A close up of a map

Description automatically generated

Here in this figure, we have fit a linear model to a log transform of the number of confirmed cases in the US. Using data from the past 3 weeks, 2 weeks, 1 week, and the entire timeline, we extrapolate the model and examine the difference in slopes. Additionally, we can look at the exact predicted values to forecast how many confirmed cases there will be on any given date.

As is seen, fitting a model to data from successively more recent weeks, leads to shallower slopes. This can be cautiously interpreted as a slowing down of the rate of spread for COVID-19. Concerning our thesis, we know from referencing news articles and keeping up to date with the situation that social distancing policies have been implemented more and more through the month of March. We seek to understand exactly what the effects of social distancing policies are and want to understand how these policies affect the spread. We want to understand exactly how these policies decrease spread in terms of when they will allow us to ‘peak’ in incidence rates.

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