

# FACTORS THAT DRIVE HOME PRICES

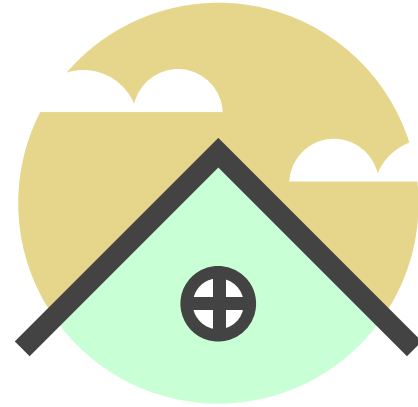
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By Andrew Ledden



# Our Goal

Find important factors that drive home sales for better understanding of how to allocate investments into mortgage-backed securities.



# What drives home prices?

What I hypothesized at first glance of the data

01

Overall Quality

02

Year Remodeled

03

Neighborhood

04

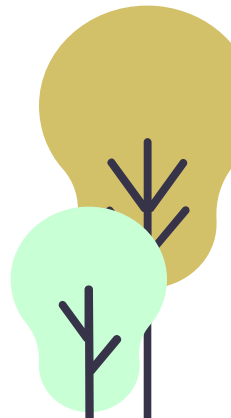
Year Built

05

Square Footage

06

Overall Condition





## TABLE OF CONTENTS

**01**

Year of Remodel

**02**

Neighborhood

**03**

Kitchen Quality

**04**

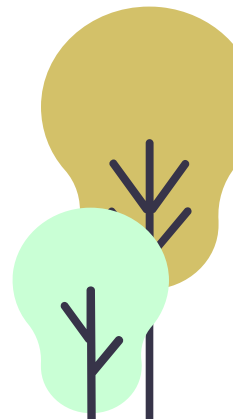
Building Type

**05**

Garage Capacity

**06**

Overall Quality

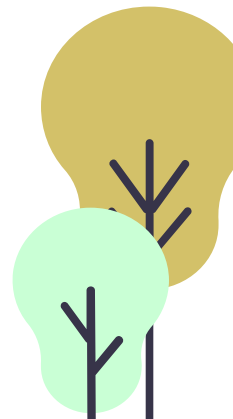




## Descriptive Statistics

**This data set was of 1460 homes that were sold in Ames, Iowa**

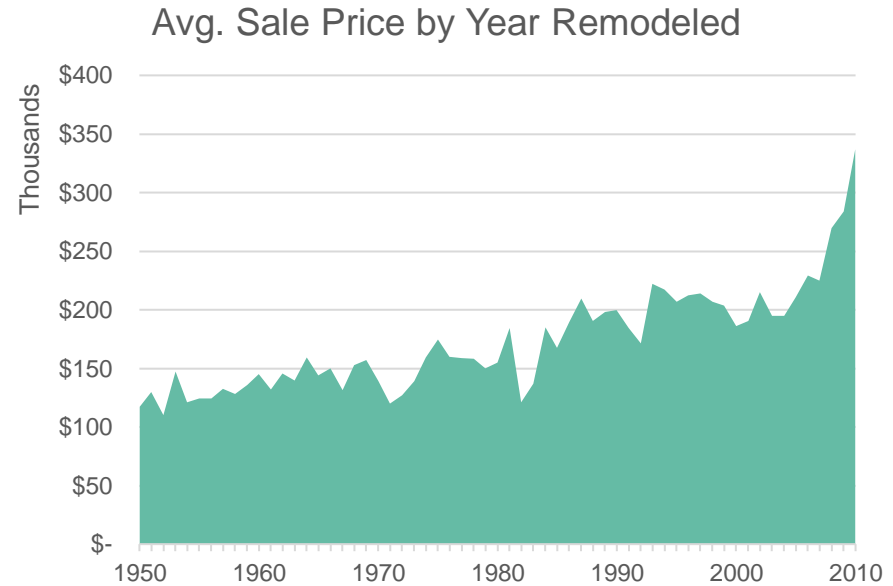
Sale Price	
Mean	\$180,921.20
Standard Error	\$2,079.11
Median	\$163,000.00
Mode	\$140,000.00
Minimum	\$34,900.00
Maximum	\$755,000.00
Sum	\$ 264,144,946.00
Count	1460



