

Comparison and Assessment of Housing and Income Appreciation Over The Past Decade

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Research Questions

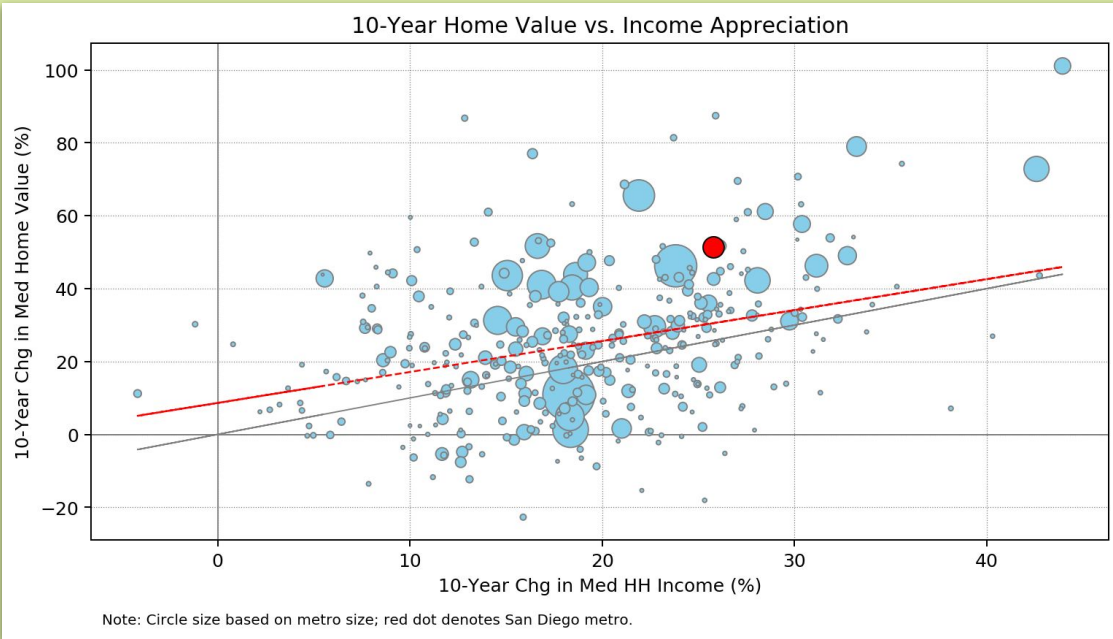
1. How have housing prices recovered/increased in relation to the median household income in the US since the Great Recession?
2. How affordable is the San Diego area when compared to other metros across the nation?
3. In which San Diego County zip code areas would it be best to invest in a single-family home?



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10-Year Home Value vs. Income Appreciation



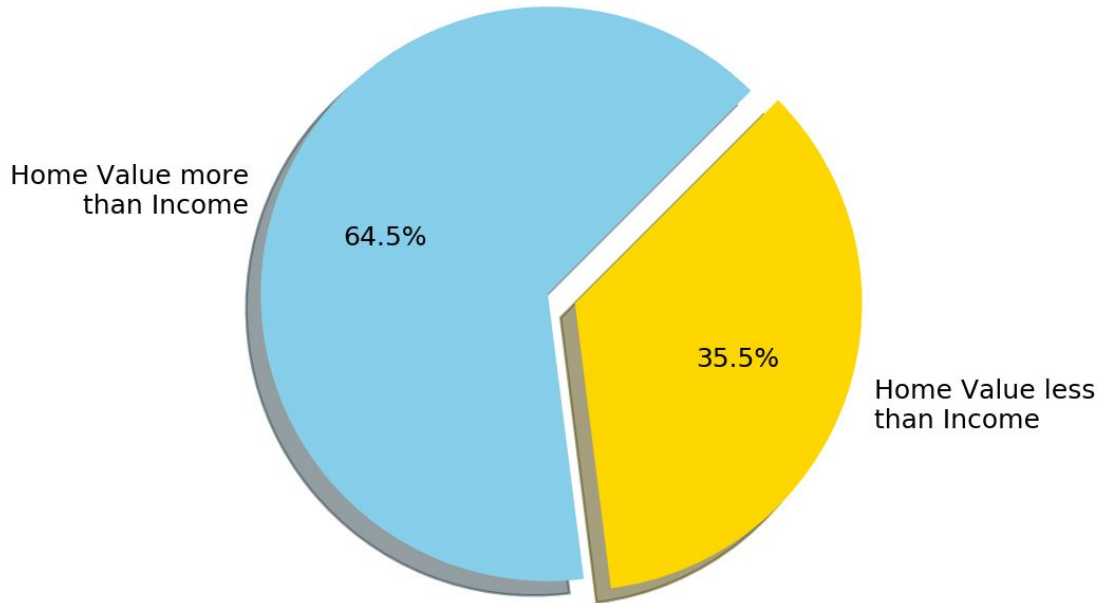
The San Diego MSA is noted above in red. It is the nation's 17th largest metro with a population of 3.3 million.

