

APPENDIX E: SOCIAL AND ECONOMIC CONDITIONS AND TRENDS OF THE GEORGE WASHINGTON NATIONAL FOREST

Introduction

The George Washington National Forest is comprised of 1.25 million acres of public lands located in 21 counties in western Virginia and eastern West Virginia. The Forest Supervisor's Office is headquartered in Roanoke, Virginia after the George Washington National Forest and the Jefferson National Forest were administratively combined in 1995. For over 50 years the George Washington National Forest has remained dedicated to managing resources, protecting the quality of the environment, and ensuring the productivity of the land.

This overview has been updated and updates the social and economic data within the context of the existing 1996 Southern Appalachian Assessment (SAA). As noted in the SAA Summary (page 4), this overview, likewise, tries to give the information people may need for a productive dialogue of issues that surfaced at the public workshops in March 2007. This overview makes no attempts to provide solutions for the issues that have been identified.

History

As our young nation began its westward expansion, settlement began in the valley of western Virginia. Shenandoah—daughter of the stars—was a name given to the river and the valley by Native Americans who passed back and forth through the bottom lands. The Sioux, Shawnee, Delaware, Catawba and Tuscarora Indian tribes all had their time here, hunting and harvesting the land.

Later settlers of Scotch-Irish and German heritage began to make their homes in the valley now surrounded by the George Washington National Forest. Settlers often viewed the forests as land that had to be cleared for more fields. The mountain lands, though eroded and over cultivated, were still desired by outside mining and timber interests. In the 1820's the combination of iron and trees to feed the iron furnaces made mining a profitable venture in many areas near the Shenandoah Valley. These companies brought devastation to the land. Repeated cuttings cleared the mountains, erosion caused streams to become clogged with silt and floods came more frequently and with greater damage. Perhaps the most insidious effect of industry was wildfire, which burned repeatedly over the mountains. Miners, timber operators and hunters pushed animal species like elk, white tailed deer and wild turkey to the brink of extinction.

A small group of forest reformers recognized that our natural resources were being exploited and endangered, and introduced bill in Congress that would protect the nation's forest. In

1891 the Forest Reserve Act was passed. It authorized the creation of Forest Reserves, the forerunner of what was to become the National Forest System.

Damage to the mountains also extended to the waterways. In 1911 the Weeks Act was passed, which made it possible for the Federal Government to buy deforested mountain land and protect it for watershed purposes. Land in what was to become the George Washington National Forest was among the first considered for acquisition.

In 1917 three northern Virginia purchase units were combined to become the Shenandoah National Forest. It was later renamed the George Washington National Forest to avoid confusion with the National Park bearing the same name.

The Civilian Conservation Corps (CCC) played an important role in the early days of the Forest Service. The first CCC camp in the nation, Camp Roosevelt, was located in the George Washington National Forest. A total of 14 camps were eventually opened on the Forest. The CCC employed 9,200 men in Virginia during the nine years of the program's existence. Their work is still evident today in the roads, campgrounds, picnic shelters, fire towers, and other projects scattered throughout the Forest.

One of the more remarkable changes to occur just after World War II was the development of a more mobile and recreation-seeking society. Between 1945 and 1956, the number of visitors to some areas increased as much as four times. With close proximity to Washington D.C. and Richmond, it is not surprising that the George Washington National Forest has always been a popular destination for those who enjoy outdoor recreation.

In 1960 the Multiple-use Sustained-Yield Act was passed by Congress. It stated that national forests are established and shall be administered for outdoor recreation, watershed, range, timber and wildlife purposes. A wildlife management agreement with the Virginia Department of Game and Inland Fisheries has helped to reestablish turkey, bear, deer and many other species that were nearly driven to extinction due to unregulated hunting and poor land management practices during the late 1800's. The Threatened and Endangered Species Act of 1973 has also served to protect wildlife and their habitat. Protection, growth and management have produced many fruitful achievements on the George Washington. Good stewardship has been, and remains, the goal of those entrusted with "caring for the land and serving the people."

Socioeconomic Trends

The following socioeconomic overview will discuss the socioeconomic trends and changes in these 21 counties which contain Forest Service lands. The analysis area counties and composition are presented in table 1. This overview provides information on the role that social, economic and demographic changes have had on this large area and how they may relate to future forest planning activity.

In order to place this forest in its proper context, discussions are provided for several important variables. County and forest-wide average results are compared and contrasted to that of the states of Virginia and West Virginia.

For the counties under analysis, Augusta County has the highest percentage of national forest lands at over 30 percent. The total George Washington acreage is 22.5 percent of the 21 county area. Such a large share of some of these counties acreage is an indicator of the great reliance many counties have on Payments to States and Payments in Lieu of Taxes as substitutes for property tax.

Table 1: George Washington National Forest Boundary County Lands

County/State	Square Miles	NF Acres	NF Area in Square Miles	NF Area as % of County/State
Alleghany	454.7	141,916	221.7	48.8
Amherst	479.0	57,877	90.4	18.9
Augusta	1,006.1	196,057	306.3	30.4
Bath	535.0	173,710	271.4	50.7
Botetourt*	543.0	81,134	126.8	23/3
Frederick	425.3	4,885	7.6	1.8
Highland	416.0	58,267	91.0	21.9
Nelson	474.0	19,825	31.0	6.5
Page	314.0	27,082	42.3	13.5
Rockbridge**	610.3	66,797	104.4	17.1
Rockingham	870.6	139,789	218.4	25.1
Shenandoah	513.0	75,867	118.5	23.1
Warren	216.0	6,290	9.8	4.6
Hampshire, WV	642.0	3,518	5.5	0.9
Hardy, WV	584.0	51,883	81.0	13.9
Monroe, WV^	474.0	18,958	29.6	6.2
Pendleton, WV^^	698.0	130,907	204.5	29.3
Virginia	287,148	1,660,428	2,594.4	0.9
West Va.	162,684	1,032,736	1,613.65	1.0

Source: USDA Forest Service "Land Areas of the NF System; www.en.wikipedia.org

*Includes 68,087 acres from Jefferson NF

**Includes 21,276 acres from the Jefferson NF

^ Includes 18,530 acres from the Jefferson NF

^^ Includes 81,801 acres from the Monongahela NF

Characteristics of an area, such as the growth of population and its various racial and ethnic components, can be used to determine how dynamic and subject to change an area may be.

A static area will imply few possible factors affecting change, but a dynamic growing population may produce many conflicting concerns for land managers to consider. Certain areas of the National Forest System and surrounding lands, which are seen to be attractive to urban dwellers for recreation and second or retirement home residence, may cause conflict with traditional residents of the area. In the following subheading we will discuss economic and demographic characteristics that may assist land managers in identifying issues for current and future projects. Many of the tables presented below are summaries of more in depth tables found in Exhibit A at the end of this report.

Demographic Indicators

Information about population characteristics helps describe the general nature of a community or area. An analysis of population trends can help determine if changes are occurring for specific groups defined by age, gender, education level, or ethnicity, thereby influencing the nature of social and economic relationships in the community.

Virginia's population, presented in table 2, increased from 5,346,818 in the 1980 Census to 7,078,515 in the 2000 Census. The increase between 1980 and 1990 was a 15.7 percent and 14.4 percent between 1990 and 2000. Meanwhile as represented in table 2a, West Va. had a very different change. Population decreased from 1,949,644 in 1980 to 1,808,344 in 2000. Population decreased from 1980 to 1990 by 8.0 percent and increased from 1990 to 2000 by 0.8 percent. Much of this growth in Virginia is spurred by growth in the major cities in the state, especially in northern Virginia-Washington, DC area. West Va., meanwhile, does not have many large cities to spur growth and the economy is relatively less diversified than that of Virginia.

Table 2: Population Change for Virginia 1980-2000

Year	Total Population	Population Change	Percent Change from prior period
1980	5,346,818	-	-
1990	6,187,358	840,540	15.7%
2000	7,078,515	891,157	14.4%

Source: U.S. Census Bureau from USDA NRIS HD Model

Table 2a: Population Change for West Va. 1980-2000

Year	Total Population	Population Change	Percent Change from prior period
1980	1,949,644	-	-
1990	1,793,477	-156,167	-8.0%
2000	1,808,344	14,867	0.8%

Source: U.S. Census Bureau from USDA NRIS HD Model

Table 3 below shows the population trends for all GW NF counties combined. The trends show a growth of more than half the rate of Virginia between 1980 and 1990 (8.9 percent

versus 15.7 percent) and slightly more than Virginia's growth rate between 1990 and 2000 (15.7 percent versus 14.4 percent) (see table 1 in Exhibit A at the end of this report.)

Table 3: Population Change for GW NF

1980	1990	2000	% Change 1980-1990	% Change 1990-2000
441,922	481,105	556,747	8.9%	15.7%

Source: U.S. Census Bureau from USDA NRIS HD Model

Table 4 below shows the population of the forest and Virginia and West Va. by race for 1980, 1990, and 2000. In 2000, 92 percent of the population in the counties that contain NF land was white, as compared to 72 and 95 percent for Virginia and West Va., respectively (see table 2 in Exhibit A at the end of this report.) Since 1980, forest county share has decreased in white inhabitants by only slightly more than one percent. This is contrasted with Virginia's share decreasing from 79 percent to 72 percent and West Va.'s share of whites only decreasing from 96 to 95 percent.

Several counties have increased their share of Hispanics from 1980 (see table 2 in Exhibit A at the end of this report.) The trend for the forest has gone from less than one percent to over two percent. The largest increases occurred in Rockingham and Shenandoah Counties. In these two counties the share of Hispanics increased from less than one percent in 1980 to over five percent in Rockingham and over three percent in Shenandoah by 2000. This is contrasted with 2000 Hispanic share of 4.7 and 0.7 in Virginia and West Va., respectively.

Blacks make up much less of the share of population on the forest than that of Virginia in 2000 (5.4 and 19.6 percent, respectively). Black share has remained fairly constant on both the forest and Virginia over the three Census periods. West Va., on the other hand, has had a steady black share of slightly more than three percent of the population over these three periods. Most forest boundary county share of black population has been less than one percent. Amherst and Nelson Counties had the highest share in 2000 with approximately 20 and 15 percent, respectively.

Table 4: Racial Composition of GW NF in Virginia and West Va.*

	Race	1980	1990	2000
GW NF	Hispanic	0.6%	0.7%	2.3%
	Black	5.7%	5.5%	5.4%
	White	93.9%	93.7%	91.8%
Virginia	Hispanic	1.5%	2.5%	4.7%
	Black	18.9%	18.8%	19.6%
	White	79.1%	77.5%	72.3%
West Va.	Hispanic	0.7%	0.4%	0.7%
	Black	3.3%	3.1%	3.2%
	White	96.2%	96.2%	95.0%

Source: U.S. Census Bureau from USDA NRIS HD Model

*Percentages do not add to 100% because other ethnic categories are not included

Youth population share among the forest boundary counties, Virginia and West Va. has fallen from 1980 to 2000. During 2000, the forest had a youth population share that was approximately two percent less than Virginia and about one-half percent more than West Va.

Aging population, on the other hand, has grown in all three areas over the three census periods. During 2000, the forest had an elderly population share that was 3.4 percent more than Virginia and 1.3 percent less than West Va..

Table 5 below shows the share of population as represented by youth (age 17 or less) and the elderly (age 62 or greater). The youth share on the forest from 1980 to 2000 has fallen (from 27 to 23 percent. Meanwhile, the elderly share of population has risen on the forest from 15 to 17 percent (see table 3 in Exhibit A at the end of this report.) This may mean that the fertility rate has decreased over time and that adults are living longer, rather than any significant demographic changes.

Table 5: Population Age of GW NF, Virginia, W. Virginia

Forest	1980 % of Area	1990 % of Area	2000 % of Area
Age 17 or less	26.7	23.1	22.8
Age 62 or Greater	14.8	16.5	16.8
Virginia			
Age 17 or less	27.6	24.3	24.6
Age 62 or Greater	11.8	13.1	13.4
West Va.			
Age 17 or less	28.7	24.8	22.3
Age 62 or Greater	15.0	18.1	18.1

Source: U.S. Census Bureau from USDA NRIS HD Model

US aggregated population density was about 80 persons per square mile (in 2000) in contrast to Virginia's and West Va.'s, which have a population density of 179 and 75 persons per square mile, respectively. Population density is dependent in part on the amount of land available for settlement and on transportations systems. The population density (Table 6) of the counties that comprise the GW NF was 455 as of the 2000 Census. This larger density on the forest is caused in large part by the higher population densities of Alleghany (384), Augusta (372), Frederick (822), Rockbridge (1,880), and Rockingham (912) counties. Highland County had a very low density of 6.1 persons per square mile in 2000. Table 4 in Exhibit A at the end of this report shows the change from 1990 to 2000 for all counties of this forest.

