

MULTIFAMILY RENTAL HOUSING CONSTRUCTION INDICATORS

Information on the number, location, size and cost of multifamily residential development projects in metropolitan Washington

2019 Edition



Metropolitan Washington
Council of Governments

MULTIFAMILY RENTAL HOUSING CONSTRUCTION INDICATORS 2019

September 2020

ABOUT COG

The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland, and Northern Virginia. COG's membership is comprised of 300 elected officials from 24 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.

CREDITS

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	2
CONSTRUCTION BY STATE	8
CONSTRUCTION BY REGIONAL "RING"	9
CONSTRUCTION BY JURISDICTION	10
CONSTRUCTION BY ACTIVITY CENTERS AND TRANSIT STATION AREAS	11
CONSTRUCTION AND RENTS BY NUMBER OF BEDROOMS IN A UNIT	13
APPENDIX	29
Appendix A. Map of Regional "Ring" Jurisdictional Groupings	29
Appendix B. Name and Location of Activity Centers Map	30
Appendix C. Table of Activity Center Construction Totals	31
Appendix D. Table of Metrorail Station Walkshed Totals and Walkshed Methodology	35
Appendix E. Multifamily Construction Definitions	38
Appendix F. Methodology for Mapping Units and Rents	39
Appendix G. Comparing Median Incomes to Median Renter Income	40

FIGURES AND TABLES

Figure 1. COG Member Jurisdictions	2
Figure 2. Chart of Household Types in Washington Region	3
Figure 3. Units of Completed Multifamily Construction from 1989 to 2019	3
Figure 4. Net Construction of Multifamily Rental Housing from 2000 to 2019	4
Figure 5. Ten Largest Projects by Number of Units in 2019	5
Figure 6. Regionwide Map of Multifamily Projects Completed in 2019	6
Figure 7. Map of Multifamily Projects Completed Inside Beltway in 2019	7
Figure 8. Chart of Construction by State and Type in 2019	8
Figure 9. Chart of Construction by State, 1989 to 2019	8
Figure 10. Chart of Construction by Regional "Ring" and Type in 2019	9
Figure 11. Chart of Construction by Regional "Ring" from 1989 to 2019	9
Figure 12. Table of Multifamily Construction by Jurisdiction	10
Figure 13. Map of Projects Within Activity Centers or High-Capacity Transit Station Walksheds	12
Figure 14. Table of Construction by Number of Bedrooms in Unit	13
Figure 15. Chart of Construction by Number of Bedrooms from 1989 to 2019	13
Figure 16. Construction Map of Studio Apartments	14
Figure 17. Chart of Average Effective Rent for Studios from 1989 to 2019	15
Figure 18. Histogram of Effective Rents for Studio Apartments	15
Figure 19. Average Effective Rents Map for Studio Apartments	16
Figure 20. Construction Map of One-Bedroom Apartments	17
Figure 21. Chart of Average Effective Rent for One-Bedrooms from 1989 to 2019	18
Figure 22. Histogram of Effective Rents for One-Bedroom Apartments	18
Figure 23. Average Effective Rents Map for One-Bedroom Apartments	19
Figure 24. Construction Map of Two-Bedroom Apartments	20

Figure 25. Chart of Average Effective Rent for Two-Bedrooms from 1989 to 2019	21
Figure 26. Histogram of Effective Rents for Two-Bedroom Apartments	21
Figure 27. Average Effective Rents Map for Two-Bedroom Apartments	22
Figure 28. Construction Map of Three-Bedroom Apartments	23
Figure 29. Chart of Average Effective Rent for Three-Bedrooms from 1989 to 2019	24
Figure 30. Histogram of Effective Rents for Three-Bedroom Apartments	24
Figure 31. Average Effective Rents Map for Three-Bedroom Apartments	25
Figure 32. Construction Map of Apartments with Four or More Bedrooms	26
Figure 33. Chart of Average Effective Rent for 4+ Bedrooms from 1989 to 2019	27
Figure 34. Histogram of Effective Rents for 4+ Bedroom Apartments	27
Figure 35. Average Effective Rents Map for 4+ Bedroom Apartments	28
Figure 36. Affordable Rents for Renters with Median Income for the Washington MSA	46

EXECUTIVE SUMMARY

This report describes recent trends in the multi-family rental housing market within the 24 member jurisdictions of the Metropolitan Washington Council of Governments (COG). Residential property records from the CoStar subscription database (www.costar.com) for buildings completed through the end of 2019 were analyzed to document the number, size, and location of new apartment units, as well as describe changes in the market rents across the region.

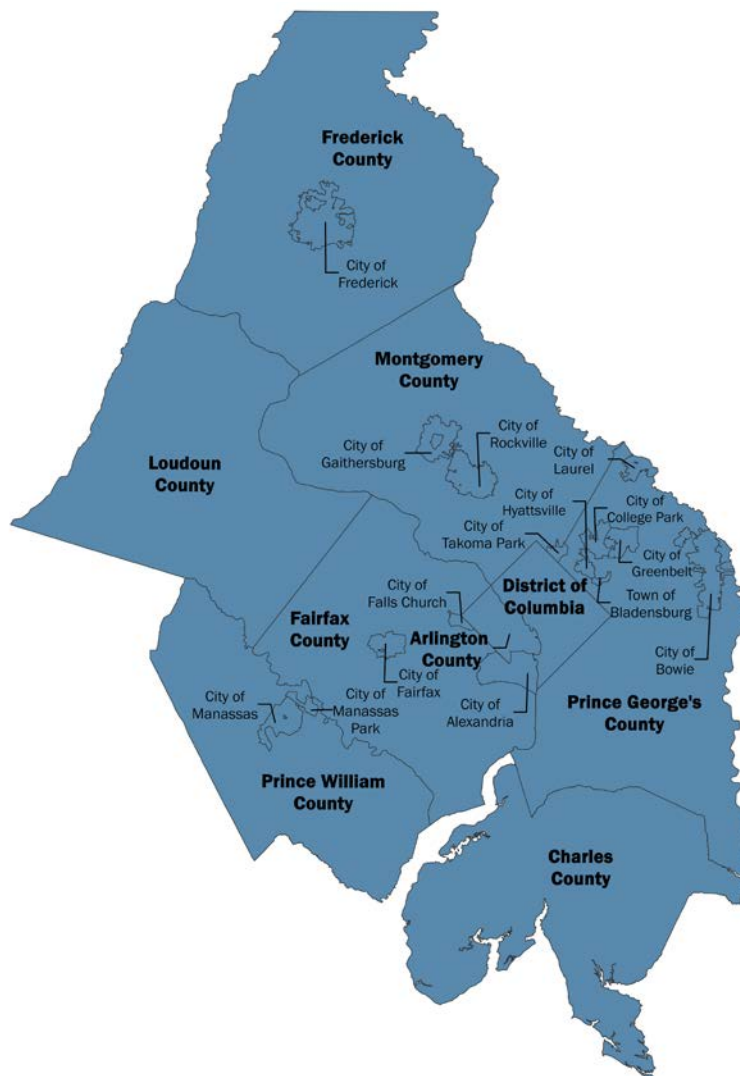
- New construction increased 15 percent from 2018 to 2019. In 2019, 112 new multifamily buildings were completed, with 13,576 total housing units added to the region.
- Almost 110,000 new units were added over the last decade, which is the fastest rate of new multifamily housing construction since the 1960s.
- Rents in the COG region are high compared with the median income of renters. At the end of 2019, median rents in multifamily buildings were between 28 and 39 percent of median renter income, depending on the number of bedrooms in a unit.
- Development is trending towards buildings located in or near Metrorail stations. Half of all units built in 2019 were within a half-mile walk from a Metrorail station, while only a quarter of units built before 2019 are in a Metrorail station walkshed.
- With five new apartment buildings and 1,601 new units in 2019, the NoMa Activity Center was the fastest growing neighborhood in the region, accounting for twelve percent of all regional apartment growth.
- Just under 90 percent of new units were located within one of the region's 141 Activity Centers or near one of the region's high-capacity transit (HCT) Stations. This surpasses the 75 percent target the COG Board of Directors set for new housing construction in the region.

INTRODUCTION

The annual Multifamily Rental Housing Construction Inventory focuses on rental apartment projects of five units or more that have been completed in metropolitan Washington. These include market rate, mixed-income, and affordable residences, including public housing. Corporate and senior housing are included, but this inventory does not include student housing, military housing, housing cooperatives, or condominium units. Included senior housing is limited to age-restricted communities, while assisted and other senior care facilities are excluded. Building styles include high-rise, mid-rise, low-rise, and garden-style apartments, but not single-family residences, attached housing projects of four units or fewer, or mobile home parks. Metropolitan Washington Council of Governments (COG) staff compiled this report by analyzing residential property records from the CoStar subscription database (www.costar.com).

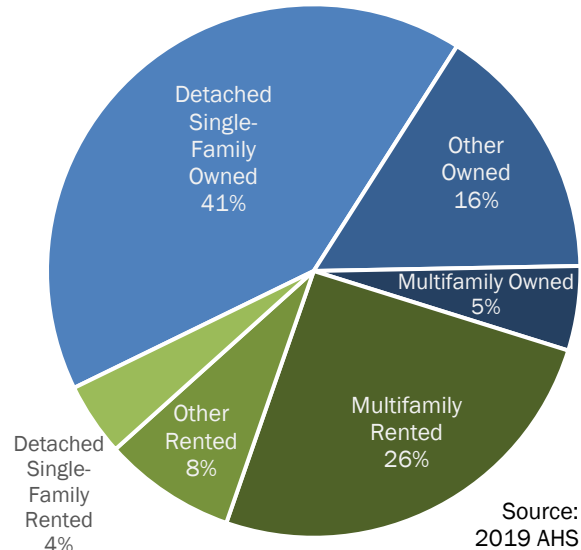
In this report, the metropolitan Washington region refers to the areas surrounding the District of Columbia that are members of COG, as shown below in Figure 1 below.

Figure 1. COG represents 24 local governments in the multi-state metropolitan Washington region.



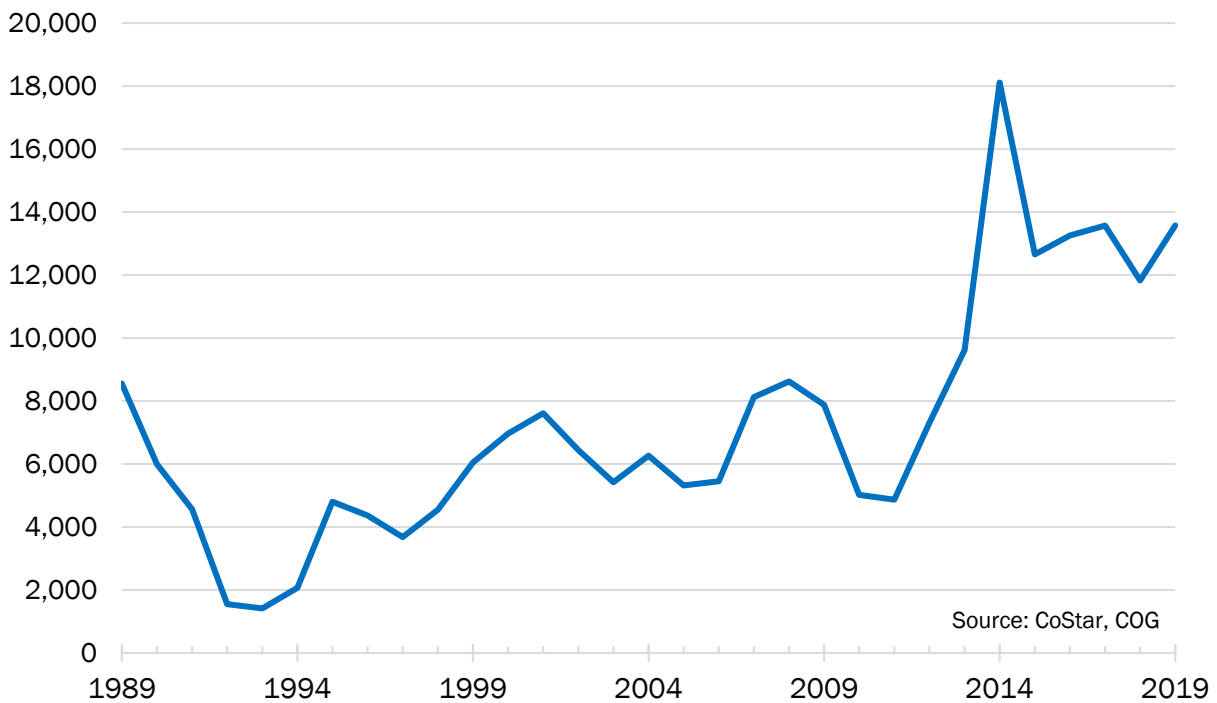
According to data from the 2019 American Housing Survey (AHS), the single-family detached house is the most common dwelling type in the Washington Metropolitan Statistical Area. The subject of this report, the multi-family rental apartment market, comprises the second largest sector of the housing market, representing over a quarter of the region's housing, shown in dark green in Figure 2 to the right. However, apartments have represented a much larger share of recent construction.¹

Figure 2. Household Types in Washington MSA in 2019



Multifamily rental housing construction in the metropolitan Washington region increased by 30 percent in 2019. Last year, 112 new multifamily buildings were completed with 13,576 total apartment units.

Figure 3. Number of New Units of Multifamily Rental Housing, 1989 - 2019



The rate of apartment construction in 2019 was the second highest in the past 50 years—surpassed only by the 2014 total, when 18,112 were built (Figure 3). During the past decade, 109,804 apartment units were built, making the 2010s the most productive decade since the 1960s. The

¹ Exact data for recent construction is hard to come by as the data falls below the Census's minimum thresholds for privacy. The 2019 AHS data suggests that between 28 and 52 percent of housing units built between 2010 and 2017 in the Washington MSA were multifamily rental units. Permit data for approved housing construction from the U.S. Census shows that 52 percent of the units approved between 2012 and 2018 in the COG region were in multifamily buildings (permit data does not specify whether a building will be renter or owner-occupied).

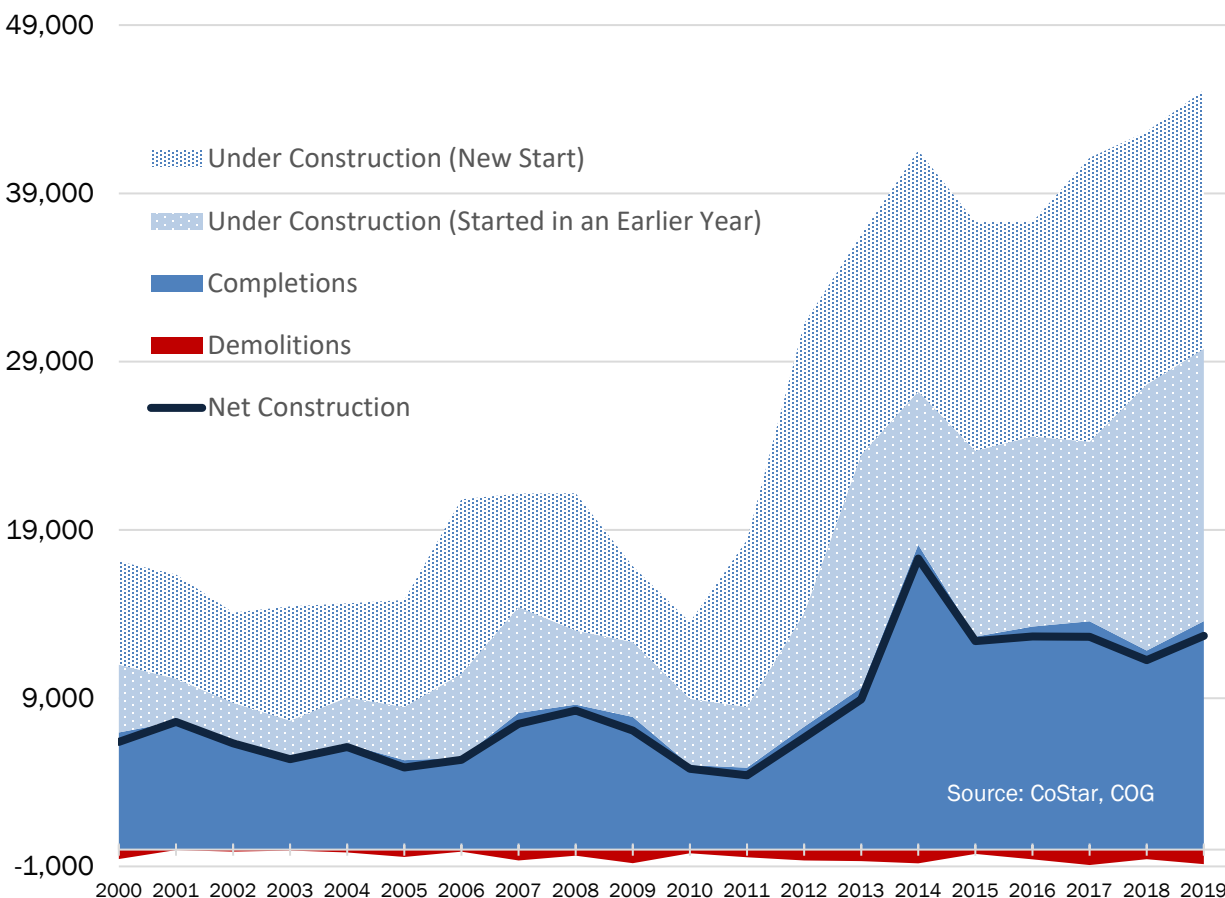
number of units under construction continues to increase, shown in Figure 4 below, suggesting that high rates of construction are likely to continue for the next few years.

The recent growth in new construction has coincided with a small increase in demolitions of multi-family housing. In 2019, 868 units were demolished, representing about six percent of the units built last year. The recent increase in construction has vastly outpaced demolitions; in 2019, 16 new units were built for each unit lost to demolition.

Over the past decade, 15,803 units were demolished—an increase of 75 percent from the previous ten-year period. A little over 60 percent of the multifamily units demolished in the past four years have been in either the City of Alexandria, Arlington County, or the District of Columbia, and 79 percent of the lost units were in Activity Centers. All of the buildings demolished over the past four years were at least 40 years old.

Multifamily rental housing construction in the COG region has not been slowed by the COVID-19 pandemic. Construction has remained an essential business and since the beginning of the outbreak, the rates of new building starts and completions have been in line with trends from previous years.

