

# Introduction to Tableau

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# Overview

- ❖ Download & Install Tableau
- ❖ Introduction
- ❖ Prepare data to transform to a visual
- ❖ Work with Tableau
  - Intro to Tableau Interface
  - Connecting to data
- ❖ Create the visual
  - Overview of a worksheet
  - Create worksheets
- ❖ Create an interactive dashboard
- ❖ Save/Publish
- ❖ Additional Resources



# Step 1: Download & Install Tableau

Everyone can download Tableau Public for free from  
**<https://public.tableau.com/en-us/s/download>**

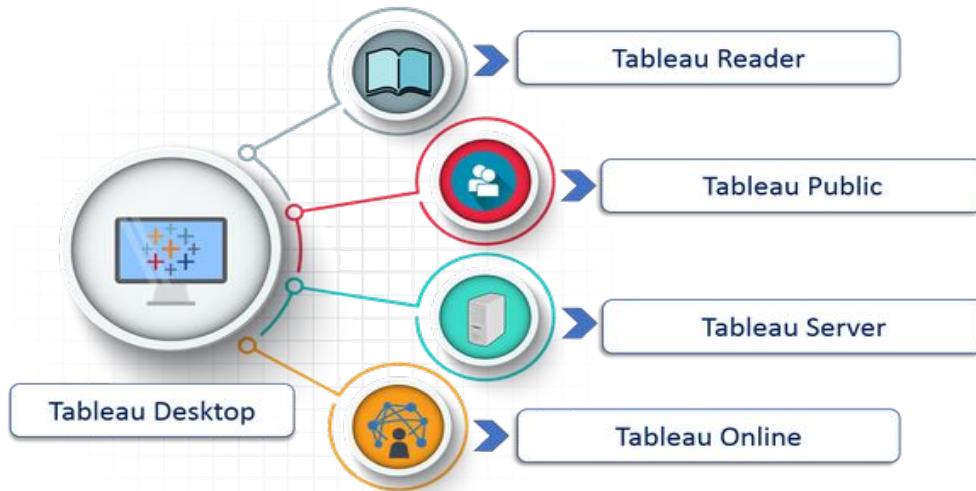
Once it's installed, go to **<https://public.tableau.com/s/>** to sign up for an account/profile.

Tableau Academic Program: **<https://www.tableau.com/academic>**

The student/Instructor license expires after one year; you can request a new license each year as a full-time student.

# What is Tableau?

An interactive data visualization software that allows you to tell a story about your data.



# Tableau Family

Tableau offers five main products which are:

