



Arlington in Data (2010-2021)

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Housing Committee

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Why are we here?

- ◆ Arlington is at a pivotal crossroads.
- ◆ We are experiencing multiple crises, including housing, income inequality and economic uncertainty.
- ◆ We are at multiple inflection points when it comes to demographics, land usage and economic development.
- ◆ The purpose of this presentation is to provide insights into (and changes in) demographic, economic and housing trends in Arlington.
- ◆ The goal of this presentation is that we come away with a better understanding of the dimensions of these crises and inflection points.

The Data

- ◇ This presentation will primarily use data from the U.S. Census Bureau's American Community Survey (ACS).
- ◇ What is the ACS?
 - ◇ The ACS is an ongoing survey version of the decennial census. It is released every year in two formats—1-yr and 5-yr.
 - ◇ The 1-yr ACS contains only data collected in a single year. For example, the 2010 1-yr ACS will only contain surveys sent and received in the year 2010.
 - ◇ The 5-yr ACS contains data collected over 5 years. For example, the 2010 5-yr ACS contains surveys sent and received from 2006 to 2010.

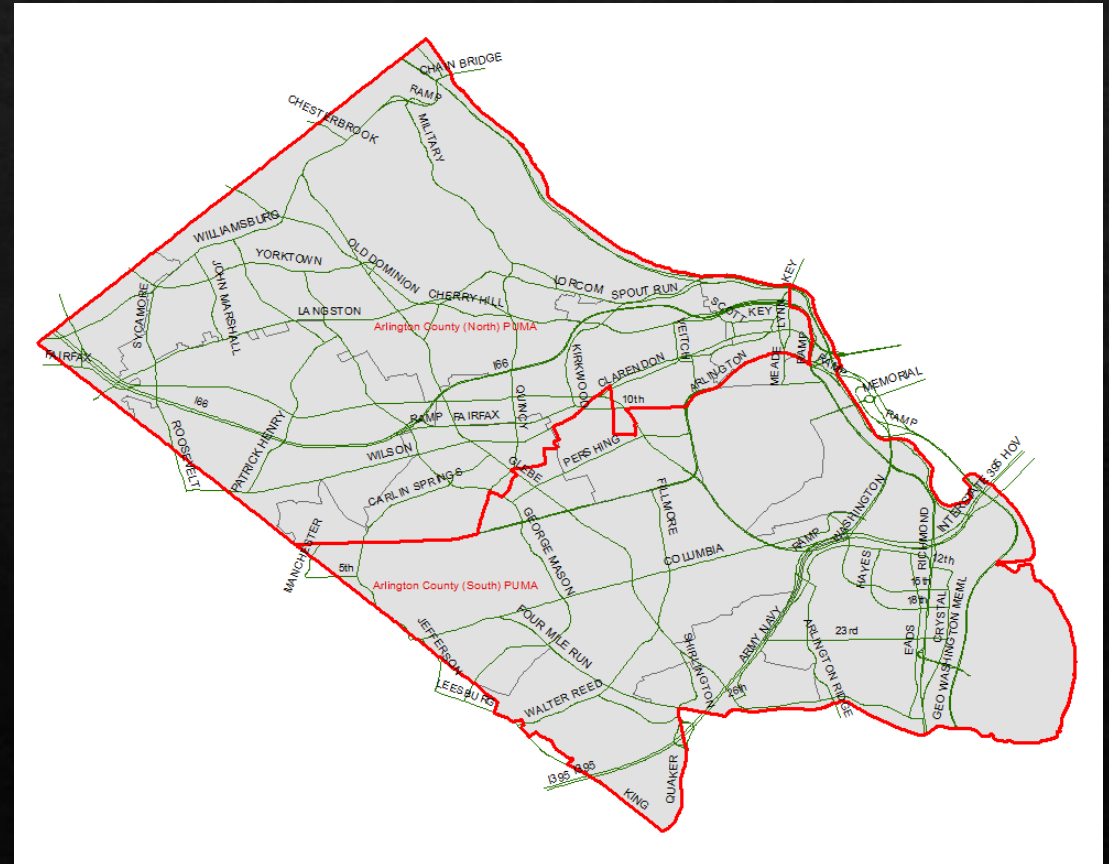
The Data

(Part 2)

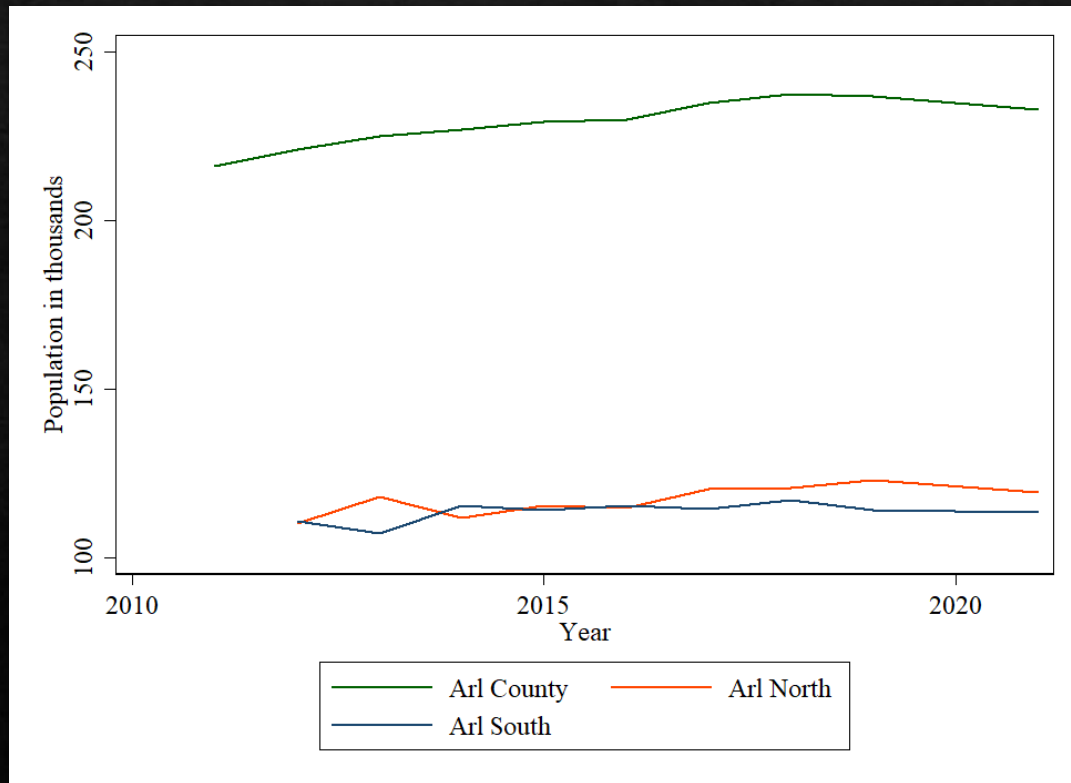
- ◇ The 5-yr ACS is (slightly) more precise and available at a more granular level (census tracts). However, its inference is (slightly) murkier and vintages that contain same years should not be compared.
- ◇ The 1-yr ACS is less precise (but still very close to 5-yr estimates) and the smallest geography available is the public use micro-area (PUMA). However, it can be used in a repeated cross-sectional format without any biases or complications. Its year-over-year interpretation is clear.
- ◇ Hundreds of data tables are generated from the ACS but we will only be using 4 here for this initial analysis:
 - ◇ DP03: Selected economic characteristics.
 - ◇ DP04: Selected housing characteristics.
 - ◇ DP05: Selected demographic characteristics.
 - ◇ S1701: Poverty status in the last 12 months.

The Geography and Timeline

- ◆ Data will be presented at both the county and PUMA levels.
- ◆ Since 2012, Arlington has two PUMAs that roughly correspond to north and south Arlington.
- ◆ County-level data starts in 2010 and goes to 2021.
- ◆ PUMA-level data starts in 2012 and also goes to 2021.
- ◆ However, there was no 2020 1-yr ACS due to COVID.

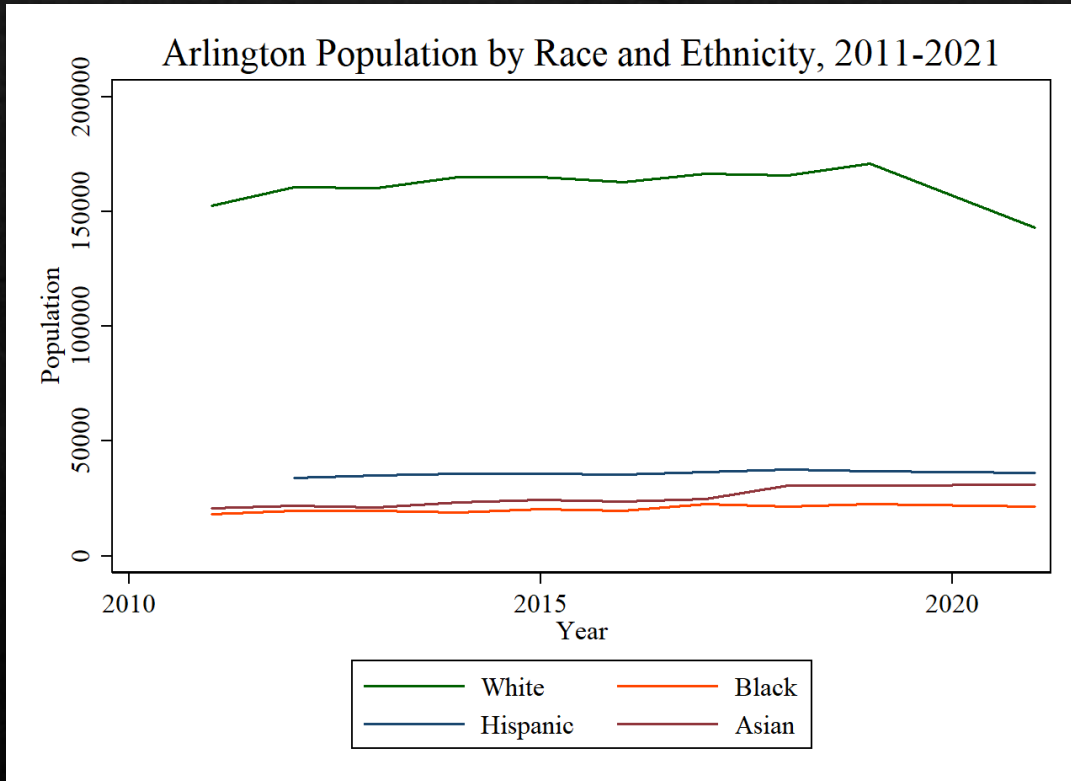


Overall Population



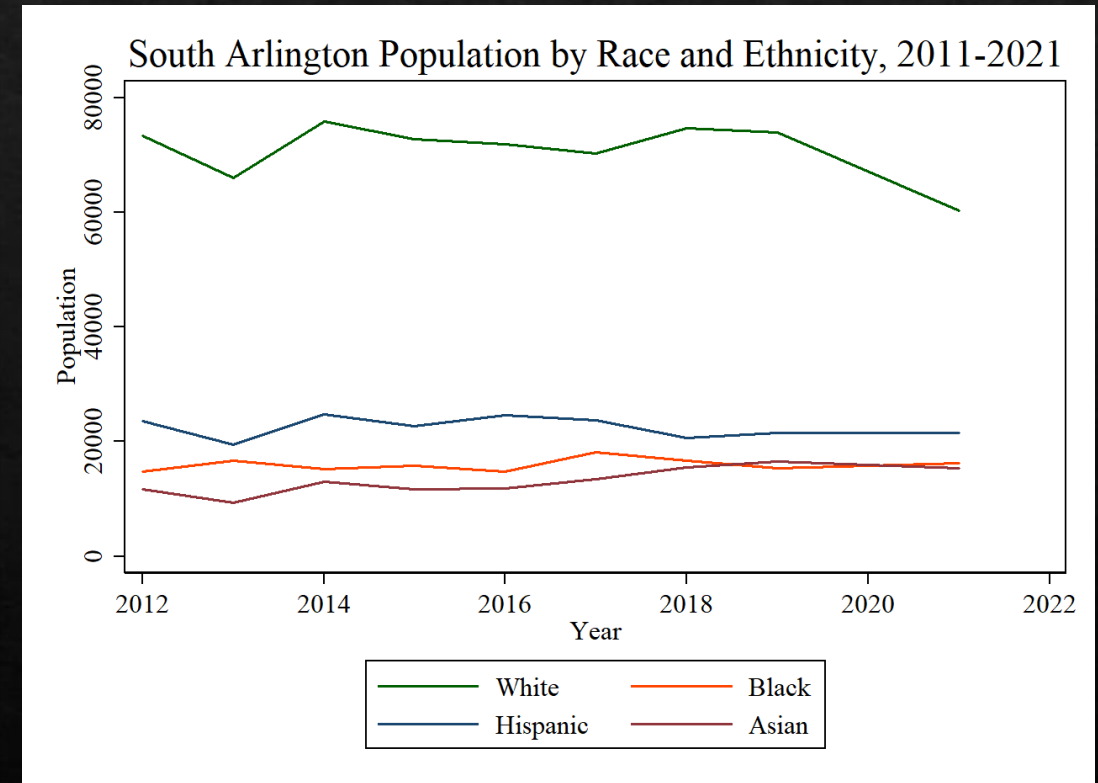
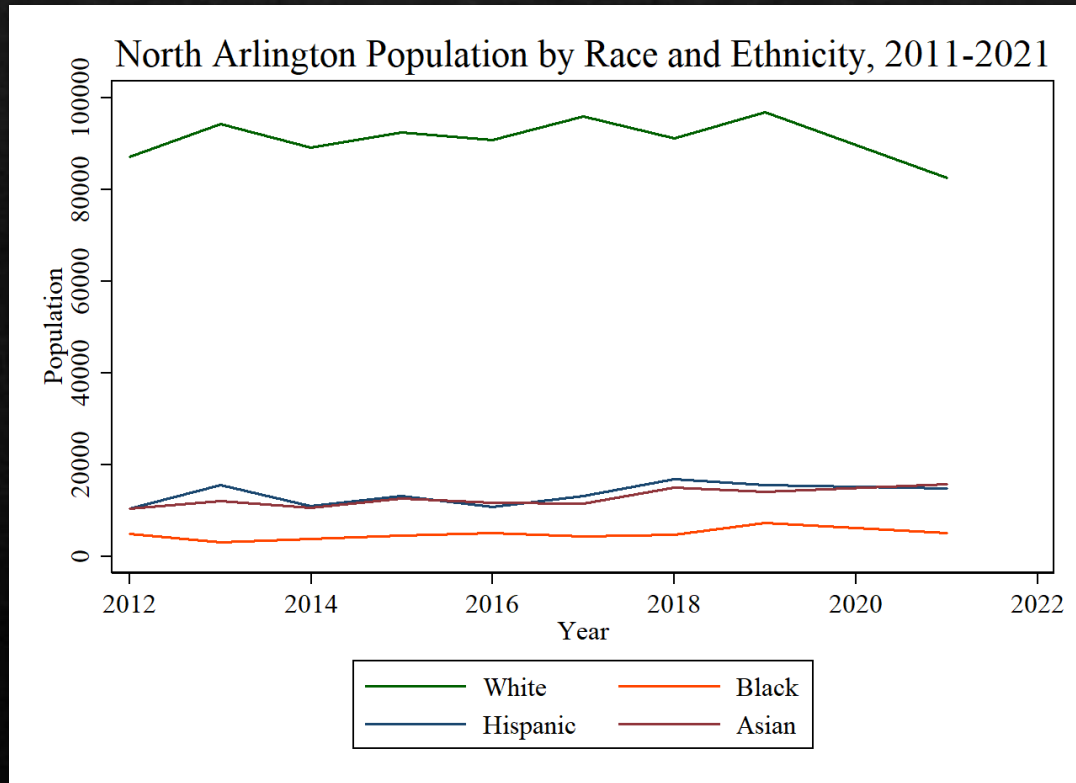
- ❖ Arlington has gained population over the past 10 years (16,961 people).
- ❖ However, this gain peaked around 2018 and we've seen declines since.
 - ❖ On aggregate, Arlington county has a net loss of 4,556 people since 2018.
 - ❖ North Arlington lost 3,568 since 2019.
 - ❖ South Arlington lost 3,606 since 2018.

