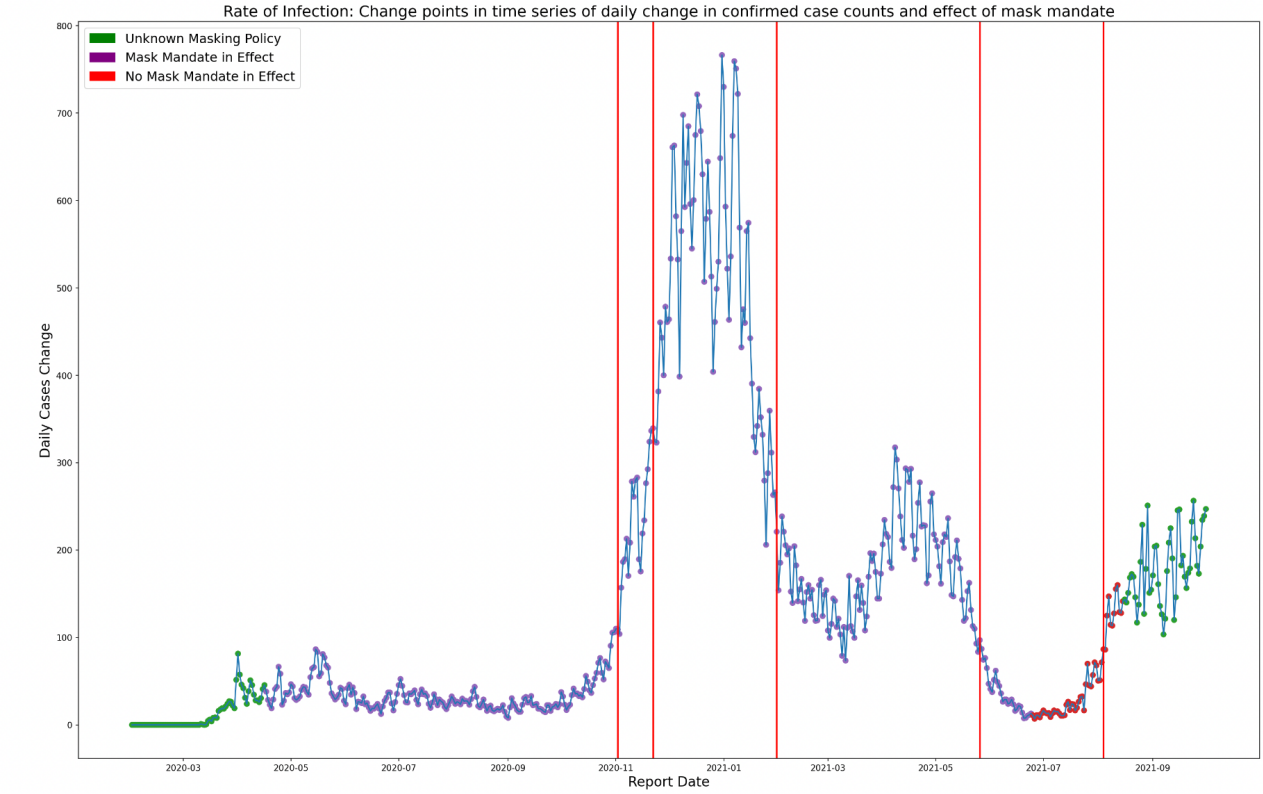
Analysing the Visualization

- **Rate of Infection**



Daily change in confirmed cases from Feb 2021 to Oct 2022 along with masking policies and change points showing effects of those policies

The figure shows the rate of infection of COVID-19 in Monroe County from February 2020 to October 2021 while indicating the masking policy that was in effect at the time. The x-axis shows the time progression and is labelled with months over this period, and the y-axis shows the change in daily confirmed cases.

I arrived at the change in daily confirmed cases by taking the gradient of confirmed_cases column from RAW_us_confirmed_cases.csv file. The date field was transposed to a row instead of columns and then converted to a datetime field. To arrive at the masking policy in effect in that period, I merged the U.S._State_and_Territorial_Public_Mask_Mandates_From_April_10__2020_through_August_15__2021_by_County_by_Day for my county (using FIPS value) on the date field and colour coded the policy in effect as points on the scatter plot.

The reader can at a glance see how the daily confirmed cases changed over this period, and the legend indicates the colour coded masking policy where green is “Unknown Masking Policy”, purple is “Mask Mandate in Effect”, and red indicates “No Mask Mandate in Effect”.