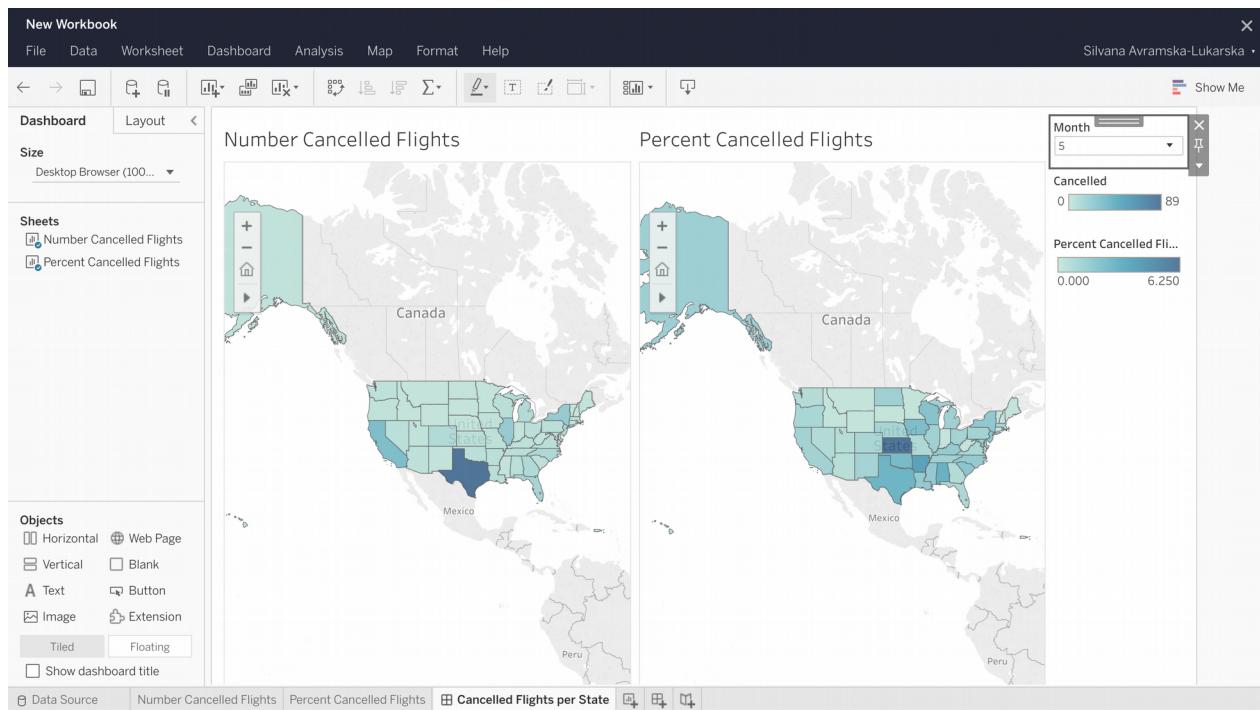
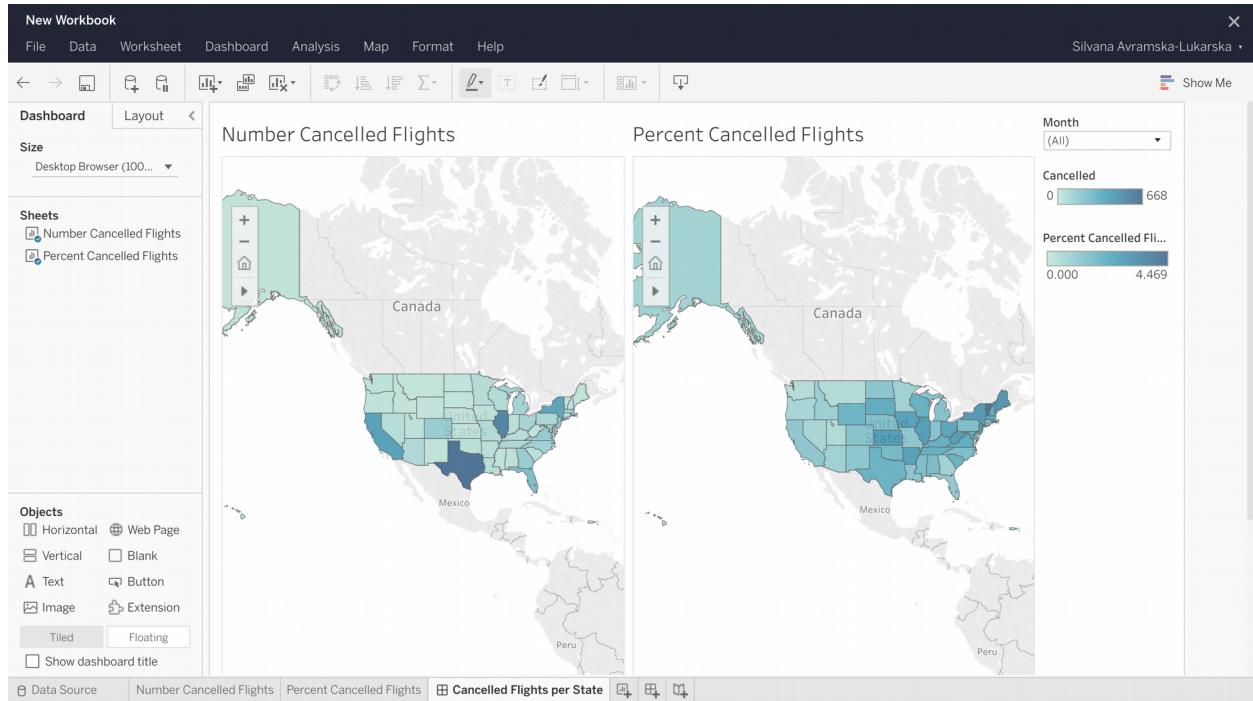


