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ENVS 196

Current Conditions Report: Santa Cruz Minimum Parking Requirements

Introduction:

The purpose of this study is to provide data that the City of Santa Cruz might consider when building future housing developments to help alleviate the housing crisis the city currently faces. Specifically, we examine the effect of parking on housing prices, how much parking is actually used versus how much is required by city codes, examine car ownership data throughout the city, and analyse alternative transportation methods. Relaxing minimum parking requirements would help facilitate infill development, creating a denser, more transit based community.

First we examined 300 Craigslist listings to determine if bundled parking -units that include a parking space with rental prices- affect the overall price of the unit. Then, we visited three different apartment complexes across the city to determine if their parking lots were at capacity during what we assumed would be peak times. We also looked at car ownership data in Santa Cruz to determine vehicle ownership patterns in the city. Finally we mapped transit and biking accessibility throughout the city and analyzed transportation options..

Craigslist Data Scrape

This data was collected from 300 randomly selected Craigslist rental offerings between August 22 and September 25, 2017. We used this data to determine whether or not bundled parking affected the rental price of these apartments.

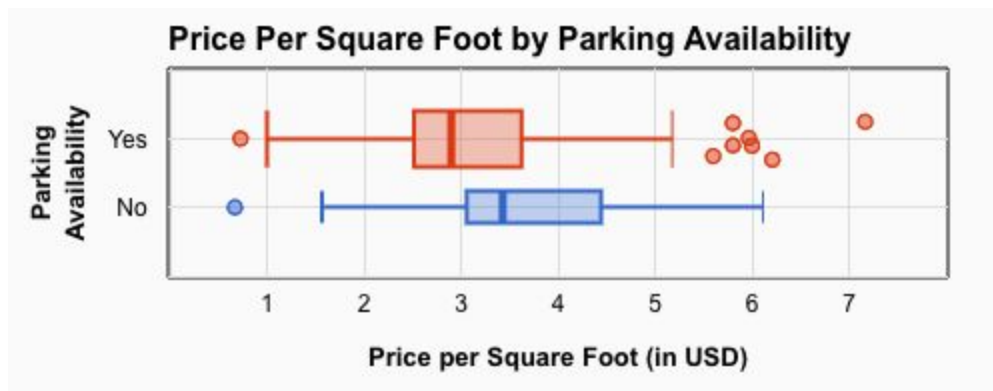


Figure 1a

Figure 1a indicates that according to the Craigslist data we collected, rental properties in Santa Cruz without bundled parking are more expensive per square foot per month than those with bundled parking. Research would suggest that unbundled parking should actually reduce the cost of a rental. In fact, research conducted by the Victoria Transport Policy Institute suggests that rent is increased by 12.5% when one parking spot is included and up to 25% for 2 spaces. Our

data does not conform with this concept. We anticipate that this could be for a few different reasons. (1) Only 79 of the 300 listings we recorded do not provide parking. Most of the properties with unbundled parking were apartments. (2) Some apartments that do not bundle parking in Santa Cruz have allocated that saved land to other amenities, making them luxury apartments and increasing rent. An example of this is the Apartments at 1010 Pacific Avenue. These apartments also serve as a good example of a transit oriented development with reduced parking. Tenants are required to pay for parking within the building. There are limited spaces so residents are also encouraged to use the already existing parking garage on Front and River to store their vehicles. It is located right next to the main Santa Cruz Metro Station and within walking distance to many amenities which encourages alternative modes of transportation. This is an example of a low parking development that could be implemented elsewhere in Santa Cruz.

Unfortunately Craigslist does not require posters to share the location of the listing so we were not able to analyze how location might affect rent in conjunction with parking.

Outcome of Bundled Parking at Apartment Complexes:

We surveyed parking availability at 3 different apartment complexes in the City of Santa Cruz between 10 and 11 PM on Tuesday, Thursday and Sunday nights. We were trying to determine if the parking lots were at full capacity or if there was a surplus of empty parking spaces. We chose Pacific Shores and the Chestnut Townhomes because the two complexes do not meet the city of Santa Cruz's minimum parking requirements. We chose Cypress Point as a control because it is not a reduced parking complex. We can assume that each of these complexes is at least 90.3% occupied because that is the occupancy rate for the city according to the 2015 census (American Factfinder).

Cypress Point

Cypress Point is located at 101 Felix Street.

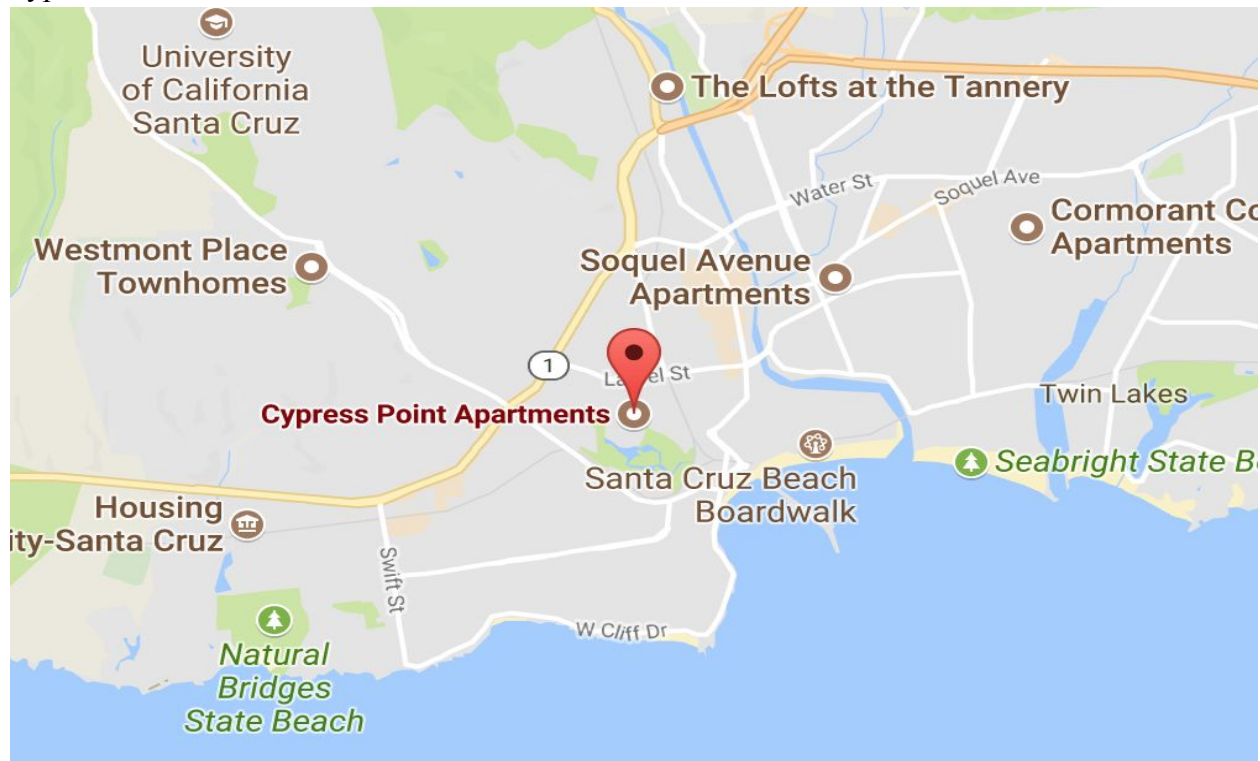


Figure 1b

The complex is comprised of 240 units and provides 314 parking spots. Parking is included with each rental, and allocated depending on how large the unit is. Information regarding the floor plan of the units at Cypress Point was readily available online. They have eighty 2 bedroom units, one hundred and twelve 1 bedroom units and forty eight studios. There is unpermitted street parking around Cypress Point and we consistently observed little to no street parking availability.

Parking Spots at Cypress Point

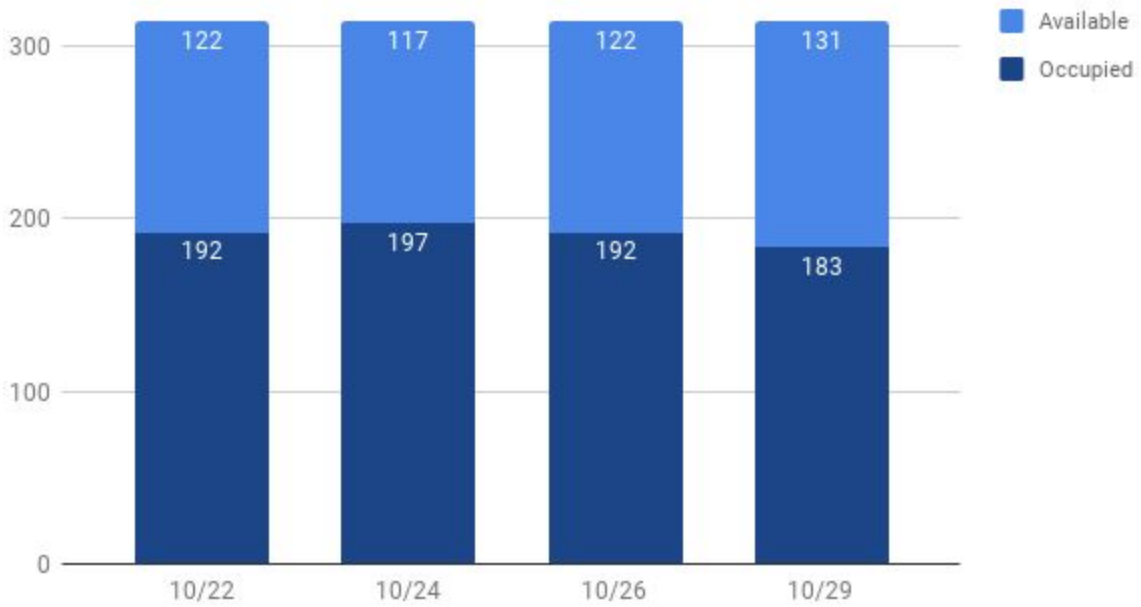


Figure 2b

This figure demonstrates the amount of spots left available on four given nights during the month of October. There was an average of 123 (39.1%) parking spots left available each night.