Figure 4. Net Multifamily Rental Housing Construction, 2000 - 2019





NOVEL South Capitol Apartments in the District of Columbia (CoStar)

The largest multifamily project completed in 2019 was the 539-unit NOVEL South Capitol in DC’s Southwest Waterfront Activity Center, shown on the left. When combined, the ten largest projects in 2019 (Figure 5) make up 34 percent of the region’s 13,576 new units of multifamily rental housing.

Nine of the region’s ten largest new projects were within a half-mile of a Metrorail station. The Glenarden Hills Apartments were the exception, being built for easy access to I-495.

The average (mean) effective rent in the region for a one-bedroom apartment was \$1,619 at the end of 2019—an increase of less than one percent from the previous year, when adjusting for inflation. The average for all unit sizes was \$1,758 per month. Between 2004 and 2015, inflation adjusted rents in the region increased at an annual rate of 0.75 percent. During the past four years, inflation adjusted rents have stayed fairly flat.

Figure 5. Ten Largest Projects by Total Number of Units in 2019

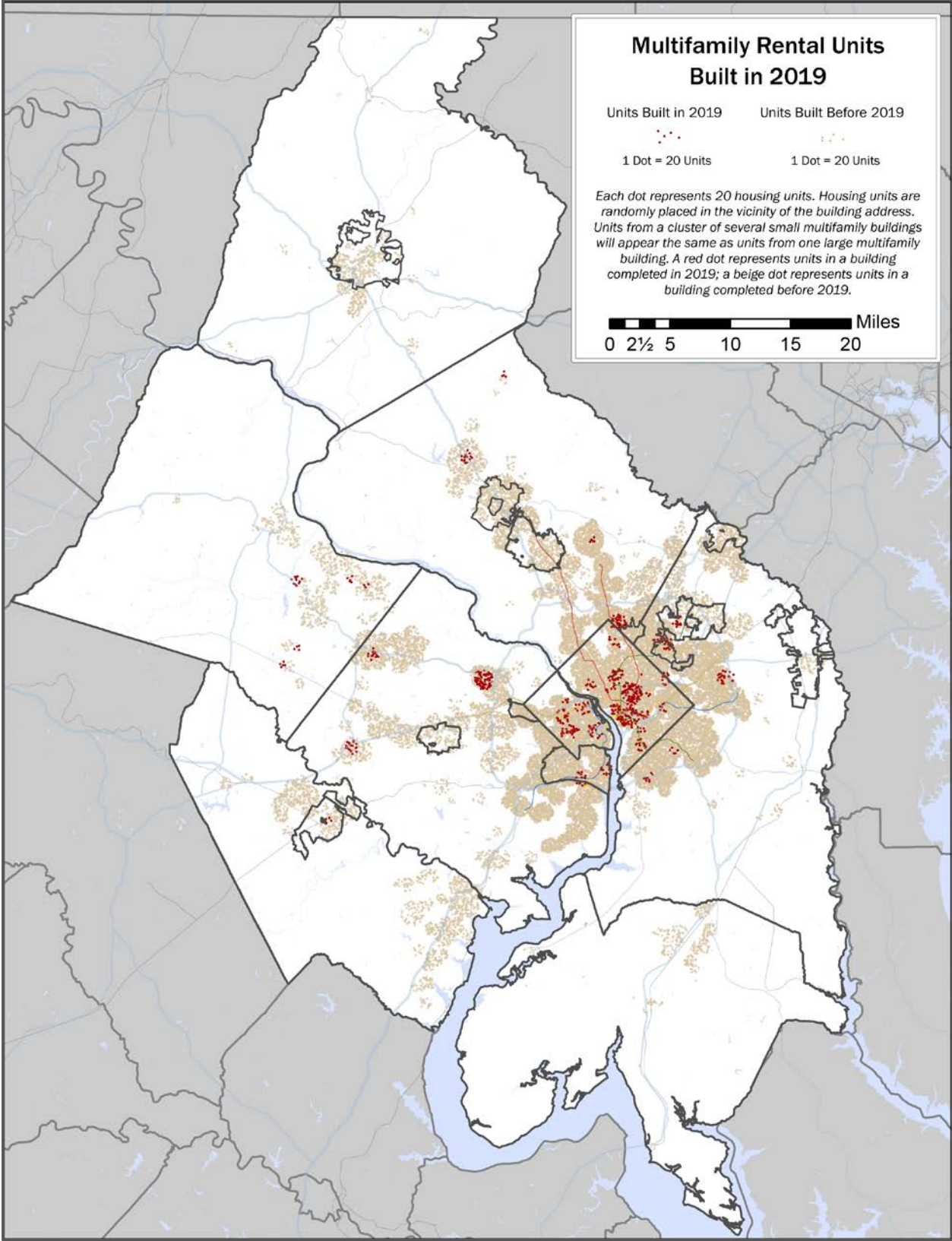
Project Name	Street Address	Jurisdiction	Buildings	Stories	Units	1BR Effective Rent ²
NOVEL South Capitol	2 I St SE, Washington, DC	District of Columbia	2	13	539	\$2,424
Bolden	8305 Greensboro Dr, McLean, VA	Fairfax	1	20	537	\$2,395
Union Place	200 K St NE, Washington, DC	District of Columbia	1	14	525	\$2,519
West Half	1201 Half St SE, Washington, DC	District of Columbia	2	10	462	\$2,312
The Witmer	710 12th St, Arlington, VA	Arlington	1	25	440	\$2,404
The Batley	1270 4th St NE, Washington, DC	District of Columbia	1	12	432	\$2,399
Glenarden Hills	8441 Marvin Wilson Way, Glenarden, MD	Prince George's	30	3	430	\$1,745 (2BRs)
Origin @ Ballston Quarter	700 N Randolph St, Arlington, VA	Arlington	1	22	406	\$2,359
Thayer and Spring	915 Silver Spring Ave, Silver Spring, MD	Montgomery	1	10	399	\$1,864
Lumen at Tysons	1747 Tysons Central St, Tysons, VA	Fairfax	1	30	398	\$2,273

Source: CoStar

Figure 6 on the following page maps the location of projects completed in 2019. New construction of multifamily rental housing, shown in red, is primarily located in the region’s core and near Metrorail stations. Existing units are shown in beige—just over 62 percent of all apartment units in the region are located inside the Capital Beltway.

² Average (mean) effective rent for one-bedroom apartments in the property that were available to be rented at the end of 2019.

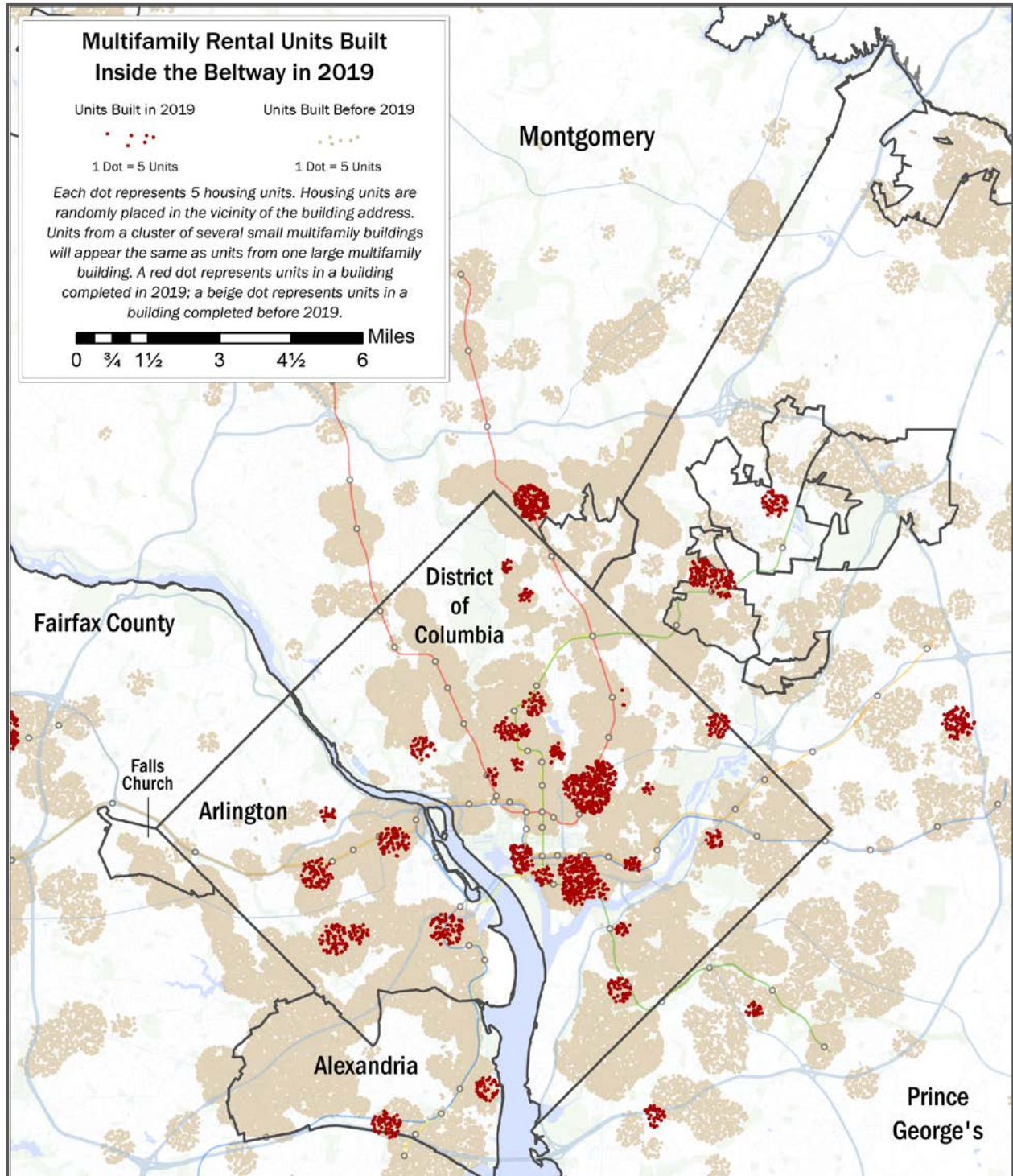
Figure 6



Source: CoStar

Figure 7 below shows construction inside the Capital Beltway. In 2019, 78 percent of all new units were built within the circumference of the I-495. Within of the Capital Beltway, 62 percent of new units are within a half-mile walk of a high capacity transit station; only 21 percent of new units built outside of the Capital Beltway were in a high capacity transit walkshed.

Figure 7



Source: CoStar

Multifamily Rental Housing Construction by State

The District of Columbia added 38 new apartment buildings and 5,816 units in 2019 (Figure 8). The number of new units completed in the District increased by 38 percent from 2018 (Figure 9). The average (mean) effective rent for a one-bedroom apartment in the District of Columbia was \$1,870 at the end of 2019.

In 2019, 47 new buildings and 3,047 new rental units were added to suburban Maryland jurisdictions (Figure 8). In suburban Maryland, the number of new apartment units declined by about seven percent from 2018 (Figure 9). At the end of 2019, the Maryland jurisdiction average (mean) effective rent for a one-bedroom apartment was \$1,404 per month.

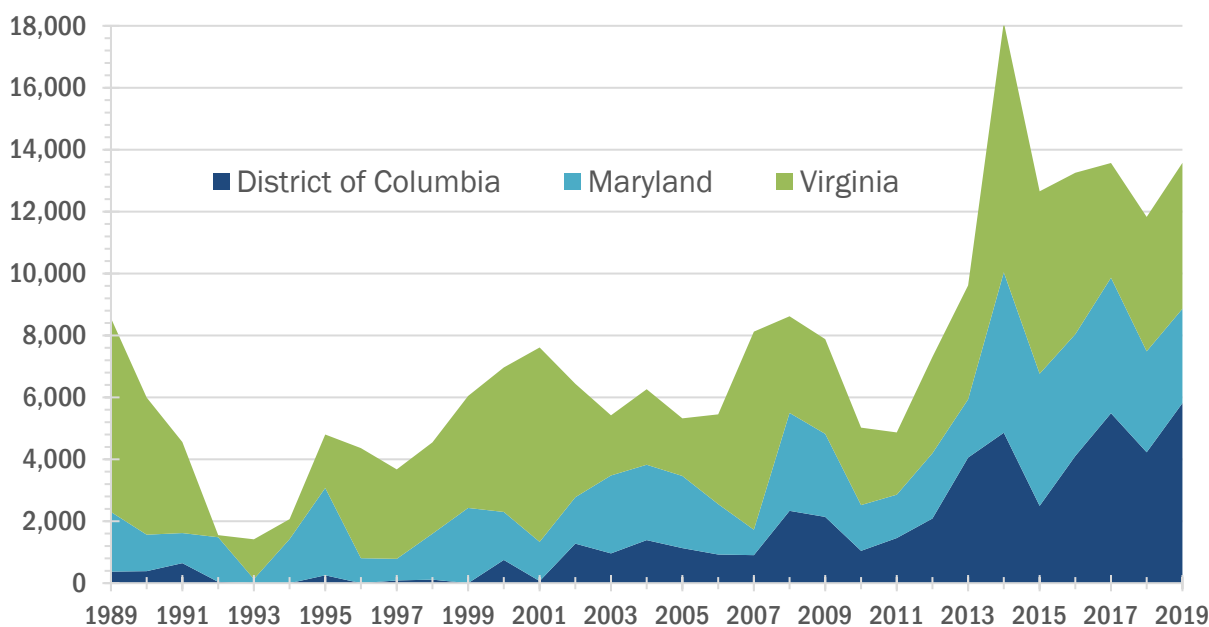
Northern Virginia jurisdictions added 27 new buildings and 4,713 new units in 2019, an increase of nine percent from 2018. With 43,223 units built over the past decade, Virginia jurisdictions have accounted for the largest share—39 percent—of new construction in the 2010s. The Northern Virginia average (mean) effective rent for a one-bedroom was \$1,652 at the end of 2019.

Figure 8. 2019 Projects by Number of Units



Source: CoStar

Figure 9. Number of New Units of Multifamily Rental Housing, by State, 1989 - 2019



Note: This stacked area chart shows cumulative values.

Source: CoStar

Multifamily Rental Construction by Regional “Ring”

COG groups jurisdictions into three “rings” for analysis purposes (see Appendix A). The Central Jurisdictions—D.C., Alexandria, and Arlington—added 48 new apartment buildings and 8,230 new units in 2019 (Figure 10). The total number of new rental units in Central Jurisdictions increased by 38 percent from 2018 (Figure 11). At the end of 2019, the average (mean) effective rent for one-bedroom apartments in Central Jurisdictions was \$1,828.

In 2019, 52 new buildings and 4,641 new units were added to the Inner Suburban Jurisdictions of Fairfax, Montgomery, and Prince George’s Counties, Falls Church, and City of Fairfax (Figure 10). The number of new units declined by four percent from 2018 (Figure 11). The average (mean) effective rent for one-bedrooms in Inner Jurisdictions was \$1,477 per month at the end of 2019.

The Outer Jurisdictions of Charles, Frederick, Loudoun, and Prince William Counties, Manassas, and Manassas Park added 12 buildings and 705 new apartment units in 2019 (Figure 10). New construction declined by 24 percent from 2018 (Figure 11). At the end of 2019, the average (mean) effective rent for one-bedroom units in Outer Jurisdictions was \$1,343 per month.

Figure 10. 2019 Projects by Number of Units

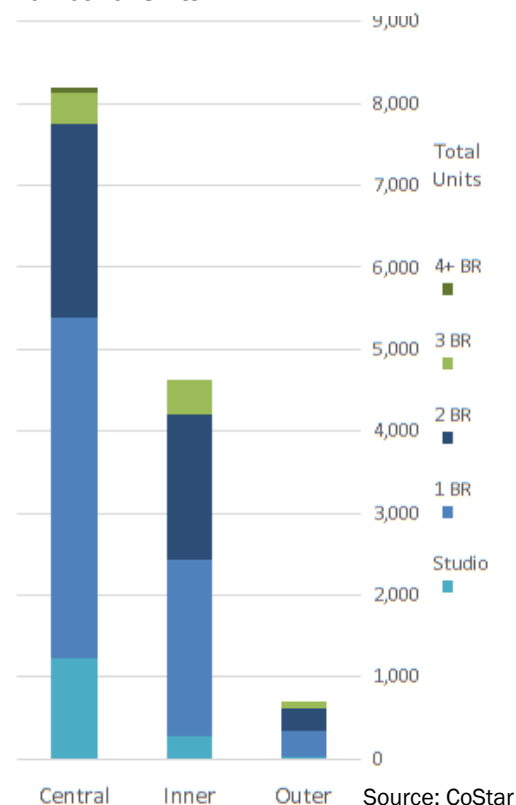
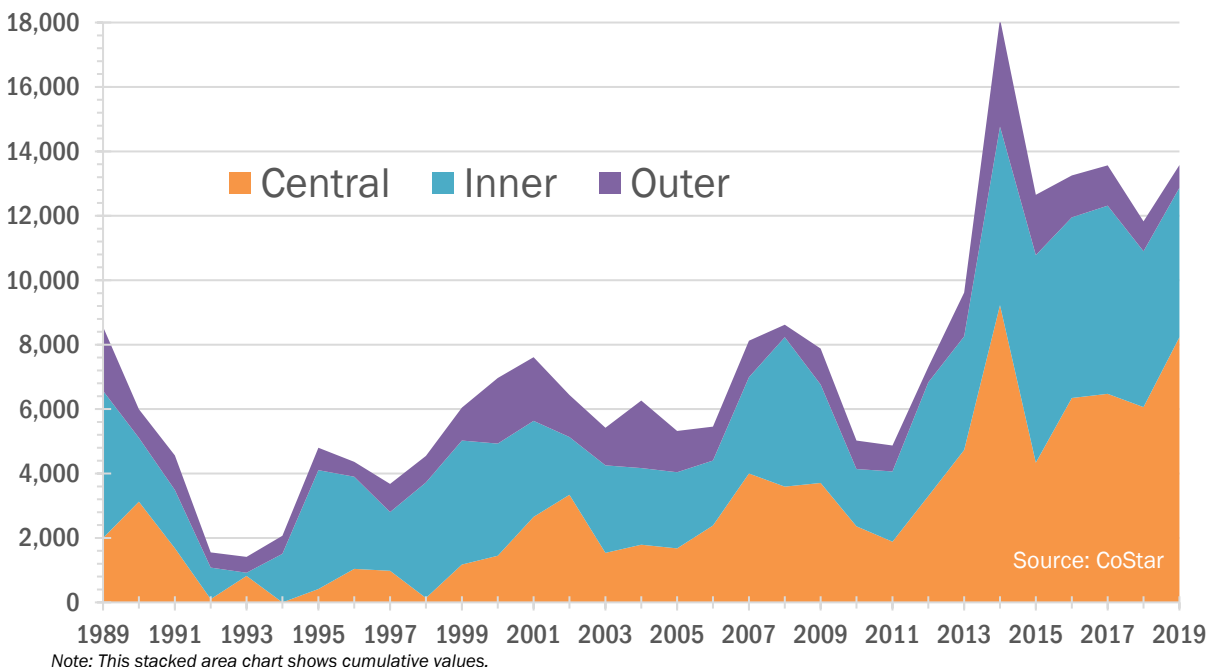


Figure 11. Number of New Units of Multifamily Rental Housing by Jurisdictional Groups, 1989 - 2019



Multifamily Rental Housing Construction by Jurisdiction

For the fourth consecutive year, the District of Columbia led the region in multifamily rental housing construction, accounting for 43 percent of the region’s new apartment units—the highest share of total annual production held by a single jurisdiction in the past 20 years. At the end of 2019, Arlington County had the highest average effective rent for one-bedroom units in the region at \$1,886 per month. The City of Takoma Park had the lowest average effective one-bedroom rent at \$1,089. However, no new units have been built in Takoma Park since 1983.

