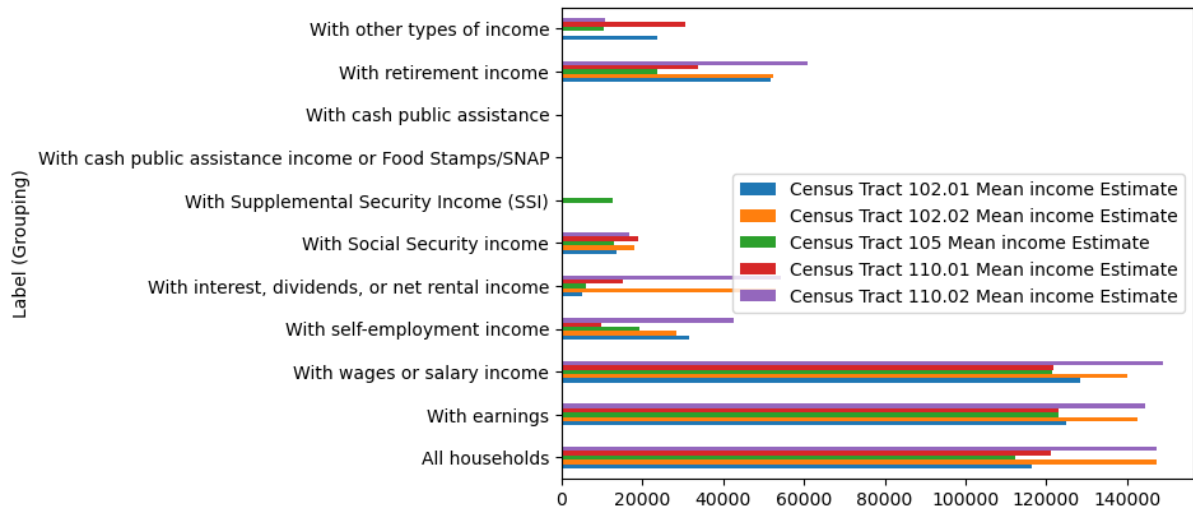


## Deliverable 1 - Team 2

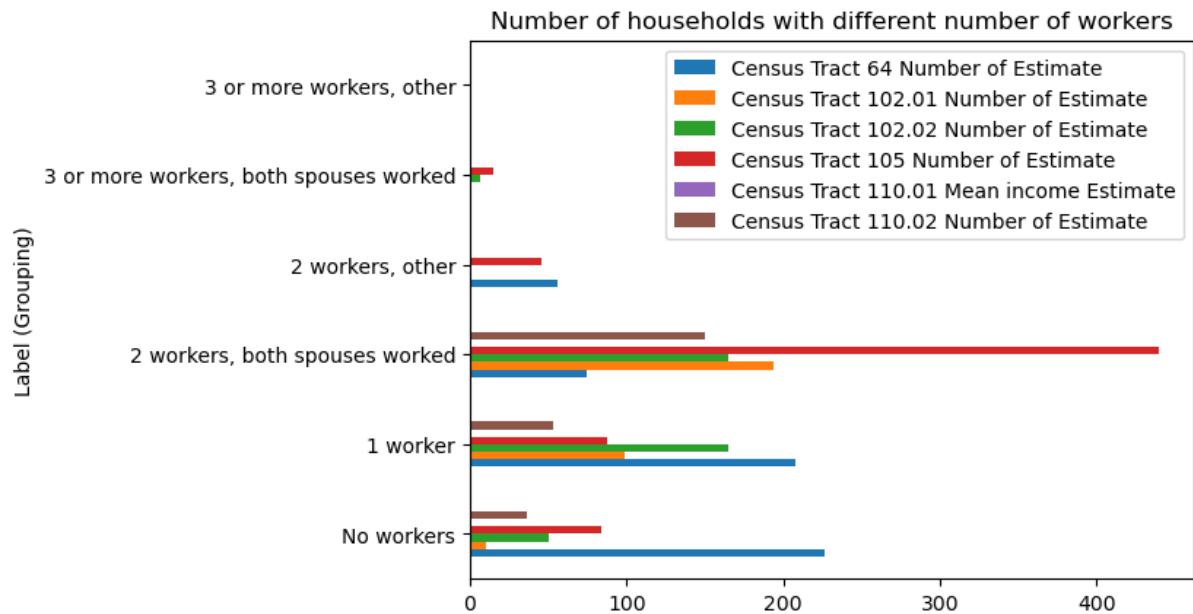
Team Members: Chengjie Gu, Mingxin Li, Revathi Vipinachandran, Jonas Raedler

Chengjie Gu:

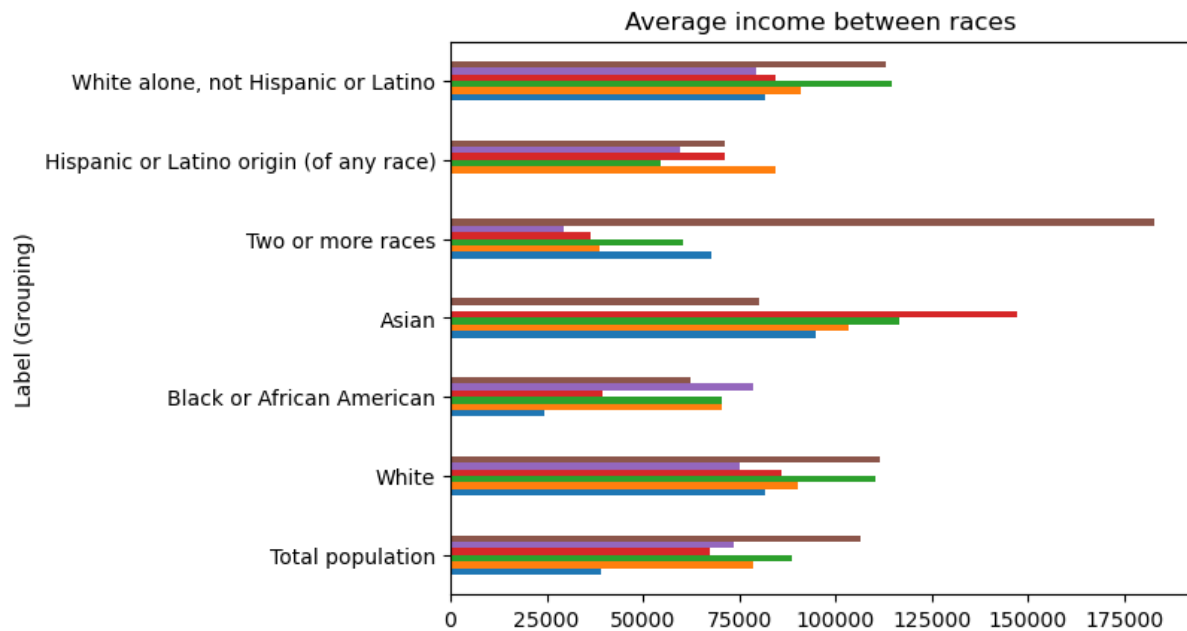
### Different types of income for households and their mean (per tract)



### Number of households with different number of workers (per tract)



## Average income per race (per tract)



### Notes:

The findings, by evaluating upon the income estimation of the households from the Southwest D.C. area:

- The majority of families in the region relies on earnings and wages for a living, while there are few who depend on social security or supplemental income (the amount of this is quite a bit less than the average income as a whole)
- Most of the families have both spouses as the main work force to feed all the members of the family. There are, however, quite a few households that depend solely on a single worker. Some families do not have any employed members
- Income varies more significantly from tract to tract over different races

