



REAL PROPERTY **RESEARCH** GROUP

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Anne Arundel County Affordable For Sale Housing Needs Assessment

Anne Arundel County, Maryland

Prepared for:

Arundel Community Development Services, Inc.

July 2019



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EXECUTIVE SUMMARY

- Anne Arundel County is a fast growing county, projected to grow by 1,200 households a year over the next five years. Over 73 percent of households own their home. While the county's median household income is almost \$99,000, over 21 percent of households have incomes below \$50,000 and another 15 percent have incomes between \$50,000 and \$75,000.
- Three quarters of the County's owner-occupied housing stock is single family detached homes. Only 18 percent are townhouses and 5 percent are in multifamily structures. As of June 2019, the median sales price of a home in Anne Arundel County is \$378,000. Price has been driven by a restricted supply of units in the face of continuing household growth. While sales averaged 700 sales a month over the last five years, for sale inventory has continued to shrink over the last five years, resulting in typical monthly supply of less than four months.
- Home prices are increasing almost twice as fast as household incomes. Over the last 19 years, house prices have increased a compounded annual rate of 4.3 percent compared to a 2.5 percent compounded annual increase in household income.
- Over the last year, the median price of an arms length residential property transfer in the county was \$337,000. Annapolis supported the highest median price over \$400,000, while Glen Burnie-Linthicum was the most affordable submarket in the county with a median price of \$260,000. The median price of the other three submarkets ranged from \$331,000 to \$351,000.
- Approximately two thirds of sales in the county overall were detached homes, as well as in the Annapolis and Glen Burnie-Linthicum submarkets. Only half the sales in Odenton-Crofton were detached homes as 43 percent of sales were attached units and 7 percent were condominiums.
- Single family detached homes sold for a median price of \$377,000 for 1,932 square feet, while single family attached homes transferred at a median price of \$305,000 for a somewhat smaller 1,732 square feet. The most affordable product type in the market were multifamily units which sold for a median sales price of \$225,000 for 1,276 square feet.
- Based on industry standard underwriting criteria and current financing, a 3 person household with an income at 60 percent of Areawide Median Income (AMI) could afford to purchase a \$219,000 home. A 3 person household at 80 percent of AMI could afford a \$290,000 home. There are 21,881 households in the market that that would qualify for a unit priced between a 60 percent AMI and 80 percent AMI home. Of those households, 6,928 are currently renter households.
- A 3 person household with an income at 100 percent of Areawide Median Income (AMI) could afford to purchase a \$360,000 home. There are 25,638 households in the market that have incomes that qualify for a unit priced between an 80 percent AMI and 100 percent AMI home. Of those households, 6,341 are currently renter households.
- Based on the analysis of property transfers and demographic characteristics of the county, it is obvious that there is a shortage of affordable homes to address the shelter needs of moderate income households.
 - Over the last year, inventory of moderately priced available homes for purchase could only address one third of income qualified moderate income renters.
 - The inventory of affordable units is not evenly distributed throughout the County. Looking at sales of homes valued under \$290,000, the Glen Burnie-Linthicum submarket and northern portion of the Severn Park-Pasadena market are home to many of the affordable units
 - Based on assessment qualitative analysis of the housing stock, 90 percent of homes sold under \$290,000 have some quality issues which would likely need to be addressed to insure the provision of quality housing.



I. INTRODUCTION

Arundel Community Development Services, Inc. (ACDS) has retained Real Property Research Group, Inc. (RPRG) to conduct an analysis regarding the affordability of for sale housing in Anne Arundel County, Maryland. This study specifically reports on the current conditions of Anne Arundel County for sale market in terms of level of affordability for certain demographic cohorts. Based on our demographic and competitive research, we examine the balance between the supply of affordable for sale housing by income category and the demand for such units.

This report is divided into five sections. Following this introduction, Section II identifies the five submarkets that will be compared and contrasted throughout the analysis. Section III examines aspects of the Anne Arundel County population and households including growth trends, demographic and income characteristics. Section IV provides an analysis of the county's for sale market. The final section presents an analysis of affordability issues facing the for sale market.

The conclusions reached in a market assessment are inherently subjective and should not be relied upon as a determinative predictor of results that will actually occur in the marketplace. There can be no assurance that the estimates made or assumptions employed in preparing this report will in fact be realized or that other methods or assumptions might not be appropriate. The conclusions expressed in this report are as of the date of this report, and an analysis conducted as of another date may require different conclusions. The actual results achieved will depend on a variety of factors including the performance of management, the impact of changes in general and local economic conditions, and the absence of material changes in the regulatory or competitive environment. Reference is made to the statement of Underlying Assumptions and Limiting Conditions attached as Appendix 1 and incorporated in this report.



II. DEFINITION OF SUBMARKETS

With this market assessment, we seek to evaluate the for sale market of Anne Arundel County in its entirety rather than the specific primary market area for a specific site. To acknowledge the county's diversity in terms of development patterns, accessibility, demographic profiles of residents, and other factors, we defined five separate submarkets in which to evaluate market conditions independently and to provide a means of comparison for the unique parts of the county. In large part, the submarkets were established based on factors such as density; linkages to key roadways; political, natural and man-made boundaries; as well as demographic characteristics. These submarkets may or may not be appropriate to evaluate the for market for any one site or project. A site in one location may in fact require the definition of a market area that would span several of the submarkets defined in this report or include parts of neighboring jurisdictions.

The submarkets for Anne Arundel County used in this analysis are presented on Map 1. For reference, the census tracts included in each market area are listed in Table 1. In conducting an analysis of the county's rental market, we included the southern portions of the market below Route 214/ Central Avenue called Southern Anne Arundel County. As this part of the county does not offer multifamily rental housing options, it was excluded for our rental analysis last year. However, we have included it in this for sale analysis since this area provides homeownership opportunities.

A description of each market is as follows:

- **Annapolis:** Comprised of the eastern part of the county, this submarket includes three Small Planning Areas: Broadneck, Annapolis Neck, and Edgewater/Mayo. The rough boundaries of the submarket are the Severn River to the north, the Chesapeake Bay to the east, Route 214/Central Avenue to the south, and General's Highway to the west. Three distinct land areas are separated by the Severn River and the South River. These two rivers and the Chesapeake Bay create a large amount of waterfront acreage in the submarket. The City of Annapolis, the state capital and the home of the US Naval Academy, is located here. Route 50/301, a major arterial in the county, bisects the submarket. The western part of the submarket includes historic neighborhoods. In general, the submarket includes the two extremes of very high-income households/housing values and low income households/subsidized rental housing. The eastern part of the submarket, east of the Severn River, is lower in density and has a much smaller proportion of conventional rental properties than the Annapolis area.
- **Glen Burnie-Linthicum:** This this submarket includes the northernmost section of Anne Arundel County. The general boundaries are Howard County to the west, Baltimore County to the north, Baltimore City to the northeast, the Patapsco and Magothy Rivers to the east and Odenton-Crofton, and Route 100 to the south. Four Small Planning Areas are located within the submarket: Brooklyn Park, Linthicum, Pasadena-Marley Neck, and Glen Burnie. The housing stock in this submarket is fairly old. The area is largely built out, and the limited new residential construction is mainly smaller infill projects. That said, ongoing development at and around BWI Airport is prompting new residential construction in the area.
- **Odenton-Crofton:** Comprised of the western part of the county, this submarket includes five Small Planning Areas: Jessup-Maryland City, Odenton, Crofton, Severn, and the western part of Crownsville. The boundaries are roughly Route 100 to the north, Howard County to the northwest, Prince George's County to the southwest, Governor Bridge Road to the south (south of Route 50/301), and Generals Highway and the South River to the east. As Fort Meade is located in this submarket, this section of the county has been one of the key targets for new growth and development. Odenton-Crofton is the only submarket of the county that does not have extensive waterfront property.
- **Severna Park-Pasadena.** Encompassing the north-eastern section of the county, three Small Planning Areas are included in the submarket: Lake Shore, Severna Park, and the eastern part of



Crownsville. The submarket boundaries are Mountain Road and Stoney Creek to the north, the Patapsco River to the east, the Magothy and Severn Rivers to the south, and Route 97 and Route 3 to the west. The eastern part of the submarket includes several upscale neighborhoods with single family homes on large lots, some of them waterfront properties. Route 2 is the principal commercial corridor in this submarket.

- **Southern Anne Arundel.** The southernmost section of the county is comprised of the South County and Deale/Shadyside Small Planning Areas. Most of this area is located south of Route 214/Central Avenue.

In the remainder of this report, we assess population and household trends, demographic characteristics, competitive rental markets within in the context of each submarket and compare those submarkets with Anne Arundel County as a whole.

