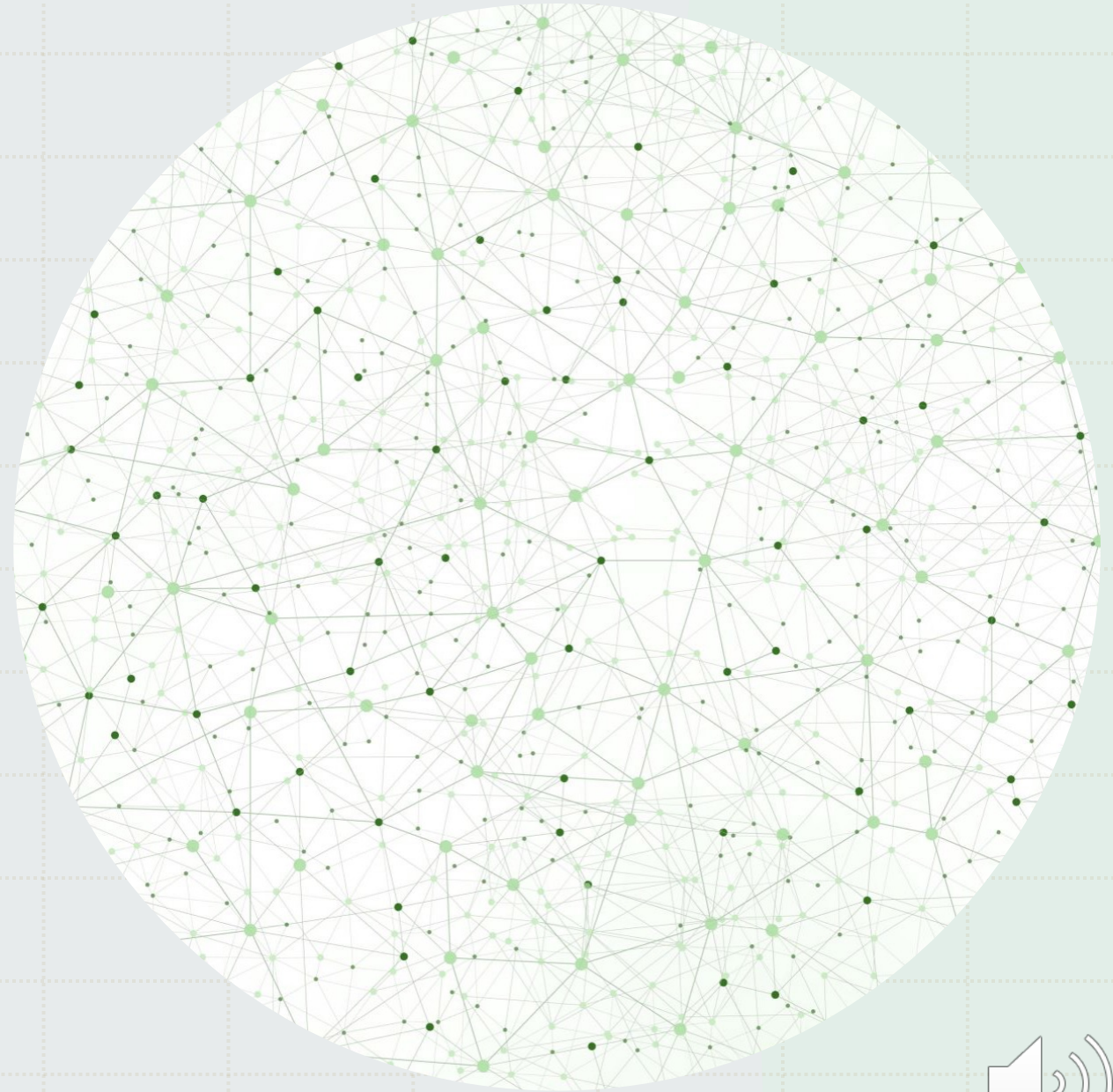


New Jersey County ROI Analysis

By Justin Giovatto



Introduction

- Main Business Problem:
 - Top three ROI counties?
- Primary Project Goal:
 - Maximize investment profits.



