

APPENDIX

TECHNICAL REPORT

On

THE ECONOMY AND DEMOGRAPHICS OF
NORTHUMBERLAND COUNTY, VIRGINIA

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APPENDIX¹THE 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 1648² 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.

While Northumberland County is to some extent isolated from the rest of the State, it has a

¹Filename = Appendix.3rd

²Virginia Historic Landmarks Commission.

³Source: the County Administrator's Manual.

number of locational advantages among which are 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.
- The affluence that has been generated by the urban growth corridor has made a great contribution to the large private investment that is reflected in the large amount of waterfront residential development within the County.
- The opportunities for recreational sports and fishing account for the large increase in tourism during the summer months.

In order to assess the future potential of the County to benefit from its locational and environmental advantages, PMA examined the County's economic and demographic characteristics in substantial detail and hereby presents its findings in this report. The analysis consisted 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 decade. Employment is perhaps the best indicator of the economy of a community because employment translates into income which in turn is likely to be circulated within the business community several times before it leaves. A community's economy is fueled by two sources: (i) employment in businesses and industries that sells their products beyond the County line, therefore bringing new money into the community; and (ii) employment in businesses and services which primarily serves a local need for goods and services. Attempting to predict details of an economy is risky 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. For this reason, this study associates economic and population growth very closely.

In Northumberland County, however, there are some other 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. Many such persons are retired so they do not fit into the pattern of the economy as described in the previous paragraph. Because they bring with them their own assets and income, there is no need for job expansion to provide for this group. Second, 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. Third, there is a substantial number of persons living in Northumberland County who commute to work outside the County and others who come into the County for work. In summary, there are three types of population in Northumberland County: those who live here year-round and depend on regular employment for support; those who come during the summer for recreation; and those who came to the County just to live in its excellent environment.

The remainder of this Appendix is organized as three sections. The first addresses the overall potential for growth of Northumberland County's economy using employment as the basic measurement of business activity. The second section examines demographic trends and projects probable population growth for the next 15 years. The final section presents data on existing housing conditions within the County.

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 renewed growth, however, during the last two decades and today the traditional industries of fishing, agriculture, food processing, boat building and boat repair remain strong. The most rapidly growing new industry is tourism. Seasonal housing represents 26 percent of the total housing stock in the County, and this market has stimulated growth in construction, real estate and insurance, retail and communications, transportation and utilities employment. The following table shows the seasonal fluctuation of employment of county residents. The unemployment rate ranged from a low of 5.6 percent in October to a high of over 20 percent in January and February.

Some 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 second out of all Virginia communities in the proportion of its population that is 65 years of age or older. 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. With comparatively fewer children to educate and increasing property values, the County's taxes remain low and enhance its attractiveness to retirees.

Table 1.1
Estimated Labor Force Data
Northumberland County

MONTH	CIVILIAN LABOR FORCE		UNEMPLOYMENT RATE	
	NUMBER EMPLOYED	NUMBER	NUMBER	RATE
JAN/94	5,300	4,220	1,080	20.4
FEB/94	5,125	3,953	1,172	22.9
MAR/94	5,046	4,176	870	17.2

APR/94	5,017	4,315	702	14.0
MAY/94	5,370	4,772	598	11.1
JUNE/94	5,376	4,805	571	10.6
JULY/94	5,410	4,941	469	8.7
AUG/94	5,263	4,867	396	7.5
SEPT/94	5,164	4,832	332	6.4
OCT/94	5,108	4,823	285	5.6
NOV/94	5,213	4,753	460	8.8
DEC/94	5,189	4,681	508	9.8
JAN/95	5,562	4,404	1,158	20.8
FEB/95	5,258	4,246	1,012	19.2

SOURCE: Virginia Employment Commission

Low interest rates during the 1980s 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. And the latter market comprises a large share of home construction within Northumberland County.

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. 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 is a very important part of Northumberland County's economy. These categories employed 331 persons (about ten percent of the total residents employed) at the time of the 1990 census. In addition, another 450 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 1990. The U. S. Census reports employment of individuals living within the County regardless of where they are actually employed.
- Another 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.

- Many County residents commute to jobs outside the County. The 1990 Census reported that 2,552 county residents lived and worked in the County and another 1,610 county residents commuted to work outside the County. Of the 1,610 out-commuters, seventy-five 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 1990 Census reported 642 in-commuters, 492 of whom came from other Northern Neck counties.