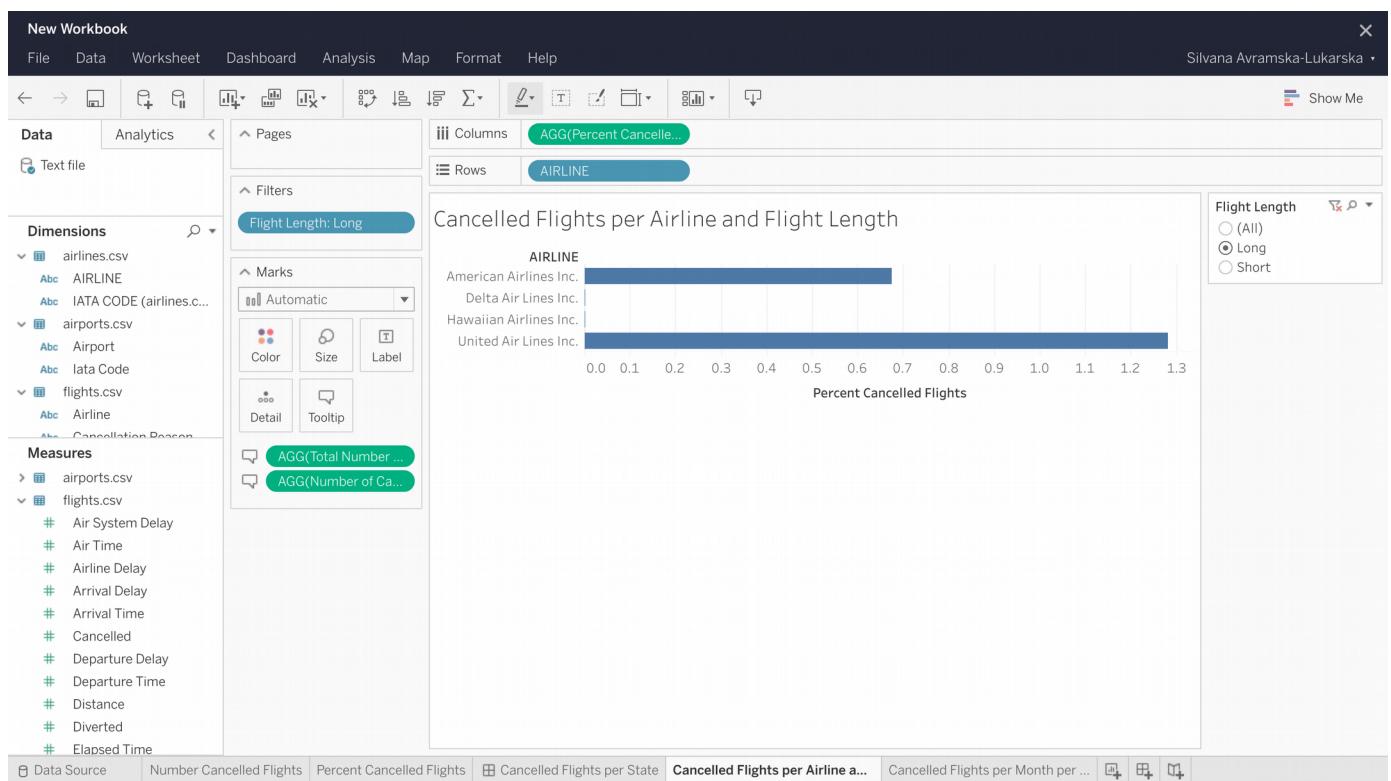
