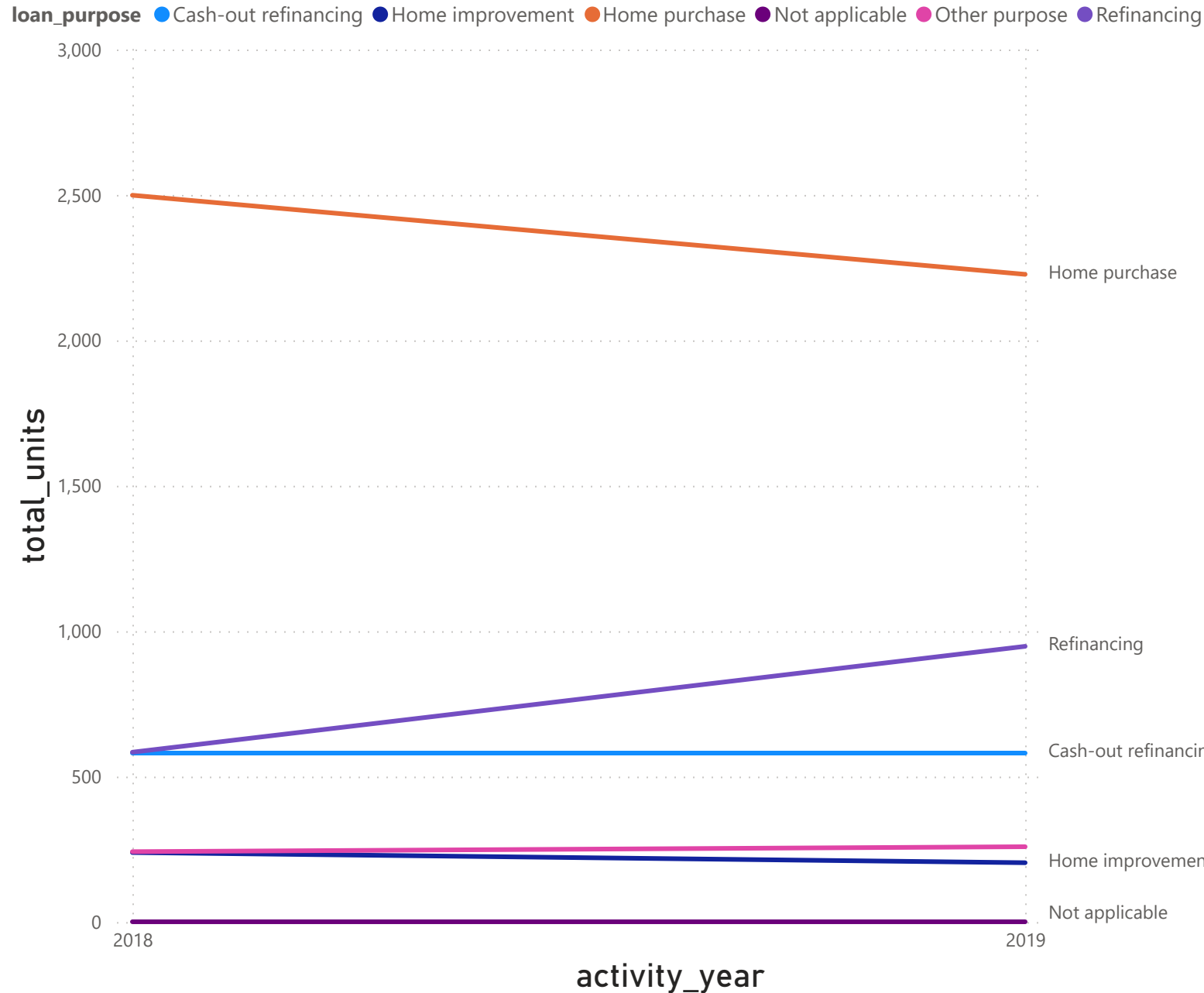
