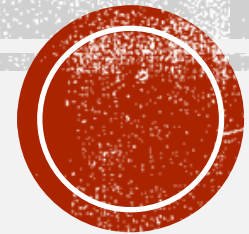


TIME SERIES MODELING FOR HARRIS COUNTY HOUSE MARKET

Linh Mai

Presented August 20th, 2020



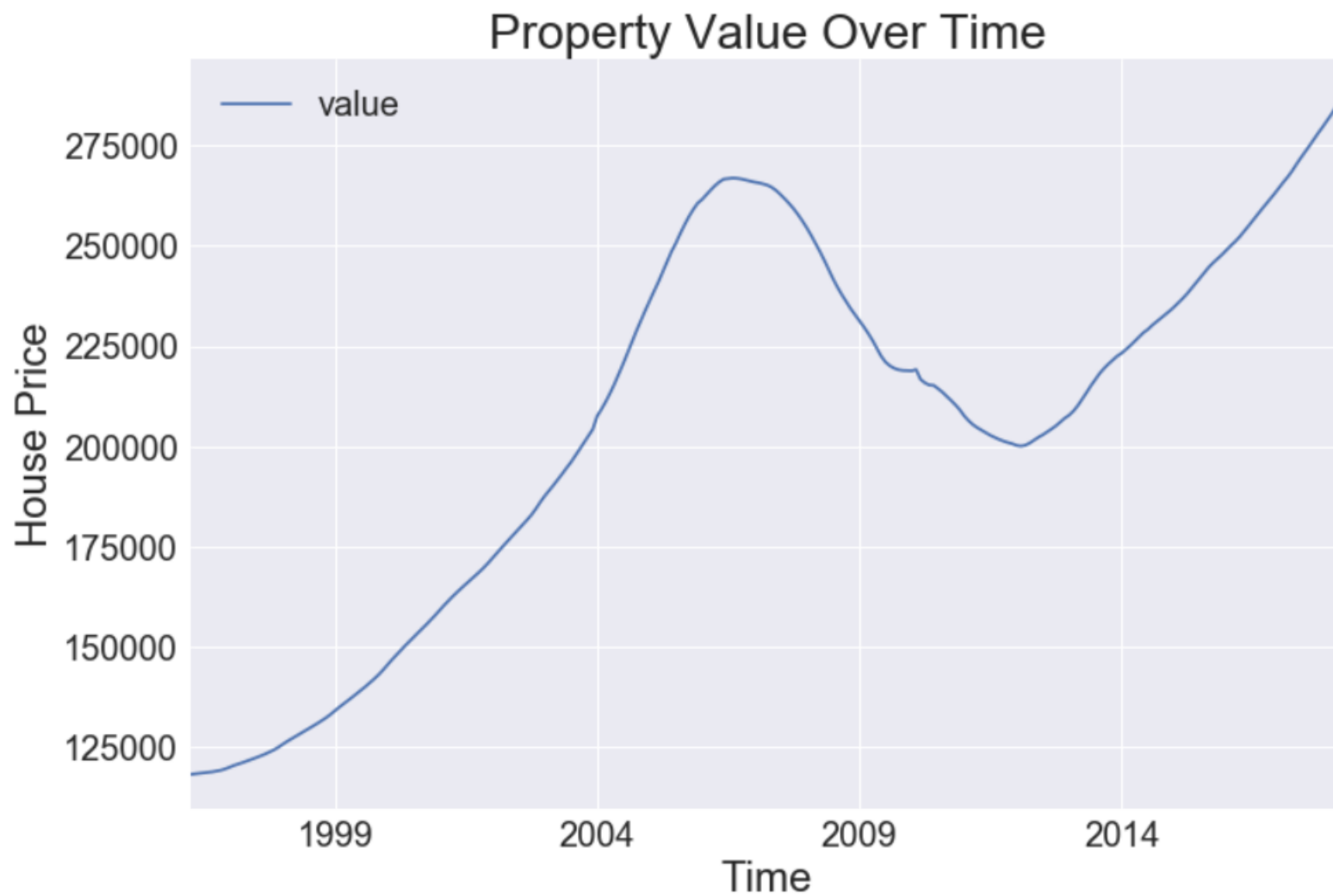
OBJECTIVES

- **Top 5 zip codes in Harris County for real estate investment**
- **3-year forecast based on house market data of 20+ years**
- **Evaluation of top models is based on the Return On Investment (ROI) yield**

