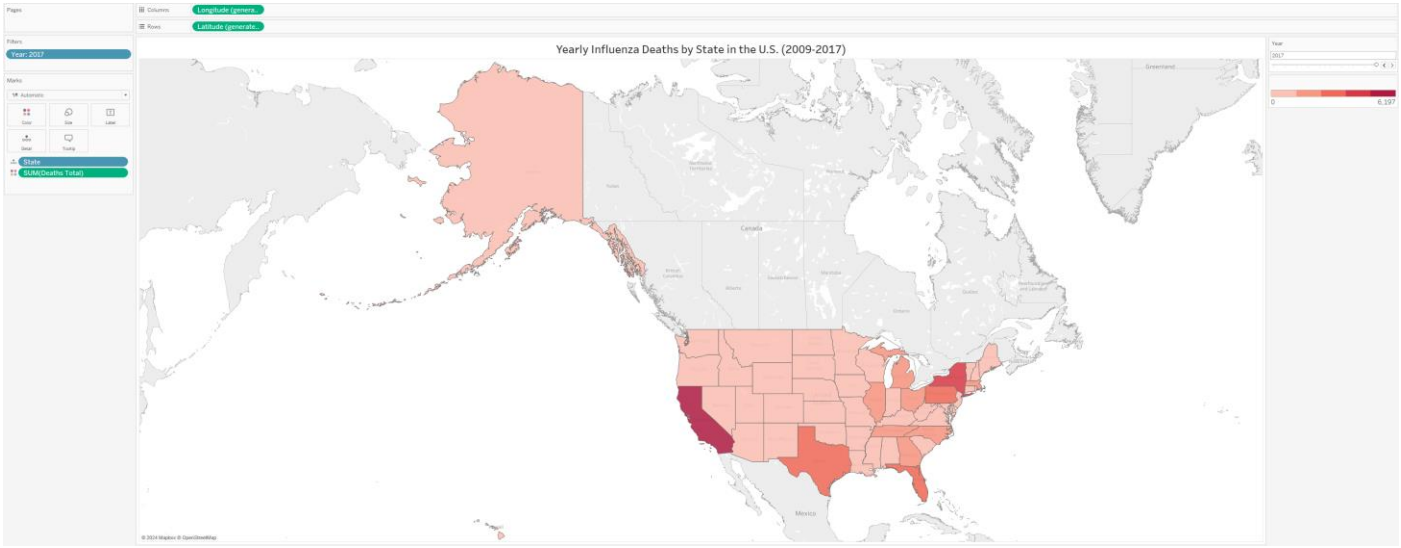
Kyle Stanford
Data Analytics Immersion – Exercise 2.7

Spatial Analysis

Link:

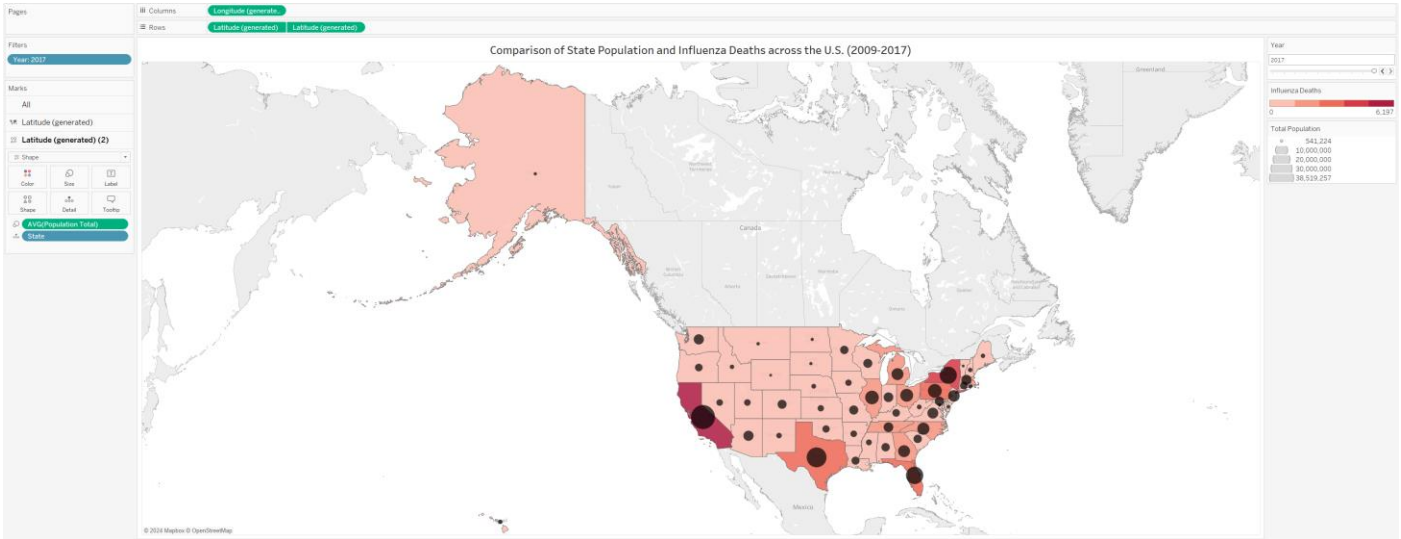
https://public.tableau.com/views/DataImmersionAchievement2Ex2_7SpatialAnalysis/Story1?:language=en-US&publish=yes&:sid=&:display_count=n&:origin=viz_share_link

1) Choropleth Map:



- I decided to show the yearly influenza death total for each state. I have added a filter which utilises a slider for the year shown to make the map interactive. A user will be able to see how the total yearly influenza death count for each state changes over time (albeit very slightly).

