

Housing Needs and Market Analysis
Thomas Jefferson PDC

Prepared by

**Marilyn Cavell
Ted Koebel, Ph.D.
Casey Dawkins, Ph.D.
Patricia Renneckar**

Center for Housing Research
Virginia Tech

October 2006

Table of Contents

Summary	1
Description of Study Area.....	5
Housing Market Characteristics	6
Homeownership	6
Building Permits	9
Housing Stock	10
Vacancy Rates	12
Incomes and Poverty.....	14
Household Income	14
Family Income	15
Poverty	16
The Affordable Housing Gap in 2000	19
Employment and Housing.....	20
Workforce Housing	20
Employment	32
Commuting Patterns	34
Race and Ethnicity	39
Racial Composition	39
Patterns of Segregation	39
Special Needs Populations	42
Homelessness	42
Persons with a Disability	43
Housing the Disabled	44
Senior Households	45
Housing Tenure (Owner Values and Rents).....	49
Housing Prices	49
Rental Housing	54
University Influence.....	55
Influence on Housing Consumption	55
Influence on the Rental Market	56
Influence as an Employer	57
Population Growth and Household Composition	57
Migration	58
Projected Housing Demand	62
Young Family Segment	67
Early Middle-Age (35-44) Family Segment	67
Middle-Age (45-64) Family Segment	68
Senior (65+) Segment	68
Non-elderly (under 65) Singles and Unrelated Individuals	69
The Low-Income Housing Segment	69
Conclusion	71

Summary

The need for affordable housing in the Thomas Jefferson PDC is a consistent theme throughout this report. The Charlottesville MSA had the second highest median gross rent as a percent of household income in 2005 (31.7%) of all MSA's in Virginia¹. The monthly median gross rent in 2005 for the MSA was \$814, and we estimated median gross rent of \$871 for two bedroom apartments on the market in January 2006 in the PDC. In 2005, the median house value was \$225,500 for the Charlottesville MSA and as of the second quarter of 2006, the median home sales price for the PDC was \$265,000. The Charlottesville MSA tied with the Washington-Arlington-Alexandria DC-VA-MD-WV MSA for the highest median monthly owner costs for owners with a mortgage as a percent of household income in 2005 (24.1%).

Despite high prices, home sales in the PDC were robust with sales prices in the second quarter of 2006 increasing in Albemarle, Fluvanna, Greene, and Louisa counties. The number of days on the market declined steadily from 2000 to 2005 (single-family homes were on the market for an average of 66 days in 2005 and condominiums an average of 32 days). Single-family sales increased 68% between 2000 and 2005 and condominium sales soared over the same time period with a 294% increase in sales. Residential single-family building permits steadily rose through 2005, and the owner vacancy rate for the Charlottesville MSA was less than 1% in 2005 indicating a very tight owner market.

The strong sales market is driven by higher income households and previous homeowners taking advantage of low mortgage rates to “trade up” in the market. For many others, homeownership is out of reach. While the homeownership rate for the PDC in 2000 was 66.5%, the homeownership rate for the Charlottesville MSA in 2005 was 63%. For a consistently defined MSA, the comparable ownership rate in 2000 was 64.2%. It is likely that high costs were a significant factor contributing to a lower ownership rate in 2005 than in 2000.

With a median gross rent of \$814 for the MSA in 2005, renting is not a more affordable alternative to ownership. While students at the University of Virginia clearly contribute to a large rental market in Charlottesville and Albemarle County, other areas of the PDC have limited rental stock. Rents in the outlying areas of the PDC are fairly comparable to their more urban neighbors. This is partly because the supply of rental housing is insufficient to keep up with demand as indicated by very low renter vacancy rates (3.9% for the MSA in 2005 and even lower in some jurisdictions as indicated by 2000 renter vacancy rates) and partly due to the high rent levels in Charlottesville and Albemarle driven by student roommates who share the rent.

The median family income in 2005 for the Charlottesville MSA was \$62,286. (The Census Bureau warns that its 2005 median incomes may be underestimated by about 4%.) The HUD 2006 estimate for Area Median Family Income in 2006 for the

¹ We included in the comparison the Washington -Arlington-Alexandria DC-VA-MD-WV MSA which contains jurisdictions outside of Virginia (the ratio for this MSA was 28.6, lower than the Charlottesville MSA).

Charlottesville MSA was \$66,500. The median household income (\$47,543 in 2005 according to the Census Bureau) was significantly lower than the median family income as the family category does not include single-person households and households made up entirely of unrelated individuals.

While the economy in the PDC is thriving with over 17,000 new jobs between 1990 and 2000 and a current unemployment rate of 2.9%, many of these are modest paying jobs. For the 2003-2005 time period, the top five occupations as ranked by number of workers had an average annual wage of under \$25,000. The current minimum entry level wage for the University of Virginia, the PDC's largest employer, is \$9.37 an hour which is equivalent to an annual wage of just under \$20,000. Those at the lower end of the income scale are losing ground as reflected by the trend in poverty rates. The 2000 poverty rate in the MSA was about 12%, but was nearly 14% in 2005.

There is a significant shortfall of affordable housing in the PDC. We estimated a gross deficit of about 4,660 affordable rental units for renters with incomes below 50% of the Area Median Family Income in 2000. Low and very low-income homeowners also faced a shortage of affordable units, with a deficit of about 4,200 affordable owner units in 2000. Even when there are a sufficient number of housing units for certain income level households, competition for those same units from those of a higher income level contributes to the affordable housing gap. The result is that low income people have to pay a high portion, sometimes in excess 50%, of their income for housing. (This can also be seen as an income problem rather than a housing problem.)

Workers in occupations vital to the community have difficulty finding affordable housing in the PDC. We estimated that there were only 129 single-family homes and 42 condominiums sold in the PDC between 2004 and 2005 that were affordable to firefighters and police officers based on the wage for entry-level positions. We estimated there were 94 rental units on the market affordable to people in these occupations. With an additional wage earner contributing to household income, we estimated there were 503 single-family homes, 503 condominiums, and 219 rental units that firefighter and police officer households could afford. Simply stated, without an additional income source, these vital workers and many more in lower paying occupations will find it increasingly difficult live and work in the PDC unless housing costs go down or wages go up.

Although the evidence is not conclusive, housing costs could be contributing to the large numbers of commuters driving from within and outside the PDC to jobs in Albemarle County and Charlottesville. In 2000, Albemarle County and Charlottesville were net importers of workers with (4,746 and 14,379 respectively). From within the PDC, most workers commuted into Albemarle County from Charlottesville and Fluvanna County. The most workers commuted into Charlottesville from Albemarle County and Fluvanna County. From outside of the PDC, the top jurisdictions in 2000 from which workers commuted into both Albemarle County and Charlottesville were Orange County, Augusta County, and Buckingham County.

The homeless, the disabled, those living in poverty, the senior (65 and over) population, and the university student population have special needs or impacts on housing.

- Homelessness, the most severe housing problem, continues in the PDC but a greater number of homeless were accessing shelters in 2006 than prior years.
- Persons with disabilities (16% of the persons 5 or older in the PDC had at least one disability in 2000) have difficulty finding affordable housing close to needed services.
- The poverty rate in the region grew by 16% from 2000 to 2005 with about 14% of the population of the Charlottesville MSA living below poverty in 2005 (as compared to about a 12% poverty rate in the MSA and an 11% poverty rate in the PDC in 2000). This means those who can least afford housing are also increasing.
- About 20% of households in the MSA in 2005 and the PDC in 2000 had a householder 65 years of age or older. About a fourth of non-family households in the PDC were senior non-family households, which for the most part would be seniors living alone. About 30% of owner households with incomes below 30% of median family income were households having one or two members aged 62 to 74 years of age.
- The large presence of college students in the PDC has a significant impact on the rental market in the area. We estimate that students consume about 53% of the rental stock in Charlottesville. In addition, the artificial demographics students bring to the area (a parent who helps support their student often lives in a higher paying area and considers the rent their student splits with other students a bargain) help drive up the cost of renting.

Racial segregation also influences the housing choices available to minorities. An index measuring segregation indicated a moderate level of segregation of blacks from whites in the PDC in 2000.

The PDC has been growing in population slowly, but steadily. Between 2000 and 2005 the regional population grew by an estimated 10,200 to 11,500 people through net immigration. Most of the in-migrants to the PDC come from outside of Virginia. The largest number of in-migrants from a single location to the PDC moved from Fairfax County followed by Amherst County and Henrico County. The largest number of people moving out of the PDC went to other states. Flow to in-state locations was next for receiving the most out-migrants. The single location for the largest number of out-migrants from the PDC was Henrico County followed by Orange, Fairfax, and Augusta counties. Albemarle County had the largest number of in-migrants from outside the PDC of any PDC jurisdiction. On the other hand, Albemarle County lost more people than it gained from 1999 to 2004 to the PDC jurisdictions of Fluvanna, Greene, Louisa, and Nelson counties. Charlottesville, with a net migration of -2,208, was the only jurisdiction in the PDC that lost more people than it gained both from outside and within the PDC.

The population and consequently the number of households are expected to grow steadily in the PDC through the next decade. An increase of 11,159 households is projected for 2000-2010 followed by an increase of 9,713 from 2010-2020. An increase in households implies the need for additional housing units to accommodate those households. We

project owner and renter housing demand to continue to increase, reaching 7,836 units by 2010 and 6,754 by 2020 for owners and 3,323 units by 2010 and 2,958 by 2020 for renters.

Description of Study Area

Located southwest of the Washington-Arlington-Alexandria DC-VA metropolitan area and west of the Richmond metropolitan area, the Thomas Jefferson Planning District Commission's (PDC) central location in the Piedmont Region of Virginia makes it an attractive place to live and work. Planning districts were established by the Virginia General Assembly and consist of a group of counties and independent cities with common regional interests (PDC's are Virginia geographic units and are not Census-designated geographies). As part of their regional mission, the Thomas Jefferson PDC commissioned the Center for Housing Research at Virginia Tech to prepare this housing needs and market analysis for the district.²

The Thomas Jefferson PDC is comprised of six jurisdictions: Albemarle County, Fluvanna County, Greene County, Louisa County, Nelson County, and the City of Charlottesville. The PDC is represented partially in the Charlottesville Metropolitan Statistical Area (MSA) which includes all jurisdictions except Louisa County. The focus of this study is the PDC as a whole, although each jurisdiction within the PDC has its own unique characteristics that are sometimes discussed.

A largely rural area, the 2005 Census population estimate for the PDC was 218,444 persons for an area covering approximately 2,146 square miles. Albemarle County, with over 40% of the PDC's population and consisting of 726 square miles, is the largest jurisdiction within the PDC. Centrally located within the PDC, Charlottesville is the home of the University of Virginia and provides the most jobs in the district. Both these jurisdictions (which we sometimes refer to as the urban core areas of the PDC) significantly impact their more rural neighbors especially in respect to where people live and work.

People are attracted to the PDC for many reasons. The PDC offers an excellent quality of life and a variety of job opportunities. For example, young professionals come to the PDC for good jobs, the appealing urban atmosphere of Charlottesville, and outdoor recreation opportunities. Regional salespersons choose the PDC as their home base as it offers easy access to customers along the eastern seaboard. Pilots who operate out of Dulles International Airport, about an hour north of the area, sometimes choose the PDC as a place where their children can get a good education yet is away from the traffic and even higher living costs of Northern Virginia. Some choose the area as the location for their second home or for investment property. Retirees come to the PDC so that they can be close to family located in the area or in a number of other metropolitan areas close by and be assured of excellent health care. All come to enjoy the history and beauty of the area and the educational, cultural, and sports activities associated with the University of Virginia.

² Please note that whenever possible we used the most recent data available for this study. For many housing statistics, the 2000 Census data were the most recent data available. Most of the data we reported for the PDC were aggregated from jurisdiction level. However, as a surrogate for PDC level data, we occasionally used the American Community Survey's 2005 MSA data which does not include Louisa County.

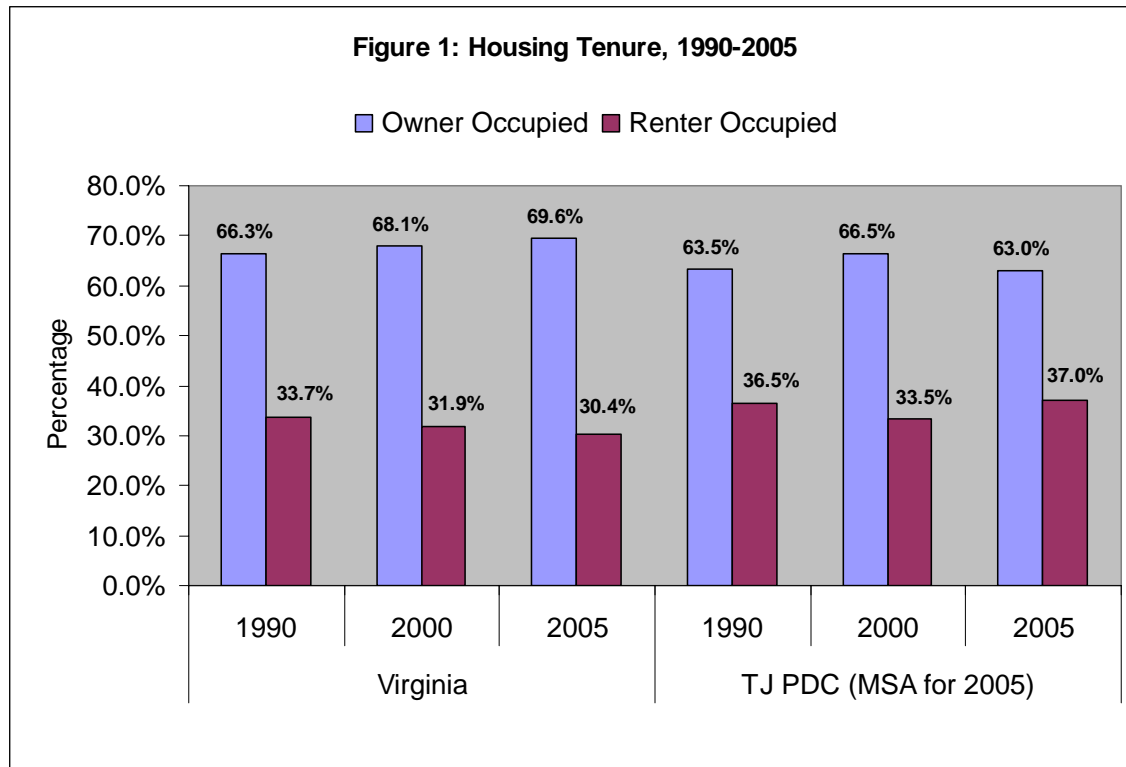
Whether people migrate from other areas to live in the PDC or already live in the area, housing choices are many. Depending on needs or interests, a person can live in a rural or more urban setting, a single-family home or a condominium. Nelson County, the home of Wintergreen Resort, offers a variety of options for second homes. Planned communities such as Forest Lakes in Albemarle County offer a broad range of housing choices and community amenities appealing to families, young professionals, and retirees. Charlottesville offers mixed use housing in a more urban setting. Students and others not interested in the owner market have a large stock of rental housing to choose from in Charlottesville and Albemarle including luxury apartments such as Eagles Landing. What the PDC does not offer in abundance, is affordable housing for those with limited incomes already living and working in the area.

Housing Market Characteristics

The housing market in the Thomas Jefferson PDC is growing and has both positive and negative impacts on the area and its residents. In 2004, there were an estimated 94,751 housing units in the PDC (37,839 or 40% of those units were located in Albemarle County) as compared to 85,724 units in 2000 (about an 11% increase). In 2000, the PDC had 77,520 occupied housing units (or households), 51,568 of which were owner-occupied and 25,952 renter-occupied. The Center for Housing Research projects owner and renter housing demand to continue to increase, reaching 7,836 units by 2010 and 6,754 by 2020 for owners and 3,323 units by 2010 and 2,958 by 2020 for renters.

Homeownership

As shown in Figure 1, the 2005 homeownership rate for the Charlottesville MSA was 63%, down from the 2000 rate (for a consistently defined MSA, the comparable ownership rate in 2000 was 64.3% while the homeownership rate for the PDC was 66.5%). By comparison, Virginia's homeownership rate in 2005 was 69.6% and 68.1% in 2000. From 1990 to 2000, the homeownership rate increased for both the PDC and Virginia with the homeownership rate for the PDC increasing at a greater rate than the state. Between 2000 and 2005, however, this trend changed. The homeownership rate for the MSA (and by assumption the PDC) declined between 2000 and 2005 while the homeownership rate for the state increased. It is likely that high costs in PDC were a significant factor contributing to a lower homeownership rate in 2005 than in 2000.



Source: US Census 1990-2000 and Census 2005 ACS

To get a better sense of homeownership in the PDC, we need to look at each jurisdiction (PDC comparisons must be based on 2000 data since 2005 data were not available for all jurisdictions). As seen in Table 1, some jurisdictions have quite high ownership rates while others (Albemarle County and Charlottesville) have lower rates. Fluvanna had the highest homeownership rate in 2000 (85.3%). The counties of Greene, Louisa, and Nelson also had 2000 homeownership rates above 80%. The counties of Fluvanna and Greene had a considerable jump in their homeownership rates between 1990 and 2000 (6.8% and 6.1% respectively). On the other hand, Charlottesville's rate declined by nearly 4% over the decade. Charlottesville had the lowest percent of owners in 2000 (40.9%). The relatively large number of renters in Charlottesville significantly lowered the homeownership rate for the PDC. Clearly the student rental market in Charlottesville reduces the homeownership rate of the City and consequently the whole PDC. In addition to rental demand among college students, higher land costs in Charlottesville and in Albemarle, as well as the availability of urban services, result in higher densities and the centralization of rental housing.

Table 1: Homeownership Rate by Jurisdictions, TJ PDC, 2000

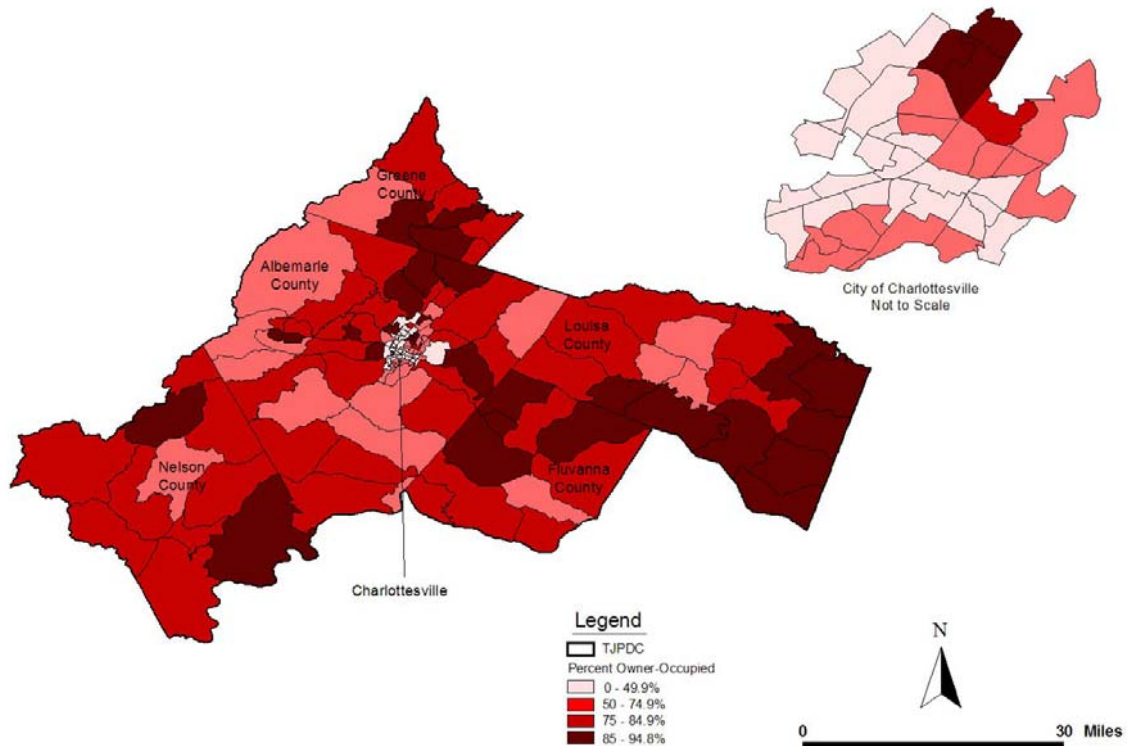
Year	Homeownership Rate					
	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
1990	64.1%	79.8%	76.8%	79.9%	79.1%	42.4%
2000	65.8%	85.3%	81.5%	81.4%	80.8%	40.9%

Source: US Census 2000

Map 1 shows for the PDC in 2000 the percent owners by block group (block groups are small Census-designated geographies that make up a county or independent city). The map allows us to see small areas where homeownership was more concentrated and conversely, areas where renter occupied units were most prevalent.