Mingxin Li

**Notes:**

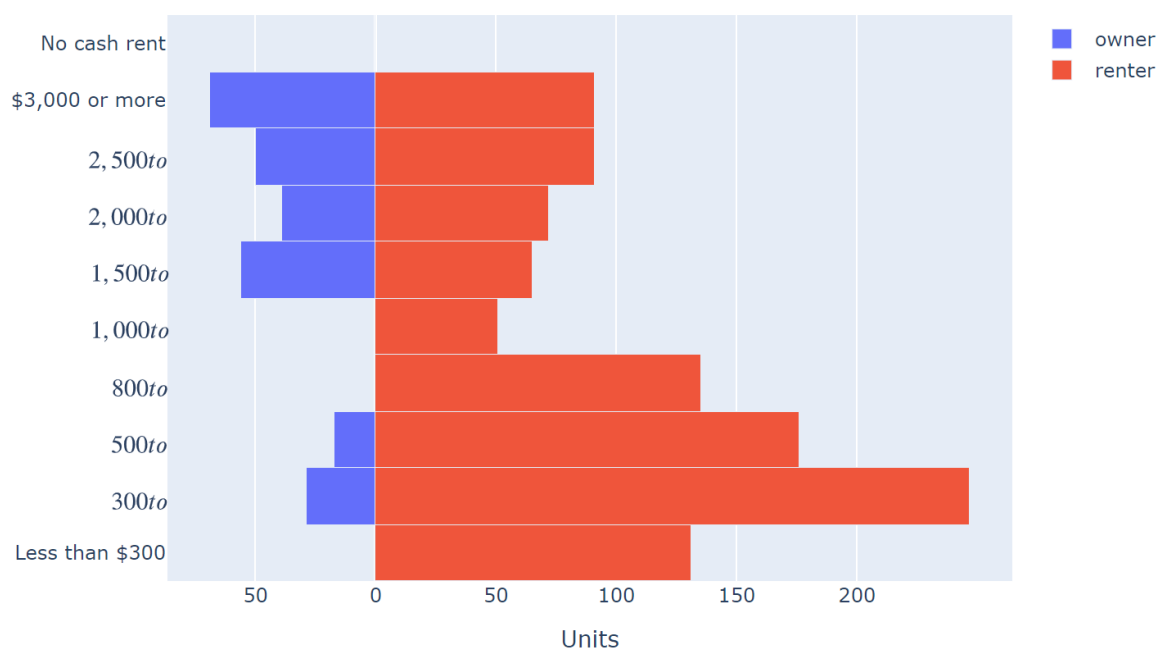
The data provide insights into the socio-economic status of the residents in Census Tract 64. The household income data gives an idea of the income levels of the residents, while the monthly housing cost data provides information on the housing affordability of the residents.

Combining the two sets of data, we can infer that a significant portion of the renter-occupied housing units fall under the lower income categories, and many of them have to bear a significant monthly housing cost burden. On the other hand, a significant portion of the owner-occupied housing units fall under higher income categories, and many of them have higher monthly housing costs but can afford them.

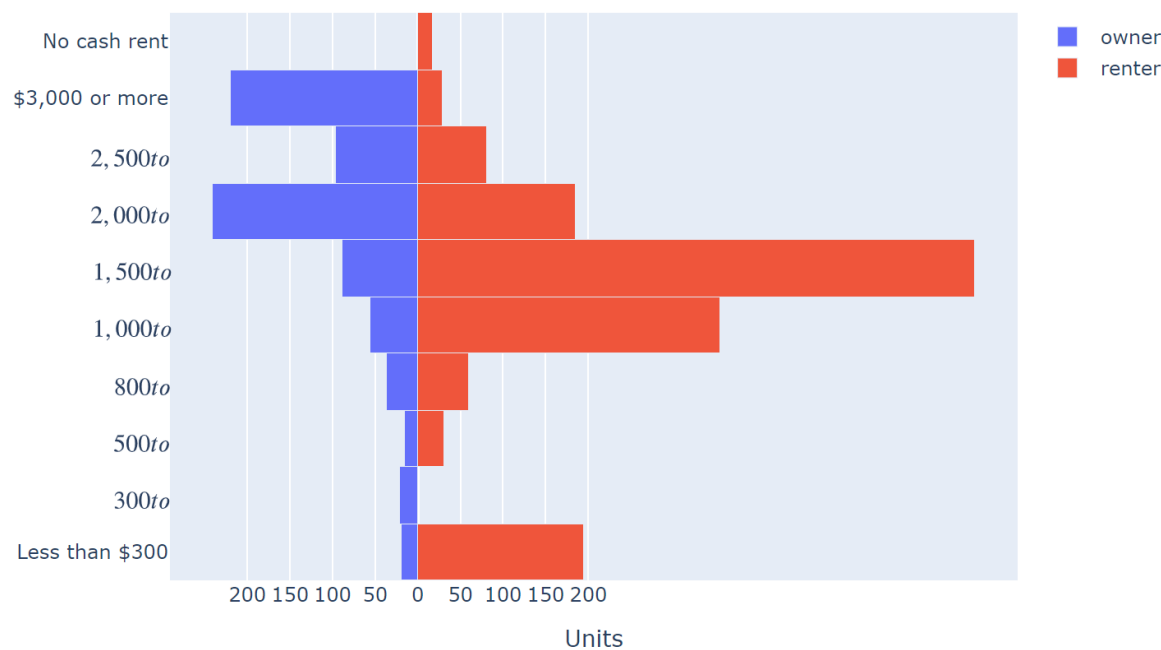
**Plots:**

The following plots describe the monthly cost of living units in the different tracts within the Southwest district of DC (owned units -> blue; rented units -> red).