Population by Race and Ethnicity



- ❖ Most of the population decline appears to be amongst non-Hispanic whites, especially those of middle age (25-54).
 - ❖ Until 2019, the white population grew on average by 1,542 people every year.
 - ❖ However the white population ultimately dropped by 9,654 between 2011 and 2021.
- ❖ The Black and Hispanic populations grew slightly overall in the last 10 years, but again there is a slight decline towards the end.
- ❖ The Asian population is the fastest-growing population in Arlington.

Population by Race and Ethnicity (Part 2)



Population by Age

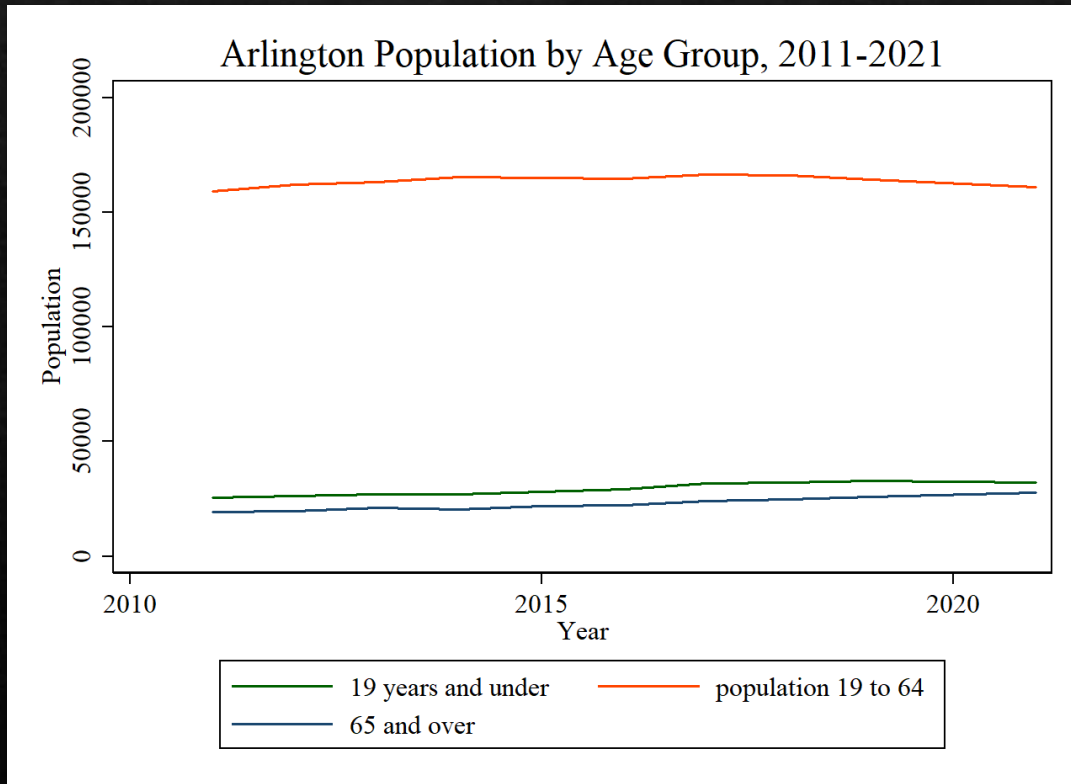
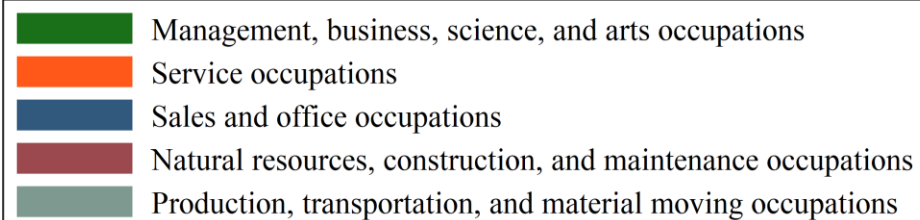
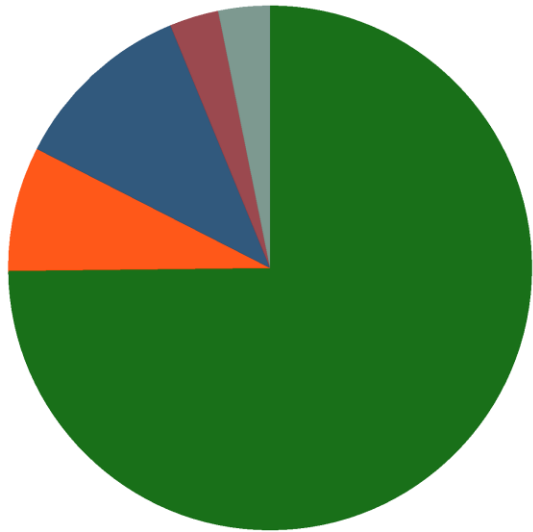


Table 1. Age Demographics by Year and Geography.

Geo	Year	Minors	Adults	Seniors
Arl County	2017	31618	166736	23886
Arl County	2018	32057	166391	24837
Arl County	2019	32786	164320	26022
Arl County	2021	32291	161139	27645
Arl North	2017	17723	84065	11942
Arl North	2018	17634	81995	14237
Arl North	2019	18326	82432	14640
Arl North	2021	19565	79462	14993
Arl South	2017	13761	82499	11944
Arl South	2018	14423	84396	10600
Arl South	2019	14460	81888	11382
Arl South	2021	12726	81539	12581

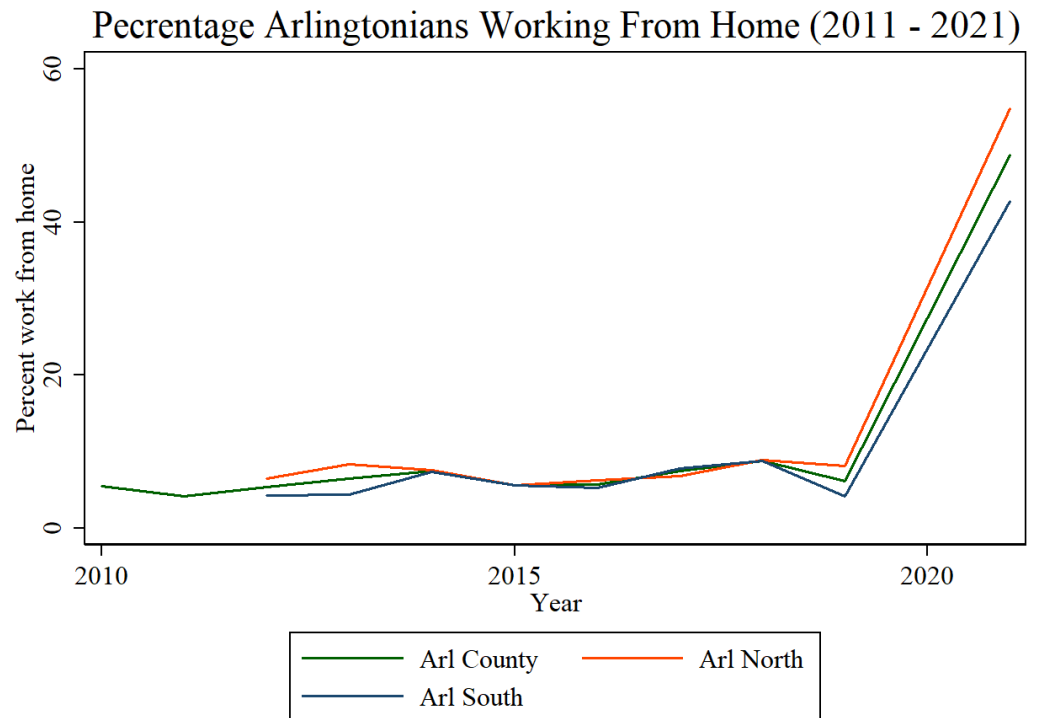
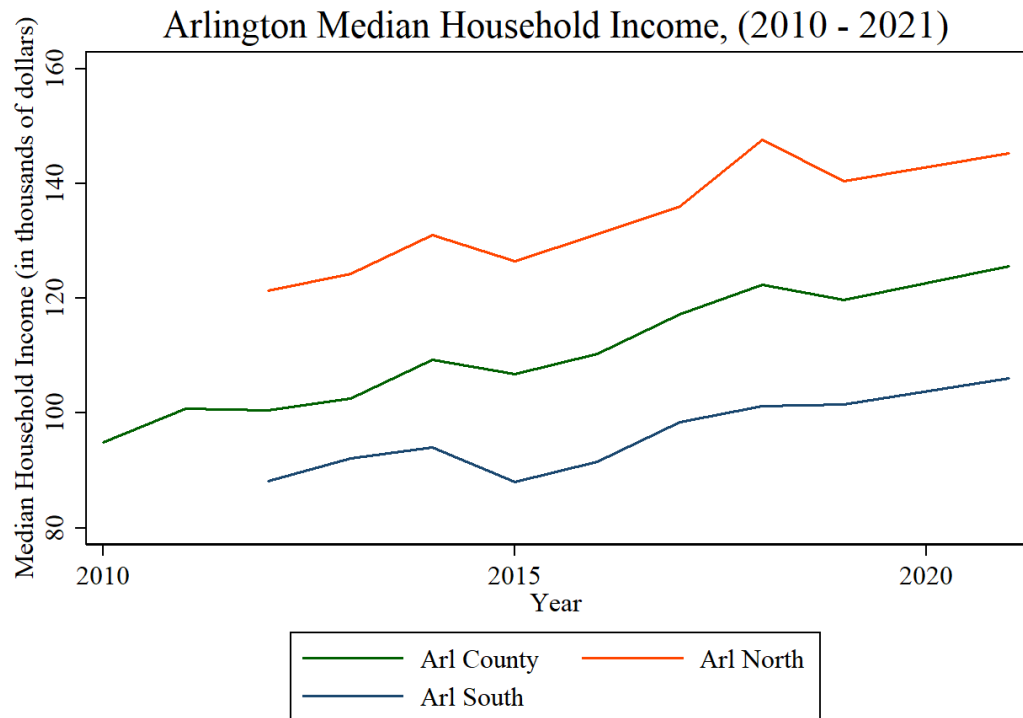
The Economy

Arlington Workforce by Occupation

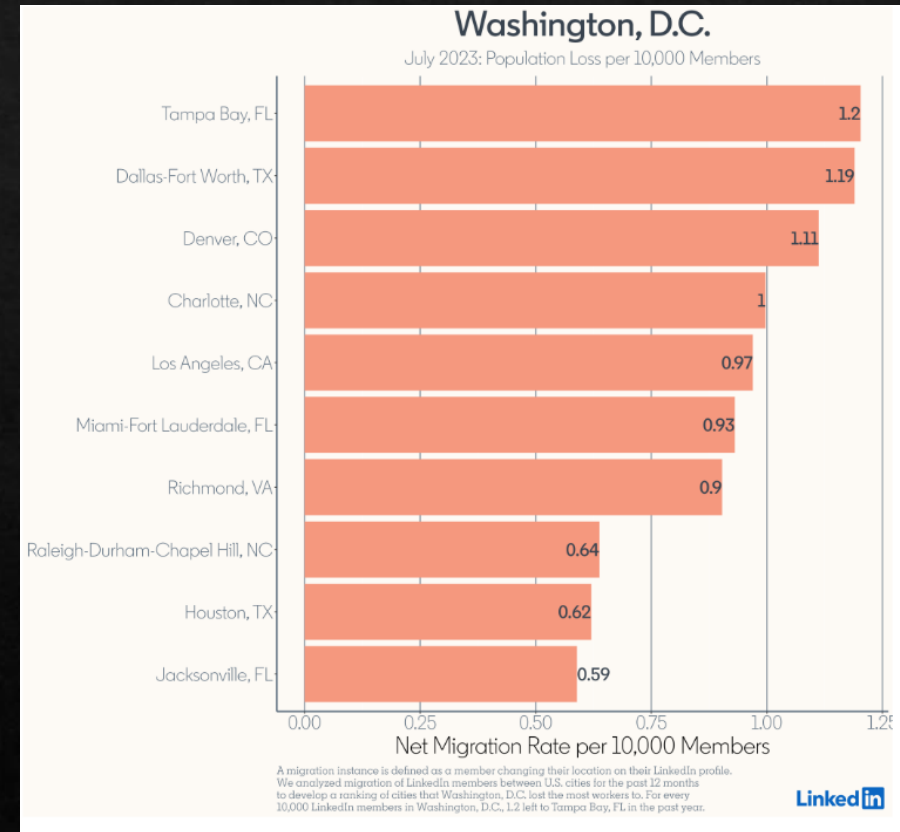
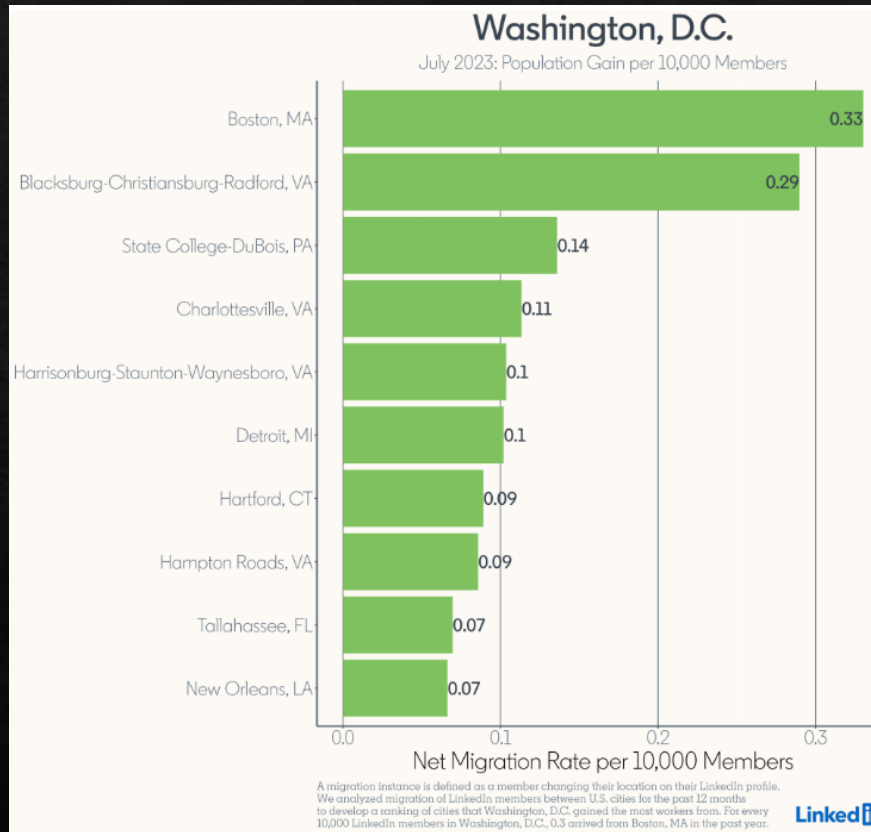