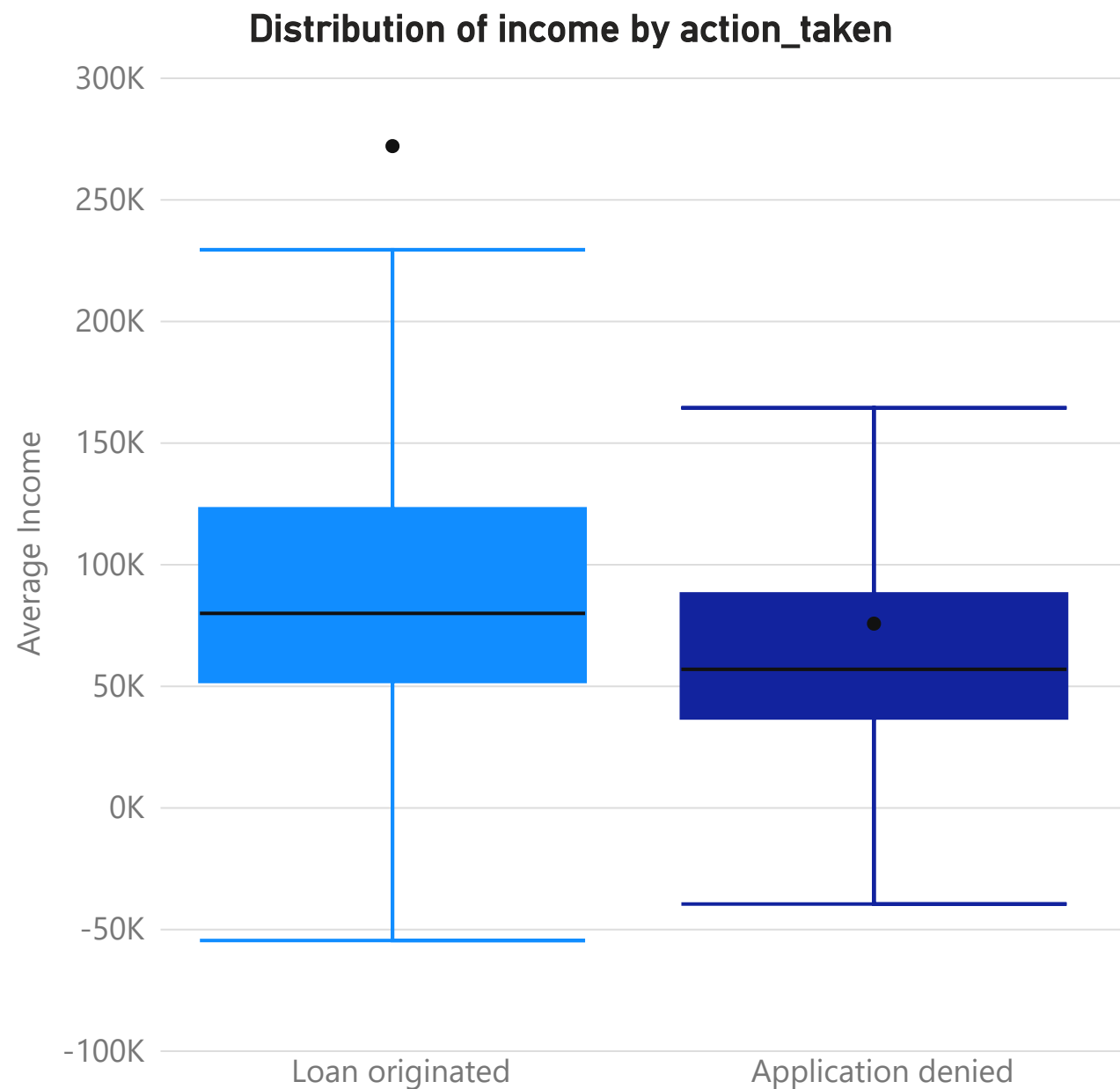


