

WHERE FLORIDA WEARS #MASKS

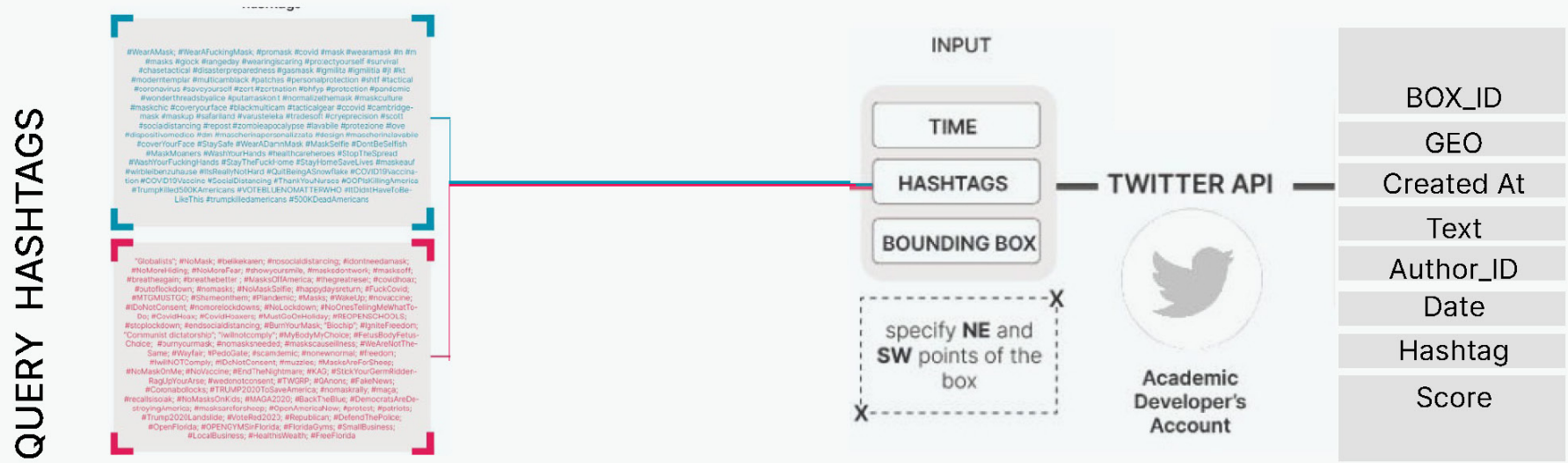
When measured through sentiment analysis, do **pro-mask** and **anti-mask** activity on Twitter cluster spatially?

Is there a measurable relationship that emerges between political and economic segregation, COVID-19 morbidity and the distribution of **pro-mask** and **anti-mask** activity?

