

Appraising Homes in King County, Washington

A project for The Hazel Paisley Appraisal Corporation

Project Goal:

a fast and reliable formula for
home appraisal in King County

The Data:

- roughly 30,000 home sales
- June 10, 2021 — June 10, 2022
- King County, Washington, (the Seattle metro area)

Which features contribute most to a fair market value appraisal of a home in the Seattle area?

- **median neighborhood price**
- **living area (in square feet)**
- **zip code**
- **waterfront**
- **view**
- **sewer system**

Baseline home price for our model:
\$806,800

This baseline assumes ...

- median neighborhood price: \$1,000,000
- living area: 2,000 ft²
- zip code: lowest level (more details soon)
- waterfront: no
- view: none
- sewer system: public

Private Sewer Systems

Baseline: \$806,800

Price estimate decreases by \$68,500 for properties that use private sewer systems.



View

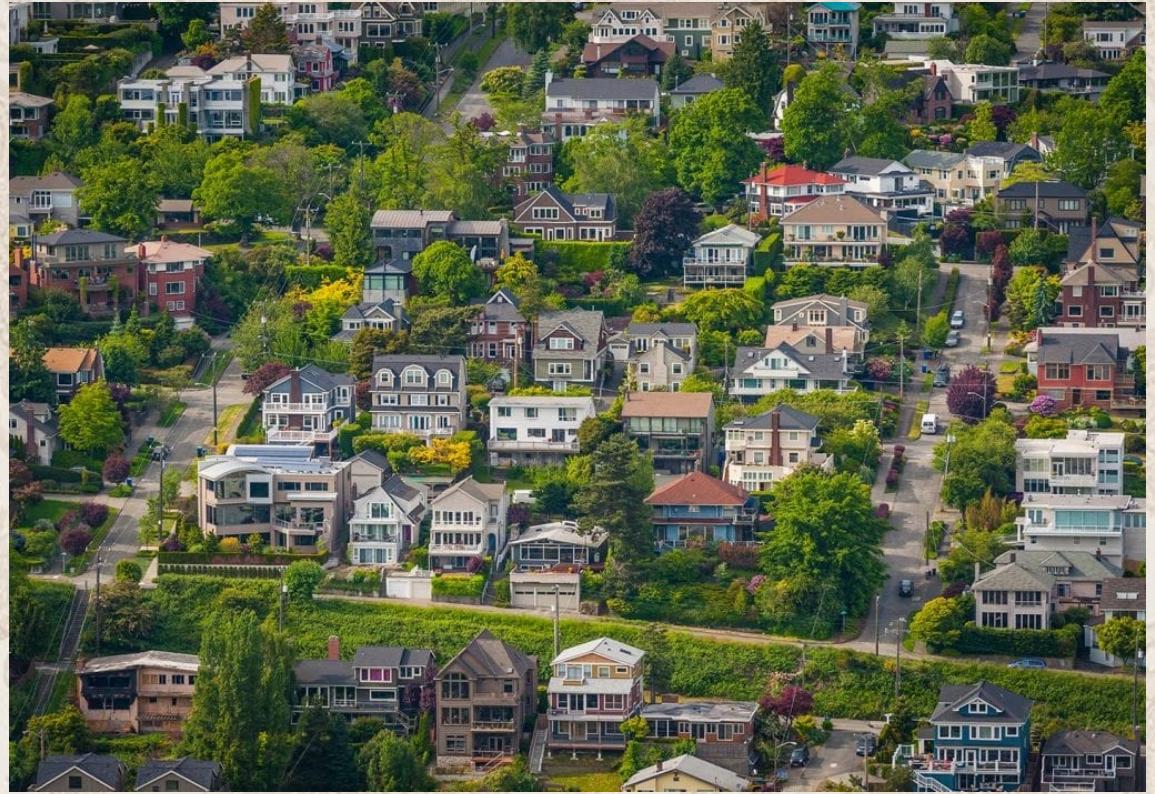
Baseline: \$806,800

“None”	+ \$0
“Fair”	+ \$115,000
“Good”	+ \$230,000
“Excellent”	+ \$345,000



Neighborhood Median Price

Baseline: \$806,800



Price estimate increases (decreases) 63 cents for every dollar above (below) a neighborhood median price of \$1,000,000

