

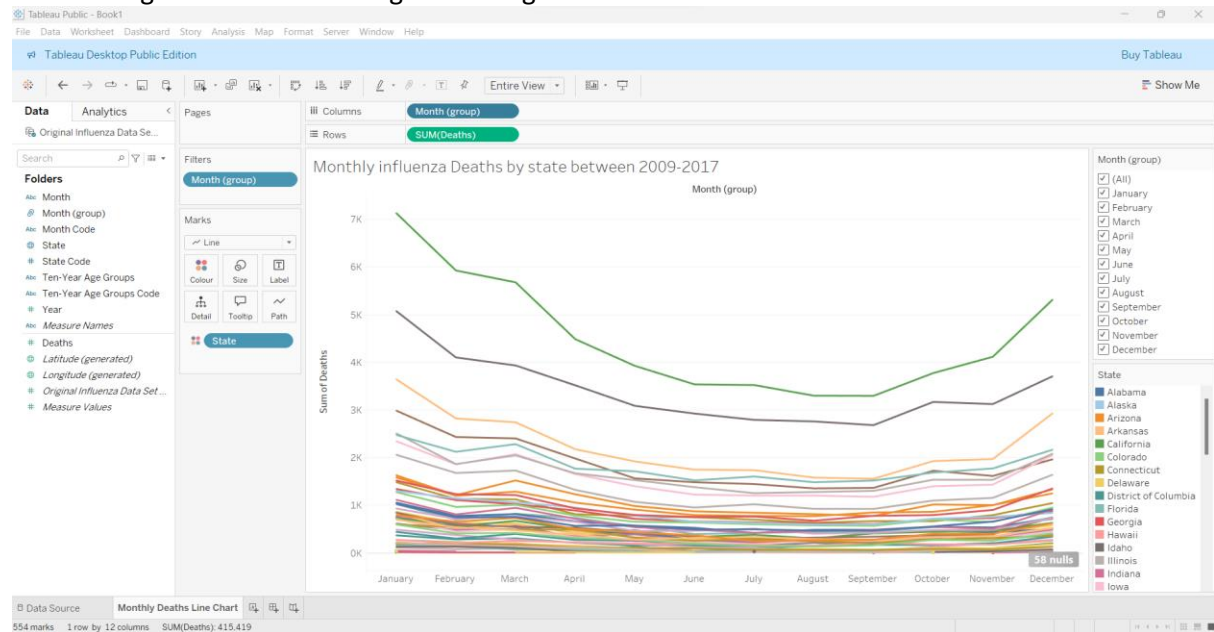
Temporal Visualizations & Forecasting.

Paul Maden.

