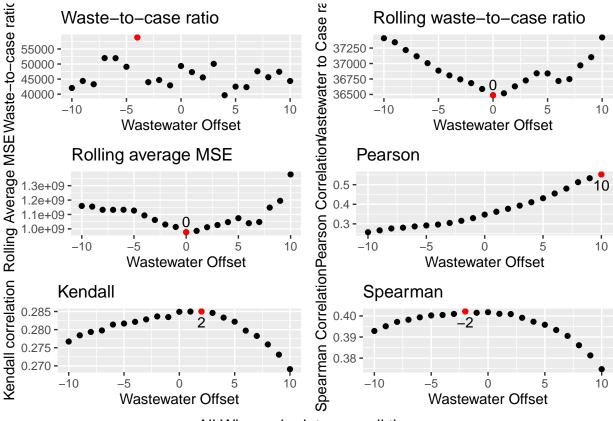
# Time Series

## Time Series and Offset Analysis

How to find the offset between wastewater and case data. By offsetting the wastewater and case data 1 day at a time and then finding the highest correlation we can find the offset between the wastewater and case data.

### Output is not normal as only example data is used

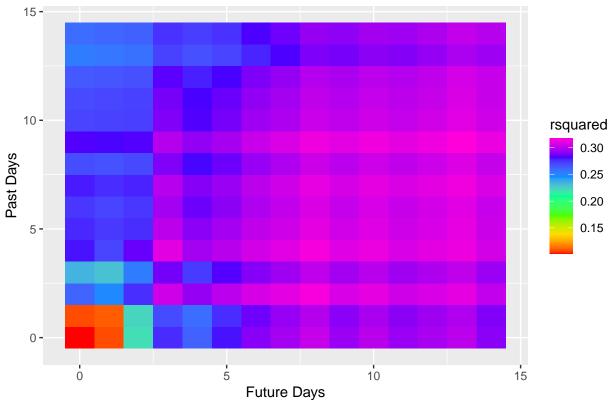
One way of finding the offset.



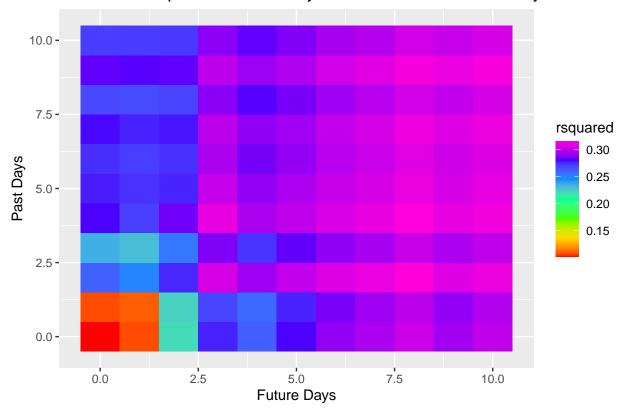
All Wisconsin data over all time

Another way to find the offset.

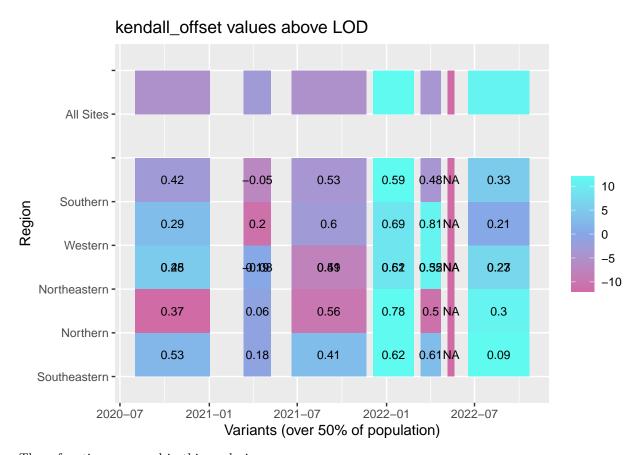
# Correlation of past and future days of N1 and N2 to current day cases



# Correlation of past and future days of N1 and N2 to current day cases



Using found offset can try to see how it changes over time and other factors.



These functions are used in this analysis:

- WPHA Poster
- $\bullet \ \ NWSS-Data-Analysis-Presentation\_5-2-2023$