Figure 12. Apartment Construction Totals for Each COG Member Jurisdiction

Jurisdiction	Built Prior to 2019			2019 Completions			Avg. Effective Rent in 1 BR Units at End of 2019
	Buildings	Units	Regional Share	Buildings	Units	Regional Share	
District of Columbia	5,169	143,003	25.0%	38	5,816	42.8%	\$1,870
Suburban Maryland Jurisdictions							
Charles	439	6,028	1.1%	0	0	0.0%	\$1,302
Frederick	673	10,815	1.9%	0	0	0.0%	\$1,175
<i>City of Frederick</i>	<i>450</i>	<i>7,899</i>	<i>1.4%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,159</i>
<i>Rest of County</i>	<i>223</i>	<i>2,916</i>	<i>0.5%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,212</i>
Montgomery	3,969	96,601	16.9%	12	1,365	10.1%	\$1,545
<i>Gaithersburg</i>	<i>535</i>	<i>9,841</i>	<i>1.7%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,416</i>
<i>Rockville</i>	<i>258</i>	<i>9,893</i>	<i>1.7%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,737</i>
<i>Takoma Park</i>	<i>156</i>	<i>2,690</i>	<i>0.5%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,089</i>
<i>Rest of County</i>	<i>3,020</i>	<i>74,177</i>	<i>12.9%</i>	<i>12</i>	<i>1,365</i>	<i>10.1%</i>	<i>\$1,551</i>
Prince George's	6,002	99,541	17.4%	35	1,682	12.4%	\$1,292
<i>Bladensburg</i>	<i>122</i>	<i>2,576</i>	<i>0.4%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,188</i>
<i>Bowie</i>	<i>81</i>	<i>1,840</i>	<i>0.3%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,533</i>
<i>College Park</i>	<i>42</i>	<i>1,879</i>	<i>0.3%</i>	<i>1</i>	<i>275</i>	<i>2.0%</i>	<i>\$1,655</i>
<i>Greenbelt</i>	<i>184</i>	<i>4,972</i>	<i>0.9%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,405</i>
<i>Hyattsville</i>	<i>182</i>	<i>3,588</i>	<i>0.6%</i>	<i>1</i>	<i>338</i>	<i>2.5%</i>	<i>\$1,381</i>
<i>Laurel</i>	<i>234</i>	<i>5,087</i>	<i>0.9%</i>	<i>0</i>	<i>0</i>	<i>0.0%</i>	<i>\$1,400</i>
<i>Rest of County</i>	<i>5,157</i>	<i>79,599</i>	<i>13.9%</i>	<i>33</i>	<i>1,069</i>	<i>7.9%</i>	<i>\$1,253</i>
Maryland subtotal	11,083	212,985	37.2%	47	3,047	22.4%	\$1,404
Northern Virginia Jurisdictions							
Alexandria	1,276	36,929	6.4%	3	566	4.2%	\$1,586
Arlington	1,363	53,627	9.4%	7	1,848	13.6%	\$1,886
Fairfax	3,744	81,744	14.3%	5	1,594	11.7%	\$1,612
Fairfax City	92	1,379	0.2%	0	0	0.0%	\$1,696
Falls Church	47	2,281	0.4%	0	0	0.0%	\$1,678
Loudoun	543	13,717	2.4%	10	603	4.4%	\$1,471
Manassas City	138	2,394	0.4%	2	102	0.8%	\$1,226
Manassas Park	50	1,361	0.2%	0	0	0.0%	\$1,374
Prince William	1,372	23,424	4.1%	0	0	0.0%	\$1,348
Virginia subtotal	8,625	216,856	37.9%	27	4,713	34.7%	\$1,652
COG Region Total	24,877	572,844	100.0%	112	13,576	100.0%	\$1,619

Source: CoStar

Activity Centers

Activity Centers are locations that will accommodate the majority of the region’s future growth. They include existing urban centers, priority growth areas, traditional towns, and transit hubs. In 2013, the COG Board of Directors approved [141 Activity Centers](#) for the region³.

From 2018 to 2019, construction within Activity Centers increased by 22 percent. The NoMa Activity Center in the District of Columbia had the most construction in 2019, with 1,601 units from five apartment buildings. The average (mean) effective rent for one-bedroom apartments in Activity Centers was \$1,762 at the end of 2018, nine percent higher than the regional average.

COG’s [Region Forward Vision](#) set a target for at least half of new households to be located within Activity Centers. In 2019, 87 percent of new rental units were within an Activity Center; multifamily rental construction has met and surpassed this target for each of the past 15 years.

Metrorail Station Walksheds

In 2019, 23 of the Washington Metropolitan Area Transit Authority’s 91 Metrorail stations had at least one apartment complex built within a half-mile walk from a station entrance, with a total of 6,798 new units from 35 buildings. Construction in station areas increased three percent from 2018. The share of total regional construction within a Metro station walkshed dropped from 56 percent in 2018 to 50 percent in 2019.

The Navy Yard-Ballpark station walkshed had the most construction in 2019 with six buildings and 1,371 new apartment units. The average (mean) effective rent for one-bedroom apartments within a half-mile walk of a station was \$2,039 at the end of 2019.



The West Half Apartments near the Navy Yard-Ballpark Metro Station and Nationals Park in DC (*Multifamily Executive Magazine*)

High-Capacity Transit Station Walksheds

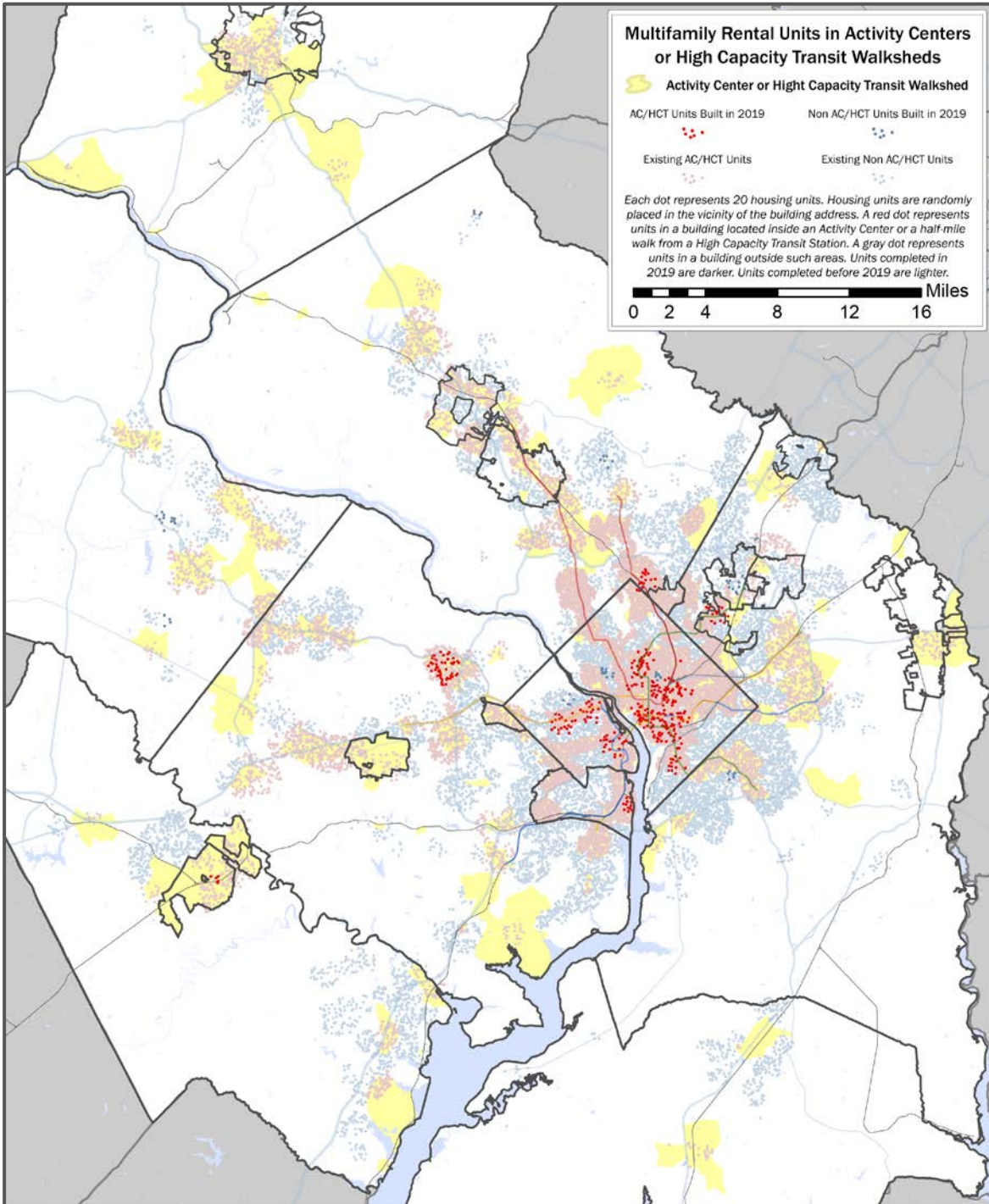
In 2019, the COG Board set housing goals that included a target of constructing 75 percent of new housing in Activity Centers or near one of the region’s high-capacity transit (HCT) stations. Currently, there are [199 HCT stations](#) in the COG region—including Metrorail, MARC, and VRE commuter rail, bus rapid transit, and streetcar stations.⁴

³ See Appendix B for a map of Activity Centers and Appendix C for Activity Center construction totals.

⁴ See Appendix D for Metrorail station area construction totals and an explanation of how the walkshed geography was calculated.

In 2019, 90 percent of new apartment units were located in an Activity Center or a half-mile walk from a high-capacity transit station, mapped in Figure 13 below. Multifamily rental housing construction has met or exceeded the 75 percent housing target in each of the past seven years.

Figure 13



Source: CoStar, COG

Construction by Number of Bedrooms in a Unit

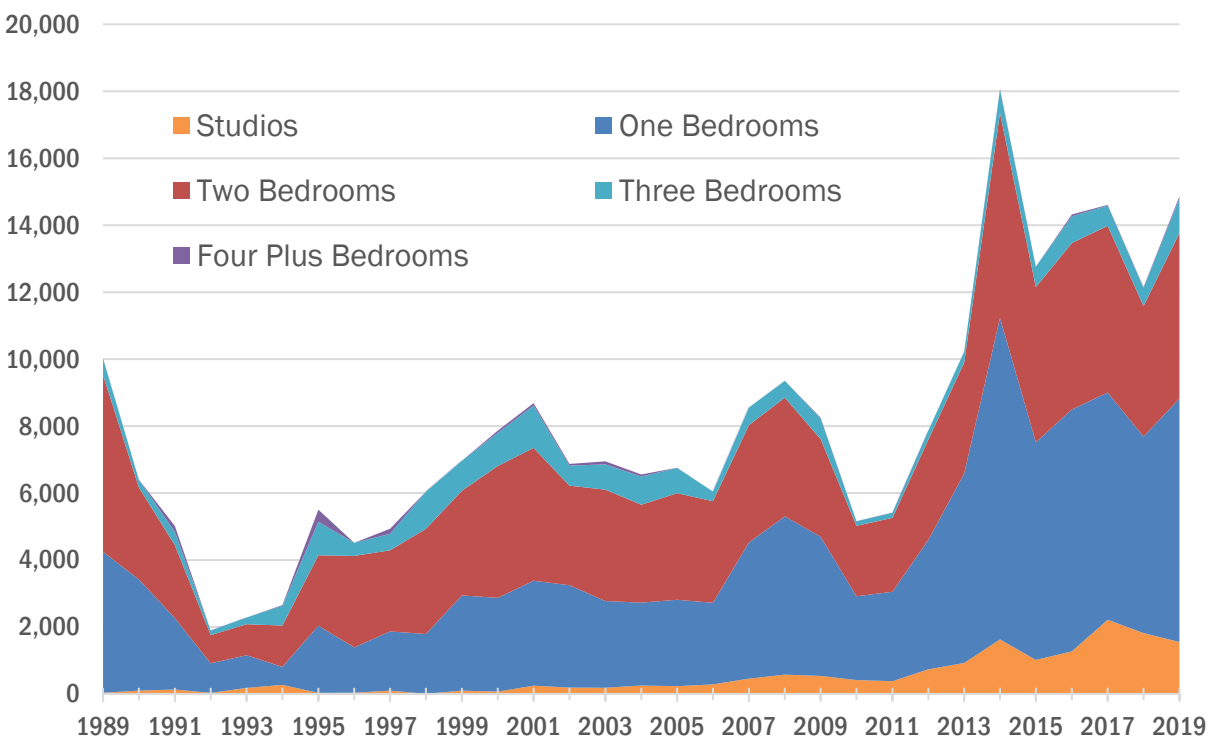
Most apartment units in the region have either one or two-bedrooms, and those two apartment styles continued to dominate in 2019. Over the past ten years, however, developers have shifted towards smaller units. The square footage of an average one-bedroom apartment peaked in the mid-2000s and has declined by about ten percent since the recession. However, a typical new apartment is still larger than those built before the 1990s. The downsizing trend has been more pronounced in terms of the total number of rooms in the apartment. Historically, about 45 percent of apartments had fewer than two bedrooms; during the past decade, just under 70 percent of new apartments did.

Figure 14. Existing Multifamily Rental Units Completed by Apartment Type and Year Built

Apartment Type	Prior to 2019		2019	
	Units	Share	Units	Share
Studio	47,648	8.3%	1,569	11.6%
One-Bedroom	247,523	43.2%	6,711	49.4%
Two-Bedrooms	229,724	40.1%	4,485	33.0%
Three-Bedrooms	45,429	7.9%	742	5.5%
Four-Plus Bedrooms	2,520	0.4%	69	0.5%

Source: CoStar

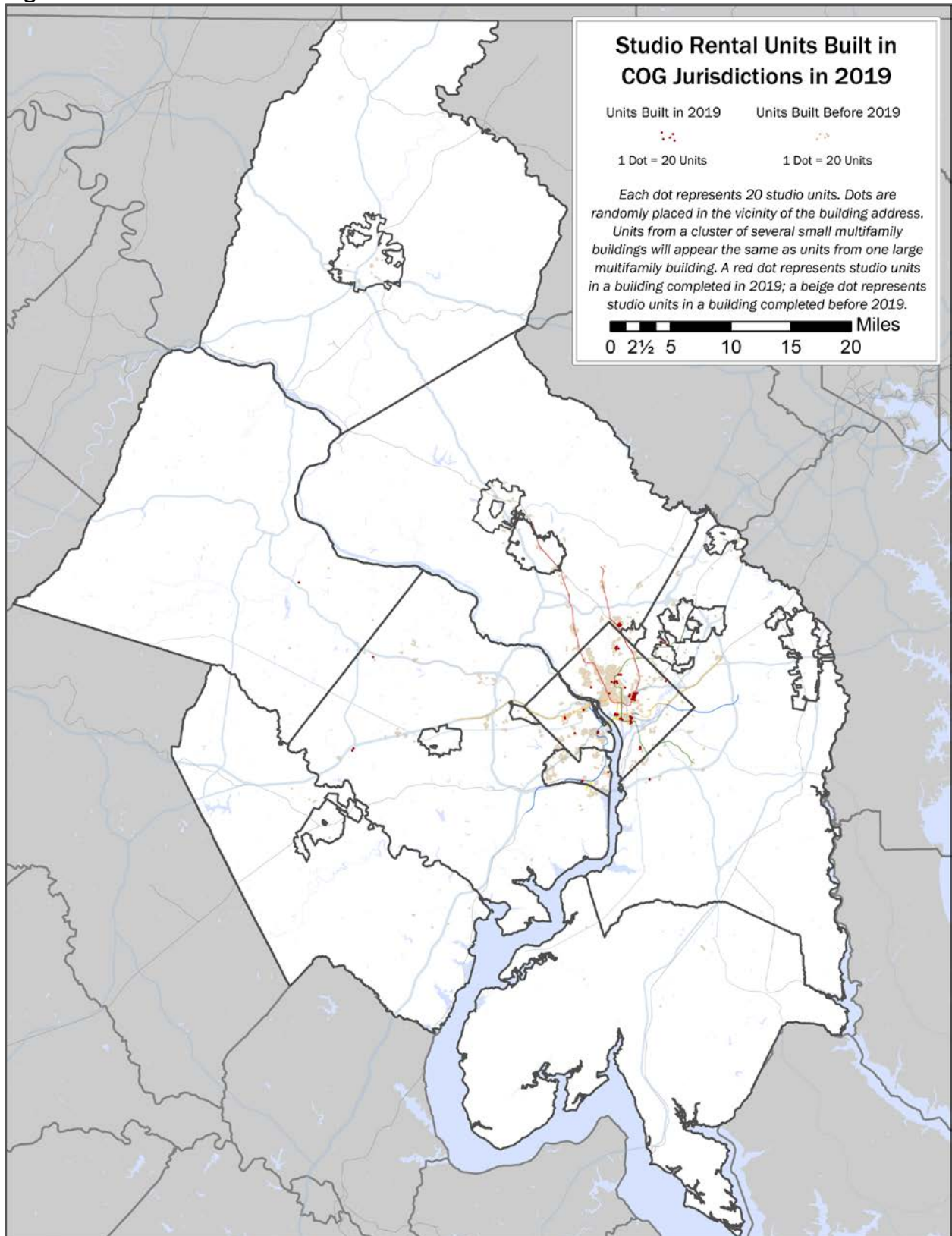
Figure 15. Number of New Units of Multifamily Rental Housing by Unit Size, 1989 - 2019



Note: This stacked area chart shows cumulative values.

