APPENDIX to the COMPREHENSIVE PLAN

2005

TECHNICAL REPORT

On

THE ECONOMY AND DEMOGRAPHICS OF
NORTHUMBERLAND COUNTY, VIRGINIA

File: APPENDIX.2005.doc
First revision of
1996 Plan –
Last change or print date:
December 29, 2004

**Updated from the 1996 edition by
Gregory T. Haugan, PhD**

FOREWORD

This Appendix was initially prepared by PMA: Community Planning Consultants of Newport News, Virginia for the 1996 Comprehensive Plan for Northumberland County.

This version is an update and rewrite using the framework established by PMA with changes to the tables, figures and text based on updated statistical data. In several cases the tables and figures are changed because the baseline data changed or are no longer available or to improve consistency. New tables and figures have been added to present a more complete picture of the County .

The original PMA text and analyses are retained where still relevant.

The data contained herein were updated initially in late 2003 and again in late 2004.

This Appendix will again be updated in selected areas when further data become available during 2005 in time for the presentation to the Board of Supervisors and the public hearing planned for the fall/winter of 2005. All major data have been updated from the 1996 version and further updating will have no impact on any conclusions or decisions made on the basis of this Appendix.

TABLE OF CONTENTS

APPENDIX

Page

ILLUSTRATIONS

LIST OF TABLES

LIST OF FIGURES

APPENDIX[1]

THE ECONOMY AND DEMOGRAPHICS OF
NORTHUMBERLAND COUNTY, VIRGINIA

INTRODUCTION

Northumberland County, whose name came from a British noble house of the same name, was formed in 1648[2] as a subdivision of York County. At that time the County's area covered all of the combined territory now contained in Northumberland, Lancaster, Westmoreland and Richmond Counties. One of the area's first settlers, Colonel John Mottram, established a plantation known as "Coan Hall" near the mouth of the Coan River. Colonel Mottram later represented Northumberland County in the House of Burgesses. Within a few years of its establishment, Northumberland County was subdivided to form the other counties of the Northern Neck.

The county government as it is known today first began to take shape after Virginia adopted a new Constitution in 1869. That constitution established a government with an elected "Board of Supervisors" replacing a system of local government in which all of the County's governmental powers were vested in the Circuit Court. A previous constitutional amendment in 1851 provided for the election of certain local officers (appropriately called constitutional officers) to be elected by county voters. Today's county government operates essentially under the form of government just described.[3]

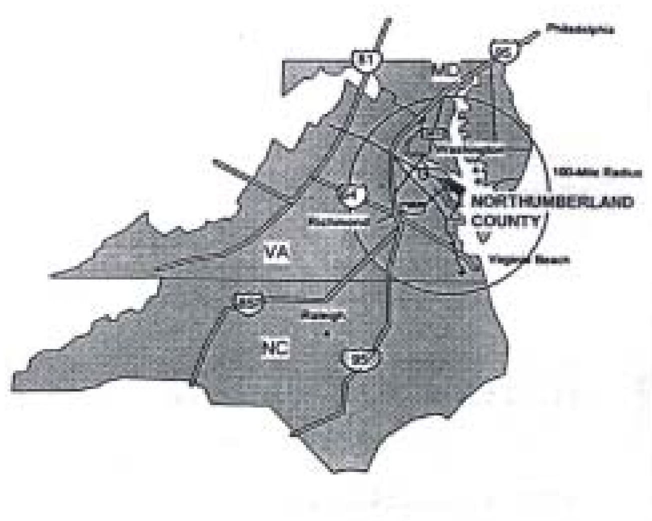
During its early years, the economy of Northumberland County, as for most of the Southern Colonies, was based on agriculture, tobacco being the principal crop. The orientation of the local economy was mainly toward other communities that could be reached by water transportation because there was no viable transportation linkage to major cities in Virginia. Several steamship lines served ports in Northumberland County which connected the economy to other ports on the Chesapeake Bay. This changed when automobile travel became the principal travel mode in the 20th century. By 1926 the Downing Bridge, across the Rappahannock River at Tappahannock, opened commercial routes to Richmond, and later the Robert O. Norris Bridge linked the Northern Neck with Middle Peninsula and Hampton Roads communities.

Route 360 forms the principal internal transportation corridor within the County as well as links the County to Richmond and other market areas to the west. Route 202 connects to Route 3 to provide a corridor to Northern Virginia and the District of Columbia. It also connects to Route 301 and then to Baltimore.

[1] Filename = Appendix.2005
[2] Virginia Historic Landmarks Commission.
[3] Source: the County Administrator's Manual.

While Northumberland County is to some extent isolated from the rest of the State, it has a number of advantages due to its location among which is the following:

- The County is within less than two hours' ground transportation from all points of Virginia's "urban corridor" which has been documented as that area of the State where most of the future growth is likely to occur.



- At the upper end of the urban corridor lies Metropolitan Washington, D.C. and immediately to the north thereof are Baltimore, Philadelphia, and other large cities of the Northeast Corridor.

- The many miles of waterfront property have made the County attractive to private developers and private citizens seeking second homes or retirement homes.

- The opportunities for recreational sports and fishing encourage a large increase in population during the summer months.

In order to assess the future potential of the County to benefit from its location and environmental advantages, the County's economic and demographic characteristics are presented in substantial detail in this report. The analysis consists of two parts:

First, the economy is examined from a standpoint of employment. Trends are presented for each of several business/industry groups along with forecasts of potential employment within each group for the next two decades. Employment is perhaps the best indicator of the economy of most communities because employment translates into income which has a multiplier effect within the business community. A community's economy is fueled by three sources: (i) employment in businesses and industries that sells their products beyond the County line, therefore bringing new money into the community; (ii) employment in businesses and services which primarily serves a local need for goods and services; and (iii) income from sources not related to current employment such as retirement income. Attempting to predict details of an economy is prone to error given the various fluctuations of the national and state economies. But past growth gives a clue as to where change is taking place, and it is the objective of analysis to identify the areas of change and how such change may play out in future years.

The second area examined in this report is population growth. Population growth in many communities can almost be linked mathematically to employment. That is to say, for a population as a whole, only a certain percent works for monetary compensation, and the remainder of the population depends on the part with income for support. In communities where a predictable ratio between employment and population can be established, the major factor in predicting future growth lies in predicting future employment. In communities where a significant number of persons are retired and not in the potential work force, their economic impact is not related to employment, but to their retirement incomes and population growth may depend upon the availability of attractive retirement property and related services. For this reason, this Appendix associates economic and population growth very closely for one segment of the population and investigates the size and changes in the retired community and other population groups to estimate the overall population growth.

In Northumberland County, there are several unique factors that affect growth. A major factor in the past has been the availability of attractive water-front land. First, the growth of the past decade has been almost entirely from persons establishing homes within the County, mostly in prime water-front locations. Most of such persons are retired and fit into the second pattern of the economy as described in the previous paragraph. Because they bring with them their own assets and income, the related job expansion is to provide services for this group. Second, there are a number of baby-boomers looking forward to retirement and are purchasing waterfront lots and building weekend homes for eventual retirement and full time residents. Third, there is another population that is present in the County only during certain periods of the year. Although it is difficult to put quantitative numbers on vacationers who come to the County during weekends, holidays and throughout the summer months, they are known to make a substantial contribution to the economy of the County. The second and third groups overlap. Fourth, there are a substantial number of persons living in Northumberland County who commute to work outside the County and a lesser number of others who come into the County for work.

In summary, there are three population groups in Northumberland County: those who live here year-round and depend on regular employment for support; those who come during the summer and weekends for recreation; and those who came to the County just to live and retire in its excellent environment.

This Appendix is organized into two sections. The first addresses the County’s economy and overall potential for growth of Northumberland County's economy using various indices of business activity. The second section examines demographic trends and projects probable population growth to year 2020.

SECTION 1: THE COUNTY'S ECONOMY

A. An Overview

During the early-to-mid 1900s, Northumberland County lost both agricultural employment and population. This mirrored trends nationwide as rural populations moved to urban areas seeking job opportunities. The County has a renewed growth; however, but during the last three decades and today the traditional industries of fishing, agriculture, and food processing, boat building and boat repair have not shared in this growth. The most rapidly growing new industry is a combination of tourism and retirement. Seasonal housing represents 23 percent of the total housing stock in the County, and this market combined with the influx of retirees has stimulated growth in construction, real estate and insurance, services, retail and communications, transportation and utilities employment. The unique characteristics of Northumberland County's economy and population include the following. The economy "booms" in the summer and fall months but also has a substantial year-round retirement community. The County is first out of all Virginia communities in the proportion of its population that is 65 years of age or older (26.2%); and it also has the highest median age of any county in Virginia at 50.1 years. Conversely, the proportion of young adults and children is comparatively low. Growth is accounted for by in-migration since vital statistics report that deaths outnumber births almost 2:1 with an annual difference of a net loss of approximately 100 persons. With comparatively fewer children to educate and increasing property values, the County's taxes remain low and enhance its attractiveness to retirees.

Low interest rates during the 1990s and especially in the early 2000s stimulated home construction nationally as well as locally; this market not only is cyclical but very sensitive to interest rate changes. Although higher interest rates may slow the rate of construction of new homes temporarily, tax laws still favor ownership of both first and second homes. The latter market comprises a large share of home construction within Northumberland County as does retirement homes.

The remaining part of this Appendix examines trends and projects potential growth in employment and year-round population of the County. Employment projections are based on extensions of trends in the various sectors of the economy. They are "base-line" projections. Although they assume growth according to historic trends, they do not include estimates of additional employment that might be added as a result of new basic businesses or industries being established in the County or within commuting distance. Population projections are based on trends in past population growth.

B. Total Employment Summary

In reviewing employment figures reported here, the reader is apprised of some of the limitations on the data that have been used to perform these analyses:

- Most statistics for employment forecasts are derived from past employment reported by employers on Social Security Tax forms. Employment based on Social Security reports are referred to as "covered employment". Because many jobs are not covered by the Social Security Tax Act, there are gaps in the information using this source.

- These gaps are especially significant when it comes to reporting employment in agriculture, forestry and fisheries, because this employment historically is a very important part of Northumberland County's economy. These categories employed a reported 331 persons (about ten percent of the total residents employed) at the time of the 1990 census and dropped to 188 in year 2000. In addition, jobs in food processing manufacture and boat building and repair depend on agriculture, forestry and fisheries.

- Full employment data are reported only at the 10-year Census intervals, the latest being in 2000. The U. S. Census reports employment of individuals living within the County regardless of where they are actually employed.

- Another potential problem with employment data whether from the Census or from Social Security reports is that agencies handling data are not allowed to publish data if the data would disclose details of any one firm's business. But despite the weaknesses in certain data, there are enough employment data available to enable a reasonably reliable analysis to be made for planning purposes and the trends are unmistakable.

- Many County residents commute to jobs outside the County. The 2000 Census reported that 2,254 county residents lived and worked in the County and another 2,561 county residents commuted to work outside the County. Of the 2,561 out-commuters, seventy percent worked in other Northern Neck counties or in Essex County. Others worked in the Richmond City area, the Northern Virginia - DC area, or elsewhere. Residents from other communities also commuted to jobs within Northumberland County. The 2000 Census reported 777 in-commuters, 606 of whom came from other Northern Neck counties and Essex County.

