



GMU Center for Real Estate, Northern Virginia Association of Realtors & Northern Virginia Apartment Association

Amazon in the Washington Region: Context & Forecast of Housing Demand

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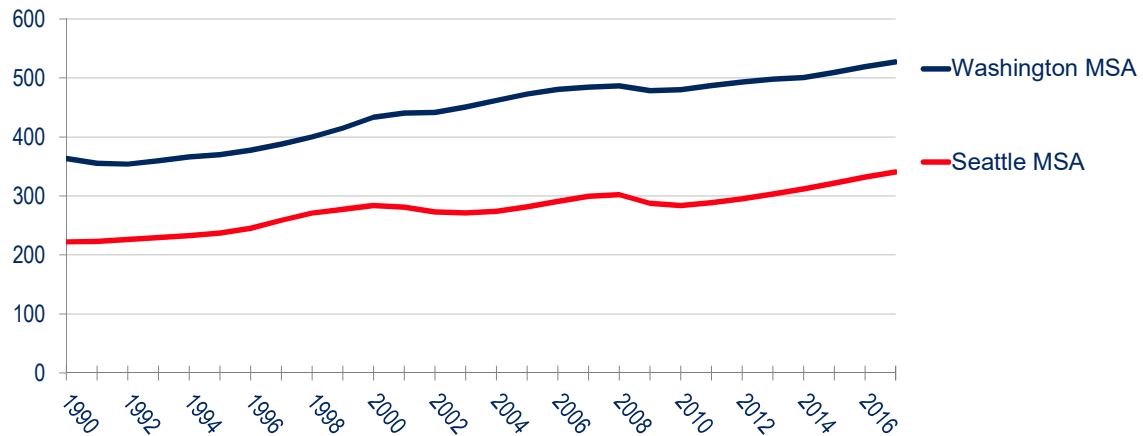


December 12, 2018

Amazon in the Washington Region: Context



Density by Metro Area: Jobs Per Land Square Mile



Sources: U.S. Bureau of Labor Statistics; The Stephen S. Fuller Institute at the Schar School, GMU



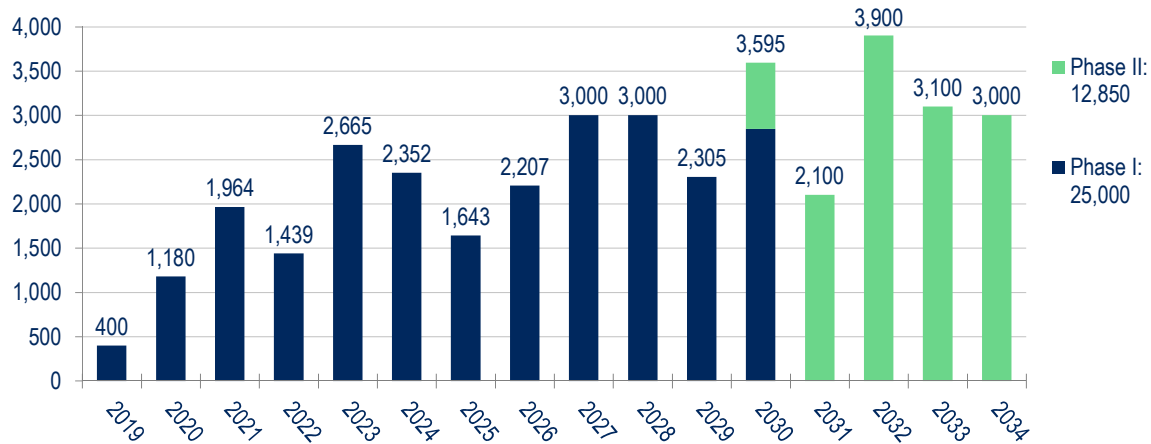
Density: Arlington County vs. City of Seattle

	Arlington County	Seattle City	Arlington as a % of Seattle
Sq. Mi.	26	83	31%
Residents	234,965	724,745	32%
--- Per Sq. Mi.	9,037	8,732	103%
Private Office Space (MMs SF)	32	55	58%
--- Per Sq. Mi.	1.2	0.7	186%

