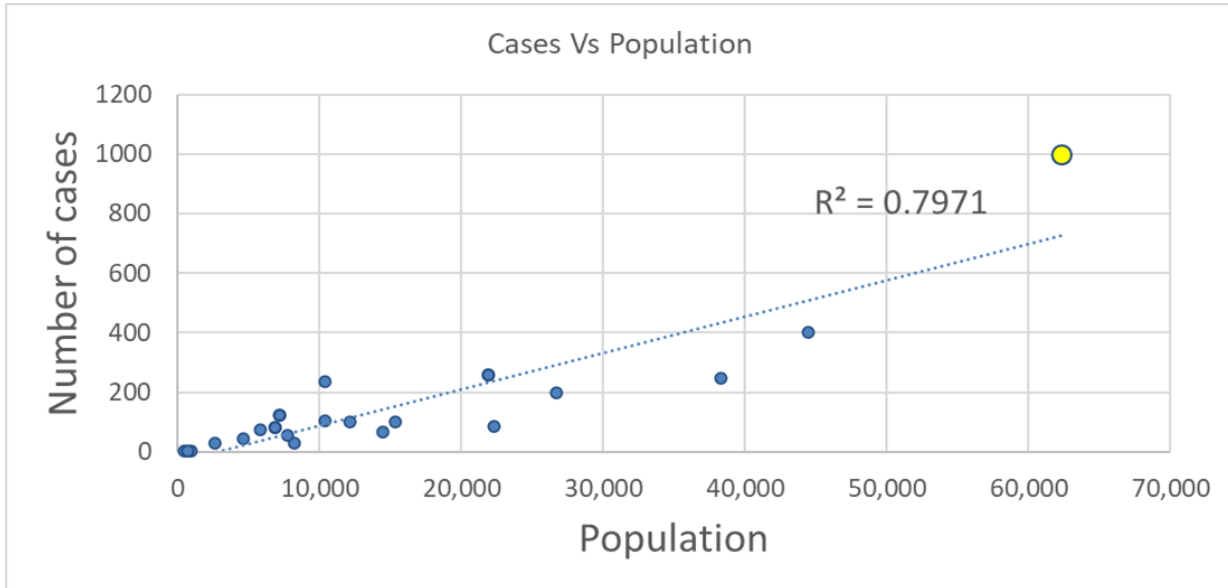A Fifth Look at the Comparison of Franklin to Other Municipalities in Somerset County
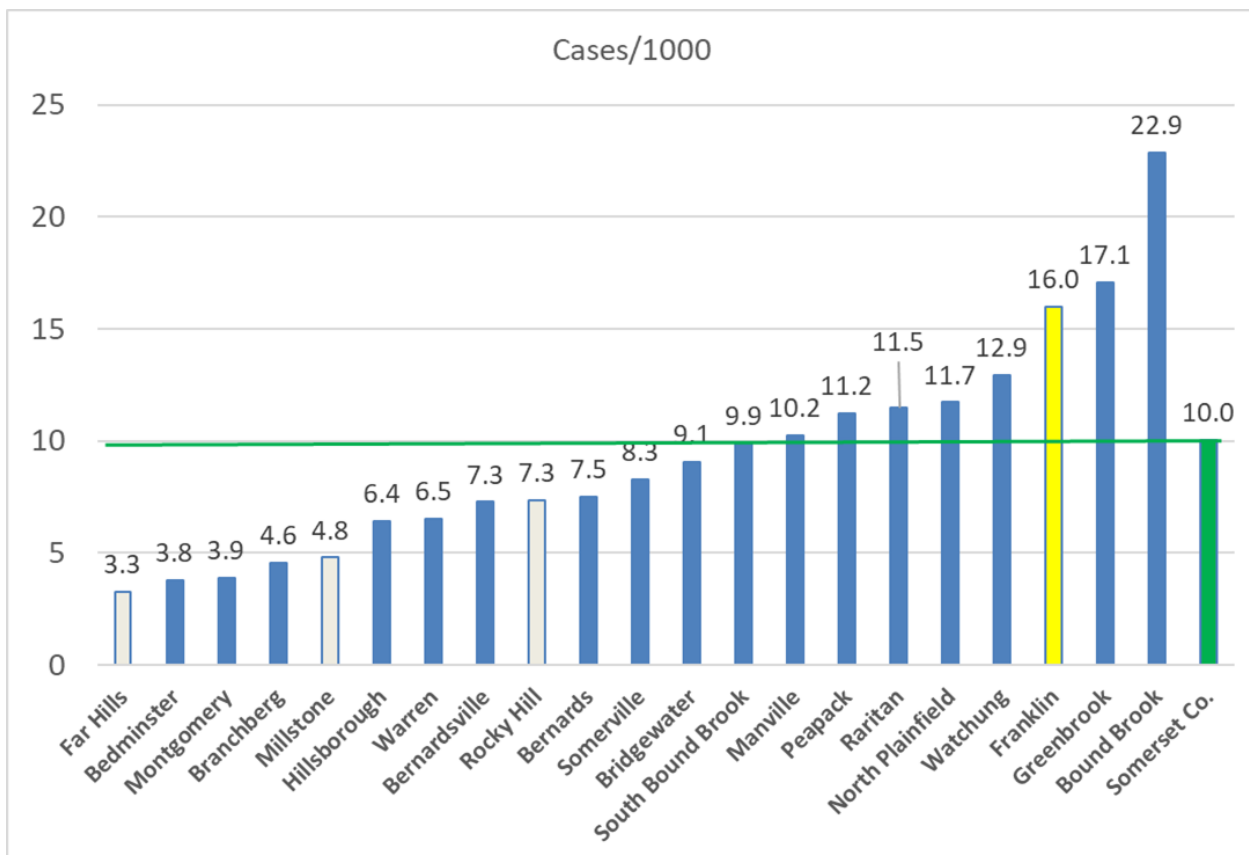
There are a lot of cases in Franklin, but we are also the largest town in Somerset Co. so we need to see if Franklin has more than is expected for its size. I first looked at this on April 5th and then again on April 16th, April 19th and April 25th.

