

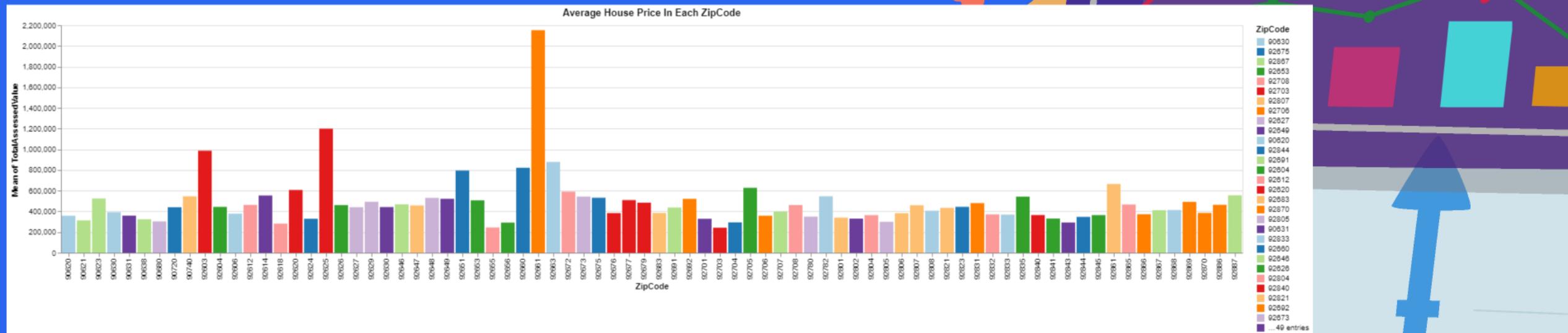
# Predicting Home Prices Using Neural Networks & Melissa Data

Seth Abuhamdeh, Christopher Effarah,  
Matthew Eimers, Vincent Ramos



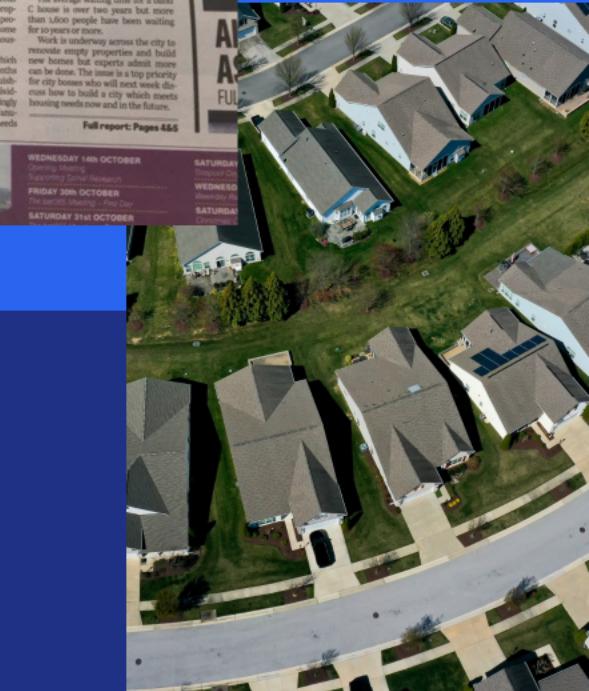
# Introduction

- Why we chose the Melissa Challenge
  - Our Goal
  - How we approached the dataset