Source: CoStar

Figure 16

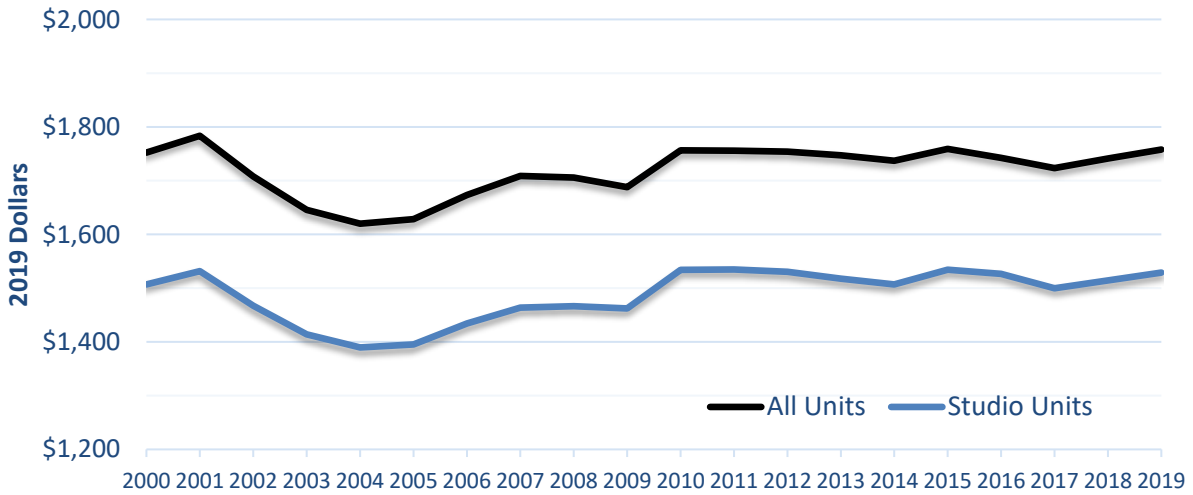


Source: CoStar

Studio Apartments

Construction of studio apartments declined by 15 percent from 2018 to 2019. However, the 1,569 studio units built in 2019 were well above historical averages. In 2019, the District accounted for 70 percent of all new studio units in the region. The average (mean) effective rent for new studio apartments built in 2019 was \$1,914 per month and new studio units had an average of 505 square feet in area.

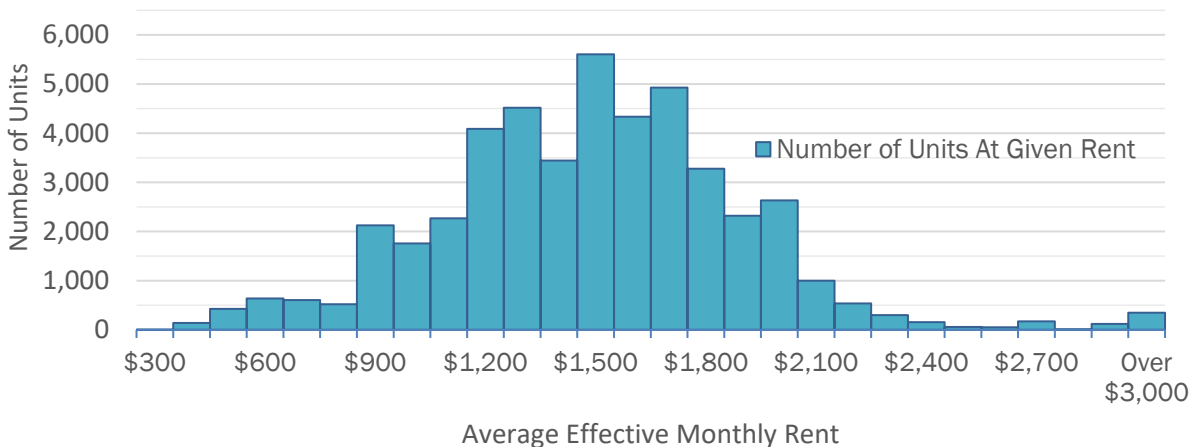
Figure 17. Inflation-Adjusted Average Effective Rent for Studio Apartments, 2000 - 2019



Source: Bureau of Labor Statistics (CPI, all items less food and energy in U.S. city average, all urban consumers), CoStar, COG

According to data from the American Housing Survey (AHS) and Bureau of Labor Statistics (BLS), the estimated 2019 median household income for renters of studio units in the Washington Metropolitan Statistical Area was a little under \$48,500 per year. The median effective rent for all studio units in the region was \$1,545 at the end of 2019. The median effective rent in COG jurisdictions is roughly 38 percent of the median income of a studio renter, suggesting that typical studio renters are cost-burdened in the COG region⁵.

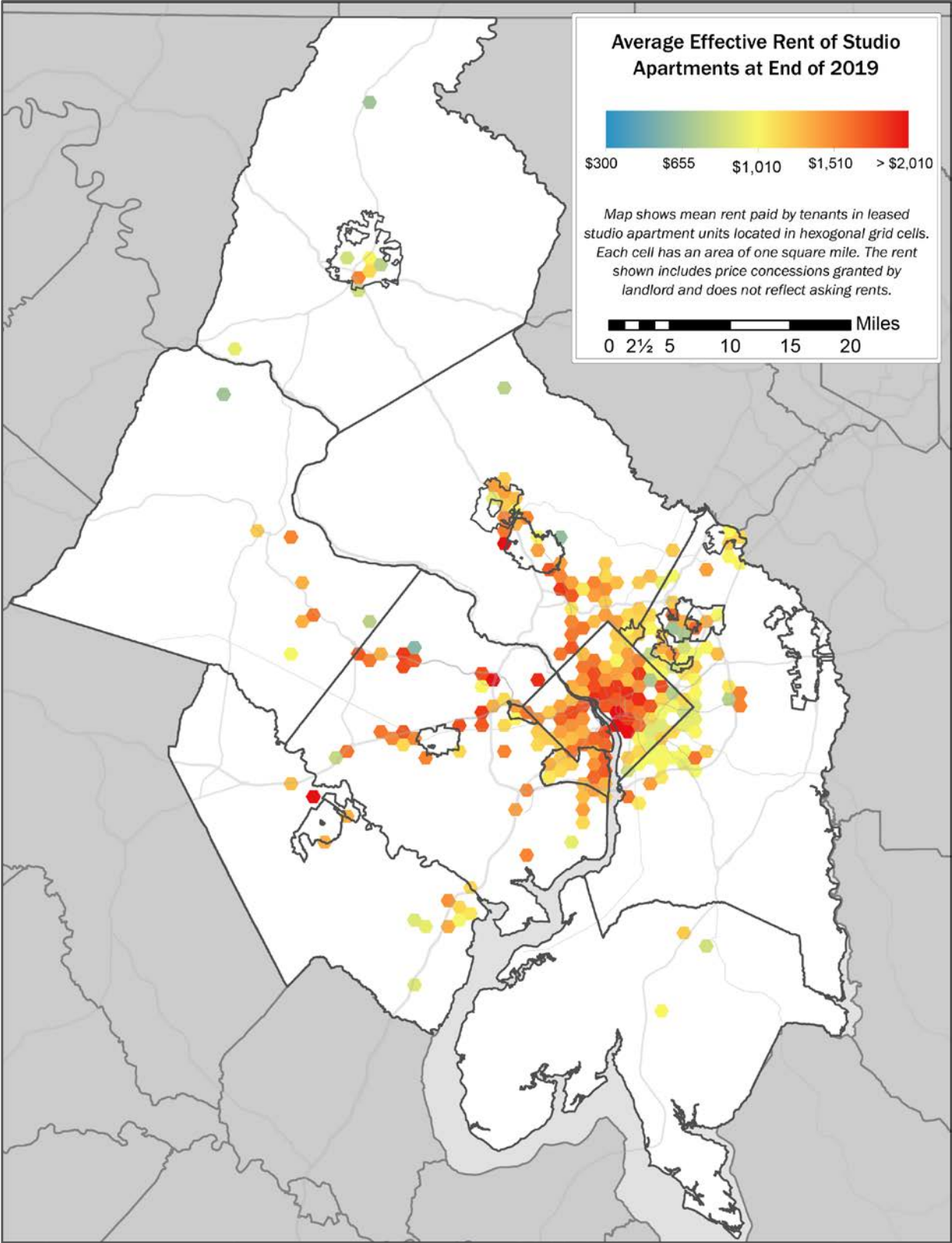
Figure 18. Effective Rents for Studio Apartments at End of 2019



Source: CoStar

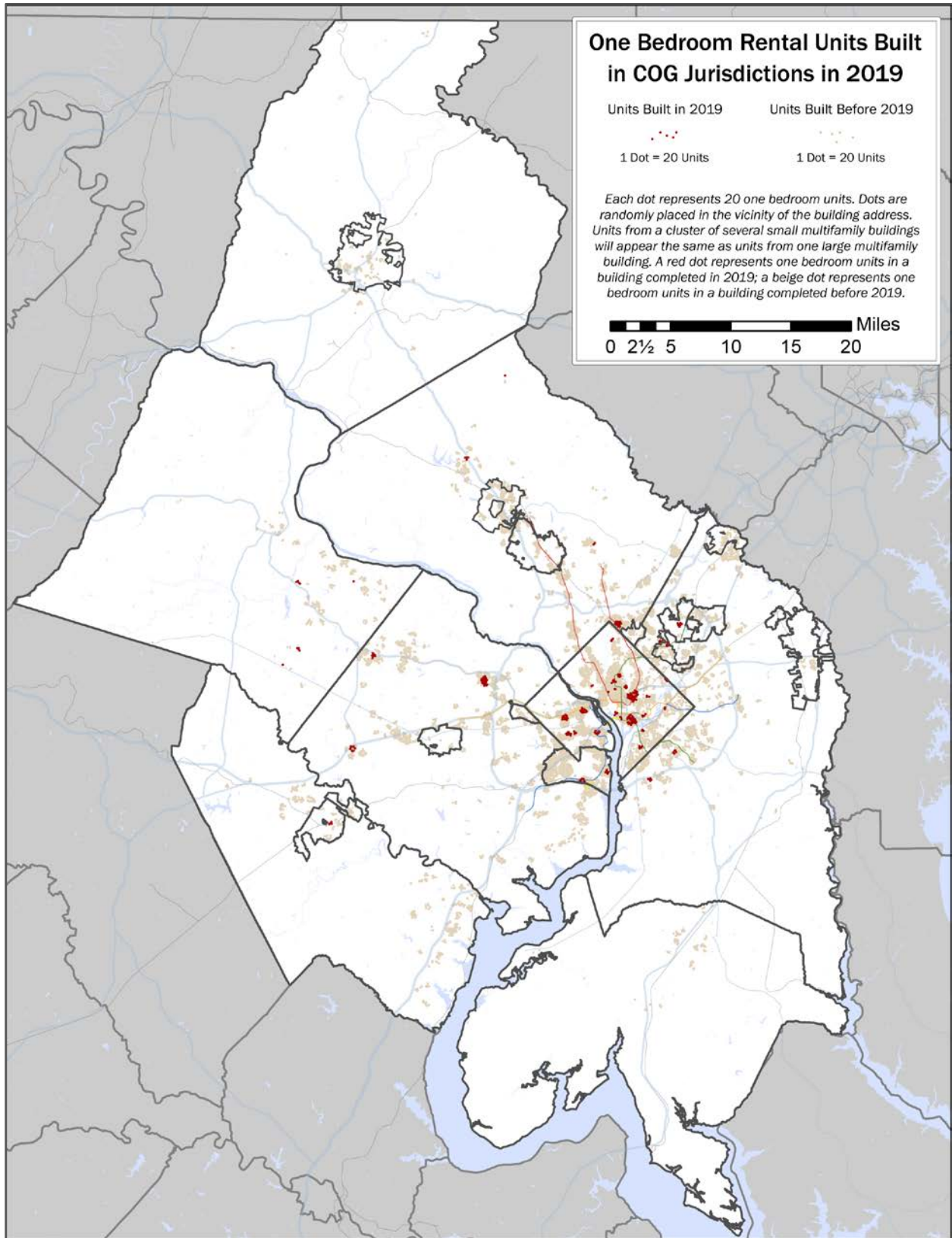
⁵ See Appendix G for cost-burdened threshold calculation methodology.

Figure 19



Source: CoStar

Figure 20

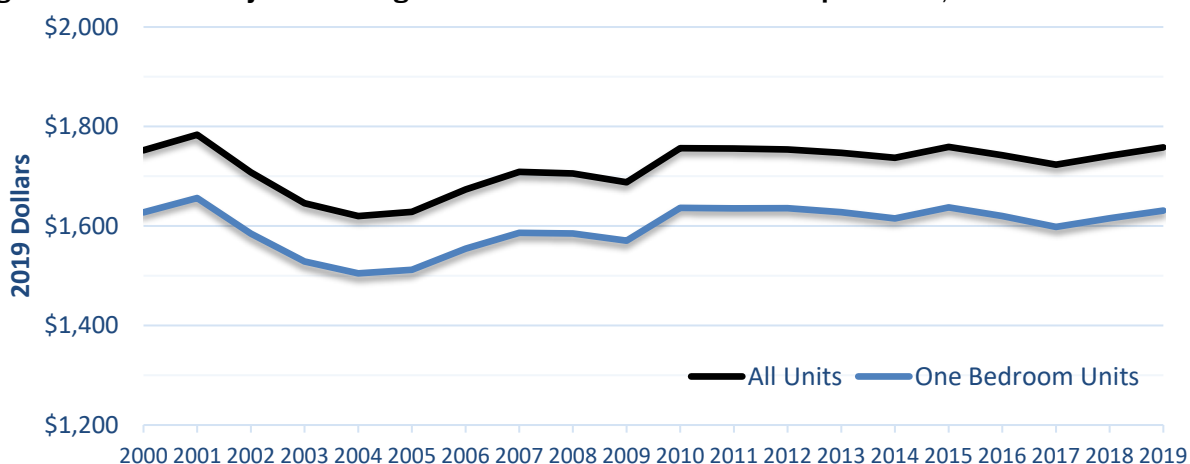


Source: CoStar

One-Bedroom Apartments

Construction of one-bedroom units increased by 20 percent from 2018 to 2019. One-bedroom apartments remained the most common apartment type built with new 7,032 units—49 percent of total construction. The average (mean) effective rent for one-bedroom apartment units built in 2019 was \$2,016 per month and the average area for new one-bedrooms was 703 square feet.

Figure 21. Inflation-Adjusted Average Effective Rent for One-Bedroom Apartments, 2000 - 2019



Source: Bureau of Labor Statistics (CPI, all items less food and energy in U.S. city average, all urban consumers), CoStar, COG

Data from the AHS and BLS places the 2019 median household income for one-bedroom renters in the MSA at a little over \$53,500 per year. The median effective rent for one-bedroom apartments was \$1,532 at the end of 2019—about 34 percent of the median income for such units⁶.

The median one-bedroom rent was lower than that of studio units in 2019. One explanation for this is that higher-demand neighborhoods are more likely to have studio units. Half of all studio units are within a half-mile walk of a Metrorail station, compared to only 29 percent of one-bedroom units.

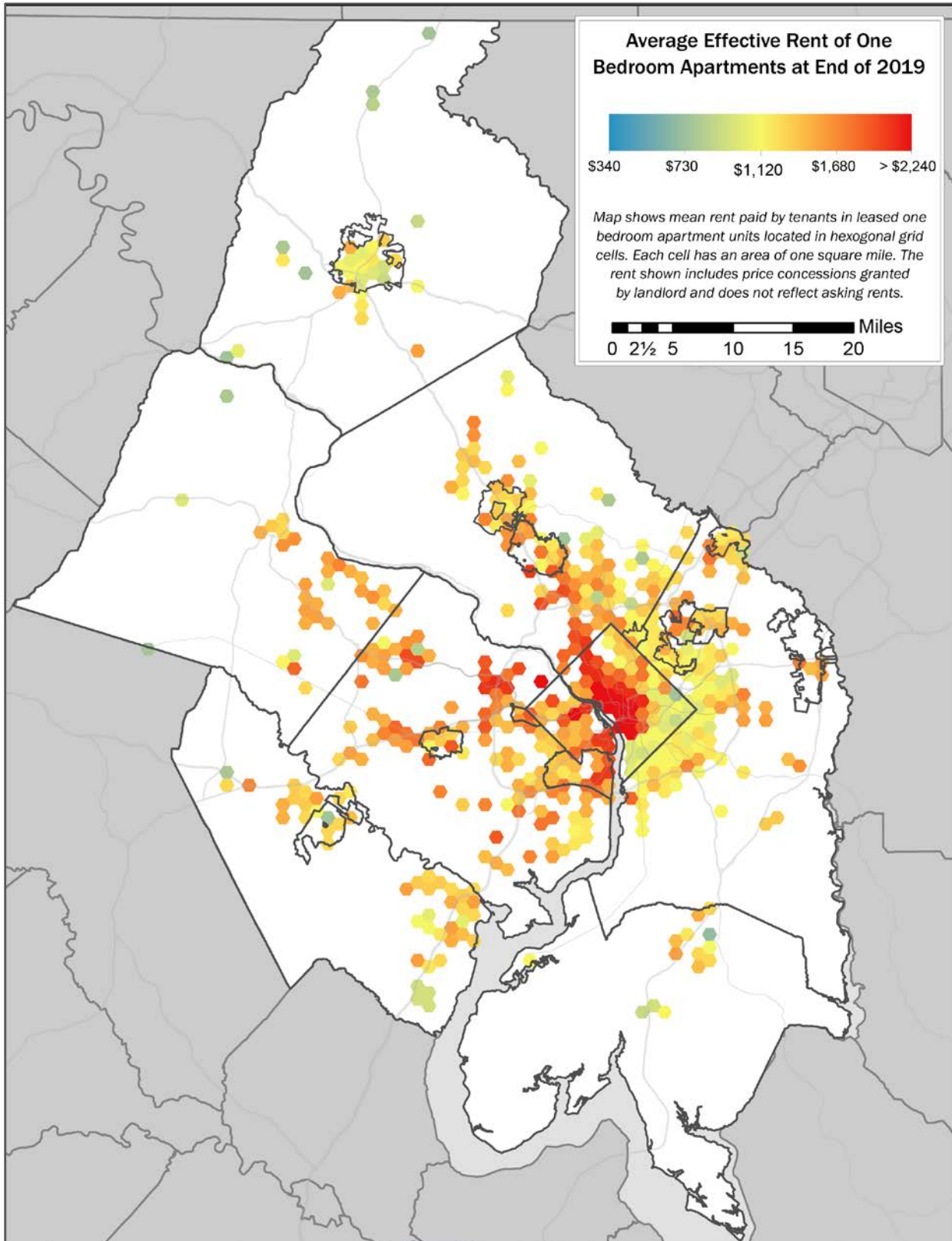
Figure 22. Effective Rents for One-Bedroom Apartments at End of 2019



