

to 80% of adult smallmouth bass and redbreast sunfish died in the South Fork, and a similar fish kill occurred in the North Fork in 2004¹⁸.

A Virginia Fish Kill Task Force has been working on identifying the causes of the fish kills and investigating water quality and fish health in the Shenandoah, North and South Forks, and Cowpasture rivers. The task force is headed by the Department of Environmental Quality (DEQ) and Department of Game & Inland Fisheries (VDGIF).

D. Demographics and Socioeconomics

1. Population Change

Between 1990 and 2000, at a time when the state population grew by 14.4 percent, Augusta County and the cities of Staunton and Waynesboro experienced a combined increase of 11,301 persons for a net gain of 11.6 percent. In 1990, the area's population accounted for about 1.6 percent of the state's total population; in 2000, the area's population of 108,988 made up about 1.5 percent of the state's total population of 7,078,515.

Area population has continued to grow over the last 40 years. The 11.6 percent growth rate for the decade 1990-2000 was the largest increase since the decade 1960-1970. Most of the growth in the last decade occurred in Augusta County, which had a 20 percent increase. Between 1980 and 1990, Augusta County had only a 1.76 percent increase; however, this low growth rate for that period is misleading because of annexations of county land by both Staunton and Waynesboro. Without the 6,154 former county residents brought into city limits through annexation, the county population would have increased by 13.2 percent.

In 1994, Augusta County produced population growth forecasts that predicted between 7.5 percent and 12.1 percent growth by 1999. These forecasts proved to be lower than the actual growth that occurred. Between 1990 and 1999, the Census showed 18.6 percent growth in the county, a higher rate of growth than experienced by the state in the same period (14.3 percent). Population change varied significantly among census tracts ranging from population loss to 45 percent growth. Between 2000 and 2003, Augusta County grew by an additional 1,812 people. By 2004, Augusta County's population was 68,774 (according to Census estimates), marking a 25.8 percent increase since 1990. However, the county experienced only a 4.8 percent increase in population from 2000 to 2004, an average of 1.16 percent per year.

Augusta County is growing at a rate nearly two and a half times that of Waynesboro and nearly ten times that of Staunton. The population of Staunton decreased by 2.5 percent and Waynesboro's population grew by only 5.2 percent from 1990 to 2000. In 1990, Augusta County accounted for 53.8 percent of the

¹⁸ Update on Virginia Fish Kill Task Force Investigation/Studies Will Focus on Evaluating Water Quality and Health of Fish, Press Release, Virginia Department of Environmental Quality, 2006.

population of the county and two cities combined. This figure increased to 58 percent by 2000.

According to the VEC’s population projections, the county population is expected to reach 71,300 in 2010, a 12.5 percent increase from 2000. Updated population projections were produced, comparing VEC projections to extrapolated trends of Cooper Center and Census Bureau estimates, following the development of this study. These updated projections are considered the official projections for this Plan and can be found in Section IV.

Table 14. Population Change in Augusta County, 1980 – 2030

Year	Total Population of County	% change
1980	53,732	
1990	54,677	1.76
2000	65,615	20.00
2010 (projected)	71,300	8.66
2020 (projected)	76,100	6.73
2030 (projected)	80,900	6.31

Source: U.S. Censuses 1980-2000, U.S. Bureau of Census.
 Population projections for 2010-2030 from VEC, 2003.
 Notes: 1990 data reflects annexation of 3,234 Augusta County residents by Waynesboro in 1986 and 2,920 Augusta County residents by Staunton in 1987.

Migration

Population growth, particularly from migration, has a significant socioeconomic impact on a community and typically reflects the strength of the local economy. From 2002 to 2003, the increase in population in the county was split roughly evenly between natural increase (51.6 percent) and migration (48.4 percent). According to Census migration data, Augusta County netted 3,323 people from migration between 1995 and 2000. The five-year population mobility rate¹⁹ in Augusta County remained fairly low, 38 percent compared to a statewide average of 47.8 percent. Albemarle County was the leading source of migrants to Augusta County between 1995 and 2000, followed by Fairfax and Arlington Counties. Several jurisdictions adjacent to Augusta are also significant sources of migration into the county such as Rockbridge, Rockingham, Highland, and Nelson Counties.

Cohort Analysis

A cohort analysis provides insight into the ages of migrants into and out of the county. A “cohort” refers to a group of people born within a 10-year time span. A cohort analysis tracks changes in the number of people in each birth cohort over several decades. Since only a few people in younger age groups die over a 10-

¹⁹ The percent of the population aged 5 and over that lived in a different residence in 2000 than in 1995.

year span, any significant change in the size of the group can be attributed to migration.

An analysis of the size of cohorts (**Table 15**) from 1990 to 2000 indicates that families with children are moving to the county. The cohorts aged 0-9 in 1990 and 10-19 in 2000 increased in size from 7,345 people to 8,962 people. Similarly, the cohorts aged 20-29 in 1990 and 30-39 in 2000 increased significantly as they aged by 10 years. The increases in these age groups can only be due to net migration into the county. The largest increases are consistently for the cohorts that are 30-39 in the ending time period. These cohorts heavily represent young families and correspond to the increase in children in the county.

