Homebuyer Market Analysis for the Virginia Beach Metropolitan Area

Prepared for
Community Housing Partners Corporation

Prepared by

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Introduction

The Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (MSA), popularly known as the Tidewater region, is the 30th largest metropolitan area in the United States and is one of the few metropolitan areas that are not dominated by a large central city. The geography of the area has traditionally promoted a pattern of decentralized growth along the region's multiple rivers and the mouth of the Chesapeake Bay, which have promoted multiple nodes of commerce and shipping. The tidewaters of the Atlantic Ocean have shaped the regional development pattern into a multi-nucleated complex serviced by a spaghetti bowl of federal and state highways.

Community Housing Partners Corporation contracted the Virginia Tech Center for Housing Research (VCHR) to perform a homebuyer market analysis for the Tidewater Region, concentrating on first-time homebuyers in the affordable housing market. In addition to analyzing this market for the MSA, the analysis focuses on the six major jurisdictions within the MSA: the cities of Virginia Beach, Norfolk, Portsmouth, Chesapeake, Hampton and Newport News.[1]

This report summarizes the findings of that analysis. The primary focus of the analysis is on projections of first-time owner demand in targeted income ranges from 2000 to 2010, as well as the supply of housing affordable to these buyers.

Methodology and assumptions

First-time homebuyers are a subset of the total demand for owner-occupied housing. The VCHR Housing Demand Model projects the number of owner and renter occupied housing units by household type, age of the householder, and household income. Household types include married couples, other families, and non-family households. Single adults with children constitute the bulk of the "other family" category. Any household with two or more related persons constitutes a family household. Non-family households are single individuals and unrelated roommates.

First-time homebuyers were estimated based on ownership rates controlling for the age of the householder. All homeowners under the age of 25 and between the ages of 25 and 34 were assumed to be first-time buyers during the previous ten years. Those under the age of 25 have only recently started to live on their own and obviously were not homeowners ten-years before. There are also very few householders between the ages of 25 and 34 who were already homeowners ten years previously. The year 2000 ownership rate for householders under the age of 25 for the MSA was 18% and was only 12% among those with incomes below $60,000. The ownership rate for householders aged 25-34 was 57% for all households and 47% for those with incomes below $60,000. However, the rate of household formation for married-couple households and for single-parent households increases significantly after age 24. Consequently, our assumption that all owners aged 25-34 were first-time buyers during the previous ten years only overstates the number of first-time buyers in that age group by 10%.

The number of first-time buyers between the ages of 35-44 and 45-54 was estimated based on the difference between ownership rates (controlling for household type and income) at these ages and for the same cohort ten years previously. The incremental rate for first-time buyers for 35-44 year olds is

[1] The MSA includes additional jurisdictions to these six cities that are not separately analyzed.

the difference between ownership rates for 35-44 year olds and 25-34 year olds. The incremental rate for first-time buyers for 45-54 year olds is the difference between the ownership rate for 45-54 year olds and 35-44 year olds. Few owners aged 55 and over are first-time buyers so this age group was excluded from our analysis.

The number of first-time homebuyers was projected to 2010 using the VCHR Housing Demand Model. The projections included household type, age of householder and income. The projections for 2010 provided in this report represent first-time buyers during the current decade. Consequently, an easy approximation of the average level of annual demand is one-tenth of the projection for 2010. (Annual demand levels are highly influenced by interest rates, employment patterns and current prices for units on the market, which can vary significantly from year to year. The VCHR Housing Demand Model reflects demographic trends that influence housing demand. Interest rates and unemployment rates are assumed to remain constant at their level in the base period, the year 2000. The decline in interest rates after 2000 has stimulated a significant increase in ownership demand, including an increase in first-time buyers. Whether these increased levels of demand will be sustained during the decade remains uncertain.)

The targeted incomes for first-time buyers identified by Community Housing Partners Corporation are between 30% and 120% of the Area Median Family Income (AMFI). The AMFI for the metropolitan area in 2000 was $48,000. This income range is further divided into 30-50% AMFI, 51-80% AMFI, 81-100% AMFI, and 101-120% AMFI. The actual income limits at each of these levels are adjusted for household size and consequently overlap, as shown in Table 1. The income categories are defined for the metropolitan area and applied to any jurisdiction within that area.

Table 1. Income Categories from 31%-120% AMFI

Income range ($ 2000)			
31-50%	51-80%	81-100%	101-120%
$16,800 – 31,700	$26,900 – 50,700	$33,625 – 63,375	$40,350 – 76,050

Source: HUD Guidelines and Center for Housing Research

Total First-time Homebuyers

Table 2 provides our estimates of first-time buyers for the MSA and the six local jurisdictions, for the time periods of 1990-2000 and 2000-2010. There will be approximately 39,000 first-time buyers with incomes between 31% and 120% of the AMFI in the MSA from 2000 to 2010, a slight decline from the 1990 to 2000 level. Annually this represents an average of 3,900 first-time homebuyers in the MSA in the targeted incomes, ranging from approximately 220 per year in Portsmouth to 1,220 per year in Virginia Beach. Except for Chesapeake, the number of first-time homebuyers is expected to decrease slightly during the current decade as compared to the 1990s.

Table 2. First time Homebuyers (31% AMFI to 120% AMFI)

			Change between decades
	1990 - 2000	2000 - 2010	
MSA	40,723	39,141	-1,582
Chesapeake	5,341	5,746	405
Hampton	3,791	3,207	-584
Newport News	5,302	4,903	-399
Norfolk	5,095	4,656	-439
Portsmouth	2,478	2,233	-245
Virginia Beach	12,623	12,233	-390

Source: Census 2000 and VCHR model

First -time Homebuyers by Income

Ownership demand increases steadily with increased income and most households with high incomes are homeowners. Lower income households are more likely to be in the renter market. Overall ownership rates by income category are provided in Table 3 and range from 29% to 80% from extremely low-income households to those with incomes above 120% of the AMFI.

Table 3. Ownership Rates by Income, Tidewater Metro Area, 2000

LT30	30-50	50-80	80-100	100-120	120+
29.4%	41.0%	50.3%	59.2%	67.8%	79.7%

Source: Census 2000 and VCHR model

The number of first-time homebuyers in a given income category reflects the total number of households in that category and the percent of first-time owners, controlling for age. It also reflects differences in the width of income categories. For example, the 51-80% AMFI category has the largest number of first-time buyers but is also one-and-a-half times as wide as the other categories shown in Table 4.

Table 4. First-Time Buyers by Income, 2001-2010

	Income Range			
	31-50%	51-80%	81-100%	101-120%
MSA	5,156	13,160	10,340	10,484
Chesapeake	717	1,934	1,504	1,591
Hampton	443	1,098	932	734
Newport News	631	1,650	1,290	1,332
Norfolk	702	1,806	1,093	1,055
Portsmouth	371	802	524	537
Virginia Beach	1,274	4,285	3,334	3,340

Source: Census 2000 and VCHR model

The number of first-time buyers estimated for income categories above 50% AMFI is substantial larger than for the 31-50% AMFI category. Table 4 clearly shows that the bulk of the targeted market is in the income categories above 50% AMFI, although there are an estimated 515 first-time buyers annually in the 31-50% AMFI category in the MSA.

As shown in Table 5, the number of first-time buyers is expected to decline slightly during the current decade compared to the 1990s, except for Chesapeake. This decline is expected to be larger in the 51-80% AMFI category than the other targeted income categories. Although the number of first-time buyers is projected to decline, it is important to remember that there will be nearly 40,000 first-time buyers in the metropolitan area in the targeted income range during the current decade.

Table 5. Change between Decades in First Time Buyers by Income

	Income Range			
	31-50%	51-80%	81-100%	101-120%
MSA	-160	-774	-349	-298
Chesapeake	61	114	109	120
Hampton	-84	-261	-128	-112
Newport News	-56	-177	-76	-96
Norfolk	-84	-191	-82	-82
Portsmouth	-34	-94	-61	-56
Virginia Beach	-22	-149	-134	-86

Source: Census 2000 and VCHR model

First time Homebuyers by Household Type

Table 6 shows the estimate of first time homebuyers for the three different household types, for all the local jurisdictions and MSA as a whole. Married-couple families are the most likely household type to be homeowners and are approximately 2.5 to 3 times the number of first-time buyers in the other family and non-family household categories. Although families account for three-fourths of all first-time buyers, the number of non-family first-time buyers is projected to exceed single-parent first-time buyers in the targeted income range.

Table 6. First Time Buyers by Household Type, 2000 - 2010 (30%-120% AMFI)

	Married Couple	Other-Family	Non-Family
MSA	22,334	7,737	9,070
Chesapeake	3,247	1,267	1,232
Hampton	1,627	642	938
Newport News	2,802	991	1,110
Norfolk	2,414	935	1,307
Portsmouth	1,117	555	562
Virginia Beach	7,159	2,373	2,700

Source: Census 2000 and VCHR model

In order to better understand these housing demand projections, we have segmented the projected demand in targeted first time homebuyers into four age groups for families (under 25, 25-34, 35-44, and 45-54). (Age detail for non-families is not available.) The first-time homebuyers market is heavily influenced by a person's age. Young adults are typically better off renting than owning, at least until their employment and family lives are better established. The impact of age on homeownership is so strong that more than 2-of-3 first time homebuyers are between the ages of 25 and 34 (Table 7). The second largest age group for first-time buyers is 35-44 years old.

Table 7. Family First Time Homebuyers By Age, 2000 - 2010

	<25	25-34	35-44	45-54
MSA	1,240	17,368	7,854	3,610
Chesapeake	217	2,706	1,193	398
Hampton	55	1,084	755	375
Newport News	149	2,059	731	855
Norfolk	189	1,691	1,045	425
Portsmouth	26	942	499	204
Virginia Beach	368	5,742	2,660	763

Source: Census 2000 and VCHR model

The Supply of Affordable Housing

The housing supply affordable to first-time buyers in the targeted income range is the number of owner-occupied and vacant for sale units that could be purchased with a maximum payment of 30% on income at prevailing interest rates (5.75%) and a 5% downpayment. A minimum house price of $50,000 is assumed necessary for sufficient quality.

The affordable housing supply is estimated for each of the six local jurisdictions and for the metropolitan area. Based on these assumptions, we calculated the maximum house price within each income category. To estimate the number of affordable housing units for each category, we estimated the number of vacant for sale and owner-occupied units from Census 2000 that were between the affordable price ranges for each income category. This interpolation results in the estimated number of affordable housing units for eachAMFI income category provided in Table 8.

