

A background photograph of a city skyline featuring several modern skyscrapers with glass and steel facades. The buildings are set against a sky filled with white and grey clouds. The perspective is from a low angle, looking up at the buildings.

MODULE 4 PROJECT

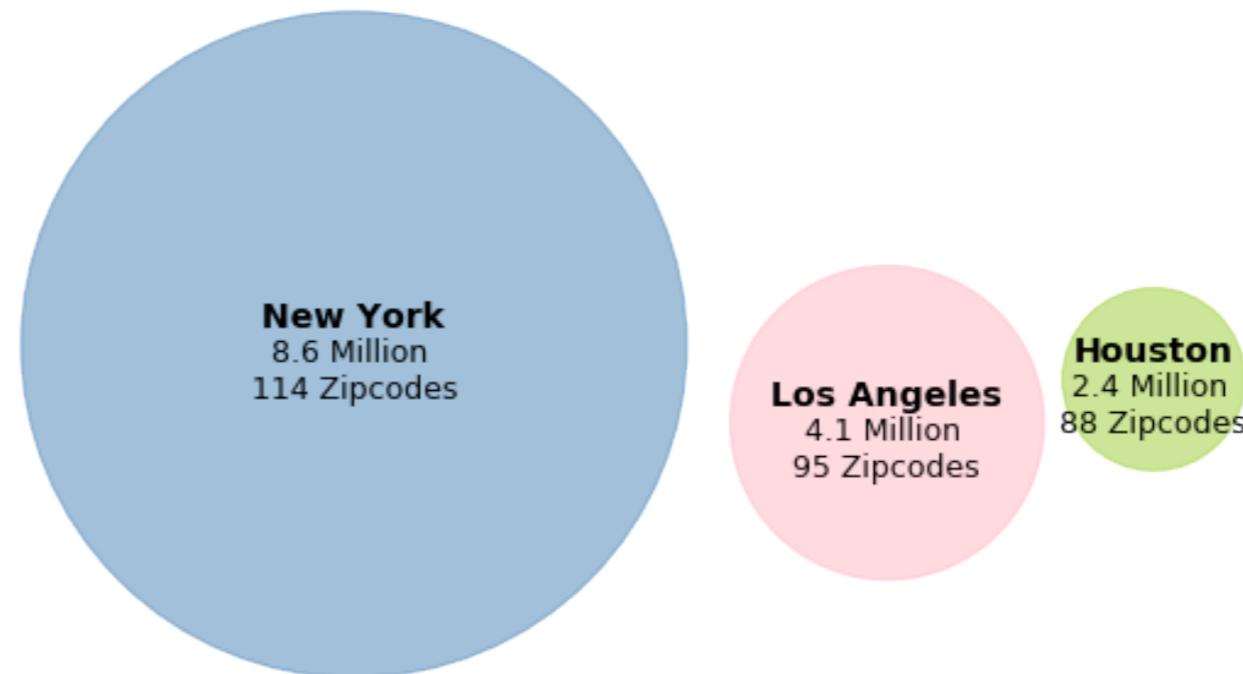
---

# REAL ESTATE INVESTMENT RECOMMENDATIONS

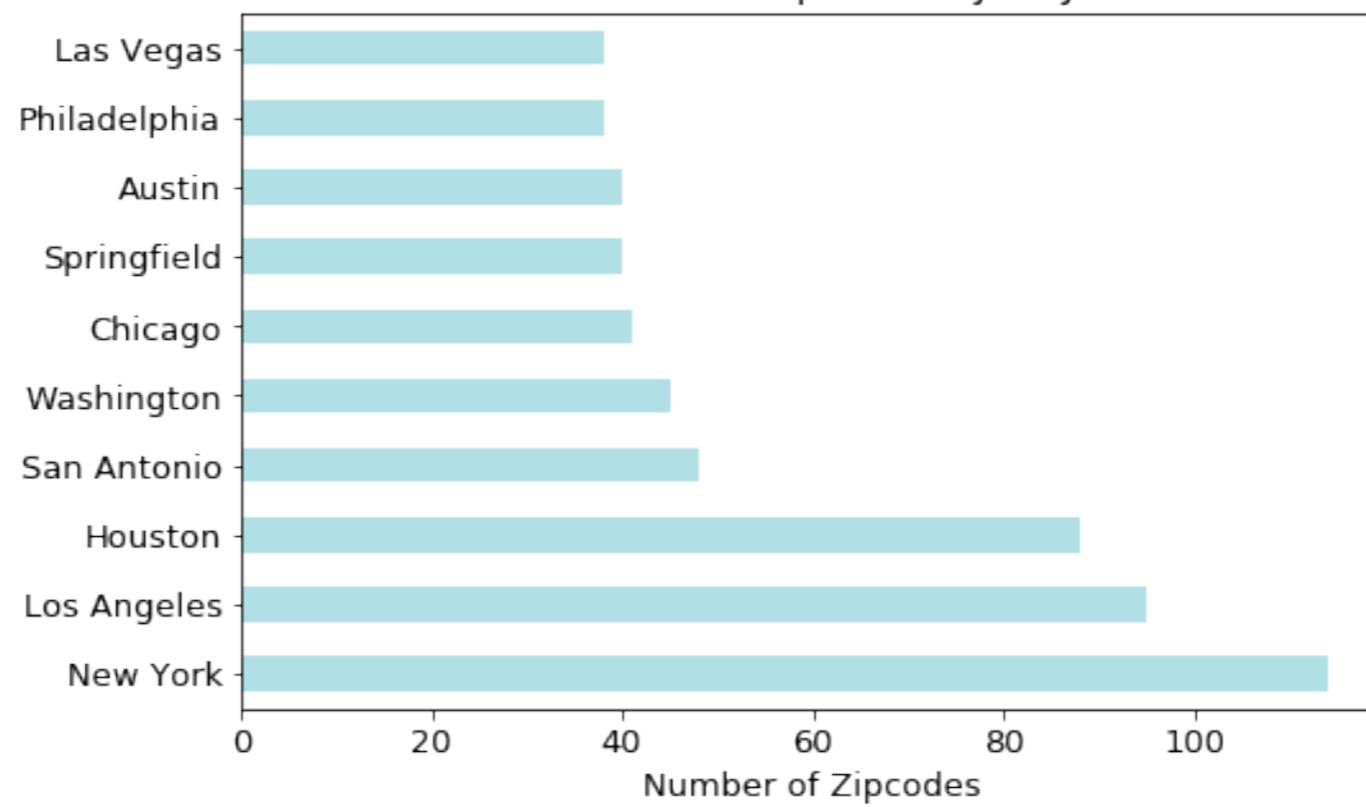
- 
- ▶ Areas of real estate investment
  - ▶ Zillow Database
  - ▶ Median Housing Sales by Zip Codes, 1996-2018