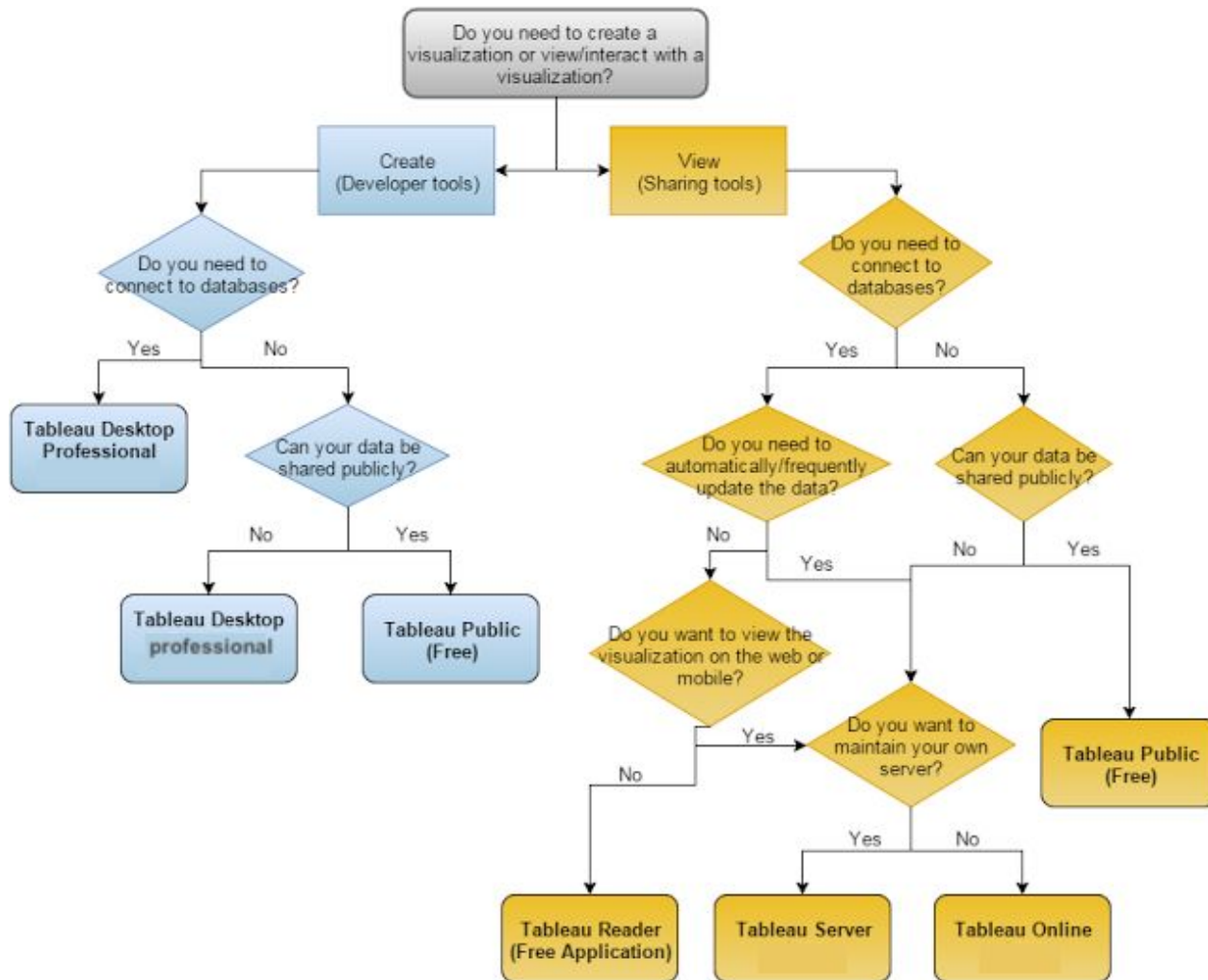
<https://www.tableau.com/products>

## Developer Tools

- ❖ **Tableau Desktop**
- ❖ **Tableau Public**

## Sharing Tools

- ❖ **Tableau Server:** Collaboration in organizations
- ❖ **Tableau Reader:** Let you read files saved in Tableau Desktop
- ❖ **Tableau Online:** Similar to Tableau Server (On Cloud)



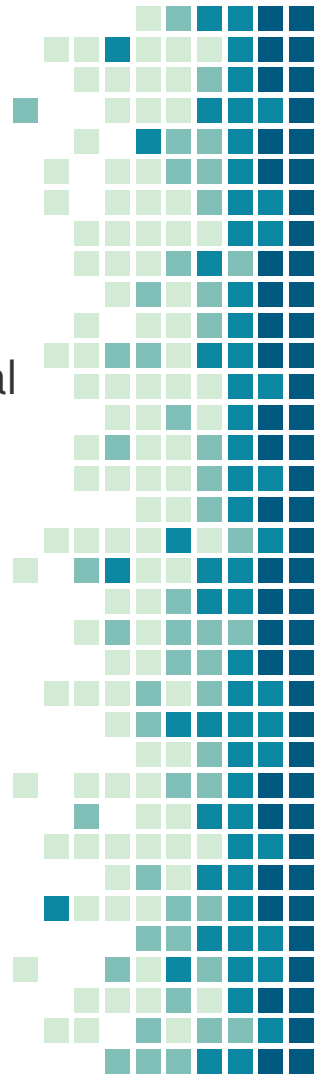
# Tableau file types:

## ❖ **Tableau Workbook (.twb)**

It relies on a live data source connection and doesn't contain the actual data within the workbook file.

## ❖ **Tableau Packaged Workbook (.twbx)**

It contains both the Tableau workbooks and the data!



# Workbooks are made up of:

- ❖ **Worksheet(s):**

Worksheets are where you create your visualization.

