

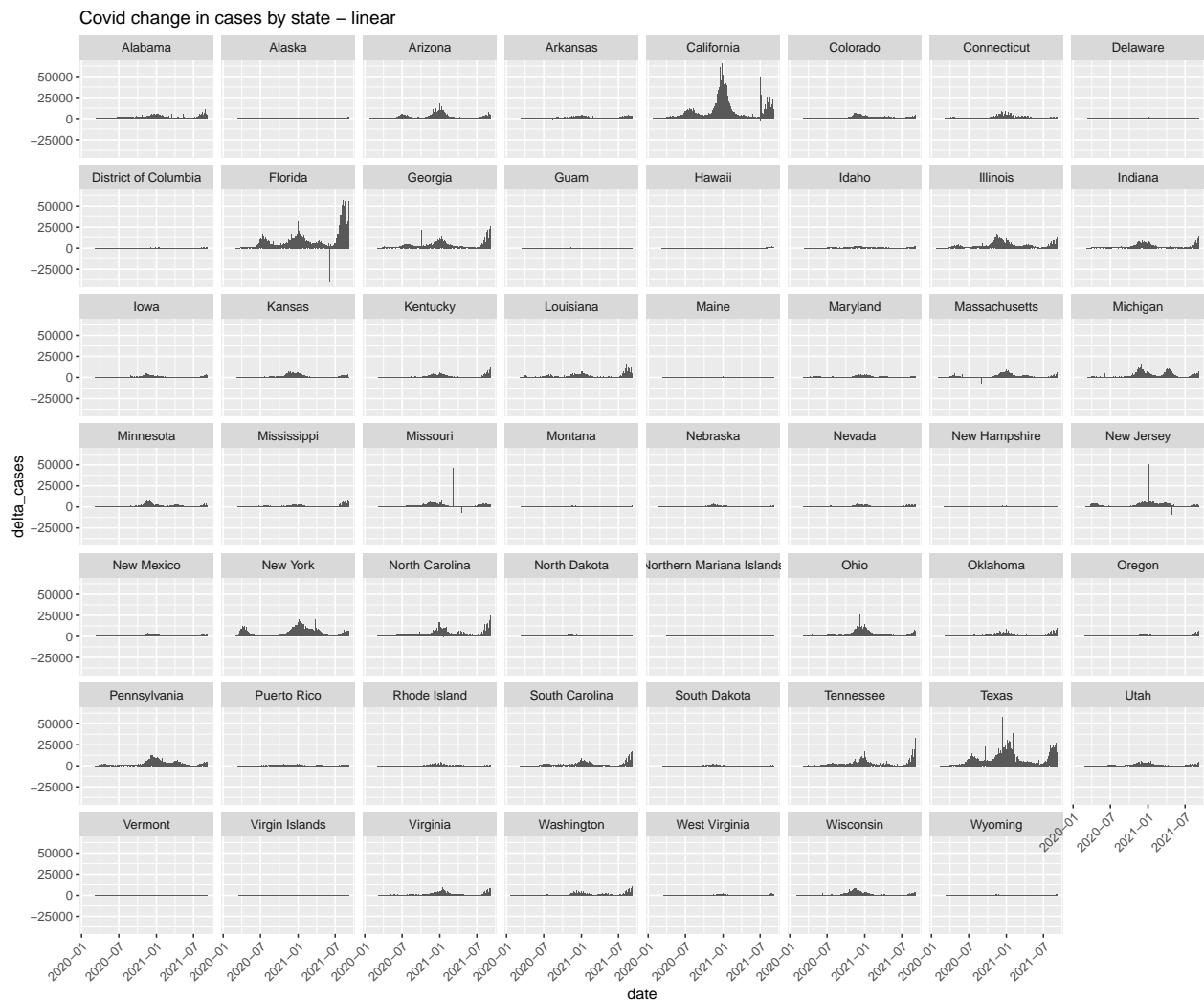
Change Analysis

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