Table 8. House Payment and Maximum Price by Income Category

	Targeted Income Categories			
	@50%mfi	@80%mfi	@100%mfi	@120%mfi
Max income	24000	41450	48000	57600
Max payment	600	1036.25	1200	1440
Max price	$102,815	$177,570	$205,630	$246,756

Source: Census 2000 and VCHR model

Table 9 provides the estimated total number of affordable housing units in 2000 across each income category. It is important to note that homeowners with incomes higher than the targeted range can also afford the units affordable to lower income categories. The affordable supply for households in the 100-120% AMFI category includes the units listed for all of the income categories below this. Consequently, the number of total units affordable at the 100-120% AMFI category is over 300,000, if they choose to occupy houses priced well below the maximum they can afford. This is typical, as most homeowners prefer not to maximize their housing consumption relative to their income.

Table 9. Affordable Housing Supply for First-Time Buyers, 2000

	Targeted Income Categories			
	30-50%	50-80%	80-100%	100-120%
MSA	134,011	129,864	19,199	17,715
Chesapeake	16,750	22,705	3,627	2,930
Hampton	16,206	9,562	690	467
Newport News	17,093	12,464	845	638
Norfolk	20,506	9,011	1,240	1,240
Portsmouth	12,159	4,709	369	303
Virginia Beach	30,891	42,531	6,927	5,947

Source: Census 2000 and VCHR model

A significant portion of this affordable housing stock is occupied by incomes above the targeted range. Consequently the actual supply available to the targeted range is much less than shown in Table 9. In addition, only a small fraction of the total supply is on the market at a given time. The vacancy rate for April 1, 2000 for these units was only 1% to 2% for the MSA average except for units in the 81-100%AMFI range, where the vacancy rate was 7%. Vacancy rates also varied between localities. Assuming an average of 90 days on the market, the number of for-sale affordable units for each income category and location is provided in Table 10.

Table 10. Estimated Affordable Supply For Sale, 2000

	Targeted Income Categories			
	31-50%	51-80%	81-100%	101-120%
MSA	6043	10633	5749	923
Chesapeake	404	5763	945	57
Hampton	1152	940	321	15
Newport News	512	1320	743	43
Norfolk	1488	2557	525	38
Portsmouth	908	959	75	37
Virginia Beach	713	2485	1814	414

Source: Census 2000 and VCHR model

Housing prices in the Tidewater area have increased rapidly since 2000, well above the increase in incomes. Although data are unavailable to estimate the full effect of the inflation in housing prices, it has undoubtedly reduced the supply of affordable units, particularly for the 30-50%AMFI category.

Affordable Demand Relative to Supply

Comparing the demand and supply estimates provided in Tables 4 and 10 requires some adjustment. First, in comparing supply and demand, the affordable supply is the supply estimated for a particular income category plus the supply affordable to incomes below that category less the number of first-time buyers in those lower income categories. As before, a house value of $50,000 is assumed to be required for satisfactory quality. Second, one-tenth of the estimated number of first-time buyers during the decade is assumed to be in the market annually.

Table 11 provides the ratio of the affordable for-sale supply estimate (from Table 10) to the demand estimate (from Table 4). In 2000, there was an adequate supply of affordable units for first-time buyers across all incomes throughout the MSA. Depending on the income category, from 6 to 45 units were affordable for each first-time buyer on average throughout the MSA.

Table 11. Ratio of Supply to Demand

	Targeted Income Categories			
	31-50%	51-80%	81-100%	101-120%
MSA	11.7	12.3	19.9	19.5
Chesapeake	5.6	31.5	45.5	42.5
Hampton	26.0	18.6	24.2	29.7
Newport News	8.1	10.7	18.2	17.0
Norfolk	21.2	22.0	39.5	40.3
Portsmouth	24.5	22.8	34.8	33.7
Virginia Beach	5.6	7.2	13.4	13.6

Source: Census 2000 and VCHR model

In addition, first-time buyers must also compete with repeat buyers for housing. The effect of repeat buyers on the supply of housing for first-time buyers has not been estimated, but repeat buyers are likely to exceed first-time buyers across the income spectrum. One indication of this is the percentage of first-time buyers among all homebuyers in each income category. About 55% of all owners in the

MSA in 2000 were homebuyers during the preceding decade, but this ranged from lows of 43% in Norfolk and Portsmouth to a high of 60% in Chesapeake and Virginia Beach. The owner mobility rates in Hampton and Newport News were 47% and 53%. Using these rates to estimate the number of total homebuyers during the 1990s, the proportion of first-time buyers is provided in Table 12.

For the MSA as a whole, first-time buyers account for 37% to 48% of all buyers depending on the income category. For most localities, first-time buyers make up more of the market in the 51-80%AMFI and the 81-100%AMFI categories, generally ranging from the mid-40 percents to the mid-50 percents. Portsmouth and Norfolk are the exceptions, with much lower first-time buyer shares in the 81-100%AMFI category. In part this reflects the size of the total homebuyer market in this income category in these two cities. However, it can also reflect estimation error at the bounds of a category, which could misplace some buyers in the adjacent income categories.

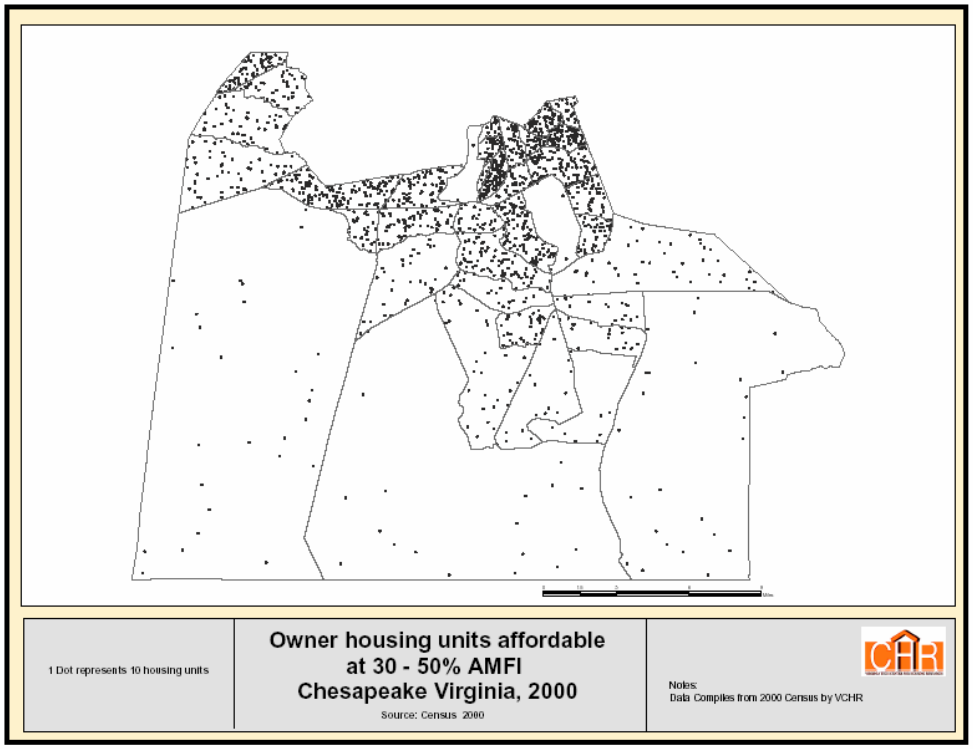
Table 12. Percent First-time Buyers of All Homebuyers, 2010

	Targeted Income Categories			
	31-50%	51-80%	81-100%	101-120%
MSA	36.8%	43.1%	47.9%	40.5%
Chesapeake	35.4%	48.3%	46.3%	38.8%
Hampton	34.4%	46.5%	51.5%	37.3%
Newport News	37.4%	53.4%	56.9%	49.9%
Norfolk	23.4%	57.6%	23.9%	69.7%
Portsmouth	20.5%	43.6%	18.9%	62.4%
Virginia Beach	43.0%	58.9%	52.6%	43.8%

Source: Census 2000 and VCHR model

The total supply of affordable housing units is shown by block group in the following maps. The number of units is cumulated as income increases (i.e. those in higher income categories can afford all of the units affordable to lower income categories. It should be noted that these maps provide the total affordable housing supply, not the for-sale supply during 2000. As noted earlier, only a small percent of these units would be available at any given time.