Total units change from 2018 to 2019 for each loan purpose value



Two key takeaways:

- 1) Home purchase and Refinancing are two major purposes for loan between 2018 and 2019 followed by Cash-out refinancing.
- 2) 11% drop in total units with home purchase loan whereas 62% increase of refinancing observed between 2018 and 2019.



Loan originated box and whisker

1) The median of income is 80k and there is a huge gap of average (272k) and median values of income for loan originated category, so there few outliers present in the data.

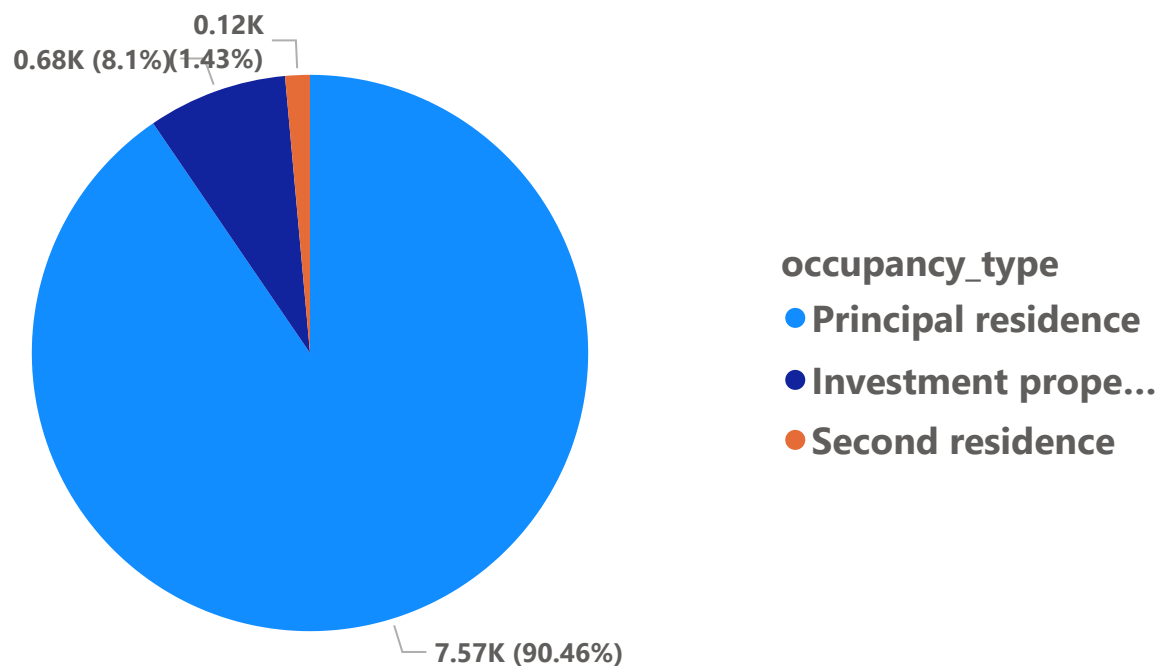
2) 25th quartile and 75th quartile ranges are shown in the plot 52k and 123k respectively for loan originated.

Loan denied box and whisker

1) The median of income is 57k and average is 76k. The 25th quartile and 75 quartile ranges are 37k and 88k as per data.

Looking at the data, it looks like there are other factors associated to loan approval other than income distribution. The plot is not consistent as the loan has been denied on higher income distribution range which was originated with same range of income distribution.