San Diego saw a 10-year growth in home values of 51.3% and median HH income of 25.8%.

- The percentage change in median home value is compared the percentage change in median household income over a 10-year period.
- The plotted metros are a sample of 369 metropolitan statistical areas (MSAs).
- The scale of each point is based on the metro population size.
- The San Diego metro is noted in red.
- The gray line shows where income and home value have increased at the same rate (i.e. $x=y$).
- The red regression line shows the fit which nearly follows a one-to-one overall trend with home appreciation slightly more than income appreciation.

10-Year Home Value vs. Income Appreciation

Proportion of Metros where Home Value rose faster than Income

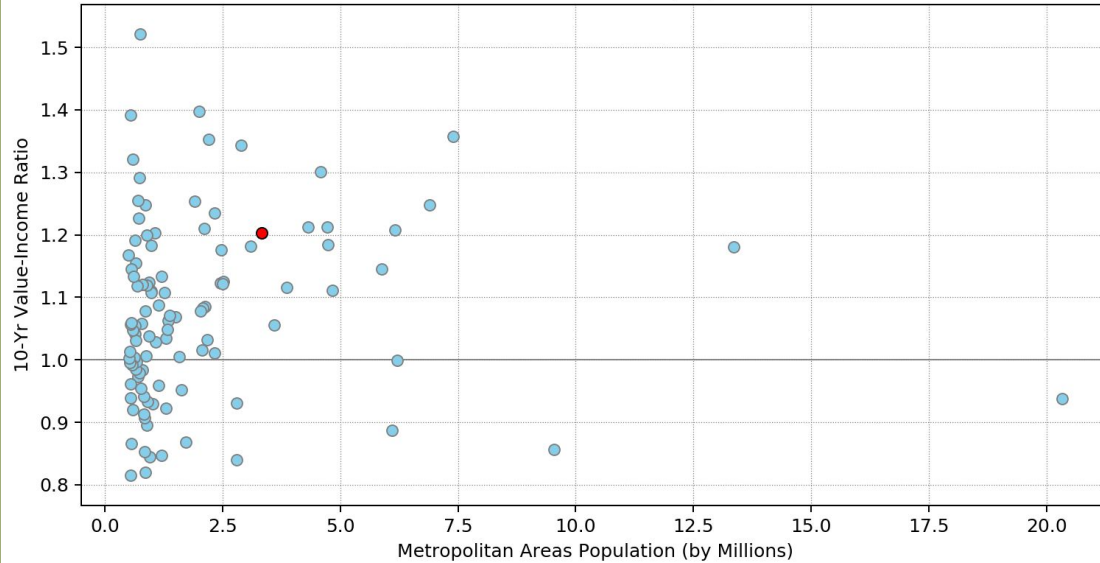


- Most metros tended to have greater home vs. income appreciation.
- Of the 369 metros, nearly two-thirds (238) experienced home values increasing faster than median HH income.
- Home appreciation tended to surpass income appreciation in most of the largest metros.
- 19 of the largest 25 metros had greater home appreciation, 5 had greater income appreciation, and Washington DC appreciated equally.
- New York (10.8% v 18.3%), Chicago (1.3% v 18.4%), and Philadelphia (4.9% v 18.3%) were notable exceptions.

Home Value vs. Income Appreciation by Metro Size

Metropolitan Areas by Population vs. 10-Yr Value-Income Ratio

In Metros w/ over 500K people



- We compared the ratio of home value vs. income based on metro size.
- Only larger metros with a population of 500,000 or more are included - a total of 107 metros.
- The US average is 1.05, nearly equal appreciation nationally.
- The US average this is based on the entire population of 933 metros.
- New York MSA is on the far right with a 20.3 million population and a 0.94 ratio.
- San Diego MSA - shown in red - ranked 20th across all metros with a 1.20 ratio.
- This put San Diego in the top quintile for larger metros.

