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DATA SUMMARY

Shenandoah County

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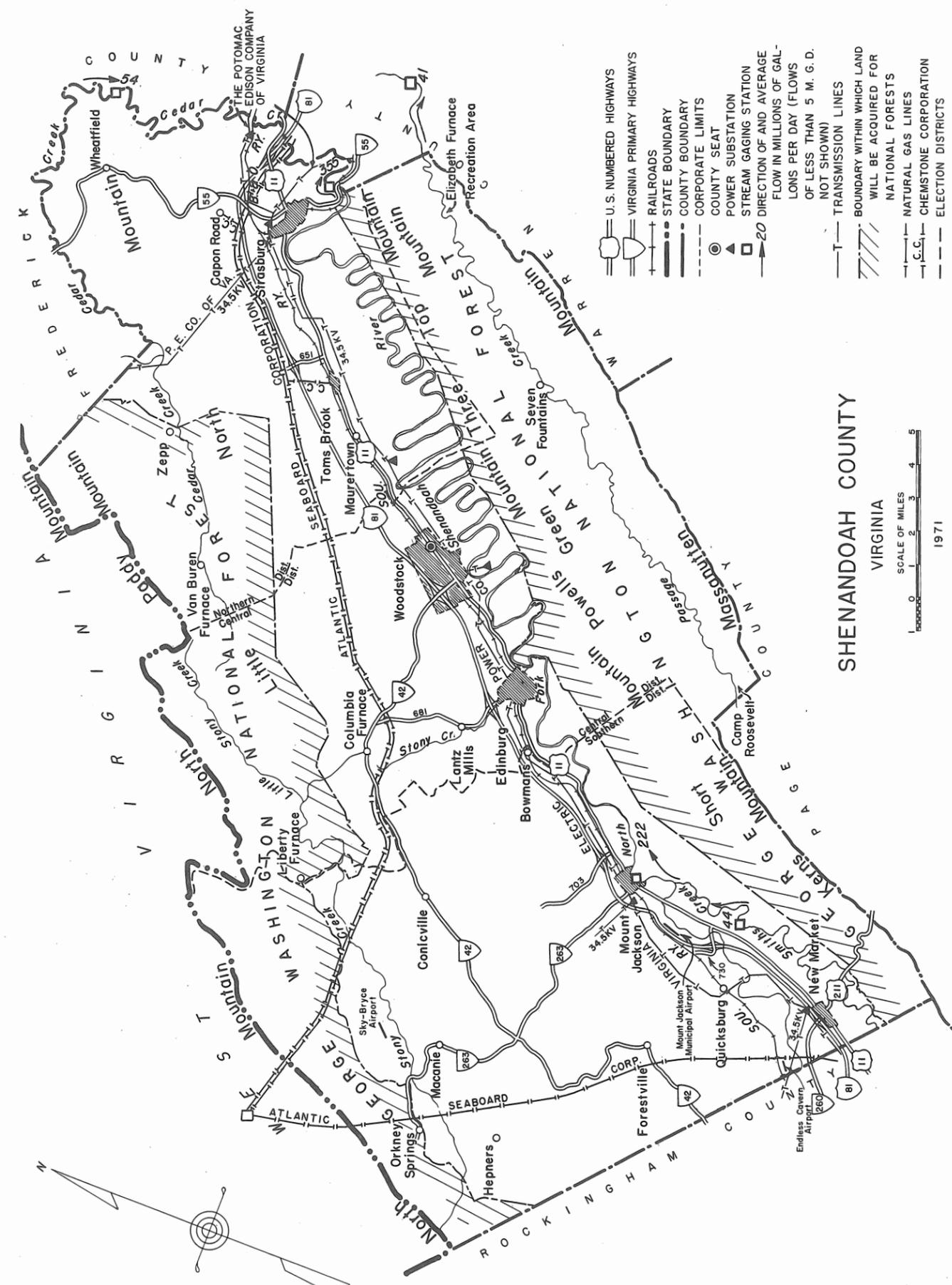
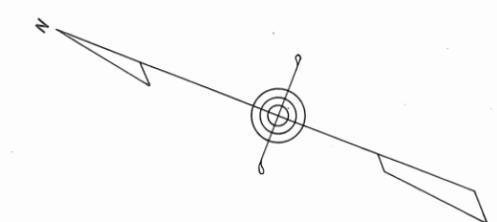
DIVISION OF STATE PLANNING & COMMUNITY AFFAIRS
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Revised - October, 1971

This report is one of a series made for all counties and independent cities in Virginia. The reports are revised every three years by the Office of Research and Information, Division of State Planning and Community Affairs. The cooperation of local citizens, chambers of commerce, and state, local and federal government agencies is gratefully acknowledged. Research Assistant, Patricia Webb, was primarily responsible for the writing and organization of this report. The material in this publication is not copyrighted and may be quoted; however, it would be appreciated if credit were given to the Division of State Planning and Community Affairs.



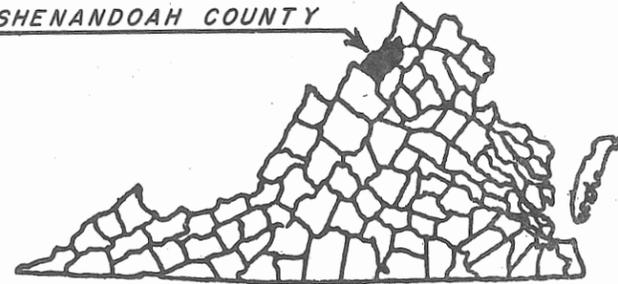
- U. S. NUMBERED HIGHWAYS
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SHENANDOAH COUNTY
VIRGINIA



SECTION I - INTRODUCTION

SHENANDOAH COUNTY



INDEX TO COUNTY LOCATION

Shenandoah County was formed in 1772 from Frederick County. It was originally named Dunmore County, in honor of Governor Dunmore, but in 1778 the name was changed to Shenandoah after the Shenandoah River. This is an Indian name which means "Beautiful Daughter of the Stars". The county was originally settled by Scotch Irish and Germans, many of whom moved down the valley from Pennsylvania. Woodstock was established as the county seat in 1752. The Henkel Press in New Market was established in 1806 and it is one of America's Oldest Publishing Houses. During

the Civil War the county was the scene of much fighting. The Battle of New Market is one of the most famous battles of the war. It took place on May 15, 1864 and in it the cadets of Virginia Military Institute made a heroic charge against the Union forces advancing into the county. There was also a Confederate hospital located in Mount Jackson.

The county (land area 507 sq. mi. or 324,480 acres) is bounded by the Massanutten Mountains on the east and the North Mountains of the Alleghenies on the west with the North Fork of the Shenandoah River winding a twisting course in the beautiful valley between. Elevations vary from about 1,200 feet in the valley to 3,500 feet in the western ridge. The average temperature is 36° in January, 76° in July. Annual precipitation averages 41 inches. The 1970 population of the county was 22,852. The Division of State Planning and Community Affairs has projected that the population will increase at an average annual rate of 0.5 percent and will reach 24,000 by 1980.

A little more than half the total county area is forested, chiefly in the mountains. The George Washington National Forest embraces large portions of both the Massanutten and the North Mountains. Minerals present are manganese, limestone, sandstone, iron, lead, zinc, shale and clay. Several dolomite limestone quarries are producing crushed limestone and various types of chemical lime. Iron smelting furnaces, long inactive, operated on local ores for over a hundred years. There are many mineral springs and near Strasburg and New Market are several caverns famous for their limestone formations.

The limestone soils of the well cleared valley are excellent for agriculture and the great volume of grains which was produced here caused this region to be called the "Granary of the Confederacy." Today, however, Shenandoah County is more famous for its poultry -- especially turkeys -- and it ranks 2nd highest among Virginia's counties in the number of turkeys raised. Livestock raising has increased greatly and dairy herds have been enlarged to supply the demands of the Washington markets. Fruits continue to contribute much to the farm income. Among the counties of Virginia, Shenandoah ranks near to top in production of turkeys, chicken broilers, eggs, cattle, calves, hogs, apples and peaches.

Although Shenandoah is an agricultural county more people are employed in manufacturing than in farming. Many residents find work in construction, in services of every type and in the shops and stores of the excellent marketing areas in the several towns. Much of the local manufacturing is geared to the farm economy. Locally grown fowl are processed in a large poultry dressing plant in the county. Other agriculturally related products include vinegar and other apple products, flour and meal, poultry and livestock feeds, dairy products, agricultural lime and equipment for fruit and poultry grading and processing. Many residents are employed in the

manufacture of apparel such as infants' wear, blouses, knitted wear, trousers and lingerie. Other manufactures include rayon fabrics, concrete products and printing and publishing.

Within the county are two private schools; Massanutten Military Academy at Woodstock and Shenandoah Valley Academy at New Market and several popular summer camps are operated in the remote regions. Located in Woodstock is the well-equipped Shenandoah County Memorial Hospital, the Susan B. Miller Nursing Home and the Skyline Terrace Convalescent Home for the care of the aged and of chronic cases. At Strasburg, there is a public library. Newspapers are published in three of the towns. Shrine Mont at Orkney Springs is one of the diocesan centers of the Episcopal Church in Virginia.