I recently posted Numbers and Uncertainty. You should read it to put all the statistics in perspective. BTW the issue I talked about in 1a has been resolved.

I used the data from the county web site on 5/2/2020 to plot the number of cases vs population. Franklin is in yellow. R^2=0.8 indicates the relationship of population to the number of cases is well correlated.
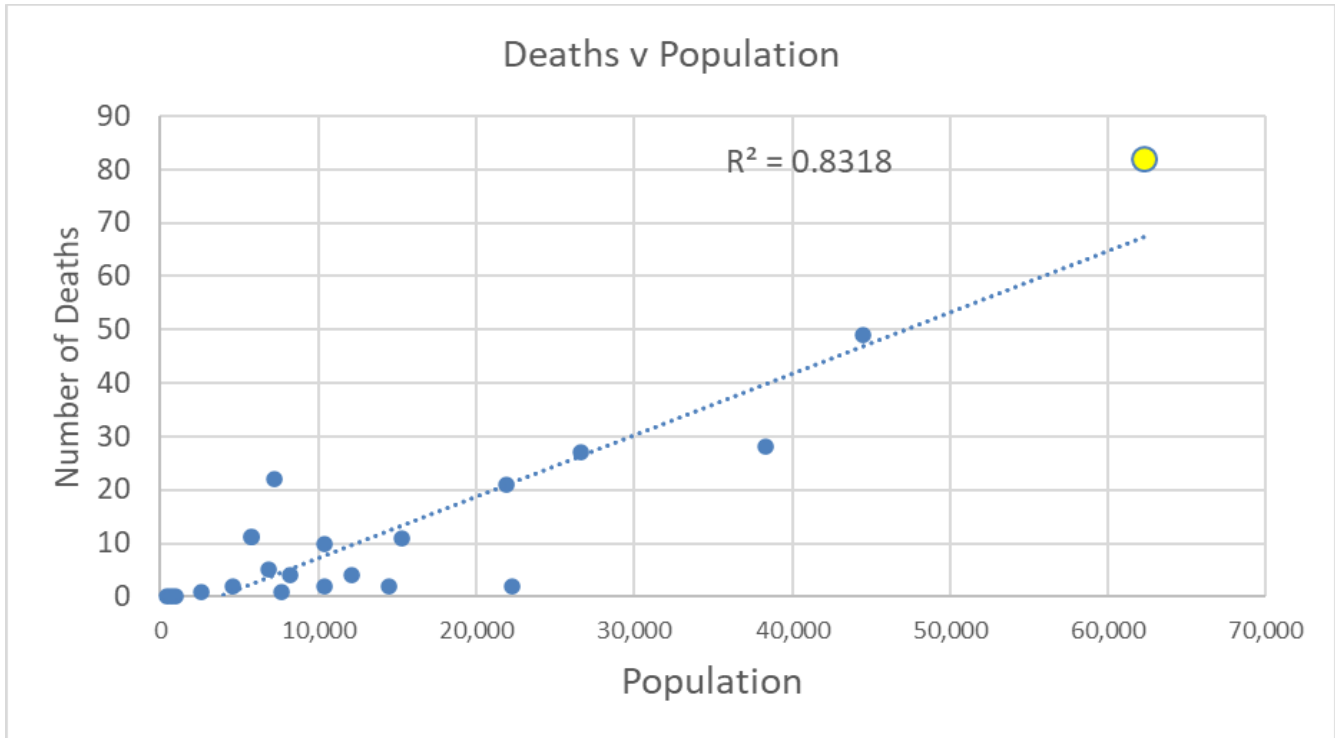