Map 1.

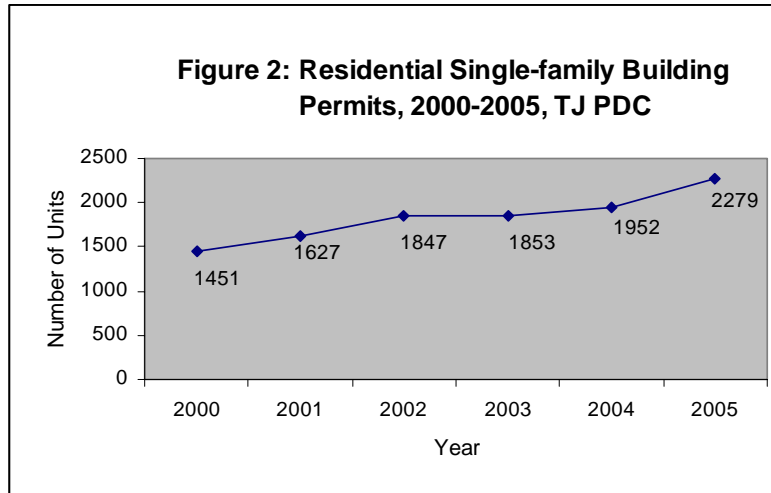
Percent Owner-Occupied by Block Group Thomas Jefferson PDC, 2000



Source: US Census 2000

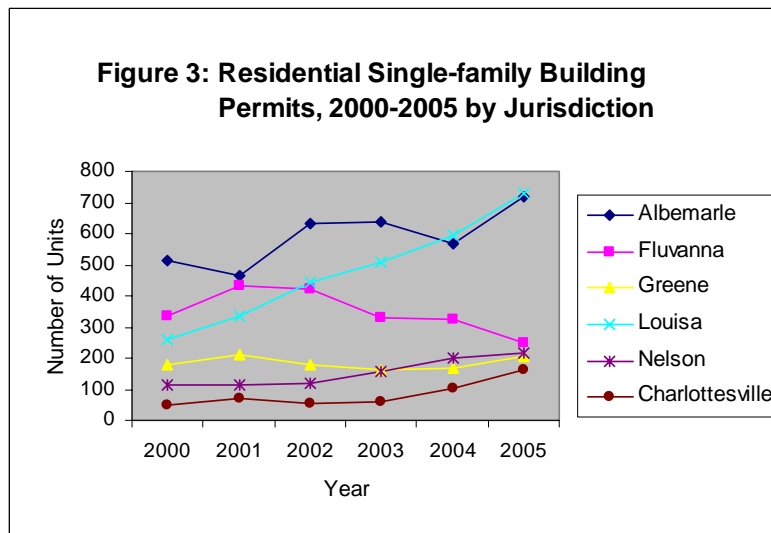
Building Permits

The number of authorized residential single-family building permits steadily increased from 2000 to 2005 in the Thomas Jefferson PDC. In 2005, 2,279 single-family building permits were issued throughout the PDC. (See Figure 2.)



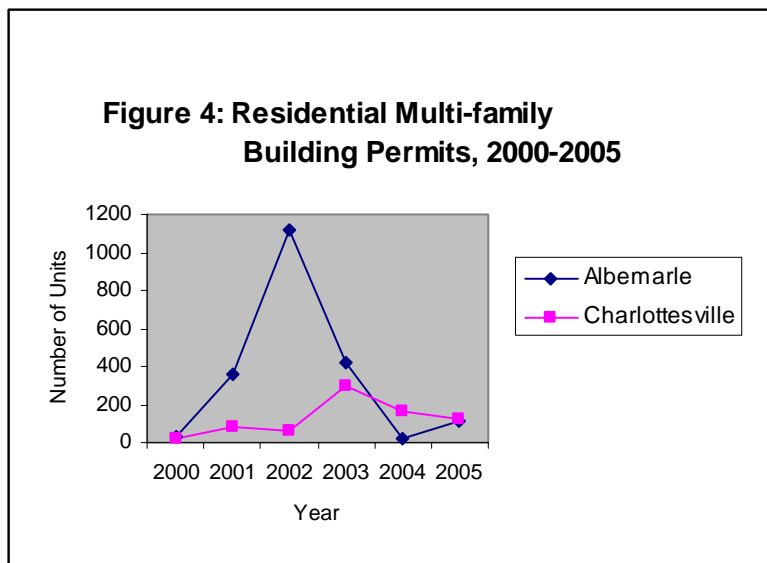
Source: Weldon Cooper Center

As shown in Figure 3, single-family building activity varied within the PDC over a six year time period. Albemarle had the largest number of single-family permits issued while Charlottesville had the lowest. The number of permits held relatively steady for Nelson and Greene counties between 2000 and 2005 while the number of permits in Fluvanna County decreased. Louisa County had a significant increase in the number of residential units built, with 262 permits issued in 2000 compared to 728 in 2005.



Source: Weldon Cooper Center

Residential multi-family building permits almost exclusively were issued in Albemarle County and Charlottesville between 2000 and 2005. Figure 4 shows the building permit activity for those two jurisdictions (Fluvanna and Louisa counties had a few multi-family permits issued, but that permit activity is not shown). In 2002, Albemarle had a strong surge in multi-family building permits (1,120 units) which reflects the building of large apartment complexes in close proximity to Charlottesville intended to attract the UVa student market. After dropping in 2003 and 2004, Albemarle saw a modest rise in multi-family building permits in 2005 (108 units). Charlottesville's peak in multi-family building permits over the six year period was in 2003 (299 units). Since that time multi-family building permits in Charlottesville have steadily, but slowly declined with permits issued for 122 multi-family units in 2005.



Source: Weldon Cooper Center

Housing Stock

Table 2 shows that in 2005 nearly two-thirds of the housing stock in the Charlottesville MSA consisted of single-family units. While the MSA does not include Louisa County and therefore is not directly comparable to the 1990 and 2000 PDC data, Table 2 shows a trend toward an increased number of multi-family units after stagnation or even a slight drop between 1990 and 2000 in the PDC. The percent of manufactured housing (the Census refers to these as mobile homes) decreased by nearly 20% in the PDC from 1990 to 2000. The MSA data suggests manufactured homes were an even smaller share of the stock in 2005.

Table 2: Units in Structure TJ PDC, 1990-2000 and Charlottesville MSA, 2005

Units in Structure	TJ PDC				MSA
	1990		2000		2005
Single-family	47,560	69.9%	63,197	73.7%	65.7%
Duplex/Townhouses (3-4 units attached)	4,785	7.0%	5,281	6.2%	11.7%
Multi-family	9,301	13.7%	11,629	13.6%	17.3%
Manufactured housing	5,382	7.9%	5,504	6.4%	5.4%
Total Housing Units	68,075		85,724		74,443

Source: US Census 1990-2000 and 2005 ACS

As shown in Table 3, as would be expected, over half of Charlottesville's housing stock in 2000 was multi-family. Fluvanna County, Greene County, Louisa County, and Nelson County all had a large portion of single-family units and a negligible amount of multi-family housing stock. Louisa County had the highest percentage of manufactured homes (13%) and housing stock in both Greene and Nelson counties consisted of 10% manufactured homes. Less than 1% of Charlottesville's housing stock was manufactured homes in 2000.

Table 3: Units in Structure by Jurisdiction TJ PDC, 1990-2000

Units in Structure	TJ PDC Jurisdiction					
	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
Single-family	62.9%	91.1%	83.7%	81.7%	72.4%	47.6%
Duplex/Townhouses(3-4 units attached)	14.5%	2.1%	3.1%	2.5%	6.8%	25.9%
Multi-family	17.3%	0.8%	1.7%	2.3%	10.0%	25.7%
Manufactured housing	5.2%	5.6%	11.3%	13.3%	10.8%	0.8%
Total Housing Units	33,720	8,018	5,986	11,855	8,554	17,591

Source: US Census 1990-2000

Manufactured Housing

Manufactured homes typically have been considered an affordable housing option. In 2005, manufactured homes accounted for only 5% of occupied housing units in the Charlottesville MSA. One reason for the decline (as seen in Table 2) in manufactured homes is that they are aging. According to the 2000 Census, across all jurisdictions in the PDC, about 40% of manufactured homes were built prior to 1979. The 1974 National Manufactured Housing Construction and Safety Standards Act passed by HUD created stringent regulations for building and placement of manufactured homes. The intent was to improve the quality and durability of manufactured units in order to reduce personal injury and property damage. In Charlottesville, over half of all manufactured stock was built prior to the HUD ordinance. Newer, better quality, manufactured homes are not an option in the city, however, as current zoning in the city prohibits the placement of any new manufactured units for residential purposes.

While the aging stock of manufactured homes in the area brings into question the quality of housing these units provide, for many residents, particularly in rural areas, manufactured homes are an affordable solution to housing needs (the 2005 median value of manufactured homes in MSA was \$84,900). Also, with few rental options (almost no multi-family units) in rural areas, manufactured housing can serve an important role in the rental market. Of the manufactured units built prior to 1979 in the PDC, 40% were renter-occupied in 2000 while for all manufactured homes, 25% were renter-occupied. As older manufactured units continue to decay, displaced residents will need other options for affordable housing.

Vacancy Rates

The vacancy rate³ is a key indicator of the adequacy of the supply of housing relative to demand. A five percent vacancy rate is largely accepted as a minimum benchmark for a sufficient number of housing units available for occupancy by people searching for housing. Vacancy rates below five percent often reflect “tight” housing markets where prices can escalate rapidly and supply is low. Rates significantly above five percent can reflect “weak” markets where prices (and maintenance) can be depressed by an excess supply of housing.

Rather than looking at the total vacancy rate, we generally look at the vacancy rate for renters and the vacancy rate for owners. The 2000 renter vacancy rate for the PDC (3.4%) as shown in Table 4 was well below the five percent benchmark that indicates a tight market and a shortage of rental housing. While renter vacancy rates declined more from 1990 to 2000 for Virginia (35% decline) than for the PDC, the renter vacancy rate for the PDC declined by 26% percent, showing a significant tightening of the rental market over the decade. In 2000, the renter vacancy rate for the PDC was nearly two points lower than the rate for Virginia. Based on the Census 2005 American Community Survey (ACS), the renter vacancy rate for the Charlottesville MSA in 2005 was 3.9%, only slightly higher than the 2000 rate for the PDC.

According to HUD’s Office of Policy Development and Research, there are indications that renter vacancy rates in the PDC are rising from the 2000 rate in response to significant building of apartments in the Charlottesville/Albemarle area. HUD estimated a 5.4% renter vacancy rate for the area including Charlottesville and Albemarle, Fluvanna and Greene Counties as of January 2005. We determined that new apartment complexes such as Eagles Landing located in Albemarle County just outside the Charlottesville border are actively seeking renters. While rents are still quite high in the area, they should begin to level off in response to excess supply. In addition, a surge in ownership demand fueled by low interest rates could be a factor in raising renter vacancy rates. While the 2005 ACS data for the MSA indicates the renter market in the PDC is still tight, a renter

³ The vacancy rate includes only those units for sale or rent and available for occupancy (units for sale or rent / (units for sale or rent + occupied units)). In contrast, total vacant units include these units as well as units rented or sold but not occupied (vacant units used for seasonal, recreational or occasional use; vacant units used for migrant workers; and “other” vacant units not available for occupancy).

vacancy rate above the five percent mark as estimated by HUD would indicate that the area has achieved a reasonable balance between supply and demand.

Table 4: Vacancy Rates by Tenure, TJ PDC, 1990-2000

	Virginia		Charlottesville Area			
			TJ PDC		MSA	HUD Area
Vacancy Rate	1990	2000	1990	2000	2005	2005
Renter	8.2%	5.3%	4.6%	3.4%	3.9%	5.4%*
Owner	2.1%	1.7%	1.4%	1.5%	.7%	1.5%*

Source: US Census 1990-2000 and 2005 ACS

* HUD estimate (only covers Albemarle, Greene, Fluvanna, and Charlottesville)

Owner vacancy rates in the PDC in 2000 were extremely tight at 1.5% (see Table 4). The PDC owner vacancy rate was fairly comparable to that of Virginia in 2000 (1.7%) but while the owner vacancy rate dropped from 1990 to 2000 in Virginia (from 2.1% to 1.7%), it rose slightly in the PDC. Although the 2000 rate in the PDC was slightly higher than in 1990, more important is that supply did not respond to demand over the decade. While HUD's Office of Policy Development and Research reports recent estimates that indicate the rental market has responded to demand, the picture for the owner market is not as optimistic. HUD estimates a 1.5% owner vacancy rate for the area including Charlottesville and Albemarle, Fluvanna and Greene Counties as of January 2005. This estimated owner vacancy rate reflects little or no change since 2000 and indeed since 1990. Even more compelling that the owner market has gotten even tighter in the PDC, the 2005 ACS reports a .7% owner vacancy rate for the Charlottesville MSA.

The overall tightness of the housing market in the PDC will continue to push housing prices and rents higher unless the supply of housing increases sufficiently to produce vacancy rates around 5% (which would have required an additional 1,940 vacant units for sale and 470 vacant units for rent based on the number of owner and renter occupied units in 2000). According to HUD, the rental market is leveling off with evidence of excess units (at least in the higher end market).

The impact of scarce housing is most severe for those seeking lower-cost owner housing. It is virtually impossible to expand the supply of lower cost housing through new construction due to land and construction costs. And with a severe housing shortage, older and lower quality units become more and more attractive to people with higher incomes. Extremely low vacancy rates lead to "bidding wars" when home seekers compete for units that come on the market, with sellers often receiving bids well above their asking price. This shrinks the supply of housing affordable to households with modest incomes by displacing them with households with higher incomes and by increasing the market price for these units. Those displaced either have to find housing outside of the high cost areas (which for the most part in the PDC are also the areas with the most jobs) or be willing to pay a high proportion of their income for housing.

Incomes and Poverty

Household Income

Based on the Census data set American Community Survey (ACS), the 2005 median household income for the Charlottesville MSA was \$47,543⁴ compared to \$44,356 in 2000 (compare with caution: Census 2000 was based on an MSA area which included all jurisdictions in the PDC except Louisa and Nelson counties; Census ACS 2005 was based on an MSA area that excluded only Louisa County). As shown in Table 5, of the jurisdictions within the PDC, Albemarle County had the highest median household income (\$50,749) in the PDC in 2000 (PDC comparisons must be based on 2000 data since 2005 data were not available for all jurisdictions). The City of Charlottesville had the lowest median household income (\$31,007), partly a reflection of the student households. Student households generally report low household income but are not reflective of low income households in the general population. When students are present in large numbers, the median household income for an area is lower than it would be compared to an area with a more “typical” population.

Table 5: Median Household Income by Jurisdiction, TJ PDC, 2000

	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
Median Household Income, 2000	\$50,749	\$46,372	\$45,931	\$39,402	\$36,769	\$31,007

Source: US Census 2000

Table 6 shows the distribution of household income in 2000 for the PDC. Nearly 60% of households had income of less than \$50,000. About one-tenth of households in the PDC had income of less than \$10,000 a year and over 25% had household income less than \$25,000. About 23% of households in the PDC had income greater than \$75,000.

Table 6: Household Income, TJ PDC, 2000

Household Income	TJ PDC	
	Households	%
Less than \$10,000	6,870	8.9%
\$10,000 to \$14,999	4,447	5.7%
\$15,000 to \$24,999	9,720	12.5%
\$25,000 to \$34,999	9,919	12.8%
\$35,000 to \$49,999	13,807	17.8%
\$50,000 to \$74,999	15,347	19.8%
\$75,000 and more	17,476	22.5%

Source: US Census 2000

⁴ The estimated 2005 median household income and estimated 2005 median family income as reported in the American Community Survey are likely underestimated by about 4.4% due to change in definition of the income reporting period.

Family Income

When looking at incomes in an area with a large college student population, median family income can be a better measure than median household income. Median family income by definition excludes households not living with a spouse or relative which effectively eliminates most college students. On the other hand, median family income also excludes non-family households including young professionals.

The ACS 2005 median family income for the Charlottesville MSA was \$62,286² compared to \$55,455 in 2000 (again, view the comparison of 2005 and 2000 MSA data with caution as only Louisa County was excluded in 2005 while Louisa and Nelson counties were excluded in 2000). As shown in Table 7, Albemarle County had the highest median family income (\$63,407) in the PDC in 2000 (no 2005 data available). Nelson County had the lowest median family income (\$42,917).

Table 7: Median Family Income by Jurisdiction, TJ PDC, 2000

	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
Median Family Income, 2000	\$63,407	\$51,141	\$48,548	\$44,722	\$42,917	\$45,110

Source: US Census 2000

Table 8 shows the distribution of family income in 2000 for the PDC. Nearly half of families had income of less than \$50,000. About 4% of families in the PDC had income of less than \$10,000 a year, and nearly 30% of families in the PDC had income greater than \$75,000.

Table 8: Family Income, TJ PDC, 2000

Family Income	TJ PDC	
	Families	%
Less than \$10,000	2158	4.3%
\$10,000 to \$14,999	1663	3.3%
\$15,000 to \$24,999	5037	10.0%
\$25,000 to \$34,999	5677	11.3%
\$35,000 to \$49,999	9042	17.9%
\$50,000 to \$74,999	12172	24.1%
\$75,000 and more	14689	29.1%

Source: US Census 2000

The U.S. Department of Housing and Urban Development (HUD) has its own estimates for median family income⁵. The 2006 HUD area median family income (AMFI) estimate for the Charlottesville MSA is \$66,500. The HUD AMFI is the income estimate used for programs such as Section 8 housing vouchers and the Low Income Tax Credit program. A family is considered low income if the family income is between 50% to 80% the HUD

⁵ The HUD median family income estimate is based on the 2000 Census and updated using county-level Bureau of Labor Statistics earnings data, the Census Current Population P-60 data, and state-level data from the ACS.

AMFI, very low income if the family income is 30% to 50% AMFI, and extremely low income if the family income is less than 30% AMFI (for a family of four in the Charlottesville MSA, about \$20,000 in 2006).

Poverty

Charlottesville MSA

Based on the ACS, in 2005 the poverty rate for the Charlottesville MSA (Louisa County not included) was 13.5%. The 2000 decennial Census poverty rate for the MSA was 11.6%, and the 1990 poverty rate for the MSA was 13.4%⁶. The poverty rate has increased by over 16% in the MSA since 2000 after a decline of 13% between 1990 and 2000. However, even though we equalized the data for area between years, the ACS data was based on population for whom poverty was determined over the past 12 months, whereas the decennial Census was based on population for whom poverty was determined in 1989 and 1999 (or the past year which is different from the past 12 months). Even with this difference, it is likely the rate of poverty is on the rise in the MSA.

The rate of poverty is dependent on age. (See Table 9.) In 2005, about 16% of persons under the age of 18 were below poverty in the Charlottesville MSA. As the population aged, the poverty rate dropped, with about one-tenth of those over 65 years of age living below poverty in 2005.

Table 9: Poverty Rate by Age, Charlottesville MSA *

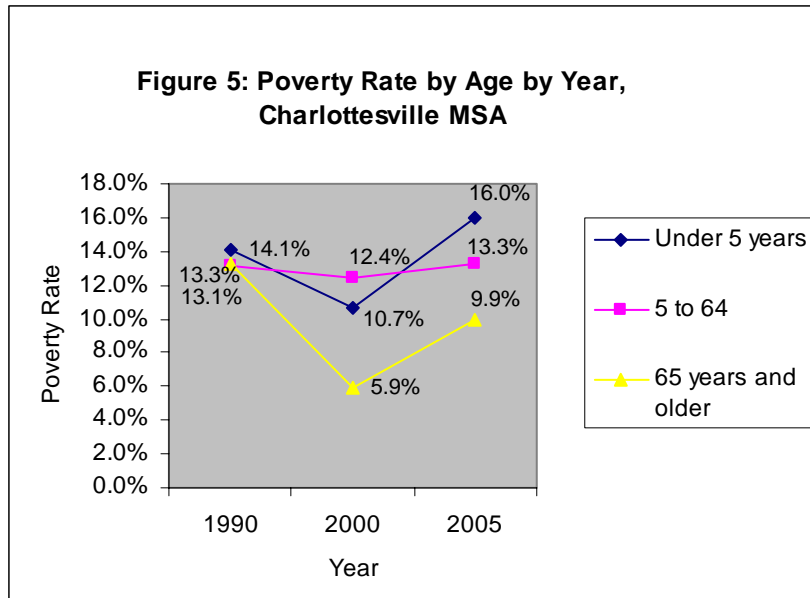
Age	MSA		
	1990	2000	2005
Under 5 years	14.0%	10.9%	16.0%
5 to 64	13.1%	12.4%	13.3%
65 years and older	15.3%	6.9%	9.9%
Total	13.4%	11.6%	13.5%

Source: US Census 1990, 2000 and Census ACS 2005

*Note: Nelson County is included in the 1990 and 2000 MSA data reported here.

