

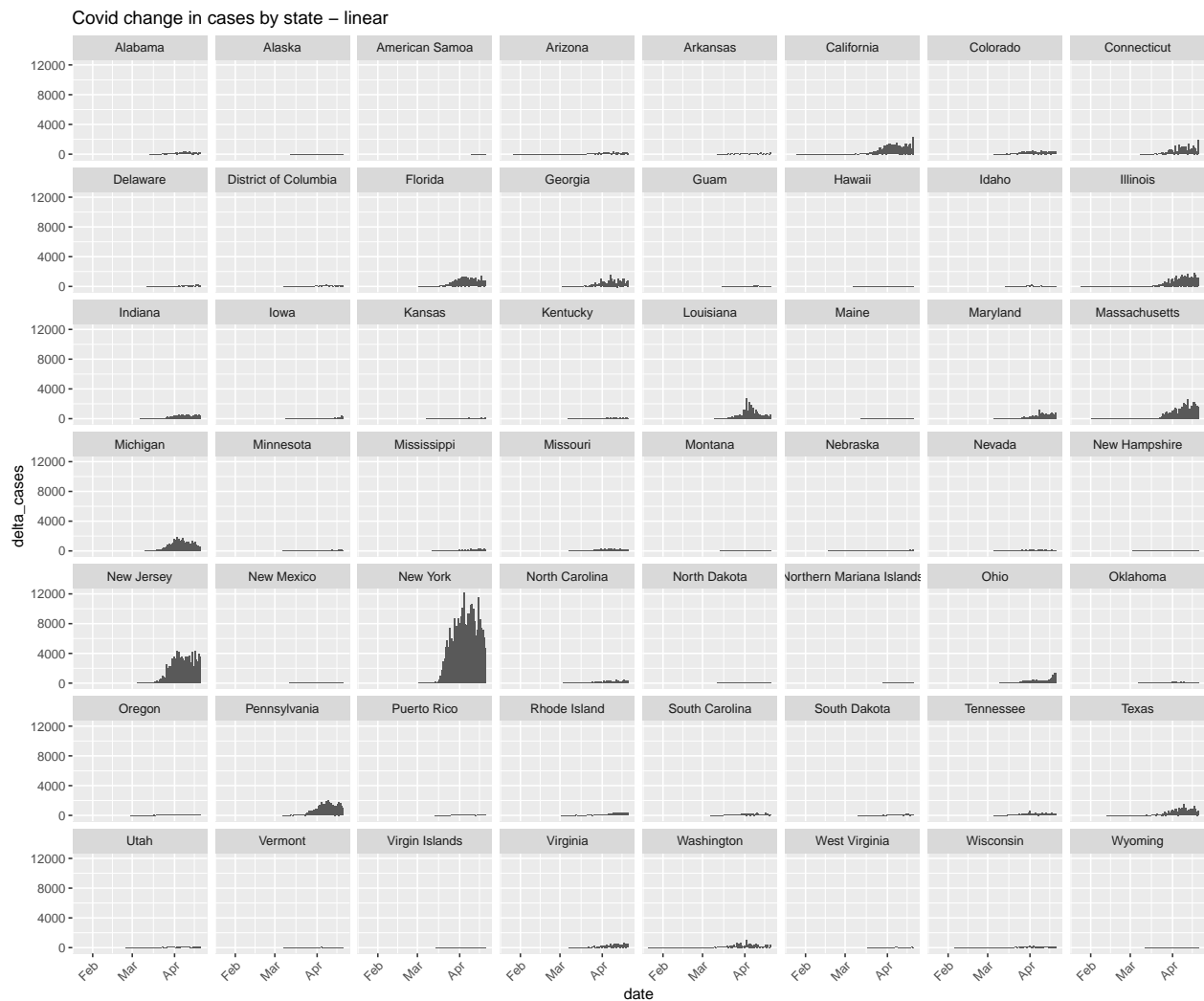
# Change Analysis

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

