

Chapter 2

Demographics and Growth Trends

Introduction

This chapter briefly reviews recent trends and projections in the demographic and growth factors that characterize Warren County (the demographic data referenced in this chapter is illustrated in **(Tables 2.1 to 2.24 and Figures 2.1 to 2.3)**). This summary and analysis of trends and existing conditions is intended to provide background information and rationale for other Plan chapters. In order to effectively develop a plan or vision for Warren County's future, it is important to understand where the County has been, where it is now, and where it is headed. Important trends that have implications for future County growth and development are highlighted in this chapter.

Regional Development Trends

According to the Northern Shenandoah Valley Regional Commission (NSVRC), Warren County and the Town of Front Royal represent the third largest locality in the region, with a combined population of 31,584 (2000 Census). The population is projected to increase to 37,998 people by the year 2010, resulting in an increase in population of 6,414 for the decade. By 2020, the population is projected to reach 43,993; this represents a 39% increase. Between 1980 and 2000, the area experienced a growth rate of 48.9%. The Happy Creek District experienced a 75% increase in population between 1980 and 2000. Currently, it is the most populated district in the County.

Job growth in the Washington, D.C., area is the largest employment source in the State of Virginia. The majority of Warren County residents commute into the Washington-Northern Virginia area daily for employment (more detailed information on employment is revealed in the Economic Development section of the comprehensive plan). In summary, it is evident that Warren County is, and will continue to be, directly influenced by the Washington D.C., region's recent and projected growth.

Population

Warren County experienced strong population growth from 1970 to 2000. From 1970 to 1990, the County's average annual growth rate shot up to 3.5%. For the most recent decade, 1990 to 2000, the annual growth rate was 2.6%. From the 2000 Census, 23.4% of the population stated that they had resided in a different County five years earlier.

As compared to the Town of Front Royal, the County's population percentage of increase more than doubled between 1970 and 2000. The Town experienced a 65.4% increase, while the County increased 153.8%. The County's median population age in 2000 was 37.1. This is slightly higher than the state's median age of 35.7.

The population age groups of 35 to 54 years of age have increased significantly over the past 10 years. In 1990, this age group had a total population of 6,820. By 2000, the population of this age group had increased to 10,046. This is an increase of 3,226 people, or 47.3%, which represents a 4.7% average increase per year.

An examination of the birth rate reveals that less children have been born in Warren County during the past decade. In 1990, the County's birth rate was 16.5 per 1000 people, while the state's birth rate was 16 per 1000 people. In 2000, the birth rate for Warren County was 13.5 per 1000 people, while the state's birth rate was 14 per 1000 people. The population of the County is shifting from the child bearing age to the 35-54 year old age group. This is perhaps due to a large migration of individuals in the later stages of their careers from Northern Virginia to Warren County.

Another impact of population growth is that the number of households will increase at an even greater rate due to the national trend of decreasing average household size. A household is usually defined as "all persons, related or not, occupying a housing unit." The average household size in Warren County has declined from 3.07 in 1970, to 2.57 in 2000.

Whether Warren County's population continues to grow at the rates projected in this Plan depends upon several factors, including the following:

- The national and regional economy's health.
- Provisions for growth provided by other jurisdictions within the region.
- The willingness of local residents and organizations to provide the funds for public and private programs needed to accommodate growth.

Population projections are inherently subject to many external and unforeseeable forces. The projections presented in this Plan should be updated periodically to reflect changing trends and circumstances.

Given the potential influence that growth in other regional jurisdictions might have on the actual population increases over the next 20 years, the projections should be considered only as a general guide to prepare the County for the potential population increase it could realize.

Although the projections are adequate for this Plan, more detailed projections should be developed to support the design and construction of specific Capital Improvements which the County will undertake through the Comprehensive Plan's life span. Such projects should be carefully evaluated in the context of the specific location in which they are proposed, the specific needs they are intended to meet, and their respective short and long term costs.

Housing

In the year 2000, there were 12,087 households in Warren County and Front Royal combined.

Table 2.1 Households (1980-2000)

Year	Warren & Front Royal	Warren	NSVRC	Virginia
1980	7,745	3,515	47,665	1,864,922
1990	9,879	5,180	60,176	2,291,830
2000	12,087	6,662	72,728	2,699,173

Between 1990 and 2000, year round housing units in Warren County increased by 2,349, from 11,223 in 1990, to 13,299 in 2000. Of this increase, 10,724 units, 80.6%, were single-family dwellings; 487 units, 3.6%, were mobile homes.