Pacific Shores

Pacific Shores is located on the Westside of Santa Cruz at 1240 Shaffer Road.

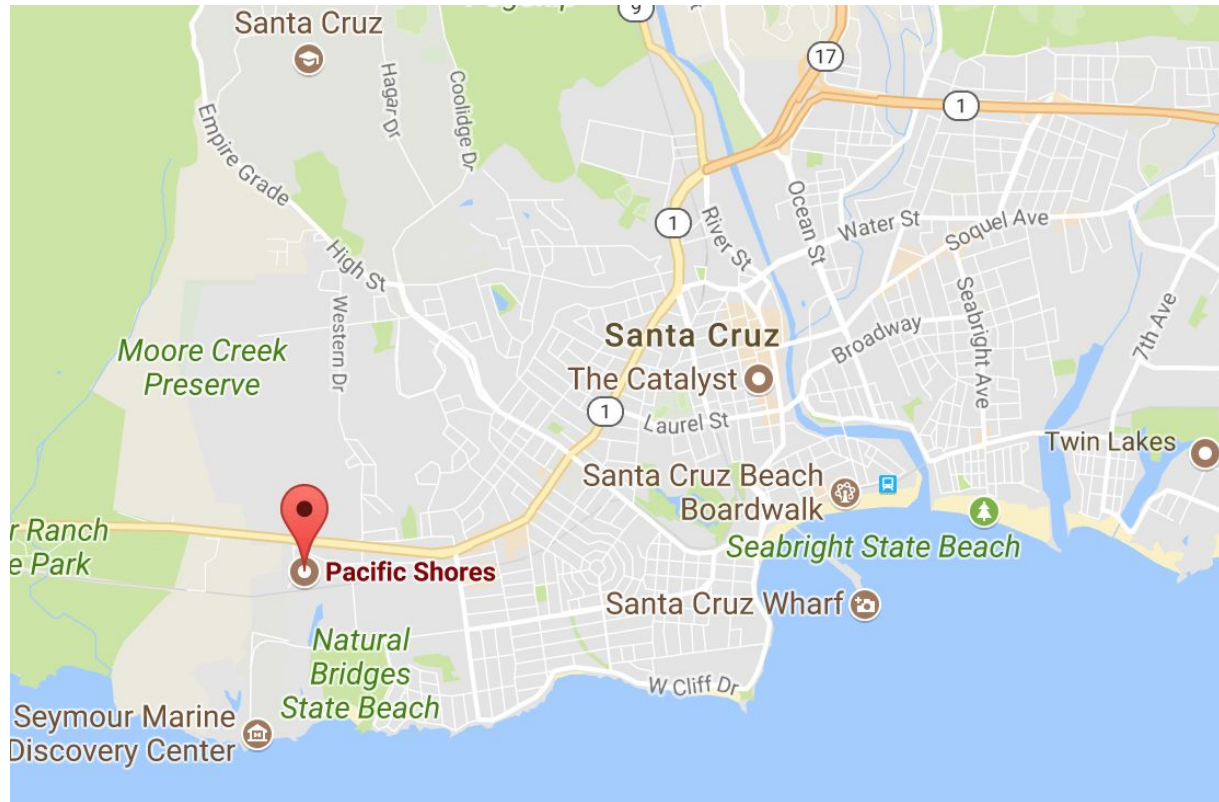


Figure 3b

The complex is comprised of 206 units and 299 parking spots. Each rental unit comes with one parking space bundled within the cost of the monthly rent. Each additional parking spot desired by a tenant can be rented for \$55/ month or \$65/ month for a covered space. The streets around Pacific Shores consistently had limited space for parking.

Parking Spots at Pacific Shores

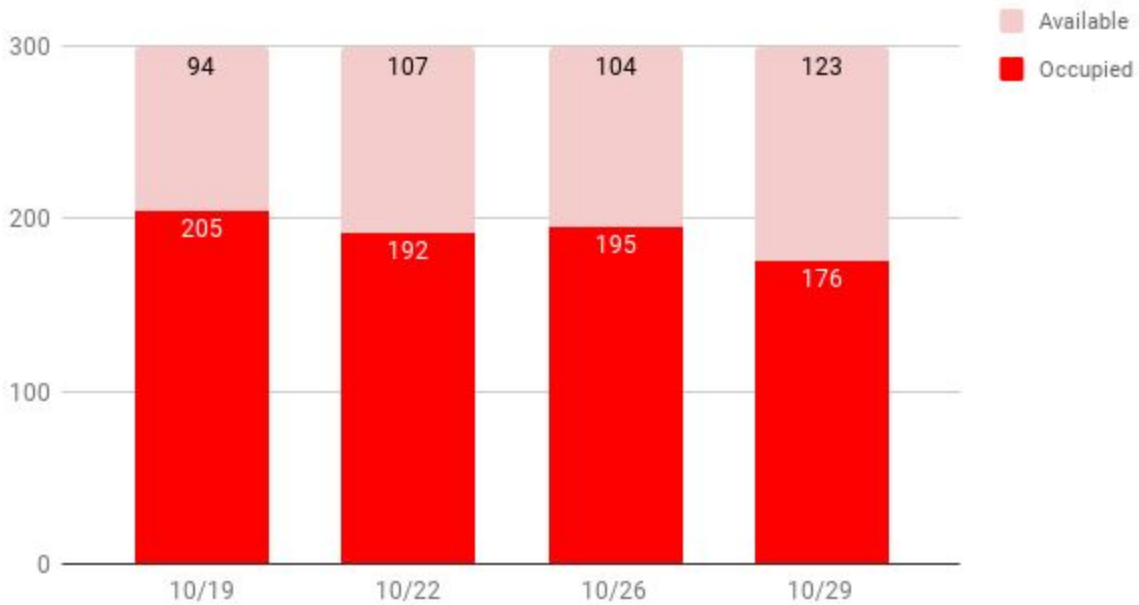


Figure 4b

This demonstrates available and occupied spots in Pacific Shore's lot on four given nights in the month of October. There was an average of 107 (35.7%) available spots given the data we collected. Pacific Shores does not meet Santa Cruz's parking requirements and still oversupplies parking to its residents by an average 35.7%.

Chestnut Townhomes

Chestnut Townhomes are located at 143 Chestnut Street.

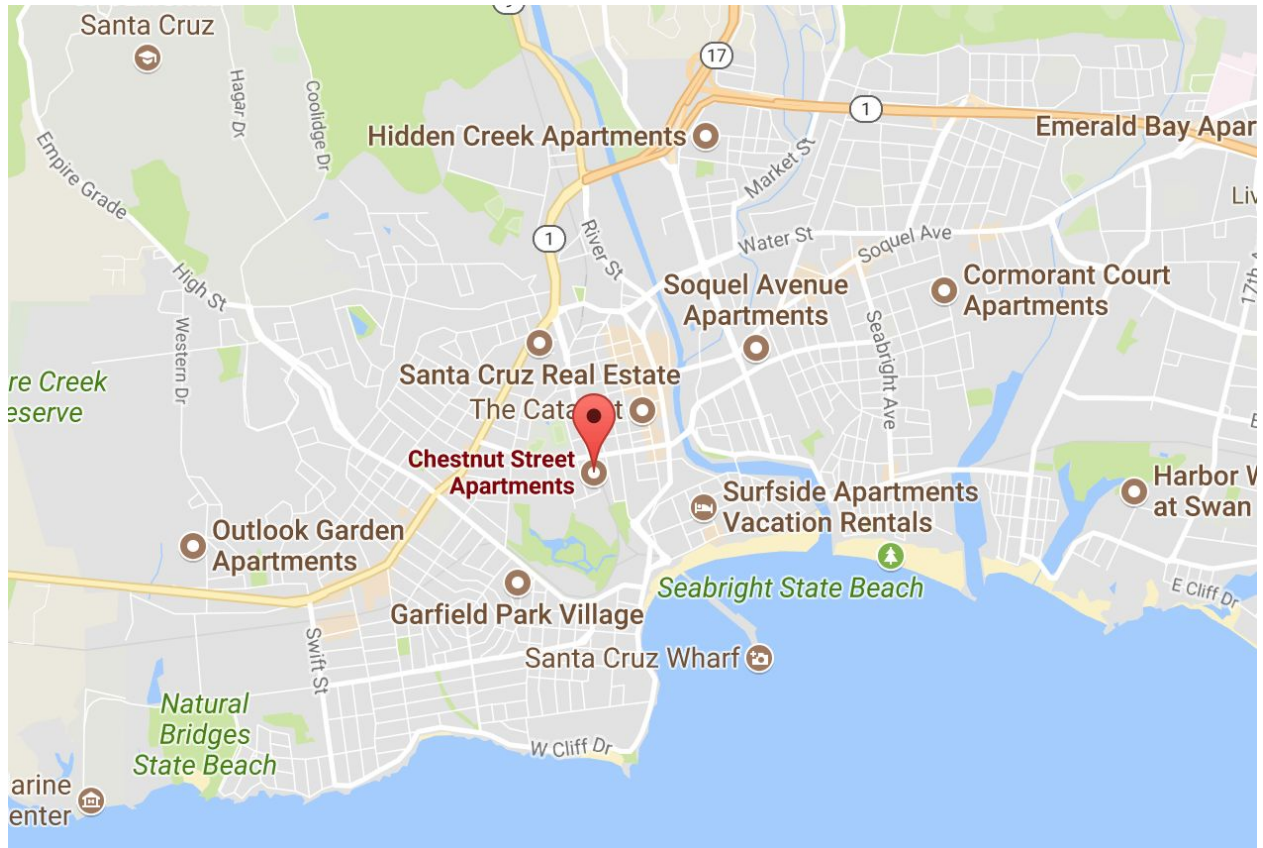


Figure 5b

The complex is comprised of 96 units. There are a total of 148 parking spots. One bedroom floor plans are allotted one parking spot and most 2 bedroom floor plans are allotted two spots, however some are only given one. The price of parking is included in the rental price. This parking configuration is below the minimum requirements set out by the city of Santa Cruz. There was ample street parking available around the Chestnut Townhomes, however a city permit was required for a majority of the open spots.