Map 1 Anne Arundel County Multifamily Rental Submarkets

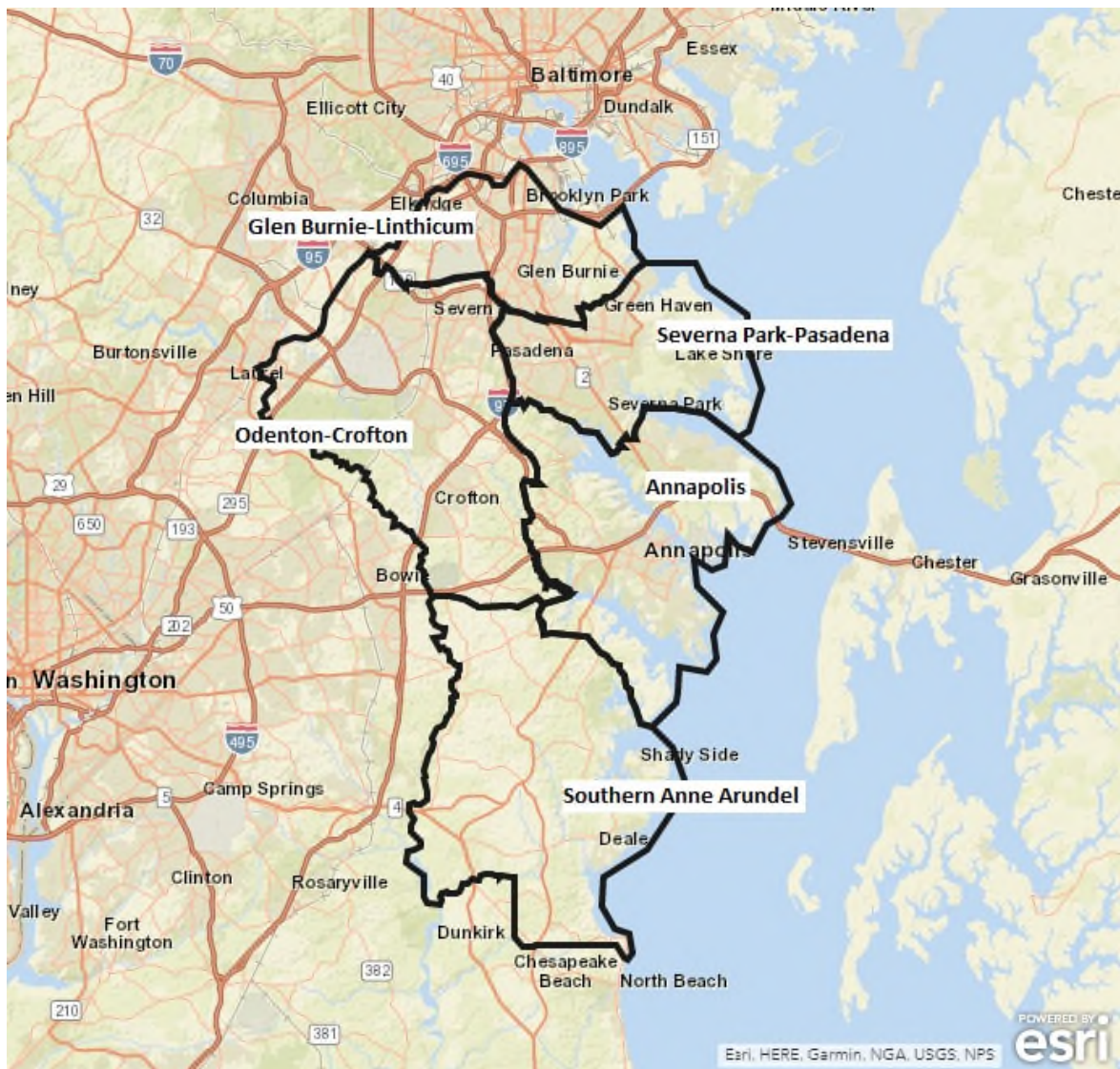




Table 1 Definition of Anne Arundel County Submarkets

	Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel	Anne Arundel County
Geography										
Area (acres)	50,372		30,021		77,044		32,353		75,747	265,537
Submarket Definition (Census Tracts)	701101	706500	730100	750300	702204	740305	730502	731203	701300	
	701102	706600	730203	750400	702205	740400	730504	731204	701400	
	701200	706700	730204	750801	702206	740500	730505	731303	707001	
	702100	730800	730300	750803	702208	740601	730506	731306	707002	
	702402	730901	730401	750804	702209	740602	730601	731307	708001	
	702500	730902	730402	750900	702300	740603	730603	731308	708004	
	702601	731002	750101	751000	740102	740701	730604	731309		
	702602	731003	750102	751102	740103	740702	730700	731310		
	702701	731004	750201	751103	740104	740800	731201	731311		
	702702	731102	750202	751200	740105	740900	731202			
	706101	731103	750203	980000	740201	741000				
	706301	731104			740203	751400				
	706302	731105			740303	751500				
	706401	751600			740304	751700				
	706402									

Sources: US Census Bureau (2010); RPRG, Inc.



III. POPULATION AND HOUSEHOLD CHARACTERISTICS

A. Growth Trends

RPRG analyzed trends in population and households between 2000 and 2024 for Anne Arundel County in its entirety and for the five designated submarkets. The 2010 US Census serves as a baseline of population and household data. To gauge trends between 2010 and 2019, we evaluated small area estimates and projections of population and households released in July 2018 by the Baltimore Metropolitan Council (BMC), the metropolitan planning organization for the Baltimore region. We also examined projections issued by Esri, a national data vendor that provides estimates and projections of population and households at the geographic level of census tracts. Residential building permit data were also considered. Sources for other demographic data presented in this section include the 2010 Census, 2009-2013 American Community Survey, and Esri's most recent data release.

When available, RPRG typically relies on data from the local metropolitan planning organization, as local government members have intimate knowledge of local development patterns. We have elected to use them in this study. That said, these projections are somewhat political in nature and in the case of Anne Arundel County may be overly conservative. Esri projections for population growth over the next five years are more than twice those projected by BMC. Recently released 2018 population estimates from the US Census Bureau are approximately midway between the Esri and BMC estimates.

As of the 2010 Census, Anne Arundel County had a population of 537,656 persons, an annual increase of 0.9 percent since 2000 (Table 2). During this period, the Odenton-Crofton submarket population had the strongest growth rate, increasing at an annual rate of 1.7 percent, followed by the Southern Anne Arundel submarket at 0.9 percent (on a relatively small base of 28,995 in 2000) and the Annapolis submarket with an average annual growth rate of 0.7 percent. Population in the Glen Burnie-Linthicum submarket increased at an annual rate of 0.6 percent, while population in the Severna Park-Pasadena submarket increased at an average annual rate of 0.5 percent.

Over the last nine years, annual population growth in the county has moderated slightly to 0.7 percent, resulting in an estimated population of 570,445. In absolute numbers, population growth was most extensive in Odenton-Crofton (+13,674 persons), but the proportional increase was the same as that of Glen Burnie-Linthicum at 0.9 percent.

Over the next five years, the population in Anne Arundel County is projected to grow at a slightly slower pace than the last nine years, with a 0.4 percent annual population increase or 2,015 persons as it grows to 580,521 persons in 2024. Between 2019 and 2024, the population in each submarket is expected to be 0.3 to 0.4 percent annually.

Household trends are generally considered a better indicator for housing demand than population trends. Between 2000 and 2010, the Anne Arundel County household base grew at an average annual rate of 1.1 percent or 2,071 households per year. Based on BMC projections, RPRG estimates that 210,235 households reside in the county in 2019. Between 2010 and 2019, the county's household base grew at an annual rate of 0.6 percent or 1,206 households a year. Odenton-Crofton experienced the fastest rate of growth, averaging 1.0 percent per year followed by Glen Burnie-Linthicum at 0.8 percent per year.

Over the next five years, Anne Arundel County is projected to continue adding households at a rate of 0.6 percent, adding 1,202 households per year, resulting in a household base of 216,243 in 2024.



Table 2 Population & Household Trends, 2000-2024

	Annapolis	Glen Burnie-Linthicum	Odenton-Crofton	Severna Park-Pasadena	Southern Anne Arundel	Anne Arundel County
Population						
2000 Population	132,312	86,012	132,533	109,804	28,995	489,656
2010 Population	142,456	91,190	156,585	115,808	31,617	537,656
2019 Population	147,660	99,181	170,259	120,429	32,916	570,445
2024 Population	150,247	101,048	172,991	122,698	33,537	580,521
Population Change 2000-2010						
Total Change	10,144	5,178	24,052	6,004	2,622	48,000
Annual Change # / %	1,014 0.7%	518 0.6%	2,405 1.7%	600 0.5%	262 0.9%	4,800 0.9%
Population Change 2010-2019						
Total Change	5,204	7,991	13,674	4,621	1,299	32,789
Annual Change # / %	578 0.4%	888 0.9%	1,519 0.9%	513 0.4%	144 0.4%	3,643 0.7%
Population Change 2019-2024						
Total Change	2,587	1,867	2,732	2,269	621	10,075
Annual Change # / %	517 0.3%	373 0.4%	546 0.3%	454 0.4%	124 0.4%	2,015 0.4%
2019 Population Density (persons/acre)	2.9	3.3	2.2	3.7	0.4	2.1
Group Quarters						
2019 Group Quarters	6,673	1,173	6,347	322	945	15,460
Households						
2000 Households	50,817	33,205	44,623	39,439	10,586	178,670
2010 Households	55,298	34,632	55,545	42,098	11,805	199,378
2019 Households	56,392	37,353	60,608	43,717	12,166	210,235
2024 Households	57,675	38,502	62,468	45,060	12,538	216,243
Household Change 2000-2010						
Total Change	4,481	1,427	10,922	2,659	1,219	20,708
Annual Change # / %	448 0.8%	143 0.4%	1,092 2.2%	266 0.7%	122 1.1%	2,071 1.1%
Household Change 2010-2019						
Total Change	1,094	2,721	5,063	1,619	361	10,857
Annual Change # / %	122 0.2%	302 0.8%	563 1.0%	180 0.4%	40 0.3%	1,206 0.6%
Household Change 2019-2024						
Total Change	1,283	1,149	1,861	1,343	372	6,008
Annual Change # / %	257 0.5%	230 0.6%	372 0.6%	269 0.6%	74 0.6%	1,202 0.6%
2019 Household Density (hhlds/acre)	1.1	1.2	0.8	1.4	0.2	0.8
2018 Average Household Size	2.50	2.62	2.70	2.75	2.63	2.64

Sources: Esri; RPRG, Inc.