Table 2.2 Housing Units Front Royal & Warren County (1990-2000)

Housing Types	1990 Number of Units	2000 Number of Units	Number Change	1990-2000 Percent of Change
Single-family Detached	8,566	10,724	2,158	25%
Single-family Attached	598	650	52	8.6%
2 to 4 Units	524	662	138	26.3%
5 to 9 Units	245	224	-21	-8.5%
10 or more Units	482	535	53	10.9%
Mobile Homes	818	487	-331	-40.4%
Vacant Units	1,344	1,212	132	-9.8%
Total - All Units	11,223	13,299	2,076	18.4%

Single-family dwellings presently comprise 80.6% of Warren County’s housing. Mobile homes make-up 3.7% and multi-family units represent 10.7%. Clearly, the County’s predominant form of housing is the single-family home.

Income

Warren County’s median household income, according to the 2000 Census, was \$42,422, while the median income in the NSVRC was \$41,305. The state's median income was \$46,677. From 1990-2000, the average annual median household income growth was 4.3%, as compared to 3.1% and 4.0 % for the NSVRC and the state respectively. The majority of household incomes range from \$25,000 to \$74,000, with the largest group, 22%, in the \$50,000 to \$74,000 income range.

The 1999 median adjusted gross income (AGI) for the County’s married couples was \$46,570. The NSVRC was slightly lower at \$45,102, and the state level was \$53,745. As compared to 1990, Warren County's AGI for married couples has risen 27.4%. The increase in married couples’ AGI for the NSVRC was 27.1%. Additionally, the increase in the state’s AGI represented 25.6%. As the County’s growth continues and more of an economic base develops, income levels are projected to rise accordingly.

Employment

Warren County’s civilian labor force is approximately 16,245. The County has a very high commuting rate because there are few employers located within the County’s borders. Approximately 58.4 % of the County's workers commute to other areas for employment. The major employers within Warren County are located in and around the Town of Front Royal, which is approximately in the center of the County.

Unless measures are taken to provide a better dispersal of job opportunities in the County, this pattern of commuting will persist as the County adds new residences. Historically, the

County has had periods of higher than average unemployment rates due in part to the lack of economic diversification. Without economic diversification, the County can expect such employment trends to continue and to increase as new residences are established. Recent successes in attracting industrial development have begun to reverse this trend.

Warren County's economy has been built upon the service sector since the closing of the Avtex Plant in the late 1980s. Warren County's largest private sector employers are: Family Dollar Services, Warren Memorial Hospital, E I dupont Co., Inc., Ferguson Enterprises, Toray Plastics (America), United Parcel Service (UPS), and Big K-Mart. The largest employer including the public sector is the Warren County School System. As Warren County's residential and industrial development increases, it is projected that retail development will also grow.

A more detailed analysis of the economy is located in the Economic Development Chapter of this Plan. A break down of the County's employment is shown in **Table 6.3**.

Existing Land Use & Development Patterns

Warren County's development pattern is characteristic of a rural County on the fringe of an expanding metropolitan area. Generally, the majority of the County is characterized by crop land, forests, and a scattering of farm's, single-family residences, or neighborhoods. Crossroads communities, various size villages and development mixes, are located throughout the County. These areas include: Bentonville, Bethel, Boyds Mill, Browntown, Buckton, Cedarville, Glen Echo, Howellsville, Karo, Limeton, Linden, Milldale, Nineveh, Reliance, Rivermont, Riverton, Rockland, and Waterlick. County development is also concentrated within and around the Town of Front Royal. Outside of these concentrations, development has occurred in a random fashion along the County's highways.

There are several large-lot subdivisions in the County's rural areas as well as mountain recreational subdivisions which have been converted to full time residences in and around Linden. The majority of the County's commercial development is concentrated along U.S. Route 340/522 north and VA Route 55.

Industrial uses are confined to two County areas: the 340/522 north corridor, leading to the City of Winchester and the Happy Creek Industrial Park located on the northeastern border of the Town of Front Royal and Warren County.