Between 2000 and 2005, the poverty rate for the MSA increased for all age groups. (See Figure 5.) The most notable were a 47% increase in the rate of poverty for those under age 5 and a 43% increase in those over the age of 65. This was following a 1990 to 2000 decrease in poverty rate for these two groups (22% and 55% declines respectively).

⁶ To make 1990 and 2000 rates comparable to 2005, we added Nelson County to the 1990 and 2000 MSA published results.

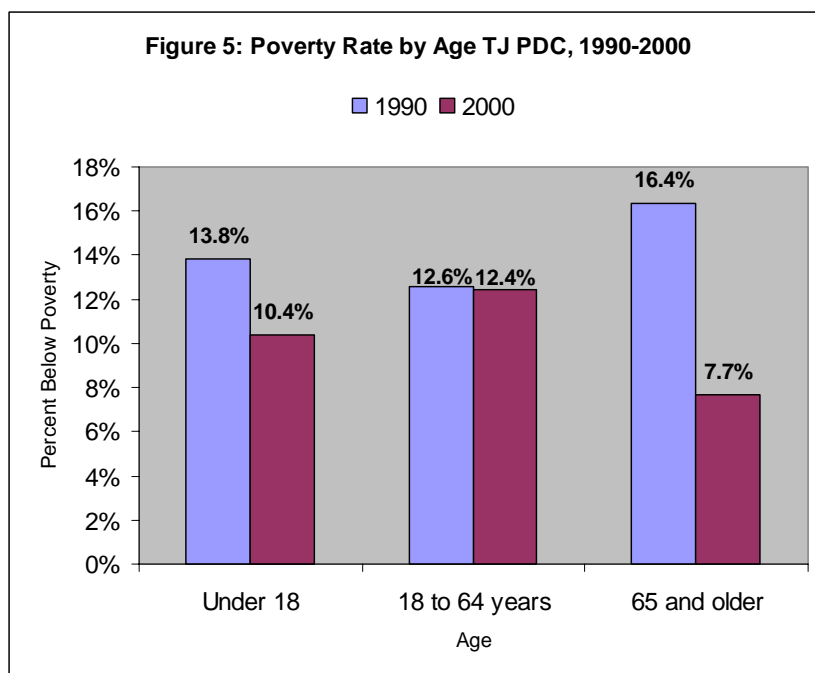


Source: US Census 1990, 2000 and ACS 2005

Thomas Jefferson PDC

The most recent data available for the PDC is based on the 2000 decennial Census. The poverty rate in 2000 for the Thomas Jefferson PDC was 11.4% (about the same as the MSA rate in 2000). As seen in the MSA, the trend in the PDC from 1990 to 2000 was one of decline. The poverty rate declined over 14% from 1990 to 2000 (from 13.3% to 11.4%). We can't directly compare the MSA 2005 data with that of 2000 PDC data on poverty, but we can infer from the MSA data that the decline from 1990 to 2000 in poverty rate in the PDC has most likely reversed and is now rising.

As shown in Figure 6, the highest rate of poverty in 2000 was for the 5 to 64 year old age group (12.4%). All age groups had a decline in poverty rate between 1990 and 2000. The greatest decline was for the 65 and over age group with more than 50% decrease over the decade. Based on the MSA data, it is likely rates for all age groups in the PDC have risen over the past five years.



Source: US Census 1990, 2000

The relationship between tenure and poverty is clear as shown in Table 10. In 2000, 23% of renters in the PDC were living in poverty versus 5% of owners.

Table 10: Poverty Rate by Tenure TJ PDC, 2000

Tenure	Poverty Rate
Renter Occupied	23.2%
Owner Occupied	5.4%

Source: US Census 2000

Poverty Rate within the PDC

As shown in Table 11, the poverty rate varied across jurisdictions in the PDC. In 2000, Fluvanna County had the lowest poverty rate (5.9%) and Charlottesville had the highest rate (25.9%). Following the trend of the PDC as a whole, poverty rates decreased between 1990 and 2000 for Albemarle, Fluvanna, Greene, Louisa, and Nelson counties. Greene had the most significant decrease with a 46% decline. Charlottesville was the only jurisdiction in the PDC for which the poverty rate rose over the decade (from 23.7% in 1990 to 25.9% in 2000).

Table 11: Poverty Rate by Jurisdictions, TJ PDC, 1990 and 2000

Poverty Rate	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
1990	7.6%	10.5%	12.3%	12.2%	15.2%	23.7%
2000	6.7%	5.9%	6.6%	10.2%	12.1%	25.9%

Source: US Census 2000

The Affordable Housing Gap in 2000

The following housing gap analysis estimates the surplus or deficit of housing units that were affordable in 2000 to certain household income groups, both for renter and owner-occupied households. This housing gap is calculated from special tabulations of the 2000 Census prepared for HUD for use in preparing Consolidated Plans. Three numbers are used in calculating the affordable housing gap: 1) the number of households in the income category, 2) the total number of housing units affordable to these households (at 30% of their income), and 3) the number of these affordable units that were occupied by households with higher incomes.

The gap analysis shows that low-income renters faced the most severe shortage of affordable housing, which is not surprising. We estimated a gross deficit of about 4,660 affordable rental units for renters with incomes below 50% of the Area Median Family Income (AMFI⁷) (approximately \$28,500 in 2000). (See Table 12.) Consequently, low-income renters were forced to spend large portions of their incomes (often in excess of half) in order to obtain housing.

Table 12: Affordable Rental Housing Gap TJ PDC, 2000

	Total Renters	Total Units	Surplus (Deficit)	Occupied >%AMFI	Gross Deficit	Occupied by higher income
<30%AMFI	5,931	4,939	(992)	2,925	(3,917)	59.2%
30-50%AMFI	4,532	7,853	3,321	4,066	(745)	51.8%
50-80%AMFI	5,845	12,210	6,365	5,622	743	46.0%

Source: CHAS 2000 Data Book and Center for Housing Research

The gap was largest for extremely low-income households (less than 30% AMFI) where the number of renters exceeded the number of affordable units by 992. This gap was increased to 3,917 as a result of higher income households out-bidding the lower income segment and occupying nearly 60% of the units affordable to this income category. The same phenomenon took place for the very-low income group (30-50% AMFI) with higher income households occupying almost half (51.8%) of the units affordable at this income level. Severe housing cost burdens cause a host of problems including under-consumption of other necessary goods and services as well as family instability.

Low and very low-income homeowners also faced a shortage of affordable units, with a deficit of about 4,200 affordable owner units in 2000 (see Table 13). Although there was a sufficient number of affordable units for owners with these income levels in 2000, most were occupied by owners with higher incomes (67.2% and 65.6%, respectively). This reduced the surplus of units for the very-low income group from 2,134 to a much larger

⁷ AMFI stands for Area Median Family Income, the median income for families within a geographic area. Estimated by HUD and used as a reference for income eligibility for housing programs.

deficit of 4,182 units. The impact of owners with higher incomes also reduced the surplus of units for the low-income owner households from 8,738 to a deficit of 2,152 units.

Table 13: Affordable Owner-Occupied Housing Gap TJ PDC, 2000

	Total Owners	Total Units	Surplus (Deficit)	Occupied >%MFI	Gross Deficit	Occupied by higher income
<50%AMFI	7,266	9,400	2,134	6,316	(4,182)	67.2%
50-80%AMFI	7,862	16,600	8,738	10,890	(2,152)	65.6%

Source: CHAS 2000 Data Book and Center for Housing Research

As with low-income renters, this gap forced low-income owners to pay excessively high portions of their income for their housing. Although most homeowners have fixed payments for principal and interest, their property tax, utilities and insurance costs escalate over time. Since 2000, these costs have risen much more quickly than incomes even for the median income family. Homeowners with below median incomes have seen housing costs increase much more rapidly than their incomes.

Employment and Housing

Workforce Housing

For this study we try to establish if the Thomas Jefferson PDC is achieving a comfortable level of balance between the type of jobs available and the stock of affordable housing available to service workers. The link between the workforce in an area and its housing needs is critical because the demographics and characteristics of the population drive the demand side of the housing market and consequently impact the supply of housing. As job growth occurs in an area, the housing stock needs to equally grow to accommodate workers. And, ideally, the income level of the workers in those jobs will allow them to afford the available housing.

Between 1990 and 2000, the number of jobs in the PDC increased by 17,644 jobs (see Table 14). Given the average number of workers per household in the PDC (1.44 workers per household), 17,644 jobs equates to housing demand for 12,288 units. In other words, for every 1.44 jobs created in the PDC in 2000, there was an associated increase of one household in need of a housing unit. During the same time period, the supply of housing units increased (net) by 17,649 units. Since the supply of housing outpaced the demand based on job creation, we can conclude that between 1990 and 2000, the PDC produced about 5,000 housing units for non-job related growth. As noted earlier, the region attracts a significant number of people who likely are moving for reasons other than jobs in the region. Some of these are retirees; others might work outside the region.

Table 14: Jobs-Housing Balance in TJ PDC

	1990-2000	2000-2004
Increase in jobs	17,644	7,403
Households @ 1.44 jobs/household	12,288	5,156
Increase in housing units	17,649	9,027
Housing Units Created Beyond Job Expansion	5,361	3,871

Source: Center for Housing Research

Based on Census estimates of the number of housing units in 2004, housing production was still sufficient to keep up with job growth between 2000 and 2004, but slowing. A similar pattern emerges when considering only the more urban jurisdictions of the PDC. For the combined jurisdictions of Charlottesville and Albemarle, between 2000 and 2004 housing production was sufficient to keep up with job growth with 3,516 housing units created for other reasons. Even if gross housing production keeps up with housing demand based on job creation, the homes produced are usually at the high-end of the housing market, whereas the jobs being created typically have incomes that require much less expensive housing.

Many of the jobs generated by the employment base in the PDC require less expensive housing than new construction can produce, although new construction does allow filter of older units in the market. As seen in Table 15, of the top twenty occupations between 2003 and 2005 in the Charlottesville MSA (based on number of workers), only three had average earnings above \$50,000 (a bench mark chosen by the research team based on recent housing prices and the incomes needed to afford them). The top five earned less than \$25,000 per year. As a result, much of the workforce in the Thomas Jefferson PDC job market, whether in terms of existing or newly created jobs, faces housing affordability challenges especially in the homeownership market.

Table 15: Top 20 Occupations, 2003-2005 (for the Charlottesville MSA)

Occupation Title	Workers		%	2005 Annual
	2003	2005	Change	Average Wage
1.Retail Salespersons	2900	3250	12%	\$22,750
2.Office Clerks, General	2720	3100	14%	\$24,900
3.Cashiers	2390	2680	12%	\$16,980
4.Combined Food Preparation and Serving Workers, Including Fast Food	1470	2560	74%	\$17,600
5.Waiters and Waitresses	1690	1770	5%	\$19,740
6.Bookkeeping, Accounting, and Auditing	1230	1590	29%	\$31,270
7.Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1020	1300	27%	\$21,010
8. Carpenters	980	1280	31%	\$32,900
9.Nursing Aides, Orderlies, and Attendants	1110	1210	9%	\$21,900
10. Accountants and Auditors	930	980	5%	\$54,990
11.Customer Service Representatives	1170	890	-24%	\$28,010
12.Maids and Housekeeping Cleaners	1010	880	-13%	\$19,350
13.Landscaping and Groundskeepers	570	870	53%	\$25,570
14.First-Line Supervisors/Managers of Office and Administrative Support Workers	780	850	9%	\$44,190
15.Stock Clerks and Order Fillers	730	850	16%	\$21,800
16.Elementary School Teachers, Except Special Education	460	840	83%	\$55,820
17.Secondary School Teachers, Except Special and Vocational Education	610	840	38%	\$52,660
18.Teacher Assistants	780	800	3%	\$20,560
19. Billing and Posting Clerks and Machine Operators	470	800	70%	\$29,950
20. Receptionists and Information Clerks	600	760	27%	\$21,540

***Bold for jobs paying more than 50k/year**

Source: US Department of Labor, Bureau of Labor Statistics and Center for Housing Research

Table 16 shows the top twenty growing occupations throughout the metro area during the same period. Thirteen or 65% of the 20 growing occupations had average annual wages of less than \$50,000. With a trend toward growth in relatively low paying jobs, challenges will continue for housing workers in the PDC.

Table 16: Top 20 Growing Occupations, 2003-2005 (for the Charlottesville MSA)

Occupation Title	Workers		%	2005 Annual
	2003	2005	Change	Average Wage
1.Computer Support Specialists	180	530	194%	\$40,160
2.Computer Software Engineers, Systems Software	130	380	192%	\$66,240
3.Title Examiners, Abstractors, and Searchers	50	130	160%	\$36,850
4.Financial Analysts	80	200	150%	\$52,400
5.Heating, Air Conditioning, and Refrigeration Mechanics and Installers	200	490	145%	\$31,750
6.Personal Financial Advisors	70	160	129%	\$99,200
7.Payroll and Timekeeping Clerks	110	250	127%	\$28,110
8.Clinical, Counseling, and School Psychologists	50	110	120%	\$55,730
9.Writers and Authors	50	110	120%	\$33,420
10.Compensation, Benefits, and Job Analysis Specialists	30	60	100%	\$63,060
11.Drywall and Ceiling Tile Installers	60	120	100%	\$28,590
12.Real Estate Brokers	30	60	100%	\$48,510
13.Self-Enrichment Education Teachers	90	180	100%	**
14.Veterinary Technologists and Technicians	40	80	100%	\$27,220
15.Medical Secretaries	90	170	89%	\$32,280
16.Recreation Workers	90	170	89%	\$32,080
17.Special Education Teachers, Middle School	70	130	86%	\$40,610
18.Advertising Sales Agents	60	110	83%	\$34,060
19.Elementary School Teachers, Except Special Education	460	840	83%	\$55,820
20.Educational, Vocational, and School Counselors	110	200	82%	\$42,830

*Bold for jobs paying more than 50k/year

**Estimate not available.

Source: US Department of Labor, Bureau of Labor Statistics and Center for Housing Research

Housing Affordable to Low and Modest Income Workers is Hard to Find

Housing affordability for the workforce reflects wage levels, household characteristics and housing prices or rents. To examine housing affordability for people with low-wage to modest-wage jobs, we estimated the number of units affordable for people in five occupations representing a mixture of growing metro jobs and critical city jobs.

- Cashiers
- Retail/Salespersons
- Bookkeepers
- Elementary Teachers
- Firefighters & Police

We created a table to summarize housing affordability for both the ownership and rental markets for each of these occupations. The following provides a description for the terms and methodology used in these tables.

- With a few exceptions, individual annual wage represents the published May 2005 Bureau of Labor Statistics MSA annual average wage for a particular occupation. For teachers only, we used the published 10th percentile annual wage which approximates the entry level annual wage for teachers. For police officers and fireman only, we used the published 25th percentile annual wage which approximates their entry level annual wage.
- The median annual household income per wage (Median HHI/W) indicates the median household income for the households with at least one member of the household working in a particular occupation. This is calculated using the 2000 US Census micro data set to estimate the ratio between the total household income with at least one person working in the occupation and income of a single earner in the occupation. [Note: the micro data represents an area including the jurisdictions of Charlottesville, Albemarle, Greene, and Fluvanna.]
- We calculated the affordable maximum home purchase price (max. price) for each occupation using the individual wage and median household income per wage in conjunction with a 30% of income affordability threshold and other cost factors of ownership. The other cost factors were mortgage rate, homeowner insurance, mortgage insurance, and local property taxes. We assumed a mortgage rate of 6.5% based on the 2005 national average for 30-year loans, we applied local homeowner insurance rates based on the sale price (for example \$26 per month for a \$100,000 home), we assumed \$45 per month for mortgage insurance, and we applied the City of Charlottesville 2006 tax rate of .0099). We also calculated the affordable maximum monthly gross rent (max. rent) for each occupation using a 30% of income threshold.
- For sales, we checked the total number of single-family (SF) units sold in 2004 and 2005 in the PDC (based on MLS data provided by the CAAR) as well as the total townhouses and condominiums sold in the same period. Based on the sales price of the units in both these categories, we determined the number of units that each of our example occupations could afford. While technically a certain

number of units are affordable for those in each of our occupations, these units are also in the competitive market and available to those with higher incomes. So the number of units we estimate as affordable are most likely an overstatement of the number of units actually available.

- For the rental market, we checked the number of units listed under the Blue Ridge Apartment Council's (BRAC) website to find out the total number rental units actually available for rent on September 10, 2006 within the affordable rent range for each occupation. We included homes and apartments listed as studio apartments, 1 bedroom, and 2 bedroom. While this method does not fully account for all rental units actually available, BRAC has the most complete unbiased rental listings available for the PDC.
- The number of workers in the various occupations is based on metro level data published by the Bureau of Labor Statistics.

Cashiers

Cashiers account for about 2,680 workers on the metro level earning an annual individual average wage of \$16,980. Column 1 of Table 17 shows what an individual in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the annual individual average wage (without additional income) for a cashier, we calculated the maximum purchase price to be \$51,272. Using MLS sales records, there were only 14 affordable units sold during 2004/05 in the PDC. Based on the annual individual average wage (without additional income) for a cashier, we calculated the maximum monthly rent to be \$425. There were only 15 affordable rental units available in September 2006.

Most households with at least one person working as a cashier had sources of income other than cashier wages contributing to the household income (about 88%). Based on a 2.41 ratio of HHI/W for cashiers (the ratio was calculated from the Census micro data for the Charlottesville area), we estimated an annual median household income of \$40,922. Column 2 of Table 17 shows what households in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the estimated annual median household income for a household with at least one person working as a cashier, we calculated the maximum purchase price to be \$133,199. Using MLS sales records, there were 368 affordable single-family units sold during 2004/05 in the PDC and 266 affordable condominiums or townhouses. Based on the estimated annual median household income for a household with at least one person working as a cashier, we calculated the maximum monthly rent to be \$1,023. There were 177 affordable rental units available in September 2006.

Table 17: Affordable Housing for Cashiers

	Individual Wage	Median HHI/W
Income	\$16,980	\$40,922
Home Ownership		
Max. price	\$51,272	\$133,199
SF units sold 2004/05	14	368
Townhouses/Condos sold 2004/05	0	266
Rental		
Max. rent	\$425	\$1,023
Units available for rent on 09/10/2006 (BRAC website)	15	177

Source: Center for Housing Research

Retail Sales

Retail sales jobs account for about 3,250 workers on the metro level earning an annual individual average wage of \$22,750. Column 1 of Table 18 shows what an individual in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the annual individual average wage (without additional income) for a retail salesperson, we calculated the maximum purchase price to be \$71,022. Using MLS sales records, there were only 36 affordable single-family units sold during 2004/05 in the PDC and only 4 affordable condominiums or townhouses. Based on the annual individual average wage (without additional income) for a retail salesperson, we calculated the maximum monthly rent to be \$569. There were only 26 affordable rental units available in September 2006.

Most households with at least one person working as a retail salesperson had sources of income other than retail sales wages contributing to the household income (about 92%). Based on a 1.91 ratio of HHI/W for retail salespersons (the ratio was calculated from the Census micro data for the Charlottesville area), we estimated an annual median household income of \$43,478. Column 2 of Table 18 shows what households in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the estimated annual median household income for a household with at least one person working as a retail salesperson, we calculated the maximum purchase price to be \$141,161. Using MLS sales records, there were 495 affordable single-family units sold during 2004/05 in the PDC and 359 affordable condominiums or townhouses. Based on the estimated annual median household income for a household with at least one person working as a retail salesperson, we calculated the maximum monthly rent to be \$1,087. There were 186 affordable rental units available in September 2006.

Table 18: Affordable Housing for Retail Sales

	Individual Wage	Median HHI/W
Income	\$22,750	\$43,478
Home Ownership		
Max. price	\$71,022	\$141,161
SF units sold 2004/05	36	495
Townhouses/Condos sold 2004/05	4	359
Rental		
Max. rent	\$569	\$1,087
Units available for rent on 09/10/2006 (BRAC website)	26	186

Source: Center for Housing Research

Firefighters and Police Officers

Firefighters and police officers are critical components of any community and are representative of the importance of an adequate supply of workforce housing. Police officers account for about 340 workers (no numbers are available for firefighters) on the metro level earning an annual individual average wage of \$36,800. For the purposes of this exercise, however, we used the 25th percentile annual individual wage of \$30,890 which is close to the 2006 entry level salary for the metro area (entry level salary for police officers in the City of Charlottesville is somewhat higher at \$32,593). Column 1 of Table 19 shows what an individual in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the annual individual 25th percentile wage (without additional income) for a police officer or firefighter, we calculated the maximum purchase price to be \$98,416. Using MLS sales records, there were only 129 affordable single-family units sold during 2004/05 in the PDC and only 42 affordable condominiums or townhouses. Based on the annual individual 25th percentile wage (without additional income) for a police officer or firefighter, we calculated the maximum monthly rent to be \$775. There were only 94 affordable rental units available in September 2006.