- ❖ Most Arlingtonians work in high-end service occupations.
- ❖ This is consistent across geographies and years.

The Economy (Part 2)

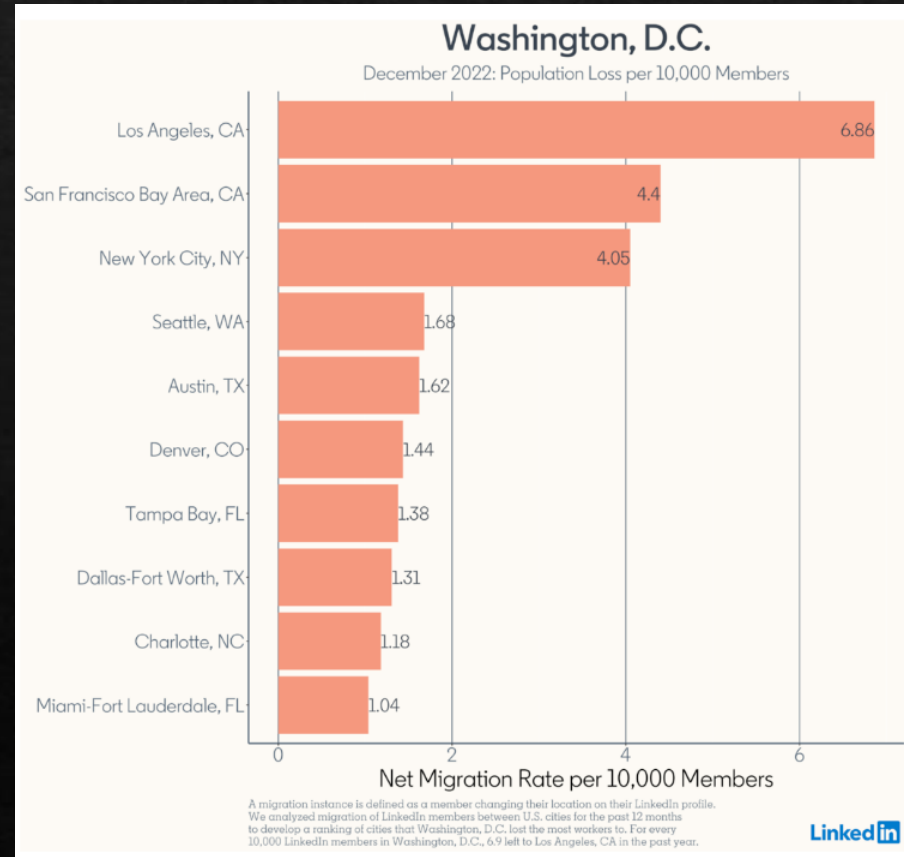
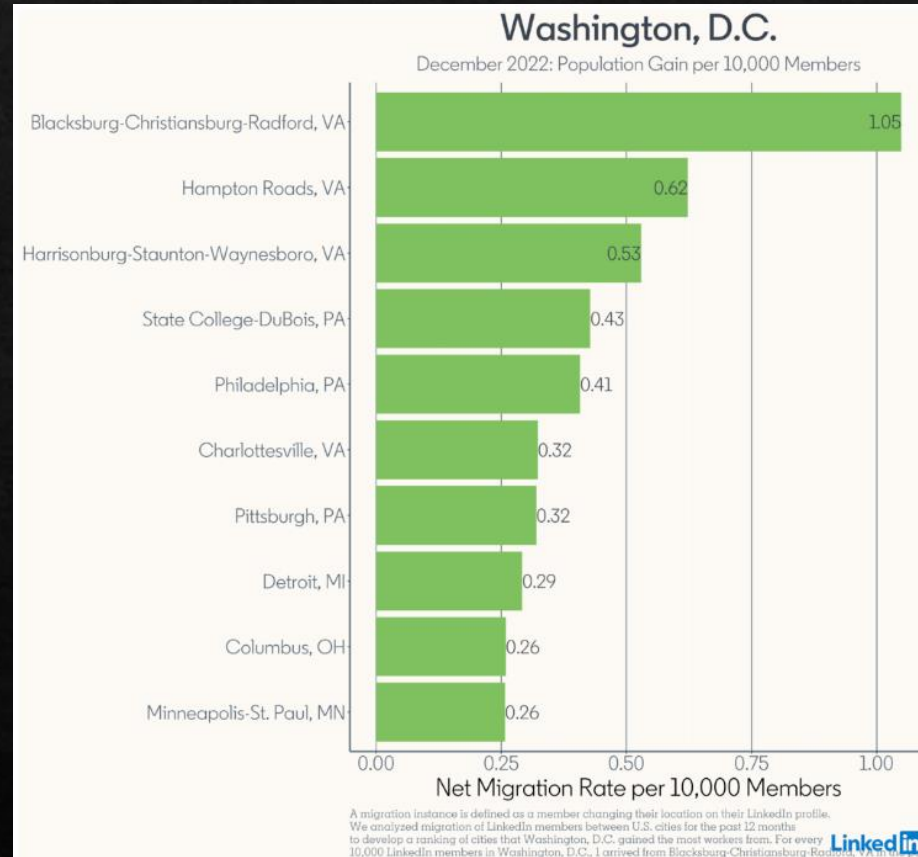


Area Workforce Flows (Entire Washington, DC MSA)



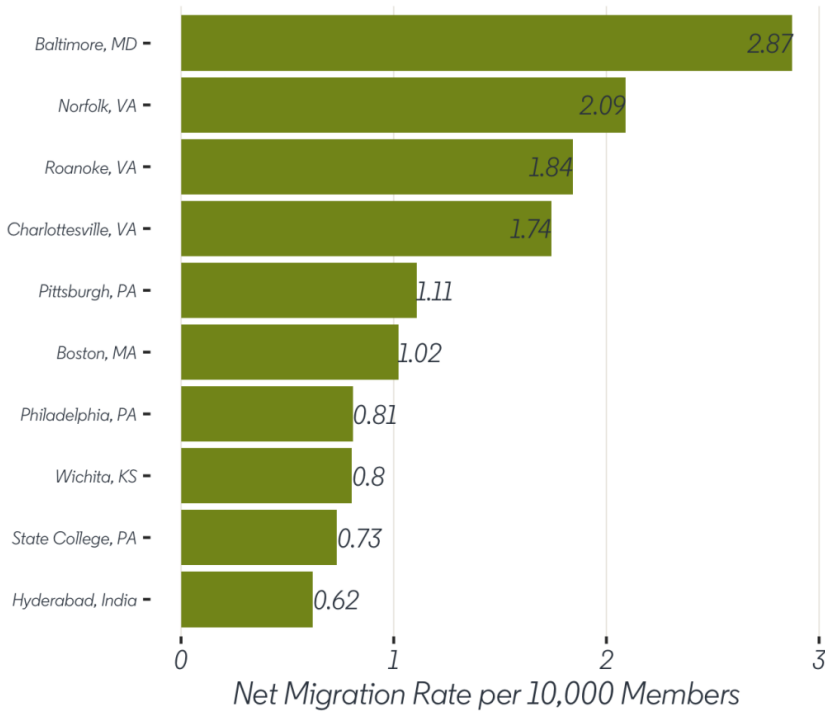
Area Workforce Flows (Part 2)

(Entire Washington, DC MSA)



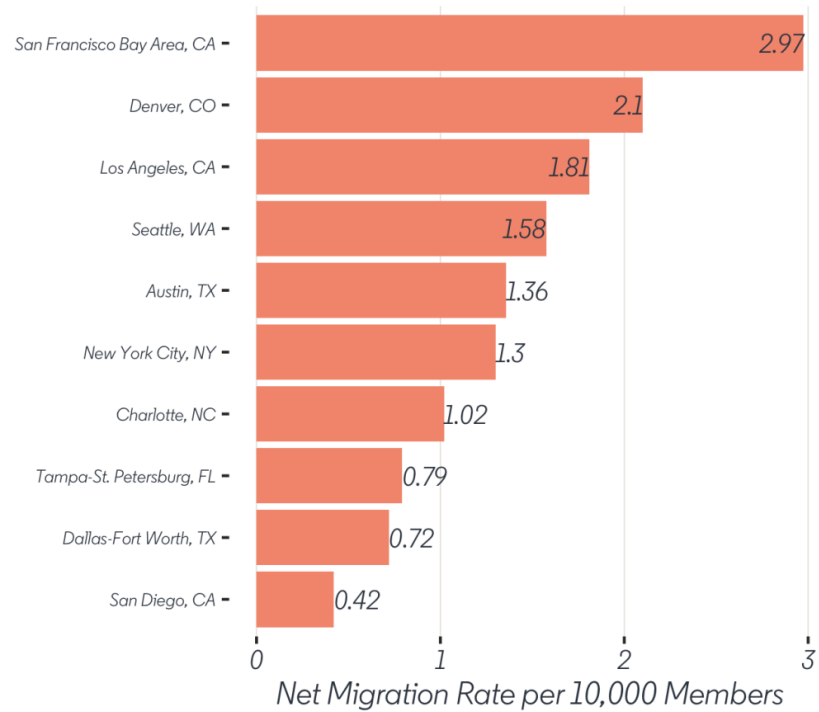
Area Workforce Flows (Part 3) (Entire Washington, DC MSA)

Washington, D.C.
Population Gain per 10,000 Members
January 2020



A migration instance is defined as a member changing their location on their LinkedIn profile. We analyzed migration of LinkedIn members between U.S. cities for the past 12 months to develop a ranking of cities that Washington, D.C. gained the most workers from. So for every 10,000 LinkedIn members in Washington, D.C., 2.9 arrived from Baltimore, MD in the past year.

Washington, D.C.
Population Loss per 10,000 Members
January 2020



A migration instance is defined as a member changing their location on their LinkedIn profile. We analyzed migration of LinkedIn members between U.S. cities for the past 12 months to develop a ranking of cities that Washington, D.C. lost the most workers to. So for every 10,000 LinkedIn members in Washington, D.C., 3 left to San Francisco Bay Area, CA in the past year.

What Does this Mean?

Two (non-mutually exclusive) Theories

The Tiebout Theorem (Tiebout, 1956)

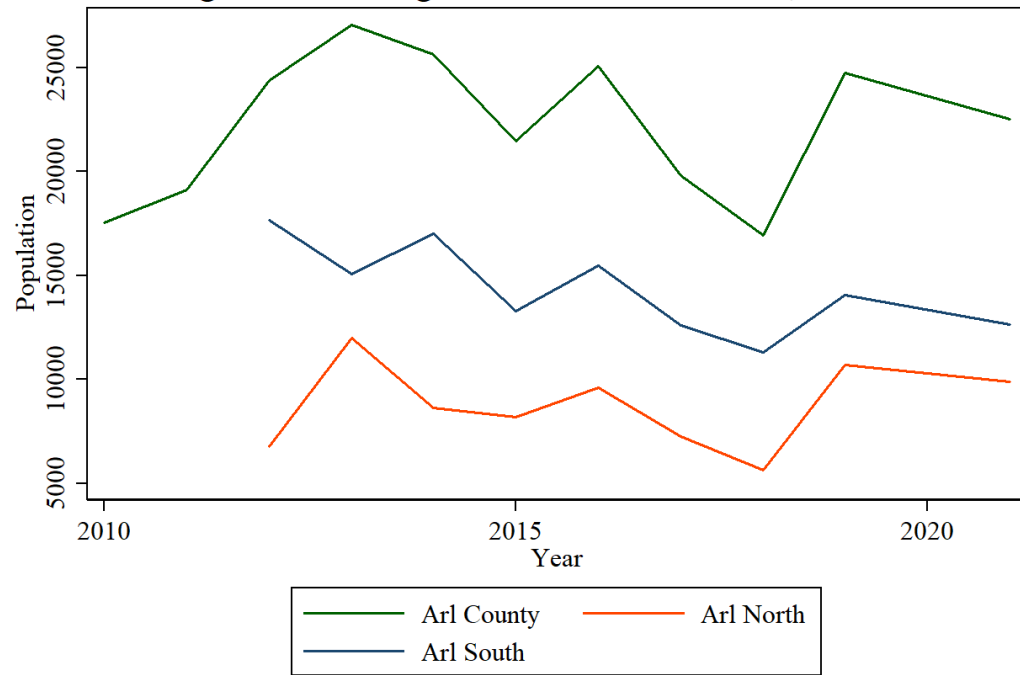
When jobs are plentiful and commuting costs are low, workers will move to jurisdictions (i.e., counties) that offer their preferred combination of tax burdens, government services and amenities.