1. Distribution of "Covered" Employment

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
Non-Agricultural Employment, Northumberland County
March, Selected Years, 1970-1994

		1970	1980	1984	1986	1988	1990	1992	1994
Manufacturing		808	861	628	549	476	437	549	454
Agriculture/Forestry/Fishing ⁴	D	21	38	44	38	11	29	28	
Trade		136	243	300	359	366	369	373	377
Construction		49	80	82	112	159	215	213	189
Transportation/Comm/Util.	D	42	42	62	81	73	79	109	138
Finance/Ins/Real Estate		40	60	65	72	77	98	106	93
Services	46	255	284	165	200	277	270	332	
Government		NA	NA	339	327	331	365	380	417
Other (D Categories)		24	NA						
TOTAL		1,103	1,562	1,798	1,709	1,720	1,851	2,028	2,029
Employment of all County Residents as reported by U.S. Census			3,555				4,192		

Note: "D" = Protected from disclosure of any one firm's business

SOURCE: Virginia Employment Commission, Covered Employment

Census employment figures for 1980 and 1990 are included at the bottom of the preceding table. They illustrate the difference between employment reported by the Virginia Employment Commission (VEC) and employment recorded by the Census. The Census reported that from 1980 to 1990 Northumberland County experienced an increase in employment that averaged 1.8 percent per year. VEC's employment figures indicate a 2.2 percent per year average increase for the four-year period, 1990-1994. The next table shows how employment of county residents was distributed among 19 occupational classes as reported by the U. S. Census and which classes gained or lost employment during the 1980s. Classes are arranged in order of those having the most numerical increase to those having the most decrease.

⁴ Only a few jobs in this category are covered by Social Security/VEC reports; refer to a special analysis of this category.

Table 1.3
Occupations of Employed Residents, 1980 and 1990

OCCUPATIONAL CLASS	1980	1990	Amount of Change	Percent Change
Sales Occupations	229	571	342	149%
Other Service Occupations	175	307	132	75
Other Professionals & Managers	115	203	88	76
Protective Services	35	118	83	237
Teachers	123	181	58	47
Mechanics, Repairers	125	181	56	45
Administrative Support	503	545	42	08
Construction Trades	281	313	32	11
Operators, Fabricators	220	236	16	07
Transport Occupations	187	198	11	06
Moving Equipment Operatives	44	50	6	16
Technical Operations	66	71	5	08
Public Administration, Managers	316	313	-3	-01
Fisheries, Forestry	181	172	-9	-05
Precision Production	86	59	-27	-31
Farming	187	159	-28	-15
Private Household Occupations	102	56	-46	-45
Food Service	139	83	-56	-40
Handlers, laborers	441	376	-65	-15
TOTAL EMPLOYED*	3,555	4,192	637	+18%

*Persons 16 years and older, residing in County

Sources: Census, 1980, 1990

Twelve occupational classes experienced a combined increase of 871 jobs between 1980 and 1990 with 39 percent of those in sales occupations. The predominant classes showing increases were in services of one kind or another, including professionals, managers, teachers, administrators and mechanics. The losers included seven classes which accounted for a loss of 234 jobs - mostly handlers/laborers, food service, private household occupations, farming, and precision production.

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 base-line of employment trends for each employment category using data reported by VEC, (Social Security covered employment). A base-line is projected separately for each industry group shown in Table 1.2 except for employment in agriculture, forestry and fisheries. The latter is examined using separate sources.

Data for each employment category are presented both as a table of data and as a graphic representation. In each case employment is projected as a "most optimistic" and "least optimistic" scenario. The spread thus established represents the probable range within which the economy is likely to perform; whether it performs on the high or low side is greatly dependant upon the performance of the national economy.

a. Agriculture, Forestry and Fisheries

Figure 1.1
Farmland and Cropland
Selected Years, 1974-1992

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SOURCES: 1992 Census of Agriculture; Virginia Statistical Abstracts, 1994-1995 Edition

Agriculture, forestry and fisheries employed 331 county residents in 1990, a small decrease of 37 (or about 10 percent) from 1980 figures. Many of the jobs in these industries are not covered by Social Security Employment data and are only measured at population census dates. Other data have also been used in this section to judge the relative health of these industries. In general, employment in forestry appears to be declining while it remains strong in agriculture and fisheries. Although the number of farms and land in farms has been declining over the past two decades, cropland has declined very little.

Between 1974 and 1994 the production of grains actually increased except for corn. The production of wheat increased more than 60 percent and soybeans increased by 30 percent during that period. Corn production dropped by about 10 percent. In addition to the grains reported below, there is a large amount of barley being grown in the County, but barley was not reported in available data. In addition, an interest is beginning to develop in growing both peanuts and cotton, but neither of these crops have been recorded in the official sources.

Bushels Harvested

	1974	1992	CHANGE
Corn	1,218,419	1,029,812	-188,607
Wheat	352,706	571,608	218,902
Soybeans	419,246	544,034	124,788
TOTAL	1,990,371	2,145,454	155,083

SOURCES: Census of Agriculture, 1974, 1992

Livestock production, however, has decreased dramatically. The inventory of cattle and calves in 1992 was 682, only half of the 1,366 inventory in 1974. The farms raising hogs and chickens have decreased to the point that inventory data are not given in the 1992 Census of Agriculture to avoid disclosing information for any one farm.