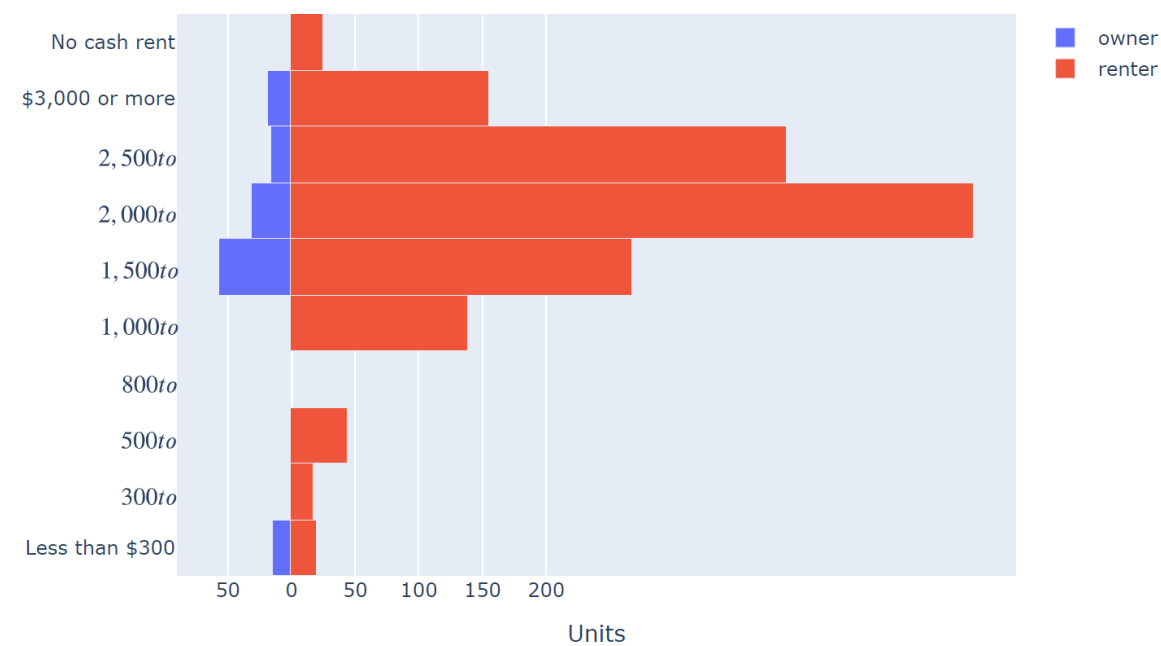
### Unit Monthly Cost of Tract 64



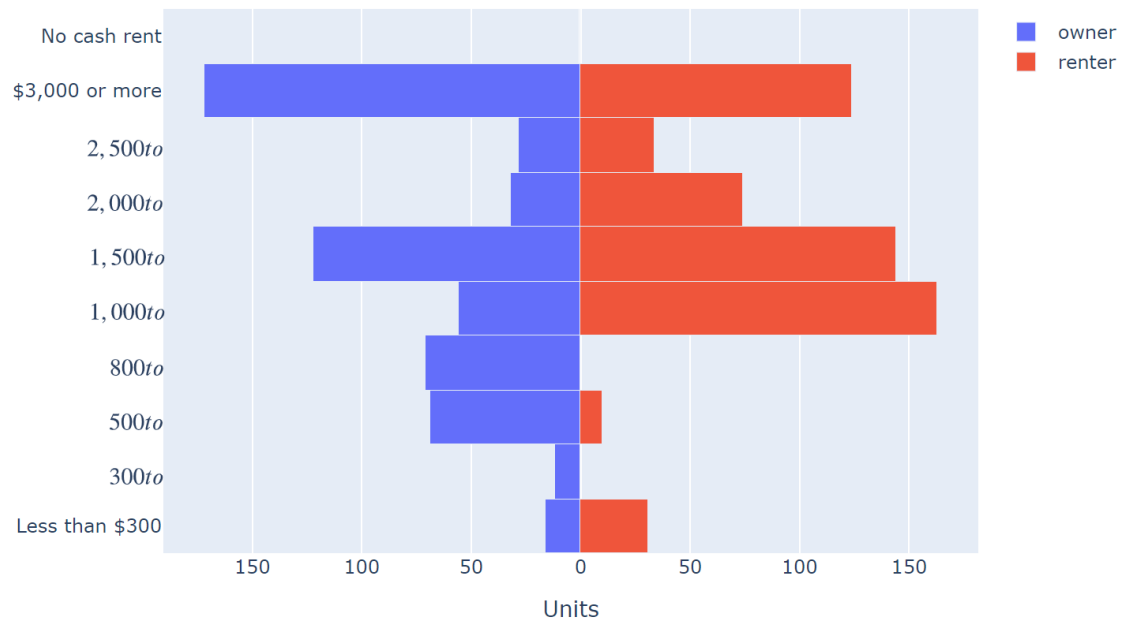
# Unit Monthly Cost of Tract 105



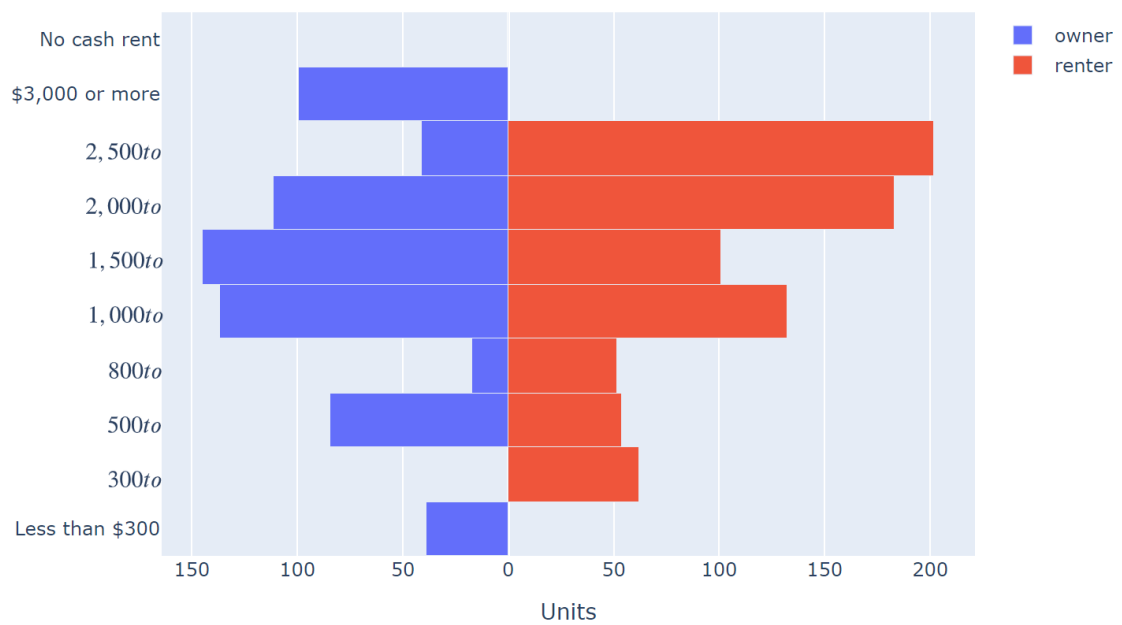
# Unit Monthly Cost of Tract 102.01



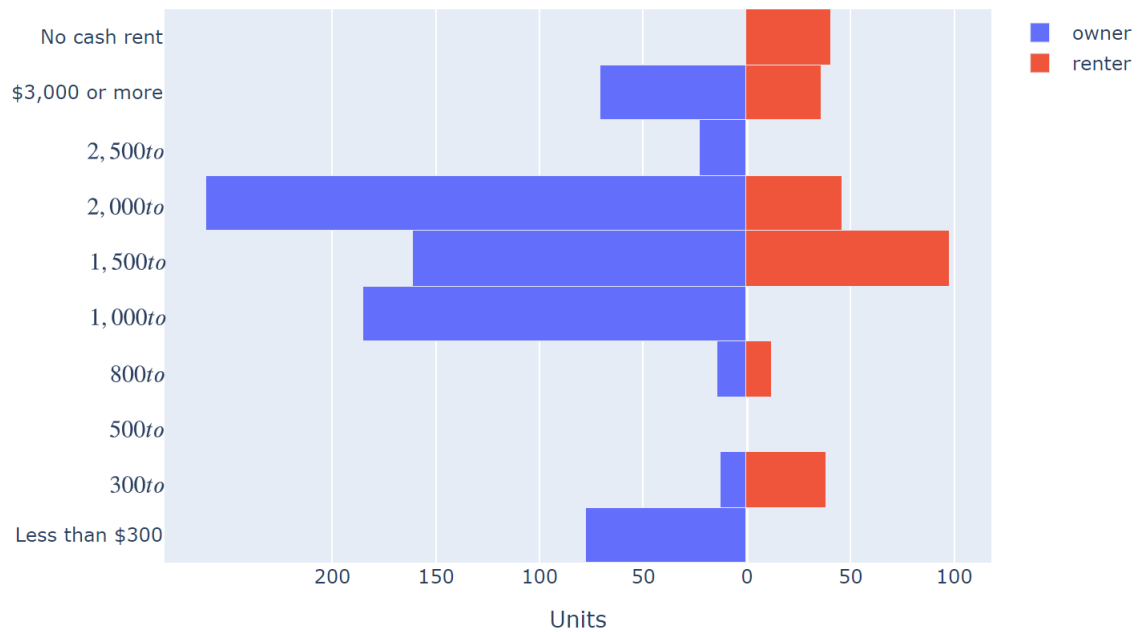
## Unit Monthly Cost of Tract 102.02



## Unit Monthly Cost of