Most households with at least one person working as a police officer or firefighter had sources of income other than police officer or firefighter wages contributing to the household income (about 78%). Based on a 1.58 ratio of HHI/W for retail salespersons (the ratio was calculated from the Census micro data for the Charlottesville area), we estimated an annual median household income of \$48,824. Column 2 of Table 19 shows what households in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the estimated annual median household income for a household with at least one person working as a police officer or firefighter, we calculated the maximum purchase price to be \$159,868. Using MLS sales records, there were 823 affordable single-family

units sold during 2004/05 in the PDC and 503 affordable condominiums or townhouses. Based on the estimated annual median household income for a household with at least one person working as a police officer or firefighter, we calculated the maximum monthly rent to be \$1,221. There were 219 affordable rental units available in September 2006.

Table 19: Affordable Housing for Fire Fighters & Police Officers

	Individual wage	Median HHI/W
Income	\$30,890	\$48,824
Home Ownership		
Max. price	\$98,416	\$159,868
SF units sold 2004/05	129	823
Townhouses/Condos sold 2004/05	42	503
Rental		
Max. rent	\$772	\$1,221
Units available for rent on 09/10/2006 (BRAC website)	94	219

Source: Center for Housing Research

Bookkeeping, Accounting, and Auditing Clerks

Bookkeeping clerks account for about 1,590 workers on the metro level earning an annual individual average wage of \$31,270. Column 1 of Table 20 shows what an individual in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the annual individual average wage (without additional income) for a bookkeeping clerk, we calculated the maximum purchase price to be \$99,431. Using MLS sales records, there were only 131 affordable single-family units sold during 2004/05 in the PDC and only 46 affordable condominiums or townhouses. Based on the annual individual average wage (without additional income) for a bookkeeping clerk, we calculated the maximum monthly rent to be \$782. There were only 94 affordable rental units available in September 2006.

Most households with at least one person working as a bookkeeping clerk had sources of income other than bookkeeping wages contributing to the household income (about 88%). Based on a 2.0 ratio of HHI/W for retail salespersons (the ratio was calculated from the Census micro data for the Charlottesville area), we estimated an annual median household income of \$62,540. Column 2 of Table 20 shows what households in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the estimated annual

median household income for a household with at least one person working as a bookkeeping clerk, we calculated the maximum purchase price to be \$207,188. Using MLS sales records, there were 1,843 affordable single-family units sold during 2004/05 in the PDC and 1,049 affordable condominiums or townhouses. Based on the estimated annual median household income for a household with at least one person working as a bookkeeping clerk, we calculated the maximum monthly rent to be \$1,564. There were 262 affordable rental units available in September 2006.

Table 20: Affordable Housing for Bookkeeping Clerks

	Individual Wage	Median HHI/W
Income	\$31,270	\$62,540
Home Ownership		
Max. price	\$99,431	\$207,188
SF units sold 2004/05	131	1,843
Townhouses/Condos sold 2004/05	46	1,049
Rental		
Max. rent	\$782	\$1,564
Units available for rent on 09/10/2006 (BRAC website)	94	262

Source: Center for Housing Research

Elementary Teachers

Teachers are a critical part of any community and account for about 840 workers on the metro level earning an annual individual average wage of \$55,820. For the purposes of this exercise, however, we used the 10th percentile annual individual wage of \$35,780 which is close to the 2006 entry level salary for elementary teachers for the metro area. Column 1 of Table 21 shows what an individual in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the annual individual 10th percentile wage (without additional income) for an elementary teacher, we calculated the maximum purchase price to be \$115,210. Using MLS sales records, there were only 224 affordable single-family units sold during 2004/05 in the PDC and only 102 affordable condominiums or townhouses. Based on the annual individual 10th percentile wage (without additional income) for an elementary teacher, we calculated the maximum monthly rent to be \$895. There were only 142 affordable rental units available in September 2006.

Most households with at least one person working as an elementary teacher had sources of income other than teacher wages contributing to the household income (about 93%). Based on a 2.09 ratio of HHI/W for elementary teachers (the ratio was calculated from the Census micro data for the Charlottesville area), we estimated an annual median

household income of \$74,780. Column 2 of Table 21 shows what households in this occupation can afford to pay for a house or for rent along with the number of affordable units that had recently been for sale or rent in the PDC. Based on the estimated annual median household income for a household with at least one person working as an elementary teacher, we calculated the maximum purchase price to be \$249,032. Using MLS sales records, there were 2,680 affordable single-family units sold during 2004/05 in the PDC and 715 affordable condominiums or townhouses. Based on the estimated annual median household income for a household with at least one person working as an elementary teacher, we calculated the maximum monthly rent to be \$1,870. There were 283 affordable rental units available in September 2006.

Table 21: Affordable Housing for Teachers

	Individual wage	Median HHI/W
Income	\$35,780	\$74,780
Home Ownership		
Max. price	\$115,210	\$249,032
SF units sold 2004/05	224	2,680
Townhouses/Condos sold 2004/05	102	715
Rental		
Max. rent	\$895	\$1,870
Units available for rent on 09/10/2006 (BRAC website)	142	283

Source: Center for Housing Research

Implications of Affordability

From the preceding calculations of what potential buyers or renters working in the five example occupations can afford, it is clear that income solely from the wages of those occupations provide limited housing opportunities. Those employed as a cashier or a retail salesperson would have an extremely hard time finding affordable housing in the Charlottesville metro area. Since cashiers and retail sales are two of the top three occupations in the area based on number of workers, this is a significant issue. Based only on wages from their occupation, police officers and firefighters, bookkeeping clerks, and elementary teachers may be able to find an apartment to rent, but have limited opportunities to buy a home.

While our calculations show that few rental and owner properties are within the means of persons working in our example occupations without the benefit of additional income, it is important to consider that those workers have to compete not only with each other but with other comparable income level households for a limited supply of affordable housing. And because it is a competitive market, low to moderately paid workers must also compete with those in better paying occupations for many of the same units.

Renting is not always an easy solution for accommodating low and moderate income workers. There is a large supply of rental housing in the urban portions of the Charlottesville metro area, but rental units in the more rural jurisdictions of the PDC are relatively scarce. While renter-occupied units accounted for nearly 60% of the occupied units in Charlottesville in 2000 and 34% of occupied units in Albemarle, the remaining jurisdictions in the PDC had less than 20% renter-occupied units. Even with the large volume of renter units in Charlottesville, the renter vacancy rate in 2000 was below 3% and consequently rents were high (in 2000 the median gross rent for the Charlottesville metro area was \$661). Clearly the rental market in Charlottesville is largely driven by college students who often can share costs with other students and may rely on the deeper pockets of their parents to pay the rent.

While townhouses and condominiums are often a good option for low to moderate income workers to get into the homeownership market, the supply of affordable units for these households is somewhat limited in the Charlottesville metro area and nearly non-existent in the more rural areas. Townhouses and condominiums for purchase start at \$60,000 and only 7% of units sold in 2004/05 were under \$125,000. Indeed, a large number of condominiums sold were luxury units costing as much or more than single-family units (median sales price of condominiums and townhouses in 2004/05 was \$191,475 based on an N of 1,764 units).

In order for workers in our example occupations as well as those in the other low to moderate paying occupations to be able to afford housing and other essential needs, they often rely on additional sources of income. For some, having an additional worker in the household contributing to household income is the answer. However, for one-person households, additional income must come from other sources such as additional wages from working overtime hours or a second job.

Two Jobs Often Necessary to Afford Housing

Total purchasing power (and thus affordability) depends on total household income rather than an individual's income from a particular job. Some households, particularly married-couples, have income from two (or more) workers. In 2000, for the Charlottesville MSA, 76% of married-couple families with at least one worker had two or more workers contributing to household income which means about a fourth had only worker. These families along with one-person households have total purchasing power associated with having only one worker unless that worker has more than one job to create more purchasing power. For those working in relatively high paying occupations, the purchasing power based on one job is generally adequate. However, for those one-worker households who are in low to moderate paying occupations, many must resort to working additional hours or more than one job (data are not available to estimate the magnitude) or rely on supplemental sources of income, such as transfer payments (public assistance and Supplemental Security Income) or investment income in order to have enough purchasing power to pay for housing and other household expenses.

Supplemental sources of income for workers, however, are limited. Low-income, single-parent working females may qualify for public assistance through Temporary Assistance for Needy Families (TANF). However, non-elderly single individuals do not qualify for public assistance other than food stamps and, if they have a disability, SSI (but in that case, they might not be working). One-worker households in low to modest wage jobs are unlikely to have significant earnings from investments or savings. By implication, a significant portion of one-worker households have more than one job or work overtime hours.

Based on all workers in our example occupations combined, 11% relied exclusively on the wage income from the person working in the example occupation (meaning the household income equaled the wage income of the individual). Of these one worker households, police officers and firefighters, retail salespersons, and elementary teachers all had a annual median individual wage (also annual median household income which in this case reflects only the wage income of the worker) greater than the published annual average wage for their particular occupation. This suggests that those workers had wage income coming from other sources, most likely from overtime hours or a second job. Disturbingly, the occupation group with the lowest average income (cashiers) had an actual annual median individual wage of \$16,000, slightly lower than the published annual average of \$16,980. While few in number (about 61 cashiers), these workers are facing the reality of very limited housing choice.

The majority of workers in our example occupations, however, found additional income sources to supplement their wage income. Regardless of the number of workers in the household, the annual median household income for households with at least one person employed full-time in any of the low to modest income occupations that we examined was substantially higher than the annual average income for that position. Median household incomes for cashiers and retail salespersons were about 2.6 times the annual average wage of persons in those occupations. Median household incomes for households with a teacher were about double the annual average wage of a person in that occupation. While median household incomes for households with a police officer or firefighter and bookkeepers were about respectively 1.7 and 1.5 times the annual average wage of persons in those occupations. For those who benefit from the purchasing power associated with additional household income, housing options are significantly increased.

Employment

The top employers in the Thomas Jefferson PDC, as measured by the number of employees, significantly impact the region's economy. The types of positions these large employers offer and the pay associated with those positions largely determines the level of household spending and housing consumption of their employees. According to the Virginia Employment Commission (VEC) there were 13 employers in the Thomas Jefferson PDC in 2005 with 500 or more employees (Table 22). The National Ground Intelligence Center (not identified by VEC because it is a US government facility) also provided over 500 jobs in 2005. All of the PDC's largest employers are located in either

Charlottesville or Albemarle County. Another large employer, the Wintergreen Resort located in Nelson County, had nearly 500 employees in 2005.

Table 22: Employers in TJ PDC with Over 500 Employees in 2005

University of Virginia (largest employer with over 10,000 employees)

University of Virginia Health Systems

Martha Jefferson Hospital

University of Virginia School of Medicine

State Farm Mutual Auto Insurance

Region 10 Community Services Board

Northrop Grumman Sperry Marine

City of Charlottesville

County of Albemarle

Darden Executive Education

GE Fanuc Automation Inc.

Comdial Corp

Lexis-Nexis

National Ground Intelligence Center

Source: VEC

The economy of the area is strong and growing (as indicated by an unemployment rate of 2.9% in 2005 and holding as of July 2006) making the PDC a desirable location for businesses. Between 2004 and 2005 the number of jobs in the region grew 2.2% or by 2,147 jobs. Table 23 shows industry sectors by average number of jobs and average weekly wages for 2004 and 2005 and the percent change in the average number of jobs between those two time periods. The largest gains were in the financial and construction sectors while the only losses in jobs were in manufacturing and other service jobs. The education and health services sector was the largest sector with over 32,700 jobs in 2005. The University of Virginia and its medical school and Martha Jefferson Hospital account for a large portion of these jobs.

Table 23: Jobs and Wages by Industry Sector: 2004 and 2005 TJ PDC

Industry	2004 Avg. Employment	2005 Avg. Employment	Percent Change 2004- 2005	2005 Avg. Weekly Wage
Total, all industries	96,177	98,324	2.2%	\$720
Goods-Producing Domain	14,307	14,413	0.7%	\$724
Natural Resources and Mining	1,028	1,043	1.4%	\$492
Construction	7,205	7,492	4.0%	\$655
Manufacturing	6,074	5,878	-3.2%	\$852
Service-Providing Domain	81,870	83,911	2.5%	\$719
Trade, Transportation and Utilities	15,899	16,260	2.3%	\$614
Information	2,275	N/A		\$950
Financial Activities	3,661	3,834	4.7%	\$993
Professional and Business Services	10,016	10,343	3.3%	\$846
Education and Health Services	31,720	32,728	3.2%	\$819
Leisure and Hospitality	10,522	N/A		\$311
Other Services	3,886	3,766	-3.1%	\$573
Public Administration	3,890	3,939	1.3%	\$835

Source: VEC

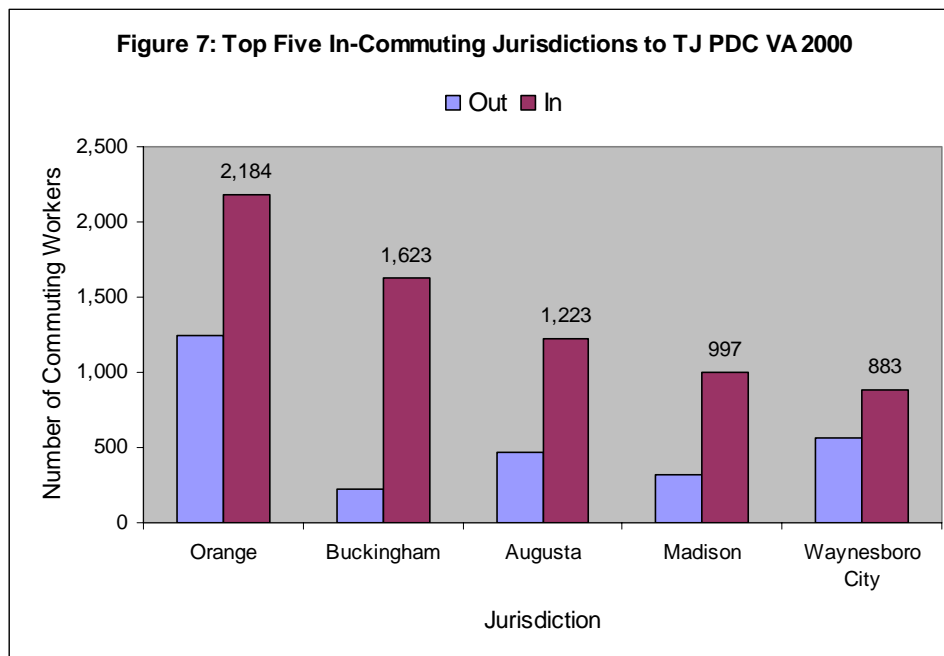
Commuting Patterns

Commuting patterns reveal the interrelationship between jobs and homes. Table 24, based on the 2000 Census, shows for the PDC the number of in-commuters (workers who live outside the PDC but commute to a job located in the PDC) and out-commuters (workers who live inside the PDC but commute to a job located in another jurisdiction). In 2000, the Thomas Jefferson PDC was a net importer of workers (1,251), as more people commuted into the PDC to work (52,386) than commuted out (51,135). Table 24 also lists the top 10 jurisdictions for in-commuters to the PDC along the associated number of out-commuters, and similarly, Figure 7 shows the top 5 in-commuting jurisdictions portraying both the number of in-commuters and out-commuters. The most workers came from Orange County (2,184) which borders Albemarle County on the north. Buckingham County and Augusta County contributed over 1,000 workers each. Buckingham County borders Albemarle County on the south and Augusta County borders Albemarle County on the west. All but two of the top ten in-commuting jurisdictions had more workers leaving to work in the Thomas Jefferson PDC than workers coming from the PDC to work in their jurisdictions. Only Henrico County and Goochland County (both located in the Richmond Metropolitan area) had more commuters from the PDC (out-commuters) than in-commuters. In 2000, 44,684 workers both lived and worked in the PDC.

Table 24: Commuting Into and Out of TJ PDC VA, 2000 (Top 10 Jurisdictions for In-Commuting)

	In	Out	Net
Locality	Commuters	Commuters	In-Commuters
Total (not including TJ PDC)	52,386	51,135	1,251
Orange	2,184	1,245	939
Buckingham	1,623	223	1,400
Augusta	1,223	470	753
Madison	997	321	676
Waynesboro city	883	560	323
Henrico	586	1,898	-1,312
Spotsylvania	427	167	260
Rockingham	379	56	323
Culpeper	300	195	105
Goochland	252	436	-184
Total live and work in TJ PDC			44,684

Source: US Census 2000



Source: US Census 2000

It is not surprising that a significant number of workers would come to the PDC from Orange County, Augusta County, and Buckingham County. These counties are in close proximity to the PDC, have good transportation access, and offer more favorable housing costs. All three counties had a larger percent of specified owner-occupied units that were valued at less than \$100,000 in 2000 than the PDC -- Buckingham (77%), Augusta (42%) and Orange (40%) compared to only 33% of owner-occupied units valued below

\$100,000 in the PDC. However, clearly the bigger story related to commuting patterns lies within the PDC itself.

Looking within the PDC, both Albemarle County and the City of Charlottesville were net importers of workers (4,746 and 14,379 respectively) in 2000. As the jurisdictions with the most jobs, Albemarle County and the City of Charlottesville were the only two jurisdictions in the PDC that were net importers.

In 2000, Albemarle County had 22,428 workers coming in to work and 17,682 going out to work (see Table 25, row 1 which represents all in- and out-commuters). Table 25 shows the top 10 jurisdictions where people lived and commuted into Albemarle County (also shows the out-commuters to those jurisdictions). The most workers (7,990) came from Charlottesville to work in Albemarle County with the next four top jurisdictions from within the PDC. Orange County and then Augusta County were the top two jurisdictions with workers living outside the PDC and commuting to jobs in Albemarle. Charlottesville was the only jurisdiction from which Albemarle County received fewer workers than it sent (net in-commuters -5,896). In 2000, 21,455 workers both lived and worked in Albemarle County.

Table 25: Commuting Into and Out of Albemarle County VA, 2000 (Top 10 Jurisdictions for In-Commuting)

	In	Out	Net
Locality	Commuters	Commuters	In- Commuters
Total (not including Albemarle)	22,428	17,682	4,746
Charlottesville city	7,990	13,886	-5,896
Fluvanna	3,413	325	3,088
Greene	2,956	545	2,411
Nelson	1,543	208	1,335
Louisa	1,248	287	961
Orange	877	326	551
Augusta Co.	782	245	537
Buckingham	701	57	644
Waynesboro city	535	288	247
Madison	525	128	397
Total live and work in Albemarle			21,455

Source: US Census 2000

Primarily due to the location of the University of Virginia, the City of Charlottesville had 23,472 workers coming in to work. Another 9,093 workers commuted out of Charlottesville based on the 2000 Census (see Table 26, row 1 which represents all in- and out-commuters). With a net 14,379 in-commuters, Charlottesville stands out as the jurisdiction within the PDC having a disproportionate number of jobs to workers. Table 26 shows the top 10 jurisdictions where people lived and commuted into Charlottesville

(also shows the out-commuters to those jurisdictions). The most workers (13,886) came from Albemarle County to work in Charlottesville with the next four top jurisdictions from within the PDC. Orange County and then Augusta County were the top two jurisdictions with workers living outside the PDC and commuting to jobs in Charlottesville. In 2000, 11,230 workers both lived and worked in the City of Charlottesville. Map 2 shows in-commuting (as well out-commuting) for the top 10 jurisdictions for in-commuting to Charlottesville. The map represents 21,954 in-commuters but does not show 1,518 other workers who lived across a broad area and commuted into Charlottesville to work. We chose to map commuting only for Charlottesville since the City had the most in-commuters in the PDC.