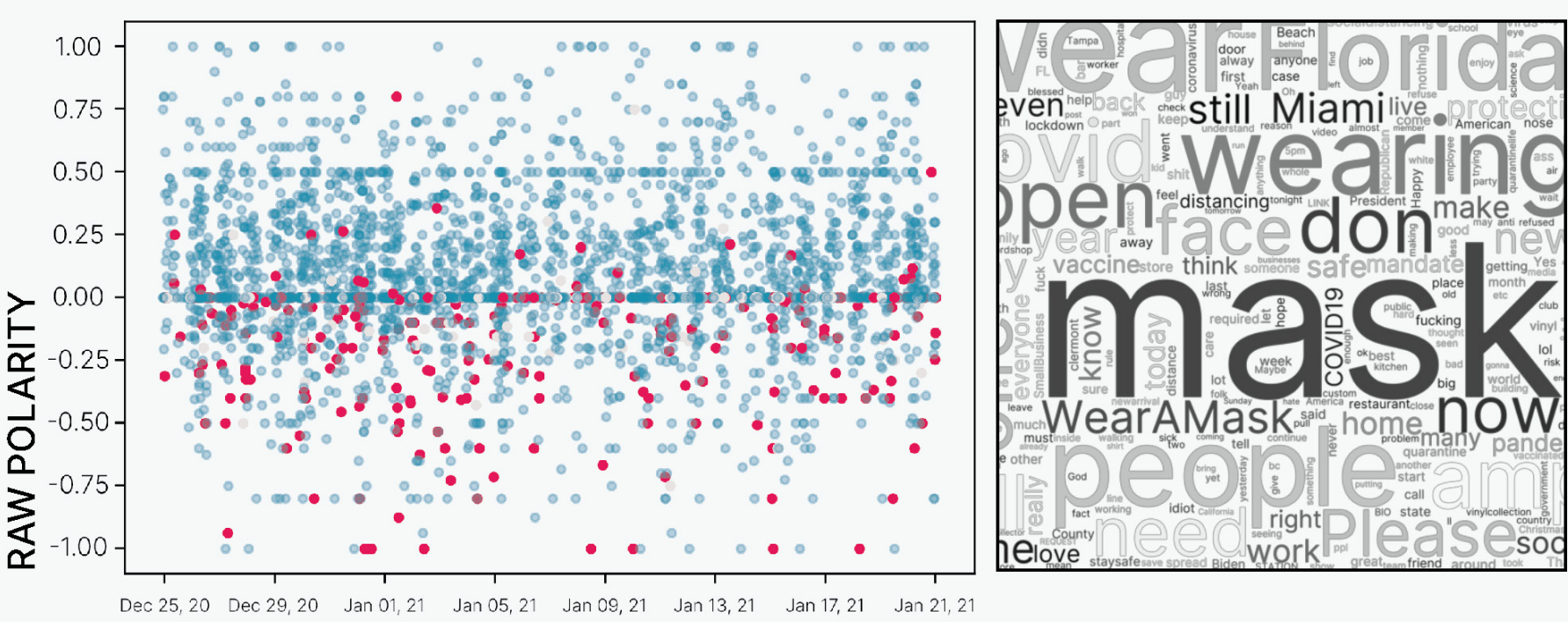
Background

This study seeks to investigate the scalar correlation between virtual silos of anti-mask and pro-mask sentiment on the web-mapped using geo-tagged data from Twitter-with racial and economic segregation spatialized on the ground. To this end the project will consider the geographical region of Florida at county-level resolution as the subject of study, which has been chosen due to its high level of segregation along socioeconomic, racial and political lines; its relatively large ethnic populations; and correspondingly high level of anti-mask activity.