NOTE: Annual % Change is an average compounded rate.

Like the county, the household base of five of the six submarket’s is expected to grow at an average annual rate of 0.6 percent. In absolute numbers, the Odenton-Crofton submarket will add significantly more households over the next five years, averaging 372 households per year. The next highest number of households will be added in the Severna Park-Pasadena submarket at 269 households per year.

As of 2019, the Severna Park-Pasadena submarket’s population and household density (3.7 persons and 1.4 households per acre) is greater than the other submarkets and Anne Arundel County as a whole. The Glen Burnie-Linthicum submarket has 3.3 persons and 1.2 households per acre and the Annapolis submarket has 2.9 persons and 1.1 households per acre. The Odenton-Crofton submarket is most comparable to the county, with 2.2 persons per acre and 0.8 households per acre. Reflecting its lower density, Southern Anne Arundel supports 0.4 persons and 0.2 households per acre.



Severna Park-Pasadena has the largest household size at 2.75 persons per household followed by Odenton-Crofton at 2.70. Conversely, on average, the smallest households are in the Annapolis submarket at 2.50 persons per household.

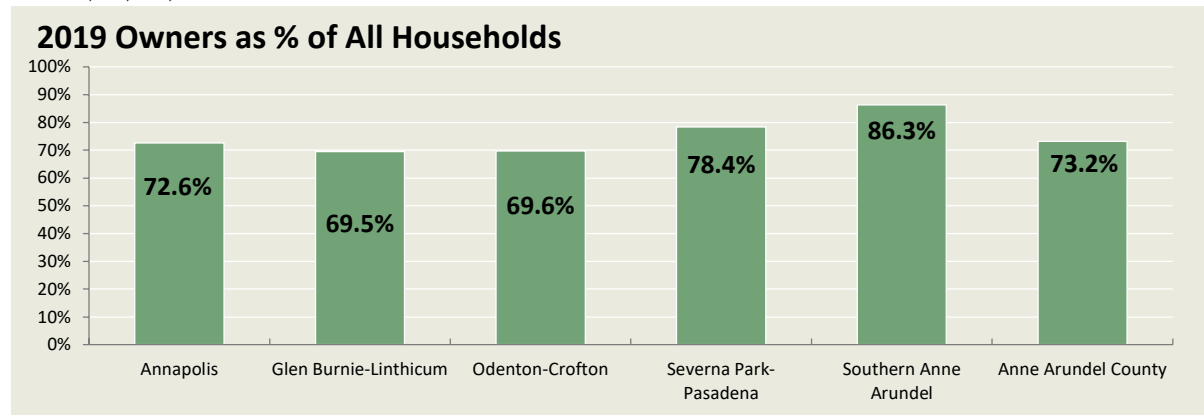
B. Tenure Characteristics

Just under three quarters of occupied housing units (73 percent or 153,866 units) in Anne Arundel County are owner-occupied (Table 3). The homeownership rate is highest in low density Southern Anne Arundel submarket (86.3 percent) and the Severna Park-Pasadena submarket (78 percent). The homeownership rate in the Annapolis submarket is comparable to the county average at 73 percent. The lowest homeownership rates are found in the Glen Burnie-Linthicum and Odenton-Crofton submarkets where almost 70 percent of households own their home.

Table 3 Households by Tenure

	Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel		Anne Arundel County	
Household Tenure (2019)												
Total Households	56,392		37,353		60,608		43,717		12,166		210,235	
% Renters	15,459	27.4%	11,405	30.5%	18,398	30.4%	9,444	21.6%	1,664	13.7%	56,369	26.8%
% Owners	40,933	72.6%	25,948	69.5%	42,210	69.6%	34,273	78.4%	10,502	86.3%	153,866	73.2%

Sources: Esri; BMC; RPRG, Inc.



C. Income Characteristics

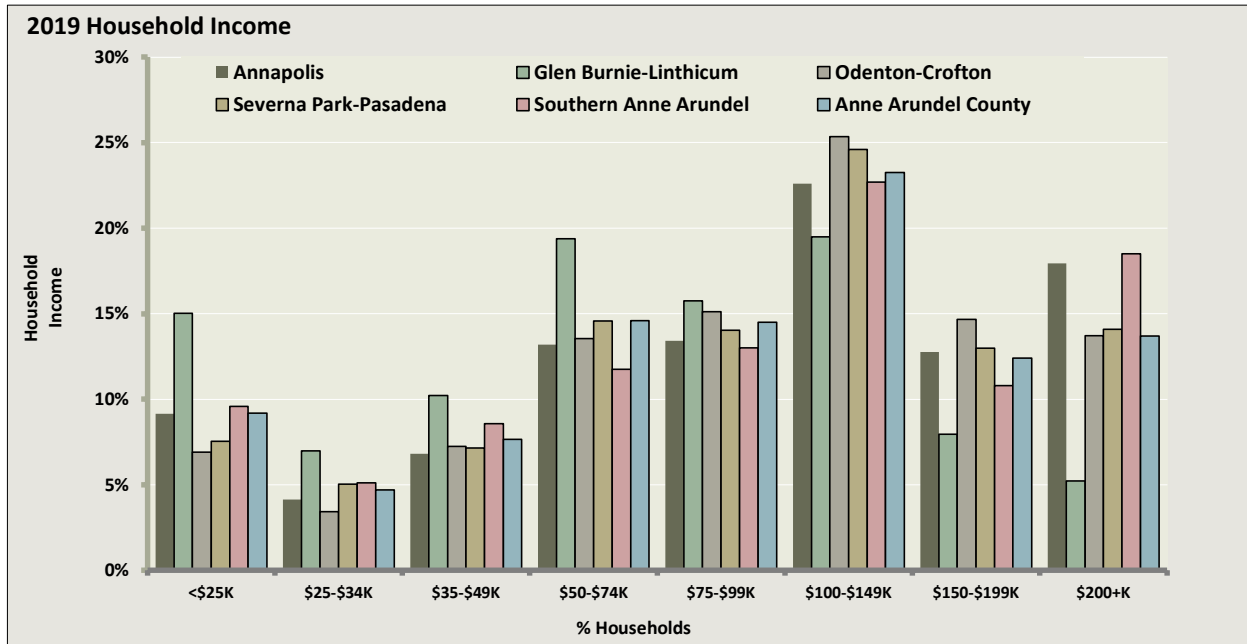
According to Esri, the 2019 median household income in Anne Arundel County is \$98,900 (Table 4). The Annapolis and Odenton-Crofton submarkets are the most affluent sections of the county with median incomes of \$107,285 and \$107,408, respectively. The median income is somewhat less in the Severna Park-Pasadena submarket at \$103,409 and in Southern Anne Arundel at \$102,830. The median income in the Glen Burnie-Linthicum submarket is significantly lower than the others at \$72,930.



Table 4 2019 Household Income Characteristics

Estimated 2019 Household Income		Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel		Anne Arundel County	
		#	%	#	%	#	%	#	%	#	%	#	%
less than	\$25,000	5,157	9.1%	5,608	15.0%	4,191	6.9%	3,294	7.5%	1,171	9.6%	19,306	9.2%
	\$25,000	2,327	4.1%	2,610	7.0%	2,077	3.4%	2,201	5.0%	623	5.1%	9,886	4.7%
	\$35,000	3,847	6.8%	3,815	10.2%	4,381	7.2%	3,124	7.1%	1,046	8.6%	16,100	7.7%
	\$50,000	7,444	13.2%	7,240	19.4%	8,210	13.5%	6,370	14.6%	1,435	11.7%	30,702	14.6%
	\$75,000	7,564	13.4%	5,887	15.8%	9,168	15.1%	6,136	14.0%	1,590	13.0%	30,463	14.5%
	\$100,000	12,746	22.6%	7,283	19.5%	15,364	25.3%	10,755	24.6%	2,774	22.7%	48,896	23.3%
	\$150,000	7,193	12.8%	2,965	7.9%	8,900	14.7%	5,679	13.0%	1,321	10.8%	26,078	12.4%
	\$200,000 over	10,114	17.9%	1,944	5.2%	8,316	13.7%	6,157	14.1%	2,262	18.5%	28,804	13.7%
Total		56,392	100%	37,353	100%	60,608	100%	43,717	100%	12,222	100%	210,235	100%
Median Income		\$107,285		\$72,939		\$107,408		\$103,409		\$102,830		\$98,900	

Source: ESRI; Real Property Research Group, Inc.