Forestry lands appear to be declining in Northumberland County. Although the acreage in commercial forest land in the County remained virtually unchanged from 1985 to 1991, the stands of large trees (sawtimber) declined by 9,580 acres (or 26%). New trees have been planted, but the new stands will take a long time to grow back into forested lands.

Table 1.4
Timber Acreage, Northumberland County

	1985	1991	CHANGE
Sawtimber Stands	36,743	27,164	-9,579
Pole Timber Stands	11,471	18,160	6,689
Saplings/Seedlings	16,829	22,562	5,733
Other Acreage	2,845	0	-2,845
Total Forest Acreage	67,888	67,886	-2

SOURCES: USDA Forest Statistics for the Coastal Plain of Virginia, 1985, 1991 as reported by Northern Neck Planning District Commission, 1993; PMA analysis.

The production of sawtimber increased from 8,722 cubic feet in 1985 to 21,155 cubic feet in 1991, but that resulted in the reduction of 26 percent of sawtimber acreage. Commercial fishing in Northumberland County represents a strong part of the local economy. The general health of the fishing industry in recent years is indicated by the data in the following table.

Table 1.5
Value of Seafood Catch, Northumberland County

	1989	1990	1991	1992
<i>MENHADEN</i> ⁵	\$253,407	\$220,000	\$297,456	\$283,060
Blue Crab	676,680	1,179,223	1,136,040	1,012,052
Spot	29,107	20,077	68,686	51,389
Bluefish	18,053	48,369	31,507	5,813
Alewife	5,135	5,115	59,024	18,436

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

Seatrout	27,513	14,706	29,944	15,442
Oysters	51,936	115,229	177,433	101,247
Flounder	33,581	25,802	64,233	88,494
Striped Bass	NA	81,402	57,588	58,558
Other Species	9,871	47,267	21,205	23,698
TOTAL	\$1,105,283	\$1,757,190	\$1,943,116	\$1,658,189

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 1992 of slightly in excess of one million dollars. That was down from 1990 and 1991 but half again above the 1989 value. Next were oysters valued at about 10 percent of the blue crab catch, but showing the same pattern as blue crab - lower than the last two years but nearly double the catch in 1989. Oysters have been in short supply for many years. Other significant catches include flounder, striped bass and spot which had a combined value of about \$200,000 in 1992.

As the general health of the Chesapeake Bay continues to improve as a result of conservation efforts, it should have a positive effect on the fishing industry.

As a conclusion to this analysis of Agriculture, Forestry and Fisheries within Northumberland County, the issue of potential future employment in the industry is addressed. Overall, from 1980 to 1990, employment in this sector decreased by 10 percent (from 368 to 331) mostly because of declines in the lumber industry. It appears that agriculture and fisheries employment remain strong although with the limitation that much of the employment in this sector is seasonal. Farming could be at risk because of the pressures on farmers to sell property for development as the demand for retirement homes and vacation homes continues. Weighing these factors, a 10-year employment projection ranges from a low of 300 to a high of 340.

b. Manufacturing

Manufacturing employed 454 in 1994. About eighty percent of the manufacturing employees were engaged in seafood processing or boat building and parts. Other manufacturing in the County includes lumber (which has been declining), feed and fertilizer, printing and publishing, non-electrical machinery and stone, clay and glass. Over the past ten years, food processing employment has fluctuated and lumber production has declined. The following graph shows trends since 1970, and projections for employment in 2005. Base-line manufacturing employment projections range from 400 to 500 jobs.

Figure 1.2
Manufacturing Employment
Trends and Projections

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c. Trade

Trade employment in Northumberland County in 1994 was 377. Of these, 65 were employed in wholesale trade and 312 in retail trade. Wholesale trade employment has been at about the same level for the past ten years and is included in the 10-year projections at the same level. Growth in trade sector employment during the 1980s was in retail trade. This was in response to an increased population, especially during the summer months. The analysis in Table 1.6 shows the influence of seasonal fluctuations.

Overall, 57 percent of taxable sales occurred during the six-month period from April through September. The difference between the six off-peak months and the six peak months amounts to \$4.53 million in taxable sales.

Table 1.6
Taxable Sales, 1993

SEPT	ANNUAL	PCT. YR.		APR-
Auto Service, Gas	3,098,611	5,132,074	60	
Food Group	5,171,899	8,904,445	58	
Home Furnishings	122,536	260,414	47	
General Merchandise	661,820	1,048,844	63	
Bldg. Materials, Hardware	3,035,575	5,564,812	55	
Machine, Equipment, Supplies	243,438	543,431	45	
Hotels, Camps, Etc.	284,430	366,641	78	
Alcoholic Beverages	240,896	488,262	49	
Misc. & Unidentified	6,582,503	12,039,391	55	

TOTAL **\$19,441,708** **\$34,348,314** **57**

SOURCES: Virginia Department of Taxation, quarterly taxable sales; PMA analysis

The next table shows that, although retail sales and the number of firms have increased during the last decade, sales have not kept up with inflation. Sales increased in dollar amounts from \$27.19 million in 1982 to 32.35 million in 1992. But while the increase appears to be positive, after adjusting for inflation, 1992 sales dollars had only 82 percent of the purchasing power of 1982 sales dollars. Despite this drop in purchasing power, there were 15 more stores in the retail business in 1992 than in 1982 competing for the sales dollars.

