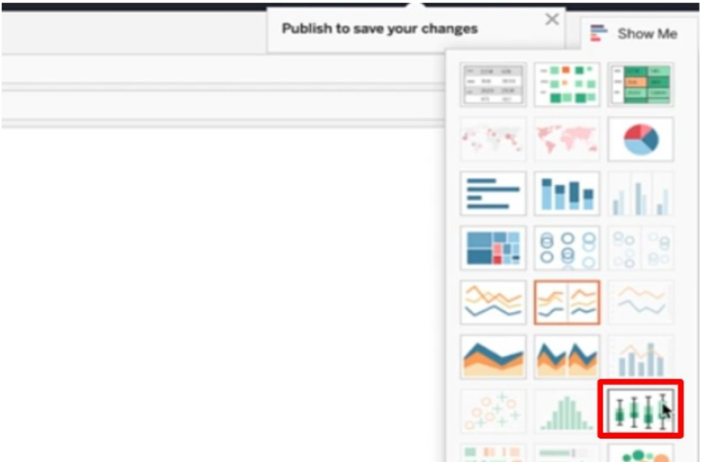
SUM(Number Of Strik...
Sheet 4
Date
45M
40M
35M
30M
25M
ber Of Strikes

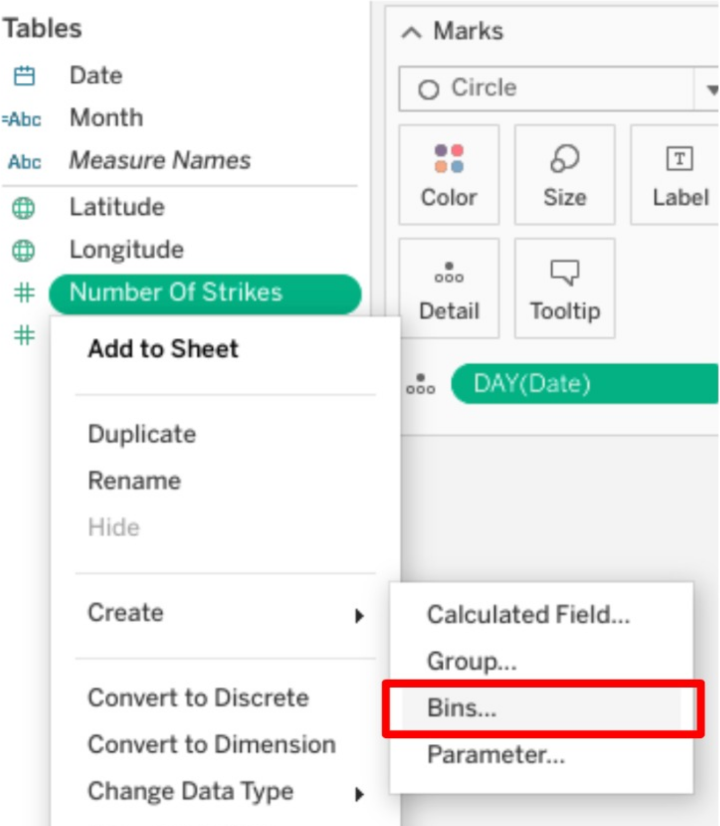
- **Note**: If box plot isn't the default, select the BOX and WHISKER PLOT from the SHOW ME dropdown.
- Drag Date to the column field again, if that has been removed.


Publish to save your changes

For box-and-whisker plots try
0 or more Dimensions
1 or more Measures

- Drag DATE into the detail square under the MARKS field, and select DAY. **Note:** When you do this, you'll see that Tableau changes your YEAR(Date) filter to QUARTER(Date) to show an additional level of detail. That change is shown in the instructional video, so please proceed.

- Now you've completed a boxplot.
- Click on NEW WORKSHEET.
- Click on the dropdown of NUMBER of STRIKES in Table menu, and select CREATE and then BINS.


Tables
Date
Month
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Latitude
Longitude
Number Of Strikes
Add to Sheet
Duplicate
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Create
Convert to Discrete
Convert to Dimension
Change Data Type
Calculated Field...
Group...
Bins...
Parameter...
Marks
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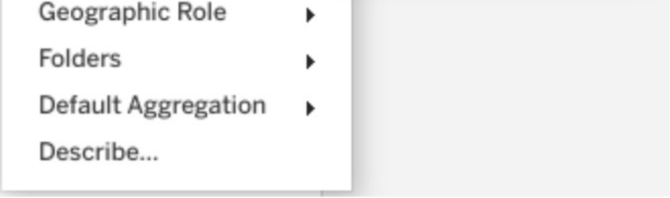
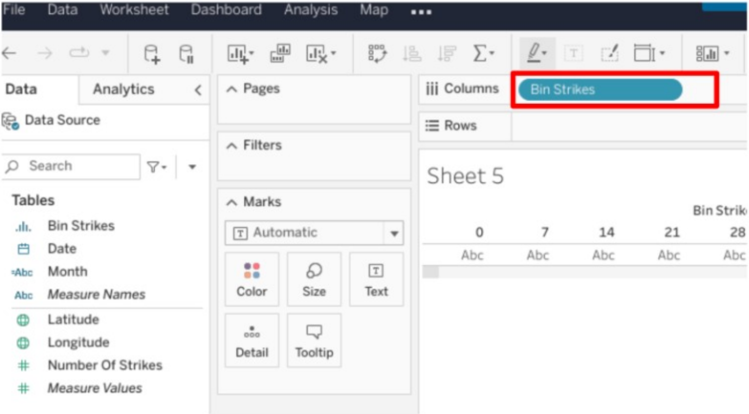
Label
Detail
Tooltip
DAY(Date)


Geographic Role
Folders
Default Aggregation
Describe...

