Washington DC Housing Market Analysis

Reconfiguring and Grouping of Regions Based on Housing Characteristics

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Objective
Goals of This Study

- Reconfigure and group the Washington DC regions

- Region group characteristics will be similar

- Re-price the regions with more accurate pricing

Key Terminology

Key Variables Used in This Study

Median Sale Price

Homes Sold MoM (Month over Month)

Inventory MoM (Month over Month)

Background
Understanding the Data

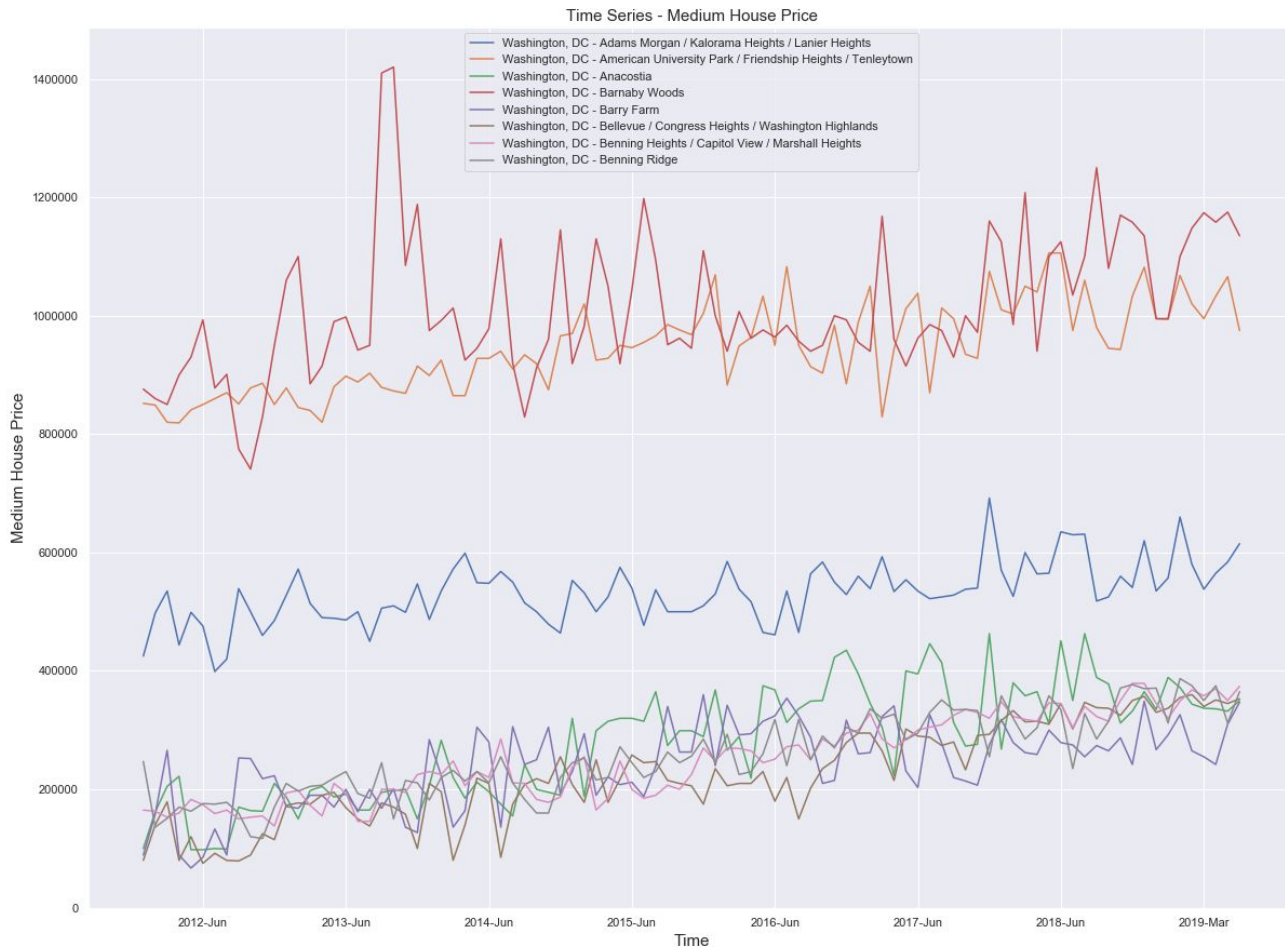| Region_0	Month of Period End_0	Median Sale Price_0	Median Sale Price MoM _0	Median Sale Price YoY _0	Homes Sold_0	Homes Sold MoM _0	Homes Sold YoY _0	New Listings_0	New Listings MoM _0	New Listings YoY _0	Inventory_0	Inventory MoM _0	Inventory YoY _0	Days on Market_0
Washington, DC - Adams Morgan / Kalorama Heigh...	February 2012	444000.0	-0.7	-15.4	63	-19.2	31.3	81	11.0	12.5	84	-6.7	7.7	70
Washington, DC - Adams Morgan / Kalorama Heigh...	March 2012	399000.0	-10.1	-19.4	79	25.4	58.0	130	60.5	20.4	90	7.1	-10.0	49
Washington, DC - Adams Morgan / Kalorama Heigh...	April 2012	425000.0	6.5	-30.0	93	17.7	57.6	137	5.4	-2.8	85	-5.6	-31.5	30
Washington, DC - Adams Morgan / Kalorama Heigh...	May 2012	420000.0	-1.2	-28.0	116	24.7	63.4	143	4.4	-10.6	88	3.5	-33.8	19
Washington, DC - Adams Morgan / Kalorama Heigh...	June 2012	476000.0	13.3	-12.9	114	-1.7	34.1	111	-22.4	-29.3	91	3.4	-29.5	21