Detailed characteristics of first-time buyers for 2000 and 2010 are presented in the Appendix for each of the localities. These tables can be useful in further analyzing selected submarkets.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Owner housing units affordable
at 30 - 50% AMFI
Chesapeake Virginia, 2000
Source: Census 2000
Notes:
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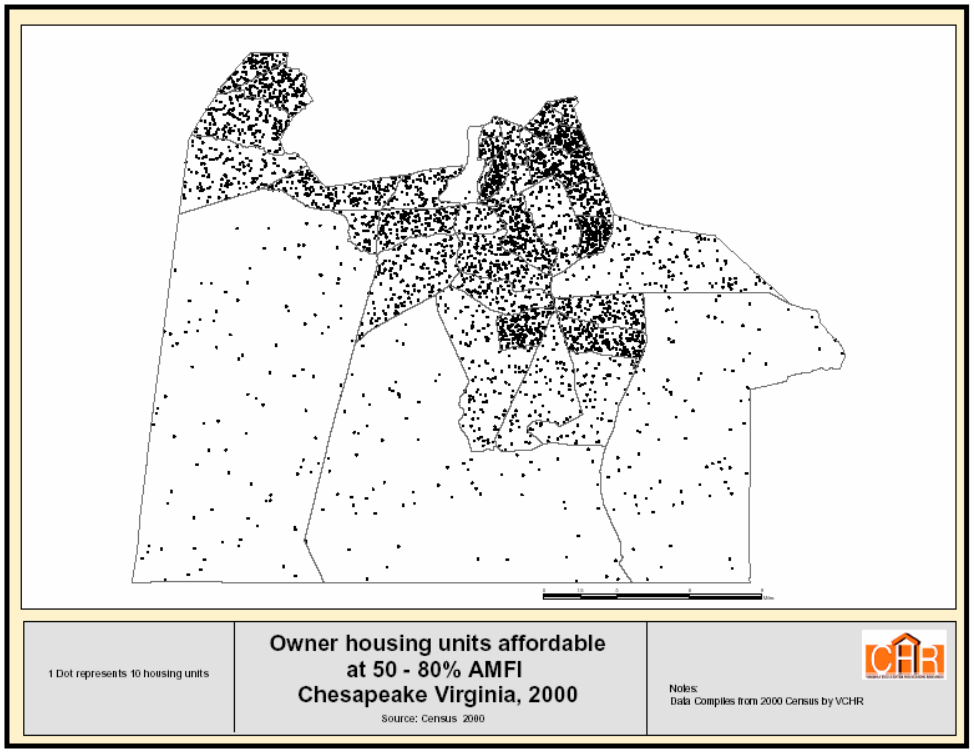
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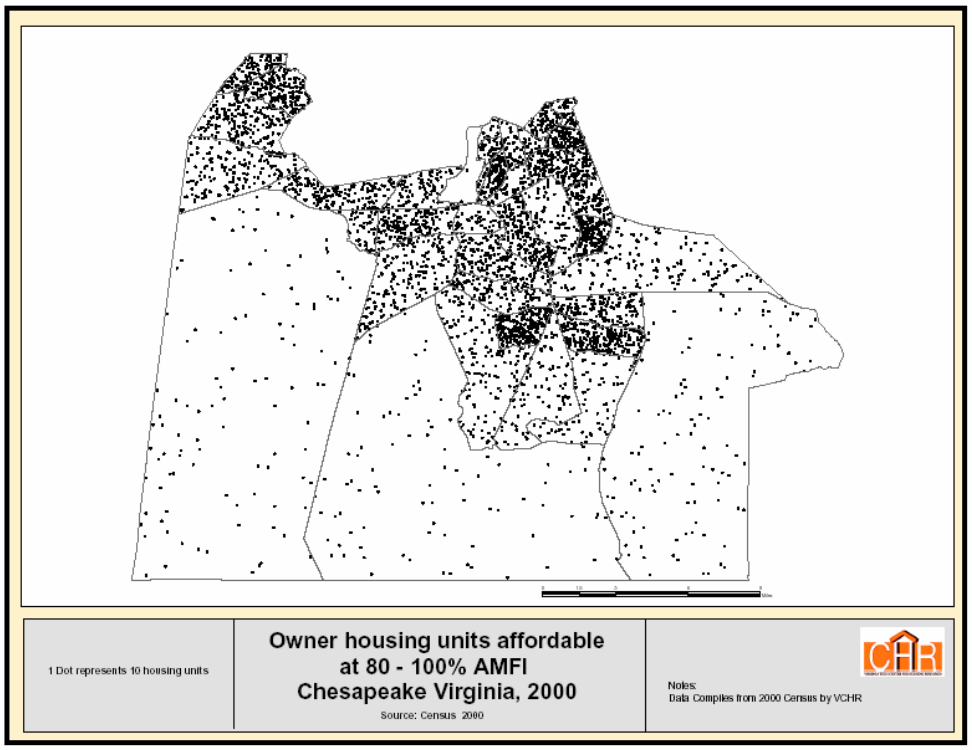