Looking at the number of cases per 1000 residents, you get the bar graph below. Franklin is yellow. The county is green. Towns with fewer than 1000 people are blank because small numbers make calculations less meaningful. Franklin is in the 84th percentile so one more calculation tells us if it is statistically meaningful.
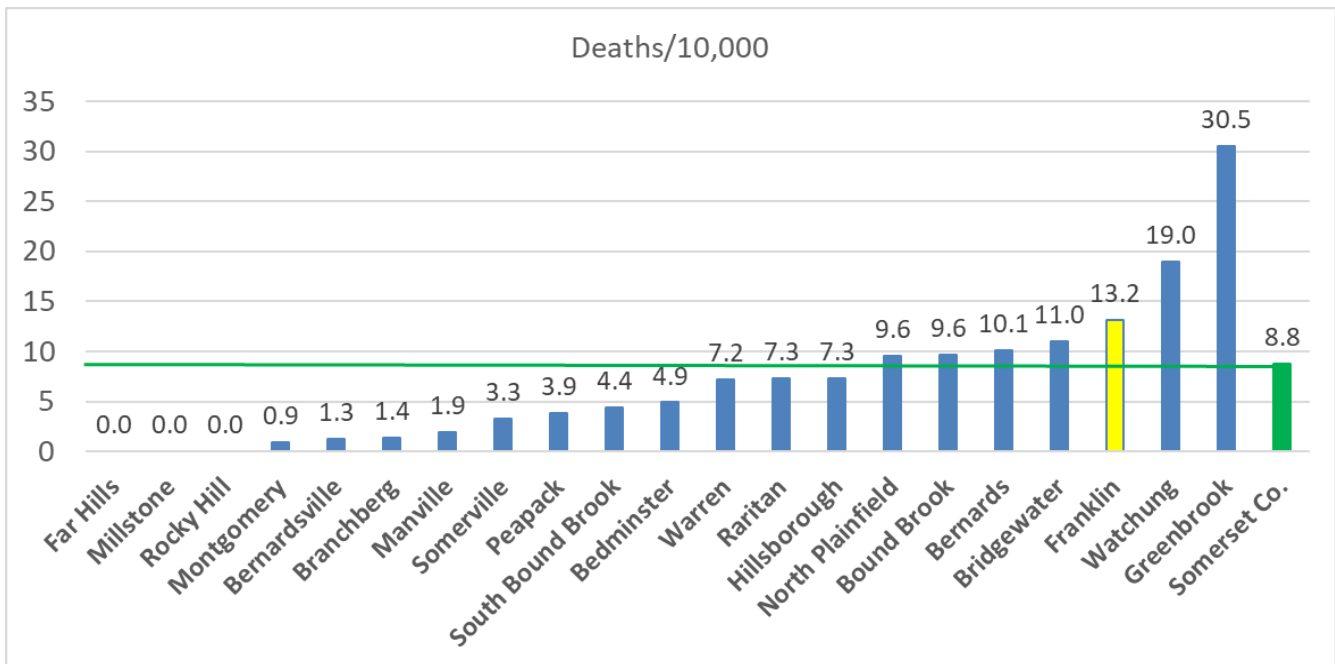
Things are considered abnormal or an outlier if it lies more than 2 standard deviations from the mean. **Franklin's cases per 1000 is 1.24 standard deviations above the mean. Thus, statistically Franklin is not an outlier**. That doesn't mean the high numbers aren't important it just means they are not 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=0.83.