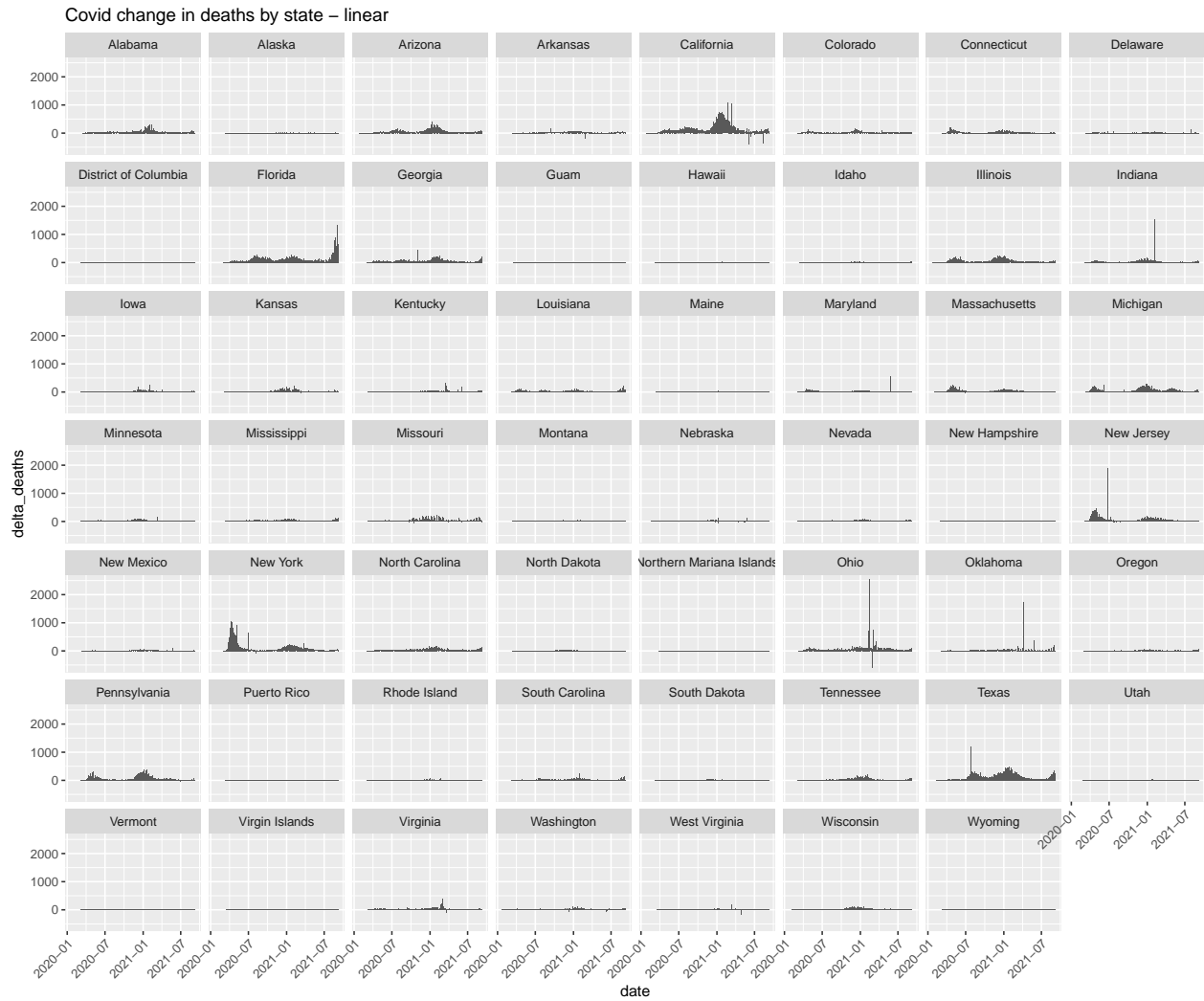
Last date for states data is 2021-09-07

Extract daily changes

Daily Cases