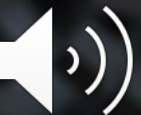
Methods

- Analyze past New Jersey ROI data
- SARIMA modeling
- Analyze models predicted ROI, compare to past data
- Business recommendations will then be presented

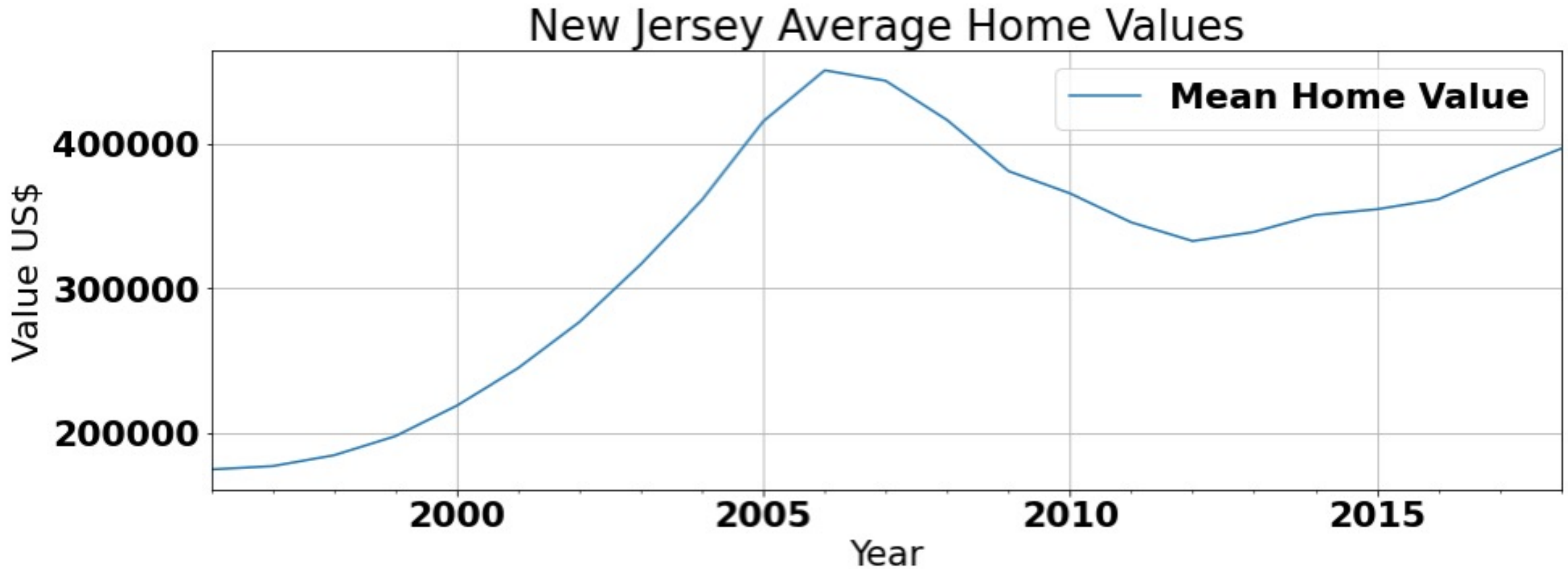


Dataset

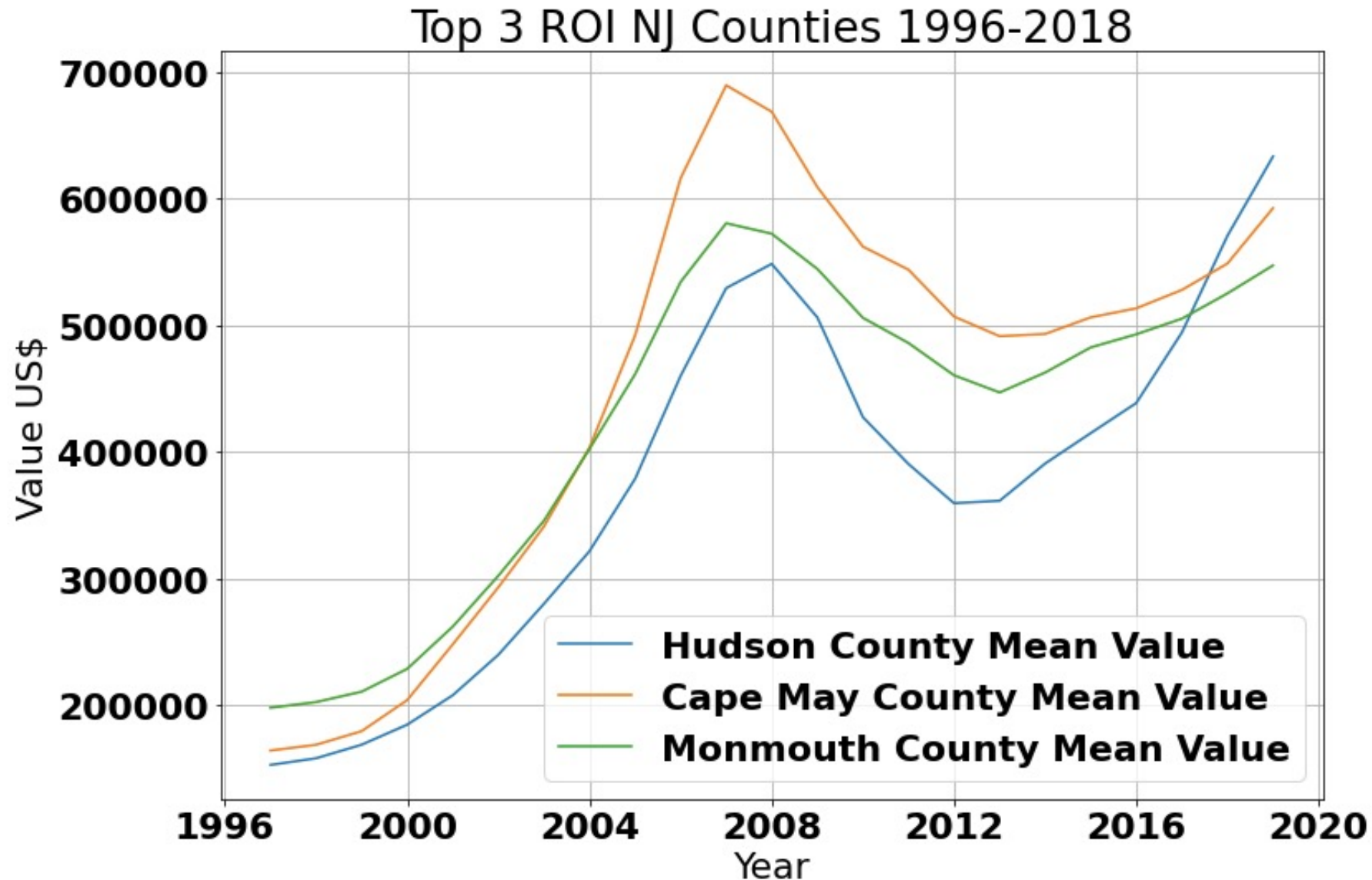
- Zillow home values data
- 1996 through 2018
- All 21 New Jersey Counties
- Grouped by mean monthly value



