

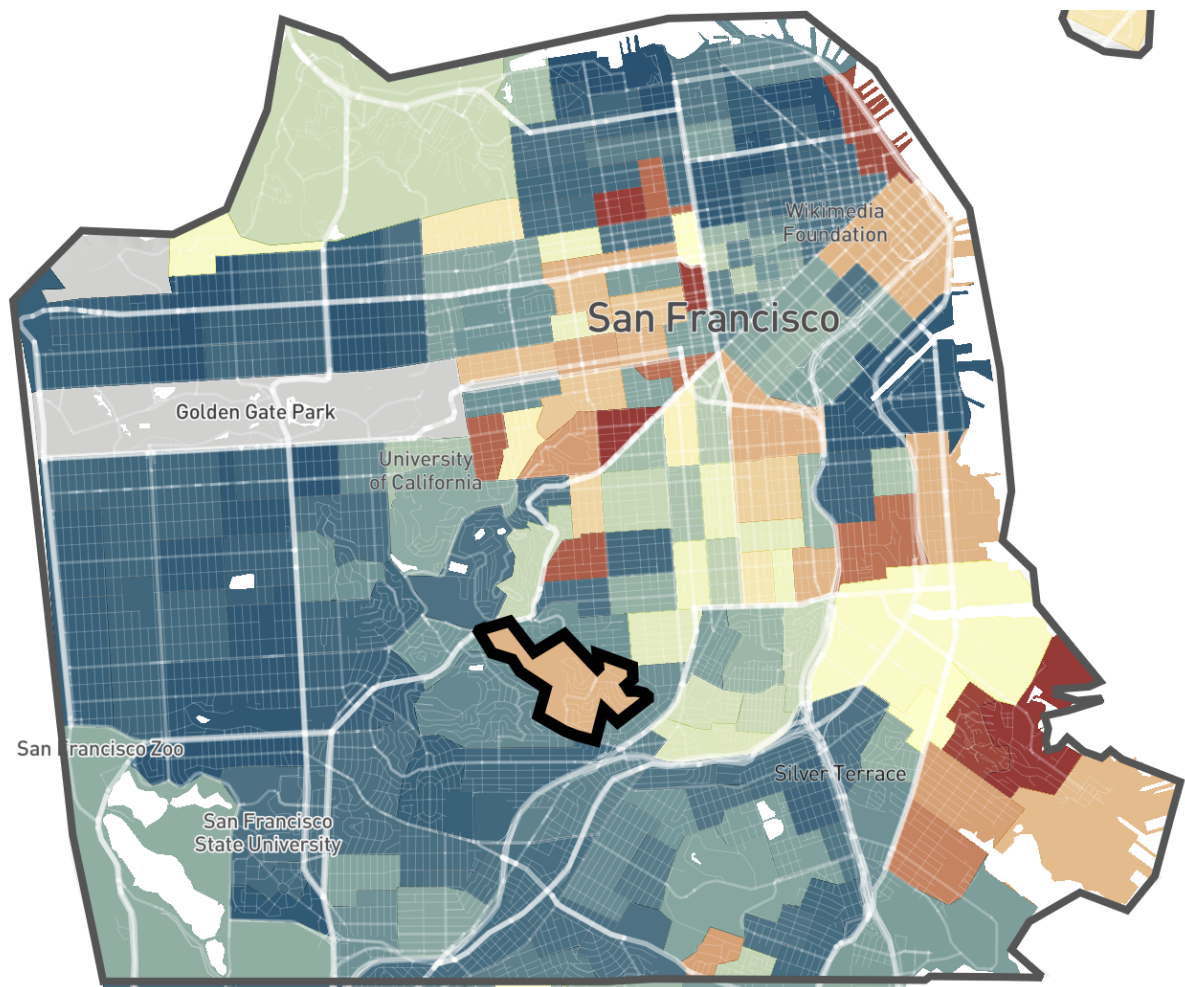


Big data project 1

Moskovets Artem, SMD 2

Map insights

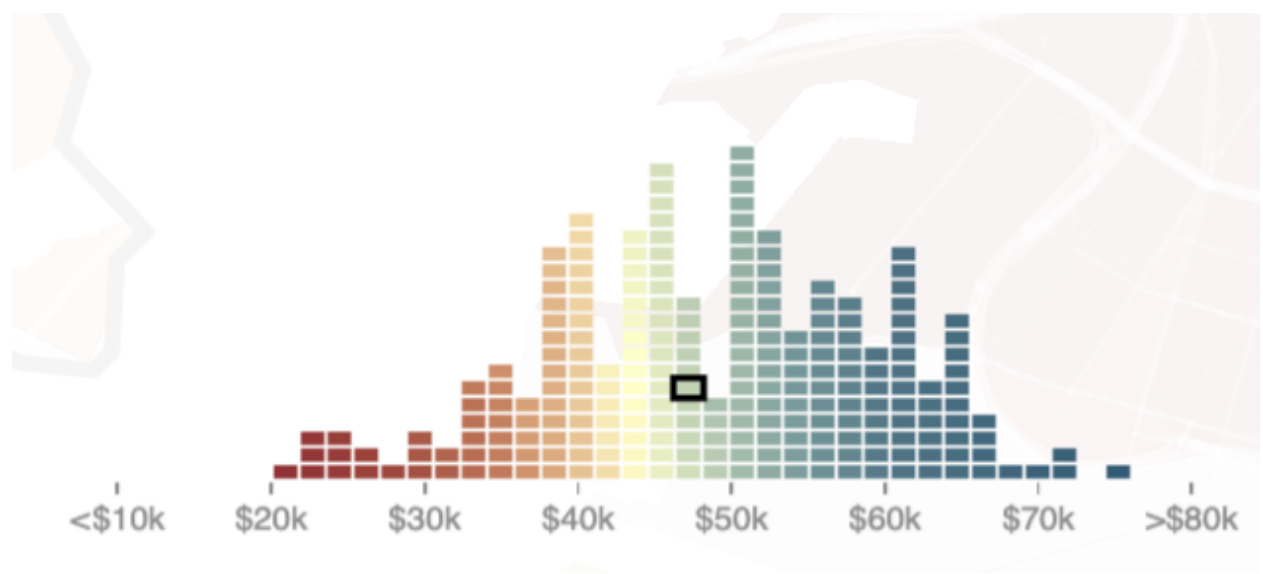
For this project I've decided to choose tract **06075021700**, San Francisco, California.