The increased density is the result of the very vigorous population increase in the 1990 decade both for the forest and Virginia. West Va.'s absence of significant population growth caused the density to change marginally. The relatively low densities of the states compared to the forest reflect a greater proportion of rural areas at the state level.

Table 6: Population Density

Geographic Area	Land Area in Square Miles	Population Density 1990*	Population Density 2000*
GW NF	8,712	416.0	454.8
Virginia	287,148	156.3	178.8
West Va.	162,684	74.5	75.1

Source: U.S. Census Bureau from USDA NRIS HD Model

*weighted average for the GW NF

In terms of regional neighbors to the George Washington, there are several major population concentrations within two hours drive of the forest including Washington, DC and its northern Virginia suburbs, as well as urban areas within forest boundary counties such as Harrisonburg, Staunton, and Winchester. These growing areas suggest that this national forest may provide increasing opportunities for recreation, fishing and hunting for the population in the northern Virginia area. This will have implications for land use and regulations.

Population projection is often times a hard task to accomplish with accuracy. The states of Virginia and West Va. have made projections to 2030 for each of its counties. Table 7 shows the population and percentage change for the GW NF and both states.

Table 5 in Exhibit A at the end of this report has projections for each county associated with the George Washington. Only Alleghany and Highland County are expected to lose population to 2030. From 2000 to 2030 Virginia is expected to increase by 31 percent and West Va. by 16%; the forest county area is expected to increase by 27 percent. Frederick County is expected to be the fastest growing county with about 51 percent increase from 2000 to 2030.

Growth of Virginia will be somewhat faster than the other two areas because of having more urban areas and the more vigorous economic activity associated with them. West Va.'s projected population growth is only half of that of Virginia and about 12 percent less than the George Washington boundary counties for the 2000 to 2030 period. The increasing urban nature of some of the GW NF counties promotes their rate of growth.

Table 7: Population Projections to 20030- Percentage increase

	2000 to 2010	2010 to 2020	2020 to 2030	2000 to 2030

GW NF	11.0	7.2	6.7	27.0
Virginia	11.5	9.0	7.8	31.0
West Va.	4.8	5.1	4.9	15.5

Source: States of Virginia & West Va.

A rural area is defined as towns and areas with less than 2,500 persons. The rural nature of the area is contrasted with the states in the table below. The GW NF counties are becoming less rural over time. In 1980, 70 percent of these areas were considered rural. The land area has changed to about 58 percent rural in 2000. Compared with Virginia and West Va., the decrease in rural area was from 34 to 27 percent in Virginia and 64 to 54 percent of land area in West Va. from 1980 to 2000. Thus, urbanization has occurred at a faster pace on the forest than either state. Each county's rural characteristics over time are given in table 6 in Exhibit A at the end of this report.

Table 8: Percentage of Population in Rural Areas

	1980	1990	2000
GW NF	70.3	66.4	57.6
Virginia	34.0	30.6	27.0
West Va.	63.8	63.9	53.9

Source: U.S. Census Bureau from USDA NRIS HD Model

Population change and characteristics on the forest boundary counties from 1980 to 2000 has not been very different than that of Virginia, but much faster than West Va.. Growth in population was somewhat faster in the 1990 decade for all three areas. Growth for the forest area, projected to 2030, is expected to be slightly more for Virginia and much more than the growth for West Va.. Because the George Washington counties have several urban areas, their growth in population will tend to be similar to that of Virginia's.

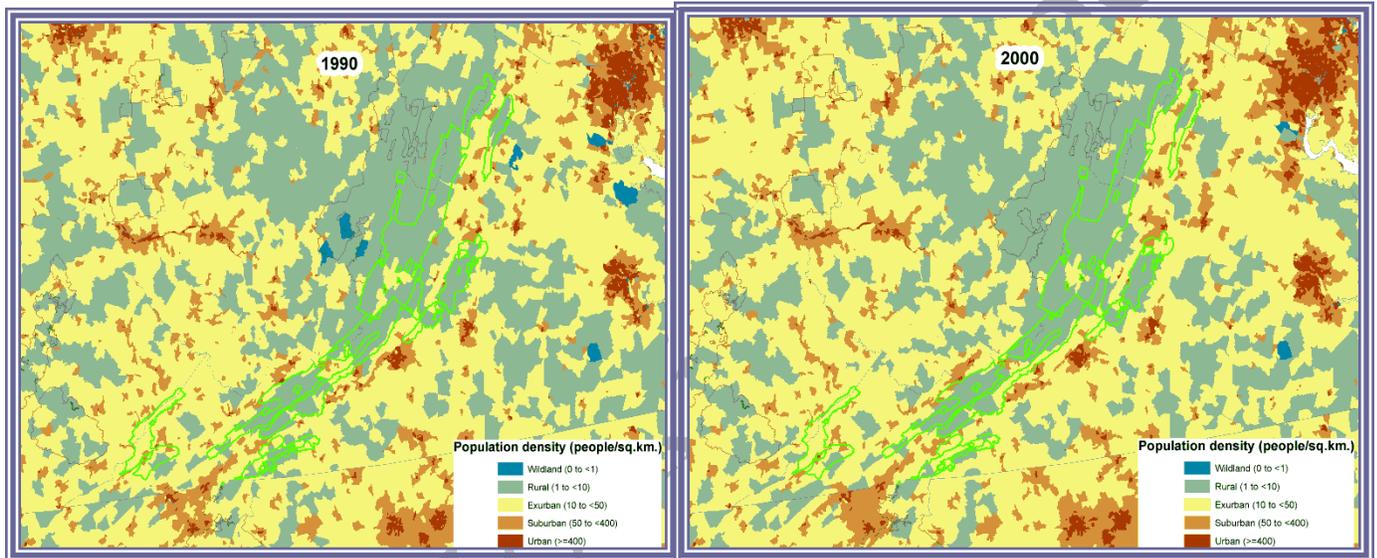
Hispanic minority population, while it has grown slightly over the last decade is still only about 2 percent of the forest boundary area's population. Black share has decreased slightly over this decade. The white composition is still over 91 percent of the area share. For 2000 youth and elder compositions of the population change are similar to that of both states. Both the youth and elder share of the forest area has gotten about two percent larger over the last 20 years. Recreation opportunities for minorities may have to be promoted from outside the area because minority share of the forest area is not great.

Stein et al (2007)* identified national forests and grasslands across the United States most likely to be affected by increased housing density on rural private lands outside the external boundaries (proclamation boundary) of National Forest System lands. Stein estimated that between 2000 and 2030, a substantial increase in housing density will occur on more than 21.7 million acres of rural private land (8 percent of all private land) located within 10 miles of national forests and grasslands across the conterminous United States. In the East, almost all national forests are projected to experience moderate or high increases in residential development. The George Washington and Jefferson (GWJ) National Forests is projected to experience increased housing density between now and the year 2030 on 10% to 24.9% of its adjacent private lands located within 10 miles of the Forest. Stein et al (2007) project that, by 2030, the GWJ will have the most area of increases in housing

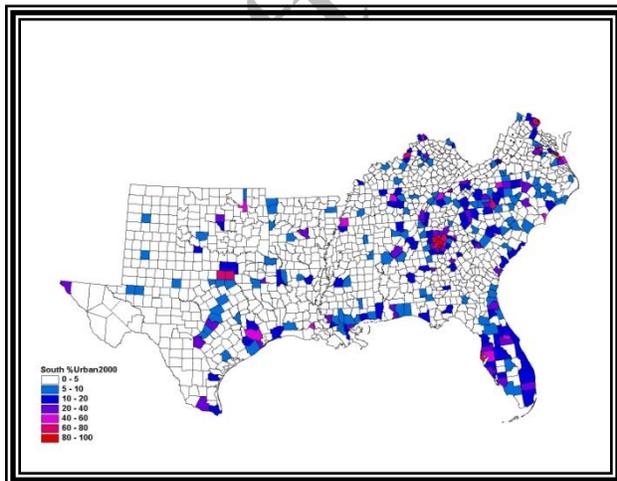
density of all national forests or grasslands, with projected changes on more than 1.4 million adjacent private rural acres.

*Stein, Susan M.; Alig, Ralph J.; White, Eric M.; Comas, Sara J.; Carr, Mary; Eley, Mike; Elverum, Kelly; O'Donnell, Mike; Theobald, David M.; Cordell, Ken; Haber, Jonathan; Beauvais, Theodore W. 2007. National forests on the edge: development pressures on America's national forests and grasslands. Gen. Tech. Rep. PNWGTR-728. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 26 p.

The following two figures show historical population density (people per square kilometer) from 1990 to 2000 in an around the GWJ.

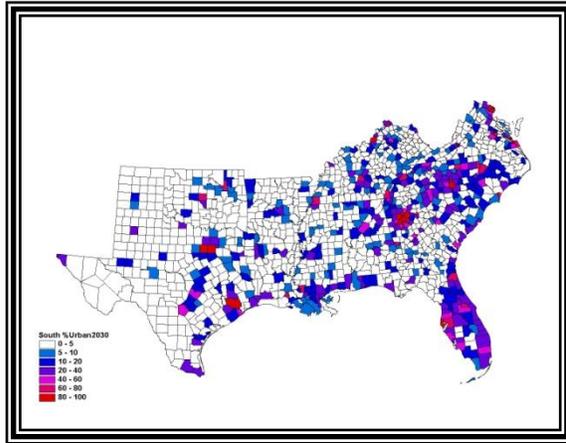


Finally the following figures show projected percent urban land from 2000 to 2050.

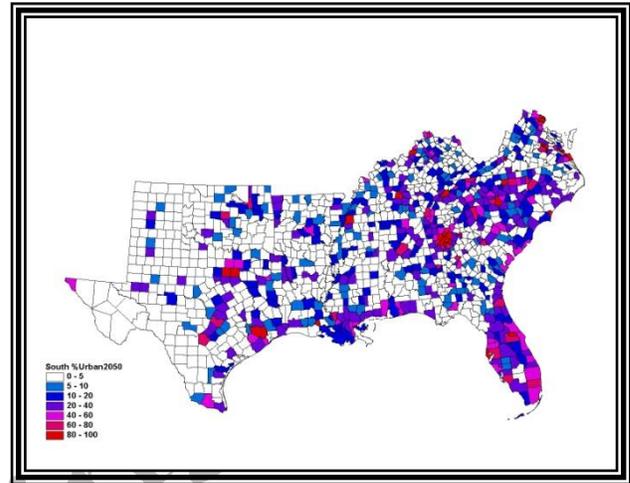


Percent Urban Land in Year 2000

Percent Urban Land in Year 2030



Percent Urban Land in Year 2050



Economic Indicators

When giving an overview of the economic characteristics of an area, indicators such as per capita income, unemployment rates, poverty rates, transfer payments, and household composition are used to measure economic progress and viability. Below for each of these variables is a contrast between the forest and the states.

Per capita income is a relative measure of the wealth of an area. It constitutes the personal income from all sources divided by the population of that area. For the George Washington analysis area, the per capita income average was \$12,263 and \$18,568 in 1990 and 2000, respectively (see table 9 below). In 2000, the per capita income rate was about \$5,400 less than that of Virginia and \$2,100 more than West Va..

While West Va.'s per capita income was significantly lower than the forest area or that of Virginia in both 1990 and 2000, its rate of growth was slightly faster over the 1990 decade than either of the other two areas. Income grew at a slightly slower pace (0.1 percent per year annual growth adjusted for inflation) for the forest than that of Virginia and 0.3 percent less than the rate of West Va. over the 1990 decade. Table 7 in Exhibit A at the end of this report illustrates the amounts and rates of real growth for each individual county in the analysis area.

Alleghany County had the fastest growing per capita income (5.1 percent) over the 1990 decade. Per capita income there was about the same as the forest average and nearly \$5,300 less than Virginia in 2000.

Table 9: Per Capita Income

Forest	1990 Per Capita Income	1990 Per Capita Income in 2004 \$\$*	2000 Per Capita Income	2000 Per Capita Income in 2004 \$\$*	Real Avg. Annual Change 1990-2000
GW NF	\$12,263	\$17,781	\$18,568	\$20,424	1.4%
Virginia	\$15,713	\$22,784	\$23,975	\$26,373	1.5%
West Va.	\$10,520	\$15,254	\$16,477	\$18,125	1.7%

Source: U.S. Census Bureau from USDA NRIS HD Model

*Real rates of increase were determined by inflating 1990 per capita income to 2000 with the Consumer Price Index Deflator

Another indicator of relative economic prosperity is the percent of the workforce out of work. Unemployment rates change dramatically over time, depending in large part on the national economy. Some areas, however, have protracted unemployment problems because of educational attainment and lack of skills.

