

BY JESSICA FORREST-BALDINI

MAY 20, 2020

AN ANALYSIS OF KEY STRATEGIES TO MAXIMIZE PROFITS

---

# FLIPPING HOUSES

# BUSINESS CASE

---

# BUSINESS CASE

- ▶ A group of house flippers is new to the area and wants to know the best way to increase the value of a home in King County, Washington



---

# BUSINESS CASE

- ▶ A group of house flippers is new to the area and wants to know the best way to increase the value of a home in King County, Washington
- ▶ The goal is to maximize profits on homes that are purchased, renovated and/or repaired and sold



# METHODS

---

# METHODS

- ▶ Analyzed data from over 21,000 homes sold in King County



# METHODS

- ▶ Analyzed data from over 21,000 homes sold in King County
- ▶ Ranging from small homes to mansions, and beneath living code to luxury homes



---

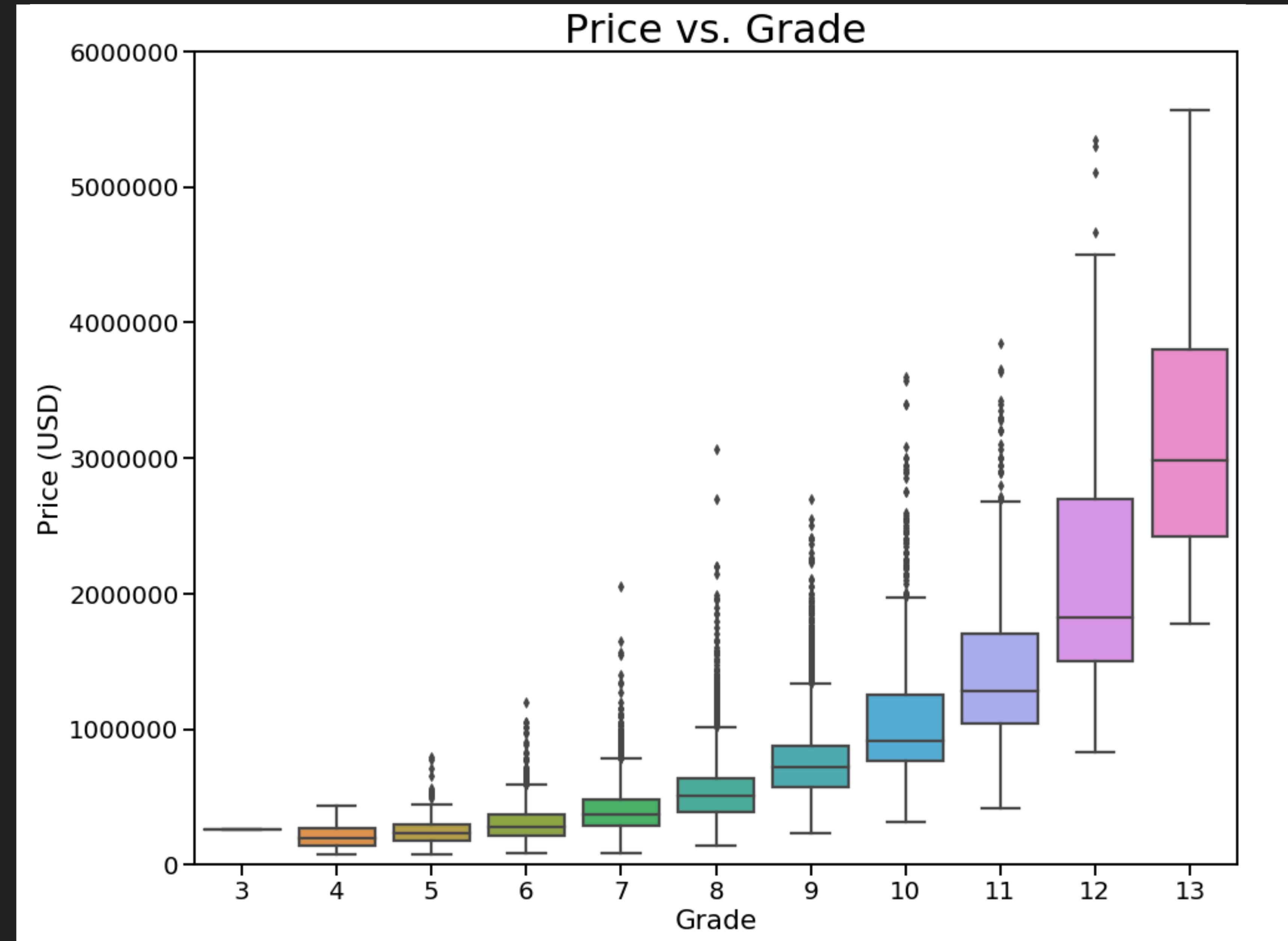
# METHODS

- ▶ Analyzed data from over 21,000 homes sold in King County
- ▶ Ranging from small homes to mansions, and beneath living code to luxury homes
- ▶ Developed a model to see which features have greatest influence on a home's sale price



# KEY FEATURES

# BUILDING GRADE



# BUILDING GRADE

|     |   |
|-----|---|
| 1-3 | Falls short of minimum building standards. Normally cabin or inferior structure.  |
| 4   | Generally older, low quality construction. Does not meet code.  |
| 5   | Low construction costs and workmanship. Small, simple design.   |
| 6   | Lowest grade currently meeting building code. Low quality materials and simple designs.   |
| 7   | Average grade of construction and design. Commonly seen in plats and older subdivisions.  |
| 8   | Just above average in construction and design. Usually better materials in both the exterior and interior finish work.  |
| 9   | Better architectural design with extra interior and exterior design and quality.  |
| 10  | Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage. |
| 11  | Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.   |
| 12  | Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.  |
| 13  | Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.  |

