



King County Housing Data

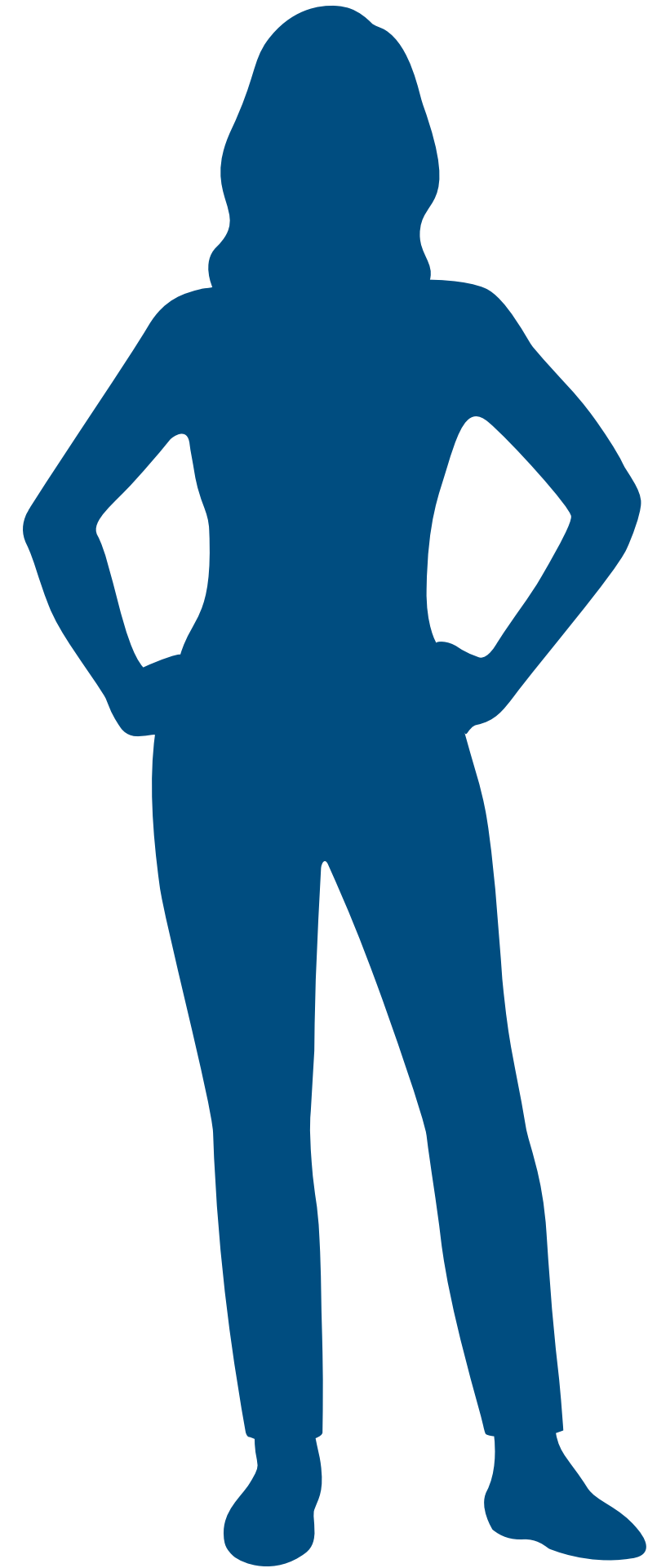
House sales in King County of the years 2014 and 2015

Maïke Wehmeyer, 17.12.21

Nicole Johnson

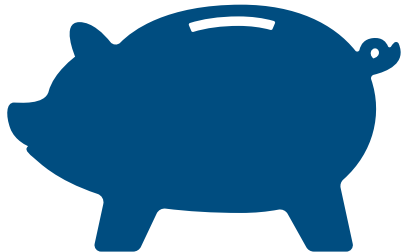
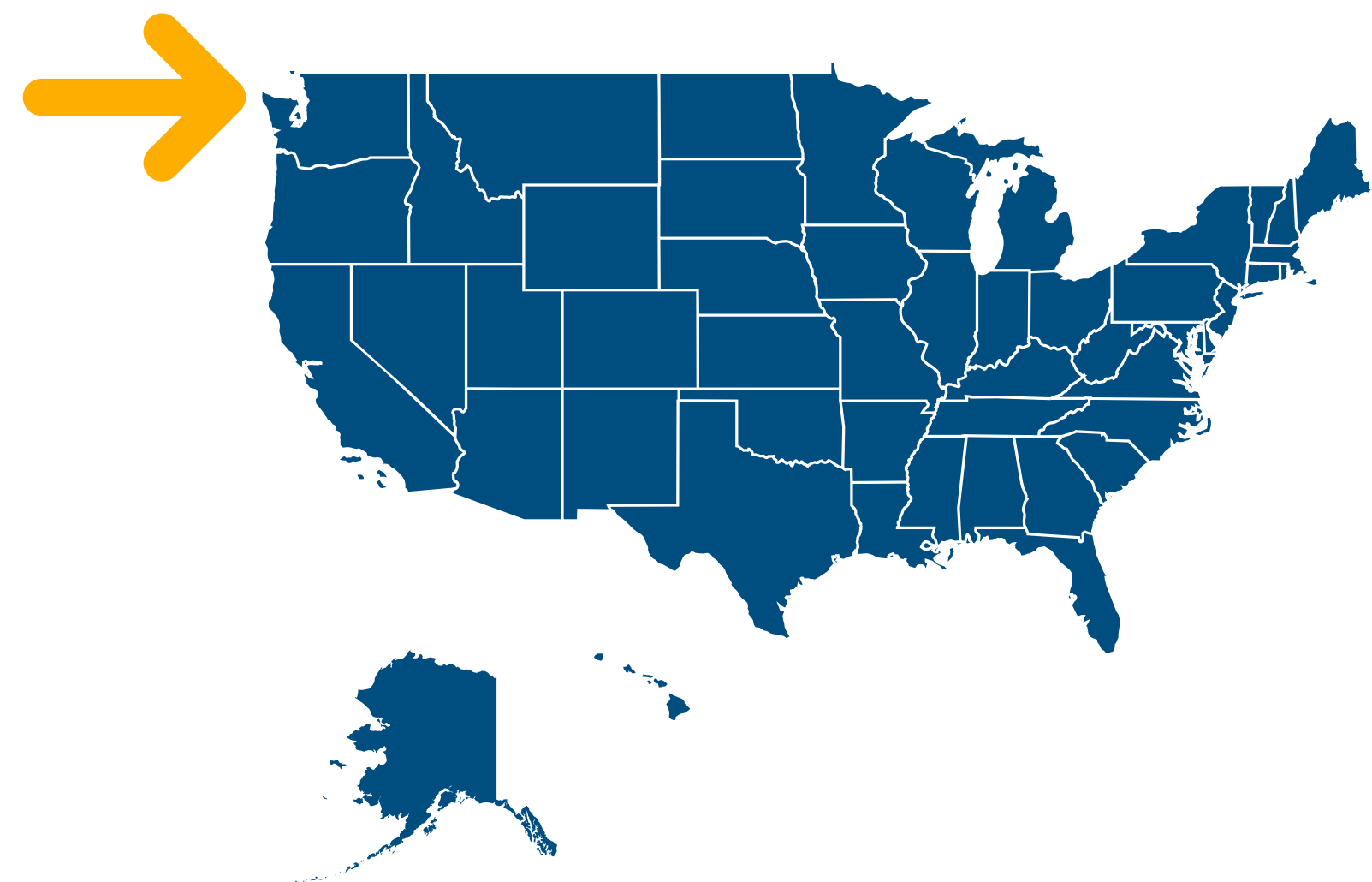
Stakeholder

- Buyer
- Demands:
 - Lively, central neighborhood
 - Middle price range
 - Right timing within a year
- Assumptions:
 - No kids
 - Single or in relationship