Housing Characteristics

Objective | **Background** | Results | What's Next

Results

Statistical Analysis

Median House Price

Results

Statistical Analysis

Median House Price Group
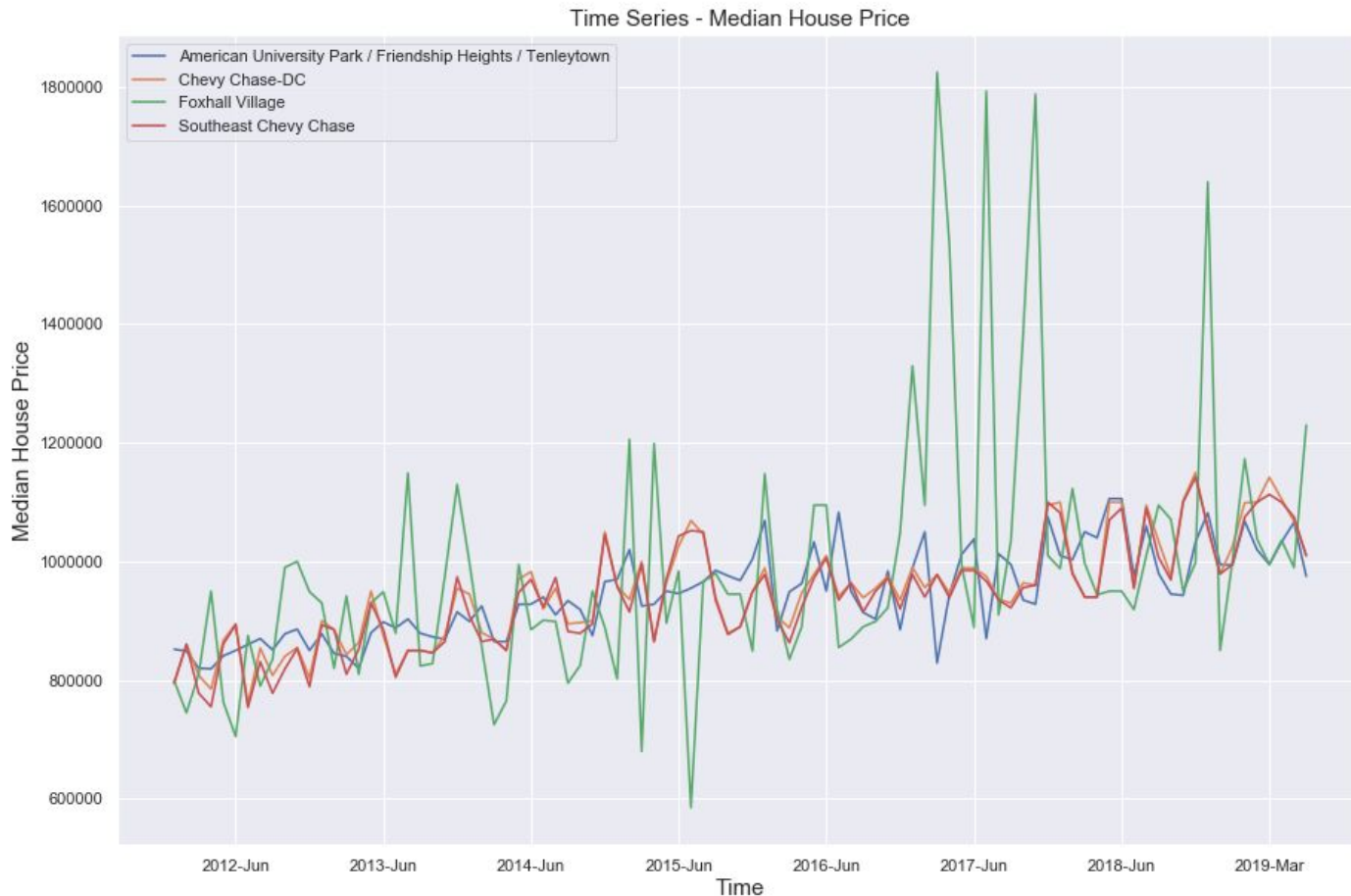
Objective | Background | **Results** | What's Next

What's Next

- Use Case -

We can use these initial tests and findings for further analysis in which we can predict future Washington DC housing market statistics and also see what influences Washington DC housing market characteristics over time.

- Next Step -

We will use prior years' data to build a predictive model in which we can predict the future home sale prices of the Washington DC housing market, based on regions.

Thank You!