### Top 3 Cities By Number of Zipcodes

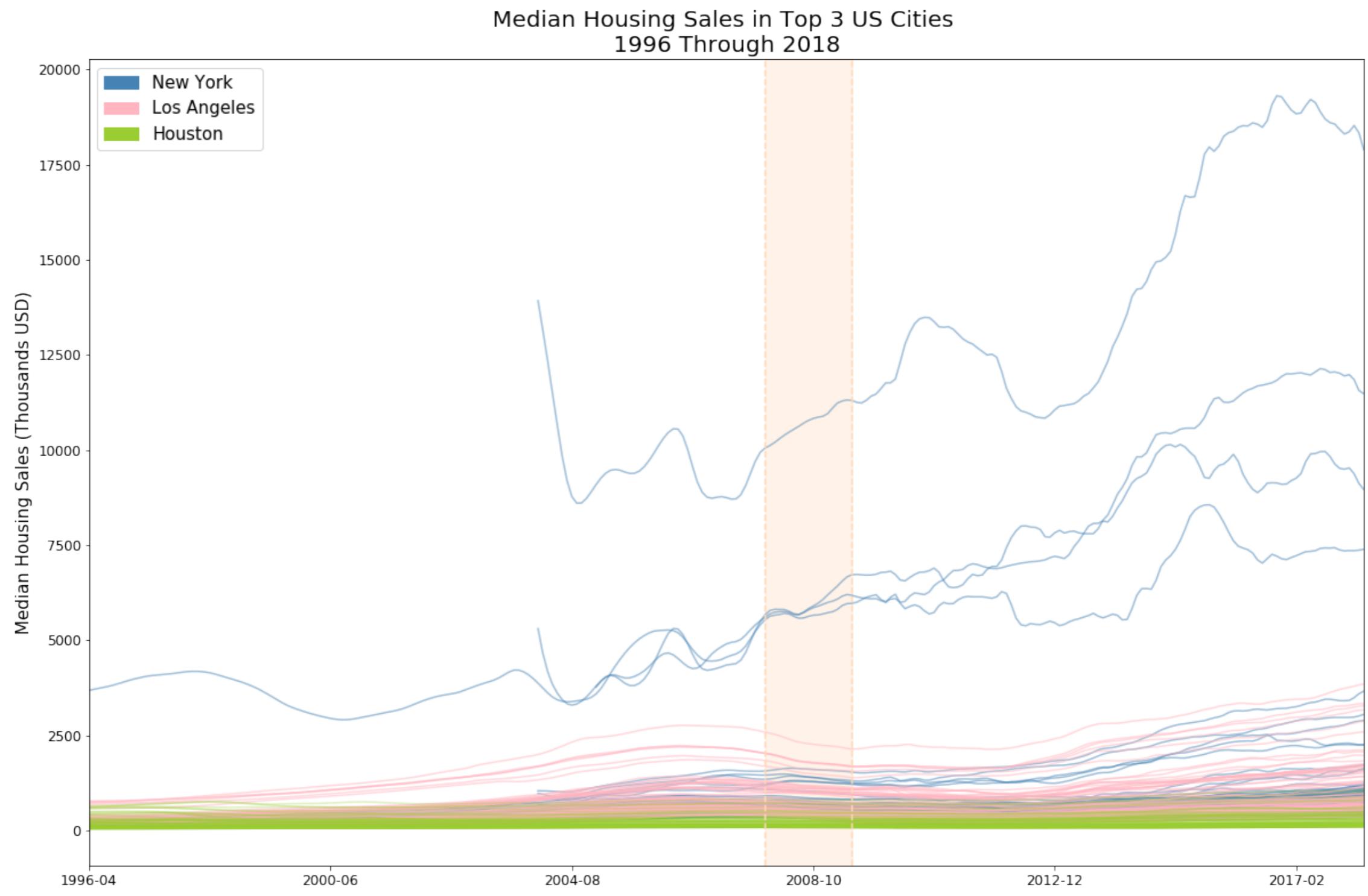


### Number of Zipcodes by City



# MEDIAN HOUSING SALES, 1996 - 2018

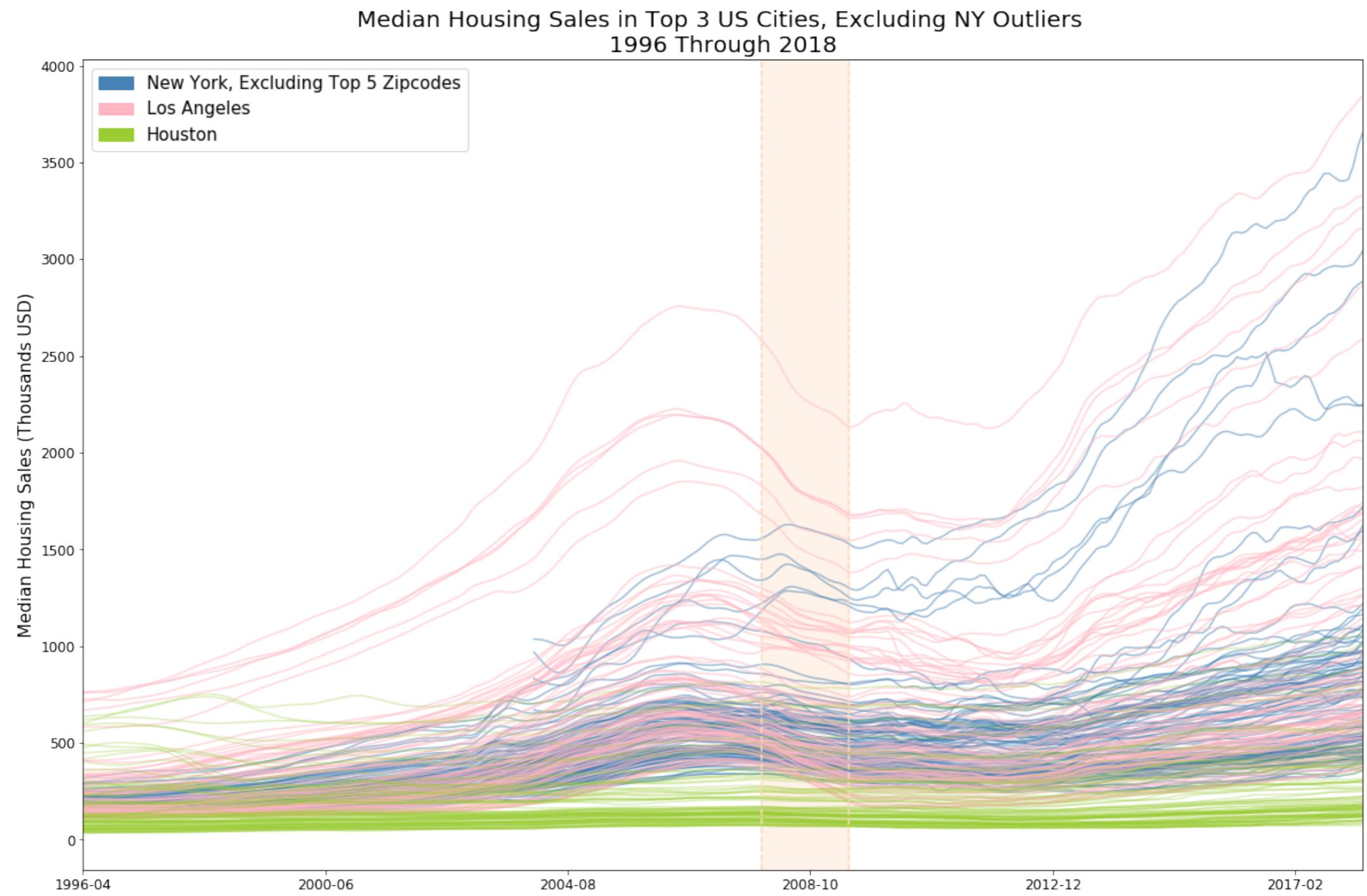