A few areas actually beat the trend such as building materials and hardware, automotive dealers, and eating/drinking establishments.

Table 1.7
Total Retail Sales

	1982 Stores	1982 Sales (\$000)	1992 Stores	1992 Sales (\$000)	1992 Sales Adjusted for Inflation to (1982 \$000)
Bldg. Materials, Hardware	5	2,125	8	4,701	3,233
General Mdse.	4	D	1	D	D
Food Stores	16	11,117	17	13,719	9,436
Automotive Dealers	5	1,694	4	3,995	2,748
Gas Service Stations	5	1,813	7	2,641	1,817
Apparel, Accessories	1	D	1	D	D
Home Furnishings	0	0	3	D	D
Eating & Drink Estab.	7	935	9	,842	1,267
Drug & Proprietary	2	D	2	D	D
Miscellaneous	3	225	11	1,852	1,274
Sales for "D" Categories		9,281		3,697	2,543
TOTAL	48	27,190	63	32,447	22,317

SOURCES: Census of Retail Trade, 1982, 1992; Consumer Price Index, PMA analysis

Although Northumberland County is rural and cannot pull in sales from larger retail markets, there is evidence it could capture more local sales that are currently lost to outside markets. This is especially true for sales of some items that are usually bought close to home or serve summer tourists: groceries and restaurant meals in the food group; hotels, motels, and camps; and some general merchandise. The following table compares per capita sales in Northumberland County with those in other Northern Neck communities.

Table 1.8
Per Capita Taxable Sales, 1993

	NORTHUMBERLAND COUNTY	LANCASTER COUNTY	RICHMOND COUNTY	WESTMORELAND COUNTY
Apparel Group	D	274	D	28
Auto Service, Gas	467	521	349	.199
Food Group	814	2,090	2,758	1,654
Home Furnishings	24	163	196	22
General Mdse.	95	682	311	213
Bldg. Mater., Hardware	509	584	340	349

Machine, Equip., Supply	54	149	202	16
Miscellaneous	303	397	385	232
Hotels, Camps, Etc.	33	832	D	66
Alcoholic Beverage	44	118	62	32
Not Identified	781	1,451	1,740	145
TOTAL	3,124	7,259	6,343	2,954

SOURCES: Virginia Department of Taxation; Virginia Statistical Abstracts; PMA analysis
(Some totals reflect rounding differences)

Figure 1.3
Trade Employment - Trends and Projections

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As a minimum, it appears that the County could double its food group sales (adding \$8,949,860); hotel, motel and camp sales (adding \$366,640); and general merchandise sales (adding \$1,049,381). The County has an additional seasonal market in the summer months and a large proportion of retirement-age residents year-round.

Base-line employment projections of past trends for trade jobs range from 375 to 425 by 2005. Gains in capturing more of the local market would be in addition to these projections.

d. Construction

Construction employment soared from 80 workers in 1980 to 215 by 1990. The latter half of this period saw dropping interest rates that especially stimulated home construction across the nation. As interest rates have begun to rise in the 1990s, construction has slowed and jobs have declined somewhat. Federal tax laws still favor ownership of both first and second homes. Northumberland County's waterfront property is likely to continue to attract those who can afford new

homes.

The following table shows the County's recent history of residential building permits.

Table 1.9
Residential Building Permits
Northumberland County

YEAR	RESIDENTIAL PERMITS	SINGLE FAMILY PERMITS	AVERAGE VALUE
1985	158	117	\$71,795
1986	203	197	\$48,731
1987	218	172	\$69,767
1988	216	182	\$82,951
1989	312	312	\$92,298
1990	321	321	\$137,550*
1991	74	74	\$97,695
1992	116	116	\$141,276
1993	113	113	\$87,257*
1994	123	123	\$91,203*

SOURCE: VIRGINIA STATISTICAL ABSTRACTS, except for lines marked with "*" which came from County building records.

Many factors could affect future local construction jobs: interest rates, tax laws, regional employment, lumber prices, and the number of persons who buy homes for retirement within the County. These uncertainties are reflected in a wide range in the employment projections from a low of 120 to a high of 260 workers in construction by year 2005. These projections and past trends are shown in the figure below.

Figure 1.4
Construction Employment - Trends and Projections

Insert CONSTR.PIC

e. Finance, Insurance and Real Estate

Employment in this sector is also quite sensitive to changes in the construction industry, although it also serves the existing population. The graph for these employment categories shows the fairly steady growth in jobs since 1970, and the year 2005 projections for a high of 120 jobs and a low of 80 jobs.

