2.4: TEMPORAL VISUALIZATIONS & FORECASTING

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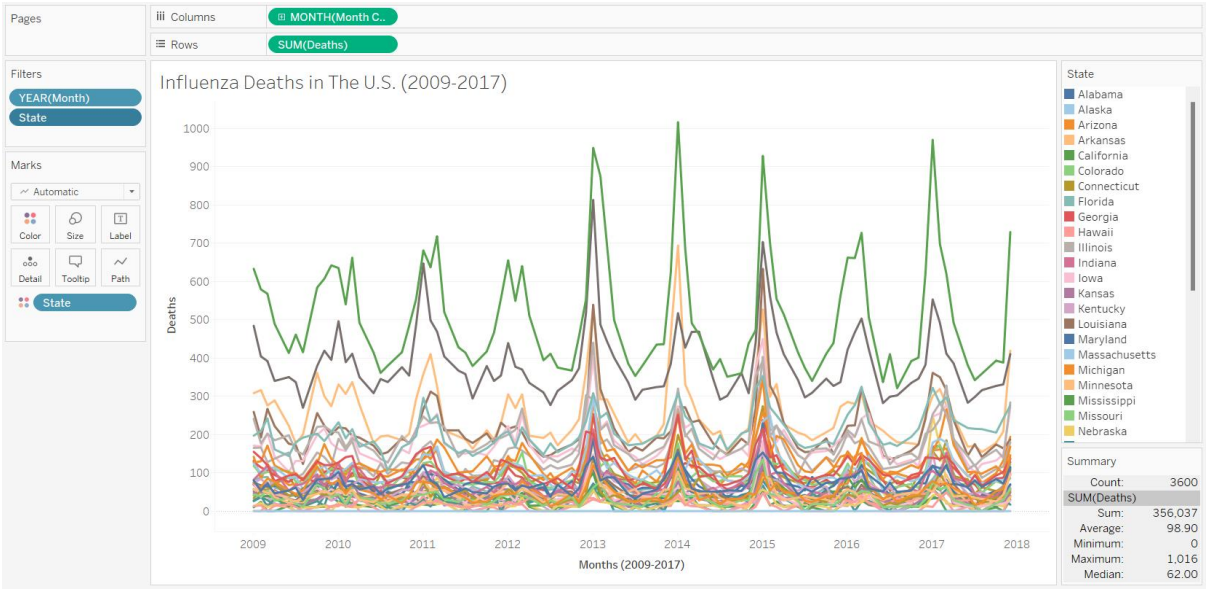
LINE CHART:

To best represent the seasonality of influenza occurrence, it is crucial to use a monthly resolution of flu-related death counts. By plotting these counts for each state over the months from 2009 to 2017, we can reflect the repeated seasonal patterns. The data, aggregated by month, clearly shows the trend in influenza deaths.

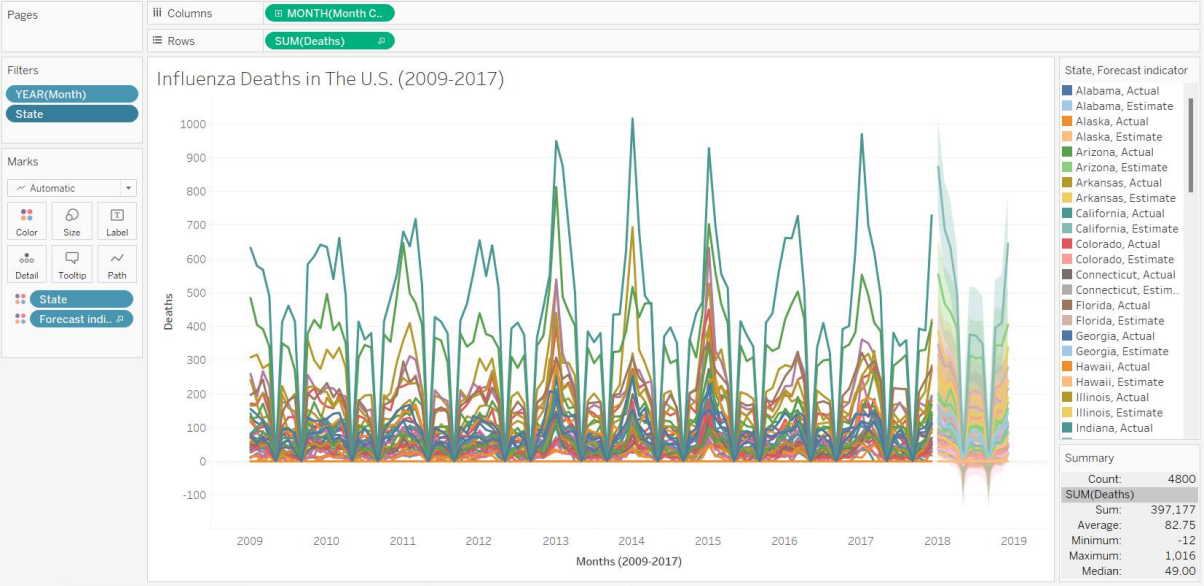
https://public.tableau.com/app/profile/anushma.sharma/viz/Exercise2_4_InfluenzaDeathsstates/InfluenzaDeathsState?publish=yes



