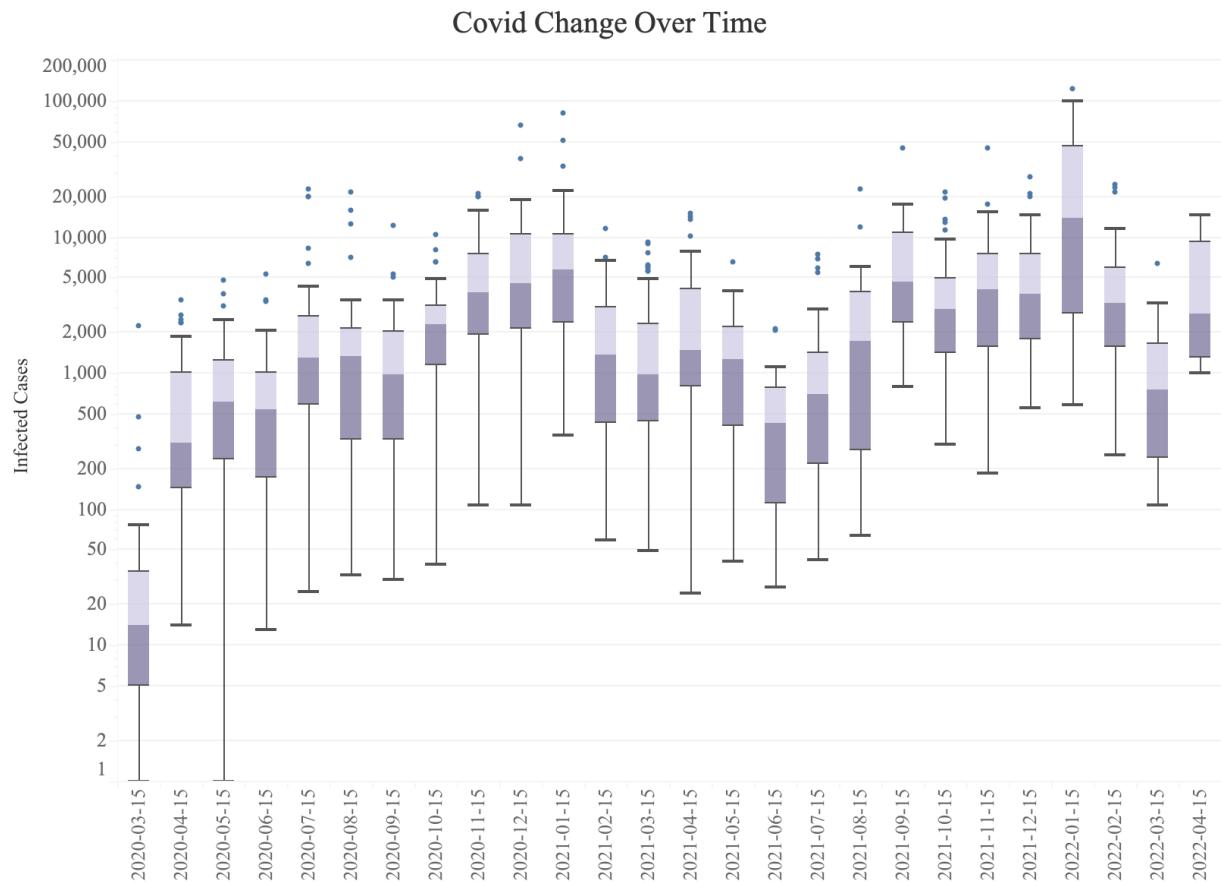


# RBDA Project - Data Analytics

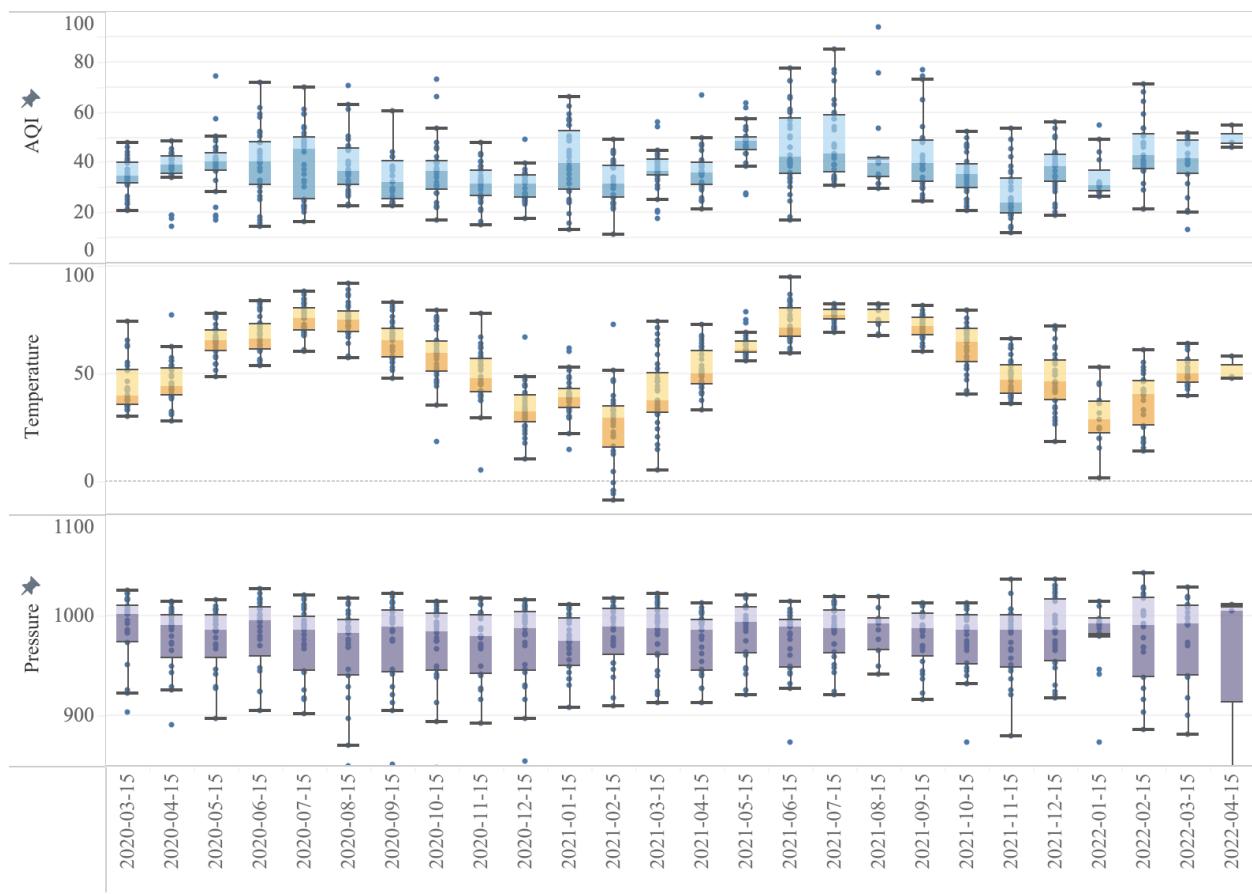
The profiled Covid and weather datasets are analyzed using Hive and Tableau.