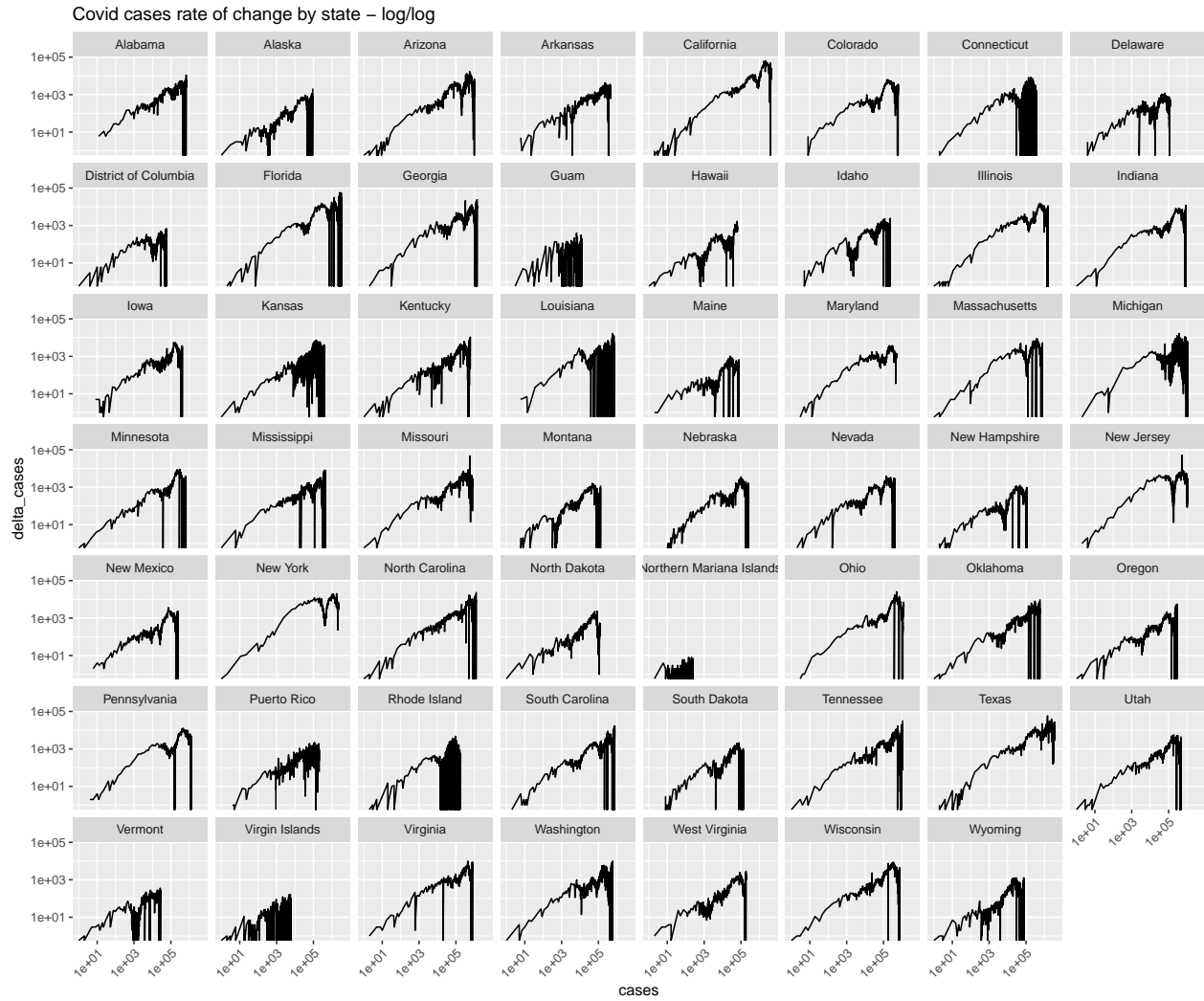
Daily Deaths



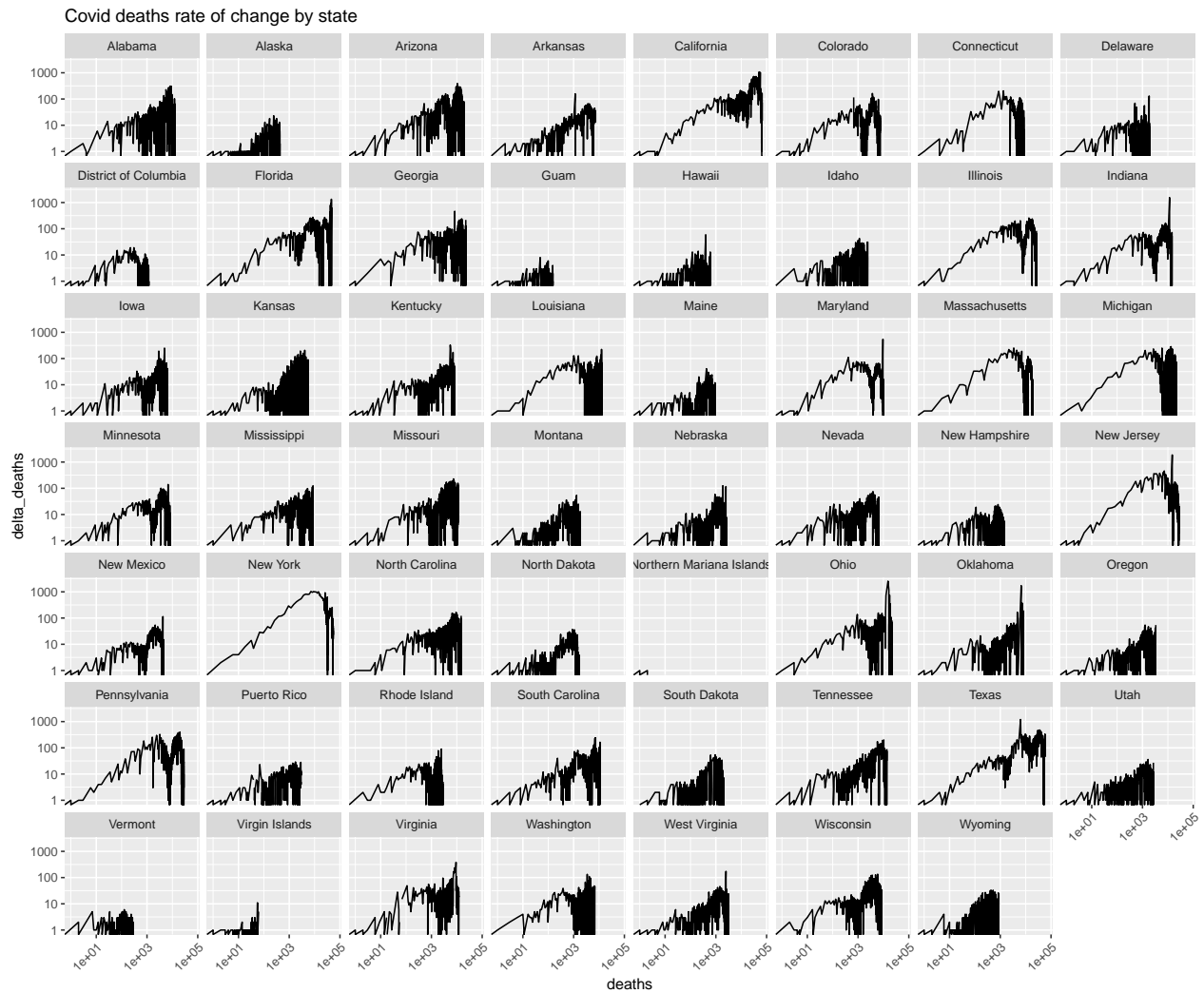
Log of Change Over Cumulative Sum