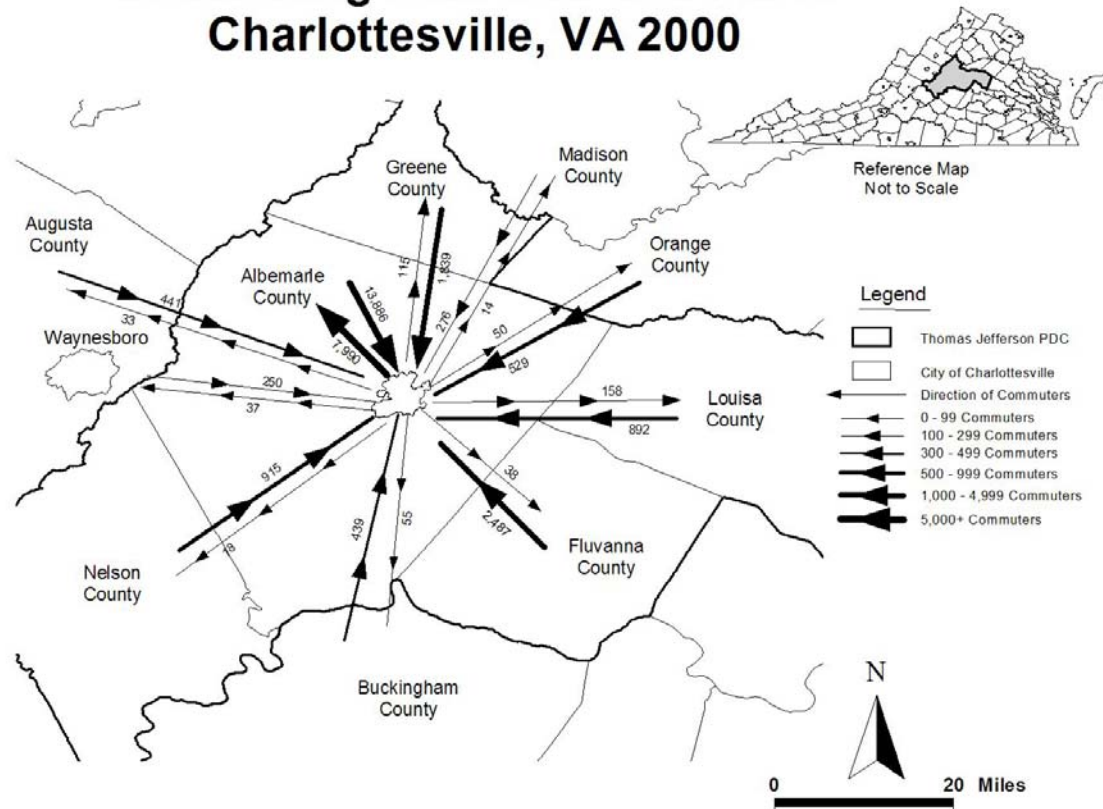
Table 26: Commuting Into and Out of Charlottesville city VA, 2000 (Top 10 Jurisdictions for In-Commuting)

	In	Out	Net
Locality	Commuters	Commuters	In-Commuters
Total (not including Charlottesville city)	23,472	9093	14379
Albemarle	13,886	7,990	5896
Fluvanna	2,487	38	2449
Greene	1,839	115	1724
Nelson	915	18	897
Louisa	892	158	734
Orange	529	50	479
Augusta	441	33	408
Buckingham	439	55	384
Madison	276	14	262
Waynesboro city	250	37	213
Total live and work in Charlottesville city			11,230

Source: US Census 2000

Map 2.

Commuting Flow into and out of Charlottesville, VA 2000



Source: US Census 2000 and Center for Housing Research

Commuting and the University

Charlottesville and Albemarle County are the center of the job market for the PDC and draw the most commuters. While Map 2 shows Charlottesville's in- and out-commuters regardless of place of work, the University is by far the largest employer in Charlottesville with nearly 20,000 employees between the academic and health system. So the in-commuters to Charlottesville as shown in Map 2 can be used as a surrogate for where university employees, not residing in Charlottesville, lived in 2000. However, the map only shows the top 10 in-commuting jurisdictions. Therefore 1,518 in-commuters to Charlottesville, a portion of whom work at the University, live in jurisdictions not shown on the map (some quite a distance from Charlottesville).

Race and Ethnicity

Racial Composition

Looking at the racial composition of the Thomas Jefferson PDC in 2000, the population was comprised mostly of whites (80.2%) with blacks accounting for 15.0%. The remainder consisted of 2.4% Asian and 2.4% other races. Virginia, by comparison, was 72.3% white, 19.6% black, 3.6% Asian, and 5.5% other. Of the jurisdictions in the PDC, Greene County had the fewest blacks (6.4%) and Charlottesville had the most with 22.2%. See Table 27.

Compared to 1990, the PDC in 2000 had become increasingly racially diverse with the percentage of both whites and blacks decreasing slightly. In 1990, whites accounted for 81.9% of the population in the PDC and blacks accounted for 16.1% while other races accounted for about 2%. The City of Charlottesville was the only jurisdiction in the PDC with an increase from 1990 to 2000 (20.9% and 22.2% respectively) in the percentage of blacks. (The remainder of this discussion will center on whites and blacks. While the percentage of other races is growing in the PDC, other races still account for only a small portion (about 5% in 2000) of the population.)

Table 27: Racial Composition TJ PDC, 1990-2000

Race	TJ PDC		Virginia
	1990	2000	2000
White	81.9%	80.2%	72.3%
Black	16.1%	15.0%	19.6%
Asian	1.6%	2.4%	3.6%
Other race	1.0%	2.4%	5.5%

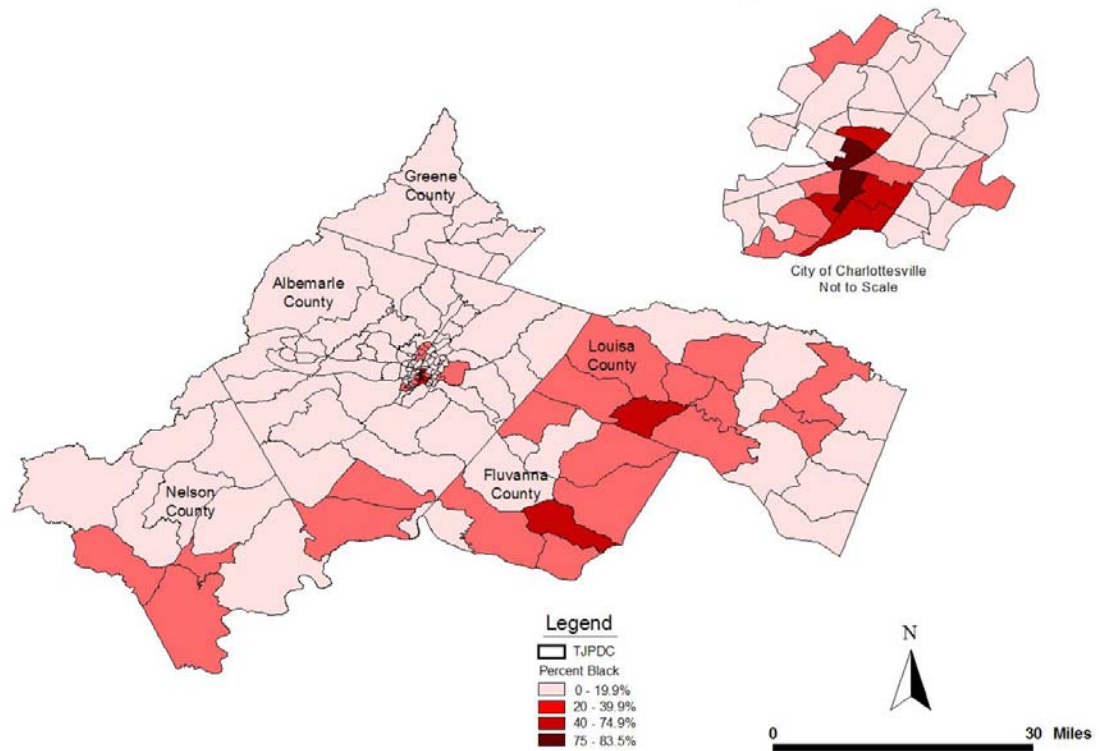
Source: US Census 1990-2000

Patterns of Segregation

We examined small areas within the PDC to see if a pattern emerged as to where whites and blacks live. Map 3 shows for 2000 the percentage of blacks living in block groups (a Census designated geography level that is smaller than a census tract) comprising the PDC. The darkest areas of the map indicate black population of 75% or more, both located in the City of Charlottesville. Another six block groups (four in Charlottesville, one in Louisa County, and one in Fluvanna County) had between 40% and 75% black population. A block group falling within the 40% to 60% range can be considered integrated or not predominantly one race. Two of the block groups in Charlottesville falling in the 40% to 75% range fell within the 40% to 60% range as did the block group in Louisa and the block group in Fluvanna.

Map 3.

Percent Black by Block Group Thomas Jefferson PDC, 2000



To further explore segregation in the PDC, we calculated a segregation index⁸ score. The score, referred to as the index of dissimilarity, measures the degree to which blacks and whites are evenly spread among neighborhoods (or in our case, block groups). We calculated a score for the PDC as a whole and for each jurisdiction within the PDC. We calculated a score for both 1990 and 2000 to see if there had been any significant change over time.

The index indicates a high degree of racial segregation if the score is .60 or greater. Neither the PDC nor any of its jurisdictions met that level. Reported in Table 28, the PDC had a segregation index score of .397 in 2000 (virtually unchanged from the 1990 score of .398). A score of .397, which indicates a moderate level of segregation, means that about 40% of the members of one racial group would have to move to a different census block group within the PDC in order for there to be an even distribution of racial groups. The index of dissimilarity changes somewhat when we look only within each jurisdiction rather than at the PDC as a whole. Charlottesville had the highest index score in 2000 (.516), but that score had dropped since 1990 indicating a lessening of segregation within the City. Greene County had the lowest score (.211) which indicates a high degree of integration of races in the county. Greene County also had the largest drop (nearly 50%) in its segregation index between 1990 and 2000. Albemarle County, Louisa County, and Nelson County each had a slight rise in their segregation index score between 1990 and 2000.

Table 28: Segregation Index TJ PDC, 1990-2000

Area	Block Group Level Segregation Index	
	1990	2000
TJ PDC	0.398	0.397
Albemarle County	0.336	0.364
Charlottesville	0.547	0.516
Fluvanna County	0.404	0.399
Greene County	0.401	0.211
Louisa County	0.197	0.228
Nelson County	0.214	0.262

Source: Center for Housing Research

The PDC has a relatively small number of blacks as compared to whites, but our analysis reveals that those blacks are not highly segregated. As compared to other metropolitan areas in Virginia, the Charlottesville MSA was one of the lowest in 2000.⁹ For example, the Roanoke MSA had an index of dissimilarity score of .668 and the Richmond MSA had an index score of .571. While segregation is not extreme in the Thomas Jefferson PDC, a score of nearly .40 still indicates that blacks and whites do not share space equally.

⁸ Massey, D. and Denton, M.. *American Apartheid: Segregation and the Making of the Underclass*. Harvard University Press, 1993.

⁹ Lewis Mumford Center for Comparative Urban and Regional Research (their indices are based on census tracts rather than block groups).

Special Needs Populations

Homelessness

The U.S. Census provides data which can be used to identify those with severe housing problems defined by a combination of high housing costs, lack of plumbing facilities, and overcrowding, but it does not provide a count of homelessness persons, those most vulnerable in the housing market and experiencing the most extreme housing problem. While the Census attempts to capture this population within a category termed “other, noninstitutionalized group quarters”, the data generally are not considered an accurate measure of homelessness. In order to serve the needs of the homeless, the task of compiling more accurate counts and information on the homeless population is carried out by local agencies in Virginia.

The PDC launched Community Services Network (CSN) in 2003 to function as a regional Homeless Management Information System (HMIS), which acts as a web-based tool for data collection, case management, and program management and is now being used by homeless service providers in the Thomas Jefferson Planning District. For areas within the Thomas Jefferson Planning District Commission, the agency responsible for coordinating particular agencies and organizations serving the homeless and for collecting data on the homeless is the Thomas Jefferson Area Coalition for the Homeless (TJACH). TJACH conducts a homeless census annually as a part of the HMIS initiative. The homeless census serves as an accurate tool for measuring the homeless population and provides information for appropriately assessing the needs of the homeless. A point-in-time survey, the homeless census most recently was conducted on January 24, 25 and 26, 2006.

In 2006, the number of homeless people in the region fell slightly (1%) compared to the 2005 point-in-time survey (conducted January 25-27, 2005) after rising 8% from 2004 to 2005. TJACH found 173 homeless people in the PDC to interview for the 2006 survey. Homelessness persists in the region with most of the homeless population residing in emergency shelters or transitional facilities. The number of people unsheltered continued to decline between 2005 and 2006 with the added capacity of PACEM winter shelter program.

The persons interviewed in 2006 had been homeless longer than those interviewed in the 2005 point-in-time study. In 2006, 39% compared to 32% in 2005 had been homeless longer than a year. In 2006, 49% of the respondents reported being homeless for less than 6 months as compared to 56% in 2005. The distributions by gender, ethnicity and age remained unchanged.

In 2006, the most common reason for leaving prior housing was unemployment reported by 29% of the respondents compared to 23% in the prior year. The most common reason for leaving prior housing in 2005 was eviction, cited by 28% of respondents, but dropped to 23% in 2006. Significantly fewer respondents cited domestic violence as a reason for leaving prior housing in 2006 compared to 2005 (4% and 16% respectively). Also

slightly fewer respondents reported increase in rent as a reason for leaving prior housing in 2006 than in 2005 (13% and 14% respectively). Other factors responsible for homelessness included inability to find affordable housing, medical problems and physical disability. The majority did not receive any public assistance funds over the past 6 months with employment income the most common source of income.

TJACH continually strives to promote effective programs and workshops that focus on the persistently homeless population. It is working towards ending the problem of homelessness through strategic planning, coordination of services, and public education and advocacy.

Persons with a Disability

The number of persons with disabilities in the Charlottesville metro area (does not include Louisa County) is remaining relatively stable. (See Table 29.) From 2000 to 2005 the number of persons 5 or over with disabilities in the Charlottesville MSA was estimated to increase slightly from 24,261 to 24,450 or by about 1% (we adjusted the 2000 MSA figure to include Nelson County in order to get an accurate comparison). However, the 5 to 15 age group increased disproportionately at 5%. This jump in 5 to 15 year olds having a disability could have housing implications in next decade as this group moves into the next age cohort.

Table 29: Persons with a Disability, Charlottesville MSA, 2000-2005

	Persons with a Disability		% Change
Charlottesville MSA	2000	2005	
All Persons 5 or older	24,261	24,450	0.8%
Persons 5 to 15 years	1,328	1,393	4.9%

Source: US Census 2000 and ACS 2005

For the Thomas Jefferson PDC in 2000, 16% of persons 5 or older had at least one disability. (See Table 30.) While disabilities are increasing in the 5 to 15 year old age group (according to the MSA data), 5 to 15 year olds were the age group in the PDC in 2000 with the fewest persons having a disability (5%). The age group with the most disabled was the 65 and over age group with over one third having at least one disability.

Table 30: Persons with a Disability TJ PDC, 2000

Age	Total Population	With a Disability	% with a Disability
5 to 15 years	27,884	1,431	5.1%
16 to 20 years	12,452	1,467	11.8%
21 to 64 years	114,722	17,849	15.6%
65 years and over	23,053	8,520	37.0%
Total	178,111	29,267	16.4%

Source: US Census 2000

Housing the Disabled

Serving the housing needs of those with disabilities (includes mental, physical as well as sensory disabilities) is a challenge that requires coordination, financial assistance, and education. The Jefferson Area Disability Services Board (JADSB) provides the PDC geographic area with needs assessment services that address housing, and other issues affecting those with disabilities. The JADSB 2006 needs assessment report points out that housing, employment, and transportation, along with assistive technology and personal assistance, remain the most critical needs of people with disabilities.

Many of those with disabilities have low to moderate incomes. Housing that is affordable is in short supply within the urban center of the PDC (Charlottesville and the area of Albemarle County surrounding the city). Due to a scarcity of affordable housing supply within the urban area, many people with special needs live in rural localities. Services available to those with disabilities in the PDC tend to be concentrated within the urban center. The concentration of services in the urban center coupled with an inadequate supply of affordable housing results in restricted access to special services.

Housing vouchers and subsidized housing are a means for helping those with disabilities live in areas where services are more readily available. In 2000, according to JADSB, 75 Mainstream Housing Section 8 Vouchers were provided to people with disabilities in the PDC through Piedmont Housing Alliance (PHA) and The Arc of Piedmont. In 2006, JADSB reported that 75 vouchers were issued to people with disabilities. The waiting list for vouchers as of October 2006 consists of about 198 persons (16 of those on the waiting list are receiving some other form of housing assistance and 49 live outside the PDC). However, the waiting list is not necessarily a good measure of housing need. Many people who receive a housing voucher can not find housing that meets the requirements for using the voucher and end up turning the voucher back in. The Independent Resource Center, City of Charlottesville, and Albemarle County also provide Section 8 Vouchers. Other support for disabled persons is provided by the Charlottesville Housing and Redevelopment Authority that offers subsidized housing for low income elderly and the disabled population.

Programs are available within the PDC to help those with disabilities improve their homes. The PHA's fair housing program renders fair housing education, outreach, and advocacy and support services in the PDC. The organization presented a fair housing forum for people with disabilities in Albemarle County in 2003. The PHA has a revolving fund for home safety and repairs that provides financing for equipment support systems required by the disabled. Through offering housing rehabilitation and repair services, the disabled are encouraged to make their homes universally accessible. The Jefferson Area Board for Aging (JABA) and Albemarle Home Improvement Program offer no-interest loans for those with special needs who meet income criteria.

Senior Households

Senior households (those 65 or more years of age) comprised 12% of persons in the Thomas Jefferson PDC in 2000. (See Table 31.) Of the jurisdictions in the PDC, Greene County had the fewest seniors and the lowest percentage of persons 65 and over (10% of the county population). The jurisdiction with the highest percentage of seniors was Nelson County (17%).

Table 31: Persons 65 or Over TJ PDC, 2000

	Area						
	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville	TJ PDC
Person 65 or Over	9904	2782	1488	3305	2406	4490	24375
% of Total Persons	12.5%	13.9%	9.8%	12.9%	16.7%	10.0%	12.2%

Source: US Census 2000

In 2000, the PDC had 15,258 senior households, about one-fifth of all households. (See Table 32.) That PDC percentage likely is holding steady. In 2005, the MSA also was comprised of 20% senior households. Nelson County led the PDC in 2000 with 26% of households 65 or over followed by Fluvanna County with 24%. Greene County and Charlottesville had the lowest percent seniors (16% and 17% respectively).

About a fourth of non-family households in the PDC were senior non-family households, which for the most part would be seniors living alone. Louisa County had the highest percentage of non-family households 65 or over (37%) followed by Nelson County (35%). Charlottesville had the lowest percentage (16%).

Table 32: Total Households and Non-family Households 65 or Over TJ PDC, 2000

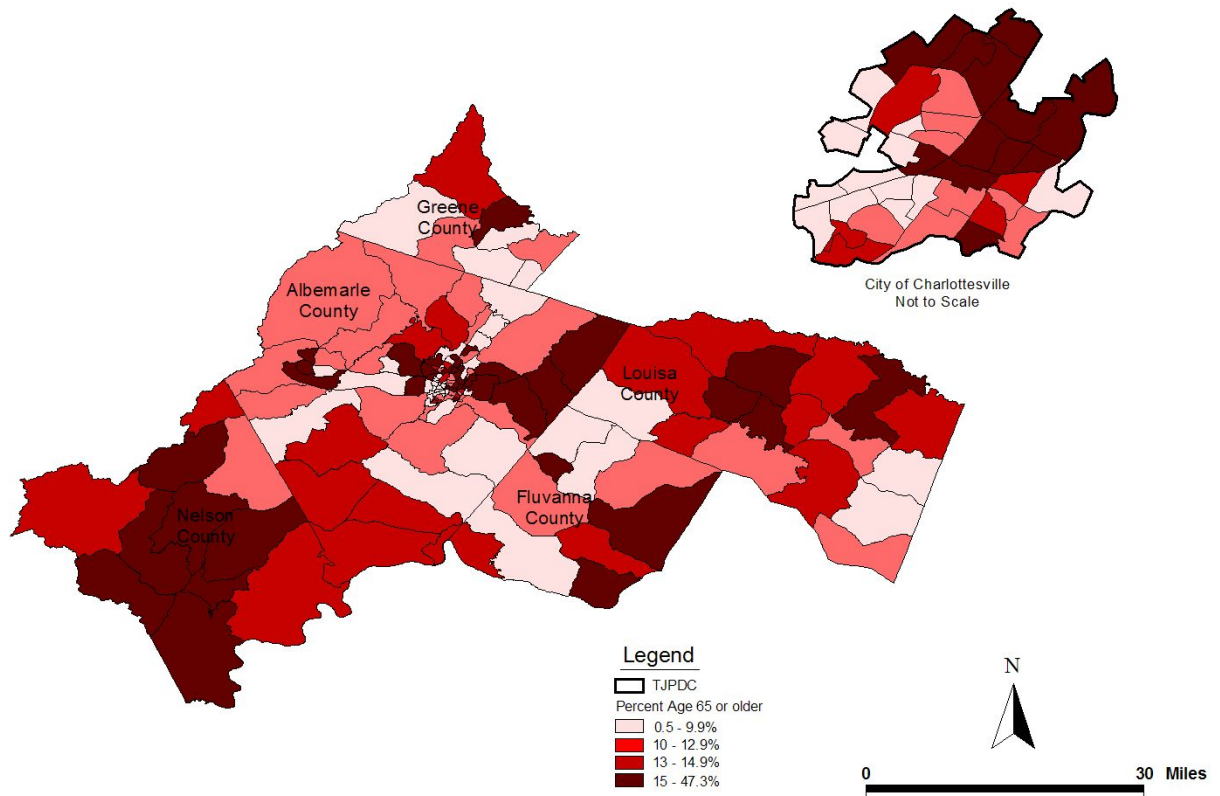
	Area						
	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville	TJ PDC
Households 65 or Over	6,094	1,734	896	2,178	1,538	2,818	15,258
% of Households	19.1%	23.5%	16.1%	21.8%	26.1%	16.7%	19.7%
Non-family Households 65 or Over	2,666	536	326	978	606	1,448	6,560
% of Non-Families	24.8%	32.4%	25.3%	36.8%	35.2%	16.0%	24.2%

Source: US Census 2000

Map 4 shows the distribution of senior households in the PDC by block group in 2000. There was a high concentration of 65 and over households in the northeast section of Charlottesville. Older households were clustered in eastern Albemarle County as well. All block groups within Nelson County consisted of 10% or more senior households with the majority of block groups having over 15% 65 or over households.