Looking at the Data

Data Information



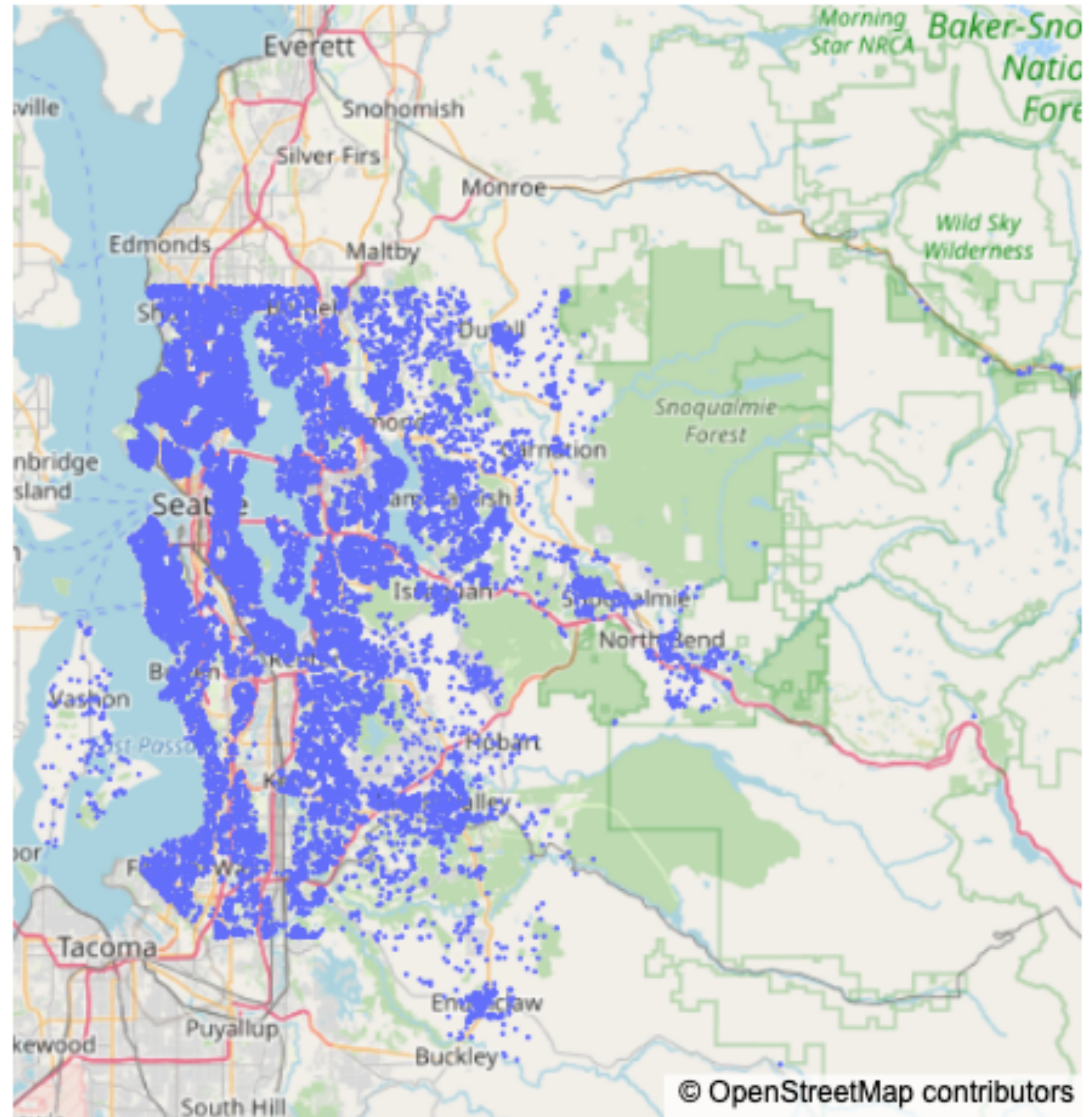
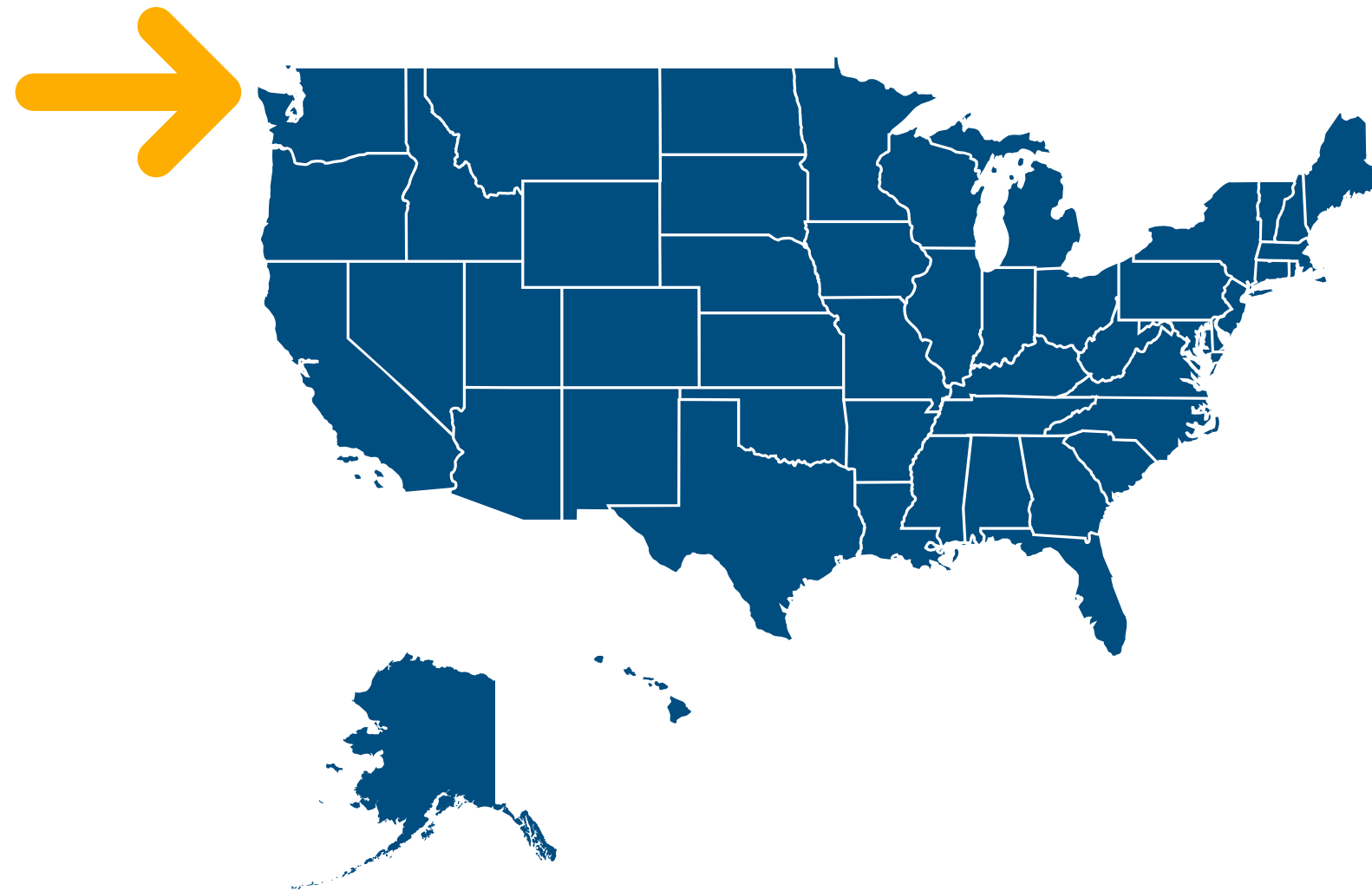
21597 entries
Data columns (total 21 columns):

#	Column
0	id
1	date
2	price
3	bedrooms
4	bathrooms
5	sqft_living
6	sqft_lot
7	floors
8	waterfront
9	view
10	condition
11	grade
12	sqft_above
13	sqft_basement
14	yr_built
15	yr_renovated
16	zipcode
17	lat
18	long
19	sqft_living15
20	sqft_lot15

