Finding Shelter
Assessing Homeless Shelter Accessibility in San Francisco

INTRODUCTION
The 2017 annual San Francisco Point-in-Time Count found that 58% of the counted people experiencing homelessness were unsheltered. This is in comparison with estimates of other major US cities like Chicago and New York, which are just 26% and 5% respectively (1). A study conducted by the Bay Area Council also discovered that the number of shelter beds in San Francisco has decreased by 3% per year between 2011 - 2017 (1). Along with a plethora of health and safety consequences, living without shelter inhibits people from accessing important services and resources. Without an address, for example, it is very difficult to receive cash benefits or food stamps which are typically distributed through mail. In addition, shelters often offer services like physical and mental health care, vocational services, housing aid and case management. As part of a new framework targeted towards ending homelessness, San Francisco has built several new shelters, called Navigation Centers, whose purpose is to provide shelter and pathways to services, along with a focus on helping people exit homelessness. Proposals for new Navigation Centers have been raised, but steady opposition from some residents has stagnated the construction.

KEY QUESTIONS
1. How available/accessible are current emergency shelter services in San Francisco?
2. Are services distributed throughout the city in areas in need?
3. Are there sufficient services for vulnerable populations, like youth and women, who are at higher risk of being victims of violence or abuse?

DATA COLLECTION
San Francisco district data was taken from a SF public data set. The shelter data was collected from a 2018 list of shelters created by the Department on Homelessness and Supportive Housing (HSH). Data regarding the numbers and demographics of individuals experiencing homelessness was collected from the 2017 San Francisco Point-In-Time Count. Lastly, population data was collected from US census data from 2010.

METHODOLOGY
Unsheltered Data
Using the Point-in-Time count data, I joined the table containing the numbers of unsheltered individuals observed with the districts vector layer, based on district number. I also added a polygon to represent Golden Gate Park to the districts layer, as the Point-In-Time Count separately distinguished the park. I then created separate layers to represent the total number of unsheltered individuals, the number of unsheltered women, and the number of unsheltered youth per district.

Shelter Data
After collecting and inputting the shelter data into a spreadsheet, I geocoded the shelter addresses. In order to determine accessibility based on shelter capacity, I performed a kernel density calculation with a radius of 4000 meters on each category of shelter, shelters that accepted anyone, shelters only allowing women, and shelters only allowing youth.

Population Data
Using the median household income census data, I symbolized the map based off of the total average income in the city. I calculated the percentage of non-white residents per tract by subtracting the number of white residents from the total population per tract, and then dividing by that same number.

RESULTS
The number of unsheltered individuals counted was concentrated in just a few districts, the majority being in District 6, District 10 and Golden Gate Park. The number of women was similarly highest in these three districts, while the most youth were counted in District 6. Most of the available shelter beds, regardless of who they are reserved for, is concentrated in Districts 5 and 6, while the western half of the city does not have a single shelter. Looking at the population data, aside from District 6, the western and southern parts of the city both have areas that are low-income, mostly non-white, and lacking services. This is particularly concerning because of research that has identified poverty and race as factors that increases risk of becoming homeless, or exacerbates the negative effects of homelessness. The city’s new Navigation Centers, pictured in the first map, are located in critical areas, where there are a high number of unsheltered individuals. However, there is still more need for shelters in the western and southern districts of the city, in addition to a need for more specialized centers for women and youth.