Change Analysis

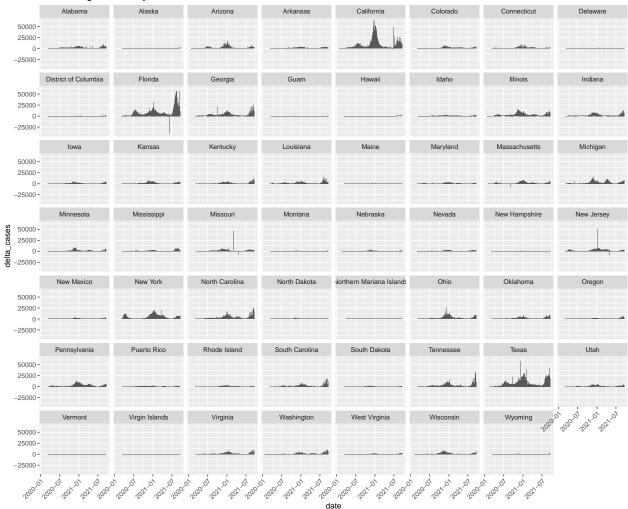
Another experiment to look at rate of change. Idea here is to compare the reported change against the cumulative sum.

Last date for states data is 2021-09-20

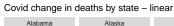
Extract daily changes

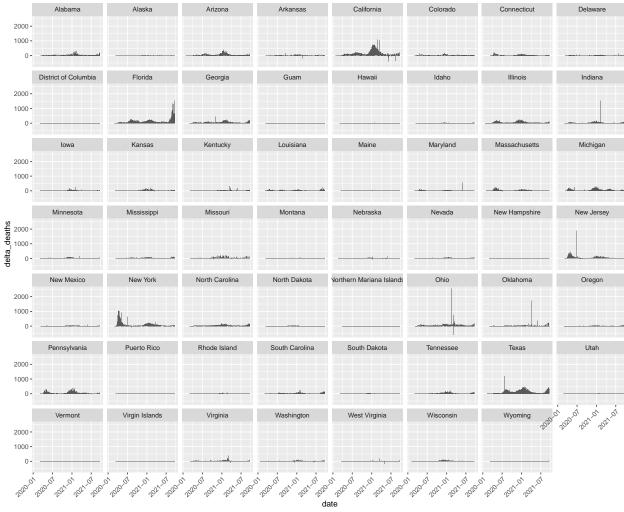
Daily Cases

Covid change in cases by state - linear



Daily Deaths

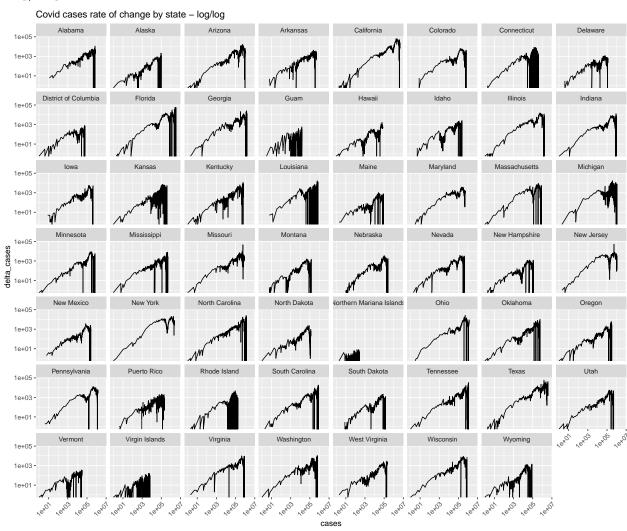




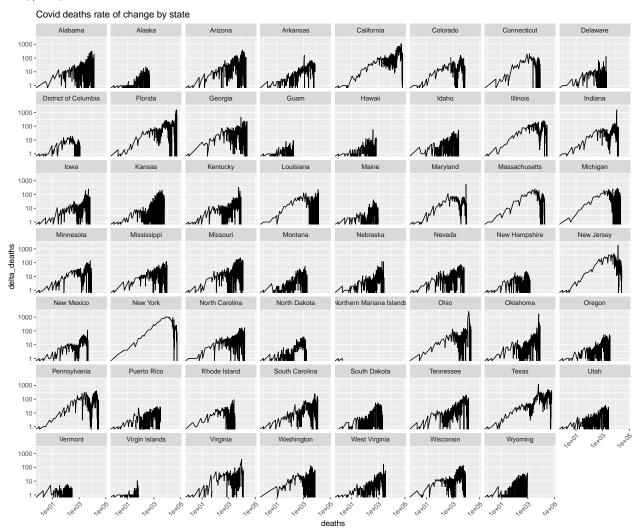
Log of Change Over Cumulative Sum

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.