Neighborhood EXAMPLE

Baseline: \$806,800

Neighborhood benchmark:
\$1,000,000

Multiplier: 0.63

Example

neighborhood mean: \$1,050,000
benchmark: -\$1,000,000
difference: \$50,000

...
multiplier: x 0.63
neighborhood premium: \$31,500

baseline: \$806,800
neighborhood premium: +\$31,500
appraised value: \$838,300

Waterfront Area Premium

Baseline: \$806,800

Price estimate increases (decreases) \$529 *per square foot*
above (below) 2,000 ft²



Waterfront EXAMPLE

Baseline: \$806,800

Area benchmark: 2,000 ft²

Multiplier: \$529

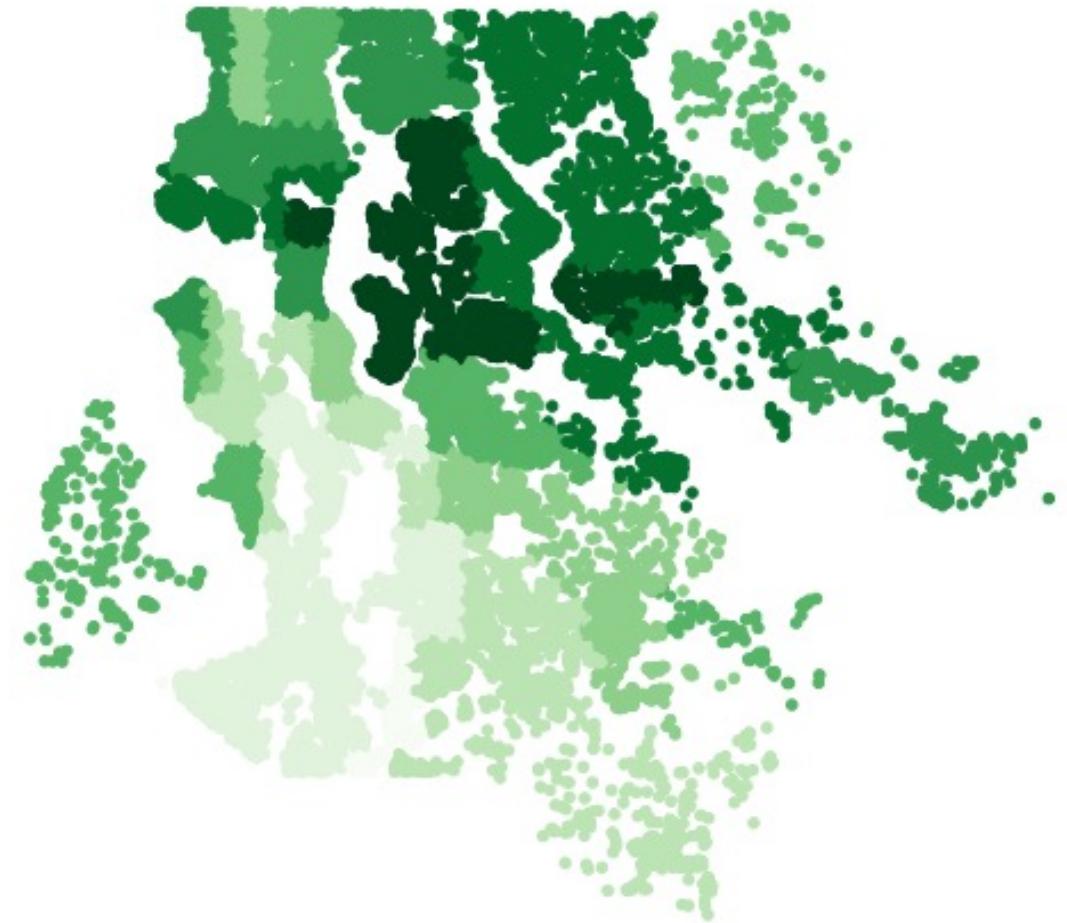
living area:	2,300
benchmark:	<u>- 2,000</u>
difference:	300
	...
multiplier:	x \$529
waterfront premium:	\$158,700

baseline:	\$806,800
waterfront premium:	+ <u>\$158,700</u>
appraised value:	\$965,500