Table 10 below shows in 2001 the George Washington counties had slightly less unemployment, 3.1 percent, than Virginia (3.5 percent) and significantly less than West Va. (4.9 percent). The forest unemployment rate was calculated as a weighted average (weighted by unemployment rate and number of unemployed) of all counties in the area (see table 8 in Exhibit A at the end of this report.) This is in contrast to six years earlier when the forest analysis area had an unemployment rate that was almost one percent more than that of Virginia and more than 2 percent less than West Va.. Even in 1998 the average unemployment rate for the forest analysis area decreased to 3.5 percent, about one-half percent greater than that of the Virginia and over 3.5 percent less than West Va.. It is not apparent that the 2001-2002 national recession had taken effect in either the forest area or West Va. areas because unemployment rates in 2001 were still on a downward path from previous years. Virginia, on the other hand, did have an increased unemployment rate in 2001 from the previous year of over 1 percent.

Table 10: Unemployment Rate 1995 - 2001*

	1995	1998	2001
GW NF	5.3	3.5	3.1
Virginia	4.5	2.9	3.5
West Va.	7.9	6.6	4.9

Source: U.S. Bureau of Labor Statistics from USDA NRIS HD Model

*Forest area rates are weighted averages by unemployed for each county.

Poverty for the George Washington, Virginia, and West Va. is represented in the following table:

Table 11: Percent of Individuals in Poverty 1980 - 2000

	1980	1990	2000
GW NF	12.4	11.1	10.9
Virginia	14.8	13.0	12.3
West Va.	15.0	19.7	17.9

Source: U.S. Census Bureau from USDA NRIS HD Model

*Forest area rates are weighted averages by population for each county.

The weighted average poverty rate for the George Washington counties over time has been less than the poverty rate of either state. However, this difference has been closing from the 1980 to the 2000 decade for Virginia. Meanwhile, poverty rates in West Va. rose significantly from 1980 to 1990 and decreased marginally in 2000.

Of the forest boundary counties, the poverty rate in 2000 was the lowest for Botetourt County (5.1 percent) and the highest in Rockingham County (16.4 percent) (see table 9 in Exhibit A at the end of this report.)

The growth rate of transfer payments from the federal government to the states and their citizens can be another indicator of relative poverty in an area. Transfer payments are payments to persons for which no current services are performed. As a component of personal income, they are payments by government and business to individuals and nonprofit institutions. Although most transfer payments are made in cash, they also include payments for services such as Medicare, Medicaid, and food stamps. There is often an inverse relationship between earnings and transfer payments. A high dependency in an economy on transfer payments can reflect few employment opportunities or a popular retirement area.

Table 12 below displays the analysis area average and the states receipts of transfer payments from the federal government. The growth rate in federal transfer payments for the George Washington analysis area was slightly less than that Virginia and almost one percent more than West Va. from 1970 to 2003 (4.6 vs. 4.9 and 3.8 percent per year). The largest growth rate (5.3 percent) occurred in Hampshire County, West Va. and the lowest rate (3.3 percent) was in Highland County, Virginia. These compound annual growth rates between 1970 and 2003 are in real 2004 dollars (see table 10 in Exhibit A at the end of this report for individual county numbers as well as other years).

Table 12: Federal Transfer Payments to Individuals (in 2004 \$'s)

	1970 (Billion \$'s)	1980 (Billion \$'s)	1990 (Billion \$'s)	2000 (Billion \$'s)	2003 (Billion \$'s)	Real Annual Change
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						'70-'03*
GW NF**	\$.571	\$1.142	\$1.529	\$2.177	\$2.544	4.6%
Virginia	\$5.742	\$11.925	\$16.273	\$23.684	\$27.547	4.9%
West Va.	\$3.514	\$6.479	\$7.822	\$10.221	\$12.189	3.8%

Source: U.S. Bureau of Economic Analysis from USDA NRIS HD Model

*Real rates of increase were determined by inflating 1970 dollars to 2000 with the Consumer Price Index Deflator

**Forest area rates are weighted averages by population for each county.

Although the forest growth rate as a whole is only 0.3 percent less than Virginia's, this growth rate over 33 years is a significant deviation from the average in dollar terms. These transfer payments provide some economic stabilization, especially for less prosperous counties in the area. Hampshire County's high transfer payment rate and high poverty rate at 16.3 percent in 2000 go together to indicate it is one of this area's less prosperous counties.

Housing and Households

The following tables give information about housing and households. Housing and household growth are precipitated by population growth. Population growth is influenced greatly by employment growth.

Another factor indicating relative poverty and social disunity for an area is the percent of households with children present headed by a female. The greater percentage is, the more likely that these households may be in a poverty status. Table 13 below contrasts the female-head-of-households for the counties within the George Washington analysis area (more specific forest information can be identified in Table 11 in Exhibit A at the end of this report.) For this area households headed by females with children has increase by a percent and one-half from 1990 to 2000.

Contrasted with the both state's higher incidence of single mother households, perhaps the George Washington's more traditional values (than may exist in more urban areas) may keep this to a relatively low level. Virginia's rate of female house-holders increased from nearly six percent to over eight percent. West Va. increased from over five percent to slightly more than six and one-half percent. Virginia's more large urban areas where traditional values are not followed as greatly may have had something to do with this greater increase than the more rural forest and West Va. areas. Also, the increase may be indicative of a higher divorce rate or less family support in more urban areas of Virginia.

Table 13: Female-Head-of-Households with Children Present

	1990	% of Total Households	2000	% of Total Households

GW NF*	7,906	4.2	12,890	5.7
Virginia	133,401	5.8	217,950	8.1
West Va.	36,673	5.3	48,732	6.6

Source: U.S. Bureau of Census, USDA NRIS HD Model

*Weighted by Number of Households

Table 14 illustrates that average household size has changed moderately for the analysis area and the two states since 1990. This declining trend follows the overall U.S. trend to smaller households. The forest area declined five percent while Virginia's and West Va.'s declined six and eight percent, respectively. Household size is important because large families sometimes indicate less affluent conditions. From this metric there is no indication of overly large households. Table 12 in Exhibit A at the end of this report breaks household size out by county. From 1990 to 2000 each of the counties had a smaller household size--the greatest reduction was Amherst County which went from 2.91 members to 2.51 members per household. For 2000, Rockingham County had the largest members per household at 2.58 and Highland County had the smallest at 2.24 members.

Table 14: Average Household Size

	1990 Household size	2000 Household size
GW NF*	2.61	2.48
Virginia	2.70	2.54
West Va.	2.60	2.40

Source: U.S. Bureau of Census, USDA NRIS HD Model

*Weighted by number of households

Housing Vacancy rates for the analysis area and the state are given in Table 15 below. A drastic change in vacancies may indicate harsh economic conditions. Rates on the forest counties have decreased by just 0.2 percent since 1990. Meanwhile, Virginia's and West Va.'s vacancy rate changed marginally as well. Virginia's decrease by over one percent and West Va.'s increased by almost one percent over the decade. Virginia's vacancy rate was several percent less than either the forest or West Va. Several counties in both West Va. and Virginia had very high vacancies in both decades, possibly reflecting seasonal or vacation homes (see table 13 in Exhibit A at the end of this report.)

Table 15: Housing Vacancy Rates

	1990 Vacancy Rate	2000 Vacancy Rate
GW NF	11.8%	11.6%
Virginia	8.2%	7.1%
West Va.	11.9%	12.8%

Source: U.S. Bureau of Census, USDA NRIS HD Model

Median housing value is contrasted in Table 16. Housing values within the George Washington analysis area are substantially below that of Virginia and substantially above that of West Va.. Housing values are determined principally by the extent of demand.

Population and employment growth play a factor in the extent of demand for housing. Population growth in the analysis area was about seven percent less than Virginia's and 17 percent greater than West Va.'s in the 1980 decade; and about one percent greater than Virginia's and 13 percent greater than West Va.'s growth over the 1990 decade.

Despite the population increase in the 1990 decade housing in the forest analysis area was still \$28,000 (in 2004 dollars) less than that of Virginia in 2000 (whereas in 1990 the gap was \$25,000 (in 2004 dollars)). Within Virginia, the influence of many urban areas, where more high paying jobs are found, support higher priced housing. Population and wage and salary growth on the forest boundary counties would have to greatly increase to warrant significant increases in housing values. Table 14 in Exhibit A at the end of this report shows the average values for each of the GW NF impact area counties. Botetourt County had the highest median home values of \$143,500 in 2000. Monroe County, West Va. had the lowest value of \$71,200.

Table 16: Median Housing Values

	1990 Median Value	1990 Med. Value in 2004 \$'s	2000 Med. Value in 2004 \$'s	2000 Med. Value in 2004 \$'s	Real Avg. Rate of Change 1990 - 2000*
GW NF*	\$61,003	\$88,454	\$100,106	\$110,117	5.1%
Virginia	\$90,400	\$131,080	\$125,400	\$137,940	3.3%
West Va.	\$47,600	\$69,020	\$72,800	\$80,080	4.3%

Source: U.S. Bureau of Census, USDA NRIS HD Model

*Real rates of increase were determined by inflating 1990 per capita income to 2000 with the Consumer Price Index Deflator

Economy's Diversity

Analyzing the major sectors of an economy allows insight into how diverse and what industries may be driving its growth. Manufacturing is the most significant part of the George Washington boundary county area economy. The table below shows the Manufacturing sector, which includes lumber and wood products, furniture, and pulp and paper products; and an estimate of the wild land recreation industry. Share percentages of manufacturing and wild-land recreation's labor income (employee compensation plus proprietors' income) and employment are given for 1990 and 2000. Recreation is not a sector of an economy but comprises several of the services and retail industries. The entire economy's major sectors are given in table 15 in Exhibit A at the end of this report.

Table 17: Economic Diversity in 2004 \$'s

	1990 Employment % of Total Economy	2000 Employment % of Total Economy	% Average Annual Change '90- '00	1990 Labor Income % of Total Economy	2000 Labor Income % of Total Economy	% Real Average Annual Change '90- '00
Total Manufactu- ring	20.3	19.4	1.6	29.9	27.1	2.3
Wood Products	1.5	1.5	2.4	1.7	1.8	3.6
Wood Furniture & Fixtures	0.6	0.3	-4.3	0.7	0.4	-2.2
Paper & Pulp Products	0.9	0.9	1.7	2.1	1.7	1.5
Wild land Rec.	NA	NA	NA	4.2	2.7	3.9
Total Economy*	264,778**	323,524**	2.0	\$6,626.8**	\$9,191.0**	3.9

Source: IMPLAN 1990 and 2000 Data

*Real rates of change were determined by inflating 1990 & 2000 data to 2004 with the Gross National Product Price Index Deflator

**Represents dollar totals for category

NA = Not Available

Table 17 helps explain the economy's diversity of the George Washington area economy. The composition of this economy did not change significantly over the 1990 decade. The industrial sector that changed the most was Services with its share of employment increasing 3.5 percent. Other sectors lost or gained share only marginally.

The largest share of the local economy was the Manufacturing sector with its employment share at 19.4 percent of the economy's employment in 2000. This share only decreased by 0.9 percent from 1990, while labor income's share declined by almost three percentage points from 1990 to 2000. The George Washington's manufacturing share is relatively small for a rural area—more in line with the national average of about 18-19 percent.

Of the wood-manufacturing sector, wood products had a 1.8 percent share of the local economy's labor income in 2000. This is a 0.1 percent increase in percent share from 1990. The share of employment at 1.5 percent remained the same in both time periods.

Furniture and fixtures represented 0.4 percent of the local economy's labor income and 0.3 percent of its employment in 2000. Both employment and labor income decreased in growth by 0.3 percent from 1990 (see table 15 in Exhibit A at the end of this report.)

Pulp and paper products in the George Washington counties lost share in labor income while employment's share showed no change over the 1990's decade. By 2000 employment share was slightly less than one percent of the economy while labor income was slightly less

than two percent. While both employment and labor income shares decreased over the 1990 decade, there was actually an increase in jobs and income in these industries from 1990 (see table 15 in Exhibit A at the end of this report.) This occurrence is most likely explained by productivity enhancements.

Wild-land recreation, which includes federal and state recreation areas, had an estimated 2.7 percent share of the total labor income of the George Washington area economy in 2000. While the wild-land share of the economy decreased for labor income from 1990, the actual dollar amount increased (see table 15 in Exhibit A at the end of this report.) This apparent inconsistency is explained by the fact that the total economy grew faster than the industries attributed to wild-land recreation. There are no estimates of employment for recreation.