Map 4.

Percent Population Age 65+ by Block Group Thomas Jefferson PDC, 2000



Source: US Census 2000

Seniors and Housing

Seniors often live alone and live on modest, fixed incomes. The median household income for householders 65 or older in the Charlottesville MSA in 2005 was \$33,281, second lowest only householders under the age of 25 (the overall household median income for the MSA in 2005 was \$47,543). Seniors also are more likely to be disabled than other age groups and need housing that is accessible (37% of those 65 and over in the PDC had at least one disability in 2000).

The 2000 Census special data set Comprehensive Housing Affordability Strategy (CHAS) provides data specific to seniors or elderly, specifically households with one or two members aged 62 to 74. Table 33 shows that 29% of all households in the PDC that

had income less than 30% of the area median family income in 2000 (considered extremely low income, this would have been \$16,637 based on the 2000 MSA median family income of \$55,455) were elderly households as defined by CHAS. The majority of the owner households in the extremely low income category were elderly owners with 52% having income less than 30% MFI. About 16% of the renter households in the extremely low income category were elderly renters with income less than 30% MFI. It is not surprising that the percentages of these low income elderly households having housing problems and cost burdens were high across the board. Still the percentages of those elderly with housing problems or costs burdens were lower than for all renters and for all owners in the extremely low income category.

The income category with the most elderly was the very low income or 30% to 50% of MFI category (slightly greater than 29% of households in the category were elderly). Again, a high percentage of owners in this category were elderly (47%). About 13% of the renters in the very low income group were elderly. Elderly owners fared better than renters in terms of having housing problems and cost burdens (over half of elderly renters had housing problems or cost burden greater than 30% of income).

Table 33: Elderly* Households by Tenure, Income, and Housing Problem, TJ PDC, 2000

	Renter Households			Owner Households			Households	
Household by Income, & Housing Problem	Elderly Renters	Total Renters	% Elderly Renters	Elderly Owners	Total Owners	% Elderly Owners	Total (Not just Elderly)	% Elderly of Total
Household Income <=50% MFI	1,550	10,463	14.8%	3,587	7,266	49.4%	17,729	29.0%
Household Income <=30% MFI	953	5,931	16.1%	1,655	3,184	52.0%	9,115	28.6%
% any housing problems	67.9%	77.4%		59.6%	65.6%		73.3%	
% Cost Burden >30%	61.2%	74.3%		57.9%	62.6%		70.2%	
% Cost Burden >50%	41.2%	62.9%		32.9%	44.1%		56.3%	
Household Income >30% to <=50% MFI	597	4,532	13.2%	1,932	4,082	47.3%	8,614	29.4%
% any housing problems	55.6%	74.1%		36.8%	50.7%		63.0%	
% Cost Burden >30%	52.6%	69.7%		34.5%	47.2%		59.0%	
% Cost Burden >50%	27.8%	22.6%		19.0%	25.3%		23.9%	
Household Income >50 to <=80% MFI	494	5,845	8.5%	2,440	7,862	31.0%	13,707	21.4%
% any housing problems	39.9%	32.9%		22.2%	37.5%		35.6%	
% Cost Burden >30%	35.0%	28.3%		20.6%	34.4%		31.8%	
% Cost Burden >50%	9.1%	3.2%		5.5%	8.0%		5.9%	
Household Income >80% MFI	934	9,606	9.7%	7,488	36,309	20.6%	45,915	18.3%
% any housing problems	26.1%	7.5%		7.3%	10.7%		10.1%	
% Cost Burden >30%	25.7%	4.5%		7.1%	9.6%		8.5%	
% Cost Burden >50%	9.1%	1.0%		2.1%	1.2%		1.1%	
Total	2,978	25,914	11.5%	13,515	51,437	26.3%	77,351	21.3%
% any housing problems	47.7%	40.9%		20.6%	21.4%		27.9%	
% Cost Burden >30	44.0%	37.2%		19.7%	19.6%		25.5%	
% Cost Burden >50	23.1%	19.4%		8.9%	6.8%		11.0%	

Source: US Census 2000 CHAS data set (elderly are one or two member households with one or both aged 62 to 74)

Housing Tenure (Owner Values and Rents)

Housing Prices

The median house value for the Charlottesville MSA based on the Census 2005 ACS was \$225,500. More revealing than value alone is how incomes in the area match up with housing costs. Compared to other metropolitan areas of Virginia, the Charlottesville MSA tied with the Washington-Arlington-Alexandria DC-VA-MD-WV MSA (includes areas outside Virginia) for the highest median monthly owner costs for owners with a mortgage as a percent of household income in 2005 (24.1%).

For a more indepth analysis of home values in the Thomas Jefferson PDC, we used data provided by the Charlottesville Area Association of Realtors (CAAR) to examine recent data on existing and new home sales within the PDC over the 2000-2005 time period.¹⁰ Table 34 displays the geographic distribution of sales prices for 2005, the most recent year for which data are available. Lower-priced home sales were concentrated primarily within Louisa County, with nearly one half of all home sales falling below \$200,000. Contrast this with the counties of Albemarle and Nelson, where nearly three fourths of all homes sold were over \$200,000.

Table 34: Sales Prices TJ PDC, 2005

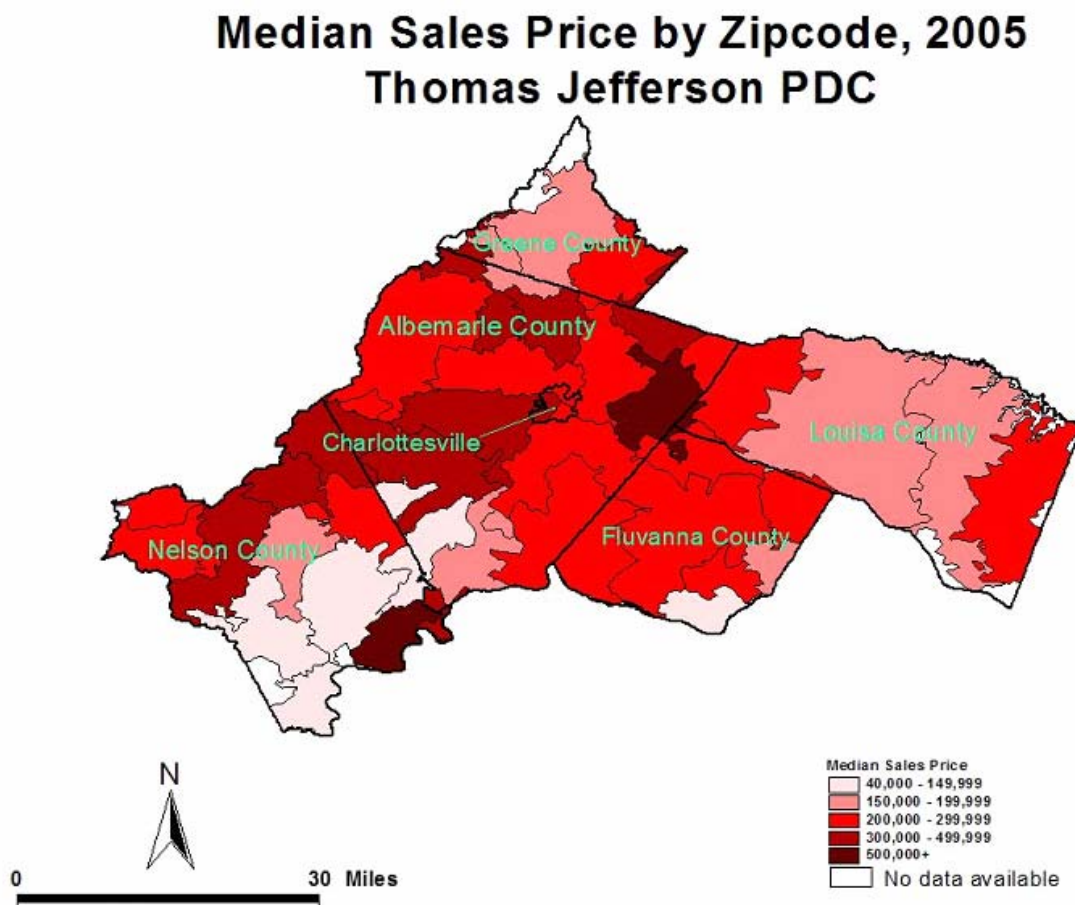
Sales Price	Charlottesville		Albemarle		Fluvanna		Greene		Louisa		Nelson		TJ PDC	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than \$100,000	10	1.8%	9	0.5%	6	0.9%	7	2.3%	13	5.4%	17	4.1%	62	1.5%
\$100,000-\$199,999	153	27.7%	473	24.2%	219	34.3%	110	35.7%	100	41.8%	89	21.7%	1144	27.9%
\$200,000-\$299,999	224	40.5%	566	29.0%	273	42.8%	101	32.8%	83	34.7%	100	24.4%	1347	32.9%
\$300,000-\$399,999	100	18.1%	340	17.4%	76	11.9%	56	18.2%	27	11.3%	89	21.7%	688	16.8%
\$400,000-\$499,999	30	5.4%	194	9.9%	35	5.5%	31	10.1%	7	2.9%	53	12.9%	350	8.5%
\$500,000-\$599,999	13	2.4%	110	5.6%	19	3.0%	1	0.3%	5	2.1%	26	6.3%	174	4.2%
\$600,000 or More	23	4.2%	260	13.3%	10	1.6%	2	0.6%	4	1.7%	36	8.8%	335	8.2%
Total	553	100%	1952	100%	638	100%	308	100%	239	100%	410	100%	4100	100%

Source: CAAR

¹⁰ These data were provided by the Charlottesville Area Association of Realtors.

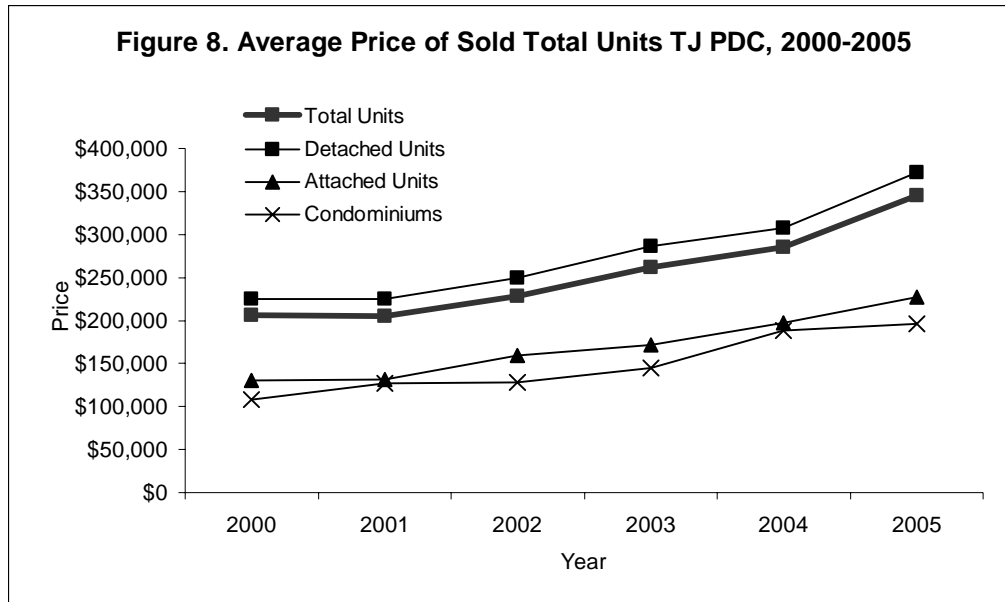
Map 5 displays 2005 median sales prices for different zip codes within the PDC. The findings are largely consistent with Table 34 with a few exceptions. Homes sold within Albemarle County zip codes were generally the most expensive within the region. As one moves outward from the City of Charlottesville, median sales prices tended to decline. The higher prices near and around Charlottesville reflect the higher concentration of employment opportunities in Charlottesville, compared to outlying areas within the County. Occasional “hot spots” of higher than average housing prices compared to surrounding zip codes can be found in the southeastern portion of Nelson County and in the northeastern portion of Albemarle County. Of all counties, Nelson exhibited the greatest degree of geographic variability in home prices, with several pockets of high-priced home sales surrounded by pockets of low-priced sales.

Map 5.



Source: CAAR

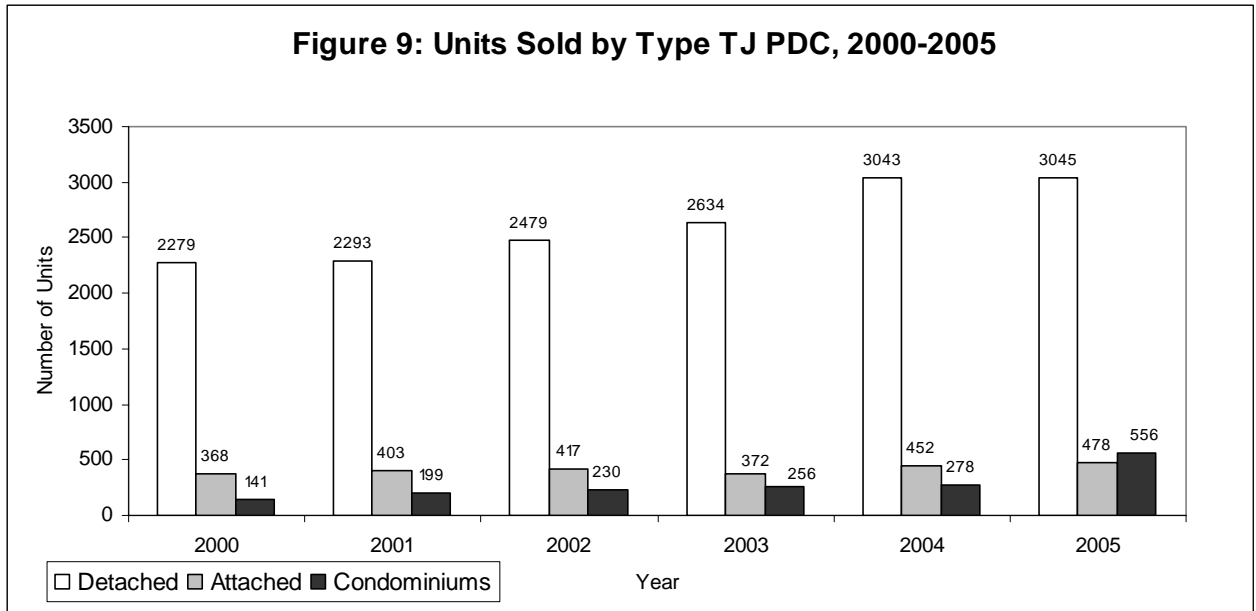
We now turn to an examination of trends in home sales over the 2000-2005 time period for the entire PDC.¹¹ Figure 8 shows this trend for all units and for detached, attached, and condominium units separately. Across all unit types, home sales increased rather dramatically over the 2000–2005 time period. Home sales increased by 68%, considering all unit types together. Within different housing types, the sales prices of condominiums increased most dramatically (82%), while the sales price of detached units increased at a rate that is roughly comparable to the average percentage increase across all types (66%). The price of attached units increased by 74% over the 2000–2005 time period.



Source: CAAR

Figure 9 displays trends in total sales volume by unit type. Over the 2000–2005 time period, 79% of homes sold were single-family detached units. By contrast, 12% of all homes sold were detached units, and approximately 8% of homes sold were condominiums. The rate of increase in condominium sales has been much higher over the period, however, with condominium sales increasing by 294% between 2000 and 2005, while single-family home sales increased by only 34%, and detached units increased by about 30%.

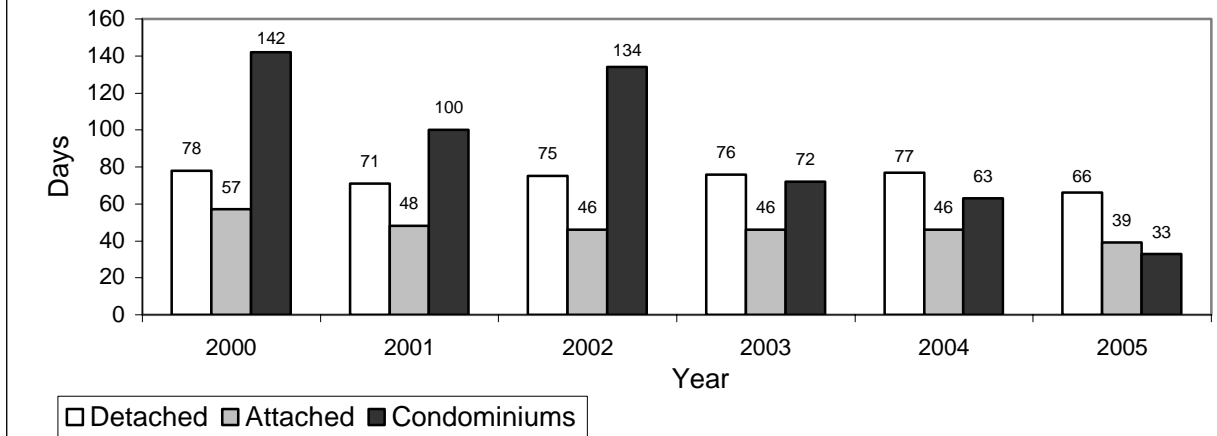
¹¹ The trends displayed are expressed as averages for the year in question and have not been adjusted for inflation.



Source: CAAR

Another measure of housing market activity is the average number of days that a home is on the market before it is sold to a new buyer. A robust or “hot” housing market is indicated if houses are on the market for increasingly shorter periods of time. This trend is displayed in Figure 10. Between 2000 and 2005, the average number of days that a home is on the market declined by 15% for single-family detached homes, 32% for attached homes, and 77% for condominiums. In 2005, single-family homes remained on the market for approximately twice as long as condominium units.

Figure 10: Average Days on the Market by Type TJ PDC, 2000-2005



Source: CAAR

Taken together, these trends suggest that housing prices and sales activity are on a steady path upward and will likely continue so for some time into the future, depending on the trajectory of mortgage interest rates. According to the National Association of Realtors, 30-year mortgage rates declined by more than 2 percentage points over the 2000–2005 period, a factor which likely accounts for most of the surge in housing prices and sales activity over the same period in the PDC. Mortgage rates have stabilized somewhat in recent years and likely may increase in the future as the Federal Reserve seeks to combat inflation.

An interesting trend in the PDC is the recent condominium market boom, as evidenced by the increasing sales prices of new condos, dramatic increases in the number of condos sold, and reductions in the time on market for condominiums. Some condominiums are the result of apartment conversions while others are the result of new construction. The relatively high cost of single-family detached units has been a significant contributor to the condominium boom. Since 2000, the average selling price of condominiums has been consistently lower than any other property type. Not only are condominiums a good option for first-time buyers and those who work in fields typically associated with workforce housing, condominiums are popular with investors. According to CAAR, the trend in increased condominium sales is robustly continuing in 2006, and the relatively lower prices of condominiums have contributed to a static median sales price in the City of Charlottesville.