Source: CoStar

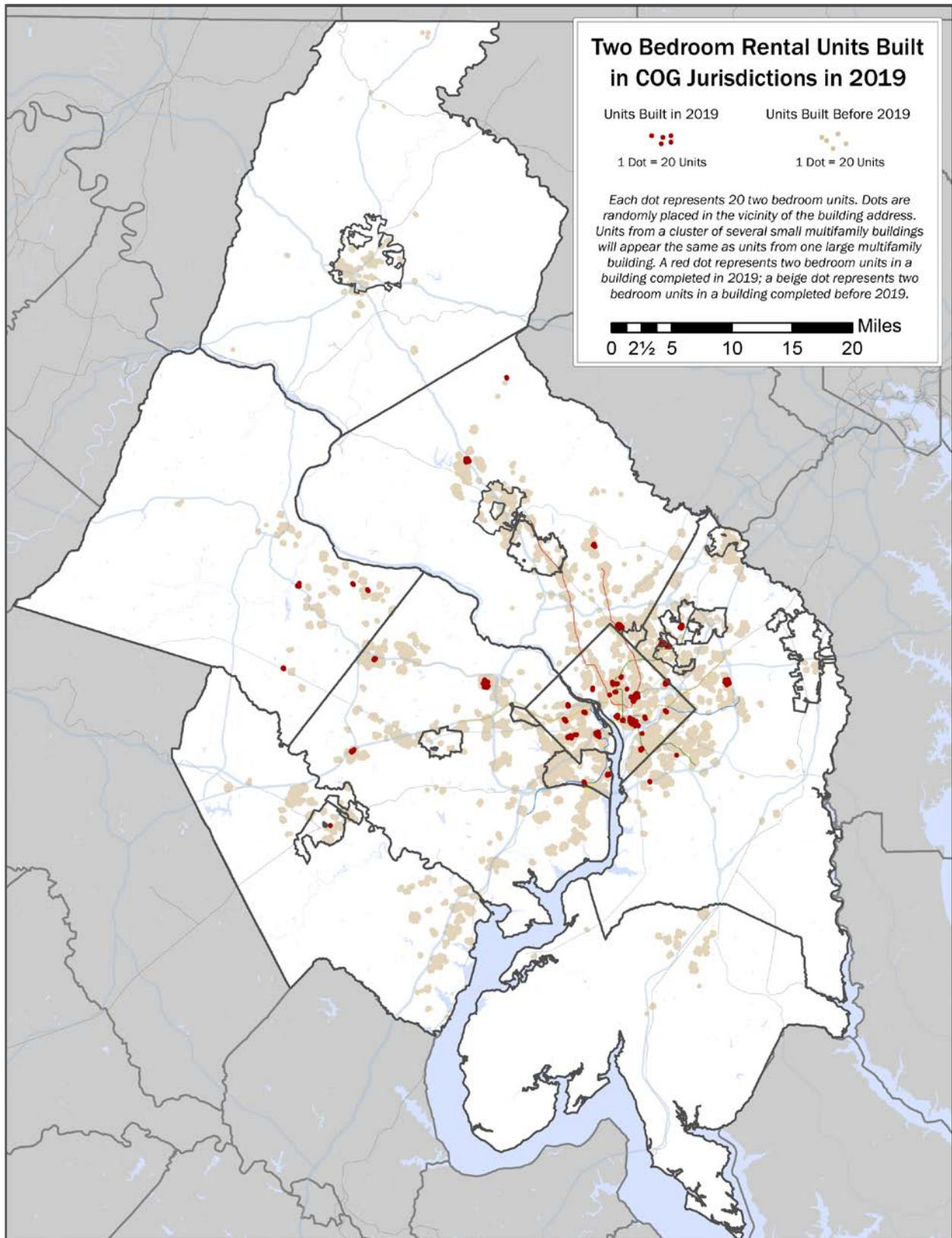
⁶ See Appendix G for cost-burdened threshold calculation methodology.

Figure 23



Source: CoStar

Figure 24

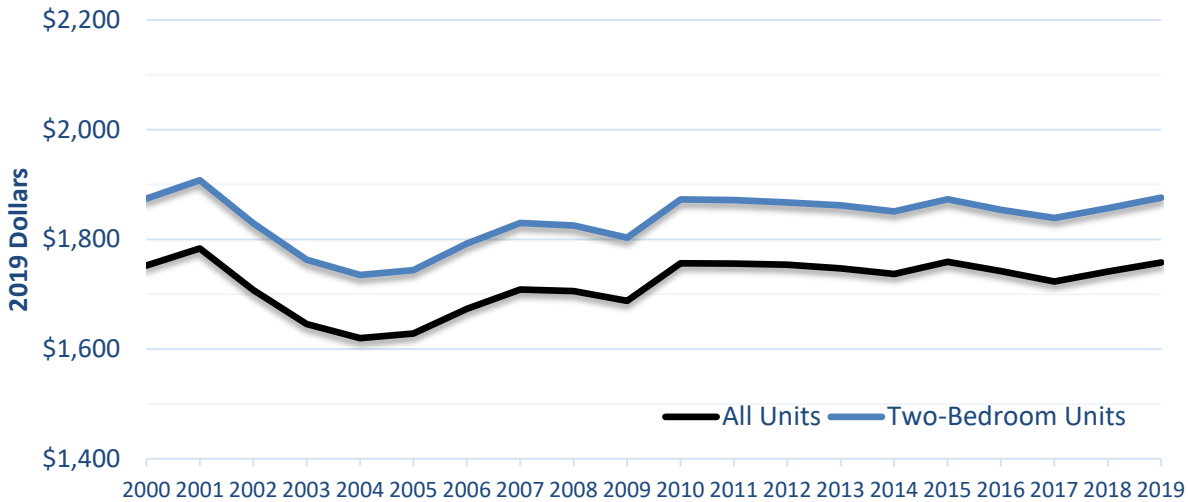


Source: CoStar

Two-Bedroom Apartments

Construction of two-bedroom apartment units increased 23 percent from 2018 to 2019. Two-bedroom units represented a third of all multifamily rental construction, with 4,780 units built. The average (mean) effective rent for a two-bedroom unit built in 2019 was \$2,748 and the average area was 1,073 square feet.

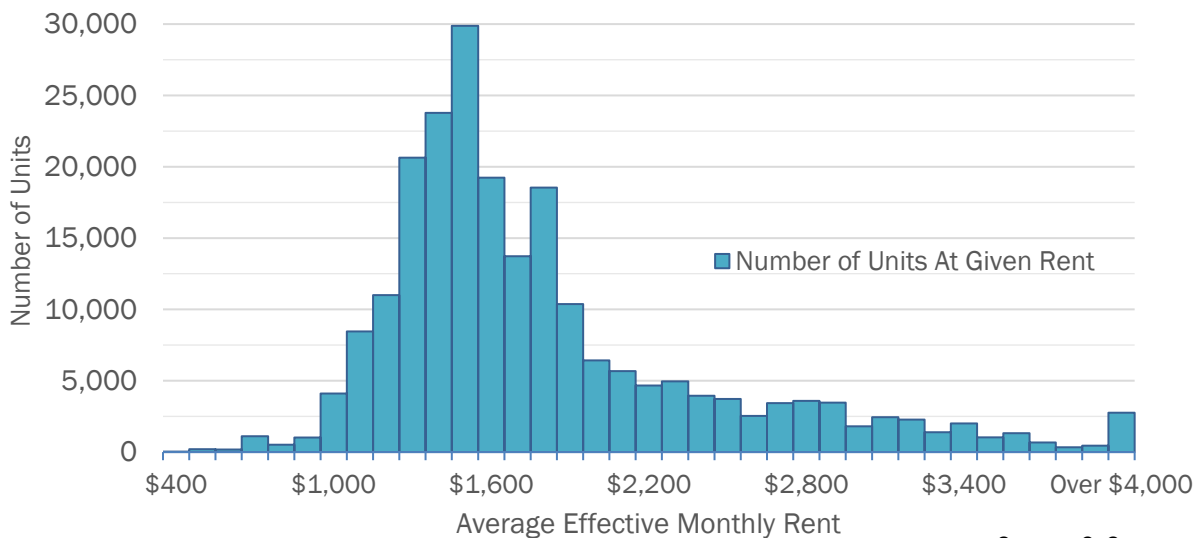
Figure 25. Inflation-Adjusted Average Effective Rent for Two-Bedroom Apartments, 2000 - 2019



Source: Bureau of Labor Statistics (CPI, all items less food and energy in U.S. city average, all urban consumers), CoStar, COG

According to data from the AHS and BLS, the estimated median household income in 2019 for renters of two-bedroom units in the Washington Metropolitan Statistical Area was just over \$68,000 per year. The median effective rent for two-bedroom apartments in the region was \$1,647 at the end of 2019. The median effective rent in COG jurisdictions is approximately 29 percent of the median income of a two-bedroom apartment renter⁷.

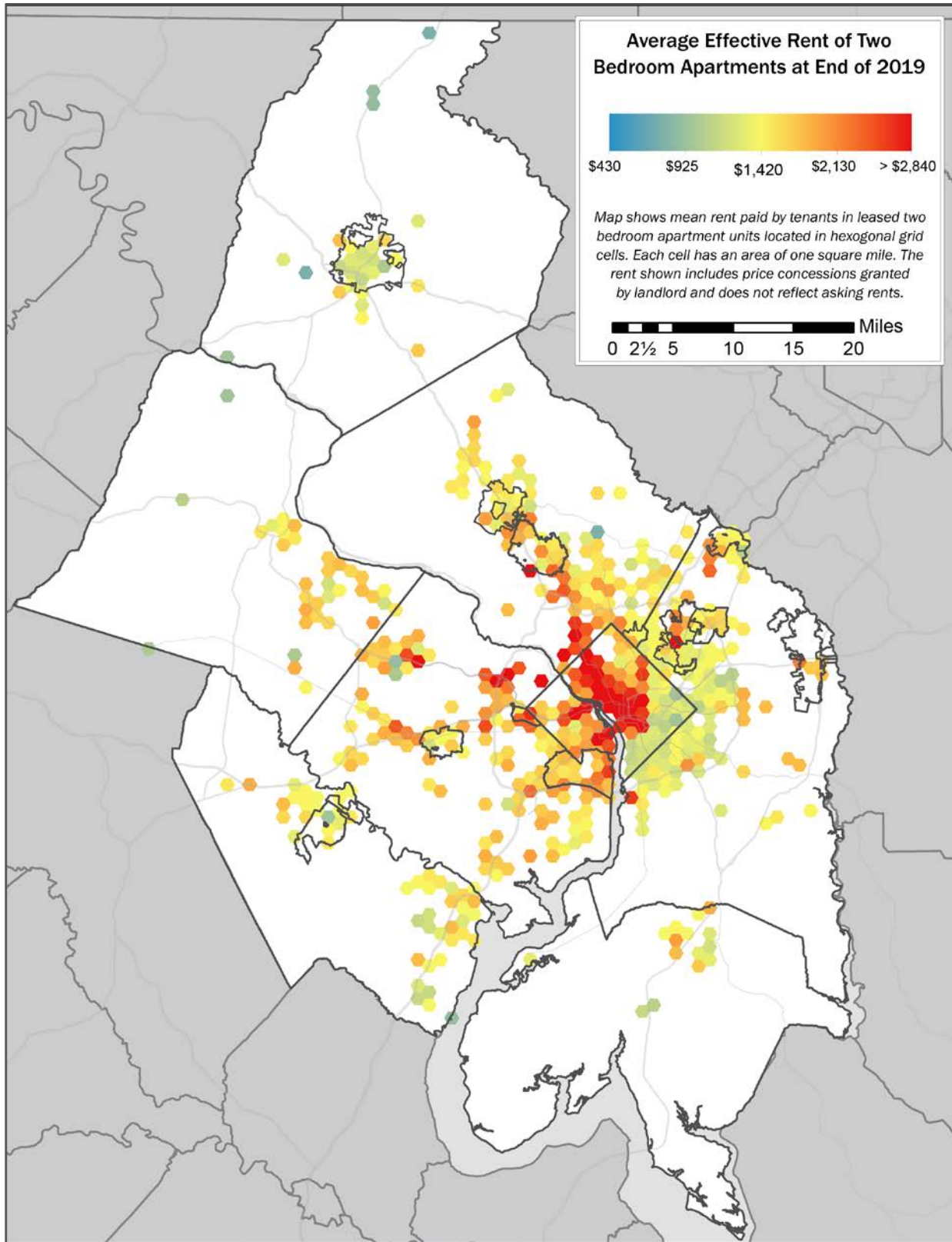
Figure 26. Effective Rents for Two-Bedroom Apartments at End of 2019



Source: CoStar

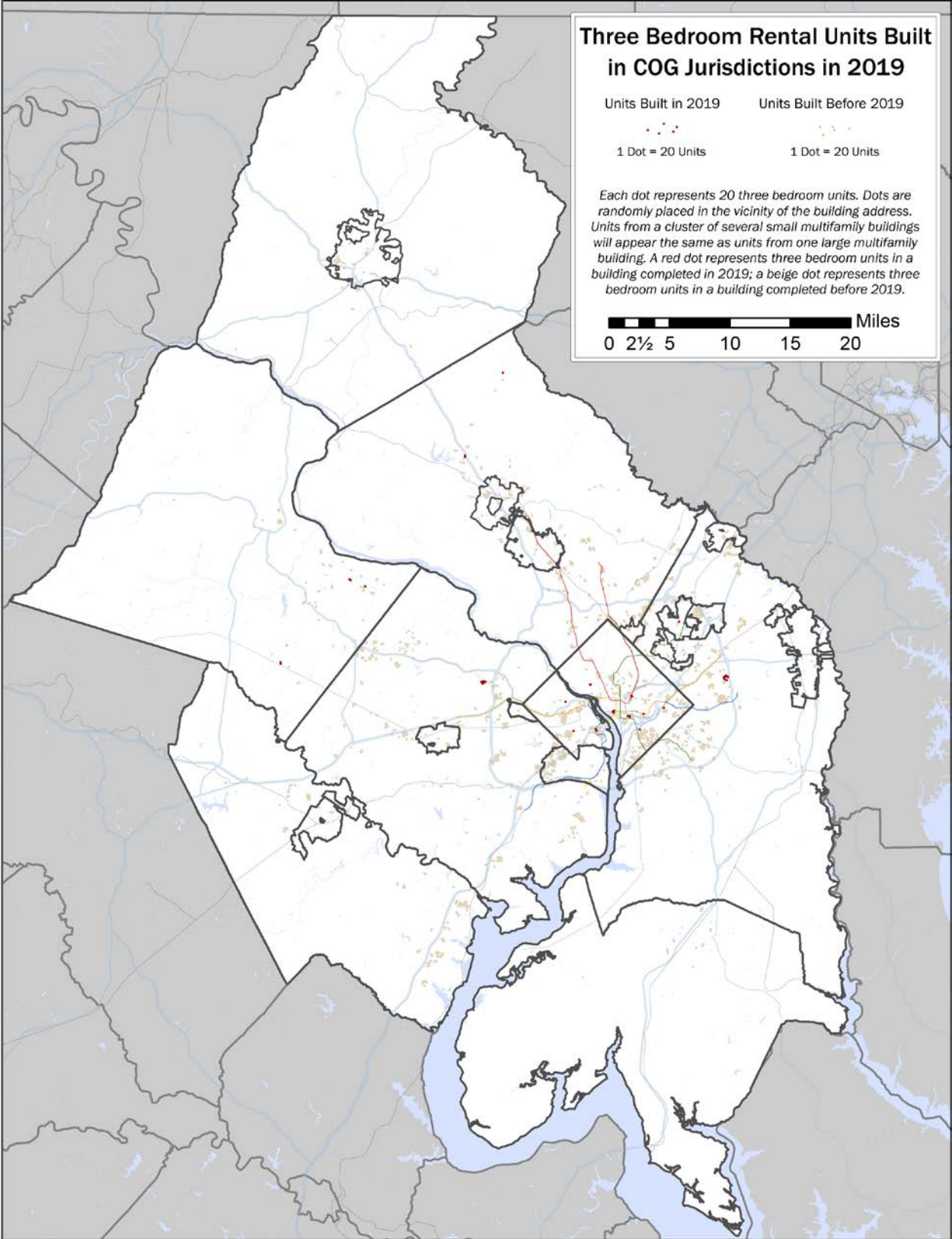
⁷ See Appendix G for cost-burdened threshold calculation methodology.

Figure 27



Source: CoStar

Figure 28

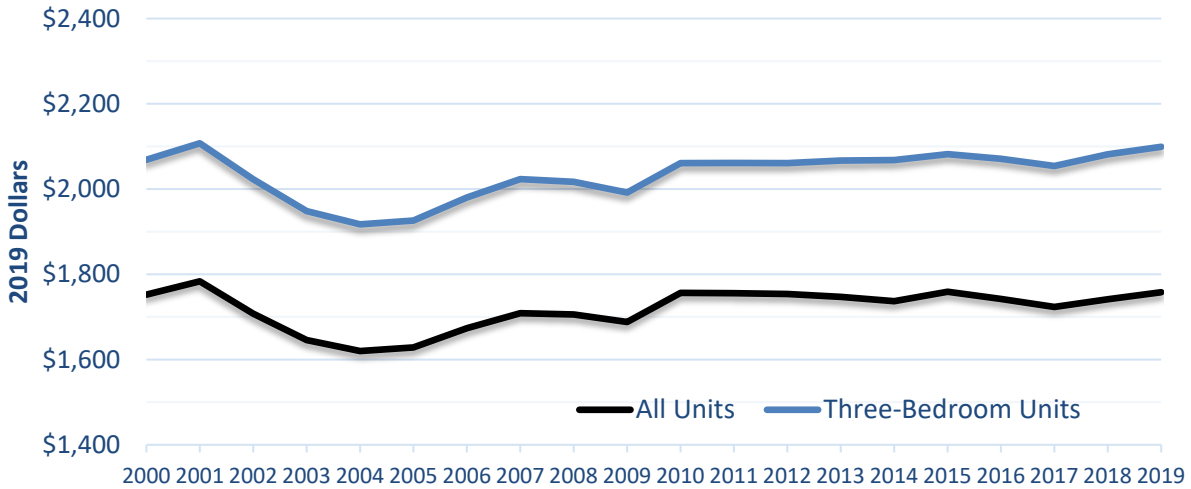


Source: CoStar

Three-Bedroom Apartments

Construction of three-bedroom units increased 89 percent from 2018 to 2019. Three-bedroom apartments accounted for seven percent of all new construction in 2019. The 1,029 units were the most built in 18 years. The average (mean) effective rent for new three-bedroom units built in 2019 was \$4,323 per month and the average new three-bedroom unit was 1,475 square feet.