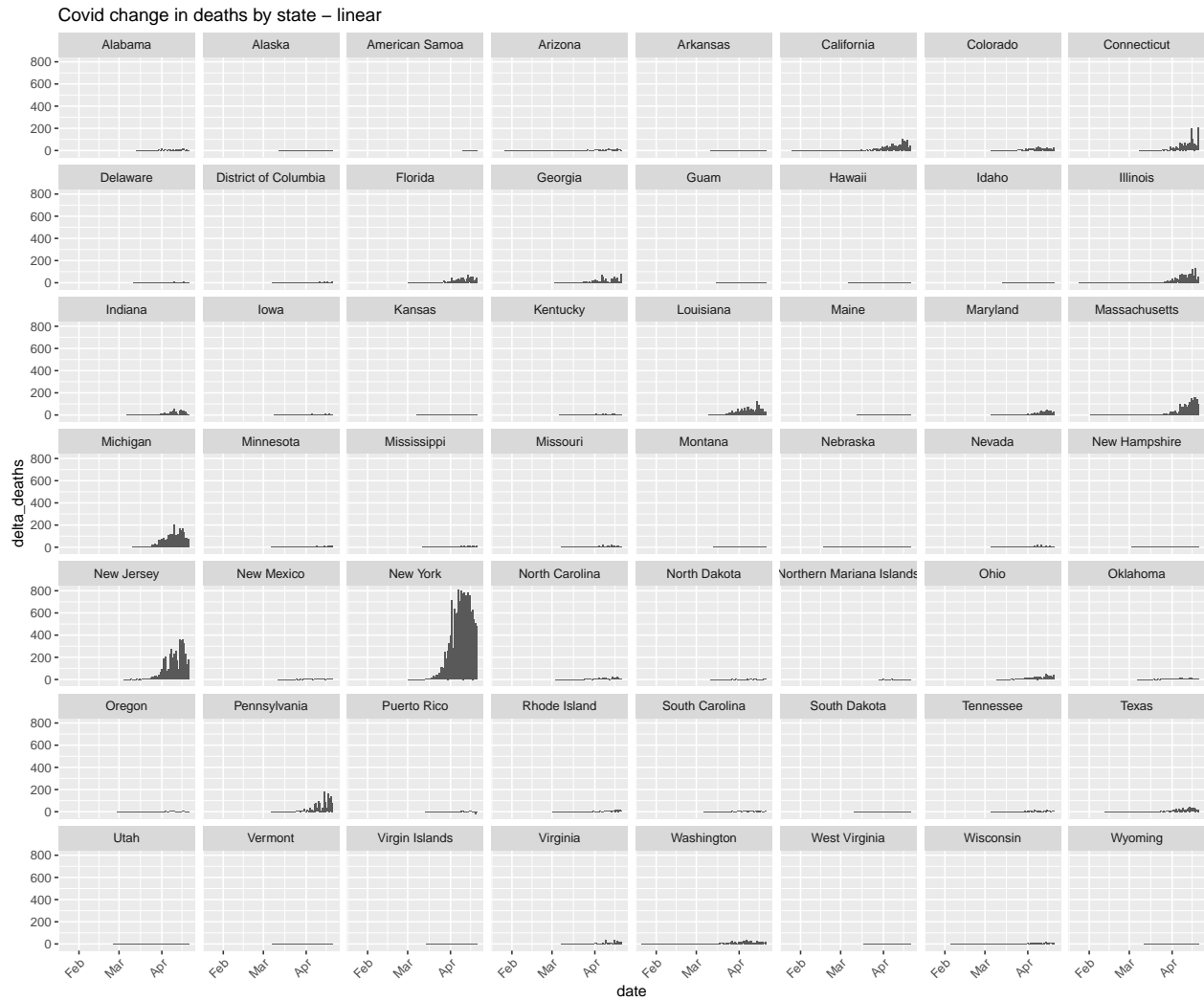
Last date for states data is 2020-04-20

## Extract daily changes

### Daily Cases