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

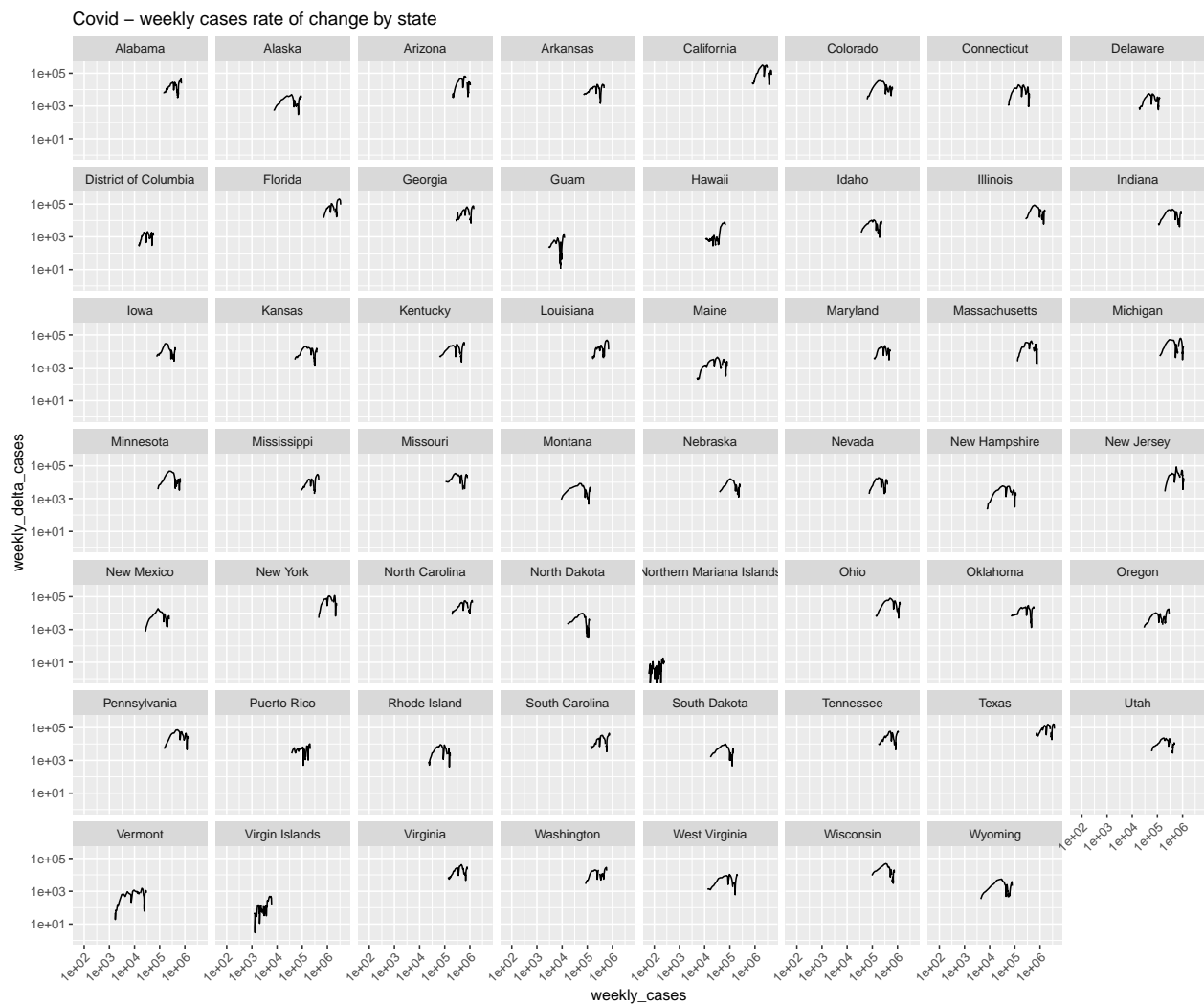


Weekly Rate of Changes