Table 15. Cohort Analysis in Augusta County, 1990-2020

Age	Population			
	1990	2000	2010	2020
0-9	7,345	8,087	9,042	10,422
10-19	7,549	8,962	6,997	8,730
20-29	7,801	6,673	9,016	5,116
30-39	9,497	10,183	8,719	13,374
40-49	8,084	11,128	9,587	7,433
50-59	5,665	8,921	11,900	9,484
60-69	4,735	5,773	8,548	11,165
70-79	2,907	3,990	4,540	6,902
80+	1,094	1,898	2,952	3,474

Source: VEC, 2005.

Due to net in-migration, the cohorts aged 40-49 in 2000 increased by 1,631 people (17 percent) between 1990 and 2000. The VEC projections, however, indicate that younger cohorts contribute to net out-migration, particularly between the ages of 0-9 and 30-39 in 2010. The cohorts aged 50-59 in 2000 show a similar pattern; the current cohort contributes to net in-migration, but younger cohorts will produce out-migration as they reach the ages of 50-59 after 2010. The reason for these reversals in migration patterns is unclear and the VEC projections for these cohorts might be too conservative. If this proves to be the case, Augusta County can expect higher population growth than projected by the VEC.

Cohorts in older age groups are obviously at greater risk of death due to natural causes. In addition, post-retirement migration streams typically flow toward sun-belt locations. However, the cohort aged 60-69 in 2000 increased slightly over its size 10 years earlier as 50-59 year olds, due to net in-migration. Although the 60-69 age groups in 2010 and 2020 are smaller than the 50-59 age groups 10 years earlier, there will be an ever increasing number of people ages 60-69 in the county. In 2000, there were 5,773 60-69 year olds; by 2020 there will be a projected 11,165 persons ages 60-69. This occurs because although net loss

among these cohorts is projected as they age, the cohorts are larger when they are younger than their predecessors have been.

2. Race and Ethnicity

Augusta County’s population is rather homogenous with 95 percent of the population classified as white in 2000. Of the remaining 5 percent, 3.6 percent were black or African American. Although Staunton and Waynesboro were more racially diverse than Augusta County, all three areas were significantly less diverse than the state. **Table 16** shows the racial composition of the county and two cities. Similarly, less than 2.5 percent of residents of the county and cities were foreign born with almost half of the foreign born having become naturalized citizens.

Table 16. Race in Augusta County, Staunton, and Waynesboro, 2000

Race/Ethnicity	Augusta County	Staunton	Waynesboro
White	95.0%	84.1%	86.7%
Black/African American	3.6%	13.3%	10.0%
2 or More Races	0.7%	1.9%	1.9%
Hispanic	0.8%	1.1%	3.2%

Source: U.S. Census Bureau, 2000.

3. Elderly and Persons with Disabilities²⁰

The elderly and persons with disabilities often need assistance with transportation, access to health care, financial advising, assistance with home maintenance, and other social services. The projected growth in the senior population in the county highlights the need for social services to help this population live independently for as long as possible. At the time of the 2000 Census, there were 8,428 persons aged 65+, 12.8 percent of the total population. This population is spread evenly throughout the county with some concentrations in Staunton and Waynesboro. The highest concentration of elderly and/or disabled persons occurs along the Route 42 corridor, between Buffalo Gap and Craigsville, and along Route 250 between Churchville and West Augusta. Waynesboro has the highest overall disability rate within the local area, with 27.7 percent of the working age population disabled.

4. Incomes and Poverty

Real (inflation adjusted) incomes in Augusta County increased 6.9 percent between 1989 and 1999 while real incomes decreased in Staunton and Waynesboro during the same time period. According to the Bureau of Labor Statistics, the inflation rate during this period was 34.4 percent. The largest gains in income were in the areas between Staunton and Waynesboro and along the northwestern border of the county.

²⁰ Augusta County, Virginia Housing Assessment, Center for Housing Research, Virginia Tech, April 2005.

The median household income in Augusta County was \$43,045 in 1999 but incomes varied widely within the county and cities. This is an increase of 31.5 percent from the 1989 median income of \$29,474. This increase was mirrored in the increase in median housing values which rose from between \$75,000 and \$99,999 in 1990 to \$110,900 in 2000. Incomes also varied according to the races of the householder. The median income for white householders was \$43,459 while that of black or African American householders was \$31,737 or 26.3 percent lower.

Per capita income is the total personal income of all the residents of a locality divided by the total population. This number differs from adjusted gross income for individuals in that the adjusted gross income is derived from persons filing their income tax returns as individuals, rather than the total population.