Tract 110.01

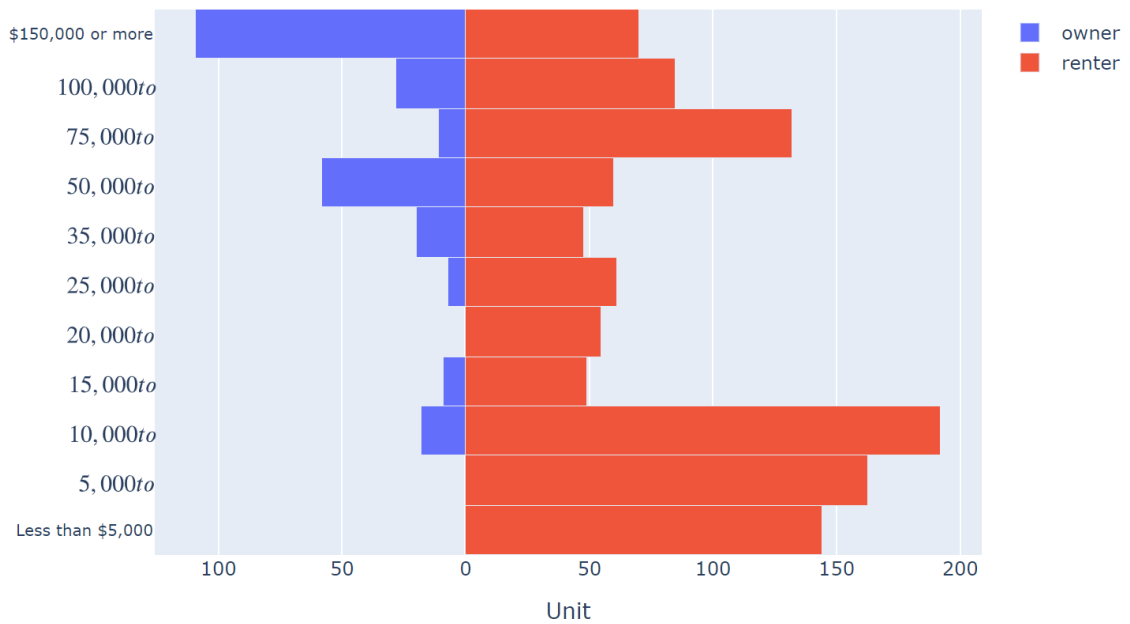


## Unit Monthly Cost of Tract 110.02

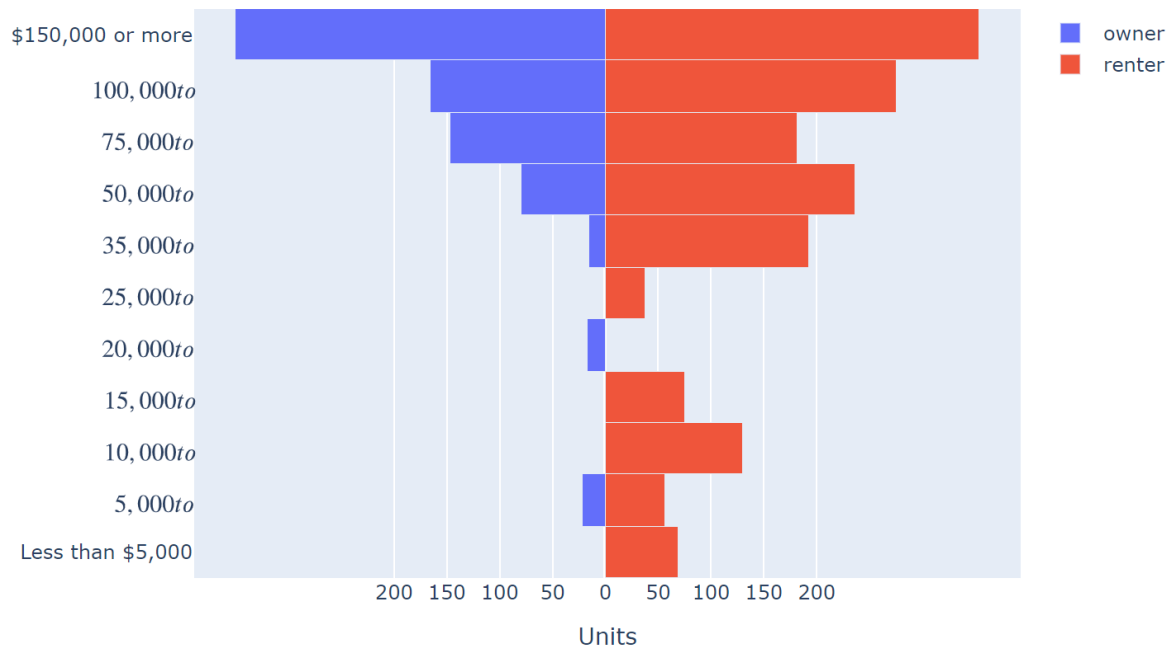


The following plots describe the yearly mean income of people living in rented units vs. owned units in the different tracts within the Southwest district of DC (owned units -> blue; rented units -> red).