Zip Code Level Premium

Baseline: \$806,800

Price estimate increases
\$50,000 per zip code level

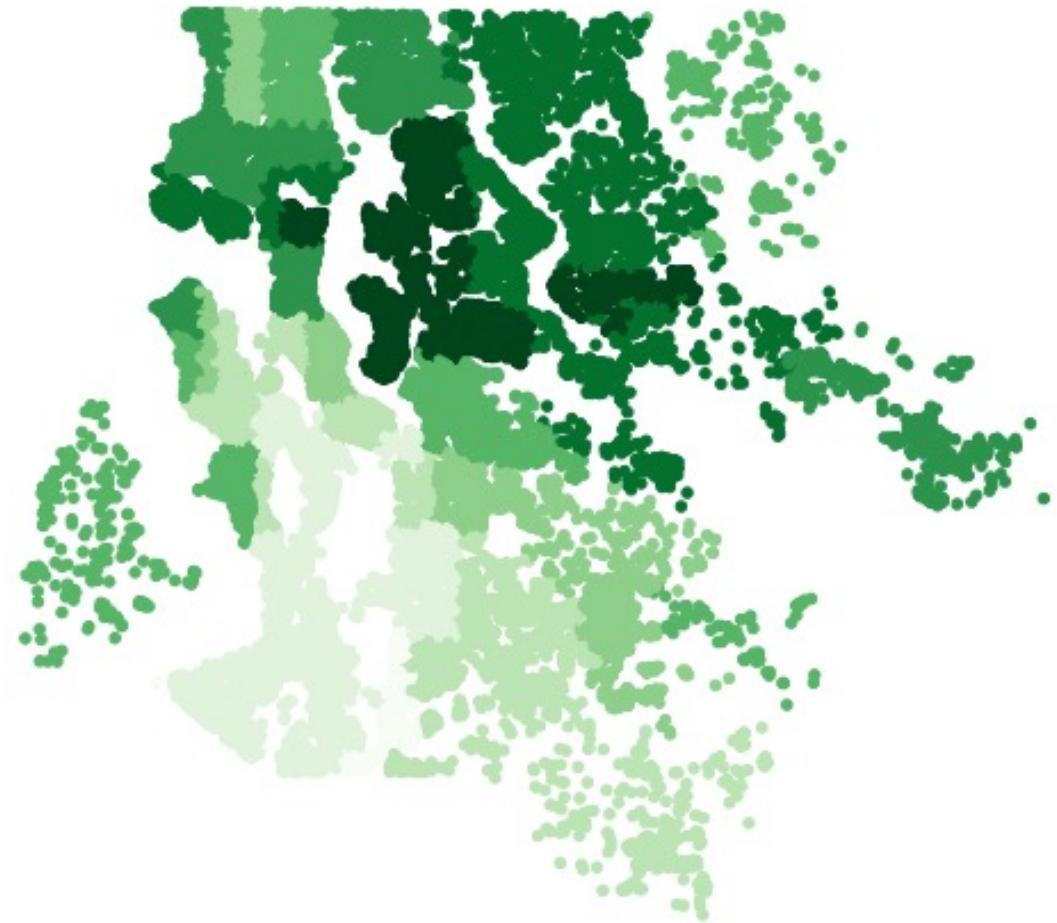


Level 0	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
+\$0	+\$50k	+\$100k	+\$150k	+\$200k	+\$250k	+\$300k	+\$350k

Zip Code Area Premium

Baseline: \$806,800

Price estimate increases (decreases)
\$61 per zip code level, per square foot,
above (below) 2,000 ft²



Level 0	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
+\$0	+\$61	+\$122	+\$183	+\$244	+\$305	+\$366	+\$427

Zip Code EXAMPLE

Baseline: \$806,800

Area benchmark: 2,000 ft²

Level multiplier: \$50,000

Area multiplier: \$61 (per level)

zip code level: 5
level multiplier: x \$50,000
level premium: \$250,000

living area: 2,300
benchmark: - 2,000
difference: 300

area multiplier: x 5 x \$61
area: premium: \$91,500

baseline: \$806,800
level premium: + \$250,000
area premium: + \$91,500
appraised value: \$1,148,300

Limitations:

- mean absolute error $\sim \$225,000$
- best performance between $+/- 2$ standard deviations

Recommendations:

- use this model cautiously to educate yourselves about broader trends in the Seattle metro area
- commission further study to revise this model into more nuanced versions applicable to different sub-regions, i.e. generate different models for each zip code level

Thank you

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