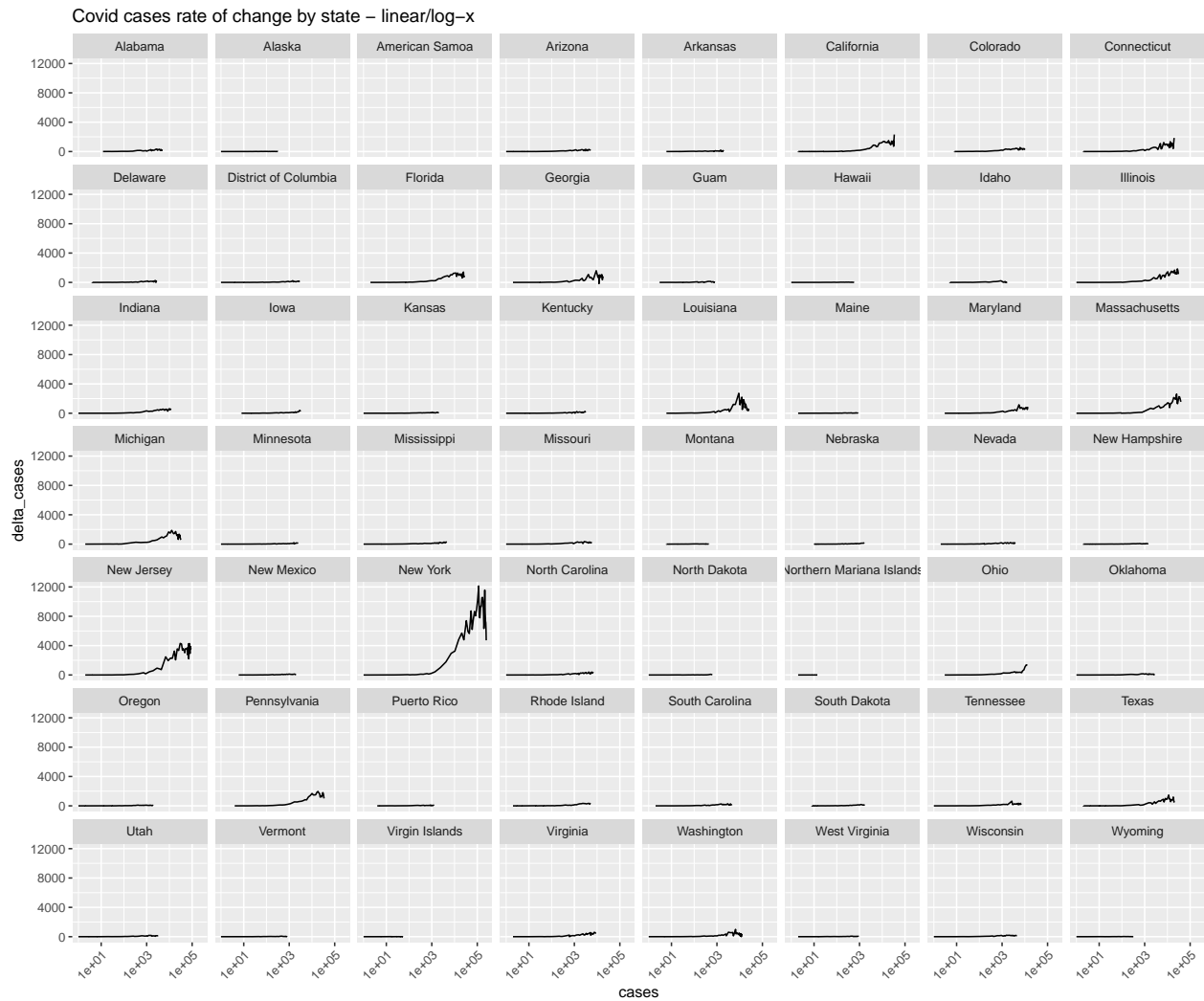
## Daily Deaths



## Change over Cumulative Sum

### Change in Cases over