Appendix

Appendix

- Data Source: Redfin.com

- Results: Homes Sold MoM

- Results: Homes Sold MoM Group

- Results: Inventory MoM

- Results: Inventory MoM Group

Data Source

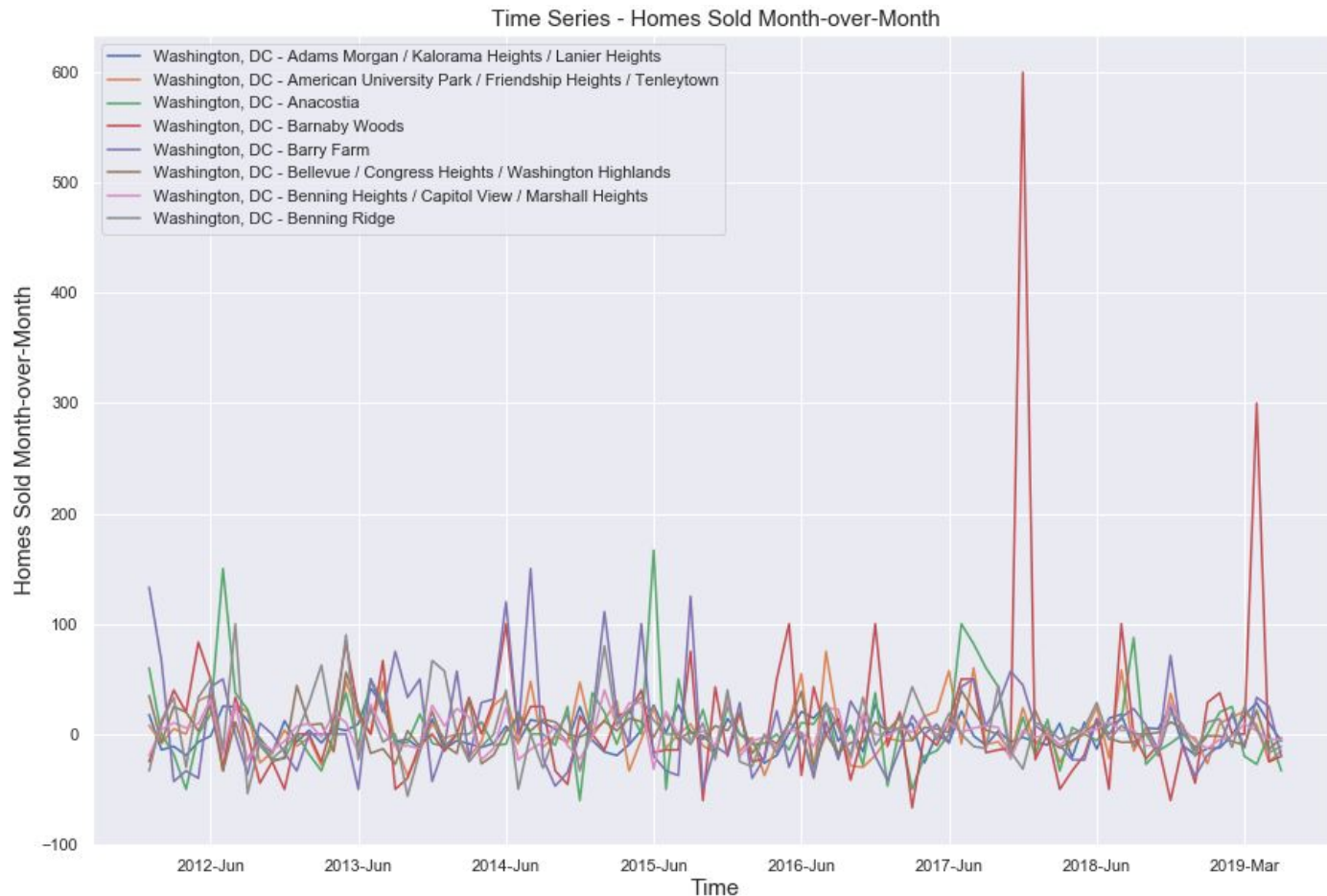Data Source: https://www.redfin.com/blog/data-center/

Redfin:

- Redfin is a real estate brokerage that has direct access to data from multiple listing services, as well as insight from real estate agents across the country.

- Redfin provides housing market data for all metropolitan areas, cities, neighborhoods, and zip codes across the nation.

- Redfin's housing market data includes data for prices (median sale price, percentage of homes sold above list price, percentage of homes that had price drop, etc.), inventory (number of homes on market, new listings, months of supply, etc.), and sales (number of homes sold, median days on market, etc.).

