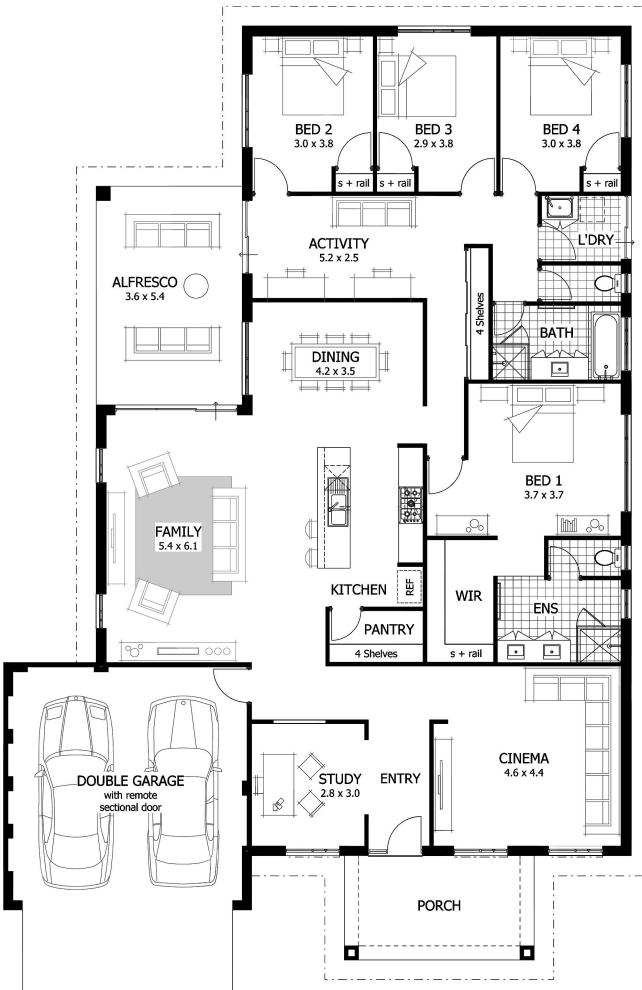




# Housing Price Prediction

## Kings County, Washington

Bobby Williams & Clair Marie Wholean



# Key Questions

Which features predict the price of a home, and by how much?

Does density, as defined by the ratio of living area to lot area, affect house price?

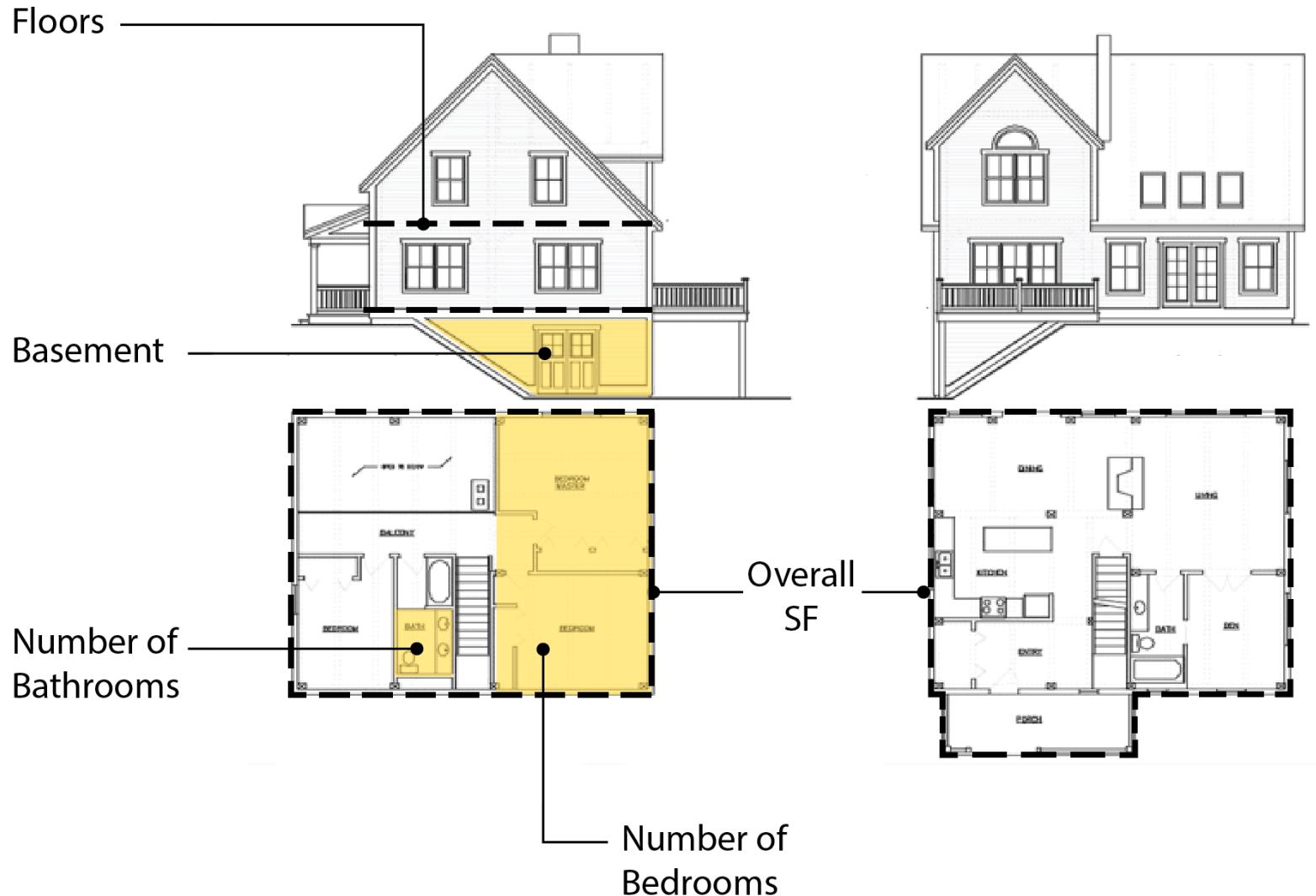
What is the difference in price between urban and non-urban homes?