Data Collection



Sentiment Analysis



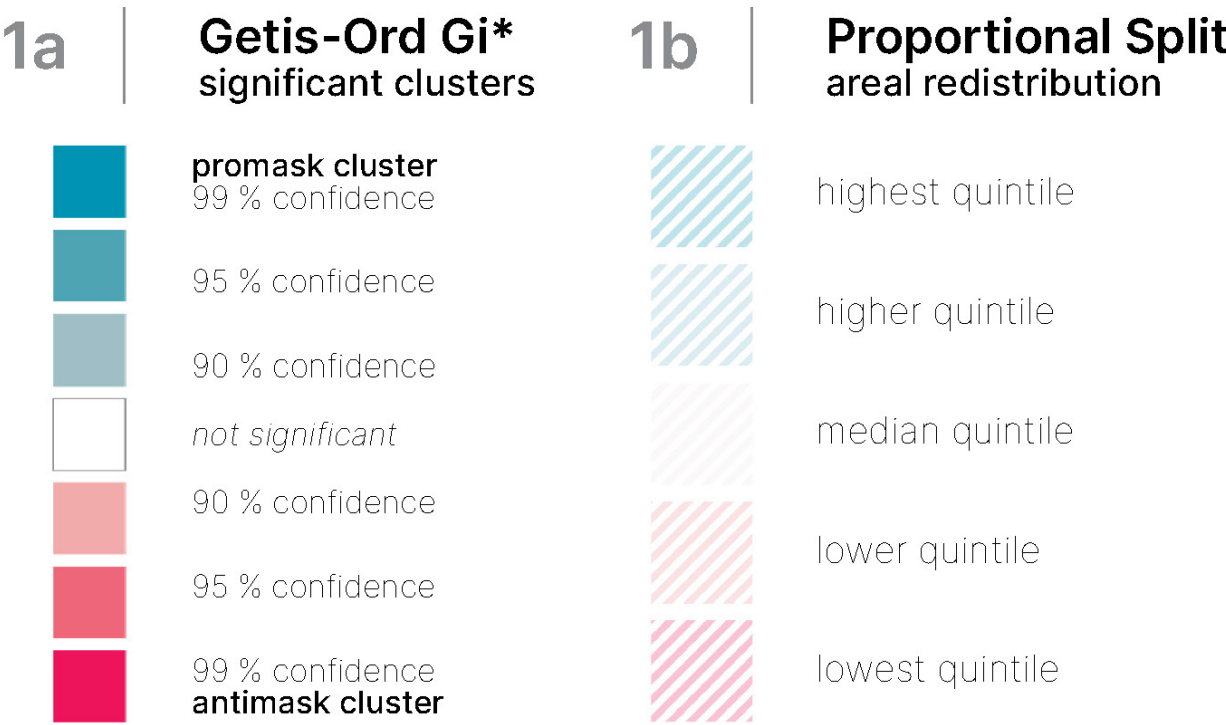
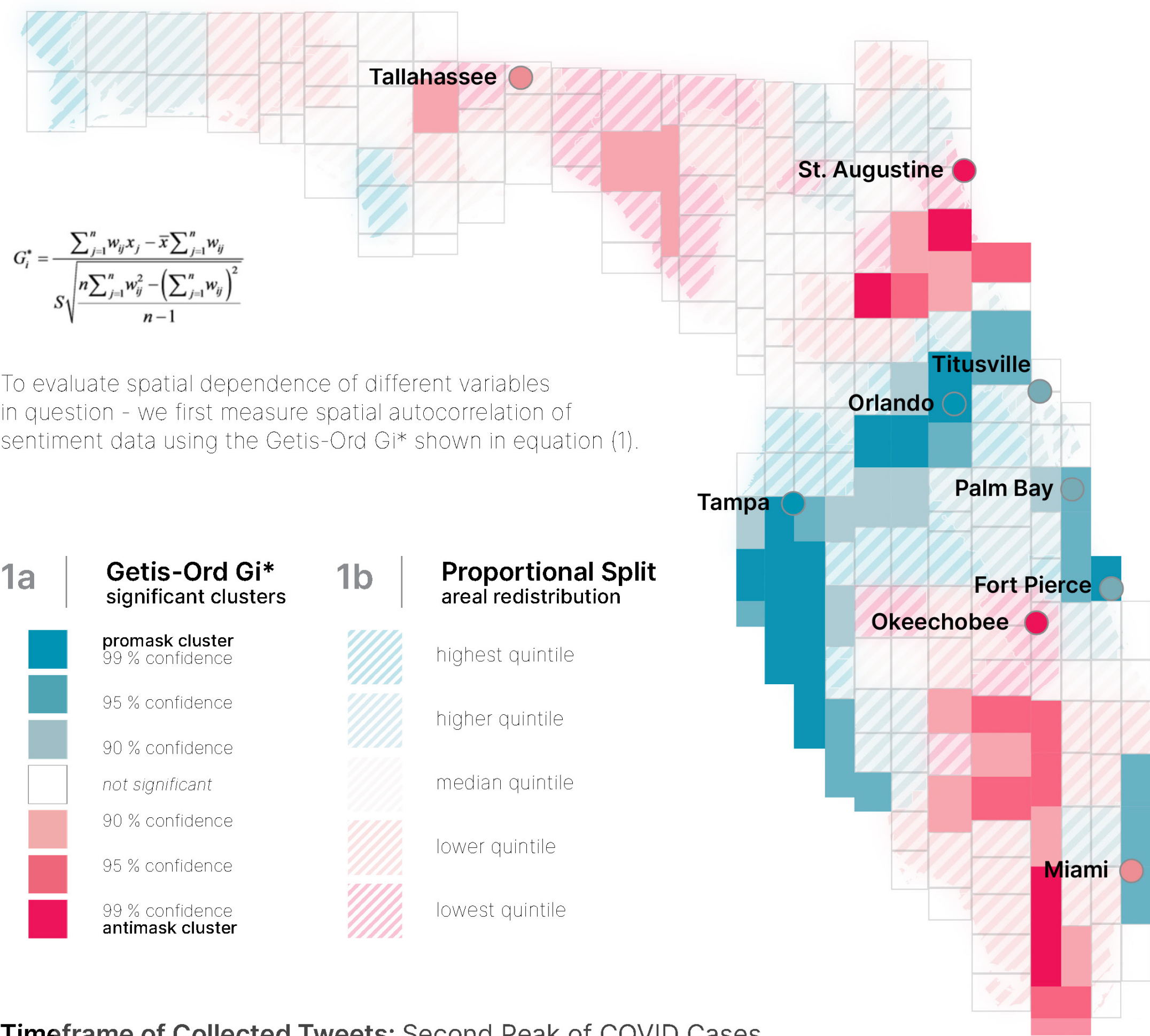
Spatial Sampling of the Twitter Data



