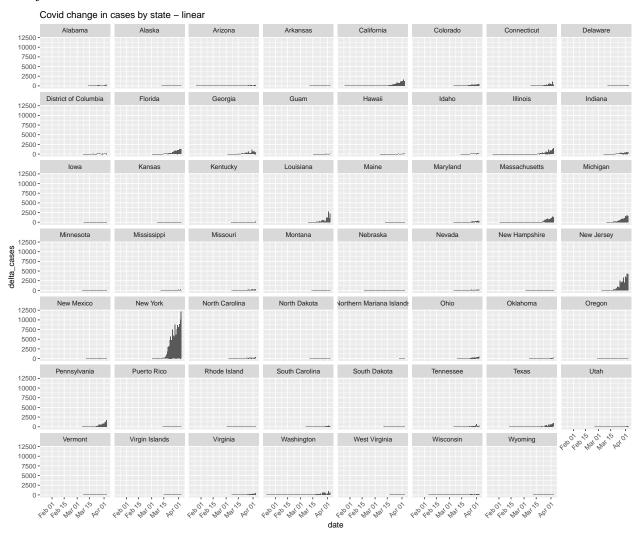
# Change Analysis

Another experiment to look at rate of change. Idea here is to compare the reported change against the cumulative sum.

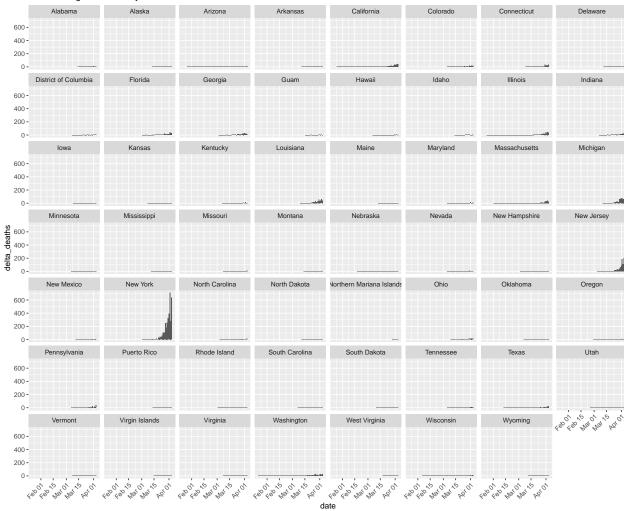
## Extract daily changes

#### Daily Cases



#### Daily Deaths

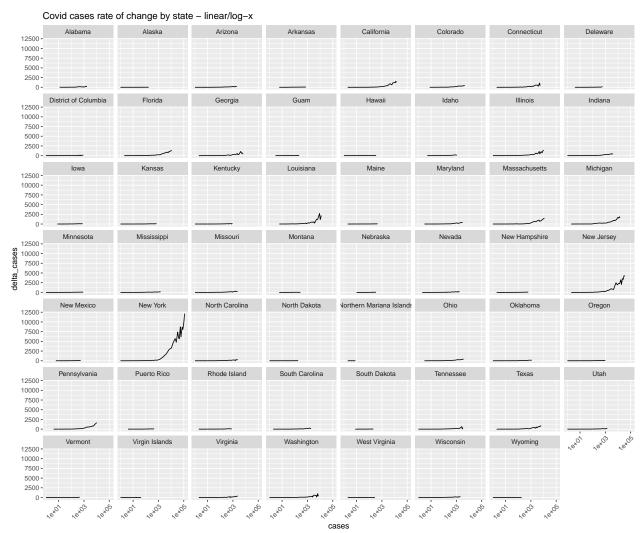




# Change over Cumulative Sum

## Change in Cases over Cumulative Sum

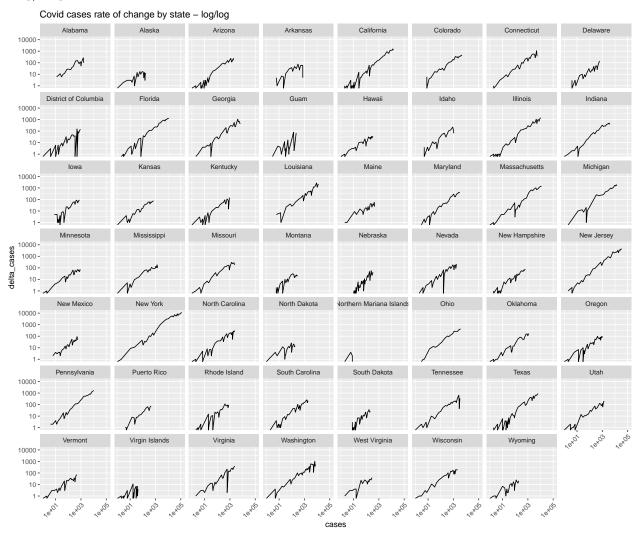
Use the log of the cumulative sum to better scale the values.