Figure 1.5
Finance, Insurance and Real Estate Employment - Trends and Projections

Insert FIRE.PIC

f. Government

Government employed 417 persons in 1994. About 60 were state and federal employees based in the County. The remainder were county employees, including school employees.

The following table gives the various functions of local government and shows per capita expenditures for each function and Northumberland County's rank among all of the 136 counties and cities in the State.

Table 1.10
Local Government Expenditures
Northumberland County
(Rank: 1= low; 136= high)

EXPENDITURE TYPE	PER CAPITA EXPENDITURE	RANK
General Government	\$52	65
Community Development	17	82
Public Works	31	43
Public Safety	81	62
Education	554	9
Health and Welfare	92	79
Parks, Recreation, Cultural	6	14

SOURCE: Staff, Commission on Local Government, 1993

Most government expenditures are for personnel. It is evident from the "Per Capita Expenditures" in the table that by far the largest proportion of local government employees work for the schools. Health and Welfare and Public Safety are next followed by General Government and Public Works. Less workers are employed in Community Development and Parks, Recreation and Cultural. Of all Virginia communities, Northumberland County ranks 31 in population. The rankings in the above table could be compared with the population rank. However, the County ranks 135 (second highest) in percent of population "65 years and over". Therefore, it is not surprising that per capita education expenditures rank relatively low and health and welfare expenditures rank relatively high. (Per student education expenditures would be a better measure.) Parks, recreation and cultural expenditures rank low, however, and are not distorted by age groups of the population.

The following graph shows trends and projections for government employees. (Data for this category have only been available since 1984.) High projections for 2005 call for increases as the County population and demand for services is expected to grow. The high projection is for 550 jobs. The low projection for government employment is 420, basically a "hold the line on government employment" figure.

Figure 1.6
Government Employment - Trends and Projections

Insert GOVT.PIC

g. Services

This category contains the 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	

Service employment within the County has been increasing. Projections for year 2005 are for a low of 350 and a high of 390 service-sector jobs - Figure 1.7.

Figure 1.7
Services Employment - Trends and Projections

INSERT SERVICE.PIC

h. Transportation and Utilities

Most of the 138 employees in this classification work in trucking and warehouse operations. The remainder work in electric-gas-sanitation utilities. These jobs have been increasing steadily, and that trend is projected to continue. Projections for 2005 range from a low of 150 jobs to a high of 190.

Figure 1.8
Transportation and Utilities Employment - Trends and Projections

INSERT TCUTIL.PIC

i. Summary of Base-Line Employment Projections

Employment projections which have been developed above for each sector of the economy are summarized here. While each projection is given as a low and high figure, in this summary a median projection is also given. The median projection is simply the mid-point between the high and low projections given above. Projections for all categories except Agriculture, Forestry, Fisheries have relied on historical employment data for jobs covered under the Social Security Act which are published each year. Because many Agriculture, Forestry, Fisheries jobs are not covered under Social Security, annual historical data have not been available and it has been necessary to rely on census data. These jobs were most recently reported in the 1990 census. More recent government reports, while not reporting jobs, have given information helpful in judging the general health of the industry.

Table 1.11
Summary of Employment Projections for 2005
for Employment Covered by Social Security
Northumberland County

	LOW	MEDIAN	HIGH
Agricultural, Forestry & Fisheries	300	320	340
Manufacturing	400	450	500
Trade	375	400	425
Construction	120	190	260
Finance, Ins. & Real Estate	80	100	120
Government	420	485	550
Services	350	370	390
Transportation & Utilities	150	170	190
TOTAL	2,195	2,485	2,775

C. Relationship of Employment to Population

Northumberland County has had a relatively steady relationship between population and labor force and population and employment for the past decade. The percentage of population in the labor force has dropped from 42 percent in 1980 to 41 percent in 1990 reflecting, primarily, the increase in the 65+ age group in the population. The large proportion of 65+ age group is even more evident when Northumberland County's 41 percent in the labor force is compared with the state average of 49 percent of the population in the labor force.

The table below compares County population, labor force and employment data in 1980 and 1990. Other significant findings in the table are:

- The proportion of Northumberland County residents employed (37 percent) remained the same in 1980 and 1990.
- A slightly larger share of the jobs (21 percent vs 20 percent) was located in the County in 1990.

Table 1.12
Population, Labor Force and Employment
Northumberland County

	1980 Number	1980 Percent of Pop	1990 Number	1990 Percent of Pop
Population	9,828	100	10,524	100
Labor Force	4,144	42	4,355	41
Employed Labor Force	3,679	37	3,945	37
Jobs Located in County	1,930	20	2,182	21

SOURCES: VEC Labor Market Review; US Census; PMA analysis

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 five 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 2010 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 1990 level of 10,525 persons.