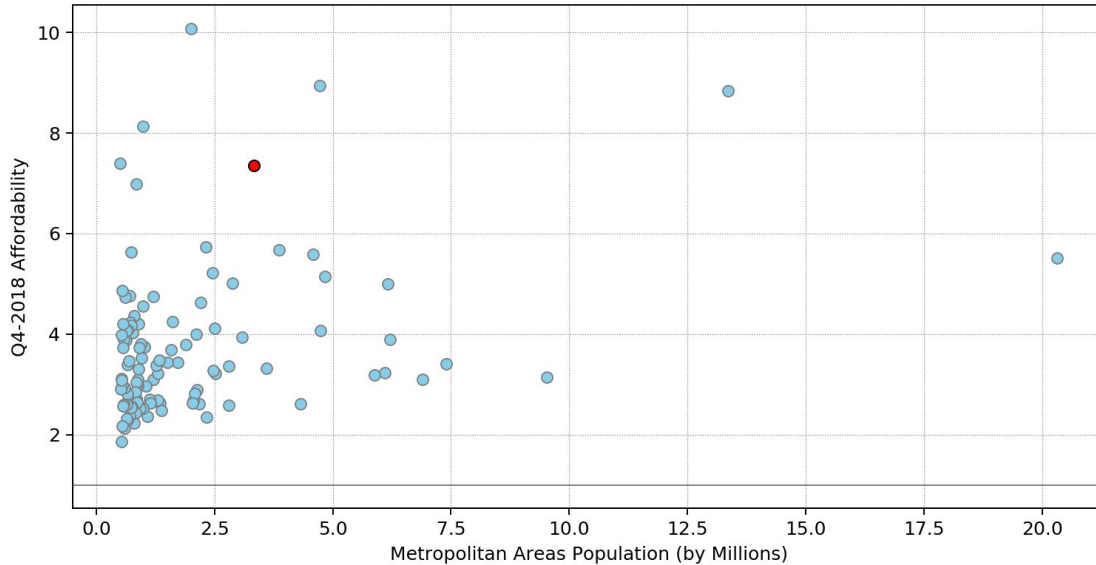


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Current Home Affordability by Metro Size

Metropolitan Areas by Population vs. 2018-Q4 Affordability
Affordability (Home Value / Med. HH Inc.) in Metros w/ over 500K people



- We compared current affordability (Q4 2018) in the largest metros.
- Affordability is defined as a ratio of current home value over current median HH income.
- The US average of 3.54 means that home values are 3.54 times greater than annual income.
- Of the 107 largest metros, San Diego ranked 6th with 7.36.
- San Jose (10.08), San Francisco (8.94), Los Angeles (8.84), and Honolulu (8.13) were the least affordable.
- Metro size was a significant factor with Los Angeles (2nd), San Francisco (11th), and San Diego (17th) amongst the most populous metros.