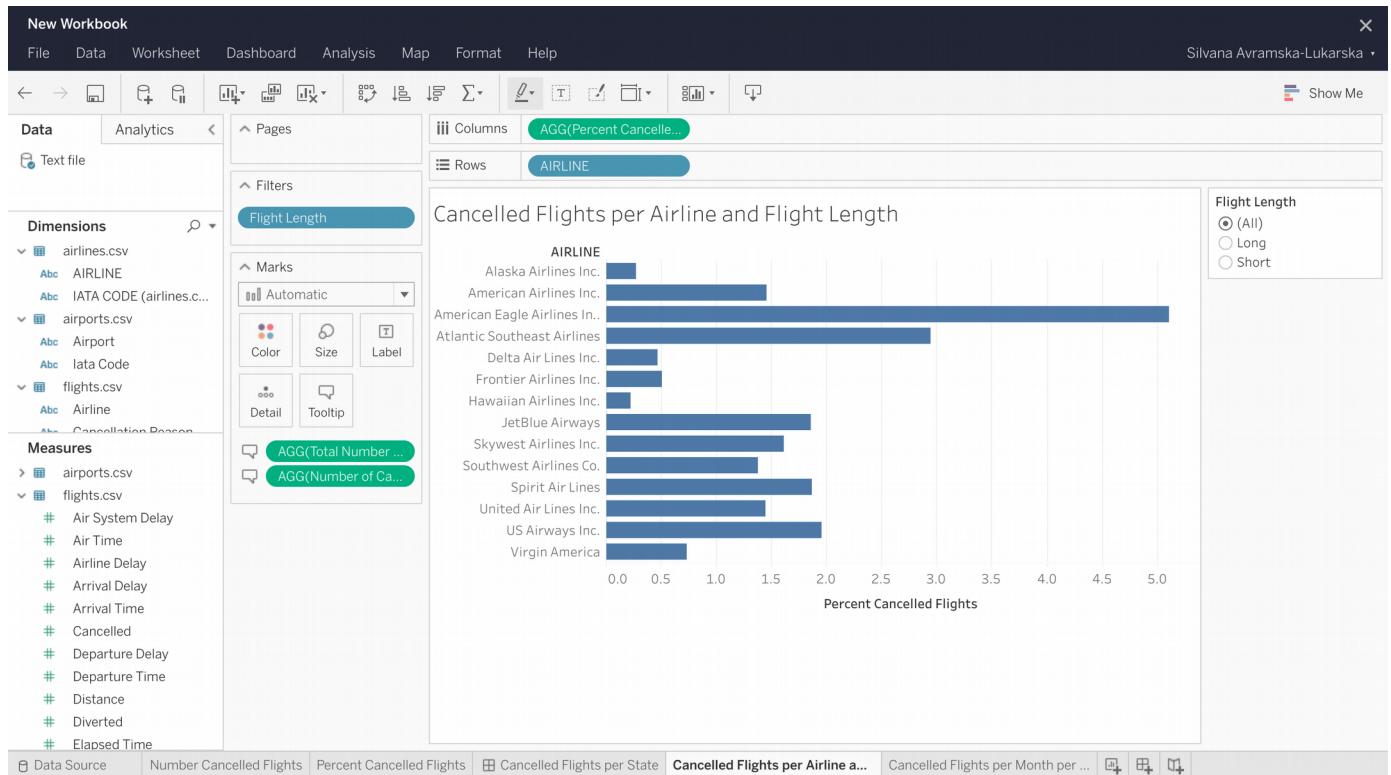
Insight 1: Cancelled Flights per State

