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Need for Affordable/Workforce Housing in Fairfax County

prepared for

Fairfax County Department of Housing
and Community Development

by

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EXECUTIVE SUMMARY

Purpose of the Study

As a follow on to the GMU-CRA research regarding Fairfax County's definition of moderate income in relation to affordable housing and other demographic research by the County, this research looks at the broader issues affecting the availability of housing affordable to County resident workers in the context of existing and projected job base of the County.

The changing housing market in the last few years has significantly changed the dimensions of the affordable housing issue in Fairfax County. At the same time, the County has had strong growth in its economy and job base. These two factors in combination present the County with significant challenges in providing enough housing and affordable housing for its economy.

The analysis examines job growth trends, job pay scales by industry sector, and trends in the rental and for-sale housing markets. The analysis then applies measures of housing affordability to quantify numbers of units—rental and for-sale—that are and would be affordable to households in the range of incomes from 60% of median income to 120% of median income.

Currently the County has a deficit of housing relative to the number of jobs in the County and the adopted forecasts for the County would mean that this deficit will increase through 2025.

Housing affordability has become a serious problem because of the changing market conditions. Trends in the for-sale housing market have greatly reduced the opportunity for home ownership for households in the County, such that it is necessary to make relatively high incomes to afford for-sale housing. The affordability of rental housing is not as serious a problem, but it will be significantly worse over the next few years as rent levels are projected to rise.

Need for Affordable/Workforce Housing in Fairfax County

As a follow on to the GMU-CRA research regarding Fairfax County's definition of moderate income in relation to affordable housing, this research looks at the broader issues affecting the availability of housing affordable to County resident workers and to the existing and projected job base of the County.

The Fairfax County Economy and Jobs

Fairfax County has been an economic engine in the greater Washington economy over the past fifteen years. To a base of 378,900 jobs in the county in 1990, total jobs in the County have increased by 186,300 through 2005 to a total of 565,200. This is an increased of 49.1 percent over the 15-year period, and represents an annual growth rate of 2.7 %/yr compounded. This is 28 percent of the total job growth in the Washington metropolitan area.

With the regional housing market surging since 2000, the supply of housing and especially housing affordable to the workforce has become a serious problem throughout the Washington area, and especially in Fairfax County.

One element of the housing affordability problem stems from simple shortage of housing units in that new supply of housing has not kept pace with the growth in the economy and jobs.

Given the 1990-2005 job growth, and using a conservative ratio of 1.5 workers per household (the ratio of the metropolitan area was 1.44 from 1990-2000), there was a demand for 124,200 new housing units in the County over that period to supply the workers needed to match the job growth. However, from 1990-2005, the County added only 81,000 new households, as shown in Chart 1. The difference of 43,200 households is the number of households locating in other counties and commuting to jobs located in Fairfax County.

This deficit of housing within the County is one of the factors in the large increase of housing prices and a factor in the traffic congestion problems in the region. This is not to say each jurisdiction in the region must enable enough housing to be built to provide workforce for its jobs, but that would be a reasonable goal within the market.

The official forecasts of jobs and households for the County for the future are developed through COG's Cooperative Forecast program. These forecasts (Round 7 adopted in 2005) show job growth for 2005 to 2025 of 213,700 and household growth of 104,800 for Fairfax County. In developing the forecasts, COG's Planning Directors Committee noted that the region's jurisdictions were not forecasting enough housing supply for the jobs being forecasted because local planning and zoning policies would limit housing construction – but that it was anticipated that over time pressures would be for planning and zoning changes that would enable enough housing supply to be created to meet the demands created by job growth. However, the adopted forecasts do not incorporate or reflect such needed additions to supply and therefore show an increased deficit of housing for the future.