- Redfin's housing market data can be filtered by area, property type, month-over-month change, year-over-year change, and the time period.
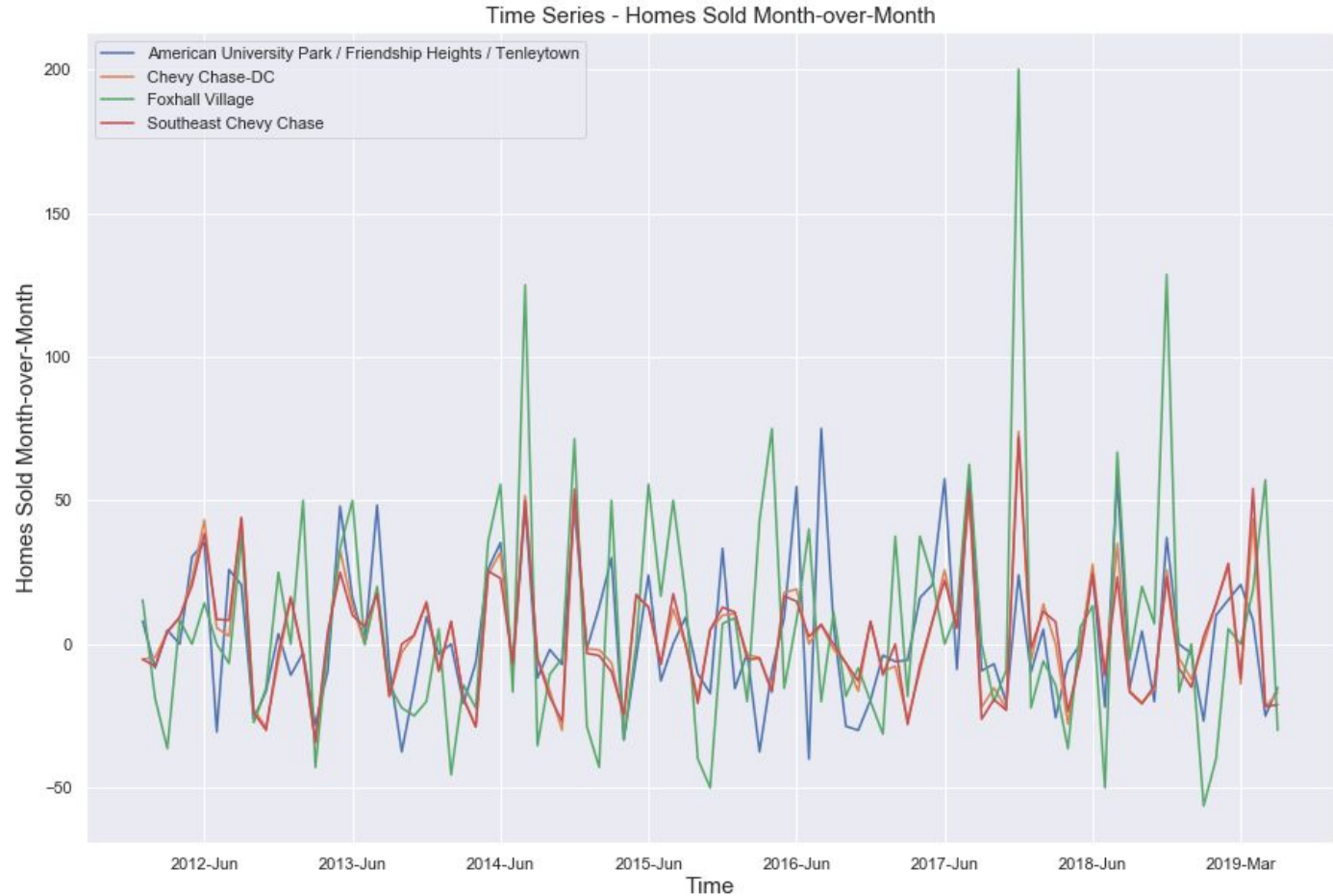
Results

Statistical Analysis

Homes Sold MoM

Time Series - Homes Sold Month-over-Month

Legend:
- Washington, DC - Adams Morgan / Kalorama Heights / Lanier Heights
- Washington, DC - American University Park / Friendship Heights / Tenleytown
- Washington, DC - Anacostia
- Washington, DC - Barnaby Woods
- Washington, DC - Barry Farm
- Washington, DC - Bellevue / Congress Heights / Washington Highlands
- Washington, DC - Benning Heights / Capitol View / Marshall Heights
- Washington, DC - Benning Ridge