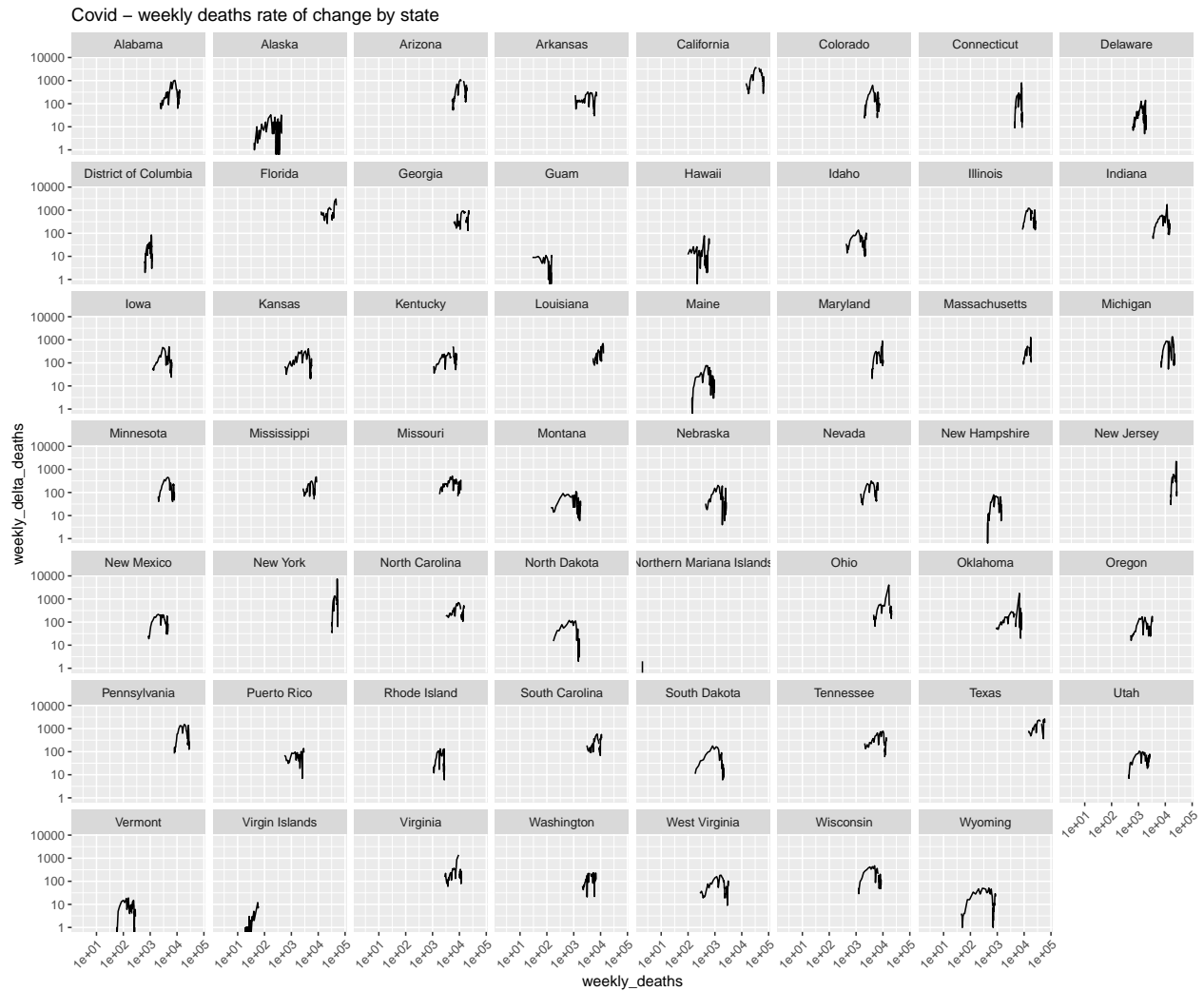
In order to smooth out the curves in the previous graphs, look at them on a weekly basis.