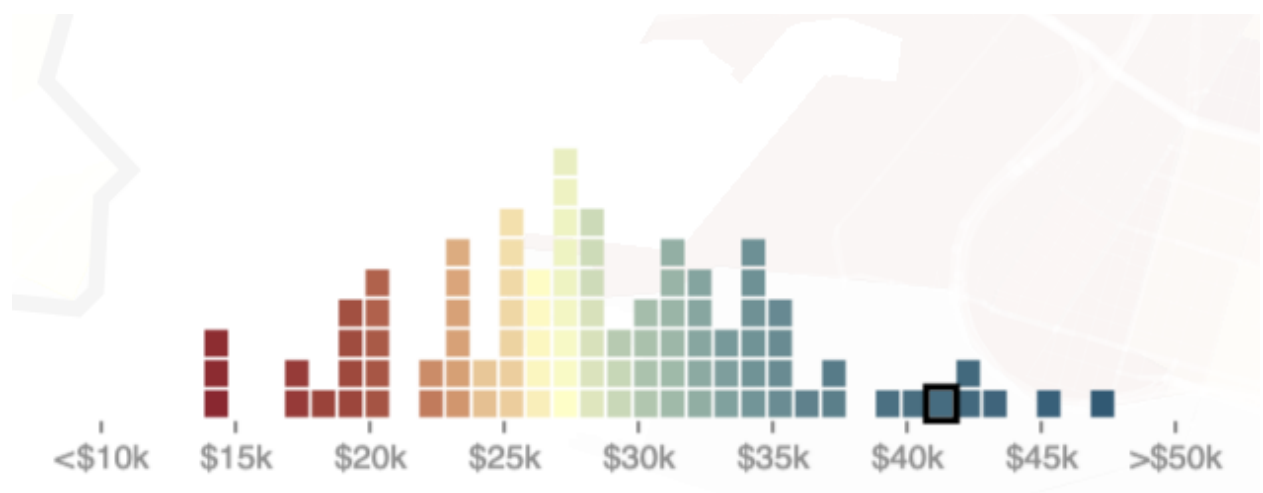
As we can see from the map, household income distributed not equally between the parts of the city. We can see bigger income at the west and north of the city, and lower incomes at the eastern parts of the city.