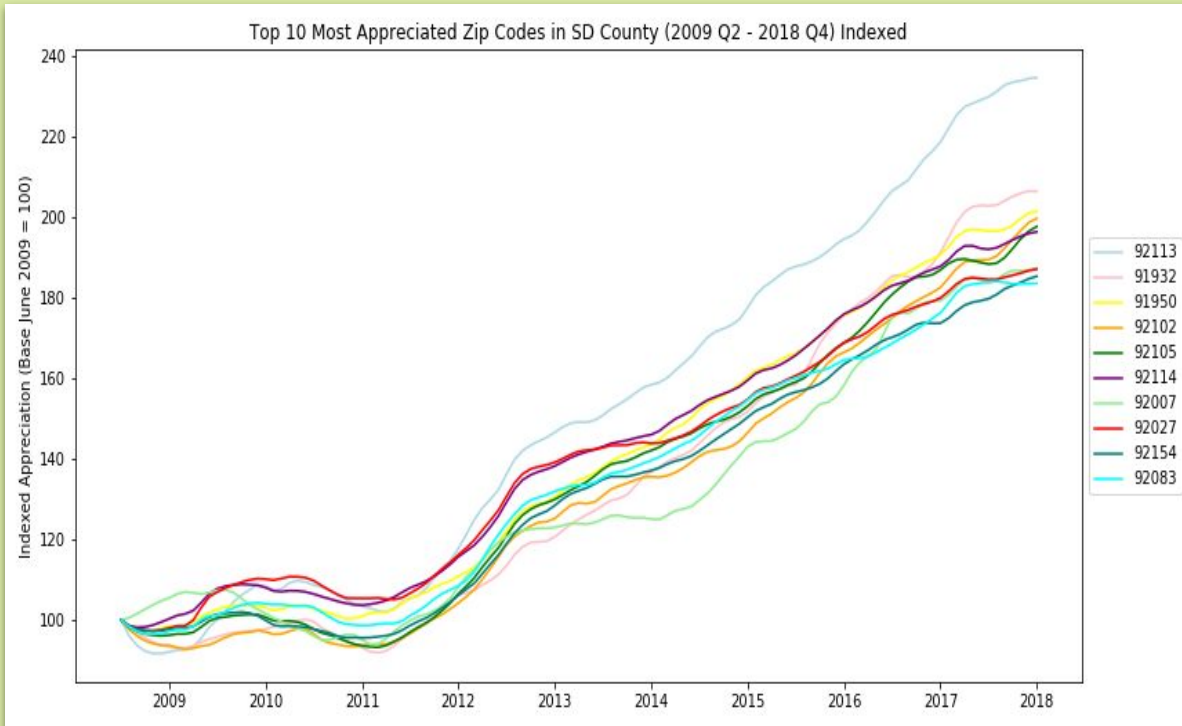


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Top 10 Appreciated Zip Codes in SD County (Indexed)

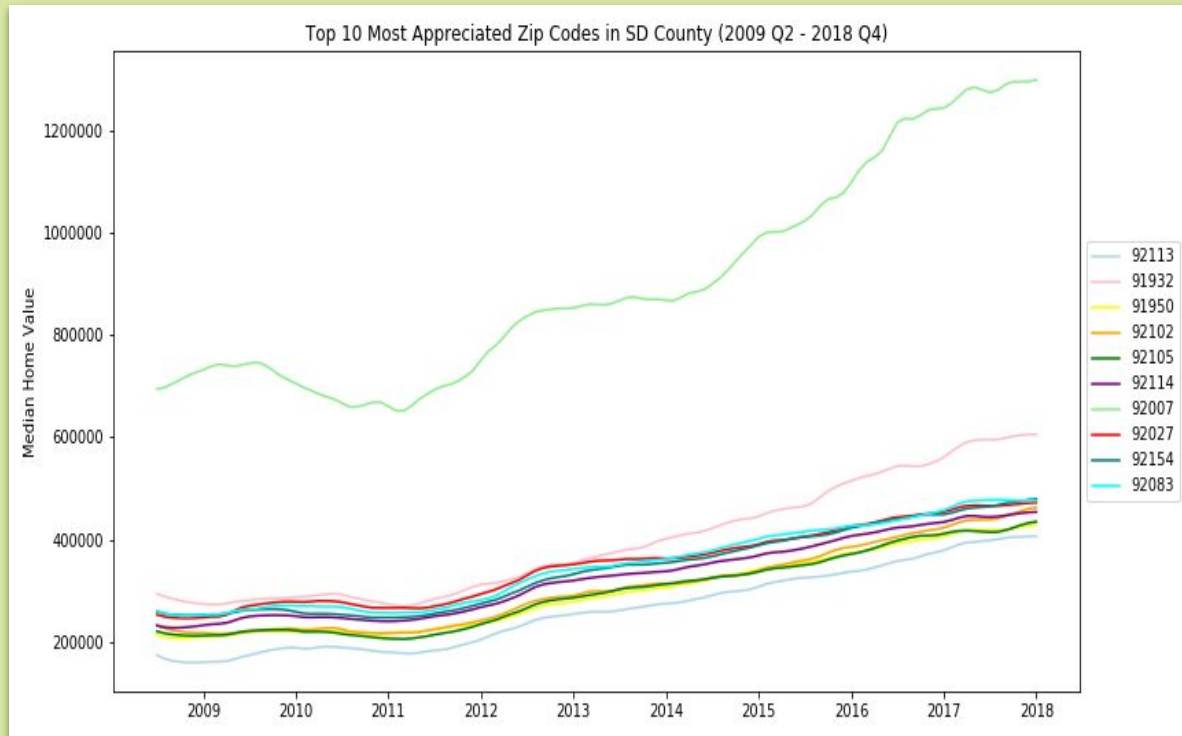
(2009 Q2 - 2018 Q4)



- Compared 87 of the zip codes in SD County
- Queried the most appreciated zip codes in SD County since the end of the Great Recession
- Graphed top 10
- Indexed them with base = 100
- 92113 had highest appreciation rate

Top 10 Appreciated Zip Codes in SD County

(2009 Q2 - 2018 Q4)



- Looked at Median Home Value vs. Time from end of Great Recession to now
- Encinitas, 92007, was the outlier due to the high cost of housing (ranked 7 for appreciation)
- Barrio Logan / Logan Heights / SE SD area, 92113, has lowest cost of housing (highest appreciation rate)

Top 10 Appreciated Zip Codes in SD County

(2009 Q2 - 2018 Q4)