- ❖ **Dashboard(s):**

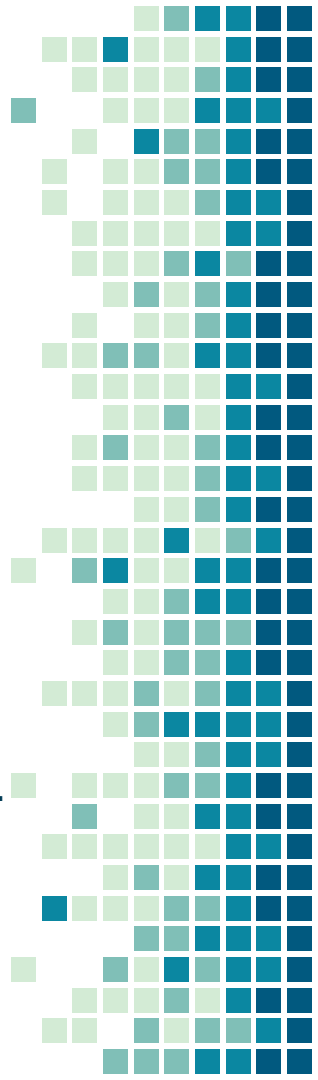
It is a canvas that displays one or more worksheets.

Example: [Visual Vocabulary](#) by Andy Kriebel

- ❖ **Story(s):**

Enables you to snapshot visualizations and step a user through a story.

Example: [Race to Alaska](#) by Anthony Gould





## Step 2: Getting Started with Tableau

- ❖ The dataset we will use in this workshop can be downloaded from

<https://github.com/BCDigSchol/coffee-code>  
e

Go to Introduction to Tableau Workshop folder,  
download `marathon_results_2017 Tableau workshop.xlsx`

More...



Connections

marathon\_results\_2017

Text File

Files

Use Data Interpreter

Data Interpreter might be able to clean your Text File workbook.