To understand better this map, let's look at salary distribution for different race groups:

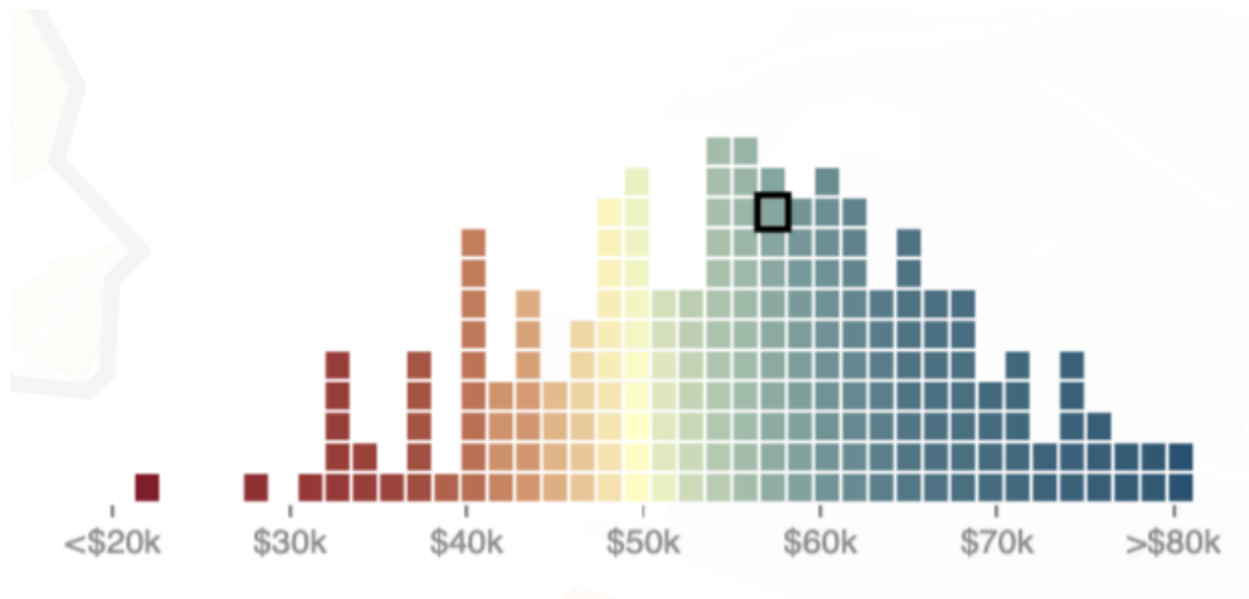
All races



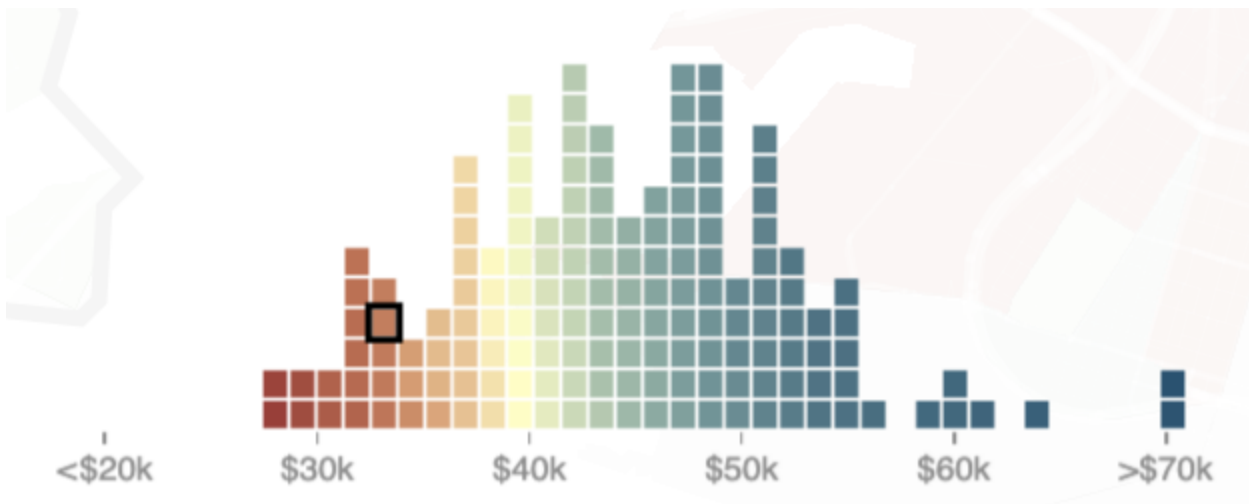
Black



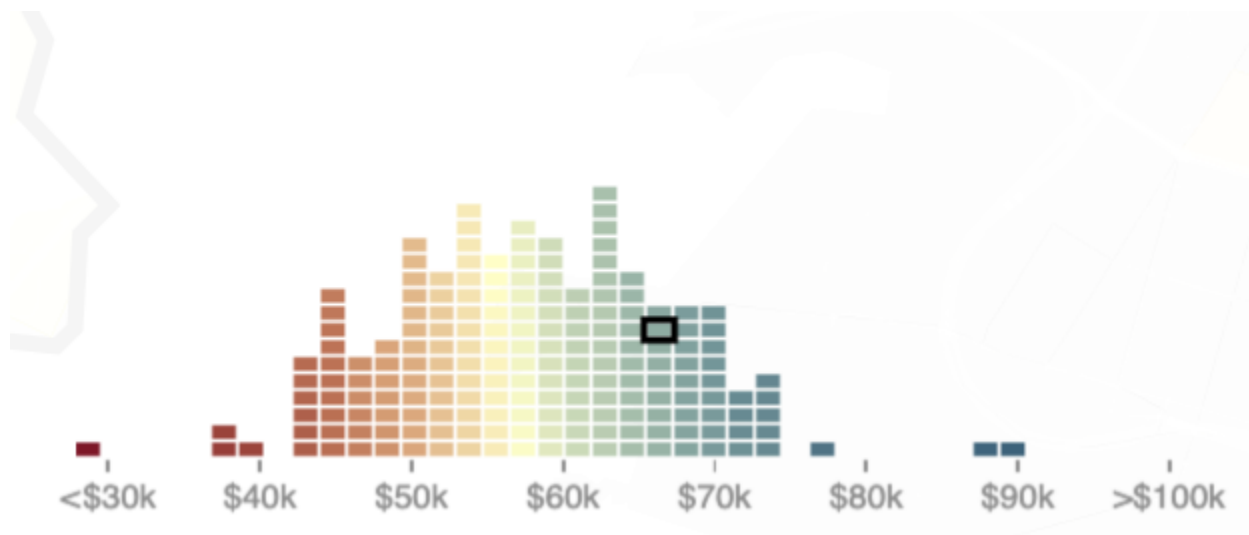