SECTION II - POPULATION

Table 1.--Selected Population Statistics

	1950	1960	1970 ^{a/}	1971
<u>Shenandoah County</u>	21,169	21,825	22,852	22,877
Town of Edinburg.....	533	517	766	n.a.
Town of Mount Jackson.....	732	722	681	n.a.
Town of New Market.....	701	783	718	n.a.
Town of Strasburg.....	2,022	2,428	2,431	n.a.
Town of Toms Brook.....	256	244	258	n.a.
Town of Woodstock.....	1,816	2,083	2,338	n.a.
	<u>Shenandoah County</u>		<u>Virginia</u>	
	<u>1960</u>	<u>1970</u>	<u>1960</u>	<u>1970</u>
Median age.....	31.9	n.a.	27.1	n.a.
Age distribution:				
Percent of total population				
0 to 4.....	9.4	7.5	11.6	8.4
5 to 17.....	24.6	24.2	25.4	25.8
18 to 20.....	3.6	4.1	4.7	5.8
21 to 44.....	28.3	28.1	32.9	32.5
45 to 64.....	22.3	22.7	18.2	19.6
65 and over.....	11.8	13.3	7.1	7.9
Race distribution:				
Percent of total population				
White.....	98.4	98.3	79.2	80.8
Negro.....	1.6	1.6	20.6	18.6
Other race.....	0.0	0.1	0.2	0.6
Percent of family heads which are male.....	n.a.	81.6	n.a.	88.7
Percent of family heads which are female.....	n.a.	8.2	n.a.	11.3
Percent of total population of 14 year olds and over in the labor force.....	54.7	n.a.	55.7	n.a.
Median school years completed by persons 25 years and over.....	8.2	n.a.	9.9	n.a.

a/ The 1970 population by magisterial district was Ashby District 3,820, Davis District 5,582, Johnston District 2,486, Lee District 3,045, Madison District 3,416 and Stonewall District 4,503.

n.a. - not available

Note: Details may not add to totals due to rounding.

Sources: U. S. Bureau of the Census, Census of Population, 1960, Vol. I, Characteristics of the Population, Part 48, Virginia, (Washington: Government Printing Office, 1963); U. S. Bureau of the Census, 1970 Census of Population, PC(V2)-48, General Population Characteristics, Virginia, (Washington: Government Printing Office, February, 1971); University of Virginia, Bureau of Population and Economic Research, Estimates of the Population of Virginia Counties and Cities: July 1, 1971 (Provisional), (Charlottesville: University of Virginia, November, 1971)

SECTION III - HOUSING

Table 2.--Selected Housing Statistics for Shenandoah County, 1970

Item	Shenandoah County	Virginia	Percent of State
All housing units.....	8,752	1,491,663	0.6
Year around housing units.....	8,686	1,483,026	0.6
Vacant-seasonal and migratory....	66	8,637	0.8
Persons per unit occupied.....	3.0	3.2	93.8
Ownership.....	3.0	3.3	91.0
Rental.....	3.1	3.0	103.3
Units in structure:			
One unit.....	7,603	1,110,016	0.7
Two units or more.....	807	326,496	0.2
Mobile home or trailer.....	276	46,514	0.6

Source: U. S. Bureau of the Census, 1970 Census of Housing, HC(V1)-48, General Housing Characteristics, Virginia, (Washington: Government Printing Office, February, 1971).

Table 3.--Tenure, Race, Value, and Contract Rent in Shenandoah County, 1970

Item	Number of Housing Units		Percent Distribution of Housing Units	
	Shenandoah County	Virginia	Shenandoah County	Virginia
Tenure and Race:				
Owner Occupied.....	5,454	861,867	100.0	100.0
White.....	5,390	746,619	98.8	86.6
Negro.....	61	113,126	1.1	13.1
Other race.....	3	2,122	0.1	0.2
Renter Occupied.....	2,058	528,360	100.0	100.0
White.....	2,025	417,603	98.4	79.0
Negro.....	31	106,941	1.5	20.2
Other race.....	2	3,816	0.1	0.7
Value: Specified				
Owner Occupied				
Less than \$5,000	931	49,590	20.1	7.1
\$5,000 to \$9,999	1,420	103,276	30.7	14.8
\$10,000 to \$14,999	936	136,571	20.2	19.6
\$15,000 to \$19,999	626	129,246	13.5	18.5
\$20,000 to \$24,999	331	90,874	7.1	13.0
\$25,000 to \$34,999	253	99,608	5.5	14.3
\$35,000 to \$49,999	99	62,585	2.1	9.0
\$50,000 or more	36	25,454	0.8	3.6
Total	4,632	697,204	100.0	100.0
Contract Rent: Specified				
Renter Occupied				
Less than \$40	686	50,923	34.7	10.5
\$40 to \$59	428	65,425	21.7	13.4
\$60 to \$79	239	70,971	12.1	14.6
\$80 to \$99	88	56,543	4.5	11.6
\$100 to \$119	82	48,437	4.1	10.0
\$120 to \$149	82	73,074	4.1	15.0
\$150 to \$199	14	59,828	0.7	12.3
\$200 or more	1	22,239	0.1	4.6
No cash rent	356	38,857	18.0	8.0
Total	1,976	486,297	100.0	100.0

Note: Details may not add to totals due to rounding.

Source: U. S. Bureau of the Census, 1970 Census of Housing, HC(V1)-48, General Housing Characteristics, Virginia, (Washington: Government Printing Office, February, 1971).

SECTION IV - INCOME

Table 4.--Income Measures

	Shenandoah County	Virginia
Total personal income:		
1960 (\$000).....	\$32,364	\$ 7,339,300
1967 (\$000).....	\$57,441	\$12,778,000
Per capita income:		
1960.....	\$ 1,483	\$ 1,856
Ratio to state average.....	.80	1.00
1967.....	\$ 2,453	\$ 2,777
Ratio to state average.....	.88	1.00
1959 family income:		
Median.....	\$ 3,812	\$ 4,964
Ratio to state average.....	.77	1.00
Percent less than \$3,000.....	22.1	27.9
Percent \$10,000 and over.....	6.2	13.2

Sources: U. S. Bureau of the Census, Census of Population, 1960, Vol. I, Characteristics of the Population, Part 48, Virginia, (Washington: Government Printing Office, 1963); University of Virginia, Bureau of Population and Economic Research, Personal Income of Virginia Counties and Cities, 1960, 1965, and 1967, (Charlottesville: University of Virginia, 1969), Tables I and II.

Table 5.--Adjusted Gross Taxable Income for Shenandoah County 1969^{a/}

<u>Item</u>	<u>Shenandoah County</u>
Source of income:	
Gross wages ^{b/}	\$40,587,851
Dividends ^{b/}	4,292,780
Business gain or loss.....	2,818,633
Capital gain ^{c/}	1,337,107
Net farm.....	261,533
Adjusted gross taxable income.....	\$49,297,904
Income per tax return.....	\$ 4,922
Income per tax return as a percent of the state average of \$6,802.....	72.4

Note: Details may not add to totals due to rounding.

^{a/} Adjusted gross taxable income refers to adjusted gross income for state tax purposes as defined by the Virginia state tax law. There is a distinction between adjusted gross taxable income and total personal income. Not included in adjusted gross taxable income but in total personal income are military income of non-Virginia residents, income in kind, unreported income under \$1,000, transfer payments, other labor income (which is workmen's compensation and military reservist's pay minus personal contributions for social insurance and private pensions). Adjusted gross taxable income includes capital gains, but total personal income does not.

^{b/} Includes dividends, interest, rents and royalties, annuities or pensions, and the income from partnerships, estates and trusts.

^{c/} Capital gain is the net gain (or loss) incurred from the sale or exchange of real estate, stocks, bonds and other personalty.

Source: Commonwealth of Virginia, Department of Taxation, Income of Resident and Nonresident Individuals and Fiduciaries for the Taxable Year 1969, (unpublished tables).

SECTION V - LABOR RESOURCES

WORK FORCE

Table 6.--Work Force Data for Shenandoah County^{a/}

<u>Item</u>	<u>March 1960</u>	<u>March 1970</u>	<u>Percent Change 1960-70</u>
Population.....	21,825	22,852	4.7
Civilian work force.....	7,773	9,795	26.0
Percent of population.....	35.6	42.9	...
Unemployment.....	522	408	-21.8
Percent of work force.....	6.7	4.2	...
Employment.....	7,251	9,387	29.5
Nonagricultural employment.....	5,731	8,495	48.2
Manufacturing.....	1,848	3,452	86.8
Nonmanufacturing.....	2,682	3,784	41.1
Contract construction.....	183	192	5.0
Trans. & public utilities.....	414	433	4.6
Wholesale and retail trade.....	829	1,387	67.3
Finance, insurance & real estate....	118	185	56.8
Service.....	531	767	44.4
Government.....	570	767	34.6
All other nonmanufacturing ^{b/}	37	53	43.2
All other nonagricultural ^{c/}	1,201	1,259	4.8
Agricultural.....	1,520	892	-41.3

* Figures withheld to avoid disclosure of individual operations.