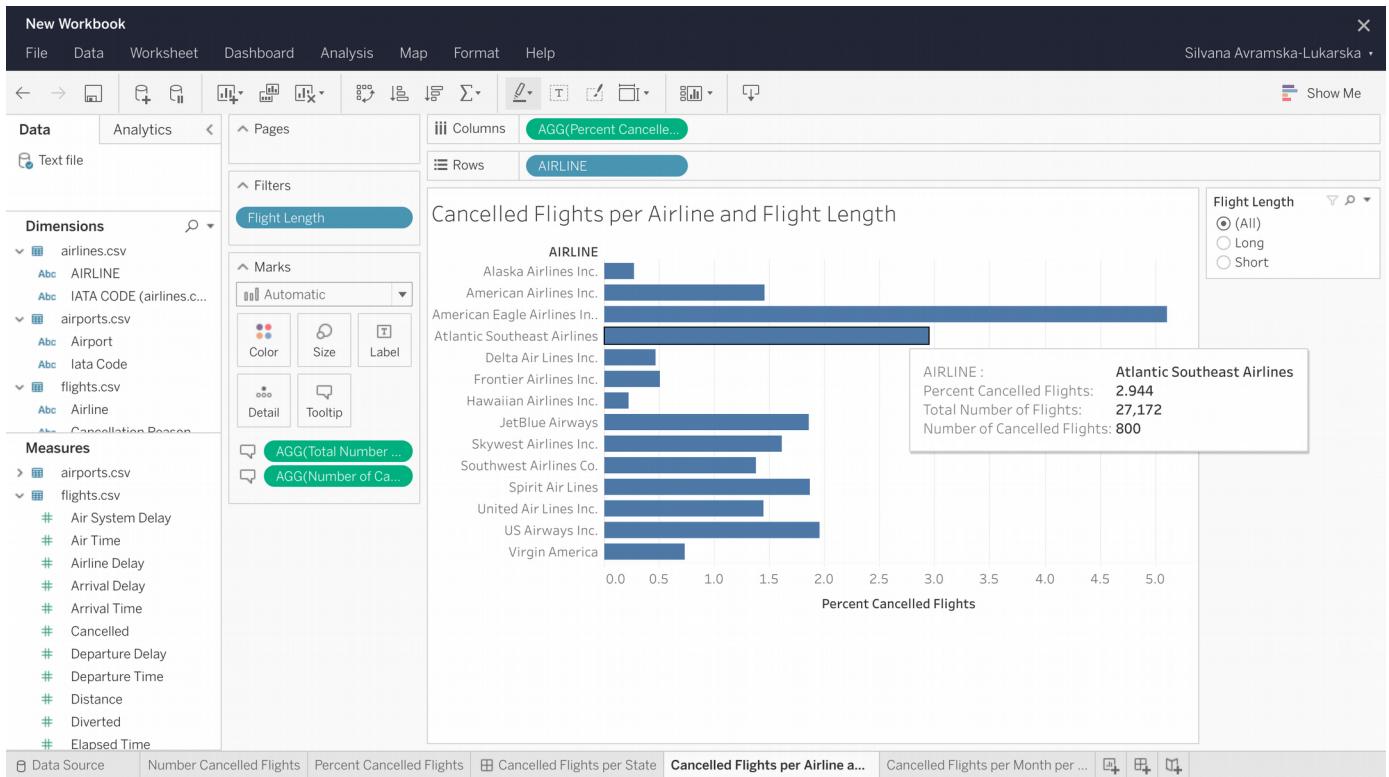


Here we look at the total number of cancelled flights per state. We see that the state with the biggest number of cancelled flights is Texas (668) and the state with the fewest cancelled flights is Delaware (0). However, if we look at the percentage of cancelled flights, we find that Vermont has the highest (4.47%), and again Delaware has the lowest percentage (0%) of cancelled flights. In addition, these numbers vary by month.