All Houses

Positions

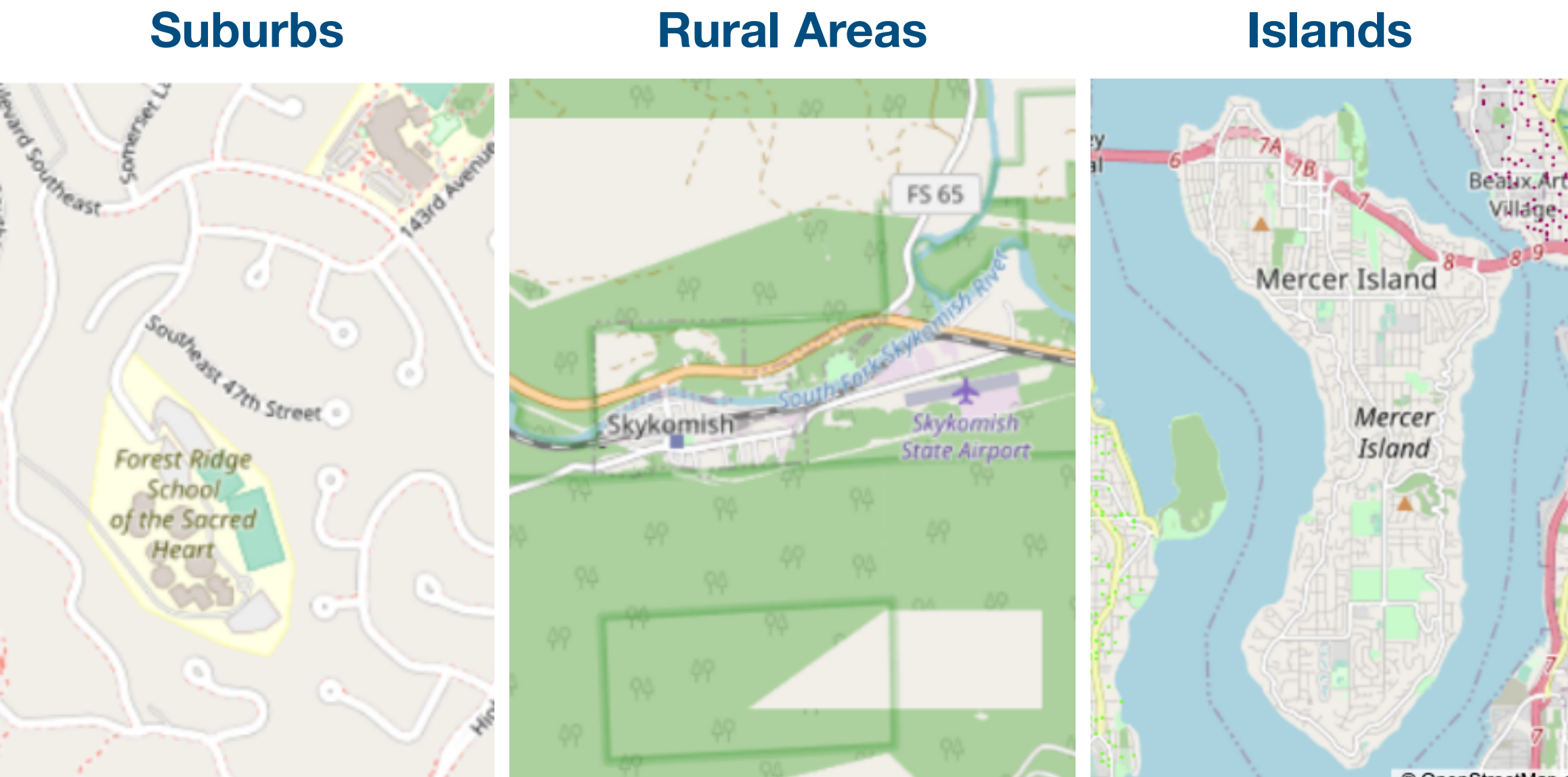
All 21597 Houses



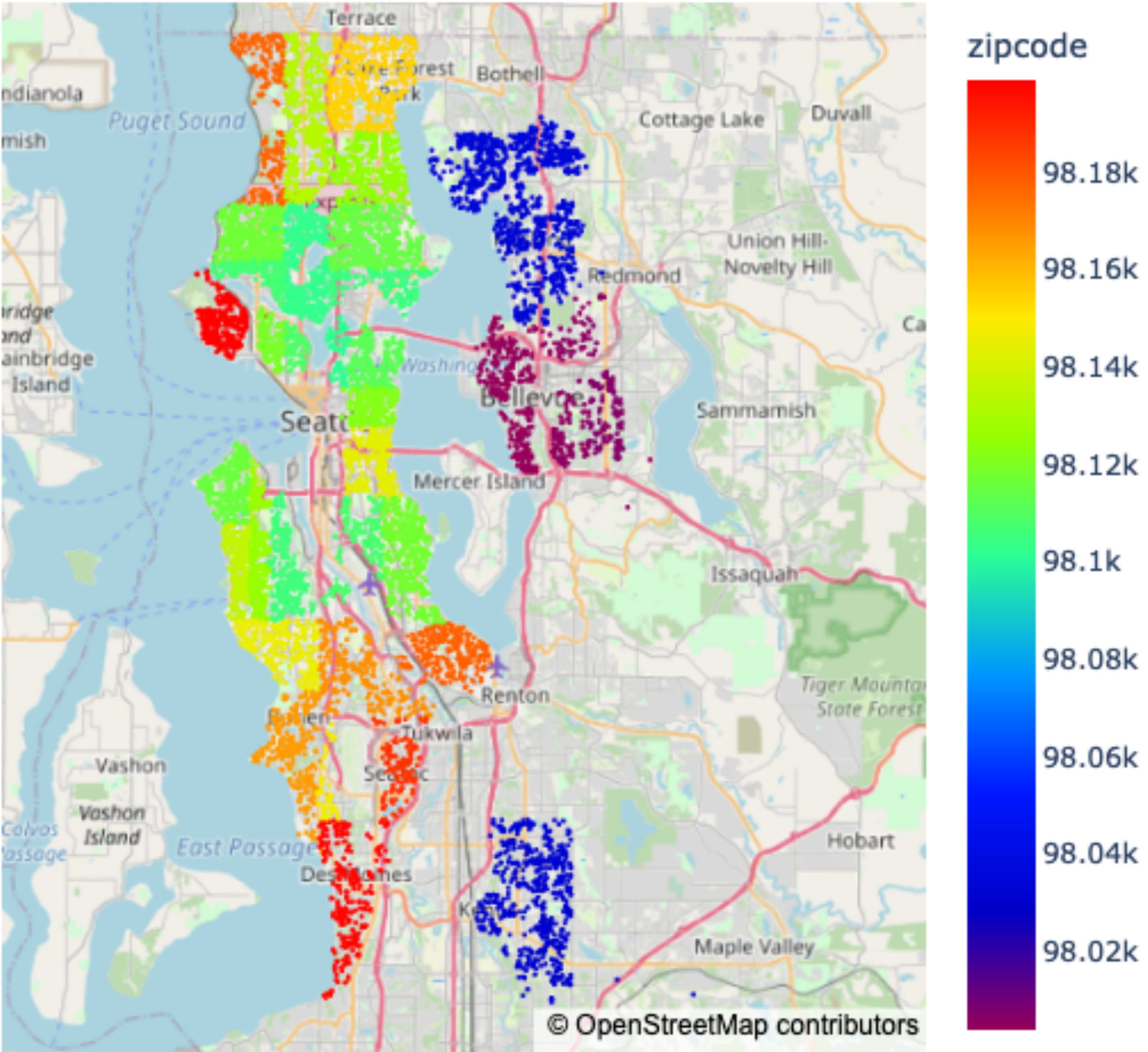
Positions

Central Houses

Areas not considered central:



Houses considered central



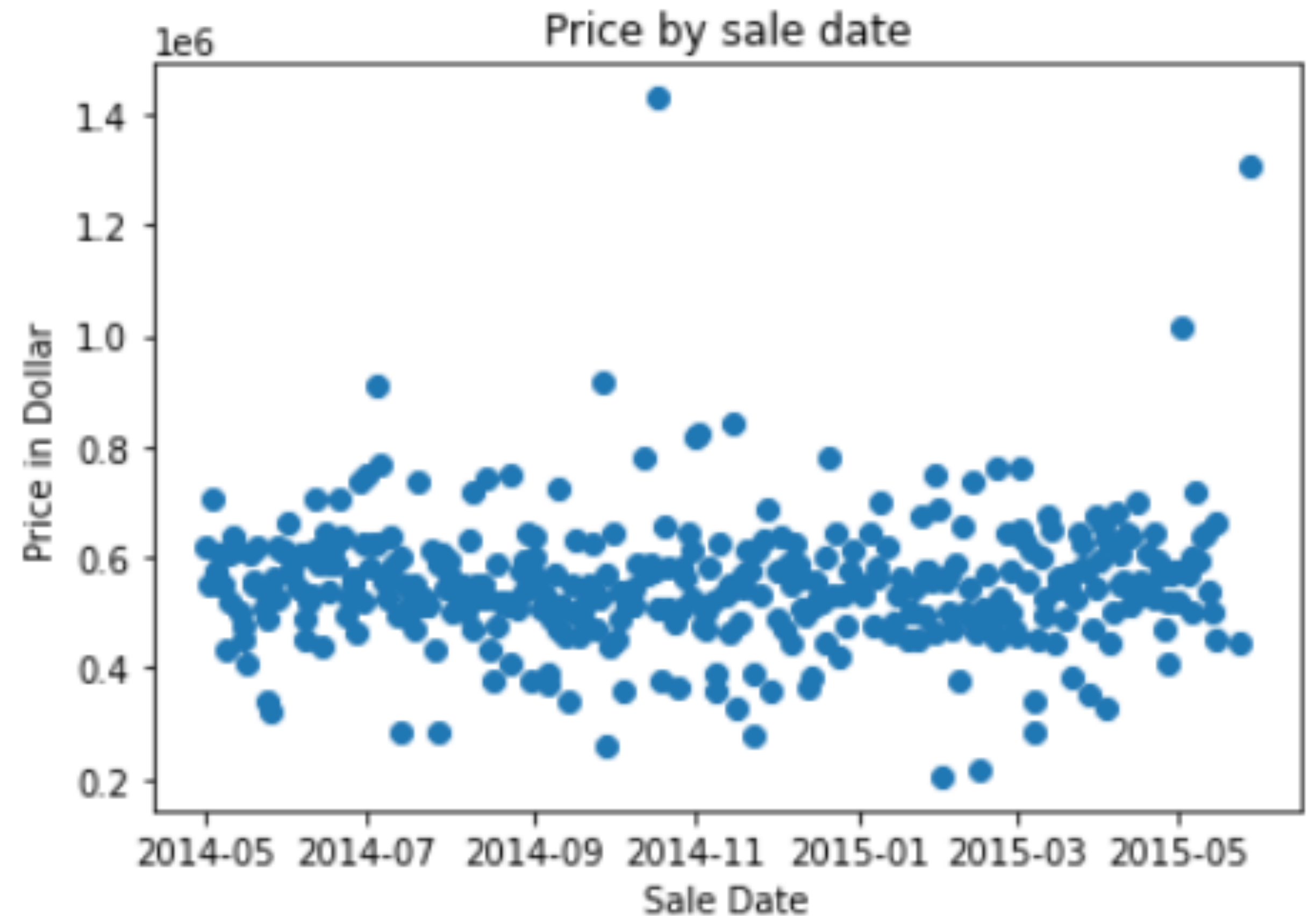
Sale Date

Buying at the right time



No correlation between date and mean sale price found.

The timing is not relevant for the sale price of the houses.