^{a/} Employment data are based on place of work rather than place of residence.

^{b/} Includes employment in nonmanufacturing industries noted by an asterisk.

^{c/} Includes self-employed, unpaid family workers, and domestic workers in private households.

Source: Virginia Employment Commission, Division of Research, Statistics, and Information.

WAGES

Table 7.--Average Number of Establishments, Average Employment, Total Wages, and Average Wage Per Employee for the 12 Month Period Ending January 1, 1971^{a/}

Item	Construction	Manufacturing	Trade	Services	Total ^{b/}
Shenandoah County					
Average no. of establishments	25	36	85	27	173
Average employment	199	3,494	1,163	322	5,178
Total wages	\$1,059,613	\$17,518,282	\$5,256,764	\$1,285,196	\$25,119,855
Average wage per employee	\$5,325	\$5,014	\$4,520	\$3,991	\$4,851
Percent of county to state average wage	71.4	76.0	84.5	73.7	77.2
State average wage per employee	\$7,457	\$6,595	\$5,346	\$5,414	\$6,287

a/ Coverage includes nonagricultural employers having four or more workers for 20 weeks within a calendar year. It excludes government, railroad, self-employed, domestic service, unpaid family workers, and some nonprofit organizations.

b/ Total includes other employment sectors in addition to those shown.

Source: Virginia Employment Commission, Covered Employment and Wages, (selected quarters).

WORK RESIDENCE INFORMATION

Table 8.--Work Residence Information for Shenandoah County, April 1960

	Number	Percent of Total
Total resident workers reporting a place of work ^{a/}	7,765	100.0
Places of work reported:		
Shenandoah County.....	6,153	79.2
<u>Out-Commuters from Shenandoah County</u>		
Hardy County, West Virginia.....	4	0.1
Frederick County-Winchester City.....	311	4.0
Warren County.....	531	6.8
Page County.....	24	0.3
Rockingham County-Harrisonburg City.....	340	4.4
Clarke County.....	20	0.3
Fauquier County.....	9	0.1
Elsewhere.....	373	4.8
Total.....	1,612	20.8
<u>In-Commuters to Shenandoah County</u>		
<u>Residence</u>		
Hardy County, West Virginia.....	4	
Frederick County-Winchester City.....	61	
Warren County.....	87	
Page County.....	26	
Rockingham County-Harrisonburg City.....	190	
Total.....	368	
Total out-Commuters = 1,612		
Total in-Commuters = 368		
Net out-Commuters = 1,244		

Note: Details may not add to totals due to rounding.

a/ Resident workers not reporting a place of work totaled 227.

Source: U. S. Bureau of the Census, Census of Population: 1960, (unpublished tabulations based on a 25 percent sample).

SECTION VI - MAJOR EMPLOYMENT SECTORS

MANUFACTURING

Table 9.--Measures of Manufacturing in 1967

Item	Shenandoah County	Virginia	Percent of State
Number of establishments:			
Total	49	4,938	1.0
With 20 or more employees	19	1,620	1.2
All employees:			
Total number (000)	2.2	339.8	0.6
Payroll (million dollars)	\$8.2	\$1,905.1	0.4
Production workers:			
Total number (000)	2.0	268.2	0.7
Man-hours (millions)	4.0	535.0	0.7
Wages (million dollars)	\$6.6	\$1,296.1	0.5
Average wage/hour	\$1.65	\$2.42	68.2
Value added by manufacture (million dollars)	\$18.2	\$4,067.7	0.4
Capital expenditures, new (million dollars)	\$1.2	\$347.0	0.3

Source: U. S. Bureau of the Census, 1967 Census of Manufactures, Virginia, MC67(3)-47, (Washington: U. S. Government Printing Office, 1970), Table 4.

MANUFACTURING

Table 10.--Major Manufacturing Establishments in Shenandoah County

Name	Location	Product	Approximate Employment ^a March, 1970
Rocco Farm Foods (formerly Blue Ridge Poultry and Egg, Co., Inc.)	Edinburg	Dressed poultry	250-499
Edinburg Manufacturing Company	Edinburg	Children's knitwear	100-249
Aileen Incorporated	Edinburg	Women's outerwear	500-999
McKinney & McKinney, Inc.	Edinburg	Lumber	20-49
Bowman Apple Products Co., Inc.	Mt. Jackson	Apple products	50-99
Concord Mobile Homes, Inc.	Mt. Jackson	Mobile homes	100-249
Blue Bell, Inc.	Mt. Jackson	Work clothing	250-499
Valley Fertilizer & Chemical Co., Inc.	Mt. Jackson	Fertilizer & chemical products	20-49
Aileen Incorporated	New Market	Women's outerwear	500-999
Harrisonburg Paper Box Co., Inc.	New Market	Paper cartons	20-49
Howell Metal Co.	New Market	Copper alloy tubing	50-99
Shenandoah Publishing House, Inc.	Strasburg	Newspaper	50-99
Stiching Unlimited	Strasburg	Dresses	50-99
Strasburg Textile Mills	Strasburg	Broad woven fabrics	50-99
Strasburg Manufacturing Company	Strasburg	Women's knitted blouses	100-249
Valley Milk Products Corporation	Strasburg	Milk products	20-49
Chemstone Corporation	Strasburg	Lime	50-99
F.M.C. Corporation	Woodstock	Machinery	50-99
Woodstock Manufacturing Corp.	Woodstock	Underwear and nightwear	100-249
Frye Furniture Company	Strasburg	Bedroom suites	20-49

^a/ Employment is given as a range in order not to reveal actual figures. The cut-off point for inclusion in the listing is 20.

Sources: Virginia Employment Commission; Virginia State Chamber of Commerce, Industrial Directory of Manufacturing in Virginia, (Richmond: Virginia State Chamber of Commerce, 1969); Commonwealth of Virginia, Division of Industrial Development, unpublished material.

RETAIL TRADE

Table 11.--Measures of Retail Trade in 1967

<u>Item</u>	<u>Shenandoah County</u>	<u>Virginia</u>	<u>Percent of State</u>
No. of establishments	315	32,315	1.0
Sales:			
Total sales (\$000)	\$27,566	\$6,150,202	0.4
Per capita sales ^{a/}	\$121	\$ 1,323	10.0
Total payroll (\$000)	\$2,977	\$ 709,339	0.4

1967 Total Sales (\$000)

<u>Item</u>	<u>Shenandoah County</u>
Lumber, building materials, and hardware.....	2,615
General merchandise.....	2,124
Food.....	5,923
Automotive.....	4,760
Gasoline stations.....	3,556
Apparel.....	361
Home furnishings & equipment.....	555
Drugs and sundries.....	983
All other.....	<u>6,689</u>
Total.....	27,566

* Withheld to avoid disclosure of individual operations and included in "all other."

^{a/} The population figure used in determining per capita sales is the 1970 Census of Population figure.

Sources: U. S. Bureau of the Census, 1967 Census of Business, Retail Trade, Virginia, BC67-RA48, (Washington: U. S. Government Printing Office, 1969), Table 3; U. S. Bureau of the Census, 1970 Census of Population, PC(VI)-48, Final Population Counts, Virginia, (Washington: Government Printing Office, December, 1970).

Table 12.--Taxable Sales for the Twelve Months Ending June 30, 1971^{a/}

<u>Item</u>	<u>Shenandoah County</u>	<u>Virginia</u>
Average number of registered dealers:		
12 months ending June 30, 1971.....	748	75,030
Percent of state average	1.0	100.0
Total taxable sales:		
12 months ending June 30, 1971.....	\$30,032,995	\$7,477,710,344
Percent of state total	0.4	100.0
Per capita sales ^{b/} :		
12 months ending June 30, 1971.....	\$ 133	\$1,609
Percent of state average	8.3	100.0

^{a/} Taxable sales and retail sales differ. Included in taxable sales but not in retail sales are equipment rentals; repairs; sales made by hotels, motels, and tourist camps; and a use tax on items which are purchased outside the state but brought into the state for final use. Included in retail sales but not in taxable sales are gasoline; automobiles; ABC store sales; sales to any branch of government or to certain state-franchised public utilities; certain sales to interstate airlines and shiplines; and sales by daily or periodic publications.

^{b/} The population figure used in determining per capita sales is the 1970 Census of Population figure.

Sources: Virginia Department of Taxation, Taxable Sales, Quarterly Report, (Richmond: Commonwealth of Virginia), selected quarters; U. S. Bureau of the Census, 1970 Census of Population, PC(VI)-48, Final Population Counts, Virginia, (Washington: Government Printing Office, December, 1970).

WHOLESALE TRADE

Table 13.--Measures of Wholesale Trade in 1967

<u>Item</u>	<u>Shenandoah County</u>	<u>Virginia</u>	<u>Percent of State</u>
No. of establishments	23	4,577	0.5
Total sales (\$000)	\$17,498	\$6,162,254	0.3
Total payroll (\$000)	\$ 1,076	\$ 339,005	0.3

Source: U. S. Bureau of the Census, 1967 Census of Business, Wholesale Trade, Virginia, BC67-WA48, (Washington: U. S. Government Printing Office, 1969), Table 4.