4

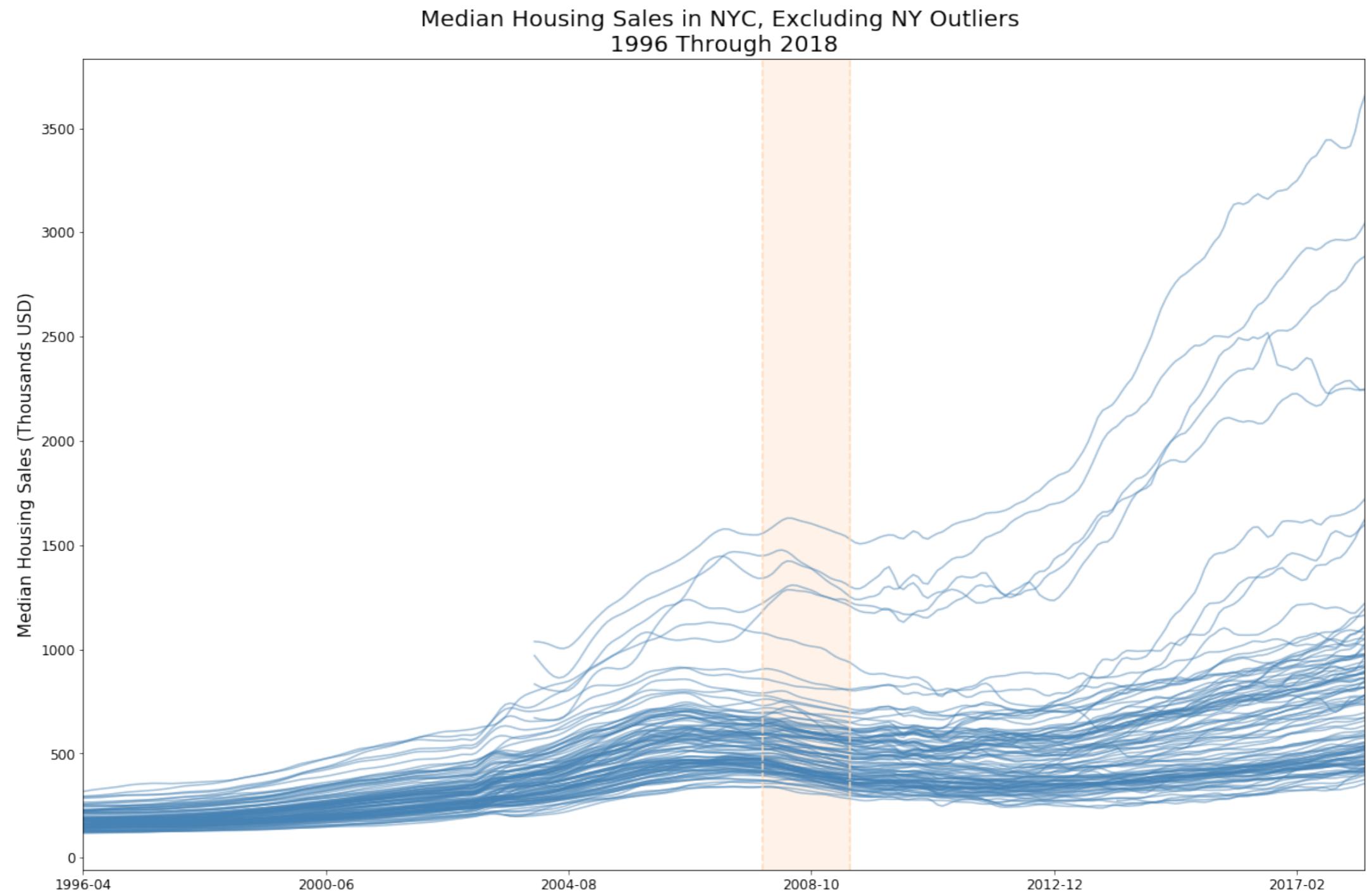




- 10128, Upper East Side
- 10021, Upper East Side
- 10011, Chelsea and Clinton
- 10014, Greenwich Village and Soho