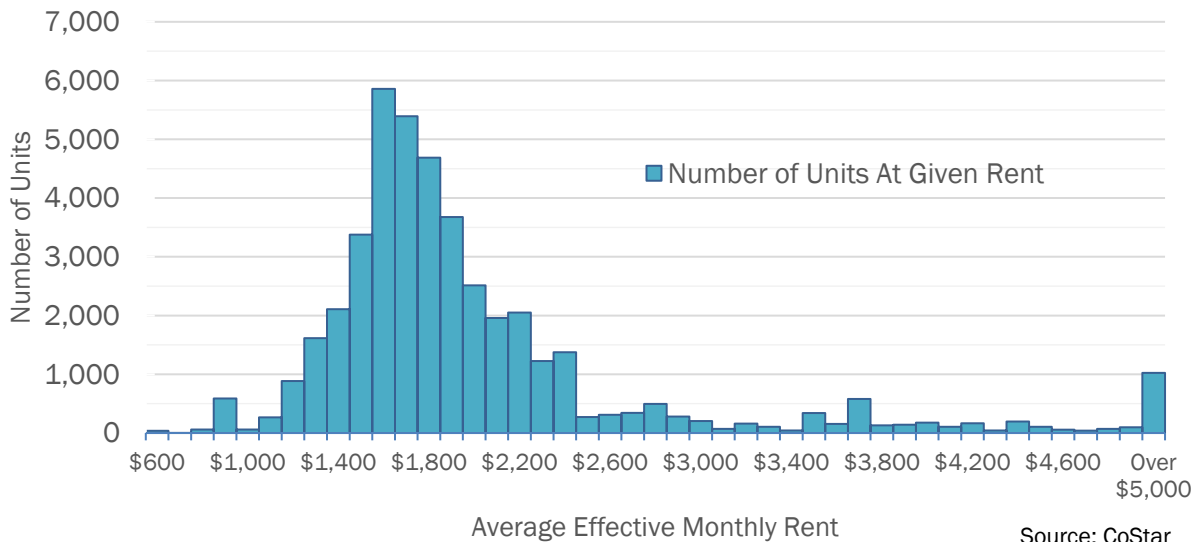
Figure 29. Inflation-Adjusted Average Effective Rent for Three-Bedroom Apartments, 2000 - 2019



Source: Bureau of Labor Statistics (CPI, all items less food and energy in U.S. city average, all urban consumers), CoStar, COG

According to data from the AHS and BLS, the median household income in 2019 for renters of three-bedroom units in the Washington Metropolitan Statistical Area was just over \$77,500 per year. The median effective rent for three-bedroom apartments in the region was \$1,815 at the end of 2019. The median effective rent in COG jurisdictions is roughly 29 percent of the median income of a three-bedroom apartment renter⁸.

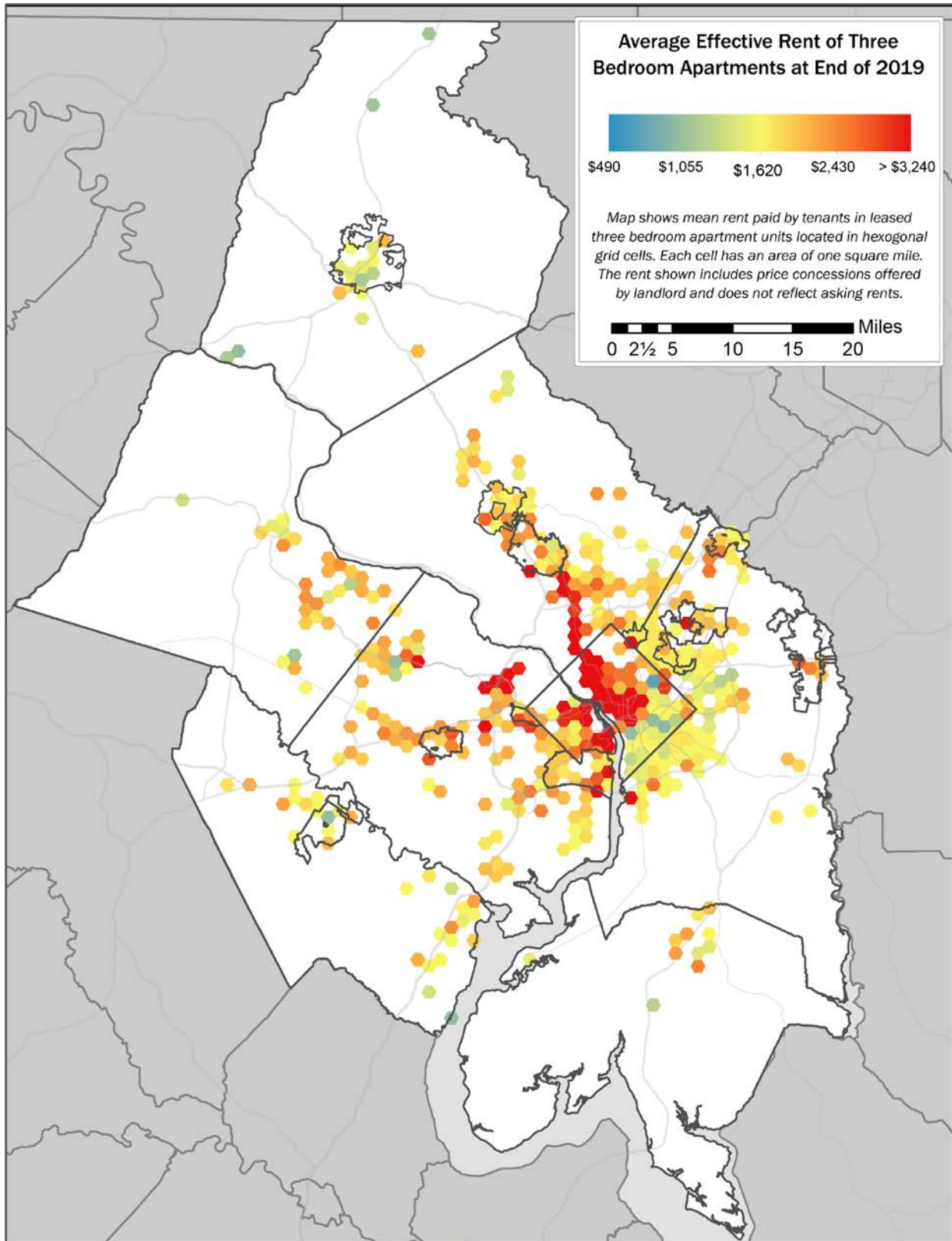
Figure 30. Effective Rents for Three-Bedroom Apartments at End of 2019



Source: CoStar

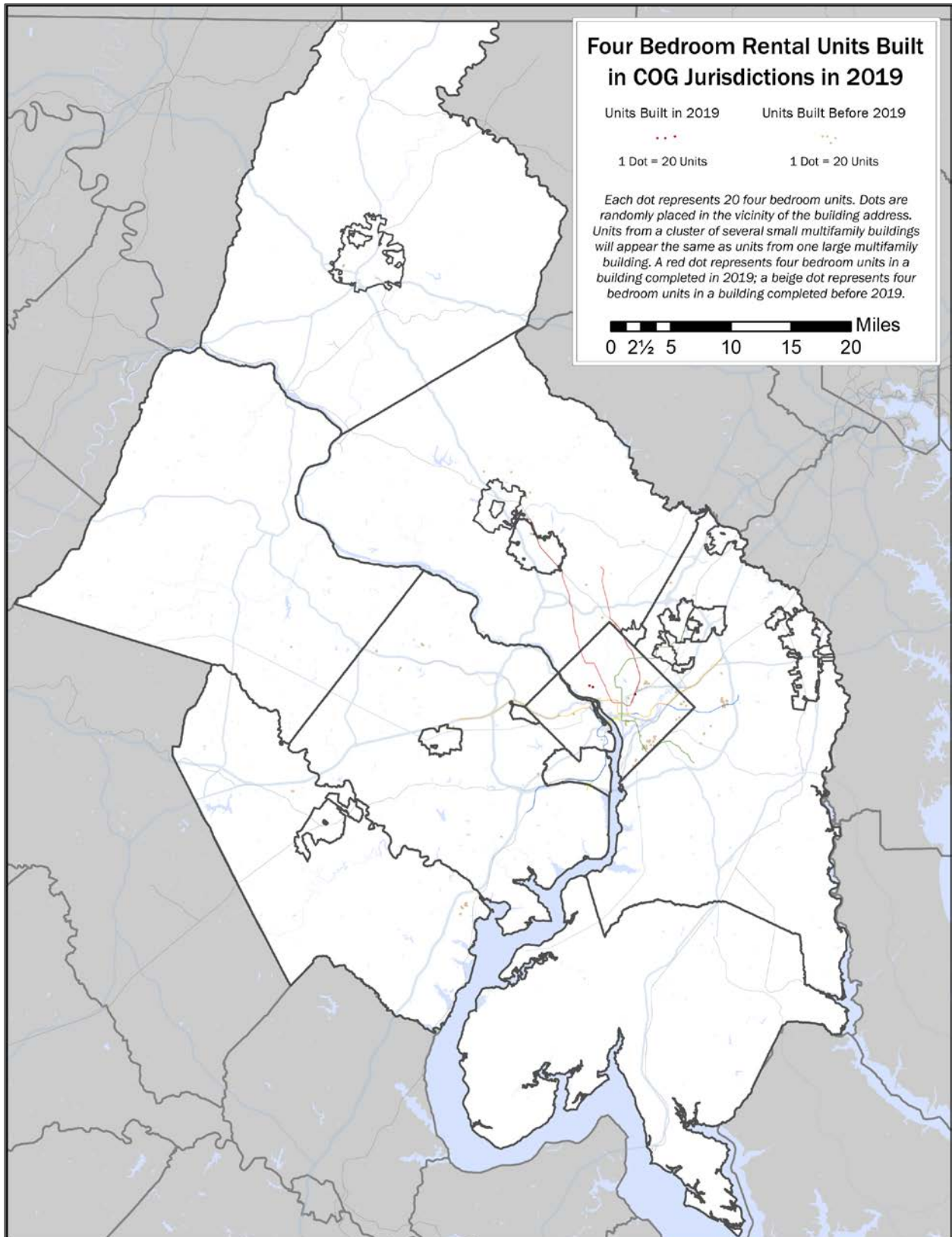
⁸ See Appendix G for cost-burdened threshold calculation methodology.

Figure 31



Source: CoStar

Figure 32

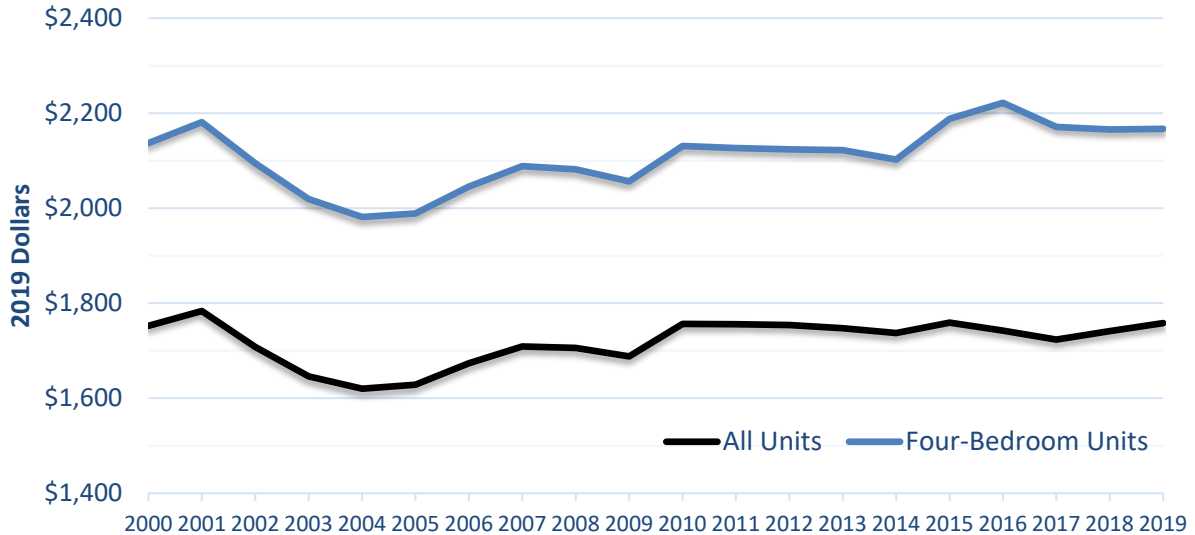


Source: CoStar

Apartments with Four or More Bedrooms

Apartment units with four or more bedrooms are not a significant part of the multifamily rental market. In 2019, 68 new units with four or more bedrooms were completed, accounting for less than one percent of all new units in the region. The average (mean) effective rent for new four-bedroom units built in 2019 was \$6,368 per month and the average new three-bedroom unit was 1,412 square feet.

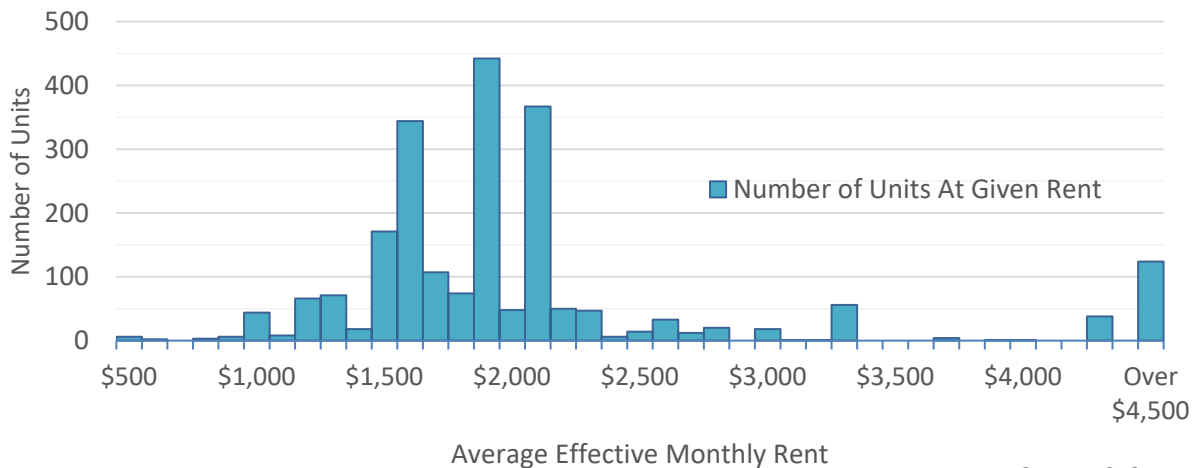
Figure 33. Inflation-Adjusted Average Effective Rent for Four-Bedroom Apartments, 2000 - 2019



Source: Bureau of Labor Statistics (CPI, all items less food and energy in U.S. city average, all urban consumers), CoStar, COG

According to data from the AHS and BLS, the median household income in 2019 for renters of units with four or more bedrooms in the Washington Metropolitan Statistical Area was just over \$80,000 per year. The median effective rent for such apartment units in the region was \$1,916 at the end of 2019. The median effective rent in COG jurisdictions is around 29 percent of the median income of a four or more-bedroom apartment renter⁹.

