

COVID-19 Projections for Capital District

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NOTE: Infections data by county was downloaded from NYS-DOH:

<https://health.data.ny.gov/Health/New-York-State-Statewide-COVID-19-Testing/xdss-u53e>

Projections are for an “aggregated” Capital District region defined by five counties (red).

County Index	County Name
1	Albany
11	Columbia
32	New York City
43	Rensselaer
46	Saratoga
47	Schenectady

One can generate a similar report for individual counties or for any aggregated subset of the counties, including for comparison purposes NYC or NY-State. The methods can be used in general as long as data on infection counts is available.

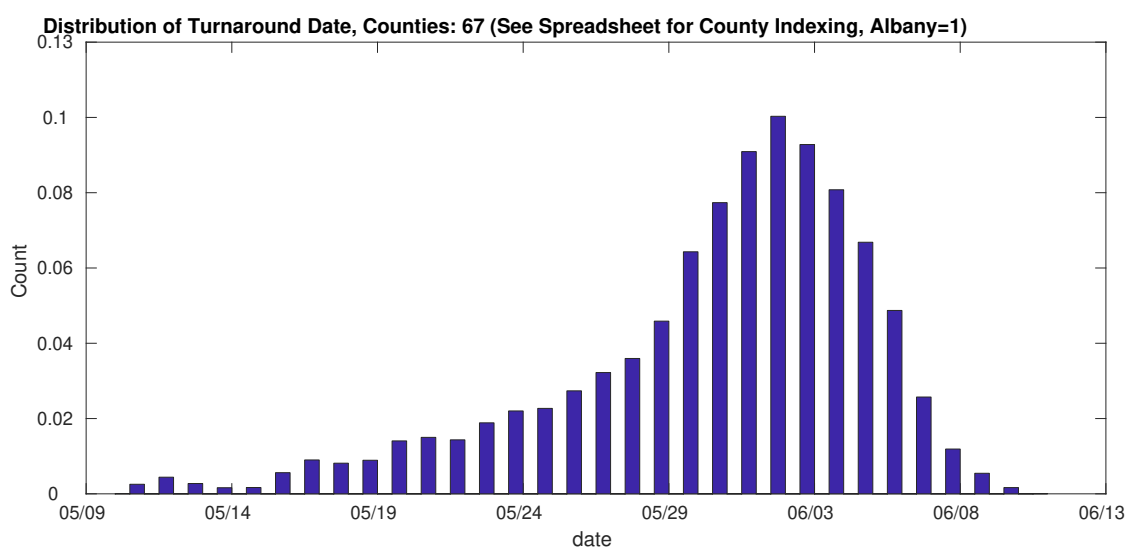
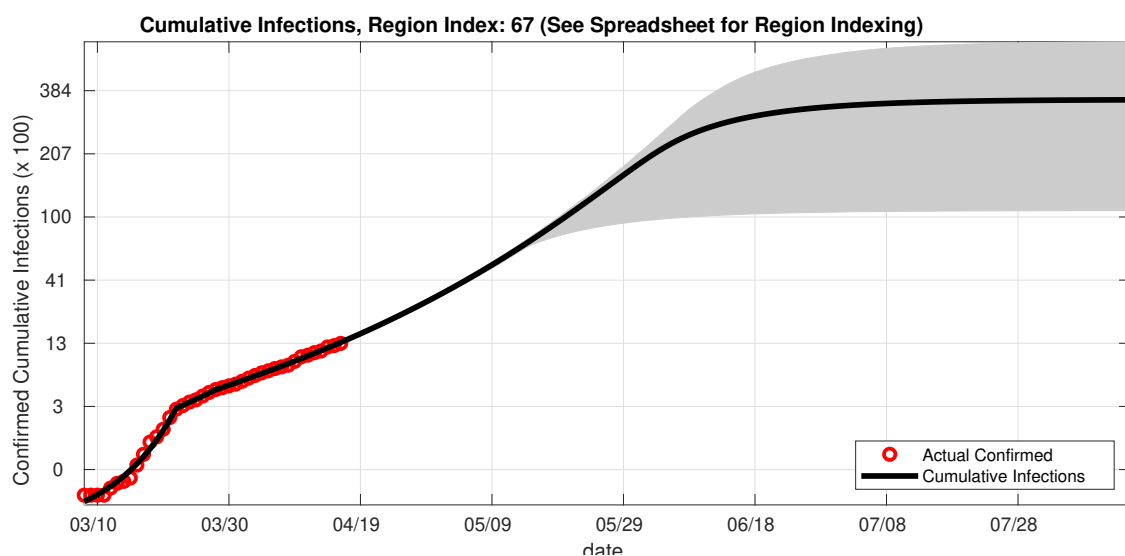
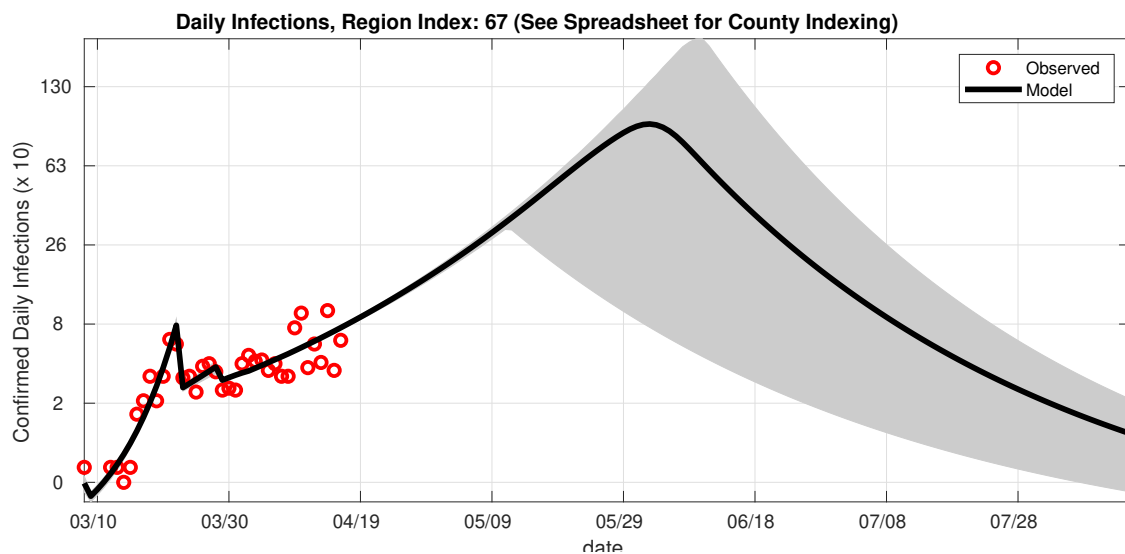
SOME IMPORTANT NOTES.