# BUILDING GRADE

Below Code

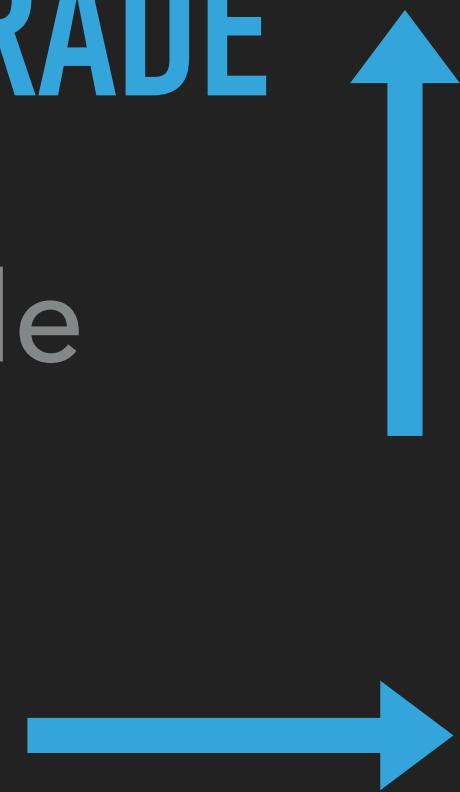


|     |   |
|-----|---|
| 1-3 | Falls short of minimum building standards. Normally cabin or inferior structure.  |
| 4   | Generally older, low quality construction. Does not meet code.  |
| 5   | Low construction costs and workmanship. Small, simple design.   |
| 6   | Lowest grade currently meeting building code. Low quality materials and simple designs.   |
| 7   | Average grade of construction and design. Commonly seen in plats and older subdivisions.  |
| 8   | Just above average in construction and design. Usually better materials in both the exterior and interior finish work.  |
| 9   | Better architectural design with extra interior and exterior design and quality.  |
| 10  | Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage. |
| 11  | Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.   |
| 12  | Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.  |
| 13  | Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.  |

# BUILDING GRADE

Below Code

Average /  
Older



|     |   |
|-----|---|
| 1-3 | Falls short of minimum building standards. Normally cabin or inferior structure.  |
| 4   | Generally older, low quality construction. Does not meet code.  |
| 5   | Low construction costs and workmanship. Small, simple design.   |
| 6   | Lowest grade currently meeting building code. Low quality materials and simple designs.   |
| 7   | Average grade of construction and design. Commonly seen in plats and older subdivisions.  |
| 8   | Just above average in construction and design. Usually better materials in both the exterior and interior finish work.  |
| 9   | Better architectural design with extra interior and exterior design and quality.  |
| 10  | Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage. |
| 11  | Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.   |
| 12  | Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.  |
| 13  | Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.  |