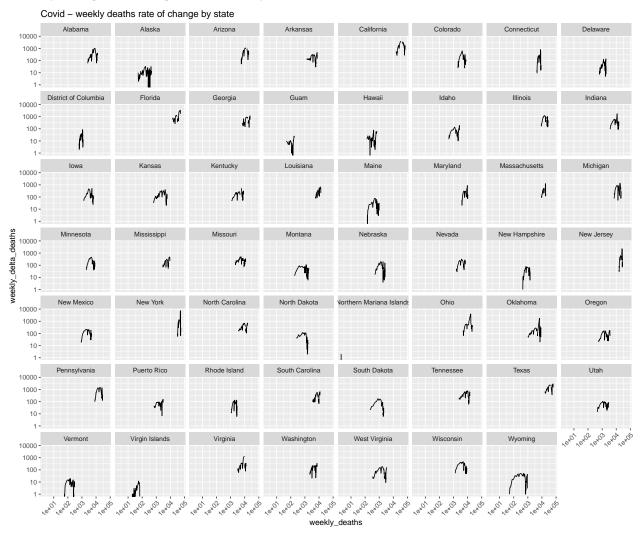
`summarise()` has grouped output by 'state'. You can override using the `.groups` argument.

Weekly Range of Change of Cases by State

Covid – weekly cases rate of change by state

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware
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	District of Columbia	Florida	Georgia	Guam	Hawaii	Idaho	Illinois	Indiana
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	New Mexico	New York	North Carolina	North Dakota	Northern Mariana Islands	Ohio	Oklahoma	Oregon
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	Pennsylvania	Puerto Rico	Rhode Island	South Carolina	South Dakota	Tennessee	Texas	Utah
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	Vermont	Virgin Islands	Virginia	Washington	West Virginia	Wisconsin	Wyoming	y exo, exo, exo, ex
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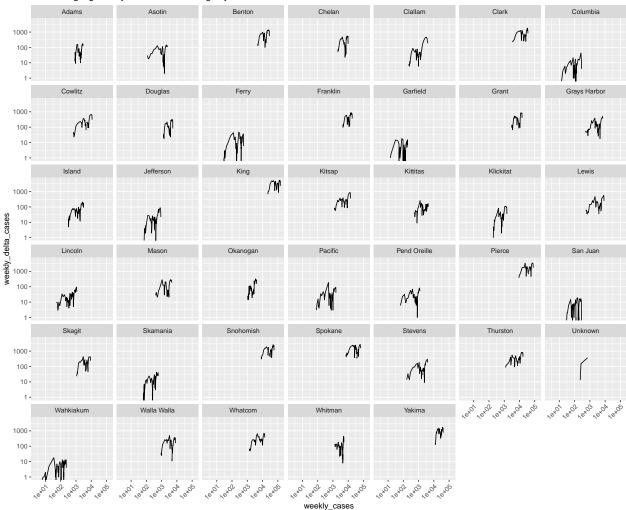
Weekly Range of Change of Deaths by State

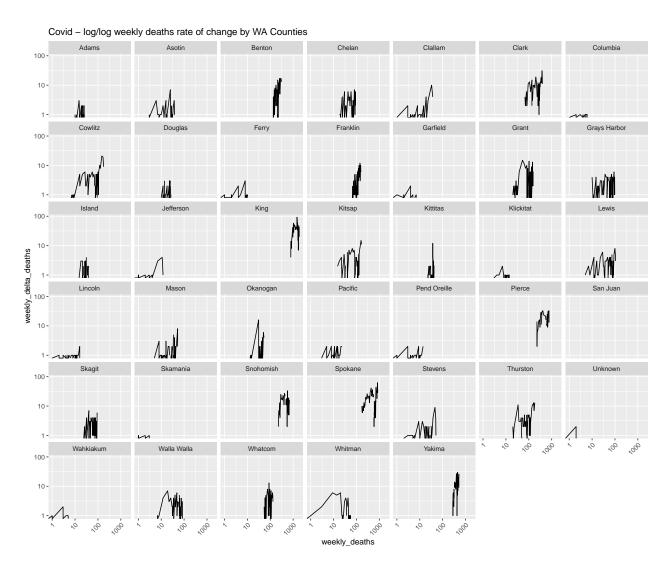


Washington Counties

`summarise()` has grouped output by 'county'. You can override using the `.groups` argument.







California Counties

`summarise()` has grouped output by 'county'. You can override using the `.groups` argument.

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

			Butte	Calaveras	Colusa	Contra Costa	Del Norte
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El Dorado	Fresno	Glenn	Humboldt	Imperial	Inyo	Kern	Kings
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Lake	Lassen	Los Angeles	Madera	Marin	Mariposa	Mendocino	Merced
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Modoc	Mono	Monterey	Napa	Nevada	Orange	Placer	Plumas
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Riverside	Sacramento	San Benito	San Bernardino	San Diego	San Francisco	San Joaquin	San Luis Obis
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San Mateo	Santa Barbara	Santa Clara	Santa Cruz	Shasta	Sierra	Siskiyou	Solano
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Sonoma	Stanislaus	Sutter	Tehama	Trinity	Tulare	Tuolumne	Unknown
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