```
## `summarise()` regrouping output by 'state' (override with `.groups` argument)
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Weekly Range of Change of Cases by State



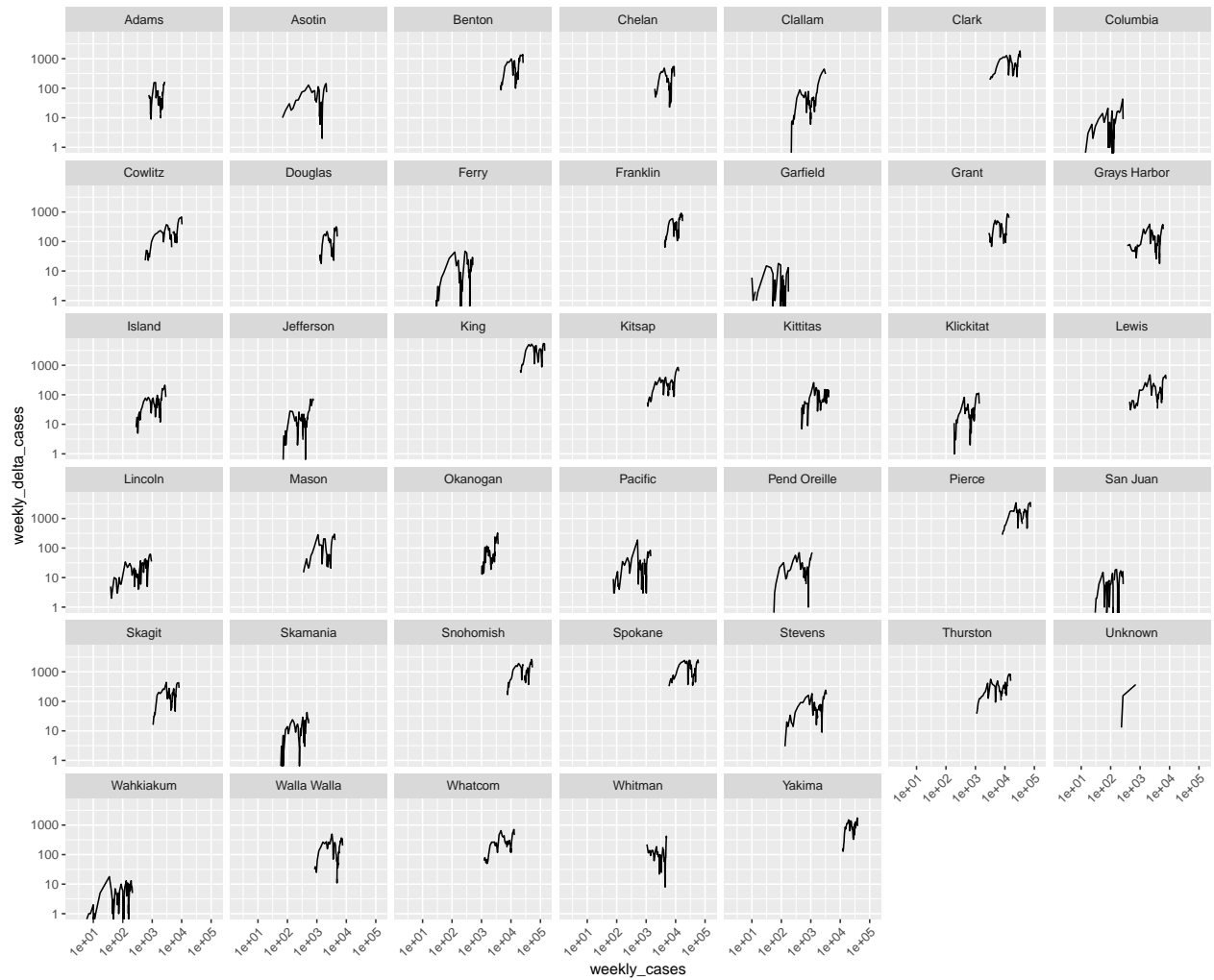
Weekly Range of Change of Deaths by State