## YEAR OF REMODEL

**Constant increase in Sale Price for  
newly remodeled homes**

**Sharpe increase in sale price after  
2006**

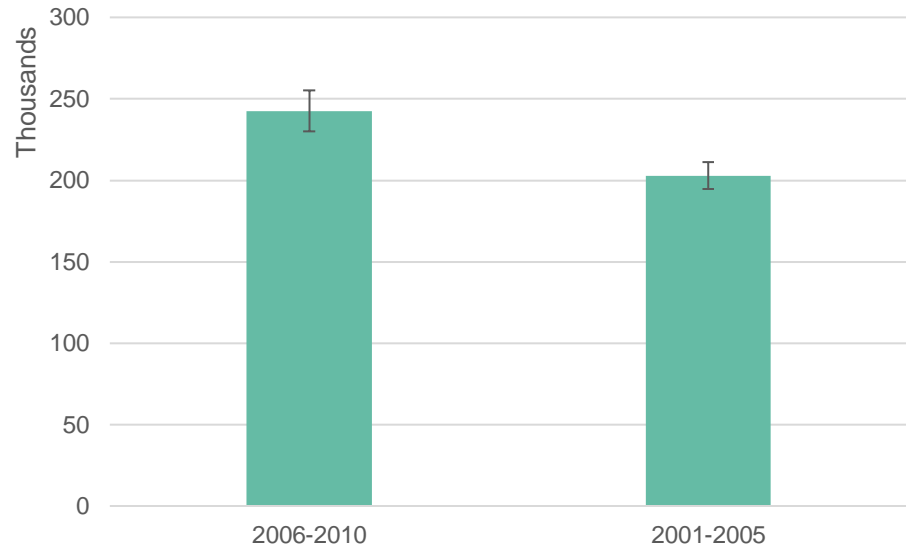


## YEAR OF REMODEL

**Conducted T test on remodeled  
years 2006-2010 vs 2001-2005**

**Significant difference in sale price**

**P value < 0.05**



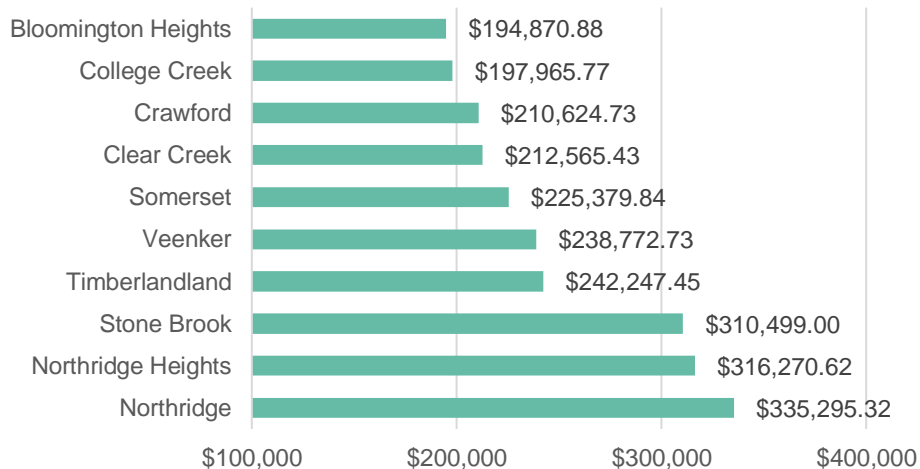
## NEIGHBORHOOD

**Average Sale Price = \$180,921.20**

**Northridge  
Northridge Heights and  
Stone Brook have  
the highest average Sale Prices all  
over \$300,000**

**All Top 10 Neighborhoods have a  
higher-than-average sale price**

**Top 10 Avg. Sale Price by Neighborhood**





## KITCHEN QUALITY

**Excellent Kitchen Quality  
has highest average Sale Price  