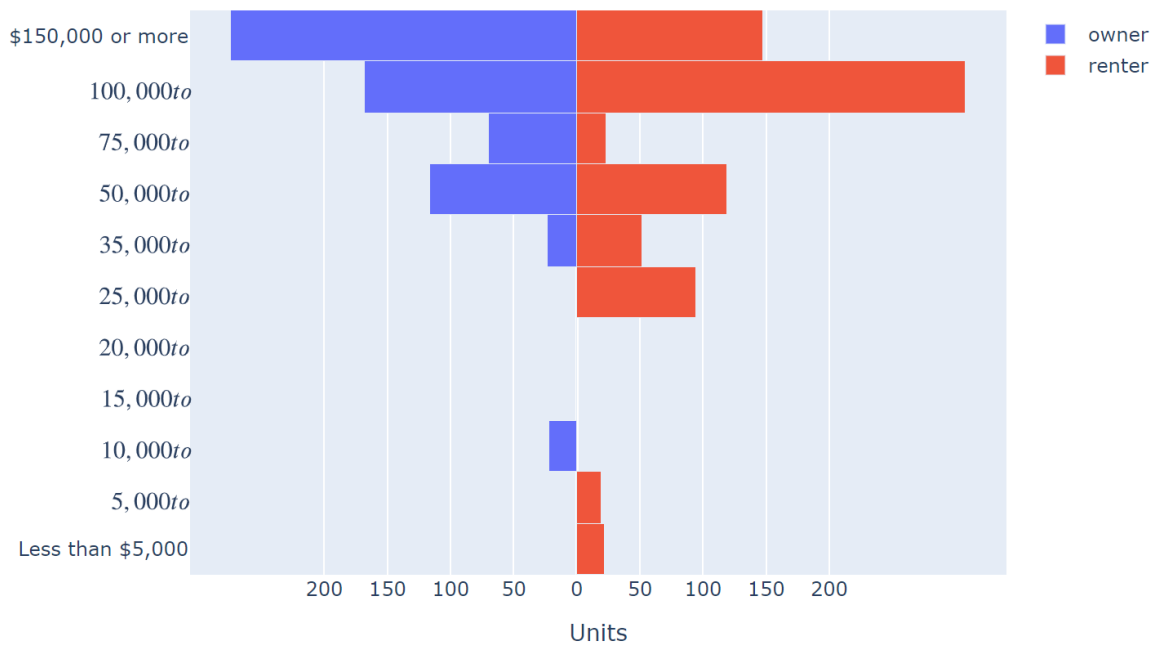
## Unit Mean Income of Tract 64



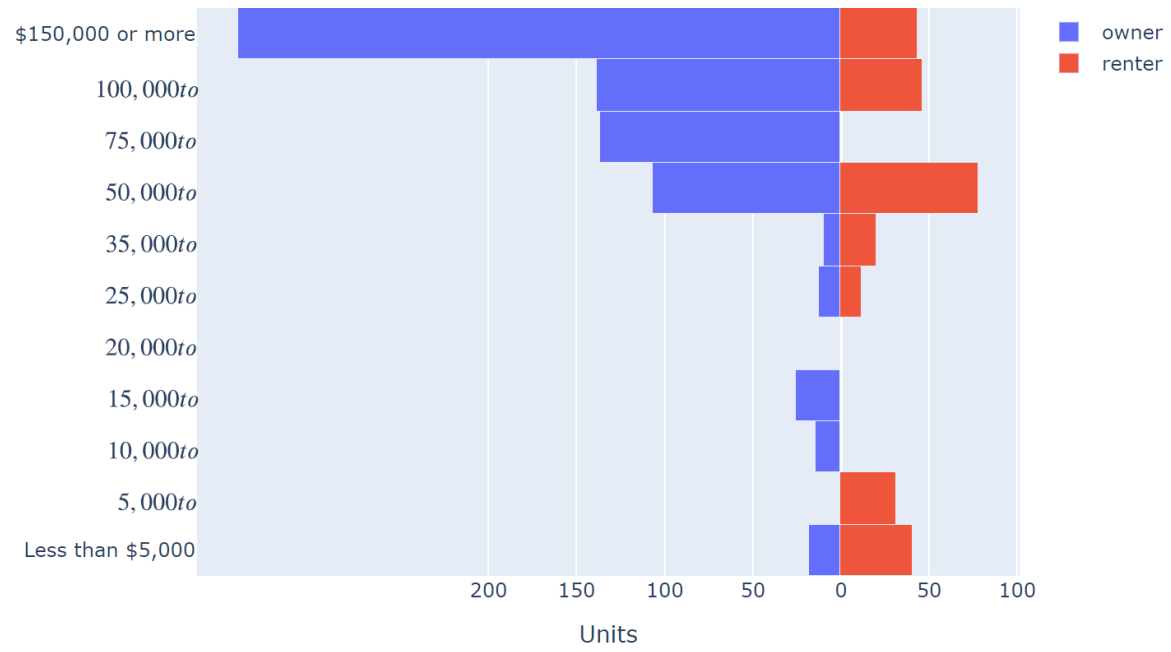
## Unit Mean Income of Tract 105



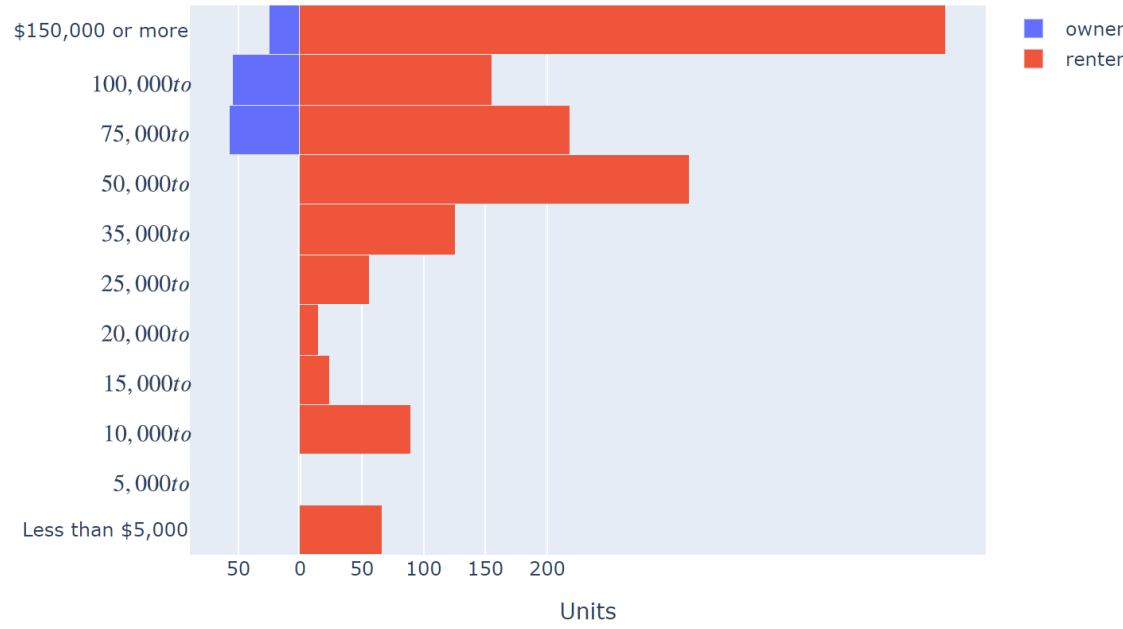
## Unit Mean Income of Tract 110.01



## Unit Mean Income of Tract 110.02

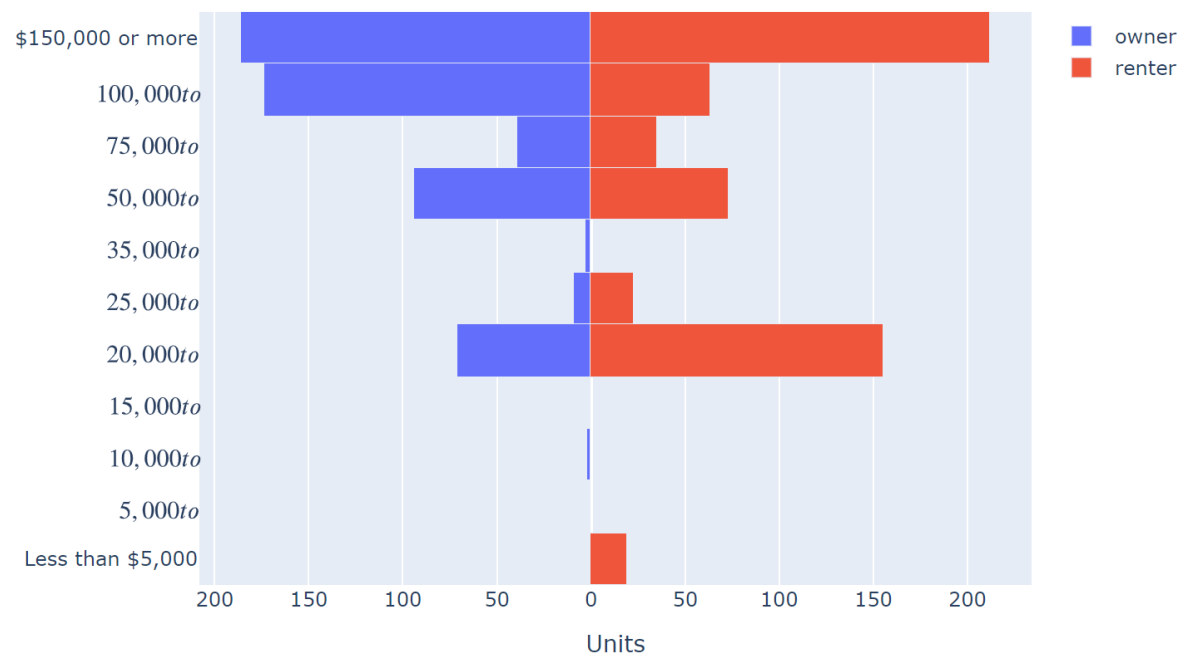


## Unit Mean Income of Tract 102.01

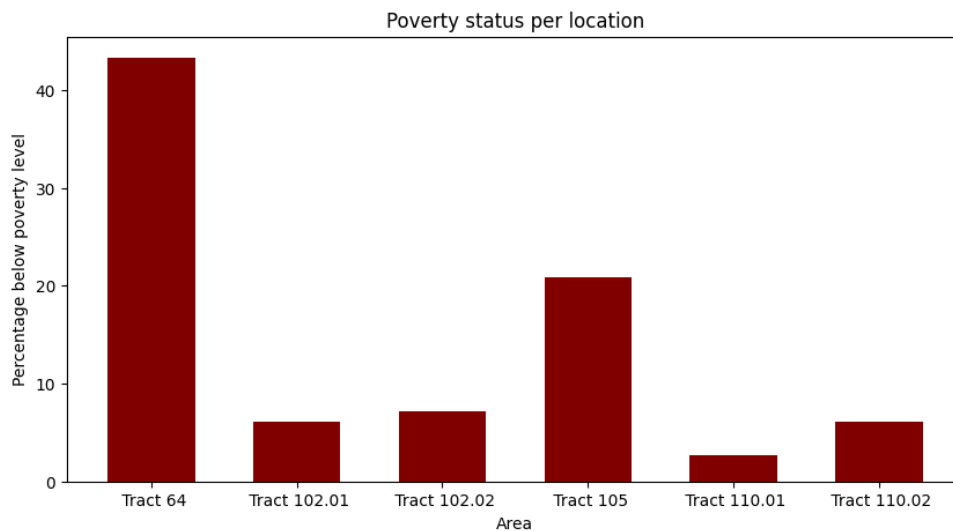




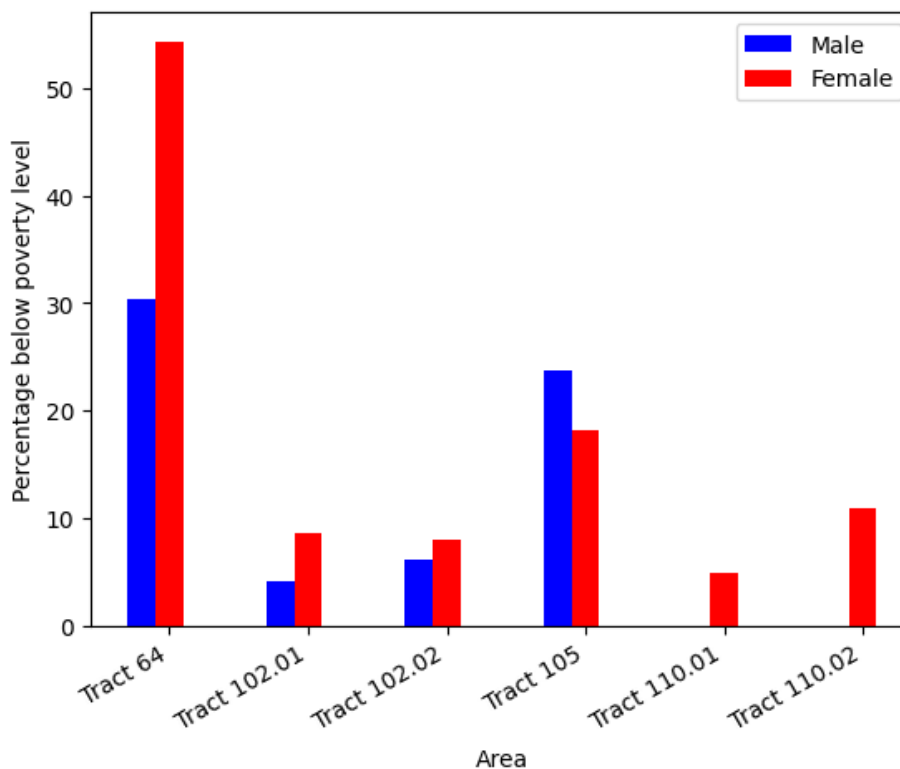
# Unit Mean Income of Tract 102.02



Revathi Vipinachandran



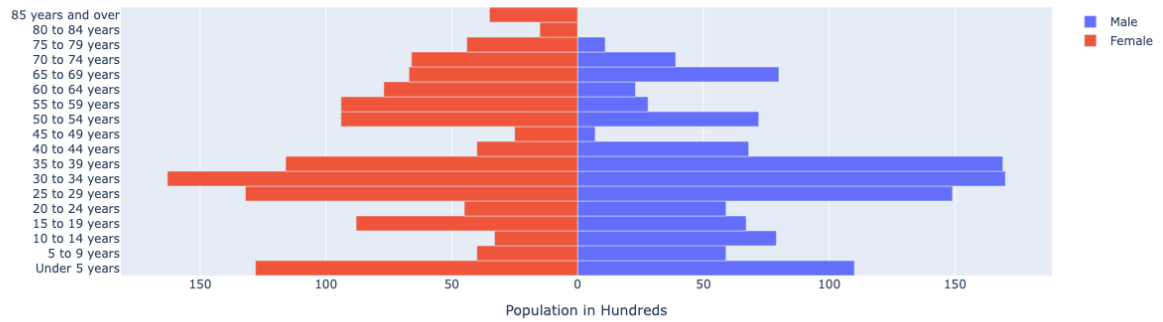
