

Annual Audit, Home Valuation Consultative Services



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Our Mission

- ▷ Support our wonderful staff!
- ▷ Valuable selling point for prospective hires
- ▷ Provide guidance on home appraisal
 - Predict home prices through modeling
 - Make recommendations

The Data We Use

- ▷ Ames Iowa House Sales, 2006-2010
 - Removed Pricey Transactions ($> \$450,000$)
- ▷ An Exhaustive List of Features
 - Quantitative, Qualitative, Ordinal
 - 79 Characteristics Available
 - 27 Used in Analysis
- ▷ We control for:
 - Size, Age, Area, Style, Year Sold

Technical Process

Regression Analysis

- ▷ Linear
- ▷ Ridge
- ▷ Lasso
- ▷ Normalize Sale Price

Test Models Against Unseen Data

- ▷ Predict house price based on the attributes we used in model
- ▷ Iterative, ongoing process to improve model accuracy

Our latest **Ridge Regression Model** explains ...

91.47%

of the variance in house prices in the test set.

Our Recommendations

▷ Get your House in Order

- Condition of House is key (fig. 1)

▷ Curb Appeal

- Asphalt Shingle exterior can raise home price ~28% over asbestos shingles (all else equal) (fig. 2)

▷ Invest in Comfort

- Installing central air increases house price ~6%

▷ Pave the Driveway

- Paving the driveway increases home price ~5.5%

Fig. 1 - How Condition of Home Impacts Sale Price

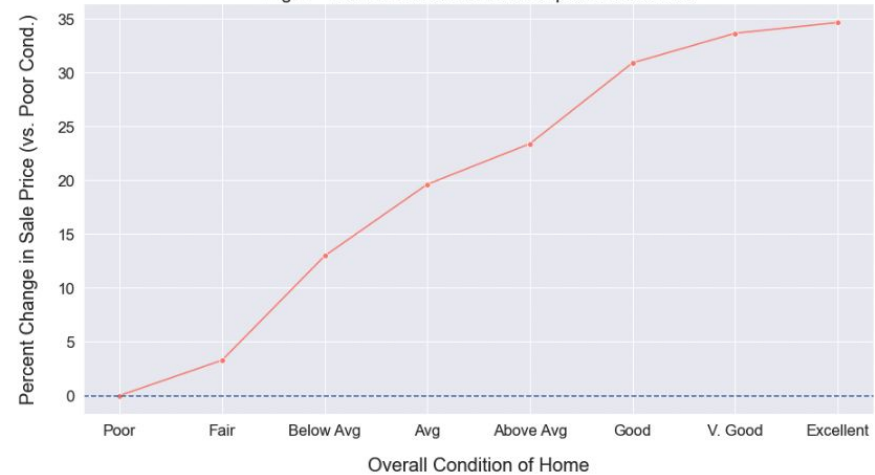
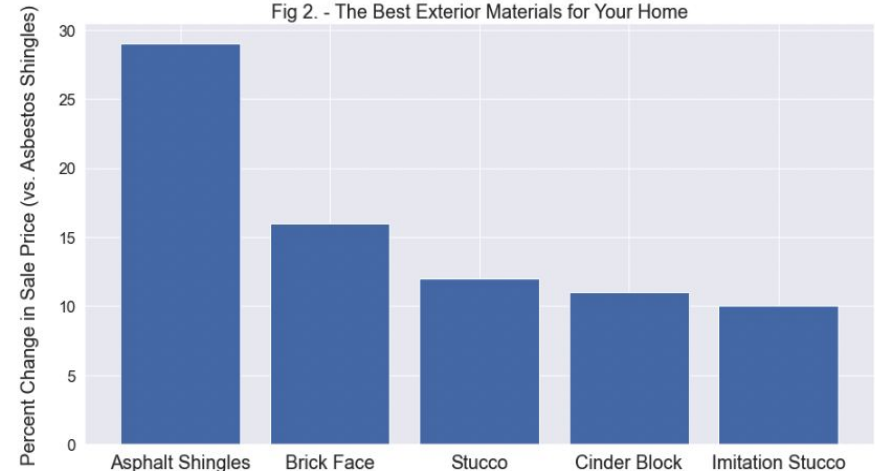


Fig 2. - The Best Exterior Materials for Your Home



Our Recommendations (cont'd.)

▷ Upgrade the Kitchen

- Improve kitchen condition from fair to good, ~6% in px increase. To excellent: ~12%.

▷ No Need for the Fence

- Any kind of fence lowers house price by small percentage

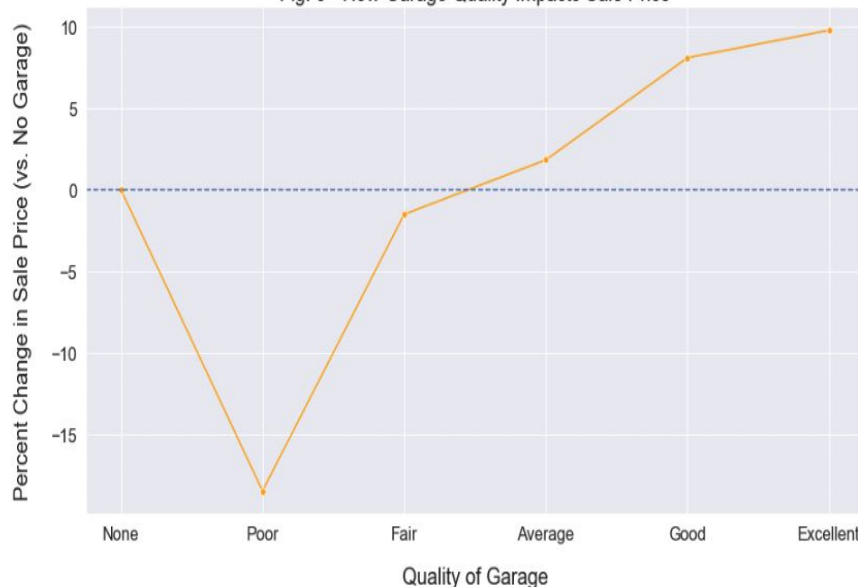
▷ 2nd Bath Might Not be Wise

- If already one above ground bathroom, adding second increases home price by only 5%

▷ Clean the Garage

- Having a poor quality garage is worse than none (fig. 3)

Fig. 3 - How Garage Quality Impacts Sale Price



Thank you for your time,
any questions?