The Escalator Model (Fielding, 1992)

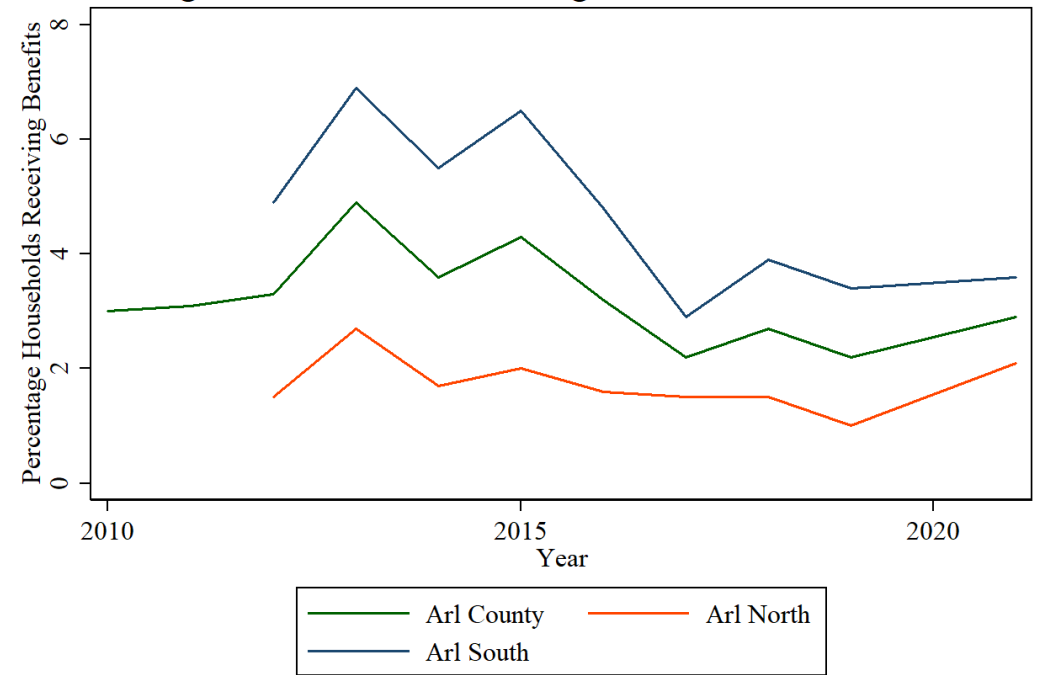
Workers will stay in certain cities/MSAs so long as they can advance their career or skill sets. When they can no longer do this, they've reached the "top of the escalator." They then move to another city to "hop on the next escalator."

Poverty and Welfare

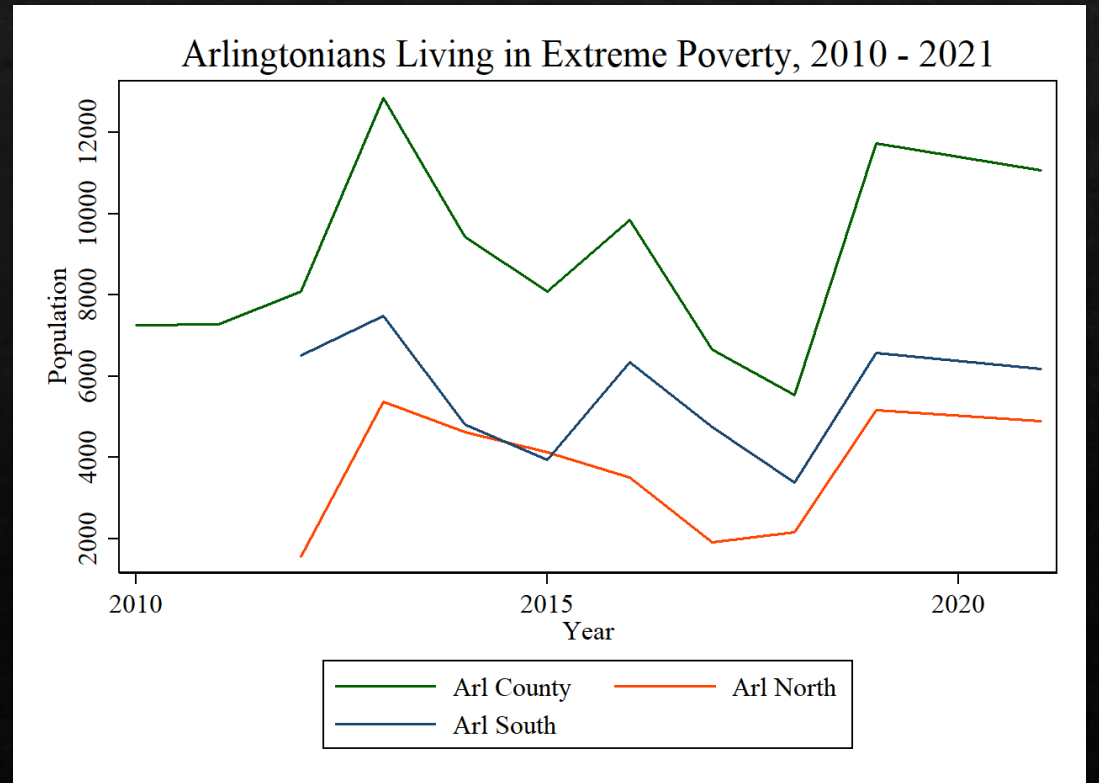
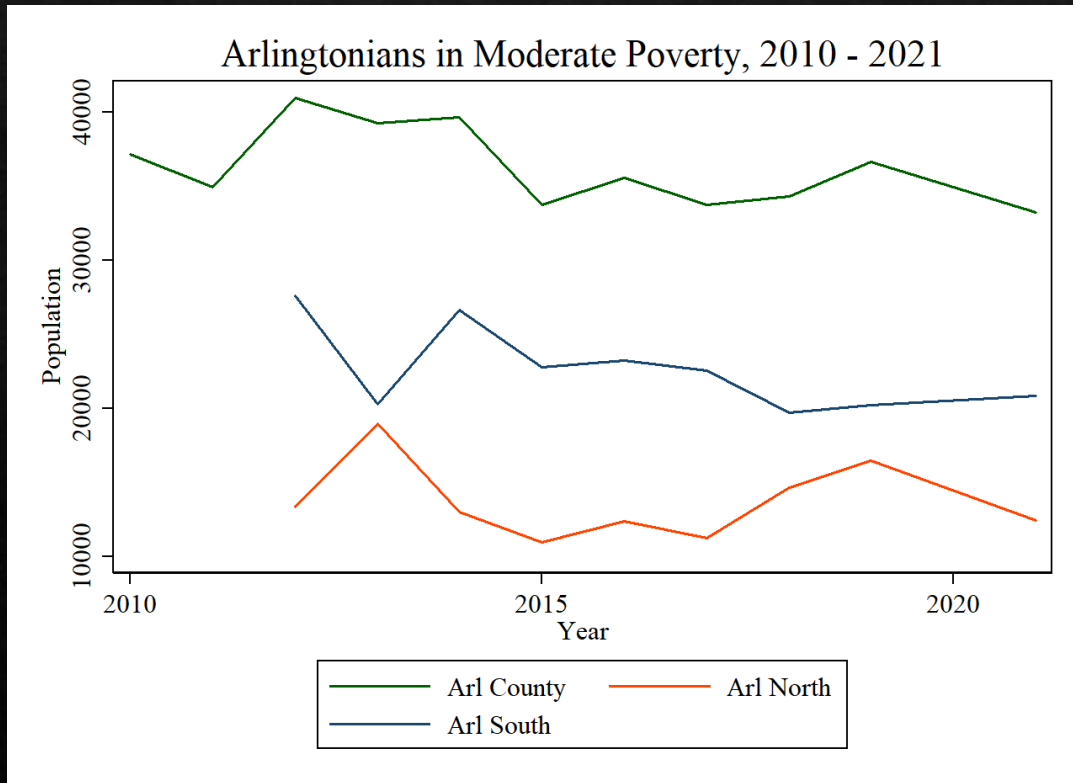
Arlingtonians Living at or Below 125% FPL, 2020 - 2021



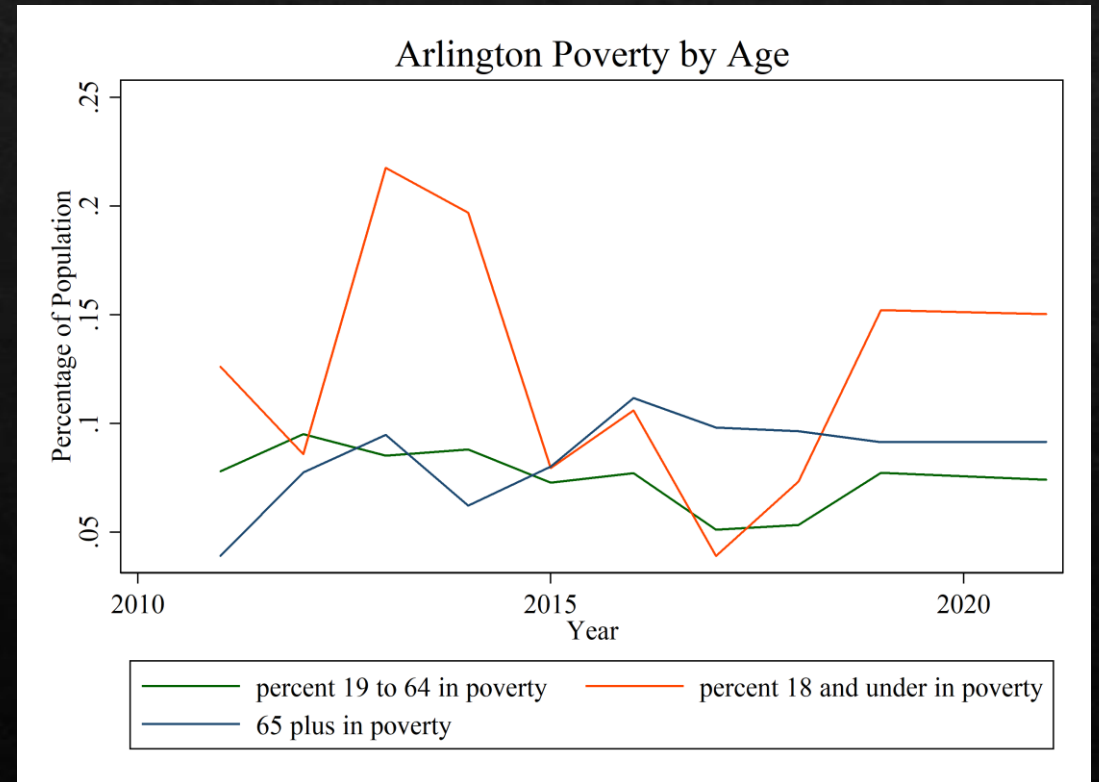
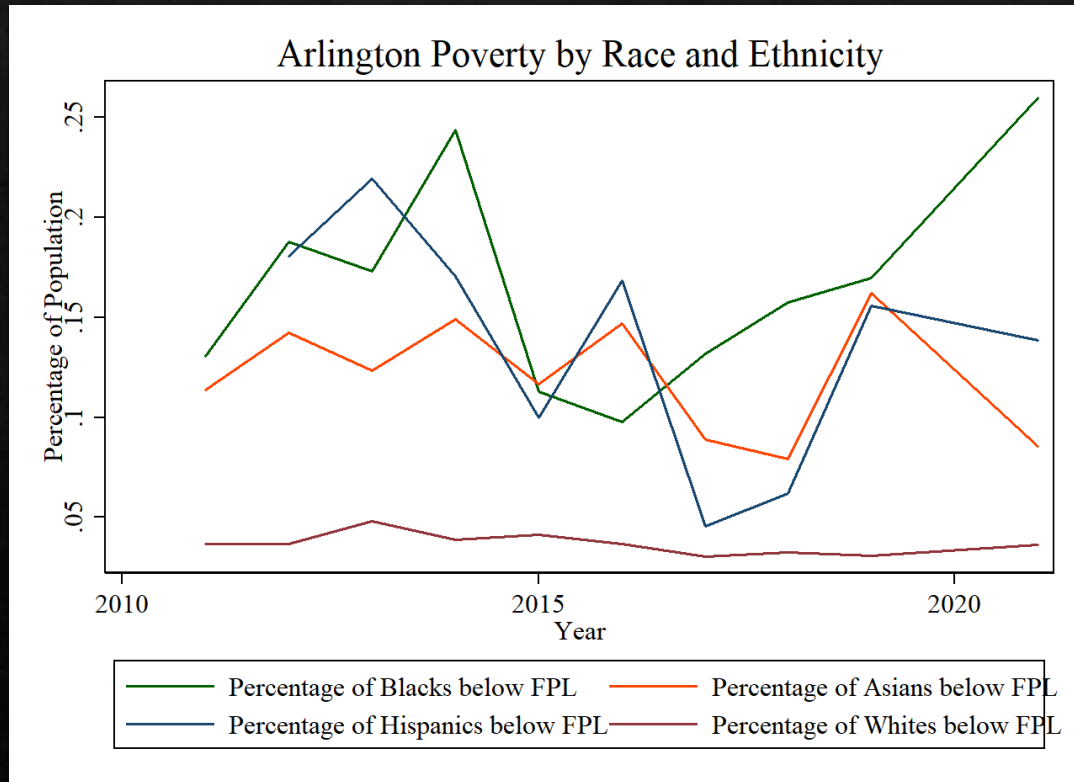
Arlington Households Receiving SNAP and Other Assistance