CAAR reported that the median sales price in the second quarter of 2006 for the PDC was \$265,000 led by Albemarle County (\$315,000) and Nelson County (\$272,000). Fluvanna County was the most affordable with a median sales price of \$240,000. Clearly the bulk of homes for sale in the PDC are not within the means of a significant portion of

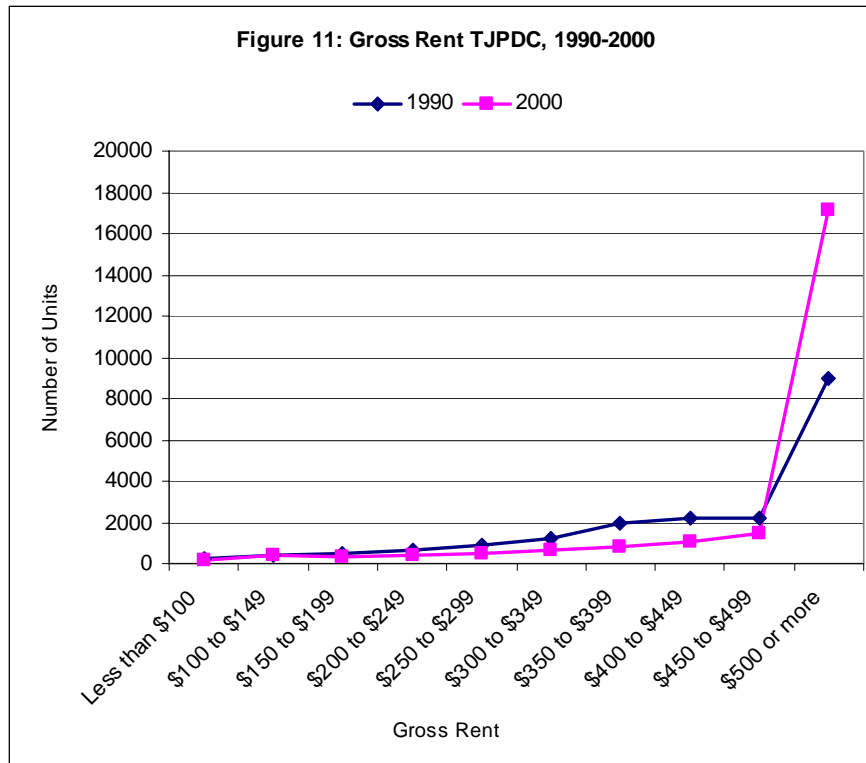
area households (see discussion on workforce housing). Inventory of homes for sale is rising which may have an impact on the price of housing, but has had little effect so far. Only Charlottesville and Nelson County are showing signs of a stable market, with sales prices continuing to rise in Fluvanna, Albemarle, and especially Greene and Louisa counties.

Rental Housing

In 2005, the median monthly gross rent for the Charlottesville MSA was \$814 (rents in Louisa County were not included). In 2000, the median gross monthly rent for the Charlottesville MSA was \$661 (this figure does not reflect the rents from Louisa County or Nelson County). The Charlottesville area is one of the most expensive rental markets in the state, partly due to the presence of the University of Virginia and the effect students have on the market. The only MSA in Virginia with a higher median gross rent in 2005 than the Charlottesville MSA, was the Washington-Arlington-Alexandria DC-VA-MD-WV MSA (includes areas outside Virginia) at \$1,071. And the Charlottesville MSA's median gross rent as a percentage of household income in 2005 was the second highest of all MSA's in the state at 31.7%.

The median gross rent in the Charlottesville MSA increased by 23% over the 5 year period from 2000 to 2005 (Louisa was not included in either year and Nelson was not included in 2000). The 2000 median gross rent in the Charlottesville MSA increased 33% from the 1990 median gross rent of \$497 (this figure does not reflect the rents from Louisa or Nelson counties). When the cost of renting goes up and/or the supply is too limited, renters are encouraged to leave the rental market and enter into homeownership (assuming costs are not prohibitive). For the Thomas Jefferson PDC, renter-occupied units as a percent of total occupied units declined to 33.4% in 2000 from 36.5% in 1990. This decline, naturally, parallels a rise in homeownership over the decade.

The increase in median gross rent between 1990 and 2000 reflects an overall increase in higher priced rental units (costing more than \$500 a month) and a decline in the number of more affordable rental units (See Figure 11). Low to moderate income households were certainly affected by this trend in rents and were forced to pay more of their income for housing throughout the decade. In 1990, 72% of those making less than \$20,000 a year paid 35% or more of their income for rent. By 2000, 84% of those making less than \$20,000 a year paid 35% or more of their income for rent. However for all income groups, those paying 35% or more of their income for rent remained stable between 1990 and 2000 at about 35%. Figure 11 shows that in 2000 the majority (75%) of renter-occupied housing units within the PDC cost more than \$500 a month.



Source: US Census 1990-2000

The cost to rent in the more rural jurisdictions of the PDC is impacted by the high rents in the Charlottesville/Albemarle areas. Albemarle has the largest population and highest rents (median gross rent in 2000 was \$712). Not only are rents in the outlying areas of the PDC affected by their more urban neighbors, the supply of rental housing is insufficient to keep up with demand as indicated by very low renter vacancy rates. Median monthly gross rents in Fluvanna and Greene counties in 2000 were \$669 and \$662 with only Albemarle County higher. Charlottesville had a median gross rent of \$596 followed by Louisa (\$504) and Nelson (\$440).

University Influence

Influence on Housing Consumption

Housing consumption is driven largely by the age of the population. Students of the University of Virginia (UVA), located in the City of Charlottesville, fall generally within the ages 18 to 24 and there are about 20,000 of them. In addition, Charlottesville is the home to Piedmont Virginia Community College with a student body of over 4,000. The median age in 2000 for the City of Charlottesville was 25.6. By comparison, the median age for other jurisdictions in the PDC were: Albemarle 37.4, Fluvanna 38.2, Greene 35.5, Louisa 38.8, and Nelson 42.8.

Charlottesville led the PDC in number of renters had the lowest homeownership rate by far (40.8% in 2000). The impact of the students, however, affects the entire region. Singles and roommates constitute about one-third of the regional housing market.

Influence on the Rental Market

The rental market in the PDC is highly impacted by the students attending the University of Virginia. As of 2006, there are 20,399 students at UVa with 6,058 living on-campus and 14,341 living off-campus (overwhelmingly in rental units). The university is sensitive to the fact that their students are a dominant presence in the community and encourage students who live off-campus to read the “Good Neighbors Guide” published by UVa’s Community Relations Office.

To better understand just how much of an impact the students have on the rental market in the area, we came up with a rough estimate of the number of units consumed by those students. Based on the assumption of 2.5 students per rental unit (Charlottesville has a 2003 ordinance that no more than 3 unrelated individuals can live in a house or apartment) and an estimated renter vacancy rate of 5.4% (based on the HUD estimated rate which included the City of Charlottesville), we calculated that students consume about 6,064 units or 53% of the rental stock in the City of Charlottesville (only based on the City since most students choose not to live too far from the campus) leaving about 5,300 rental units for everyone else¹².

While in 2000 the median monthly gross rent for the City of Charlottesville was \$596 and in 2005 for the MSA \$814, we estimated a gross median rent of \$871 in 2006 for 2 bedroom apartments for the PDC. We estimated this rent based on 94 units (2 bedroom) listed for rent on August 24, 2006 on the Blue Ridge Apartment Council which represents the PDC area but mostly has listings for the Charlottesville City area. While many families, single person households, and elderly would have a difficult time paying rent this high, students can share the cost with other students making a 2 bedroom unit at \$871 seemingly more affordable at \$435 per person. While obviously many students pay for living expenses on their own or with student loans, a large number of students depend on parents who have greater resources (especially if the parents live in higher paying areas) to pay their rent. Consequently, non-students in the community competing in the rental market are seriously disadvantaged by artificial demographics.

Responding to the tight rental market conditions in 2000, rental units have increased in Charlottesville and developers have built new apartment complexes in Albemarle County that supposedly appeal to both students and professionals (most of the new construction is priced too high for low to moderate income households). This growth in apartments has softened the rental market and resulted in vacancies both in Charlottesville and

¹² To get this estimation, we divided the number of off-campus students by 2.5. We divided the result by .945 (or 100 – the estimated 2005 renter vacancy rate of 5.4) to get the gross rental units needed by students. We subtracted the number of units needed for students from the 2005 estimated number of renter-occupied and vacant for rent units (based on estimates, we took the 2000 Census figures and multiplied by a growth factor of 1.11) to determine the number of gross rental units available to non-students.

Albemarle Counties. Eagles Landing, a gated complex built around 2003, currently offers apartments starting at \$414 per month for a room and bath in a 3 bedroom apartment or at \$499 for a room and a bath in a two bedroom apartment (definitely a marketing plan aimed at the student population). While Eagles Landing is located in Albemarle County, it is only about 10 minutes from campus and regular shuttle transportation is offered. Still Eagles Landing and some other high amenity apartment complexes are not fully occupied.

Influence as an Employer

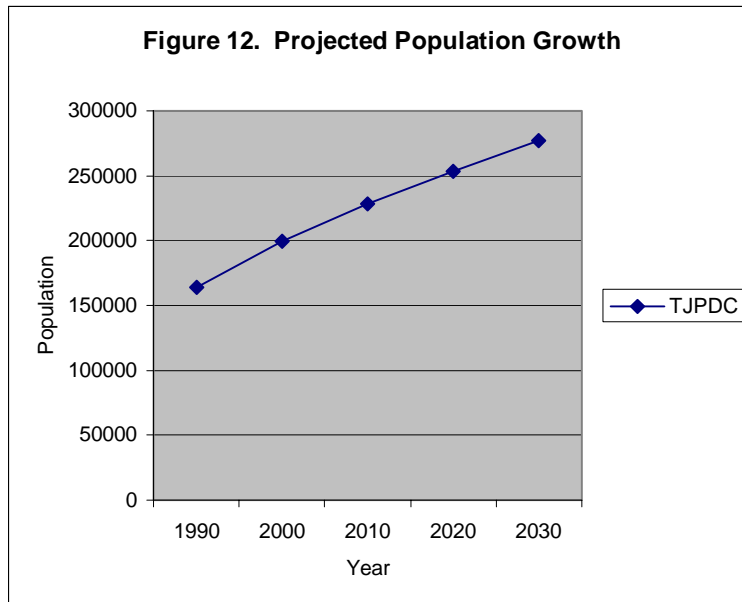
The University of Virginia is the largest employer in the PDC and provided over 16,000 full and part time jobs in 2005. Over 90% of those jobs were full time. In addition to directly providing the largest number of jobs of any employer in the area, UVa and the University Health Systems help create other jobs by attracting businesses to the area.

UVa falls within the education and health sector of industry which according to data for the Charlottesville MSA from the Bureau of Labor Statistics has a weekly average wage of \$819 (about \$100 more a week than the average for all industries in the PDC). This weekly average wages converts to an annual average wage of \$42,588 (about 64% of the 2005 HUD area median family income of \$66,700 for the Charlottesville MSA). The UVa employees that make below the average obviously move closer to being defined as having very low income. For university employees at the entry level¹³, the current minimum annual wage is \$19,490 or less than 30% of the area median family income (defined as extremely low income).

Population Growth and Household Composition

The Virginia Employment Commission (VEC) prepares the State's official projections of population for counties and cities. The population of the PDC is expected to continue to grow from 2000 to 2030 as shown in Figure 12. Although the number of people in the PDC increased by 22% (approximately 35,200 people) from 1990 to 2000, the VEC projects population growth to slow to 15% (+29,000 people) in the current decade and then to 11% (25,200 people) and 9% (23,600 people) over the next two decades.

¹³ A recent controversy has arisen at the university regarding minimum entry level pay, currently \$9.37 per hour or less than \$20,000 per year. Advocates for paying employees a living wage, have been pressuring the university to raise the entry level pay of its employees and employees of contractors to \$10.72. However, the Virginia Attorney General has ruled it would be illegal for the university, a state agency, to do so. The university is encouraging advocates to focus on changing state policy regarding this issue.



Source: 1990 and 2000 Censuses and Virginia Employment Commission

Population estimates for 2005, which reflect the most recently available data on migration, indicate that rate of population growth has slowed, but has been higher so far this decade than anticipated by VEC. Estimates by the Census Bureau indicate a mid-decade growth rate (over five years) of 9% and an increase of approximately 18,800 people. Estimates by the UVa Weldon Cooper Center indicate a 2000-2005 growth rate of 8% and 16,200 people.¹⁴ If either rate of growth continues through 2010, the region's population will grow by 33,000 to 38,000 people, significantly more growth than projected by the VEC.

Migration

The Thomas Jefferson PDC's population growth is affected by migration into and out of the area. The Census Bureau estimates that between 2000 and 2005 the regional population grew by net in-migration of 10,200 people, whereas the UVa Weldon Cooper Center estimates net in-migration of 11,500 people.

The Internal Revenue Service provides a special data file with the net migration of tax filers and exemptions claimed for each jurisdiction within the PDC. This file identifies every city or county throughout the US with 10 or more tax filers moving into (or out of) the jurisdictions inside the PDC. To gain more insight into migration into the region, we used the annual IRS Migration data from 1999 to 2004. The number of exemptions is an approximation of the number of people moving between localities (we use the terms "people" or "population" instead of "exemptions"). We estimated annual net migration

¹⁴ Although the Census Bureau's estimate is higher than the Weldon Cooper estimate, the latter estimates a higher level of net in-migration for the region. The Census Bureau's population estimates include a "residual" adjustment that is not separately classified as either natural increase or net migration.

by matching the IRS data for in-movers and out-movers by locality and then aggregated these annual estimates from 1999 to 2004.

Migration, PDC

Net in-migration for the PDC estimated from the IRS migration files from 1999 to 2004 was 7,818 persons (i.e. exemptions). This is significantly lower than the 2000 to 2005 net in-migration of 10,200 people estimated by the Census Bureau and the 11,500 people estimated by Weldon Cooper. There are several reasons why tax records would underestimate total migration. New (mainly young) workers might be filing their own tax return for the first time, and some adults do not have income requiring a tax return. Plus there are bound to be some inaccuracies in any estimate. Although the IRS migration files appear to underestimate net migration into the region, they are the only source of annual data on the previous locations of people moving into the region.

The region provides a strong draw for in-migration related to job creation and quality of life. The largest gains due to in-migration over the five-year period from 1999 to 2004 were from other states than Virginia (32,158). Coming from a broad range of jurisdictions from within Virginia, there were 22,495 in-migrants to the PDC. The largest number of in-migrants from a single location to the PDC moved from Fairfax County (see Table 35), followed by Amherst and Henrico Counties.

Table 35: TJ PDC In-Migration, 1999-2004
(From Locations, 700 or More People)

Location	Persons
Fairfax County	2,119
Amherst County	1,933
Henrico County	1,701
Orange County	1,490
Chesterfield County	712
Total from outside Virginia	32,158
Total from within Virginia (includes persons from counties above)	22,495

Source: IRS and Center for Housing Research

The largest out-migration of population from the PDC over the five-year period was to other states and to a broad representation of jurisdictions within Virginia. (see Table 36). Henrico County was the single location that received the largest number of out-migrants from the PDC.

**Table 36: TJ PDC Out-Migration, 1999-2004
(To Locations, 700 or More People)**

Location	Persons
Henrico County	1,847
Orange County	1,545
Fairfax County	1,289
Augusta County	979
Waynesboro	915
Richmond City	736
Buckingham County	726
Total to outside Virginia	26,317
Total to within Virginia (includes persons to counties above)	20,518

Source: IRS and Center for Housing Research

While there is no information available on why people move out of the PDC, it is likely that out-migration to nearby jurisdictions is the result of people seeking more affordable housing. This especially would be the case when movement is to areas where job opportunities are more limited. Augusta County, Waynesboro, and Buckingham County were all top out-migration locations that offer better housing options (for example, a larger house with more land for less money than likely could be found within the PDC) while at the same time offering fewer job options. These three counties also ranked among the top areas for the number of in-commuters to the PDC in 2000.

The trend towards moving out of the PDC to Augusta County and Waynesboro is growing. Most of the out-migration to these areas from the PDC comes from Albemarle County. Between 1999 and 2004 there was a 76% increase in out-migration from Albemarle County to Waynesboro and a 144% increase in out-migration from Albemarle County to Augusta County.

Migration Within and Outside the PDC, PDC Jurisdictions

We calculated net migration for each jurisdiction within the PDC and tracked movement both within the PDC and outside the PDC. As shown in Table 37, from 1999 to 2004, all jurisdictions comprising the Thomas Jefferson PDC had net growth except for Charlottesville which lost 2,208 people based on the IRS data files. (The Census Bureau estimates net out-migration of 4,800 people for Charlottesville and Weldon Cooper estimates 1,200.) This trend is consistent with changes in other metropolitan areas throughout the nation as developable land is less available in the urban core and people move to outlying areas that offer more desirable housing.

The IRS data show a distinct pattern of Albemarle County and Charlottesville losing net population to other jurisdictions within the PDC over the 1999 to 2004 time period. The bulk of Charlottesville's net loss was attributed to losing more people than it gained from jurisdictions within the PDC. Fluvanna County gained the most people with net migration of 2,996. Nearly half of the net growth in Fluvanna was from jurisdictions within the

PDC (1,400). Nelson County had the least movement in and out with net migration of 653 persons. While Albemarle County had a relatively large net gain (3,775) when considering only movement in and out of locations outside the PDC, the loss of population to jurisdictions within the PDC (-1,073) reduced the overall net gain considerably.

Table 37: Net (In - Out) Migration, TJ PDC, 1999-2004

	Albemarle	Fluvanna	Greene	Louisa	Nelson	Charlottesville
Net Within PDC	-1,073	1,400	627	710	208	-1,872
Net Outside PDC	3,775	1,596	462	1,876	445	-336
Net migration	2,702	2,996	1,089	2,586	653	-2,208

Source: IRS and Center for Housing Research

Migration Within the PDC, Albemarle County and Charlottesville

Since Albemarle County and Charlottesville were the jurisdictions that lost population to other PDC jurisdictions, we tracked in and out-migration within the PDC for these two jurisdictions. As shown in Table 38, Albemarle County lost more people to other PDC jurisdictions, except for Charlottesville, than it gained from 1999 to 2004. Albemarle County lost the most to Fluvanna County. Charlottesville lost more people than it gained to every jurisdiction in the PDC (see Table 39). This movement in population was most likely driven by high living costs in Albemarle County and Charlottesville as supported by housing cost and commuting data.

Table 38: Migration Into and From Albemarle County Within TJ PDC, 1999-2004

	Fluvanna	Greene	Louisa	Nelson	Charlottesville	Total PDC
In	1,681	1,314	594	671	6,144	10,404
Out	-2,796	-1,940	-1,032	-835	-4,874	-11,477
Net migration	-1,115	-626	-438	-164	1,270	-1,073

Source: IRS and Center for Housing Research

Table 39: Migration Into and From Charlottesville Within TJ PDC, 1999-2004

	Albemarle	Fluvanna	Greene	Louisa	Nelson	Total PDC
In	4,874	326	173	169	86	5,628
Out	-6,144	-653	-312	-281	-110	-7,500
Net migration	-1,270	-327	-139	-112	-24	-1,872

Source: IRS and Center for Housing Research

Projected Housing Demand

Projections of housing demand in the Thomas Jefferson PDC for 2010 and 2020 were prepared using a housing demand projection model developed by the Center for Housing Research. The model projects households by type, age, income and tenure. It provides a useful tool to project the numerical demand for housing and the demographic characteristics of that demand. The model uses the age-specific population projections for each jurisdiction developed by the Virginia Employment Commission and reflects the growth patterns projected by the VEC.

The total housing demand in the PDC is projected to grow over the next two decades, although at a slower pace than through the 1900-2000 time period. An increase of 11,159 households is projected for 2000-2010 followed by an increase of 9,713 from 2010-2020 compared with 16,577 households from 1990-2000. (See Table 40.) An increase in households implies the need for additional housing units to accommodate those households. Based on our model projections, the housing supply needs to increase by about 11,000 units between 2000 and 2010.

During the current decade, we project an increase of 7,836 owner-occupied units and 3,323 renter-occupied units, followed by increases between 2010 and 2020 of 6,754 owner-occupied units and 2,958 renter-occupied units. Throughout both decades, owner demand is anticipated to increase more quickly than renter demand (16% and 12% compared to 12% and 10% respectively). It is important to note that these projections do not include the increase in ownership demand prompted by the decrease in mortgage interest rates since the year 2000. It is likely that the projected demand for the current decade has already been met or even exceeded. However, with the current increase in mortgage rates, this accelerated pace in demand has diminished and will continue to do so unless there is another significant drop in mortgage rates.