- The dollar figures for all years are presented in current-year dollars. This means for a true comparison year to year, the data should be converted to constant-year dollars. Where this might be significant, it is mentioned in the text.

The following Table 1.1 presents the current seasonal fluctuation of employment of county residents. The unemployment rate ranged from a low of 3.1 percent in October/November 2003 to a high of over 8.4 percent in January 2004 – slightly lower than a year ago. (Note: 10 years ago the range was from 5.6% to 22.9% or roughly double that of today.)

The second part of Table 1.1 presents some very interesting trends. First, the civilian labor force of County residents (not jobs in the County) has remained almost constant over the past ten years, only increasing about 3% overall while the population has increased about 16%; and second, the number of unemployed as well as the unemployment rate has steadily decreased.

Table 1.1A
Labor Force Data - Monthly

Monthly Statistics					
Year	**Month**	**Civilian Labor Force**	**Employment**	**Unemployment**	**Unemployment Rate (%)**
2004	September	5,614	5,362	252	4.5
2004	August	5,751	5,496	255	4.4
2004	July	5,807	5,571	236	4.1
2004	June	5,792	5,542	250	4.3
2004	May	5,715	5,477	238	4.2
2004	April	5,728	5,431	297	5.2
2004	March	5,705	5,349	356	6.2
2004	February	5,718	5,307	411	7.2
2004	January	5,811	5,323	488	8.4
2003	December	5,534	5,307	227	4.1
2003	November	5,553	5,379	174	3.1
2003	October	5,592	5,418	174	3.1
2003	September	5,587	5,382	205	3.7

Table 1.1B
Labor Force Data - Annual

Annual Statistics				
Year	**Civilian Labor Force**	**Employment**	**Unemployment**	**Unemployment Rate (%)**
2003	5,523	5,208	315	5.7
2002	5,499	5,166	333	6.1
2001	5,377	5,016	361	6.7
2000	5,256	4,923	333	6.3
1999	5,297	4,890	407	7.7
1998	5,149	4,695	454	8.8
1997	5,203	4,625	578	11.1
1996	5,172	4,512	660	12.8
1995	5,315	4,643	672	12.6
1994	5,327	4,644	683	12.8
1993	5,356	4,631	725	13.5

SOURCE: Virginia Employment Commission, Nov 2004

The County unemployment rate has been steadily decreasing and the size of the work force living in the County has remained constant. The increase in County population has largely been persons not adding to the work force.

1. Distribution of "Covered" Employment

Table 1-1 above is total employment as defined by the Virginia Employment Commission. It is different from covered employment which is based on Social Security data as mentioned earlier. As reported by the Virginia Employment Commission, the distribution of employment in Northumberland County for jobs covered by the Social Security Act is presented in the following table for selected years.

Table 1.2
Annual Average Covered Employment
Selected Years 1987 - 2003

	1987	1988	1990	1992	1994	1996	1998	2000	2001	2003#
Agriculture	D	D	31	35	49	47	37	37	48	
Mining	0	0	0	0	0	0	0	0	0	
Construction	166	244	219	228	201	213	261	301	300	
Mfg- Total	716	637	580	872	746	790	698	609	570	
Mfg - Durable	135	141	154	129	120	133	112	115	123	
Mfg-Nondur	581	541	426	743	627	657	586	493	447	
Transportation	117	105	110	119	146	105	114	165	149	
Trade-Wholesale	75	74	79	78	67	78	59	61	59	
Trade-Retail	311	327	304	321	329	409	417	389	432	
Fin.,Ins., R.E.	75	76	104	103	96	84	96	90	79	
Services	188	224	302	301	364	408	464	574	577	
Gov-State	12	12	13	27	22	16	22	26	25	
Gov-Local	271	284	307	317	363	355	388	435	444	
Gov-Federal	37	39	38	32	32	33	31	39	28	
Nonclassifiable	1	0	0	0	0	0	2	0	0	
TOTAL	**2,123**	**2,187**	**2,091**	**2,431**	**2,404**	**2,536**	**2,589**	**2,724**	**2,710**	
Employment of all County Residents as reported by U.S. Census			4,192					4,894		
Note: "D" = Protected from disclosure of any one firm's business #: to be updated later in 2005										
Source: VEC Table ES-202 for Selected Years										

Census employment figures for 1990 and 2000 are included at the bottom of Table 1.2. They illustrate the difference between covered employment reported by the Virginia Employment Commission (VEC) for jobs in the County and total employment of County residents as recorded by the Census. The Census reported that from 1990 to 2000 Northumberland County experienced an increase in employment that averaged 1.7 percent per year. VEC's employment figures indicate a 2.7 percent per year average increase for the same year period, 1990-2000 for in-county jobs.

The major increases in County jobs over the past 10 years have occurred in four areas: Construction, Retail Trade, Services, and Local Government (which includes the schools) – Three of these areas are related to growth in the retirement community.

The next table shows how employment of county residents was distributed among the major occupational classes as reported by the U. S. Census and which classes gained or lost employment during the 1990s. These data present the occupations of County residents; some of these jobs are located in surrounding counties. The first three classes represent white collar occupations.

Table 1.3
Occupations of Employed Residents, 1980, 1990 and 2000*
Projections for 2010 and 2020

OCCUPATIONAL CLASS	1980	1990	2000	2010	2020
Management, Professional, and Related Occupations	554	697	1,470	1,500	1,550
Service Occupations	451	564	802	950	1,100
Sales and Office Occupations	732	1,116	1,140	1,190	1,220
Farming, Fishing and Forestry Occupations	368	331	188	190	190
Construction, and Maintenance Occupations	847	870	608	710	850
Production, Transportation, and Material Moving Occupations	603	614	686	750	850
Total Employed in/out County	3,555	4,192	4,894	5,291	5,760
Population - Actual or Forecast	9,828	10,524	12,259	14,300	16,000
Percent Employed	36.17%	39.83%	39.92%	37.00%	36.00%

*Persons 16 years and older, residing in the County
Source: U.S. Census 1980, 1990, 2000, Table DP-3

Table 1.3 presents the dramatic changes that have occurred over the past 20 years in the work force in the County. White collar jobs as illustrated in the first three categories have increased significantly from 49% in 1980 to 57% in 1990 to the current 70%.

Construction trades have decreased since 1980 in numerical terms; they still are decreasing as a percentage of the work force being currently at approximately 30% but are in process or rebounding as new construction increases.

Projections are based on working backwards from the VEC projections of total population for years 2010 and 2020. It is assumed the percent employed will decrease due to the aging population and continued in-migration of retired persons attracted to the waterfront properties.

Growth is expected in two areas: (1) increases in construction, retail trade, and transportation and utilities related directly to population growth; and (2) growth in services related to these demographic changes.

This table, like the previous table, shows employment growth over the past 10 years is related to growth in the retirement and professional communities

2. Covered Employment (Social Security)

Examined next are jobs actually located within Northumberland County as opposed to the preceding analysis which examined employment patterns of all employed residents of the County. Details of each major employment sector are examined as a basis for projecting future growth potential of each sector. This analysis was performed by first establishing a baseline of employment trends for each employment category using data reported by VEC, (Social Security covered employment). A baseline is projected separately for each industry group shown in Table 1.4 including employment in farming, fishing and forestry. Additional data are included for this latter category to provide additional insight into trends.

Table 1.4
Industry Employment 1980, 1990, 2000 and
Projections for 2010 and 2020

INDUSTRY/YEAR	1980	1990	2000	2010	2020
1. Agriculture, Forestry, Fishing, Hunting	571	366	393	390	390
2. Construction	201	453	512	600	700
3. Manufacturing	936	617	679	670	670
4. Wholesale Trade	74	108	91	100	100
5. Retail Trade	318	428	524	610	710
6. Transportation and Public Utilities	61	163	225	270	300
7. Finance, Insurance, Real Estate	152	277	304	360	400
8. Services	711	669	1,004	1,300	1,440
9. Government: Federal, Military, State	92	109	111	120	120
10. Local Government	284	310	438	445	450
Total Employed in County	3,400	3,500	4,281	4,865	5,280
Population - Actual or Forecast	9,828	10,524	12,259	14,300	16,000
Percent Employed	34.60%	33.26%	34.92%	34.00%	33.00%

Source: Bureau of Economic Analysis, Reports CA25

The population forecasts were made by VEC and the changes in percent employed are consistent with the decrease in the percentage in working population as compared to the baseline year 2000.

The trend in percent employed was used to determine the approximate size of the workforce. These numbers do not include any significant change in the make-up of the industries in the County. Obviously, should a large company move into the County or if there is some other significant change in the demographics, the projections would need to be changed. At present, there are no significant changes on the horizon and no reason to expect any significant change in the trends.

Note that the numbers of total persons employed in the County in this table are lower than the numbers for the occupations listed in the previous table; the difference is due to more persons having jobs outside the County than those coming in to the County to work.

C. Employment Details

The following sections address each employment category of Table 1.4 above along with a graphic representation of the trends and the rationale used for the forecast.

1. Agriculture, Fishing and, Forestry

This category is analyzed in much more detail because of the historic role of these industries in the economics of the County.

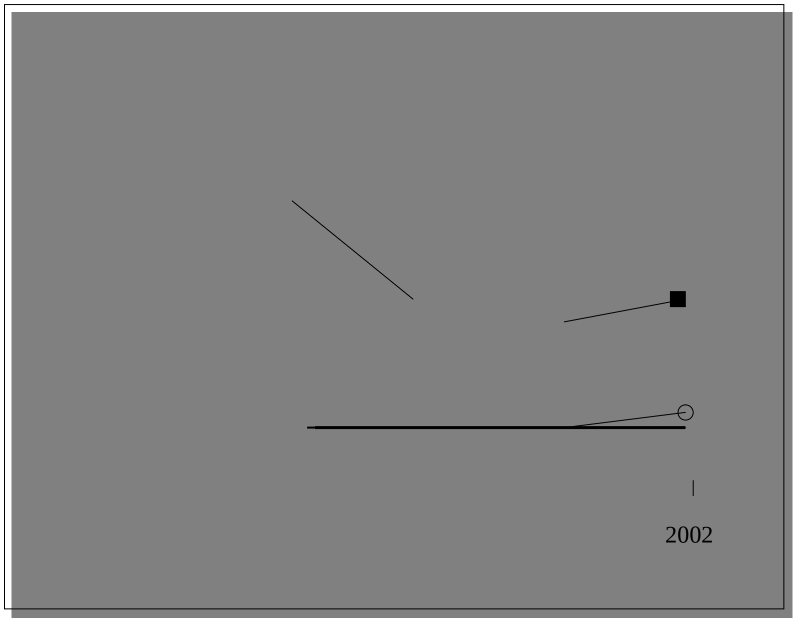
a. Agriculture

Figure 1.1 presents the data of Table 1.4 in graphic format. After the large drop between 1980 and 1990, the employment stabilized at approximately 390 persons where it currently remains. Looking into the future of these industries in the County, there is no reason to believe there will be a significant change up or down over the next 10 to 20 years. There will be pressure to develop farmland, especially along waterfront and the highways and adjacent to villages. No more farmland can be created.