2) Combination Map:

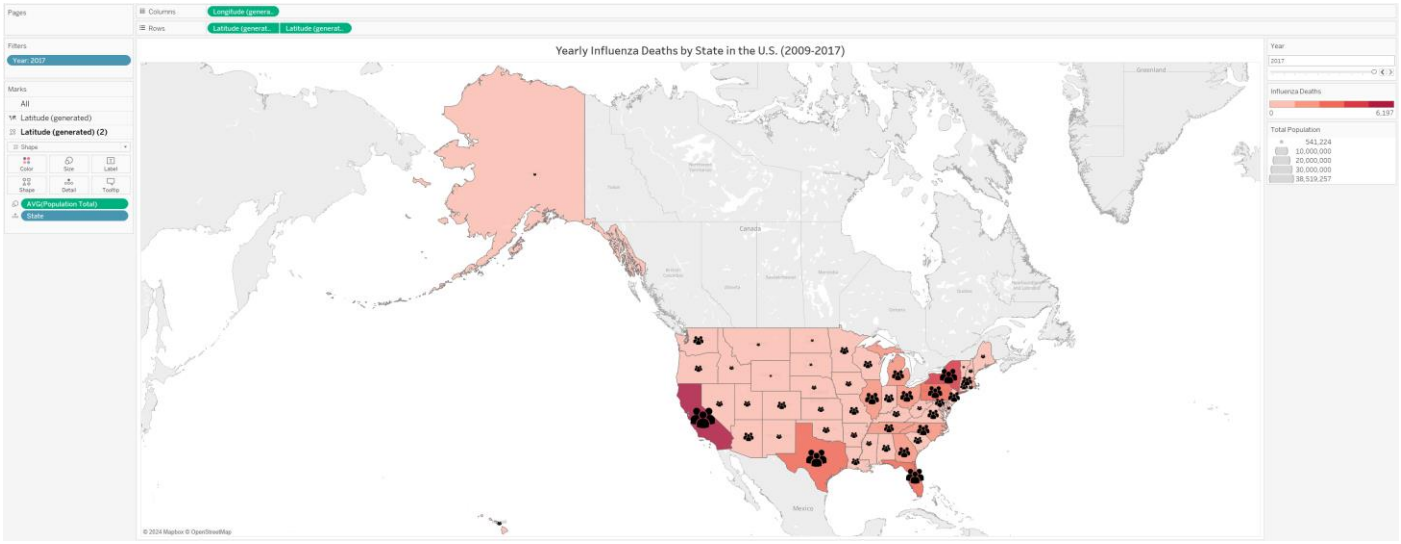


3) Visualisation Checklist – Combination Map

Text	
Are the title and text descriptive enough? (i.e., do you understand what the visualization is trying to convey just by looking at the title and text?)	Yes. The title clearly states the map is a comparison of state populations and state influenza death counts.
Are there text labels?	There are default state names added by Tableau to large enough states (but these are difficult to read).
Does the text portray any redundant information that could be gotten rid of?	No. Legend titles are needed to distinguish what colour and size represents.
Do colours, shapes, and size scales come with legends?	Yes.
Colour	
What does the colour scheme signify?	Total influenza deaths for the corresponding state each year (filter added to see changes across time).
Are there more than five colours?	No.
Does the colour scheme make sense? Are colours analogous, complementary, monochromatic, or intuitive?	Yes - monochromatic.
If colour is used to draw attention to important information, is the darkest colour representing the most important information?	Yes – darker shades of red show states with greater influenza deaths.
Other	
Are different sizes used? If so, is there meaning behind the sizes?	Dot sizes represent total population of each state for a given year.
Are there groupings in the data that can be portrayed through colour, size, or position?	Yes. They have been.
Is there (enough) whitespace?	Yes.
Is the visualization accessible?	Yes.
Does the visualization teach you something?	Yes. It can be determined quickly that there is a strong correlation between the states with the largest populations and most deaths from influenza.

Updated Visualisation:

Inspired by one of the submission examples, I believe it is best to use an icon that represents population size more intuitively. That change is shown here:



Note – it may be more interesting to view the relationship between influenza deaths and overall mortality rate from influenza. This might provide more unexpected insights. At the moment, this graph's insights shouldn't be considered groundbreaking.

4) Spatial Trends:

a) What states or regions are the highest? The lowest?

- *California* has the greatest population and number of influenza deaths (2017)
- *Wyoming* has the smallest population whilst various states including *Alaska, Vermont,* and *North Dakota*, have a death count of 0.

b) How does time impact those trends?

- It seems that switching the displayed year results in minor changes to only some states colour or population size. This is a predictable outcome. However, during 2014 several states on the eastern side of the country, such as Illinois, Florida, and Virgina, darken in colour. This shows that there was a spike in influenza-related deaths, but only for this year it would seem.