Based on the U.S. Census Bureau’s American Community Survey data, the breakdown of tenure, and household estimates, RPRG estimates that the median income of Anne Arundel County households by tenure is \$74,525 for renters and \$110,617 for owners (Table 5). Annapolis has the highest owner median income of \$120,300 while Odenton-Crofton has the highest median renter income of \$86,994. Glen Burnie-Linthicum has the lowest median income for homeowners (\$81,285) and renters (\$57,533).

Table 5 2019 Household Income by Tenure

Estimated 2019 Owner Household Income		Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel		Anne Arundel County	
		#	%	#	%	#	%	#	%	#	%	#	%
less than	\$25,000	2,671	6.5%	2,721	10.5%	2,568	6.1%	2,144	6.3%	817	7.5%	10,890	7.1%
	\$25,000 - \$34,999	1,283	3.1%	1,828	7.0%	1,420	3.4%	1,473	4.3%	506	4.7%	6,544	4.3%
	\$35,000 - \$49,999	2,478	6.1%	2,482	9.6%	2,477	5.9%	2,038	5.9%	905	8.4%	10,255	6.7%
	\$50,000 - \$74,999	4,864	11.9%	4,918	19.0%	4,689	11.1%	4,279	12.5%	1,234	11.4%	19,916	12.9%
	\$75,000 - \$99,999	5,268	12.9%	4,079	15.7%	6,055	14.3%	4,695	13.7%	1,454	13.4%	21,588	14.0%
	\$100,000 - \$149,999	9,601	23.5%	5,522	21.3%	10,526	24.9%	8,475	24.7%	2,513	23.2%	36,448	23.7%
	\$150,000 - \$199,999	5,726	14.0%	2,588	10.0%	7,034	16.7%	5,247	15.3%	1,223	11.3%	21,839	14.2%
	\$200,000 over	9,043	22.1%	1,810	7.0%	7,441	17.6%	5,923	17.3%	2,172	20.1%	26,386	17.1%
Total		40,933	100%	25,948	100%	42,210	100%	34,273	100%	10,824	100%	153,866	100%
Median Owner HH Income		\$120,330		\$81,285		\$118,506		\$114,799		\$109,875		\$110,617	

Estimated 2019 Renter Household Income		Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel		Anne Arundel County	
		#	%	#	%	#	%	#	%	#	%	#	%
less than	\$25,000	2,486	16.1%	2,886	25.3%	1,623	8.8%	1,151	12.2%	349	26.0%	8,416	14.9%
	\$25,000 - \$34,999	1,044	6.8%	783	6.9%	657	3.6%	728	7.7%	115	8.5%	3,342	5.9%
	\$35,000 - \$49,999	1,369	8.9%	1,333	11.7%	1,903	10.3%	1,085	11.5%	137	10.2%	5,845	10.4%
	\$50,000 - \$74,999	2,580	16.7%	2,322	20.4%	3,521	19.1%	2,091	22.1%	195	14.5%	10,786	19.1%
	\$75,000 - \$99,999	2,297	14.9%	1,808	15.8%	3,113	16.9%	1,441	15.3%	129	9.6%	8,874	15.7%
	\$100,000 - \$149,999	3,146	20.3%	1,761	15.4%	4,838	26.3%	2,280	24.1%	249	18.5%	12,448	22.1%
	\$150,000 - \$199,999	1,467	9.5%	377	3.3%	1,866	10.1%	432	4.6%	92	6.8%	4,239	7.5%
	\$200,000 over	1,070	6.9%	134	1.2%	875	4.8%	235	2.5%	81	6.0%	2,419	4.3%
Total		15,459	100%	11,405	100%	18,398	100%	9,444	100%	1,346	100%	56,369	100%
Median Renter HH Income		\$77,720		\$57,533		\$86,994		\$71,005		\$59,265		\$74,525	

Source: ESRI; Real Property Research Group, Inc.



IV. FOR SALE MARKET ANALYSIS

A. Owner Occupied Housing Stock Characteristics

As measured by the US Census Bureau in the American Community Survey (2013-2017), over three quarters of Anne Arundel County owner occupied housing stock in single family detached units with another 18 percent single family attached units (Table 6). The submarkets with the highest proportion detached units are Southern Anne Arundel, Severna Park and Glen Burnie-Linthicum. Townhouses are most prevalent in Odenton-Crofton which accounts for 47 percent of all the county’s owner-occupied townhouse inventory. Townhouses account for 13 to 16 percent of the owner stock in Annapolis, Glen Burnie-Linthicum and Severna Park-Pasadena. Multifamily units in buildings of five units or more account for 4.6 percent of the county’s owner stock, mostly in the Annapolis and Odenton-Crofton submarkets. Southern Anne Arundel and Odenton-Crofton has the only material representation of owner homes in other types of structures including mobile homes.

Development patterns in Anne Arundel County have shifted periodically over the decades as different segments of the county reach buildable capacity or are targeted for residential growth. Almost one-half of all county owner occupied units were constructed prior to 1980. The oldest submarket is Glen Burnie-Linthicum with a median year built of 1963 and two thirds of its units built before 1980. Half of the owner-occupied units in Annapolis and Severna Park-Pasadena were built pre 1980, generating a median year built of 1979 and 1978 respectively. The median year built of the owner stock in Southern Anne Arundel is 1984. The central county market of Odenton-Crofton has the youngest owner stock with a median year built of 1991.

Table 6 Existing Owner Occupied Housing Stock

	Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel		Anne Arundel County	
Owner Occupied Housing Stock												
Structure Type	40,820		25,640		42,240		33,549		10,312		152,561	
% Single Family Detached	31,041	76.0%	21,107	82.3%	25,188	59.6%	28,476	84.9%	8,940	86.7%	114,752	75.2%
% Single Family Attached	6,707	16.4%	3,397	13.2%	12,770	30.2%	4,419	13.2%	46	0.4%	27,339	17.9%
% Two, Three or Four Family	163	0.4%	53	0.2%	217	0.5%	104	0.3%	0	0.0%	537	0.4%
% Multifamily (5+ Units)	2,701	6.6%	872	3.4%	2,875	6.8%	487	1.5%	52	0.5%	6,987	4.6%
% Other (incl Mobile Homes)	208	0.5%	211	0.8%	1,190	2.8%	63	0.2%	1,274	12.4%	2,946	1.9%
Median Year Built	1979		1963		1991		1978		1984		1981	
% built pre 1980	20,434	50.1%	17,325	67.6%	14,391	34.1%	17,618	52.5%	4,255	41.3%	74,023	48.5%
% built in 1980s	8,244	20.2%	2,514	9.8%	4,944	11.7%	7,772	23.2%	2,064	20.0%	25,537	16.7%
% built in 1990s	6,367	15.6%	2,315	9.0%	12,181	28.8%	4,747	14.1%	2,012	19.5%	27,622	18.1%
% built 2000s	4,965	12.2%	1,879	7.3%	8,459	20.0%	2,540	7.6%	1,710	16.6%	19,553	12.8%
% 2010 or later	810	2.0%	1,607	6.3%	2,266	5.4%	872	2.6%	271	2.6%	5,825	3.8%

Source: American Community Survey, 2013-2017



B. Trends of MLS Sales

To gauge long term for sale trends, we first look at Anne Arundel County's housing trends over the last decade using statistics provided by the Bright MLS. This is the regional database system utilized by realtors and commonly referred to as the Multiple Listing Service (MLS). The four charts presented in Figure 1 show the trends in MLS sales county-wide from January 2000 to June 2019.

As the upper left graph indicates, median sales price experienced a downward adjustment after peaking at \$362,400 in mid-2007, following years of sharp increase. Over the following five years, home sale prices declined during the slow recovery from the Recession, bottoming out with a median sales price of \$257,000. Over the last seven years, the median home price in the county has trended upward, peaking in June 2019 with a median price of \$378,000, exceeding the previous peak in 2007.