Figure 1.1
Employment in Agriculture, Forestry and Fishing

The next two Figures support the assumed level trend by presenting some of the independent variables that drive employment in this sector.

Figure 1.2
Farmland and Cropland



SOURCE: 1997, 2002 Census of Agriculture, County Profile;

Figure 1.3
Census Count of Farms

SOURCE: 1997, 2002 Census of Agriculture, County Profile

The amount of land in farms increased to 40,141 acres in 2002 from 38, 151 acres in 1997 (there were 41,290 acres in 1992). The average size of farms was 323 acres in 1992, 313 acres in 1997 and 314 acres in 2002.

The number of full time farms decreased from 76 farms in 1992 to 74 farms in 1997 and increased to 83 in 2002.

The market value of agriculture products sold increased 21 percent from 1992 to $9,645,000 in 1997 then dropped to $7,408,000 in 2002. Crop sales accounted for 98 percent of the market value and livestock sales for 2 percent. The market value of agriculture products sold as an average per farm increased 27 percent from $62,206 in 1992 to $79,056 in 1997 then decreased to $57,876 in 2002.

Government payments to 74 farms were $711,000 in 2002. The net cash income from operations in 2002 was an average of $13,488 per farm.

Between 1974 and 1997 the production of grains actually increased except for corn although it has been increasing since the low point in 1987. The production of wheat increased more than 90 percent and soybeans in 1997 were comparable to 1974 although production varied widely in intervening years. The ten years between 1992 and 2002 have seen relatively stable harvests comparable to the 1974 levels although the mix of corn and wheat has changed.

Table 1.5
Bushels Harvested

	1974	1987	1992	1997	2002
Corn	1,218,419	626,531	1,029,812	1,192,488	901,284
Wheat	352,706379,983	571,608	672,903	625,428	
Soybeans	419,246333,296	544,034	424,084	398,351	
TOTAL	**1,990,371**	**1,339,810**	**2,145,454**	**2,289,475**	**1,925,063**

SOURCES: Census of Agriculture, 1974, 1992, 1997, 2002

In addition, in 2002 there were 28 farms producing 136,457 bushels of barley on 1,760 acres down from 33 farms producing 152,426 bushels on 1,929 acres in 1997.

Livestock production has decreased dramatically. The inventory of cattle and calves in 2002 was 537 (on 25 farms) and in 1997 it was 604, less than half of the 1,366 inventory in 1974. Other livestock and poultry are produced in insignificant quantities.

The contribution of the agriculture sector to the economy of the County has remained relatively stable since 1974. The biggest change is the number of farms which has been reduced dramatically. This sector is expected to hold steady over the next several years or decline further as farmland is developed along the waterfront.

b. Forestry Data

Approximately 5 % of Northumberland is forested, (approximately 70,000 acres out of 1,421,000 acres, 222 sq mi.). Forestry data specific to Northumberland County is highly variable. The following are general, conservatively estimated trends of forestland change for Northumberland County compared to the whole Northern Neck.[4]

1) Northumberland County has gained approximate 5% in overall forestland cover since 1991; which may include wooded home lots, and/or working forest for future timber growth and wildlife habitat. The Northern Neck has gained about 2%.

2) Northumberland harvesting volumes in cubic feet and board feet of pulpwood and saw timber has remained steady if not declined slightly in the past ten years. The Northern Neck conversely has shown a 45-50% gain in volume harvested.

3) As forestland grows and ages, pulpwood size trees change classification categories and become saw timber. Pulpwood sized forests have decreased in acreage to reflect increased acres of sawtimber stands. In Northumberland County, sawtimber sized forests occupy approximately 45% of the forest landscape, while pulpwood acreage accounts for 25%, seedlings and saplings grow on 30%.The Northern Neck collectively has 43% of its acreage in saw timber, 25% in pulpwood, and the remaining 32% in seedlings and saplings.

4) Overall Northumberland County has grown more timber than it has harvested in the past ten years. With timber changing from pulpwood to sawtimber, more worth should be associated with that growth. The rate of harvesting and regrowth of the forestland has been on the order of 1% per year.

Forestry is not a significant contributor to employment or to the County economy.

c. Commercial Fishing

Commercial fishing in Northumberland County represents a strong part of the local economy although it is not a major contributor to employment. The general health of the fishing industry in recent years is indicated by the data in the following table.

Table 1.6

4 Information from Mr. Richard Steensma, Forester

Value of Seafood Catch, Northumberland County#

	1990	1994	1996	2000	2002
Alewife	$5,115	$3,059	$5,669	$2,433	$5,359
Blue Crab	1,179,223	1,743,581	1,664,763	1,424,398	1,720,702
Bluefish	48,369	24,343	19,143	11,432	34,757
Clams	NA	91,475	182,260	124,459	50,235
Croaker	2,204	134,230	594,871	790,322	576,375
Flounder	25,802	95,981	113,827	129,027	135,880
Menhaden[5]	*220,000*	*432,630*	*354,819*	*334,621*	396,797
Oysters	115,229	9,747	34,489	55,081	10,872
Sea trout	14,706	73,565	137,219	88,223	89,310
Spot	20,077	103,302	72,595	86,277	182,817
Striped Bass	81,402	78,070	280,900	336,898	274,953
Other Species	45,063	155,708	301,595	185,668	169,949
TOTAL	**$1,757,190**	**$2,945,691**	**$3,762,150**	**$3,568,839**	**$3,648,006**

#: Table to be updated later in 2005
SOURCE: Virginia Marine Resources Commission

Except for the menhaden industry (information in table is not complete, see footnote), the seafood catch reported in Northumberland County by the Virginia Marine Resources Commission is dominated by blue crab which had a value in 2002 of slightly in excess of $1.7 million dollars. That was up nearly 50% from 1990 but varied in intervening years. In 1990 oysters were in second place but valued at only about 10 percent of the blue crab catch. Oysters have been in short supply for many years and they are no longer a significant factor. The biggest newcomer since 1990 is Atlantic croaker, although most other species, except bluefish have increased significantly..

If the general health of the Chesapeake Bay is able to improve as a result of conservation efforts and implementation of stricter requirements regarding runoff, it should have a positive effect on the fishing industry.

d. Agriculture, Forestry and Fishing Summary

In summary, employment in the category of Agriculture, Forestry and Fishing within Northumberland County, decreased by a significant percentage between 1980 and 2000, (from 571 to 393) mostly because of declines in the farming and lumber industries. Fisheries employment remains strong although with the recognition that much of the employment in this sector is seasonal and the traditional oystering has almost disappeared.

Although there are pressures on farmers to sell property for development as the demand for retirement homes and a vacation home continues, there is no reason to expect a major decrease in the amount of farmland available because the demand is for waterfront. Weighing these factors, employment projections would expect to stabilize at approximately 390 jobs. There is no reason

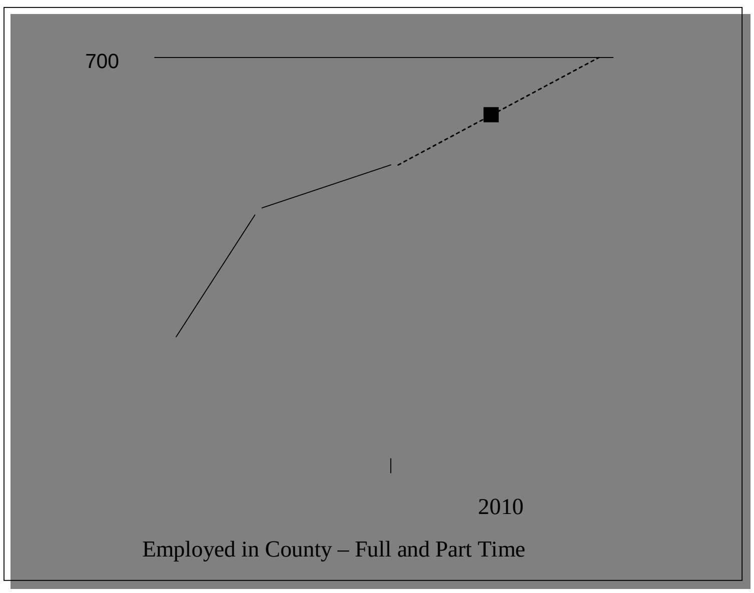
5 Menhaden processed in the County generates the most local fisheries jobs, but information on that catch is not published because it of protection from disclosure of an individual business' information. Menhaden not processed in the County is included in these statistics.

to anticipate any significant change in the status quo as the determinants of farm land, numbers of farms, size of forests and fishing industry all remain constant. It is possible that as the Bay water quality increases, the size of the fish catch will also increase which would have a positive impact on employment and offset a probable steady erosion of farming jobs. Note again, that these are covered jobs; there is a lot of part time employment in this sector that is not recorded.

Fishing and Agriculture historically and at present are important sectors of the County economy and provide steady employment for approximately 10 % of the County workforce.

2. Construction

Figure 1.4
Employment in Construction



Construction employment more than doubled from 201 workers in 1980 to 453 by 1990 then increased more slowly to 512 in 2000. The period saw dropping interest rates that especially stimulated home construction across the nation and several new, large recreational and retirement communities were started in the County in the early 1990s. Construction has remained strong in the County with builders having increasing backlogs and shortages of skilled construction workers making manufactured homes attractive. Federal tax laws still favor ownership of both first and second homes. Northumberland County's waterfront property continues to attract Baby Boomers looking for retirement locations and those who can afford new homes.

The rate of growth from 1990 to 2000 is expected to continue and the forecast is based on job growth approximately matching the rate of population growth in the County.

The following table shows the County's recent history of residential building permits, average value and estimated costs of construction.

Table 1.7
Residential Building Permits and Construction Costs
Northumberland County

YEAR	No. of SINGLE DWELLINGS	No. of MODULAR HOMES	AVERAGE VALUE*	TOTAL CONSTRUCTION COST ($000)
1980				
1985	117	N/A	$71,795	N/A
1990	321	N/A	$137,550	N/A
1995	99	44	$111,327	$21,557,078
2000	93	32	$184,814	$36,116,614
2001	130	38	$159,046	$36,583,036
2002	129	50	$197,167	$49,941,955
2003	145	46	$216,505	$56,636,484

* This includes only single family dwellings.
Reference: County Data Base, County Planning Commission Annual Reports

The data in Table 1.7 shows a strong demand for new houses in the County which supports a continuing strong construction labor market. The data also indicate the size of the homes is increasing as the average value is also increasing. This supports the assumption that the rate of increase in jobs in construction will approximate the population growth rate. The numbers of new homes is relatively small compared to other parts of Virginia so it is unlikely to attract significant numbers of new workers.

New dwelling construction accounts for only about 70 - 75% of the construction costs in the table above. The remainder is for docks, sheds, remodeling, expansions, etc.