Cumulative Sum

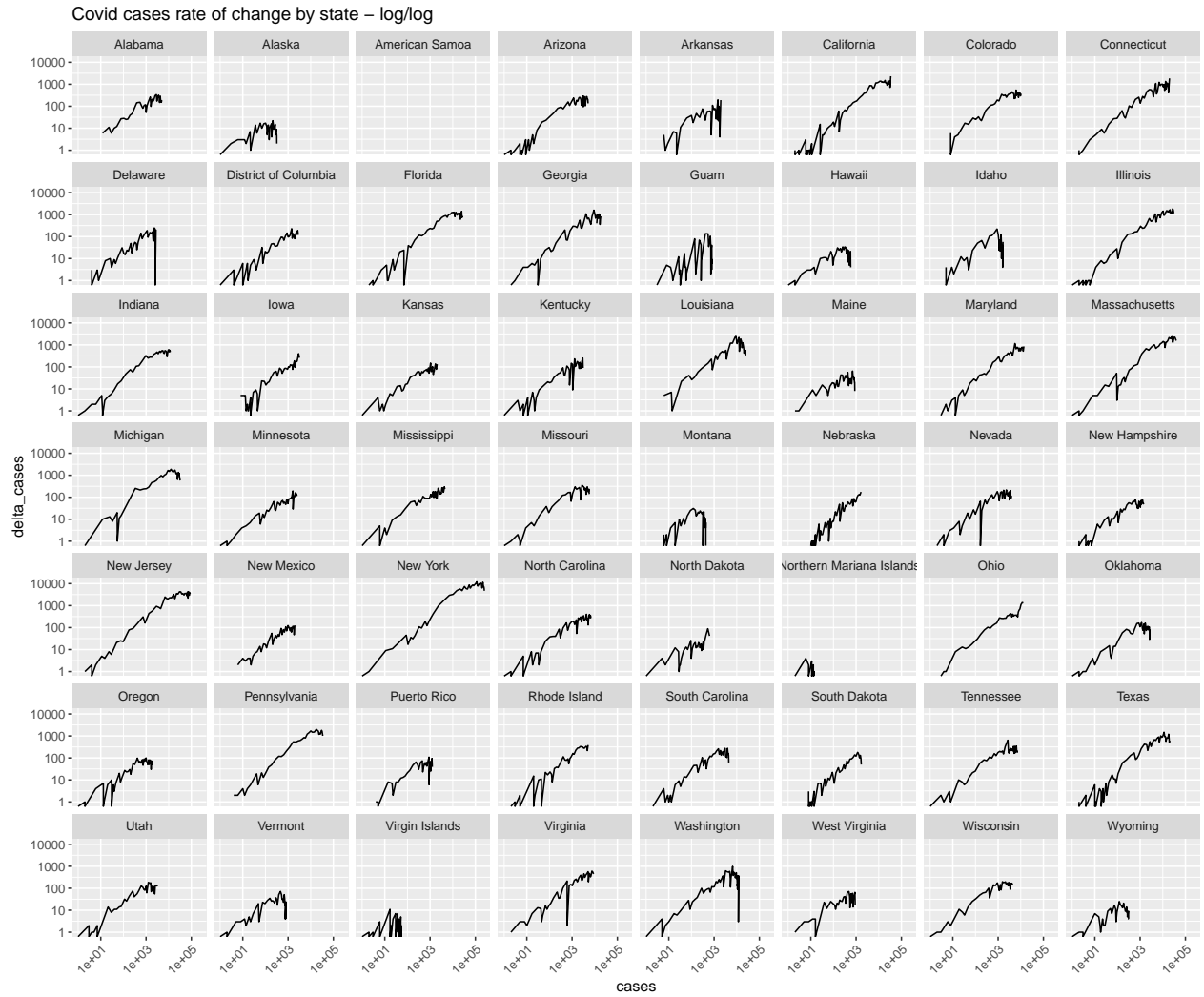
Use the log of the cumulative sum to better scale the values.