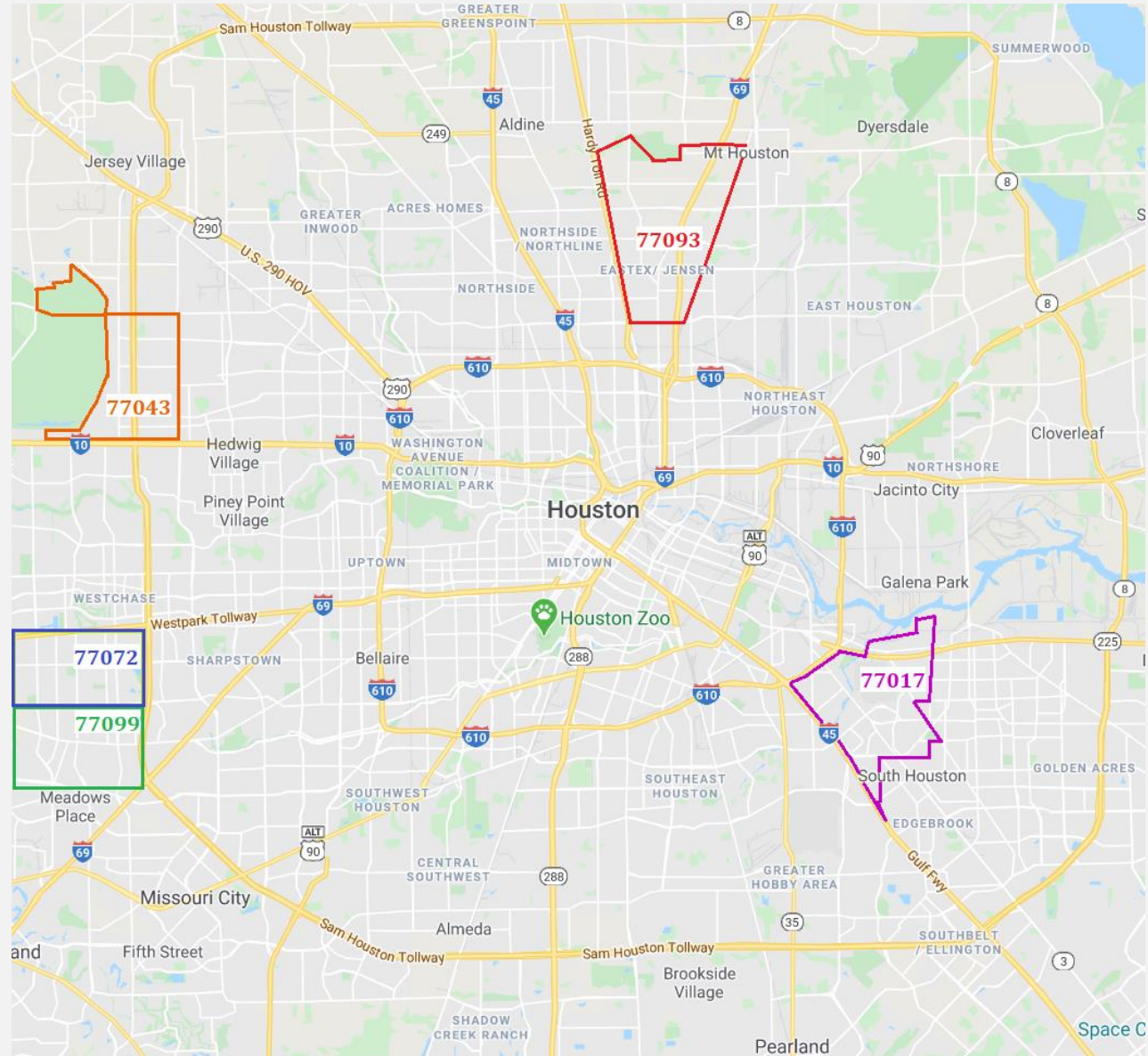
OVERVIEW

- **Real estate price data from Zillow Research Page – an American online real estate database company**
- **Overall data: 15,000 zip codes**
- **Limit to Harris County, Texas: 121 zip codes**