Table 15 in Exhibit A at the end of this report also shows employment, labor income for the all nine major sectors of the economy broken out by major Standard Industrial Code (SIC) and by important industry sub-sectors for wood products. Other than the slight decrease in importance of manufacturing, the composition of other sectors of the area economy has not changed greatly from 1990. Services increased from 20.7 to 24.2 percent in 2000 as measured by employment change, or a 3.6 percent annual increase. Other sector share changes include Wholesale and retail sales' employment change of 2.6 percent per year (changing from a 19.5 percent to 20.5 percent share), and Government whose share decreased slightly from 14.0 percent to 12.9 percent over the decade.

The entire economy's labor income grew at an average annual rate of 3.3 percent over the 1990 decade (based in constant 2004 dollars). Thus, the local economy has changed modestly in the last 10 years with services sector with the most change. The economy's main drivers are Manufacturing, Services and Wholesale and Retail Trade.

Another way to indicate diversity of an economy is with the Shannon-Weaver Entropy Indexes of diversity. This process allows a relative measure of how diverse a county or a group of counties are with a single number. The entropy method measures diversity of a region against a uniform distribution of employment where the norm is equal-proportional employment in all industries. All indices range between 0 (no diversity) and 1.0 (perfect diversity). These two extremes would occur when there is only one industry in the economy (no diversity) and when all industries contribute equally to the region's employment (perfect diversity). In most cases diversity would be registered somewhere between 0 and 1.0. Another factor affecting the magnitude of the index is the number of industries in a local economy; the greater number the larger the index. Diversity is important because a diverse economy is less susceptible to harsh economic contractions either national or local.

The following table contrasts the change in diversity from 1990 to 2000 at the four digit SIC, or at the individual industry level. For a point of reference Virginia and West Va. serves as comparison guide. Table 16 in Exhibit A at the end of this report illustrates indexes for all counties in the George Washington analysis area.

Table 18: Shannon-Weaver Entropy Indexes

	1990 Index	2000 Index	Percent Change
GW NF*	.60128	.60883	1.17
Virginia	.70796	.70342	-0.64
West Va.	.69591	.69607	0.02

Source: USDA Forest Service, Information Monitoring Institute

*Weighted Average Estimate of Aggregated Counties. Weight is based on full-time and part-time employment in State's respective years.

The indexes measuring diversity indicate significantly more diversity in both states than in the analysis area during the 1990-decade. In 1990 the George Washington area had an index of .60128 versus Virginia's .70796 and West Va.'s .69591. However, the gap between the forest and the two states changed little from 1990 to 2000. In 2000, while Virginia's diversity decreased by about 0.6 percent and West Va.'s remained essentially flat from 1990, the forest has increased nearly .08 or a 1.17 percent. Because the analysis area is comprised of only 17 counties, a less diverse condition can be expected versus a larger area, such as Virginia and West Va., which have more varied characteristics.

As indicated by the analysis above of the George Washington boundary counties cumulative economy, the overall change during the 1990-decade was modest. In 2000 this economy was moderately diversified.

Economy's Trade

A principle way an economy grows is by export of goods and services. Most typically, manufacturing activity is thought of as providing most of this export related activity. However, services and retail trade can be considered "export" industries if significant visitors come in from outside in travel related activities to bring in new dollars to an economy. A manufacturing industry can be a net importer if it imports more of a commodity or service than it exports.

The chart below compares the exporting characteristics of the GW NF analysis area for 1990 and 2000.

Table 19: Exporting of Selected Industries in millions of 2000 dollars

	1990 Net Exports*	2000 Net Exports
Wood Furniture & Fixtures	\$2.5	\$12.5
Paper & Pulp Products	\$459.8	\$491.4
Wood Products	\$0.0	\$160.5
Total Manufacturing	\$965.4	\$1,817.1
Total of All Sectors	-\$1,463.3	-\$2,860.6

Source: IMPLAN 1990 and 2000 Data

*1990 Dollars Converted to 2000 Dollars via GDP Price Deflator; in millions of dollars

The data in Table 19 shows that the George Washington's local economy increased its net importing characteristic in 2000 by almost double from 1990. The 1990 decade saw the total economy's reliance on imports increase tremendously, thereby becoming more reliant on outside areas for its goods and services production. Such a characteristic caused dollars to leak out of the economy faster (and hence reduce having a greater multiplier capability) than if the economy were a net exporting one.

Meanwhile, all three segments of the Wood Products manufacturing showed net exporting increases. Total manufacturing also gained a significant share in net exporting, by almost doubling its amount in 1990. Other than Construction, Manufacturing, and Minerals, all other major sectors showed an increase of net imports from 1990 (see table 17 in Exhibit A at the end of this report.)

In summary, the George Washington area economy became more reliant on imports during the 1990's. More dollars, therefore, flowed out of the economy than flowed in, decreasing the ability of enhancement of further economic activity through the multiplier effect. However, manufacturing including wood based industries were a net exporter of manufacturing goods, providing "new" monies for the local economy.

Federal Payments

The Payments in Lieu of Taxes (PILT) program is administered by the Bureau of Land Management. PILT payments are made to local governments that have federal lands within their borders to compensate for loss of property tax revenues. If the Forest Service's Payments to States funds from timber harvesting, mining, and recreation do not cover at least \$1.75 per acre, PILT will make up the shortfall.

Trends in Payments to States and PILT are important to show a possible erosion of an area's tax base. Tables 20 and 21 in Exhibit A at the end of this report break out revenues for each of the George Washington counties. The chart below shows the aggregated forest county changes from various years for data that was common between the two sources (all data has been updated to 2004 dollars).

Table 20: Payments to States Funds in \$000 of 2004 \$'s

	1985	1998	2004	Annual Avg. Percent Change
GW NF	\$530.0	\$699.0	\$834.6	3.3
Virginia	\$735.7	\$730.9	\$898.7	1.4
West Va.	\$540.1	\$2,060.8	\$1,916.9	9.5

Source: USDA Forest Service
 Data adjusted to 2004 Dollars via Gross Domestic Price Deflator

County revenues from the Forest Service have been variable since 1985, the first year of available data for Payments to States (see table 18 in Exhibit A at the end of this report.) The variation reflects predominantly national forest timber sales in each county. For the forest as a whole, real prices (inflation adjusted prices) have increased since 1985 by 3.3 percent per year. Meanwhile, Payments to States in total for Virginia and West Va. have increased 1.4 and 9.5 percent per year, respectively. The George Washington's share of Virginia and West Va. total payments has varied from almost 42 percent in 1985, to 25 percent in 1998, to almost 30 percent in 2004 (see table 18 in Exhibit A at the end of this report.)

Most payments over the years shown went to Pendleton County, WV, which contains the fifth most national forest acreage. The next highest recipient has been Augusta County, which received not quite one-half the amount of Pendleton in 2004.

At the same time, PILT funds have increased to help offset somewhat the large acreage federal ownership of these counties' lands. While the magnitude of PILT payments is somewhat smaller than Payments to States, PILT payments have tended to increase over time as timber harvests have decreased on the GW NF. Inflation adjusted payments in the George Washington analysis area have grown from \$904,486 in 1991 to \$1,479,135 in 2004, a 4.2 percent real average annual increase. This rate of increase was in the middle of the PILT payment increase in the state of Virginia and West Va. over this period, 3.9 and 4.4 percent, respectively (see table 19 in Exhibit A at the end of this report.) Historically, PILT payments to George Washington National Forest boundary counties totaled about a third of the payments to Virginia and West Va. combined.

Table 20: Payments in Lieu of Taxes (000 of 2004 \$'s)

	1991	1998	2004	Annual Avg. Percent Change
GW NF	\$904.5	\$839.5	\$1,479.1	4.2
Virginia	\$1,528.7	\$1,343.0	\$2,431.6	3.9
West Va.	\$1,003.0	\$999.2	\$1,689.5	4.4

Source: U.S. Dept. of Interior
Data adjusted to 2004 Dollars via Gross Domestic Price Deflator

Summary of Social and Economic Trends

National and local socioeconomic trends influence the ability of communities to adapt to changing circumstances. Trends identified in secondary and primary data analysis for the GW NF include demography, economy, attitudes, beliefs, and values.

Population growth in the 1980's and 1990's occurred at a relatively rapid, yet uneven, rate among the 17 counties. The area as a whole grew about 9 percent in the 1980's and 16 percent in the 1990's. These rates of growth were much less than Virginia and much more than West Va. in the 1980's and about one percent more than the Virginia in the 1990's. West Va. had negative growth in the 1980's and less than one percent growth in the 1990's. The population is expected to grow by another 11, 11.5 and five percent from 2000 to 2010 for the forest, Virginia and West Va., respectively.

The analysis area's rural characteristic decreased by about 4 percentage points to 66.4 percent from 1980 to 1990; and another 9 percent from 1990 to 2000, making the rural share about 58 percent in 2000. These counties have seen a moderate urbanization over the last 20 years. Urban growth means that demands on recreation resources as well as for land development have increased.

Virginia as a whole has maintained a rather steady share racial and ethnic population characteristics for the past 20 years. The black share of the state has remained at about 19 percent over the 1980, 1990, 2000 period. Meanwhile, the Hispanic population has increased from about two to a five percent share over this period. West Va.'s share of white, black and Hispanic has remained almost the same over these three census periods. The forest has changed little from 1980 to 2000. Hispanics, however, have gone from 0.6 to 2.3 percent in this 20 year period. There is about a five percent share of blacks which has remained essentially the same over these years. A recent increase in Hispanic residents to over two percent share in 2000 and an influx of Hispanic immigrants into the U.S over the last several years may translate into changes in community attitudes, values, and beliefs concerning forest management and recreation preferences.

The lack of dynamic changes in community culture, lifestyles, local economies, and social structures may result in few changes that cause social disruptions or tensions about new residents, new economic activities, or changes in forest management policies.

Current attitudes, beliefs, and values concerning forest management were gathered during a telephone survey conducted by the USFS Southern Research Station. A general summary of the findings gives insight to attitudes toward national forest management. Area residents participate in outdoor activities; the majority prefers viewing nature via walking or driving, and picnicking.

The George Washington survey showed forest management activities that are most ^important to the respondents included maintaining stream quality, providing habitat for fish and wildlife, and leave the forest in its natural appearance.

The public was also asked questions about their perceptions of the most important management activities on public lands. The largest share of the public's responses gave preference to forest management objectives that provide water sources, protect old growth forests, protect habitats, provide trail systems for non-motorized recreation, and open areas for wildlife. The survey indicated that the local public has a fairly strong environmental conservation leaning. While extraction of natural resources is not completely discounted by the public, preservation and provision of wildlife and recreation services are highly desired.

The GW NF boundary counties' economic health, as measured by per capita income, grew at a rate similar to that of Virginia's and slightly slower than West Va.'s during the 1990's. When considering the real rate of growth (inflation adjusted dollars to 2004), the forest impact area grew at 1.4 percent per year over the 1990 decade; compared with the Virginia's growth of 1.5 percent and West Va.'s 1.7 percent per year. Still, per capita income in 2000 was only about \$5,900 less than that of the Virginia and \$2,300 more than West Va.'s.

The George Washington analysis area's unemployment rate decreased from 5.3 percent to 3.5 percent from 1995 to 1998, to 3.1 percent in 2001. The rate in 2001 was less than the rate of Virginia, 3.5 percent, and West Va., 4.9 percent. Increasing income growth for the forest area, as well as normal unemployment rates, indicates the area is relatively strong economically. People with strong incomes and jobs are more likely to have free time and need an outlet for recreation. The national forest is a prime outlet for these people.

The George Washington impact area had poverty rates which declined slightly from 1980 to 2000. The share of individuals living in poverty in 2000 was about 11 percent. This was slightly over one percent more than Virginia's and seven percent less than West Va.'s.

Transfer payments in the George Washington analysis area showed a 4.6 percent increase in average annual real rate of growth from 1970 to 2003, similar to that of Virginia, but much less than West Va., 4.9 and 3.8, respectively. The GW NF transfer payment growth gives the local economies added economic support.

Percentage of female head of households was lower than either state's percentage in the analysis area. In 2000, the GW NF was 2.4 percent below Virginia's 8.1 and 0.9 percent below West Va.'s 6.6 percent of all households—indicating a potential lesser degree of hardship at the local level.

The services and manufacturing sectors are a significant source of employment in the analysis area accounting for 24 and 19 percent, respectively, of the employment in 2000. The economy's main drivers, in the labor income area, are services and manufacturing as well. Employment in the services sector, which includes lumber and wood products, has the highest share of any other sector in the economy. Its share increased from 1990. Manufacturing, meanwhile, decreased its share slightly by about one percent from 1990. The area as a whole has become slightly more diverse over the 1990 decade. As indicated by the Shannon-Weaver Entropy indexes, over the 1990's decade the George Washington analysis area increased its diversity while that of Virginia decreased marginally and West Va.'s was essentially flat. Still the forest area had an index reading that was about 10 percent less than both of the states. These indexes indicate that overall, the local economy is significantly less diverse than the states' economies—making the area more reliant on other areas to furnish the goods and services needed in these forest counties.