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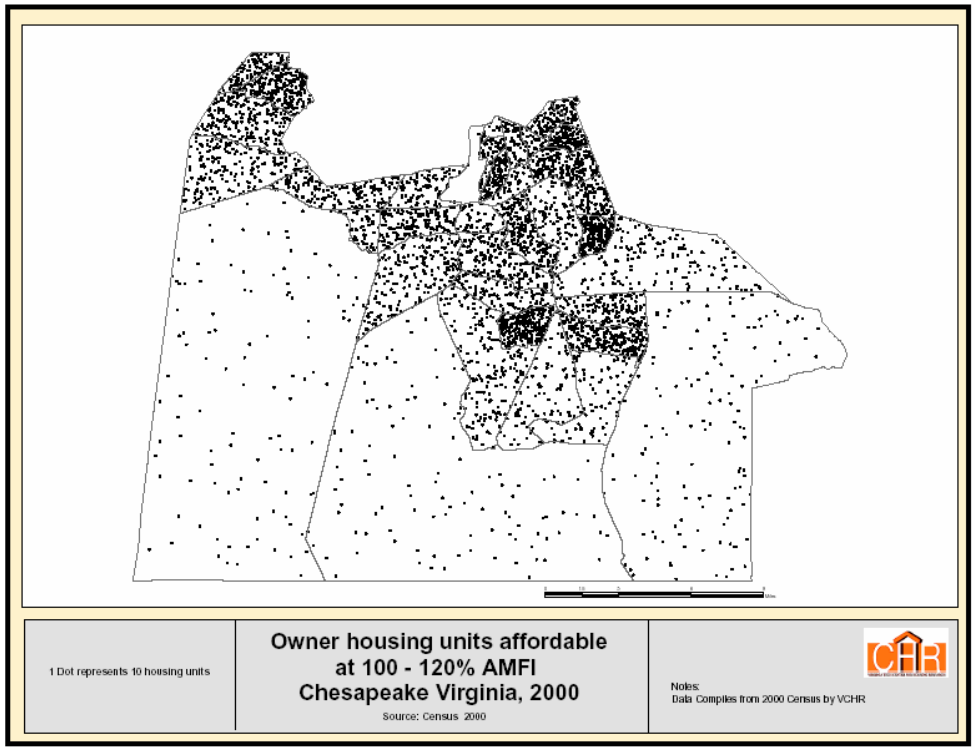
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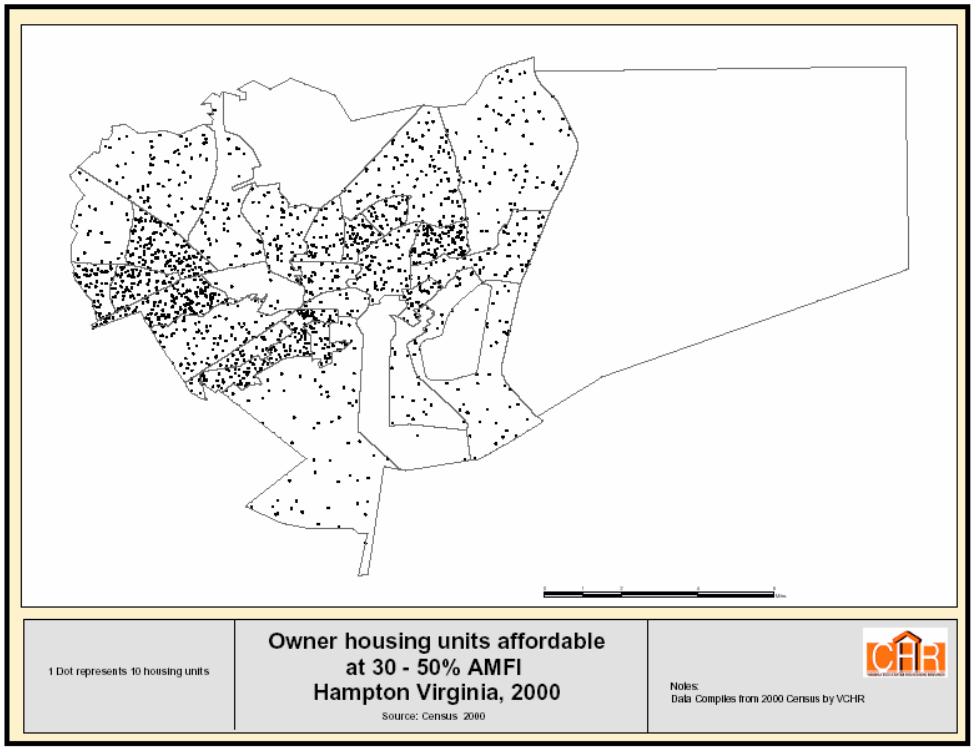
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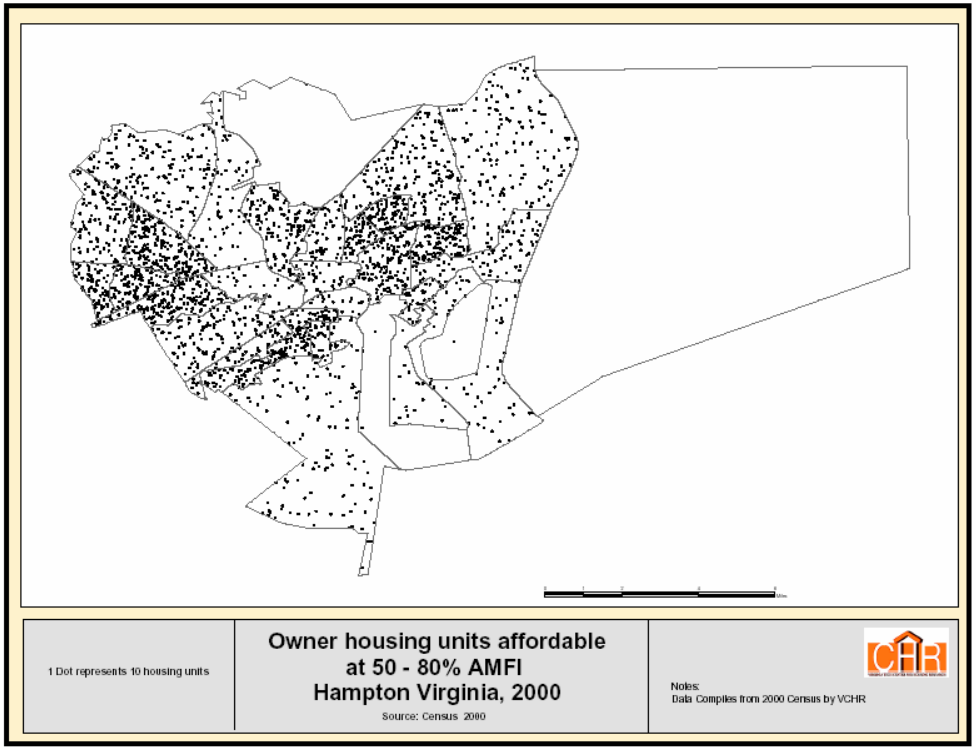
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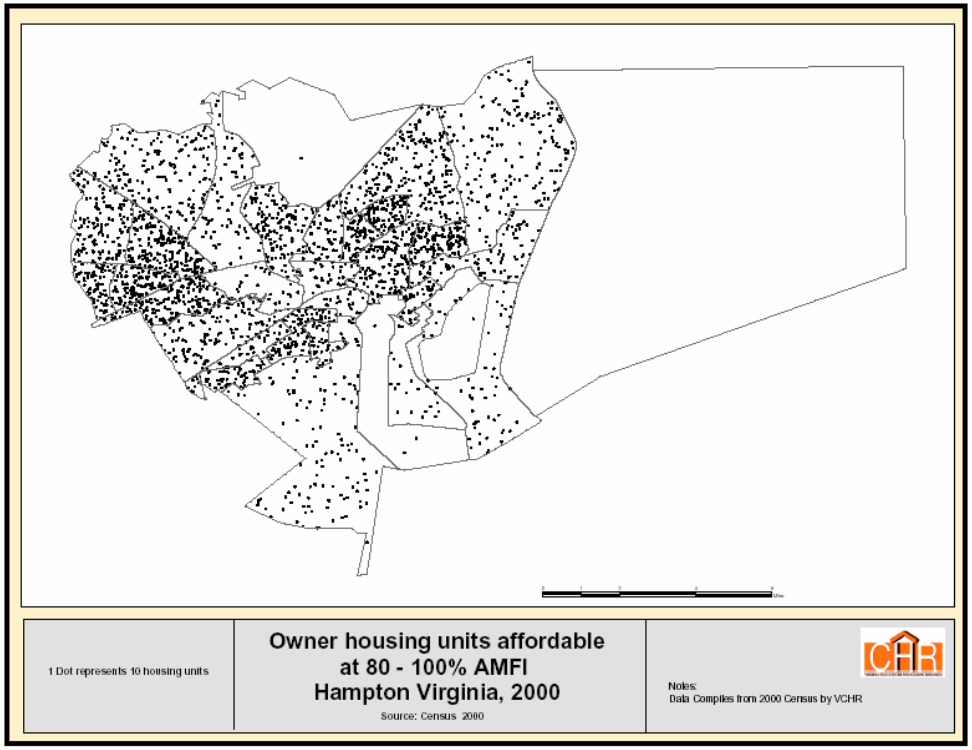
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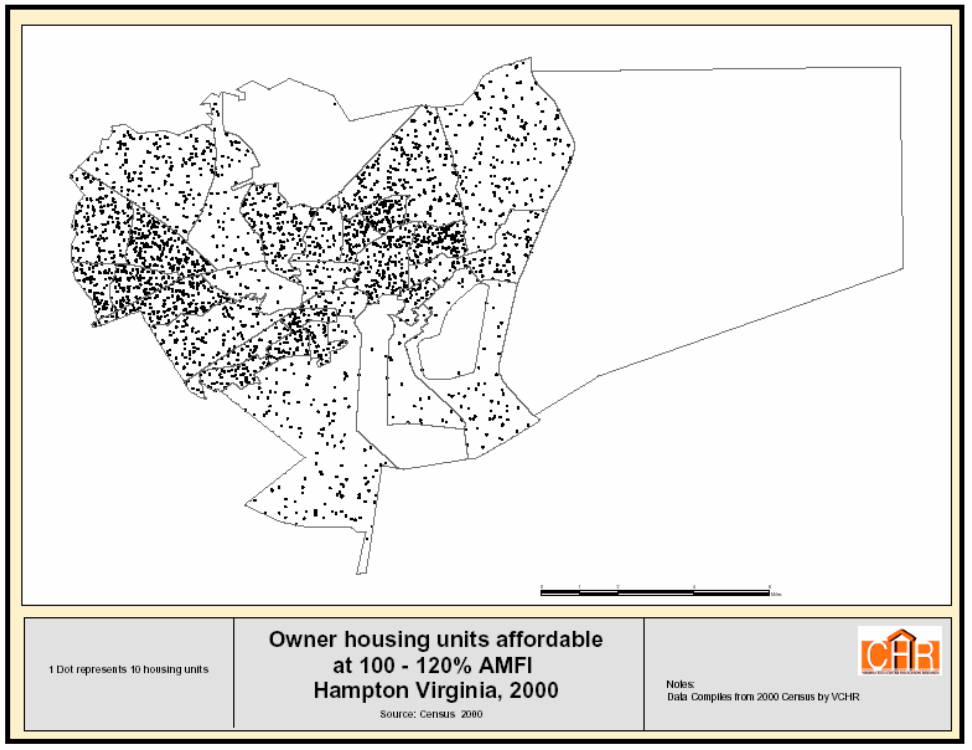