SELECTED SERVICES

Table 14.--Measures of Selected Services in 1967^{a/}

<u>Item</u>	<u>Shenandoah County</u>	<u>Virginia</u>	<u>Percent of State</u>
No. of establishments	174	19,986	0.9
Receipts:			
Total receipts(\$000)	\$ 3,778	\$835,314	0.5
Per capita receipts ^{b/}	\$ 17	\$ 180	9.4
Total payroll (\$000)	\$ 940	\$273,615	0.3

^{a/} Selected services cover hotels, motels, camps, trailer parks, personal services, miscellaneous business services, automobile repair and services, and garages. Also included are miscellaneous repair services, motion pictures, and amusement and recreation services. Nonprofit membership recreational services are excluded.

^{b/} The population figure used in determining per capita receipts is the 1970 Census of Population figure.

Sources: U. S. Bureau of the Census, 1967 Census of Business, Selected Services, Virginia, BC67-SA48, (Washington: Government Printing Office, 1967), Table 3; U. S. Bureau of the Census, 1970 Census of Population, PC(V1)-48, Final Population Counts, Virginia, (Washington: Government Printing Office, December, 1970).

AGRICULTURE

Table 15.--Selected Measures of Agriculture in Shenandoah County

<u>Item</u>	<u>1959</u>	<u>1964</u>
Number of farms.....	1,618	1,131
Commercial farms.....	665	587
Tenant farms.....	115	46
Percent of land area in farms.....	57.3	49.2
Average size of farms.....	115.0 acres	141.1 acres
Value of all farm products sold.....	\$9,008,150	\$9,738,298
Land in farms.....	185,996 acres	159,593 acres
Cropland.....	63,428 acres	60,157 acres
Woodland on farms.....	55,061 acres	40,519 acres
Pasture ^{a/}	61,572 acres	53,927 acres
Other land on farms.....	5,935 acres	4,990 acres

<u>Value of farm products sold, 1964</u>	<u>Number of farms</u>		<u>Percent Distribution of farms</u>	
	<u>County</u>	<u>Virginia</u>	<u>County</u>	<u>Virginia</u>
Under \$500.....	293	20,001	26.0	24.9
\$500 to \$999.....	147	10,952	13.0	13.6
\$1,000 to \$1,999.....	177	12,630	15.6	15.7
\$2,000 to \$4,999.....	250	16,555	22.1	20.6
\$5,000 to \$7,499.....	66	6,361	5.8	7.9
\$7,500 to \$9,999.....	48	3,529	4.2	4.4
\$10,000 to \$14,999.....	50	3,665	4.4	4.6
\$15,000 and over.....	100	6,661	8.8	8.3
Total	1,131	80,354	100.0	100.0

Principal sources of county farm income in 1964 were:

\$4,712,528 from poultry and poultry products.
 2,411,975 from livestock and livestock products, other than poultry and dairy.
 1,369,611 from dairy products.
 836,770 from fruits and nuts.

Note: Details may not add to totals due to rounding.

^{a/} Excludes woodland pasture.

Sources: U. S. Bureau of the Census, 1964 Census of Agriculture, Virginia, Volume 1, Part 24, (Washington: U. S. Government Printing Office, 1967), Tables 1 and 6; 1959 Census of Agriculture, Virginia, Volume 1, Part 24, (Washington: U. S. Government Printing Office, 1961), Tables 1 and 6.

SECTION VII - GOVERNMENT

TYPE

Shenandoah County, like other Virginia counties, has recently undergone a redistricting process in order to comply with the one-man-one-vote principle. The county retained the magisterial district boundaries as they were for tax and real estate purposes. They have established three election districts, South, Central and North, from which two representatives, or supervisors, have been elected to serve on the county board of supervisors. These changes became effective January 1, 1972. The supervisors serve for a period of four years. These men have no election district functions, but collectively, as the board of supervisors, they are responsible for the administrative and financial affairs of the county. They meet once a month, or more often if necessary, at the courthouse in Woodstock. These meetings are open to the public. Other county officials are chosen by the electorate of the entire county, including the incorporated towns, which are politically a part of the county and the district, or districts, in which they are located.

Since Edinburg, Mount Jackson, New Market, Strasburg, Toms Brook and Woodstock are incorporated towns they are part of the county and the ordinances and regulations of the county are effective in them. Each of the towns has its own town government under the direction of a mayor and town council elected by the voters of the town only. Strasburg and Woodstock have adopted the town manager form of government in which the town council appoints a manager who acts as the administrative head of the town government. Council retains the legislative powers. Since residents of the town are affected by two governments -- both town and county -- the qualified electorate vote for officials of the two governing bodies. However, county residents do not vote for, or come under, the government of the towns.

PLANNING ACTIVITIES

Shenandoah County is a member of the Lord Fairfax Planning District Commission. This commission also includes the counties of Page, Warren, Clarke and Frederick and the city of Winchester. This commission is staffed and operating. The county has a local planning commission composed of eight members and has adopted subdivision regulations.

The towns of Mount Jackson, New Market, Strasburg and Woodstock all have local planning commissions. Strasburg and Woodstock have both adopted a comprehensive plan and zoning and subdivision regulations.

PUBLIC SAFETY

Police protection - The county sheriff and his deputies and the police force of each of the towns in the county provide police protection for the area. Troopers of the Virginia State Police are assigned to Shenandoah County and give assistance to the local police agencies in the investigation of all criminal activities and in patrolling the highways. The Sheriff's Department has teletype and two-way radio equipment and all officers in the towns and county have patrol cars which are radio equipped.

Fire protection - Shenandoah County residents are afforded excellent fire protection by nine volunteer companies located in the towns of Edinburg, Mount Jackson, New Market, Strasburg, Toms Brook and Woodstock in the community of Orkney Springs and in Powell's Fort Valley and Conicville. All of these companies have one or more pump trucks, two have water trucks and two have trucks for carrying personnel. Mount Jackson has a portable electric generator for lights. With the exception of Orkney Springs, Powell's Fort Valley and Conicville each of the pump trucks is equipped with two-way radios. Members have received training in fire-fighting, first aid and rescue work and the Woodstock Company has an ambulance.

Rescue squads - Rescue squads have been organized at Woodstock, Mount Jackson and Strasburg and private ambulances are available in all six of the incorporated towns.

SECTION VIII - LOCAL FINANCES

FISCAL STATEMENT FOR COUNTY OF SHENANDOAH

Table 16.--Consolidated Statement of Fund Accounts
for the Year Ended June 30, 1970

Description	Amount	Percent of Total Credits
Adjusted Balance July 1, 1969	\$ 509,826	...
<u>Credits</u>		
Revenue: ^{a/}		
From local sources	1,507,182	43.6
From the commonwealth	1,751,708	50.7
From the federal government	148,538	4.3
Total revenue	\$3,407,428	98.7
Nonrevenue ^{b,c/}	46,055	1.3
<u>Total credits</u>	\$3,453,483	100.0
<u>Total credits and balance</u>	\$3,963,309	
<u>Debits</u>		
Government operating expenses	\$ 505,828	14.2
School operating expenses	2,509,757	70.3
Capital outlays	424,667	12.0
Interest and other debt costs	24,567	0.7
Redemption of debt ^{c/}	103,000	2.9
Refund of taxes	57	0.0
<u>Total debits</u>	\$3,567,876	100.0
<u>Balance, June 30, 1970</u>	\$ 395,433	

Note: Details may not add to totals due to rounding.

a/ The annual or periodic collection of taxes and appropriations from the state and federal governments and sums from other sources which increase the cash of a fund but do not increase a liability or a reserve of the fund.

b/ Nonrevenue includes the additions to cash other than those from revenue sources such as receipts from the sale of assets or bonds and the recovery of expenditures. Proceeds of temporary loans made for operating purposes are not included.

c/ In contrast to state fiscal statements where borrowing and debt redemption are not treated as revenues and expenditures, borrowing is here treated as a current credit (nonrevenue), and the redemption of debt as a current expenditure.

Source: Auditor of Public Accounts; County of Shenandoah, Virginia: Report on Audit for the Fiscal Year Ended June 30, 1970; (Auditor of Public Accounts, Richmond, Virginia, August, 1971).

ASSESSED VALUE AND NET DEBT

Table 17.--Total Assessed Value and Net Debt in Shenandoah County

1969 Total Assessed Value ^{a/}	1969 Net Debt ^{b/}	Percent of Net Debt to Total Assessed Value
\$53,082,035	\$899,904	1.7

a/ Total assessed value of all locally taxable property for the tax year 1969.

b/ Net debt as of June 30, 1969.

Sources: Department of Taxation, Report of the Department of Taxation to the Governor of Virginia for the Fiscal Year Ending June 30, 1970, (Richmond: October, 1970); Auditor of Public Accounts, Report of the Auditor of Public Accounts of the Commonwealth of Virginia on the Comparative Cost of Local Government for the Fiscal Year Ended June 30, 1969, (Richmond: 1971), Exhibit C.