Poverty at the Ends



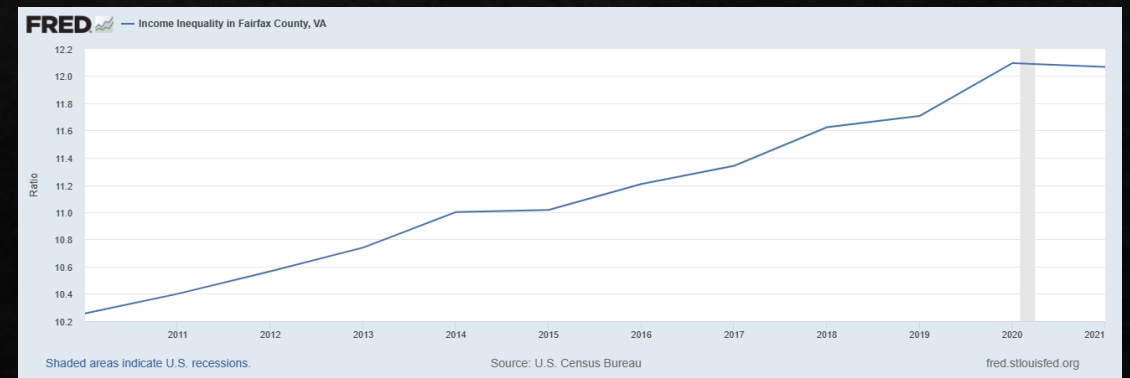
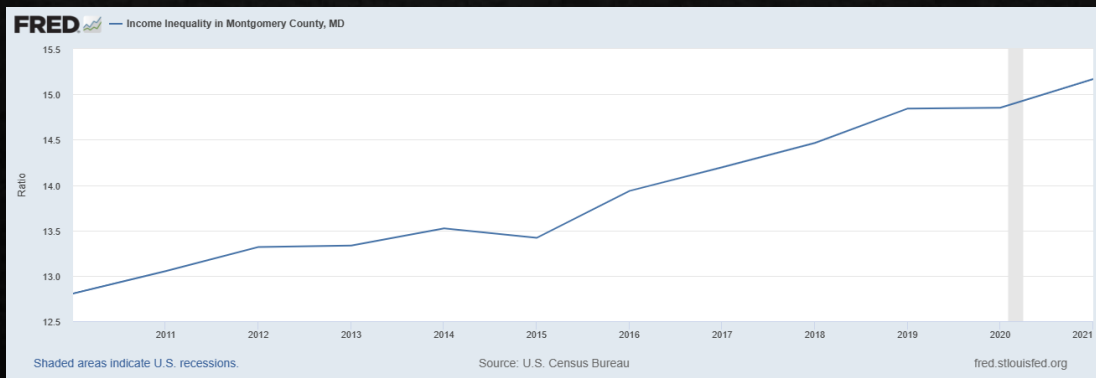
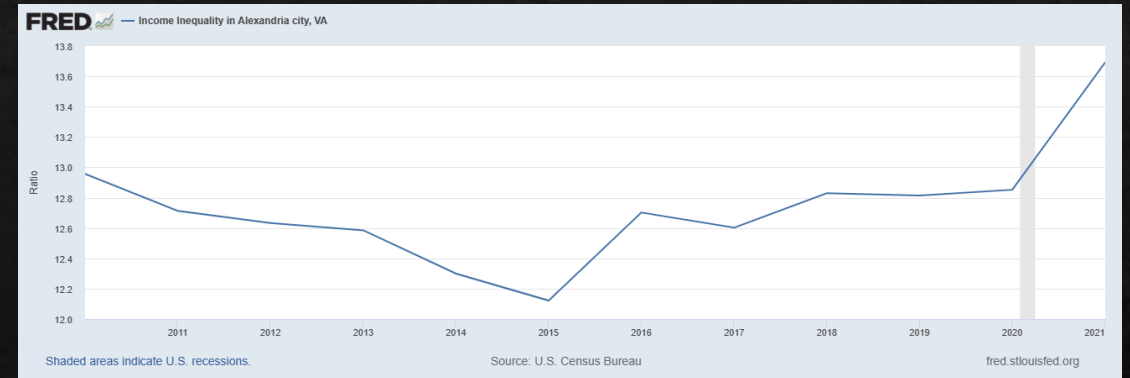
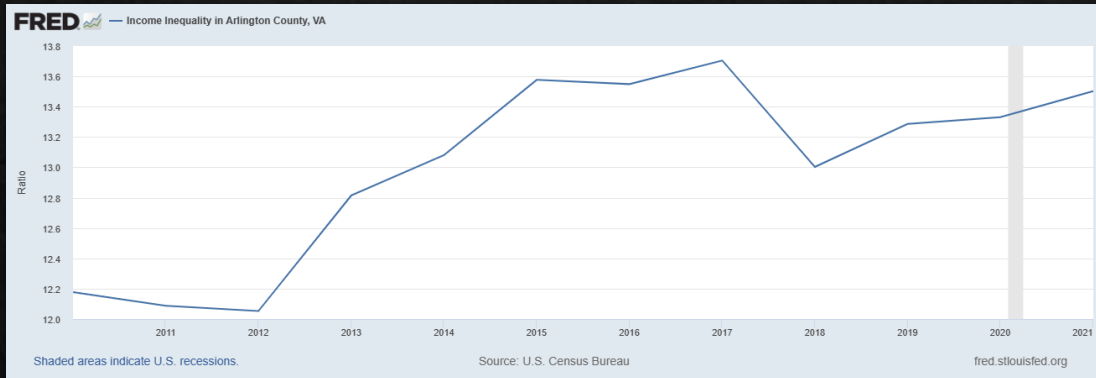
Poverty in Race and Age



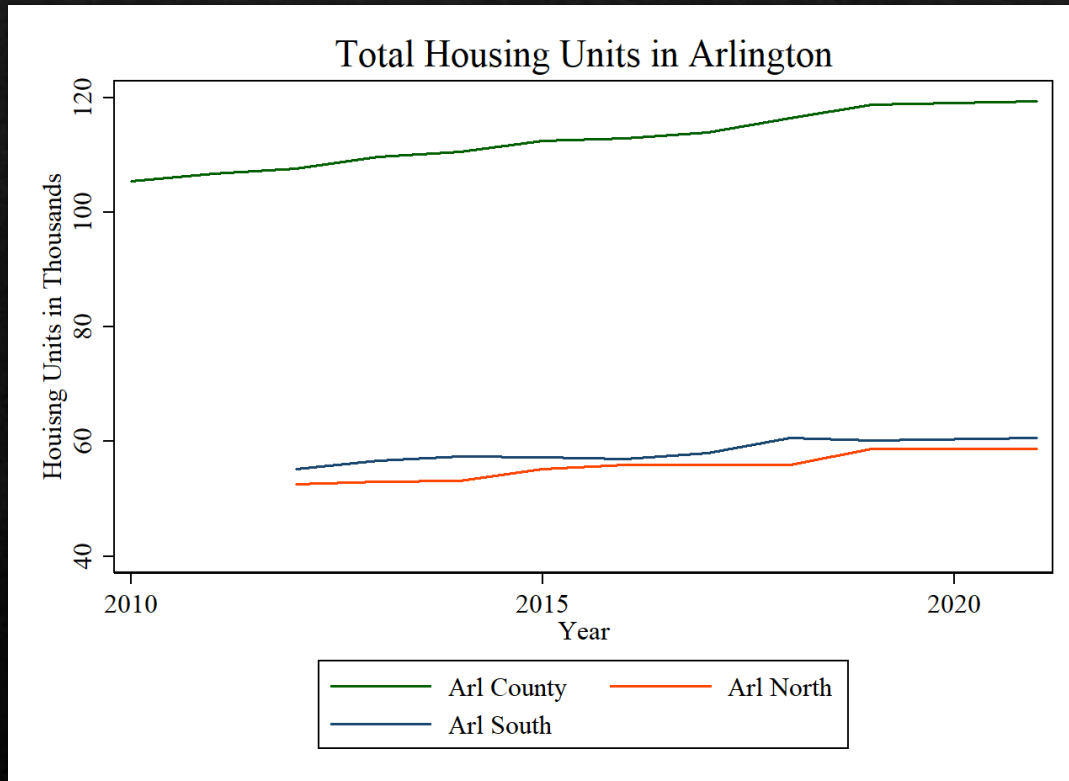
Income Inequality



How Arlington Compares On Income Inequality

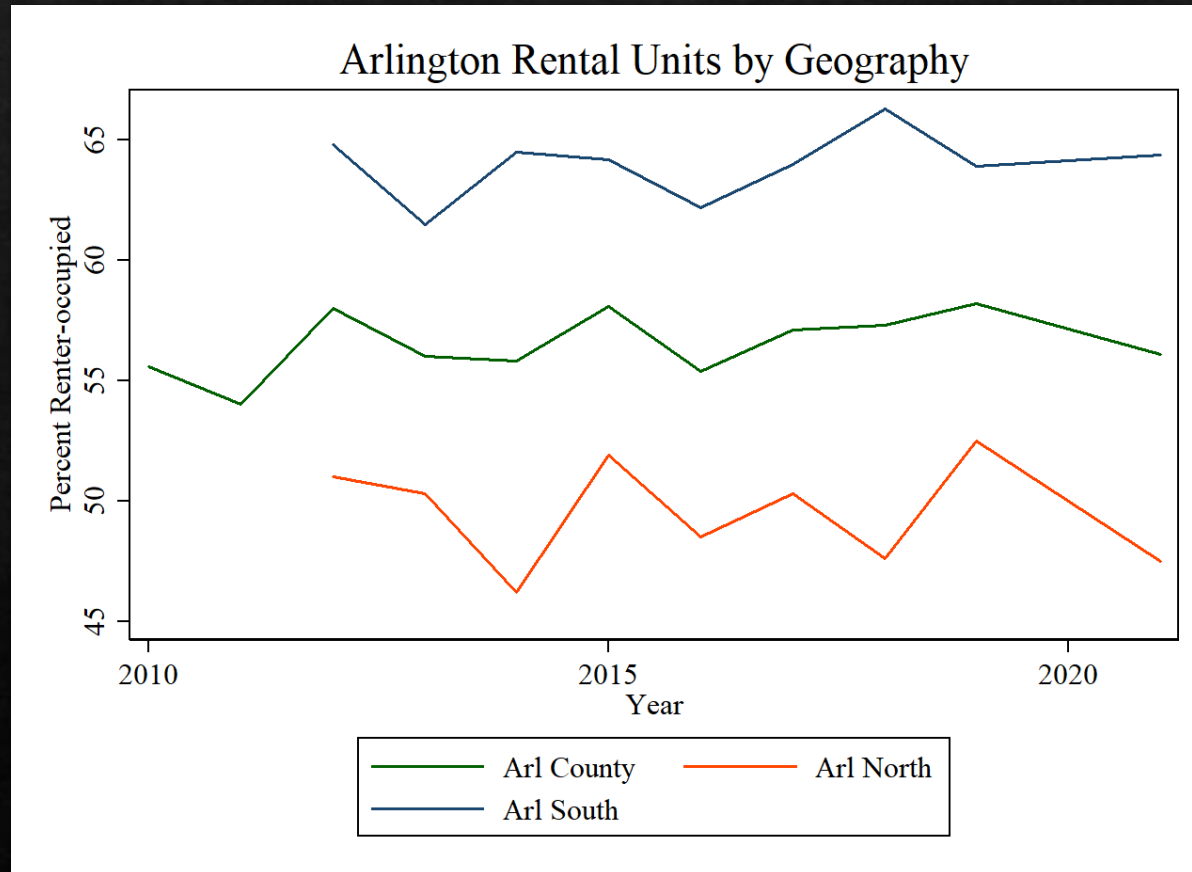


Housing Supply



- ❖ Arlington's housing supply has grown by, on average, 1.2 percent year over year since 2010.
- ❖ This means we have added on average 1349 net units per year to the county's housing stock.
 - ❖ In North Arlington, 743 units per year on average.
 - ❖ In South Arlington, 602 units per year on average.
- ❖ 81 percent of that increase involves apartment buildings 20 units or larger, or 1093 apartments per year.

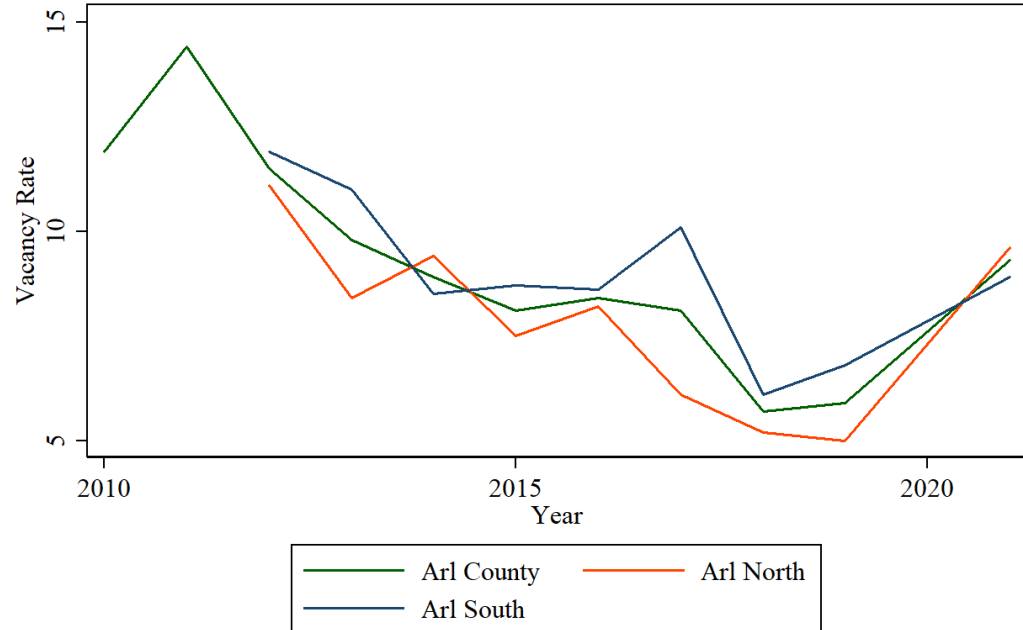
Renters



Vacancy Rates

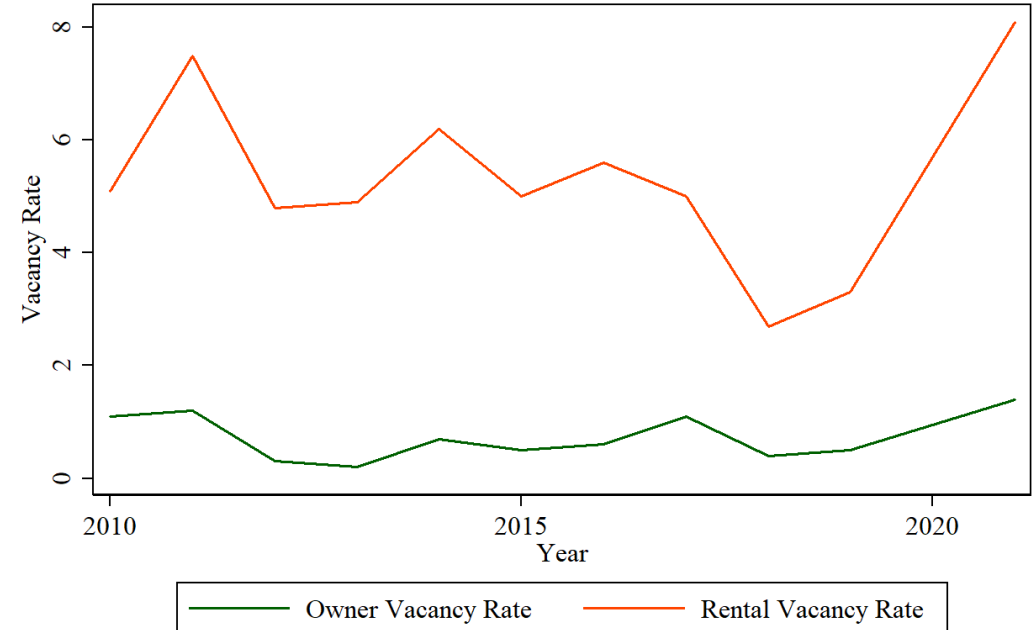
Arlington Housing Vacancy Rate (All Units)