Sources: U.S. Census; Cushman & Wakefield; The Stephen S. Fuller Institute at the Schar School, GMU



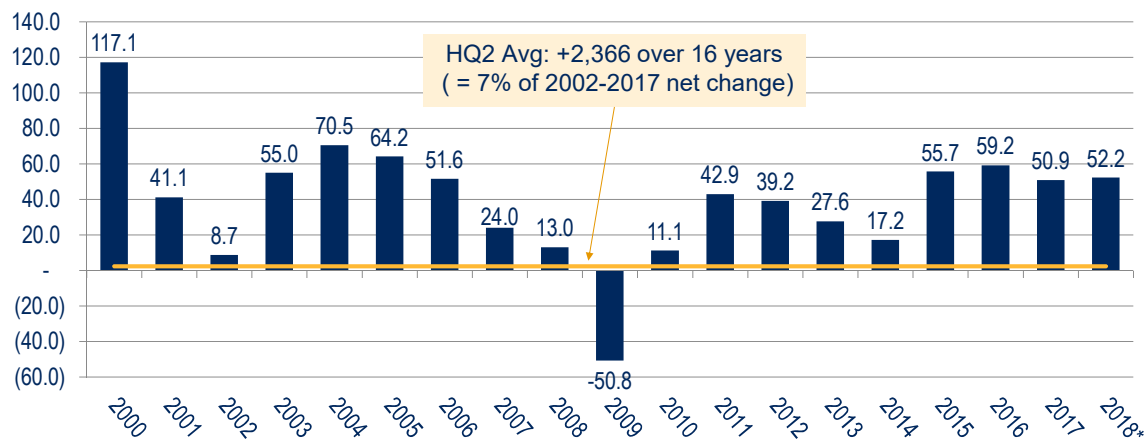
HQ2 Employment Schedule



Sources: Commonwealth of Virginia MOU; The Stephen S. Fuller Institute at the Schar School, GMU



Job Change in the Washington Region 2000 – 2018 (in thousands)



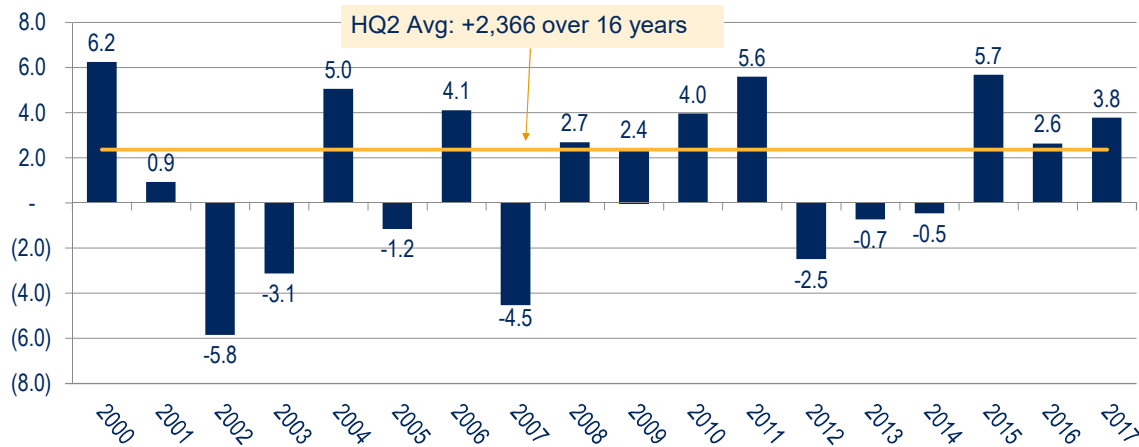
Sources: U.S. Bureau of Labor Statistics (Not Seasonally Adjusted), The Stephen S. Fuller Institute at the Schar School, GMU

*First ten months



Job Change in Arlington County*

2000 – 2017 (in thousands)



Sources: U.S. Bureau of Labor Statistics (QCEW), The Stephen S. Fuller Institute at the Schar School, GMU
 *Excludes military jobs