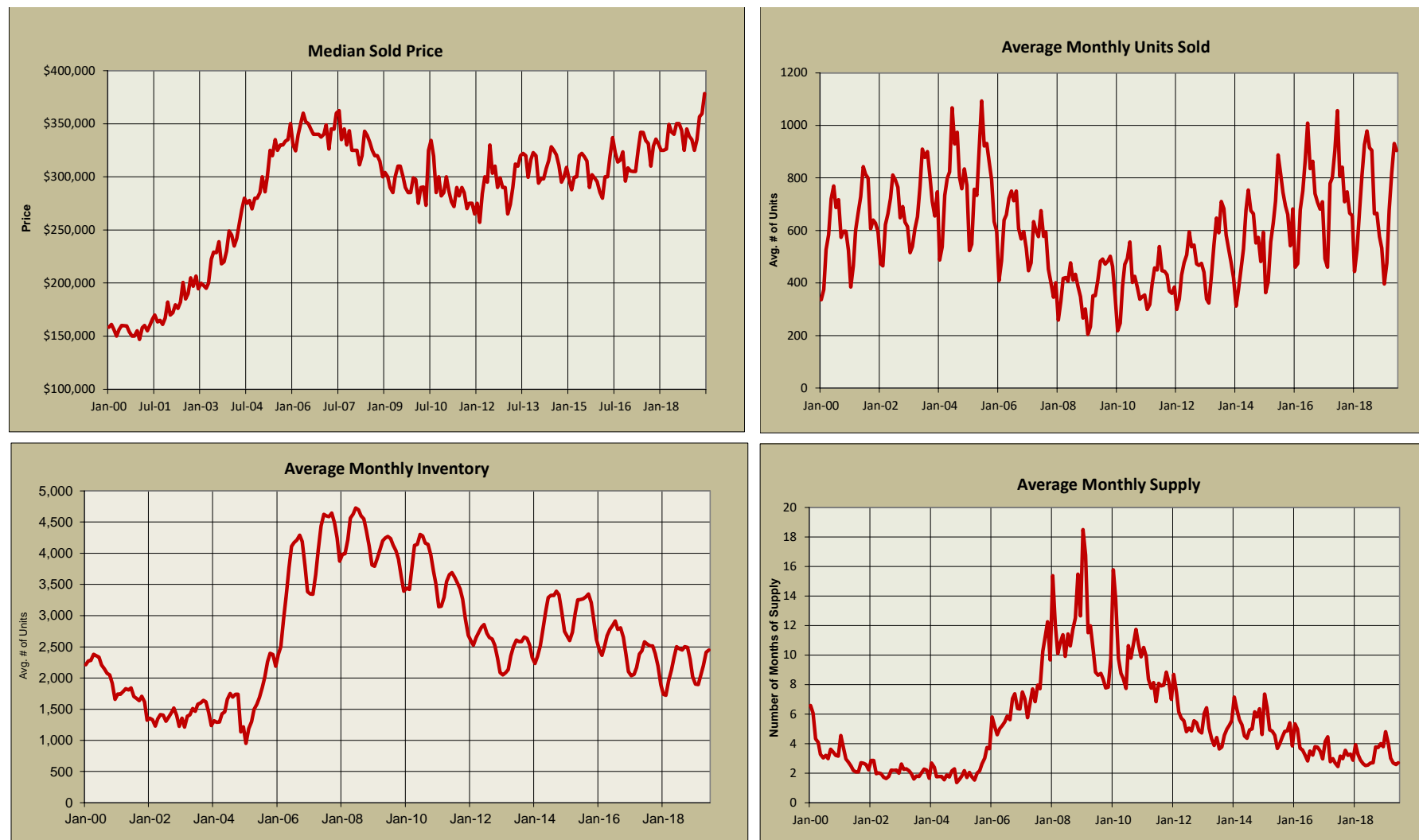
As indicated in the upper right graph, sales volume each month varies by season – a factor which is apparent over the course of the entire nearly 19-year study period. The number of units sold monthly peaked in mid-2005 with over 1,000 units a month but evidenced dramatic declines through 2010. Over the last nine years, sales volumes have trended up, again peaking over 1,000 units in June of 2016 and 2017. In June 2019, over 900 units were sold.

The graph in the lower left indicates the monthly inventory of units available for sale in Anne Arundel County over this period. Inventory levels in the early years of the previous decade were very low, averaging 1,600 units. As the market slowed, inventory began rising dramatically in 2006 and remaining high through 2010 with an average of 4,000 active listings. As sales accelerated from 2012, inventory has not kept up with an average of 2,300 listings monthly over the last three years, likely one reason for increasing prices.

The lower right graph displays the monthly supply, a function of both inventory and sales volume. From mid-2000 through mid-2005, the inventory hovered at relatively low levels, typically below a two-month supply as demand outpaced supply. The monthly supply began to increase in 2005 as the housing market conditions deteriorated. From early 2006 to 2010, the housing supply increased dramatically, peaking at an 18-month supply in January 2009. After peaking, the supply dropped dramatically and averaged a roughly seven-month supply from 2012 to 2014. Over the last two years, the MLS averaged a low 3.2 months of supply.



Figure 1 MLS Trends Anne Arundel County



Source: MD Board of Realtors July 2019.



To put the rise of house prices in context, we compared the trend of median household income to house prices (Table 7). Over the last 19 years, the median price of a home sold on the Multiple Listing Service has increased at a compounded rate of 4.3 percent. In comparison, the median income of a household in Anne Arundel County has increased at a compounded rate of 2.5 percent, only 58 percent as fast as home prices have increased. In the year 2000, the median house price was 2.54 times the median income in the county. By 2019, that ratio had increased to 3.52.

Table 7 Ratio of Median Sales Price to Median Household Income

Year	Median Sales Price	Median Household Income	Ratio of Price to Median Income
2000	\$155,850	\$61,393	2.54
2001	\$162,856		
2002	\$188,180		
2003	\$219,079		
2004	\$266,225		
2005	\$322,446		
2006	\$342,340		
2007	\$342,109		
2008	\$322,971		
2009	\$296,500		
2010	\$296,429	\$83,573	3.55
2011	\$280,583	\$84,320	3.33
2012	\$293,613	\$81,688	3.59
2013	\$305,987	\$84,511	3.62
2014	\$308,483	\$89,267	3.46
2015	\$303,888	\$89,450	3.40
2016	\$308,627	\$91,263	3.38
2017	\$324,604	\$92,575	3.51
2018	\$338,287	\$95,598	3.54
2019	\$348,198	\$98,900	3.52

Compounded House Price Growth 2000 to 2019 4.3%
Compounded Income Growth 2000 to 2019 2.5%

Source: Bright MLS; Esri, Claritas compiled by RPRG

C. Existing Home Sales

As part of our scope of work for this study, RPRG has conducted an analysis of residential property sales in Anne Arundel County over the last year. The source of this information is the MdProperty View FINDER Sales Transaction data issued by the Maryland Department of Planning. The MdProperty View information is based on data from The Maryland State Department of Assessment and Taxation. The most recent sales file issued for Anne Arundel County provides detailed information on 18,935 property sales transactions occurring between June 1, 2018 and May 29, 2019. Using that file as a starting point, RPRG extracted all sales of improved residential properties that were arms-length transactions. We further geocoded the information to classify the sales by submarket.

Based on RPRG’s analysis of sales transactions, RPRG identified 11,561 qualified residential transactions in Anne Arundel County over the most recent 12-month period (Table 8). Thirty one



percent of the transactions (3,539 sales) were in the Odenton-Crofton submarket, follow by the Annapolis submarket with 2,951 sales or 26 percent of all county sales. Both Glen Burnie and Severna Park-Pasadena each accounted for 20 percent of county sales, while Southern Anne Arundel accounted for 4 percent of sales.

The Annapolis submarket recorded the highest median sales price of \$402,700. With the most modern housing stock, Odenton-Crofton recorded the highest median price of \$351,854 despite offering a wide variety of home structure types. With a predominance of single family detached homes, Southern Anne Arundel reported an median sales price of \$349,995. Severna Park-Pasadena’s median sales price was slightly lower at \$331,200 with both detached and attached sales. Glen Burnie-Linthicum recorded the lowest median sales price of \$260,000.

Countywide, 64 percent of sales were single family detached homes, similar to Annapolis and Glen Burnie-Linthicum (Table 9). Three quarters of sales in Severna Park-Pasadena were detached homes. All sales in Southern Anne Arundel were detached homes while only 50 percent of sales in Odenton-Crofton were detached homes.

Table 8 Summary Sales by Submarket

Arms Length Residential Property Transfers						
Sub-Market	# Units	% of Sales	Avg Yr Built	Median Price	Average SF	\$/ Sq ft
Annapolis	2,951	26%	1980	\$402,700	1,954	\$206.04
Glen Burnie-Linthicum	2,324	20%	1977	\$260,000	1,521	\$170.99
Odenton-Crofton	3,539	31%	1995	\$351,854	1,962	\$179.37
Severna Park-Pasadena	2,257	20%	1980	\$331,200	1,751	\$189.13
Southern AA	490	4%	1976	\$349,995	2,076	\$168.60
Anne Arundel County	11,561	100%	1984	\$337,000	1,833	\$178.80

Source: Md Property View Sales Data File June 2019, compiled by Real Property Research Group, Inc.