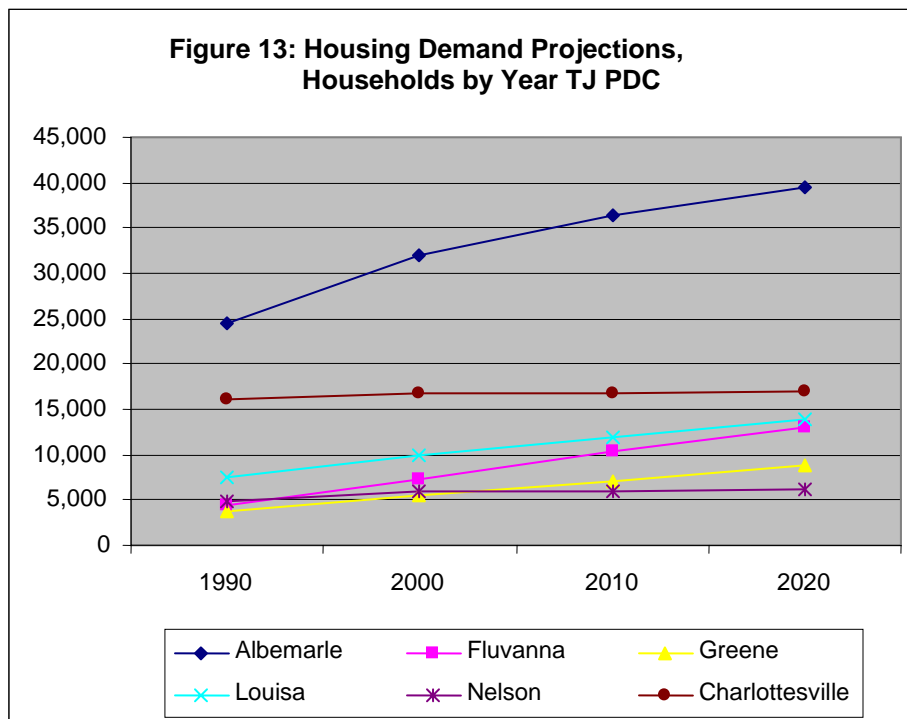
Table 40: Total Households by Tenure, TJ PDC VA 2000-2020

Year					
Tenure	2000	2010	2000 to 2010 % Change	2020	2010 to 2020 % Change
Total	77,443	88,602	14.4%	98,315	11.0%
Owner	49,970	57,806	15.7%	64,561	11.7%
Renter	27,473	30,796	12.1%	33,754	9.6%

Source: US Census 2000 and Center for Housing Research

As shown in Figure 13, most of the projected increase in housing demand is expected in Albemarle County, but at a much lower proportion than during the 1990s. The projections point toward continued sprawl in the region. Charlottesville is largely “built out” (unless opportunities are found for higher density development or redevelopment)

and Nelson County is projected to increase by only a few hundred households. Albemarle's share of growth is projected to drop from 45% in the 1990s down to 32% from 2010-2020. Fluvanna, Greene and Louisa are projected to attract almost two-thirds of the growth in housing demand in the region. Housing demand in Fluvanna is projected to nearly double between 2000 and 2020 (from 7,370 to 13,000). Louisa will grow by approximately 4,000 households over this twenty-year span and Greene by about 3,000 households.



Source: Center for Housing Research

Owner demand is projected to increase by nearly 8,000 households between 2000 and 2010 and by another 6,700 households over the next ten years. Renter demand will also increase but at a lower magnitude and slower pace: 3,300 households between 2000 and 2010 and then by 3,000 households in the next decade.

Most new household formations occur among persons under the age of 35 as young adults start forming their own households. This is also a highly mobile population of younger workers. Only a few people under the age of 25 form independent households and over half of these live in Charlottesville. Although not exclusively a “student” market, the overall impact of these households on regional housing demand is fairly small: 7% of total units in 2000 and dropping to 6% by 2020. Households in the next ten-year age category, 25-34, are projected to increase the most over the current and succeeding decades. (See Table 41.) This age group is projected to become the largest age-based segment of the regional housing market by 2020, with nearly 20,000 households. Although the next age group, 35-44 year old householders, is not projected in increase as rapidly, they will be approximately of equal number as 25-34 year-old

householders by the year 2020. Consequently, these younger householders will constitute nearly half of the regional housing market by 2020.

Table 41: Total Households by Age, TJ PDC VA 2000-2020

Year					
Age	2000	2010	2000 to 2010 % Change	2020	2010 to 2020 % Change
Total	77,443	88,602	14.4%	98,315	11.0%
15-24	5,798	5,748	-0.9%	5,627	-2.1%
25-34	13,418	16,192	20.7%	19,822	22.4%
35-44	16,635	18,176	9.3%	19,470	7.1%
45-54	15,370	17,511	13.9%	17,703	1.1%
55-64	10,939	13,597	24.3%	15,445	13.6%
65-74	8,455	9,606	13.6%	11,503	19.7%
75 +	6,829	7,771	13.8%	8,745	12.5%

Source: US Census 2000 and Center for Housing Research

Housing demand in this younger age group is driven by household and family formation patterns and by mobility. For example, for the 15-24 year old age group the probability of being the head of a household is only 18%; most of this age group still lives in their parents' houses or lives with roommates (by definition, only one roommate can be the "householder"). But for 25-34 year olds, the probability of being a householder jumps to 49% and then to 52% for 35-44 year olds and 55% for 45-54 year olds. Among older age groups the probability of being a householder increases to 63% for those 75 and older, in part due to surviving spouses living alone.

The slowest growth (except for the relatively stable 15-24 year old market) will be among householders aged 45-54, particularly in the next decade (2010-2020). After increasing by 2,200 units from 2000-2010, housing demand in this age segment will then stay flat.

Housing demand among "empty-nester" and older age groups will stay strong over the projection period. Householders aged 55 and older have a high homeownership rate and, for many, considerable housing wealth. The growth in this market segment (an increase of nearly 10,000 units from 2000 to 2020) will provide significant opportunities for "active-adult" and independent living developments. Demand for more specialized care (such as assisted living) will also increase, but this is not included in these projections.

Net-migration into the region is also driving housing demand. Obviously, over any ten-year period the adult population only changes due to mortality and migration. If no one dies and no one moves in or out, the regional population aged 15-24 in 2000 would become the population aged 25-34 in 2010. In this static world, every ten-year age category in 2000 would shift into the next older ten-year category by 2010. In the real world, obviously any increase in adult population "cohorts" would be due to net in-

migration (mortality has to go into the debit side of the population ledger). Consequently, past and projected changes in the size of cohorts reflect the migration patterns incorporated into the population projections.

Table 42 helps understand the migration assumptions implied in the VEC projections. For the 1990-2000 decade, the population cohort in the region going from 15-24 to 25-34 years old decreased by 2,576 people (based on the 1990 and 2000 Census counts). Since this includes students who graduate from UVa during the period, net out-migration could be expected. The VEC projections imply this pattern will shift to a net in-migration in the period ending age group of 25-34 years of 1,036 people between 2000 and 2010 and 6,783 people between 2010 and 2020. This reflects an expanding economy and the creation of jobs drawing (or keeping) young adults to the area.

Table 42: Change in Population Cohorts TJ PDC, 1990 to 2020

Age at start of period	Age at end of period	Year		
		1990-2000	2000-2010	2010-2020
15-24	25-34	-2,576	1,036	6,783
25-34	35-44	1,988	7,526	4,446
35-44	45-54	3,088	104	-2,520
45-54	55-64	2,167	-4,990	-5,803
55-64	65-74	295	-2,603	-4,132

Source: VEC Projections and CHR Calculations

The projected increases in the population cohorts shifting from 25-34 year olds to 35-44 year olds over the three decades also indicate an expanding economy. When combined with the younger cohort, the 25-44 year old population would increase by approximately 8,500 people between 2000 and 2010, followed by 11,200 people between 2010 and 2020. This will significantly expand regional demand for housing, but the impact will depend on the migration patterns of the population that shifts into ages 45 and over during each decade. For these age groups, the VEC projections imply significant out-migration.

Examine the pattern for the cohorts that go from 35-44 to 45-54 years old over each of the three decades. From 1990 to 2000, the Census count indicates a net in-migration of at least 3,088 people of ages 45-54 in the year 2000. The VEC projections for 2010 indicate that this in-flow of people will have nearly stopped and will become a net out-migration over the next decade. Similarly, the population projections for people aging into the 55-64 and 65-74 year old age categories suggest a significant increase in net out-migration for these groups (keep in mind that age-specific mortality rates would only be expected to decrease over the projection period, not increase).

These patterns suggest that the housing demand projections presented herein could be seriously understated if the regional economy creates more jobs attracting younger adults and fewer older adults migrate out of the area than projected or the area experiences net in-migration of older adults as well.

The housing demand projections hold “headship” rates constant from the year 2000 forward. Although headship rates have stabilized significantly during the past 20 years, they are still subject to changes in cultural patterns, incomes, housing costs and personal preferences. Between 1990 and 2000, the probability of being a householder increased by 2 percentage points for persons 15 years and older in the Thomas Jefferson PDC. If the age-specific headship rates change at the same pace from 2000-2010 as for 1990-2000, housing demand in the region would increase by an additional 2% or 1,800 units.

Table 43 shows the projections of households by tenure status and household composition. Married-couple households dominate in the owner market and there are relatively few single-parent families in the owner market. Whereas married-couple families will account for an additional 10,000 units between 2000 and 2020, other families will only increase by 1,700 units.

Non-families (single individuals, unmarried couples without children, and other unrelated individuals) account for a larger share of the owner market than the other family category. Over the twenty-year projection period, ownership demand among non-families is projected to increase by 3,700 units. A significant portion of this demand will be by younger households, with an increase of nearly 2,300 units by the under-65 population.

Table 43: Household Projections by Type, TJ PDC 2000-2020

Household Type	2000	2010	2000-2010 change	2020	2010- 2020 change
Total Households					
Married Couple	39,335	45,707	16.2%	51,144	11.9%
Other Family	10,766	12,257	13.9%	13,588	10.9%
Non-Family	27,342	30,637	12.1%	33,583	9.6%
Owner-Occupied					
Married Couple	32,656	37,922	16.1%	42,375	11.7%
Other Family	6,057	6,963	15.0%	7,731	11.0%
Non-Family	12,842	14,804	15.3%	16,583	12.0%
Renter-Occupied					
Married Couple	6,679	7,786	16.6%	8,769	12.6%
Other Family	4,709	5,294	12.4%	5,856	10.6%
Non-Family	14,500	15,833	9.2%	17,001	7.4%

Source: Center for Housing Research

Market segments can be identified broadly across four broad age groups of families: young householders (under 35 years); early-middle age (35-44); middle-age (45-64); and senior (65+) householders. These age categories also represent different stages of

earning power and family formation that strongly influence housing consumption. Non-family households (singles, unmarried couples, roommates and other unrelated individuals) can also be segmented into these age categories, however the input data for our projections only allows two categories: under 65 and 65+.

Young Family Segment

Young householders usually start in the rental market, as most of these householders do not have either the resources or preference for being a homeowner. Nonetheless, homeownership demand is seen even among these very young families. Among married-couples under 25 years of age, 38% were owners in 2000 and this rate is projected to increase to 42% by 2020. Marriage rates at this age, however, are very low and over half of these very young families are single-parent households. Although relatively small in number (about 800 families), very young single-parent families are also very poor typically. As a result, most are limited to the rental housing market (86% in 2000), but even here the ownership is projected to increase by 4 percentage points over the projection period.

Marriage rates and ownership rates increase significantly for families headed by 25-34 year olds in the region. Most of these families are married-couples (76%), and nearly two-thirds of them (61%) are homeowners, whereas two-thirds of the single parents remain renters.

Nearly all of these very young family homeowners would be first-time buyers during the decade, averaging about 450 units per year. Many have annual incomes below \$50,000 (in year 2000 dollars), making them prime targets for a variety of homeownership programs. More than 700 young, single-parent families with incomes below \$50,000 are projected to become homeowners in the current decade. Demand could be even higher depending on the availability of first-time buyer programs to assist with outreach, education, financial counseling and financing. Additionally, nearly 2,000 young, single-parent families with incomes below \$50,000 (about 1,500 with incomes below \$25,000) will be in the rental housing market. (The number of households needing rental assistance is discussed later.)

Early Middle-Age (35-44) Family Segment

Family householders in the 35-44 age category make up 16% of the regional housing market. Three-fourths of these are married-couple families and their ownership rate reaches 80%. The ownership rate for single-parent families increases in this age group to 50%, but remains well below their married-couple counterparts.

About 800 married-couple families have incomes below \$25,000, whereas over 1,200 single-parent families have incomes below this level (and are projected to increase to 1,400 families by 2020). Most of the married-couples, even in this income category, were homeowners (523) in 2000, but only 350 of the single-parent families with similar incomes were homeowners.

Housing programs should look to create stable ownership for the lower-income families in this segment, as well as to expand ownership opportunities for the market segment. Some of the single-parent families in this age group are the results of separation and divorce, which can dramatically change housing consumption and shift families from owners to renters. Some housing programs are restricted to first-time buyers and post-divorce single parent might not be eligible for assistance unless a special program is created or eligibility rules are changed.

There is also sizeable demand in this market segment for rental housing: about 3,500 units in 2000 and increasing to 4,100 by 2020. Rental demand is also a function of its affordability relative to ownership and to supply constraints. Suitable rental properties for families have to be available for this demand to be realized.

Middle-Age (45-64) Family Segment

This category accounts for one-fourth of the total regional housing market. It is the source for significant demand for owner units, particularly “move-up” units. It is also the age group for “empty nesters.” In this age category for single-parents, their children reach the age when they leave home. Empty-nester single parents become single-person households and shift into the non-family category.

Most of these families are married-couples (84%) and nearly 90% of them are homeowners.

Half of the middle-age renter families (married couples or single parents) have incomes below \$35,000, suggesting that affordability is more likely the driving factor in their housing choice than personal preference. Among middle-age renters, about 900 married couples and 400 single-parents have incomes below \$35,000.

Senior (65+) Segment

One-in-five householders were aged 66 and older in 2000; a total of 15,300 households in 2000 and projected to increase to 20,200 households by 2020. Three-fourths of these households are homeowners. There were approximately 3,600 senior renters in 2000 and senior renters are projected to increase to 4,400 housing units by 2020.

By 2020, the number of seniors with incomes below \$15,000 is projected to be 5,400; most of these (4,400) will be single individuals living alone. Low-income senior owners will number 3,700 and renters will number 1,700.

Many seniors reduce their monthly housing expenses by owning “free and clear” and not having a mortgage payment. But even without a mortgage payment, housing costs can be burdensome for seniors with very low incomes. Utilities, maintenance, property insurance and taxes can leave some senior homeowners “house poor”.

Non-elderly (under 65) Singles and Unrelated Individuals

Non-elderly singles and unrelated individuals (e.g. roommates) represent a large and growing segment of housing demand. In 2000 this segment numbered 20,800 households (over one-fourth of the total regional market) and is projected to increase by nearly 5,000 households between 2000 and 2010.

This market segment includes students in the private housing market, people living alone, and unmarried couples without children. Traditionally, this segment was overwhelmingly in the rental market and was heavily focused among very young households just starting out in the market. But with more people living alone or with roommates for longer periods and with more childless unmarried couples, this segment has opted more often for ownership than in the past. Mortgage lenders have responded to this emerging market for ownership.

In 2000, 39% of the region's non-elderly singles and unrelated individuals owned more than 8,000 units. This is projected to increase to 10,300 units by 2020. Few low-income singles and unrelated individuals are owners. Below \$25,000 income only 20% were owners in 2000 and 80% were renters. But ownership demand jumps to 38% with incomes between \$25,000 and \$30,000, between 50% to 60% for incomes between \$30,000 and \$125,000, and about 65% with even higher incomes.

Single persons and unmarried couples interested in homeownership are probably attracted most to townhouses, smaller single-family homes, and condominium units. Many of these households are also likely to prefer urban locations and urban amenities.

The Low-Income Housing Segment

Low-income households face serious challenges in obtaining adequate housing that they can afford. Housing policies and plans often categorize households according to income levels defined as a percentage of the Area Median Family Income (AMFI), adjusted for family size. The low-income category is defined as household incomes below 80% of the AMFI. This category is divided into extremely low income (<30% AMFI), very low income (30-50% AMFI), and low-income (50-80% AMFI).

As shown in Table 44, there were approximately 33,300 low-income households in the PDC in 2000. We project this to increase by 4,600 households between 2000 and 2010, and by an additional 5,300 households between 2010 and 2020. There were 15,362 low-income owner households in 2000; these are projected to increase to 20,453 by 2020. There were 17,910 low-income renters in 2000; they are projected to be 21,860 by 2020.

Over half of the low-income owners fall into the 50-80% AMFI, whereas 63% of the low-income renters are below 50% AMFI (35% are below 30% AMFI). The extremely low income category probably experiences the most severe housing needs. This group is projected to number 12,251 households by 2020, including 7,492 renters.

Table 44: Projected Households by HUD Income Category and Tenure, TJ PDC VA 2000-2020

Tenure	<30% AMFI	30- 50%AMFI	50- 80%AMFI	80-120% AMFI	120%+ AMFI
2000					
Owners	3,379	4,016	7,966	12,120	22,488
Renters	6,349	4,910	6,652	4,648	4,916
Total	9,728	8,926	14,618	16,768	27,404
2010					
Owners	4,030	4,728	9,244	13,796	26,008
Renters	6,935	5,439	7,508	5,607	5,307
Total	10,965	10,167	16,752	19,403	31,314
2020					
Owners	4,760	5,435	10,259	15,606	28,502
Renters	7,492	5,937	8,432	6,015	5,879
Total	12,251	11,371	18,691	21,621	34,381

Source: US Census 2000 and Center for Housing Research

Conclusion

This study discussed many of the factors that characterize and influence the housing market in the Thomas Jefferson PDC. We used the most recent available data whenever possible drawing from the U.S. Census, IRS migration data, MLS sales data, and other sources. We presented statistics and showed trends in order to provide the information local officials need for making policy decisions regarding housing (we were not commissioned to provide strategies based on the data presented).

Based on our research and analysis, we can conclude that:

- The PDC has high housing costs. The median sales price in the second quarter of 2006 was \$265,000 and the median gross rent as estimated by the Center for Housing Research for two bedroom apartments was \$871.
- The median owner cost to household income ratio for the Charlottesville MSA in 2005 establishes the PDC as tied with the Washington-Arlington-Alexandria DC-VA-MD-WV area (includes areas outside the state) as the most expensive metropolitan area in Virginia for owners.
- The 2005 MSA median monthly gross rent to income ratio establishes the PDC as the second most expensive area in the state for renters.
- Home sales in the PDC are robust with condominium sales “hot”.
- Vacancy rates for both owners and renters are low indicating a tight housing market.
- The 2005 homeownership rate for the MSA dropped slightly from 2000 (after controlling for jurisdiction differences).
- Solid job growth is accompanied by a low unemployment rate (2.9%).
- Not all jobs are high paying jobs. For the 2003-2005 time period, the top five occupations as ranked by number of workers had an average annual wage of under \$25,000.
- Those at the lower end of the income scale are losing ground as reflected by a trend of rising poverty rates.
- A shortfall of affordable housing (not enough units affordable to certain income level households plus those in higher income households consume the units that are affordable) forces low income households in the PDC to use a high portion of income for housing.
- Workers in occupations vital to the community have difficulty finding affordable housing in the PDC.

- Living and working in different jurisdictions has resulted in large numbers of commuters. Most drive from within the PDC to jobs in Albemarle County and Charlottesville.
- From outside of the PDC, the top jurisdictions in 2000 from which workers commuted into both Albemarle County and Charlottesville were Orange County, Augusta County, and Buckingham County.
- The number of multi-family units is increasing in the PDC.
- Manufactured homes are a dwindling housing choice in the PDC with numbers declining mostly due to the age of the manufactured units.
- Blacks are not highly segregated from whites in the PDC.
- Homelessness persists at about a constant rate in the PDC.
- Persons with disabilities have difficulty finding affordable housing close to needed services.
- The majority of owner households with extremely low income are senior households.
- College students help drive up rents in the area. Student roommates can combine the financial resources of their parents and are willing to pay a high rent per bedroom. These rents are often unaffordable to families and single people in the rental market.
- The PDC has been growing in population, slowly, but steadily.
- The largest number of in-migrants from a single location to the PDC moved from Fairfax County followed by Amherst County and Henrico County.
- The single location for the largest number of out-migrants from the PDC was Henrico County followed by Orange, Fairfax, and Augusta counties.
- The population and consequently the number of households are expected to grow steadily in the PDC through the next decade.
- We project owner demand in the PDC to increase by 7,836 units by 2010 and by 6,754 by 2020.
- We project renter demand in the PDC to increase by 3,323 units by 2010 and by 2,958 by 2020.