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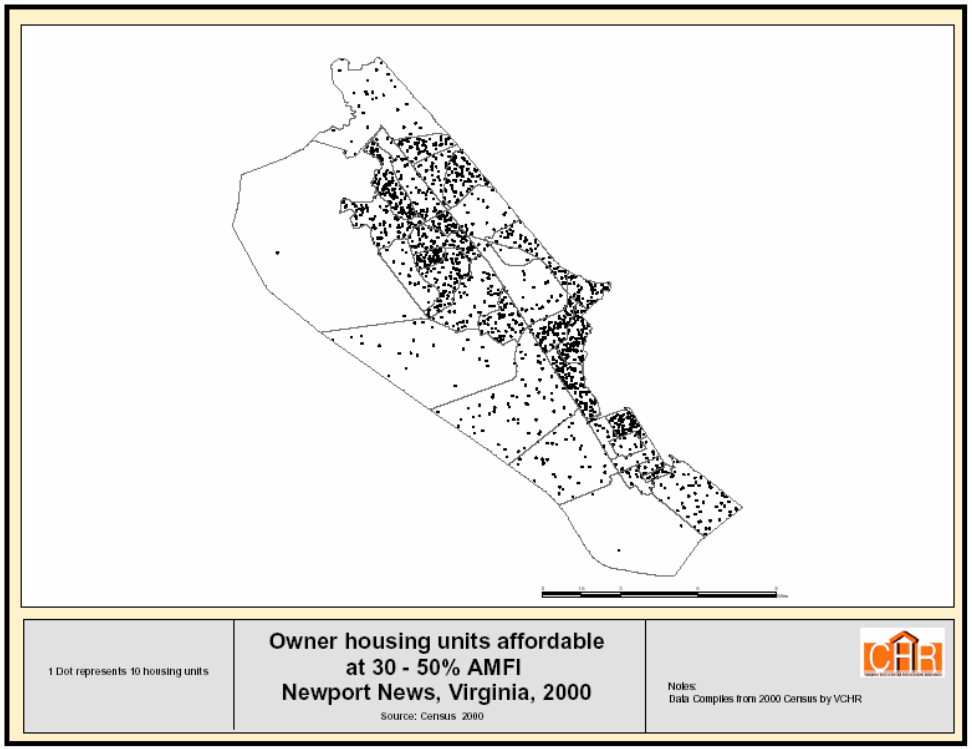
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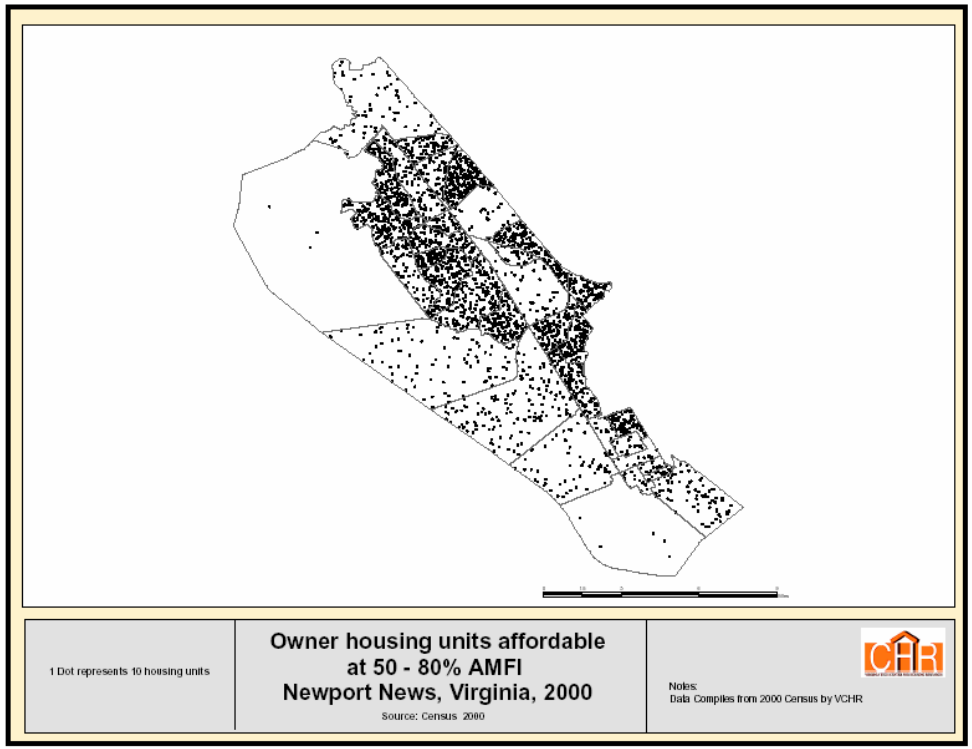
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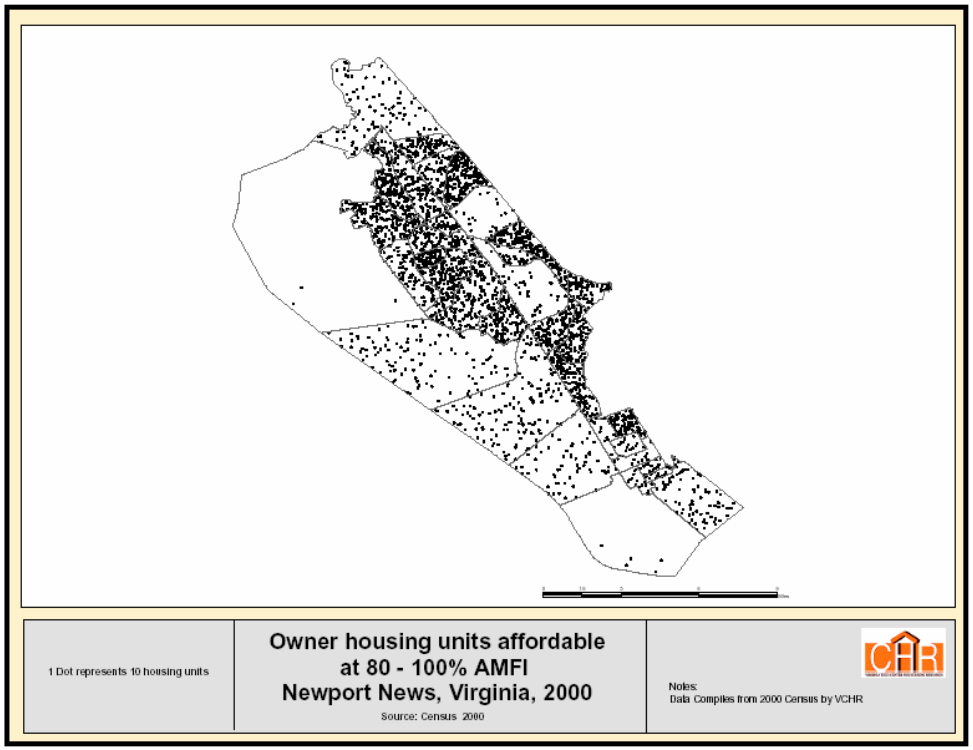
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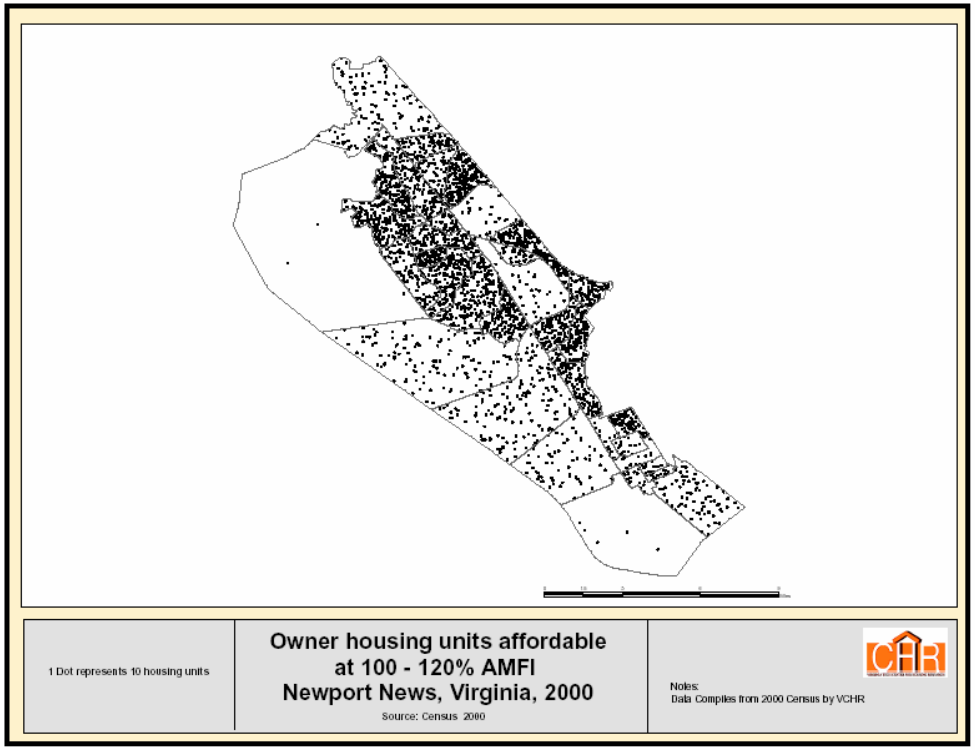
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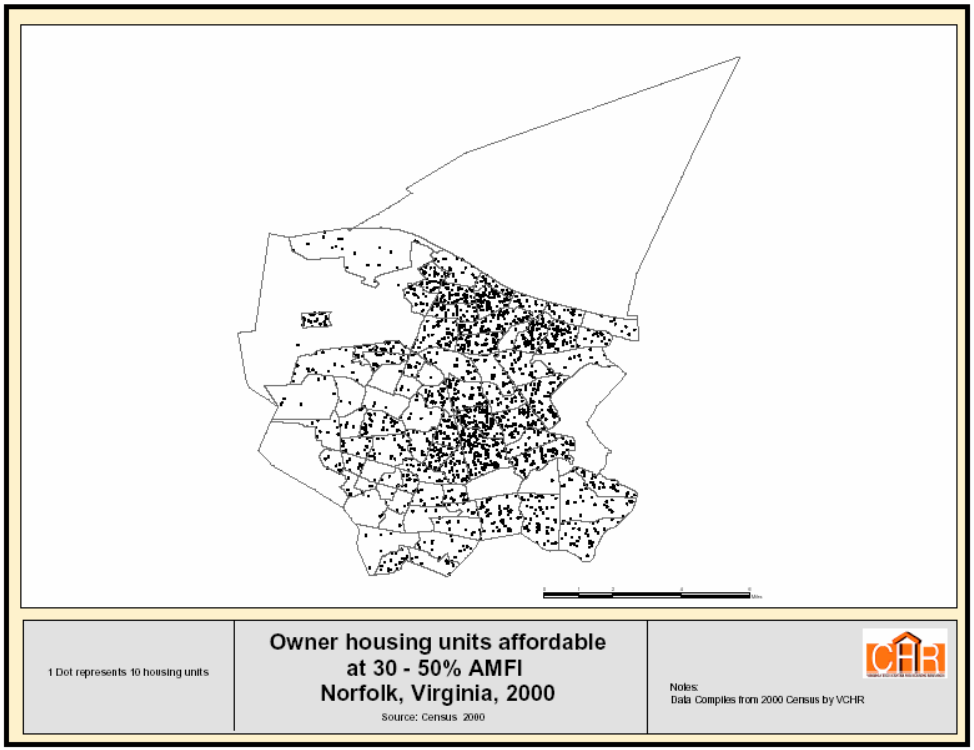
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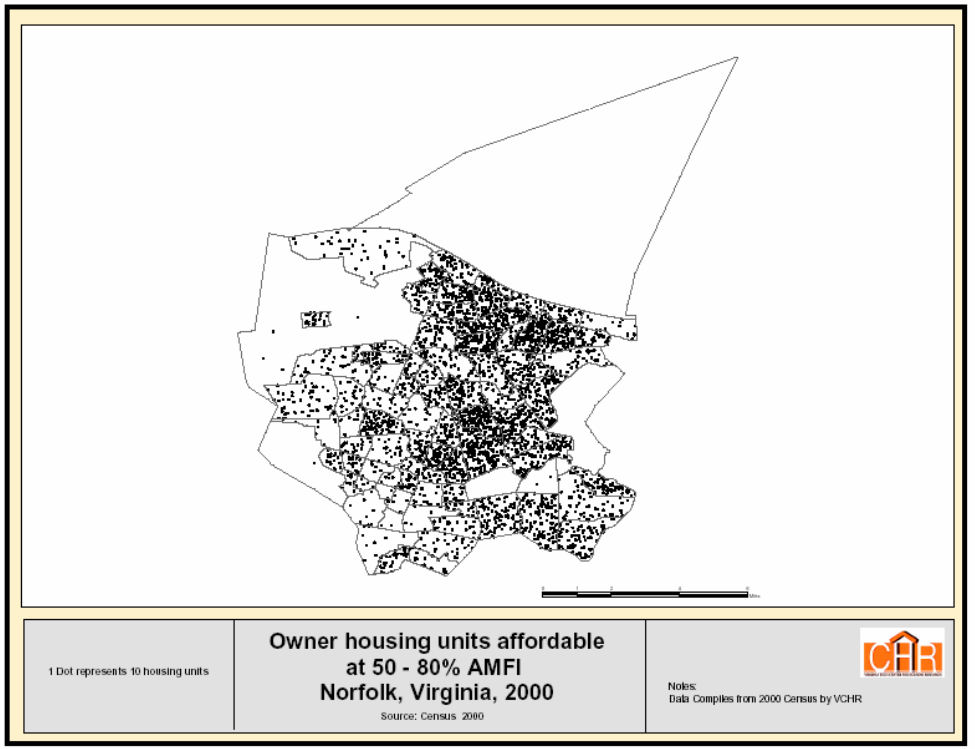
