

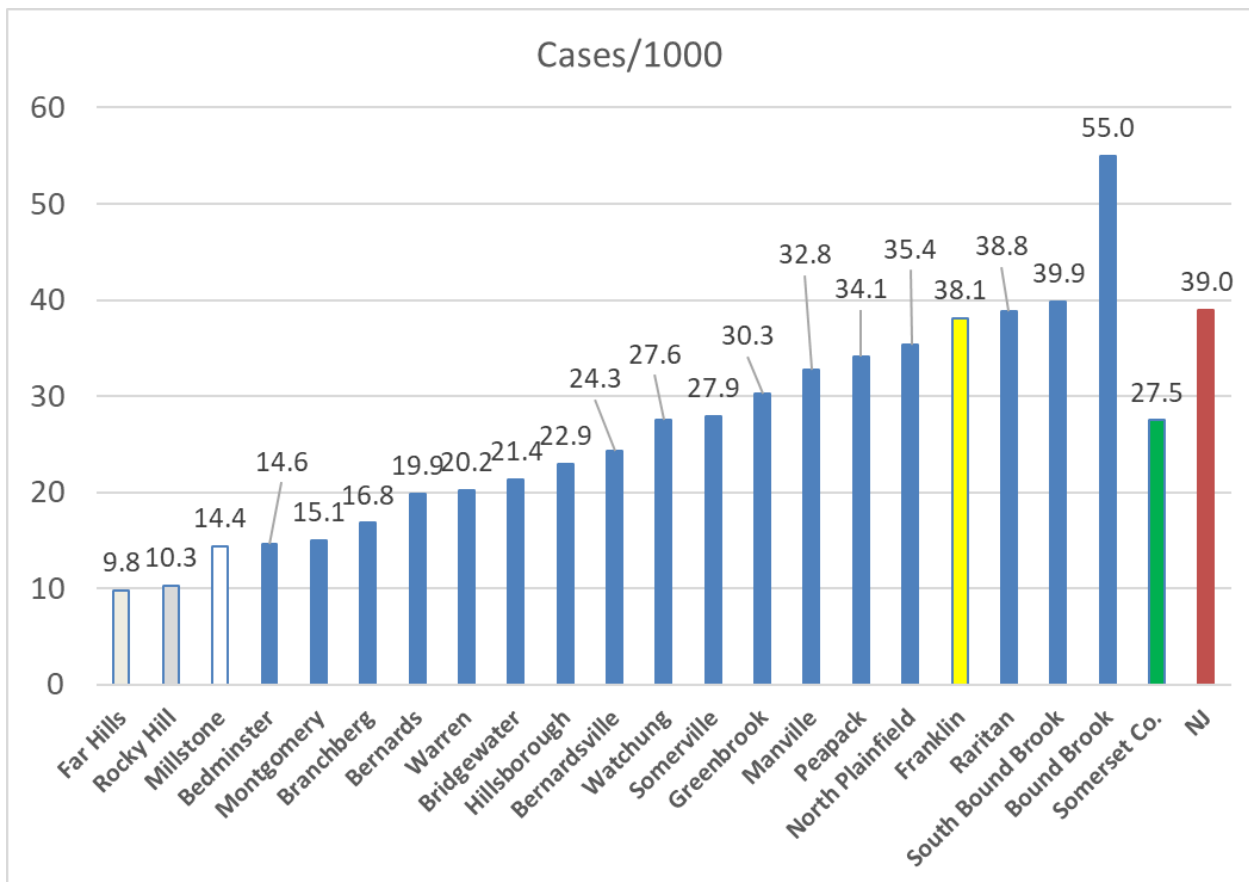
A 10th Look at the Comparison of Franklin to Other Municipalities in Somerset County (Dec 2nd)

There are a lot of cases in Franklin, but we are also the largest town in Somerset Co. so we need to see if Franklin has more than is expected for its size. I first looked at this on [April 5th](#) and then again on [April 16th](#), [April 19th](#), [April 25th](#), [May 3rd](#), [May 9th](#), [May 14th](#), [May 25th](#) and [June 11th](#).

You should read my prior post, [Numbers and Uncertainty](#), to put all the statistics in perspective.

I used the data from the County web site on 12/2/2020 to correlate the number of cases vs population. $R^2=0.86$ indicating the relationship of population to the number of cases is well correlated. Note the county now combines Millstone's numbers with Hillsborough's numbers. To make my report compatible with prior reports I estimated (guessed) Millstone's numbers based on changes in Far Hills' and Rocky Hill's numbers because they are similar size. I wound up doubling their cases from 3 to 6 cases and still zero deaths. It's a small amount so it really doesn't affect the numbers. For that reason, Millstone is shown in white. Far Hills and Rocky Hill are shown in gray because their small numbers can cause wide statistical swings.