Public facilities are located throughout the County. The most significant ones are: Shenandoah National Park, George Washington National Forest, Raymond "Andy" Guest Shenandoah River State Park, Northern Virginia 4-H Center, the National Zoological Park Conservation and Research Center, Christendom College, and the U.S. Customs' Dog Training Center. There also are the following golf courses: Shenandoah, Bowling Green, Jackson's Chase, and Front Royal. The following public facilities are located within the Town of Front Royal: all public schools, Samuels Public Library, Randolph Macon Military Academy (RMA), Bing Crosby Stadium, Municipal Park, Bowman Park, Florence Smith Playground, Village Commons, Lions Park, Happy Creek Park, Ed Stump Park, and Chimney Fields Park. There are numerous semi-public facilities such as churches, cemeteries, and private subdivision recreation areas, throughout the County.

A break down of Warren County's zoning designations reveals that 89,744 acres is currently zoned Agricultural. The areas designated as Residential-One (R-1), contain 11,184

acres. The Rural Residential (RR) district contains 455 acres. The Suburban Residential (SR) district contains 165 acres. There are 110 acres in the Village Residential (VR) district. Warren County has 592 acres zoned as Commercial. Industrial zoning covers 1,714 acres of the County. The remainder of the County is land owned by the Federal Government, comprising 23,835 acres. The total Warren County acreage is 141,215.2 acres. The Town of Front Royal encompasses 5,897 acres of this total.

Development Trends

Residential development in the County has been predominant for several years. This is expected to continue to be the major form of development. There are currently about 26,984 recorded County lots. Nearly all of these lots are for single-family dwellings. The majority of recent and projected residential development is expected to occur in the County's northeastern quarter. This area is bounded by Virginia Route 55 east and U.S. Route 340/522 north. The majority of the record lots exist in these areas, as does much of the open developable land which is in proximity to Front Royal and the existing public infrastructure.

The County has a significant deficit in commercial/industrial development needed to serve local needs (see Economic Development Chapter). Historically, Warren County has not had the population mass necessary for sizable commercial expansion. However, within Front Royal there exists a small but growing commercial sector. Another problem associated with the County's lack of commercial/industrial development in the County is that the County does not have its own water/sewer system and depends on the Town to provide such services to the areas close to the Town's borders.

As residential development continues and the County Economic Development Authority (EDA) works to bring industry into the County, it is expected that additional commercial (business and office) development will follow. Future commercial and industrial development will be strongest in the County's northern section in response to the availability of public facilities (road, rail, water/sewer) and residential growth. The U.S. Route 340/522 north corridor is presently zoned for such development. The tables contained in this chapter show population characteristics, housing, and income data. This demographic data illustrates the growth pressures that have existed and continue to exist for Warren County and the Town of Front Royal.

Chapter Summary

As Warren County grows and develops, its demographics will change considerably. Although changes in recent years have been relatively minor, within the next 20 years the rate of population growth will likely lead to more substantial change. In order to manage that change, the County must plan and be prepared.

The economic, social, and land use changes, necessitated by growth make planning for the future a difficult, yet important, challenge. The goals, objectives, and policies contained in this Plan - which are based on statistics, trends, and projections presented in this chapter - are an attempt to meet that challenge. Tables and figures are on the following pages.