Parking Spots at Chestnut Townhomes

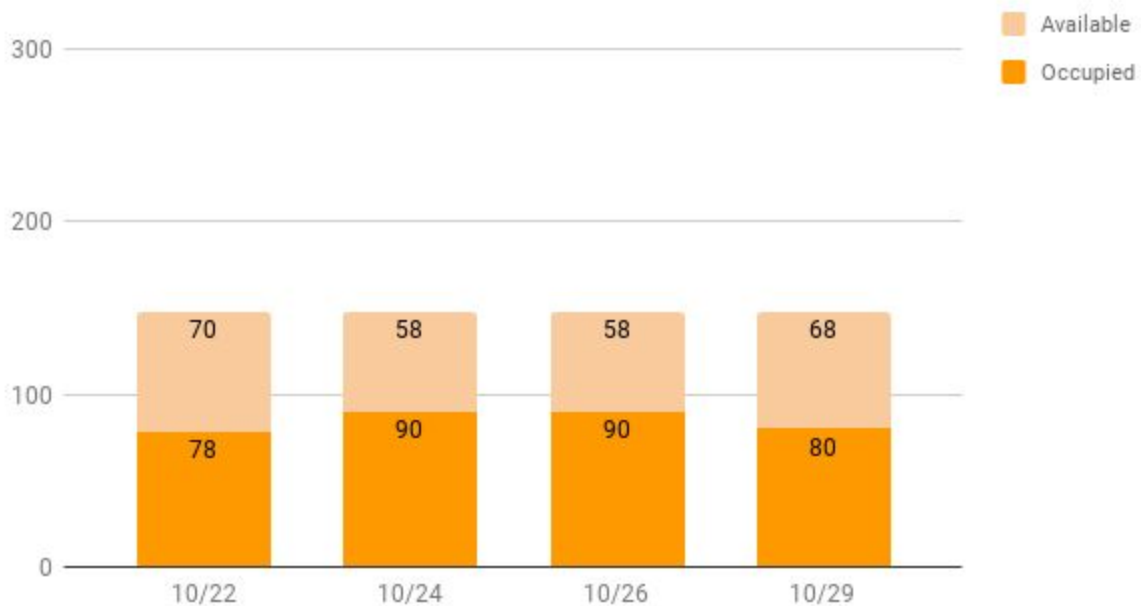


Figure 6b

On average, there were about 63 (42.5%) spots available on each surveyed night in October.

Findings

These numbers demonstrate an oversupply of parking translating into hundreds of spaces left unoccupied overnight. The findings at each apartment complex consistently proved that there was a nearly 40% excess in parking spaces available. Each of these complexes bundles parking into their rent prices regardless of the tenants' need for a space. This drives up rental prices and allocates land to parking that could be apportioned to further housing development. Beyond affecting housing supply in a county that is already facing a shortage, the opportunity cost missed by designating this land to parking spots is significant.

Census Data

The following set of maps (Figure 1c-12c) show census data on car ownership. The data was collected using American FactFinder, and the data set used was Tenure by Vehicles

Available 2015. There are 23,717 homes analyzed in the data below.