This trend is shown in the top line of Figure 1.9 as the year-round population. Projections made by the State for years 2000 and 2010 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 12,000 in 2010.

But the State's forecasts may be very conservative. For example, the State projected a population of 11,360 for 2000, but an estimate made by the University of Virginia's Center for Public Service offered a provisional estimate of 11,200 population for 1993. UVA's estimate may incorporate building permit data and interpret some seasonal population as year round population, or it may indicate that the County is really growing faster than the State projections indicate. It may well be the seasonal population or that in combination with the steady influx of persons attracted to waterfront locations that is causing the growth. In either case, it makes the forecasting of accurate population growth risky.

The lower line in Figure 1.9 shows seasonal population estimated for 1990 by the Northern Neck Planning District Commission and PMA estimated projections for other years (based on trends and the same 2.3 persons per unit assumption used by the PDC).

Figure 1.9
Population Trends and Projections
Northumberland County, Virginia

Insert Chart

Data for above Chart

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	3,974
2000	11,360	5,670
2010	12,096	7,380

The Northern Neck Planning District Commission estimates a seasonal increase of 3,974 persons at the time of the 1990 census. This estimated seasonal population is based on 1,724 seasonal housing units and assumes an average household size of 2.3 persons. Since 1970 seasonal housing units have been increasing at a rate of 740 per decade. If these trends continue, seasonal population would be 5,670 by year 2000 and 7,380 by year 2010. The figure above shows the rapid rate of increase of seasonal population compared with the slower rate of increase of year-round residents.

B. Age Distribution

The median age of Northumberland County's population in 1990 was 45.3 years. The County

ranked second of all Virginia communities in population age 65 and over. The median age by districts was as follows:

Fairfield District	46.0
Heathsville District	43.9
Lottsburg District	43.4
Wicomico District	49.1

Table 1.13 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, is expected to increase by 2010 to about the same level that existed in 1980. This would result in a drop of this group as a share of total population (from 21.9 percent in 1990 to 20.3 percent by 2010) because of the more rapid growth in the older age groups.
- The child-bearing/working age group (20-44) is expected to decrease from 2,913 in 1990 to 2,326 in 2010 which amounts to a drop as a percent of the population from 27.7 percent in 1990 to 19.2 percent by 2010.
- The 45-64 older/working age group of adults is forecast to increase the most. This is the so-called baby-boom generation born from 1945 through 1965. Increases in this group are projected to add 1,397 persons by 2010. This growth would increase this group from 25.5 percent of the population in 1990 to 33.8 percent by 2010.
- The age 65 and over group is projected to increase 616 persons by 2010 - from 24.9 percent of the population in 1990 to 26.7 percent.

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 1990. For example, a major decline occurred specifically in the number of persons in the 15-24 age group 15-24 which is comprised of high and college-age youth and young adults. The reverse was true in the 25-49 age group; it increased by exactly the same number of persons - 509 - that the youth group lost. This group is the "baby boom" generation coming of age. An easy explanation might suggest that the youth group simply grew older and shifted into the older category. But since the youth category only covers 10 years and the "baby boom" category covers 25 years, something happened other than aging otherwise the increase in the older group would have been much greater. A logical observation is that many of the younger people of the County are leaving the area where job opportunities are greater than in Northumberland County.

The other major group to gain in population was the 65 plus group which increased by 636 persons (32 percent). The "in between" group from 50 to 64 remained about the same, actually losing 55 persons. 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 696 persons between 1980 and 1990 but growth varied widely among age

different groups. The County's young 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.

Table 1.13

Population Projections by Age Groups ⁶

	1980	1990	2000	2010
Under 5	512	560	585	615
5-9	539	623	599	584
10-14	636	619	685	699
15-19	798	503	588	553
<i>0-19</i>				
<i>Subtotal</i>	<i>2,485</i>	<i>2,305</i>	<i>2,457</i>	<i>2,451</i>
20-24	663	449	461	497
25-29	588	594	401	458
30-34	535	670	459	466
35-39	480	604	611	402
40-44	420	596	736	503
<i>Childbearing/ Working Age</i>				
<i>Subtotal</i>	<i>2,686</i>	<i>2,913</i>	<i>2,668</i>	<i>2,326</i>
45-49	531	599	745	737
50-54	590	548	848	1,006
55-59	755	722	863	1,074
60-64	798	818	800	1,267
<i>Older Adults/Working Age</i>				
<i>Subtotal</i>	<i>2,674</i>	<i>2,687</i>	<i>3,256</i>	<i>4,084</i>
65-69	727	914	865	1,066
70-74	520	724	795	756
75-79	383	518	653	621
80-84	210	262	387	424
85+	143	201	279	368
<i>Older Adults/Retirement Age</i>				
<i>Subtotal</i>	<i>1,983</i>	<i>2,619</i>	<i>2,979</i>	<i>3,235</i>
TOTAL	9,828	10,524	11,360	12,096

SOURCES: VIRGINIA EMPLOYMENT COMMISSION; PMA groupings

⁶Virginia Employment Commission estimates.