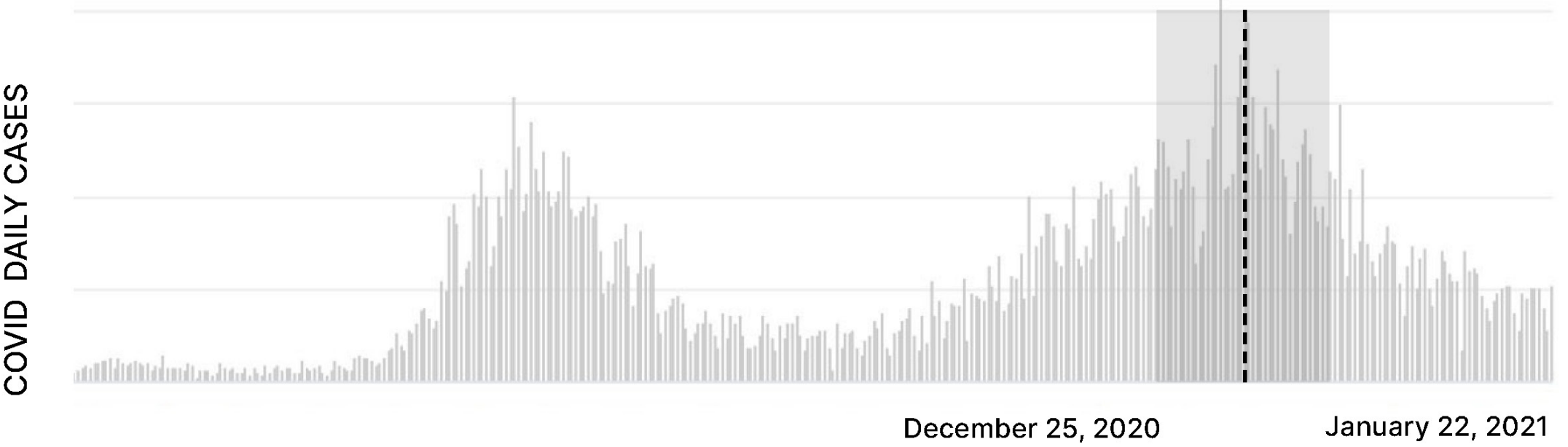
Comparing Twitter sentiment on masks with COVID-related factors (2021)

Advanced Spatial Analysis / Spring 2021 / Helena Rong. Will Cao. Mauricio Rada Orellana. Ranjani Srinivasan