- Gray shading in figures are min-max ranges obtained using all models that are equally consistent with the observed data. You can think of this as best and worst case scenarios.
- We used the total population **915,372** from the 2017 census to estimate at-risk people as 25% of population (depending on level of self-quarantining). The true fraction of the self-quarantined population affects the result.
- Useful summary statistics as of April 16 data.

	75% Self-Quarantined
Daily confirmed infections peak	935 on 02-Jun
Total confirmed by 03-Aug	35,328
Mild or Asymptomatic Infections on 16-Apr	16,571

- Projections reflect data, assuming no future behavior changes. As more data arrives, the model is recalibrated to get better projections with smaller ranges, which will be necessary if social protocols change.
- A confirmed infection means the symptoms were bad enough to suggest testing. **Not all confirmed infections are hospitalized.** At peak daily confirmed infections, if 20% are hospitalized and stay on average 5 days, we need $935 \times 5 \times 20\% = 935$ beds.
- More detailed projections are given in the workbook.
- The appendix gives projections for NYC just to compare.

1 Albany Model, Peak around June 02



2 75% Workbook

Date	Positive (Model)	Range	Actual
17-Apr-2020	81	[77,84]	
18-Apr-2020	86	[82,89]	
19-Apr-2020	91	[87,95]	
20-Apr-2020	97	[92,101]	
21-Apr-2020	102	[97,107]	
22-Apr-2020	109	[103,114]	
23-Apr-2020	115	[109,121]	
24-Apr-2020	122	[116,128]	
25-Apr-2020	130	[123,136]	
26-Apr-2020	138	[130,145]	
27-Apr-2020	146	[138,154]	
28-Apr-2020	155	[146,164]	
29-Apr-2020	165	[155,174]	
30-Apr-2020	175	[164,185]	
01-May-2020	185	[174,196]	
02-May-2020	197	[184,209]	
03-May-2020	209	[195,222]	
04-May-2020	222	[206,235]	
05-May-2020	235	[219,250]	
06-May-2020	250	[232,266]	
07-May-2020	265	[245,283]	
08-May-2020	281	[260,300]	

A NYC Model Peaks Around April 15

