June 10, 2020: We have updated estimates and forecasts of infection and mortality rates in the United States and in the constituent states of the Fifth District. The current update is based on data up to June 6 and now also includes mortality projections for the latter. We reestimate the model with the recent data so that the projections reflect both the influence of revised model estimates and more data. A full set of graphs for U.S. and Fifth District forecasts is available online.

For the entire United States, we now project median fatalities of 184,000 with a 95 percent range of 175,000 to 193,000 by early September. The corresponding number of total infections is 3.1 million. Even three months out, we expect the United States to have 10,000 new cases and almost 600 deaths daily. Our forecast intervals have shifted slightly upwards, possibly on account of relaxed social distancing measures in many parts of the United States since early May. Otherwise, the model performs exceedingly well in that projections for daily infections and fatalities become more precise and data realizations continue to lie within error bands.

Over the same horizon, we project 3,400 cumulative fatalities in Virginia, 2,800 in North Carolina, 5,500 in Maryland, and 1,200 in South Carolina, with the District of Columbia and West Virginia below the 1,000 mark, although the per capita rates in the former are exceedingly high. Although forecast intervals have tightened, the data flow for North and South Carolina has started to fall outside of the error bands from the previous forecast, which led to a considerable revision in the estimates. The pattern of new infections and deaths for these two states suggests the effect of early relaxation of lockdown measures, although the per capita rates are still comparatively low. We are developing a richer model for all states that allows forecasts to adjust to variables including the amount of social distancing. Preliminary results and further discussion are here.