TOTAL TAX LEVIES

Table 18.--Total Assessed Value and Total Levies Collected
from All Locally Taxable Property in Shenandoah County, 1969

Type of Tax	Assessed Value, 1969	Local Levies 1969 ^{a/}
Real estate	\$29,412,340	\$ 647,071
Tangible personal property.....	7,164,645	186,281
Public service corporations ^{b/}	5,842,588	131,338
Machinery and tools.....	5,925,198	91,840
Merchants' capital.....	4,737,264	28,424
<u>Total</u>	\$53,082,035	\$1,084,954

a/ Town levies imposed by incorporated towns for town purposes are not included.

b/ Public service corporations are taxed on real estate and tangible personal property.

Source: Department of Taxation, Report of the Department of Taxation to the Governor of Virginia for the Fiscal Year Ending June 30, 1970, (Richmond: October, 1970).

REAL ESTATE

Table 19.--Real Estate Assessment Ratios and Property Tax Rates

Area	1971 Nominal Tax Rate Per \$100	1971 Assessment Ratio	Effective True Tax Rate Per \$100
Shenandoah County	\$2.20	.25	\$.55
Towns ^{a/}			
Edinburg	1.50	...	...
Mount Jackson	1.50	.25	.38
New Market	1.50	.25	.38
Strasburg	1.20	.25	.30
Toms Brook ^{b/}	.50	...	...
Woodstock	1.30	...	...

a/ Levies are for town purposes only and are in addition to the basic county levy.

b/ Tax rate shown is for 1970 tax year.

Sources: County Commissioner of the Revenue; Town Treasurers. Bulletin No. 125; Local Tax Rates Tax Year 1970; (Commonwealth of Virginia, Department of Taxation).

MACHINERY AND TOOLS

Table 20.--Tax Rates and Assessment Ratios for Machinery and Tools

Area	1971 Nominal Tax Rate Per \$100	1971 Assessment Ratio ^{a/}	Effective True Tax Rate Per \$100
Shenandoah County	\$1.55	...	...
Towns ^{b/}			
Edinburg	*	...	...
Mount Jackson	*	...	...
New Market	*	...	...
Strasburg	1.20	...	...
Toms Brook	*	...	...
Woodstock	1.00	...	...

a/ Assessed as ratio to cost in the county, ratio to fair market value in the town of Strasburg.

b/ Levies are for town purposes only and are in addition to the basic county levy.

* The towns of Edinburg, Mount Jackson, Toms Brook and New Market do not levy a tax on machinery and tools.

Sources: County Commissioner of the Revenue; Town Treasurers.

TANGIBLE PERSONAL PROPERTY

Table 21.--Tangible Personal Property Tax^{a/}

Area	1971 Nominal Tax Rate Per \$100	1971 Assessment Ratio ^{b/}	Effective True Tax Rate Per \$100
Shenandoah County	\$2.60	.40	\$1.04
Towns ^{c/}			
Edinburg	1.50	...	...
Mount Jackson	1.50	.40	.60
New Market	2.00	.40	.80
Strasburg	1.20	.40	.48
Toms Brook ^{d/}	.50	...	...
Woodstock	2.00	...	...

a/ Tangible personal property includes motor vehicles, boats and motors, trailers, farm machinery and tools, livestock and business furniture and fixtures. The tangible personal property of manufacturing establishments such as office furniture and fixtures, trucks and company cars are not taxed locally. A manufacturer is taxed on these items at the state rate of 30¢ per \$100 book value.

b/ Assessed as ratio to fair market value.

c/ Levies are for town purposes only and are in addition to the basic county levy.

d/ Tax rate shown is for 1970 tax year.

Sources: County Commissioner of the Revenue; Town Treasurers; Bulletin No. 125; Local Tax Rates Tax Year 1970; (Commonwealth of Virginia, Department of Taxation).

MERCHANTS' CAPITAL TAX

Table 22.--Merchants' Capital Tax^{a/}

Area	1971 Nominal Tax Rate Per \$100	1971 Assessment Ratio ^{b/}	Effective True Tax Rate Per \$100
Shenandoah County	\$.60	1.00	\$.60
Towns ^{c/}			
Edinburg	*	...	...
Mount Jackson	.20	1.00	.20
New Market	*	...	...
Strasburg	1.20	1.00	1.20
Toms Brook	*	...	...
Woodstock	*	...	...

a/ Merchants' capital is defined as inventory of stock on hand, the excess of bills and accounts receivable over bills and accounts payable, and all other taxable personal property not offered for sale as merchandise. (This tax applies mainly to retailers and wholesalers. A manufacturer is taxed on these items at the state rate of 30¢ per \$100 of book value.)

b/ Assessed as ratio to cost in the county; ratio to wholesale value in the town of Mount Jackson.

c/ Levies are for town purposes only and are in addition to the basic county levy.

* The towns of Edinburg, New Market, Toms Brook and Woodstock do not levy a merchants' capital tax.

Sources: County Commissioner of the Revenue; Town Treasurers.

OTHER TAXES

License Taxes - Shenandoah County does not levy either a merchant's license or professional-occupational license tax. However, the towns of Edinburg, Mount Jackson, New Market, Strasburg and Woodstock all levy both merchant's license and professional-occupational license taxes.

Utility Taxes - The town of Woodstock levys a utility tax on all residential and commercial electric bills, residential gas bills and all residential and commercial telephone bills.

Motor Vehicle License Tags - The county does not issue local motor vehicle license tags. However, the towns of Edinburg, Mount Jackson, New Market, Strasburg and Woodstock all have local auto tags. The towns of Edinburg, Mount Jackson, New Market and Strasburg charge \$5.00 for auto and truck tags. The town of Woodstock charges \$10.00 for auto and truck tags. In addition Edinburg charges \$3.00 for motorcycle tags. Mount Jackson charges \$1.50 for motorcycle tags and \$1.75 for two-wheel trailer tags. Strasburg charges \$.25 for bicycle tags and \$5.00 for motorcycle tags.

Miscellaneous Taxes - The town of New Market levys a bank stock tax. The town of Strasburg has a charge for trash service.

SECTION IX - TRANSPORTATION

HIGHWAY

U. S. Route 11, an arterial road running the entire length of the Shenandoah Valley and connecting Virginia with points north and south, runs through the county's central valley passing through each of the incorporated towns. Interstate Highway 81 has 7 interchanges in the county and roughly parallels Route 11. Planned Interstate 66 from Washington, D. C. will intersect 81 just north of Strasburg. State Route 55 passes east-west through Strasburg and U. S. 211 from Washington, D. C. cuts across the southern tip of the county connecting with U. S. 11 at New Market. Other state primary and secondary roads connect all parts of the county with these principal routes.

Trucking - Fast interstate motor freight to all parts of the nation is provided by 13 trucking companies authorized to operate in the area. Most of the national trucking companies have routes through the county and six have offices and facilities either in Shenandoah or adjacent counties. Two of these motor lines also operate regular intrastate service. Several locally owned truck companies operate in the county.

Bus - Passenger bus service is supplied by Greyhound Bus Lines on the run between Washington, D. C., Roanoke, Virginia and Knoxville, Tennessee. Five daily schedules are provided in each direction. Two locally owned charter bus companies operate on an interstate basis.

RAILROADS

A branch of the Southern Railway from Harrisonburg in adjacent Rockingham County to Washington, D. C. closely parallels U. S. Route 11 through the county. This line passes through or near each of Shenandoah County's towns and has a junction with the Baltimore and Ohio Railroad near Strasburg. Daily freight service is available from all points on these lines.

AIRPORTS

The nearest airport offering commercial airline service is Shenandoah Valley Airport (near Weyers Cave in Augusta County) where Piedmont Airlines offers several flights daily to Washington, D. C., Lynchburg and Roanoke and connections to all parts of the nation and the world. This field has one 6,000 foot hard surface runway which is lighted from dusk to dawn. It is attended during the daylight hours and offers fuel, repairs, charter service, rent-a-car and surface transportation. Food and lodging are also available. Residents of the county are within an hour and a half's drive of Dulles International Airport in eastern Loudoun County which is served by several national and international airlines. This major airfield provides modern facilities and multiple services and brings jet travel within easy reach of Shenandoah County.

There are two small airfields in Shenandoah County. The Mount Jackson Airport at Mount Jackson has a sod runway 2,700 feet in length and in the western corner of the county Bryce's Airport near Bayse has a hard surfaced runway of 2,400 feet. This field provides rotating beacon, runway lighting and unicom. Surface transportation is available.

Small airports in adjacent counties are Aspen Hill Farms Airport with a 1,800 foot sod runway and Stokes Field with a 3,100 foot runway located near Front Royal, Warren County. Winchester Municipal Airport, in Frederick County to the north, has a 3,600 foot hard surfaced runway which is lighted upon request. Stokes Field and Winchester Airport are attended during the day and offer fuel, repairs, charter service, telephone and surface transportation. Food and lodging are available nearby at all of the airports.

SECTION X - UTILITIES

WATERWORKS SYSTEMS

The town of Edinburg owns its own water system supplied by three mountain streams and a well as an auxiliary source. The water is chlorinated and the safe dry weather yield from all sources is 300,000 gallons per day. The total finished water storage in the distribution system is 500,000 gallons. The average daily usage is 90,000 gallons and average water hardness is about 25 mg/l from the mountain sources and about 200 mg/l from the well.