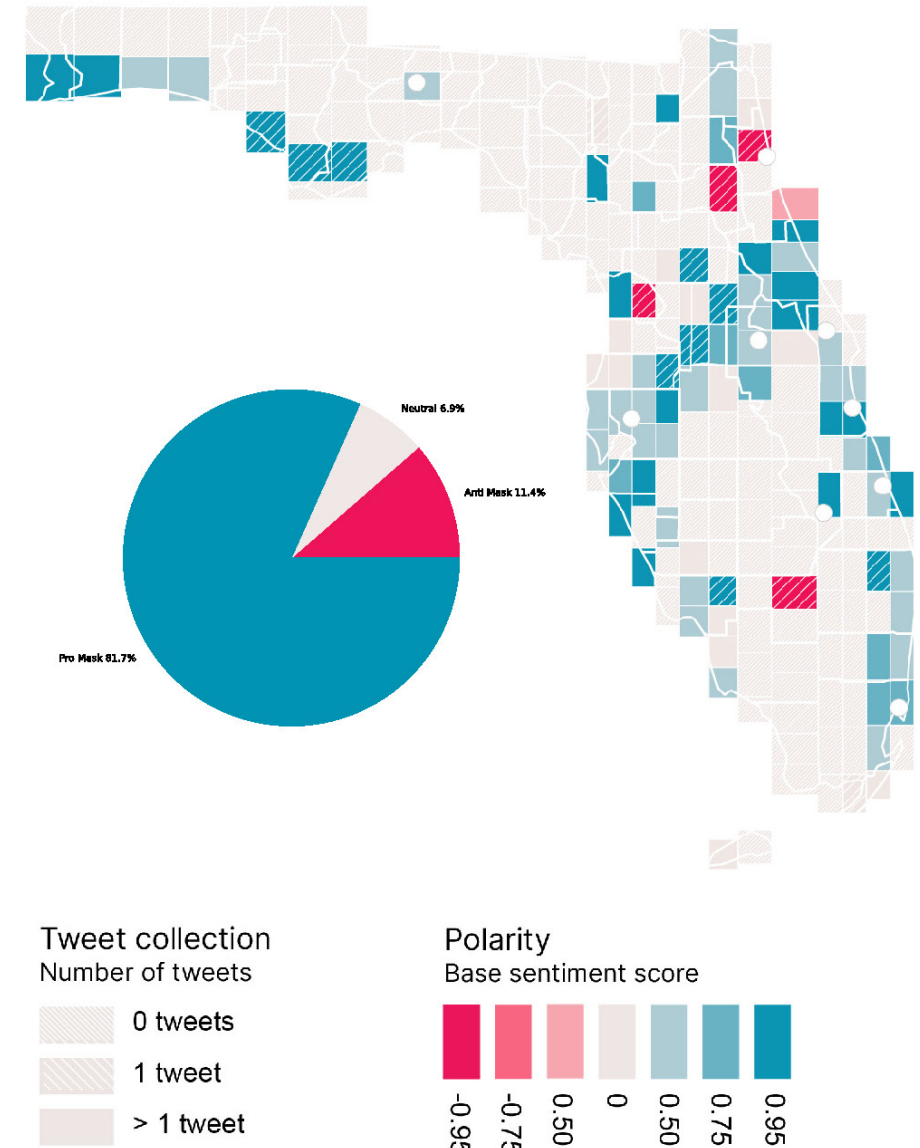
1 Sentiment Analysis December 25, 2020 - January 22, 2021