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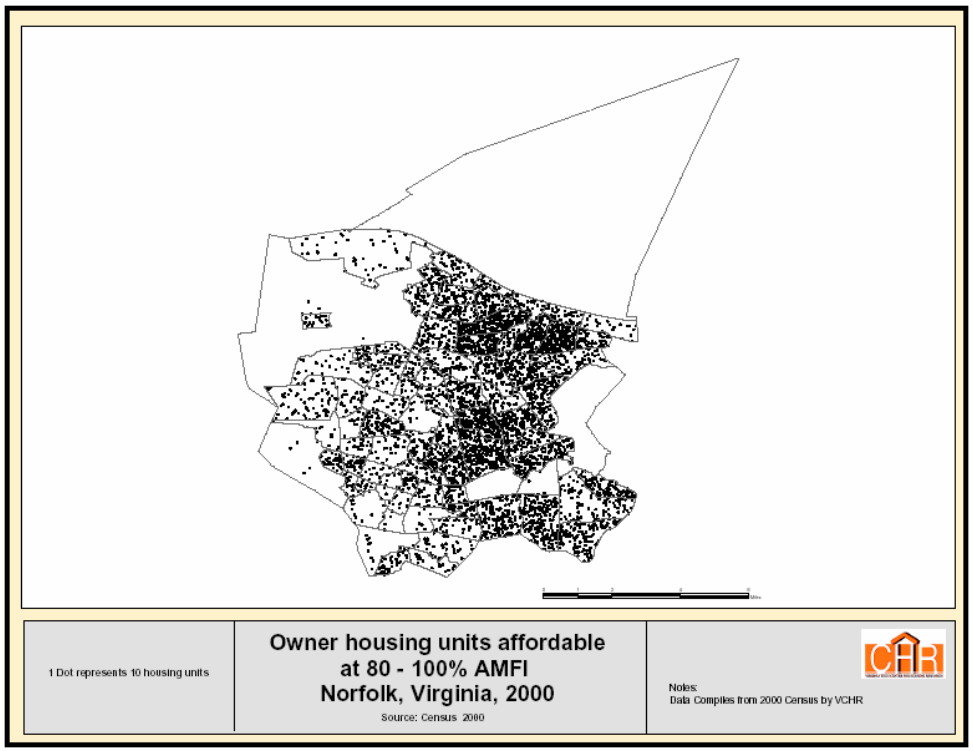
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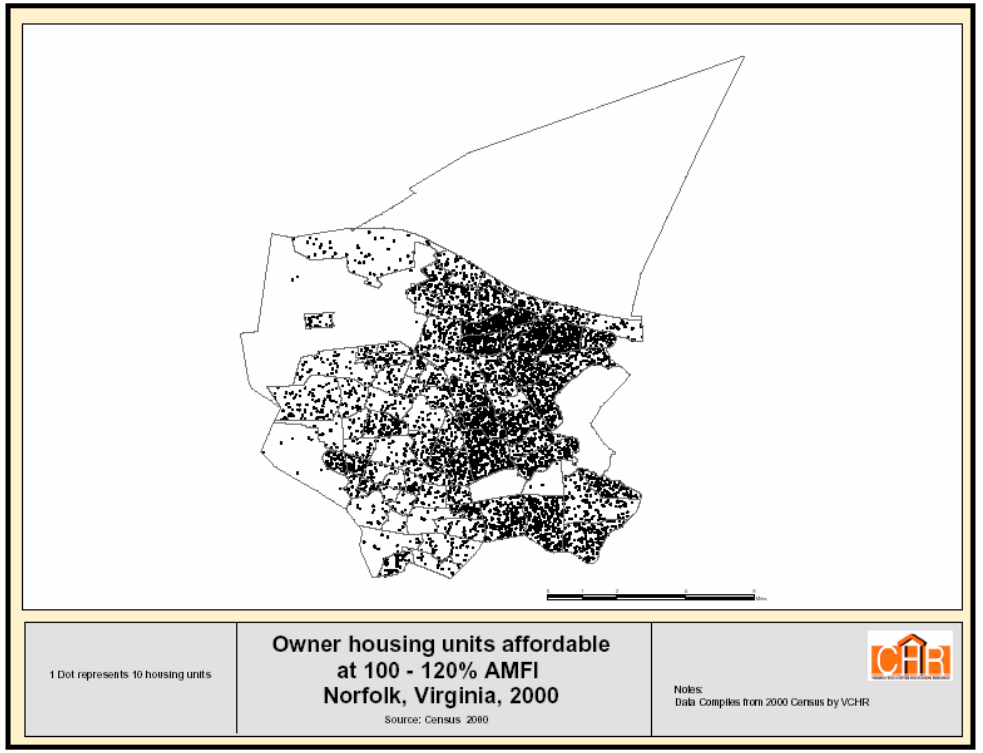
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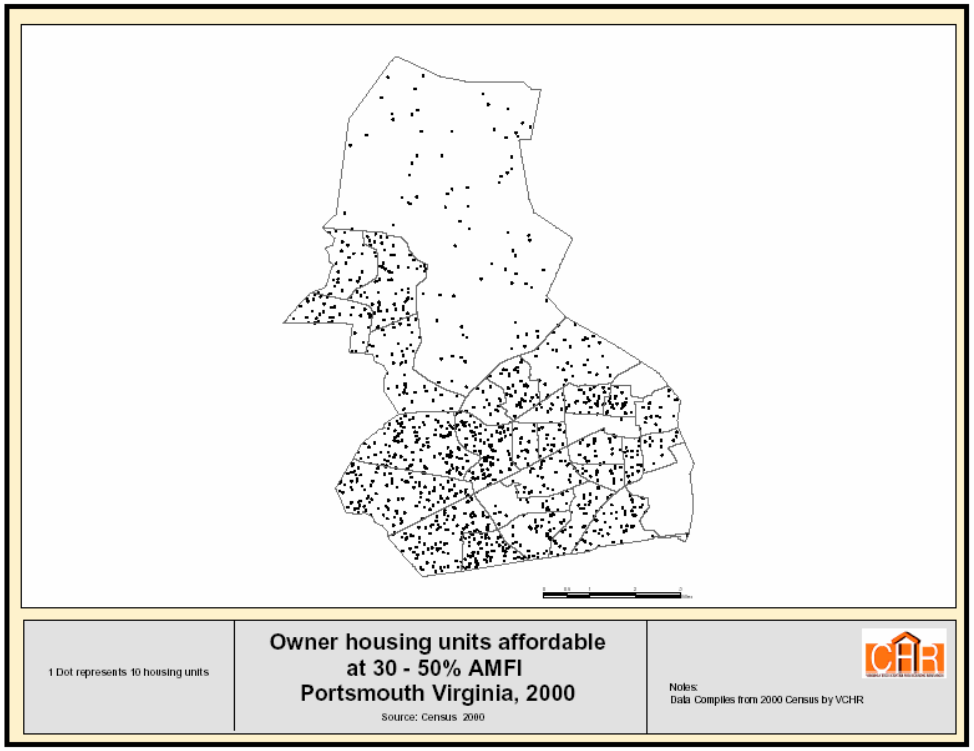
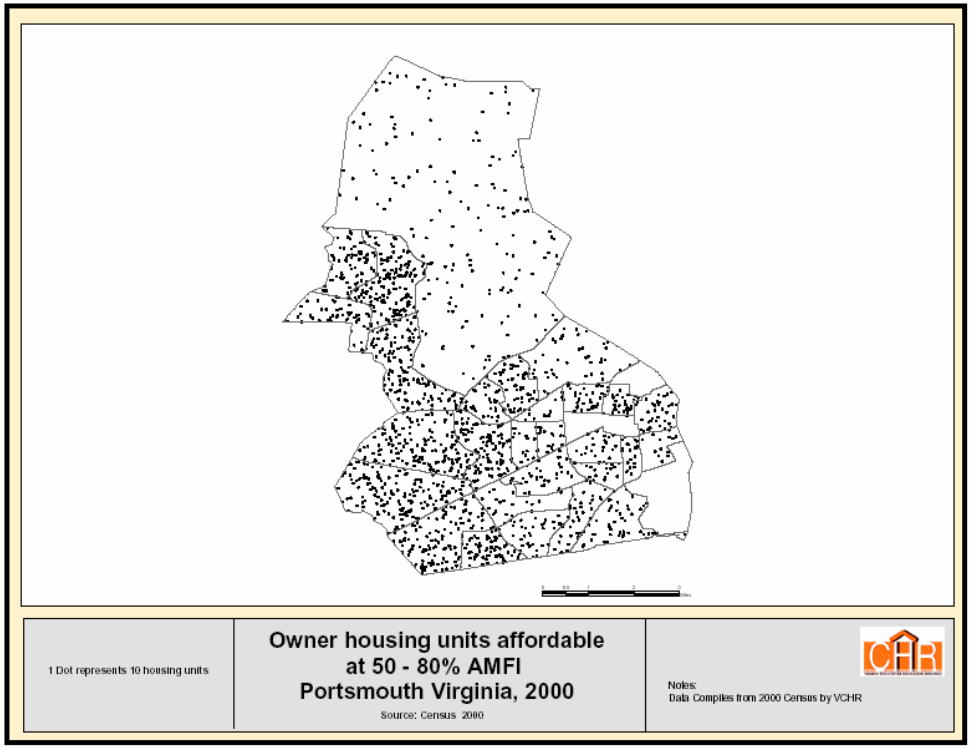
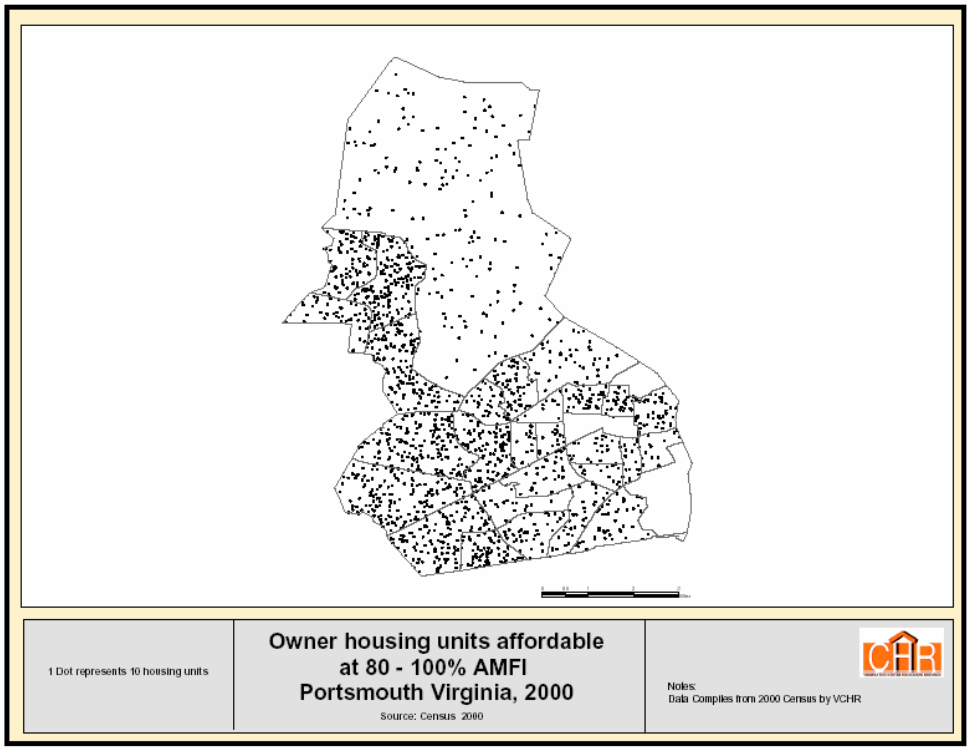
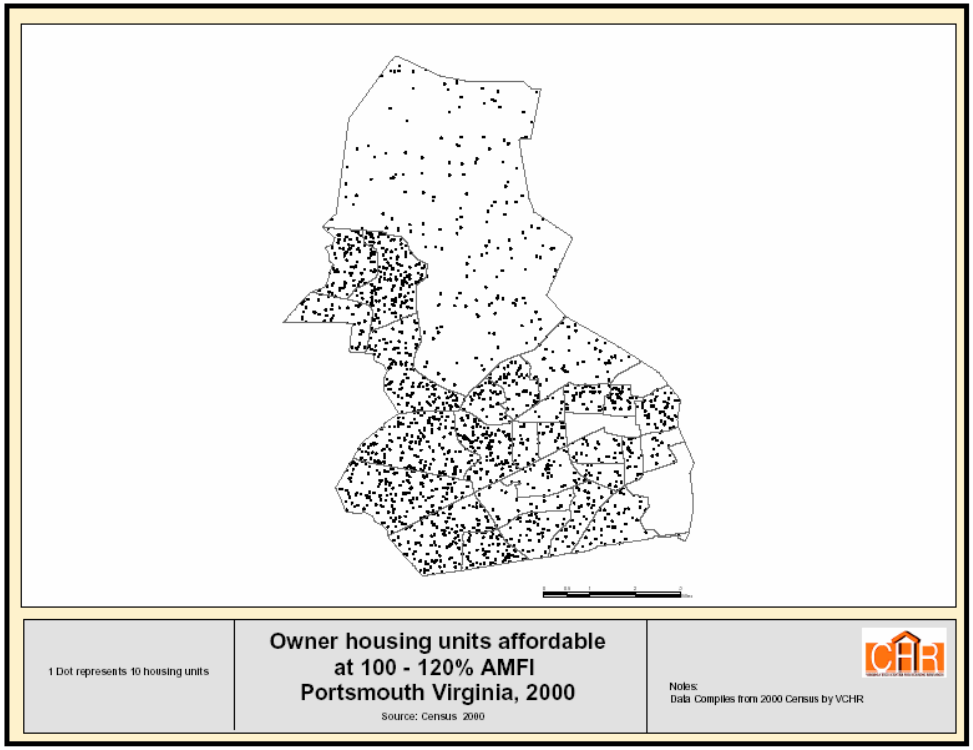
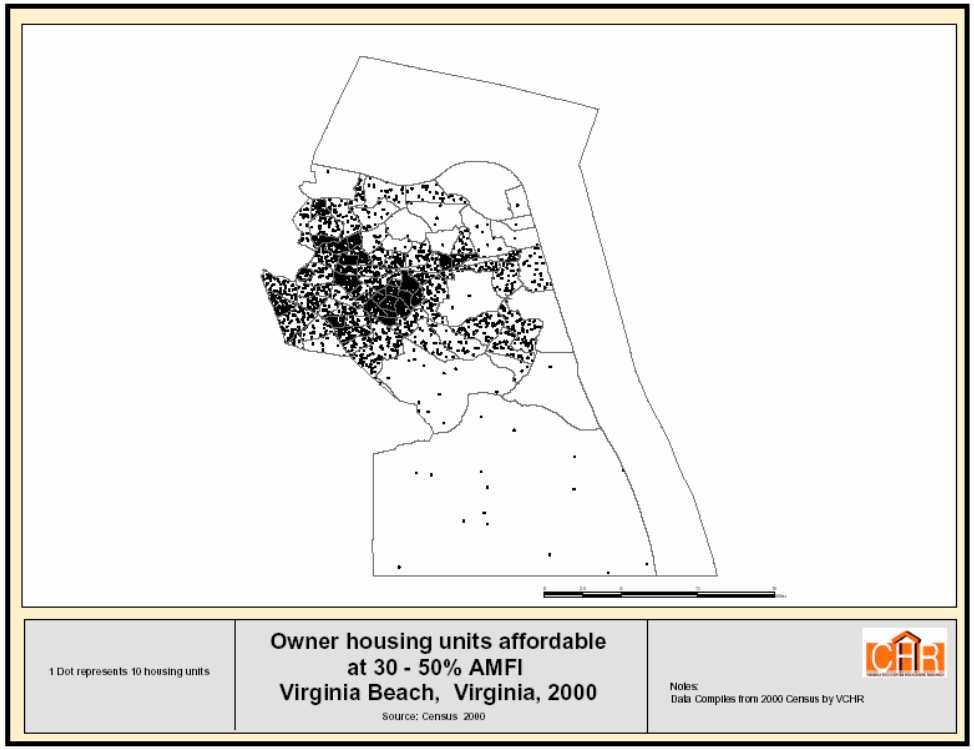
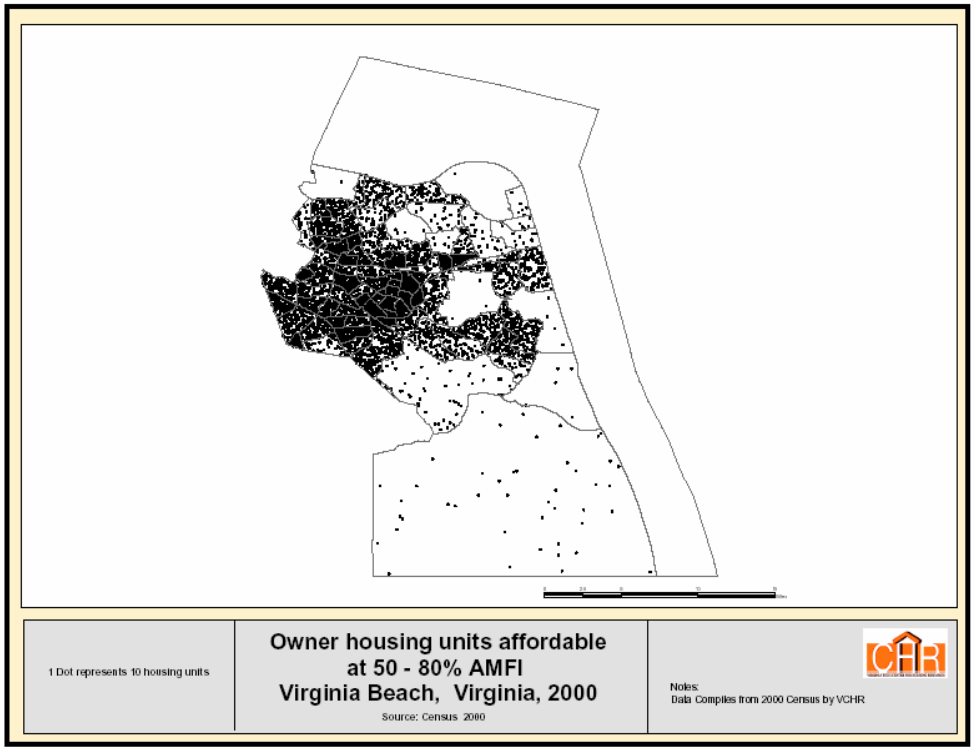