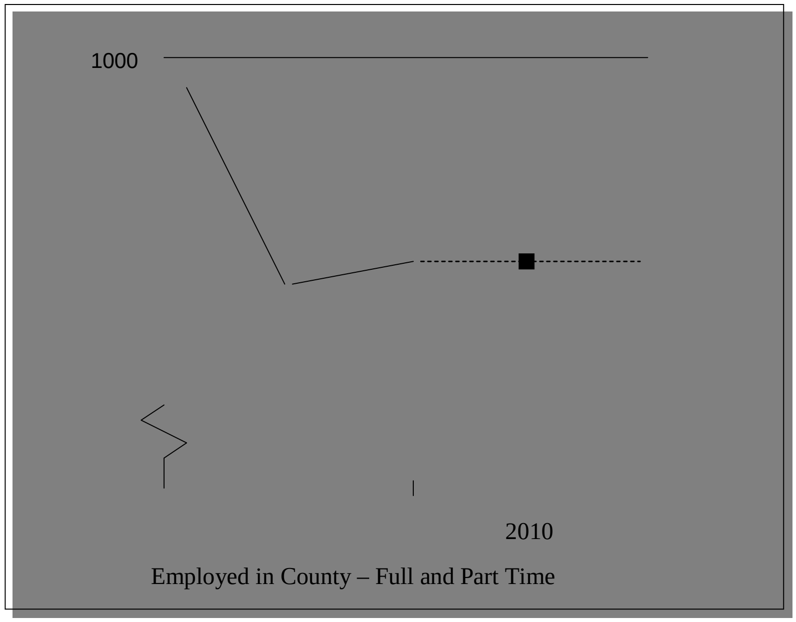
The projection of approximately 17% growth over the 10 year period from 2000 – 2010 as compared to the actual 13% growth between 1990 and 2000 appears consistent with the growth in increase in building permits. The expected growth in the labor market in the County between 2000 and 2010 is expected to be 13% total.

Many factors could affect future local construction jobs: interest rates, tax laws, national economic health, regional employment, lumber prices, and the number of persons who buy homes for retirement within the County. However, high growth is expected to continue in the construction sector.

3. Manufacturing

Manufacturing employed nearly 1000 persons in 1980 then dropped dramatically to approximately 617 in1990. It has since risen to 679 persons in 2000 and is expected to remain close to that figure for the foreseeable future. About eighty percent of the manufacturing employees are engaged in seafood processing or boat building and parts. Other manufacturing in the County includes lumber (which has been declining), feed and fertilizer, and printing and publishing. Over the past ten years, food processing employment has fluctuated and lumber production has declined. The following graph shows trends since 1980, and projections for employment in 2020.

Figure 1.5
Manufacturing Employment
Trends and Projections

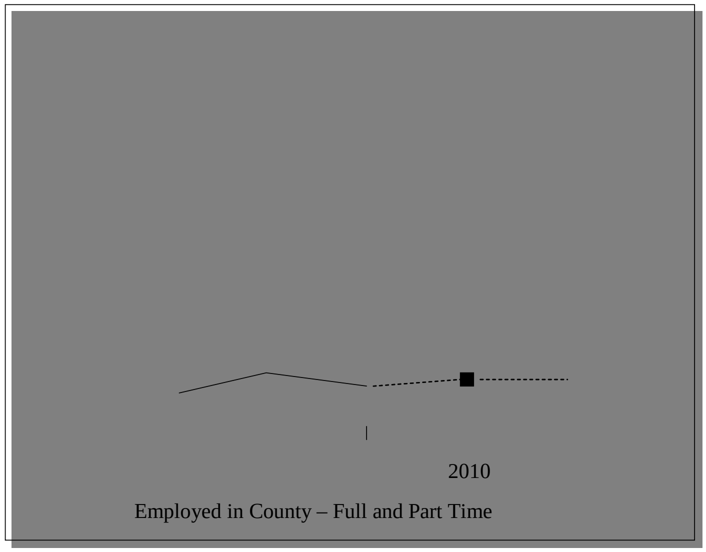


If light manufacturing firms find the County attractive, this segment has the potential to increase significantly, however, without evidence of this occurring, the projections are for employment in this sector to remain stable.

4. Wholesale Trade

Wholesale trade employment has been at about the same level for the past twenty years and is included in the projections at the same level as shown in the Figure below.

Figure 1.6
Wholesale Trade



5. Retail Trade.

There has been constant growth in retail trade employment in the County at a rate that exceeds population growth. The increase in population during the summer months is one explanation.

Figure 1.7
Retail Trade Employment

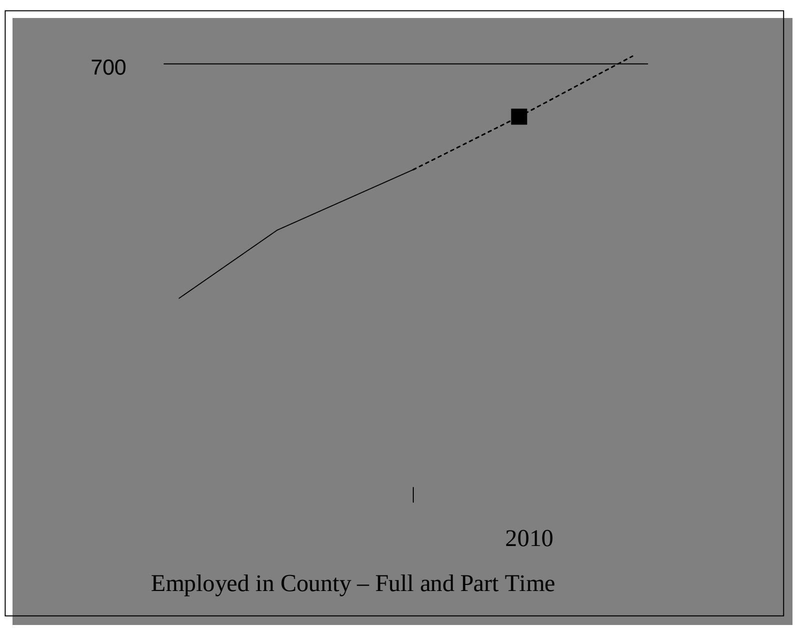


Table 1.8
Retail Sales for Selected Years
($000)

GROUP	1993	1996	2000	2002
Apparel	0	116	0	0
Automotive	$5,132	$5,740	$5,564	$5,193
Food	$8,904	$9,286	$19,938	$20,962
Home Furnishings	$260	$132	$153	$137
General Merchandise	$1,049	$1,254	$1,069	$1,402
Fuel	N/A	N/A	N/A	N/A
Bldg. Materials, Hardware	$5,565	$4,104	$8,751	$8,578
Machinery, Equip, Supplies	$543	$722	$594	$503
Miscellaneous	N/A	$4,742	$5,500	$6,611
Hotels, Motels, Camps	$367	$433	$439	$364
Alcoholic Beverage	$488	$474	$561	$317
Misc. and Unidentifiable	$12,039	$10,660	$3,911	$4,971
TOTAL	$34,348	$37,664	$46,479	$48,940

The table above presents retail sales for selected years based on deposits of sales tax revenues. Because statistics are not presented when it is possible to identify the specific company, many categories are not comparable since the values are included in the bottom category: "Misc. and Unidentifiable". This applies to all groups.

Nevertheless, the table provides some useful information and trends.

The "Miscellaneous" group consists of antique shops, books, florists, nurserymen, gifts, flea markets, shoe repair, beauty shops, music instructors, banks, auctioneers etc.

The table below presents the bottom line of the table above in graphic form. In general, the growth of retail sales has approximately doubled the population growth rate. The number of firms reporting has stayed approximately constant at 325.

Some of the significant changes are increases in restaurant spending, building materials and hardware – all reflecting the increase in construction and movement of retired persons to the County.

Figure 1.8
Retail Sales

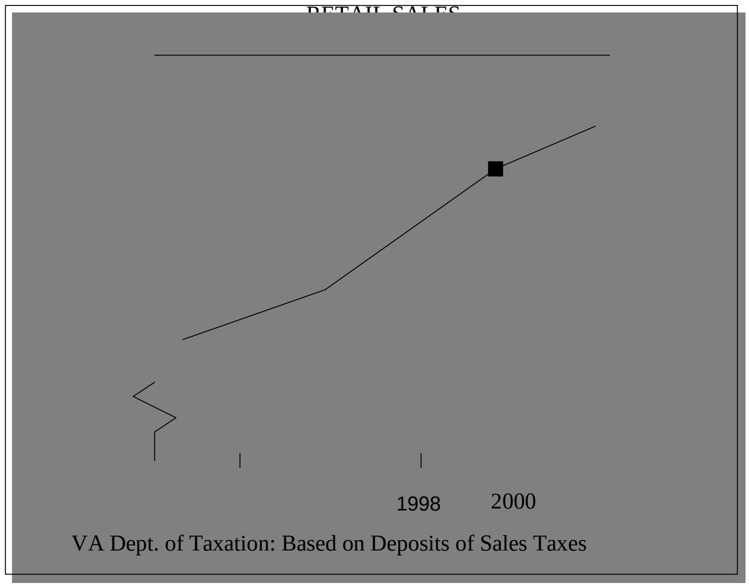


Table 1.9 below presents the retail sales of the four counties in the Northern Neck.

Table 1.9
Retail Sales - Northern Neck ($000)

Locality	1985	1990	1995	2000	2002	Distribution 2002
Lancaster County	$56,184	$80,010	$86,824	$106,881	$115,230	40.27%
Northumberland	$21,792	$31,134	$37,431	$46,479	$48,940	17.10%
Richmond County	$56,980	$42,116	$50,421	$58,867	$57,306	20.03%
Westmoreland County	$36,714	$45,355	$55,070	$60,619	$64,688	22.61%
Total Northern Neck	$171,670	$198,615	$229,745	$272,845	$286,165	

The largest percentage growth from 1985 to present has been in Northumberland County although the total dollar value is the smallest.

Northumberland County loses retail sales to all the surrounding counties, except Westmoreland County. Lancaster and Essex County draw sales from the rest of the Northern Neck. Essex has the Wal Mart; and Lancaster has motels, various restaurants and numerous small shops in Kilmarnock, White Stone and Irvington.

The following table compares sales in Northumberland County with those in other Northern Neck communities and provides per capita data for the totals.

Table 1.10
Taxable Sales – Northern Neck Counties Plus Essex, 2002
($000)

GROUP	Northumberland	Lancaster	Richmond	Westmoreland	Essex
Apparel	$0	$2,742	$639	$61,962	$2,347
Automotive	$5,193	$6,172	$3,804	$2,950	$4,502
Food	$20,962	$31,847	$7,261	$35,271	$17,672
Home Furnishings	$137	$2,159	$1,857	$372	$2,829
General Merchandise	$1,402	$3,525	$5,225	$3,787	$7,814
Fuel	N/A	N/A	N/A	N/A	$3,759
Bldg. Materials, Hardware	$8,578	$10,137	$5,500	$7,132	In M&U
Machinery, Equip, Supplies	$503	$2,759	$3,228	$433	$2,981
Miscellaneous	$6,611	$18,144	$6,544	$9,381	$5,067
Hotels, Motels, Camps	$364	$9,375		$1,131	$1,442
Alcoholic Beverage	$317	$838	$244	$326	$356
Misc. and Unidentifiable	$4,971	$27,529	$23,001	$3,842	$78,243
TOTAL	$48,940	$115,230	$57,306	$64,687	$127,013
Population - 2000	12,259	11,567	8,809	16,718	9,989
Per Capita Total Retail	$3.99	$9.96	$6.51	$3.87	$12.72

SOURCES: Virginia Department of Taxation; Virginia Statistical Abstracts; U.S. Census
(Some totals reflect rounding differences)

Although the breakdown is shown for each category, the data are somewhat distorted because of the necessity to retain confidentiality of individual businesses as has been discussed.