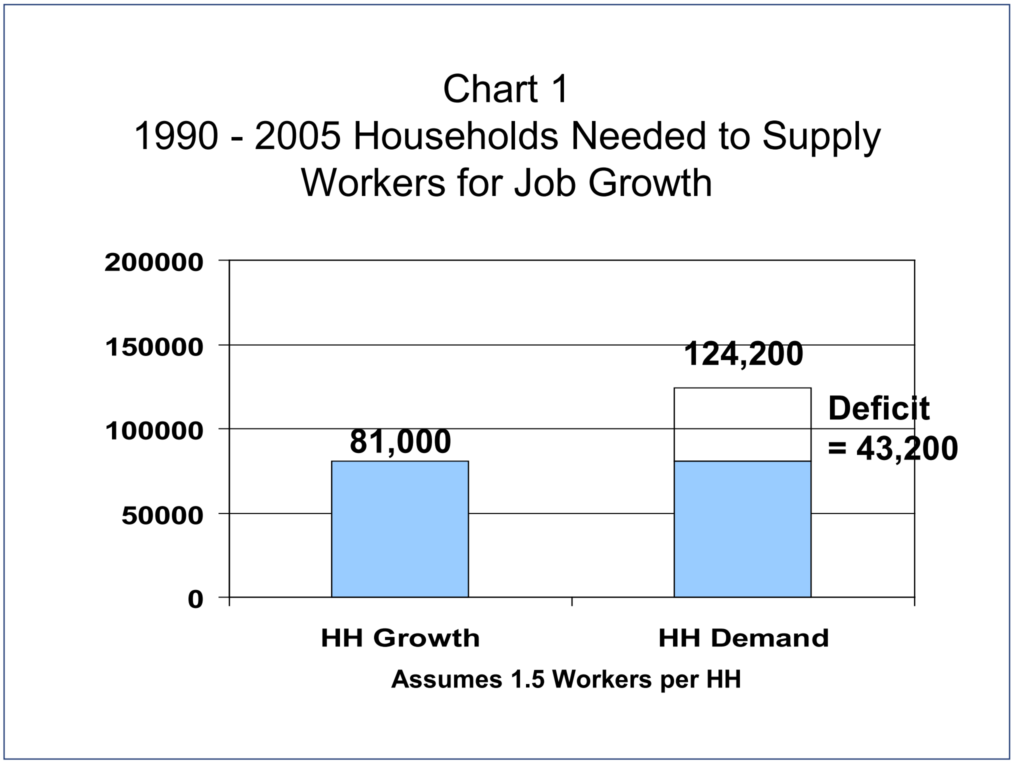


Chart 1
1990 - 2005 Households Needed to Supply Workers for Job Growth
200000
150000
100000
50000
0
81,000
124,200
Deficit = 43,200
HH Growth
HH Demand
Assumes 1.5 Workers per HH

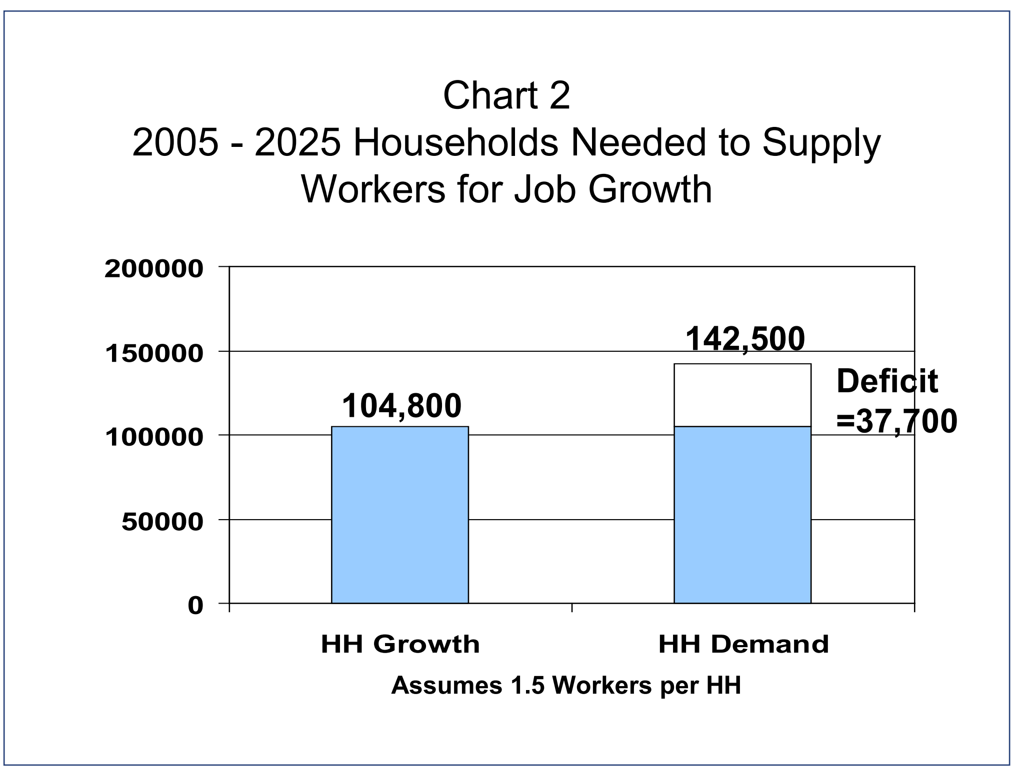


Chart 2
2005 - 2025 Households Needed to Supply Workers for Job Growth
200000
150000
100000
50000
0
104,800
142,500
Deficit =37,700
HH Growth
HH Demand
Assumes 1.5 Workers per HH

In the case of the job and household forecasts for Fairfax County, the addition of 213,700 jobs would mean a demand of 142,500 households to supply the workers for that level of jobs. This would mean a deficit of 37,700 housing units over the next 20 years as shown in Chart 2.

Adding the future deficit to the past deficit since 1990, by 2025 the County's overall deficit would reach 80,900 assuming the Cooperative Forecasts are met. This means that the County's ability to provide housing needs for its economy is not only currently in a deficit situation but that it will worsen over the next 20 years. And the deficit of supply overall will be an even worsening situation for housing affordable to large segments of the County's job base.