Amazon in the Washington Region: Housing Forecasts



Amazon-Related Household at Full Build-Out

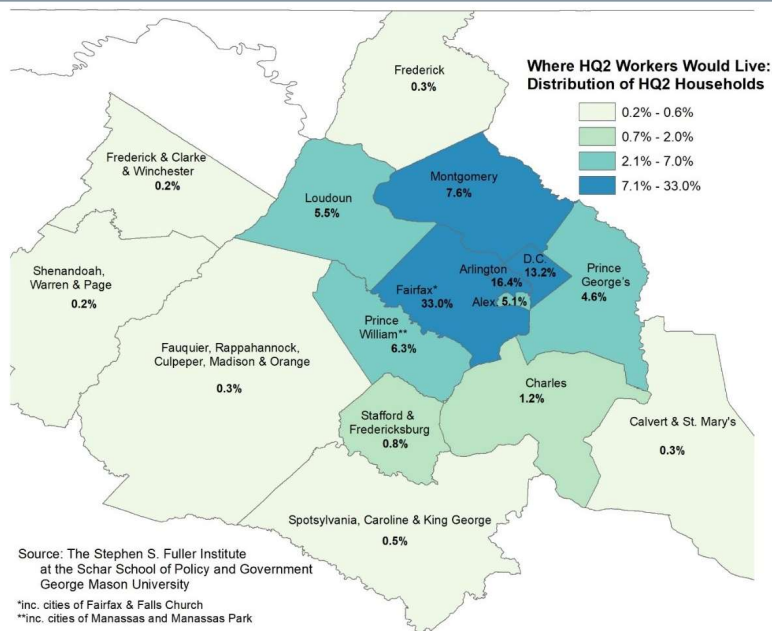
Assumes 37,850 HQ2 jobs

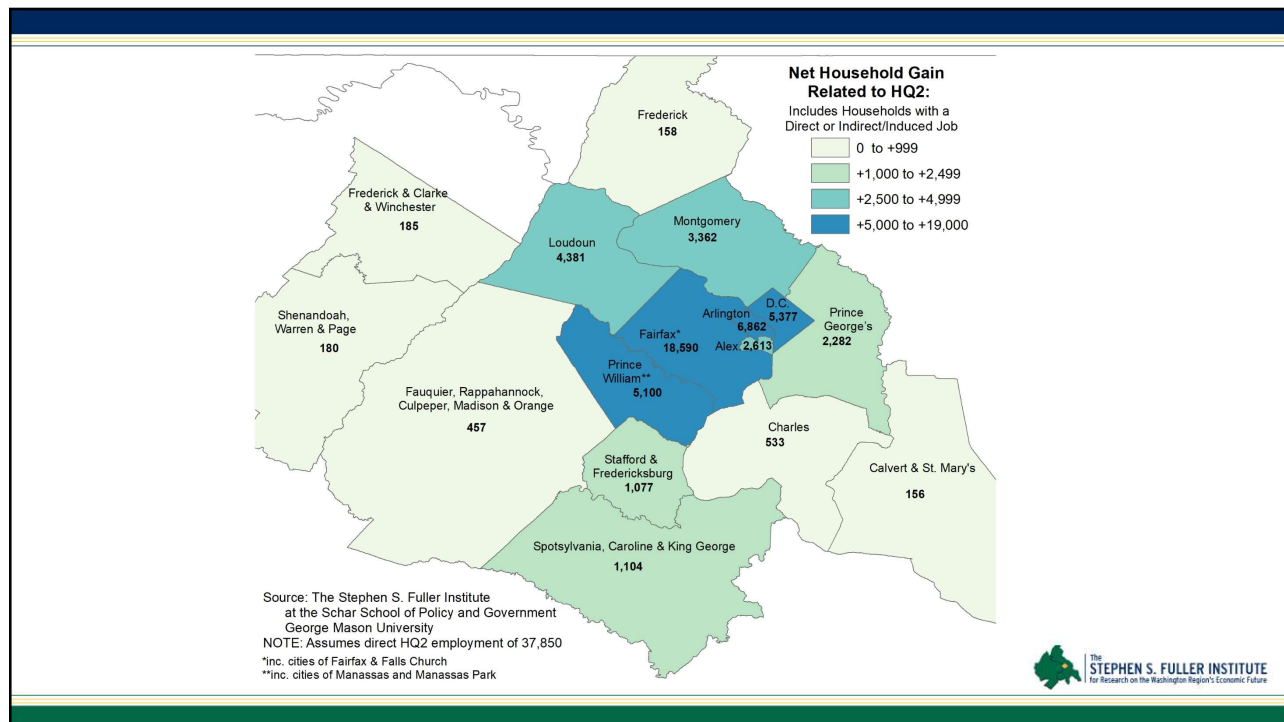
	Household w/ an HQ2 Job	Households w/ a Job Supported by HQ2 Spending (1)	Total
Arlington County, VA	6,097	766	6,862
Rest of Northern Virginia	19,219	14,104	33,323
Rest of Virginia	642	14,967	15,609
D.C.	4,909	469	5,377
Maryland	6,047	1,515	7,562
Elsewhere	363	508	871
Total (2)	37,276	32,328	69,604

