# Predicting Housing Values

Analysis by Clint Hoke



### **Table of Contents**



#### How do we generate more **value** for our members?

- Current Market Environment
- Website Tools
- Data
- Creating a model
- Recommendations
- Next Steps

#### **Current Market Environment**



**Unknown Housing Market** 

Increased competition

Independent Realtors need help

## Quick Facts + 6.6% + 6.3% + 5.2%

Change in Change in Change in Closed Sales Median Sales Price Homes for Sale
All Properties All Properties All Properties

This is a research tool provided by the Iowa Association of REALTORS®. Percent changes are calculated using rounded figures.



Education

News

Legal

Political Affairs

About Us



#### **MEMBERS**

Member Benefits

Member Directory

Safety Resources

Housing Opportunity Program

20 by 2025

Multiple Listing Services (MLS)

#### Technology

Form Simplicity

First Time Homebuyer Program

#### TECHNOLOGY

The Iowa Association of REALTORS® provides many different technologies to it's members as a member benefit. These technologies are sometimes low cost or included with your membership. The following are some technologies offered to membership:

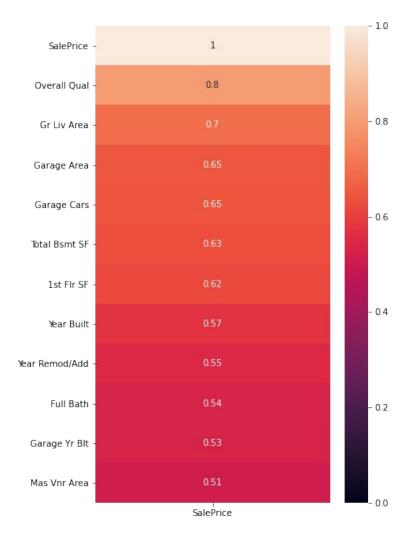
- Form Simplicity
- Iowa Housing Stats System
- Multiple Listing Services (MLS)
- RPR (REALTORS® Property Resource)

In addition to providing these technologies, it's members the lowa Association of REALTORS® also provides some technical guidance in the form of articles online, print and email. On the Technology resources page, you will find updated information to help keep you safe online as well as helpful tips to spot potential threats on the web and in an email. REALTORS® are increasingly targeted in malicious online attacks and need to be aware of the ways they can be targeted.

### Data



- 2006 to 2010 Ames Iowa Dataset
- Cleaned Data Fixing Errors
- Exploratory Data Analysis
- Created an evolving model to predict sale prices

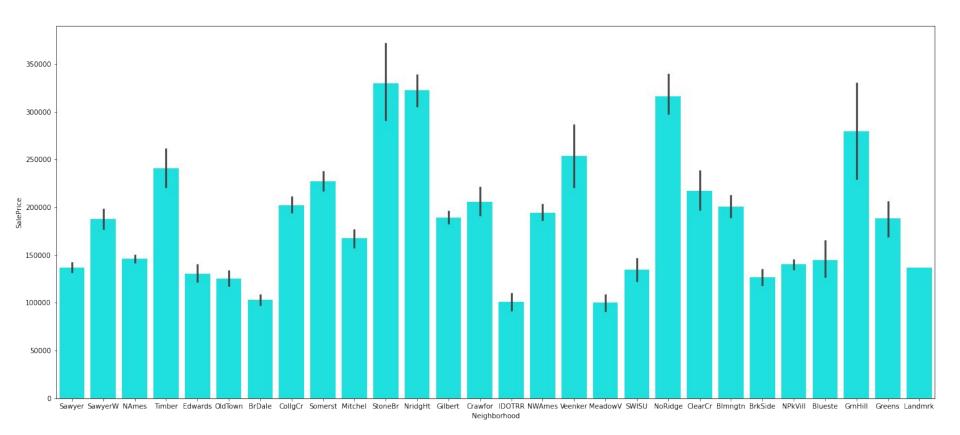


# Correlation Heatmap for Sales Price



### Sales Prices by Neighborhood







### Priced Right

New tool for our Website

Decrease sale price uncertainty

Increased houses sold

Decrease days on market



### Next Steps

Use newer Data

More Data points

Update model

Machine Learning

### Summary

- Our Realtors need tools to succeed
- We are creating a model to predict house prices
- Priced Right tool will add value
- Further work is needed to refine the model
- ETA for Priced Right is June 30th

# Any Questions?