Estimates regarding the needed supply of affordable housing were developed using assumptions that 2005 relationships between income levels and rent levels and housing prices would maintain a similar distribution through 2025. If over the next 20 years there are enough new housing units supplied in the county to meet the housing needs of the county's workforce and such that there is not an overall deficit in 2025, then a total of 142,500 net new housing units would be needed. Similarly, there would be a demand for 55,500 net new housing units from 2005-2010. Then, applying 2005 income levels by tenure would mean that the number of net additional units needed by price level by income group for 2010 and 2025 would be represented by the calculations as shown in Tables 1A and 1B, respectively.

Table 1A
Housing Units Needed by Tenure by Price, 2005 - 2010

Income Group	Rental Units	Affordable Monthly Rent Levels	Ownership Units	Affordable House Price Levels
<50% Median Income	6.000	< $850	5,500	<$150,000
50% to 80% Median Income	3,500	$850 - $1,375	6,000	$150,000 - $285,000
80% to 120% Median Income	2,500	$1,375 - $2,080	9,000	$285,000 - $475,000
> 120% Median Income	2,500	> $2,080	20,500	> $475,000
Totals	14,500		41,000	

Table 1B
Housing Units Needed by Tenure by Price, 2005 - 2025

Income Group	Rental Units	Affordable Monthly Rent Levels	Ownership Units	Affordable House Price Levels
<50% Median Income	16.000	< $850	14,000	<$150,000
50% to 80% Median Income	9,000	$850 - $1,375	15,000	$150,000 - $285,000
80% to 120% Median Income	8,000	$1,375 - $2,080	22,000	$285,000 - $475,000
> 120% Median Income	5,000	> $2,080	53,500	> $475,000
Totals	38,000		104,500	

There are many implications of the calculated estimates developed in Tables 1A and 1B. One is that it is not likely that households making less than 80% of median income will be able to afford home ownership at all, much less those making 50% of median income. Therefore the demand for ownership units developed from the assumptions for the calculation would more likely all need to be rental units. Regarding the workforce housing income range of 80% - 120% of median income, it is also doubtful that the market would build 9,000 units by 2010 or 22,000 by 2025 at prices less than $475,000 ($2005).

It should also be noted regarding the official forecasts that COG's Round 7 was adopted prior to incorporation of the actions in the fall of 2005 of the Base Realignment and Closure Commission. Those adopted actions are in the process of implementation and will add more jobs by 2011 than the adopted forecasts as a result of the overall changes to military operations located in the County. The major increase in employment will be the addition of approximately 22,000 jobs to Fort Belvoir with the loss of 4,000 jobs in leased space in the Skyline area and 2,000 jobs from Reston. Overall the county will gain approximately 16,000 jobs by 2011 not accounted for in the official forecasts for the County. These additional jobs will require additional housing supply that is also not reflected in future expectations for housing supply.

Current Jobs in the County by Pay Level

Pay level data by industry sector are available from the US Bureau of Labor Statistics and the US Census - County Business Patterns. The BLS data show that a large portion of Fairfax County's job base, as well as its past growth, has been in relatively higher paying sectors, especially the Profession and Business Services Sector which is the County's largest sector at 193,900 jobs and the sector has accounted for 58% of the County's job growth from 1995-2005. The average annual pay for jobs in the sector is $81,000.

The Census County Business Patterns (CBP) data provide greater industry sector detail than BLS, although the Census data are for 2004. Applying the BLS rates of growth from 2004 to 2005 by sector to the more detailed CBP 2004 data, annual pay rates for 2005 were developed for the County. These data are shown in Table 2.

To analyze the ability of job holders to compete for housing in the County's 2005 market, seven "cases" were developed from the job pay levels in the county using the pay levels from Table 1. The cases assume that a household contains two workers that are employed in different sectors within the county's job base at the average pay for that sector. The six cases are shown in Table 3.

The households represented in Table 3, plus households assumed to make nominal ratios to the Median Income from 60% to 120% were then analyzed for the ability to pay for ownership and rental housing in the County given the 2005 housing market conditions as contained in the GMU report on definition of moderate income in the County.

Table 2
Jobs in the County by Average Pay Level

Industry	Jobs (2004) - Private Sectors Only	Average Annual Pay Adjusted to 2005
Total	526,800	$ 58,000
Utilities	400	$ 92,300
Construction	31,300	$ 53,900
Manufacturing	11,000	$ 57,900
Wholesale Trade	15,200	$ 77,500
Retail Trade	53,200	$ 26,700
Transportation & Warehousing	6,500	$ 36,200
Information	36,100	$ 84,800
Finance & Insurance	32,000	$ 81,500
Real Estate & Rental & Leasing	11,400	$ 55,900
Professional, Scientific and Technical Services	140,500	$ 80,100
Management of Companies	18,500	$ 108,400
Administrative Support, Waste Management	57,700	$ 37,400
Educational Services	7,700	$ 34,500
Health Care & Social Assistance	37,300	$ 44,300
Arts, Entertainment and Recreation	7,100	$ 25,000
Accommodation & Food Services	37,900	$ 18,100
Other Services	22,600	$ 36,500