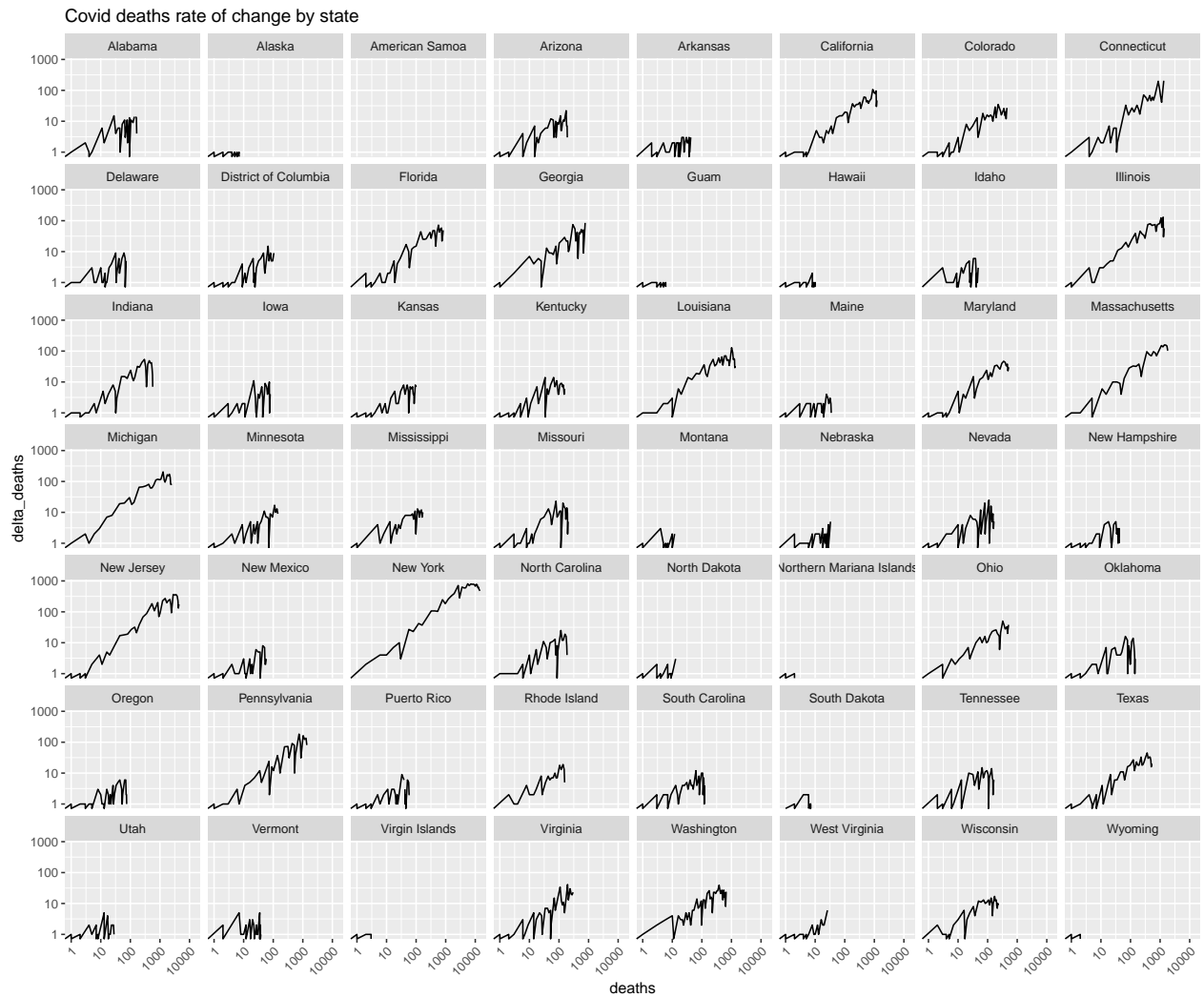
## Log of Change Over Cumulative Sum

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