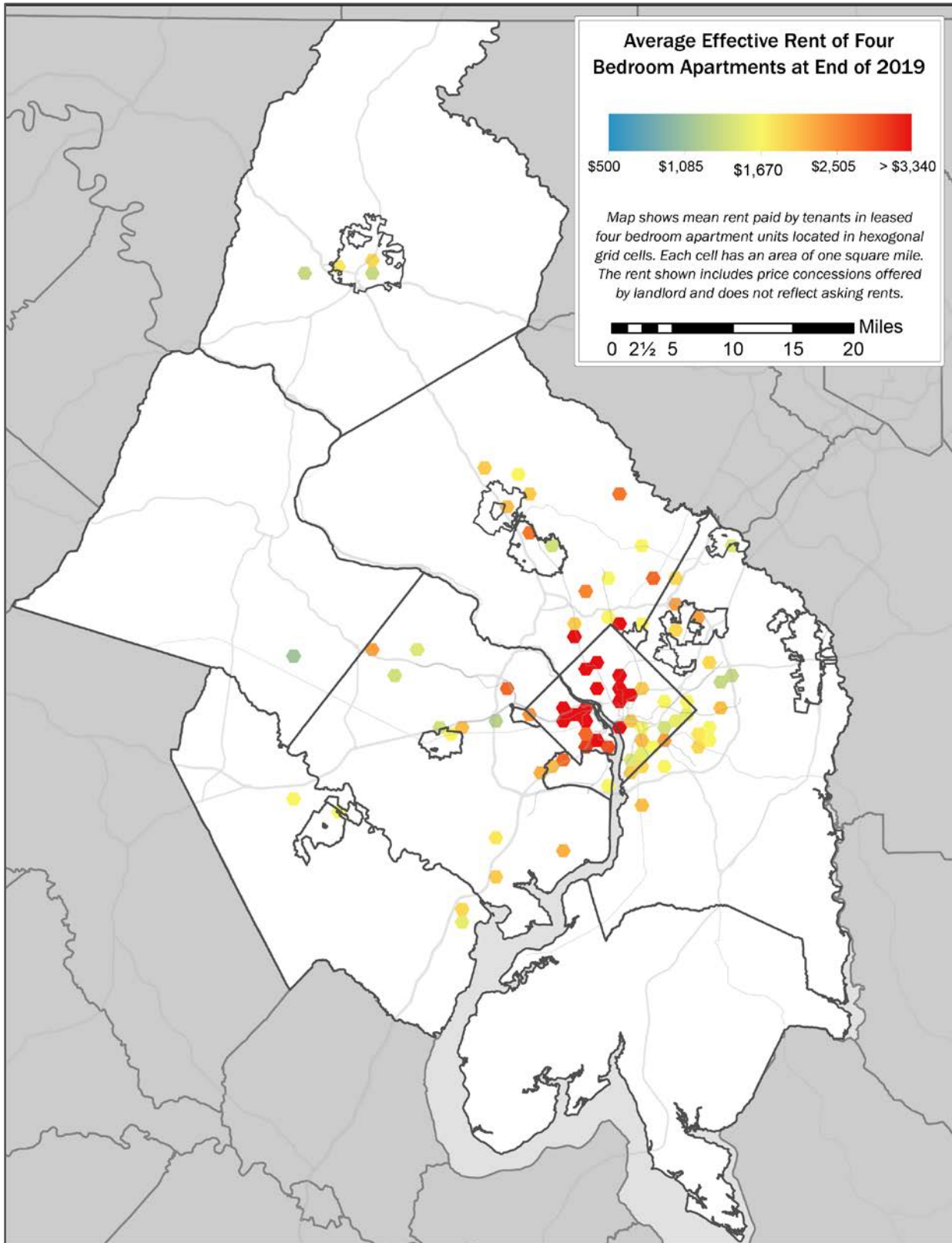
Figure 34. Effective Rents for Four-Bedroom Apartments at End of 2019



Source: CoStar

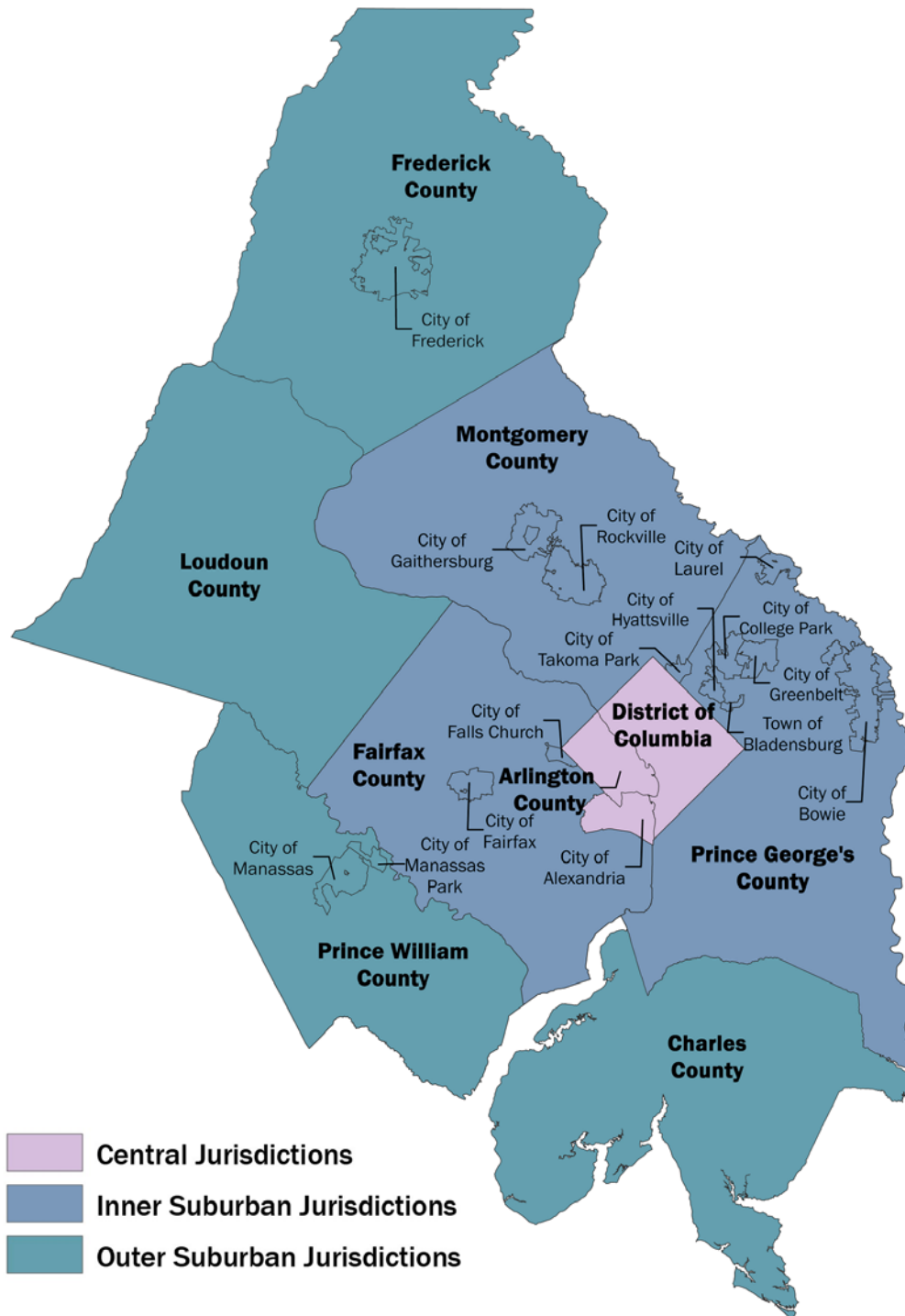
⁹ See Appendix G for cost-burdened threshold calculation methodology.

Figure 35



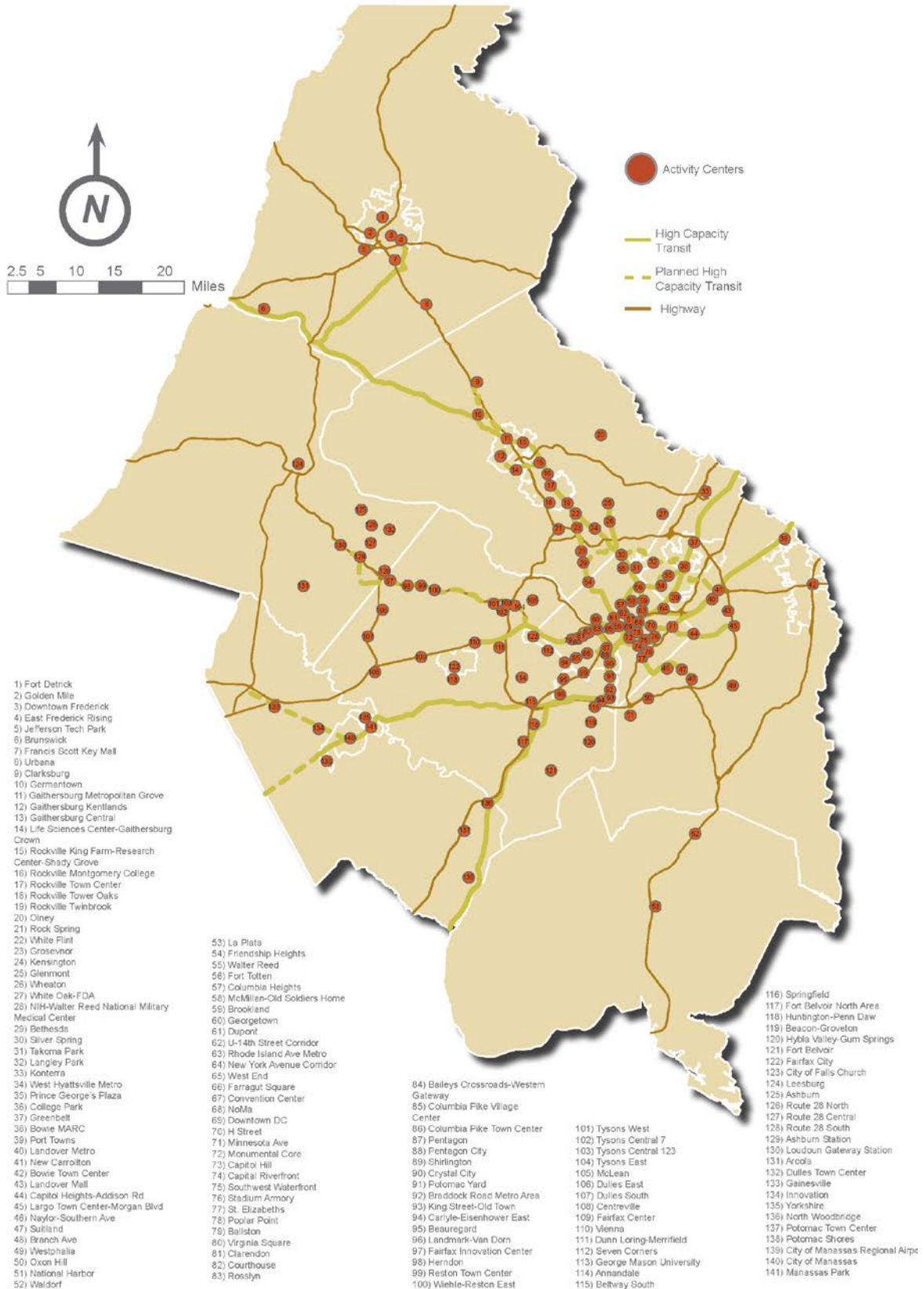
Source: CoStar

APPENDIX A. MAP OF REGIONAL “RING” JURISDICTIONAL GROUPINGS



APPENDIX B. REGIONAL ACTIVITY CENTERS MAP

Submitted to COG Board for Approval January 13, 2013



APPENDIX C. ACTIVITY CENTER TOTALS

Activity Center	Built Prior to 2019			2019 Completions			Average Effective Rent in 1 BR Units at End of 2019
	Buildings	Total Units	Regional Share	Buildings	Total Units	Regional Share	
Annandale	0	0	0.0%	0	0	0.0%	--
Arcola	8	248	0.0%	2	128	0.9%	\$1,524
Ashburn	57	1,621	0.3%	0	0	0.0%	\$1,604
Ashburn Station	88	2,474	0.4%	0	0	0.0%	\$1,521
Baileys Crossroads-Western Gateway	106	5,426	1.0%	0	0	0.0%	\$1,442
Ballston	86	4,605	0.8%	1	406	3.0%	\$1,980
Beacon-Groveton	1	290	0.1%	0	0	0.0%	\$1,650
Beauregard	279	8,523	1.5%	0	0	0.0%	\$1,469
Beltway South	7	497	0.1%	0	0	0.0%	\$1,722
Bethesda	148	6,583	1.2%	0	0	0.0%	\$1,929
Bowie MARC	0	0	0.0%	0	0	0.0%	--
Bowie Town Center	81	1,840	0.3%	0	0	0.0%	\$1,533
Braddock Road Metro Area	92	2,807	0.5%	1	232	1.7%	\$2,012
Branch Ave	51	948	0.2%	0	0	0.0%	\$1,114
Brookland	49	973	0.2%	2	17	0.1%	\$1,709
Brunswick	7	100	0.0%	0	0	0.0%	\$979
Capitol Heights-Addison Rd	97	1,152	0.2%	0	0	0.0%	\$1,010
Capitol Hill	85	1,354	0.2%	0	0	0.0%	\$2,427
Capitol Riverfront	36	1,619	0.3%	2	370	2.7%	\$2,002
Carlyle-Eisenhower East	31	3,209	0.6%	2	334	2.5%	\$1,998
Centreville	100	2,542	0.4%	1	355	2.6%	\$1,551
City of Falls Church	51	2,533	0.4%	0	0	0.0%	\$1,707
City of Manassas	137	2,372	0.4%	2	102	0.8%	\$1,226
City of Manassas Regional Airport	0	0	0.0%	0	0	0.0%	--
Clarendon	24	1,941	0.3%	0	0	0.0%	\$2,376
Clarksburg	29	450	0.1%	0	0	0.0%	\$1,682
College Park	4	299	0.1%	0	0	0.0%	\$1,788
Columbia Heights	282	11,289	2.0%	4	438	3.2%	\$1,837
Columbia Pike Town Center	151	4,162	0.7%	0	0	0.0%	\$1,582
Columbia Pike Village Center	149	2,874	0.5%	2	539	4.0%	\$1,422
Courthouse	76	5,397	0.9%	2	370	2.7%	\$2,110
Crystal City	30	7,669	1.3%	0	0	0.0%	\$2,014

Activity Center	Built Prior to 2019			2019 Completions			Average Effective Rent in 1 BR Units at End of 2019
	Buildings	Total Units	Regional Share	Buildings	Total Units	Regional Share	
Downtown DC	88	10,429	1.8%	0	0	0.0%	\$2,272
Downtown Frederick	105	1,725	0.3%	0	0	0.0%	\$1,015
Dulles East	1	342	0.1%	0	0	0.0%	\$1,773
Dulles South	15	360	0.1%	0	0	0.0%	--
Dulles Town Center	40	1,556	0.3%	1	66	0.5%	\$1,593
Dunn Loring-Merrifield	166	4,776	0.8%	0	0	0.0%	\$1,828
Dupont	173	7,724	1.4%	2	82	0.6%	\$2,483
East Frederick Rising	12	126	0.0%	0	0	0.0%	\$914
Fairfax Center	222	7,119	1.3%	0	0	0.0%	\$1,638
Fairfax City	92	1,379	0.2%	0	0	0.0%	\$1,696
Fairfax Innovation Center	99	3,847	0.7%	0	0	0.0%	\$1,655
Farragut Square	32	3,770	0.7%	0	0	0.0%	\$2,490
Fort Belvoir	4	390	0.1%	0	0	0.0%	\$1,715
Fort Belvoir North Area	0	0	0.0%	0	0	0.0%	--
Fort Detrick	38	642	0.1%	0	0	0.0%	\$1,212
Fort Totten	44	2,055	0.4%	0	0	0.0%	\$1,696
Francis Scott Key Mall	25	159	0.0%	0	0	0.0%	\$1,110
Friendship Heights	14	2,314	0.4%	0	0	0.0%	\$2,050
Gainesville	1	200	0.0%	0	0	0.0%	\$1,729
Gaithersburg Central	181	3,092	0.5%	0	0	0.0%	\$1,290
Gaithersburg Kentlands	25	712	0.1%	0	0	0.0%	\$1,734
Gaithersburg Metropolitan Grove	71	1,216	0.2%	0	0	0.0%	\$1,416
George Mason University	0	0	0.0%	0	0	0.0%	--
Georgetown	124	1,444	0.3%	0	0	0.0%	\$1,665
Germantown	270	3,761	0.7%	5	300	2.2%	\$1,308
Glenmont	108	1,272	0.2%	0	0	0.0%	\$1,524
Golden Mile	233	3,844	0.7%	0	0	0.0%	\$1,140
Greenbelt	73	3,179	0.6%	0	0	0.0%	\$1,399
Grosvenor	14	1,508	0.3%	0	0	0.0%	\$1,766
H Street	210	3,253	0.6%	1	65	0.5%	\$1,211
Herndon	63	1,911	0.3%	1	294	2.2%	\$1,607
Huntington-Penn Daw	86	2,709	0.5%	0	0	0.0%	\$1,583
Hybla Valley-Gum Springs	10	298	0.1%	0	0	0.0%	\$1,079
Innovation	34	248	0.0%	0	0	0.0%	--
Jefferson Tech Park	6	228	0.0%	0	0	0.0%	\$1,536
Kensington	27	457	0.1%	0	0	0.0%	\$1,442

Activity Center	Built Prior to 2019			2019 Completions			Average Effective Rent in 1 BR Units at End of 2019
	Buildings	Total Units	Regional Share	Buildings	Total Units	Regional Share	
King Street-Old Town	30	439	0.1%	0	0	0.0%	\$1,418
Konterra	11	419	0.1%	0	0	0.0%	\$1,788
La Plata	43	420	0.1%	0	0	0.0%	\$1,130
Landmark-Van Dorn	138	7,363	1.3%	0	0	0.0%	\$1,415
Landover Mall	112	1,985	0.3%	30	430	3.2%	\$1,303
Landover Metro	156	2,679	0.5%	0	0	0.0%	\$1,180
Langley Park	367	4,019	0.7%	0	0	0.0%	\$1,181
Largo Town Center-Morgan Blvd	152	3,111	0.5%	0	0	0.0%	\$1,531
Leesburg	59	1,531	0.3%	0	0	0.0%	\$1,316
Life Sciences Center-Gaithersburg Crown	101	4,050	0.7%	0	0	0.0%	\$1,661
Loudoun Gateway Station	0	0	0.0%	0	0	0.0%	--
Manassas Park	50	1,361	0.2%	0	0	0.0%	\$1,374
McLean	1	256	0.0%	0	0	0.0%	\$1,956
McMillan-Old Soldiers Home	51	721	0.1%	0	0	0.0%	\$1,537
Minnesota Ave	199	4,289	0.8%	1	138	1.0%	\$1,070
Monumental Core	35	3,189	0.6%	1	173	1.3%	\$2,282
National Harbor	1	262	0.0%	0	0	0.0%	\$1,871
Naylor-Southern Ave	79	2,440	0.4%	0	0	0.0%	\$1,170
New Carrollton	143	2,672	0.5%	0	0	0.0%	\$1,309
New York Avenue Corridor	43	1,223	0.2%	1	236	1.7%	\$1,477
NIH-Walter Reed Nat'l Mil Medical Ctr	0	0	0.0%	0	0	0.0%	--
NoMa	108	8,040	1.4%	5	1,601	11.8%	\$2,249
North Woodbridge	16	693	0.1%	0	0	0.0%	\$1,530
Olney	24	281	0.0%	0	0	0.0%	\$1,239
Oxon Hill	35	510	0.1%	1	187	1.4%	\$1,379
Pentagon	0	0	0.0%	0	0	0.0%	--
Pentagon City	16	5,049	0.9%	1	440	3.2%	\$2,148
Poplar Point	176	3,413	0.6%	1	114	0.8%	\$1,105
Port Towns	47	580	0.1%	0	0	0.0%	\$1,297
Potomac Shores	80	1,206	0.2%	0	0	0.0%	\$1,242
Potomac Town Center	6	1,020	0.2%	0	0	0.0%	\$1,596
Potomac Yard	28	2,539	0.4%	0	0	0.0%	\$1,906
Prince George's Plaza	65	2,422	0.4%	2	668	4.9%	\$1,528
Reston Town Center	8	1,612	0.3%	0	0	0.0%	\$2,144
Rhode Island Ave Metro	59	3,109	0.5%	0	0	0.0%	\$1,330
Rock Spring	24	672	0.1%	0	0	0.0%	\$1,797
Rockville King Farm-Research Ctr-Shady Grove	46	2,217	0.4%	0	0	0.0%	\$1,664
Rockville Montgomery College	24	331	0.1%	0	0	0.0%	\$1,546