Thus, the economy and demography of this area appears to be relatively healthy. Population has grown steadily in the 1990's; poverty has decreased. Housing construction is vigorous. The economy's composition has changed only marginally in the last decade. It has become more reliant on importation of goods and services. Other than manufacturing, the local economy is producing less of its own goods and services for export, resulting in a loss of the ability of a dollar to multiply in the spending stream before it leaks out of the economy. The analysis area has a fairly diverse economy with resilient characteristics that may allow it to weather downturns in the economy. For the George Washington analysis area, most of the economic and demographic variables looked at in this overview were comparable with those of Virginia, but several deviated from those of West Va.—a state that has some economic and non-growth issues.

Population diversity was considerably less than Virginia's and about on par with West Va.'s. Except for housing values and per capita income which were below Virginia's levels, most social and economic characteristics looked at in this overview seem to be on par with that of Virginia.

GW NF Timber Supply-Demand Analysis

NOTE TO READER: A more in-depth timber demand analysis is currently being prepared.

The GW NF timber “market area”, in which the forest supplies mills in its area, resides within its “competitive zone” where forest supplied mills compete for timber from other outlying areas. This additional area outside the market area is assumed to be one county distance outside the market area.

The George Washington market area where timber from this national forest is procured by mills consists of the following counties:

- Alleghany
- Amherst
- Augusta
- Nelson
- Page
- Rockbridge
- Hardy, WV
- Monroe, WV
- Pendleton, WV

- Bath Rockingham
- Botetourt Shenandoah
- Frederick Warren
- Highland Hampshire, WV

The “competitive zone” is considered to be the following counties:

- Virginia – Albemarle, Alleghany, Amherst, Appomattox, Augusta, Bath, Bedford, Botetourt, Buckingham, Campbell, Clarke, Craig, Fauquier, Frederick, Greene, Highland, Madison, Nelson, Page, Rappahannock, Roanoke, Rockbridge, Rockingham, Shenandoah, Warren
- West Va. – Berkeley, Greenbrier, Hampshire, Hardy, Monroe, Morgan, Pendleton, Pocahontas

Within these counties, other land ownerships compete for timber demand of the mills in this area. Thus, the area of analysis for this timber supply-demand study is the competitive zone. Timber removal is assumed to be an indicator of the demand for timber in this area. The GW NF meets only a small fraction of this demand within its competitive zone.

Data to perform a supply-demand analysis comes from the USDA-FS Forest Inventory Analysis (FIA) system at the North Central Research Station and the forest’s Cut & Sold report for fiscal year 2001. Data for Virginia is based on the 2001 survey, and data for West Va. is based on the 2004 survey. Exhibit B Tables 1-4 of the accompanying tables show statistics for each of the counties, by land ownership, within the competitive zone for the GW NF.

Significant findings within this area where the national forest competes with other land ownerships follows:

- 1) Total growing stock volume for this forest (all ownerships) is 11.9 million MCF ((see table 1 in Exhibit B at the end of this report.). By a majority, private landownership has 69 percent of the growing stock. The GW NF with a 2.50 million MCF of growing stock represents 21 percent of the competitive zone’s growing stock.
- 2) Of the total growing stock, only 1.2 percent has mortality ((see table 2 in Exhibit B at the end of this report.) The George Washington’s mortality was very small (1.4 percent) as a percentage of the competitive zone’s growing stock.
- 3) Removals from growing stock in each competitive zone county’s respective survey year amounted to 2.4 percent of the growing stock available (see table 3 in Exhibit B at the end of this report.) The ratio of removals to growing stock was four percent or over (4 +) in Appomattox, Greene, and Morgan, WV Counties. None of these counties are within the national forest proclamation boundary.
- 4) Of the proclamation boundary counties, the highest removal from growing stock was in Amherst County with 3.3 percent of growing stock removed.

5) FIA data estimated that 12.12 million cubic feet of timber was removed from the GW NF. Cut & Sold reports for 2001 indicated that 1.1 million cubic feet were actually cut. Both of these volumes were a very small proportion of total growing stock in the competitive zone, .01 percent with Cut & Sold Report data and 4.3 percent with FIA data. GW NF Cut & Sold data for F/Y 2001 will be the metric used for volume removed.

6) The growth to removal ratio for the GW NF's competitive zone in total is about 1.5 percent. This means that there is about 50 percent more growth than removal.

7) Cut & sold data for 2001 reveals that about 85 percent of volume harvested was hardwoods and 15 percent softwood.

8) Mortality of growing stock on the George Washington as contrasted with total growing stock there proved to be very small (1.4 percent) (see table 2 in Exhibit B at the end of this report.)

The same four variables from FIA data were used to assess the timber condition on the GW NF as was used to characterize the forest's role in its overall competitive area.

Growing stock on the GW NF was estimated to be 2.5 million MCF in 2001. Removals of 1,103 MCF as a percentage of GW growing stock, was .04 percent. During this same time, net growth was estimated to be 31,538 MCF per year (see table 4 in Exhibit B at the end of this report.). Contrasting removals of 1,103 MCF with GW NF boundary county growing stock yields a 24 to one growth to removal ratio, or growth was 24 times as great as removals.

Based on early 2000's FIA data, growth, mortality, and removals of timber are in a favorable position on this forest. Growth is healthy, mortality is very small, and removals are a very small part of the growing stock.

The table below summarizes this analysis' findings:

GW NF Timber Supply-Demand Characteristics		
Characteristics	Competitive Zone Area	George Washington Boundary Cos.
Growing Stock (MCF)	11.92 Million	2.50 Million
Removals (MCF)	.284 Million	.001 Million
Mortality (MCF)	.143 Million	.046 Million
Net Growth (MCF)	.240 Million	.032 Million
Mortality as % of Growing Stock	1.2	1.4
Growth to Removal Ratio	1.5	24
Removals as % of Growing	1.1	1.9

Stock		
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Need to Change the George Washington 1993 Forest Plan

1. What was the Plan Striving For?

As noted in the 1993 Forest Plan (Plan, page 3-2), the agency manages ecosystems for specific purposes such as producing, restoring, or sustaining certain ecological conditions; for desired resource uses and products; for vital environmental services, and for aesthetic, heritage, or spiritual values. These are the needs and desires of the public and are the issues communicated to us through social, economic, and political systems. The land and resource management planning process and the implementation of forest plans is where it all comes together (Plan, page 3-2).

For example, the 1993 George Washington National Forest Plan continued the Forest contributions to the economic and social vitality of its neighbors (Plan page 2-13). The Forest was to work with neighboring people and communities in developing natural-resource-based opportunities and enterprises within the capabilities of the resource. Likewise, one of the primary goals of the 1993 Plan, in salvaging timber, was to provide a forest environment where the ecological processes of the forest were to be balanced against social and economic (Plan page 2-15). On suitable timberland, forest product commodity outputs were to contribute to the social and economic well-being of the people living in the area and help maintain a way of life long associated with those living within the area (See for example Management Areas 14 and 17).

Riparian areas were to be managed to maintain aquatic biodiversity and to contain water quality, food and necessary habitat for all life stages of native fish and economically important non-native species (Plan page 3-93.)

Public special uses of the forest could be granted when the use could not be reasonable accommodated on lands other than the National Forest. Private special uses of the forest could be granted where they were unavoidable or no reasonable alternatives existed (Plan page E-3.)

In essence, the entire 1993 Plan was designed around providing social, economic, ecological values, products and services to the American public.

2. Where is the Plan Now?

The body of the Report discusses the various issues that were the heart of the 1993 Forest Plan. See those discussions.

3. Did Management Activities Move the Forest towards the Desired Future condition?

The body of the Report discusses the various issues that were the heart of the 1993 Forest Plan. See those discussions.

4. Is There a Need for Change?

a. Is a Change in the Plan warranted? Yes

b. Why? Social and economic values have changed since the Plan was revised in 1993. There is more demand from the forest in every area from recreation to commodity outputs to special use authorizations. All forms of travel have increased in volume, some more dramatically than others. Variation in these increasing volumes can be attributed to a number of reasons. Factors include technology advances (types of mountain bikes), economic conditions, changing demands for recreational experiences, population increases, age increase of people, and other social influences.

Likewise, the body of the Report discusses the various issues that were the heart of the 1993 Forest Plan. See those discussions. However, the agency believes there is no need to change the plan solely on the social and economic information provided previously. Irrespective of the increases in demand for various resources, values, or experiences. It is through the social public involvement process, through such efforts as public meetings where people with opposing views talk to each other and through formal public comment periods where the public submits comments to the agency, that in the end will determine whether major plan changes will occur to resource areas and where those changes will be. Whatever those changes are, they will contribute to the social and economic needs of Americans.

c. Tentative Options or Proposed Actions for Change

The body of the Report discusses the various issues that were the heart of the 1993 Forest Plan. See those discussions.

5. What are the Consequences of Not Changing?

The body of the Report discusses the various issues that were the heart of the 1993 Forest Plan. See those discussions.

Exhibit A

Table 1: GW NF Boundary Counties Total Population 1980-2000					
County	1980	1990	2000	Change 1980-1990	Change 1990-2000
VA, Alleghany County	14,333	13,176	12,926	-8.1%	-1.9%
Covington City	9,063	6,991	6,303	-22.9%	-9.8%
Total Alleghany Co.	23,396	20,167	19,229	-13.8%	-4.7%
VA, Amherst County	29,122	28,578	31,894	-1.9%	11.6%
VA, Augusta County	53,732	54,677	65,615	1.8%	20.0%
Staunton City	21,857	24,461	23,853	11.9%	-2.5%
Waynesboro City	15,329	18,549	19,520	21.0%	5.2%
Total Augusta Co.	75,589	79,138	89,468	4.7%	13.1%
VA, Bath County	5,860	4,799	5,048	-18.1%	5.2%
VA, Botetourt County	23,270	24,992	30,496	7.4%	22.0%
VA, Frederick County	34,150	45,723	59,209	33.9%	29.5%
Winchester City	20,217	21,947	23,585	8.6%	7.5%
Total Frederick Co.	54,367	67,670	82,794	24.5%	22.3%
VA, Highland County	2,937	2,635	2,536	-10.3%	-3.8%
VA, Nelson County	12,204	12,778	14,445	4.7%	13.0%
VA, Page County	19,401	21,690	23,177	11.8%	6.9%
VA, Rockbridge County	17,911	18,350	20,808	2.5%	13.4%
Buena Vista City	6,717	6,406	6,349	-4.6%	-0.9%
Lexington City	7,292	6,959	6,867	-4.6%	-1.3%
Total Rockbridge Co.	24,628	24,756	27,157	0.5%	9.7%
VA, Rockingham County	57,038	57,482	67,725	0.8%	17.8%
Harrisonburg City	19,671	30,707	40,468	56.1%	31.8%
Total Rockingham Co.	76,709	88,189	108,193	15.0%	22.7%
VA, Shenandoah County	27,559	31,636	35,075	14.8%	10.9%
VA, Warren County	21,200	26,142	31,584	23.3%	20.8%
WV, Hampshire County	14,867	16,498	20,203	11.0%	22.5%
WV, Hardy County	10,030	10,977	12,669	9.4%	15.4%
WV, Monroe County	12,873	12,406	14,583	-3.6%	17.5%
WV, Pendleton County	7,910	8,054	8,196	1.8%	1.8%
Total Forest	441,922	481,105	556,747	8.9%	15.7%
Virginia	5,346,818	6,187,358	7,078,515	15.7%	14.4%
West Va.	1,949,644	1,793,477	1,808,344	-8.0%	0.8%
Source: U.S. Census, NRIS HD Model					