The town of Mount Jackson obtains its water from two mountains streams and two wells. The safe dry weather yield of the wells is about 84 gallons per minute and that of the mountain supply is 75,000 gallons per day. The wells pump directly to the distribution system which has a total finished water storage of 2.7 million gallons. All water is chlorinated. Average finished water hardness of the mountain supply is 25 mg/l and of the well 90 mg/l. Average daily usage is 70,000 gallons per day.

The town of New Market obtains its water from two sources; a drilled well and Smith Creek. Water from the well is chlorinated. Smith Creek water is coagulated, flocculated, settled, filtered and chlorinated in a water treatment plant having a design capacity of 300 gallons per minute. The well has a safe yield in excess of 250 gallons per minute. The total finished water storage in the distribution system is 500,000 gallons. Hardness of the Smith Creek water after treatment is 120 mg/l and of the well approximately 110 mg/l. Average daily usage is in excess of 500,000 gallons.

The town of Strasburg owns its own water system. Water is obtained from two sources; one being a 43.5 million gallon open reservoir located in the Massanutten Mountain and the other the North Fork Shenandoah River. Water from the Massanutten Mountain flows by gravity to the distribution system and is chlorinated. The water from the North Fork Shenandoah River is coagulated, flocculated, settled, filtered and chlorinated in a plant having a design capacity of 0.57 million gallons per day. Total finished water storage in the distribution system is 228,000 gallons. Average finished water hardness is 24 mg/l and average daily usage is 350,000 gallons.

The town of Woodstock owns its own water supply system. The water source is Little Stoney Creek which has a drainage area of approximately 12 square miles above the impounding reservoir which has a capacity of 36 million gallons. The water flows by gravity to the distribution system and is chlorinated and treated for corrosion control. Average daily usage is 425,000 gallons and the hardness is about 25 mg/l. A 400,000 gallon concrete reservoir furnishes water storage.

In addition to the above there are in the county nine small water supplies either in use or under development to serve, or will serve, industries. Wells supply the systems which furnish water for domestic purposes as well as industrial use. Average finished water hardness of the well water in this area is about 100 mg/l. Storage on this system varies depending on demands but in all cases is adequate.

SEWERAGE SYSTEMS

The town of Edinburg owns its own sewerage collection and treatment system. The system provides primary treatment with chlorination. It is designed to handle a flow of 100,000 gallons per day. The average daily flow is 85,000 gallons per day.

The town of Mount Jackson owns its own collection and treatment facilities. The treatment facilities provide primary treatment with chlorination and have a design capacity of 150,000 gallons per day. The average daily flow is 110,000 gallons.

Source: Virginia Department of Health.

The town of Strasburg owns its own collection and treatment facility. The treatment facility provides secondary treatment with chlorination and is designed for a flow of 300,000 gallons per day. Daily flow averages 400,000 gallons.

The town of New Market owns its own treatment facility which provides secondary treatment with chlorination. The facility is designed to handle a flow of 300,000 gallons per day. The average daily flow is in excess of 350,000 gallons.

The town of Woodstock owns its own collection and treatment facilities. The treatment facilities provide secondary treatment with chlorination and are designed to handle a flow of 300,000 gallons per day. Daily flows average 500,000 gallons.

WATER AND SEWERAGE RATES

Edinburg

Water Rates (Quarterly):

Inside Town

First 10,000 gallons	\$7.00 minimum charge
Next 15,000 gallons	.60 per 1,000
Next 25,000 gallons	.50 per 1,000
All additional	.27 per 1,000

Outside Town

50 percent more than inside town.

Sewerage Rates (Quarterly):

Inside Town

First 10,000 gallons	\$8.00 minimum charge
All additional	same rates as water

Outside Town

50 percent more than inside town.

Mount Jackson

Water Rates (Monthly):

Inside Town

First 2,000 gallons	\$2.00 minimum charge
Next 5,000 gallons	.60 per 1,000
Next 10,000 gallons	.50 per 1,000
All additional	.40 per 1,000

Outside Town

Rates are 33 1/3 percent more than inside town.

Sewerage Rates (Monthly):

Inside Town

Rates are 75 percent of the water rates.

Outside Town

Rates are 33 1/3 percent more than inside town.

New Market

Water Rates (Quarterly):

Inside Town

First 5,000 gallons	\$6.00 minimum charge
Next 10,000 gallons	.60 per 1,000
Next 20,000 gallons	.55 per 1,000
Next 40,000 gallons	.45 per 1,000
Next 75,000 gallons	.40 per 1,000
All additional	.25 per 1,000

Outside Town

First 5,000 gallons	\$9.00 minimum charge
Next 10,000 gallons	.90 per 1,000
Next 20,000 gallons	.825 per 1,000
Next 40,000 gallons	.675 per 1,000
Next 75,000 gallons	.60 per 1,000
All additional	.25 per 1,000

Sewerage Rates (Quarterly):

Inside and Outside Town

50 percent of the water bill.

Strasburg

Water Rates (Quarterly):

Inside Town

Domestic rates:

First 12,000 gallons	\$7.50 minimum charge
All additional	.32 per 1,000

Commercial rates:

First 18,000 gallons	\$7.50 minimum charge
Next 30,000 gallons	.35 per 1,000
Next 50,000 gallons	.30 per 1,000
Next 200,000 gallons	.25 per 1,000
Next 500,000 gallons	.20 per 1,000
All additional	.15 per 1,000

Outside Town

Rates are 40 percent more than inside town.

Sewerage Rates (Quarterly):

Inside Town

Rates are 60 percent of the water bill.

Outside Town

Rates are 40 percent more than inside town.

Woodstock

Water Rates (Quarterly):

Inside Town

Under 3,000 gallons	\$4.50 minimum charge
3,000 to 10,000 gallons	7.00 minimum charge
Next 15,000 gallons	.50 per 1,000
Next 25,000 gallons	.40 per 1,000
Next 50,000 gallons	.35 per 1,000
Next 100,000 gallons	.25 per 1,000
All additional	.20 per 1,000

Outside Town

Rates are 100 percent more than inside town.

Sewerage Rates (Quarterly):

Inside Town

First 10,000 gallons	\$5.00 minimum charge
Next 20,000 gallons	.35 per 1,000
Next 20,000 gallons	.30 per 1,000
Next 50,000 gallons	.25 per 1,000
Next 100,000 gallons	.20 per 1,000
All additional	.20 per 1,000

Outside Town

Rates are 25 percent more than inside town.

ELECTRICITY

Shenandoah County is supplied electricity by two privately owned companies and one REA Cooperative. The Virginia Electric and Power Company, the largest electric utility in Virginia, serves five of the six incorporated towns and almost half of the county area. Division and district offices of this company are in Charlottesville and an area office is in Woodstock. The northern part of the county and the town of Strasburg receive electric power from the Northern Virginia Power Company, which has district offices in Winchester and a local office in Strasburg. The Shenandoah Valley Electric Cooperative services the remaining portion of the county. It receives power from VEPCO's transmission system and its main office is in the town of Dayton in Rockingham County.

NATURAL GAS

Two 26-inch natural gas transmission pipelines of the Atlantic Seaboard Corporation pass through the center of the county and one 24-inch transmission line of this same corporation crosses the southwestern corner. There is a 2-inch pipeline supplying gas to Chemstone Corporation near Strasburg and gas is delivered in the town of Strasburg. The county is within the franchise area of the Shenandoah Gas Company and this company provides natural gas distribution to industries and homes within the county.

SECTION XI - EDUCATION

PUBLIC SCHOOLS

Table 23.--Selected Public School Information

<u>Item</u>	<u>Shenandoah County</u>	<u>Virginia</u>
Number of children in 1970, Ages 7-19	5,384	1,192,883
Enrollment, 1969-70 ^{a/}	5,219	1,128,921
Gross average daily attendance, 1969-70 ^{b/}	4,789	1,002,961
Cost of operation per pupil in gross average daily attendance, 1969-70 ^{c/}	\$521	\$ 644
Pupil-teacher ratio, 1969-70 ^{d/}	22.6	22.5
Average annual teacher salary, 1969-70 ^{e/}	\$7,021	\$8,070
High school enrollment, 1969-70 ^{f/}	2,012	398,349
High school graduates, 1969-70	320	56,006
High school dropouts, 1969-70 ^{g/}	71	17,872
Percent of high school graduates going to college, 1970	43.0	59.0
Percent of high school graduates continuing education in other than college, 1970	17.0	10.0

^{a/} Total number of pupils admitted to the school system; state figure adjusted to exclude double counting for transfers from one school system to another.

^{b/} Average daily attendance (ADA) of all schools in the county, plus ADA of pupils for whom the area pays tuition, minus ADA of pupils for whom tuition is received.

^{c/} Debt service and capital outlay excluded. The state figure is a weighted mean.

^{d/} Average number of day school pupils per classroom teaching position.

^{e/} Classroom teaching position (excludes supervisors, principals and head teachers).

^{f/} State figure adjusted to exclude double counting for transfers from one school system to another.