Activity Center	Built Prior to 2019			2019 Completions			Average Effective Rent in 1 BR Units at End of 2019
	Buildings	Total Units	Regional Share	Buildings	Total Units	Regional Share	
Rockville Tower Oaks	0	0	0.0%	0	0	0.0%	--
Rockville Town Center	18	1,661	0.3%	0	0	0.0%	\$1,787
Rockville Twinbrook	71	3,853	0.7%	0	0	0.0%	\$1,525
Rosslyn	83	3,785	0.7%	0	0	0.0%	\$2,137
Route 28 Central	0	0	0.0%	0	0	0.0%	--
Route 28 North	0	0	0.0%	1	96	0.7%	\$544
Route 28 South	0	0	0.0%	0	0	0.0%	--
Seven Corners	137	1,446	0.3%	0	0	0.0%	\$1,401
Shirlington	20	1,620	0.3%	0	0	0.0%	\$1,879
Silver Spring	251	13,621	2.4%	3	861	6.3%	\$1,638
Southwest Waterfront	110	6,810	1.2%	4	1,001	7.4%	\$2,212
Springfield	57	1,200	0.2%	0	0	0.0%	\$1,718
St. Elizabeth's	108	2,093	0.4%	3	252	1.9%	\$1,055
Stadium Armory	122	1,502	0.3%	1	145	1.1%	\$1,419
Suitland	246	3,452	0.6%	0	0	0.0%	\$1,251
Takoma Park	62	1,851	0.3%	0	0	0.0%	\$1,115
Tysons Central 123	49	3,605	0.6%	0	0	0.0%	\$2,038
Tysons Central 7	16	217	0.0%	3	945	7.0%	\$2,209
Tysons East	81	1,568	0.3%	0	0	0.0%	\$1,824
Tysons West	3	1,078	0.2%	0	0	0.0%	\$1,723
U-14th Street Corridor	163	7,383	1.3%	3	241	1.8%	\$2,246
Urbana	8	352	0.1%	0	0	0.0%	\$1,556
Vienna	14	802	0.1%	0	0	0.0%	\$1,686
Virginia Square	45	2,657	0.5%	0	0	0.0%	\$1,992
Waldorf	4	62	0.0%	0	0	0.0%	\$1,341
Walter Reed	114	2,970	0.5%	2	179	1.3%	\$1,371
West End	34	4,014	0.7%	0	0	0.0%	\$2,481
West Hyattsville Metro	263	3,807	0.7%	0	0	0.0%	\$1,226
Westphalia	0	0	0.0%	0	0	0.0%	--
Wheaton	69	2,357	0.4%	0	0	0.0%	\$1,611
White Flint	44	2,869	0.5%	0	0	0.0%	\$1,887
White Oak-FDA	115	3,132	0.6%	0	0	0.0%	\$1,407
Wiehle-Reston East	3	1,254	0.2%	0	0	0.0%	\$1,924
Yorkshire	23	517	0.1%	0	0	0.0%	\$1,280
<i>Inside of Activity Centers Total</i>	<i>9,914</i>	<i>321,503</i>	<i>56.5%</i>	<i>94</i>	<i>11,805</i>	<i>87.0%</i>	<i>\$1,762</i>
<i>Outside of Activity Centers Total</i>	<i>14,678</i>	<i>247,375</i>	<i>43.5%</i>	<i>18</i>	<i>1,771</i>	<i>13.0%</i>	<i>\$1,399</i>
Regional Total	24,592	568,878	100.0%	112	13,576	100.0%	\$1,619

APPENDIX D. METRO STATION WALKSHED TOTALS

Metrorail Station Half-Mile Walkshed	Built Prior to 2019			2019 Completions			Percent Built Since Station Opened	Avg. 1 BR Rent in 2019
	Buildings	Units	Regional Share	Buildings	Units	Regional Share		
Addison Road-Seat Pleasant	12	221	0.0%	0	0	0.0%	0%	\$1,156
Anacostia	47	812	0.1%	1	114	0.8%	40%	\$1,126
Archives-Navy Mem-Penn Qtr	7	881	0.2%	0	0	0.0%	97%	\$2,572
Arlington Cemetery	0	0	0.0%	0	0	0.0%	--	--
Ballston-MU	42	5,444	1.0%	1	406	3.0%	94%	\$2,053
Benning Road	107	1,538	0.3%	0	0	0.0%	13%	\$1,074
Bethesda	40	3,004	0.5%	0	0	0.0%	69%	\$2,216
Braddock Road	60	2,055	0.4%	0	0	0.0%	72%	\$1,906
Branch Avenue	17	1,757	0.3%	0	0	0.0%	100%	\$1,663
Brookland-CUA	27	765	0.1%	2	17	0.1%	79%	\$1,910
Capitol Heights	28	659	0.1%	0	0	0.0%	63%	\$1,038
Capitol South	36	1,632	0.3%	0	0	0.0%	75%	\$2,264
Cheverly	0	0	0.0%	0	0	0.0%	--	--
Clarendon	29	2,952	0.5%	0	0	0.0%	90%	\$2,247
Cleveland Park	32	2,753	0.5%	0	0	0.0%	7%	\$2,098
College Park-Univ of Maryland	19	182	0.0%	0	0	0.0%	0%	\$945
Columbia Heights	189	7,404	1.3%	2	361	2.7%	18%	\$1,893
Congress Heights	198	1,906	0.3%	3	252	1.9%	29%	\$973
Court House	95	5,711	1.0%	2	370	2.7%	88%	\$2,152
Crystal City	20	5,759	1.0%	0	0	0.0%	53%	\$2,026
Deanwood	54	757	0.1%	0	0	0.0%	0%	\$918
Dunn Loring-Merrifield	69	2,240	0.4%	0	0	0.0%	68%	\$1,781
Dupont Circle	117	5,125	0.9%	2	82	0.6%	22%	\$2,520
East Falls Church	1	214	0.0%	0	0	0.0%	100%	\$2,356
Eastern Market	72	1,118	0.2%	0	0	0.0%	20%	\$1,806
Eisenhower Avenue	8	2,037	0.4%	0	0	0.0%	74%	\$1,969
Farragut North	13	1,908	0.3%	1	31	0.2%	25%	\$2,395
Farragut West	10	1,037	0.2%	1	31	0.2%	45%	\$2,767
Federal Center SW	3	307	0.1%	0	0	0.0%	0%	\$1,978
Federal Triangle	2	135	0.0%	0	0	0.0%	100%	\$2,535
Foggy Bottom-GWU	36	4,021	0.7%	0	0	0.0%	37%	\$2,498
Forest Glen	24	295	0.1%	0	0	0.0%	0%	\$1,277
Fort Totten	8	855	0.1%	0	0	0.0%	97%	\$2,033
Franconia-Springfield	0	0	0.0%	0	0	0.0%	--	--
Friendship Heights	8	1,468	0.3%	0	0	0.0%	29%	\$2,077

Metrorail Station Half-Mile Walkshed	Built Prior to 2019			2019 Completions			Percent Built Since Station Opened	Avg. 1 BR Rent in 2019
	Buildings	Units	Regional Share	Buildings	Units	Regional Share		
Gallery Place-Chinatown	42	6,173	1.1%	0	0	0.0%	92%	\$2,371
Georgia Ave-Petworth	86	2,050	0.4%	2	222	1.6%	47%	\$1,759
Glenmont	12	165	0.0%	0	0	0.0%	0%	\$1,492
Greenbelt	0	0	0.0%	0	0	0.0%	--	--
Greensboro	16	217	0.0%	2	935	4.0%	81%	\$2,250
Grosvenor-Strathmore	14	1,508	0.3%	0	0	0.0%	100%	\$1,766
Huntington	15	913	0.2%	0	0	0.0%	86%	\$1,788
Judiciary Square	22	4,171	0.7%	0	0	0.0%	89%	\$2,353
King Street-Old Town	22	1,133	0.2%	0	0	0.0%	85%	\$2,099
Landover	0	0	0.0%	0	0	0.0%	--	--
Largo Town Center	8	776	0.1%	0	0	0.0%	86%	\$1,550
L'Enfant Plaza	6	76	0.0%	1	173	1.3%	69%	\$3,087
McLean	27	948	0.2%	0	0	0.0%	78%	\$1,899
McPherson Square	25	4,068	0.7%	0	0	0.0%	34%	\$2,524
Medical Center	1	359	0.1%	0	0	0.0%	100%	\$2,356
Metro Center	18	2,437	0.4%	0	0	0.0%	46%	\$2,459
Minnesota Avenue	41	1,457	0.3%	0	0	0.0%	57%	\$1,086
Morgan Boulevard	12	478	0.1%	0	0	0.0%	100%	\$1,549
Mt Vernon Sq-7th St-Convention Ctr	91	8,721	1.5%	0	0	0.0%	57%	\$2,244
Navy Yard-Ballpark	84	6,808	1.2%	6	1,371	10.1%	89%	\$2,234
Naylor Road	5	774	0.1%	0	0	0.0%	0%	\$1,289
New Carrollton	1	278	0.0%	0	0	0.0%	100%	\$1,741
NOMA-Gallaudet	12	3,589	0.6%	4	1,169	8.6%	99.8%	\$2,361
Pentagon	3	601	0.1%	0	0	0.0%	100%	\$2,373
Pentagon City	24	7,927	1.4%	1	440	3.2%	69%	\$2,089
Potomac Avenue	47	944	0.2%	1	145	1.1%	33%	\$1,261
Prince George's Plaza	10	281	0.0%	1	338	2.5%	97%	\$1,703
Rhode Island Ave-Brentwood	8	724	0.1%	0	0	0.0%	85%	\$1,778
Rockville	7	1,227	0.2%	0	0	0.0%	91%	\$1,865
Ronald Reagan Wash. National Airtpt	0	0	0.0%	0	0	0.0%	--	--
Rosslyn	39	2,881	0.5%	0	0	0.0%	82%	\$2,327
Shady Grove	1	333	0.1%	0	0	0.0%	100%	\$1,790
Shaw-Howard Univ	117	3,833	0.7%	1	8	0.1%	50%	\$2,109
Silver Spring	53	7,675	1.3%	1	338	2.5%	54%	\$1,713
Smithsonian	0	0	0.0%	1	373	2.7%	100%	\$3,349
Southern Avenue	1	25	0.0%	0	0	0.0%	0%	--
Spring Hill	2	804	0.1%	0	0	0.0%	100%	\$1,927

Metrorail Station Half-Mile Walkshed	Built Prior to 2019			2019 Completions			Percent Built Since Station Opened	Avg. 1 BR Rent in 2019
	Buildings	Units	Regional Share	Buildings	Units	Regional Share		
Stadium-Armory	24	346	0.1%	0	0	0.0%	40%	\$1,682
Suitland	115	999	0.2%	0	0	0.0%	0%	\$1,200
Takoma	19	849	0.1%	0	0	0.0%	59%	\$1,630
Tenleytown-AU	6	303	0.1%	0	0	0.0%	53%	\$1,912
Twinbrook	11	1,916	0.3%	0	0	0.0%	87%	\$1,651
Tysons Corner	2	890	0.2%	0	0	0.0%	100%	\$2,196
U St/Afr-Amer Civil War Mem/Cardozo	99	5,822	1.0%	2	233	1.7%	61%	\$2,311
Union Station	14	1,556	0.3%	0	0	0.0%	87%	\$2,282
Van Dorn Street	5	226	0.0%	0	0	0.0%	100%	\$1,816
Van Ness-UDC	23	3,227	0.6%	0	0	0.0%	18%	\$2,019
Vienna-Fairfax-GMU	14	802	0.1%	0	0	0.0%	100%	\$1,686
Virginia Square-GMU	70	5,383	0.9%	1	406	3.0%	91%	\$2,067
Waterfront	90	4,802	0.8%	1	173	1.3%	36%	\$2,056
West Falls Church-VT/UVA	0	0	0.0%	0	0	0.0%	--	--
West Hyattsville	0	0	0.0%	0	0	0.0%	--	--
Wheaton	67	2,217	0.4%	0	0	0.0%	74%	\$1,624
White Flint	11	2,344	0.4%	0	0	0.0%	97%	\$1,883
Wiehle-Reston East	2	869	0.2%	0	0	0.0%	100%	\$2,005
Woodley Park-Zoo/Adams Morgan	39	2,733	0.5%	0	0	0.0%	15%	\$2,289
<i>DC Station Walkshed Totals</i>	<i>1,563</i>	<i>73,653</i>	<i>12.9%</i>	<i>27</i>	<i>4,365</i>	<i>32.2%</i>	<i>50%</i>	<i>\$2,135</i>
<i>Maryland Station Walkshed Totals</i>	<i>453</i>	<i>28,552</i>	<i>5.0%</i>	<i>2</i>	<i>676</i>	<i>5.0%</i>	<i>67%</i>	<i>\$1,755</i>
<i>Virginia Station Walkshed Totals</i>	<i>510</i>	<i>41,729</i>	<i>7.3%</i>	<i>6</i>	<i>1,757</i>	<i>12.9%</i>	<i>80%</i>	<i>\$2,065</i>
<i>Inside Walkshed Total</i>	<i>2,526</i>	<i>143,934</i>	<i>25.1%</i>	<i>35</i>	<i>6,798</i>	<i>50.1%</i>	<i>62%</i>	<i>\$2,039</i>
<i>Outside Walkshed Total</i>	<i>22,351</i>	<i>428,910</i>	<i>74.9%</i>	<i>77</i>	<i>6,778</i>	<i>49.9%</i>	<i>42%</i>	<i>\$1,445</i>
Regional Total	24,877	572,844	100.0%	112	13,576	100.0%	48%	\$1,619

Source: CoStar, COG

Half-Mile Walkshed Geography Methodology

The geography used to calculate walkshed totals for Metrorail stations was created by Transportation Planning Board (TPB) staff in 2019. Station areas with more intersections, smaller blocks and fewer barriers will have a walkshed with a larger total area. The largest theoretical area is .79 square miles—the area of a circle with a radius of 0.5 miles. Stations areas with higher share unit totals could be the result of having more construction activity or having a more extensive half-mile walkshed (or both). The analysis was only performed on walksheds as they exist in 2019. The same 2019 vintage walkshed geography was used for looking at past construction. Therefore, the station area totals for previous years are for an area that may not been accessible via a half-mile walk until a later time—or even had a station built yet. More information on walksheds can be found in the [TPB blog](#).

APPENDIX E

Multifamily Construction Definitions (adapted from CoStar Glossary¹⁰)

AVERAGE EFFECTIVE RENT

Weighted mean rent of all units within a defined area. Effective rents for buildings with more units are weighed more heavily, in proportion to share of the total market. Rents are for units that are available to be rented by a new tenant.

COMPLETION

Projects with buildings that are completed and are ready for occupancy. A certificate of occupancy has been received.

EFFECTIVE RENT

Expressed as a monthly amount, the average rent paid over the term adjusted downward for concessions paid for by the landlord (such as free rent, moving expenses, or other allowances).

MULTIFAMILY RENTAL HOUSING PROJECT

A residential property with one or more completed buildings that leases five or more apartment units. Condominiums, cooperative housing, mobile home parks, assisted-living facilities, military housing and student housing are not included.

¹⁰ <http://www.costar.com/about/costar-glossary>

APPENDIX F. MAPPING METHODOLOGY

Mapping Rent Data in Hexagonal Grid Cells

This report maps rents using aggregated unit-based data and a grid of 3,768 identical hexagonal cells, each with an area of one square mile. This method was chosen to make neighborhood-level trends in unit-based data uniformly apparent, without being influenced by building size, neighborhood size or jurisdictional borders.

Mapping Units in Vicinity of Building Location

This report displays unit data for each building by generating points at random within the vicinity of the building's address. Regional unit data is distributed within a circle with an area of 100,000 square feet for each unit in the building; one dot is randomly placed within the defined circle for every 20 units in the building. Unit data for the Beltway area is distributed within circle with an area of 25,000 square feet for each unit in the building; one dot is randomly placed within the defined circle for every five units in the building. This method was chosen to make neighborhood-level trends in unit-based data uniformly apparent, without being influenced by building size, neighborhood size or jurisdictional borders. However, neighborhoods with several buildings will have less space between each dot compared with neighborhood with only a single building that has a lot of units.

The map for units in transit walksheds and Activity Centers uses the same methodology but only distribute dots within the portion of the defined circle that falls within the walkshed or Activity Center.

APPENDIX G. INCOME AND RENTS

American Housing Survey Data

This report relies on data from CoStar for mean and median monthly rents but uses data from the U.S. Census’s [American Housing Survey](#) (AHS) for median renter income. An alternative source that is commonly used in housing research is the annual American Community Survey (ACS). For this report, the AHS is preferable to ACS data because the ACS reports median income by occupant tenure (renter vs. owner), as well as the number of bedrooms in unit.

The AHS reports median income for the Washington Metropolitan Statistical Area (MSA), a region with 24 counties and county-equivalents that includes the District of Columbia and parts of Maryland, Virginia, and West Virginia—a larger geography and population than the 14-county and county-equivalent COG region. The American Housing Survey is released on odd years only, so this report inflation-adjusted (July) 2017 renter income data from the AHS so it could be compared to the (December) 2019 monthly rent data from CoStar, as shown in Table 49 below:

Figure 36. Affordable Rents for Renters with Median Income for the Washington MSA

Unit Size	2017 AHS Median Renter Income	Adjusted 2019 Median Renter Income*	2019 Monthly Income for Renters	Rent Threshold for Cost-Burden (One-Fourth Monthly Income)
Studio	\$46,000	\$48,290	\$4,024	\$1,006
1 BR	\$51,100	\$53,644	\$4,470	\$1,118
2 BR	\$65,000	\$68,236	\$5,686	\$1,422
3 BR	\$74,000	\$77,684	\$6,474	\$1,618
4+ BR	\$76,300	\$80,099	\$6,675	\$1,669

**The BLS inflation rate from July 2017 to December 2019 was 4.98 percent*

Calculating Housing Cost-Burden for Renters

The US Department of Housing and Urban Development (HUD) [has defined](#) those spending more than 30 percent of monthly gross income on housing to be cost burdened. Five percent of income is set aside for utilities and other fees, leaving 25 percent for rent¹¹. The final column of Table 36 shows the highest possible rent that a renter earning the median income in the Washington MSA can pay without being cost-burdened.

¹¹ Housing programs also have more exact ways of calculating utility allowances but five percent is appropriate for a general allowance (See page 5-78 in Chapter 5 of the [HUD Occupancy Handbook](#)).