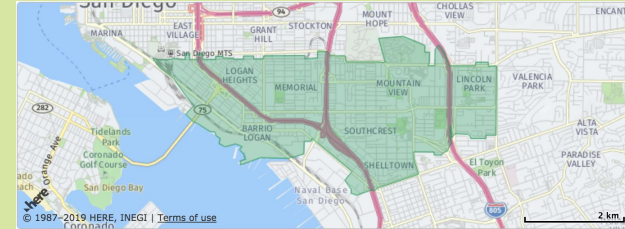
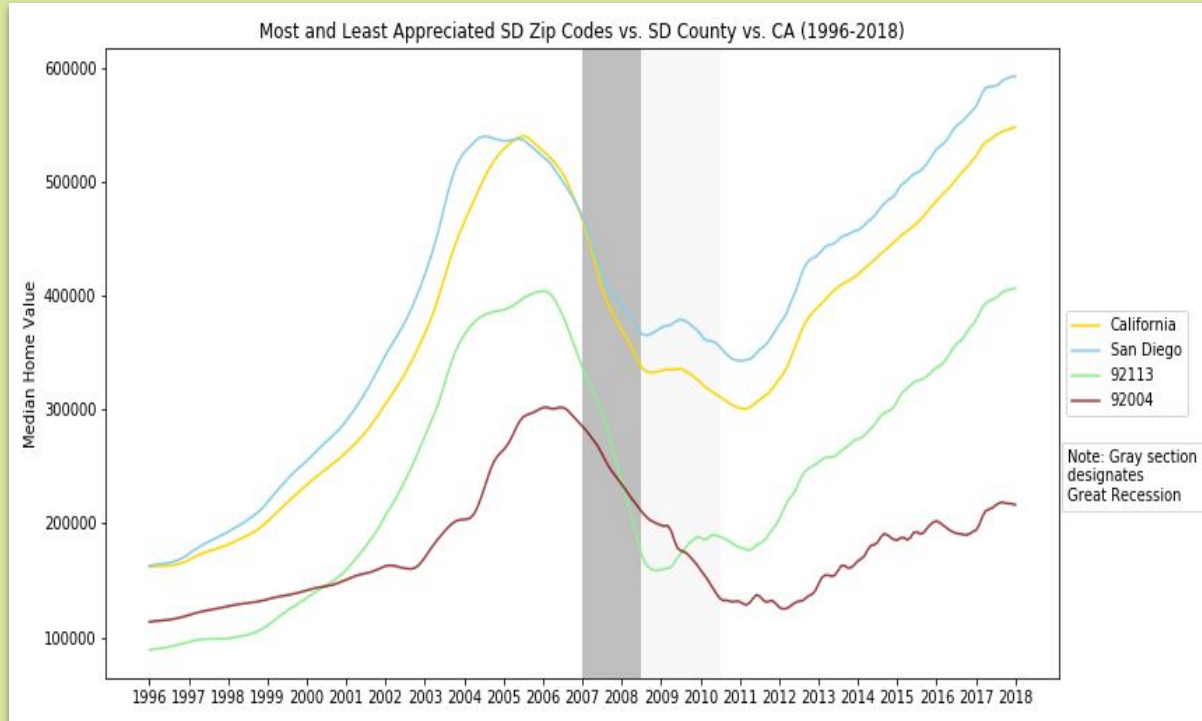


- **92113** - Barrio Logan, Logan Heights, and part of SE SD
- **91932** - Imperial Beach
- **91950** - National City, Chula Vista, Lincoln Acres
- **92102** - Stockton, Grant Hill, Mount Hope, Southpark, Webster
- **92105** - Islenair, Ridgeview, Castle
- **92114** - South Encanto, North Bay Terraces, Alta Vista, Lomita
- **92007** - Encinitas
- **92027** - Escondido, Valley Center
- **92154** - Imperial Beach, Chula Vista
- **92083** - Vista

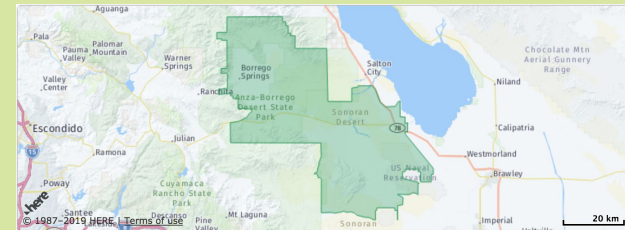


Highest and Lowest Appreciated ZIP Codes in SD County

Compared to County and State Before, During, and After the Great Recession (1996 Q12 - 2018 Q12)



92113 (Barrio Logan and part of South Eastern San Diego)



92004 (Borrego Springs)



Future Analysis

- Ranking school district test scores/performance
- Number of parks
- Low crime rate
- Proximity to natural landmarks
(beach/mountains/lakes)