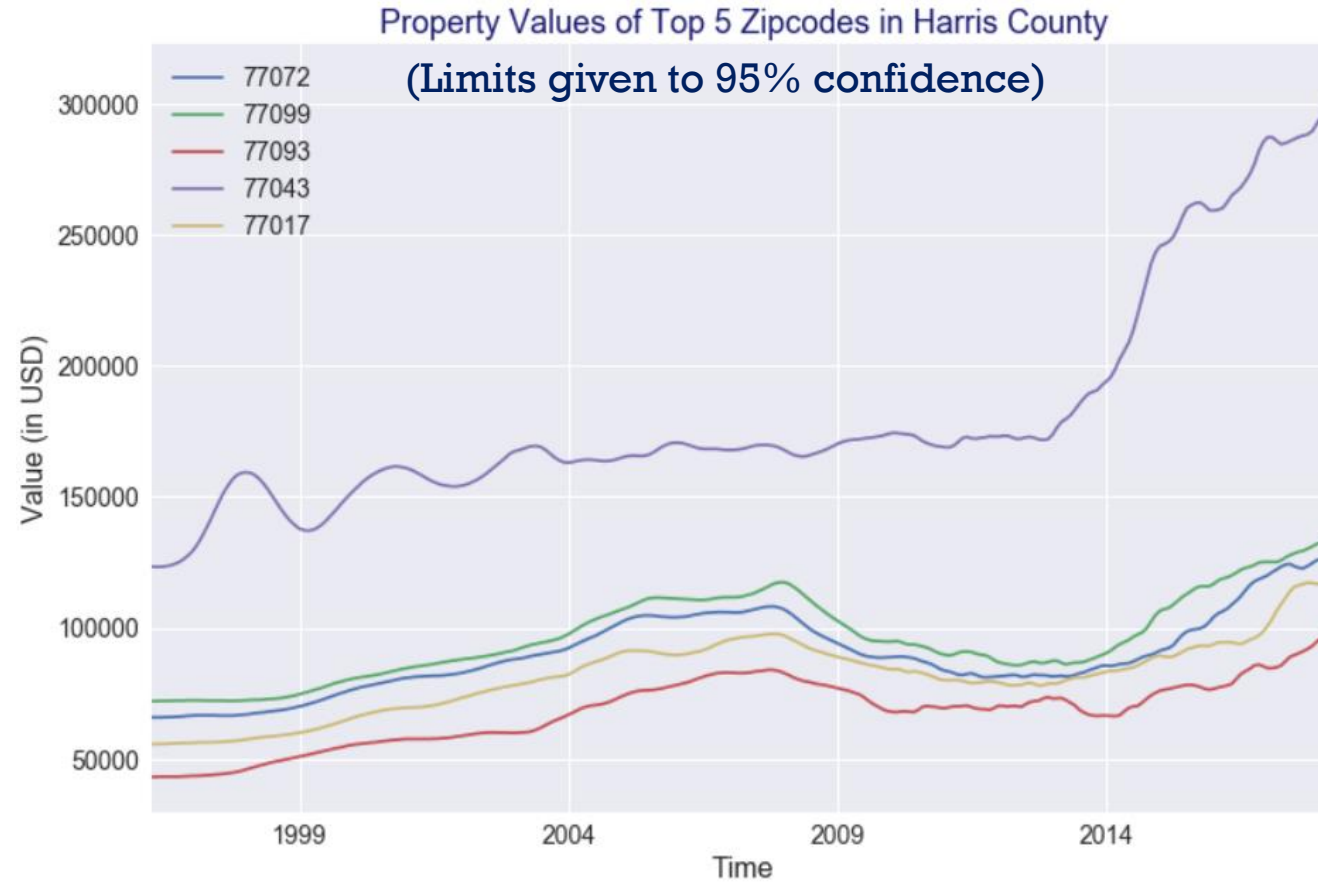
AVERAGE OVERALL TREND



RECOMMENDATIONS



RECOMMENDATIONS



ZIP	HOUSE PRICE	AVG ROI	HIGHEST ROI	LOWEST ROI
77072	130K	19.31%	33.07%	5.54%
77099	140K	22.38%	36.665	8.10%
77093	100K	26.95%	41.65%	12.25%
77043	310K	19.31%	34.76%	3.86%
77017	125K	19.12%	244.34%	5.63%

FUTURE CONSIDERATIONS



- Create function to advice the investment ratio for Top 5 Zip codes in Harris County
- Try with limiting time frame of the model to post recession (2008-2009) (after 2012)
- More details for the results if we can incorporate other features: household income, property tax rate, educational degree level, and so on

THANK YOU