2016年人口前十位死因.csv

2017\_statistics.tab

acq\_testing.txt

dataset-51...101722.csv

dataset-51...110255.csv

Expenditure...171153.csv

faculty\_and...ids (1).csv

faculty\_and...ids (2).csv

faculty\_and...ids (3).csv

faculty\_and...rcid\_ids.csv

flavors\_of\_cacao.csv

Julia - Fall ...8\_11.56 2.csv

Julia - Fall ...018\_11.56.csv

la\_ra\_stats\_8-01-10.csv

la\_transacti...18-01-10.csv

New Union

marathon\_results\_2017.csv

Sort filters

Data source order

Show aliases

Show hidden fields

1,000

rows

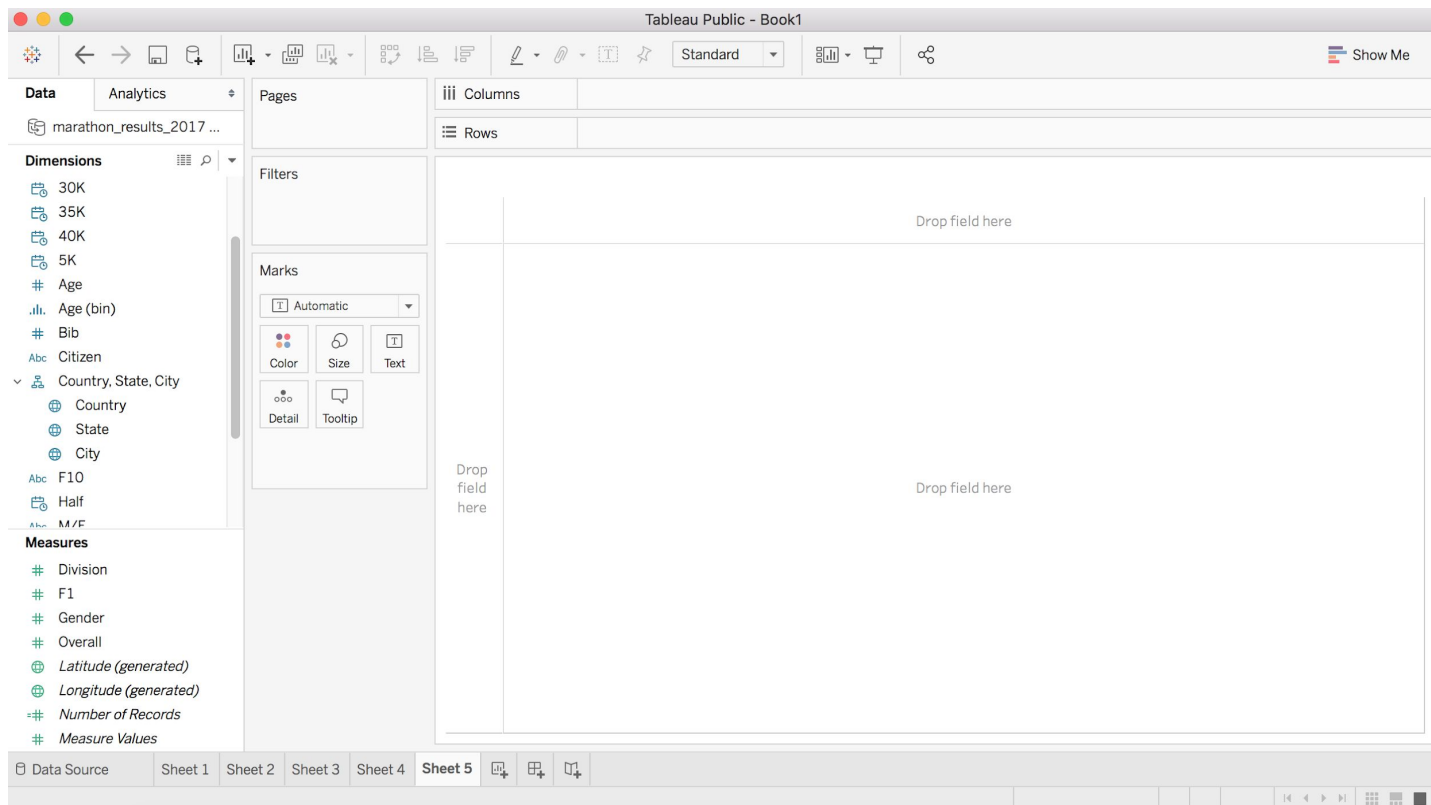
| # | marathon...<br>F1 | #                  | marathon...<br>Bib | Abc<br>marathon_results_2017.csv<br>Name | #                | marathon...<br>Age | Abc<br>marathon_res...<br>M/F | #      | marathon_results_201...<br>City | # | marathon_results...<br>State | # | marathon_results_2...<br>Country | Abc<br>marathon_results...<br>Citizen | Abc<br>marathon_res...<br>F10 | marathon...<br>5K |
|---|-------------------|--------------------|--------------------|--|------------------|--------------------|-------------------------------|--------|---------------------------------|---|------------------------------|---|----------------------------------|---------------------------------------|-------------------------------|-------------------|
| 0 | 11                | Kirui, Geoffrey    | 24                 | M  | Keringet         | OR                 | KEN                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 1 | 17                | Rupp, Galen        | 30                 | M  | Portland         | OR                 | USA                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 2 | 23                | Osako, Suguru      | 25                 | M  | Machida-City     |                    | JPN                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 3 | 21                | Blwott, Shadrack   | 32                 | M  | Mammoth Lakes    | CA                 | USA                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 4 | 9                 | Chebet, Wilson     | 31                 | M  | Marakwet         |                    | KEN                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 5 | 15                | Abdirahman, Abdi   | 40                 | M  | Phoenix          | AZ                 | USA                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 6 | 63                | Maiyo, Augustus K. | 33                 | M  | Colorado Springs | CO                 | USA                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 7 | 7                 | Sefir, Dino        | 28                 | M  | Addis Ababa      |                    | ETH                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |
| 8 | 18                | Pickeltra I like   | 27                 | M  | Finene           | OR                 | USA                           | 12/30/ |                                 |   |                              |   |                                  |                                       |                               |                   |