This is the poverty status (Percentage below poverty level) per location. Suggesting that the number of people below poverty level varies greatly with location. It shows the disparity in poverty between different tracts. The poverty levels of tract 64 and tract 105 is especially higher than the other areas by a large difference.



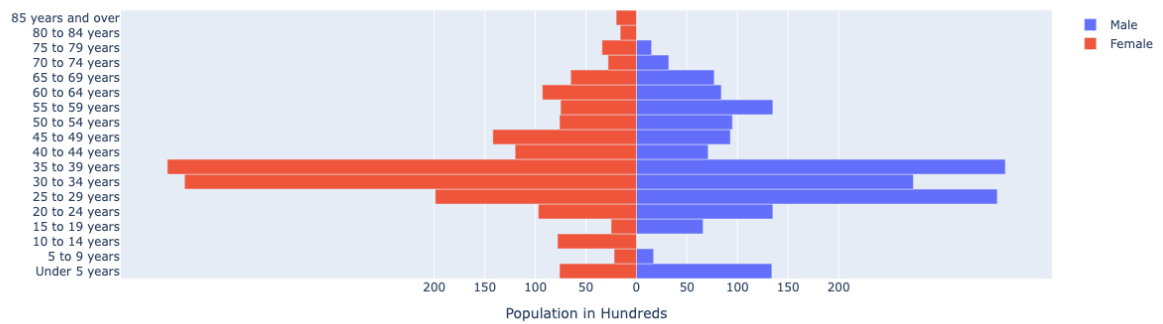
This one shows the disparity in poverty levels between male and female gender. There is a considerable difference in the percentage of female below poverty level as compared to male in majority of the areas.

The following plots show the ratio of males vs females in the different tracts per age group.