Table 1A: GW NF Acreages and Percent of Total County				
County	Area in Square Miles	NF Acreage	NF area in Square Miles	NF Area as Percent of Total County
Alleghany County, VA	449.0			
Covington City	5.7			
Total Alleghany County	454.7	141,916	221.74	48.8%
Amherst County, VA	479.0	57,877	90.43	18.9%
Augusta County, VA	971.0			
Staunton City	19.7			
Waynesboro City	15.4			
Total Augusta County	1,006.1	196,057	306.34	30.4%
Bath County, VA	535.0	173,710	271.42	50.7%
Botetourt County, VA*	543.0	81,134	126.77	23.3%
Frederick County, VA	416.0			
Winchester City	9.3			
Total Frederick County	425.3	4,885	7.63	1.8%
Highland County, VA	416.0	58,267	91.04	21.9%
Nelson County, VA	474.0	19,825	30.98	6.5%
Page County, VA	314.0	27,082	42.32	13.5%
Rockbridge County, VA**	601.0			
Buena Vista City	6.8			
Lexington City	2.5			
Total Rockbridge County	610.3	66,797	104.37	17.1%
Rockingham County, VA	853.0			
Harrisonburg City	17.6			
Total Rockingham Co.	870.6	139,789	218.42	25.1%
Shenandoah County, VA	513.0	75,867	118.54	23.1%
Warren County, VA	216.0	6,290	9.83	4.6%
Hampshire, WV	642.0	3,518	5.50	0.9%
Hardy, WV	584.0	51,883	81.07	13.9%
Monroe, WV^	474.0	18,958	29.62	6.2%
Pendleton, WV^^	698.0	130,907	204.54	29.3%
Forest Total	8,712.0	1,254,762	1,960.57	22.5%
Virginia Total	287,148.0	1,660,428	2,594.42	0.9%
West Va. Total	162,684.0	1,032,736	1,613.65	1.0%
*Includes 68,087 from the Jefferson NF				
**Includes 21,276 from the Jefferson NF				
^Includes 18,530 from the Jefferson NF				
^^Includes 81,801 from the Monongahela NF				
Source: www.en.wikipedia.org, USDA Forest Service Land Areas of the NF System, FS-383, Jan. 2000				

Table 2: GW NF Boundary Counties Population Characteristics 1980-2000*									
County	Title	1980	% of Total	1990	% of Total	% Change 1980 to 1990	2000	% of Total	% Change 1990 to 2000
Alleghany County	Hispanic Population	80	0.6%	20	0.2%	-75.0%	47	0.4%	135.0%
	Population Black	356	2.5%	351	2.7%	-1.4%	317	2.5%	-9.7%
	Population White	13,923	97.1%	12,766	96.9%	-8.3%	12,454	96.3%	-2.4%
	Total Population	14,333		13,176		-8.1%	12,926		-1.9%
Covington city	Hispanic Population	100	1.1%	26	0.4%	-74.0%	40	0.6%	53.8%
	Population Black	1,209	13.3%	970	13.9%	-19.8%	828	13.1%	-14.6%
	Population White	7,824	86.3%	5,966	85.3%	-23.7%	5,298	84.1%	-11.2%
	Total Population	9,063		6,991		-22.9%	6,303		-9.8%
Total Alleghany County	Hispanic Population	180	0.8%	46	0.2%	-74.4%	87	0.5%	89.1%
	Population Black	1,565	6.7%	1,321	6.6%	-15.6%	1,145	6.0%	-13.3%
	Population White	21,747	93.0%	18,732	92.9%	-13.9%	17,752	92.3%	-5.2%
	Total Population	23,396		20,167		-13.8%	19,229		-4.7%
Amherst County	Hispanic Population	213	0.7%	211	0.7%	-0.9%	306	1.0%	45.0%
	Population Black	5,963	20.5%	5,759	20.2%	-3.4%	6,311	19.8%	9.6%
	Population White	22,925	78.7%	22,691	79.4%	-1.0%	24,772	77.7%	9.2%
	Total Population	29,122		28,578		-1.9%	31,894		11.6%
Augusta County	Hispanic Population	300	0.6%	295	0.5%	-1.7%	620	0.9%	110.2%
	Population Black	2,031	3.8%	2,075	3.8%	2.2%	2,360	3.6%	13.7%
	Population White	51,478	95.8%	52,358	95.8%	1.7%	62,347	95.0%	19.1%
	Total Population	53,732		54,677		1.8%	65,615		20.0%
Staunton city	Hispanic Population	116	0.5%	169	0.7%	45.7%	265	1.1%	56.8%
	Population Black	2,461	11.3%	3,062	12.5%	24.4%	3,328	14.0%	8.7%
	Population White	19,295	88.3%	21,172	86.6%	9.7%	19,866	83.3%	-6.2%
	Total Population	21,857		24,461		11.9%	23,853		-2.5%
Waynesboro city	Hispanic Population	91	0.6%	188	1.0%	106.6%	643	3.3%	242.0%
	Population Black	1,294	8.4%	1,789	9.6%	38.3%	1,945	10.0%	8.7%
	Population White	13,964	91.1%	16,538	89.2%	18.4%	16,877	86.5%	2.0%
	Total Population	15,329		18,549		21.0%	19,520		5.2%
Total Augusta County	Hispanic Population	507	0.6%	652	0.7%	28.6%	1,528	1.4%	134.4%
	Population Black	5,786	6.4%	6,926	7.1%	19.7%	7,633	7.0%	10.2%
	Population White	84,737	93.2%	90,068	92.2%	6.3%	99,090	90.9%	10.0%
	Total Population	90,918		97,687		7.4%	108,988		11.6%
Bath County	Hispanic Population	37	0.6%	31	0.6%	-16.2%	18	0.4%	-41.9%
	Population Black	553	9.4%	251	5.2%	-54.6%	317	6.3%	26.3%
	Population White	5,284	90.2%	4,490	93.6%	-15.0%	4,659	92.3%	3.8%
	Total Population	5,860		4,799		-18.1%	5,048		5.2%
Botetourt County	Hispanic Population	128	0.6%	107	0.4%	-16.4%	181	0.6%	69.2%
	Population Black	1,124	4.8%	1,035	4.1%	-7.9%	1,073	3.5%	3.7%
	Population White	22,093	94.9%	23,818	95.3%	7.8%	28,944	94.9%	21.5%
	Total Population	23,270		24,992		7.4%	30,496		22.0%
Frederick County	Hispanic Population	129	0.4%	304	0.7%	135.7%	1,004	1.7%	230.3%
	Population Black	484	1.4%	794	1.7%	64.0%	1,550	2.6%	95.2%
	Population White	33,559	98.3%	44,492	97.3%	32.6%	56,240	95.0%	26.4%
	Total Population	34,150		45,723		33.9%	59,209		29.5%
Winchester city	Hispanic Population	114	0.6%	307	1.4%	169.3%	1,527	6.5%	397.4%
	Population Black	1,795	8.9%	2,199	10.0%	22.5%	2,470	10.5%	12.3%
	Population White	18,262	90.3%	19,473	88.7%	6.6%	19,355	82.1%	-0.6%
	Total Population	20,217		21,947		8.6%	23,585		7.5%
Total Frederick County	Hispanic Population	243	0.4%	611	0.9%	151.4%	2,531	3.1%	314.2%
	Population Black	2,279	4.2%	2,993	4.4%	31.3%	4,020	4.9%	34.3%
	Population White	51,821	95.3%	63,965	94.5%	23.4%	75,595	91.3%	18.2%
	Total Population	54,367		67,670		24.5%	82,794		22.3%
Highland County	Hispanic Population	20	0.7%	7	0.3%	-65.0%	13	0.5%	85.7%
	Population Black	6	0.2%	0	0.0%	-100.0%	2	0.1%	NM
	Population White	2,919	99.4%	2,635	99.7%	-9.7%	2,517	99.3%	-4.5%
	Total Population	2,937		2,642		-10.0%	2,536		-4.0%
Nelson County	Hispanic Population	99	0.8%	101	0.8%	2.0%	305	2.1%	202.0%
	Population Black	2,916	23.9%	2,406	18.8%	-17.5%	2,151	14.9%	-10.6%
	Population White	9,261	75.9%	10,209	79.9%	10.2%	11,939	82.7%	16.9%
	Total Population	12,204		12,778		4.7%	14,445		13.0%
Page County	Hispanic Population	110	0.6%	91	0.4%	-17.3%	251	1.1%	175.8%
	Population Black	499	2.6%	439	2.0%	-12.0%	501	2.2%	14.1%
	Population White	18,833	97.1%	21,085	97.2%	12.0%	22,311	96.3%	5.8%
	Total Population	19,401		21,690		11.8%	23,177		6.9%
Rockbridge County	Hispanic Population	108	0.6%	42	0.2%	-61.1%	120	0.6%	185.7%
	Population Black	581	3.2%	482	2.6%	-17.0%	617	3.0%	28.0%
	Population White	17,294	96.6%	17,787	96.9%	2.9%	19,856	95.4%	11.6%
	Total Population	17,911		18,350		2.5%	20,808		13.4%

Table 2: GW NF Boundary Counties Population Characteristics 1980-2000*									
County	Title	1980	% of Total	1990	% of Total	% Change 1980 to 1990	2000	% of Total	% Change 1990 to 2000
Buena Vista city	Hispanic Population	42	0.6%	0	0.0%	-100.0%	64	1.0%	NM
	Population Black	265	3.9%	282	4.4%	6.4%	305	4.8%	8.2%
	Population White	6,439	95.9%	6,059	94.6%	-5.9%	5,940	93.6%	-2.0%
	Total Population	6,717		6,406		-4.6%	6,349		-0.9%
Lexington city	Hispanic Population	60	0.8%	41	0.6%	-31.7%	109	1.6%	165.9%
	Population Black	896	12.3%	811	11.7%	-9.5%	713	10.4%	-12.1%
	Population White	6,322	86.7%	6,028	86.6%	-4.7%	5,906	86.0%	-2.0%
	Total Population	7,292		6,959		-4.6%	6,867		-1.3%
Total Rockbridge County	Hispanic Population	210	0.7%	83	0.3%	-60.5%	293	0.9%	253.0%
	Population Black	1,742	5.5%	1,575	5.0%	-9.6%	1,635	4.8%	3.8%
	Population White	30,055	94.2%	29,874	94.2%	-0.6%	31,702	93.2%	6.1%
	Total Population	31,920		31,715		-0.6%	34,024		7.3%
Rockingham County	Hispanic Population	415	0.7%	597	1.0%	43.9%	2,221	3.3%	272.0%
	Population Black	788	1.4%	849	1.5%	7.7%	924	1.4%	8.8%
	Population White	55,976	98.1%	56,107	97.6%	0.2%	65,406	96.6%	16.6%
	Total Population	57,038		57,482		0.8%	67,725		17.8%
Harrisonburg city	Hispanic Population	134	0.7%	527	1.7%	293.3%	3,580	8.8%	579.3%
	Population Black	874	4.4%	2,020	6.6%	131.1%	2,394	5.9%	18.5%
	Population White	18,622	94.7%	27,964	91.1%	50.2%	34,334	84.8%	22.8%
	Total Population	19,671		30,707		56.1%	40,468		31.8%
Total Rockingham County	Hispanic Population	549	0.7%	1,124	1.3%	104.7%	5,801	5.4%	416.1%
	Population Black	1,662	2.2%	2,869	3.3%	72.6%	3,318	3.1%	15.7%
	Population White	74,598	97.2%	84,071	95.3%	12.7%	99,740	92.2%	18.6%
	Total Population	76,709		88,189		15.0%	108,193		22.7%
Shenandoah County	Hispanic Population	191	0.7%	276	0.9%	44.5%	1,194	3.4%	332.6%
	Population Black	374	1.4%	394	1.2%	5.3%	412	1.2%	4.6%
	Population White	27,103	98.3%	31,037	98.1%	14.5%	33,533	95.6%	8.0%
	Total Population	27,559		31,636		14.8%	35,075		10.9%
Warren County	Hispanic Population	194	0.9%	268	1.0%	38.1%	494	1.6%	84.3%
	Population Black	1,189	5.6%	1,191	4.6%	0.2%	1,526	4.8%	28.1%
	Population White	19,887	93.8%	24,732	94.6%	24.4%	29,280	92.7%	18.4%
	Total Population	21,200		26,142		23.3%	31,584		20.8%
Hampshire County WV	Hispanic Population	64	0.4%	53	0.3%	-17.2%	112	0.6%	111.3%
	Population Black	107	0.7%	146	0.9%	36.4%	167	0.8%	14.4%
	Population White	14,714	99.0%	16,291	98.7%	10.7%	19,807	98.0%	21.6%
	Total Population	14,867		16,498		11.0%	20,203		22.5%
Hardy County WV	Hispanic Population	71	0.7%	27	0.2%	-62.0%	84	0.7%	211.1%
	Population Black	203	2.0%	211	1.9%	3.9%	244	1.9%	15.6%
	Population White	9,816	97.9%	10,719	97.6%	9.2%	12,273	96.9%	14.5%
	Total Population	10,030		10,977		9.4%	12,669		15.4%
Monroe County WV	Hispanic Population	116	0.9%	21	0.2%	-81.9%	72	0.5%	242.9%
	Population Black	204	1.6%	119	1.0%	-41.7%	872	6.0%	632.8%
	Population White	12,611	98.0%	12,238	98.6%	-3.0%	13,514	92.7%	10.4%
	Total Population	12,873		12,406		-3.6%	14,583		17.5%
Pendleton County WV	Hispanic Population	62	0.8%	20	0.2%	-67.7%	73	0.9%	265.0%
	Population Black	171	2.2%	170	2.1%	-0.6%	174	2.1%	2.4%
	Population White	7,713	97.5%	7,870	97.7%	2.0%	7,896	96.3%	0.3%
	Total Population	7,910		8,054		1.8%	8,196		1.8%
Forest Total	Hispanic Population	2,994	0.6%	3,729	0.7%	24.5%	13,343	2.3%	257.8%
	Population Black	26,343	5.7%	27,805	5.5%	5.5%	31,501	5.4%	13.3%
	Population White	436,117	93.9%	474,525	93.7%	8.8%	535,324	91.8%	12.8%
	Total Population	464,543		506,620		9.1%	583,134		15.1%
Virginia	Hispanic Population	79,868	1.5%	155,353	2.5%	94.5%	329,540	4.7%	112.1%
	Population Black	1,008,668	18.9%	1,163,068	18.8%	15.3%	1,390,293	19.6%	19.5%
	Population White	4,229,798	79.1%	4,793,278	77.5%	13.3%	5,120,110	72.3%	6.8%
	Total Population	5,346,818		6,187,358		15.7%	7,078,515		14.4%
West Va.	Hispanic Population	12,707	0.7%	7,892	0.4%	-37.9%	12,279	0.7%	55.6%
	Population Black	65,051	3.3%	55,398	3.1%	-14.8%	57,232	3.2%	3.3%
	Population White	1,874,751	96.2%	1,726,023	96.2%	-7.9%	1,718,777	95.0%	-0.4%
	Total Population	1,949,644		1,793,477		-8.0%	1,808,344		0.8%
Source: U.S. Census, NRIS HD Model									
*Percentages do not add to 100% because other minorities present or due to rounding.									