Source: US Census County Business Patterns, GMU Center for Regional Analysis

Table 3
Examples of 2-Worker Households by Sector of Jobs Held

Sectors of Employment	Percent of County Jobs	Total Household Pay	Ratio to 2005 Median Income
Retail Trade + Administrative Support	21.1%	$ 64,100	68%
Retail Trade + Construction	16.0%	$ 80,600	85%
Construction + Administrative Support	16.9%	$ 91,300	97%
Health Care + Real Estate	9.2%	$ 100,200	106%
Professional Services + Retail Trade	36.8%	$ 106,800	113%
Professional Services + Administrative Support	37.6%	$ 117,500	124%
Both in Professional Services	26.7%	$ 160,200	169%

Rental and For-Sale Housing Affordability: 2005-2010-2025

Given the income levels for jobs in the County and for nominal ratios to median income, the housing market was analyzed relative to what proportion of the housing market could be afforded by households of the differing income levels. The most important use of these data and calculations is to examine the affordability situation currently, then to examine the 2010 projection, and lastly the 2025 projections. The changes in the housing market compared to incomes in the County have created a serious housing affordability issue in 2006. Going forward, the market conditions to 2010 can be very reasonably estimated.

Rental Market Affordability: 2005 - 2025

<u>Current Housing Affordability – 2005</u>

For the rental housing market, a household making the median income can afford most of the units available in the County: 94.7 percent of units assuming a maximum affordable rent of 22 percent of income (see GMU-CRA report *Definition of Moderate Income in Fairfax County*) and 97.0 percent at 30 percent of income. Using 80 percent of median as measure of workforce income level, those households can afford 68.2 percent of units at 22% of income and 87.3 percent at the 30% of income.

Relating these calculations to the 2-worker scenarios, a household with one worker employed in Retail Trade and one in Administrative Support making a combined income of $64,100 (68% MI) – would be slightly better off than the 60% MI level in the chart. Using the data in Tables R-1 and R-2, the affordability situation for the other job/worker scenarios can be examined.

Therefore, currently the housing affordability situation in the rental market is not unreasonable for workers at middle income and higher, but is currently a serious issue for those making less than 80% of median income.

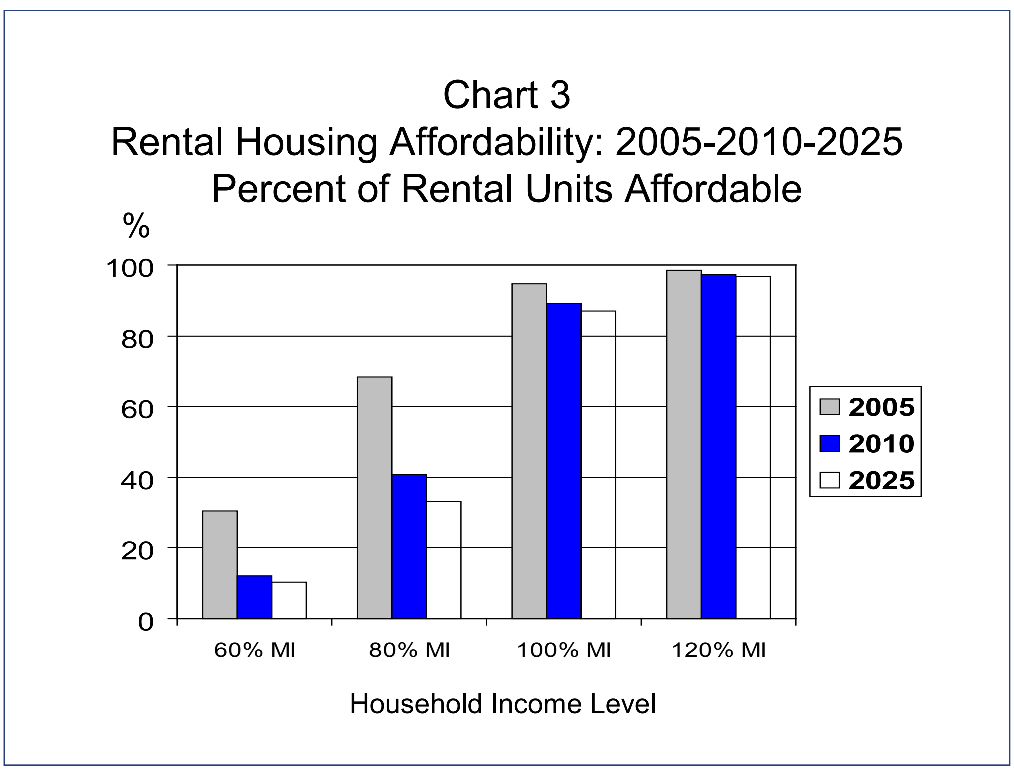
Short-Term Future Housing Affordability – 2010

Looking ahead the next few years, the rental market situation is expected to change significantly in relation to the past few years. The large run-up in the for-sale market reduced demand in the rental market so rent levels had only very modest increases since 2000. With the cooling of the for-sale market in 2006, there is more demand in the rental market and rent levels are increasing and expected to increase in the next few years. A 7.0 percent per year increase in rental rates through 2010 has been assumed, and the data are shown in Tables R-1 and R-2.