with \$328,550**

**Good Quality rated Kitchens have  
the largest sum of Sales**

Average Sale Price by Kitchen Quality

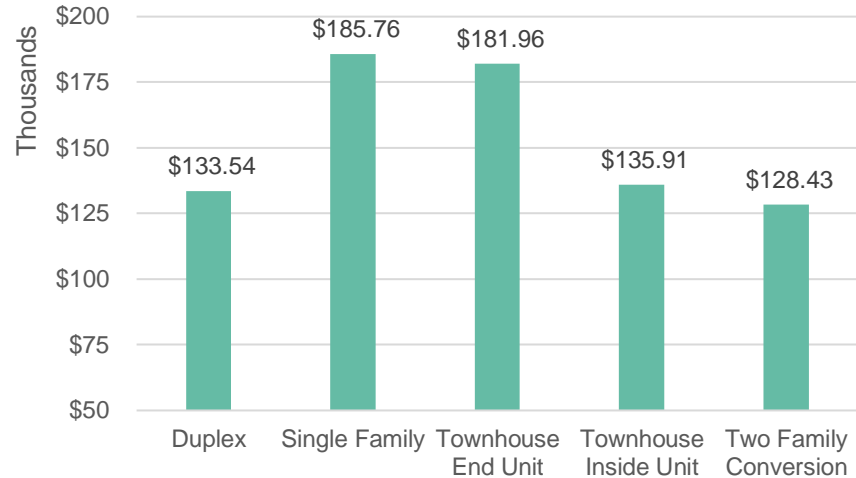


## BUILDING TYPE

**Largest count of homes sold are  
Single Family homes**

**Highest Sum and highest average  
sale price Building Types are Single  
Family homes**

Average Sale Price by Building Type

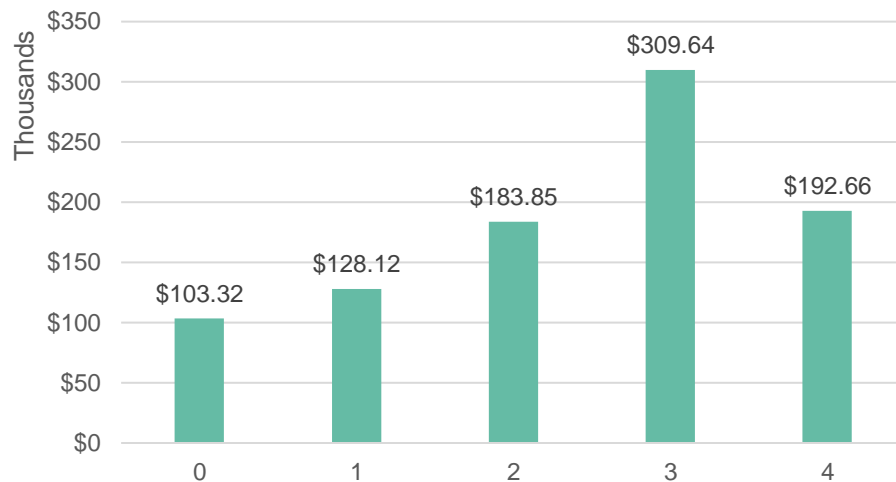


## GARAGE CAPACITY

**Having a garage raises average sale price**

**Homes with a 3-car garage have a much larger average sale price than a 1, 2 or 4-car garage**

Average Sale Price by Garage Cars

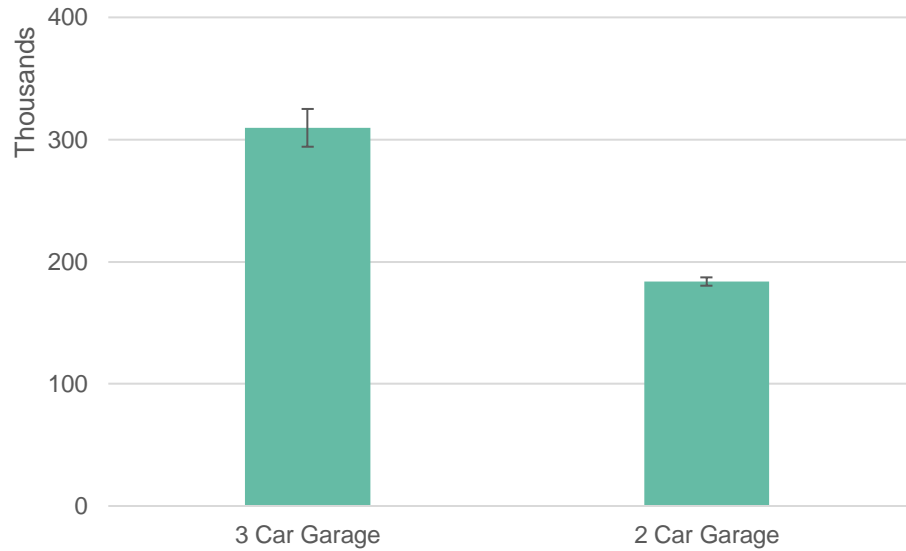