## 1. Covid and Weather Change over Time



Boxes indicate the middle 50 percent of the data which is distributed over the states. Whiskers display all points within 1.5 times the interquartile range.

### Weather Change Over Time



The barometric pressure is nearly stable and it is hard to find its effect on Covid. Therefore, we ignore the relationship between pressure and Covid in the following analysis.

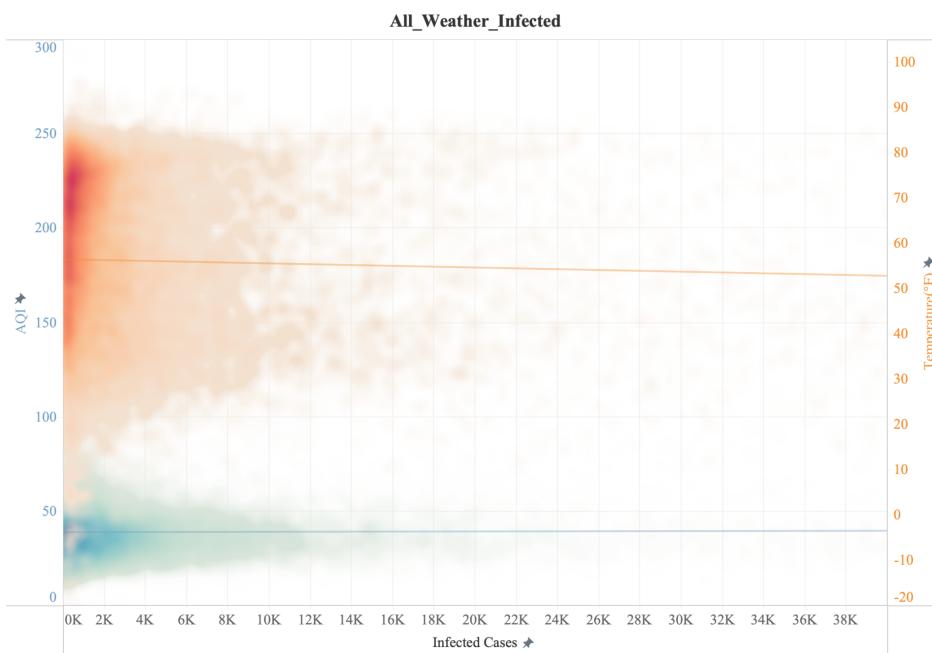
## 2. Relationship between Covid and weather

**Relationship between Infected Cases and Temperature**

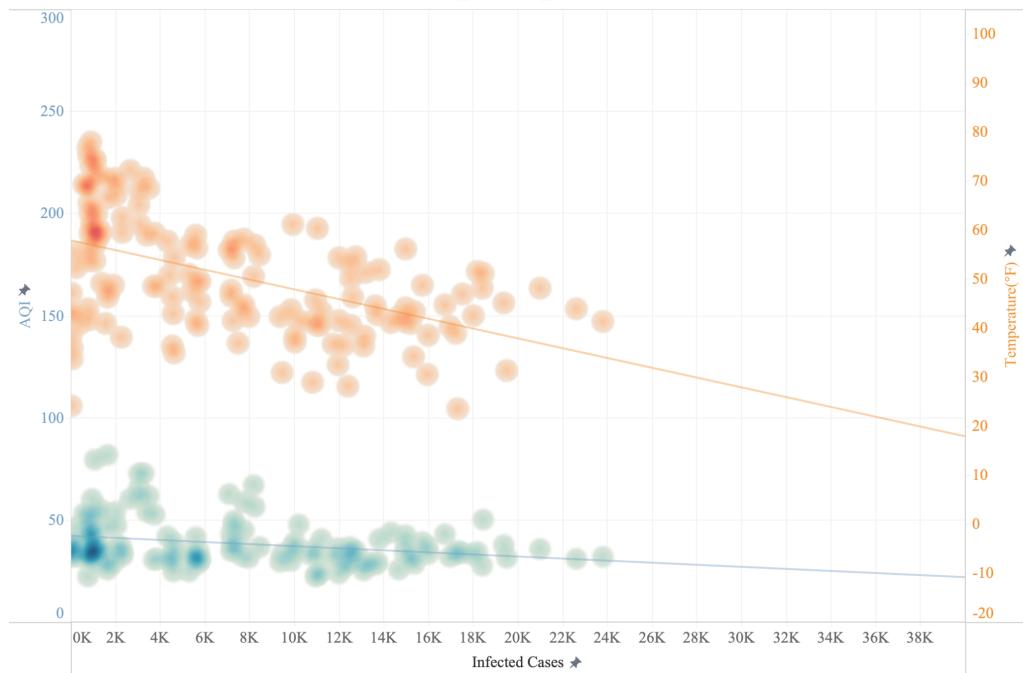
	All	NYC	California	Texas
Slope	-9.974e-05	-2.287e-04	-6.443e-05	-1.613e-04
R <sup>2</sup>	0.0053	0.2602	0.0771	0.0997
P-value	< 0.0001	0.1395	< 0.0001	< 0.0001