1 Dot represents 10 housing units
Owner housing units affordable
at 30 - 50% AMFI
Portsmouth Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR

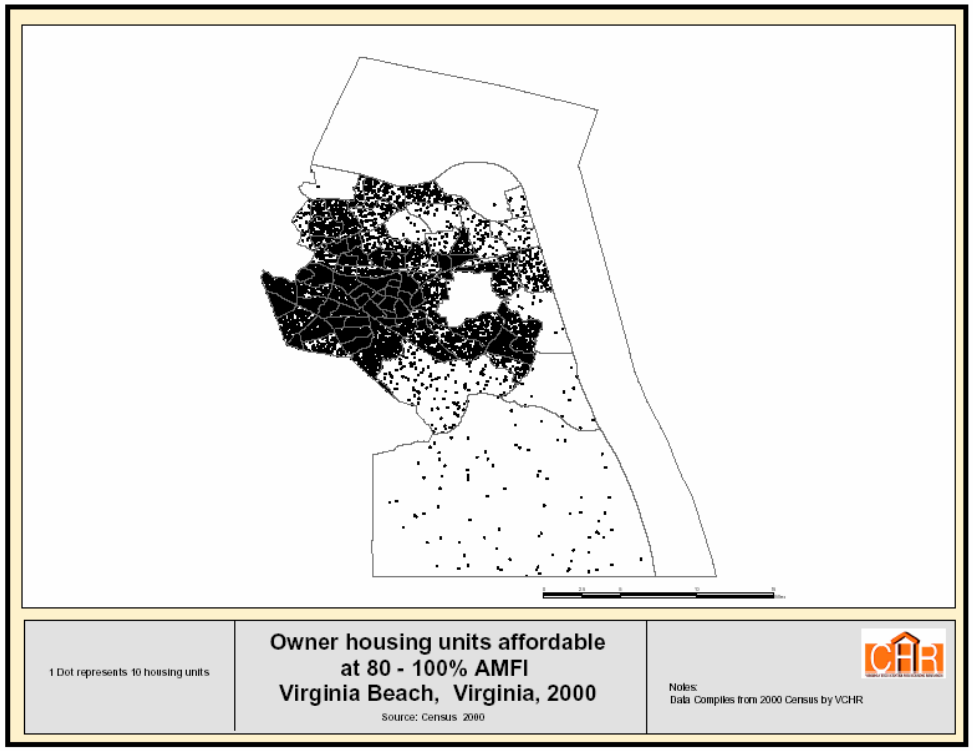

1 Dot represents 10 housing units
Owner housing units affordable
at 50 - 80% AMFI
Portsmouth Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR

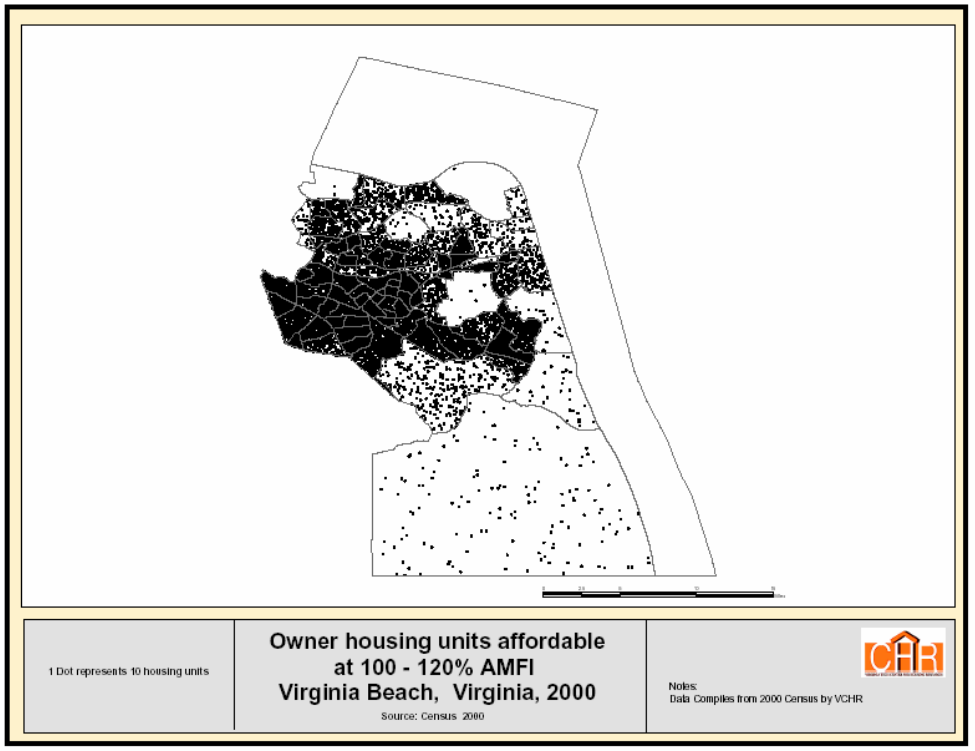

1 Dot represents 10 housing units
Owner housing units affordable
at 80 - 100% AMFI
Portsmouth Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR


1 Dot represents 10 housing units
Owner housing units affordable
at 100 - 120% AMFI
Portsmouth Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR


1 Dot represents 10 housing units
Owner housing units affordable
at 30 - 50% AMFI
Virginia Beach, Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR


1 Dot represents 10 housing units
Owner housing units affordable
at 50 - 80% AMFI
Virginia Beach, Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR


1 Dot represents 10 housing units
Owner housing units affordable
at 80 - 100% AMFI
Virginia Beach, Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR


1 Dot represents 10 housing units
Owner housing units affordable
at 100 - 120% AMFI
Virginia Beach, Virginia, 2000
Source: Census 2000
Notes:
Data Compiles from 2000 Census by VCHR

Appendix: Detailed Characteristics of First-time Buyers for Each Locality

Appendix Table 1. Detailed Characteristics of First-time Buyers for MSA, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000- 40,000	40,000- 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-Couple							
15 to 24	37	143	202	341	799	186	181
25 to 34	756	1783	3308	4468	12081	5467	2604
35 to 44	882	2989	5820	7425	20928	13746	10515
45 to 54	769	1745	5289	5614	16556	11854	14677
55 to 64	1670	2548	2962	3904	10706	7433	9215
65 to 74	1759	2499	2963	3555	7442	3738	3886
75 +	967	1480	1556	1743	3450	1727	1871
Other Family							
15 to 24	168	393	162	78	121	54	69
25 to 34	741	1824	1347	562	579	242	236
35 to 44	1295	3037	3130	2683	2506	634	540
45 to 54	806	1335	1734	2112	3603	772	618
55 to 64	324	743	867	1116	1885	729	440
65 to 74	592	834	774	806	1327	542	451
75 +	506	585	600	684	1277	554	502
Non-Family							
15-64	6098	9496	10102	7827	10800	3342	3158
65+	8913	4745	3143	1792	2353	1513	1282
2010							
Married-couple							
15 to 24	37	144	203	343	804	187	182
25 to 34	735	1733	3217	4345	11748	5316	2533
35 to 44	745	2527	4920	6276	17690	11619	8889
45 to 54	983	2231	6760	7175	21161	15151	18759
55 to 64	2455	3745	4354	5739	15737	10926	13545
65 to 74	2098	2980	3534	4240	8876	4458	4634
75 +	1270	1945	2044	2290	4533	2269	2459
Other Family							
15 to 24	169	395	163	79	121	54	69
25 to 34	721	1774	1309	547	563	235	230
35 to 44	1095	2567	2646	2268	2119	536	456
45 to 54	1031	1707	2217	2700	4606	987	790
55 to 64	476	1092	1275	1640	2771	1072	647
65 to 74	706	995	923	962	1582	646	538
75 +	665	769	788	898	1678	727	660
Non-Family							
15-64	6709	10446	11113	8611	11881	3676	3474
65+	11229	5979	3959	2258	2965	1907	1616