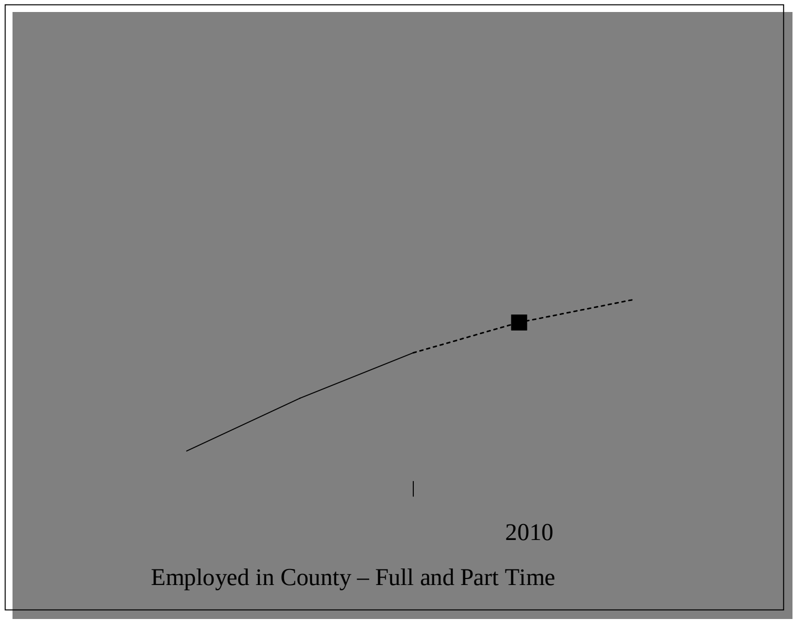
It appears that the County could increase its food group sales; hotel, motel and camp sales; and the miscellaneous group. The latter consisting of small, specialty shops which probably need to be grouped in villages such as is the case in the communities in Lancaster County. The County has an additional seasonal market in the summer months and a large proportion of retirement-age residents year-round. The projections in Figure 1.7 assume the growth remaining at the current rates. This will result in some recapturing of the lost retail market share since the growth rate exceeds the population growth rate and approximates the income growth rate illustrated later in Table 1.12.

Northumberland could capture more local sales that are currently lost to outside markets by offering competitive products. The County is lagging significantly in retail sales.

6. Transportation and Utilities

Most of the 225 employees in the Transportation and Public Utility category work in trucking and warehouse operations. The remainder works in electric-gas-sanitation utilities. These jobs have been increasing steadily, at a rate higher than population growth and that trend is projected to continue. The trucking side should be influenced by the growth in the construction industry and the utility share match the housing market growth.

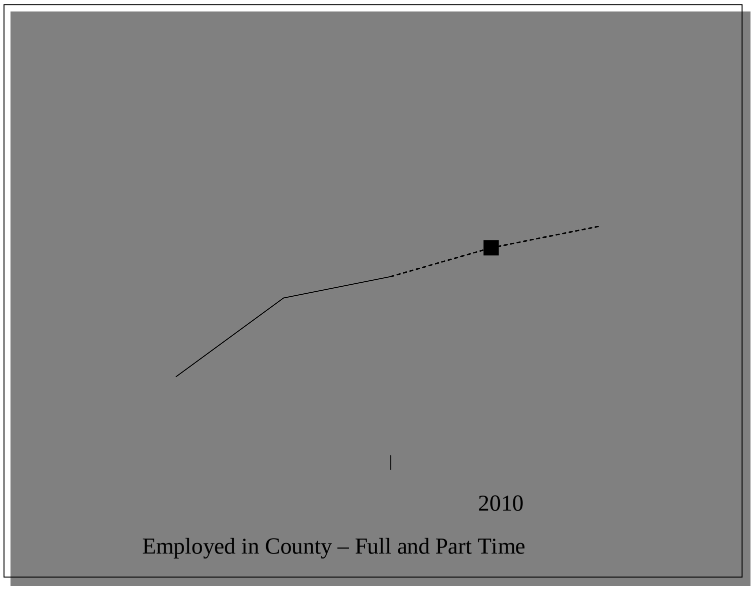
Figure 1.9
Transportation and Utilities Employment - Trends and Projections



7. Finance, Insurance and Real Estate

Employment in the Finance, Insurance and Real Estate, FIRE, grew rapidly between 1980 and 1990 with the establishment of several new large subdivisions. Growth slowed down between 1990 and 2000 to a level approximating the growth in the population. This rate is expected to continue as the County grows slowly.

Figure 1.10
Finance, Insurance and Real Estate Employment - Trends and Projections



The total number of additional homes and the turnover rate are expected to show a steady increase as baby boomers and retired persons move to the County. This means steady growth for this sector.

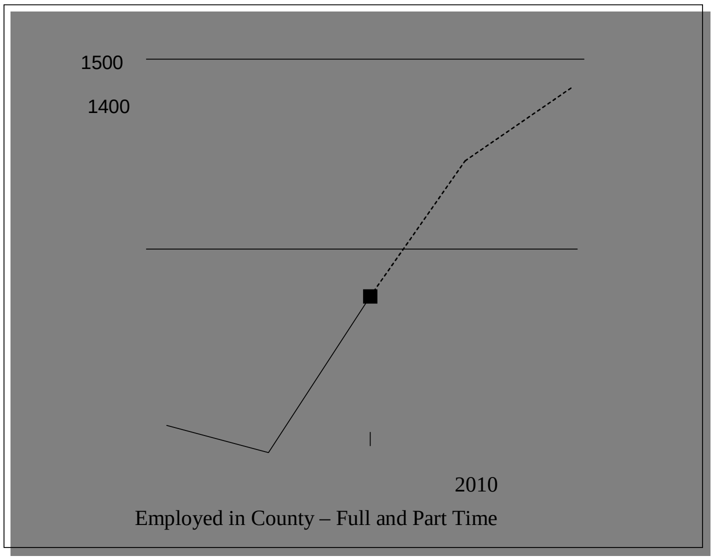
8. Services

The Service category contains a wide range of service employment including the following list:

Private Household	Auto Repair and Garages	Miscellaneous Repair
Engineering, Management	Personal Services	Business Services
Health Services	Membership Organizations	Legal Services
Amusement & Recreation	Hotels & Lodging	Other Miscellaneous

These items differ from retail in that no products are purchased and resold. This is the area where the largest growth has occurred recently and where it is forecast to continue at a high rate consistent with the major demographic trends.

Figure 1.11
Services Employment - Trends and Projections



In the forecasting methodology used, each of the industries is analyzed and the projection based on the most likely trend considering the economic environment and history. Many follow population growth, income growth or other identifiable parameters. The Service category is the exception. The 1990 – 2000 trends are extrapolated to 2010 and 2020 and minor adjustments made to match the total projected employment in 2010 and 2020.

The service sector is forecast to have the highest growth rate and growth potential of all sectors over the next 10 years.

9. Government: Federal, Military, State

Approximately 110 persons work for the Federal or State Government or are in the Military. This number has been relatively constant and is forecast to remain so. There are no apparent reasons for State or Federal employment in the County to change. A small increase has been included to account for potential increases in postal workers or for VMRC or DEQ personnel.

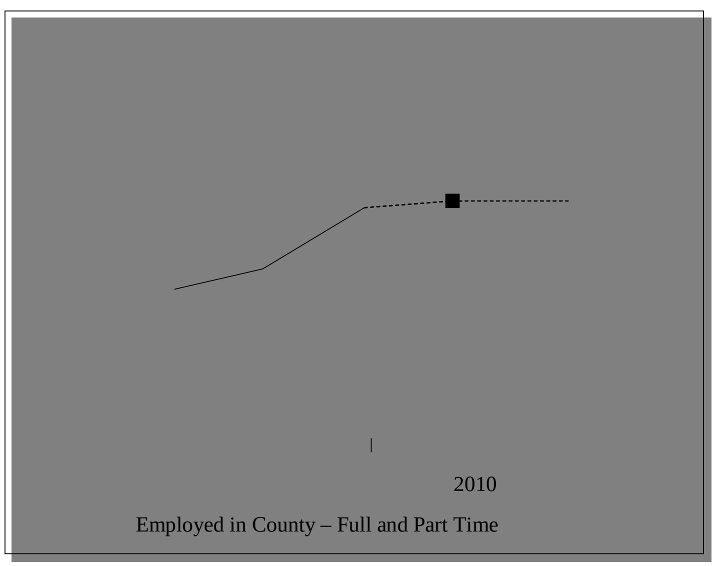
Figure 1.12
Government: Federal, Military State Employment

Government employment is expected to remain constant at current levels.

10. Local Government

The Local Government category includes County and school employees.

Figure 1.13
Local Government Employees



The employment in the Local Government category is currently at 438 persons. Of these, 78 are employed by the County and 360 by the schools. County employees include the persons working in the courthouses and the Sheriff's department. Neither group is expected to increase significantly over the next 20 years. Population growth of school-age children is forecast to be approximately half the rate of growth of the overall population. This would require the addition of very few school personnel over the next 10 years assuming current teacher/student ratios.

Current enrollment projections in Table 1.11 show the total enrollment to remain constant at approximately 1450 students for each of the next 5 years.

Table 1.11
Northumberland County
Fall Membership, September 30

	YEAR	ENROLLMENT
Historic	2002–03	1,471
	2003-04	1,456
Projected	2004-05	1,446
	2005-06	1,432
	2006-07	1,441
	2007-08	1,434
	2008-09	1,429

Source: Weldon Cooper, Nov 2004

Pressures on the County from a conservative electorate will keep the County staff close to current levels with some small increases as the population increases. School employment levels will also remain relatively constant due to limited growth in school-age children.

D. Employment, Income and Economic Profile

The total personal income in Northumberland County has increased by approximately 70% over the past 10 years, while population has increased only 14% in the same period. Table 1.12 shows the source of personal income over the past 10 years. Net earnings as a percentage of total personal income has dropped from 45% in 1992 to 41% in 2002 and Retirement plus Dividends Interest and Rent has increased from 53% in 1992 to 56% in 2002. This quantifies the trend to more retired persons moving into this area with a contribution of over $190 million per year.