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
VA, Alleghany County	Pop0to4	963	6.7%	768	5.8%	721	5.6%	-25.1%
	Pop5to9	1,126	7.9%	846	6.4%	846	6.5%	-24.9%
	Pop10to14	1,337	9.3%	961	7.3%	850	6.6%	-36.4%
	Pop15to17	893	6.2%	580	4.4%	534	4.1%	-40.2%
	Population 0 - 17	4,319	30.1%	3,155	23.9%	2,951	22.8%	-31.7%
	Pop62to64	383	2.7%	465	3.5%	402	3.1%	5.0%
	Pop65to74	1,006	7.0%	1,129	8.6%	1,101	8.5%	9.4%
	Pop75to84	432	3.0%	552	4.2%	717	5.5%	66.0%
	Pop85Plus	80	0.6%	115	0.9%	207	1.6%	158.8%
	Population 62+	1,901	13.3%	2,261	17.2%	2,427	18.8%	27.7%
	Total Population	14,333		13,176		12,926		-9.8%
Covington city	Pop0to4	493	5.4%	406	5.8%	395	6.3%	-19.9%
	Pop5to9	555	6.1%	381	5.4%	389	6.2%	-29.9%
	Pop10to14	706	7.8%	392	5.6%	355	5.6%	-49.7%
	Pop15to17	467	5.2%	228	3.3%	213	3.4%	-54.4%
	Population 0 - 17	2,221	24.5%	1,407	20.1%	1,352	21.5%	-39.1%
				0.0%		0.0%	0.0%	
	Pop62to64	337	3.7%	289	4.1%	167	2.6%	-50.4%
	Pop65to74	1,069	11.8%	814	11.6%	623	9.9%	-41.7%
	Pop75to84	436	4.8%	591	8.5%	462	7.3%	6.0%
	Pop85Plus	100	1.1%	142	2.0%	189	3.0%	89.0%
Population 62+	1,942	21.4%	1,836	26.3%	1,441	22.9%	-25.8%	
	Total Population	9,063		6,991		6,303		-30.5%
Total Alleghany County	Pop0to4	1,456	6.2%	1,174	5.8%	1,116	5.8%	-23.4%
	Pop5to9	1,681	7.2%	1,227	6.1%	1,235	6.4%	-26.5%
	Pop10to14	2,043	8.7%	1,353	6.7%	1,205	6.3%	-41.0%
	Pop15to17	1,360	5.8%	808	4.0%	747	3.9%	-45.1%
	Population 0 - 17	6,540	28.0%	4,562	22.6%	4,303	22.4%	-34.2%
	Pop62to64	720	3.1%	754	3.7%	569	3.0%	-21.0%
	Pop65to74	2,075	8.9%	1,943	9.6%	1,724	9.0%	-16.9%
	Pop75to84	868	3.7%	1,143	5.7%	1,179	6.1%	35.8%
	Pop85Plus	180	0.8%	257	1.3%	396	2.1%	120.0%
	Population 62+	3,843	16.4%	4,097	20.3%	3,868	20.1%	0.7%
	Total Population	23,396		20,167		19,229		-17.8%
VA, Amherst County	Pop0to4	1,841	6.3%	1,802	6.3%	1,820	5.7%	-1.1%
	Pop5to9	2,112	7.3%	1,867	6.5%	2,075	6.5%	-1.8%
	Pop10to14	2,386	8.2%	1,788	6.3%	2,235	7.0%	-6.3%
	Pop15to17	1,607	5.5%	1,157	4.0%	1,356	4.3%	-15.6%
	Population 0 - 17	7,946	27.3%	6,614	23.1%	7,486	23.5%	-5.8%
	Pop62to64	718	2.5%	670	2.3%	905	2.8%	26.0%
	Pop65to74	1,927	6.6%	1,977	6.9%	2,520	7.9%	30.8%
	Pop75to84	885	3.0%	1,098	3.8%	1,415	4.4%	59.9%
	Pop85Plus	216	0.7%	280	1.0%	462	1.4%	113.9%
	Population 62+	3,746	12.9%	4,025	14.1%	5,302	16.6%	41.5%
	Total Population	29,122		28,578		31,894		9.5%
VA, Augusta County	Pop0to4	3,387	6.3%	3,541	6.5%	3,715	5.7%	9.7%
	Pop5to9	3,978	7.4%	3,938	7.2%	4,372	6.7%	9.9%
	Pop10to14	4,400	8.2%	3,640	6.7%	4,687	7.1%	6.5%
	Pop15to17	3,207	6.0%	2,260	4.1%	2,793	4.3%	-12.9%

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
	Population 0 - 17	14,972	27.9%	13,379	24.5%	15,567	23.7%	4.0%
	Pop62to64	1,393	2.6%	1,503	2.7%	1,873	2.9%	34.5%
	Pop65to74	3,771	7.0%	3,897	7.1%	4,868	7.4%	29.1%
	Pop75to84	1,630	3.0%	1,907	3.5%	2,705	4.1%	66.0%
	Pop85Plus	459	0.9%	387	0.7%	856	1.3%	86.5%
	Population 62+	7,253	13.5%	7,694	14.1%	10,302	15.7%	42.0%
	Total Population	53,732		54,677		65,615		22.1%
Staunton city	Pop0to4	1,161	5.3%	1,377	5.6%	1,241	5.2%	6.9%
	Pop5to9	1,245	5.7%	1,413	5.8%	1,285	5.4%	3.2%
	Pop10to14	1,367	6.3%	1,299	5.3%	1,331	5.6%	-2.6%
	Pop15to17	1,071	4.9%	1,015	4.1%	872	3.7%	-18.6%
	Population 0 - 17	4,844	22.2%	5,104	20.9%	4,729	19.8%	-2.4%
	Pop62to64	692	3.2%	630	2.6%	628	2.6%	-9.2%
	Pop65to74	1,992	9.1%	2,349	9.6%	2,113	8.9%	6.1%
	Pop75to84	972	4.4%	1,421	5.8%	1,601	6.7%	64.7%
	Pop85Plus	326	1.5%	343	1.4%	586	2.5%	79.8%
	Population 62+	3,982	18.2%	4,743	19.4%	4,928	20.7%	23.8%
	Total Population	21,857		24,461		23,853		9.1%
Waynesboro city	Pop0to4	948	6.2%	1,258	6.8%	1,282	6.6%	35.2%
	Pop5to9	999	6.5%	1,238	6.7%	1,351	6.9%	35.2%
	Pop10to14	1,157	7.5%	1,052	5.7%	1,306	6.7%	12.9%
	Pop15to17	877	5.7%	680	3.7%	725	3.7%	-17.3%
	Population 0 - 17	3,981	26.0%	4,228	22.8%	4,664	23.9%	17.2%
	Pop62to64	525	3.4%	657	3.5%	535	2.7%	1.9%
	Pop65to74	1,286	8.4%	1,926	10.4%	1,737	8.9%	35.1%
	Pop75to84	490	3.2%	990	5.3%	1,297	6.6%	164.7%
	Pop85Plus	130	0.8%	209	1.1%	407	2.1%	213.1%
	Population 62+	2,431	15.9%	3,782	20.4%	3,976	20.4%	63.6%
	Total Population	15,329		18,549		19,520		27.3%
Total Augusta County	Pop0to4	5,496	6.0%	6,176	6.3%	6,238	5.7%	13.5%
	Pop5to9	6,222	6.8%	6,589	6.7%	7,008	6.4%	12.6%
	Pop10to14	6,924	7.6%	5,991	6.1%	7,324	6.7%	5.8%
	Pop15to17	5,155	5.7%	3,955	4.0%	4,390	4.0%	-14.8%
	Population 0 - 17	23,797	26.2%	22,711	23.2%	24,960	22.9%	4.9%
	Pop62to64	2,610	2.9%	2,790	2.9%	3,036	2.8%	16.3%
	Pop65to74	7,049	7.8%	8,172	8.4%	8,718	8.0%	23.7%
	Pop75to84	3,092	3.4%	4,318	4.4%	5,603	5.1%	81.2%
	Pop85Plus	915	1.0%	939	1.0%	1,849	1.7%	102.1%
	Population 62+	13,666	15.0%	16,219	16.6%	19,206	17.6%	40.5%
	Total Population	90,918		97,687		108,988		19.9%
VA, Bath County	Pop0to4	337	5.8%	253	5.3%	222	4.4%	-34.1%
	Pop5to9	394	6.7%	336	7.0%	306	6.1%	-22.3%
	Pop10to14	474	8.1%	234	4.9%	343	6.8%	-27.6%
	Pop15to17	310	5.3%	164	3.4%	191	3.8%	-38.4%
	Population 0 - 17	1,515	25.9%	987	20.6%	1,062	21.0%	-29.9%
	Pop62to64	170	2.9%	167	3.5%	180	3.6%	5.9%
	Pop65to74	491	8.4%	487	10.1%	515	10.2%	4.9%
	Pop75to84	258	4.4%	228	4.8%	250	5.0%	-3.1%
	Pop85Plus	44	0.8%	44	0.9%	79	1.6%	79.5%
	Population 62+	963	16.4%	926	19.3%	1,024	20.3%	6.3%
	Total Pop	5,860		4,799		5,048		-13.9%