^{g/} Pupils who drop out during the school term; summer dropouts are not included.

Sources: State Board of Education, Superintendent of Public Instruction, Annual Report, 1969-1970, (Richmond: State Board of Education, December, 1970); State Department of Education, Division of Educational Research and Statistics, Virginia High School Dropouts, 1969-1970, (Richmond: State Department of Education, October, 1970); State Department of Education, Facing Up: Statistical Data on Virginia's Public Schools, No. 5, (Richmond: State Department of Education, January, 1971); U. S. Bureau of the Census, 1970 Census of Population, PC(V2)-48, General Population Characteristics, Virginia, (Washington: Government Printing Office, February, 1971).

PRIVATE SCHOOLS

There are two accredited privately operated secondary schools in the county, Shenandoah Valley Academy (coeducational) near New Market and Massanutten Military Academy in Woodstock.

VOCATIONAL-TECHNICAL SCHOOLS

Two high schools in the county offer classes in the Industrial Cooperative Training Program which is designed to train young people for the occupations available in their communities. Part-time classes in the school are coordinated with part-time work in local industrial establishments. The high schools at Mount Jackson and Strasburg offer courses in drafting. Triplett Business and Vocational School at Mount Jackson offers many technical and vocational courses. Lord Fairfax Community College also offers a number of technical courses.

HIGHER EDUCATION

Shenandoah County has a number of facilities for higher education available to its residents, although there are none actually in the county. In adjoining Rockingham County there are three excellent four-year colleges. Madison College, which is for women and emphasizes mainly teaching, and Eastern Mennonite College, offering a variety of liberal arts courses, are both located in Harrisonburg. Eastern Mennonite also has a very fine school of nursing, which offers a baccalaureate degree in nursing. Bridgewater College in Bridgewater is another fine coeducational school. All three of these schools offer courses leading to B. S. and B. A. degrees. In Winchester in adjoining Frederick County is the Shenandoah Conservatory of Music, a four-year school offering degrees in music only, and Shenandoah College, a junior college, offering two years of college work. The University of Virginia offers some extension courses at Woodstock.

Shenandoah County is in the 15th region for community colleges in Virginia. This region also includes the counties of Page, Warren, Clarke, Frederick, Rappahannock and part of Fauquier and the city of Winchester. Lord Fairfax Community College in Frederick County about eight miles north of Strasburg serves this region. It offers a number of technical courses and two-year courses in which an associate (2-year) degree may be earned. The work obtained here may also be transferred to a four-year college and applied as the first two years toward a bachelor's degree.

SECTION XII - RECREATION

The natural assets of Shenandoah County make possible many types of recreation. George Washington National Forest extends over the mountainous sections along both the eastern and western boundaries of the county and offers scenic drives, hiking trails, picnic and camp areas and hunting and fishing. Deer are very plentiful and each year nearly 2,000 are killed by hunters who flock to this county. Wild turkey and small game are also abundant. The sportsman also finds excellent fishing in the many streams which have been stocked by the Commission of Game and Inland Fisheries. Brook, rainbow and brown trout abound in the mountain streams and crappie, bream, pickerel and several species of bass are found in the North Fork Shenandoah River.

One of the state's most beautiful drives follows Passage Creek through Powell Fort Valley in the Massanutten Mountain range in the eastern part of the county. The National Forest Service maintains picnic grounds at Elizabeth Furnace, an old iron furnace on Passage Creek, and in Little Fort, the valley between Three Top Mountain and Green Mountain. A road from Woodstock into Fort Valley passes over Powell's Mountain near a viewing tower from which one can see the seven horseshoe bends of the North Fork Shenandoah River as it winds its way through the valley 1,000 feet below and beyond the valley the ridges of North Mountain which forms the western boundary of the county. Other beautiful drives lead into the Massanutten Mountains from near Mount Jackson and through Edinburg Pass. Thrilling views of the valley may be had from the road over Little North Mountain into Cedar Creek Valley.

Shenandoah County has many summer camps with swimming facilities and playfields. Near Columbia Furnace is Camp Strawderman, a large camp for girls and in Little Fort Valley is a camp operated by religious and civic groups. Camps for boys are Camp Lupton near Woodstock, Camp Bear Wallow near Orkney Springs, Camp St. George at Shrine Mont near Orkney Springs and Happy Gap Camp which is west of Woodstock.

Two of the famous limestone caverns of Virginia, visited by thousands each year, lie within the county -- Battlefield Crystal Caverns near Strasburg and Shenandoah Caverns north of New Market. Another popular cavern, Endless Caverns lies just over the Rockingham County line three miles south of New Market.

Organized recreation is provided by the town of Woodstock. During the summer months a staff of six directs activities at Woodstock Recreation Park where there are swimming and wading pools, tennis and basketball courts, a ball diamond, playground and picnic shelters. In Strasburg the Lions Club operates a playground, picnic area and facilities for tennis and softball. There is a swimming pool operated by a private corporation at Strasburg and another near New Market. Swimming, boating, and fishing may also be enjoyed in the many ponds and lakes scattered throughout the county. The high schools at Woodstock, Strasburg and New Market have lighted athletic fields and there are unlighted fields at schools in other towns. Woodstock Recreation Park and the Lions Club Park at Strasburg also have lighted fields and Little League baseball is active in these towns and in Edinburg and New Market. In most of the communities recreation is sponsored by the schools, churches, civic, fraternal and social organizations and meetings and entertainments are held in the school auditoriums.

Many privately operated resorts and parks are scattered through the county and these provide horseback riding, hiking, swimming, golf and other sports. In winter skiing is popular at Bayse where a ski lift and several ski trails provide for the beginner as well as the more proficient skier. Instructors are also provided. Bryce Mountain Ski Resort is also located in Shenandoah. This resort not only provides complete winter ski facilities, but provides year around residential facilities through extensive subdivisions. There are bowling and billiard facilities in Mount Jackson and Strasburg. Shrine Mont has a collection of paintings open to the public and near New Market there is a permanent collection of china, pottery, earthenware and crystal on exhibit, which is open to the public. There is a museum of Indian relics and handcrafts between Edinburg and Mount Jackson. The snake, monkey and chinchilla farms near the Valley Pike are also interesting. During the summer Shenandoah has two annual events: the Shenandoah Valley Music Festival at Orkney Springs and a horse show.

SECTION XIII - OTHER COMMUNITY FACILITIES

FINANCIAL

Table 24.--Bank Deposits for Banks Within Shenandoah County, September 30, 1971

<u>Bank</u>	<u>Location</u>	<u>Total Deposits</u>
The Farmers Bank of Edinburg, Inc.	Edinburg and Woodstock	\$ 6,203,585
First Virginia Bank, N. A.	Mount Jackson, Strasburg and Woodstock	27,138,329
The Citizens National Bank of New Market	New Market	8,674,913
The First National Bank of Strasburg	Strasburg	12,871,036
Virginia National Bank	Woodstock	975,882,312

a/ Includes deposits of branches not physically located in the county.

Sources: R. L. Polk and Co., Polk's World Bank Directory, (Nashville, Tennessee, R. L. Polk and Company, March, 1971); State Corporation Commission; Federal Reserve Bank, Fifth District, Richmond.

Table 25.--Federal Deposit Insurance Corporation Listings for Total Accounts and Deposits, June 30, 1970 ^{a/}

	<u>Shenandoah County</u>
Total number of accounts.....	36,139
Deposits:	
Total..... ^{b/}	\$51,785
Per capita ^{b/}	\$ 227

a/ Only deposits and accounts of banks and branches physically located in the county are shown.

b/ Population figure used in determining per capita deposits is the 1970 Census of Population figure.

Source: Federal Deposit Insurance Corporation, Summary of Accounts and Deposits in All Commercial Banks, Richmond Region, June 30, 1970, (Washington: Federal Deposit Insurance Corporation, 1971); U. S. Bureau of the Census, 1970 Census of Population, PC(V1)-48, Final Population Counts, Virginia, (Washington: Government Printing Office, December, 1970).

RELIGIOUS

Many Protestant denominations are represented in the numerous churches scattered throughout the county. There is a Catholic Church in Woodstock and Jewish synagogues are located in Harrisonburg and Winchester, a few miles from the southern and northern boundaries of the county, respectively. Most of the churches maintain Sunday schools, youth programs and other activities that make an important contribution to community life. Shrine Mont at Orkney Springs is owned by the Episcopal Diocese of Virginia and religious conferences are held here throughout the year.

MEDICAL

The county is served by the Shenandoah Memorial Hospital at Woodstock with well-equipped medical, surgical, pediatric and obstetrical departments. The hospitals in Winchester, Harrisonburg and Front Royal are also within easy reach. In Woodstock is the Susan B. Miller Nursing Home, an accredited 68-bed home for the nursing of chronically ill and aged patients. On U. S. Route 11 south of Woodstock the Skyline Terrace Convalescent Home also provides for convalescing or older patients. Sixteen medical doctors practice in the county and five of the towns have pharmacies. The County Public Health Department, staffed by a director, physician, public health nurses, sanitarians and clerk, has offices in Woodstock and provides clinic and other health services to the county.

