

Zipcodes for Millennials: Where You Should Invest

Rebecca Frost-Brewer



Overview

- Business and data understanding
 - Modeling
 - Evaluation
 - Recommendations
 - Next Steps
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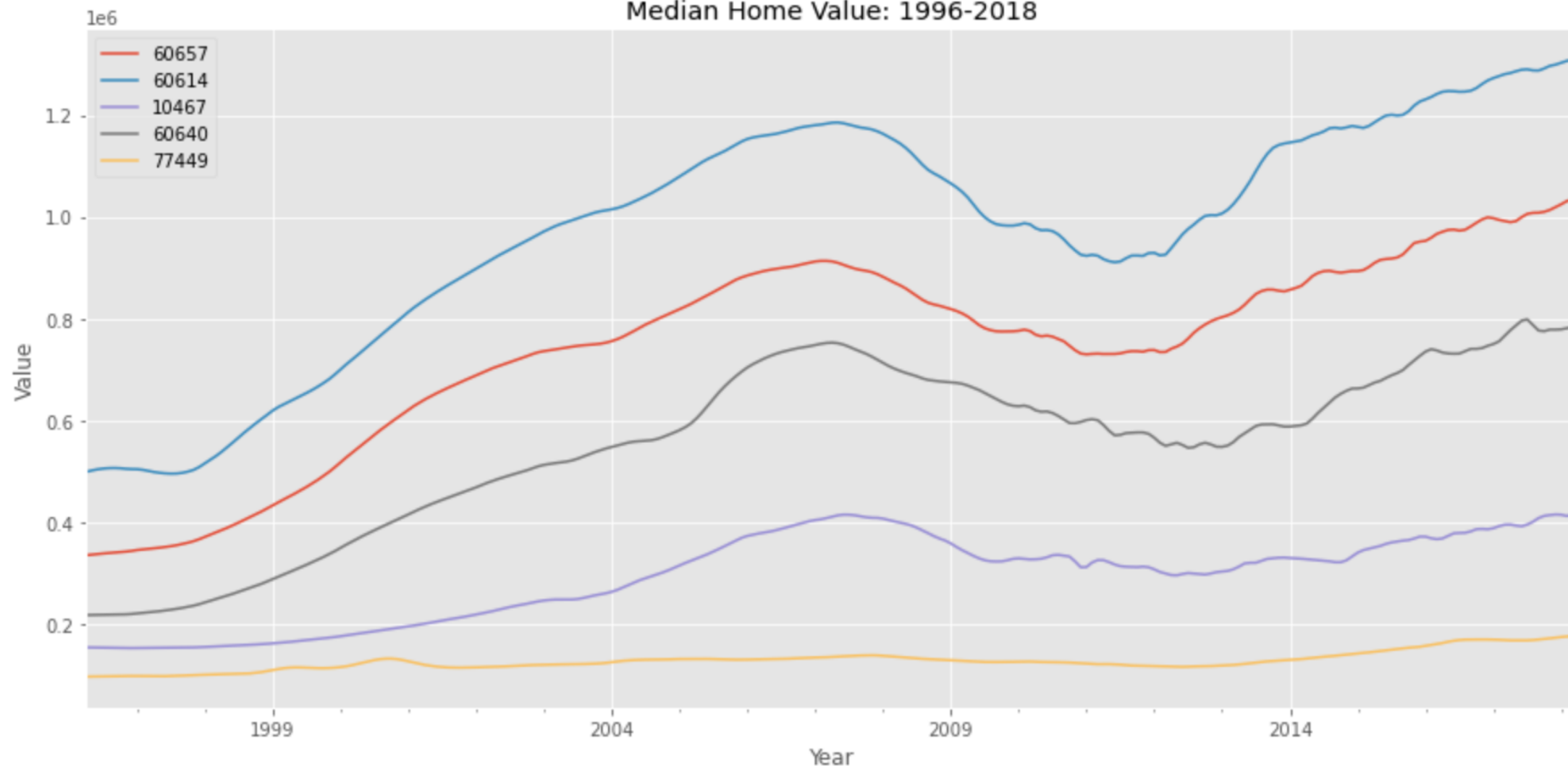
Business and Data Understanding

- 26% of homebuyers are between the ages of 30 and 39, youngest still turning 30 each year
- Business problem: Advising millennials on the best 5 zipcodes in which to invest in a home
- Client profile:
 - Looking for median home values in the average, middle-of-the-road range
 - What return on their investment will they see in the first two years
- Data: Zillow Research – 14,000 zipcodes, median monthly home value from 1996 to 2018

Evaluation of “Best” Zipcodes

- Focus on cumulative ROI (over the 22 years of the full dataset) and the ROI of the most recent five years
- Only including data values within the middle range to meet the business needs of millennials who are first-time homebuyers
- Five Prospective Zipcodes:
 - Three are in Chicago: Lakeview, Depaul/Lincoln Park, and Uptown
 - The Bronx (Van Cortland Park)
 - Up-and-coming western suburb (Katy, TX) of Houston