Source: The Stephen S. Fuller Institute at the Schar School, GMU

(1) Includes payroll and operations expenditures

(2) A small share of the workers holding HQ2-related jobs are anticipated to cohabitate either with another HQ2-related worker or become part of an existing household. Therefore, the number of households is projected to be fewer than the number of jobs. Only the indirect and induced jobs located in the Commonwealth were analyzed.





Amazon-Related Owners in Select Jurisdictions

Assumes 37,850 HQ2 jobs, includes indirect & induced effects

	Owners at Full Build-Out	Closed Sales in 2017
Virginia		
Arlington County	2,071	3,030
Alexandria City	1,085	2,580
Fairfax County*	13,698	16,300
Prince William County**	4,013	8,330
Loudoun County	3,665	6,630
D.C.	2,410	8,900
Maryland		
Montgomery County	2,737	12,430
Prince George's County	1,886	10,230

Sources: RealEstate Business Intelligence, LLC; The Stephen S. Fuller Institute at the Schar School, GMU
*Includes the cities of Fairfax and Falls Church ** Includes the cities of Manassas and Manassas Park

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Amazon-Related Renters in Select Jurisdictions

Assumes 37,850 HQ2 jobs, includes indirect & induced effects

	Renters at Full Build-Out	Renters in 2016	Total % Increase from 2016
Virginia			
Arlington County	4,792	57,133	8.4%
Alexandria City	1,528	41,808	3.7%
Fairfax County*	4,893	134,425	3.6%
Prince William County**	1,087	49,891	2.2%
Loudoun County	716	25,552	2.8%
D.C.	2,968	169,875	1.7%
Maryland			
Montgomery County	625	132,098	0.5%
Prince George's County	396	121,333	0.3%

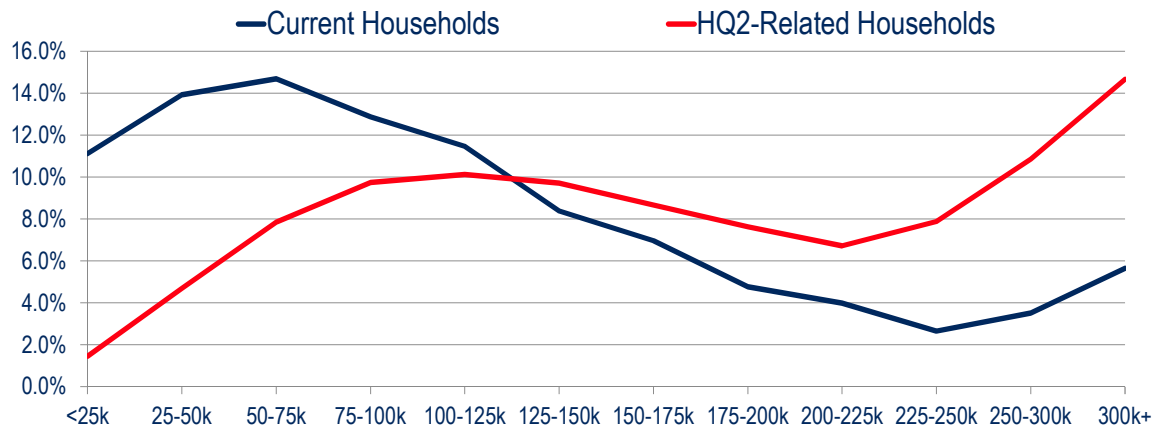
Sources: U.S. Census Bureau (2016 ACS Microdata); The Stephen S. Fuller Institute at the Schar School, GMU
 *Includes the cities of Fairfax and Falls Church ** Includes the cities of Manassas and Manassas Park