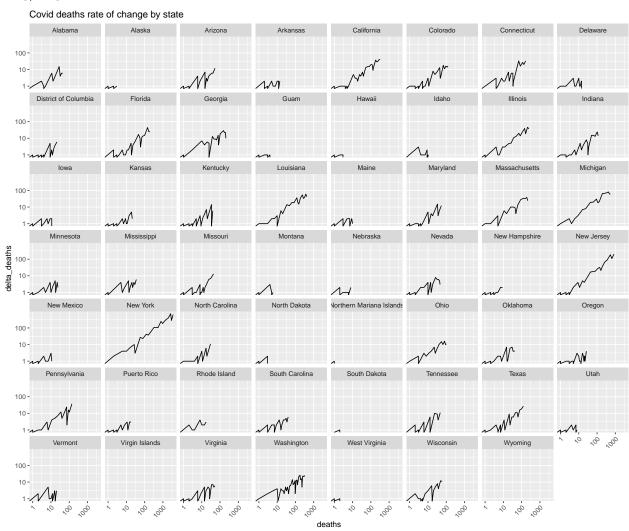
## Log of Change Over Cumulative Sum

Linear values are skewed by higher-magnitude values, so use a log(10) on each axis. this better fits the exponential nature of the data anyway.

## Log/Log of Cases Over Cumulative Sum



#### Log/Log of Deaths over Cumulative Sum

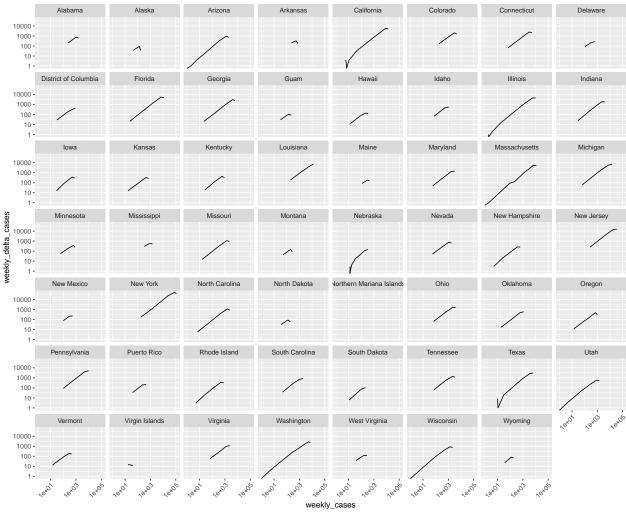


# Weekly Rate of Changes

In order to smooth out the curves in the previous graphs, look at them on a weekly basis.

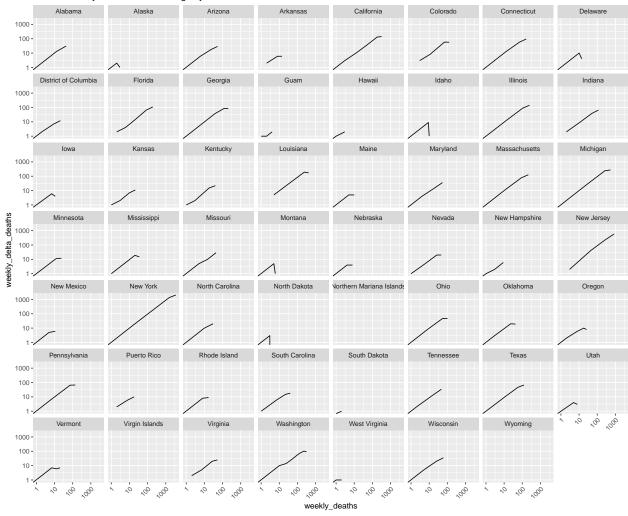
## Weekly Range of Change of Cases by State

Covid – weekly cases rate of change by state



## Weekly Range of Change of Deaths by State

Covid – weekly deaths rate of change by state



# Washington Counties

Covid – weekly cases rate of change by WA Counties