## Data & Assumptions

- King County Housing Data Set
- Single-family only
- Location has a major impact on price, this study looks at other features.
- 18,000 houses

# Variables Considered





## Waterfront Homes

A waterfront home is worth \$814,000 more than a non-waterfront home.



## Recently Renovated

A recently renovated home is worth \$153,000 more than a non-renovated home.

Recent defined as renovated after 2000.



## Overall Condition

Homes in good condition worth \$36,700 more than homes needing repairs.



## Lot Density

The ratio of total SF / lot SF.

- Low density - baseline
- Mid-density + \$18,000
- High Density + \$119, 000

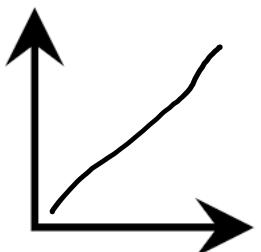


## Urban vs. Non-urban

An urban home is worth \$144,000 more than a non-urban home.

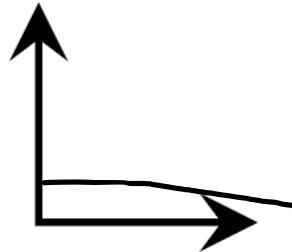
## Overall SF

For each additional 100 SF, the house price goes up by \$25,000.



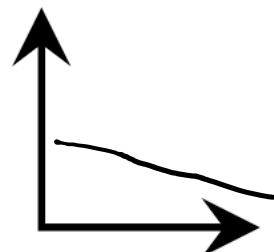
## Lot SF

For each 1,000 SF added to the lot, the price goes down \$263



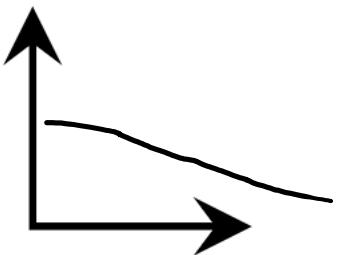
## Basement SF

For each 1,000 SF of basement, the price goes down by \$19,450.



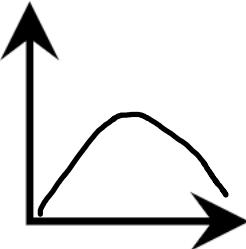
## Floors

For each additional floor, the house price goes down by \$42,000.



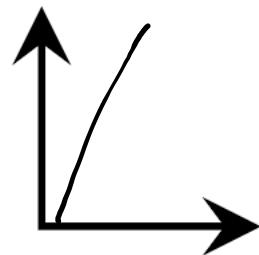
## Bedrooms

2-3 bedrooms is ideal. The price goes down with 3+ bedrooms.



## Bathrooms

For each additional bathroom, the house price goes up by 17,600



# Predictions



Scenario 1:  
1 bed, 1 bath, Poor  
Condition, Not  
Renovated

\$117,072 non-urban  
\$261,602 urban



Scenario 2:  
3 bed, 2.5 bath, Good  
Condition, Recently  
Renovated

\$287,881 non-urban  
432,411 urban

The background of the slide is a high-angle aerial photograph of a residential area. The scene is filled with numerous single-family homes of various sizes and colors, interspersed with lush green trees and bushes. The streets are a network of paved roads winding through the neighborhood. In the foreground, there's a mix of older, more traditional houses and some modern, multi-story buildings, likely townhouses or apartments.

## Further Study

- Suburban homes
- Predictions by zip code
- Housing Affordability