Appendix 3: Calculation of change in confirmed cases or deaths if a moratorium been in place

Our model estimates change in growth rate of infections or deaths. To convert this to an estimate of the number of cases we do the following:

\[
\Delta \text{Confirmed cases or deaths} = \sum_{k=1}^{50} \sum_{i,j=4/17/2020}^{12/31/2020} \Delta \text{Confirmed cases or deaths (k, i, j)}
\]

Whereas \( \Delta \text{Confirmed cases or deaths (k, i, j)} \) is the change in confirmed cases or deaths for state k from day i to day j.

\[
\Delta \text{confirmed or death cases (k, i, j)} = \text{cumulative confirmed or deaths (k, i)} \times (1 + \# \text{ of days from } i \text{ to } j \times \text{Adjgrowth rate}) - \text{cumulative confirmed or death cases (k, j)}
\]

To estimate the decrease in infection (column 1) and death (column 2) rates in Table 1, we use the following formula and the Coeff for each model from Appendix 2:

\[
\text{Adjgrowth rate} = \frac{\text{cumulative confirmed or death cases (k, j)}}{\text{cumulative confirmed or death cases (k, i)}} - 1 + \text{Coeff} / \# \text{ of days from } i \text{ to } j
\]