**Relationship between Infected Cases and AQI**

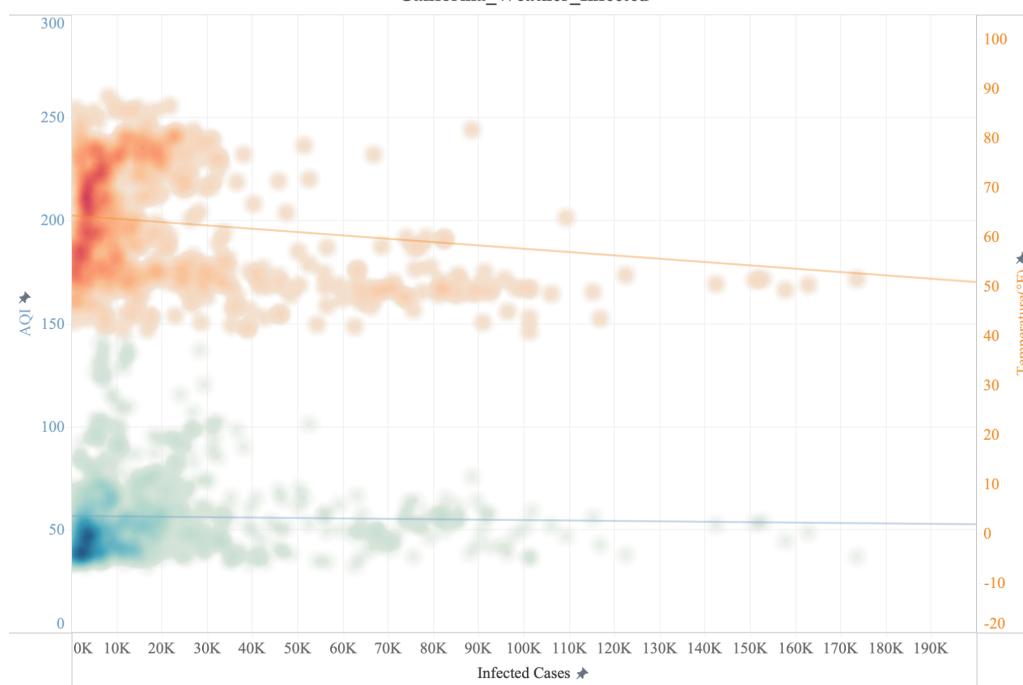
	All	NYC	California	Texas
Slope	2.583e-05	-3.343e-04	-1.586e-05	-4.405e-05
R <sup>2</sup>	0.0003	0.0756	0.0019	0.0153
P-value	< 0.0001	0.0061	0.3392	0.0006