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Distribution of Households by Household Income

Washington Region

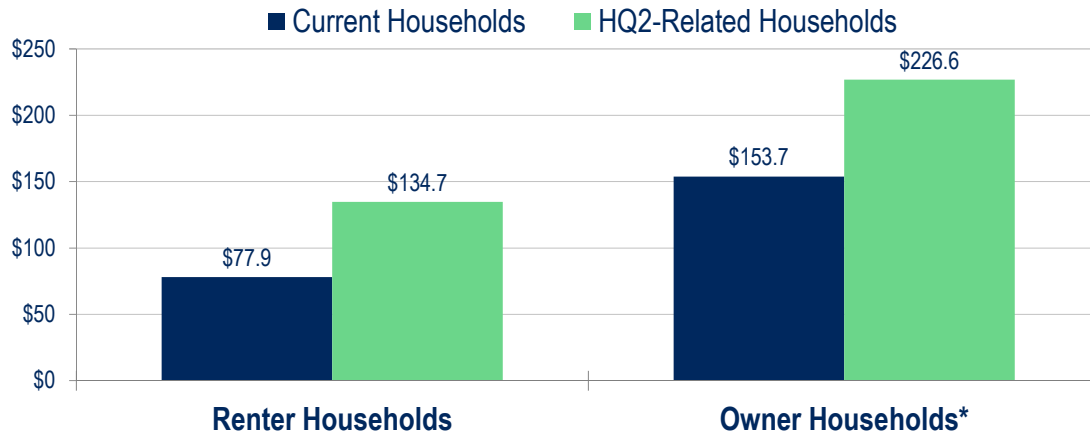


Sources: U.S. Census Bureau (2014-2016 ACS Microdata); The Stephen S. Fuller Institute at the Schar School, GMU
 NOTE: in 2016 \$s



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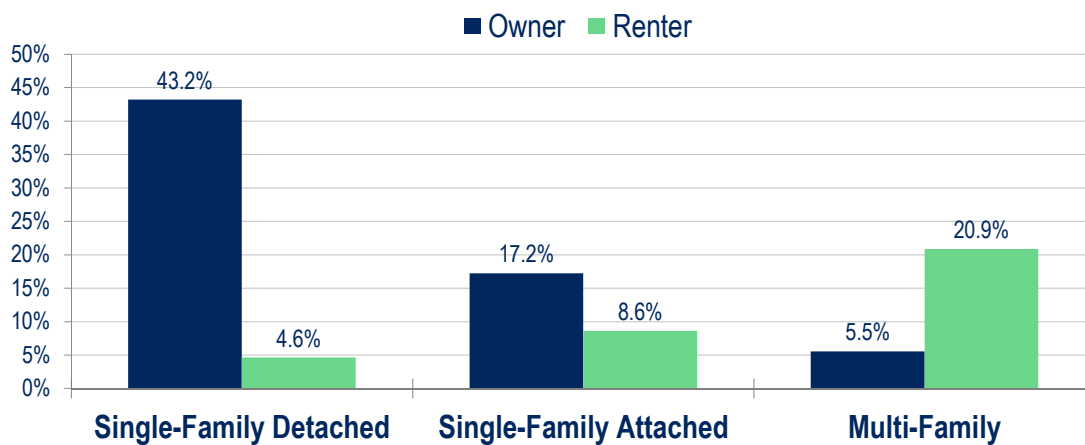
Average Household Income by Tenure Washington Region (in thousands of 2016 \$s)



Sources: U.S. Census Bureau (2016 ACS Microdata); The Stephen S. Fuller Institute at the Schar School, GMU
 *Current owners who moved within the past year.



