EDA Analysis

Old is the New.... New?

Mauricio - 2025-09-26

21,597 houses.
3 questions.
1 strategy.

Hypothesis 1 - Renovation impact on price

Old homes that have been renovated sell at significantly higher prices than comparable non-renovated homes.

Hypothesis 2: Seasonality in sale prices

Homes sold in peak real estate months (say for example May–July?) achieve higher average prices than those sold in off-peak months (say for example November–January?)

Hypothesis 3: Neighbourhood density and price

Old homes that have not being renovated can be bought at lower price than comparable new properties

Zachary Brooks

Invests in historical houses.
Wants high profits in the best neighbourhoods.
Best timing within a year.
Unsure about renovation.

Does renovation pay?

Hypothesis: Old homes (yr_built > 50?) that have been renovated (yr_renovated > 0) sell at significantly higher prices than comparable non-renovated homes.

Yes!

MARKET OPPORTUNITY

Total old houses (≥50 years): 8,657
Already renovated: 642 (7.4%)
NOT renovated: 8,015 (92.6%)

8,015 non-renovated old properties available.

MARKET OPPORTUNITY

Average Price - Renovated: $756,702
Average Price - Non-renovated: $496,635
Premium for renovation: $260,066 (+52.4%)

When should one time sales and renovations?

Homes sold in peak real estate months (May-July) achieve higher average prices than those sold in off-peak months (November-January)

Renovate in Nov-Jan
Sell May-Jul 

MARKET ACTIVITY BY SEASON

Shoulder Season: 10,937 sales (50.6%)
Peak (May-Jul): 6,803 sales (31.5%)
Off-Peak (Nov-Jan): 3,857 sales (17.9%)

SEASONAL PRICING ANALYSIS

Peak Season Average: $551,054
Off-Peak Average: $524,204
Shoulder Season Average: $539,281

Seasonal advantage

$26,850 (+5.1%)

MARKET VELOCITY

Peak months avg volume: 2268 sales/month
Off-peak months avg volume: 1286 sales/month

Dense areas are cheaper for buying old houses

Hypothesis: Old homes (≥50 years) in highly dense areas can be bought at lower prices than comparable new properties

No!

MARKET SEGMENTATION

Total properties in dense areas: 5,400
Old properties in dense areas: 1,439
New properties in dense areas: 3,961

DENSITY PRICING ANALYSIS

Old houses in dense areas: $783,336
New houses in dense areas: $591,16

Old houses cost $192,175 more (+32.5%)
That’s not a bargain

Buy, renovate, profit.
Consider season.
Don’t buy in dense areas

Thanks!