Figure 2.1: Population for Warren County

2000

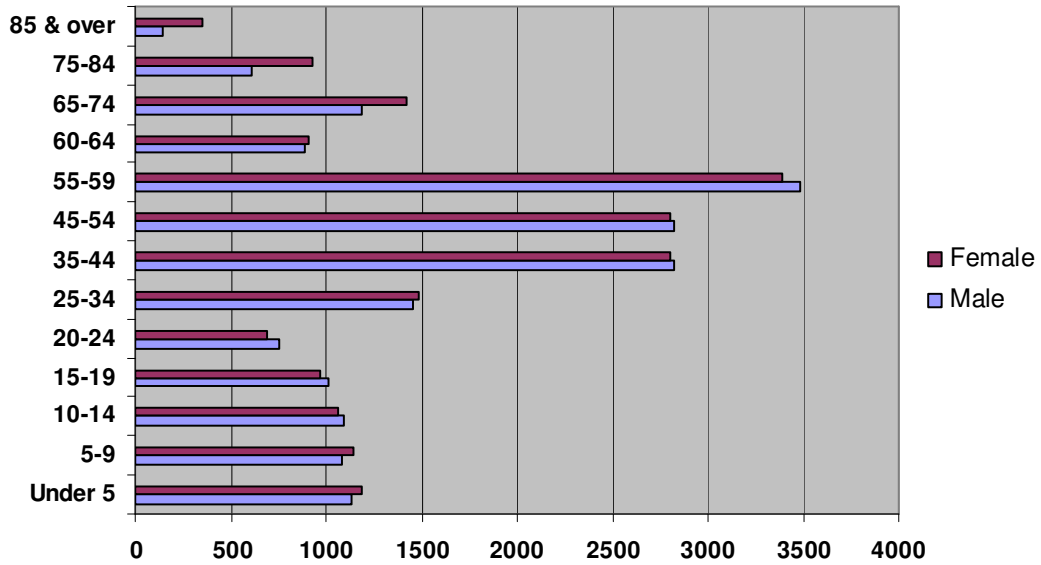
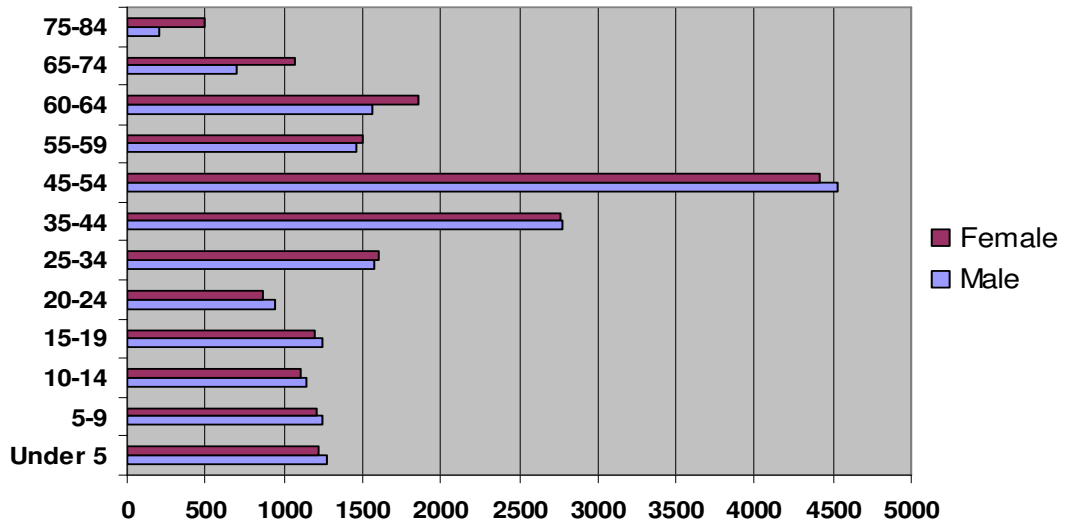


Figure 2.2: Population for Warren County

2010



Population Characteristics

Table 2.3 Population

Year	Warren and Front Royal	Warren	NSV Regional Commission	Virginia	United States
1960	14,665	6,706	97,045	3,966,949	179,323,175
1970	15,301	7,090	106,372	4,648,494	203,302,031
1980	21,200	10,074	132,429	5,346,818	226,542,203
1990	26,142	14,262	159,239	6,187,358	248,709,873
2000	31,584	17,995	185,282	7,078,515	281,421,906
2010*	37,998	23,773	213,984	7,737,597	299,862,000

Table 2.4 Average Annual Population Growth Rates (1970-2000)

Location	1970-1980	1980-1990	1990-2000
Warren & Front Royal	3.8%	2.3%	2%
Warren	4.2%	4.1%	2.6%
LFPD	2.4%	2.0%	1.6%
Virginia	1.5%	1.5%	1.4%

Table 2.5 Population Change by Geographic Boundaries (1980-2000)

Location	1980	1990	2000	Percent Change 1980 to 2000
Front Royal	11,126	11,880	13,589	22%
Warren	10,074	14,262	17,995	78%
Total County	21,200	26,142	31,584	48%
% of County Total residing in Town	52%	45.4%	43%	

Table 2.7 Comparative Natural Increase and Net Migration (1990-2000)

Location	Net Increase	Natural Increase	Percent of Net Increase	Net Migration	Net Migration as a Percent of Net Increase
Warren	5,442	1,552	28.5%	3,890	71.4%
LFPD	26,043	6,526	25%	19,517	74.9%
Virginia	891,157	428,377	48%	460,941	51.7%

Table 2.8 Birth and Death Rates (1980-2000)

Location	1980 Birth Rate	1980 Death Rate	1990 Birth Rate	1990 Death Rate	2000 Birth Rate	2000 Death Rate
Warren	13.8	9.3	16.5	10.1	13.5	9.5
Virginia	14.7	7.9	16.0	7.7	14.0	7.9