C. Geographic Distribution of the Population

The year-round population change between 1960 and 1990 in the County's four magisterial districts⁷ is depicted in the figure below. This chart shows the last decade of falling growth, the 1960s which was evident in all districts except Heathsville. After 1970 the long decline turned around with all districts showing some growth after that.

Figure 1.10
Magisterial District Population, 1960 - 1990

Insert Chart

Data for Above Chart

	1960	1970	1980	1990
FAIRFIELD DISTRICT	3551	3132	3,345	3,520
HEATHSVILLE DISTRICT	995	1593	1,562	1,626
LOTTSBURG DISTRICT	2798	2696	2,874	3,058
WICOMICO DISTRICT	2841	1818	2,047	2,320

If this chart is compared with the one immediately following (Figure 1.11) which shows population changes as a percent of total county population change for the 1960-1990 period, some observations

⁷Magisterial districts are used instead of election districts in order to trace trends for a longer historical period. Any adjustments in district boundaries, if any, are not reflected in data on these pages.

may be made.

- Fairfield District has about the same population now as it did 30 years ago although during the period it lost population and gradually grew back almost to the 1960 level. It lost just slightly as a share of the total County's population from 35 percent to 33 percent.
- Heathsville District gained substantial population from 1960 to 1970 but very little after that. Its share of total population rose, as a result of the 1960s increase from 10 to 15 percent of the total (see footnote following Wicomico District below).
- Lottsburg District gained some 260 persons since 1960 just barely gaining in share of the total population from 27 to 29 percent.
- Wicomico District shows the most fluctuation in population. Dropping considerably from 1960 to 1970, it gained population faster than the other districts since 1970. While this district has 22 percent of all of the County's population, at one time it contained 28 percent.⁸

Figure 1.11
Population Change of Districts as Percent of County

Insert Chart 80%

⁸The possibility exists that part of the change in Heathsville (up 598) and Wicomico (down 1023) could have come as a result of redrawing district boundaries, if any, but that possibility had not been determined as of the date of this interim report.

All of the districts attract seasonal residents in addition to the year-round population reported in the Census. In 1992 the Northern Neck Planning District Commission estimated the seasonal population for each district, based on seasonal housing units reported by district in the 1990 Census. These estimates are included in the following table:

Table 1.14
Year-Round and Seasonal Population, 1990

	Year-Round Population	Estimated Seasonal Population	Possible Peak Population	Estimated Seasonal as Percent of Year-Round
FAIRFIELD DISTRICT	3,520	1,970	5,490	56
HEATHSVILLE DISTRICT	1,626	662	2,288	41
LOTTSBURG DISTRICT	3,058	788	3,846	26
WICOMICO DISTRICT	2,320	554	2,874	24
TOTAL, COUNTY	10,524	3,974	14,398	38

SOURCES: U S Census, 1990; Northern Neck PDC, 1992; PMA Analysis

In addition to the seasonal population estimates, the table relates those estimates to the year-round population of each district and calculates the possible peak population if all seasonal and year-round residents were in the County at the same time of year. The Fairfield district, which is the terminus of Route 360 at Reedville, experiences about half of the seasonal growth in population. This surge in summer population causes seasonal population to outnumber permanent residents in that district. All of the other districts experience significant summer population increases which overall increased the population by 38 percent.⁹

D. Other Population Characteristics

Changes from 1980 to 1990 in distributions of race, sex and income for the year-round population are given in Table 1.15 by district. Data in this table indicate the following:

- Females have increased more than males in all districts. They also outnumber males in all districts.
- All districts except Lottsburg have lost black population.
- Fairfield is the largest district in the County with one-third of the County's population, but this district had the lowest median

⁹Some individuals believe that the seasonal population is much higher, but PMA found no published data other than the PDC data to confirm such estimates. It is highly likely the population peaks at higher numbers on major holiday week-ends.

household income in 1990, and the smallest increase in population since 1980.

