

Corona Virus Science

This blog explains some of the science related to the corona virus (COVID-19) € perspective. Most posts contain links to the underlying research.

COVID-19 Model Projections

This page contains graphs with the latest COVID-19 projections for the US from the "Data Trend Model". Previous predictions can be downloaded from Github.

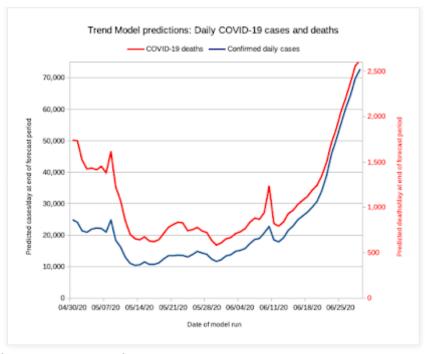
Last model run

June 29, 2020 with Johns Hopkins Data from 6/28/2020.

- Predicted daily deaths on 8/27/2020: 2,620 (previous run: 2,559; ~ 157,000 per 2 months)
- Predicted daily cases on 8/27/2020: 72,765 (previous run: 69,839)
- Total deaths predicted by 8/27/2020: 264,235 (previous run: 259,203 until 8/26)
- Excluding New York & New Jersey: 214,336 (previous run: 209,393 until 8/26)
- Total predicted cases by 8/27/2020: 6,562,541 (previous run: 6,360,978 until 8/26)

Summary

Reported and predicted numbers keep going up. Here's a graph that shows the history of the model predictions for the last 2 months:



At the end of April, the trend in infections and deaths was roughly stable. It then declined rapidly early to mid-May, which probably reflects the effect of the increase use of face masks. However, this was soon followed by first a short stable phase, and then a rapid growths in predicted cases and deaths. Over time, the ratio of predicted death to predicted cases (the CFR) dropped about twofold, which reflects the increased COVID-19 testing.

What will happen next is entirely predictable.

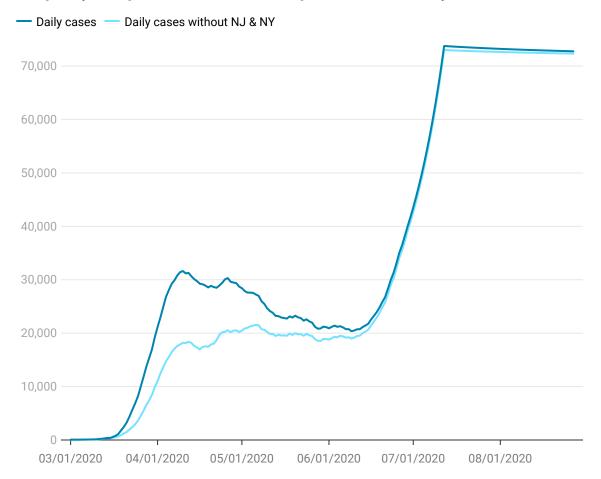
The science is clear. The computer model predictions are clear. The warnings from health experts are clear. There are *many* examples from US states and other countries what works and what does not work to contain COVID-19. But many state administrations choose to ignore facts because they do not "believe" in science, or because they value "the economy" higher than human lives.

As of yesterday, the US had 125,803 confirmed COVID-19 deaths. Excess death analysis shows that the officially reported COVID-19 death numbers under-estimate actual deaths *substantially*; for the period from 3/8/2020 to 5/16/2020 alone, there were more than 35,000 excess deaths in addition to the reported deaths. This means that in the last 4 months, more than 160,000 people in the US have died because of COVID-19. These are all *additional* deaths, above and beyond the number of deaths we would have seen without COVID-19.

Running daily computer models in the current anti-scientific political climate in the US seems to not only be an exercise in futility, but it is actually rather depressing. Therefore, I will stop doing daily updates as of today, and switch to a weekly update schedule.

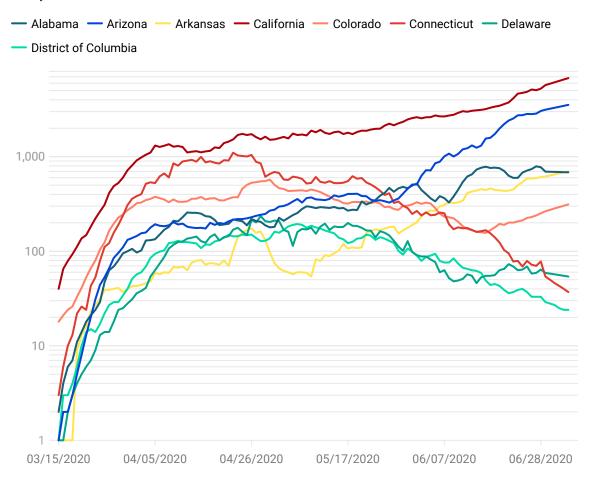
Daily actual and projected COVID-19 cases

Using 7-day averages for actual cases; future growth limited to 14 days.