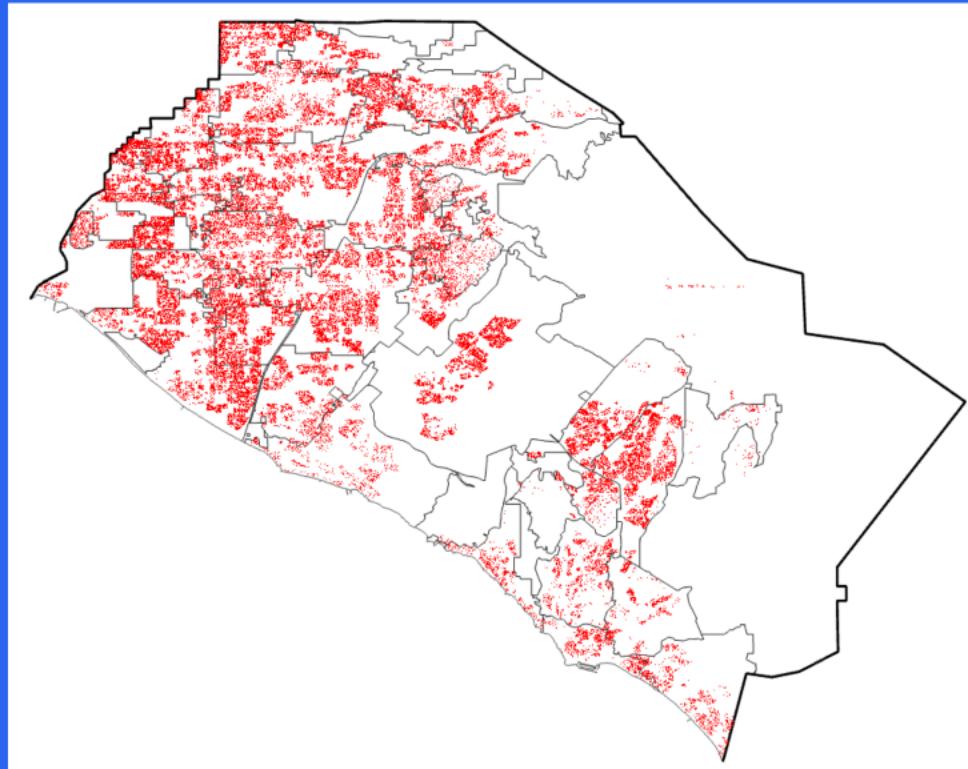
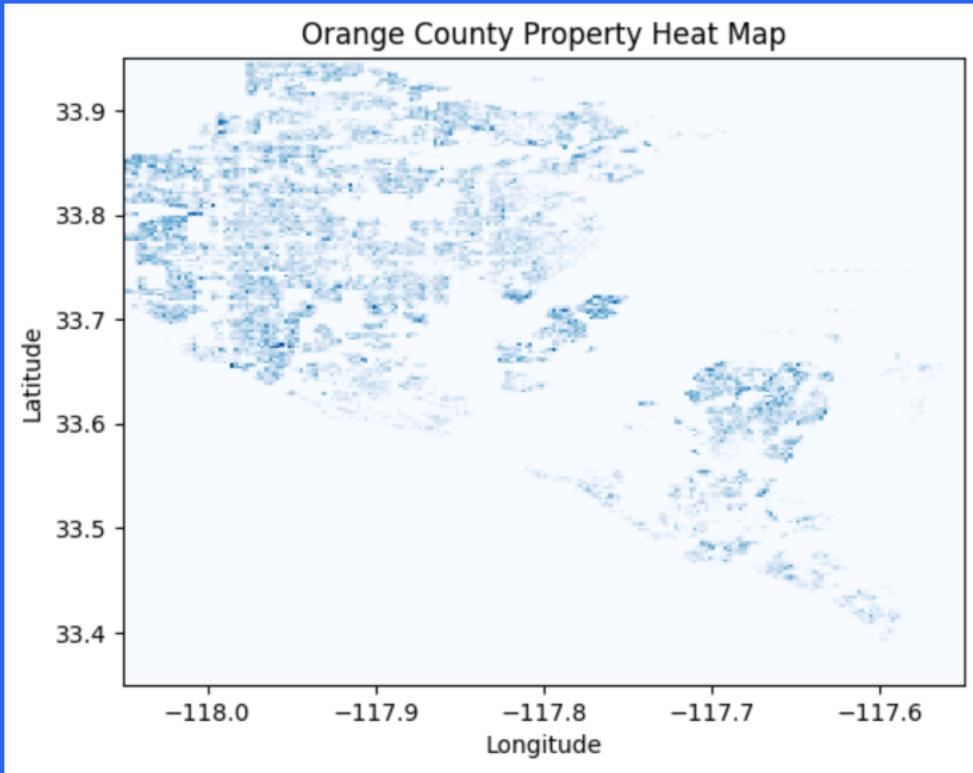