Table 1.12
Individual Sources of Income by Year ($000)

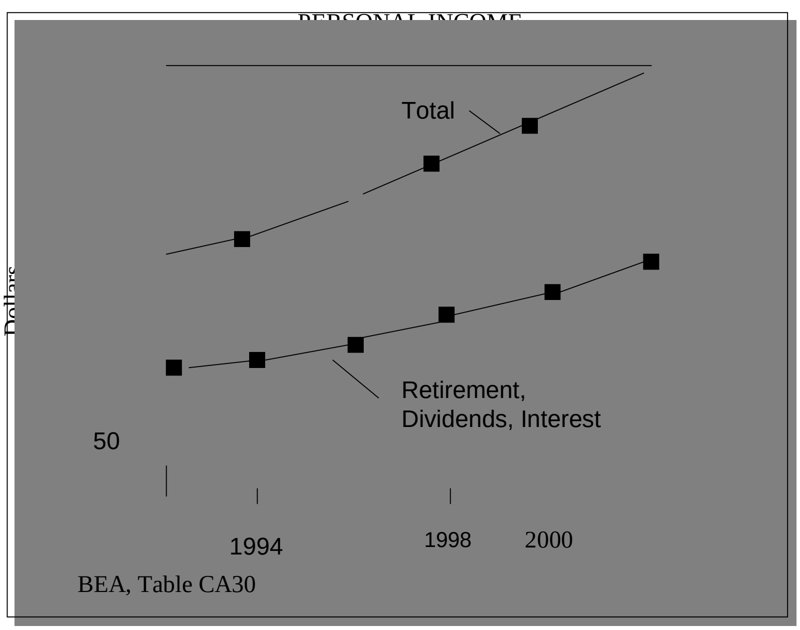
Title	1992	1994	1996	1998	2000	2002
PERSONAL INCOME	$198,667	$215,828	$241,090	$273,737	$302,093	$339,767
Net earnings 1/	$88,328	$94,352	$111,523	$121,635	$127,737	$139,817
Personal current transfer receipts	$39,514	$42,944	$52,709	$56,503	$61,553	$73,611
Income maintenance 2/	$2,241	$2,491	$2,842	$2,868	$3,189	$3,737
Unemploy insurance pmts	$2,517	$1,579	$1,345	$1,215	$1,162	$3,233
Retirement and other	$34,756	$38,874	$48,522	$52,420	$57,202	$66,641
Dividends, interest, and rent	$70,825	$78,532	$76,858	$95,599	$112,803	$126,339

Notes: 1. Total earnings less contributions for government social insurance adjusted to place of residence.
2. Consists largely of supplemental security income payments, family assistance, general assistance payments, food stamp payments, and other assistance payments, including emergency assistance

Source: BEA Regional Economic Profiles, Table CA30, May 2004

Figure 1.14 below presents the total income for the County by year and also the total amount of income received from retirement plans, dividends, interest and rent.

Figure 1.14
Total Personal Income and Retirement Income



The total County income is driven by retirement and related income and the jobs created by spending that same income.

Table 1.13 is comparable to Table 1.12 except it is on a per capita basis. Population growth over the past 10 years has been approximately 1.5 % per year. This compares to growth in net earnings of 3% per year – just slightly higher than price level increases in the same time period. The largest growth on a percentage basis is the retirement income including dividends and interest at approximately 3.5% per year.

Table 1.13
Per Capita Sources of Income by Year
(Data in Table 1.13 divided by population)

Title	1992	1994	1996	1998	2000	2002
Population (persons) 3/	11,045	11,304	11,637	11,964	12,283	12,595
PER CAPITA PERSONAL INCOME	$17,987	$19,093	$20,718	$22,880	$24,594	$26,976
Per capita net earnings	$7,997	$8,347	$9,583	$10,167	$10,399	$11,101
Per capita personal current transfer receipts	$3,578	$3,799	$4,529	$4,723	$5,011	$5,844
Per capita income maintenance	$203	$220	$244	$240	$260	$297
Per capita unemploy Ins. benefits	$228	$140	$116	$102	$95	$257
Per capita retirement and other	$3,147	$3,439	$4,170	$4,381	$4,657	$5,291
Per capita dividends, interest, and rent	$6,412	$6,947	$6,605	$7,991	$9,184	$10,031
Note 3: Census Bureau midyear population estimates. Estimates for 2000-2002 reflect County population estimates available as of April 2004						

Source: BEA Regional Economic Profiles, Table CA30, May 2004

Table 1.14 presents earnings and income based on place of work. Total earnings have increased at a rate of only approximately 2 ½% per year. Proprietor's income appears to follow the business cycle with farm proprietor income being very variable.

Table 1.14
Place of Work Profile – Earnings and Income - ($000)

Title	1992	1994	1996	1998	2000	2002
EARNINGS BY PLACE OF WORK	$75,070	$74,445	$88,194	$90,503	$87,938	$95,561
1. Wage and salary disbursements	$46,375	$45,951	$51,447	$54,986	$58,965	$64,196
2. Supplements to wages and salaries	$9,959	$10,399	$10,795	$11,280	$12,268	$13,331
a. Employer contributions for employee pension and insurance funds	$6,690	$7,102	$7,173	$7,447	$8,248	$8,973
b. Employer contributions for government social insurance	$3,269	$3,297	$3,622	$3,833	$4,020	$4,358
3. Proprietors' income	$18,736	$18,095	$25,952	$24,237	$16,705	$18,034
a. Nonfarm proprietors' income	$16,931	$16,116	$22,353	$23,911	$14,325	$17,177
b. Farm proprietors' income	$1,805	$1,979	$3,599	$326	$2,380	$857

Source: BEA Regional Economic Profiles, Table CA30, May 2004

Worker wages have increased steadily while proprietor income has varied with economic conditions and shown little growth over the past 10 years.

The profile of employment and average earnings in Table 1.15 shows an economy that is very stable with the number of jobs and the number of proprietors approximately matching the slow growth in total population.

The number of farm proprietors has remained constant while their income has declined relative to 10 years ago. Note that these data are all in current dollars and have not been adjusted for price level increases. The picture would look worse if the adjustment were made.

Table 1.15
Place of Work Profile – Employment and Average Earnings

Title	1992	1994	1996	1998	2000	2002
TOTAL FULL-TIME AND PART-TIME EMPLOYMENT	3,830	3,922	4,150	4,160	4,292	4,317
1. Wage and salary jobs	2,618	2,563	2,737	2,783	2,911	2,871
2. Number of proprietors	1,212	1,359	1,413	1,377	1,381	1,446
a. Number of nonfarm proprietors 5/	1,074	1,214	1,273	1,235	1,240	1,306
b. Number of farm proprietors	138	145	140	142	141	140
Average earnings per job (dollars)	$19,601	$18,981	$21,252	$21,756	$20,489	$22,136
Average wage and salary disbursements	$17,714	$17,929	$18,797	$19,758	$20,256	$22,360
Average non-farm proprietors' income	$15,764	$13,275	$17,559	$19,361	$11,552	$13,152
Note 5: Excludes Limited Partners						

Source: BEA Regional Economic Profiles, Table CA30, May 2004

The County has a large number of small businesses with only two or three employees and the pay is relatively low, typical of a service economy. The income of the employees is fairly stable; however the proprietor income varies with the overall economic climate.

Table 1.16 presents the top 50 employers in the County as of the first quarter of 2004. This list is not expected to remain constant over the term of this version of the County Comprehensive Plan; however there has been relatively little change in the list over the past 2 years.

Table 1.16
Top 50 Employers

Top 50 Employers from Northumberland County
Year 2004: Quarter: 1

Rank	Employer	Size Code
1	Northumberland County School Board	7
2	Carry On Trailer Corporation	6
3	Omega Protein	6
4	Cowart Seafood Corporation	5
5	County of Northumberland	5
6	MD Associates	5
7	Northern Neck Regional Special Education	5
8	Food Lion	4
9	Bank of Northumberland Inc.	4
10	Buoy Food Store	4
11	Callao Supermarket	4
12	Indian Creek Yacht and Country Club	4
13	James E. Headley	4
14	Pritchard and Fallin	4
15	W.A. Fisher	4
16	American Retirement Homes Inc	4
17	Fastan, Inc.	4
18	Lilian Lumber Company	4
19	Earl W. Withers, Inc.	4
20	Allison's Home Improvement	4
21	Northern Neck Security	4
22	Tiffany Yachts	4
23	R M C Mechanical Contractors	4
24	Sumner Golf Management	4
25	Little River Seafood	4
26	Northumberland Department of Social Services	3
27	School Board Food Service, Northumberland	3
28	The Italian Garden Café	3
29	Callao Drugs	3
30	W.C. Lowery, Inc.	3
31	The Tavern Restaurant	3
32	Revco	3
33	Sound Structures	3
34	Nino's Italian Pizza and Subs	3
35	U.S. Postal Service	3
36	Purcell Seafood	3
37	R.R. Beasley, Inc.	3
38	Great Wicomico Marina	3
39	American Netting	3
40	Huglett's Tavern	3
41	C.W. Obier and Sons Seafood	3
42	OBC Ventures Inc	3
43	Manufacturing Techniques	3
44	Lake Packing Company	3

Top 50 Employers from Northumberland County
Year 2004: Quarter: 1

Rank	Employer	Size Code
45	C.W.O. Bier and Sons	3
46	The Northern Neck P.D.C.	3
47	Keyser Brothers Inc.	3
48	Glenn Lester Company	3
49	Movie Gallery	3
50	U.S. Postal Service	3

Size Code	Number of Employees
9	1000+ Employees
8	500-999 Employees
7	250-499 Employees
6	100-249 Employees
5	50-99 Employees
4	20-49 Employees
3	10-19 Employees
2	5-9 Employees
1	1-4 Employees

Source: Virginia Employment Commission

The list of top 50 employers is dominated by organizations providing services to the County residents, by companies related to construction and companies related to seafood and fishing.

The overall County economic profile presents a service economy that is growing slowly- slightly faster than the population growth. Income to the County comes primarily from retirement and related sources which in turn provides support for a large number of small businesses.

SECTION 2: POPULATION

This section examines the growth of population in Northumberland County and the salient characteristics of the populations that are of interest in future planning for the County. It is organized as four sub-sections which address respectively: trends and projections, age distribution, geographic distribution of the population, other population characteristics and housing.

Data used for population analysis come from different sources. Historical data on population numbers, characteristics and housing come from U.S. Census reports for the most part. Projections through 2020 were made by the Virginia Employment Commission which is the state agency officially responsible for maintaining population records and preparing projections. Estimates of "summer population" came from the Northern Neck Planning District Commission.

A. Trends and Projections

Since the 1970s Northumberland County has been growing, following several decades of population decline. The decline reflected a nationwide trend which saw people migrating from agricultural communities to urban centers for better jobs. The County's population fell from 11,518 in 1920 almost steadily reaching a low of 9,239 in 1970. Since 1970, each Census has reported a gradual increase in the County's population to reach the 2000 level of 12,259 persons.

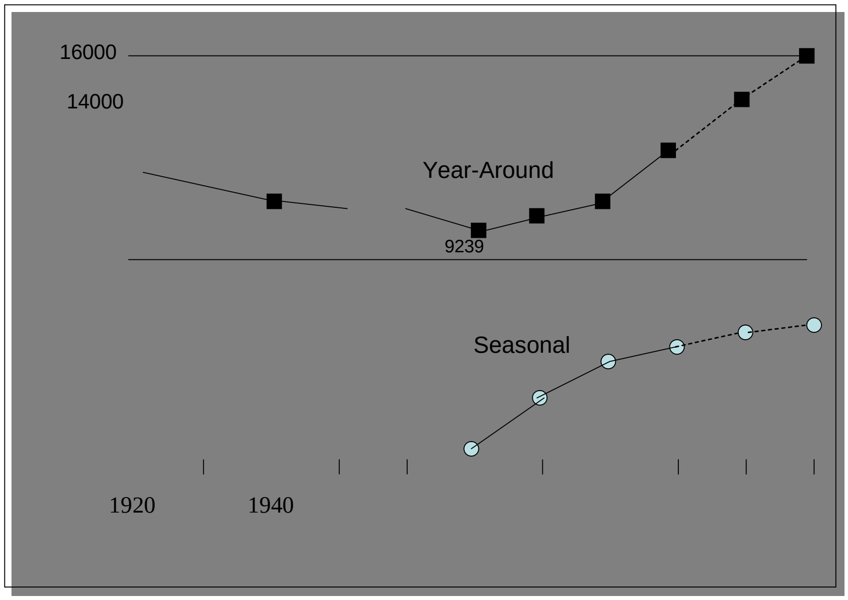
This trend is shown in the top line of Figure 2.1 as the year-round population. Projections made by the State for years 2010 and 2020 are included and these show a continuation of the growth trend experienced since 1970. If these projections prove accurate, the County is expected to add approximately 1,500 persons thereby reaching a population of just over 16,000 in 2020.