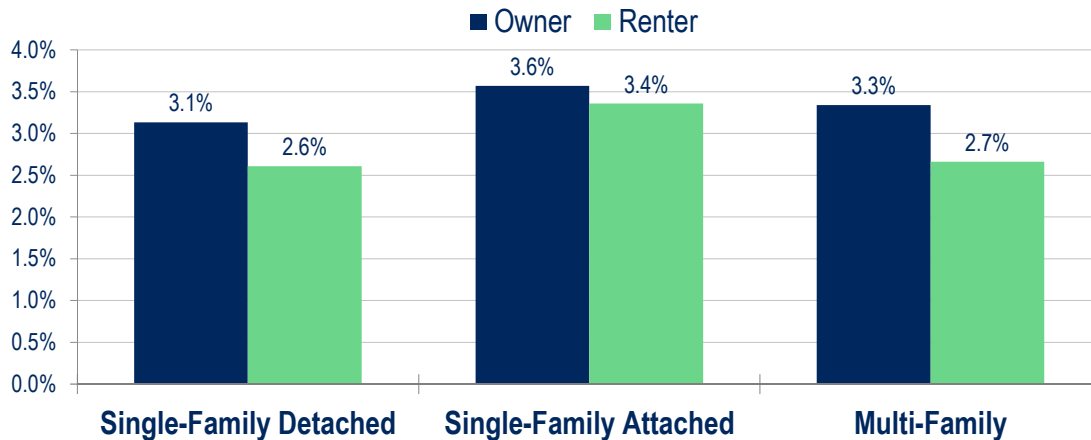
Amazon-Related Households by Unit Type Washington Region



Source: The Stephen S. Fuller Institute at the Schar School, GMU



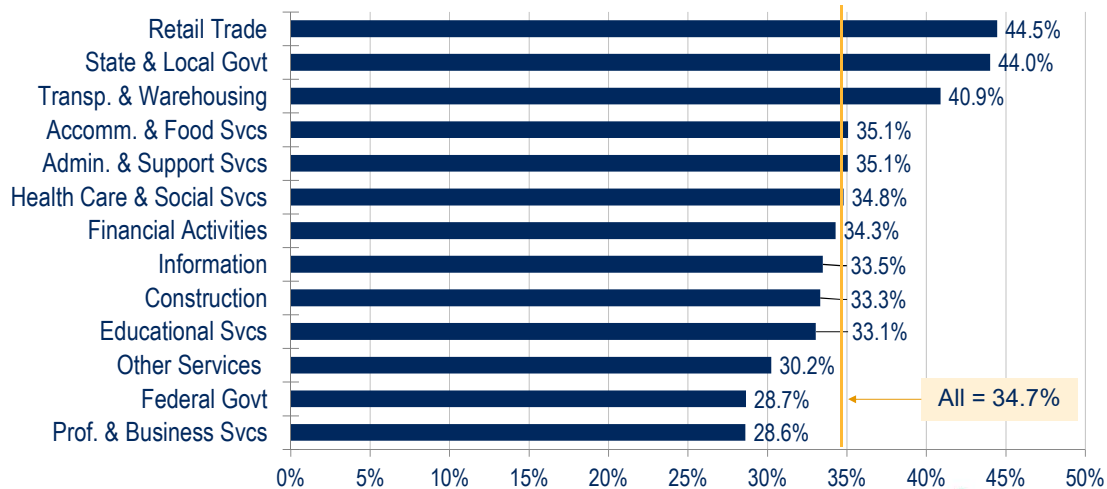
Amazon-Related Increase in Households by Unit Type from 2016 in the Washington Region



Sources: U.S. Census Bureau (2016 ACS Microdata); The Stephen S. Fuller Institute at the Schar School, GMU



% of the Washington Region's Workers Born in DC, VA, or MD by Industry



Sources: U.S. Census Bureau (2014-2016 ACS Microdata); The Stephen S. Fuller Institute at the Schar School, GMU



Amazon in the Washington Region

- The Washington region is larger than Seattle:
 - The Amazon-related effects will be more diluted here compared to Seattle.
 - This effect will not directionally change the trends in existing conditions, including current challenges.
- The Amazon-related households will be both similar to and different than existing workers in important ways:
 - Amazon households will have higher average incomes thus
 - be more able to afford new construction and
 - generate relatively more tax revenues compared to existing residents.
 - The region will import many of these workers, as it does now.



Thank You

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