# Why Does this Matter?

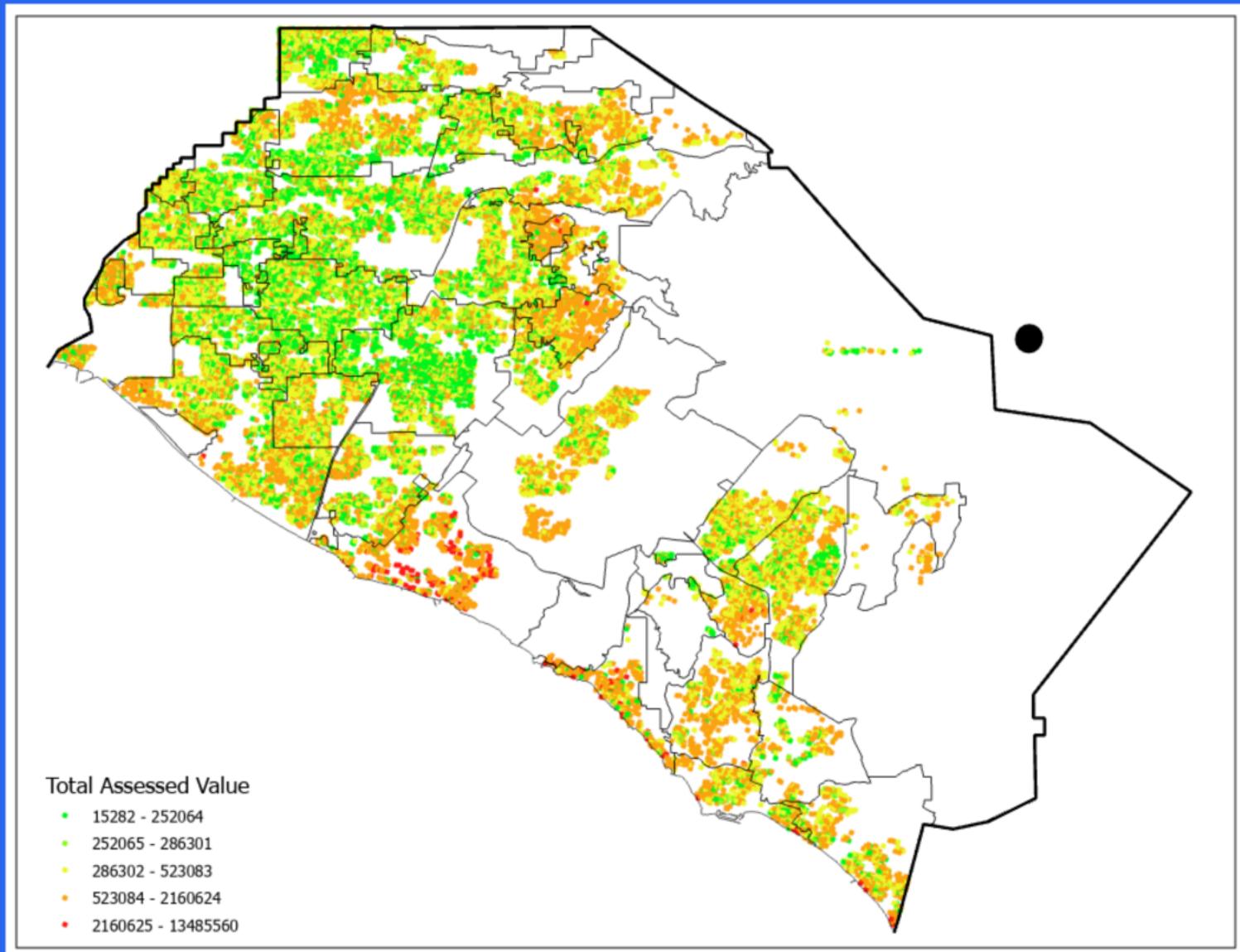
- Current rise in housing prices
- Inability to purchase affordable housing
- Preparation for future changes in the market
- Social implications outside of affordability