2010-2021

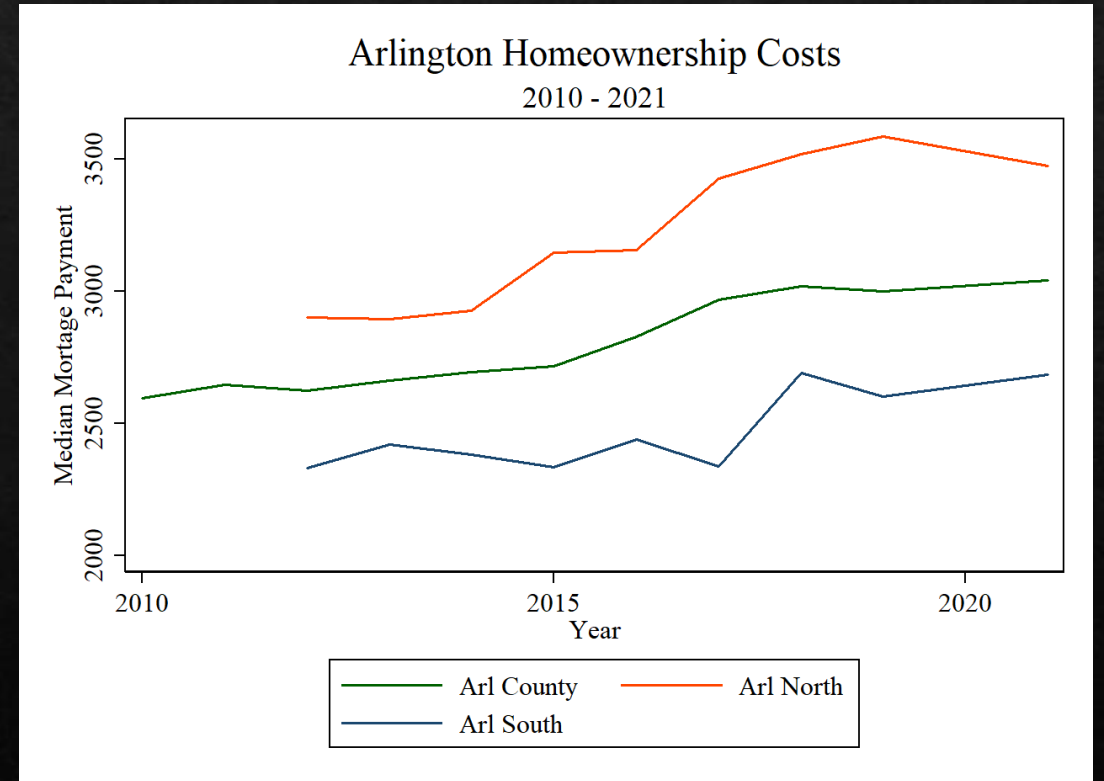
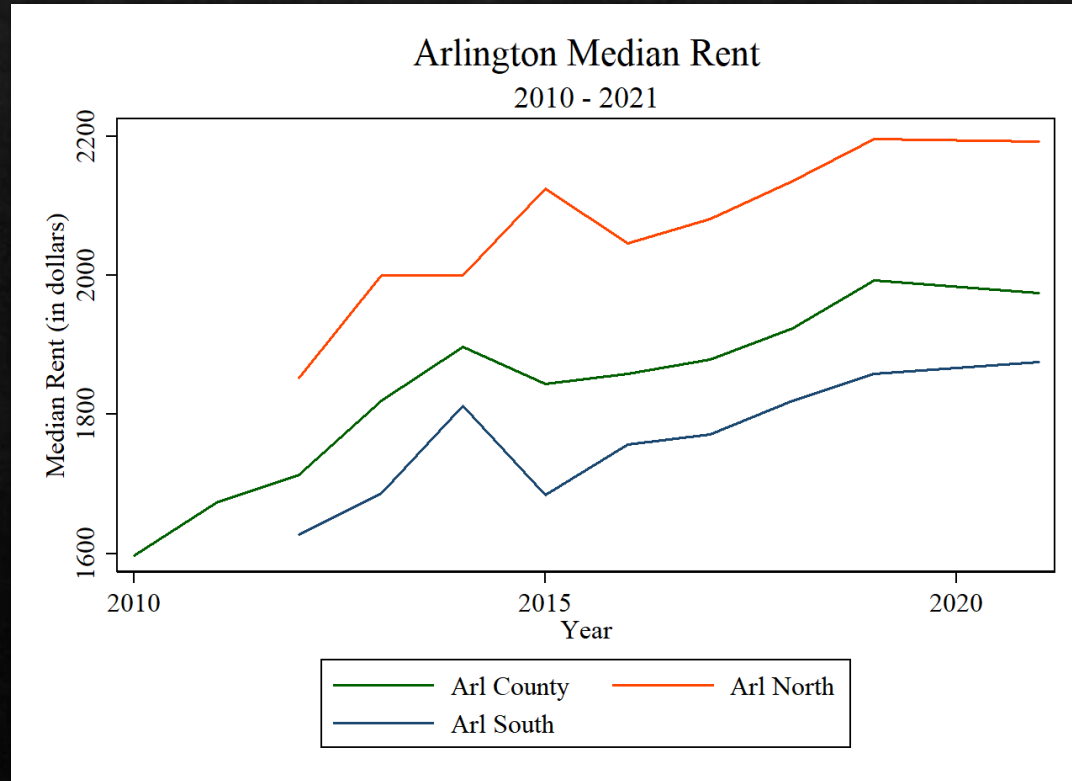


Arlington Housing Vacancy Rate by Ownership Status

2010 - 2021

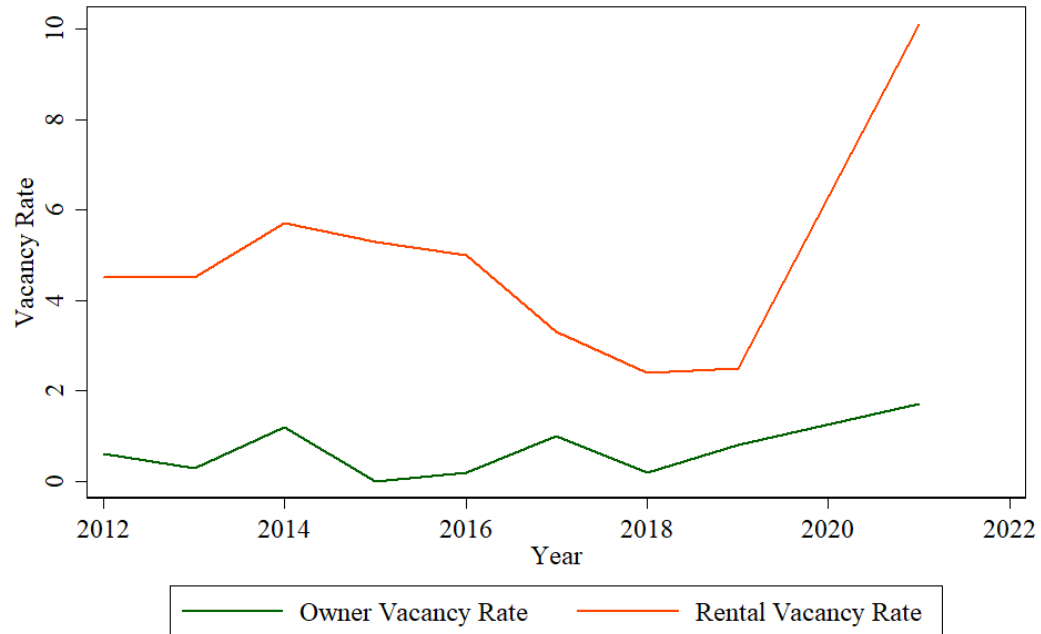


Monthly Housing Costs

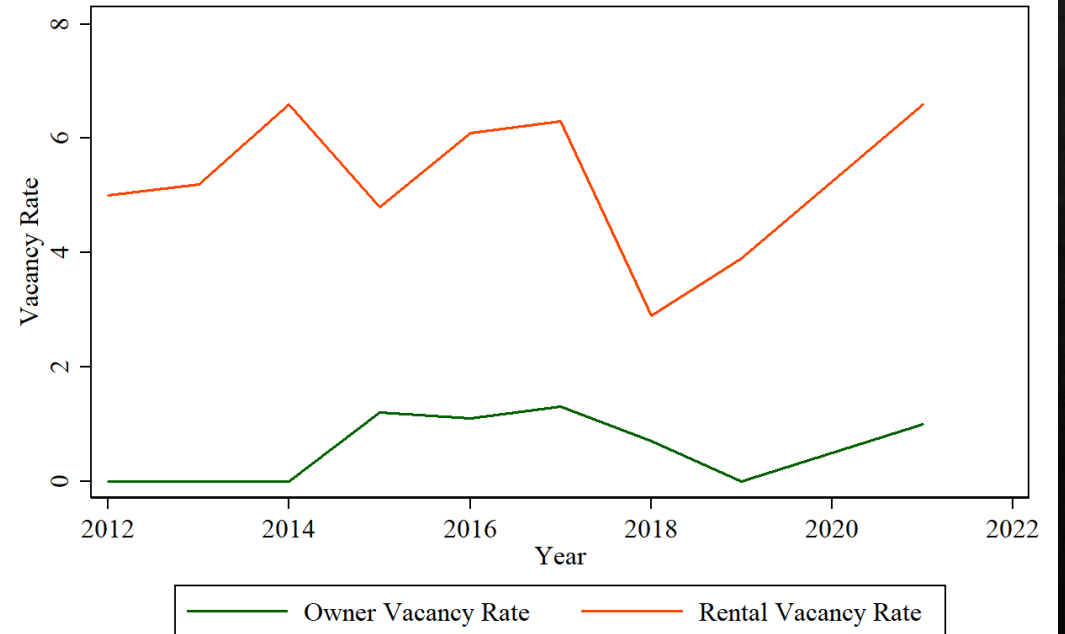


Vacancy Rates by Ownership in North and South Arlington

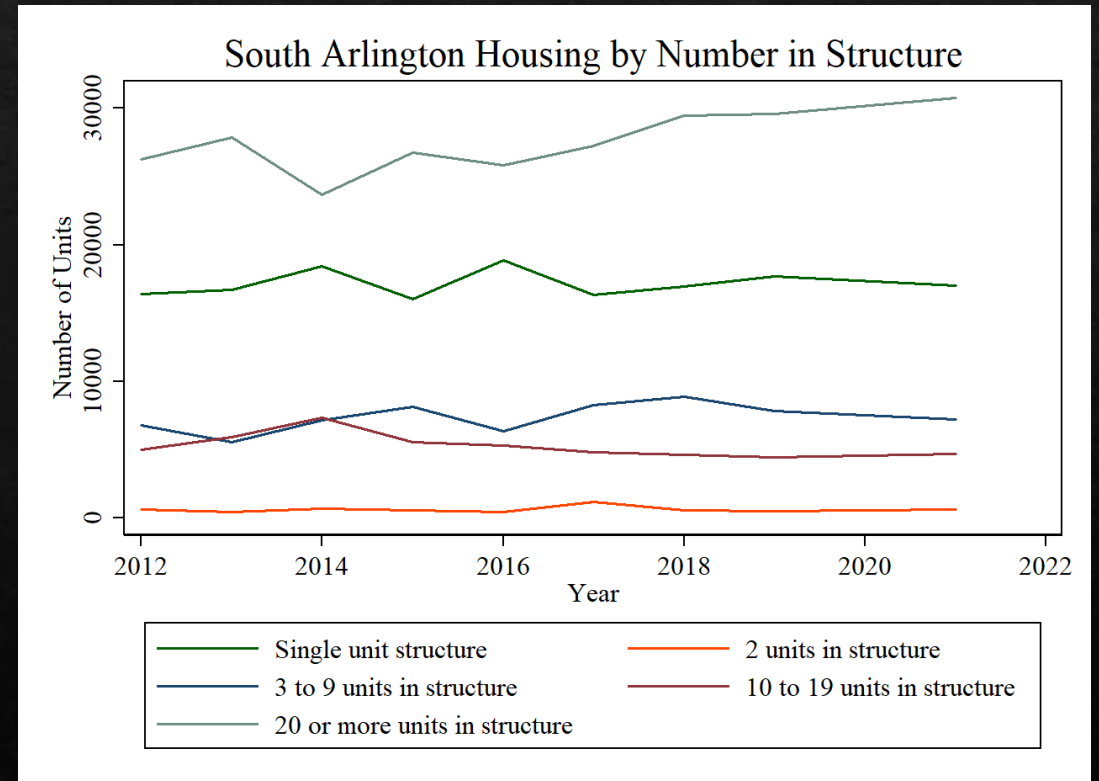
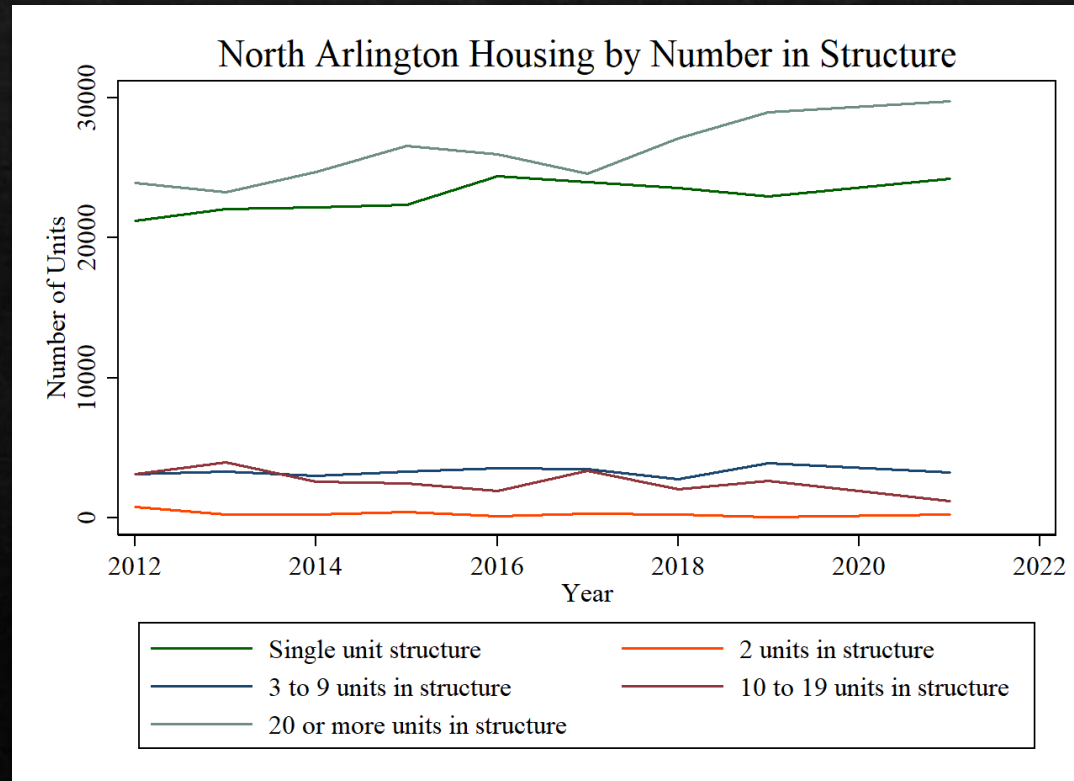
North Arlington Housing Vacancy by Ownership
2012 - 2021



