# Pricing midrange homes in King County, WA

Jenny R. Kreiger, PhD September 9, 2019

#### **Questions**

What factors affect home prices?



Image by Joe Mabel, CC BY-SA 3.0. Via Wikimedia Commons.

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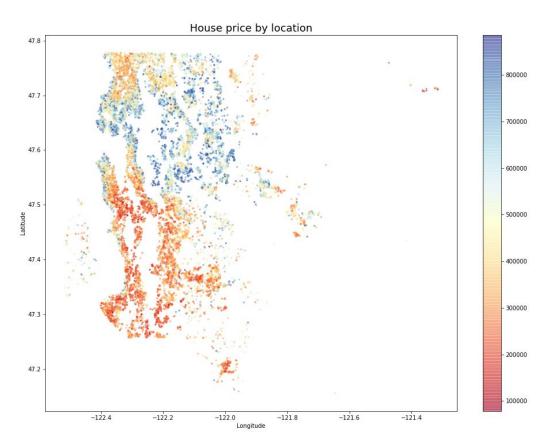
What factors affect home prices?

How can you turn your family home into a smart investment?



Image by Joe Mabel, CC BY-SA 3.0. Via Wikimedia Commons.

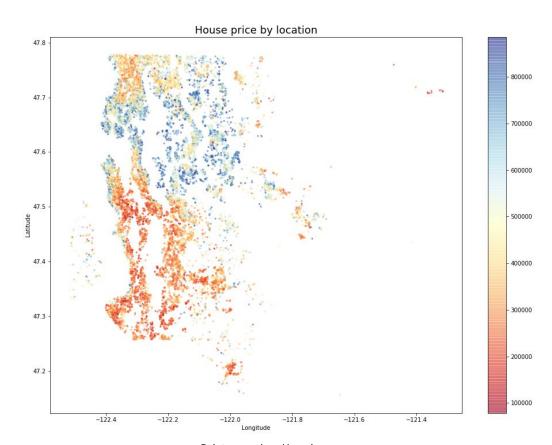
18,999 homes in King County



Points are colored by price.

18,999 homes in King County

2-5 bedrooms

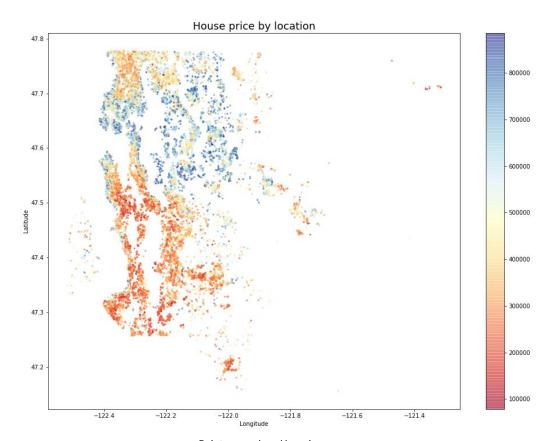


Points are colored by price.

18,999 homes in King County

2-5 bedrooms

Median sale price of \$425,000



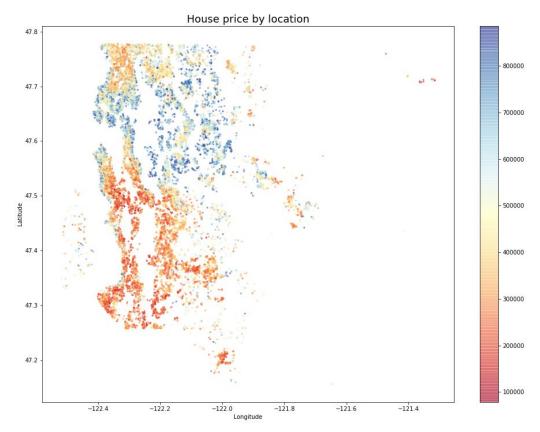
Points are colored by price.

18,999 homes in King County

2-5 bedrooms

Median sale price of \$425,000

Sale records from 2014-2015



Points are colored by price.

#### Method

#### Multiple linear regression

A technique that lets us consider the effects of **multiple factors** on home price at the same time.



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#### Results

Model explains 82% of the variation in price based on a variety of factors.



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### **Insights for homeowners**

## +\$8,300

Potential increase in sale price after adding 100 sq. ft. or an additional bathroom to your home.

### +\$21,000

Potential increase in sale price after improving the condition\* of your home by one level.

<sup>\*</sup> Condition is scored on a scale of 1 to 5 and refers to a home's state of repair or upkeep.

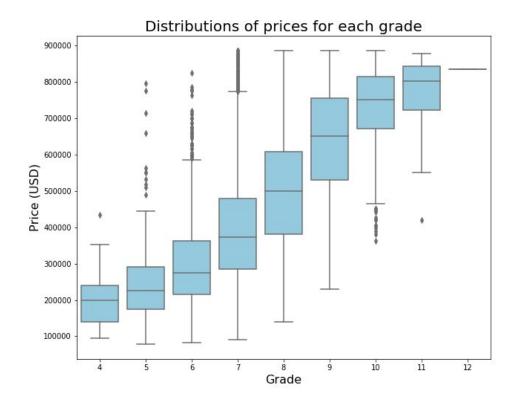


Middle of each blue box = median price for that condition level.

### +\$42,000

Potential increase in sale price after improving the grade\* of your home by one level.

<sup>\*</sup> King County's grading system rates houses from 3 to 13 on the basis of design features.



Middle of each blue box = median price for that grade.

#### Future directions for analysis

- Incorporate additional data about neighborhoods
- Use more sophisticated techniques to better account for interactions among factors affecting price

#### Thank you!

GitHub: github.com/jrkreiger/pricing-midrange-homes

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