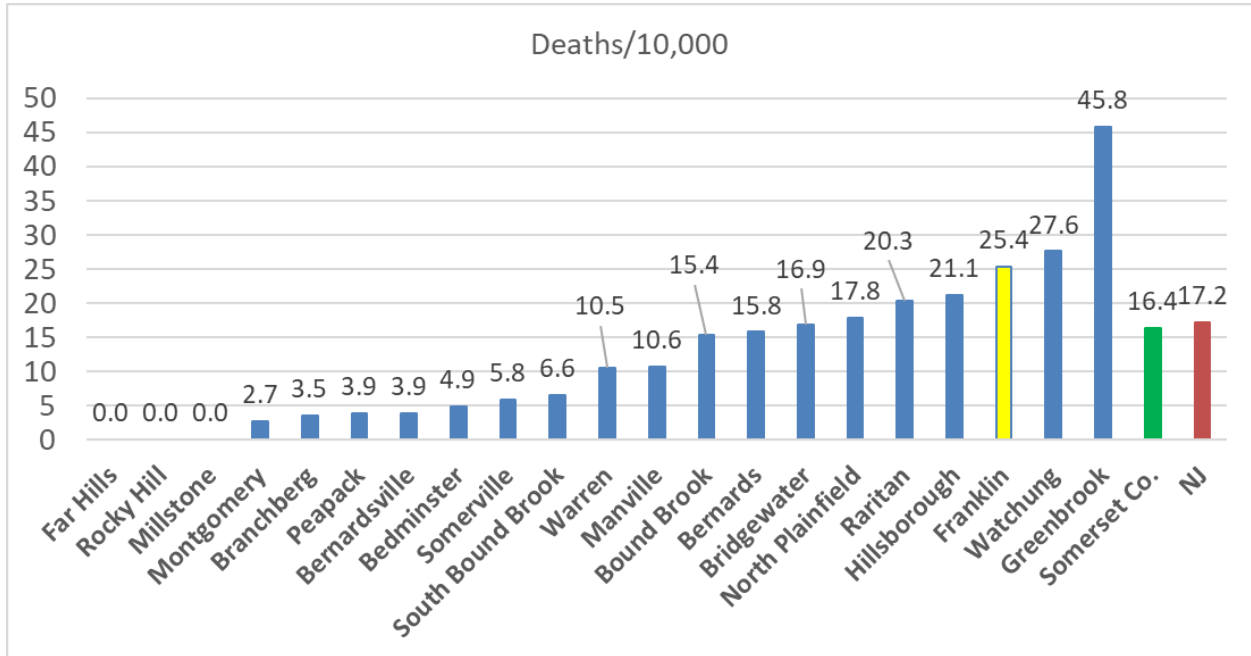
Looking at the number of cases per 1000 residents, you get the bar graph below. Franklin is yellow. The county is green. The state red. Franklin is in the 79th percentile so one more calculation tells us if it is statistically meaningful.



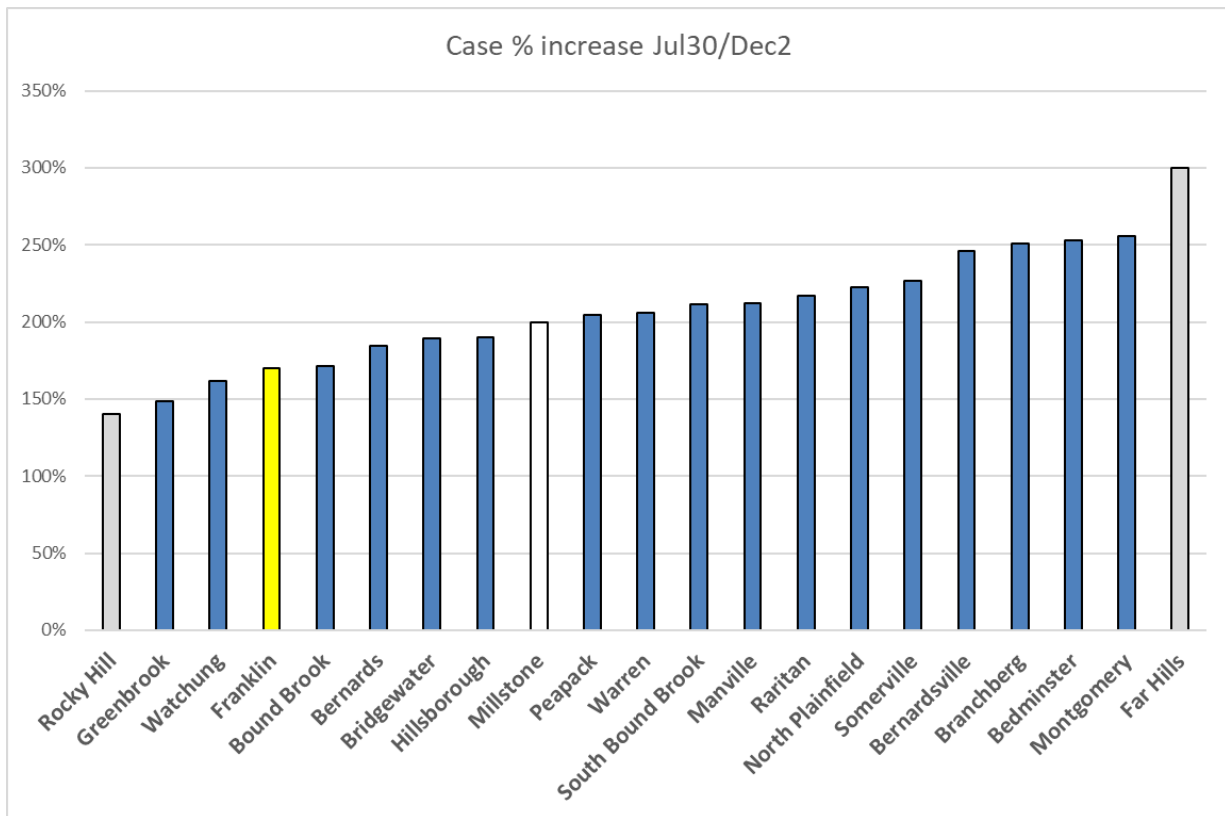
Things are considered abnormal or an outlier if it lies more than 2 standard deviations from the mean. **Franklin's cases per 1000 is 0.93 standard deviations above the mean. Thus, statistically Franklin is not an outlier.** That doesn't mean the high numbers aren't important it just means they are not extreme relative to our population size. Bound Brook is greater than 2 standard deviations above the mean.