South Arlington Housing Vacancy by Ownership
2012 - 2021

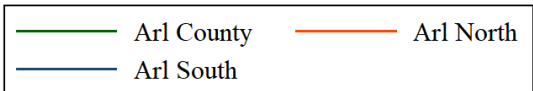
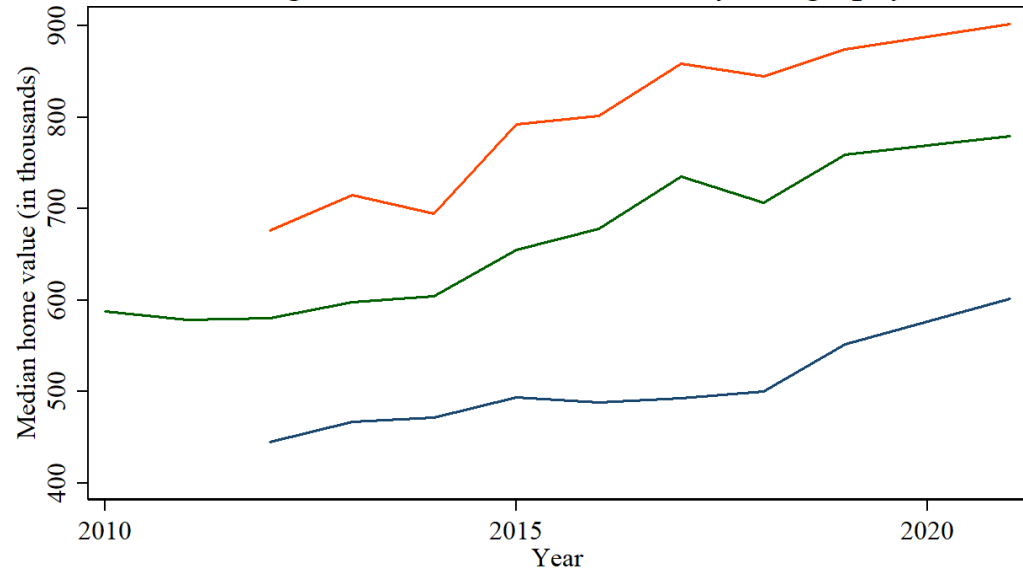


Housing Growth by Type and Location

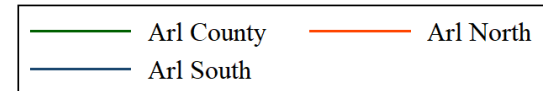
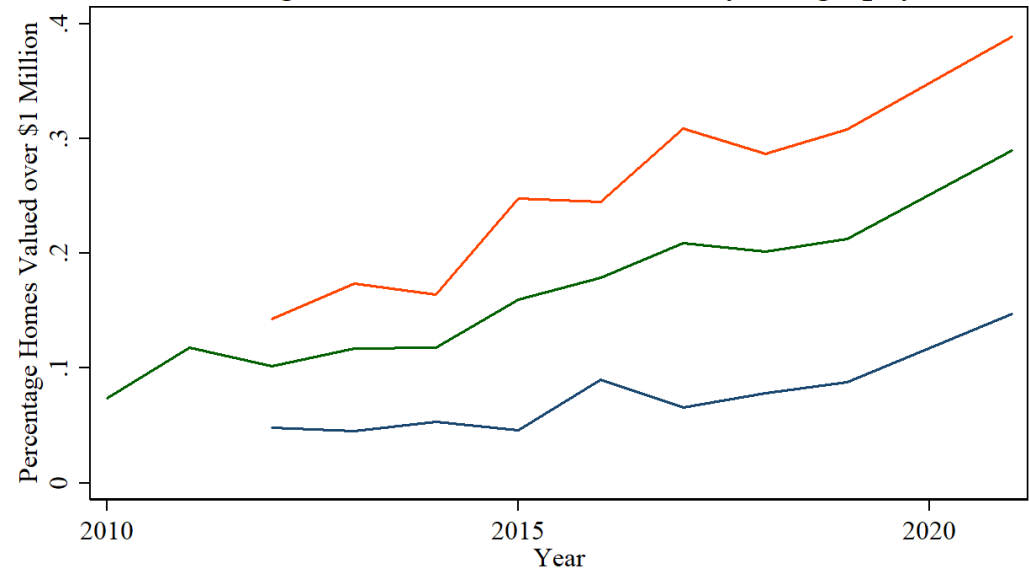


Home Value

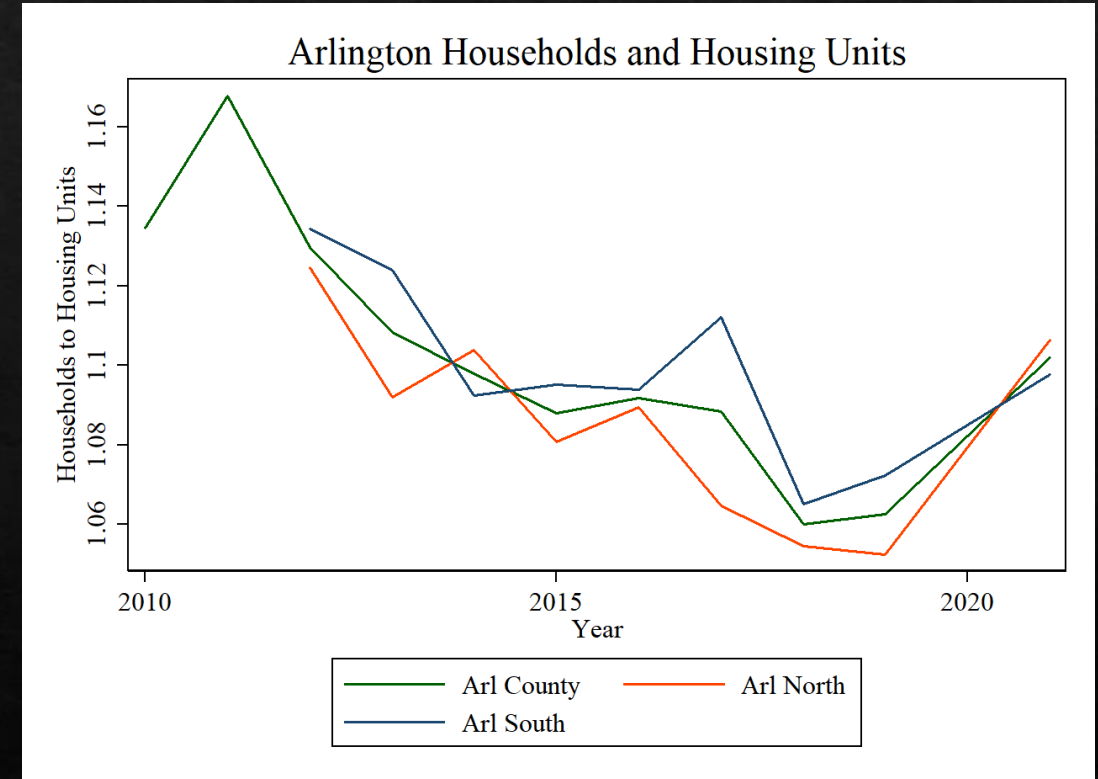
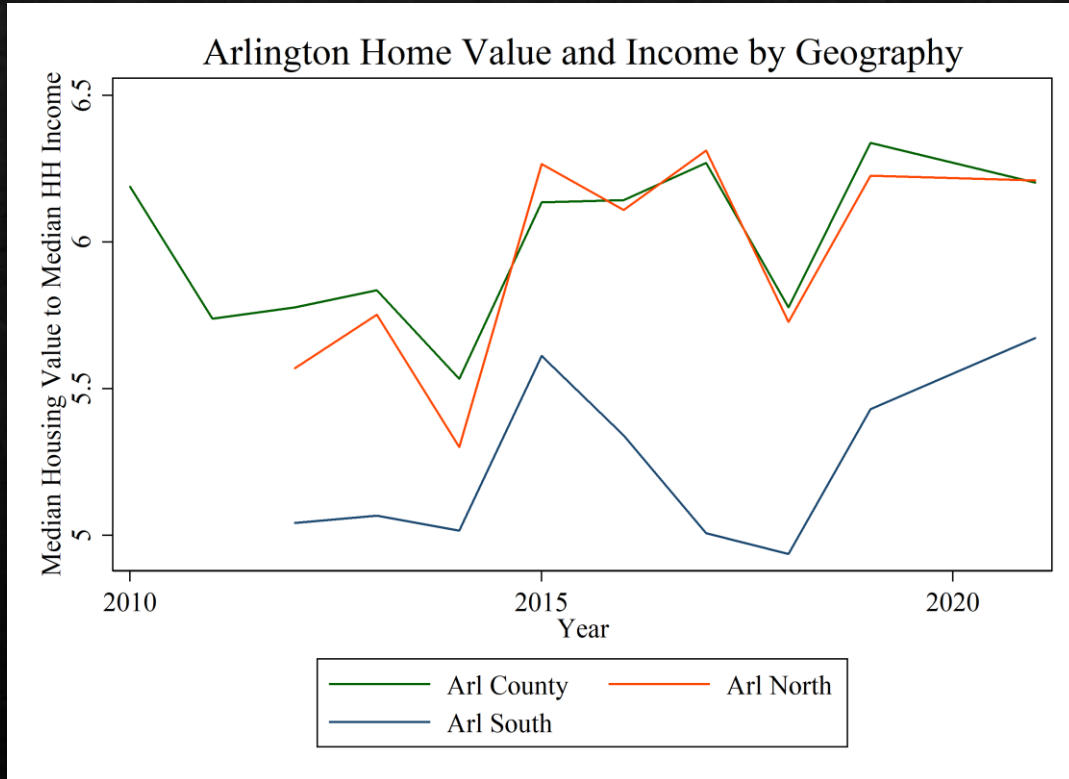
Arlington Median Home Values by Geography