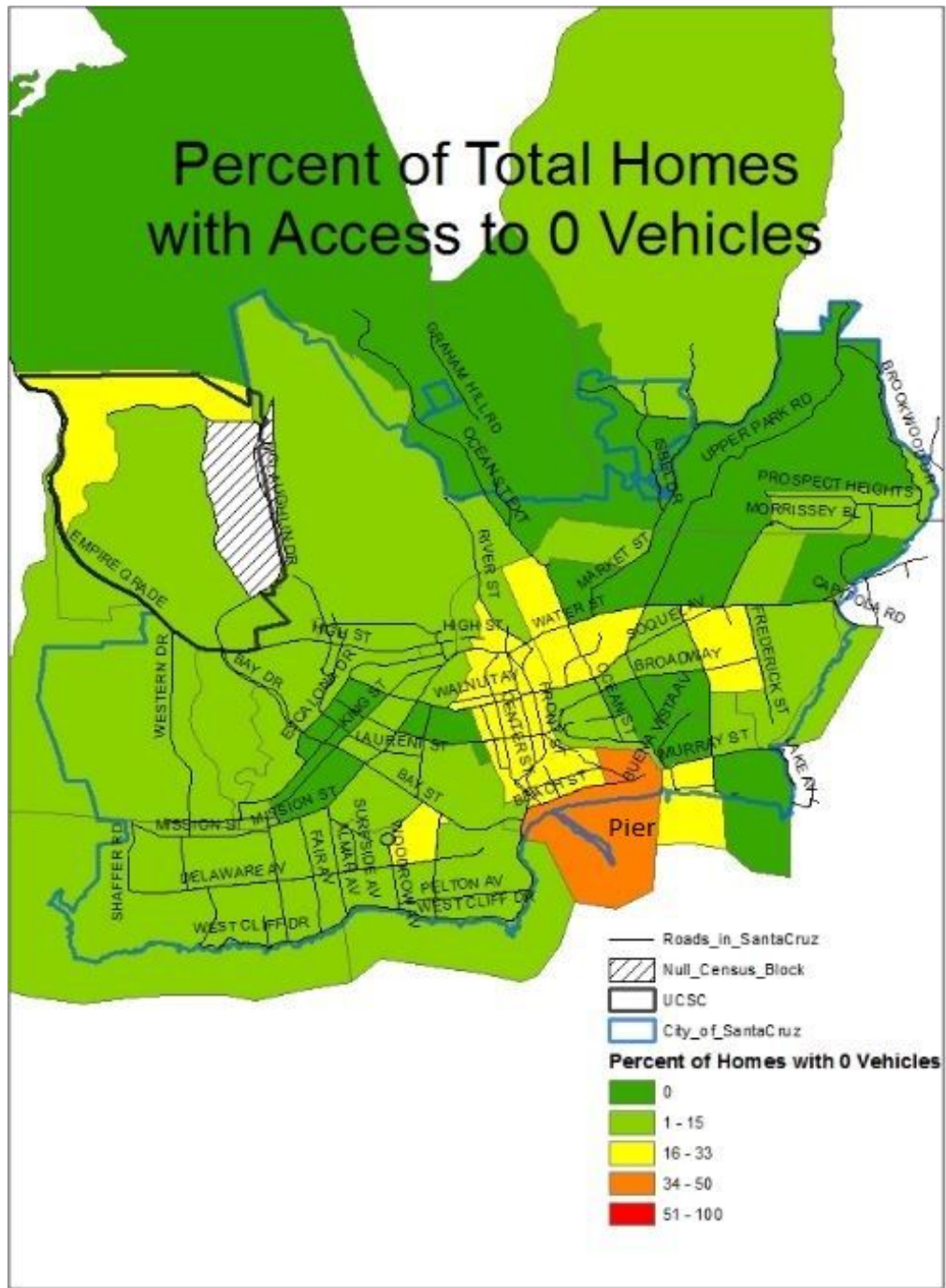


Figure 1c

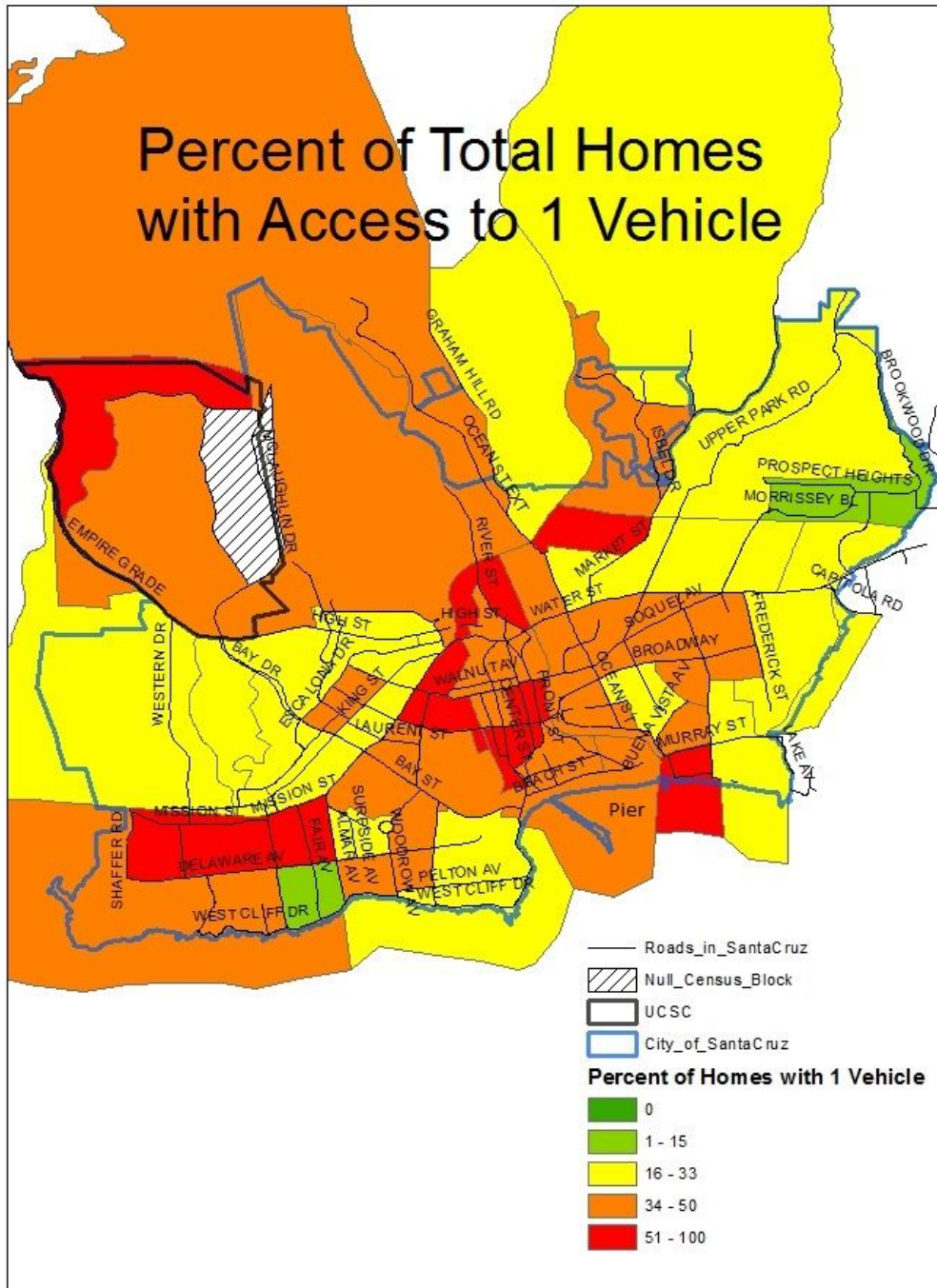


Figure 2c

Percent of Total Homes with Access to 2 or more Vehicles

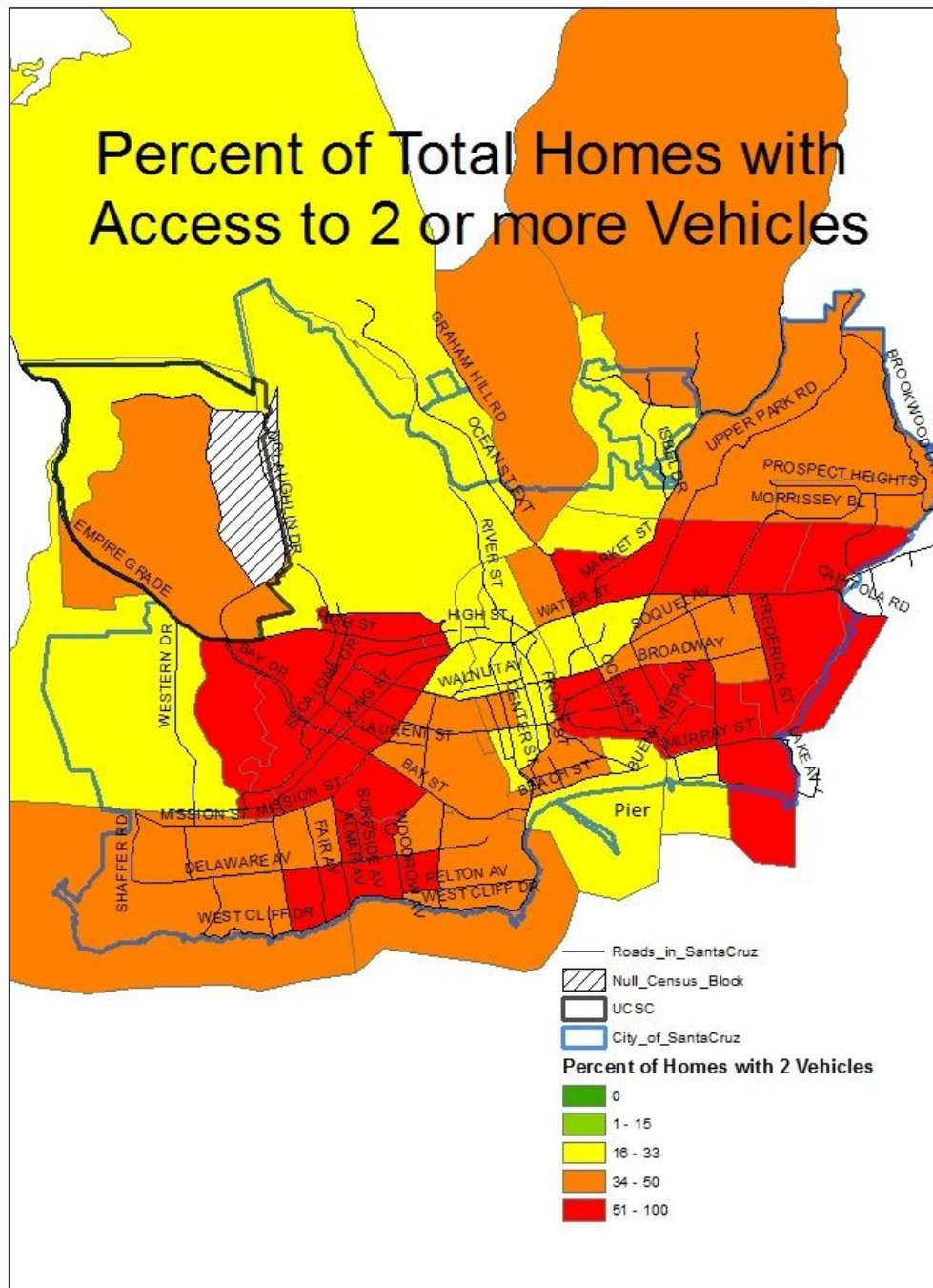


Figure 3c

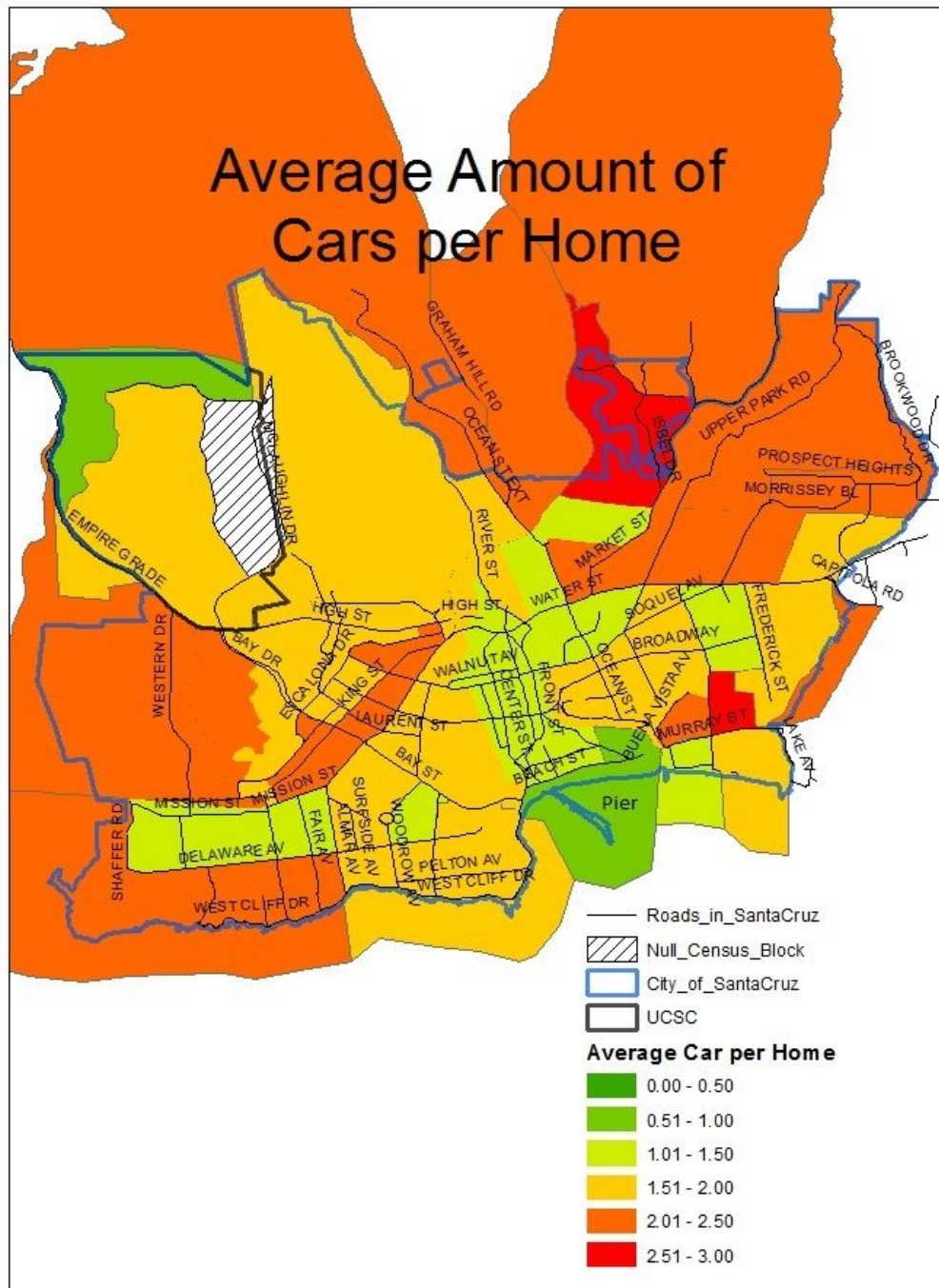


Figure 4c

In figure 1c, a large majority of census block groups have less than 15% of homes with 0 vehicles. In areas down town many census block groups have between 15% and 33% of homes with 0 vehicles. That is a significant number of homes that require no parking. By the pier and boardwalk, over 33% of homes have access to zero vehicles.

When looking at figure 4c, UCSC on campus housing as well as downtown census block groups have an average of less than 2 cars per home. These areas have the best access to public transit and are in walking distance from grocery stores and other basic necessities. The areas that have more cars per home are farther away from downtown and UCSC. The census block groups south of campus with an average over 2 cars per home is where many students who live off campus reside. Many of these homes have multiple car owning students per home which can explain the higher average.