I also looked at deaths. The numbers are smaller, so I worked on deaths per 10,000 residents. $R^2=0.87$.

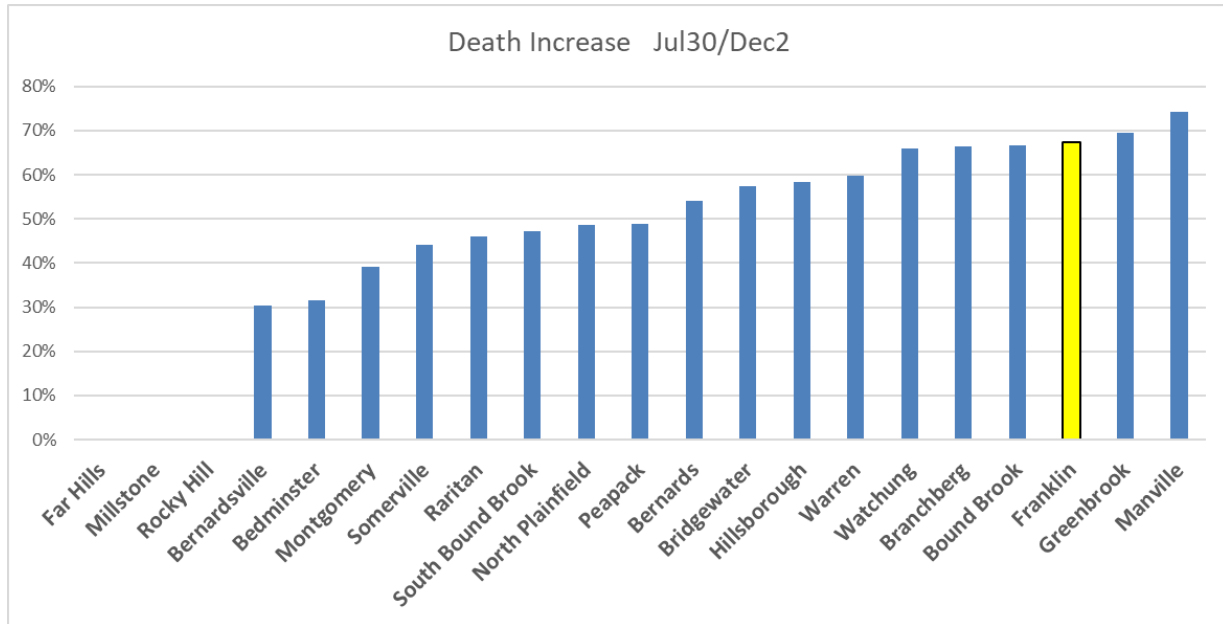
We are in the 84th percentile and 1.0 standard deviation above the mean, so not an outlier. Green Brook is 2.85 standard deviations above the mean. They have a significant LTC facility issue.



To look at how things changed recently, I compared July 30th cases to Dec 2nd cases by dividing the number of Dec 2nd cases by the number of Jul 30th cases.



In the past I looked at the death rate or deaths per cases. I recently posted however, about how this rate has decreased in Franklin, the county and the state. I don't have that town by town so all I can do is show you the percent increases in deaths divided by the % increases in cases Jul 30th to Dec 2nd.



Just because we are not two standard deviations above the mean doesn't indicate everything is ok. I'm not blowing this off at all. We remain at the high end. That's important. So, I stick to my mantra, "Assume everyone is infected so social distancing is required." And "You may be a carrier so social distancing is required so you don't infect others."

It is still the best tool we have until everyone who wants the vaccine has received it. One for all. PK