**NYC\_Weather\_Infected**



**California\_Weather\_Infected**



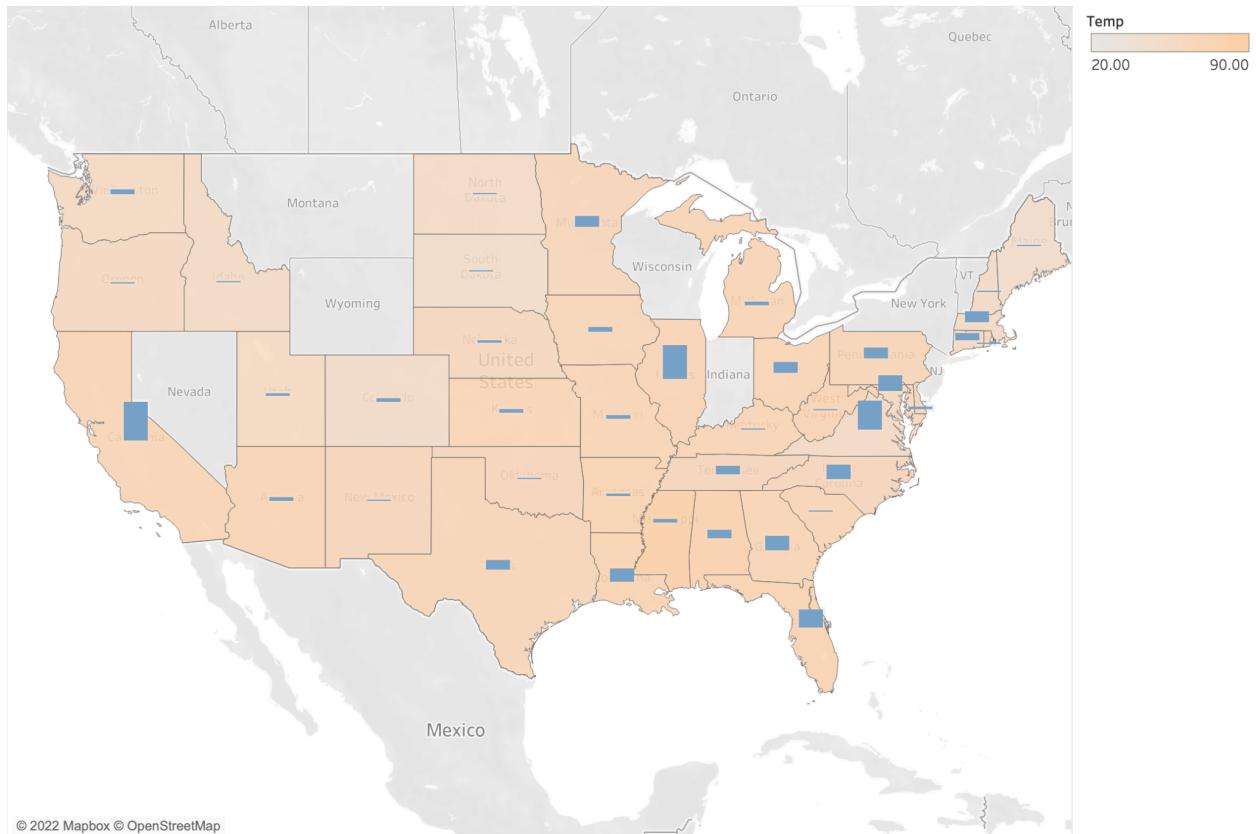
Texas\_Weather\_Infected



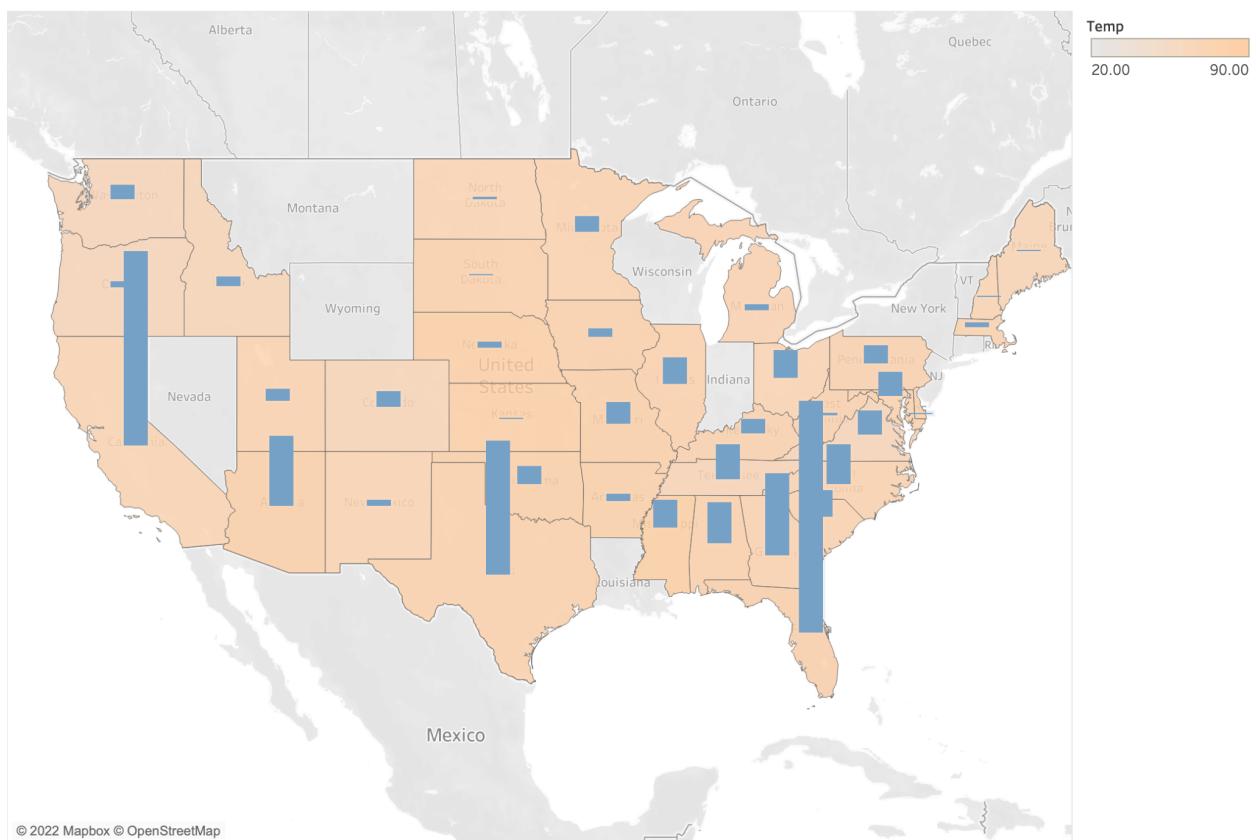
### 3. Spatial Distribution of Covid and Weather Data at Different Time

To better see the change of distribution over time, the GIF files can be found in the attached directory:  
./images/3.Map.