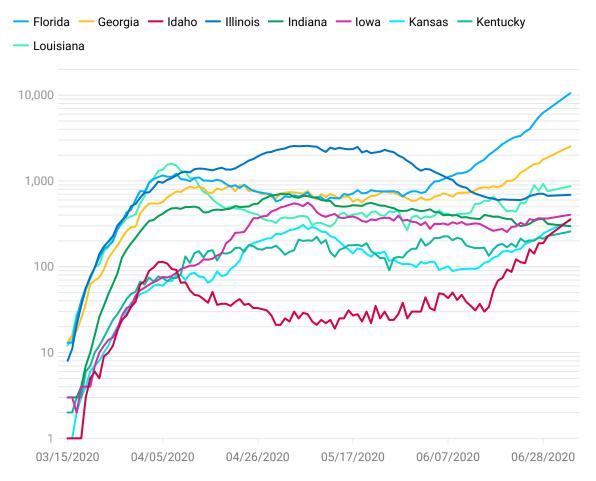
 $\label{logspot} \textit{Daily model projections at https://covid19science.blogspot.com/p/covid-19-model-projections.html} \\ \textit{Chart: covid19science.blogspot.com} \bullet \textit{Get the data} \bullet \textit{Created with Datawrapper} \\ \\$

Actual and projected daily COVID-19 cases by state (AL-DC)



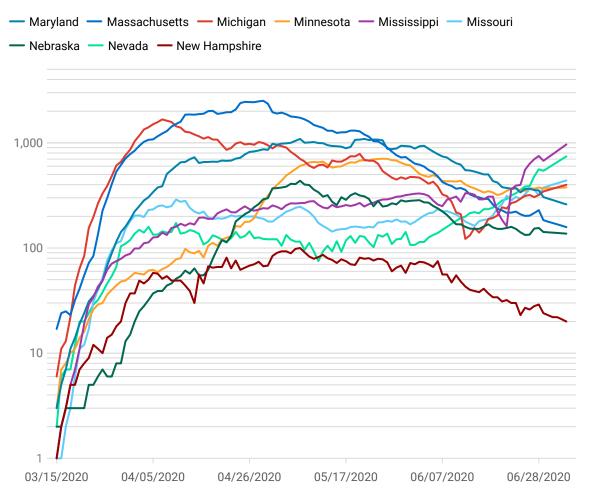
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Actual and projected daily COVID-19 cases by state (FL-LA)



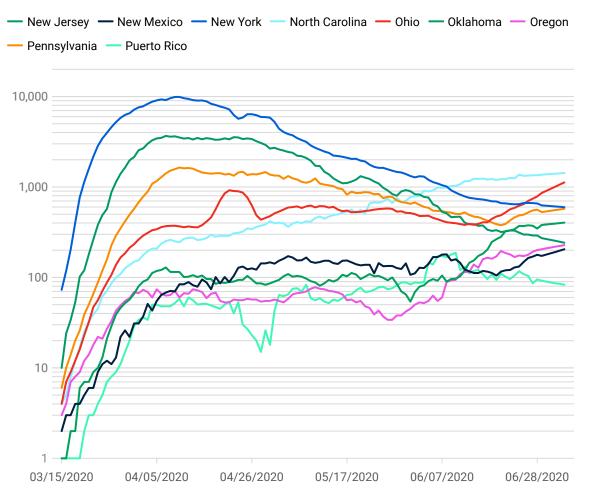
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Actual and projected daily COVID-19 cases by state (MD-NH)



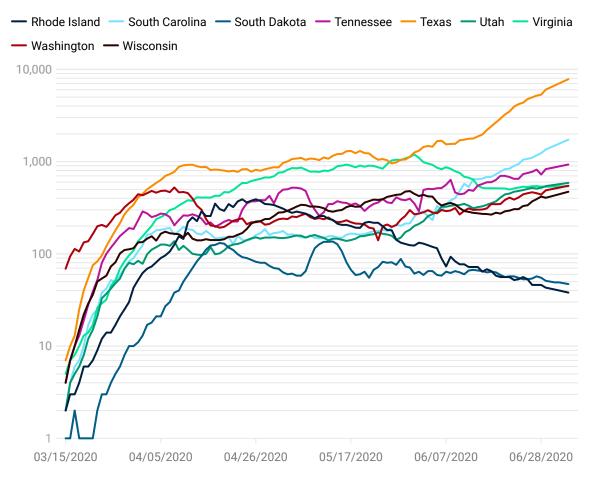
Daily model projections at https://covid19science.blogspot.com/p/covid-19-model-projections.html Chart: covid19science.blogspot.com • Get the data • Created with Datawrapper

Actual and projected daily COVID-19 cases by state (NM-PR)



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Actual and projected daily COVID-19 cases by state (RI-WI)



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