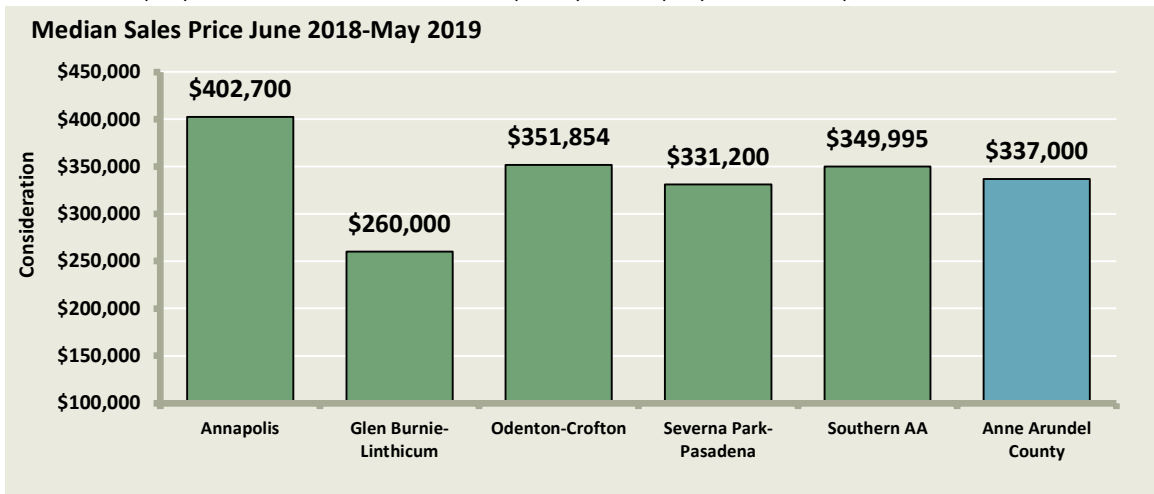




Table 9 Percent of Sales by Structure Type and Submarket

Sales by Structure Type and Submarket												
Structure Type	Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern AA		Anne Arundel County	
SFD	1,936	66%	1,536	66%	1,785	50%	1,667	74%	490	100%	7,414	64%
SFA	711	24%	689	30%	1,515	43%	546	24%			3,461	30%
MF	304	10%	99	4%	239	7%	44	2%			686	6%
Total	2,951	100%	2,324	100%	3,539	100%	2,257	100%	490	100%	11,561	100%

Source: Md Property View Sales Data File June 2019, compiled by Real Property Research Group, Inc.

Looking at sales by structure type, one quarter of single family detached sales in the county were in both Annapolis and Odenton-Crofton (Table 10). Glen Burnie-Linthicum and Severna Park-Pasadena each accounted for just over 20 percent of detached sales while Southern Anne Arundel only accounted for 7 percent of detached sales. Annapolis was the most expensive detached market with a median price of \$455,000 for 2,044 square feet followed by Odenton-Crofton with a median sales price for a detached unit of \$429,900. Severna Park-Pasadena reported a median detached pricing of \$385,000 while Southern Anne Arundel reported a median sale price of just under \$350,000. Glen Burnie-Linthicum recorded the lowest median detached housing price of \$250,000.

With 21 percent of county’s attached sales, the Annapolis submarket also supported the highest attached median sales price of \$331,000 for a relatively large 1,944 square feet of space. The Odenton-Crofton submarket accounted for 44 percent of the county’s attached sales, with a median sales price of \$320,000. Glen Burnie-Linthicum reported 20 percent of attached sales with a median price just over \$308,000. With only 16 percent of sales, Severna Park-Pasadena reported the lowest median attached price of \$235,000 for the smallest average unit size of 1,447 square feet and the oldest inventory with an average year built of 1991. No attached units were reported sold in Southern Anne Arundel.

With 44 percent of multifamily sales in the county, the Annapolis submarket had the highest median price of \$245,500. One third of multifamily sales were recorded in Odenton-Crofton with an average sales price of \$233,500 for the most modern inventory with an average year built of 2002. The Severna Park-Pasadena and Glen Burnie-Linthicum submarkets recorded relatively low multifamily pricing of \$170,450 and \$152,500, respectively, but the two submarkets only accounted for 20 percent of multifamily sales.



Table 10 Characteristics of Sales by Structure Type and Submarket

Single Family Detached Homes						
Sub-Market	# Units	% of Sales	Avg Yr Built	Median Price	Average SF	\$/ Sq ft
Annapolis	1,936	26%	1976	\$455,000	2,044	\$222.66
Glen Burnie-Linthicum	1,536	21%	1965	\$250,000	1,440	\$173.66
Odenton-Crofton	1,785	24%	1989	\$429,900	2,277	\$188.79
Severna Park-Pasadena	1,667	22%	1976	\$385,000	1,870	\$205.91
Southern AA	490	7%	1976	\$349,995	2,078	\$168.39
Anne Arundel County	7,414	100%	1976	\$377,000	1,932	\$185.87

Single Family Attached						
Sub-Market	# Units	% of Sales	Avg Yr Built	Median Price	Average SF	\$/ Sq ft
Annapolis	711	21%	1990	\$331,000	1,944	\$170.26
Glen Burnie-Linthicum	689	20%	2001	\$308,388	1,759	\$175.31
Odenton-Crofton	1,515	44%	1999	\$320,000	1,724	\$185.64
Severna Park-Pasadena	546	16%	1991	\$235,000	1,447	\$162.38
Southern AA		0%				
Anne Arundel County	3,461	100%	1996	\$305,000	1,732	\$176.75

Multi Family Units						
Sub-Market	# Units	% of Sales	Avg Yr Built	Median Price	Average SF	\$/ Sq ft
Annapolis	304	44%	1989	\$245,500	1,308	\$187.69
Glen Burnie-Linthicum	99	14%	1996	\$152,500	1,064	\$143.37
Odenton-Crofton	239	35%	2002	\$233,500	1,343	\$173.81
Severna Park-Pasadena	44	6%	1992	\$170,450	1,229	\$138.73
Southern AA		0%				
Anne Arundel County	686	100%	1996	\$225,000	1,276	\$173.32

Source: Md Property View Sales Data File June 2019, compiled by Real Property Research Group, Inc.



V. FOR SALE AFFORDABILITY ANALYSIS

A. Price Points for Affordable Units

One of the objectives of this analysis is to gauge the need for affordable homeownership opportunities for moderate income households in Anne Arundel County. For purposes of this analysis, we define moderate income households as those households with incomes from 60 percent to 100 percent of Areawide Median Income (AMI). Table 11 presents the current tax credit income limits applicable to Anne Arundel County for affordable programs. Based on Esri's estimated current average household size of 2.65, we have highlighted the computed adjusted incomes of three person households at 60 percent, 80 percent and 100 percent of AMI.

Assuming an FHA mortgage with a 6 percent down payment and 28 percent of gross income is spent on Principal, Interest, Taxes and Insurance (PITI), we computed the house price households at certain AMI levels could afford (Table 12). We used a conservative 28 percent of gross income rather than market industry standard of 31 percent of income for PITI to reflect a conservative underwriting standards, especially given credit issues that typically come up with moderate income households.

- Assuming an income at 60 percent of median income adjusted for household size, a three-person household would have an income below \$54,956.
- Based on current interest rates and a 30 year loan, a household with a \$54,400 income could afford a house priced at \$219,000.
- Within Anne Arundel County, 158,857 households can afford a \$219,000 unit.
- Assuming an income at 80 percent of AMI adjusted for household size, a three-person household would have an income below \$72,773. Based on the same underwriting assumptions discussed above, this household could afford a house priced at \$290,000. As of 2019, 136,976 households could afford a \$290,000 unit.
- Subtracting the number of households qualified for an 80 percent unit from the number of households qualified for a 60 percent unit, a band of 21,881 households would be income qualified for a unit targeted between 60 percent and 80 percent of AMI.
- We also conducted this same analysis for renter households, concluding that a band of 6,928 households would be income qualified for a unit targeted between 60 percent and 80 percent of AMI.
- The analysis was then conducted to compare the band of renter households that are income qualified for units targeted between 80 percent and 100 percent of AMI (21,426 households of which 6,341 are renter households)



Table 11 2019 Multifamily Tax Subsidy Project (MTSP) Income limits; Baltimore MSA

HUD 2019 Median Household Income									
Baltimore-Columbia-Towson, MD MSA \$101,000									
Very Low Income for 4 Person Household \$50,500									
2019 Computed Area Median Gross Income \$101,000									
Household Income Limits by Household Size:									
Household Size	30%	40%	50%	60%	80%	100%	120%	150%	200%
1 Person	\$21,210	\$28,280	\$35,350	\$42,420	\$56,560	\$70,700	\$84,840	\$106,050	\$141,400
2 Persons	\$24,240	\$32,320	\$40,400	\$48,480	\$64,640	\$80,800	\$96,960	\$121,200	\$161,600
3 Persons	\$27,270	\$36,360	\$45,450	\$54,540	\$72,720	\$90,900	\$109,080	\$136,350	\$181,800
4 Persons	\$30,300	\$40,400	\$50,500	\$60,600	\$80,800	\$101,000	\$121,200	\$151,500	\$202,000
5 Persons	\$32,730	\$43,640	\$54,550	\$65,460	\$87,280	\$109,100	\$130,920	\$163,650	\$218,200
6 Persons	\$35,160	\$46,880	\$58,600	\$70,320	\$93,760	\$117,200	\$140,640	\$175,800	\$234,400
7 Persons	\$37,590	\$50,120	\$62,650	\$75,180	\$100,240	\$125,300	\$150,360	\$187,950	\$250,600
8 persons	\$40,020	\$53,360	\$66,700	\$80,040	\$106,720	\$133,400	\$160,080	\$200,100	\$266,800

Source: U.S. Department of Housing and Urban Development

Table 12 Affordability Analysis – Income Qualification at Various AMI Levels

	60% of AMI Family of 3	80% of AMI Family of 3	100% of AMI Family of 3
Sales Price	\$219,000	\$290,000	\$360,000
% Down Payment	6%	6%	6%
\$ Down Payment	\$13,140	\$17,400	\$21,600
Term	30	30	30
Interest Rate (+MIP)	4.65%	4.65%	4.65%
Local Property Tax Rate	1.05	1.05	1.05
Payment	\$1,282	\$1,698	\$2,108
Required Income Range	\$54,956	\$72,773	\$90,339
# Qualified Household	158,857	136,976	115,551
Band of Qualified Households	21,881		
		21,426	
# Qualified Renter Households	38,907	31,979	25,638
Band of Qualified Renter Households	6,928		
		6,341	



B. Supply of Affordable For Sale Units

We then computed the supply of affordable for sale units that was available in the county over the last year by varying price cohorts (Table 13). Of the 11,564 units that sold over the last 12 months, 2,333 were priced to address households between 60 percent and 80 percent of AMI. Another 2,296 sales could address households with incomes between 80 percent and 100 percent of AMI.