% of occupancy_type between action_taken



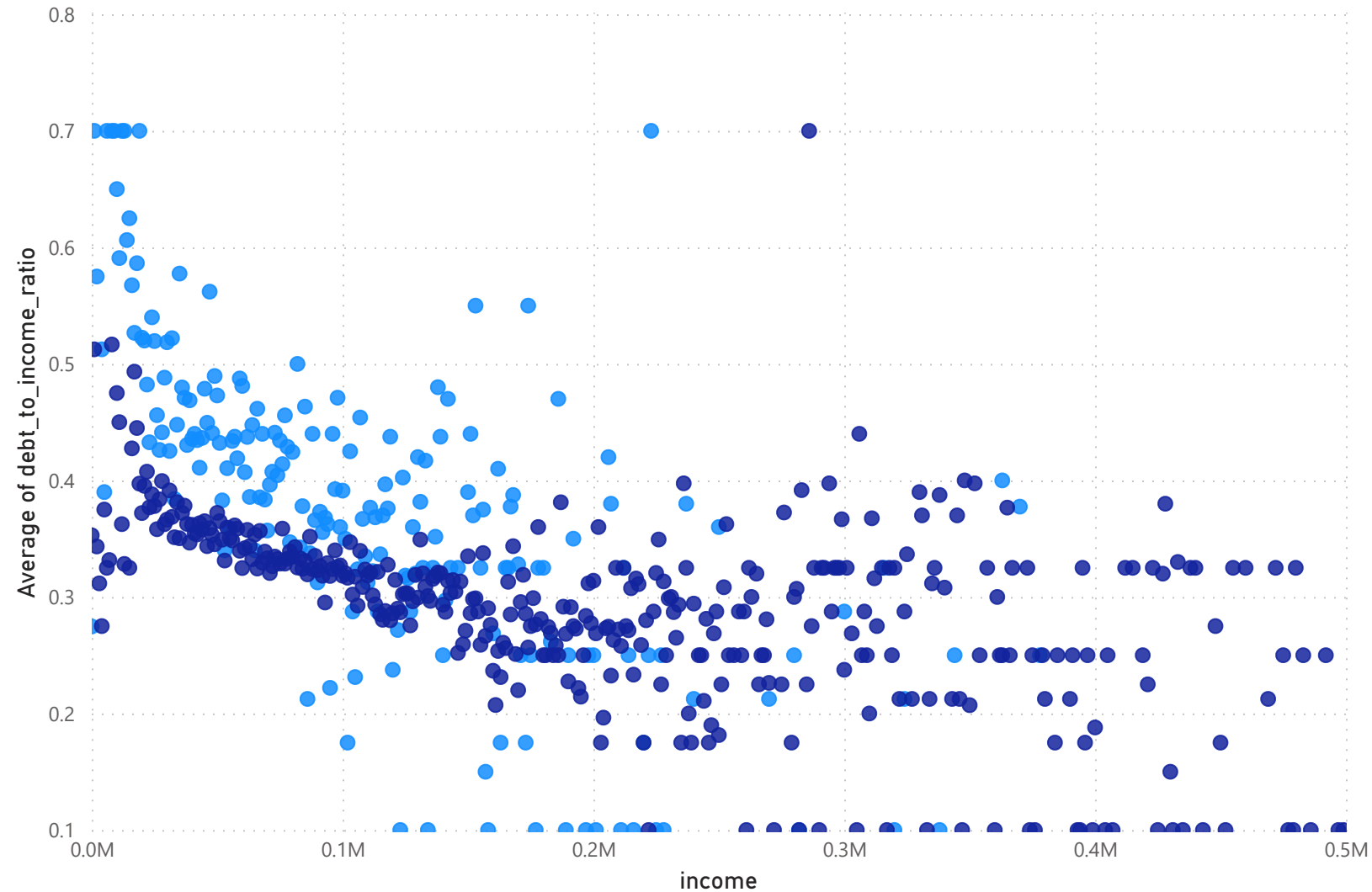
The Principal residence occupancy type is 90% in loan originated category followed by investment and second residence.

The principal residence occupancy type is 93% denied for various reasons whereas investment property 5.11% and second residence 2%.

Primary residence 1144 out of 6424 (17.8%) denied whether 10% and 2.6% denial observed for investment and second residence loan applications.

Relation between debt_to_income_ratio by action_taken and income

action_taken ● Application denied ● Loan originated



There is a downward relationship between average debt of income ratio and income.
Higher income groups normally has less debt to income ratio, which is quite feasible.
Higher average debt to income ratio with smaller income applications were obviously denied as per the chart.