The calculations show that the rental market becomes much more of an issue over the next few years for families and households making from median income and less. At the 80% of median income level, at 30% of income for housing, only 69.5% of units will be affordable in 2010 compared to 87.3% of units in 2005, and at 22% affordability level, the percent of the rental market that is affordable drops from 68.2% in 2005 to 40.7% in 2010.

Long-term Future Housing Affordability – 2025

The housing affordability situation continues to worsen over the long-term, although projections of income and housing market price changes are much more uncertain that short-term projections. The assumptions made in the calculations are reasonable given historical trends, and the calculations show the expected market changes for the 2005-2010 period become more accentuated going out another fifteen years.



The changing rental affordability situation from 2005 to 2025 for households is shown in Chart 3.

Ownership Market Affordability: 2005 - 2025

Incomes in the County are assumed to grow by 2.0 percent per year, which is the approximate average increase from 1990-2005 in constant dollars. Housing sales prices, given current market conditions and changes are assumed to be flat in 2006, rise by 2.0 percent in 2007, 4.0 percent in 2008, and then resume a long term rate of increase of 6.0 percent per year.

These are somewhat conservative assumptions. For the Washington metropolitan area, prices have increased 7.2 percent per year from 1977 through 2005. There have been large increases in housing prices over the past few years, with annual increases in the double digits since 2001, and over 20 percent in 2004 and 2005. A cooling of the market has been expected and is occurring in 2006 as prices on a monthly basis compared to 2005 have turned slightly downward in the summer months compared to a year ago. (Chart 4) This will likely mean that the overall average price for 2006 will be approximately the same as 2005, and then in 2007 prices will begin to increase again and the long term rate of increase is assumed to be 6.0 percent per year – less than the long-term historical rate of 7.2%.

Current Housing Affordability – 2005

For the ownership housing market, the affordability situation in Fairfax County is a much more sever issue than for the rental market, and it has deteriorated precipitously since 2000. Calculations were made for the nominal income ranges from 60% of median in 10% increments up to 120% of median. Fannie Mae's calculator for "How much housing can you afford" was used to determine affordability. The calculator is based on mortgage industry practices for acceptable income levels, and made the following other assumptions in the calculations: 30-year mortgage at 6.5% interest, $20,000 in cash available, $700 monthly debt, and 5% down payment.

The calculations are given in Table S-1, and show for 2005 that less than 10% of units are affordable to households making 80% of median, 28% of units are affordable at 100% of median income, and less than half of the units are affordable at 120% of median income.

2010 – 2025 Housing Affordability

Calculations for the affordability situation in the ownership market for 2010 and 2025 show a bad situation getting even more severe. Households making less than the median will have almost no opportunity to become home owners, and even those making more than the median will have their opportunities greatly reduced.

Chart 5 summarizes the affordability situation regarding the for-sale housing market.

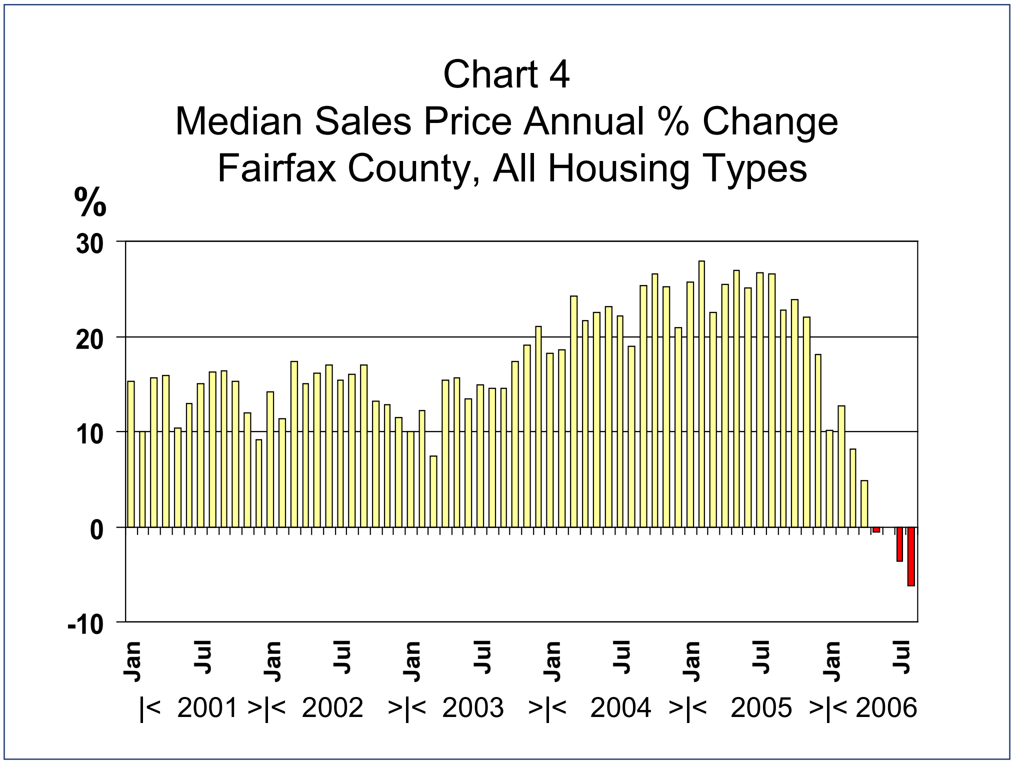


Chart 4
Median Sales Price Annual % Change
Fairfax County, All Housing Types
%
30
20
10
0
-10
Jan
Jul
Jan
Jul
Jan
Jul
Jan
Jul
Jan
Jul
Jan
Jul
|< 2001 >|< 2002 >|< 2003 >|< 2004 >|< 2005 >|< 2006