# BUILDING GRADE

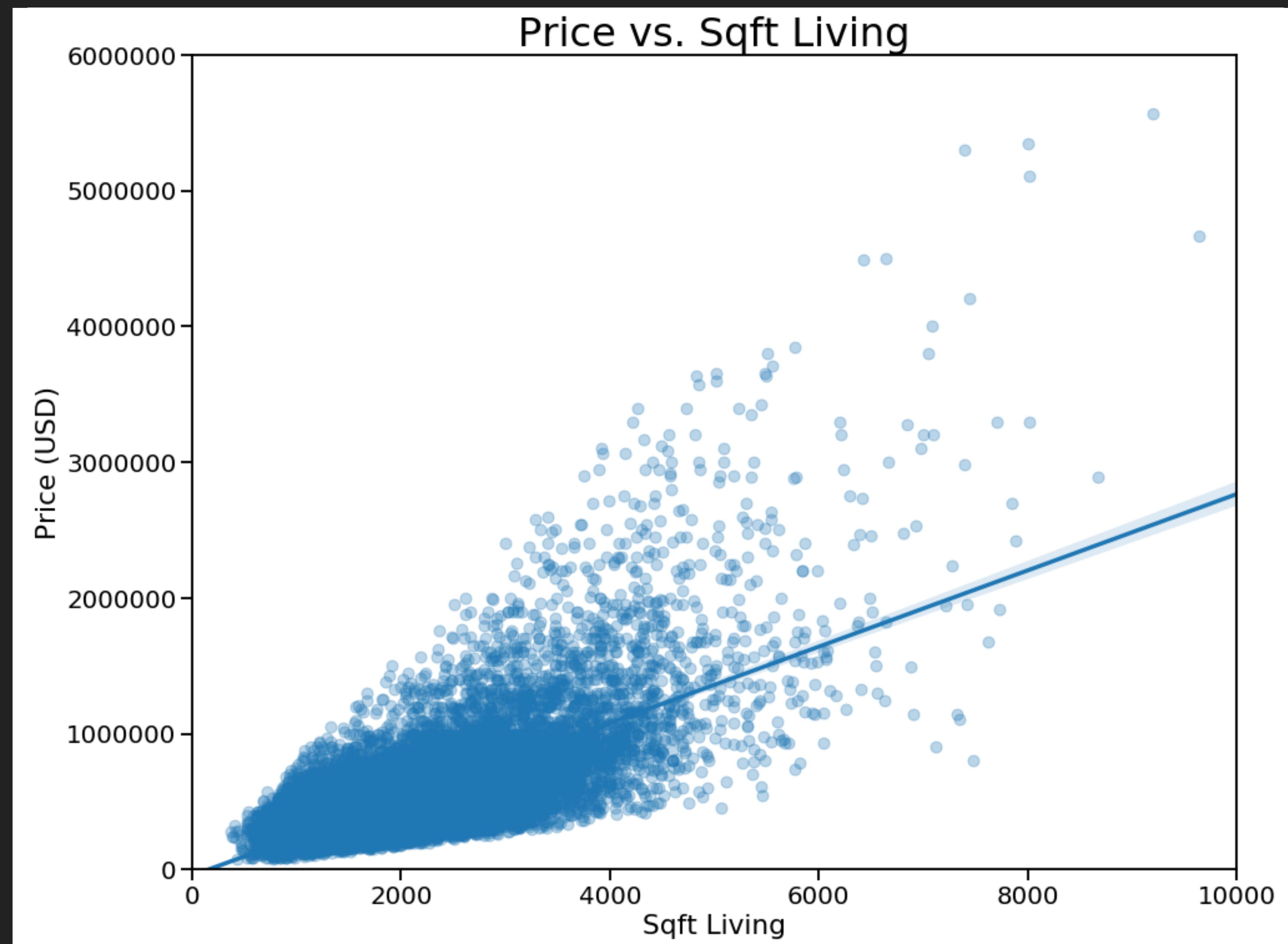
Below Code

Average /  
Older

Higher  
Quality  
Design +  
Materials

|     |   |
|-----|---|
| 1-3 | Falls short of minimum building standards. Normally cabin or inferior structure.  |
| 4   | Generally older, low quality construction. Does not meet code.  |
| 5   | Low construction costs and workmanship. Small, simple design.   |
| 6   | Lowest grade currently meeting building code. Low quality materials and simple designs.   |
| 7   | Average grade of construction and design. Commonly seen in plats and older subdivisions.  |
| 8   | Just above average in construction and design. Usually better materials in both the exterior and interior finish work.  |
| 9   | Better architectural design with extra interior and exterior design and quality.  |
| 10  | Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage. |
| 11  | Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.   |
| 12  | Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.  |
| 13  | Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.  |