New Jersey Average Home Values '96-'18



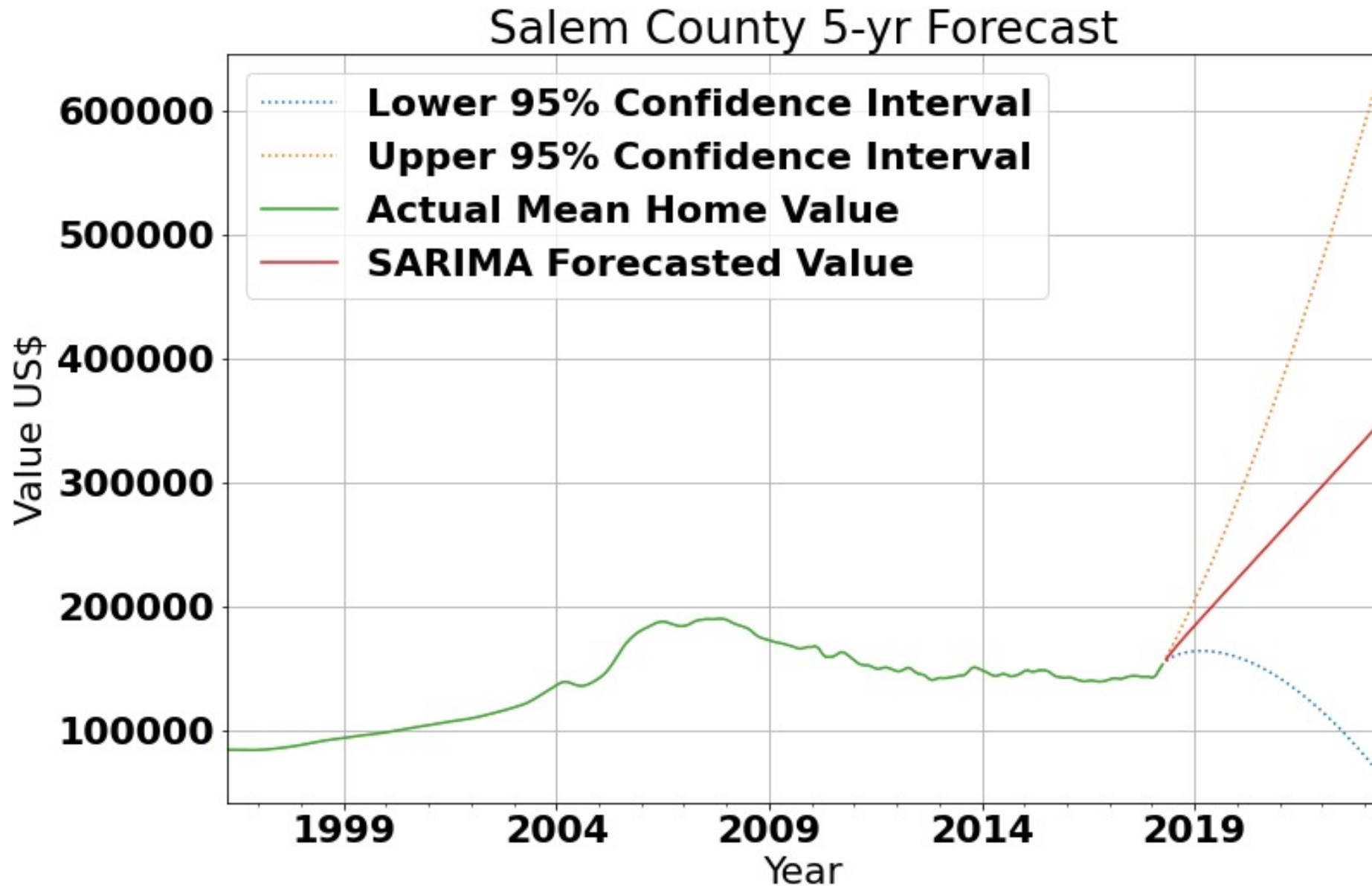
Top Three Past ROI Counties



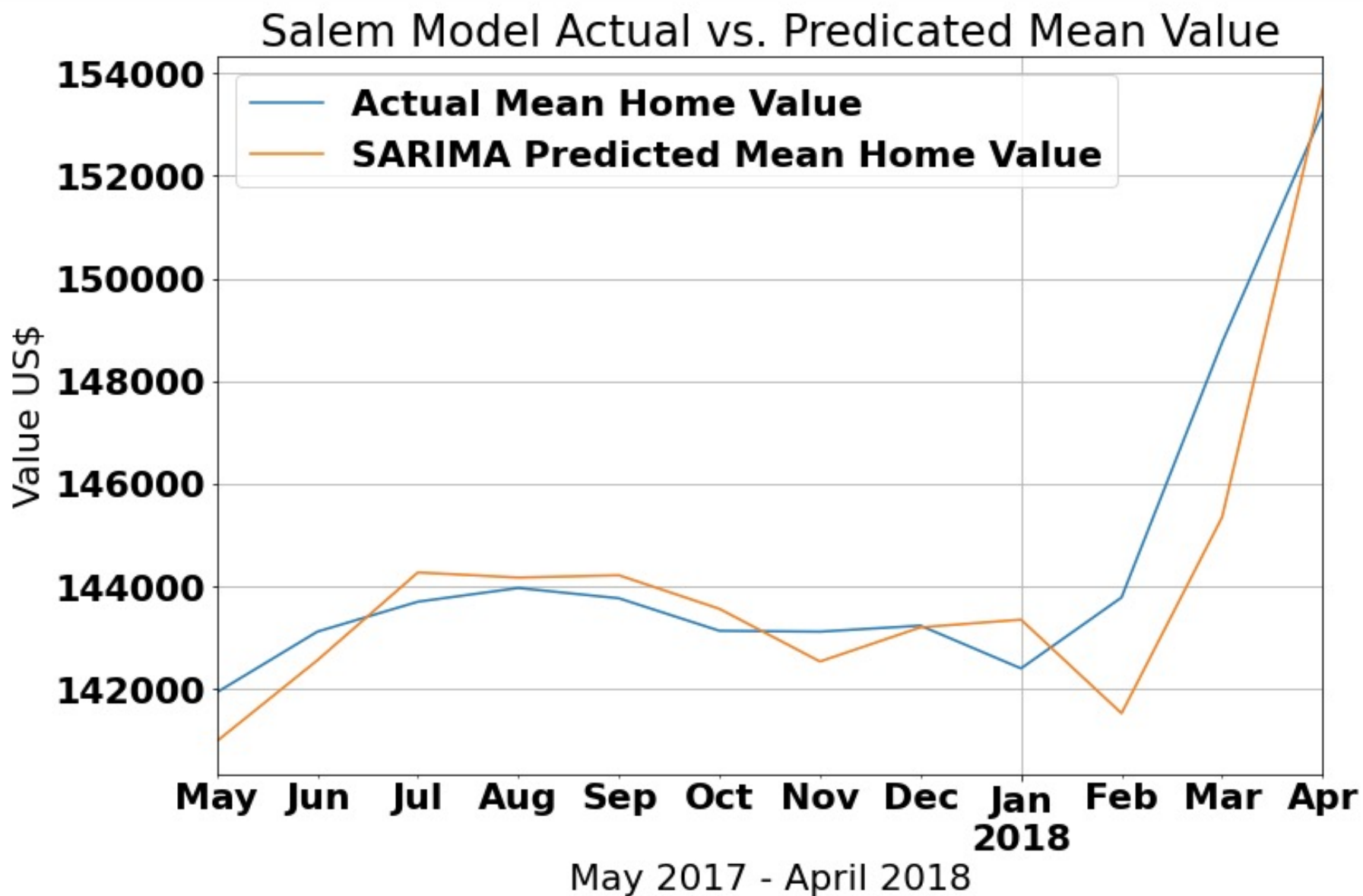
Top Three Past ROI Counties



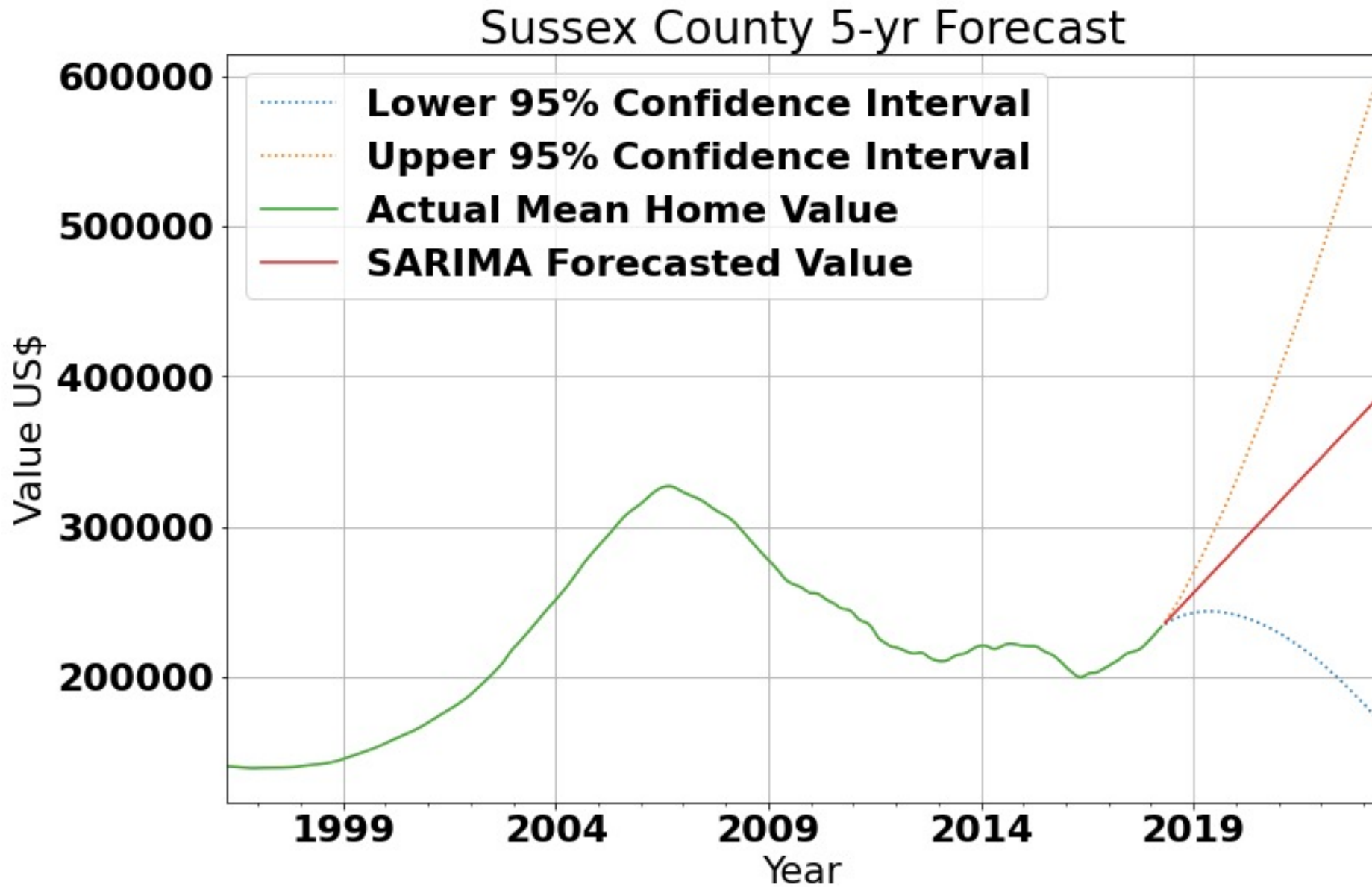
SARIMA Model Results



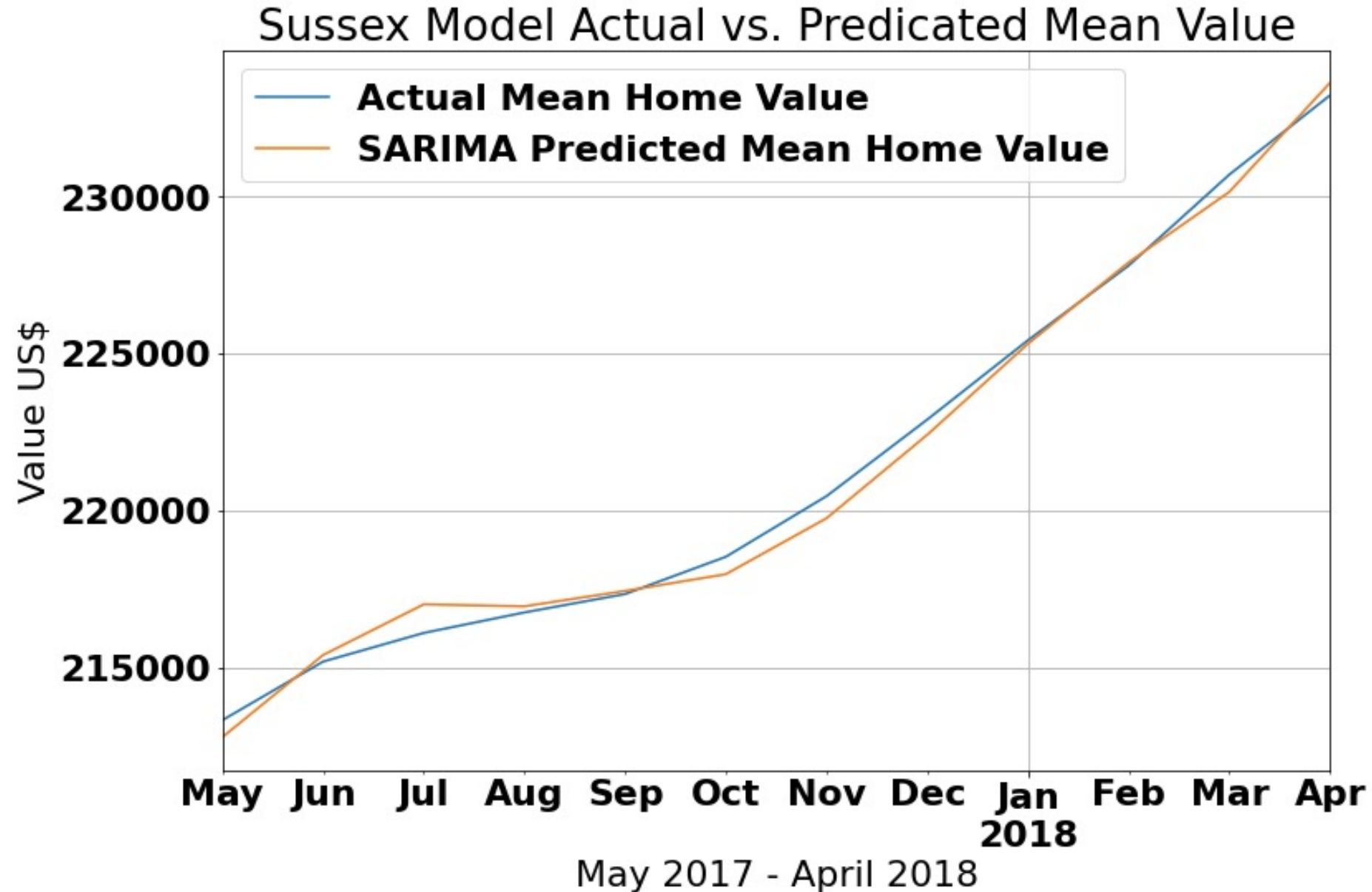
SARIMA Model Results



