Maya Caldwell Business Analytics Nanodegree Data Visualization Project 4/19/2023 updated

Insight 1 – Count of state airports (2015)

https://public.tableau.com/app/profile/maya.caldwell/viz/Countofstateairports2015/Countofstateairports2015

In this map we can see the counts of airports by state. The state with the most airports is Texas (24). West Virginia, Maryland, Delaware, Connecticut, Rhode Island, and New Hampshire have the least amount with (1) airport in each state. I chose a map to make it easier to view the state count and updated my colour palette to colorblind friendly for accessibility.

Resources:

https://help.tableau.com/current/pro/desktop/en-us/maps howto simple.htm
https://www.tableau.com/about/blog/examining-data-viz-rules-dont-use-red-green-together

Insight 2 – Average air time and distance by airline (2015)

https://public.tableau.com/app/profile/maya.caldwell/viz/Averageairtimeanddistancebyairline201 5/Sheet1

I chose a scatter plot to make it easier for the viewer to understand the relationship between the distance traveled and air time. I updated my colour palette to colorblind for accessibility. Virgin America has the highest amount of air time (184.0) and distance traveled (1,419.1). American Eagle Airlines has the least amount of air time (67.1) and distance traveled (423.2).

Resources:

https://datavizcatalogue.com/index.html

https://www.tableau.com/about/blog/examining-data-viz-rules-dont-use-red-green-together

Insight 3 – Flight counts by airport and airline (2015)

https://public.tableau.com/app/profile/maya.caldwell/viz/Flightcountsbyairportandairline/Flightcountsbyairportandairline

I made a three part story that begins by showing how many airports there are per US state and we see that Texas has the most with 24 airports, with California following closely behind with 22. From there, we can see a bit more into the data and see which airports have the most departing flights - ATL 18,056 flights across all airline carriers. In the last slide, we can play across the states and see which flights are frequently flown between airports and filter by airline carrier as needed.

Resources:

https://help.tableau.com/current/pro/desktop/en-us/maps howto simple.htm

https://help.tableau.com/current/pro/desktop/en-us/maps howto origin destination.htm

https://help.tableau.com/current/pro/desktop/en-us/functions functions spatial.htm#Create2

https://datavizcatalogue.com/index.html

https://www.tableau.com/about/blog/examining-data-viz-rules-dont-use-red-green-together

Insight #4 – Exploring flights delays

https://public.tableau.com/app/profile/maya.caldwell/viz/Exploringflightsdelays/Exploringflightdelays?publish=yes

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I created this dashboard using a map and a line chart to explore flight delays by airport and on a monthly basis. I chose a map for the first worksheet to show the difference in the amount of flights that were delayed and diverted by airport. The second worksheet is a line chart and I thought this would work best to illustrate how the airlines at different airports were operating on a monthly basis. I ensured that the colour palette is colorblind friendly to ensure and enhance viewer accessibility.

This dashboard can have results change when using the month and airport filter. With all airports and months selected, we can hover and confirm the following insights: Atlanta experienced 17,877 flights delays and 45 diversions. When I filter to only show this particular airport, I can see the trends over the months and see that DL (Delta Air Lines) had the most delays in July 2015 (1,135).

Resources:

https://datavizcatalogue.com/index.html

https://help.tableau.com/current/pro/desktop/en-us/dashboards create.htm

https://www.tableau.com/about/blog/examining-data-viz-rules-dont-use-red-green-together

https://www.spiderstrategies.com/kpi/industry/transportation-and-warehousing/