Figure 3c helps test an assumption that residents will have at least two cars. If the assumption that most homes will have at least two vehicles were true, most if not all of the census blocks in figure 3c would be colored red. Instead only 11 out of 53 census block groups colored red, with 16 blocks having less than 33% of homes having two vehicles. Figure 2c shows that there are nearly as many census block groups with over 50 percent of homes with one car. Seven census block groups are colored red and 21 more census block groups have more than 33% of homes with one vehicle. When the total number of homes are compared for one and two vehicle homes, there are 8,345 one vehicle homes and 8,773 two vehicle homes. Combining one and zero vehicle homes, that number comes to 10,138, and there are 13,579 homes with two or more vehicles. This means 43% of the homes in Santa Cruz have less than two vehicles, disproving the assumption that a large majority of homes have two vehicles.

The next set of maps compares owned homes and rented homes. This was pulled from the same data set as the previous maps. There are 11,075 owned homes and 12,642 rented homes that are analyzed.

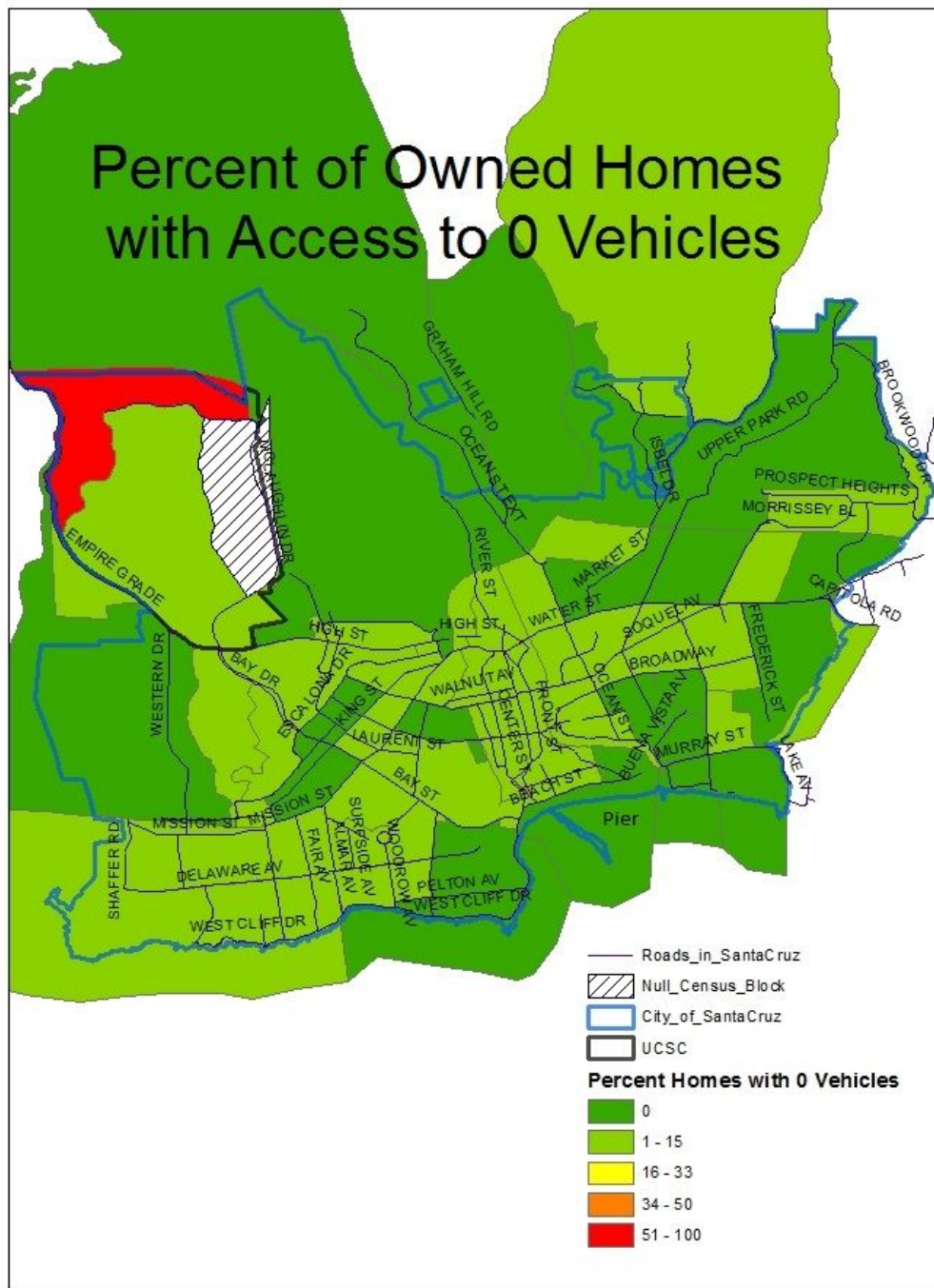


Figure 5c

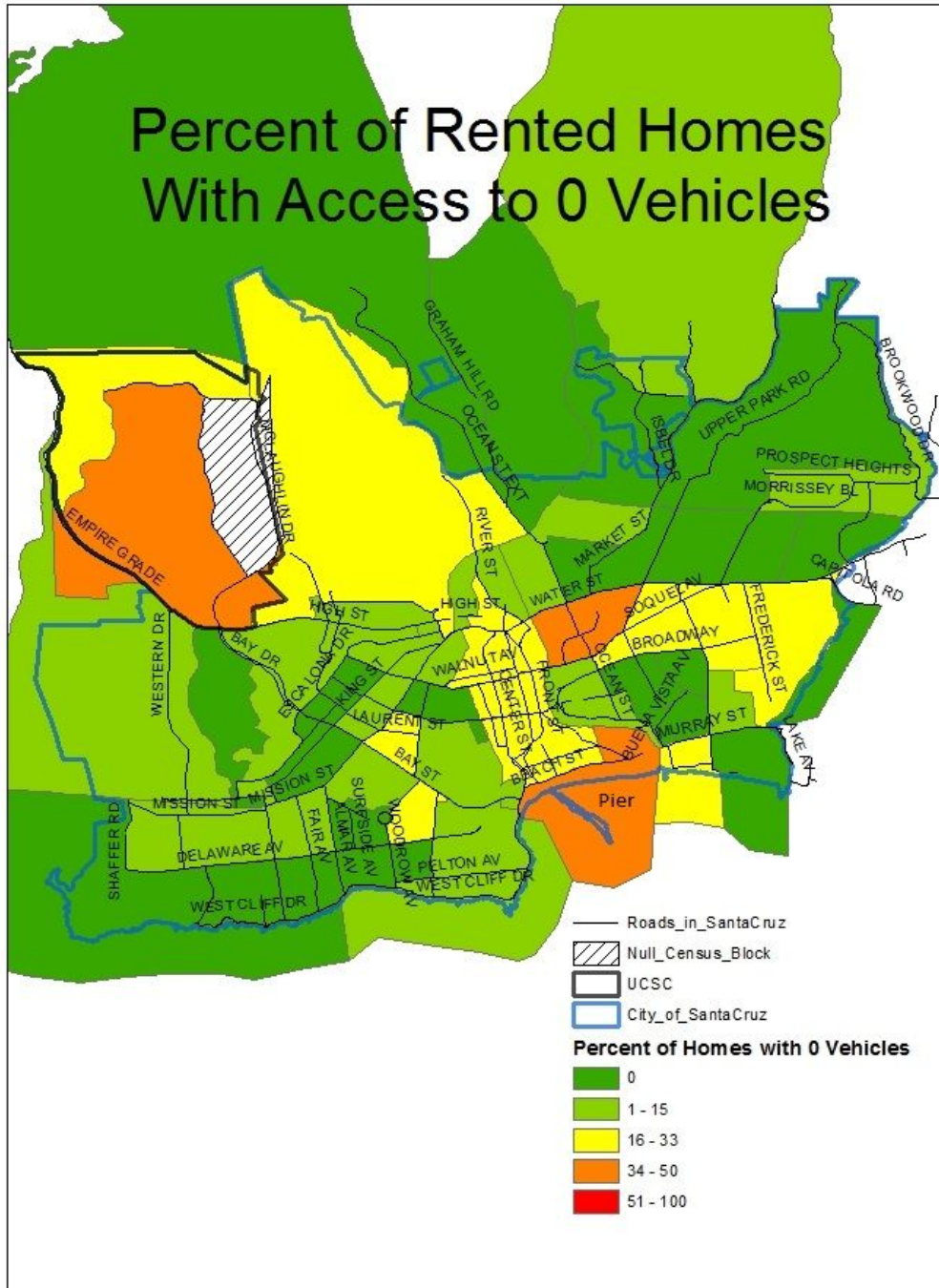


Figure 6c

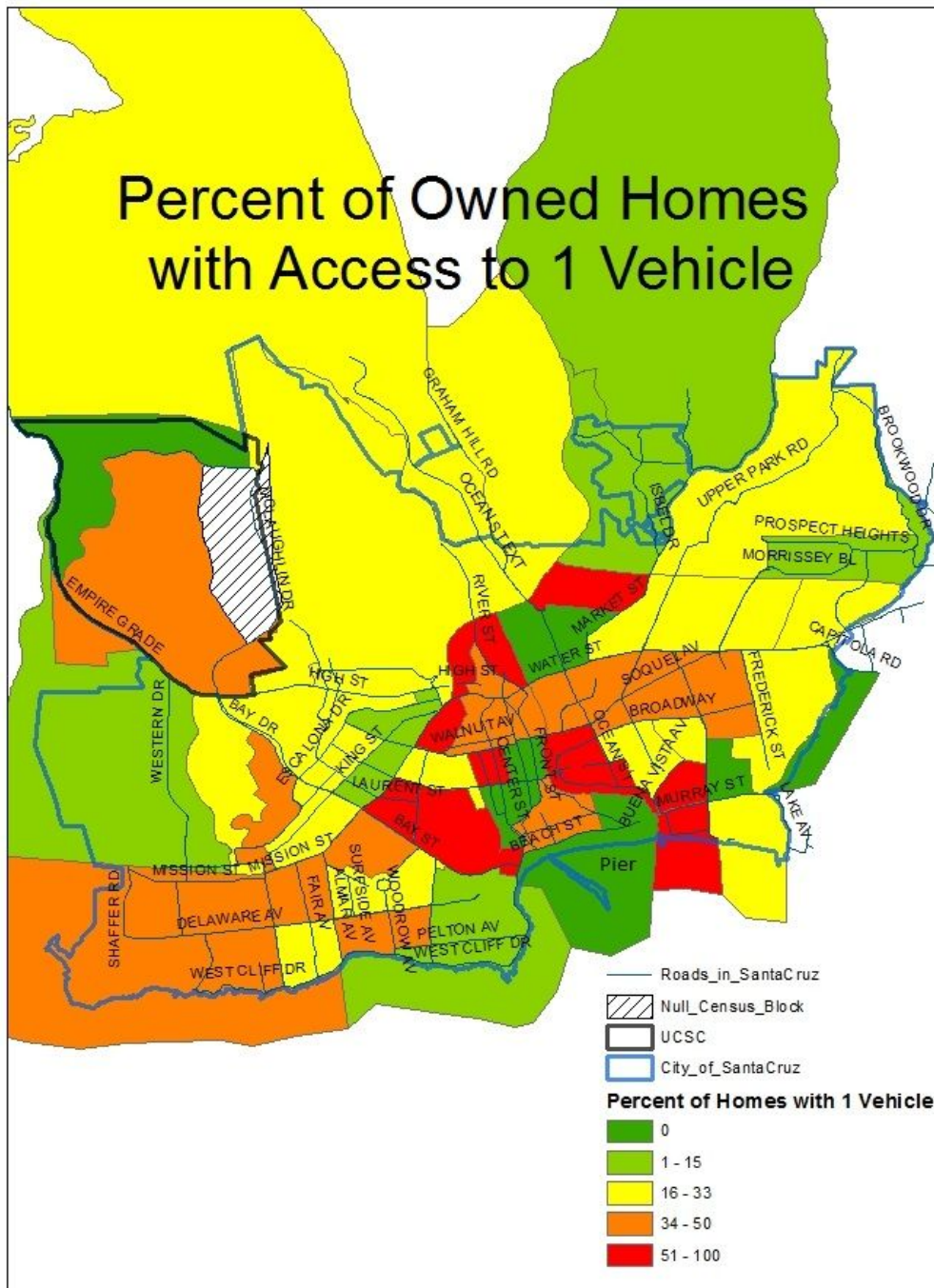


Figure 7c

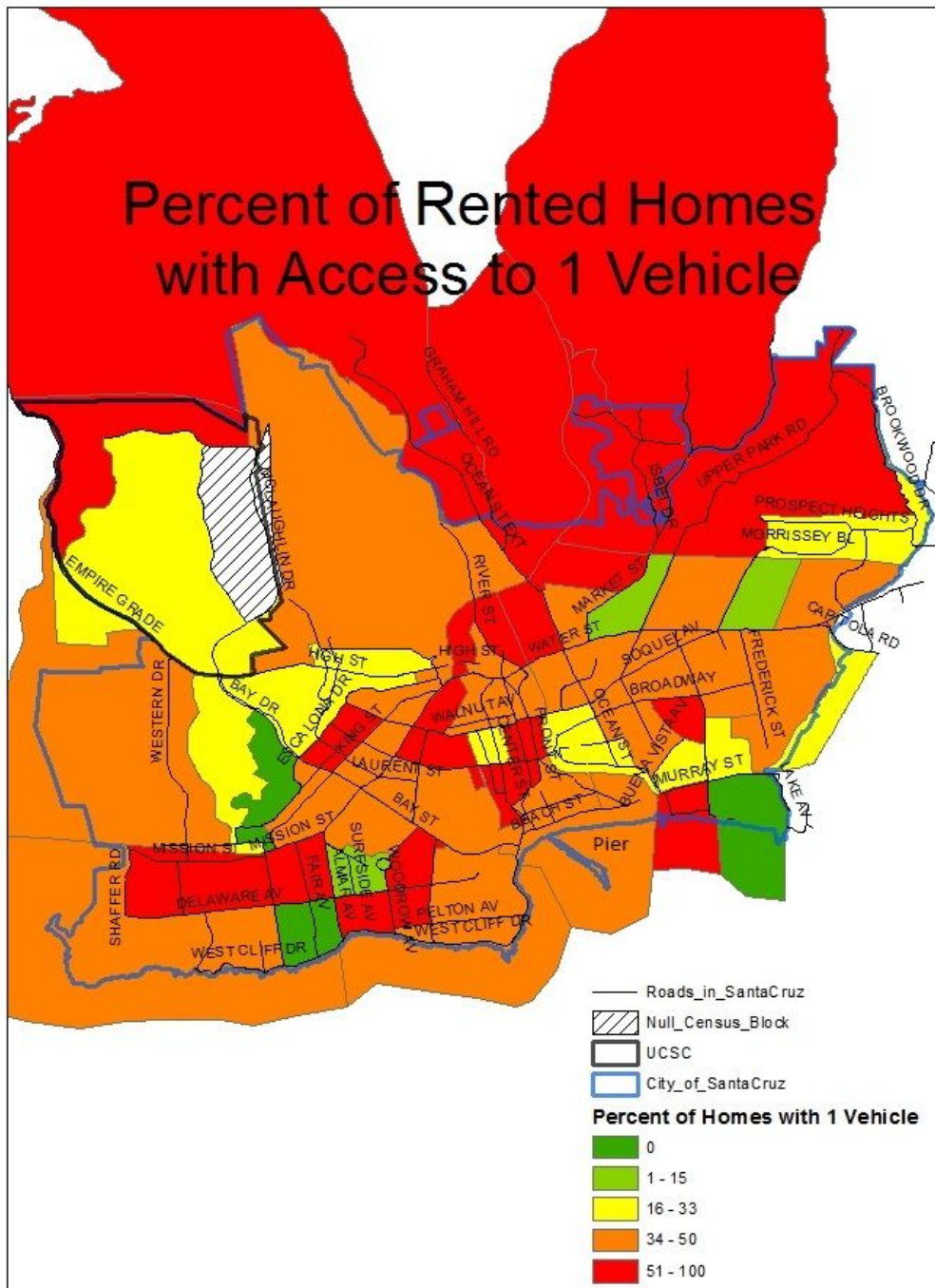


Figure 8c

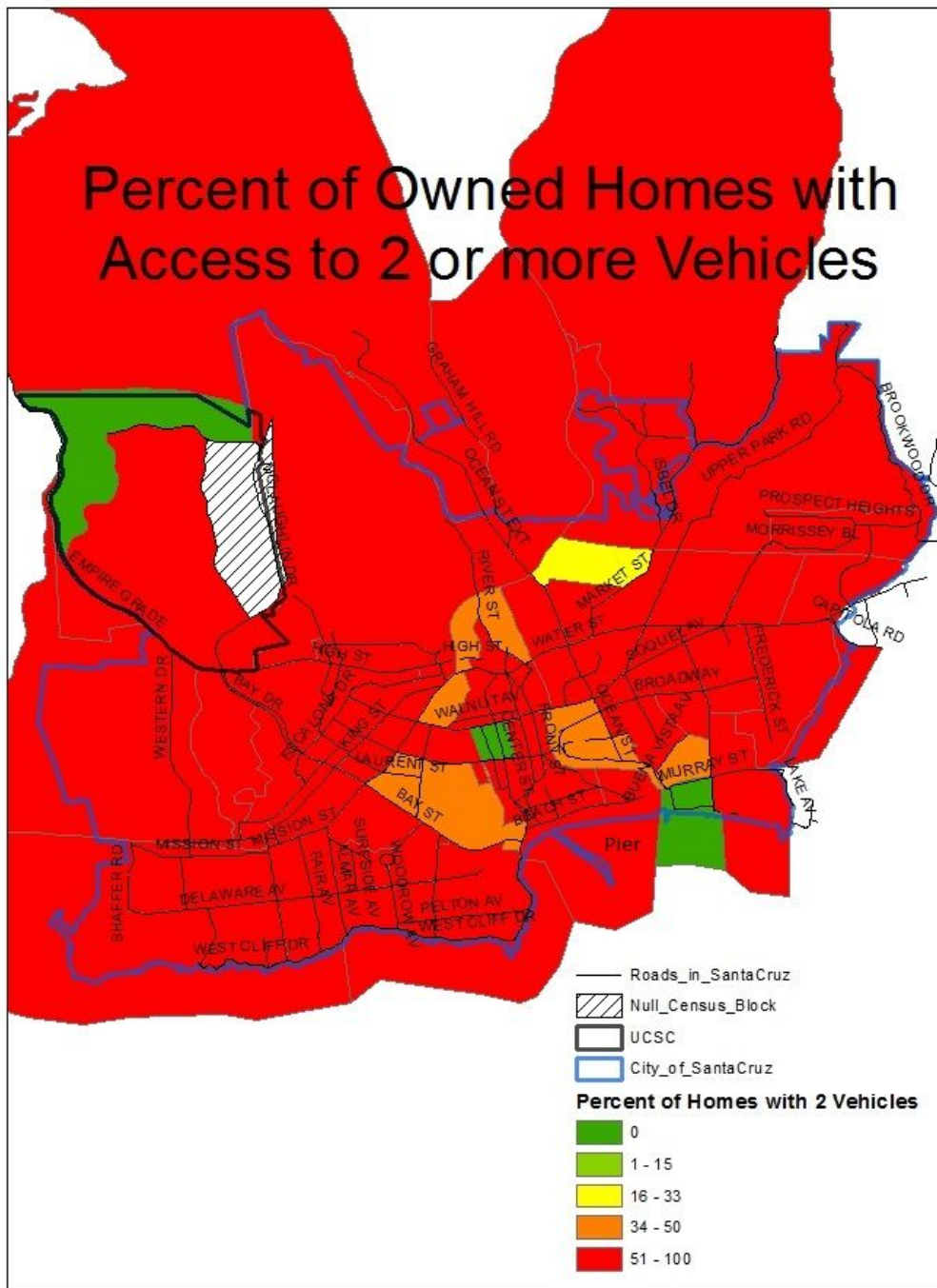


Figure 9c

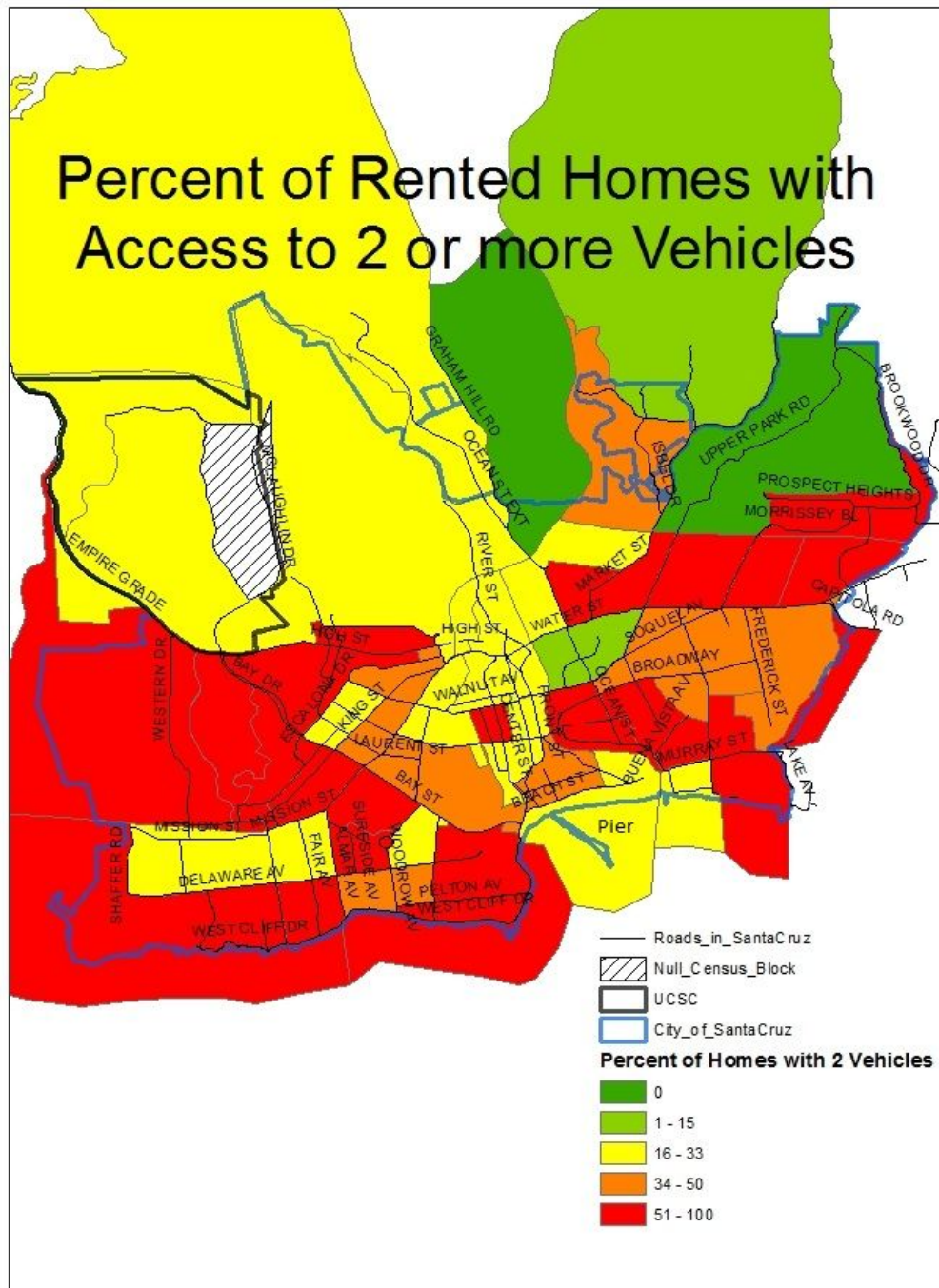


Figure 10c

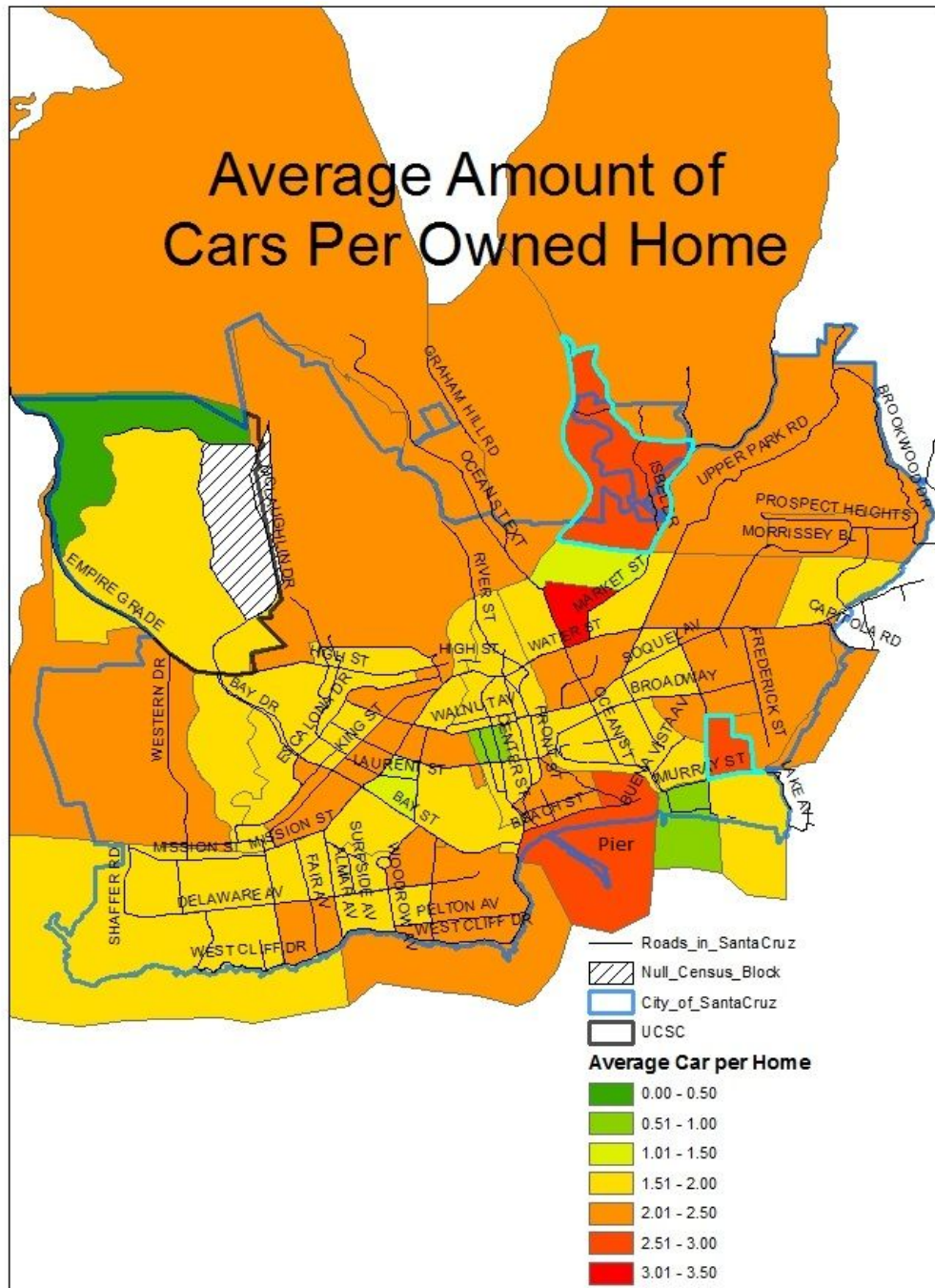


Figure 11c

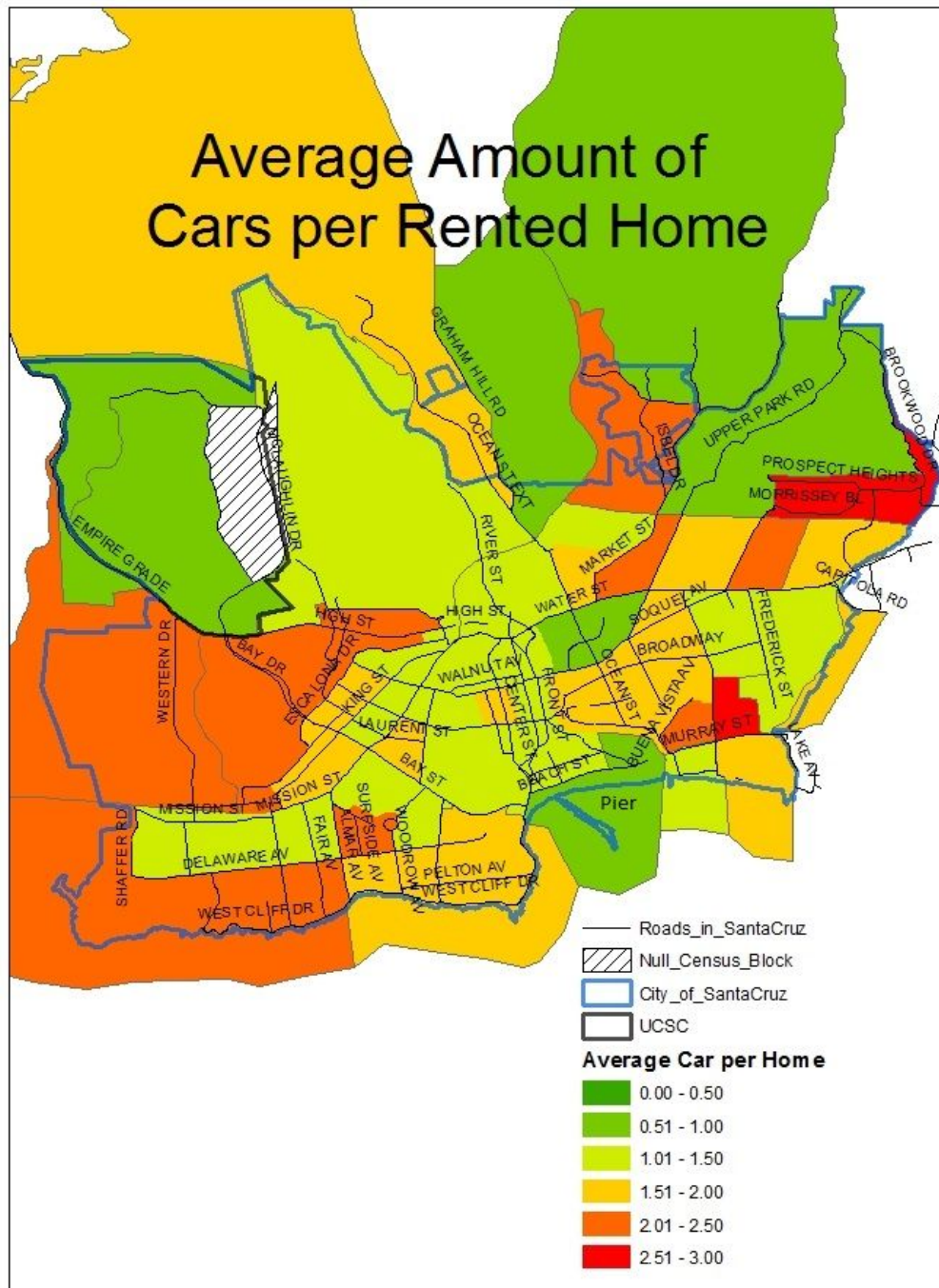


Figure 12c