Odenton-Crofton and Glen Burnie each accounted between 28 and 30 percent of sales affordable to households at 60 percent of AMI whereas Annapolis and Odenton-Crofton each accounted for 20 percent of these most affordable sales. Looking at sales of units affordable for households between 60 and 80 percent of AMI, Odenton-Crofton accounted for 39 percent of transfers, while Annapolis accounted for nearly one quarter of sales. Glen Burnie and Severna Park-Pasadena accounted for 18 to 15 percent of these sales of modest priced homes.

Table 13 Price Distribution of Housing Sales, Anne Arundel County June 2018 to May 2019

	<i>From</i>	<i>To</i>	<i>Anne Arundel County</i>	
	Less	\$150,000	665	5.8%
	\$150,000	\$199,999	883	7.6%
	\$200,000	\$218,999	381	3.3%
60 % AMI	\$219,000	\$289,999	2,333	20.2%
80% AMI	\$290,000	\$359,999	2,296	19.9%
100% AMI	\$360,000	\$399,999	1,010	8.7%
	\$400,000	\$449,999	941	8.1%
	\$450,000	\$499,999	706	6.1%
	\$500,000	\$549,999	621	5.4%
	\$550,000	More	1,728	14.9%
			11,564	100.0%
Median Sales Price			\$337,000	

Source: Md Property View Sales Data File June 2019, compiled by Real Property Research Group, Inc.

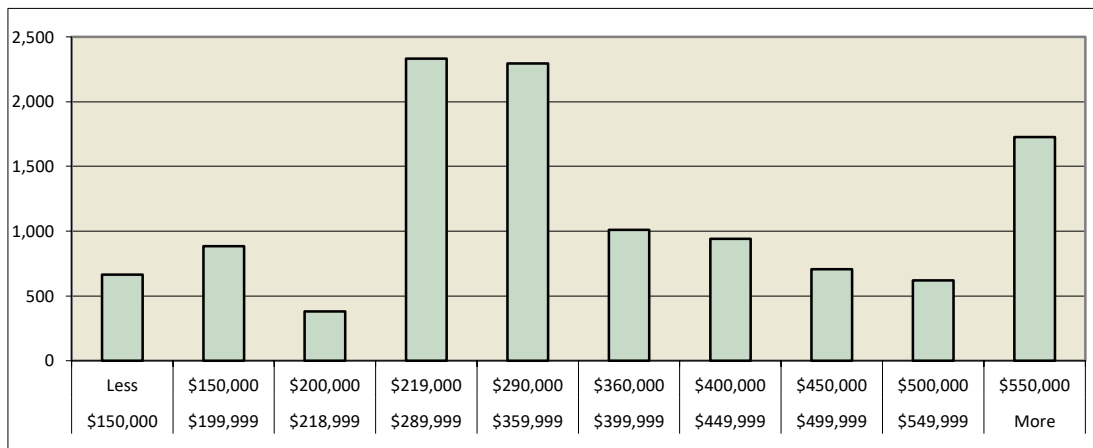
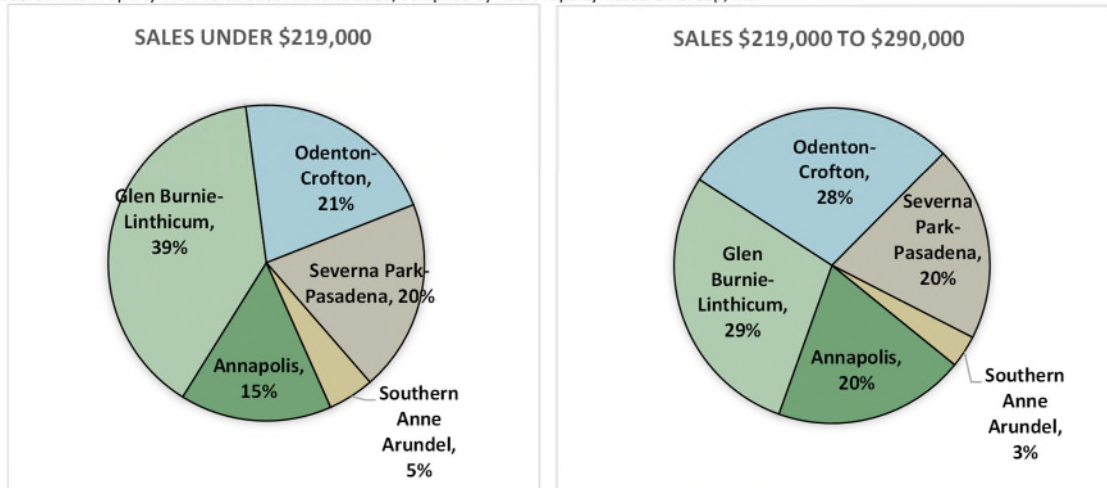




Table 14 Price Distribution of Housing Sales, Anne Arundel County Submarkets

From	to	Annapolis		Glen Burnie-Linthicum		Odenton-Crofton		Severna Park-Pasadena		Southern Anne Arundel	
Less	\$150,000	84	2.8%	333	14.3%	97	2.7%	116	5.1%	35	7.1%
	\$150,000	140	4.7%	319	13.7%	202	5.7%	185	8.2%	37	7.6%
	\$200,000	76	2.6%	101	4.3%	108	3.1%	77	3.4%	19	3.9%
60% AMI	\$219,000	458	15.5%	669	28.8%	660	18.6%	469	20.8%	77	15.7%
80% AMI	\$290,000	449	15.2%	510	21.9%	817	23.1%	420	18.6%	100	20.4%
100% AMI	\$360,000	265	9.0%	165	7.1%	393	11.1%	152	6.7%	35	7.1%
	\$400,000	332	11.2%	94	4.0%	300	8.5%	176	7.8%	39	8.0%
	\$450,000	209	7.1%	64	2.8%	259	7.3%	141	6.2%	33	6.7%
	\$500,000	188	6.4%	48	2.1%	249	7.0%	122	5.4%	14	2.9%
	\$550,000	751	25.4%	22	0.9%	455	12.9%	399	17.7%	101	20.6%
		2,952	100.0%	2,325	100.0%	3,540	100.0%	2,257	100.0%	490	100.0%
Median Price		\$402,700		\$260,000		\$351,854		\$331,200		\$349,995	

Source: Md Property View Sales Data File June 2019, compiled by Real Property Research Group, Inc.

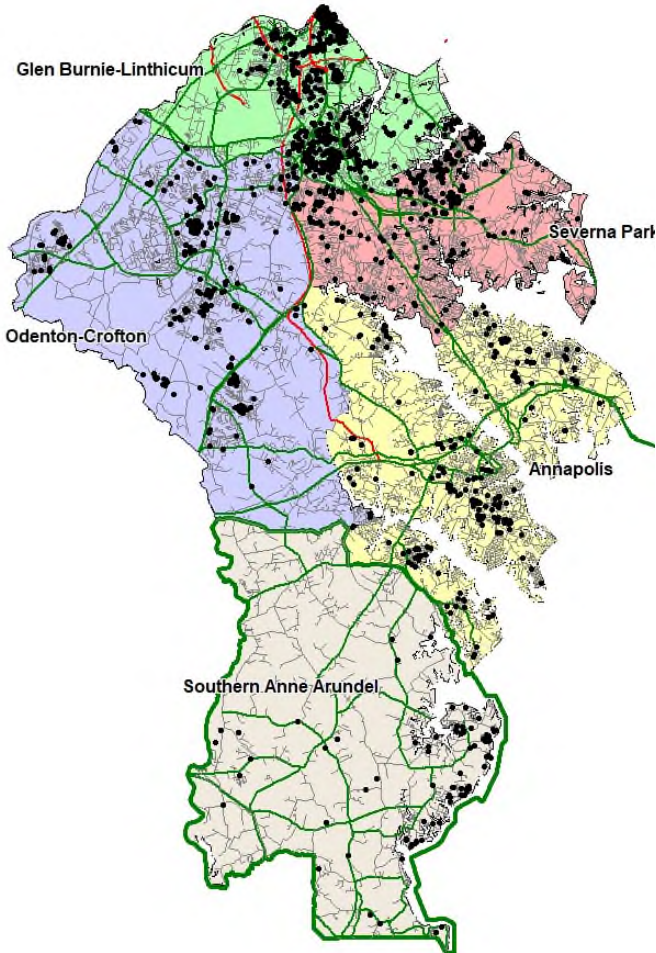


The inventory of affordable units is not evenly distributed throughout the submarkets in which they reside. Looking at sales of homes valued under \$219,000 and from \$219,000 to \$290,000, the neighborhoods with affordable units are evident in each of the submarkets (Map 2).