Condition

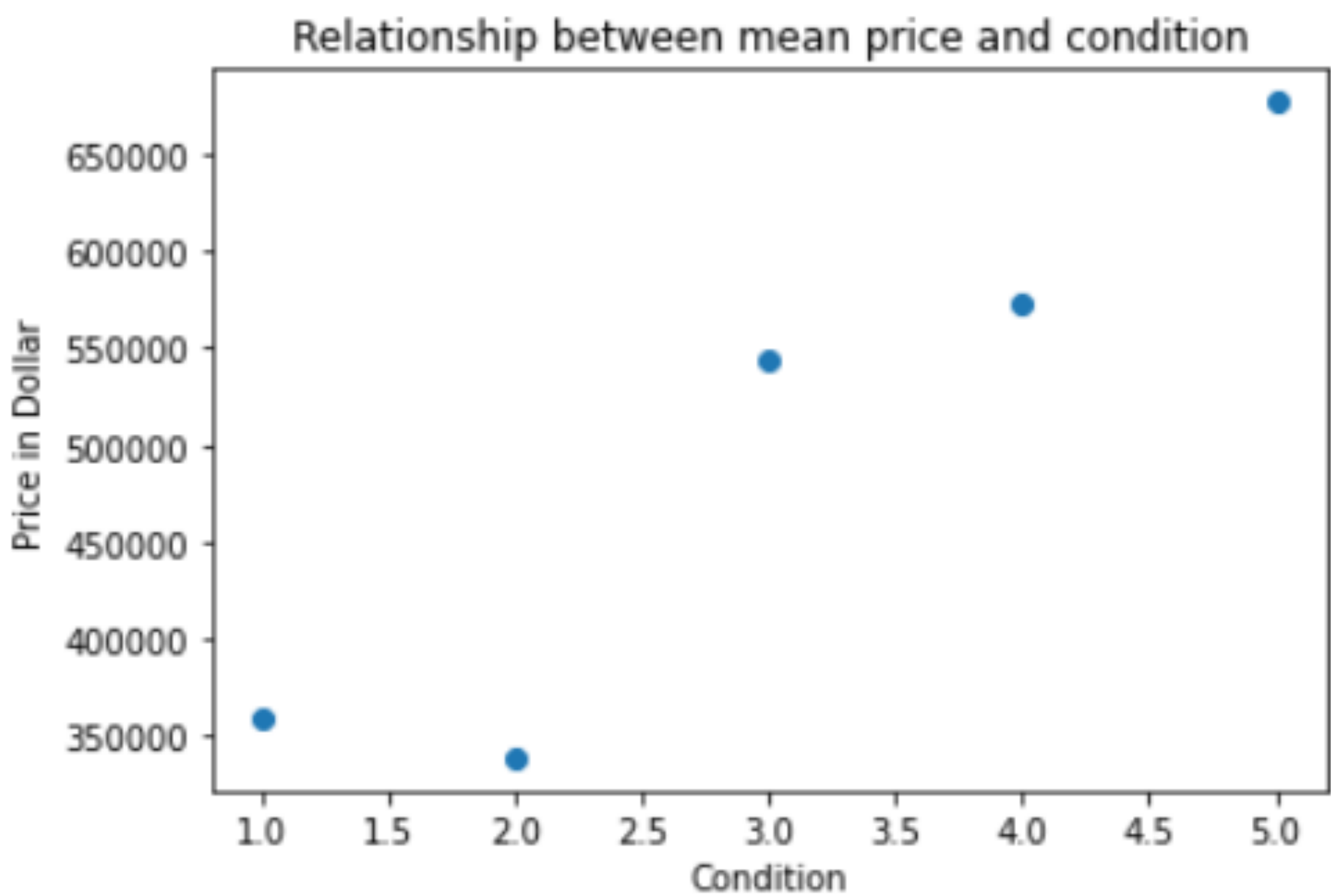


Relationship shows several steps.

Condition 1 and 2 cost nearly the same

Condition 3 and 4 cost nearly the same

Condition 5 is more expensive



condition	count	25 %	50 %	75 %
1	21.0	130000.0	295000.0	441000.0
2	103.0	190187.5	285000.0	422775.0
3	7002.0	329810.0	445000.0	625000.0
4	2885.0	357500.0	485000.0	675000.0
5	1094.0	417750.0	588000.0	778000.0

Footage



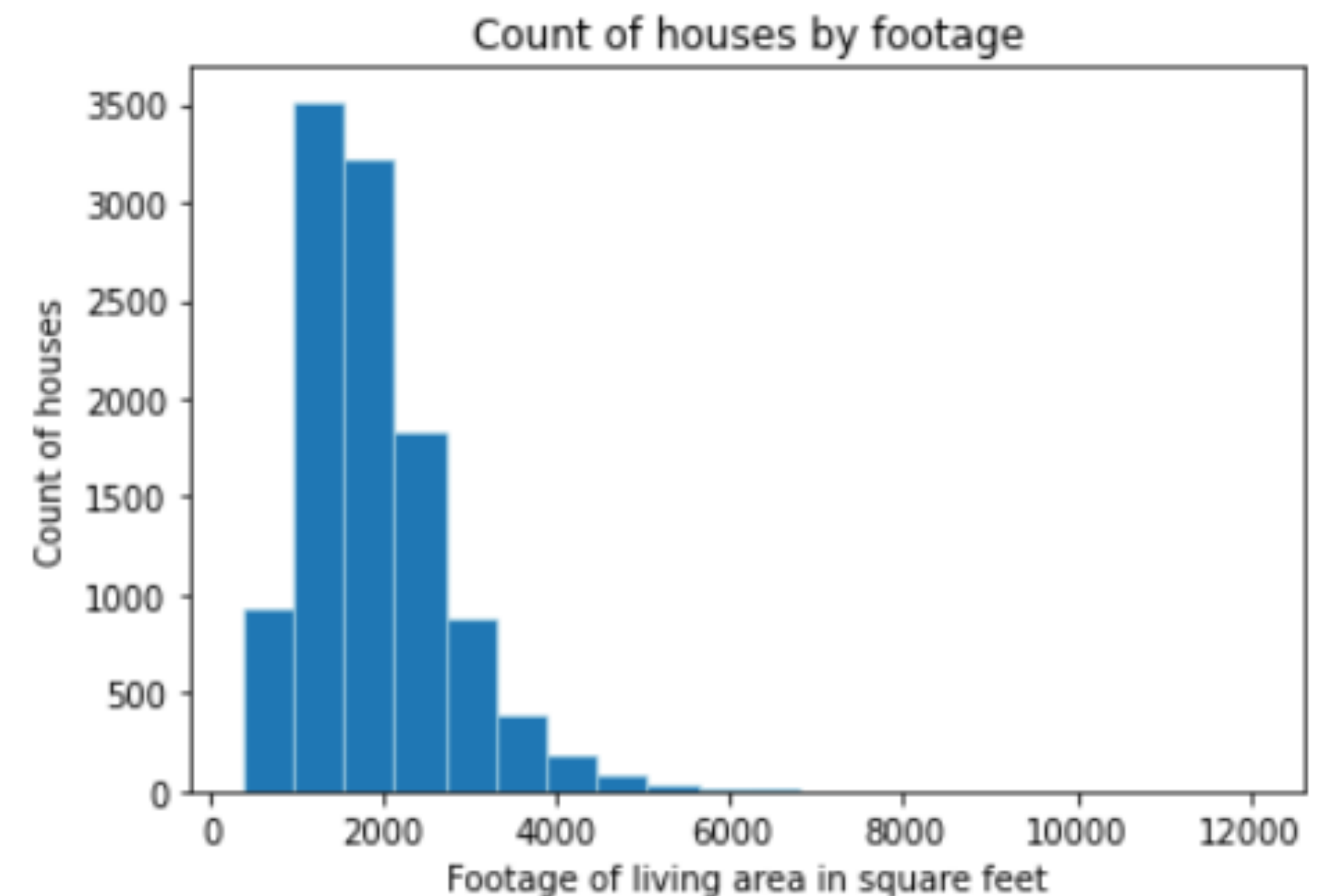
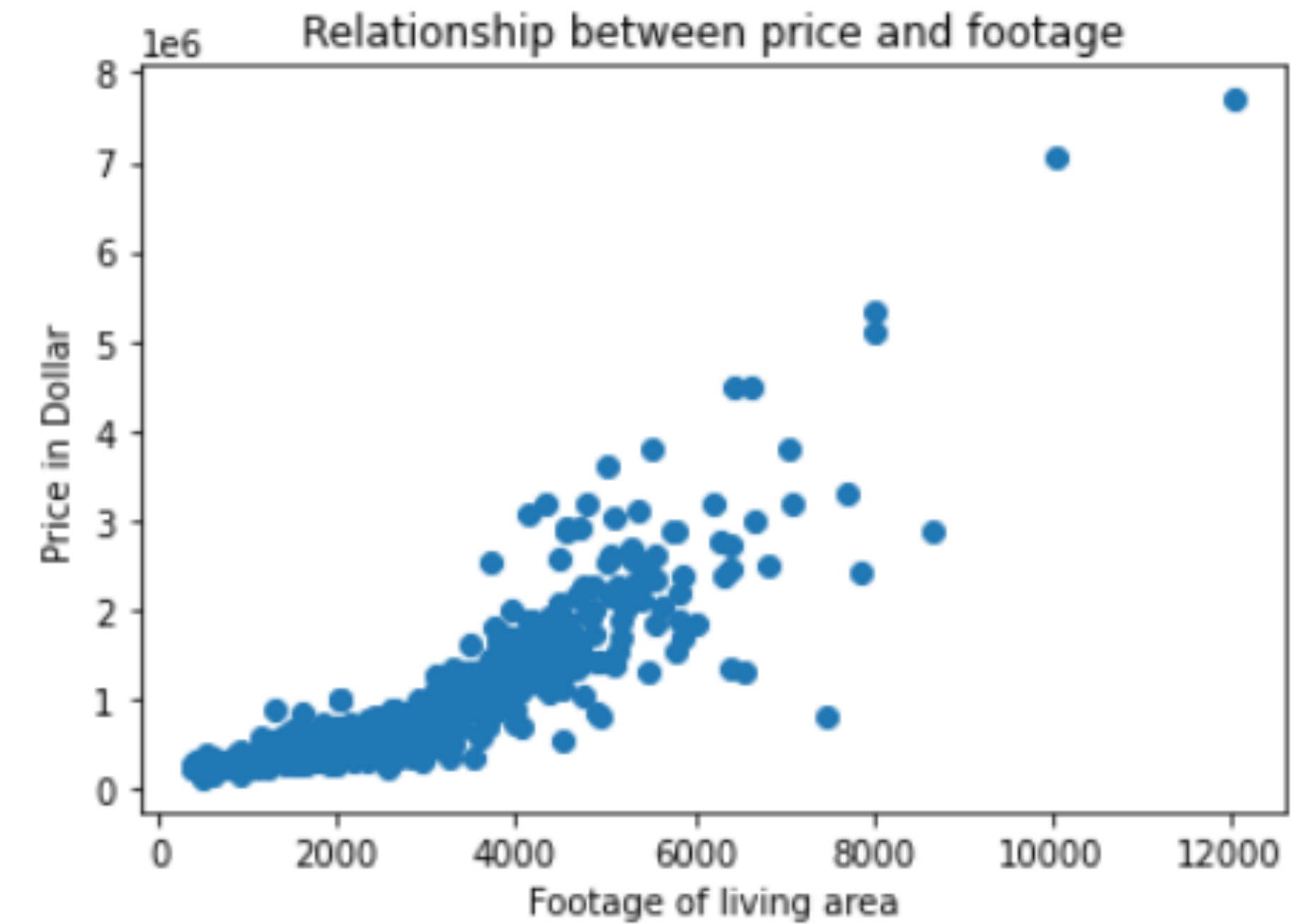
Lower prices:

Linear correlation between footage
and price

Higher prices:

Slope of the correlation much higher

A lot more smaller houses are for sale.