We decided to use the shaded map design because it makes it easy to see if the geographical location plays any role in the number of cancelled flights, which does not seem to be the case here.

Insight 2: Cancelled Flights per Airline and Flight Length



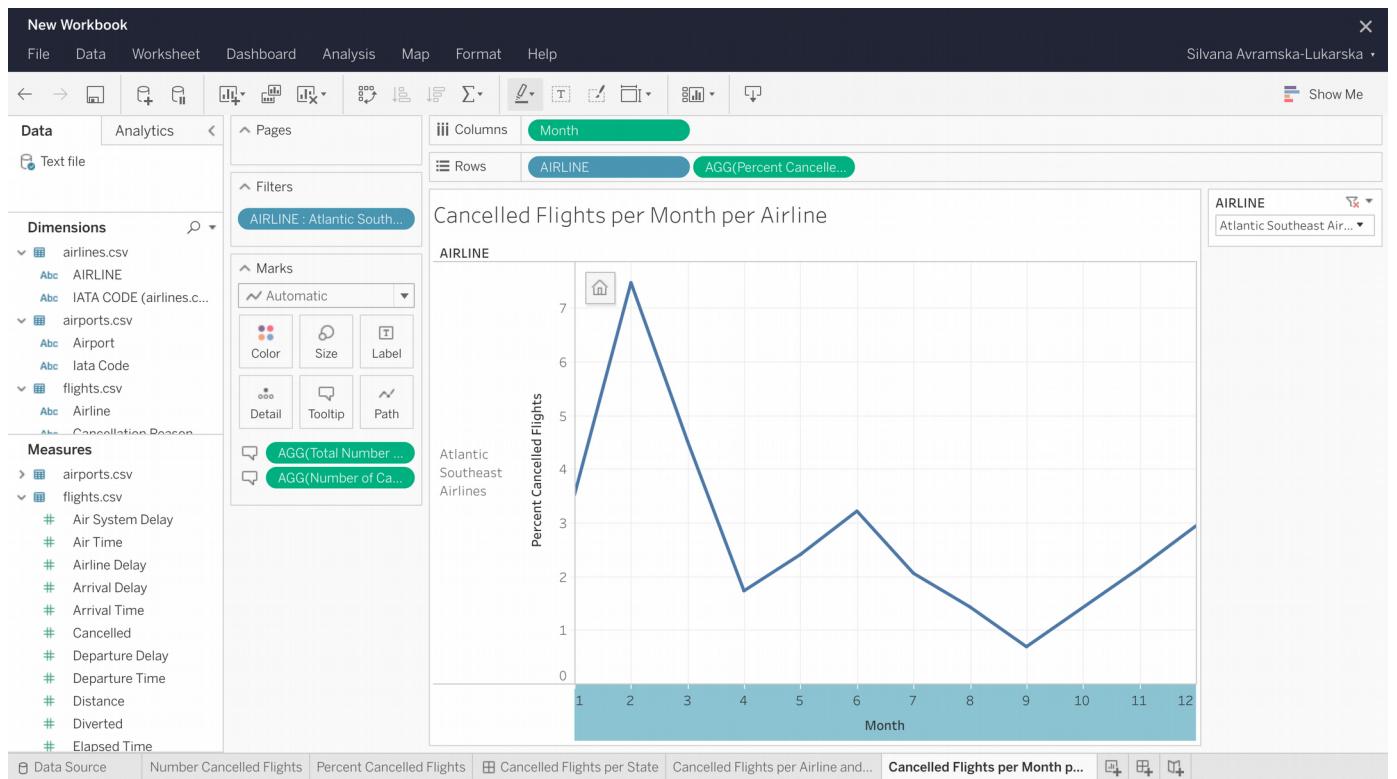
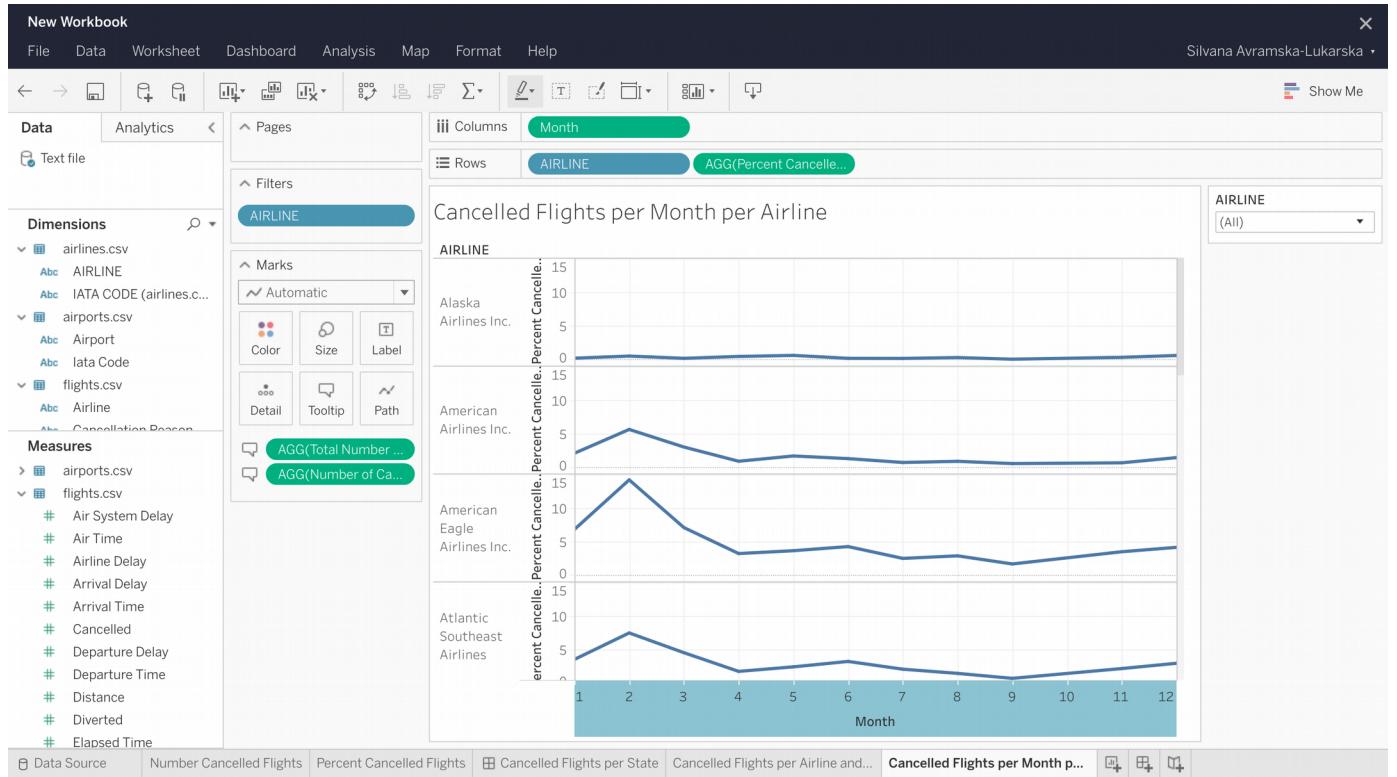