When compared, there is a clear difference between homes that are owned and homes that are rented in number of vehicles per home. The trend shows that the peak percent of owned homes have two vehicles per home while the peak percent for rented homes is one vehicle per home. The assumption of two cars per home does not seem to apply to rented homes, and does not quite capture the truth with owned homes. 55%, or 7,012 rented homes have one vehicle or less, while 28%, or 3,126 owned homes have one vehicle or less. Looking at the percentage of owned homes, almost 30% of homes would still have an extra parking space they do not need. That space could be used for more housing or other city amenities.

The number of owned homes is about the same as the number of rented homes with the census blocks used, but within the city borders, there many more rented homes then owned homes. The census blocks completely within the city have 9,779 rented homes compared to 6,254 owned homes.

Other Travel Options Within Santa Cruz

Transportation other than a car does not require a parking space, so the more non-car transportation people use in a city, the less space is required for parking. Downtown Santa Cruz and the Pier/Boardwalk area is easily walkable for people who live nearby. Santa Cruz has many bike paths and roads with bike lanes, as well as an extensive bus system, all which reduces the need for cars in Santa Cruz. While parking is needed for tourism, appropriate pricing could deter locals from driving.

As Figure 1d shows below, the city has bike paths that connects UCSC, and downtown areas very well. These areas also show a lower average when it comes to cars per home. Areas that have a higher average of cars per home also seem to have less access to dedicated bike paths or roads with bike lanes. In Figure 2d, we see that bus lanes