SECTION XIV - NATURAL RESOURCES

MINERALS

Shenandoah County is in the Valley and Ridge province and is underlain by sedimentary rocks. During 1971, The Chemstone Corporation, a subsidiary of Engelhard Minerals and Chemicals Corporation, quarried high-calcium limestone near Strasburg. The stone was crushed and calcined to produce hydrated and pebble lime that was marketed primarily for industrial use. The Virginia Asphalt Paving Company, Inc. operated a plant at the Chemstone quarry to crush rock from large accumulated stockpiles for general crushed stone use. C. S. Mundy Quarries, Inc. quarried limestone near Forestville that was crushed for roadstone, concrete aggregate and local use. The Kipps Magnesium Limestone Quarry produced agricultural stone at a quarry in dolomite near Forestville.

In the past, limestone and dolomite have been quarried at other sites to provide crushed stone for roadstone, concrete aggregate, railroad ballast, fluxstone and agstone to supply local lime kilns and for use as building stone. Clay near Strasburg and Woodstock has been used in the manufacture of brick and clay materials near Strasburg were used to make pottery products and drain tile. Samples of shale from selected localities have been tested and found potentially suitable for use in the manufacture of brick, tile and lightweight aggregate. Sand and gravel have been produced near Edinburg and Maurertown. Manganese minerals have been mined or prospected at numerous sites, chiefly in the Cedar Creek Valley-Capola Mountain and Massanutten Mountain areas. Iron minerals have been mined in the western part of the county and in the Massanutten Mountain area to supply local iron furnaces. Occurrences of zinc and lead minerals are present in southern Shenandoah County and a small quantity of zinc ore was mined at the Timberville mine near Forestville. Sandstone and quartzite at some localities in Shenandoah County are potential sources of silica sand and construction material.

Source: Virginia Division of Mineral Resources.

GROUND WATER

Shenandoah County is in the Valley and Ridge Province and is underlain by limestone, sandstone and shale formations. These rocks are generally inclined either to the northwest or southeast and are exposed on the surface as relatively narrow belts that cross the county in a northeasterly direction. A veneer of alluvium overlies the bedrock along the major streams and at the base of some of the mountains.

Most water supplies are for domestic and farm use. These are generally from springs and wells which are drilled only as deep as necessary for an adequate supply. The majority of wells are less than 200 feet deep and yield less than 20 gallons per minute. Few wells have been drilled more than 500 feet. Only a small number yield more than 100 gallons per minute. The most productive wells tend to be located in the central part of the county where yields larger than 20 gallons per minute may be obtained from solution channels and caverns in limestone. Three of the most productive wells penetrate limestone rocks between New Market and Edinburg; each yields slightly more than 200 gallons per minute and is less than 325 feet deep. Two industrial wells between Forestville and Mount Jackson yield 100 gallons per minute each. One of the most productive wells in the county was recently completed at Columbia Furnace. This well was drilled 456 feet deep in limestone strata and was tested at a rate of 393 gallons per minute.

Industrial supplies of water are available at selected well sites in many of the valleys throughout the western two-thirds of the county. The success of these wells is usually dependent upon the penetration of fracture or solution openings, the locations of which are unpredictable but are usually encountered in the first 250 or 300 feet of bedrock. In the eastern third of the county moderate ground water supplies are developed from bedding planes, fractures and joints in the rock or from the contact between two types of bedrock in areas with adequate recharge. Moderate yields might be developed where alluvium reaches sufficient thickness and has a source of recharge in the flood plains adjacent to streams.

The limestones offer the best potential for development of high-capacity well fields in the county, but the erratic nature of ground-water occurrence in carbonate rocks makes estimate of overall availability per unit area difficult. On the basis of production from well fields in nearby areas of the Valley and Ridge Province, it is estimated that one to two million gallons of water per day would be available per square mile in highly favorable areas. In establishing a well field it would be necessary to make detailed ground-water studies and extreme care would have to be exercised in selecting well sites.

The ground water from wells between Interstate 81 and the Massanutten Mountains contains more dissolved solids than the water produced elsewhere in the county. The moderately-hard water in this portion of the county is usually corrosive to some degree and iron and sulfur are often present in objectionable amounts. Limey and ochrous material frequently discolors the water produced from a new well, but this condition is often cleared by pumping. In the central portion of the county, calcium and magnesium carbonates make the water moderately

hard to hard, but the total dissolved solids are low. Iron and sulfur are seldom present in objectionable amounts and mud conditions common in new wells usually can be eliminated by pumping. Ground water in the western portion of the county is generally soft to moderately hard and frequently is high in iron and silica. Sulfurous and acidic conditions have been reported in only a few of the wells.

Source: Virginia Division of Water Resources. (More detailed information may be obtained upon request.)

SURFACE WATER

The main stream in Shenandoah County is the North Fork of the Shenandoah River. Smaller streams in the county are Passage Creek, Cedar Creek and Stony Creek. There are also a number of good springs in the county and measurements of flow are available for some of them.

During periods of normal rainfall there is a large volume of water in the streams. During droughts the smaller streams become quite low, but there is still a good flow in the North Fork of the Shenandoah. Some of the springs offer very good possibilities. The water in these springs is hard, but its cool temperature is an advantage for some industrial uses.

The quality of water varies considerably. In the small streams, originating in the mountain ridges, water is soft. In the main streams, in the valleys and springs, water is quite hard. The small mountain streams have slightly acidic water whereas the valley streams are alkaline.

Several stream gaging stations in this area provide good information concerning the available water resources. Stream gaging stations are located on the North Fork Shenandoah River near Mount Jackson and another downstream near Strasburg. There is a stream gaging station on Cedar Creek north of Strasburg and a station installed in 1960 on Smiths Creek near New Market. There is a station on Passage Creek near Buckton two miles downstream from the Shenandoah-Warren County line. Records of temperature and water quality data, flow duration and high and low flow sequence data are available for these gages.

<u>Stream Gaging Station</u>	<u>Average Stream Flow Million Gallons Per Day</u>
North Fork Shenandoah River at Mount Jackson	222
North Fork Shenandoah River near Strasburg	355
Cedar Creek near Strasburg	54
Passage Creek near Buckton in Warren County	41

Source: Department of Conservation and Economic Development, Division of Water Resources.

FORESTS

According to the 1966 Forest Survey Shenandoah County contains approximately 168,386 acres of commercial forest land and 17,800 acres of non-commercial forest land. The 1957 Forest Survey listed 167,560 acres of commercial forest land and 18,300 acres of non-commercial forest land.

The ownership of commercial forest land in Shenandoah County is 65.7 percent in private holdings. The remaining 34.3 percent is accounted for in National Forest land.

During the past five years the average annual growth has exceeded average annual cut by approximately 5 to 1 when considering all species groups. Softwoods are being cut somewhat more heavily but still are growing faster than they are being cut. Sawtimber production remains fairly constant but pulpwood production within the county continues to increase.

Markets exist for most types of forest products, however, the number of sawmills operating in the county continues to decrease. Pulpwood markets are available but there is a need to increase the utilization of small hardwoods.

The major forest management needs within the county are timber stand improvement on the better hardwood sites, cull disposal, protection of forest land from the grazing of livestock and reforestation of idle and cutover forest land. Interest in this type of work by private landowners is increasing.

Source: 1966 Forest Survey, Virginia Division of Forestry.

FORESTS (Cont.)

Table 26.--Selected Forestry Information

		1966		
		Acres		
<u>Forest Types</u>				
Virginia pine		17,847		
Oak-pine		22,120		
Oak-hickory		98,482		
Chestnut-oak		27,801		
Southern scrub oak		2,136		
Total		168,386		
		1966		
		Acres		
<u>Stand Size Classes</u>				
Sawtimber ^{a/}		65,605		
Pole size timber (5" DBH and up to sawtimber)		77,794		
Seedlings and saplings (up to 5" DBH)		24,987		
Total		168,386		
<u>Species Groups</u>	<u>Inventory, 1970</u>		<u>Growing Stock ^{b/}</u> <u>(thousand cords)</u>	
	<u>Sawtimber ^{a/}</u> <u>(million board feet)</u>			
Softwoods	79.7		542	
Soft hardwoods	20.7		127	
Hard hardwoods	323.4		1,823	
Total	423.8		2,492	
<u>Estimated Average Annual Net Growth and Cut, 1966-1970</u>				
<u>Species Groups</u>	<u>Sawtimber</u> <u>(million board feet)</u>		<u>Growing Stock</u> <u>(thousand cords)</u>	
	<u>Growth</u>	<u>Cut</u>	<u>Growth</u>	<u>Cut</u>
Softwoods	3.3	1.4	25	6
Soft hardwoods	0.9	0.2	5	1
Hard hardwoods	10.3	1.4	63	6
Total	14.5	3.0	93	13

^{a/} Softwoods 9" DBH and over; hardwoods 11" DBH and over. DBH refers to diameter at breast height. The stem diameter is measured in inches and covers the outside bark measured at 4½ feet above the ground.

^{b/} Growing stock, all merchantable trees 5" DBH and over (including sawtimber).

Source: Virginia Division of Forestry.