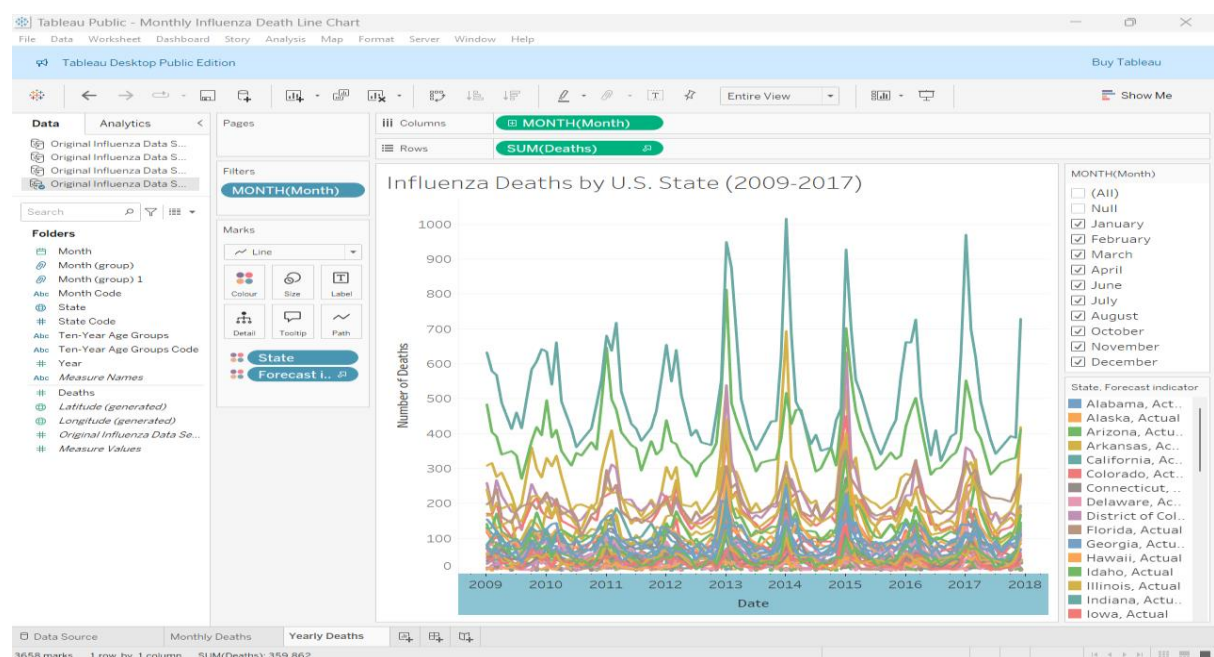
Last Update: 08/10/2024

Q1. Create a line chart of influenza deaths in Tableau:

- This line chart illustrated below visualizes a clear seasonal pattern where deaths peak in the winter months, particularly January, and are lowest during the summer months like July and August. There is a rise again starting around October.