Bedrooms

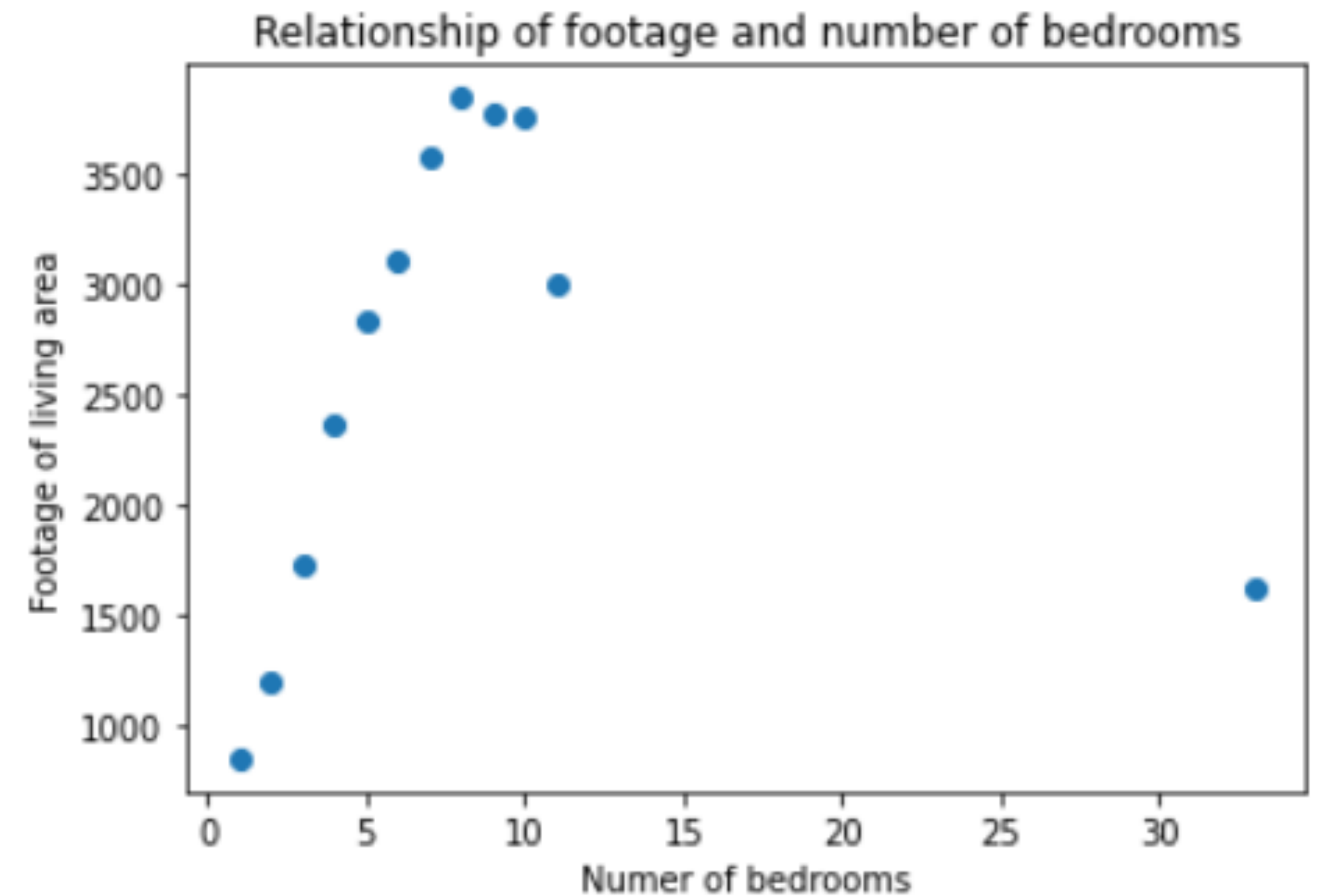
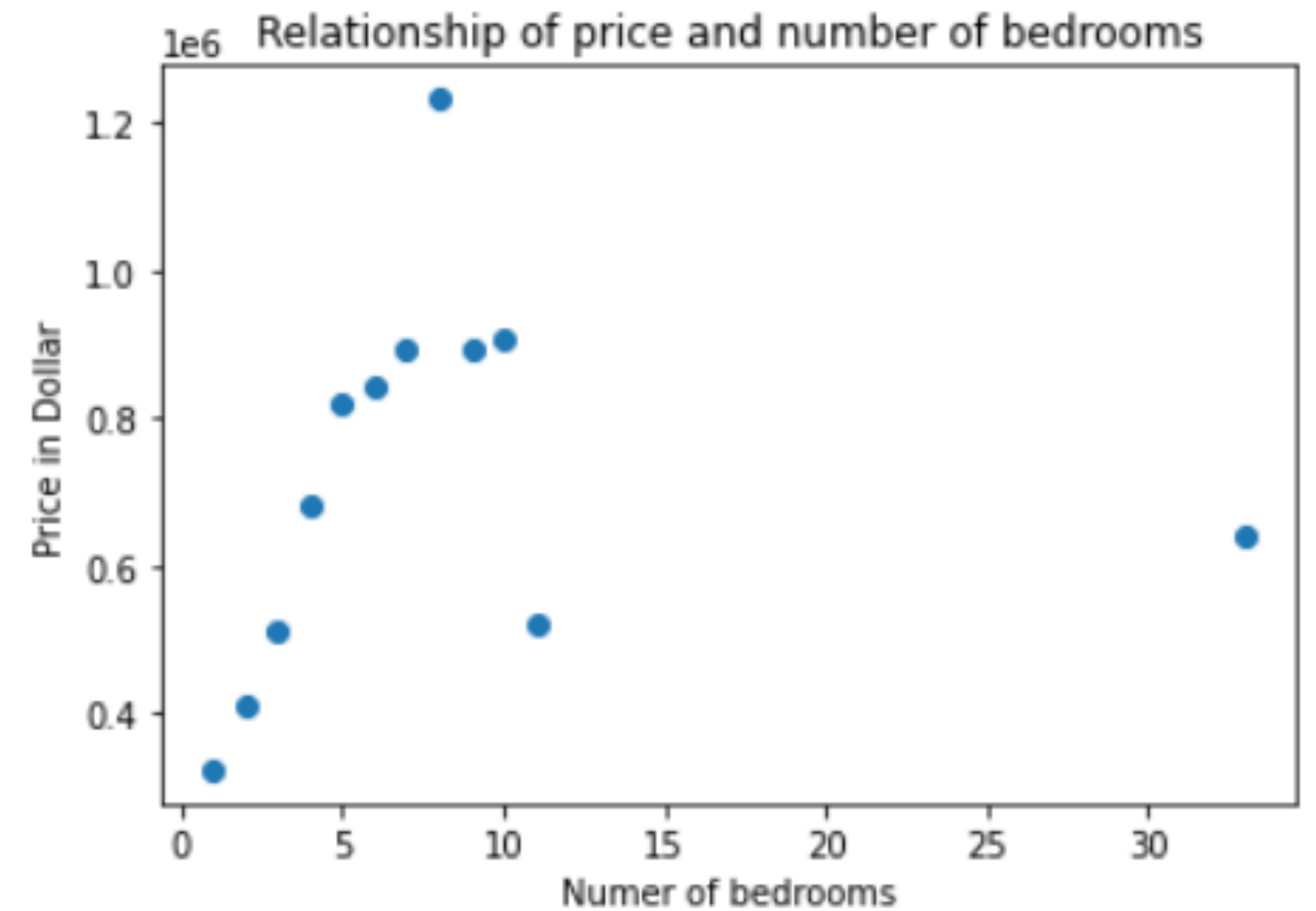


More bedrooms lead to:

Higher price

Higher footage of living area

Saturation at very high number of bedrooms



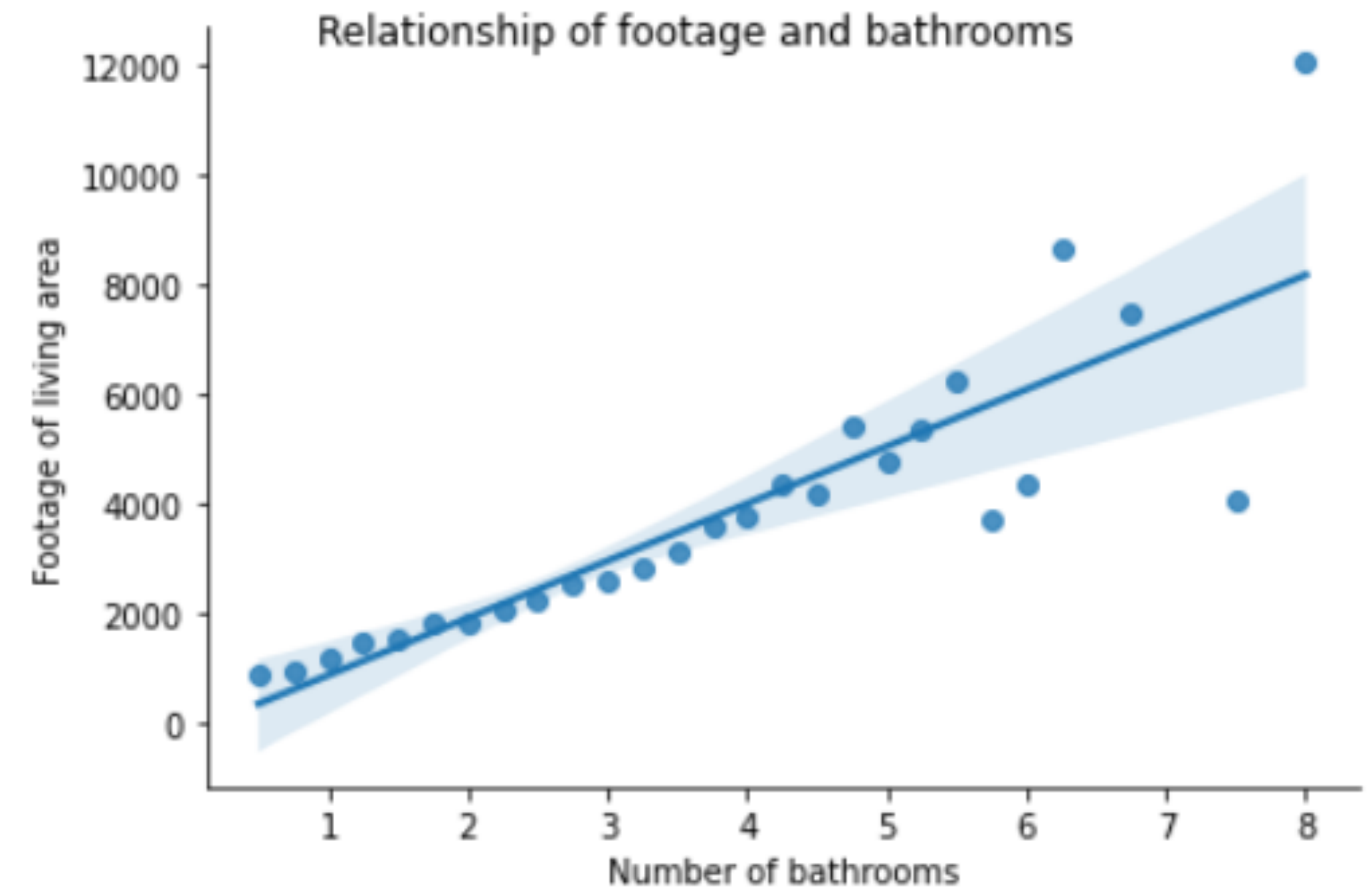
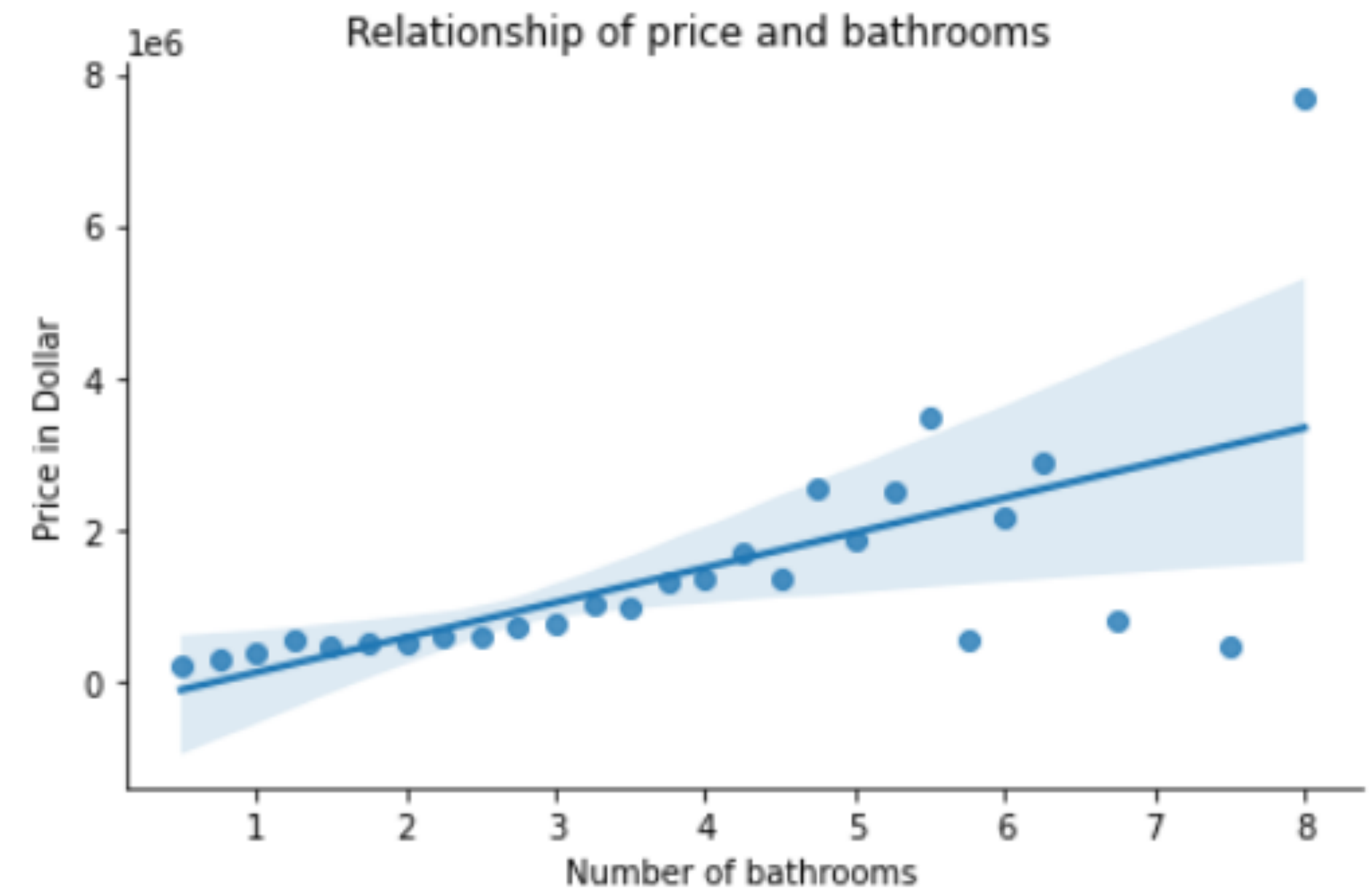
Bathrooms



More bathrooms lead to:

Higher price

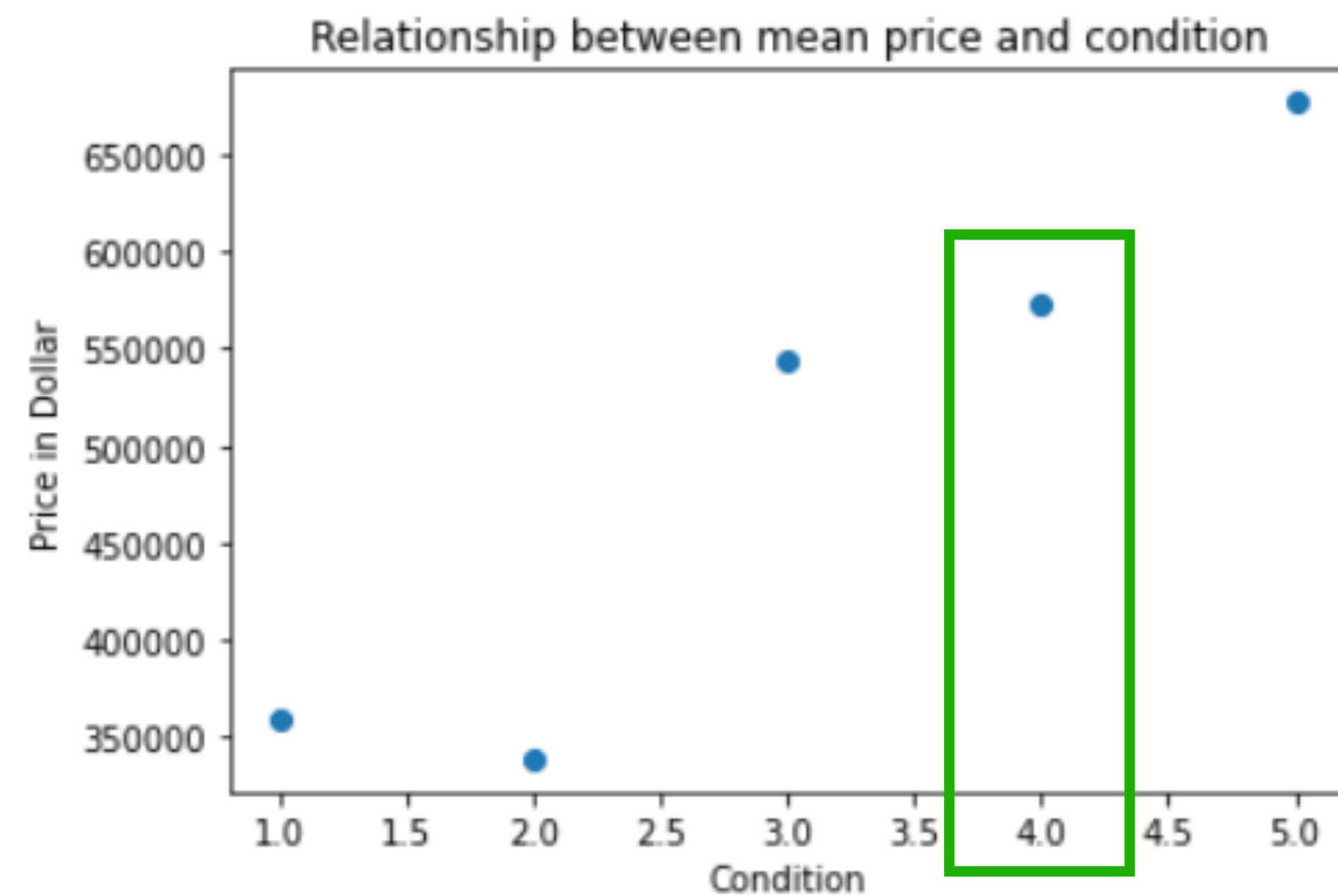
Higher footage of living area



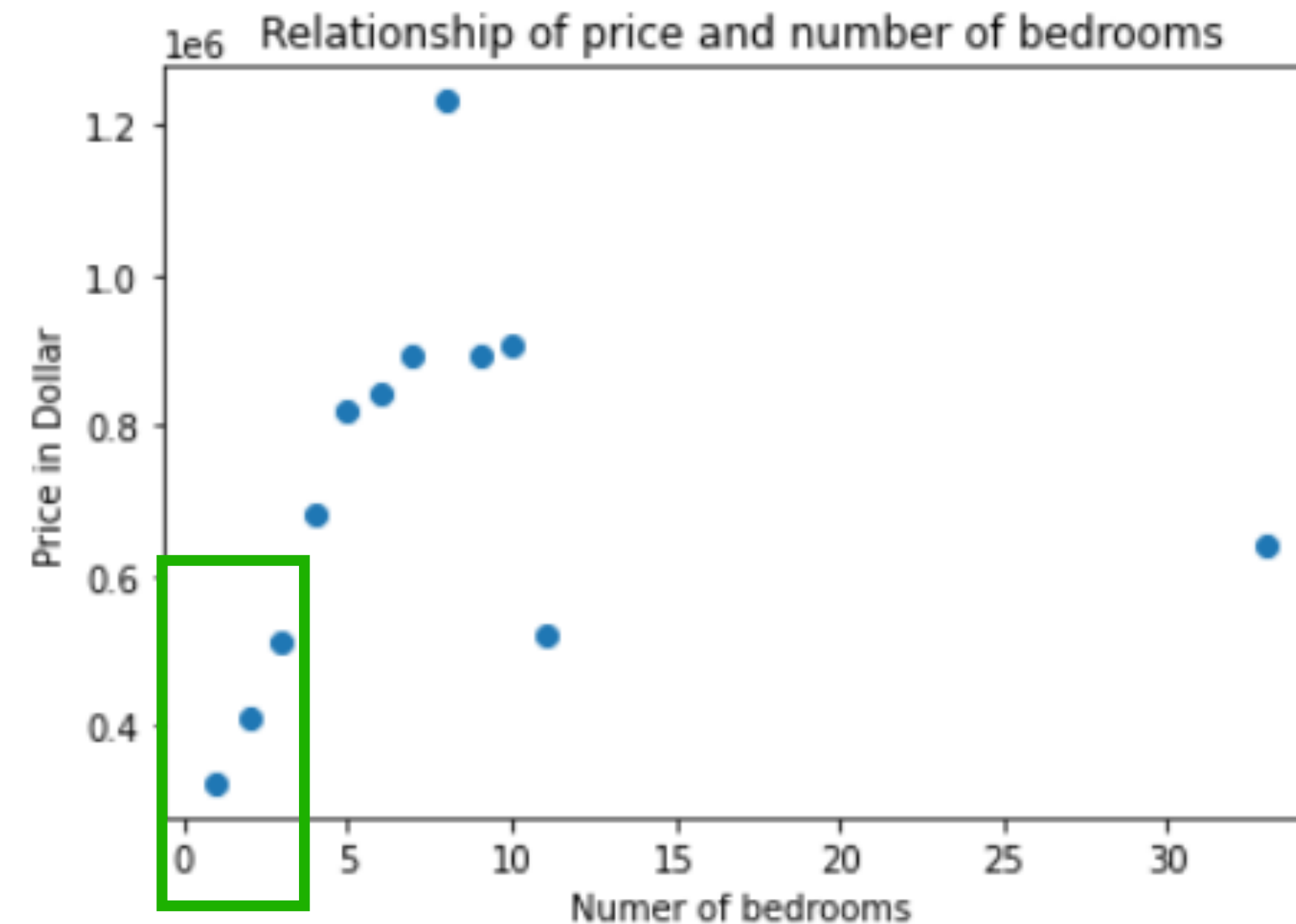
Filtering

Filtering the data

Considering the needs of Nicole Johnson



- Only Condition 4
- better condition for same price



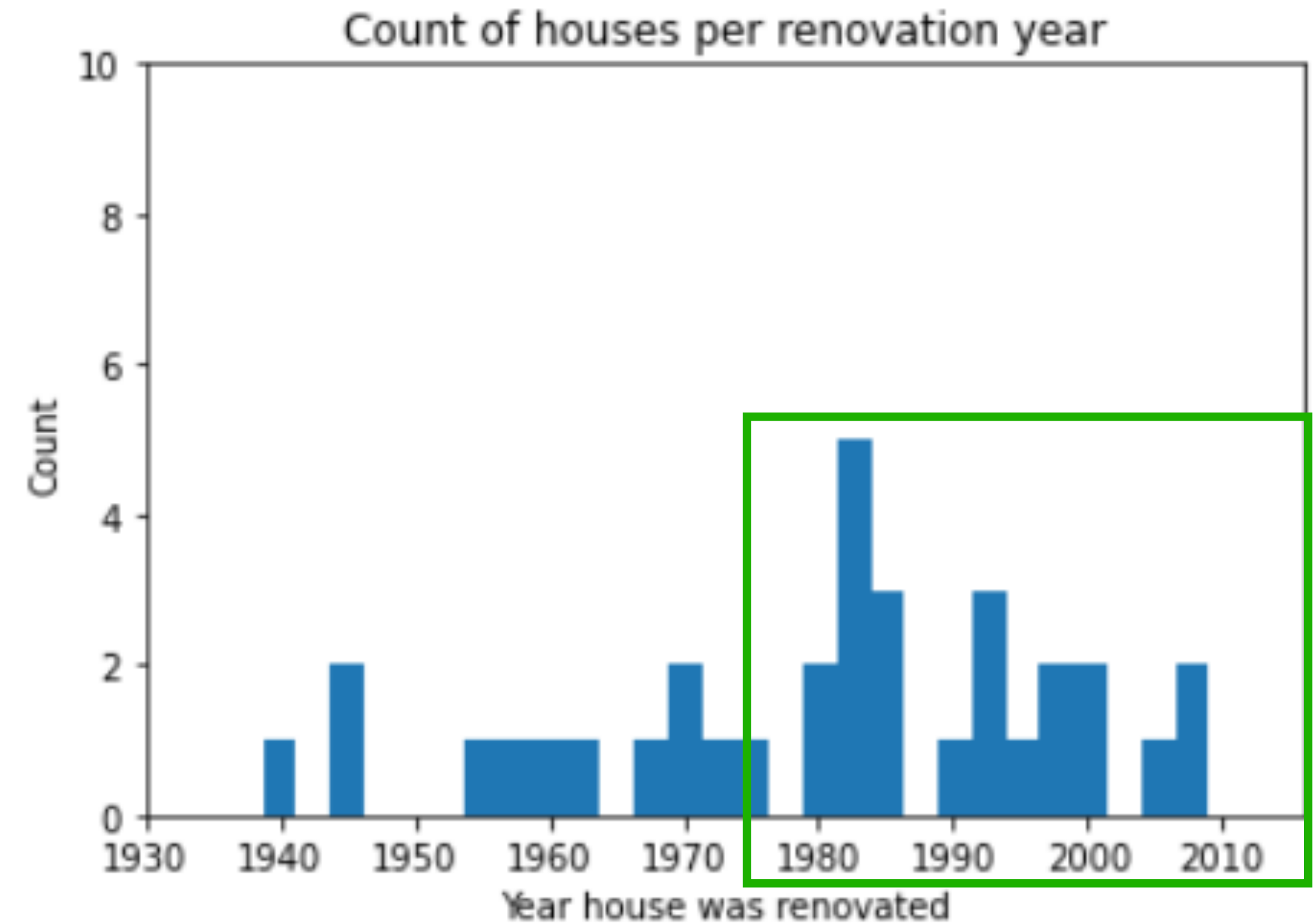
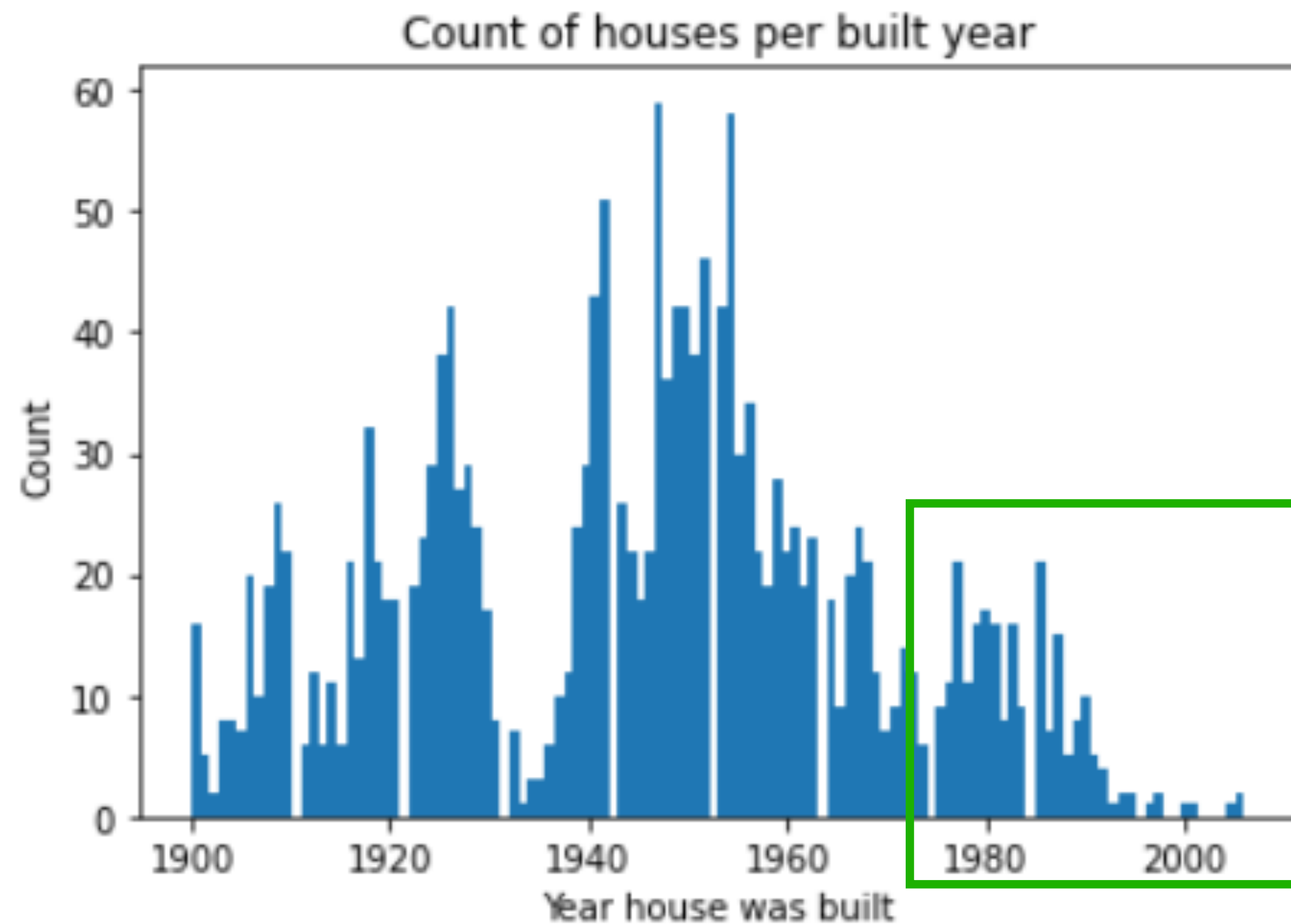
- Max. 3 bedrooms
- Has no kids or roommates that need their own bedroom