But the State's forecasts may be conservative (low). For example, in the last edition of this Plan, the State projected a population of 11,360 for 2000, but the actual population was 12,259 according to the 2000 census. Likewise, in the previous Plan the forecast for year 2010 was 12,096 and this was surpassed 10 years earlier. There is always a problem in taking special local conditions into account when making macro-forecasts. In the case of the County, the attractiveness of the large amount of relatively inexpensive waterfront property appears to have been driving growth in the past several years. This is expected to continue as the baby boomers discover the Northern Neck.

Change is occurring and the rate of change may increase at a faster pace than the conservative estimates in this Appendix.

The lower line in Figure 2.1 shows seasonal population estimated for 1990 by the Northern Neck Planning District Commission and projections for other years (based on trends and the PMA methodology and the same 2.3 persons per unit assumption used by the PDC).

Figure 2.1
Population Trends and Projections
Northumberland County, Virginia



Source: Virginia Employment Commission

DATA FOR THE FIGURE

YEAR	YEAR-ROUND POPULATION (TOP LINE)	SEASONAL POPULATION (BOTTOM LINE)
1920	11,518	
1930	11,081	
1940	10,462	
1950	10,012	
1960	10,185	
1970	9,239	670
1980	9,828	2,370
1990	10,524	3,965
2000	12,259	4,280
2010	14,300 Est.	5,005
2020	16,000 Est.	5,600

A seasonal increase of 4,280 persons is estimated for year 2000 based on the 2000 census. This estimated seasonal population is based on 1,861 seasonal housing units with an average household size of 2.3 persons. Seasonal population increased rapidly between 1970 and 1990 with the popularity and affordability of second homes. Using 1990 as the base where the seasonal population was an additional 35% of the basic population, the projections for 2010 and 2020 are illustrated.

With the sharp increase in prices of the waterfront property since 2001 and the increase in cost of second homes, the sharp increases in population of the 1980s are not anticipated. The chart shows graphically an anticipated tapering-off in the growth of the seasonable population, although the absolute numbers are still relatively substantial. As mentioned earlier, the projections may be underestimating the growth.

The in-migration that started in 1970 with several, new large recreation communities is expected to continue independent of state or national economic conditions. The attractiveness of the County for recreation and retirement will continue to impact population growth.

B. Age Distribution

The median age of Northumberland County's population in 1990 was 45.3 years and in 2000 it had increased to 50.1 years. The County ranks first of all Virginia communities in population age 65 and over.

Table 2.1 provides details of age distribution in four demographic groupings used by the Virginia Employment Commission:

- Pre-school through school age population, which declined during the 1980s, increased by 2000 to about the same level that existed in 1980 and is projected to continue to increase slowly through 2020. This would result in a continuing drop of this group as a share of total population (from 21.9 percent in 1990 to 20.3 percent by 2000 to 19.6 percent in 2010) because of the more rapid growth in the older age groups.

- The child-bearing/working age group (20-44) decreased from 2,913 in 1990 to 2,867 in 2000 but increase to 3,113 in 2010 and 3,727 in 2020. This amounts to a drop as a percent of the population from 27.7 percent in 1990 to 21.7 percent by 2010 and back up to 23.3 percent by 2020..

- The 45-64 older/working age group of adults is forecast to increase moderately . This is the so-called baby-boom generation born from 1945 through 1965. This group increased by 1,007 persons between 1990 and 2000 and is forecast to add only another 243 persons by 2010. This growth would increase this group from 25.5 percent of the population in 1990 to 27.5 percent by 2010.

- The age 65 and over group increased by 608 persons between 1990 and 2000 and add another 1,218 by 2010 - from 24.9 percent of the population in 1990 to 26.3 percent in 2000 and 31.1 percent by 2010. This makes it the fastest growing and dominant age group.

While the above observations can be made from the classic divisions shown in the table, another grouping of the data reveals these additional observations for the decade of change ending in 2000. For example, a decline occurred specifically in the number of persons in the 20 - 34 age group which is comprised of college-age youth and younger adults. The reverse was true in the 35-49 age group; it increased by almost double the same number of persons that the younger group lost. This group is the "baby boom" generation coming of age. This suggests that part of the younger group simply grew older and shifted into the older category. And that some of the difference is probably due to younger people of the County leaving the area where job opportunities are greater than in Northumberland County, but the increase in service jobs is perhaps attracting or retaining persons in the 35 – 49 age group..

The "in between" group from 50 to 64 made major gains of 40 percent. The other major group to gain in population was the 65 plus group which increased by 606 persons (23 percent). Again, some of the increase in the senior group is from aging but retirement accounts for much of it.

What is suggested by these figures is that the year-round population of Northumberland County grew, to be sure, by 1,735 persons between 1990 and 2000 but growth varied widely among different age groups.

Table 2.1

Population Projections by Age Groups

	1980	**1990**	**2000**	**2010**	**2020**
Under 5	512	560	527	675	803
5-9	539	623	629	721	839
10-14	636	619	693	710	875
15-19	798	503	642	698	839
0-19 Subtotal	*2,485*	*2,305*	*2,491*	*2,804*	*3,356*
20-24	663	449	386	607	647
25-29	588	594	385	595	695
30-34	535	670	564	572	779
35-39	480	604	729	595	851
40-44	420	596	803	744	755
Childbearing/ Working Age Subtotal	*2,686*	*2,913*	*2,867*	*3,113*	*3,727*
45-49	531	599	763	858	707
50-54	590	548	848	1,042	923
55-59	755	722	1,047	950	1,043
60-64	798	818	1,036	1,087	1,259
Older Adults/Working Age Subtotal	*2,674*	*2,687*	*3,694*	*3937*	*3932*
65-69	727	914	1,006	1,213	1,067
70-74	520	724	835	984	1,043
75-79	383	518	685	879	1,236
80-84	210	262	417	675	783
85+	143	201	284	694	852
Older Adults/Retirement Age Subtotal	*1,983*	*2,619*	*3,227*	*4,445*	*4,981*
TOTAL	**9,828**	**10,524**	**12,259**	**14,300**	**16,000**

Source: Virginia Employment Commission;

The County's population is becoming older not only because of the aging of baby boomers but because of the attraction of the County to retirement-age families.

C. Geographic Distribution of the Population

The previous edition of this plan included extensive population data by magisterial district. These data are no longer available for periods after 1990. It also is questionable whether these data would be meaningful even if available. Whether categorized by Magisterial District or the current Board of Supervisors districts, the geographical distribution does not seem to provide any basis for decision-making and planning.

The preferred data include such categories as waterfront versus non-waterfront; village areas versus rural and the like. Unfortunately no such data are available. Census data by census block groups such as presented in Figure 2.2 provide a gross picture of the population distribution at a point in time. This figure tends to show that the eastern part of the County in the Reedville and Chesapeake Beach communities and the lower Great Wicomoco River and the Little Wicomoco River areas have the highest density population. The next highest is the North West corner in the Yeocomico River area towards Westmoreland County. The lowest is the strictly rural area of the western edge that abuts Lancaster County and has no waterfront property.

The overall population density is 63.7 persons per square mile versus 178.8 persons per square mile for Virginia as a whole.

Figure 2.3 provides another view of the same data by Census Block. We hesitate to present it because of all the questions it raises, but it also shows where the full time population is clustered. The problem with both is that they do not show trends and do not show weekenders. Of interest would be the current number of properties on the water and how many currently have homes. This would give a good index of anticipated growth. Also useful would be the population density around areas currently with village designation.