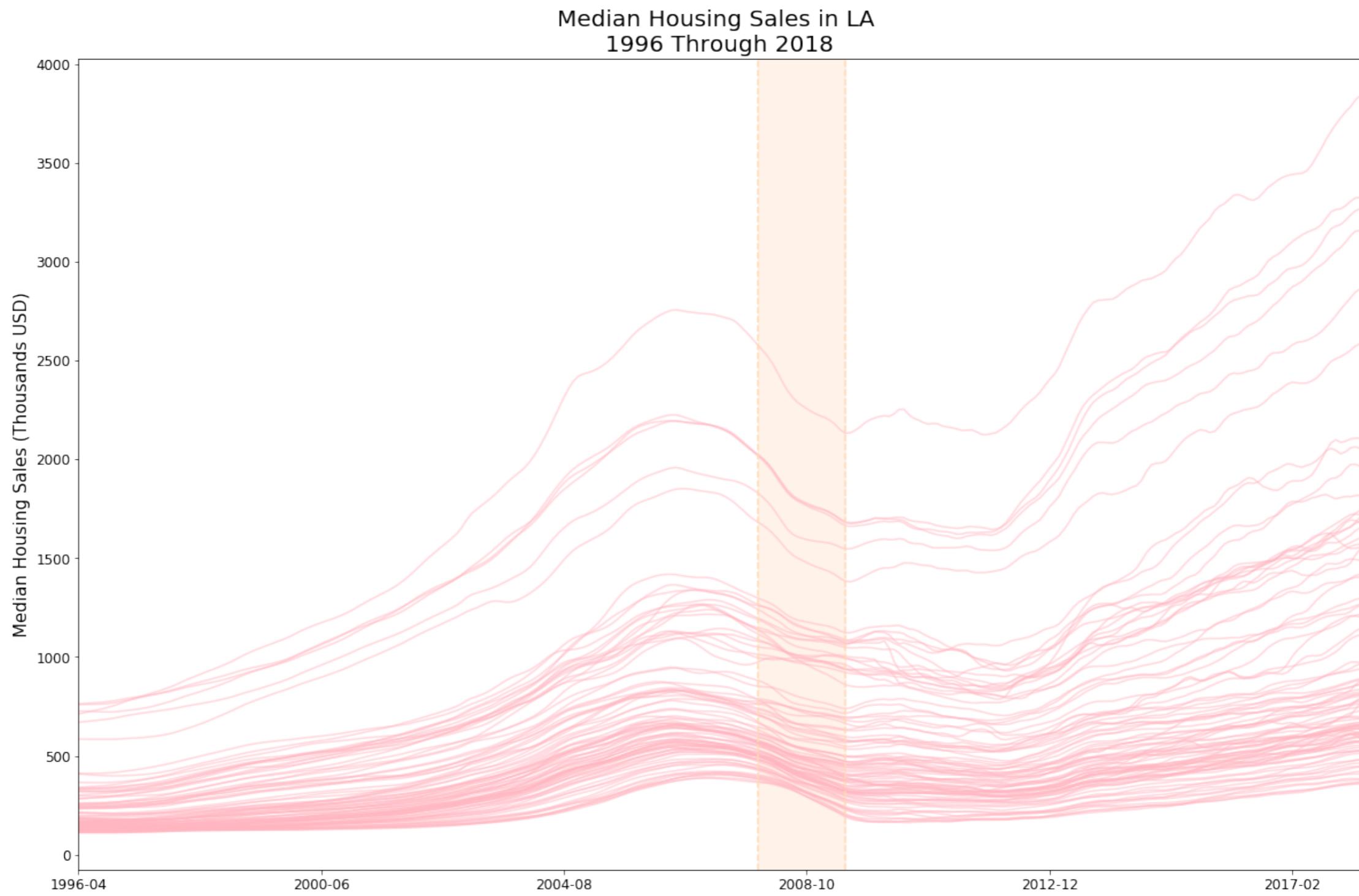


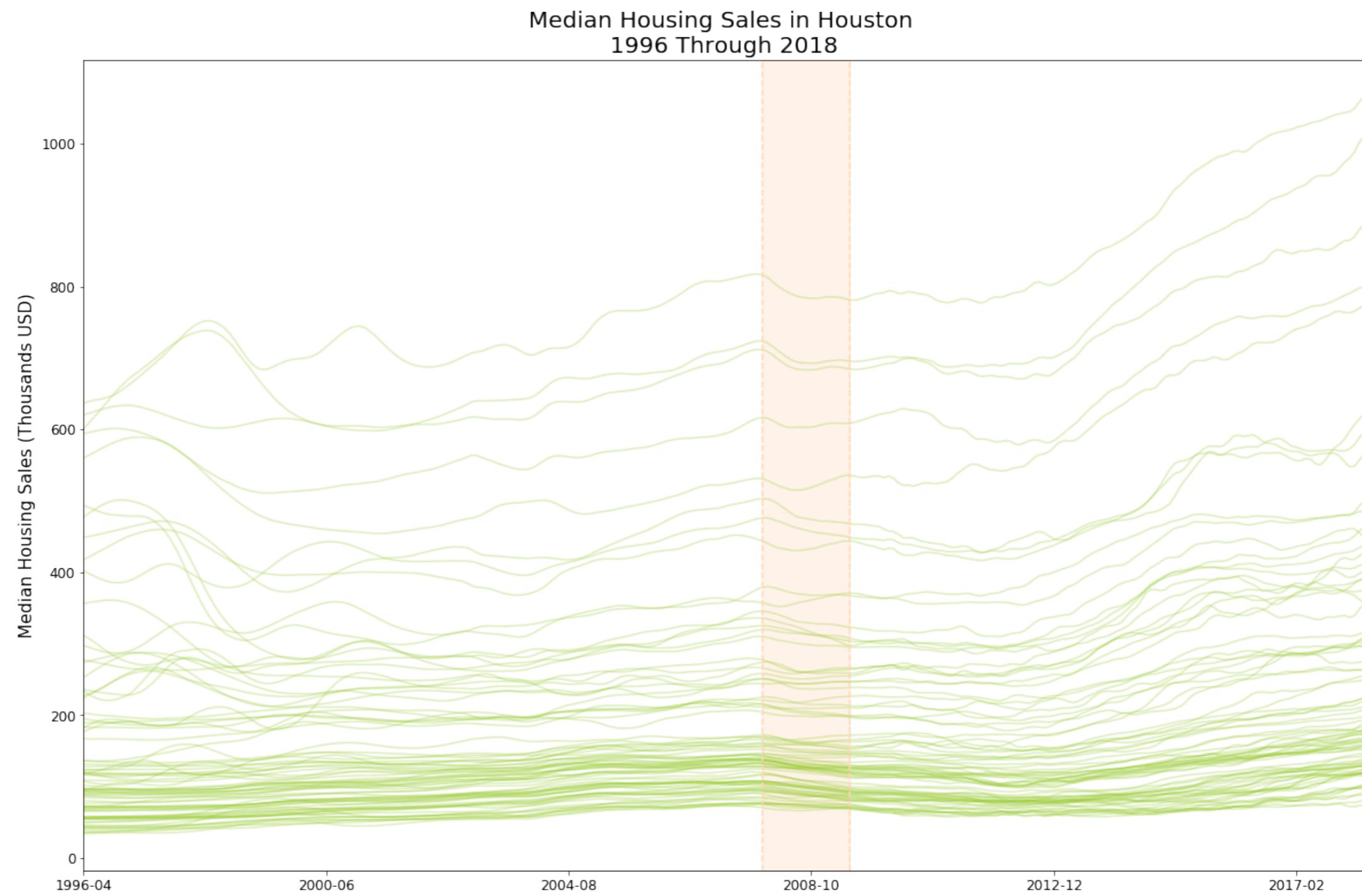




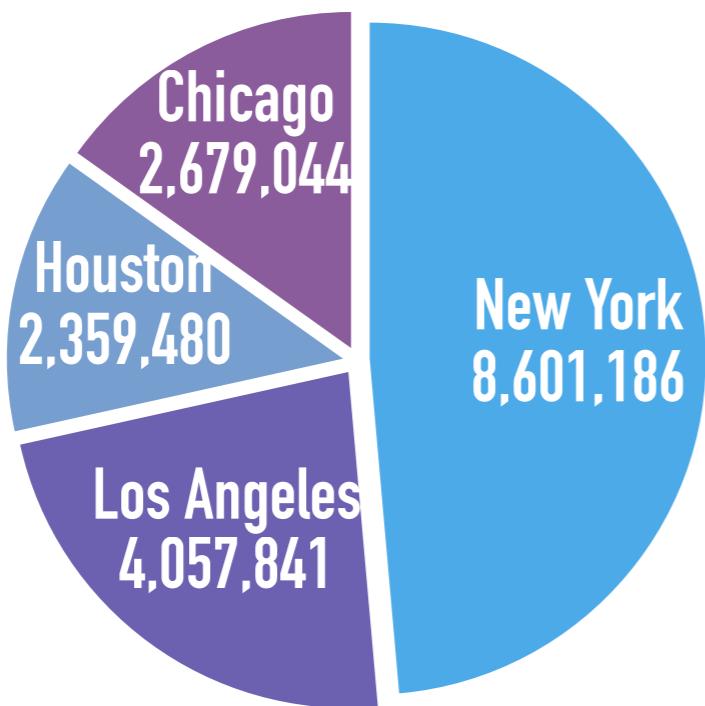
# MEDIAN HOUSING SALES, 1996 - 2018

8

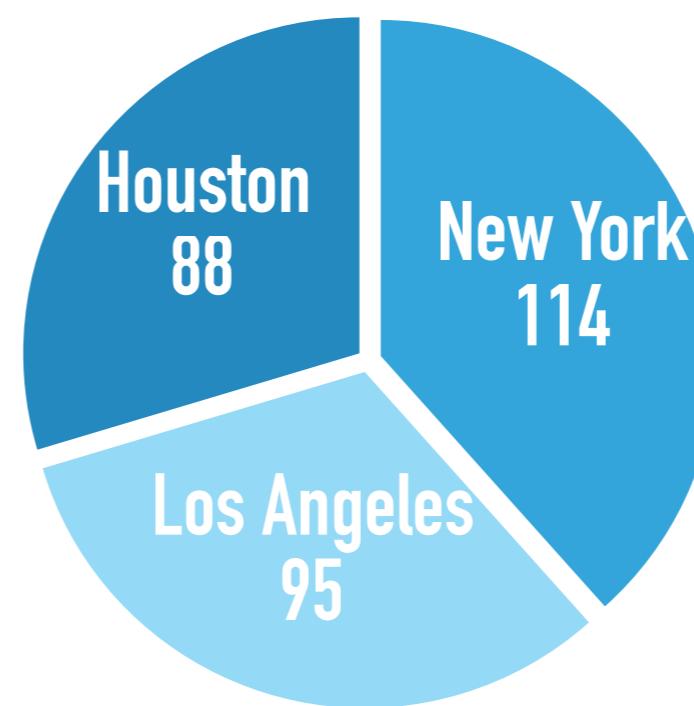




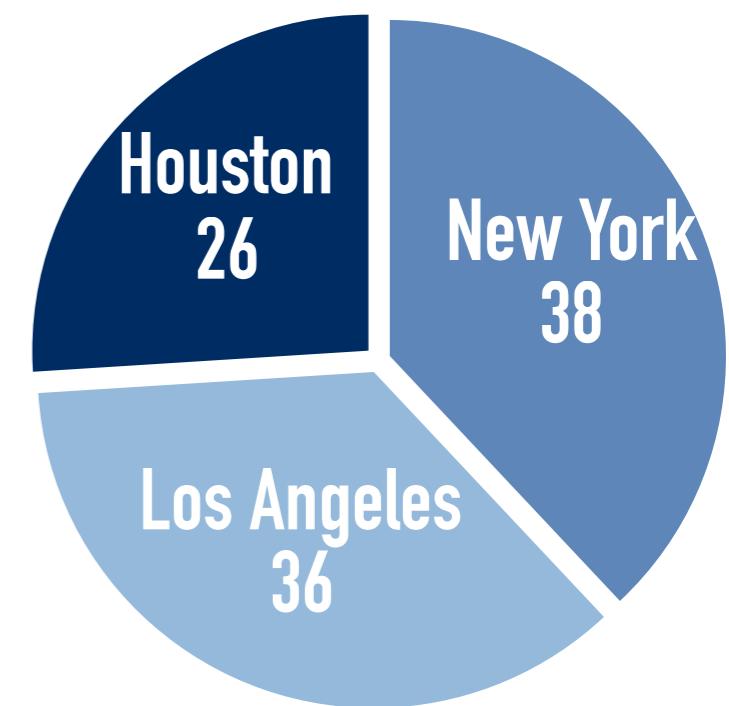
## 1. BY POPULATION\*



## 2. BY ZIP CODES



## 3. BY GROWTH RATE

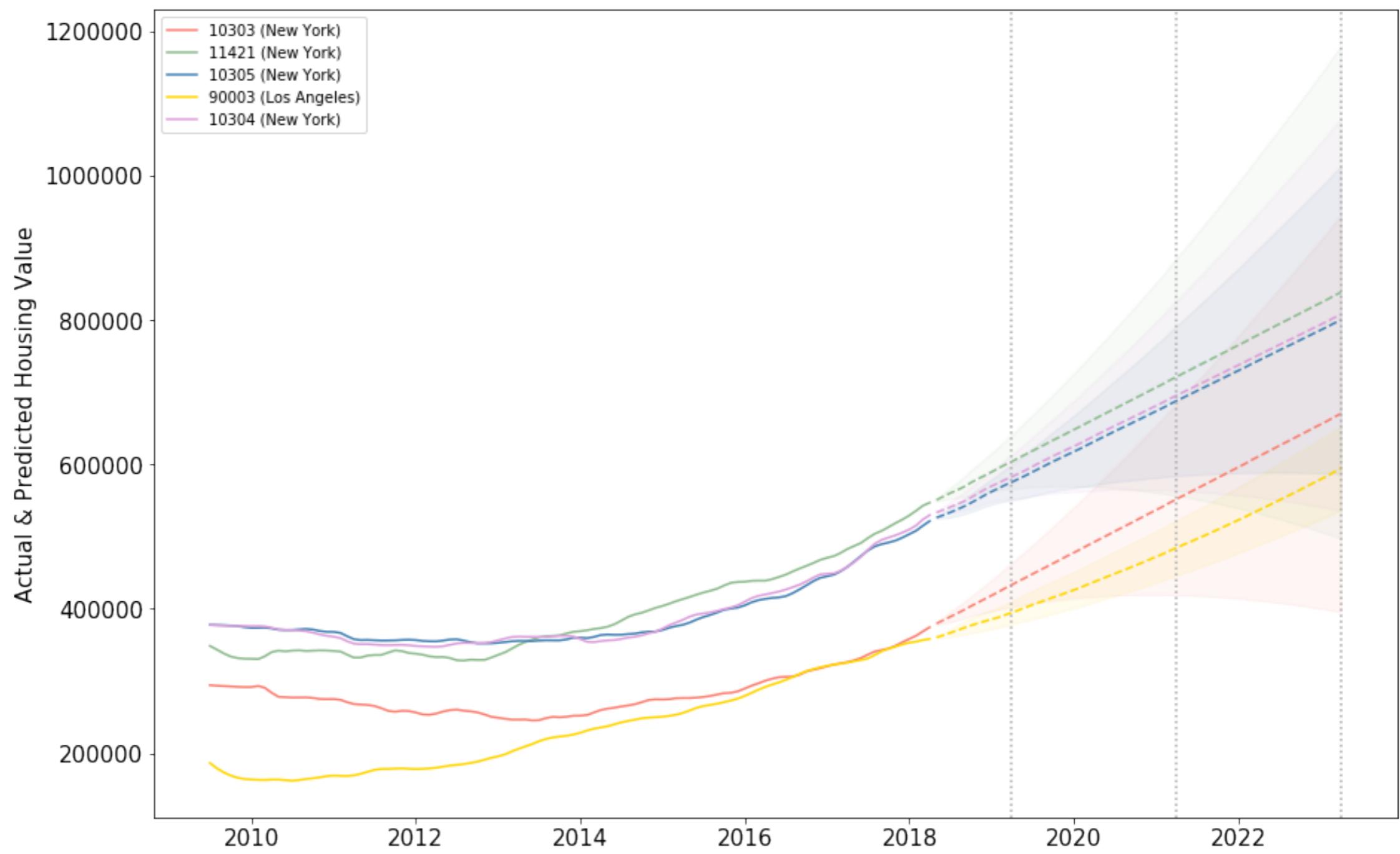