Go to Worksheet

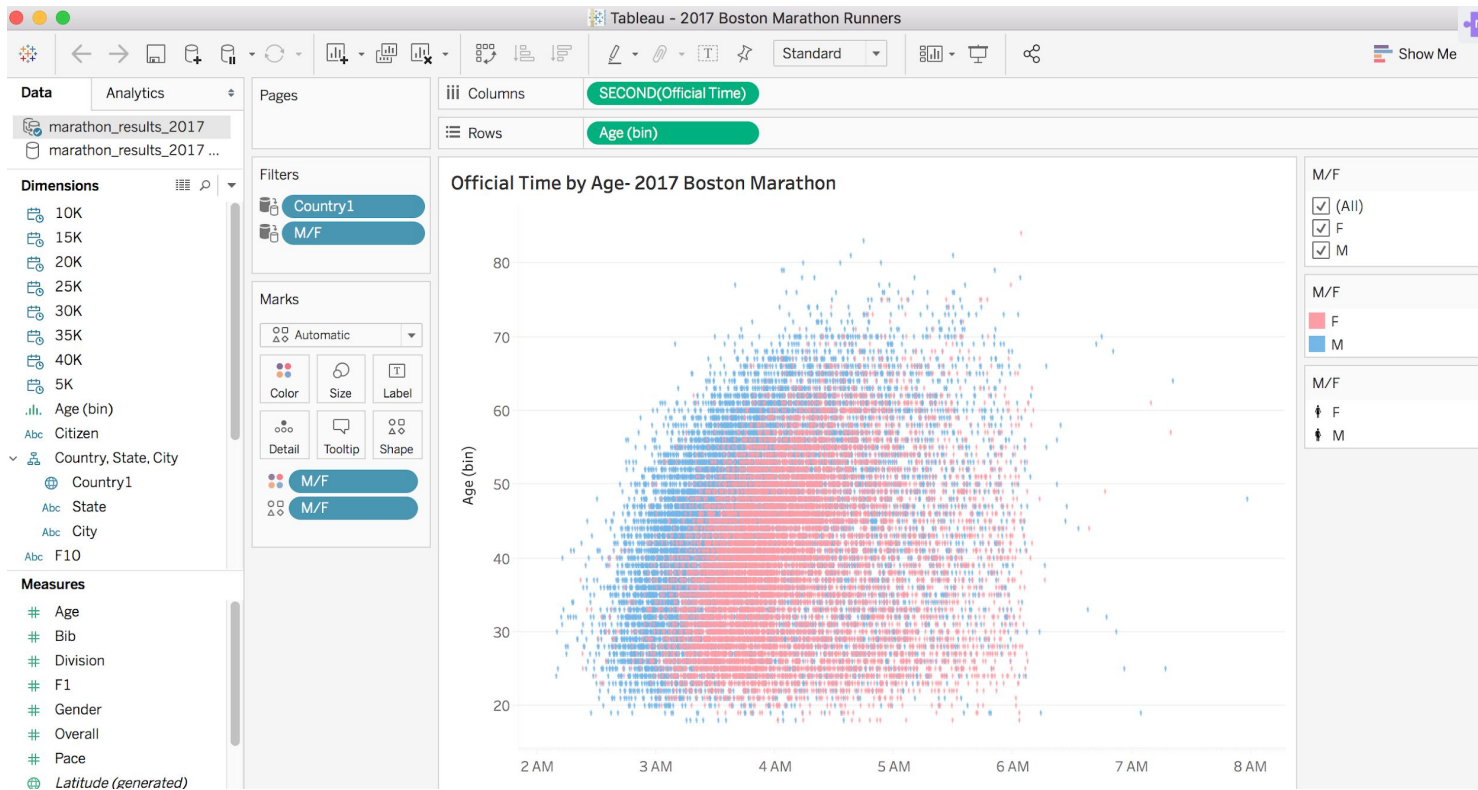
Data Source

Sheet 1

# Step 4: Tableau Workbook Interface



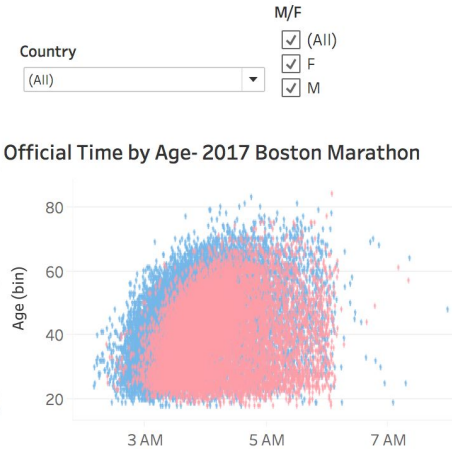
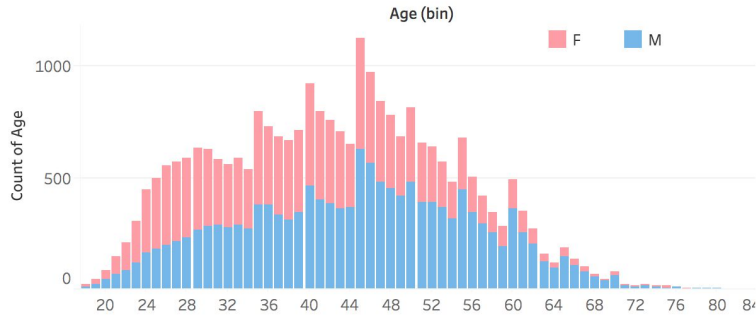
# Step 5: Creating Views and Analysis



# Step 6: Create an interactive dashboard

## 2017 Boston Marathon Results Analysis

### 2017 Boston Marathon Runners by Age & Gender



### Pace by Gender



# Step 7: Save and Publish

The screenshot shows the Tableau Desktop interface. The 'Server' menu is open, highlighting 'Publish Workbook...'. The dashboard, titled '2017 Boston Marathon Results', contains three visualizations:

- 2017 Boston Marathon Runners by Age:** A bar chart showing the count of runners by age bin (20-84) for females (F, red) and males (M, blue). The y-axis is 'Count of Age' (0-1000).
- Official Time by Age- 2017 Boston Marathon:** A scatter plot showing age (bin) on the y-axis (20-80) against time on the x-axis (3 AM, 5 AM, 7 AM). Data points are colored by gender (F, red; M, blue).