FORECAST (WITH SEASONALITY):

By including seasonality in the forecast, we can better predict future influenza deaths, accounting for regular seasonal patterns.

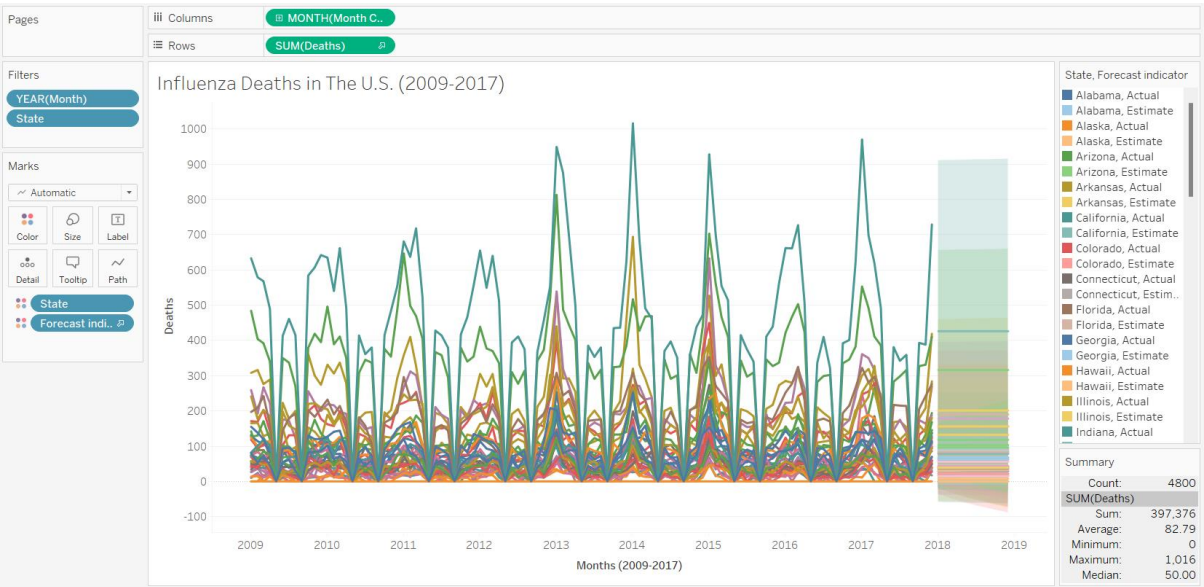
https://public.tableau.com/app/profile/anushma.sharma/viz/Exercise2_4_InfluenzaDeathswithseasonality/InfluenzaDeathswithSeasonality?publish=yes



FORECAST (WITHOUT SEASONALITY):

Without seasonality, the forecast fails to account for the predictable annual trends, leading to less accurate predictions.

https://public.tableau.com/app/profile/anushma.sharma/viz/Exercise2_4_InfluenzaDeathswithoutseasonality/InfluenzaDeathswithoutSeasonality?publish=yes



FINAL VISUALIZATION (STATES BY GEOGRAPHICAL REGIONS):

The initial graph was overcrowded with details, making it hard to decipher all the lines. To improve clarity, we generalized the geographical regions (Midwest, Northeast, South, West), offering a better visual separation of death counts data and its forecast. This approach provides a clearer view of regional trends in death counts over time.

(Also created a group called 'Excluded' for the states which are not included in the visualization)

https://public.tableau.com/app/profile/anushma.sharma/viz/Exercise2_4_InfluenzaDeathsGeographicalRegions/InfluenzaDeathsGeographicalRegion?publish=yes