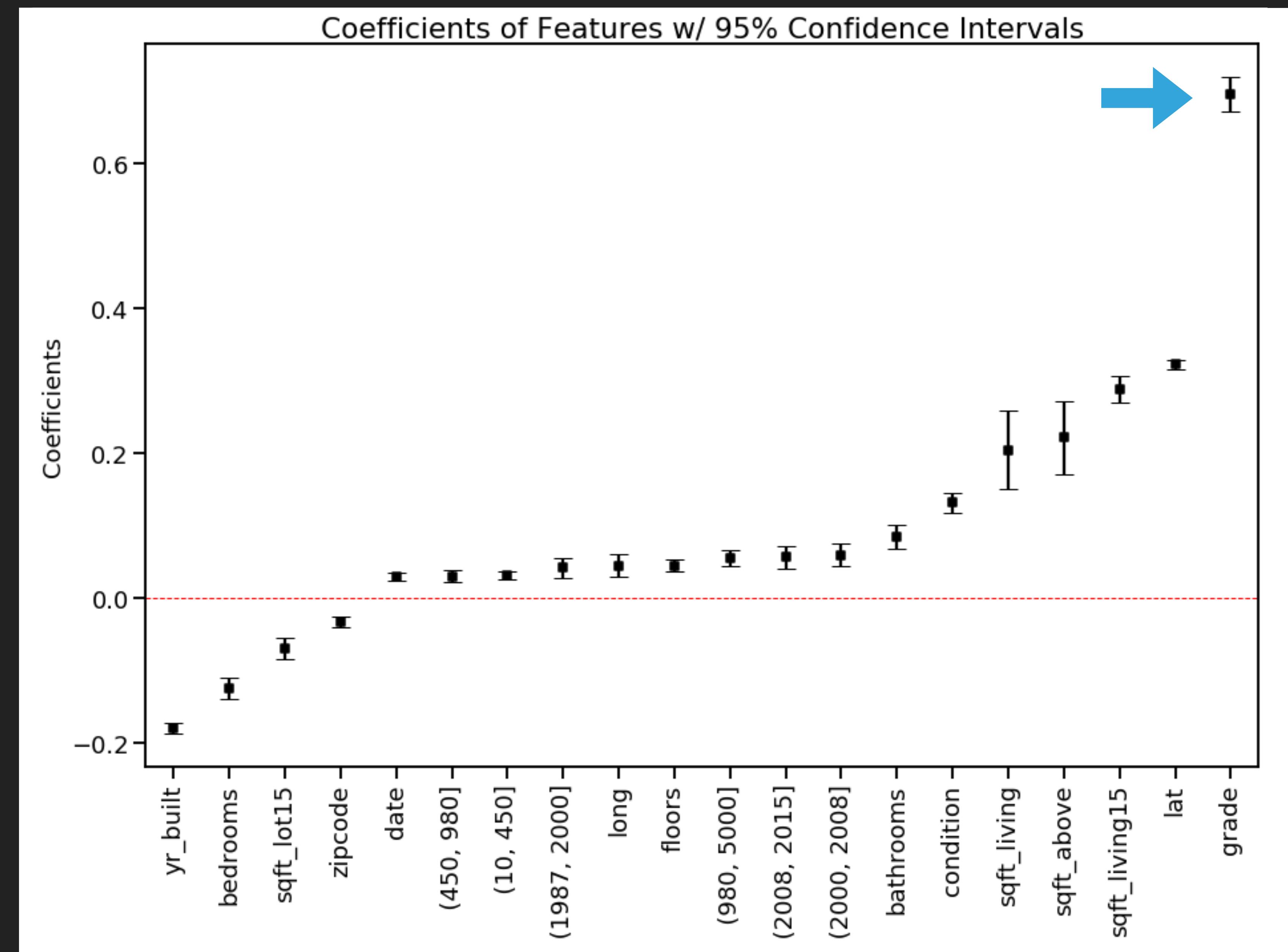
# SQFT LIVING



# MODEL RESULTS

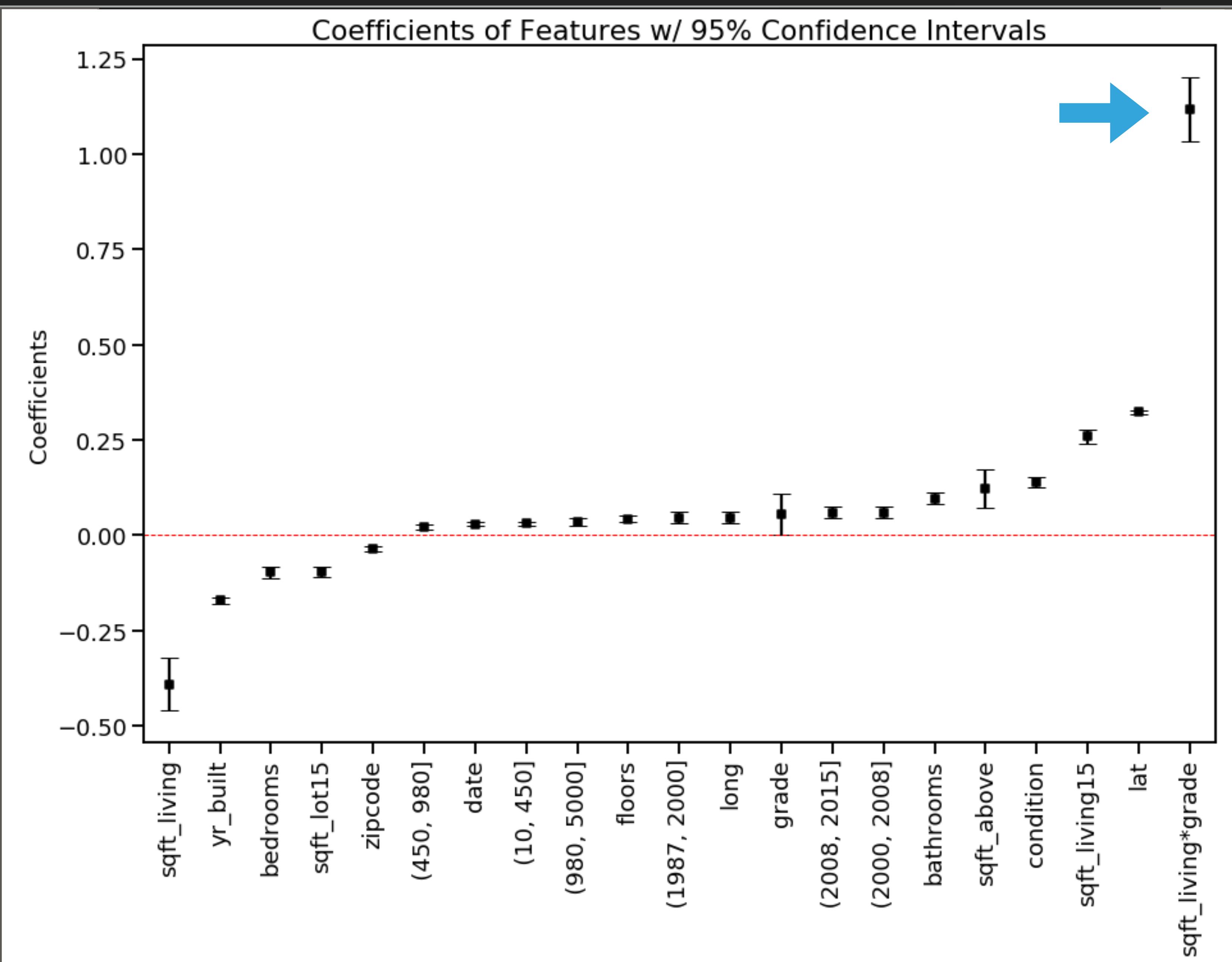
## MODEL 1

ALL FEATURES



## MODEL 2

ALL FEATURES +  
TOP INTERACTION



# CONCLUSION

# CONCLUSION

- ▶ Of all features, grade has the highest impact on sale price of a home (given all other features)



# CONCLUSION

- ▶ Of all features, grade has the highest impact on sale price of a home (given all other features)
- ▶ Grade + square feet of living space in a home together have an even greater impact on price



# CONCLUSION

- ▶ Of all features, grade has the highest impact on sale price of a home (given all other features)
- ▶ Grade + square feet of living space in a home together have an even greater impact on price
- ▶ There is an apparent neighborhood effect, which makes sense (sqft living of 15 nearest neighbors + latitude)



# RECOMMENDATIONS

# RECOMMENDATIONS

- ▶ Invest in larger lower grade homes (relative to the neighborhood) and increase the homes grade according to the King County grading scale



## RECOMMENDATIONS

- ▶ Invest in larger lower grade homes (relative to the neighborhood) and increase the homes grade according to the King County grading scale
- ▶ Invest in larger homes on the fringes of relatively more affluent neighborhoods that are bordering more average neighborhoods and increase the grade



## RECOMMENDATIONS

- ▶ Invest in larger lower grade homes (relative to the neighborhood) and increase the homes grade according to the King County grading scale
- ▶ Invest in larger homes on the fringes of relatively more affluent neighborhoods that are bordering more average neighborhoods and increase the grade
- ▶ Invest in homes in neighborhoods that are being gentrified and increase the grade

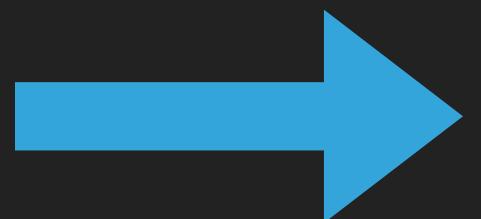


## CASE STUDY

- ▶ Average home sold for \$449,000
- ▶ Renovated + listed for \$1,658,000
- ▶ Larger square foot home at 3,590 sq. ft.