In 2003 the Augusta County area, including Staunton and Waynesboro, had a per capita personal income (PCPI) of \$25,847. This PCPI ranked 47 in the state and was 77 percent of the state average, \$33,730, and 82 percent of the national average, \$31,472. The 2003 PCPI reflected an increase of 2.3 percent from 2002. The 2002-2003 state change was 2.3 percent and the national change was 2.2 percent. In 1993 the PCPI of Augusta County, Staunton, and Waynesboro was \$18,386 and ranked 39 in the state. The 1993-2003 average annual growth rate of PCPI was 3.5 percent. The average annual growth rate for the state in this time period was 4.1 percent and for the nation was 4.0 percent.²¹

Poverty rates also indicate the county's relative prosperity. Just 5.8 percent of the county's population fell below the poverty line in 2000, compared to approximately 12 percent (Staunton) and 13 percent (Waynesboro) in the cities and 9.6 percent in the state. Nearby Rockingham County's poverty rate was 8.2 percent. Poverty distribution by age, as reported by the Census, shows that five year olds (now 9-10 year olds) are disproportionately affected.

²¹ Bureau of Economic Analysis, Regional Facts, Augusta County, Virginia 2003.

Table 17. Poverty Rates by Age in Augusta County, 2000

	Augusta County	Staunton	Waynesboro
Total 2000 below poverty level	3,685	2,485	2,459
Percent Total			
Under 5 years	7.03%	7.89%	10.98%
5 years	2.20%	1.37%	3.29%
6 to 11 years	8.58%	11.75%	16.10%
12 to 14 years	5.59%	5.07%	4.72%
15 years	1.22%	0.28%	3.29%
16 and 17 years	3.85%	3.78%	2.24%
18 to 24 years	9.53%	9.54%	13.05%
25 to 34 years	10.23%	8.57%	11.18%
35 to 44 years	14.14%	13.96%	13.14%
45 to 54 years	10.23%	10.99%	6.83%
55 to 64 years	12.81%	10.06%	7.32%
65 to 74 years	7.54%	8.09%	2.89%
75 years and over	7.06%	8.65%	4.96%

Source: U.S. Census Bureau, 2000.

The incidence rate of female-headed households (no husbands present) with children under the age of 18 provides another measure of poverty and economic stability. In 2000 in the county, 4.5 percent of all households were female-headed, compared to 6.7 percent statewide. While the overall incidence of single mothers was low in Augusta County, there are a few areas where the incidence was relatively high. For example, 14.7 percent of householders in Verona were female-headed households.

5. Earnings by Place of Work

Earnings of persons employed in the Augusta County area increased from \$1.9 billion in 2002 to \$2 billion in 2003, an increase of 4.3 percent. The 2002-2003 state change was 4.8 percent and the national change was 4.1 percent. The average annual growth rate from the 1993 estimate of \$1,324,290 to the 2003 estimate was 4.3 percent. The average annual growth rate in 2003 for the state was 5.9 percent and for the nation was 5.3 percent.²²

6. Planning Issues

Based on the available data regarding demographics and socioeconomics, the following planning issues have been identified:

- Population in Augusta County has increased during the last decade and is projected to increase at a moderate rate over the planning period. Demographic data indicates that the source of population growth is largely from in-migration with limited growth due to natural increase. How

²² Bureau of Economic Analysis, Regional Facts, Augusta County, Virginia 2003.

should the county plan to address the increased need and expectation for public services based on the projected population growth?

- The relocation of families into the county appears to be the primary source of the in-migration and contributes to the increasing numbers of school-aged children. How should the county plan for potential increases in school-aged children?
- There is also a growing senior population in the state due to aging in-place and migration. What additional services and facilities should the county consider to meet this growing segment of the population?
- Overall the number of minority populations in the county is low. However, the socioeconomic data indicate that the highest poverty rates that do occur in the county are among the black population. What should the county do to address poverty, especially among blacks and children where high rates are most prevalent?
- Areas of the county, such as Verona, have been identified as areas with significant concentrations of female-headed households, which is an indicator of potential socioeconomic concern. What should the county do to help support female-headed households?

E. Housing

The Center for Housing Research at Virginia Polytechnic Institute and State University (Virginia Tech) conducted an analysis of housing conditions and trends for inclusion in this section. The complete study is included in the Appendices.

1. Homeownership

Homeownership is higher in Augusta County than for the state as a whole (83.2 percent of Augusta households in 2000 were homeowners versus 68.1 percent statewide). Augusta County attracts family households that prefer homeownership and continued population growth is expected to put demands on the ownership housing market to a much greater extent than on the renter market. In Augusta County in 2000, 76.2 percent of households were family households, compared to 68.5 percent statewide. In fact, almost 40 percent of all respondents in the public opinion survey, conducted by the county in June 2005, indicated that one of the top three things they liked best about the county was that it was a great place to raise a family. Family households also favor homeownership. Of all homeowners in the county, 79.3 percent were family households. Nearly 87 percent of all family households lived in owner-occupied housing units.

Race

Although homeownership is high in the county (83.2 percent), rates vary across races and ages. Although the minority population in the county is fairly small and disparities in incomes, poverty, and homeownership between blacks and whites