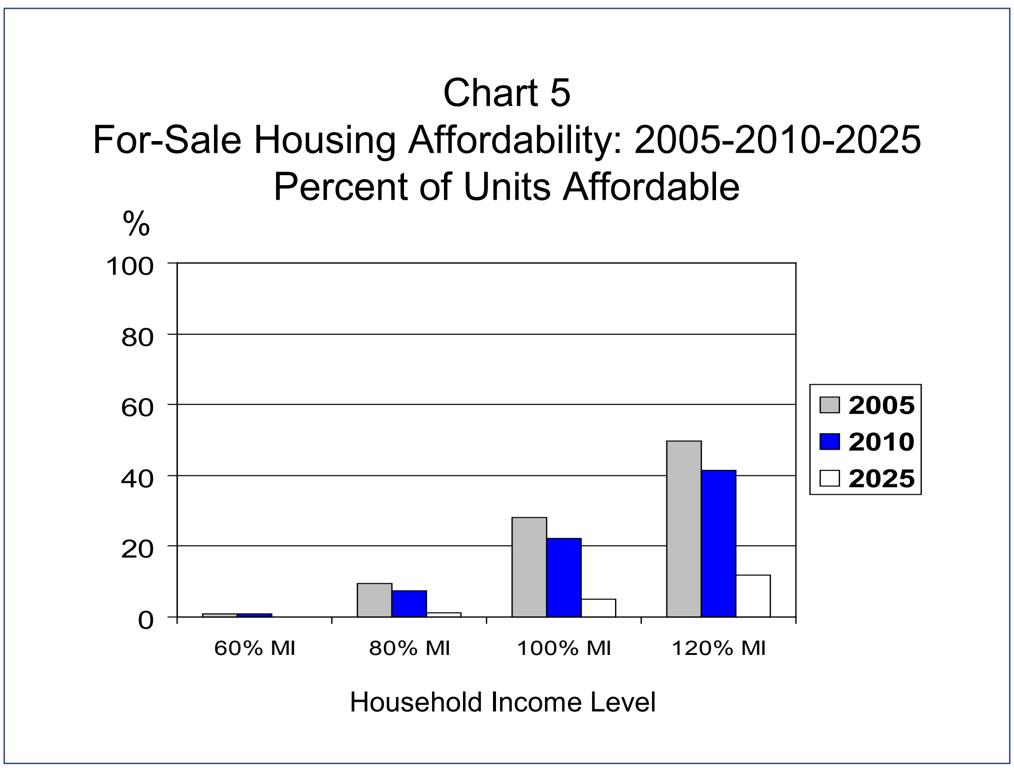
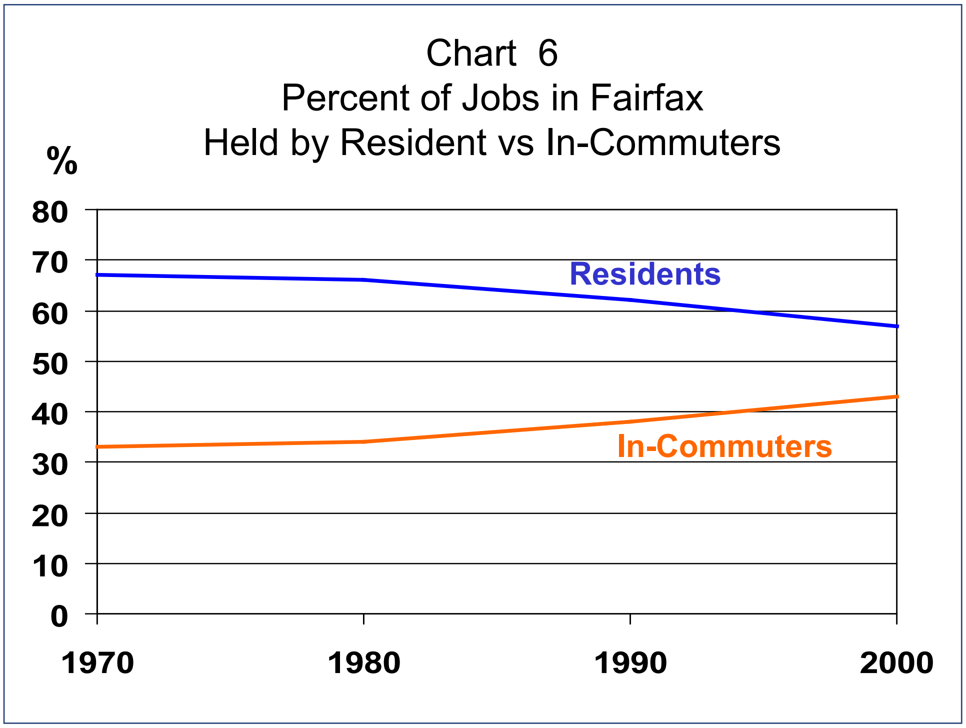