Rates are per 1000

Table 2.9 2000 County Census Respondents Residence in 1995

Origins	Number	Percentages			
Persons 5 and Over	29,480	100%			
Same House	16,729	56.7%			
Different House in U.S.:					
Same County	5,700		100%		
Different County:	6,912		23.4%	100%	
Same State (VA)	4,146			14.1%	
Different State:	2,766			9.4%	100%

Table 2.10 1990 County Census Respondents Residence in 1985

Origins	Number	Percentages			
Persons 5 and Over	24,100	100%			
Same House	12,290	51.0%			
Different House in U.S.:					
Same County	5,274		100%		
Different County:	6,347		54.6%	100%	
Same State (VA)	3,902			61.5%	
Different State:	2,445			38.5%	100%

Table 2.11 Place of Birth for County Residents

Location	1990	Percent	2000	Percent
Total	26,142	100%	31,584	100%
Native Born in Virginia	22,221	73%	20,000	63%
Native Born in Different; State, Abroad, at Sea	3,560	26%	10,564	35%
Foreign Born	224	1%	343	2%

Table 2.12 Population Change by Age Groups (1980-2000)

Age	1980	1990	Percent Change from 1980	2000	Percent Change from 1990	Percent Distributed 2000
Under 5	1,359	2,042	50%	2,100	2.8%	6.6%
5 to 9	1,517	1,794	18%	2,356	31%	7.5%
10 to 14	1,707	1,641	3%	2,363	43%	7.5%
15 to 19	1,911	1,657	13%	2,013	21%	6.4%
20 to 24	1,567	1,786	13%	1,637	-8%	5.2%
25 to 34	3,241	4,599	37%	4,079	-11%	12.9%
35 to 44	2,622	3,898	48%	5,593	43%	17.7%
45 to 54	2,291	2,922	27%	4,453	52%	14.1%
55 to 59	1,198	1,161	3%	1,727	48%	5.5%
60 to 64	1,154	1,223	5%	1,370	12%	4.3%
65 to 74	1,786	2,052	14%	2,134	3%	6.8%
75 to 84	641	1,079	68%	1,360	26%	4.3%
85 & over	153	288	88%	399	38%	1.3%
Totals	21,200	26,142	23%	31,584	20%	100%

Table 2.13 Median Age Profile (1980-2000)

Year	Warren & Front Royal	Warren	LFPD	Virginia
1980	32.4	32.2	32.3	29.8
1990	34.0	33.3	34.5	32.6
2000	37.1	36.9	38.3	35.7

**Figure 2.3: Population Change by Age Groups
1980-2000**

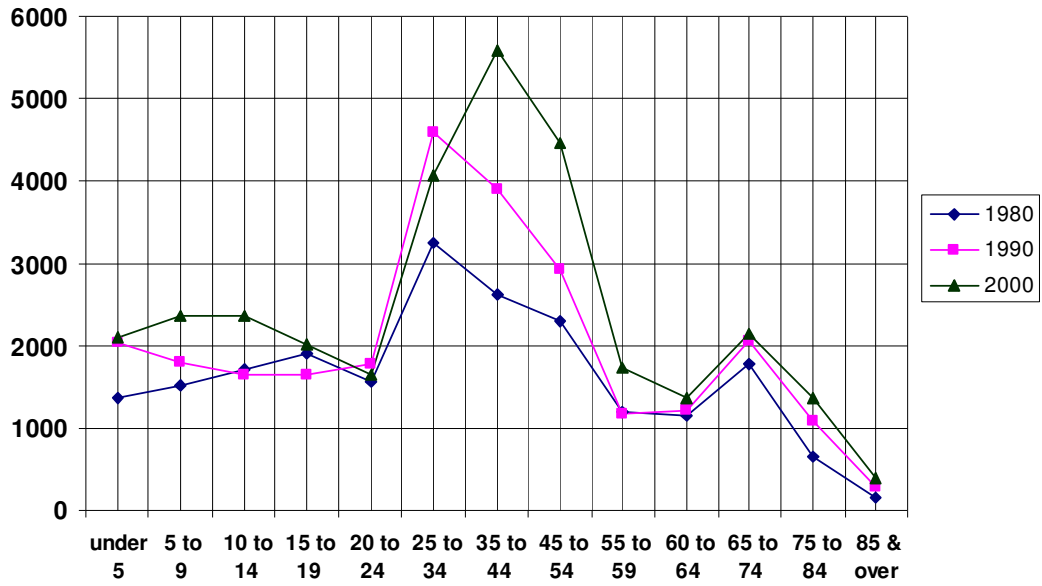


Table 2.14 Age Profile by Percentages (2000)