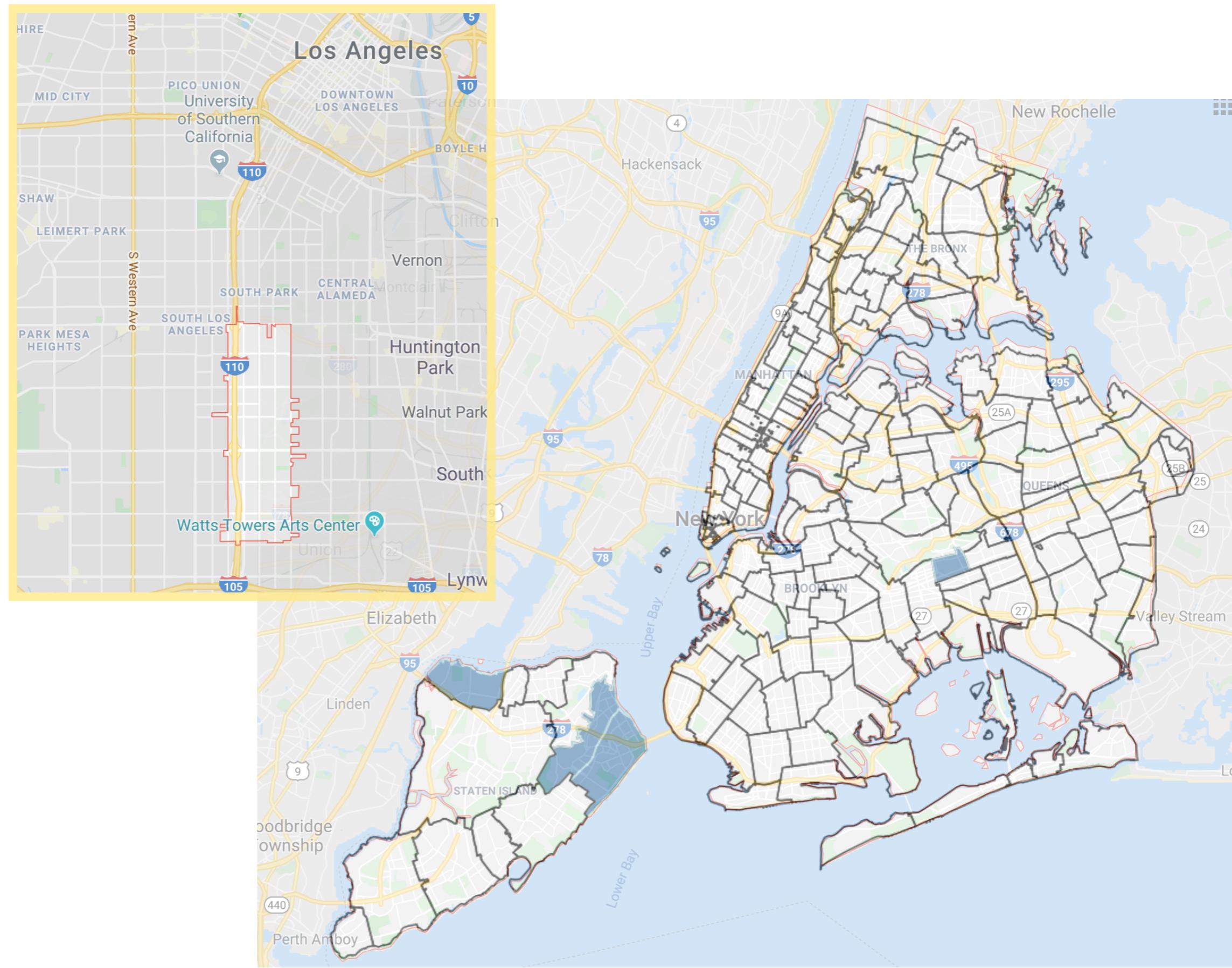
- ▶ Identify 3 biggest cities by (1) population and (2) zip code.
- ▶ Identify top 100 zip codes to investigate, based on the growth rate of median housing sales in the past 3 years.
- ▶ Develop zip code-specific ARIMA forecast model, using data since the 2008 crisis.
- ▶ Identify 30 zip codes with best performing models.