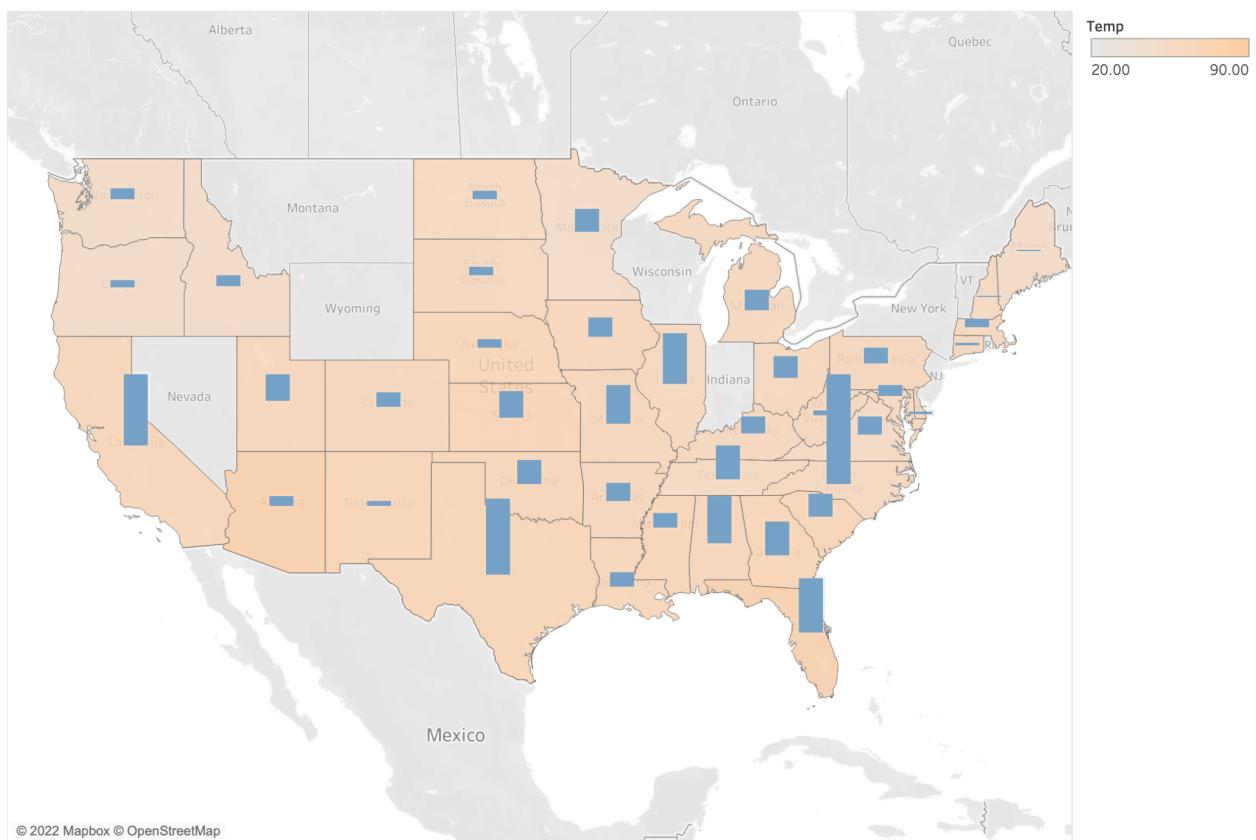
Covid and Temperature Map on 2020-05-25



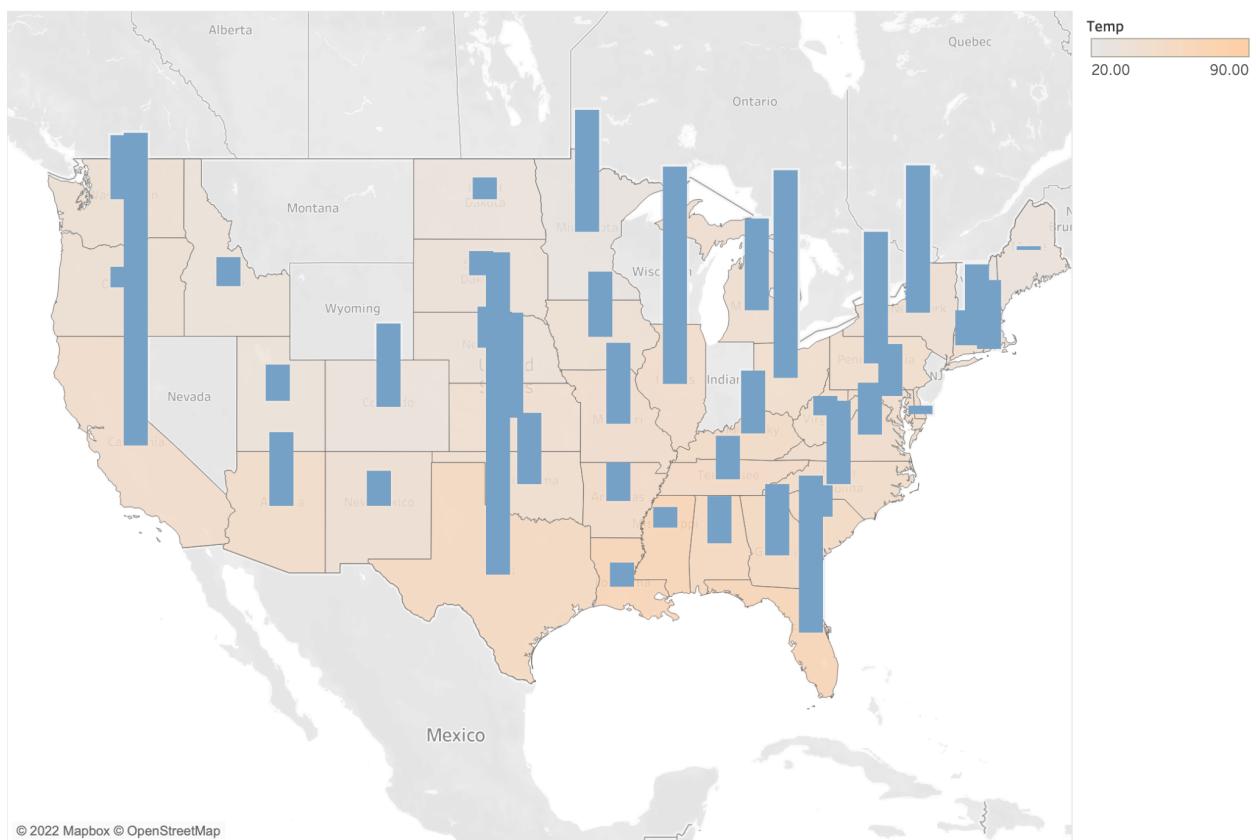
Covid and Temerature Map on 2020-07-25



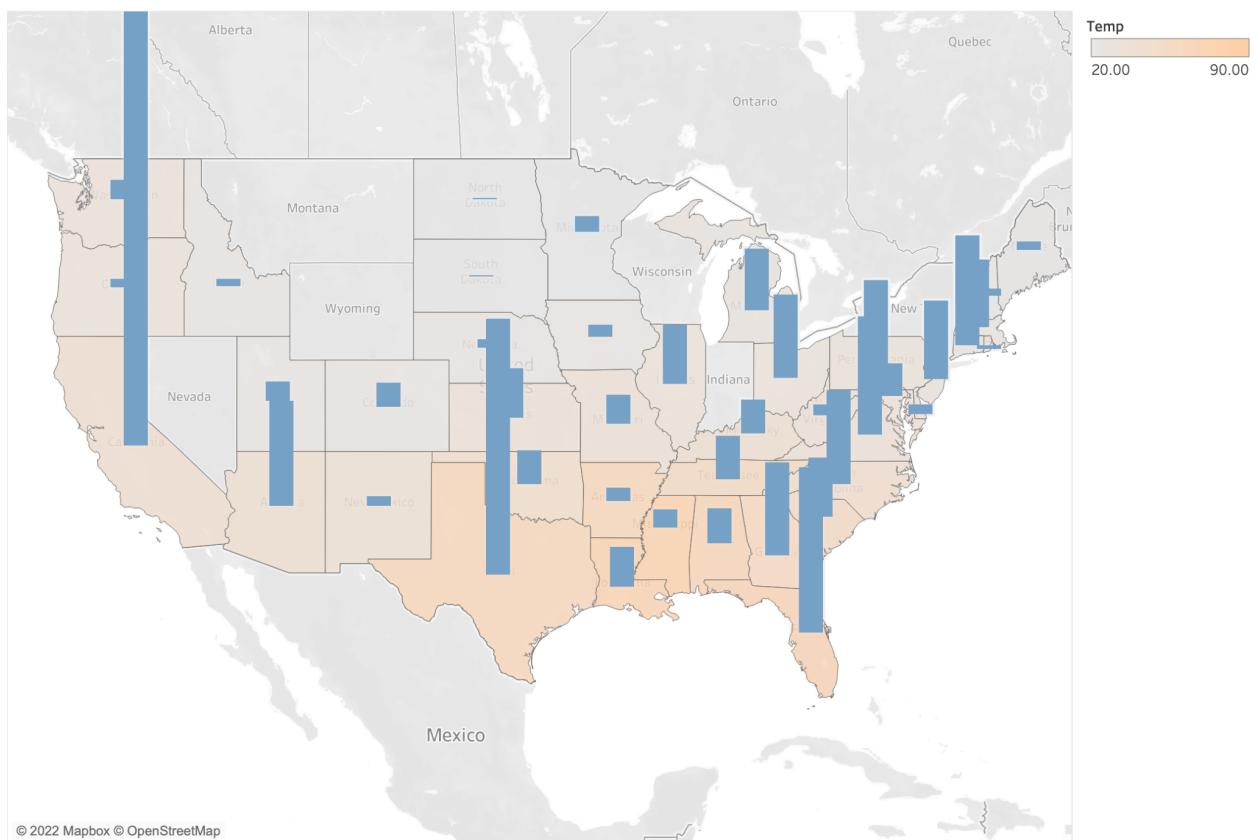