reach nearly all census blocks. The most serviced area is downtown, which as stated before has a lower average vehicle per home. With downtown having less vehicles per home and better access to alternative modes of transportation, it shows that better access to alternatives has an effect on car ownership.

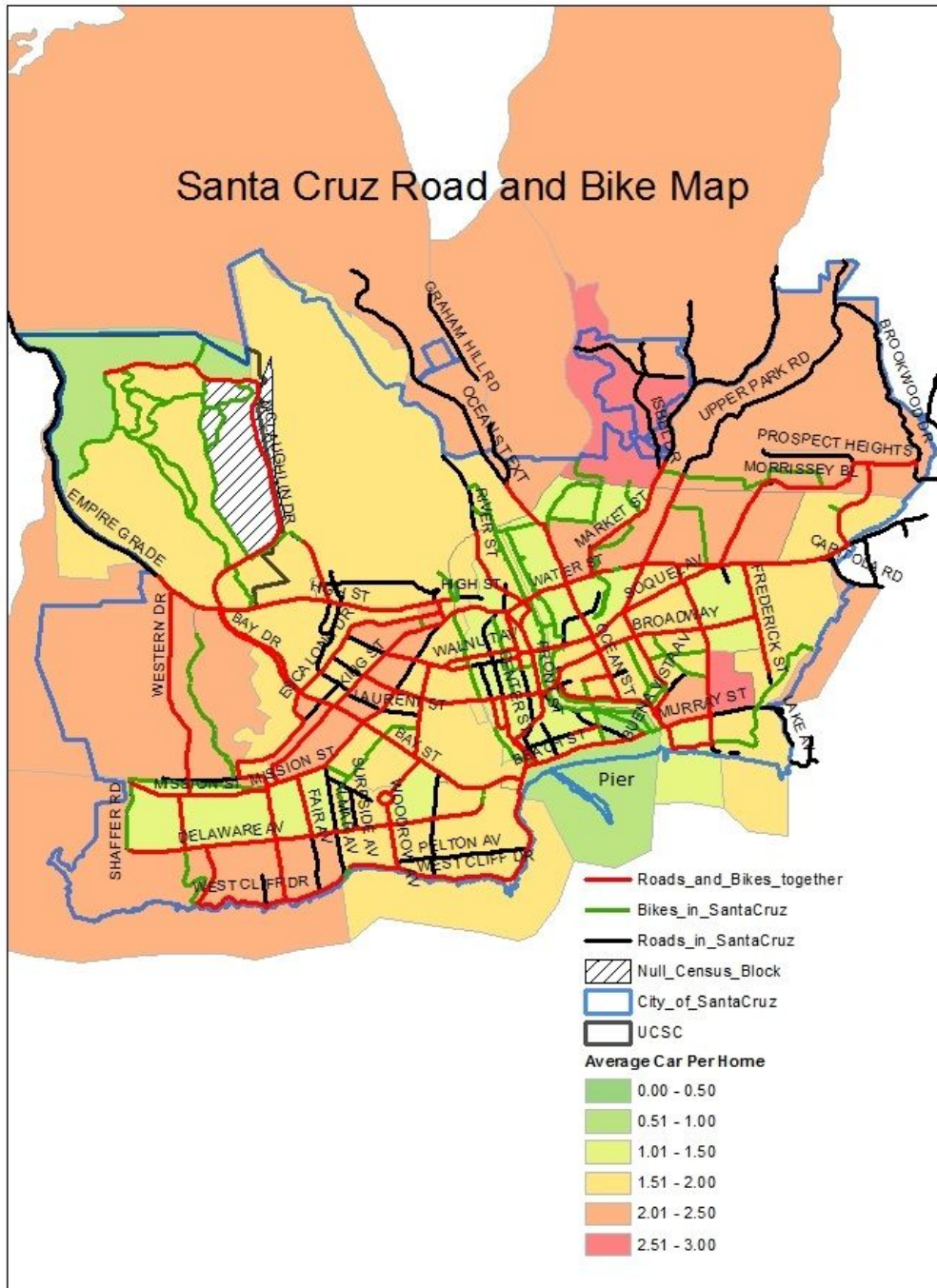


Figure 1d

Another metric that should be looked at is how people get around compared to how many cars they have access to. Using American FactFinder, Means of Transportation to Work by Vehicles Available, we found has data that shows how people get to work. Figure 3d below shows how many people travel to work with each different method given the number of vehicles they have access to.

	Estimate (# People)
Drive Alone	17,057
No Vehicle	218
1 Vehicle	3,772
2+ Vehicles	13,117
Carpooled	2,429
No Vehicle	0
1 Vehicle	432
2+ Vehicles	1,997
Public Transit	1,861
No Vehicle	415
1 Vehicle	590
2+ Vehicles	857
Walked	1,984
No Vehicle	264
1 Vehicle	516
2+ Vehicles	1,204
Taxi/Motorcycle/Bicycle/Other	3,337
No Vehicle	121
1 Vehicle	785
2+ Vehicles	2,431

Figure 3d

While 60% of the people traveling to work drive alone, 40% of people travel to work in other ways. Of the 40%, 88% have access to at least one car, showing that it is not only out of necessity. These other methods all require less parking given that people with cars do not necessarily use them to go to work. While this data is specifically for work, the information can be used to assume travel habits outside of work. Someone who walks to work would most likely do the same to go to the beach, shopping, or other activities in the city.

Conclusion

Based off the data collected, we conclude that there is an excess of parking in Santa Cruz. With the Craigslist Scrape, we found that housing without bundled parking is more expensive in Santa Cruz due to the lack of non-luxury apartments without bundled parking and the high number of single family homes in the listings. We also found that there is a consistent excess of parking at the three apartment complexes we looked at. Through the census data, we found that a significant amount of homes in Santa Cruz have less than two vehicles per home, and found that rented homes were more likely to have fewer vehicles per home than owned homes. Finally we found that travel alternatives in Santa Cruz are substantial and that a compelling amount of people use alternatives to driving alone to get around. These findings individually demonstrate that there is an excess of parking in Santa Cruz. When compiled, they show a major gap in parking needed and parking provided.

While this report is primarily informational we have a few recommendations that could be implemented. We recommend that future developments be given more flexible parking requirements. These options could include reduced parking minimums or provide transit passes for residents. This can be applied to new and existing developments, especially in areas well served by public transit. We also recommend increasing development for low income housing. Finally we recommend steps to help improve bike paths and bus routes. Improvements in areas that have less access to these alternatives can encourage less car use as we have seen in areas that are well served by transit. These steps can help improve the quality of life for residents of and visitors to Santa Cruz for years to come.

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