- Give bin a name: BIN STRIKES.
- Select a number between 5 and 10 for “Size of Bins” field.
- Drag BIN STRIKES to columns field.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Abc
Abc
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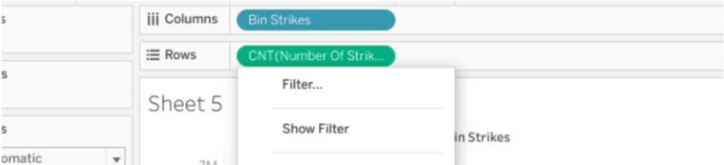
Abc

- Drag NUMBER OF STRIKES to Row Field.
- In NUMBER of STRIKES dropdown, make sure COUNT is selected.


Columns
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Sheet 5
Filter...
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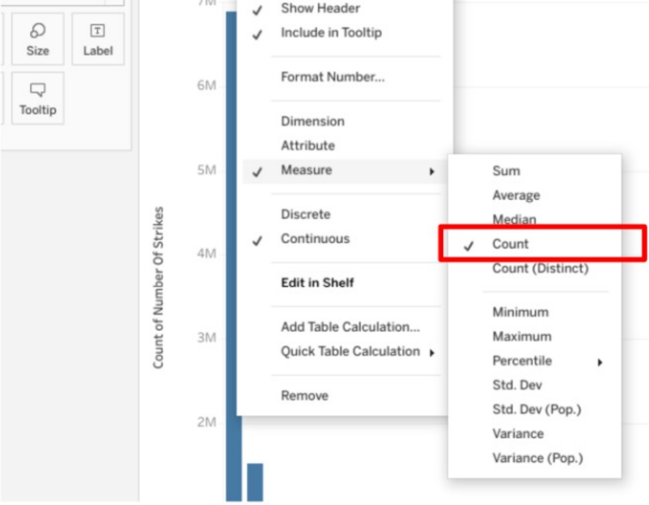
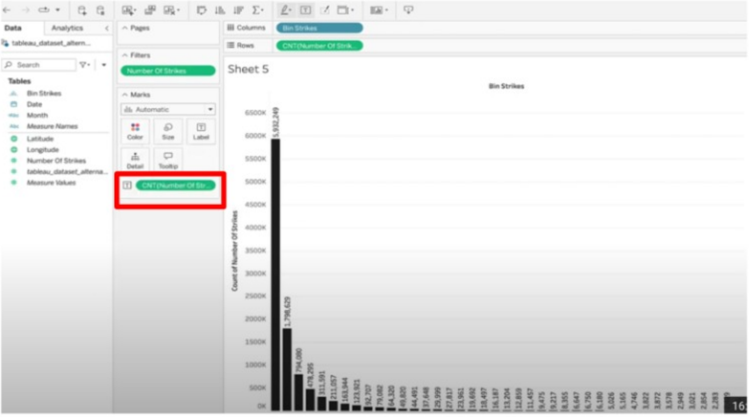

Size
Label
Tooltip
7M
6M
5M
4M
3M
2M
Count of Number Of Strikes
Show Header
Include in Tooltip
Format Number...
Dimension
Attribute
Measure
Discrete
Continuous
Edit in Shelf
Add Table Calculation...
Quick Table Calculation
Remove
Sum
Average
Median
Count
Count (Distinct)
Minimum
Maximum
Percentile
Std. Dev
Std. Dev (Pop.)
Variance
Variance (Pop.)

- Drag NUMBER of STRIKES to filter field.
- Limit the field numbers between 1 and 200.
- Drag NUMBER of STRIKES to the LABEL.
- Select COUNT.
- Change color as desired.
- Now you know how to create a histogram!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Rows
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Sheet 5
Bin Strikes
Count of Number Of Strikes
6500K
6000K
5500K
5000K
4500K
4000K
3500K
3000K
2500K
2000K
1500K
1000K
500K
0K
5,932,249
1,798,629
794,090
478,295
311,591
211,057
163,944
123,921
92,707
79,082
64,320
49,820
44,491
37,648
29,999
27,817
23,961
19,692
18,497
16,187
13,204
12,859
11,457
9,475
9,217
8,355
6,647
6,750
6,180
5,026
5,165
4,746
3,822
3,872
3,578
2,949
3,021
2,854
2,283
16

**Mark as completed**

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