Chart 5
For-Sale Housing Affordability: 2005-2010-2025
Percent of Units Affordable
%
100
80
60
40
20
0
60% MI
80% MI
100% MI
120% MI
Household Income Level
2005
2010
2025

Workforce Location and Household Migration

Commuting data from the Census show that as Fairfax County has become an economic powerhouse and generator of job growth, increasingly the jobs in the county are held by non-resident in-commuters, especially from the Western and Southern counties of Loudoun, Prince William, Stafford, Spotsylvania, and Fauquier. Chart 6 shows the trend over the last thirty years.



Commuting data from the Census also show that it is the workers with lower incomes that are commuting from outside the County. The average household income for Fairfax residents who also work in the County in 200 was $110,100. In-commuters incomes were lower, and, for example, those commuting from Prince William County to jobs in Fairfax had incomes of $87,500 – or 21% less.

Underscoring the in-commuting trend is the trend in the relocation of households from Fairfax to outlying counties. IRS publishes annual data on county-to-county migration as measured by tax returns by location in one year compared to the next year. This approximates the number of households, and the number of exemptions per return is a surrogate for population per household. The data series also provides median adjusted gross income on the returns.

These data show that from 2000 to 2004, an estimated 88,300 households moved from Fairfax to another jurisdiction in the Washington metropolitan area. By far the largest movements were to Loudoun (21,800) and Prince William (23,400). There were significant movements to Stafford and Spotsylvania as well by what appear to family households with more modest incomes seeking more affordable housing.

Conclusions and Recommendations

Housing that is affordable to Fairfax County's workforce has dwindled significantly in the past several years, at the same time that the County's economy was growing into one of the strongest in the U.S. This research has analyzed the county's job growth trends and forecasts in relation to the rental and for-sale housing markets. Key conclusions and recommendations are as follows:

- There has not been enough housing built in the County in the past fifteen years to supply enough workers relative to the increase in jobs in the County, and this imbalance and housing deficit situation will become worse in the future if the adopted forecasts of jobs and households are realized. Aside from the price of housing, more housing is needed in the County to catch up with job growth in the past and to keep pace with the job growth expected in future years. County policies and plans need to be examined to determine how to increase housing supply in the County.

- There are many jobs in the County that pay less than the median household income, even when there are two workers in the household. While the largest growth in jobs has been in relatively higher paying sectors, there are many jobs in sectors that have average pay scales that with two workers their incomes are not sufficient to afford much of the housing supply in the County.

- The rental housing market is more affordable than the for-sale market given market trends over the past several years. As of 2005, a household making the median income could afford most of the rental units available. However, this level of affordability will decline over the next few years as rent levels will increase, and even the rental market will become less affordable to families of moderate incomes.

- The increase in the for-sale housing market in this decade has put the prospects for home ownership out of reach for a large portion of the County's families. In 2005, slightly less than half of the for-sale units in the County were affordable to households making 120% of median income, and households in the workforce at the 80% of median income level could afford only 9.4% of the housing supply in the County.

- The trends in in-commuting and residence relocation indicate that people working in the County are increasingly forced to locate in areas where housing is more affordable outside the County.

- The housing affordability situation in the County is reaching crisis and serious attention needs to be given to development of new policies and programs for both rental and ownership housing for County residents and job holders.

Table R-1

2005
Availability of Rental Housing: Using median household income=$94,610

% County Median Income	Household Income ($)	Maximum Affordable Rent = 30% income ($)	No. of Rental Units	% of Total
50	47,305	1,183	43,552	45.7%
60	56,766	1,419	66,793	70.1%
70	66,227	1,656	78,770	82.7%
80	75,688	1,892	83,187	87.3%
90	85,149	2,129	83,864	88.0%
100	94,610	2,365	92,441	97.0%
110	104,071	2,602	93,632	98.2%
120	113,532	2,838	94,585	99.2%

2010
Availability of Rental Housing: Using median household income=$104,071

% County Median Income	Household Income ($)	Maximum Affordable Rent = 30% income ($)	No. of Rental Units	% of Total
50	52,036	1,301	22,921	22.1%
60	62,443	1,561	45,787	44.1%
70	72,850	1,821	66,644	64.1%
80	83,257	2,081	72,215	69.5%
90	93,664	2,342	84,236	81.1%
100	104,071	2,602	98,967	95.2%
110	114,478	2,862	101,010	97.2%
120	124,885	3,122	102,601	98.7%

Notes: Assume income increases by 2% annually and rents increase 7% annually between 2005 and 2010. Assumes rental stock grows at the same rate as County forecasts of household growth.