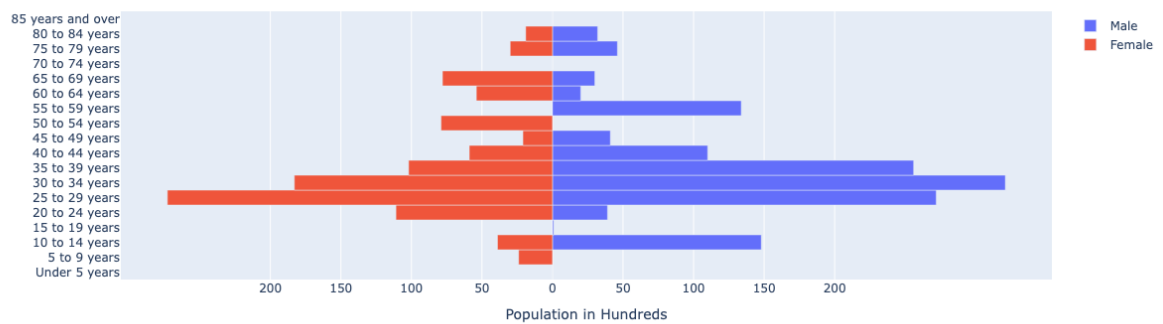
Population Pyramid of Tract 64



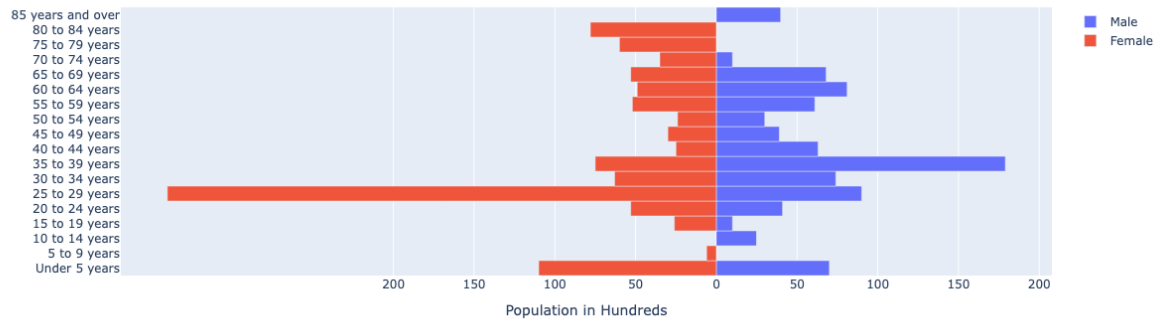
Population Pyramid of Tract 105



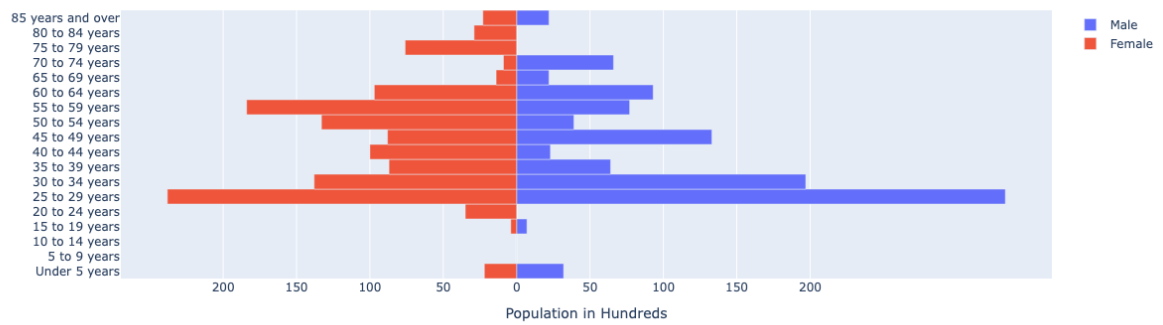
Population Pyramid of Tract 102.01



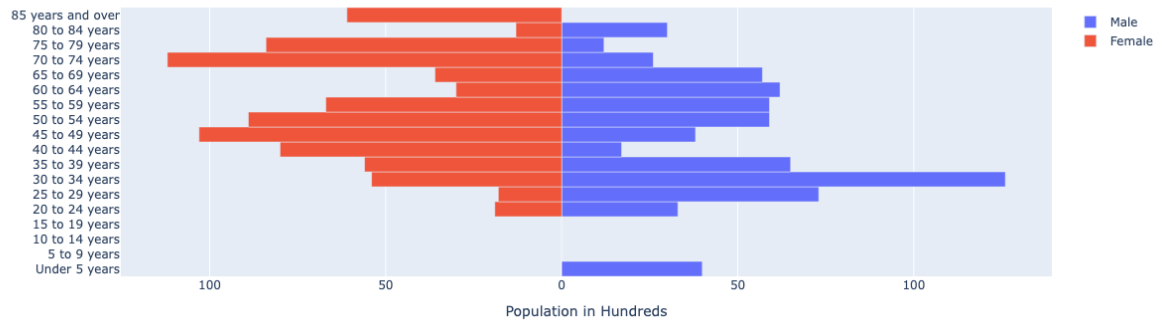
Population Pyramid of Tract 102.02



Population Pyramid of Tract 110.01

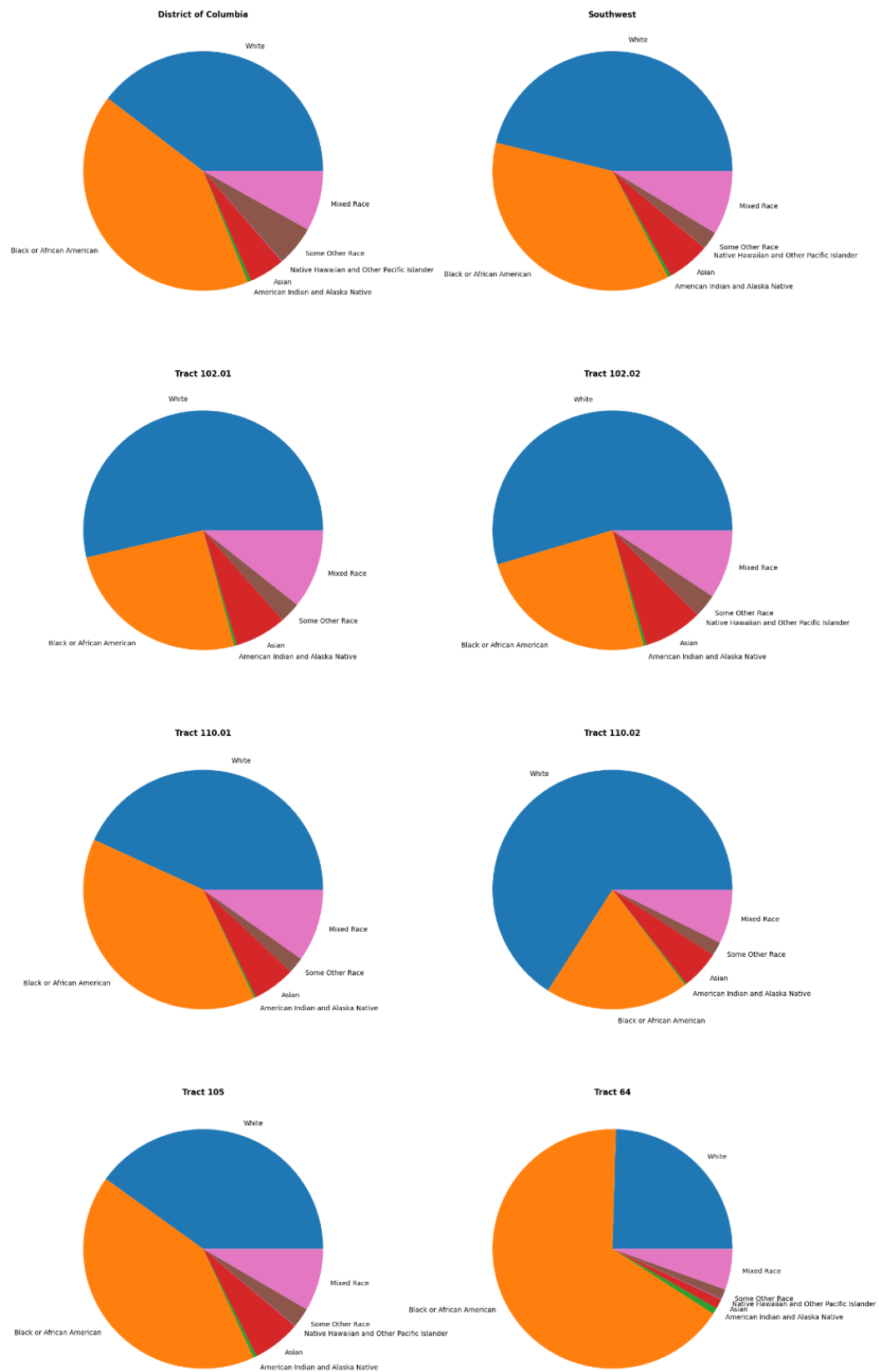


Population Pyramid of Tract 110.02

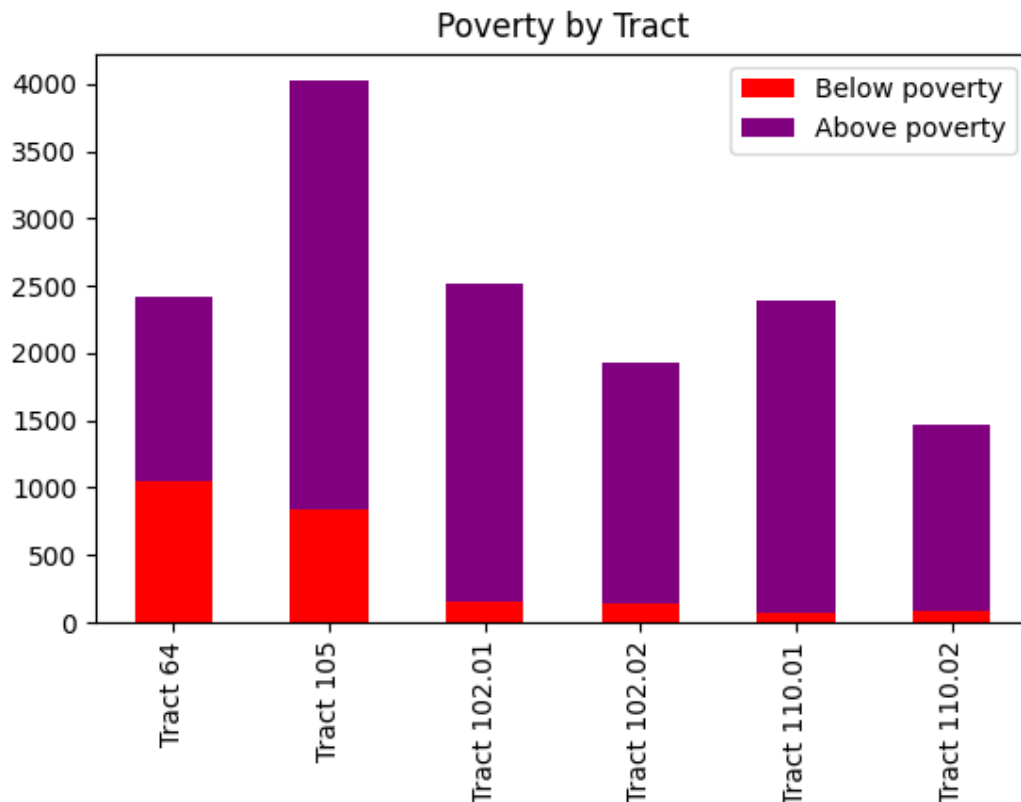


Jonas Raedler

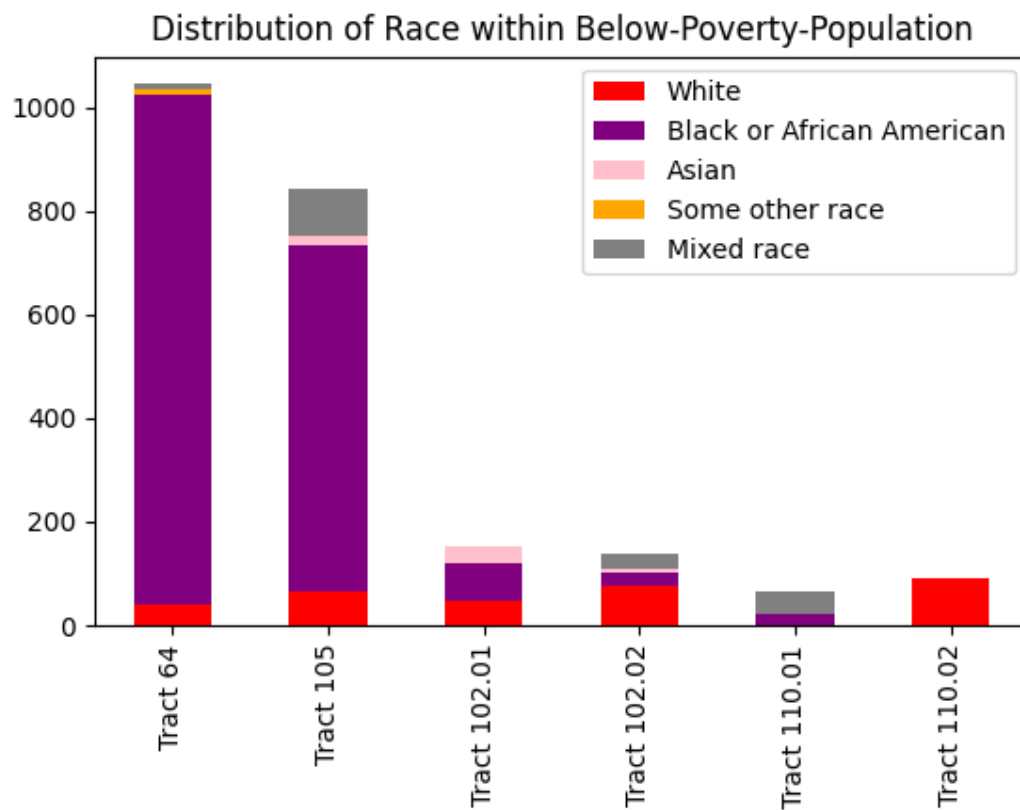
## Distribution of Race per Tract



Interestingly, the tracts closer to the water (and thereby nearer to the Wharf, the popular, touristy area in the Southwest district) have more White people living in them in contrast to the tracts that are more east (more inland). This is especially noticeable when looking at Tract 102.02 and 110.02, which are directly next to the water, as well as Tract 102.01, which is directly next to the wharf. Tracts 105 and 110.01 have an approximately equal proportion of White inhabitants to Black inhabitants, whereas Tract 64 is mostly populated by Black people or African Americans.



In relation to the findings above, we can also see that the western-most tracts, i.e. the ones which are closer to the touristy and more popular areas, are the ones which suffer least from poverty. Tract 64 and Tract 105, the ones most eastern, have relatively high poverty rates, with Tract 64 almost reaching 50%.



Here we can see that in the two tracts that have the highest below-poverty population, it is mostly the Black population that makes that portion up.

In the next plot, you can see a summary of the percentage of people within a race that lie below the poverty level for each tract (i.e. in Tract 64, there are a total of 1769 Black inhabitants, of which approximately 55% are below the poverty level).