Covid and Temerature Map on 2020-09-25



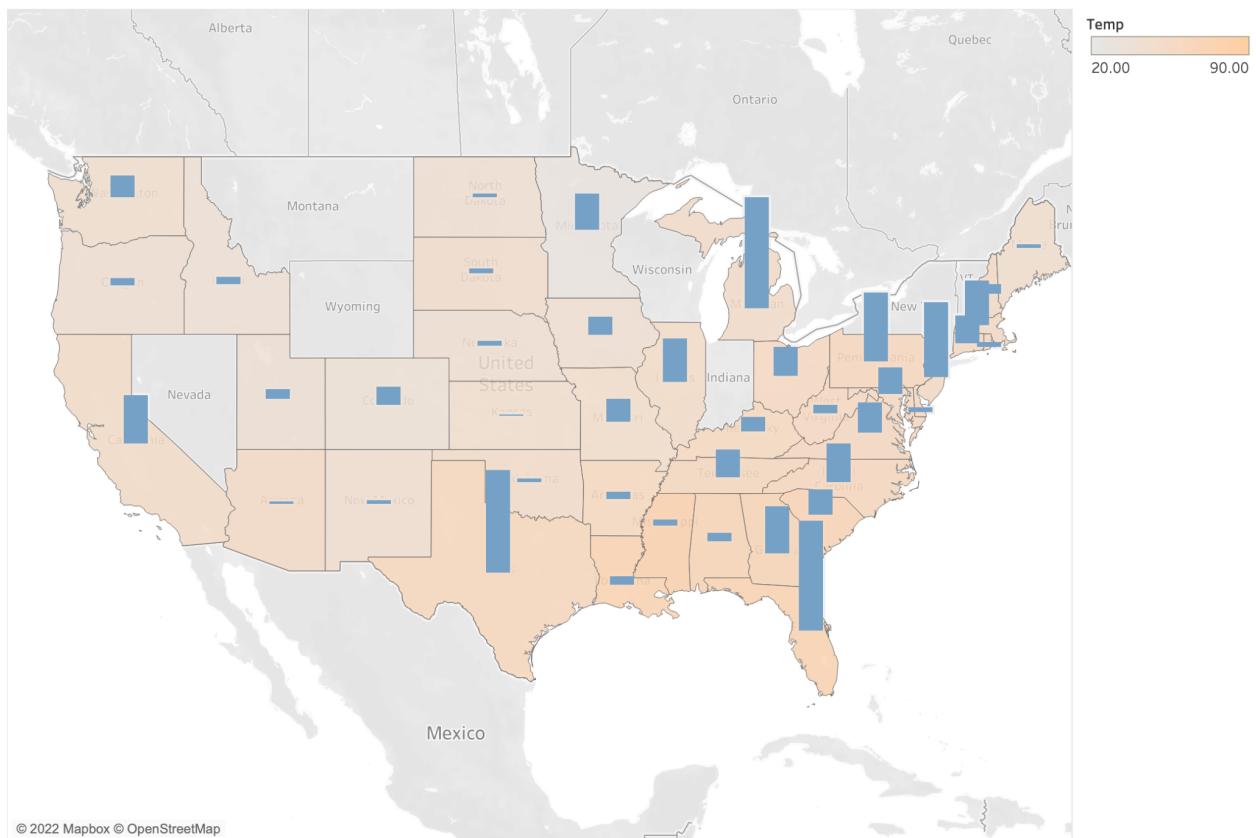
Covid and Temerature Map on 2020-11-25



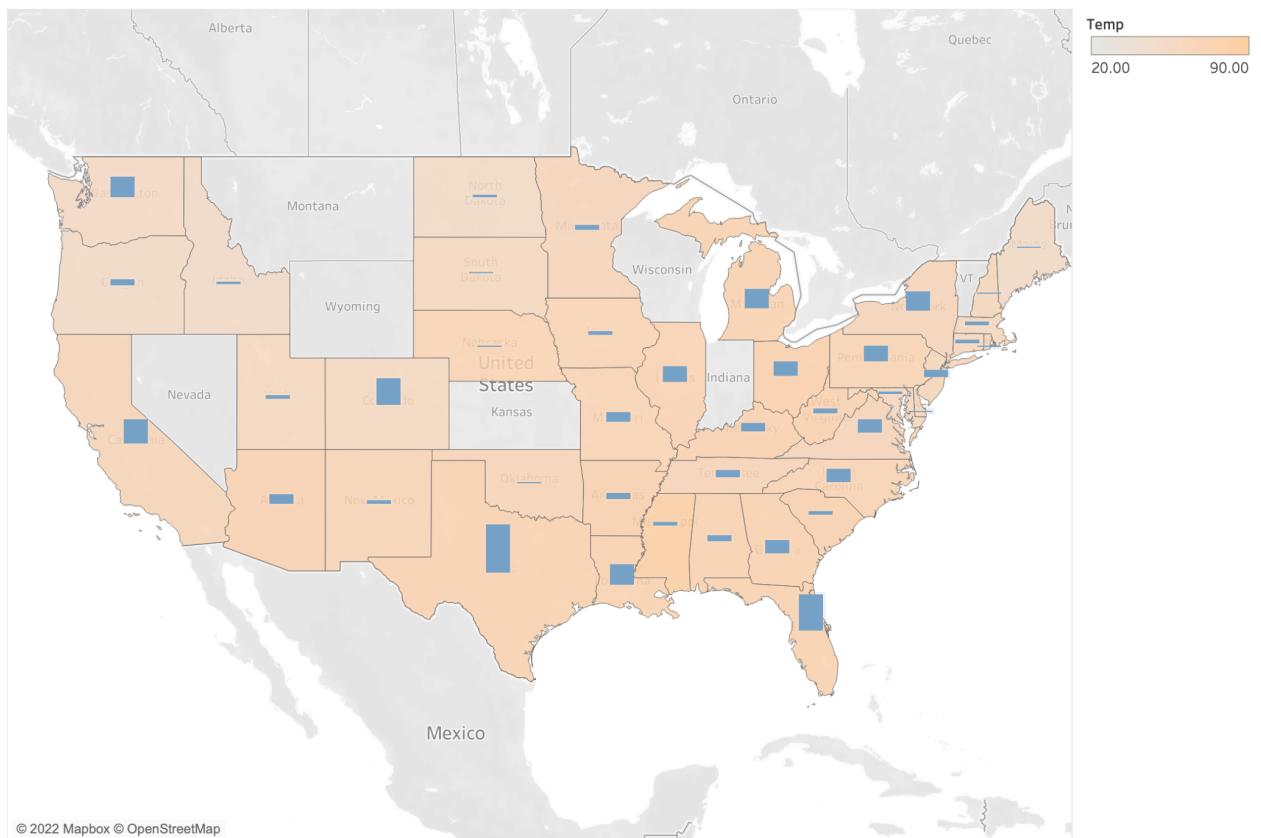
Covid and Temerature Map on 2021-01-25



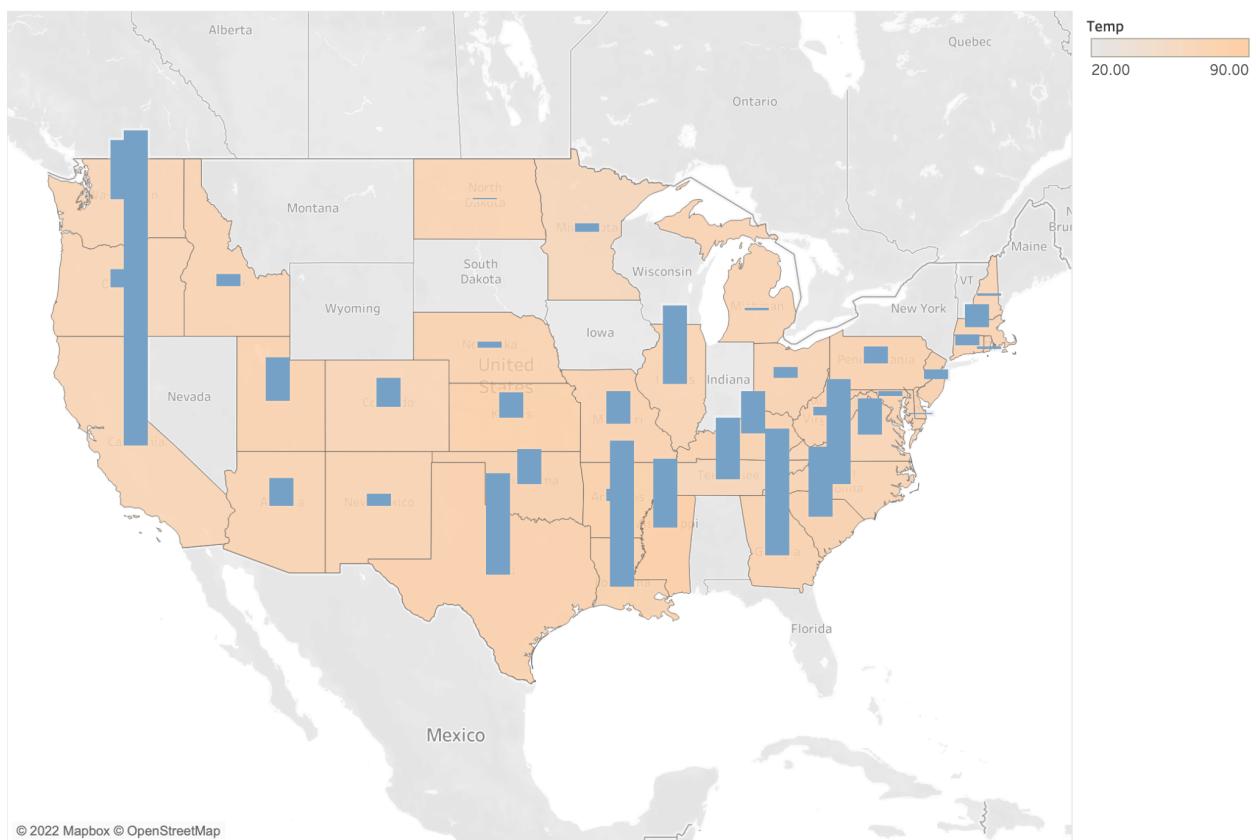