White



Hispanic



Asian

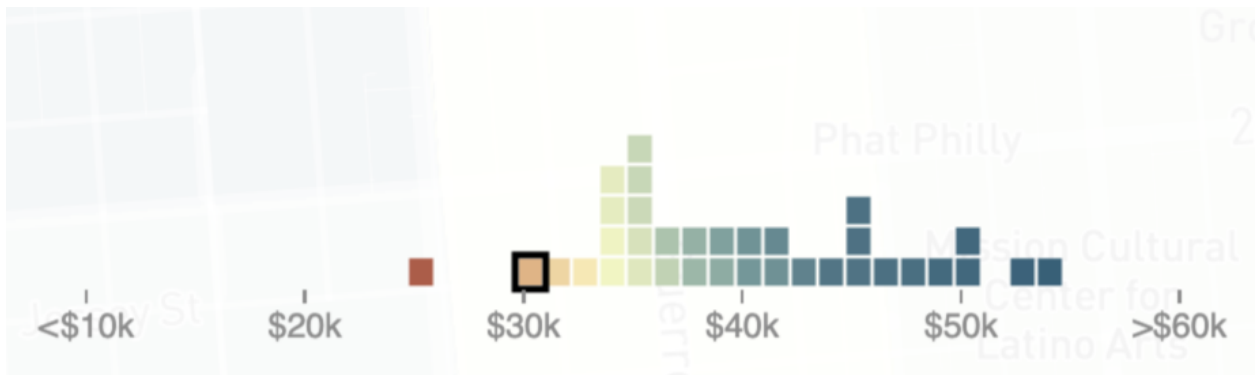


As we can see, the poorest category here is Hispanic. After that Black, White, and Asian. Worth noticing, that for every group we see standard