Table 1.15
Other Population Characteristics, 1980 and 1990

	1980	1990	PERCENT OF COUNTY IN 1990	CHANGE 1980-1990		
FAIRFIELD DISTRICT	3,345	3,520	33.4	175		
FEMALE	1,750	1,848	33.2	98		
MALE	1,595	1,672	33.7	87		
WHITE	2,255	2,518	34.1	263		
BLACK	1,080	993	32.1	-87		
OTHER RACE	10	9	23.7	-1		
<i>Median Household Income</i>	<i>\$13,204</i>	<i>\$21,886</i>	<i>94.9</i>	<i>\$8,682</i>		
HEATHSVILLE DISTRICT	1,562	1,626	15.5	64		
FEMALE	811	845	15.2	34		
MALE	751	781	15.7	30		
WHITE	842	982	13.3	140		
BLACK	719	641	20.7	-78		
OTHER RACE	1	3	7.9	2		
<i>Median Household Income</i>	<i>\$11,916</i>	<i>\$22,441</i>	<i>97.3</i>	<i>\$10,525</i>		
LOTTSBURG DISTRICT	2,874	3,058	29.1	184		
FEMALE	1,479	1,620	29.1	141		
MALE	1,395	1,438	29.0	43		
WHITE	2,249	2,393	32.4	144		
BLACK	620	652	21.0	32		
OTHER RACE	5	13	34.2	8		
<i>Median Household Income</i>	<i>\$15,082</i>	<i>\$24,740</i>	<i>107.3</i>	<i>\$9,658</i>		
WICOMICO DISTRICT	2,047	2,320	22.0	273		
FEMALE	1,073	1,251	22.5	178		
MALE	974	1,069	21.6	95		
WHITE	1,160	1,495	20.2	335		
BLACK	887	812	26.2	-75		
OTHER RACE	0	13	34.2	13		
<i>Median Household Income</i>	<i>\$15,680</i>	<i>\$25,566</i>	<i>110.8</i>	<i>\$9,886</i>		
TOTAL COUNTY	9,828	10,524	100.0	696		
FEMALE	5,113	5,564	100.0	451		
MALE	4,715	4,960	100.0	245		
WHITE	6,506	7,388	100.0	882		
BLACK	3,306	3,098	100.0	-208		
OTHER RACE			16	38	100.0	2
<i>Median Household Income</i>	<i>\$14,648</i>	<i>\$23,065</i>	<i>100.0</i>	<i>\$8,417</i>		

SOURCES: US Census, 1980, 1990; PMA analysis

- Wicomico District had the greatest increase in population from 1980 to 1990 and the highest median household income in 1990.
- Heathsville is the smallest district with 15.5 percent of the County's population.

E. Housing

Northumberland County housing is characterized mainly by single-family owner-occupied units and many seasonal units. Both categories have increased substantially since 1970: owner occupied units by 1,300 and seasonal units by 1,460. Renter-occupied units have only increased by 140 in twenty years from 1970 to 1990.

Table 1.16
Selected Characteristics of Housing Units

	1970	1980	CHANGE 1990	1970-90
TOTAL UNITS	4339	5584	6841	2502
SEASONAL UNITS	292	1065	1775	1483
YEAR-ROUND UNITS	4047	4519	5066	1019
VACANT YEAR-ROUND UNITS	984	706	574	-410
OWNER OCCUPIED UNITS	2622	3283	3912	1290
RENTER OCCUPIED UNITS	441	530	580	139
TOTAL LACK COMP PLUMBING	1228	607	419	-809
OCCUPIED LACK COMP PLUMB	871	466	257	-614
SINGLE FAMILY	3730	4054	5831	2101
MULTI-FAMILY	62	166	48	-14
MOBILE	255	299	890	635
OTHER			72	72
TOTAL*	4047	4519	6841	2794

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

SOURCES: Census of Housing, Detailed Characteristics, 1970, 1990;
General Housing Characteristics, 1980

The table also shows significant improvement in correcting plumbing deficiencies. Only 257 occupied units lacked complete plumbing at the time of the 1990 census, compared with 871 units in 1970. Mobile homes accounted for thirteen percent of the total units in 1990, but some of these may be used as seasonal units. Vacant year-round units, about ten percent of the total year-round units, are about the right proportion to allow choice in the market place.

The table on location of the year-round units shows that, although Fairfield District is the largest, the Wicomico District has added almost as many new units between years 1970 and 1990. Heathsville and Wicomico Districts had almost the same number of units in 1970, but Heathsville District has had considerable fewer units since then.

Table 1.17
Location of Year-Round Units Which Were Occupied in 1990

	1970	1980	CHANGE 1990	1970-90
County	3063	3813	4492	1429
Fairfield District	1067	1339	1523	456
Heathsville District	502	574	683	181
Lottsburg District	915	1108	1290	375
Wicomico District	579	792	996	417

SOURCE: Census of Housing, General Housing Characteristics

The following table shows the age of the occupied housing units in Northumberland County. Significant in this table is that thirty-one percent, almost a third, of the occupied units are at least forty years old. Care should be taken that these homes are maintained in safe condition.

Table 1.18
Year Occupied Housing Unit Was Built

	OWNER OCCUPIED	RENTER OCCUPIED	ALL OCCUPIED	PERCENT OF TOTAL
1980 TO MARCH, 1990	679	38	717	21.4
1970 - 1979	715	46	761	22.8
1960 - 1969	324	41	365	10.9
1950 - 1959	372	86	458	13.7
1940 - 1949	200	85	285	8.5
1939 OR EARLIER	659	99	758	22.7
TOTAL	2949	395	3344	100

SOURCE: Census of Housing, 1990, Detailed Characteristics