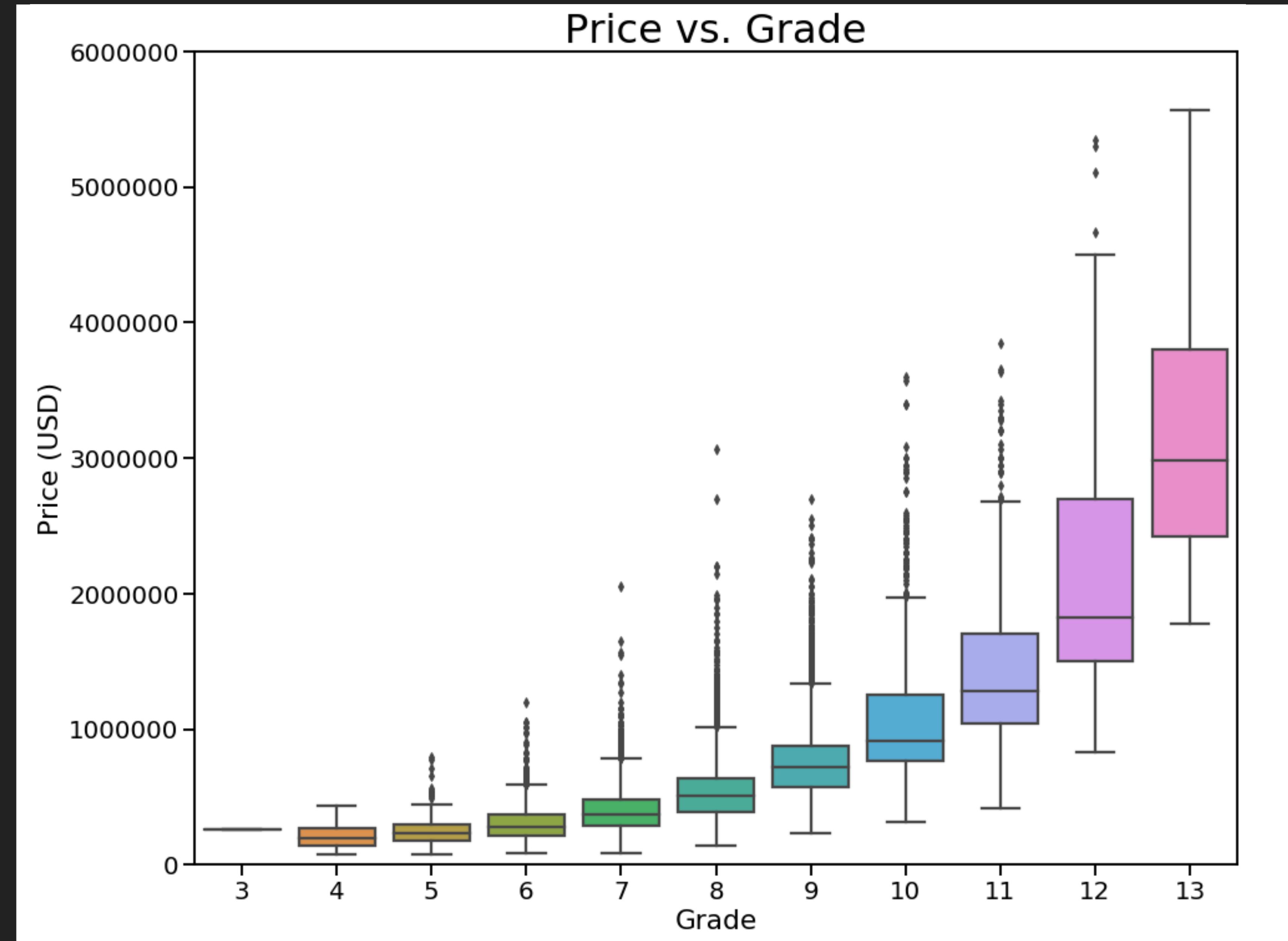


# CASE STUDY



|     |   |
|-----|---|
| 1-3 | Falls short of minimum building standards. Normally cabin or inferior structure.  |
| 4   | Generally older, low quality construction. Does not meet code.  |
| 5   | Low construction costs and workmanship. Small, simple design.   |
| 6   | Lowest grade currently meeting building code. Low quality materials and simple designs.   |
| 7   | Average grade of construction and design. Commonly seen in plats and older subdivisions.  |
| 8   | Just above average in construction and design. Usually better materials in both the exterior and interior finish work.  |
| 9   | Better architectural design with extra interior and exterior design and quality.  |
| 10  | Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage. |
| 11  | Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.   |
| 12  | Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.  |
| 13  | Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.  |