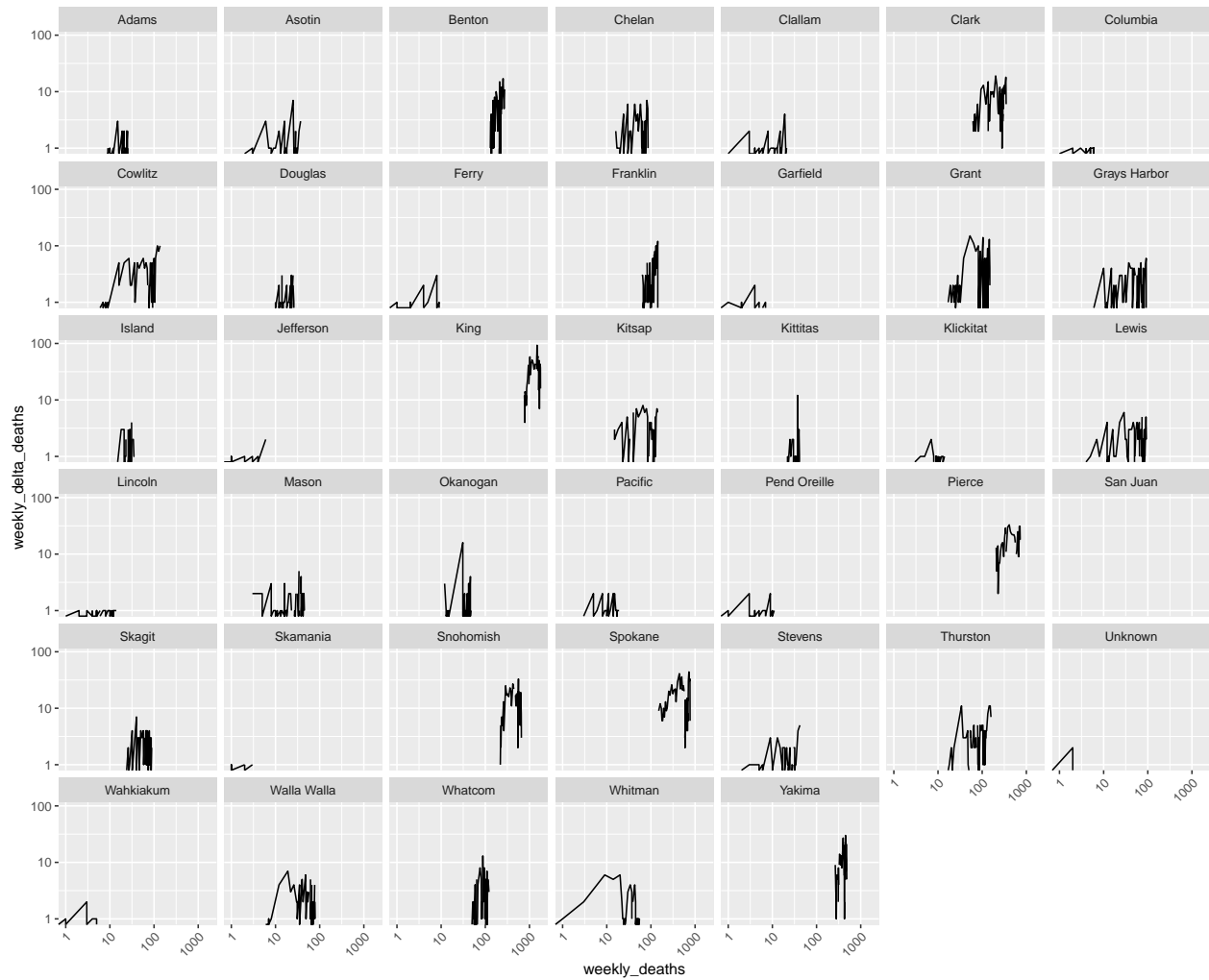
Washington Counties

`summarise()` regrouping output by 'county' (override with `groups` argument)

Covid – log/log weekly cases rate of change by WA Counties



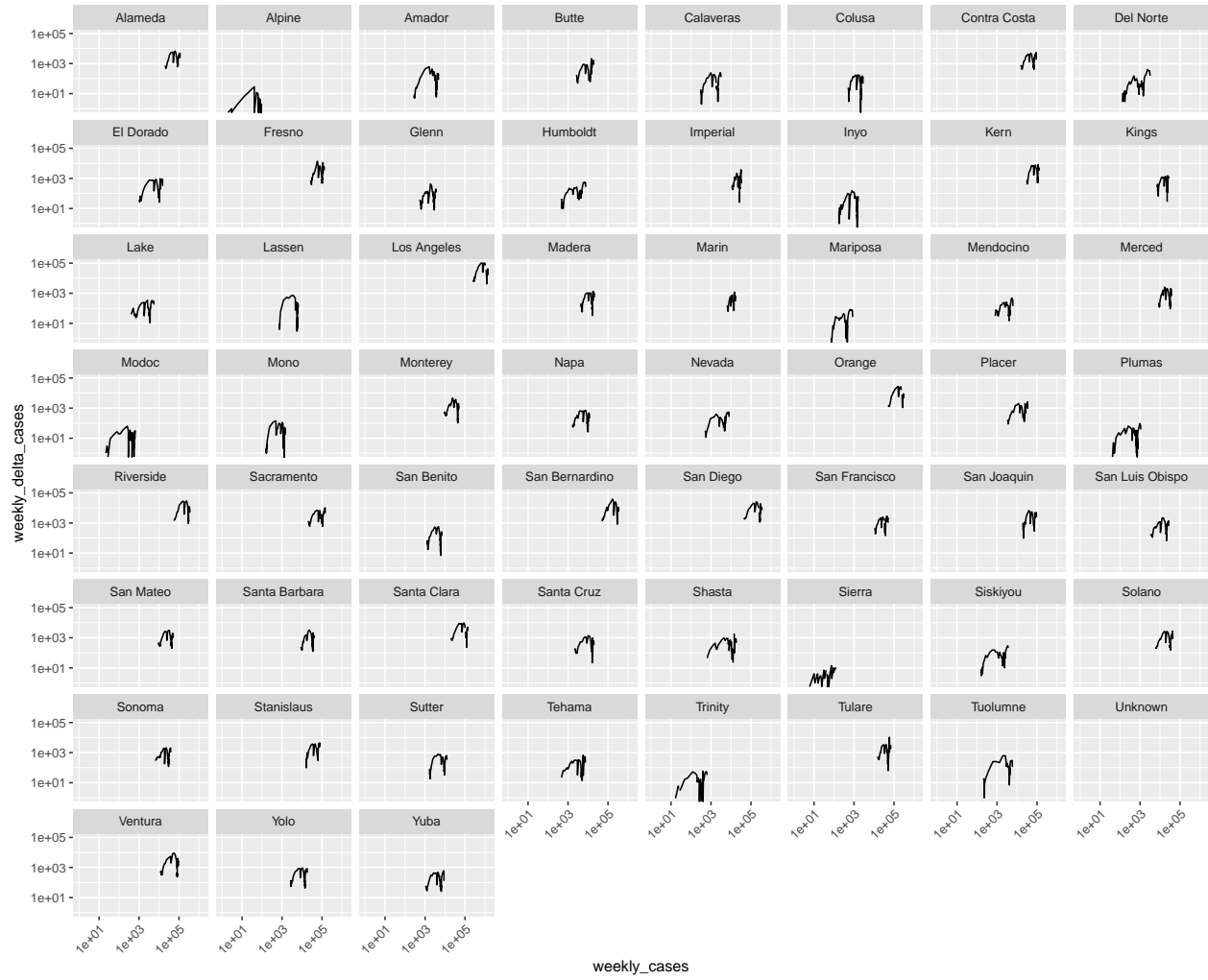
Covid – log/log weekly deaths rate of change by WA Counties



California Counties

`summarise()` regrouping output by 'county' (override with `.groups` argument)

Covid – log/log weekly cases rate of change by CA Counties



Covid – log/log weekly deaths rate of change by CA Counties