Source: VCHR Model

Appendix Table 2. Detailed Characteristics of First-time Buyers for Chesapeake, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	7	23	30	54	126	27	27
25 to 34	204	230	410	650	2010	969	649
35 to 44	143	387	919	1059	3825	2772	2117
45 to 54	110	188	436	781	2865	2209	2394
55 to 64	193	302	447	607	1668	1221	1263
65 to 74	244	263	343	460	902	423	413
75+	112	182	199	163	369	167	188
Other Family							
15 to 24	25	71	22	11	18	8	10
25 to 34	102	208	165	118	78	34	38
35 to 44	145	369	484	406	456	96	97
45 to 54	73	202	294	290	617	130	126
55 to 64	45	103	105	146	249	92	50
65 to 74	67	84	104	86	156	67	43
75+	35	50	66	65	144	70	70
Non-Family							
15-64	700	1017	1180	1139	1369	531	324
65+	992	476	238	181	177	95	54
2010							
Married-couple							
15 to 24	8	26	33	60	141	30	30
25 to 34	217	245	437	693	2142	1033	692
35 to 44	145	392	929	1071	3870	2805	2142
45 to 54	145	248	575	1028	3773	2909	3151
55 to 64	277	434	641	871	2394	1751	1813
65 to 74	292	314	410	549	1077	505	493
75+	148	240	263	216	489	221	248
Other Family							
15 to 24	28	79	25	12	20	9	11
25 to 34	109	222	176	126	83	36	41
35 to 44	147	374	490	410	462	98	98
45 to 54	96	266	387	382	813	172	165
55 to 64	65	148	151	209	358	131	72
65 to 74	81	101	124	103	186	80	52
75+	46	66	88	86	191	92	93
Non-family							
15-64	832	1209	1402	1354	1627	631	385
65+	1251	601	300	228	224	119	68

Source: VCHR Model

Appendix Table 3. Detailed Characteristics of First-time Buyers for Hampton, 2000, 2010							
	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	10	0	17	21	69	18	12
25 to 34	17	99	201	294	692	466	200
35 to 44	77	463	376	621	1620	1055	582
45 to 54	88	137	445	494	1512	960	759
55 to 64	178	197	290	421	1033	682	581
65 to 74	213	215	293	345	714	331	256
75+	150	187	164	200	320	123	115
	0	0	0	0	0		0
Other Family	0	0	0	0	0		0
15 to 24	0	24	0	0	37	17	12
25 to 34	39	71	114	111	60	34	23
35 to 44	94	226	324	324	337	53	41
45 to 54	40	66	191	230	273	73	52
55 to 64	29	75	91	113	199	102	37
65 to 74	47	89	81	100	139	69	40
75+	80	62	77	64	107	39	30
Non-family							
15-64	694	1191	795	721	978	299	263
65+	985	575	401	133	167	85	77
2010							
Married-couple							
15 to 24	9	0	16	20	64	17	11
25 to 34	16	92	188	274	646	434	186
35 to 44	50	303	247	407	1061	691	381
45 to 54	118	182	593	658	2015	1279	1012
55 to 64	295	326	481	697	1711	1130	963
65 to 74	265	268	365	429	889	412	319
75+	219	274	240	293	468	180	168
Other Family							
15 to 24	0	22	0	0	34	15	11
25 to 34	36	66	106	104	56	31	21
35 to 44	61	148	212	212	221	35	27
45 to 54	53	88	254	306	364	98	70
55 to 64	48	125	150	188	331	169	62
65 to 74	58	111	101	125	172	85	50
75+	117	91	113	93	156	57	44
Non-family							
15-64	739	1269	846	767	1042	319	280
65+	1343	784	547	181	228	115	106

Source: VCHR Model

Appendix Table 4. Detailed Characteristics of First-time Buyers for Newport News, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	0	4	41	71	98	18	11
25 to 34	66	316	388	563	1072	496	196
35 to 44	190	333	533	681	1935	1270	691
45 to 54	101	296	453	653	1620	1217	1013
55 to 64	152	253	349	480	1353	360	641
65 to 74	205	233	336	368	688	372	277
75+	106	179	203	173	396	201	130
Other Family							
15 to 24	21	56	10	0	11	9	6
25 to 34	103	186	180	43	72	29	19
35 to 44	101	268	453	277	159	70	58
45 to 54	68	125	268	253	356	59	40
55 to 64	39	67	160	43	234	118	42
65 to 74	70	82	82	101	195	74	43
75+	24	75	34	109	162	60	39
Non-family							
15-64	684	963	1150	805	1291	359	301
65+	1048	593	309	165	277	63	57
2010							
Married-couple							
15 to 24	0	4	38	66	92	17	10
25 to 34	62	297	365	529	1008	466	184
35 to 44	126	220	353	451	1279	840	456
45 to 54	134	393	602	866	2150	1616	1344
55 to 64	249	415	572	786	2217	589	1050
65 to 74	256	291	419	459	858	464	345
75+	155	262	297	253	579	294	190
Other Family							
15 to 24	20	52	9	0	10	9	5
25 to 34	96	175	169	40	67	27	18
35 to 44	67	177	300	183	105	46	38
45 to 54	90	165	355	336	472	79	53
55 to 64	64	110	262	70	384	193	69
65 to 74	88	102	102	126	244	92	54
75+	35	110	50	159	237	87	57
Non-family							
15-64	735	1035	1236	865	1387	386	323
65+	1430	809	422	225	378	86	78

Source: VCHR Model

Appendix Table 5. Detailed Characteristics of First-time Buyers for Norfolk, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	0	32	10	23	56	21	24
25 to 34	50	164	458	432	970	384	226
35 to 44	130	300	561	717	1528	748	615
45 to 54	0	172	473	585	1403	861	1323
55 to 64	233	241	297	363	817	556	657
65 to 74	202	342	433	393	758	337	386
75+	192	254	267	246	448	198	297
Other Family							
15 to 24	64	73	17	16	0	0	0
25 to 34	59	162	161	67	64	32	34
35 to 44	143	405	359	227	221	54	38
45 to 54	110	183	203	205	350	104	112
55 to 64	92	128	173	193	223	66	70
65 to 74	35	153	154	170	184	64	71
75+	146	147	182	169	211	64	73
Non-family							
15-64	1075	1157	1142	1194	1155	454	373
65+	1290	855	464	318	500	217	176
2010							
Married-couple							
15 to 24	0	29	9	20	50	19	21
25 to 34	46	149	418	395	886	351	206
35 to 44	115	265	496	634	1351	661	544
45 to 54	0	198	546	674	1617	992	1525
55 to 64	287	297	366	448	1008	686	811
65 to 74	206	348	439	399	770	342	392
75+	218	288	303	278	508	224	337
Other Family							
15 to 24	57	65	15	14	0	0	0
25 to 34	54	148	147	61	58	29	31
35 to 44	127	359	317	201	196	47	33
45 to 54	127	211	234	237	403	120	130
55 to 64	113	158	214	238	275	81	87
65 to 74	35	155	156	173	187	65	72
75+	166	167	206	191	239	73	83
Non-family							
15-64	1080	1163	1148	1200	1161	456	375
65+	1398	927	503	345	542	235	191

Source: VCHR Model

Appendix Table 6. Detailed Characteristics of First-time Buyers for Portsmouth, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	2	2	5	13	35	8	6
25 to 34	0	128	250	254	659	280	92
35 to 44	55	197	290	374	955	456	242
45 to 54	117	215	292	302	885	516	378
55 to 64	110	162	206	248	645	323	210
65 to 74	166	215	273	254	446	149	114
75+	103	207	218	184	382	102	69
Other Family							
15 to 24	0	0	7	20	33	10	7
25 to 34	78	103	74	31	22	7	4
35 to 44	118	224	178	167	131	18	21
45 to 54	76	119	111	204	183	38	27
55 to 64	9	55	82	95	179	60	24
65 to 74	48	94	113	93	143	52	42
75+	60	115	108	112	146	40	25
Non-family							
15-64	489	553	677	524	549	155	239
65+	919	650	364	134	124	44	79
2010							
Married-couple							
15 to 24	2	2	5	11	31	7	5
25 to 34	0	113	222	226	585	249	82
35 to 44	48	171	252	324	828	395	210
45 to 54	132	243	330	341	998	582	426
55 to 64	132	194	247	298	774	388	252
65 to 74	166	214	272	253	445	148	113
75+	114	229	242	204	422	113	77
Other Family							
15 to 24	0	0	6	17	29	9	6
25 to 34	69	91	66	28	20	6	4
35 to 44	102	194	155	145	114	15	18
45 to 54	86	135	125	230	206	43	30
55 to 64	11	66	98	113	214	72	29
65 to 74	48	94	113	93	143	52	42
75+	67	128	120	124	162	45	28
Non-family							
15-64	493	558	684	529	554	157	242
65+	976	690	386	142	131	47	84

Source: VCHR Model

Appendix Table 7. Detailed Characteristics of First-time Buyers for Virginia Beach, 2000, 2010

	Income						
2000	10,000 - 20,000	20,000- 30,000	30,000 - 40,000	40,000 - 50,000	50,000 - 75,000	75,000 - 100,000	100,000+
Married-couple							
15 to 24	0	77	89	98	214	79	80
25 to 34	124	737	1101	1352	4002	1770	885
35 to 44	341	635	1364	2293	7067	4293	3552
45 to 54	280	522	866	1321	4993	3503	4895
55 to 64	193	324	1197	979	2666	1969	3052
65 to 74	224	470	676	765	1995	1221	1256
75+	189	277	319	316	765	375	458
Other Family							
15 to 24	30	82	72	28	27	13	17
25 to 34	188	496	465	304	198	89	102
35 to 44	273	884	1059	629	942	215	215
45 to 54	143	329	427	455	1113	364	206
55 to 64	38	126	235	227	462	222	161
65 to 74	94	138	171	138	304	132	99
75+	59	72	89	108	248	122	121
Non-family							
15-64	1228	2768	3049	2478	3417	1123	1351
65+	1639	912	680	459	579	230	252
2010							
Married-couple							
15 to 24	0	77	89	98	214	79	80
25 to 34	121	714	1067	1309	3877	1714	857
35 to 44	316	588	1264	2126	6550	3979	3292
45 to 54	338	629	1043	1591	6017	4221	5899
55 to 64	255	428	1580	1293	3518	2599	4028
65 to 74	239	501	721	816	2129	1303	1340
75+	222	326	375	371	898	440	537
Other Family							
15 to 24	30	82	72	28	26	13	17
25 to 34	182	480	450	294	192	86	99
35 to 44	253	819	981	583	873	200	200
45 to 54	172	396	515	549	1341	439	249
55 to 64	50	166	310	300	610	294	212
65 to 74	100	147	182	147	324	141	106
75+	69	85	104	127	292	144	142
Non-family							
15-64	1300	2930	3228	2623	3618	1189	1430
65+	1841	1025	764	516	651	258	283

Source: VCHR Model