normal data distribution, which is quite similar for all groups (except the absolute values).

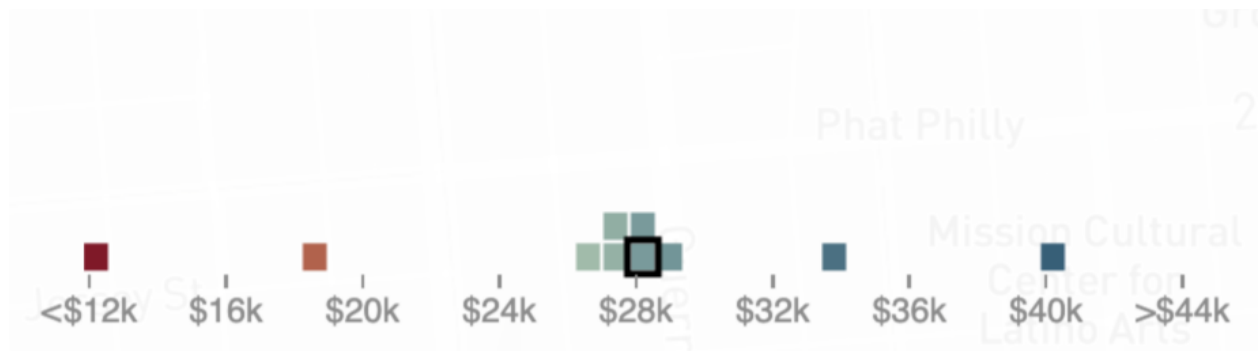
25th percentile analysis

To see the upward mobility for 25th percentile, let's use the map:

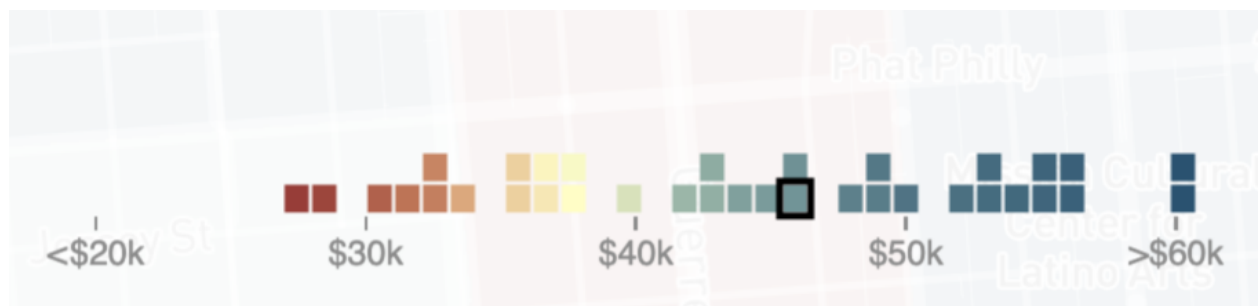
All races



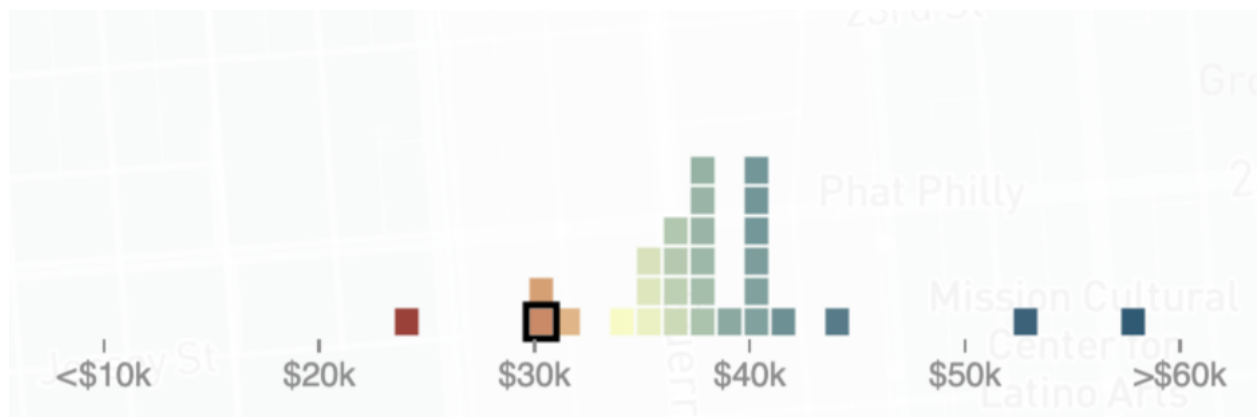
Black



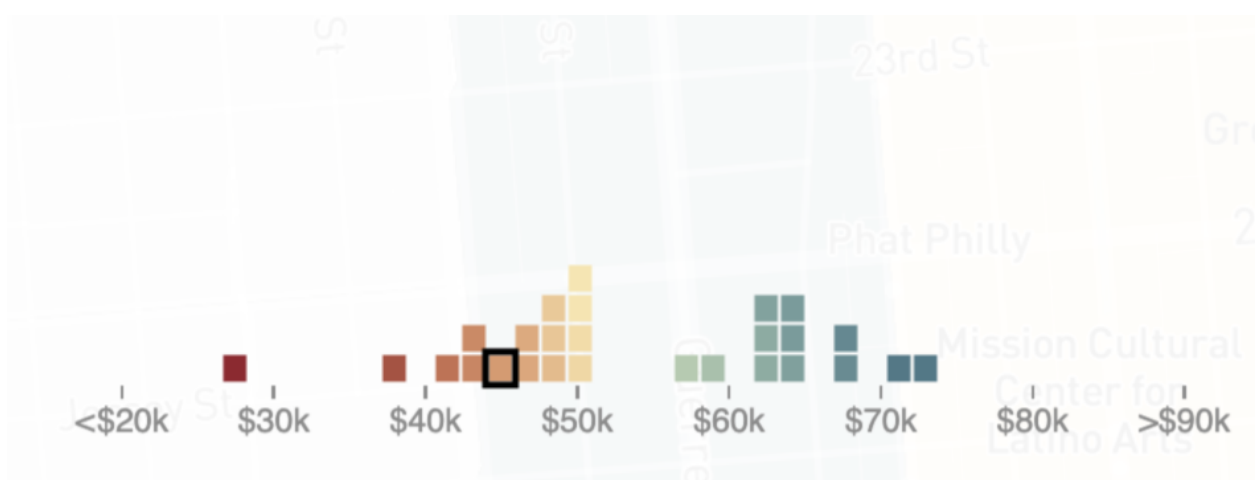
White



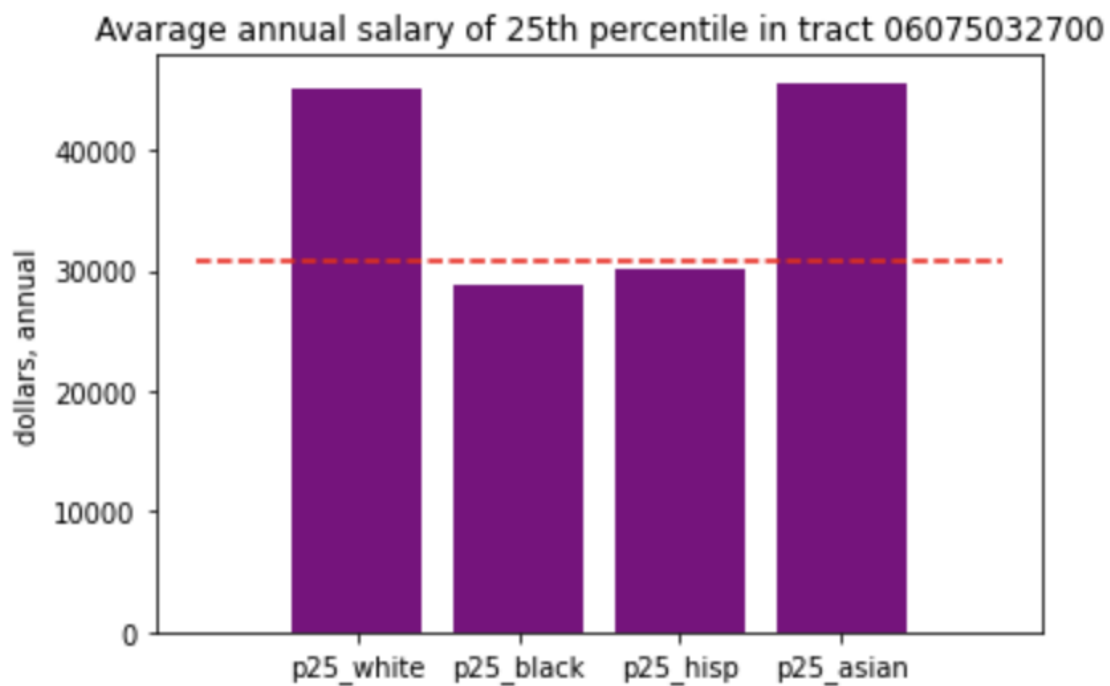
Hispanic



Asian



This plot represents all data together:



So, average income of 52k in my tract is huge, compared to state / the US results.

If we look at the standard deviation of 25th percentile in county, state and the US, we'll see this results:

```
average income and real standard deviation in county = 35938.50020, 9161.63003
average income and real standard deviation in California = 35765.82345, 6559.771
average income and real standard deviation in the US = 34311.68270, 7899.53107
```

So, average

The real standard deviation is much bigger in county, because some of the tracts have much bigger income than others, which we can see on the map. The deviation is bigger for the US, than for California state, because US, obviously includes much more tracts with a huge positive, and negative difference between the neighbourhoods.

Downward mobility for 75th percentile

To see the upward mobility for 25th percentile, let's use the map:

Downward mobility for 100th percentile