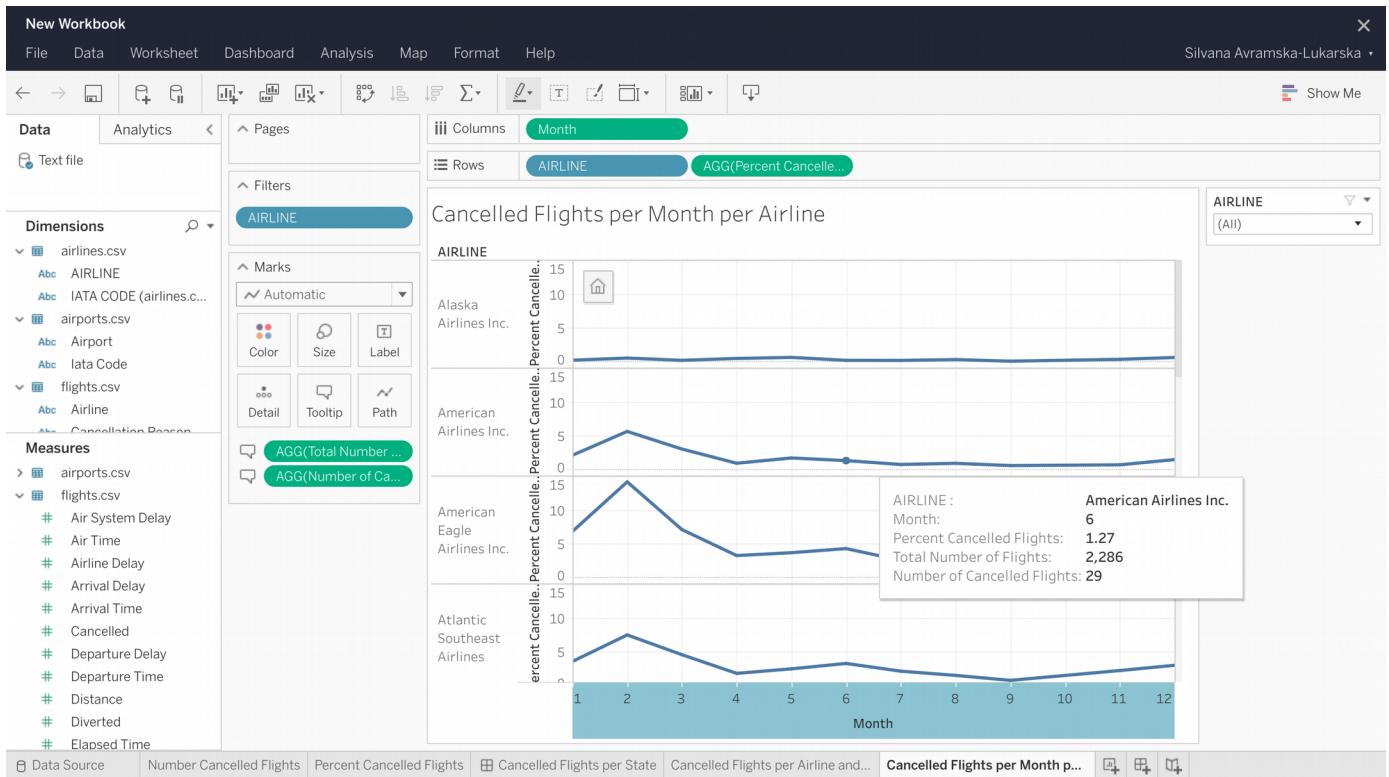
Here we look at the percentage of cancelled flights per airline and flight length. Short flights are defined as flights shorter than 3,000 miles and long flights are longer than that.

It turns out that American Eagle Airlines has the highest percentage of cancelled flights (5.11%). However, if we distinguish between short and long flights, we see that again American Eagle Airlines has the highest percentage of cancelled short flights (5.11%) but United Airlines has the highest percentage of cancelled long flights (1.28%). Note that only 4 airlines operate long flights. These are American Airlines, Delta Airlines, Hawaiian Airlines, and United Airlines. It is also worth noticing that Delta Airlines and Hawaiian Airlines did not have any cancelled long flights in 2015.

We chose the bar chart because it makes it easy to compare directly the percentage of cancelled flights per airline.

Insight 3: Cancelled Flights per Month per Airline





Here we look at the percentage of cancelled flights per month per airline. It turns out that most of the airlines experienced more cancellations in February, followed by smaller peaks in January, December and June. The only exceptions are Alaska Airlines, Hawaiian Airlines, Spirit Airlines, and Virgin America, which experienced most cancellations in May, September, June, and January, resp. Please note that we only have information about US Airway until June.

We decided to use the line chart because this is the first choice chart when one works with continuous time data.

Resources: For the definition of short/long flights for Insight 2 the following website has been used
https://en.wikipedia.org/wiki/Flight_length