2025
Availability of Rental Housing: Using median household income=$135,292

% County Median Income	Household Income ($)	Maximum Affordable Rent = 30% income ($)	No. of Rental Units	% of Total
50	67,646	1,691	20,914	17.5%
60	81,175	2,029	42,377	35.5%
70	94,704	2,368	68,733	57.5%
80	108,234	2,706	87,443	73.2%
90	121,763	3,044	97,864	81.9%
100	135,292	3,382	111,942	93.7%
110	148,821	3,721	115,074	96.3%
120	162,350	4,059	117,513	98.3%

Notes: Assume income increases by 2% annually and rents increase 2.5% annually berween 2010 and 2025. Assumes rental stock grows at the same rate as County forecasts of household growth.

Sources: GMU estimates based on data from the U.S. Census Bureau and Fairfax County DTA.

Table R-2

2005
Availability of Rental Housing: Using median household income=$94,610

% County Median Income	Household Income (2005 $)	Maximum Affordable Rent = **22%** income ($)	No. of Rental Units	% of Total
50	47,305	867	13,819	14.5%
60	56,766	1,041	28,952	30.4%
70	66,227	1,214	47,507	49.8%
80	75,688	1,388	65,005	68.2%
90	85,149	1,561	75,087	78.8%
100	94,610	1,735	90,240	94.7%
110	104,071	1,908	92,342	96.9%
120	113,532	2,081	93,978	98.6%

2010
Availability of Rental Housing: Using median household income=$104,071

% County Median Income	Household Income (2005 $)	Maximum Affordable Rent = **22%** income ($)	No. of Rental Units	% of Total
50	52,036	954	7,274	7.0%
60	62,443	1,145	12,549	12.1%
70	72,850	1,336	24,805	23.9%
80	83,257	1,526	42,290	40.7%
90	93,664	1,717	58,735	56.5%
100	104,071	1,908	92,639	89.1%
110	114,478	2,099	97,340	93.7%
120	124,885	2,290	101,002	97.2%

Notes: Assume income increases by 2% annually and rents increase 7% annually between 2005 and 2010. Assumes rental stock grows at the same rate as County forecasts of household growth.

2025
Availability of Rental Housing: Using median household income=$135,292

% County Median Income	Household Income (2005 $)	Maximum Affordable Rent = **22%** income ($)	No. of Rental Units	% of Total
50	67,646	1,240	6,919	5.8%
60	81,175	1,488	12,323	10.3%
70	94,704	1,736	23,328	19.5%
80	108,234	1,984	39,605	33.1%
90	121,763	2,232	58,057	48.6%
100	135,292	2,480	104,127	87.1%
110	148,821	2,728	110,515	92.5%
120	162,350	2,976	115,491	96.6%

Notes: Assume income increases by 2% annually and rents increase 2.5% annually berween 2010 and 2025. Assumes rental stock grows at the same rate as County forecasts of household growth.

Sources: GMU estimates based on data from the U.S. Census Bureau and Fairfax County DTA.

Table S-1

2005
Availability of For-Sale Housing: Using median household income=$94,610

% County Median Income	Household Income ($)	Maximum Affordable For-Sale Home ($)*	No. of Units Sold in 2005	% of Total
50	47,305	149,453	30	0.1%
60	56,766	195,804	248	1.1%
70	66,227	242,157	903	4.1%
80	75,688	288,509	2,070	9.4%
90	85,149	334,305	3,784	17.2%
100	94,610	384,444	6,213	28.2%
110	104,071	429,790	8,619	39.1%
120	113,532	475,137	10,944	49.7%

2010
Availability of For-Sale Housing: Using median household income=$104,071

% County Median Income	Household Income ($)	Maximum Affordable For-Sale Home ($)*	No. of Units Projected to be Sold in 2010	% of Total
50	52,036	172,631	27	0.1%
60	62,443	233,618	277	1.2%
70	72,850	274,605	753	3.1%
80	83,257	325,592	1,781	7.4%
90	93,664	376,579	3,277	13.6%
100	104,071	427,301	5,351	22.3%
110	114,478	478,552	7,496	31.2%
120	124,885	529,539	9,921	41.3%

Notes: Assume income increases by 2% annually and home prices increase 3.4% annually between 2005 and 2010. Assumes number of home sales grows at the same rate as County forecasts of household growth.

2025
Availability of For-Sale Housing: Using median household income=$135,292

% County Median Income	Household Income ($)	Maximum Affordable For-Sale Home ($)*	No. of Units Projected to be Sold in 2025	% of Total
50	67,646	249,109	9	0.0%
60	81,175	315,391	23	0.1%
70	94,704	381,674	87	0.3%
80	108,234	447,961	311	1.1%
90	121,763	514,244	728	2.6%
100	135,292	580,526	1,366	4.9%
110	148,821	646,808	2,180	7.9%
120	162,350	713,090	3,253	11.8%

Notes: Assume income increases by 2% annually and home prices increase 6% annually between 2010 and 2025. Assumes number of home sales grows at the same rate as County forecasts of household growth.

Source: GMU, based on MRIS data.