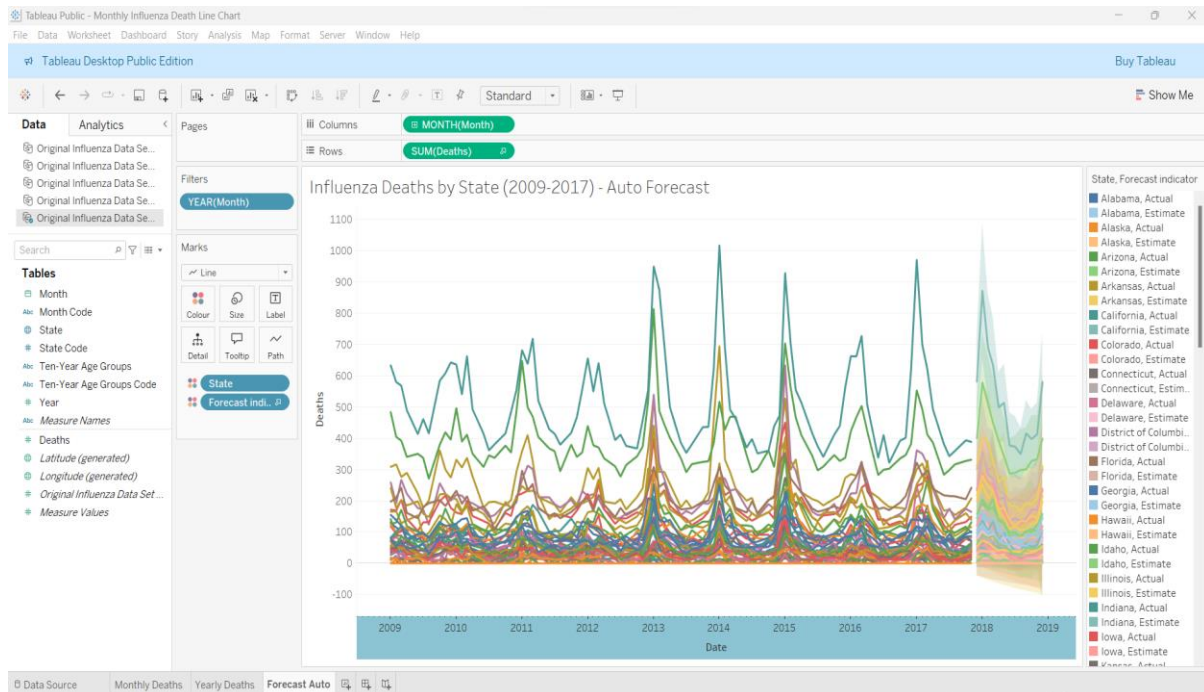


- This line chart visualizes the time series of influenza deaths across U.S. states from 2009-2017, highlighting the seasonal fluctuations with higher deaths during the colder months each year. The cyclical nature repeats consistently over the years from 2009 to 2017, with a noticeable increase in deaths towards the end of the timeline (around 2018).

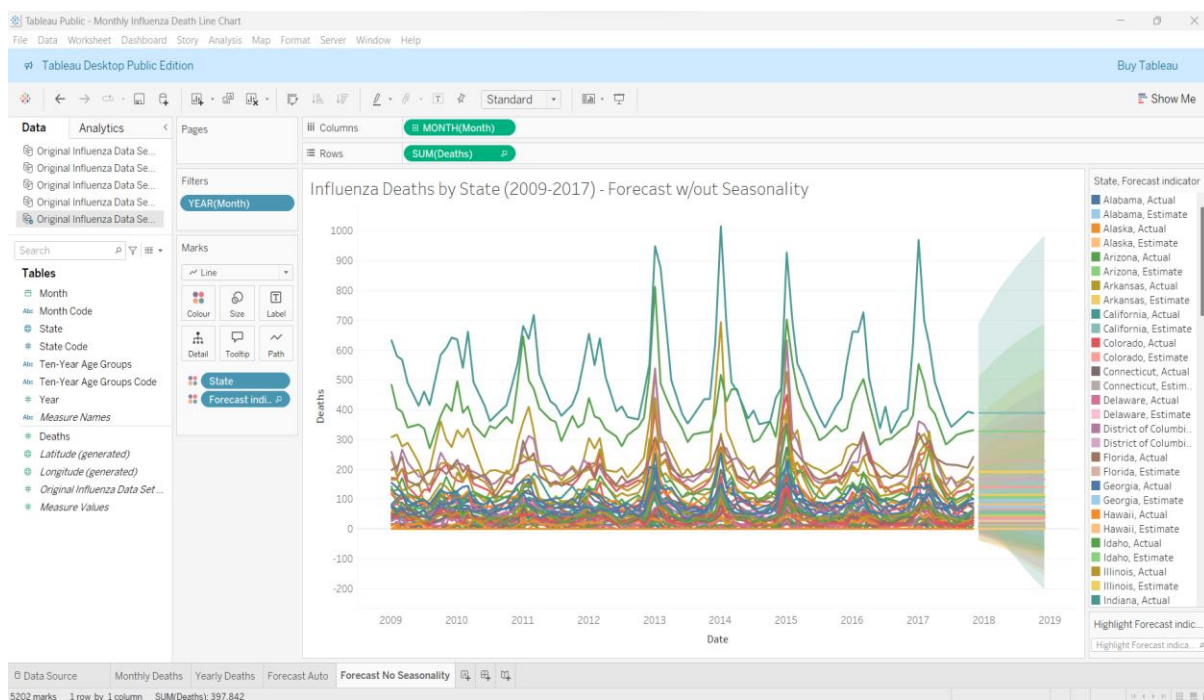


Q2. Create a forecast for future month(s) or year(s) in Tableau:

- This line chart visualizes the time series of influenza deaths across U.S. states from 2009-2017, then **automatically forecasts** the following 13 months (up to and including December 2018) with 95% confidence level:

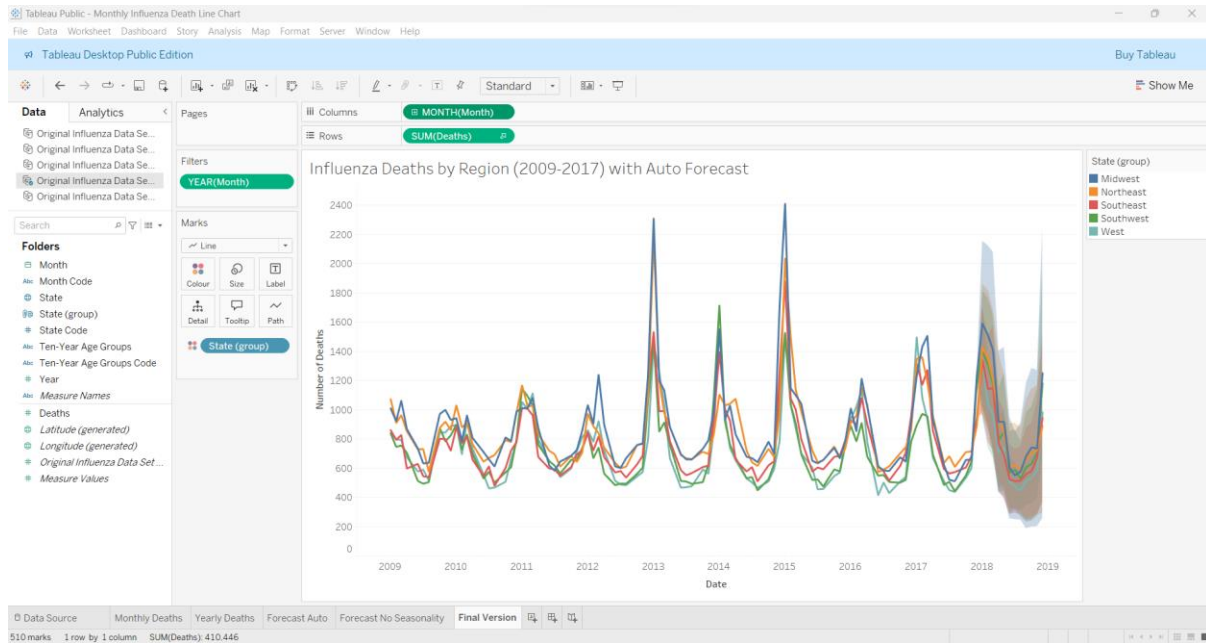


- This line chart visualizes the time series of influenza deaths across U.S. states from 2009-2017, then **forecasts without Seasonality** the following 13 months (up to and including December 2018) with 95% confidence level:

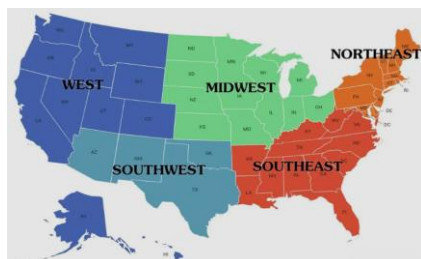


Q3. Update the visualization using the style guide checklist you created in Exercise 2.2:

- Using style guide – Exercise 2.2 – ‘Grouping Data’ would enhance the clarity of the visualization. The visualization will then impart some insights immediately, teaching me immediately, e.g. the *Midwest* has the highest number of Influenza Deaths, and the *West* has the least number of Influenza Deaths.



Region	States
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont New Jersey, New York, Pennsylvania
Midwest	Illinois, Indiana, Michigan, Ohio, Wisconsin Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
Southeast	Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia
Southwest	Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas
West	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming Alaska, California, Hawaii, Oregon, Washington



(Regions of the United States - Complete List, History, and Importance (jagranjosh.com))

Tableau Public link:

https://public.tableau.com/views/MonthlyInfluenzaDeathLineChart/FinalVersion?:language=en-GB&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link