Arlington Homes over \$1 million by Geography

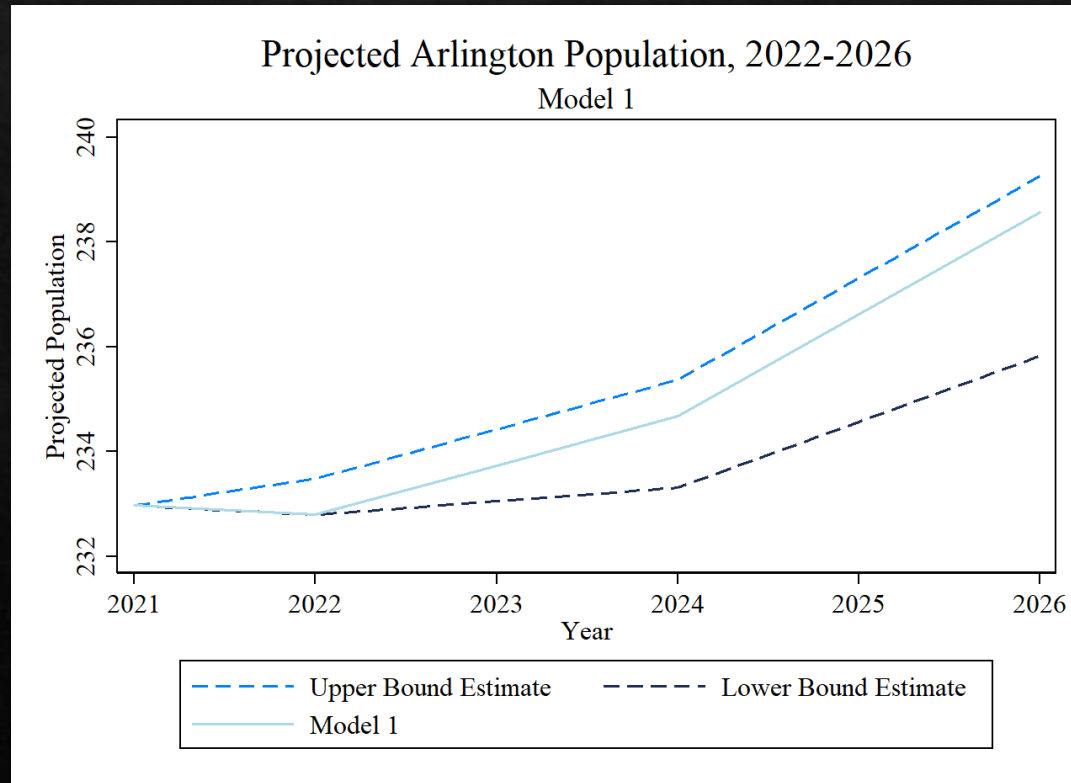


Housing Demand and Price

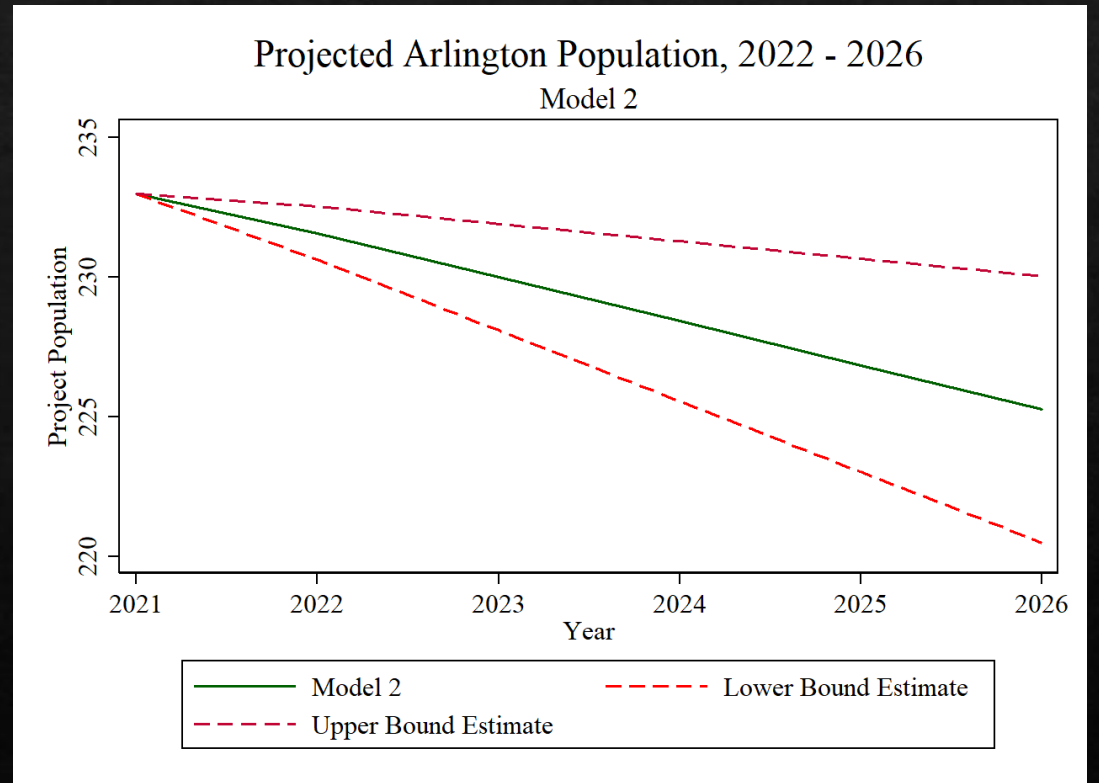


Predictions

Overall Population

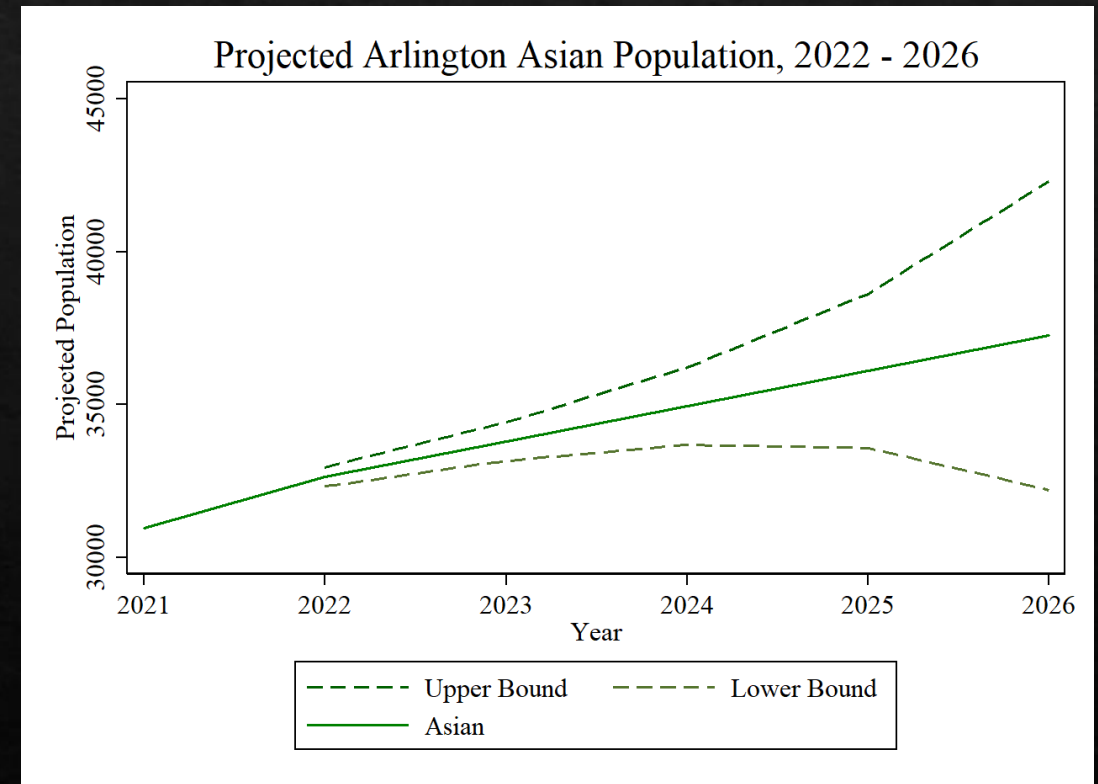
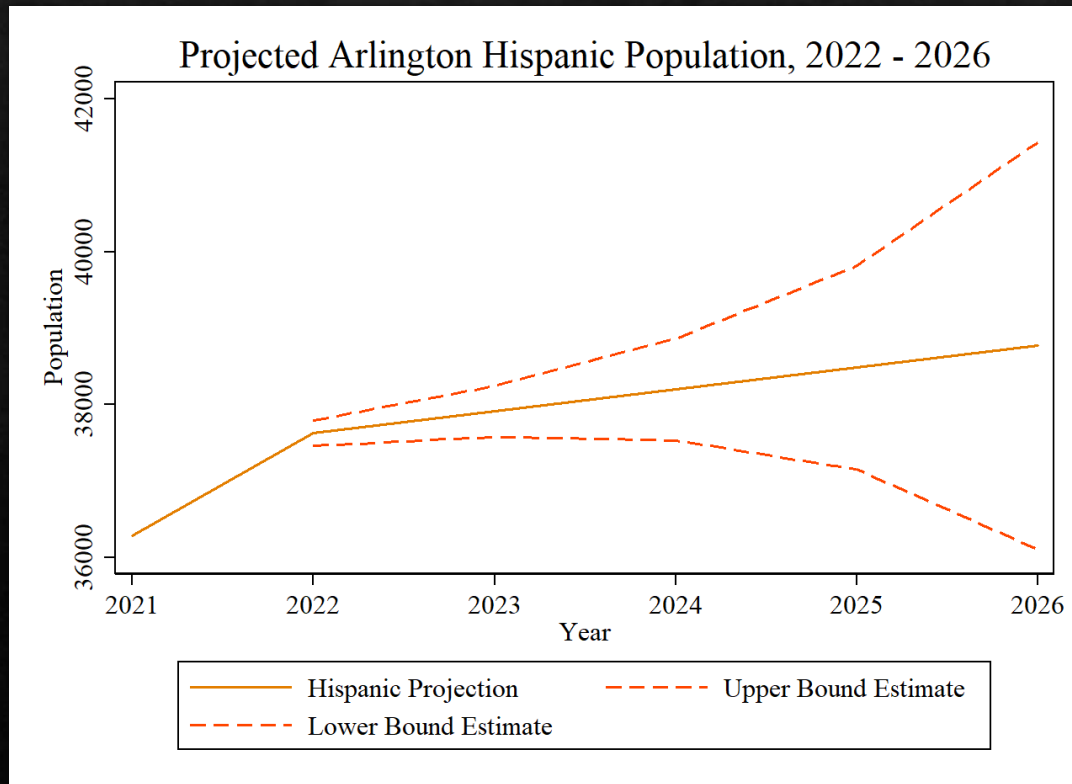


Model 1: Assumes Arlington population trends will revert to pre-2017 trends.

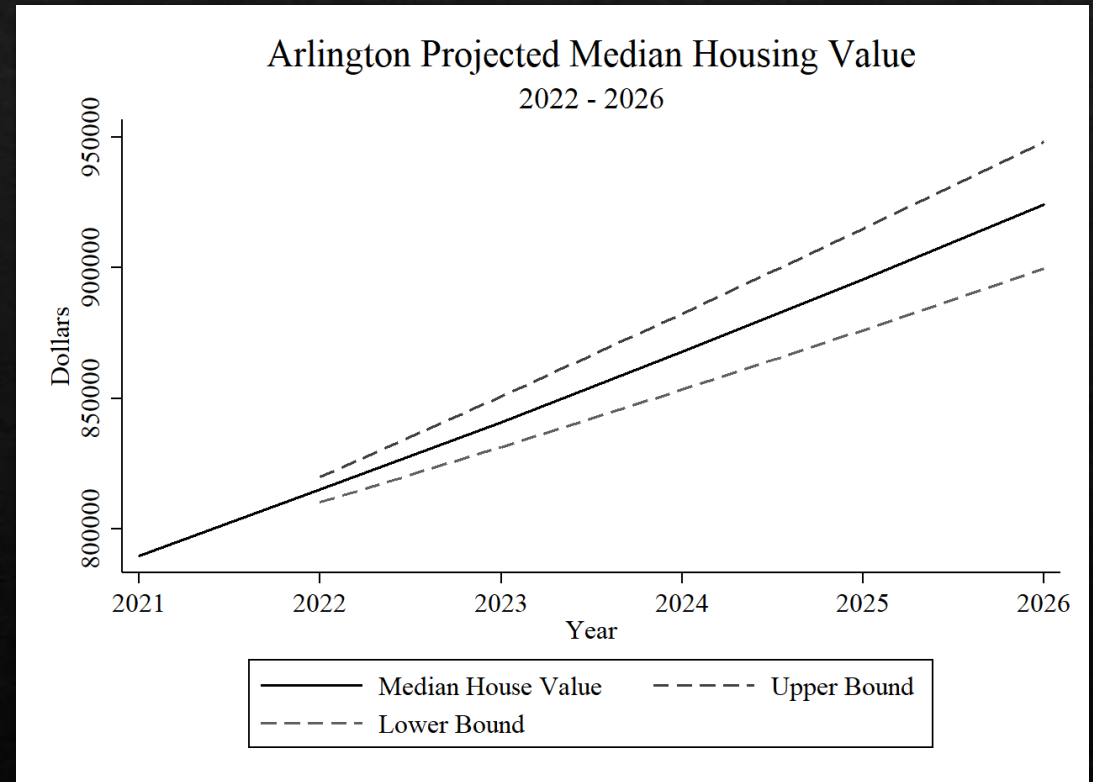
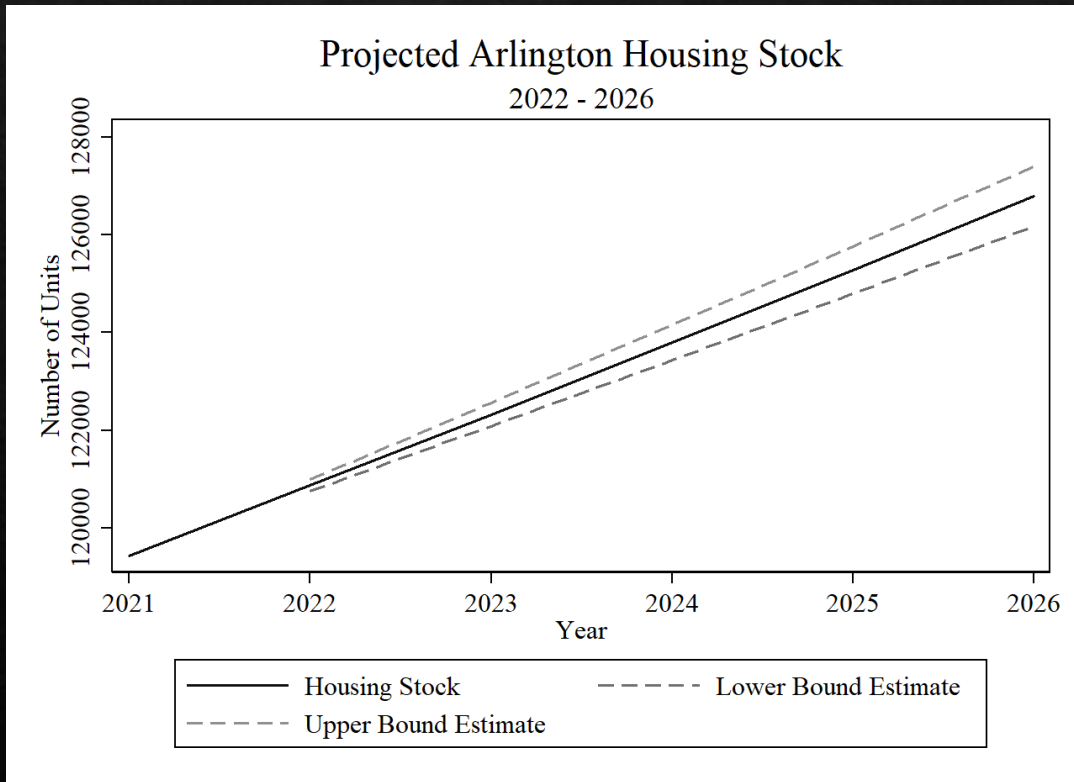


Model 2: Assumes Arlington's population loss observed over the last 5 years will continue.

Population Predictions by Race and Ethnicity



Housing Predictions



Key Takeaways

- ◇ Arlington's housing crisis appears to be more of a function of price (i.e., affordability) than supply.
 - ◇ Market-based supply-side interventions (without mandates) are not likely to alleviate this.
 - ◇ The housing crisis ties into a greater problem of wage inequality.
- ◇ Many long-term trends observed at the beginning of the decade appear to break down over the last 3 years.
 - ◇ Will Arlington continue to lose population like it has the last few years or will we return to pre-covid/beginning of the decade trends?
 - ◇ Will work from home continue at the same levels?
 - ◇ Will Arlington be a long-term destination for workers or will it just be a stepping stone?
 - ◇ Can empty office space alleviate some of these geo-spatial inequalities (which also correlate with race and ethnicity)?
- ◇ There is too much uncertainty in the data and too many contradicting forces to make accurate long-term predictions at this point.
- ◇ Arlington would be advised to spend the next few years collecting additional data on many of these dimensions before making long-term plans that are expensive, resource-consuming, divisive, potentially displacement-inducing and possibly directionally-wrong.