Covid and Temperature Map on 2021-03-25



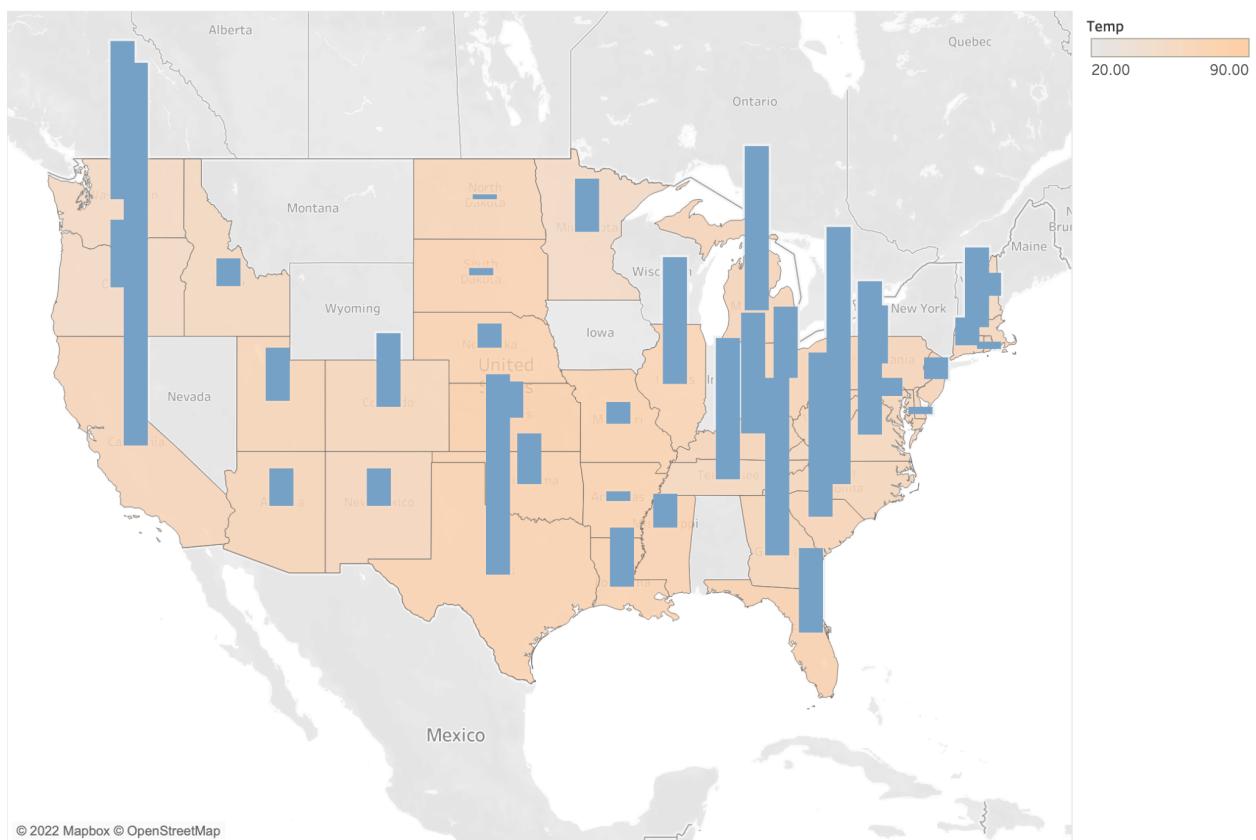
Covid and Temperature Map on 2021-05-25



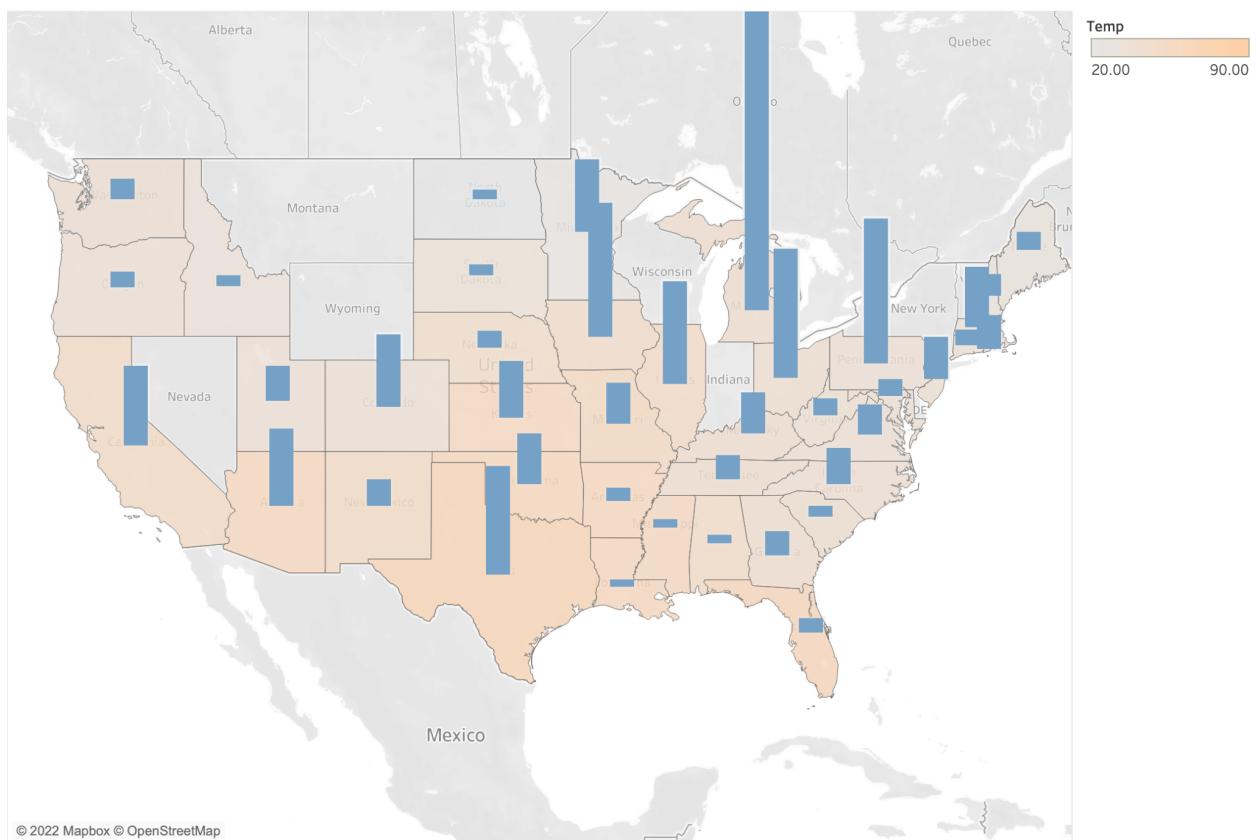
Covid and Temerature Map on 2021-07-26