Figure 2.2

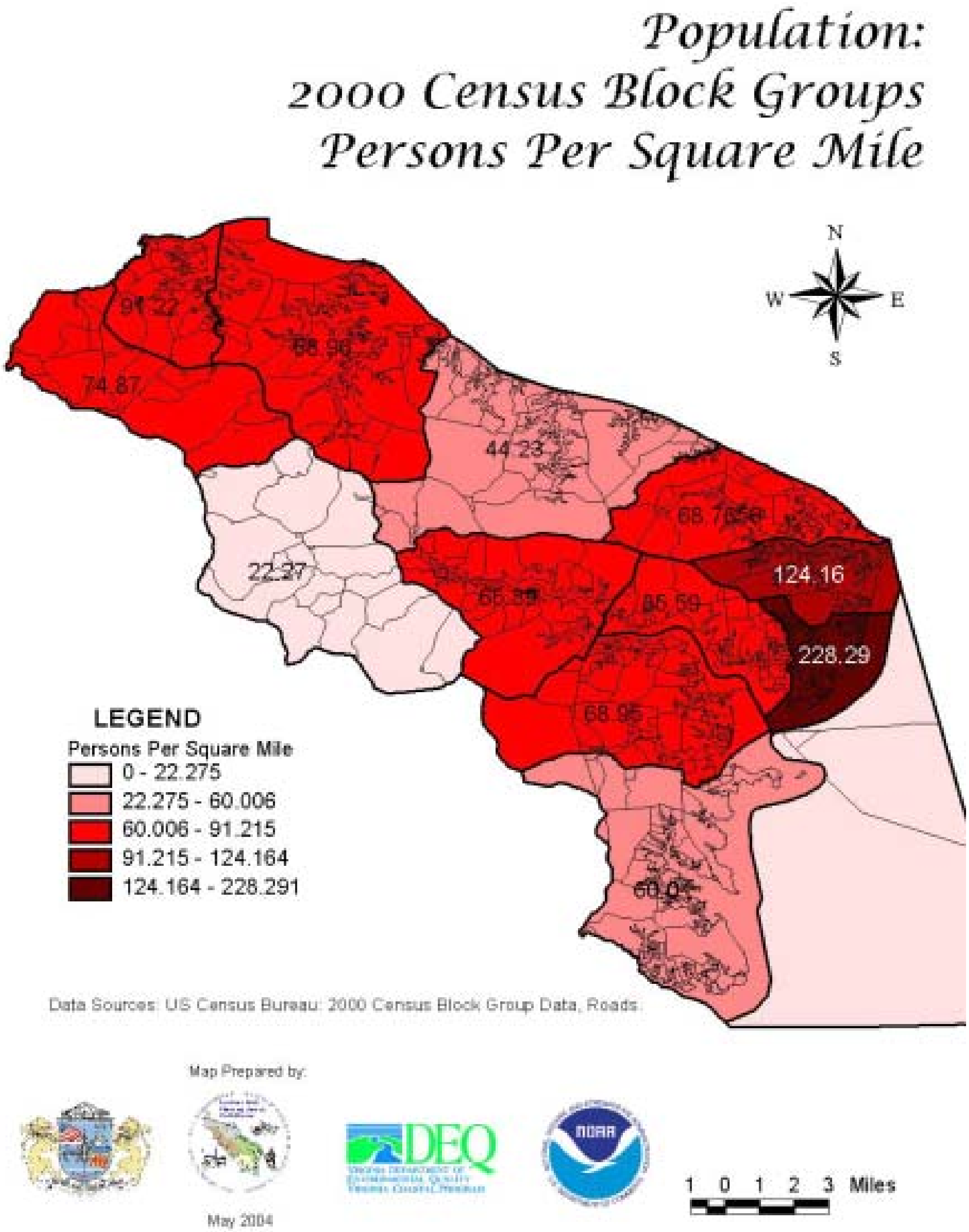
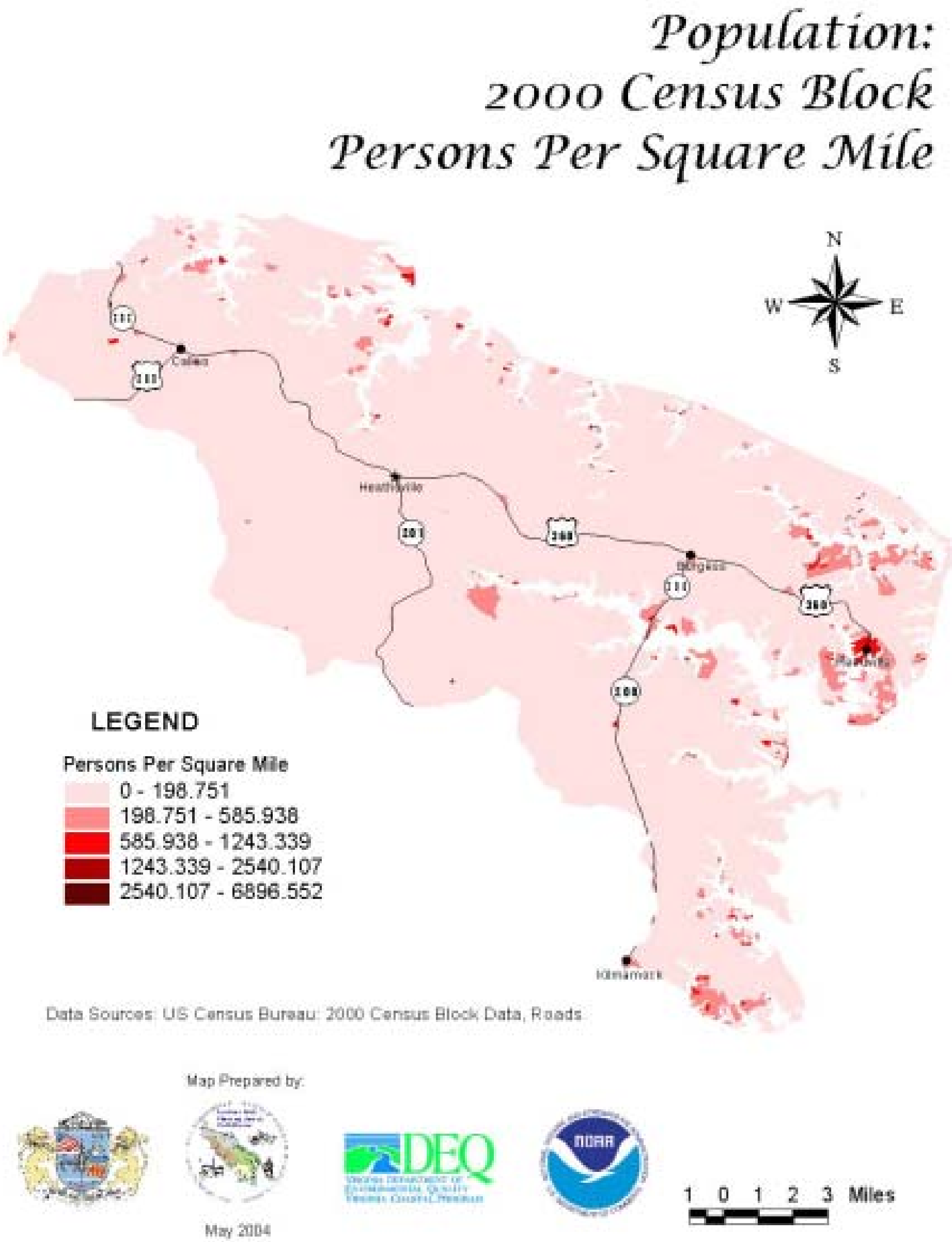

Population:
2000 Census Block Groups
Persons Per Square Mile
N
W
E
S
91.22
68.96
74.87
44.23
68.7656
22.27
124.16
228.29
68.95
60.0
LEGEND
Persons Per Square Mile
0 - 22.275
22.275 - 60.006
60.006 - 91.215
91.215 - 124.164
124.164 - 228.291
Data Sources: US Census Bureau: 2000 Census Block Group Data, Roads.
Map Prepared by:
May 2004
DEQ
NOAA
1 0 1 2 3 Miles

Figure 2.3


Population:
2000 Census Block
Persons Per Square Mile
N
W
E
S
Heathsville
Burgess
Kilmarnock
LEGEND
Persons Per Square Mile
0 - 198.751
198.751 - 585.938
585.938 - 1243.339
1243.339 - 2540.107
2540.107 - 6896.552
Data Sources: US Census Bureau: 2000 Census Block Data, Roads
Map Prepared by:
May 2004
DEQ
NOAA
1 0 1 2 3 Miles

The County population is concentrated in waterfront communities.

D. Other Population Characteristics

Changes from 1980 to 2000 in distributions of race, sex and income for the year-round population are given in Table 2.2.

Table 2.2
Other Population Characteristics, 1980 To 2000

	1980	**1990**	**2000**
TOTAL COUNTY	9,828	10,524	12,259
FEMALE	5,113	5,564	6,411
MALE	4,715	4,960	5,848
WHITE	6,506	7,388	8,849
BLACK	3,306	3,098	3,259
OTHER RACE	16	38	151
Households	3932	4492	5,470
Median Household Income	*$14,648*	*$23,065*	*$38,129*

SOURCES: US Census, 1980, 1990, 2000

The population is increasingly white with the black population remaining constant and an increasing unadjusted median income. There has been a recent influx of persons of other races.

E. Housing

Northumberland County housing is characterized mainly by single-family owner-occupied units and many seasonal units. Both categories have increased substantially as shown in Table 2.3.

Table 2.3
Selected Characteristics of Housing Units

	1970	1980	1990	2000
TOTAL UNITS	4339	5584	6841	8057
SEASONAL UNITS	292	1065	1775	1861
YEAR-ROUND UNITS	4047	4519	5066	6196
VACANT YEAR-ROUND UNITS	984	706	574	726
OWNER OCCUPIED UNITS	2622	3283	3912	4783
RENTER OCCUPIED UNITS	441	530	580	687
SINGLE FAMILY	3730	4054	5831	6994
MULTI-FAMILY	62	166	48	89
MOBILE	255	299	890	941
OTHER			72	33
TOTAL*	4047	4519	6841	8057

* Year-round units for 1970 and 1980, all units for 1990, 2000

SOURCES: Census of Housing, Detailed Characteristics, 1970, 1990;
General Housing Characteristics, 1980; Bureau of Census DP-1,4 for 2000

Mobile homes accounted for 6% of the total housing units in 1970 and are up to 12% of the total units in 2000, but some of these may be used as seasonal units.

Renter-occupied units have only increased by 225 in thirty years from 1970 to 2000 reflecting the economic situation of the persons moving into the County.

The following table shows the age of the housing units in Northumberland County.

Table 2.4
Year Structure Was Built

	NO.
1999 TO MARCH, 2000	396
1995 - 1998	781
1990 - 1994	912
1980 - 1989	1,214
1970 - 1979	1,113
1960 - 1969	896
1940 – 1959	1,493
1939 OR EARLIER	1,252
TOTAL	8,057

SOURCE: Bureau of Census 2000, Table DP-4

Thirty-four percent, over a third, of the units are at least forty years old.

##

In summary: the population is growing, getting older and is buying waterfront property.

SECTION 3: SHORELINE

Perhaps the single most important resource of the County is its shoreline. The tables in this section are from the VIMS Northumberland County Shoreline Situation Survey report dated March 2003. Data are from years 2000, and 2001.

Shoreline Situation Reports (SSR) were first generated by VIMS in the 1970s to report the condition and status of the shore lands. The SSR series were published in hardcopy on a county by county basis for each of the Tidewater Virginia localities.

Complete copies of this report including information on methodology and copies of all GIS maps and detail data by location are available in the County Planning Office.

The reports were intended to assist planners, managers, and regulators in decisions pertaining to management of coastal areas and natural resources therein. This report continues the process which updates and expands earlier reports.

Data collected describes conditions in the immediate riparian zone, the bank, and along the shore in order to inventory Virginia's tidal shoreline conditions. There are three sets of data that are included:
(1) Land use and bank cover for Northumberland County contains data about the land use, bank height, bank cover, erosion, marsh, and beach status along the shoreline;
(2) Shoreline structures delineates hard structures in place for shoreline protection (bulkhead, riprap, groin fields); and,
(3) Access structures coverage is point coverage with locations of docks, ramps, and boathouses.

Table 3.1 Riparian Land Use

TOTAL MILES SURVEYED	RIPARIAN LAND USE (miles)									
	Agri-culture	Bare	Commercial	Forest	Grass	Industrial	Paved	Residential	Scrub-Shrub	Timbered
555.98*	36.73	2.06	11.52	249.07	8.65	0.11	0.77	187.16	59.74	0.18

- Total miles of shoreline surveyed for Northumberland County, of which 124.04 miles were remotely surveyed.

Table 3.2 Bank Data

BANK DATA (bank height and erosion status - miles of shore)														
0-5 ft				5-10 ft				10-30 ft				>30 ft		
Low	High	Undercut		Low	High	Undercut		Low	High	Undercut		Low	High	Undercut
367.9	24.2	17.1		82.5	19.7	14.8		14.5	6.0	3.7		2.4	2.2	1.1

Table 3.3 Bank Cover

BANK COVER (Miles)			
Bare	Partial	Full	Total
14.2	77.8	464	556

Table 3.4 Buffer Conditions

BUFFER CONDITION				TOTAL
BEACH PRESENT (miles)		MARSH PRESENT (miles)		
Eroding	Stable	Eroding	Stable	
31.4	48.6	44.6	245.7	370.3

Table 3.5 Structures along Shores

	TOTAL MILES SURVEYED	SHORELINE FEATURES											
		No. Docks	No. Dilapidated Docks	No. Boathouses	No. Ramps Private	No. Ramps Public	No. Groinfields	No. Marinas	No. Jetties	No. Breakwaters	Miles of Misc	Miles of Bulkhead	Miles of Riprap
Total	555.98	2563	52	324	130	4	91	27	19	6	1.05	26.08	54.19

See Chapter 1 for an analysis of these data.