

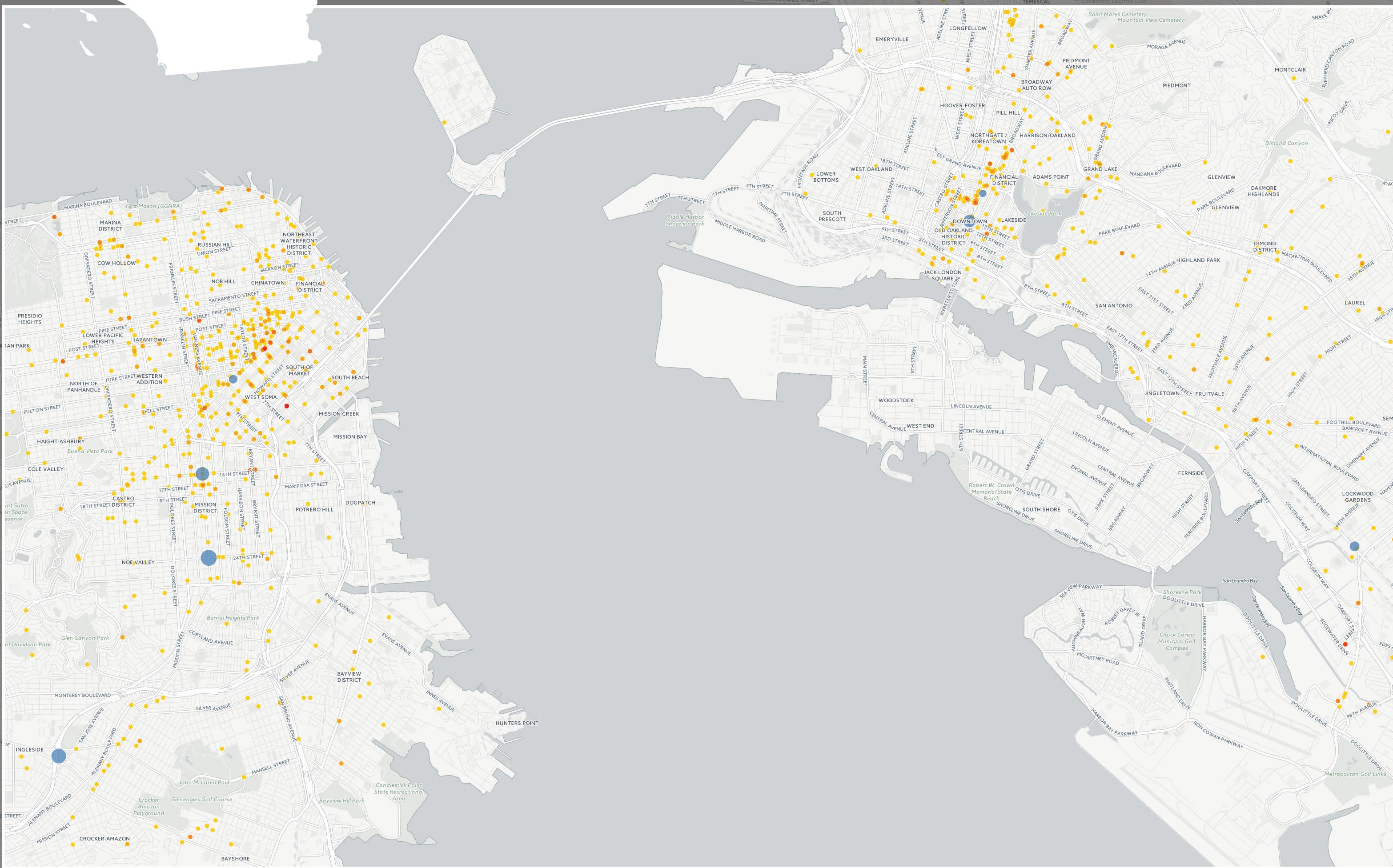
Bay Area Rapid Transit Station Wait Times vs Crime Rates

Initial Question:

Does crime rate relate to wait time at and around Bay Area Rapid Transit (BART) stations?

Our assumption:

We expect that the crime rate will be higher near Bart Stations with a longer wait time between trains.