- 1-3 bathrooms
- Needs at least 1
- Not more than bedrooms

Filtering the data

Age of houses



Only houses built or renovated after 1975 (the last 40 years)
were considered safe to live in.

Filtering the data

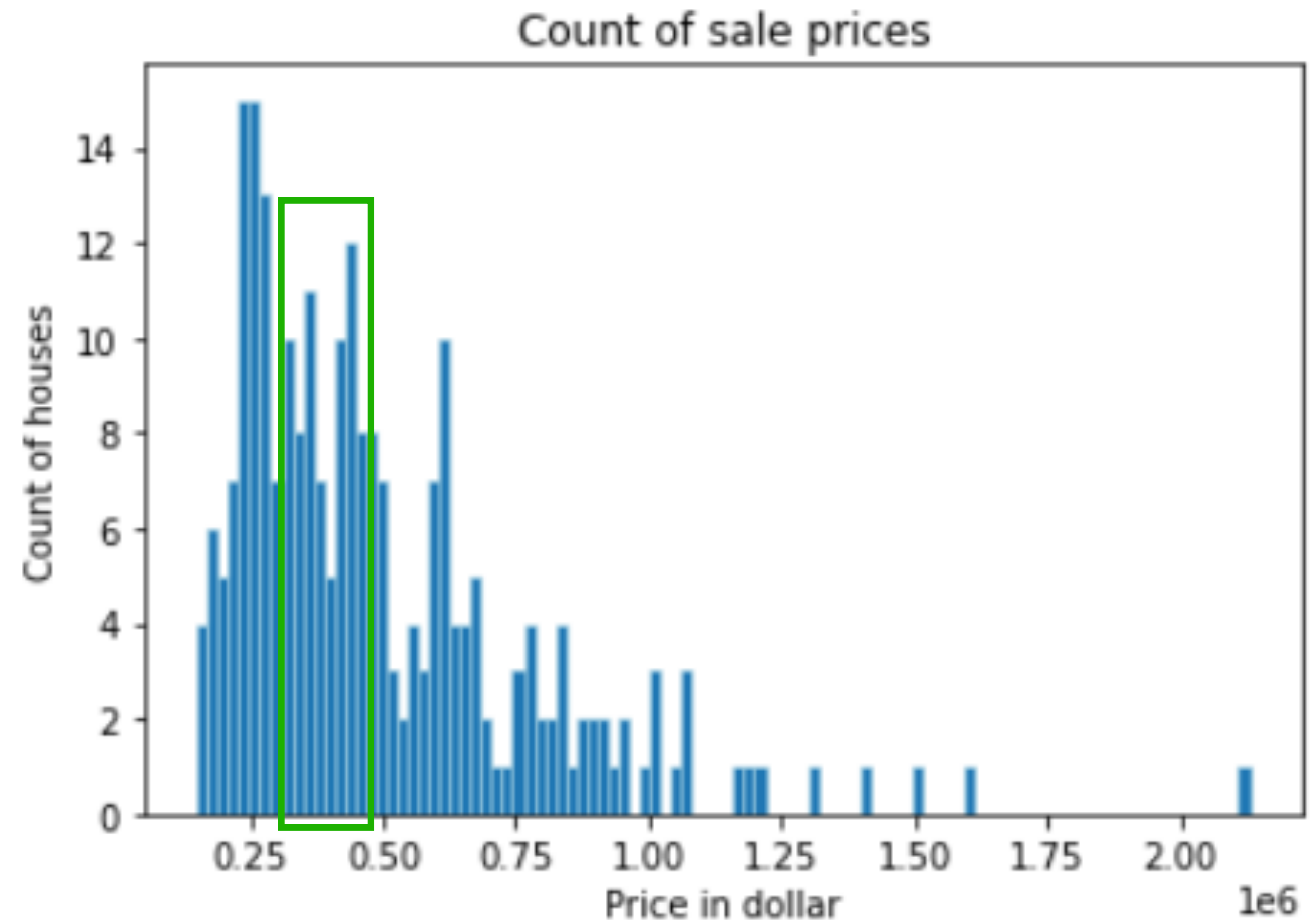
House prices

Ms Johnson is looking for a medium priced house

Medium price: 426,000 \$

40th percentile: 360,000 \$

60th percentile: 475,400 \$

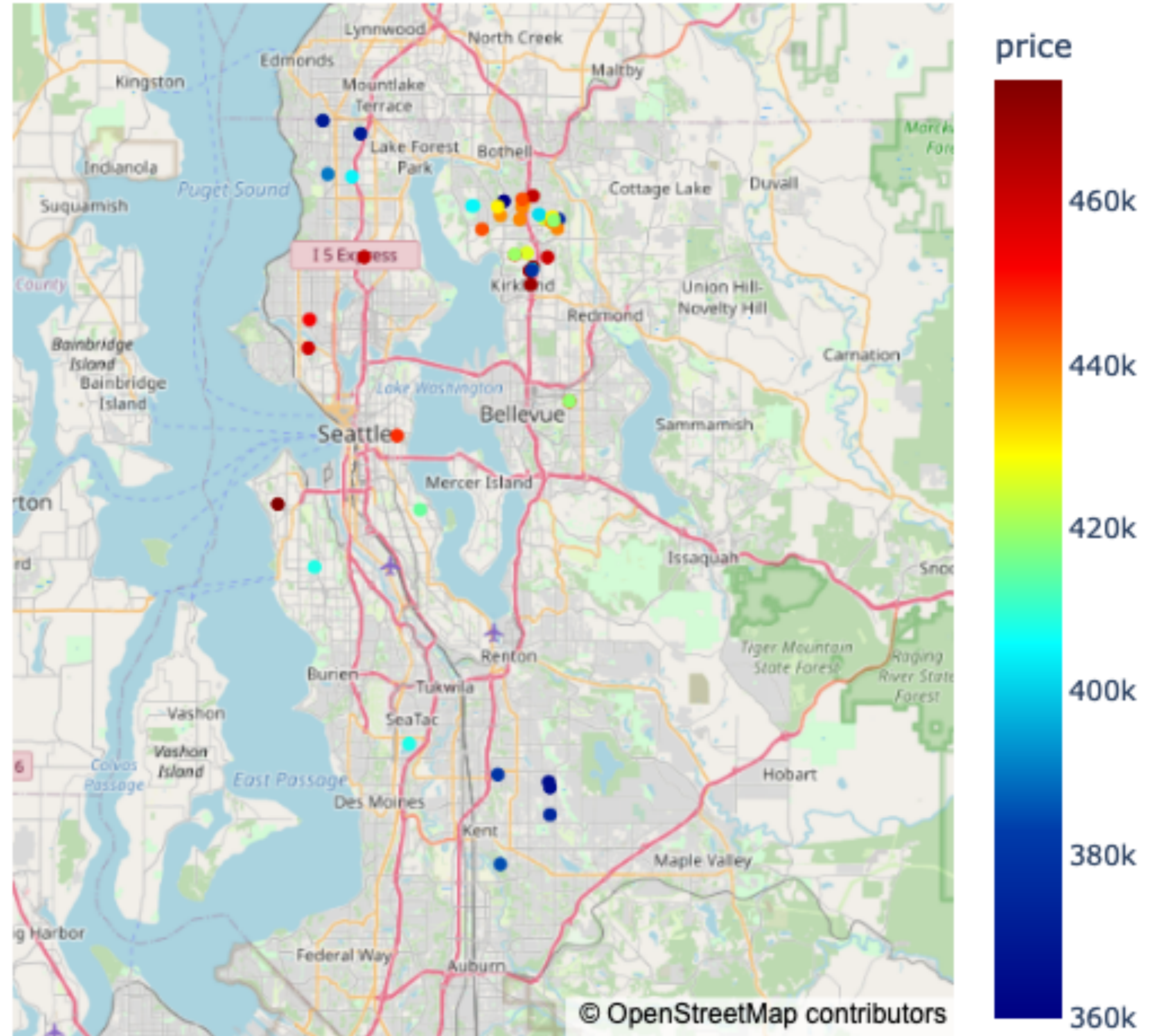


Recommendations

Central Houses within the middle pricerange

Houses that fit Houses left after filtering

49 houses fit the criteria



Recommended houses with central location and medium price

Top Houses Recommendations

The medium priced houses of the top neighbourhoods are calculated.

These 6 houses are recommended!