- Pace by Gender:** A line chart showing the count of pace for males (blue line) and females (red line) across different pace bins. The y-axis is 'Count of Pace' (0-1500).

The left sidebar shows the 'Sheets' list (Sheet 1 to Sheet 12) and 'Objects' panel (Horizontal, Vertical, Text, Image, Web Page, Blank). The top status bar indicates the user is signed in to https://public.tableau.com.

## Additional Resources

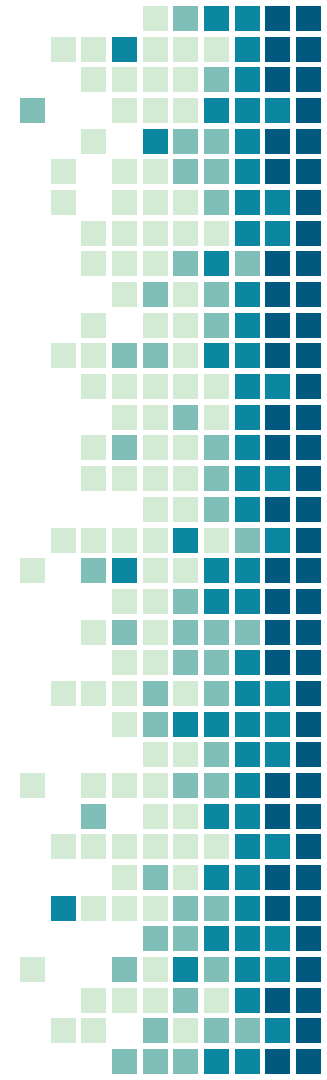
- [Tableau Community](#)

Join the Tableau Community Forums to find solutions for what you need to accomplish. Ask questions to receive help and feedback.

- [Tableau Visual Gallery](#)

Get inspired by the many interactive visualizations in the Visual Gallery. Download the workbooks to play with on Tableau Desktop

- [How-to Videos](#)
- [Lynda.com](#)



# THANKS!

Any questions?