- ▶ Identify 5 zip codes with highest 1Y ROI.



Zipcode	City	2018	2019	2021	2023	1Y ROI	3Y ROI	5Y ROI
10303	NY	\$ 374,500	\$ 433,349	\$ 551,782	\$ 670,228	15.71%	47.34%	78.97%
11421	NY	\$ 547,100	\$ 603,899	\$ 721,226	\$ 838,285	10.38%	31.83%	53.22%
10305	NY	\$ 521,600	\$ 575,544	\$ 687,878	\$ 800,013	10.34%	31.88%	53.38%
90003	LA	\$ 358,400	\$ 394,718	\$ 484,433	\$ 594,276	10.13%	35.17%	65.81%
10304	NY	\$ 529,800	\$ 582,934	\$ 695,416	\$ 807,605	10.03%	31.26%	52.44%

- ▶ For the top 100 zip codes, middle 50% of recent 3-year growth ranged 34% - 44%.





- 
- ▶ Outliers in NYC which are relatively resistant to recession
  - ▶ Among 5 top zip codes to invest,
    - ▶ 3 in Staten Island, NY
    - ▶ 1 in Queens, NY
    - ▶ 1 in Florence, LA
  - ▶ 1Y ROI ranging 10-16%
  - ▶ 3Y ROI ranging 31-47%
  - ▶ 5Y ROI ranging 52-79%
  - ▶ Limitations
    - ▶ Chosen among best performing models
    - ▶ Areas with growth potential might not have been captured
    - ▶ Predictions should be updated as time goes



**THANK YOU  
FOR YOUR TIME**