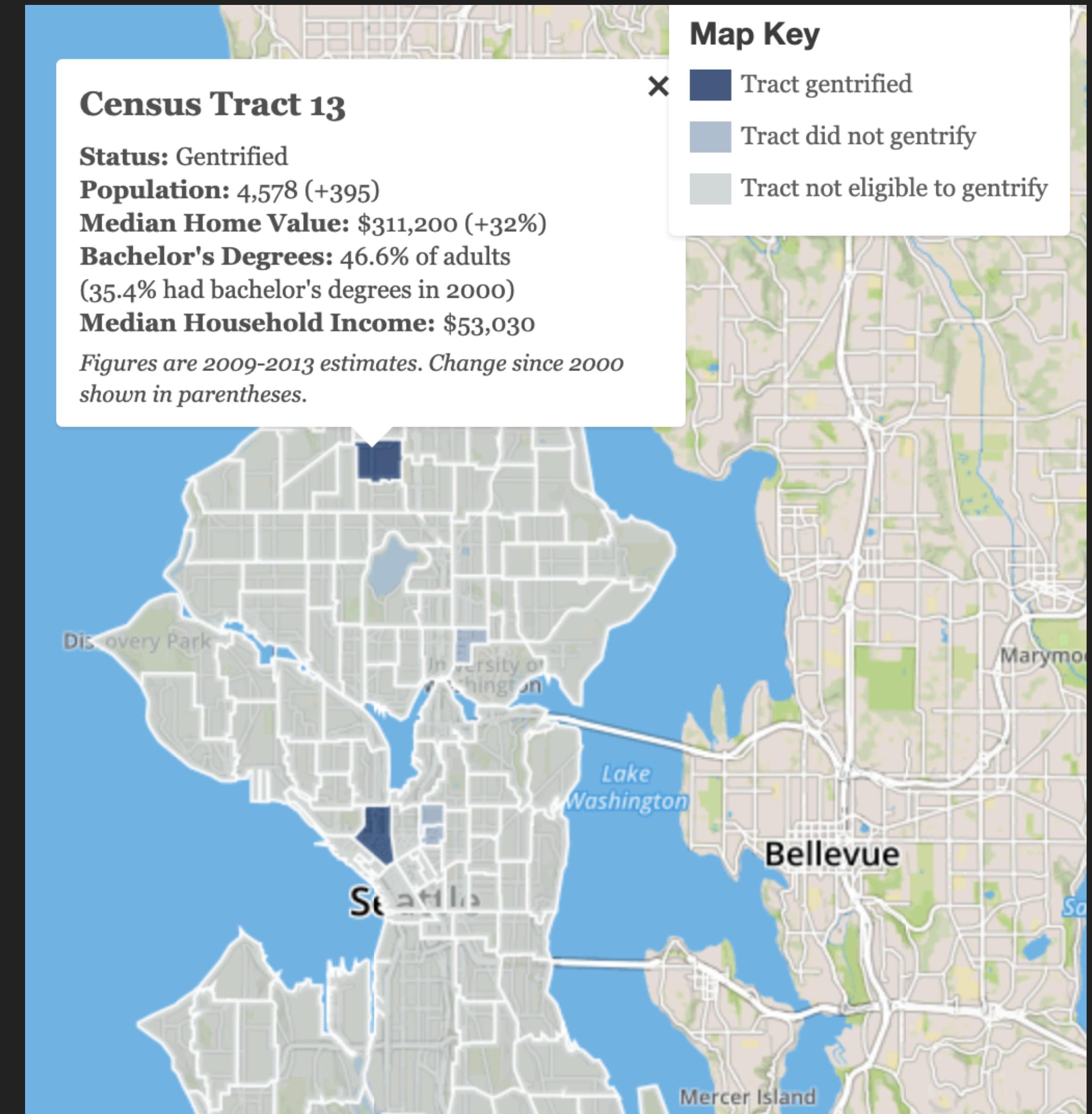
# BUILDING GRADE



# FURTHER RESEARCH

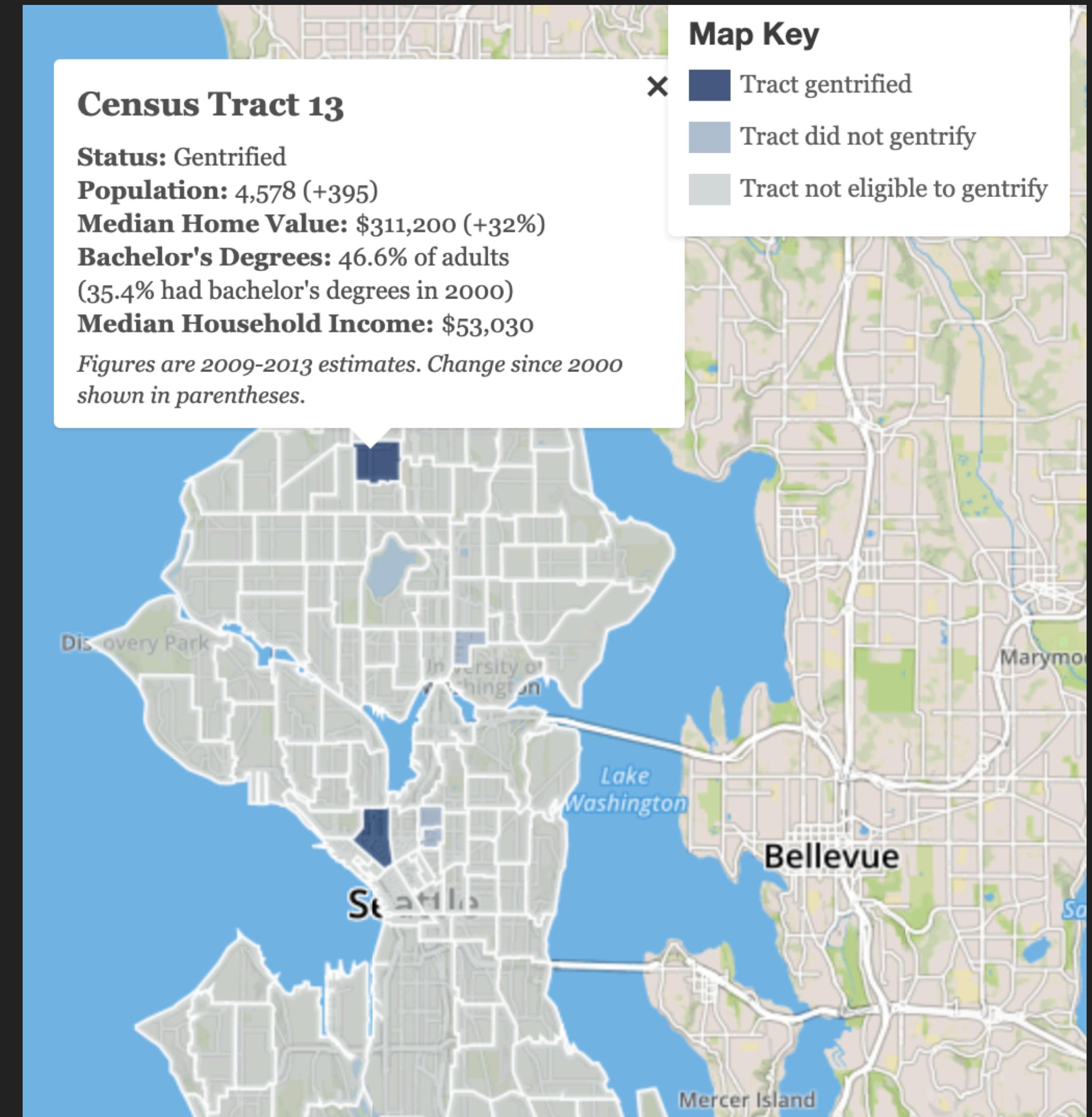
# FURTHER RESEARCH

## ► Neighborhood