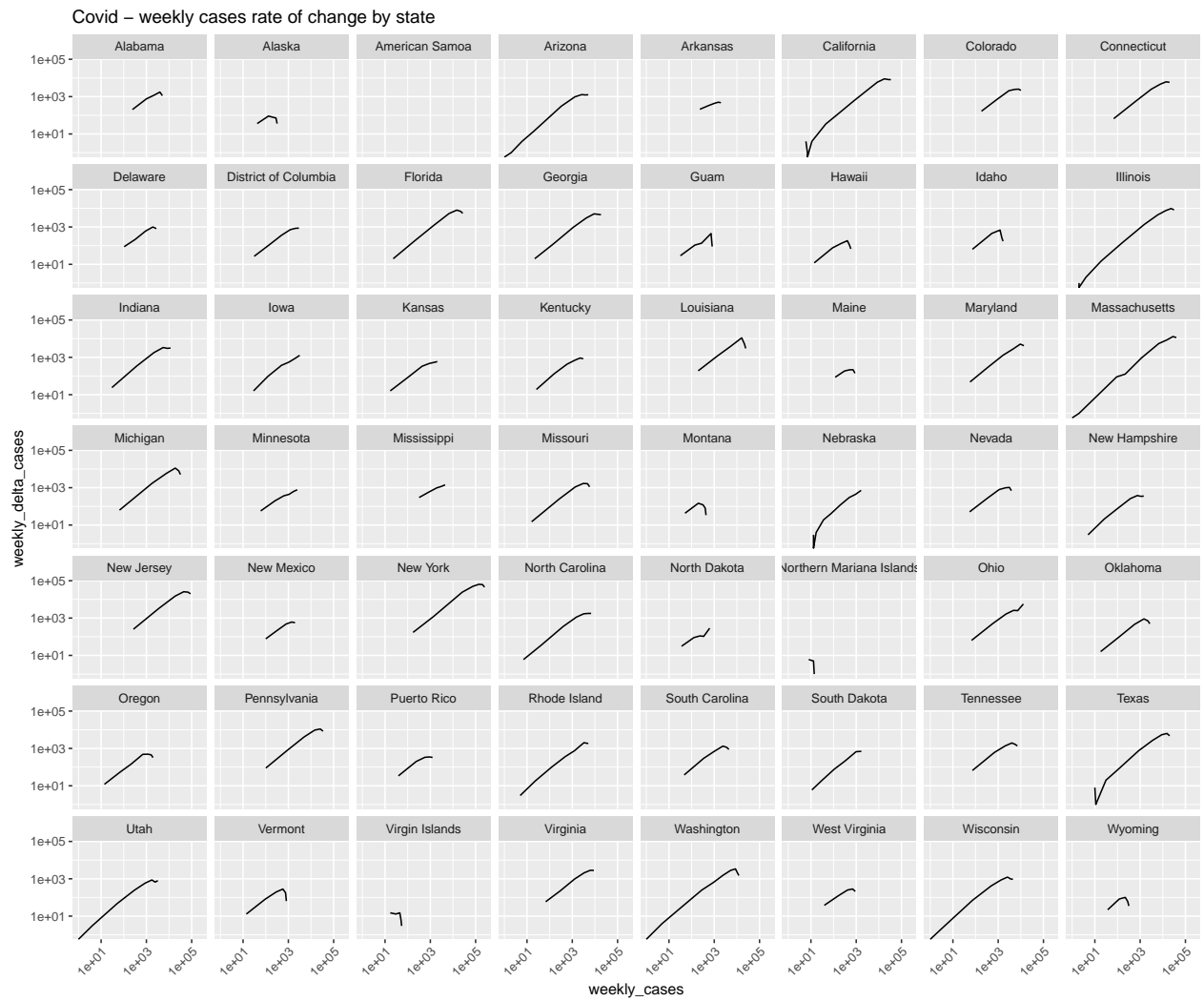
## Log/Log of Deaths over Cumulative Sum