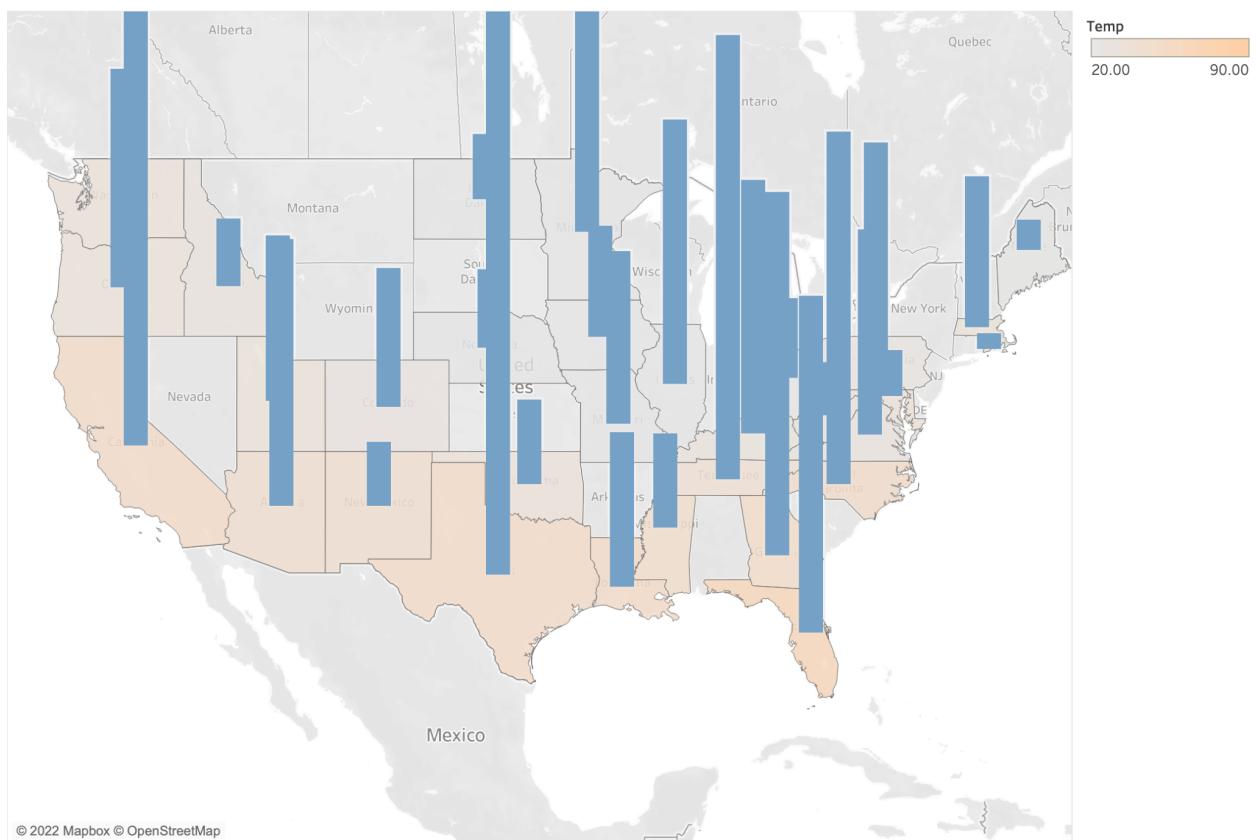
Covid and Temerature Map on 2021-09-27



Covid and Temerature Map on 2021-11-24



Covid and Temerature Map on 2022-01-25



Covid and Temerature Map on 2022-03-25