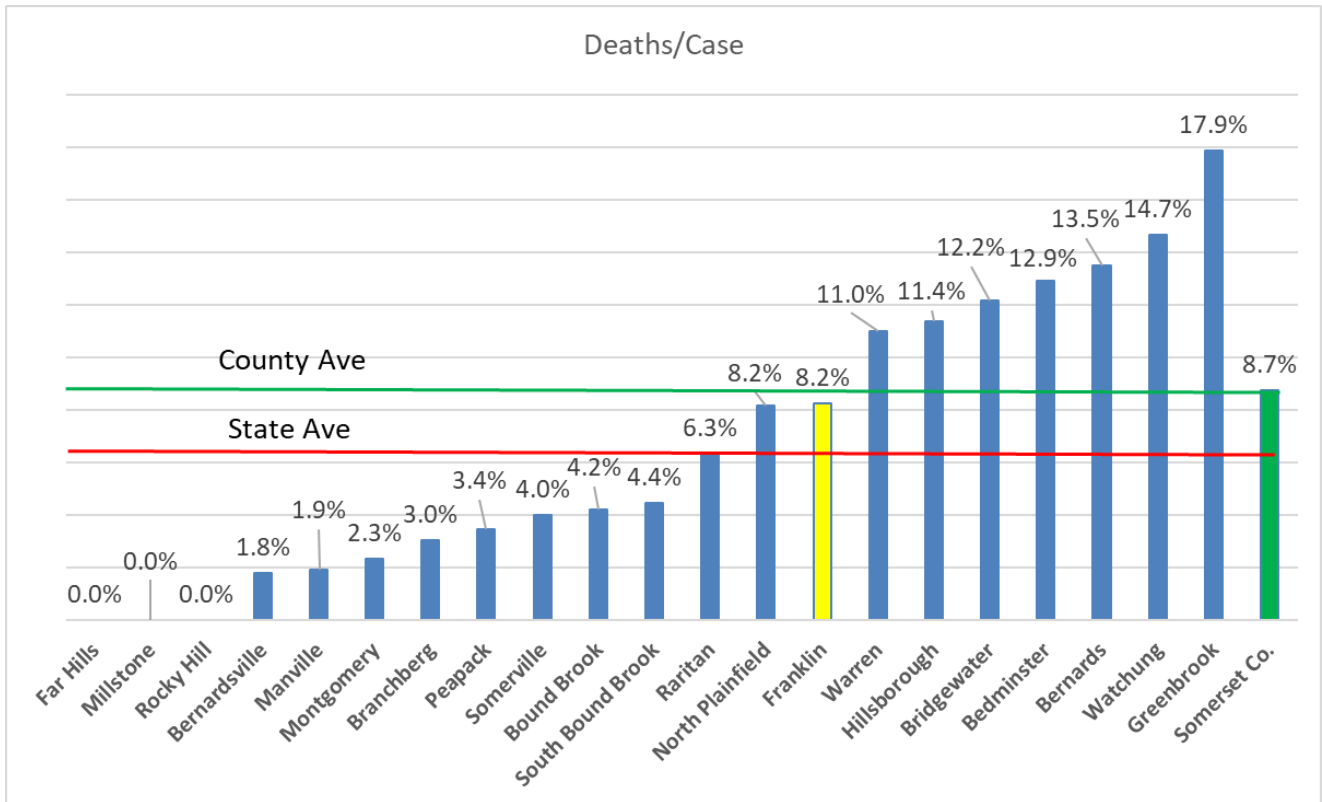

We are at 0.84 percentile and 0.7 standard deviations above the mean, so not an outlier. Green Brook is above 2 standard deviations above the mean.

I also looked at the number of cases vs population density. R^2 was 0.004 so the correlation is not meaningful within Somerset Co.

Finally, I looked at the death rate or deaths per cases.

Every death is unacceptable. Our death rate is lower than the county average but higher than the state's.

We remain at the high end, 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 the best tool we have.

One for all. PK