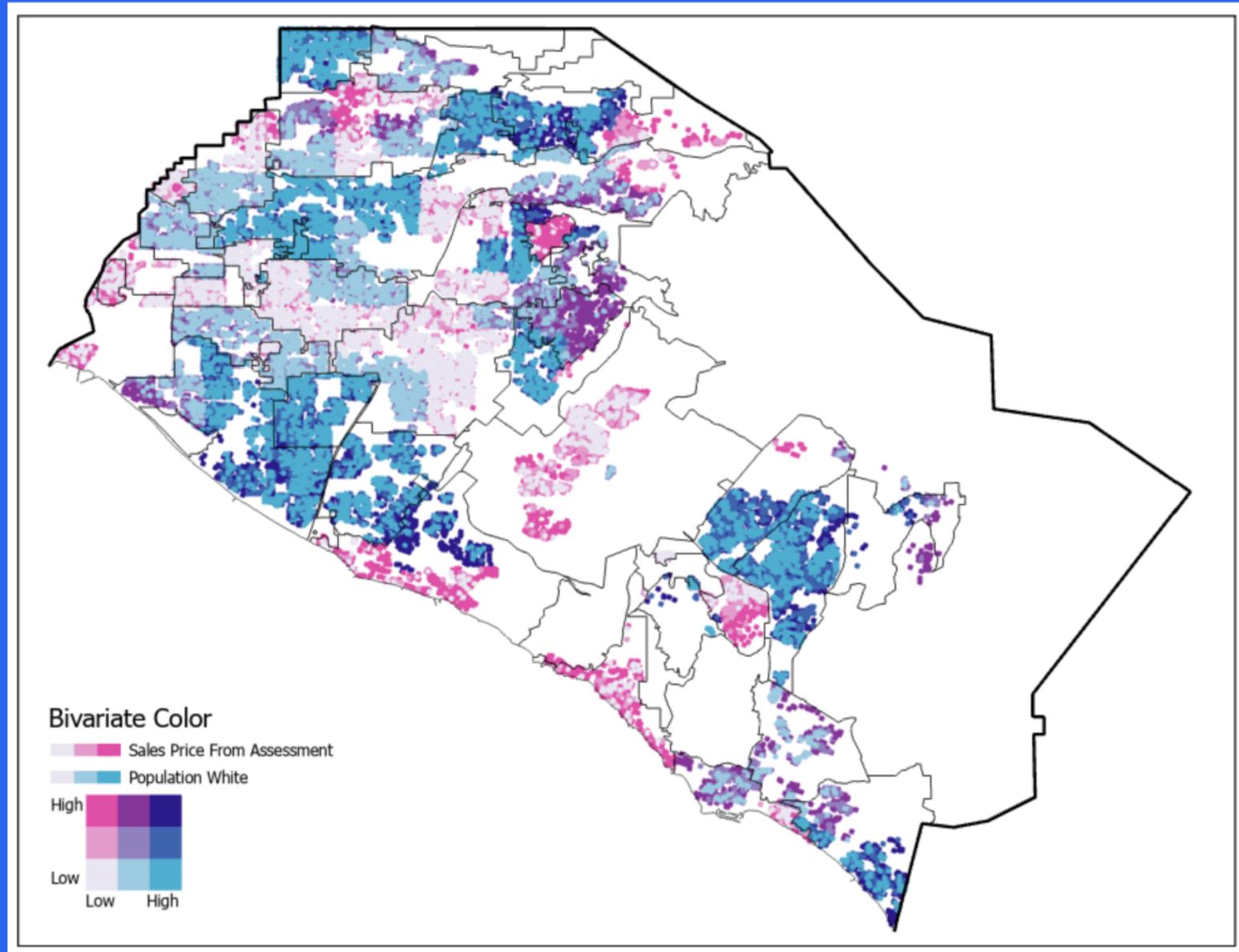
# Orange County Heat Maps



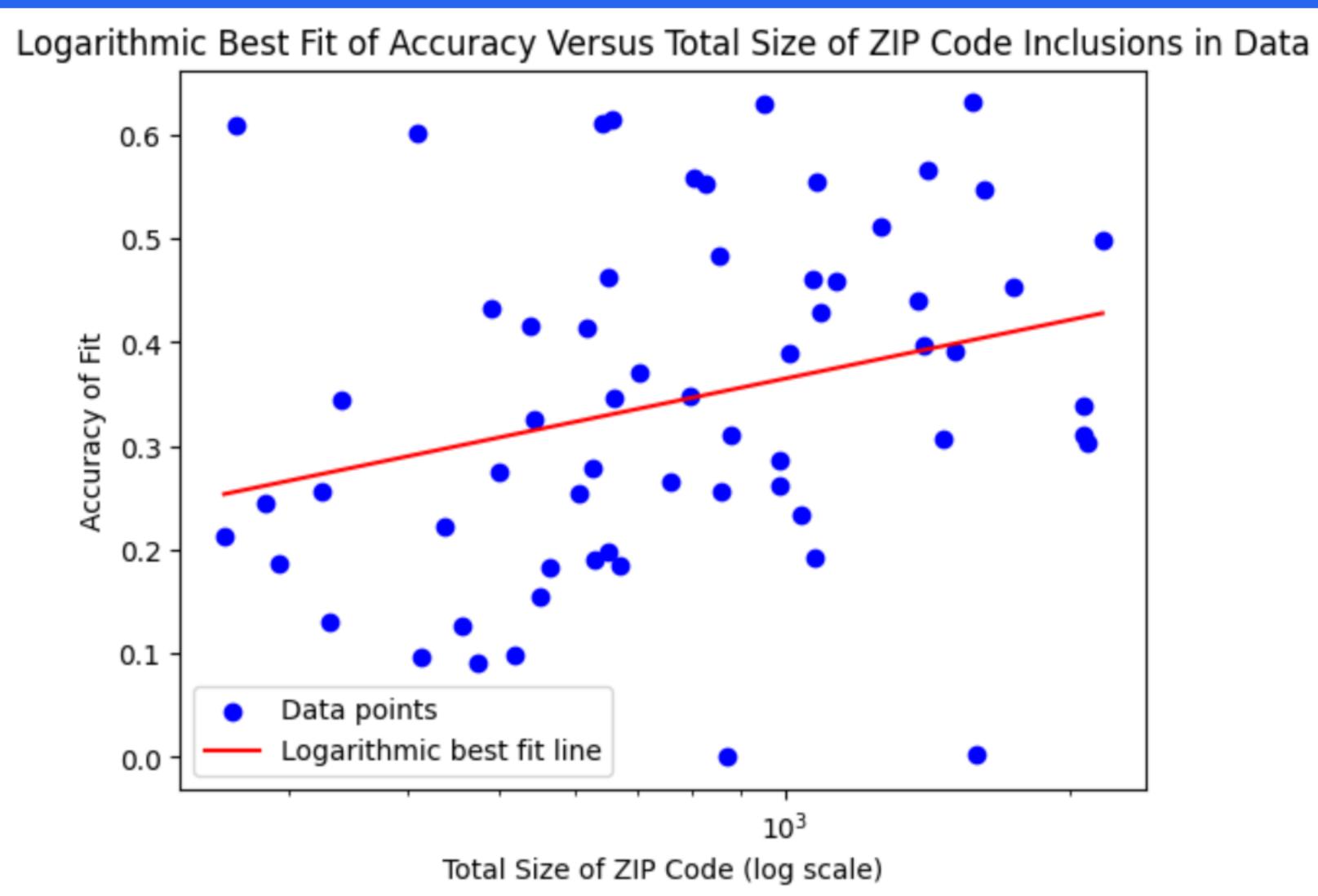
# Orange County Gradient Map



# Sale Price from Last Assessment Based on Racial Demographic



# Accuracy of Fit vs ZIP Code



# Results: Housing Price Increase Factors

Vistas of Ocean, Mountains and Sky  
Luxury Homes and Real Estate // Santa Barbara Real Estate // Homes for Sale // Santa Barbara Coastal Single Family Home

Santa Barbara, CA, United States  
\$5,475,000

4 bedrooms  
3 full baths  
1 half bath  
Interior: 7,959 sq. ft. (approx.)  
Acreage: 5 acres (approx.)