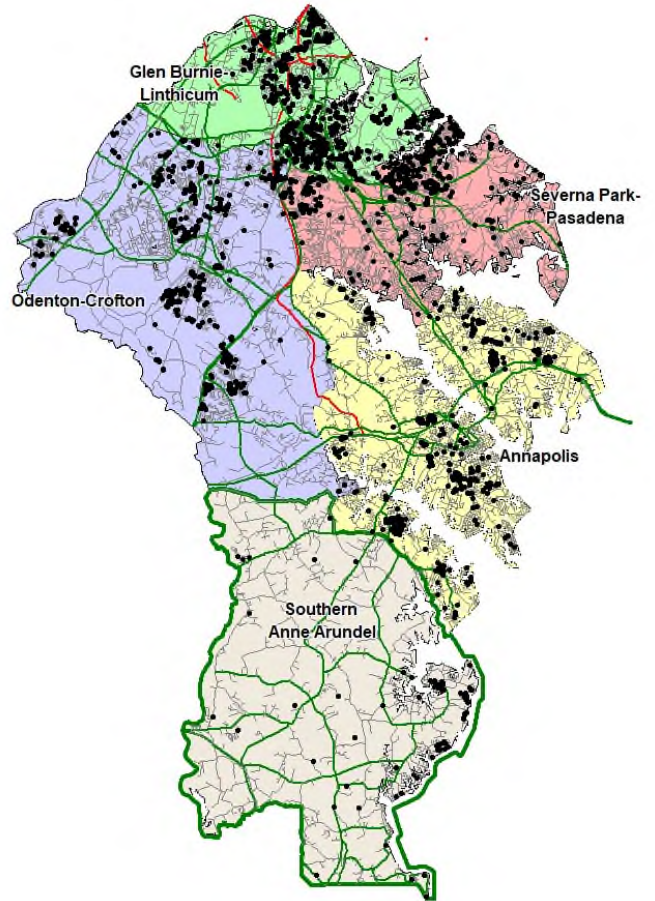


Map 2 Geographic Distribution of Sales under \$290,000

Sales Under \$219,000



Sales from \$219,000-\$290,000





C. Quality of Affordable Units

The housing quality of moderately priced units is relatively low. Through the appraisal process, the state of Maryland has developed a Computer Assisted Mass Appraisal (CAMA) dataset that captures qualitative data on datapoints. The latest version of CAMA data is January 2014 (new data will be released later this year). One characteristic captured in the CAMA data is STRUGRAD, which captures a rating of the structure grade. Grade codes range from the lowest 1 to highest 9 quality of structure.

Of the 4,263 sales over the last 12 months with consideration under \$290,000, RPRG was able to link 3,552 sales with CAMA data that graded structures. Of the sales that had information, none were rated in the upper 40 percent of the housing quality scale (6-9) and less than 1 percent were rated 5 of 9 in terms of housing quality (Table 15). Overall, 90 percent of the units were rated 3 on a scale of 1 to 9. There is little variation of that rating by submarket or for sales under \$219,000 (priced to address households with incomes below 60 percent of AMI) or priced between \$219,000 and \$290,000 (priced to address households with incomes between 60 and 80 percent of AMI).

This data indicates that a great majority of sales under \$290,000 have some quality issues which would likely need to be addressed to insure the provision of quality housing.

Table 15 Moderately Priced Sales by Structure Grade

Sales Under \$219,000							
Sub-Market	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Rating 6-9	Total
Annapolis	2	20	145	9	0	0	176
Glen Burnie-Linthicum	4	26	599	10	0	0	639
Odenton-Crofton	1	11	254	5	4	0	275
Severna Park-Pasadena	0	36	277	6	2	0	321
Southern AA	0	19	51	2	0	0	72
Anne Arundel County	7	112	1,326	32	6	0	1,483
% of County Sales under \$219K	0.5%	7.6%	89.4%	2.2%	0.4%	0.0%	100.0%

Sales \$219,000-\$290,000							
Sub-Market	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Rating 6-9	Total
Annapolis	0	19	303	35	1	0	358
Glen Burnie-Linthicum	0	13	603	29	0	0	645
Odenton-Crofton	1	11	476	34	7	0	529
Severna Park-Pasadena	3	23	429	8	2	0	465
Southern AA	1	6	59	6	0	0	72
Anne Arundel County	5	72	1,870	112	10	0	2,069
% of County Sales \$219K-\$290K	0.2%	3.5%	90.4%	5.4%	0.5%	0.0%	100.0%

Sales Under \$290,000							
Anne Arundel County	12	184	3,196	144	16	0	3,552
% of County Sales under \$290K	0.3%	5.2%	90.0%	4.1%	0.5%	0.0%	100.0%

Source: Md Property View Sales Data File June 2019, CAMA data January 2014 compiled by Real Property Research Group, Inc.



D. Balance of Affordable Units to Moderate Income Renter Households

If the objective of the analysis is to determine the inventory available for moderate income renters to convert to homeownership, the numbers are dramatic. Over the last year, inventory of moderately priced available homes for purchase could only address one third of income qualified moderate income renters (Table 16).

Table 16 Ratio of Affordable Sales to Moderate Income Households

Income Bands	June-May 2019 Sales	Qualified Renter Hhlds	Sales as Percent of Qualified Hhlds
60-80% AMI	2,333	6,928	34%
80-100% AMI	2,296	6,341	36%

E. Conclusions

Based on the analysis of property transfers and demographic characteristics of the county, it is obvious that there is a shortage of affordable homes to address the shelter needs of moderate income households.

- Home prices are increasing almost twice as fast as household incomes. Over the last 19 years, house prices have increased a compounded annual rate of 4.3 percent compared to a 2.5 percent compounded annual increase in household income.
- Over the last year, inventory of moderately priced available homes purchased could only address one third of income qualified moderate income renters.
- The inventory of affordable units is not evenly distributed throughout the County. Looking at sales of homes valued under \$290,000, the northern portion of Odenton-Crofton and Glen Burnie-Linthicum submarket market are home to many of the affordable units.
- Based on assessment qualitative analysis of the housing stock, 90 percent of homes sold under \$290,000 have some quality issues which would likely need to be addressed to insure the provision of quality housing.



APPENDIX 1 UNDERLYING ASSUMPTIONS & LIMITING CONDITIONS

In conducting the analysis, we will make the following assumptions, except as otherwise noted in our report:

1. There are no zoning, building, safety, environmental or other federal, state or local laws, regulations or codes which would prohibit or impair the development, marketing or operation of the subject project in the manner contemplated in our report, and the subject project will be developed, marketed and operated in compliance with all applicable laws, regulations and codes.
2. No material changes will occur in (a) any federal, state or local law, regulation or code (including, without limitation, the Internal Revenue Code) affecting the subject project, or (b) any federal, state or local grant, financing or other program which is to be utilized in connection with the subject project.
3. The local, national and international economies will not deteriorate, and there will be no significant changes in interest rates or in rates of inflation or deflation.
4. The subject project will be served by adequate transportation, utilities and governmental facilities.
5. The subject project will not be subjected to any war, energy crisis, embargo, strike, earthquake, flood, fire or other casualty or act of God.
6. The subject project will be on the market at the time and with the product anticipated in our report, and at the price position specified in our report.
7. The subject project will be developed, marketed and operated in a highly professional manner.
8. No projects will be developed which will be in competition with the subject project, except as set forth in our report.
9. There are neither existing judgments nor any pending or threatened litigation which could hinder the development, marketing or operation of the subject project.

The analysis will be subject to the following limiting conditions, except as otherwise noted in our report:

1. The analysis contained in this report necessarily incorporates numerous estimates and assumptions with respect to property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material.
2. Our absorption estimates are based on the assumption that the product recommendations set forth in our report will be followed without material deviation.
3. All estimates of future dollar amounts are based on the current value of the dollar, without any allowance for inflation or deflation.
4. We have no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal matters, environmental matters, architectural matters, geologic considerations, such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering matters.
5. Information, estimates and opinions contained in or referred to in our report, which we have obtained from sources outside of this office, are assumed to be reliable and have not been independently verified.
6. The conclusions and recommendations in our report are subject to these Underlying Assumptions and Limiting Conditions and to any additional assumptions or conditions set forth in the body of our report.