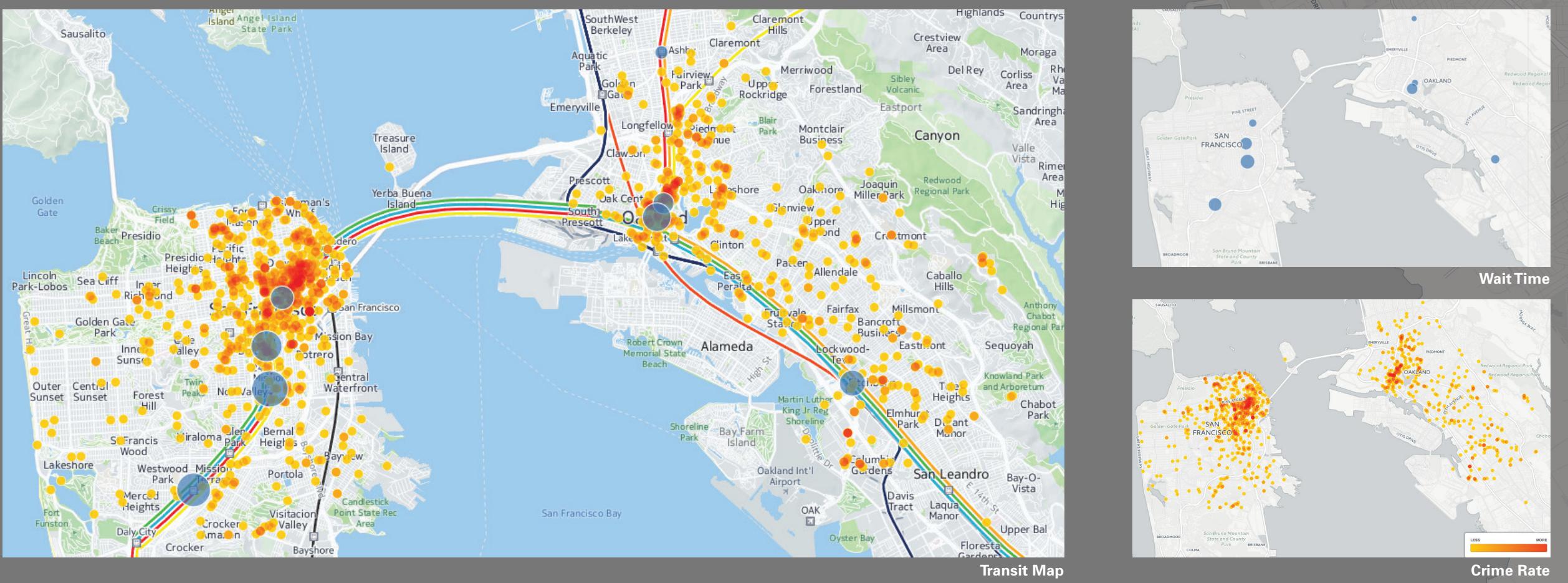


Conclusion:

After looking through data dating back to 2003, we found that wait time does not equate to a higher crime rate. The BART Stations with the two highest reported crime rates for 2014, in order from highest to lowest, were Coliseum in Oakland and Civic Center/UN Station in San Francisco. According to the data, Civic Center/UN had the highest rate of phone calls to the police for help but the least reported actual crime out of the three. This was not specified as help from a crime, so this inconsistency could be including medical emergencies not crime related.

BART Station data for the wait times is an estimated average of real-time data through the BART API . The data we researched for the heatmap of San Francisco and Oakland's crime rates was incredibly dense. We first looked at a general yearly average, but that was still an enormous amount of data to filter through. We then narrowed the data down to a random two weeks out of the year and filtered the category of data to burglary, assault, grand theft & petty theft. We chose these categories because they are the most common crimes near BART Stations.

There was almost double the amount of overall crime in San Francisco, compared to Oakland. We assume this is due to population of San Francisco, which is around 840,000, compared to the population of Oakland, which is around 410,000.



BART Station Wait Times

12th St. Oakland City Center
11.75 minutes

16th St. Mission
12.2 minutes

19th St. Oakland
10.75 minutes

24th St. Mission
14.2 minutes

Ashby
7.5 minutes

Balboa Park
12.25 minutes

Civic Center/UN Plaza
11.2 minutes

Coliseum
11.25 minutes