analysis



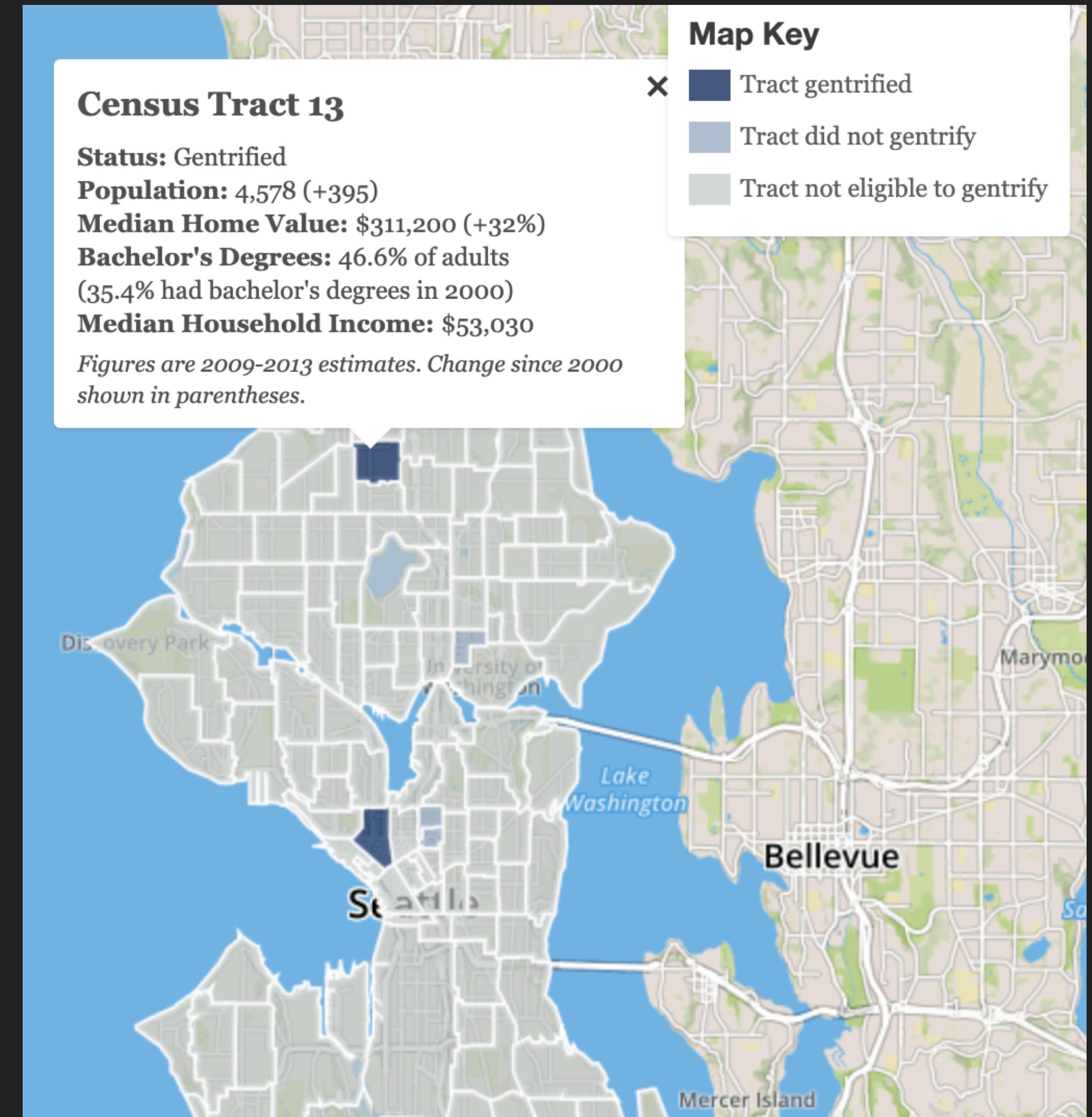
# FURTHER RESEARCH

- ▶ Neighborhood analysis
- ▶ Respective home price ranges, sizes, grades and conditions