Results

Statistical Analysis

Homes Sold MoM Group

Time Series - Homes Sold Month-over-Month
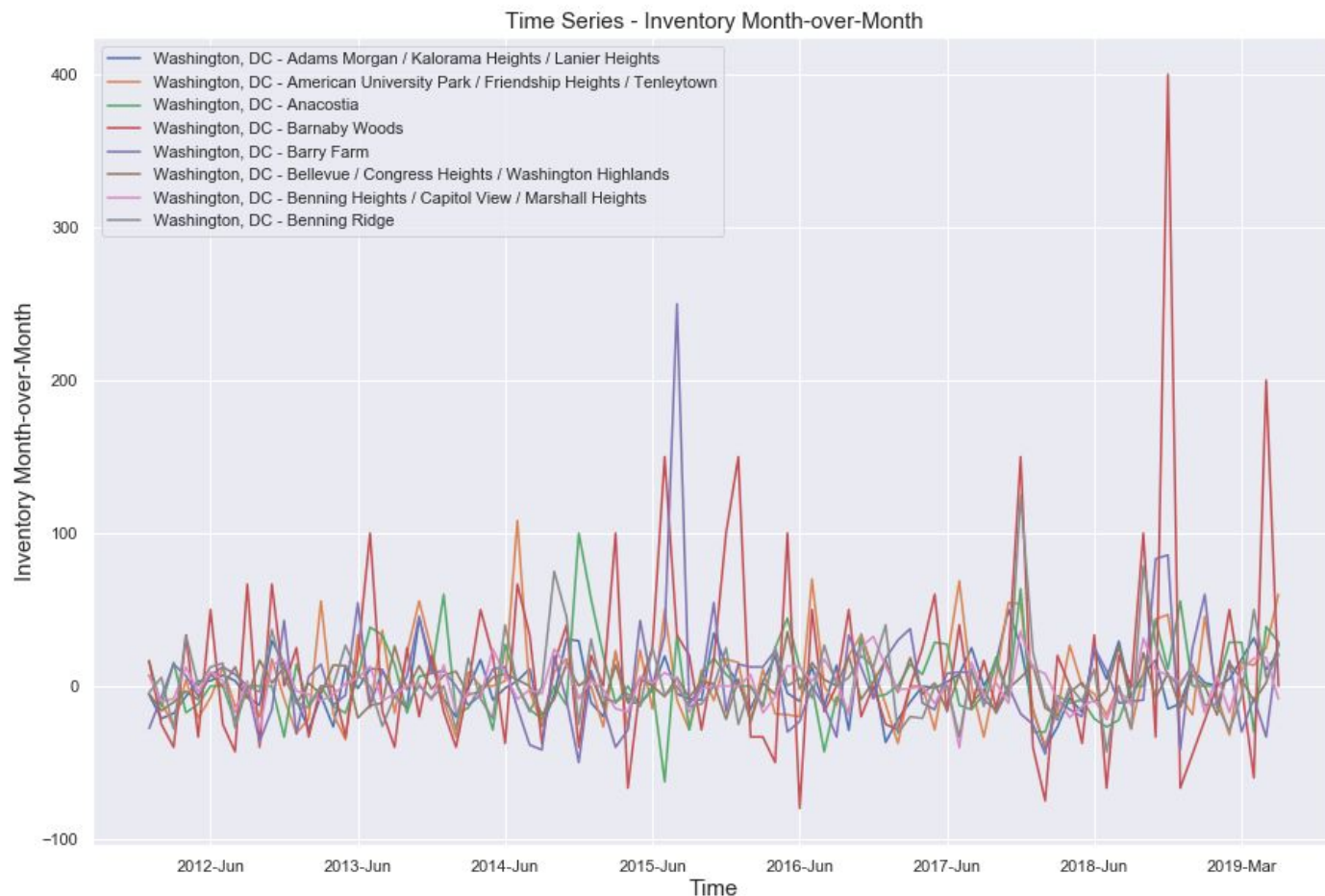
Results

Statistical Analysis

Inventory MoM

Results
Statistical Analysis

Inventory MoM
Group

Time Series - Inventory Month-over-Month