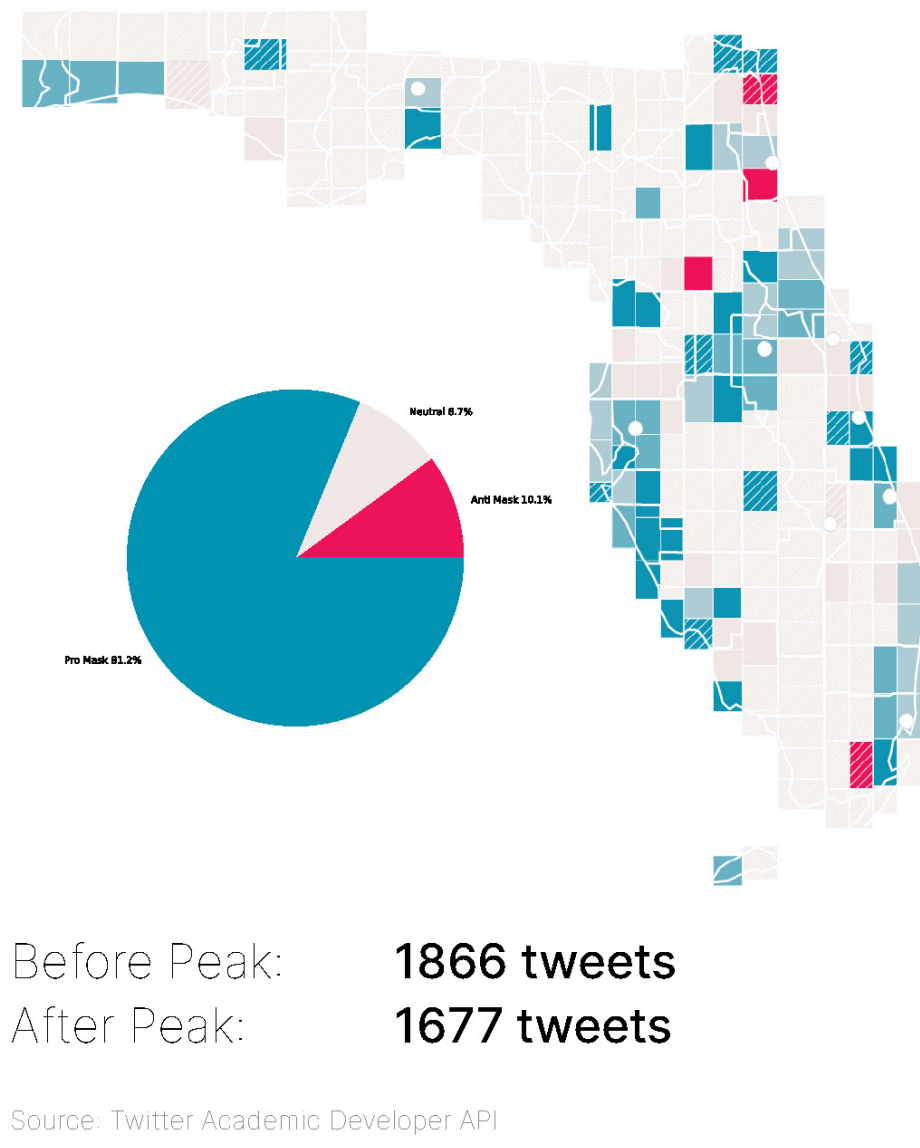
Timeframe of Collected Tweets: Second Peak of COVID Cases



Sentiment of Tweets before Peak (Jan. 8th)



Sentiment of Tweets after Peak (Jan. 8th)



Before Peak: 1866 tweets
After Peak: 1677 tweets

Source: Twitter Academic Developer API

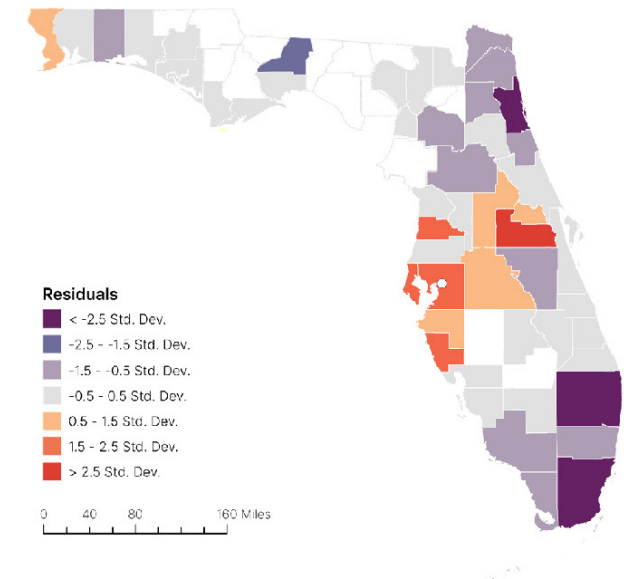
2 Spatial Regression Using Geographically Weighted Regression

To measure the relationship between Covid-19 sentiments online and segregation conditions on the ground, we have used a spatial regression model that accounts for spatial autocorrelation. Geographically Weighted Regression allows for demographic and spatial characteristics as predictors of correlation.

Variables with Negative Correlation:
% Trump Votership
% Below Poverty Line
% New Positive Cases

Residual Squares
61.2639

Residuals



Adjusted R²:
0.4027

Local R²