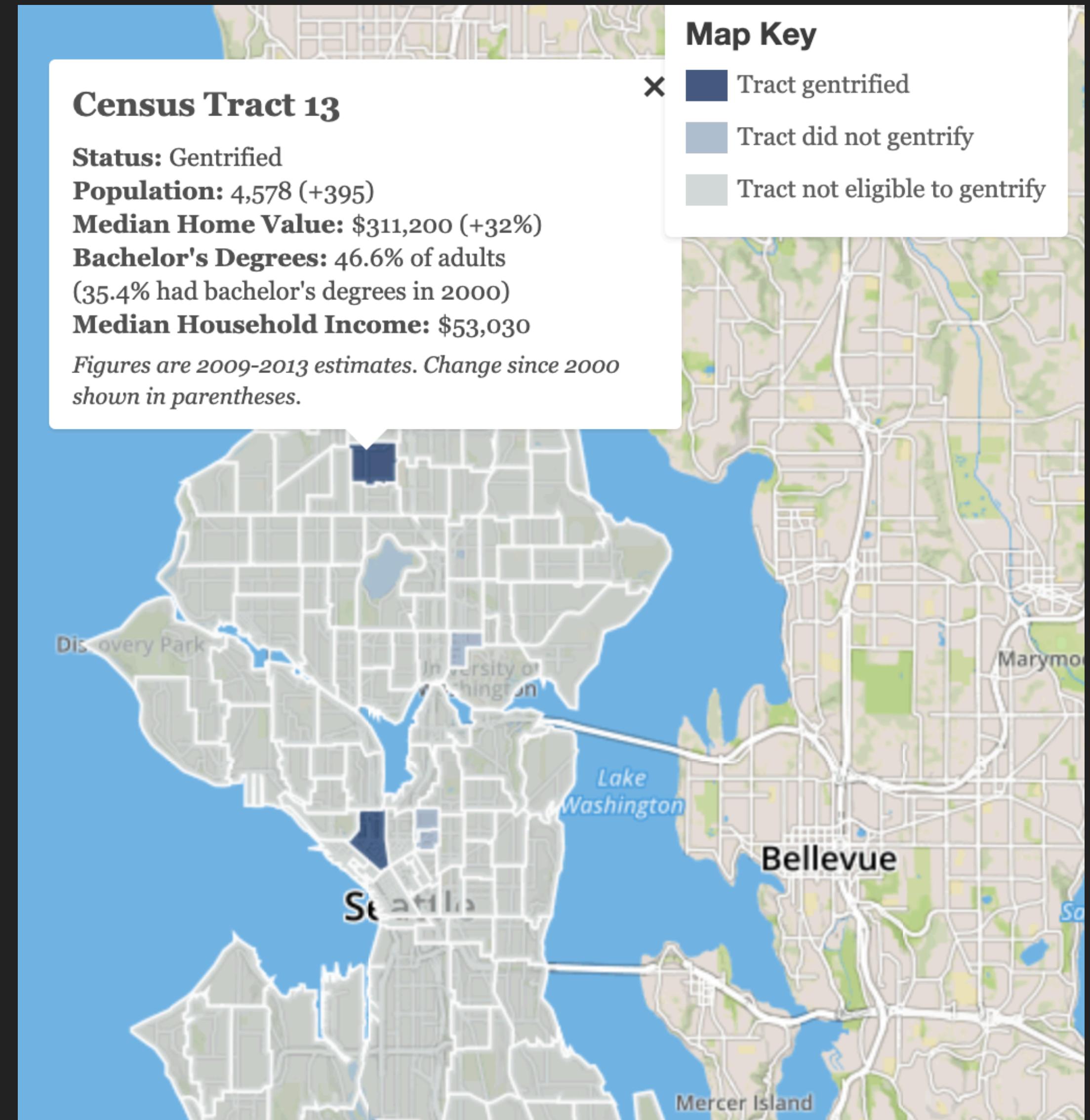
# FURTHER RESEARCH

- ▶ Neighborhood analysis
- ▶ Respective home price ranges, sizes, grades and conditions
- ▶ Neighborhoods being gentrified



# FURTHER RESEARCH

- ▶ Neighborhood analysis
- ▶ Respective home price ranges, sizes, grades and conditions
- ▶ Neighborhoods being gentrified
- ▶ Fringes of relatively more affluent neighborhoods with relatively less affluent or more average neighborhoods



**THANK YOU!**

---

## REFERENCES

- ▶ First image of houses: <https://www.seattlemag.com/best-seattle-best-neighborhoods/best-burbs-next-generation-seattle-suburbs>
- ▶ King County Building Grade Codes: <https://info.kingcounty.gov/assessor/esales/Glossary.aspx?type=r>
- ▶ Image + Data for renovated home: [https://www.zillow.com/homedetails/222-NW-95th-St-Seattle-WA-98117/48885674\\_zpid/](https://www.zillow.com/homedetails/222-NW-95th-St-Seattle-WA-98117/48885674_zpid/)
- ▶ Map of neighborhoods undergoing gentrification: <https://www.governing.com/gov-data/seattle-gentrification-maps-demographic-data.html>
- ▶ King County Home Sale Data: <https://www.kaggle.com/harlfoxem/housesalesprediction>