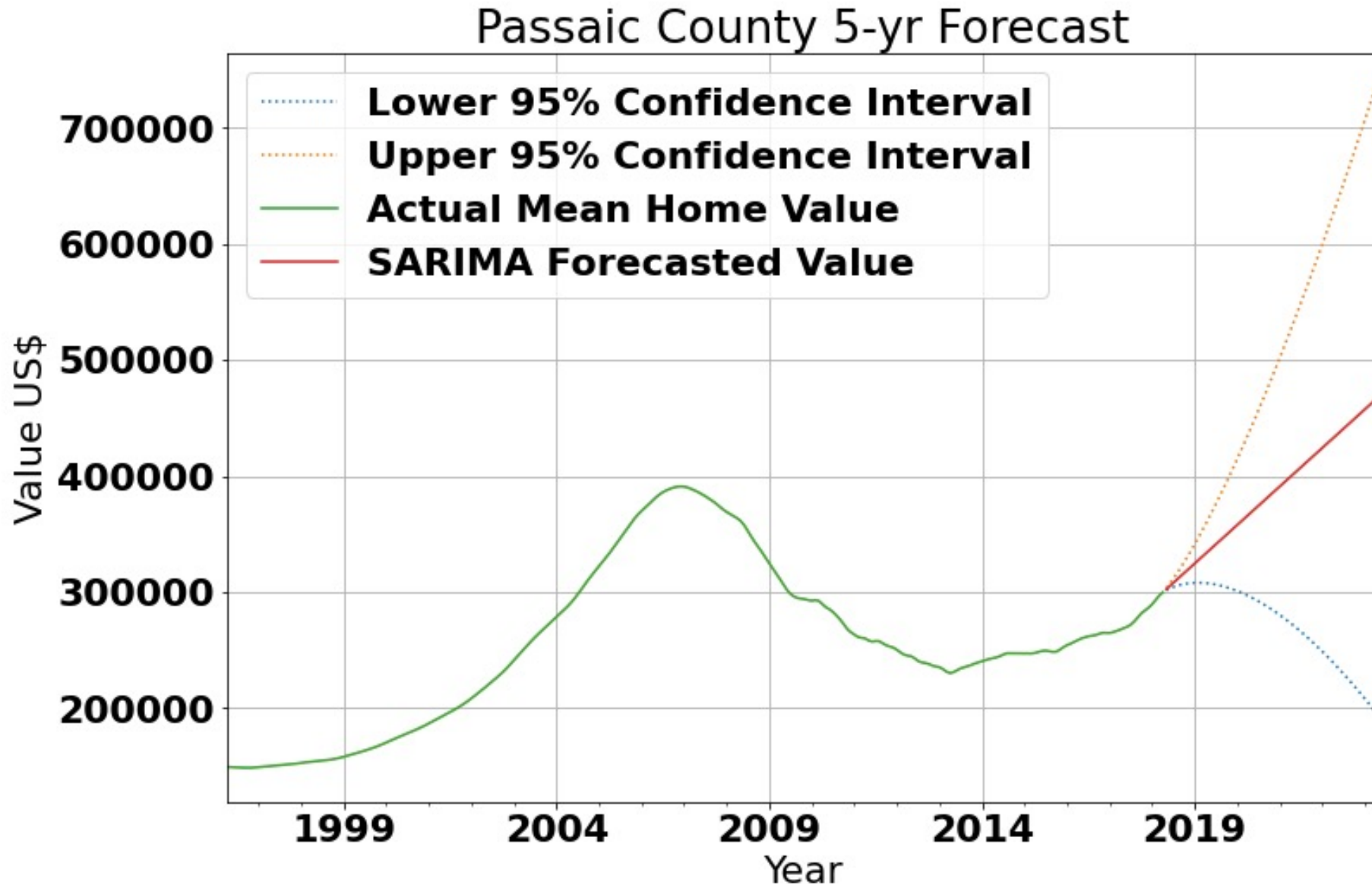
SARIMA Model Results



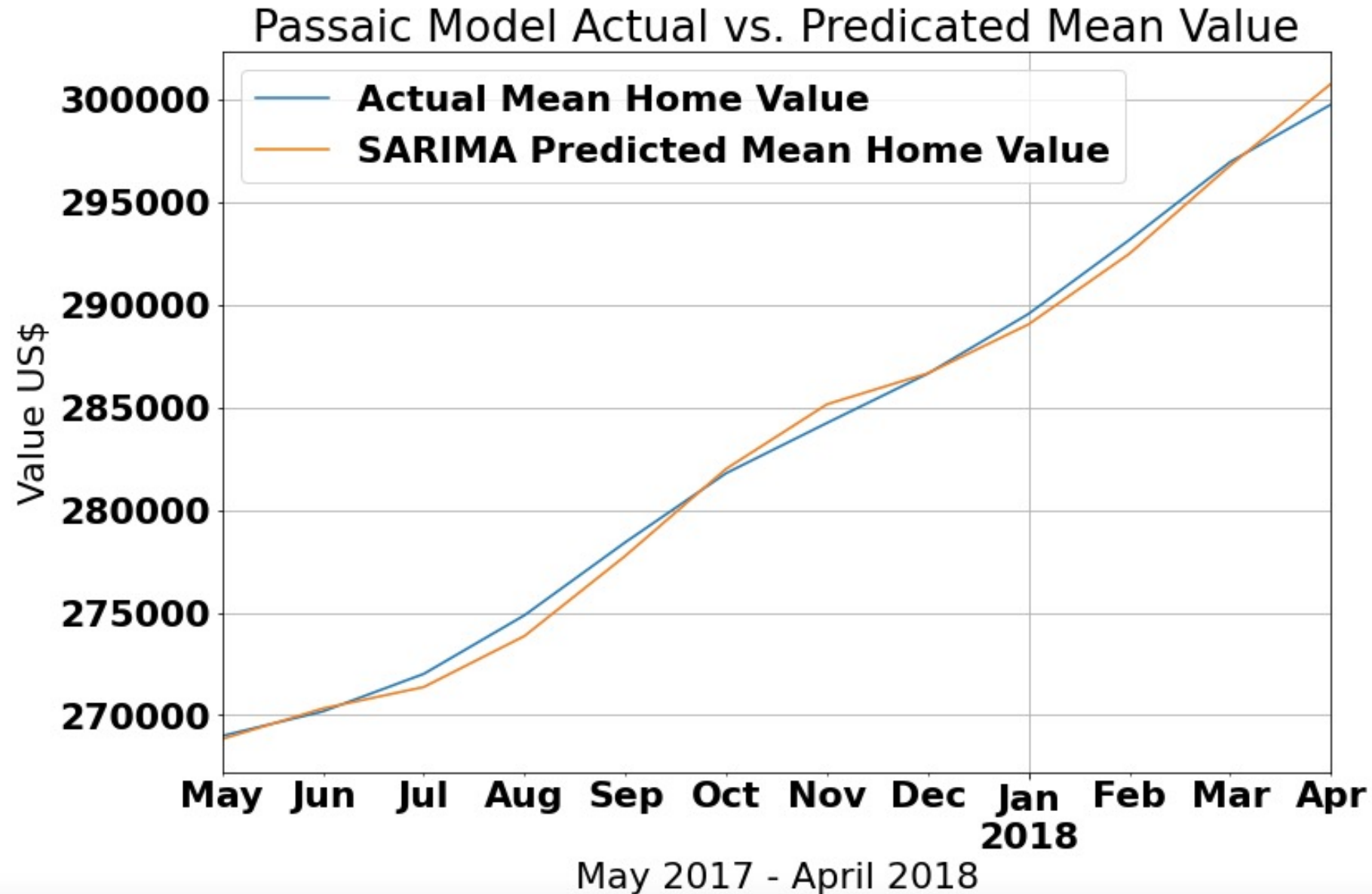
SARIMA Model Results



SARIMA Model Results



SARIMA Model Results



Top Three Forecasted ROI Counties



Top Forecasted ROI Comparisons

- **Salem**
 - *Past ROI '96-'18:* **75%**
 - *Forecasted ROI:* **121%**
 - *ROI Change:* **+46%**
- **Sussex**
 - *Past ROI '96-'18:* **64%**
 - *Forecasted ROI:* **64%**
 - *ROI Change:* **0%**
- **Passaic**
 - *Past ROI '96-'18:* **98%**
 - *Forecasted ROI:* **55%**
 - *ROI Change:* **-43%**



Past Top ROI Comparison

- **Hudson**
 - *Past ROI '96-'18:* **315%**
 - *Forecasted ROI:* **10%**
 - *ROI Change:* **-305%**
- **Cape May**
 - *Past ROI '96-'18:* **261%**
 - *Forecasted ROI:* **13%**
 - *ROI Change:* **-248%**
- **Monmouth**
 - *Past ROI '96-'18:* **176%**
 - *Forecasted ROI:* **-3%**
 - *ROI Change:* **-179%**





Business Recommendations

- Invest in Salem, Sussex, and Passaic County
 - Strongly recommend to invest in Salem County
- Recommend avoiding past top ROI counties including Hudson, Cape May, and Monmouth County.





Future Work

- Add another model type (RNN)
- Go deeper into the analysis by finding top ROI cities within counties
- Take into account another evaluation metric, such as "risk."



Thank You!

Questions?