Age Group	Warren & Front Royal	Warren	LFPD	Virginia
<5	7%	7%	7%	7%
5-9	7%	7%	7%	7%
10-19	14%	14%	13%	14%
20-24	5%	5%	5%	7%
25-34	13%	13%	13%	14%
35-44	18%	18%	17%	17%
45-54	14%	14%	14%	14%
55-59	6%	6%	6%	5%
60-64	4%	4%	4%	4%
>65	12%	12%	14%	11%
Total	100%	100%	100%	100%
19 & Under	28%	28%	27%	27%

Table 2.15 Sex Distribution by Percentage (2000)

Location	Year	Percent Female	Percent Male	Ratio Females to Males
Warren	1980	51.6%	48.4%	1.07
	1990	50.8%	48.2%	1.02
	2000	50.8%	49.2%	1.03
Virginia	1980	51.1%	48.8%	1.04
	1990	51%	49%	1.04
	2000	51%	49%	1.04

Table 2.16 Racial Profile of Front Royal & Warren County (2000)

Racial Group	Number	Percent of Total Population
White	29,280	92.7%
African American	1,526	4.8%
Hispanic	494	1.5%
Asian	136	.4%
Native American	84	.3%
Other	64	.2%
Total	31,584	100%

Table 2.17 Land Area and Population Density (2000)

Location	1990 Square Miles	1990 Population	2000 Population	1990 Density	2000 Density	% Change 1990-2000 Population
Warren	217	26,142	31,584	120.5	147.6	20.8%
Virginia	39,703	6,187,358	7,078,515	134.7	155.8	14.4%

Housing & Income

Table 2.18 Average Annual Households Growth Rate (1980-2000)

Location	1980-1990	1990-2000
Warren & Front Royal	2.7%	2.2%
Warren	4.7%	2.8%
LFPD	2.6%	2.0%
Virginia	2.2%	1.7%

Table 2.19 Persons per Household (1980-2000)

Year	Warren & Front Royal	Warren	LFPD	Virginia
1980	2.71	2.85	2.74	2.77
1990	2.60	2.71	2.60	2.61
2000	2.57	2.70	2.50	2.54

Table 2.20 Median Household Income (1980-2000)

Year	Warren & Front Royal	Warren	LFPD	Virginia
1980	\$14,921	\$15,342	\$15,882	\$17,475
1990	\$31,062	\$34,888	\$31,522	\$33,328
2000	\$42,422	\$50,058	\$41,305	\$46,677

Table 2.21 Average Annual Household Income Growth Rate (1980-2000)

Location	1980-1990	1990-2000
Warren & Front Royal	10.8%	3.6%
Warren	12%	4.3%
LFPD	9.8%	3.1%
Virginia	9%	4%

Table 2.22 Income Profile by Percentages (2000)

Income Range	Warren	LFPD	Virginia
>\$10K	8.2%	11.7%	7.9%
\$10.1K to 24.9K	16.2%	18.6%	16.7%
\$25K to 49.9K	33.3%	33.9%	28.6%
\$50K to 74.9K	22.6%	21.6%	20.3%
\$75K to 99.9K	11.7%	9.6%	11.4%
>\$100K	8%	8.2%	15.1%
Total	100%	100%	100%

Table 2.23 Housing Stock by Decade of Construction

Decade	Number of Units	Percent of Total Units
1990-1999	2,278	17%
1980-1989	2,920	22%
1970-1979	3,091	23%
1960-1969	1,491	11%
1950-1959	1,104	8%
1940-1949	949	7%
Prior to 1939	1,668	12%
Total Units	13,501	100%

Table 2.24 Other Local Statistics (2000)

	Warren & Front Royal	Front Royal	Warren
Number of Families	8,550	3,584	4,942
% of Families below Poverty Level	6.0%	9.1%	2.7%
Total Housing Units	13,299	5,752	7,547
Housing Units Owner Occupied	8,967	3,250	5,717

Sources: Northern Shenandoah Valley Regional Commission
Virginia Employment Commission

Sources: Components of Change 1980-90; Center for Public Service

Source: Virginia Center for Health Statistics, Vital Statistics Annual Report for 1980, 1990, 2000.
U.S. Census 1970, 1980, 1990, 2000.

Note 1: * indicates projected figures

Note 2: Population distribution for projections were based on past percentages of County-Town population break downs by percentages.