## GARAGE CAPACITY

**T test conducted between 3-car and  
2-car garage**

**P value < 0.05**

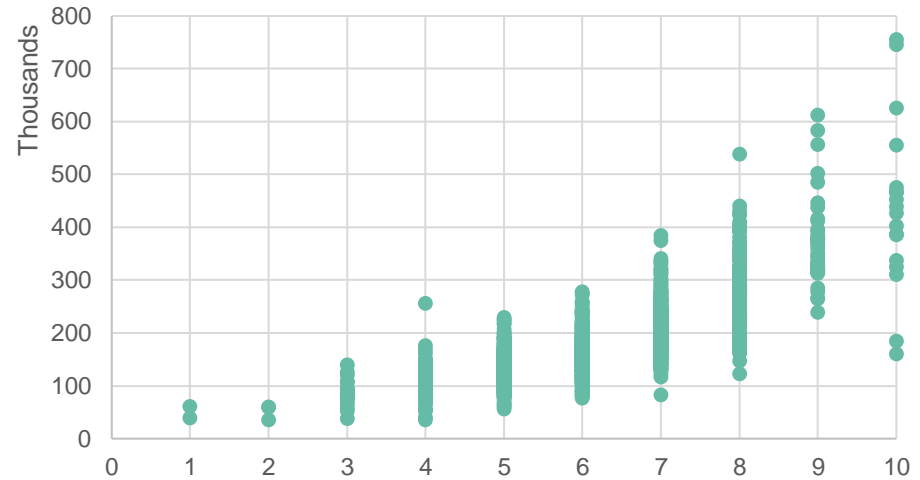
**There is a significant difference**



## OVERALL QUALITY

**Overall Quality is a big factor when it comes to Sale Price**

Overall Quality 1-10 and Sale Price

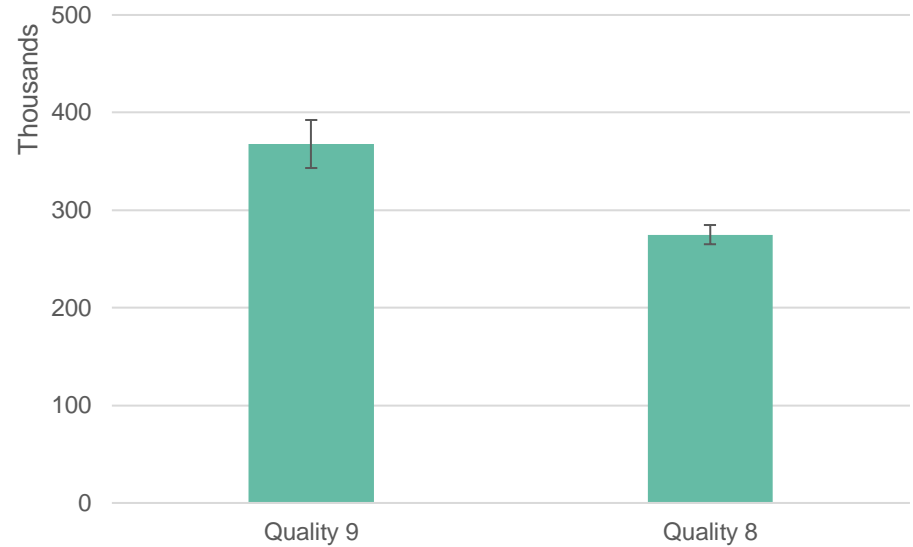


## OVERALL QUALITY

**T test conducted between houses  
with Quality of 9 and Quality of 8**

**P Value < 0.05**

**There is a significant difference**



# Conclusion

When assessing homes for an investment I believe these 6 factors are the most important

- Year remodeled
- Neighborhood
- Kitchen Quality
- Building Type
- Garage Capacity
- Overall Quality



# Thank you

Questions?