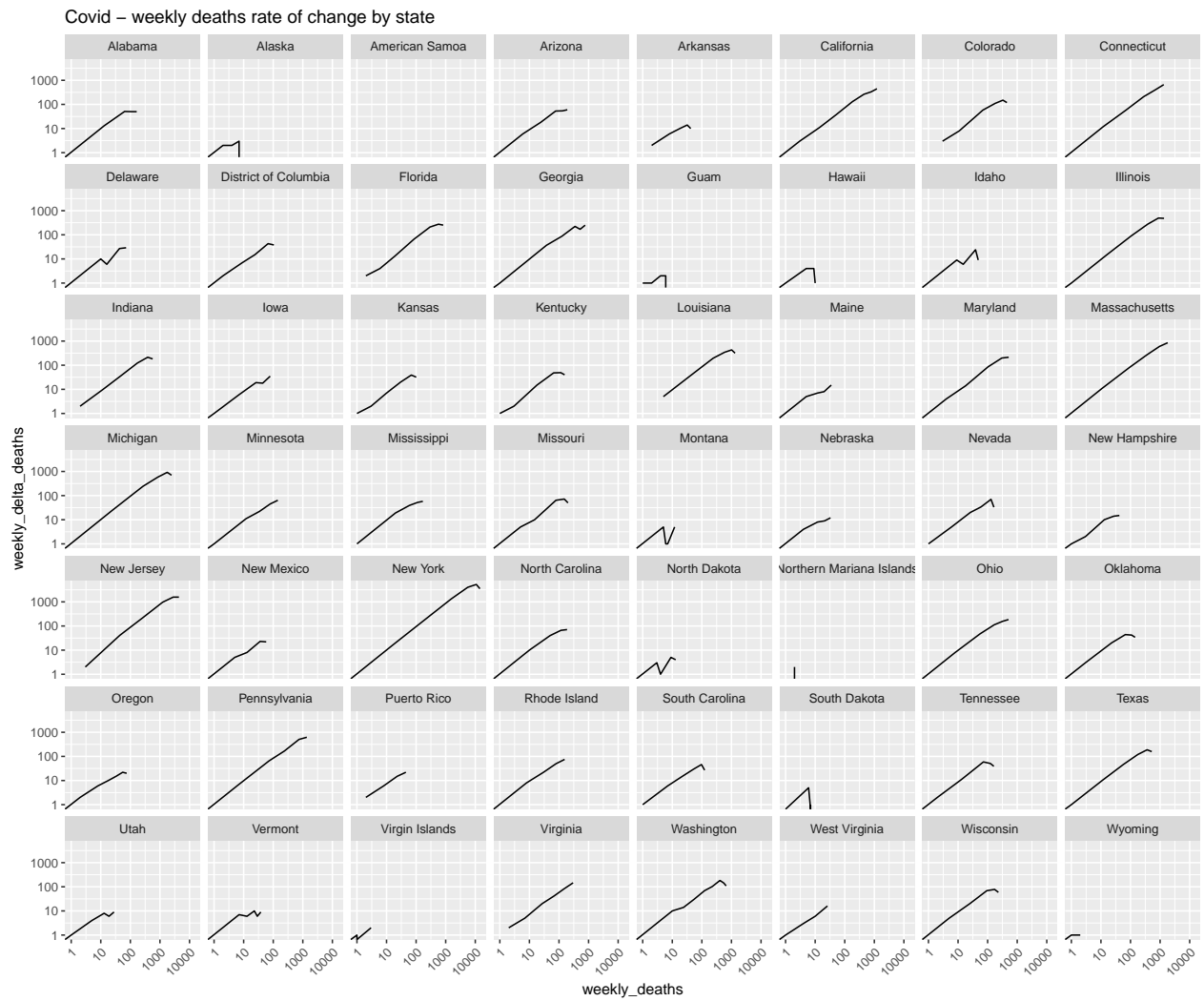
## Weekly Rate of Changes

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



## Weekly Range of Change of Deaths by State



# Washington Counties