**Agent Information**  
  
[Email this Agent](#)  
[View Agent Profile](#)

Montecito - Upper Village Brokerage  
  
[View Office Profile](#)  
[!\[\]\(5fff40472ad10d456ceb3775edf98340\_img.jpg\)](#) [!\[\]\(207d79912909f888f5f071263296f6ac\_img.jpg\)](#)

**Similar Listings Nearby**  
  
Montecito - Upper Village  
\$5,400,000

  
[Enlarge Photo](#) 1 of 11  

Showcasing the finest art collection, providing a spectacular venue for entertaining or simply serving as a tranquil retreat, this one-of-a-kind hilltop home is an oasis of relaxed luxury. Itself a piece of art, the spacious single-level abode showcases a Shangri-la-like panorama of ocean and islands masterfully displayed by the living room's retractable wall of glass. The dramatic main room combines with the adjacent dining room to create a 1700+ sq. ft. space appropriate for elaborate entertaining and the world-class kitchen and generous butler's pantry stand ready to accommodate the most discerning chef or caterer. A magnificent 100 ft. gallery hallway is worthy of any museum-quality collection, and a versatile floorplan makes several bedroom configurations possible. Exterior amenities include a portico spanning the length of the home, rose garden and numerous fruit and ornamental trees. This wondrous estate home is mere minutes from beaches and Montecito's Upper and Lower Villages.

- Location of housing
- Age of housing
- Living Utilities (beds, baths, etc)
- Accessories (pool, fireplace, etc)

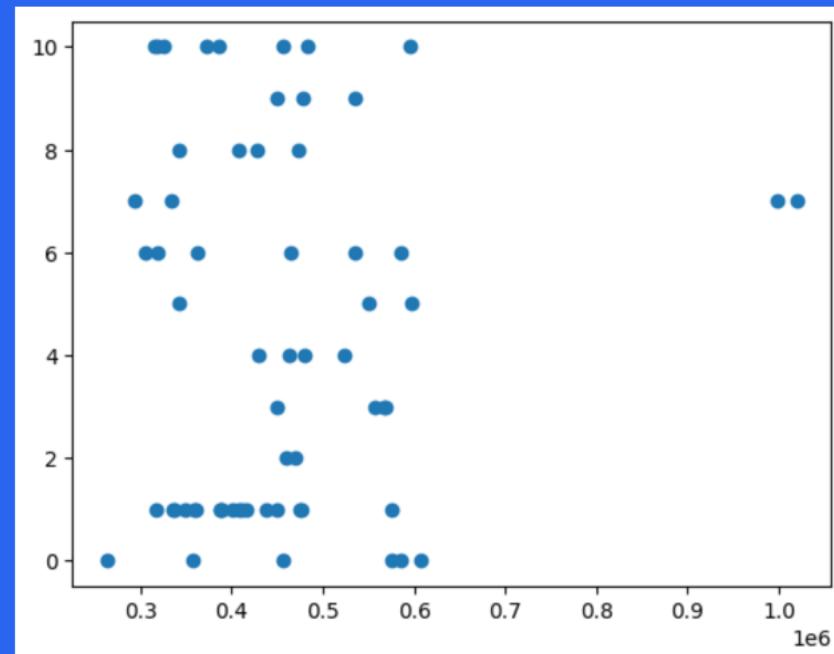
## Social Implications of Higher Housing Prices



- Racial profiling
- Lack of job opportunities in a given area
- Socioeconomic status

# Conclusion

- Why this matters
- How we used our data
- Leading factors and social implications
- What we would explore given more time



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