Median Home Value: 1996-2018





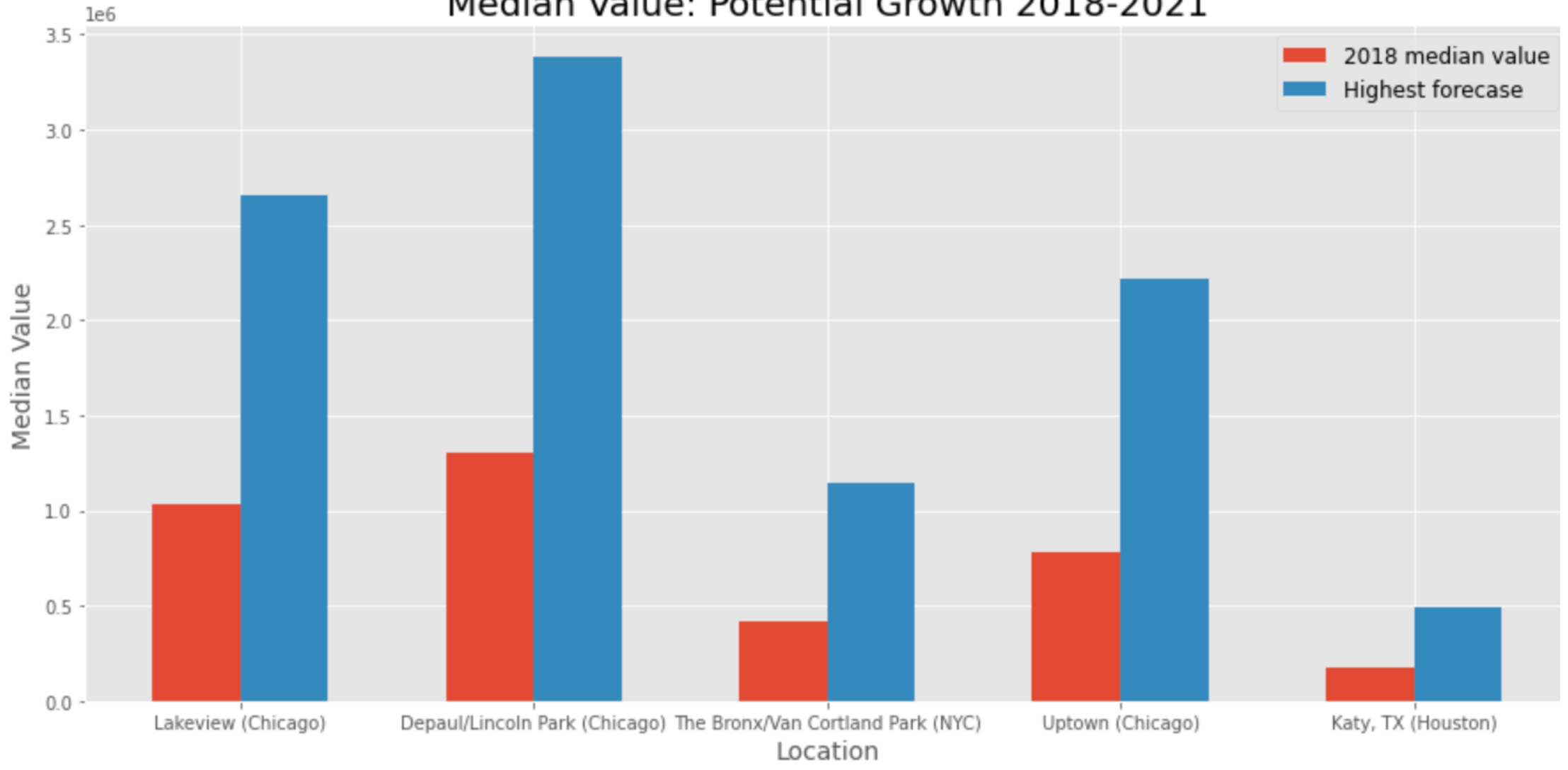
Time Series Modeling

- Use a SARIMA model to account for any potential seasonality in the values
 - Modeling based on data beginning with 2011 to minimize the outlier affect of the 2008-2009 housing crash on predictions and forecasts
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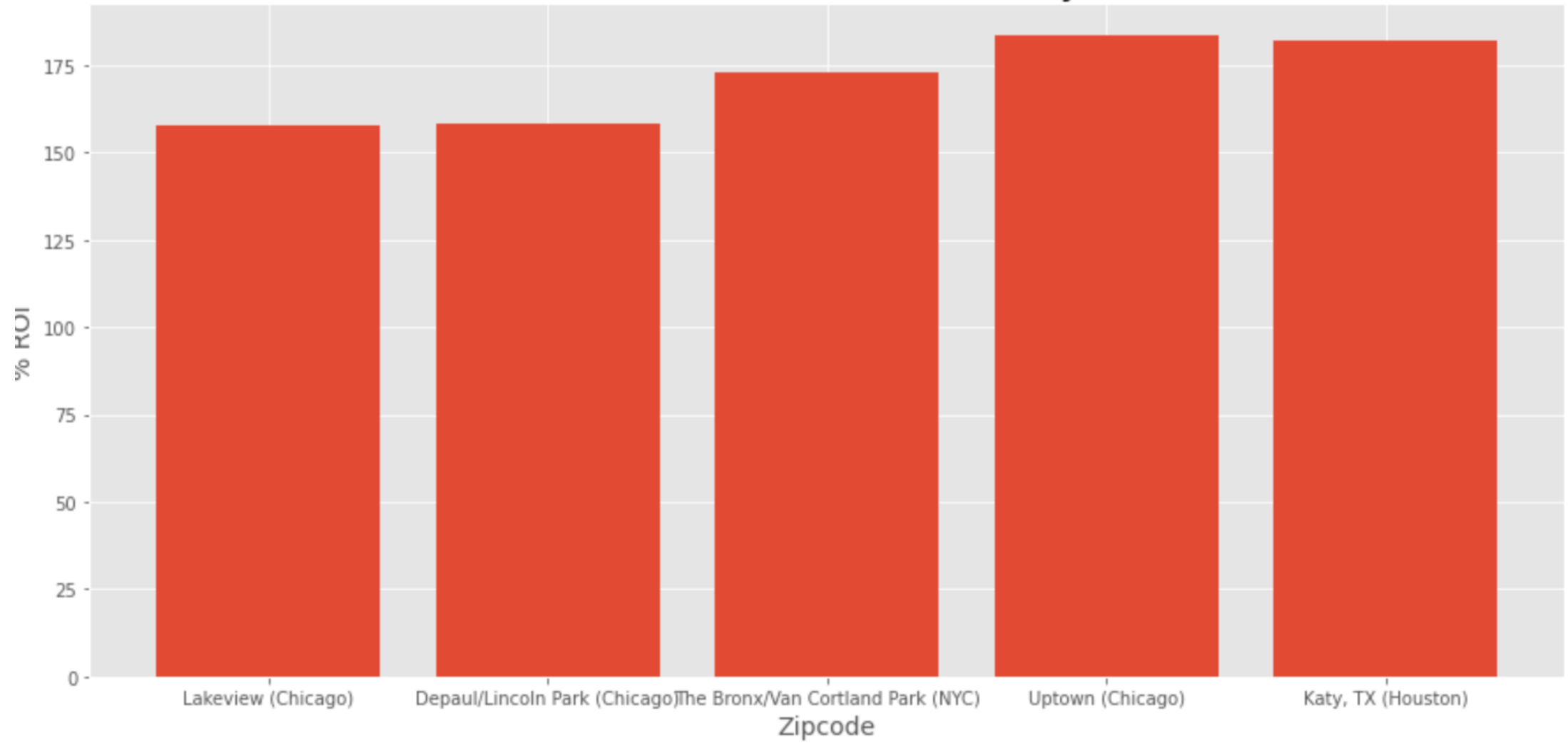
Model Results

City	Prediction Error	Possible Best-Case ROI %
Lakeview (Chicago)	\$44,097	158%
Depaul/Lincoln Park (Chicago)	\$58,447	158%
The Bronx/Van Cortland Park	\$13,507	173%
Uptown (Chicago)	\$27,626	183%
Katy, TX (Houston suburb)	\$4,466	182%

Median Value: Potential Growth 2018-2021



Best Possible Forecasted % ROI by 2021



Recommendations

- More risk-averse, possibly with less cash on hand:
 - Katy, TX (77449)
 - Median home value (2018): \$176,200
 - Projected high-end home value (2021): \$496,736
 - Best-case 2-year ROI: 182%
 - The Bronx/Van Cortland Park (10467)
 - Median home value (2018): \$417,900
 - Projected high-end home value (2021): \$1,140,162
 - Best-case 2-year ROI: 173%

Recommendations

- Less risk-averse, possibly with more cash on hand:
 - Lakeview (Chicago, 60657)
 - Median home value (2018): \$1,030,600
 - Projected high-end home value (2021): \$ 2,654,675
 - Best-case 2-year ROI: 158%
 - Depaul/Lincoln Park (Chicago, 60614)
 - Median home value (2018): \$ 1,307,000
 - Projected high-end home value (2021): \$ 3,368,511
 - Best-case 2-year ROI: 158%



Future Work

- Include more informative data – income, cost of living metrics, population, city characteristics
 - Focus on potential hot spots
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Thank You

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- Questions?

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