Table 3: GW NF Young and Old Population Characteristics									
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001	
VA, Botetourt County	Pop0to4	1,433	6.2%	1,423	5.7%	1,749	5.7%	22.1%	
	Pop5to9	1,801	7.7%	1,653	6.6%	1,892	6.2%	5.1%	
	Pop10to14	1,980	8.5%	1,625	6.5%	2,194	7.2%	10.8%	
	Pop15to17	1,362	5.9%	1,107	4.4%	1,303	4.3%	-4.3%	
	Population 0 - 17	6,576	28.3%	5,808	23.2%	7,138	23.4%	8.5%	
				0.0%		0.0%		0.0%	
	Pop62to64	587	2.5%	711	2.8%	905	3.0%	54.2%	
	Pop65to74	1,536	6.6%	1,920	7.7%	2,474	8.1%	61.1%	
	Pop75to84	730	3.1%	923	3.7%	1,205	4.0%	65.1%	
	Pop85Plus	173	0.7%	230	0.9%	333	1.1%	92.5%	
	Population 62+	3,026	13.0%	3,784	15.1%	4,917	16.1%	62.5%	
	Total Pop	23,270		24,992		30,496		31.1%	
VA, Frederick County	Pop0to4	2,483	7.3%	3,487	7.6%	3,825	6.5%	54.0%	
	Pop5to9	2,744	8.0%	3,469	7.6%	4,529	7.6%	65.1%	
	Pop10to14	3,168	9.3%	3,338	7.3%	4,654	7.9%	46.9%	
	Pop15to17	2,203	6.5%	1,922	4.2%	2,595	4.4%	17.8%	
	Population 0 - 17	10,598	31.0%	12,216	26.7%	15,603	26.4%	47.2%	
				0.0%		0.0%		0.0%	
	Pop62to64	745	2.2%	1,102	2.4%	1,520	2.6%	104.0%	
	Pop65to74	1,827	5.3%	2,840	6.2%	3,667	6.2%	100.7%	
	Pop75to84	744	2.2%	1,164	2.5%	2,011	3.4%	170.3%	
	Pop85Plus	216	0.6%	303	0.7%	625	1.1%	189.4%	
	Population 62+	3,532	10.3%	5,409	11.8%	7,823	13.2%	121.5%	
	Total Pop	34,150		45,723		59,209		73.4%	
VA, Winchester city	Pop0to4	1,227	6.1%	1,492	6.8%	1,432	6.1%	16.7%	
	Pop5to9	1,135	5.6%	1,272	5.8%	1,457	6.2%	28.4%	
	Pop10to14	1,345	6.7%	1,284	5.9%	1,381	5.9%	2.7%	
	Pop15to17	959	4.7%	682	3.1%	842	3.6%	-12.2%	
	Population 0 - 17	4,666	23.1%	4,730	21.6%	5,112	21.7%	9.6%	
	Pop62to64	631	3.1%	612	2.8%	535	2.3%	-15.2%	
	Pop65to74	1,791	8.9%	1,893	8.6%	1,825	7.7%	1.9%	
	Pop75to84	978	4.8%	1,106	5.0%	1,235	5.2%	26.3%	
	Pop85Plus	284	1.4%	336	1.5%	371	1.6%	30.6%	
	Population 62+	3,684	18.2%	3,947	18.0%	3,966	16.8%	7.7%	
	Total Pop	20,217		21,947		23,585		16.7%	
Total Frederick County	Pop0to4	3,710	6.8%	4,979	7.4%	5,257	6.3%	41.7%	
	Pop5to9	3,879	7.1%	4,741	7.0%	5,986	7.2%	54.3%	
	Pop10to14	4,513	8.3%	4,622	6.8%	6,035	7.3%	33.7%	
	Pop15to17	3,162	5.8%	2,604	3.8%	3,437	4.2%	8.7%	
	Population 0 - 17	15,264	28.1%	16,946	25.0%	20,715	25.0%	35.7%	
	Pop62to64	1,376	2.5%	1,714	2.5%	2,055	2.5%	49.3%	
	Pop65to74	3,618	6.7%	4,733	7.0%	5,492	6.6%	51.8%	
	Pop75to84	1,722	3.2%	2,270	3.4%	3,246	3.9%	88.5%	
	Pop85Plus	500	0.9%	639	0.9%	996	1.2%	99.2%	
	Population 62+	7,216	13.3%	9,356	13.8%	11,789	14.2%	63.4%	
	Total Population	54,367		67,670		82,794		52.3%	
VA, Highland County	Pop0to4	212	7.2%	147	5.6%	94	3.7%	-55.7%	
	Pop5to9	165	5.6%	154	5.8%	139	5.5%	-15.8%	
	Pop10to14	183	6.2%	176	6.7%	168	6.6%	-8.2%	
	Pop15to17	127	4.3%	94	3.6%	103	4.1%	-18.9%	
	Population 0 - 17	687	23.4%	571	21.7%	504	19.9%	-26.6%	
	Pop62to64	128	4.4%	95	3.6%	108	4.3%	-15.6%	
	Pop65to74	296	10.1%	297	11.3%	265	10.4%	-10.5%	

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
	Pop75to84	135	4.6%	170	6.5%	207	8.2%	53.3%
	Pop85Plus	33	1.1%	43	1.6%	45	1.8%	36.4%
	Population 62+	592	20.2%	605	23.0%	625	24.6%	5.6%
	Total Population	2,937		2,635		2,536		-13.7%
VA, Nelson County	Pop0to4	750	6.1%	804	6.3%	759	5.3%	1.2%
	Pop5to9	857	7.0%	895	7.0%	805	5.6%	-6.1%
	Pop10to14	983	8.1%	911	7.1%	968	6.7%	-1.5%
	Pop15to17	718	5.9%	507	4.0%	601	4.2%	-16.3%
	Population 0 - 17	3,308	27.1%	3,117	24.4%	3,133	21.7%	-5.3%
	Pop62to64	384	3.1%	454	3.6%	471	3.3%	22.7%
	Pop65to74	1,160	9.5%	1,167	9.1%	1,410	9.8%	21.6%
	Pop75to84	514	4.2%	613	4.8%	777	5.4%	51.2%
	Pop85Plus	151	1.2%	237	1.9%	233	1.6%	54.3%
	Population 62+	2,209	18.1%	2,471	19.3%	2,891	20.0%	30.9%
	Total Population	12,204		12,778		14,445		18.4%
VA, Page County	Pop0to4	1,324	6.8%	1,381	6.4%	1,286	5.5%	-2.9%
	Pop5to9	1,374	7.1%	1,452	6.7%	1,515	6.5%	10.3%
	Pop10to14	1,565	8.1%	1,408	6.5%	1,563	6.7%	-0.1%
	Pop15to17	1,101	5.7%	855	3.9%	959	4.1%	-12.9%
	Population 0 - 17	5,364	27.6%	5,096	23.5%	5,323	23.0%	-0.8%
	Pop62to64	575	3.0%	682	3.1%	682	2.9%	18.6%
	Pop65to74	1,558	8.0%	1,949	9.0%	2,017	8.7%	29.5%
	Pop75to84	752	3.9%	1,024	4.7%	1,236	5.3%	64.4%
	Pop85Plus	207	1.1%	276	1.3%	391	1.7%	88.9%
	Population 62+	3,092	15.9%	3,931	18.1%	4,326	18.7%	39.9%
	Total Population	19,401		21,690		23,177		19.5%
VA, Rockbridge County	Pop0to4	1,098	6.1%	1,120	6.1%	1,123	5.4%	2.3%
	Pop5to9	1,197	6.7%	1,149	6.3%	1,231	5.9%	2.8%
	Pop10to14	1,427	8.0%	1,146	6.2%	1,387	6.7%	-2.8%
	Pop15to17	1,170	6.5%	783	4.3%	888	4.3%	-24.1%
	Population 0 - 17	4,892	27.3%	4,198	22.9%	4,629	22.2%	-5.4%
	Pop62to64	530	3.0%	681	3.7%	717	3.4%	35.3%
	Pop65to74	1,341	7.5%	1,651	9.0%	1,942	9.3%	44.8%
	Pop75to84	558	3.1%	763	4.2%	1,027	4.9%	84.1%
	Pop85Plus	143	0.8%	114	0.6%	290	1.4%	102.8%
	Population 62+	2,572	14.4%	3,209	17.5%	3,976	19.1%	54.6%
	Total Population	17,911		18,350		20,808		16.2%
Buena Vista city	Pop0to4	424	6.3%	324	5.1%	392	6.2%	-7.5%
	Pop5to9	511	7.6%	338	5.3%	391	6.2%	-23.5%
	Pop10to14	595	8.9%	436	6.8%	404	6.4%	-32.1%
	Pop15to17	374	5.6%	297	4.6%	239	3.8%	-36.1%
	Population 0 - 17	1,904	28.3%	1,395	21.8%	1,426	22.5%	-25.1%
	Pop62to64	195	2.9%	229	3.6%	206	3.2%	5.6%
	Pop65to74	482	7.2%	572	8.9%	542	8.5%	12.4%
	Pop75to84	201	3.0%	326	5.1%	352	5.5%	75.1%
	Pop85Plus	47	0.7%	127	2.0%	140	2.2%	197.9%
	Population 62+	925	13.8%	1,254	19.6%	1,240	19.5%	34.1%
	Total Population	6,717		6,406		6,349		-5.5%
Lexington city	Pop0to4	262	3.6%	184	2.6%	205	3.0%	-21.8%
	Pop5to9	280	3.8%	223	3.2%	195	2.8%	-30.4%
	Pop10to14	332	4.6%	248	3.6%	213	3.1%	-35.8%
	Pop15to17	262	3.6%	167	2.4%	142	2.1%	-45.8%

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
	Population 0 - 17	1,136	15.6%	822	11.8%	755	11.0%	-33.5%
	Pop62to64	154	2.1%	174	2.5%	155	2.3%	0.6%
	Pop65to74	513	7.0%	602	8.7%	529	7.7%	3.1%
	Pop75to84	299	4.1%	311	4.5%	419	6.1%	40.1%
	Pop85Plus	82	1.1%	121	1.7%	178	2.6%	117.1%
	Population 62+	1,048	14.4%	1,208	17.4%	1,281	18.7%	22.2%
	Total Population	7,292		6,959		6,867		-5.8%
Total Rockbridge County	Pop0to4	1,784	5.6%	1,628	5.1%	1,720	5.1%	-3.6%
	Pop5to9	1,988	6.2%	1,710	5.4%	1,817	5.3%	-8.6%
	Pop10to14	2,354	7.4%	1,830	5.8%	2,004	5.9%	-14.9%
	Pop15to17	1,806	5.7%	1,247	3.9%	1,269	3.7%	-29.7%
	Population 0 - 17	7,932	24.8%	6,415	20.2%	6,810	20.0%	-14.1%
	Pop62to64	879	2.8%	1,084	3.4%	1,078	3.2%	22.6%
	Pop65to74	2,336	7.3%	2,825	8.9%	3,013	8.9%	29.0%
	Pop75to84	1,058	3.3%	1,400	4.4%	1,798	5.3%	69.9%
	Pop85Plus	272	0.9%	362	1.1%	608	1.8%	123.5%
	Population 62+	4,545	14.2%	5,671	17.9%	6,497	19.1%	42.9%
	Total Population	31,920		31,715		34,024		6.6%
VA, Rockingham County	Pop0to4	3,951	6.9%	3,920	6.8%	4,246	6.3%	7.5%
	Pop5to9	3,923	6.9%	4,079	7.1%	4,691	6.9%	19.6%
	Pop10to14	4,362	7.6%	3,822	6.6%	4,947	7.3%	13.4%
	Pop15to17	3,137	5.5%	2,262	3.9%	2,795	4.1%	-10.9%
	Population 0 - 17	15,373	27.0%	14,083	24.5%	16,679	24.6%	8.5%
	Pop62to64	1,439	2.5%	1,685	2.9%	1,766	2.6%	22.7%
	Pop65to74	3,552	6.2%	4,402	7.7%	5,051	7.5%	42.2%
	Pop75to84	1,769	3.1%	2,417	4.2%	3,252	4.8%	83.8%
	Pop85Plus	566	1.0%	801	1.4%	1,128	1.7%	99.3%
	Population 62+	7,326	12.8%	9,305	16.2%	11,197	16.5%	52.8%
	Total Population	57,038		57,482		67,725		18.7%
VA, Harrisonburg city	Pop0to4	799	4.1%	1,450	4.7%	1,905	4.7%	138.4%
	Pop5to9	857	4.4%	1,295	4.2%	1,715	4.2%	100.1%
	Pop10to14	860	4.4%	1,312	4.3%	1,612	4.0%	87.4%
	Pop15to17	664	3.4%	754	2.5%	1,005	2.5%	51.4%
	Population 0 - 17	3,180	16.2%	4,811	15.7%	6,237	15.4%	96.1%
	Pop62to64	405	2.1%	496	1.6%	506	1.3%	24.9%
	Pop65to74	1,205	6.1%	1,668	5.4%	1,740	4.3%	44.4%
	Pop75to84	679	3.5%	1,115	3.6%	1,456	3.6%	114.4%
	Pop85Plus	240	1.2%	405	1.3%	571	1.4%	137.9%
	Population 62+	2,529	12.9%	3,684	12.0%	4,273	10.6%	69.0%
	Total Population	19,671		30,707		40,468		105.7%
Total Rockingham County	Pop0to4	4,750	6.2%	5,370	6.1%	6,151	5.7%	29.5%
	Pop5to9	4,780	6.2%	5,374	6.1%	6,406	5.9%	34.0%
	Pop10to14	5,222	6.8%	5,134	5.8%	6,559	6.1%	25.6%
	Pop15to17	3,801	5.0%	3,016	3.4%	3,800	3.5%	0.0%
	Population 0 - 17	18,553	24.2%	18,894	21.4%	22,916	21.2%	23.5%
	Pop62to64	1,844	2.4%	2,181	2.5%	2,272	2.1%	23.2%
	Pop65to74	4,757	6.2%	6,070	6.9%	6,791	6.3%	42.8%
	Pop75to84	2,448	3.2%	3,532	4.0%	4,708	4.4%	92.3%
	Pop85Plus	806	1.1%	1,206	1.4%	1,699	1.6%	110.8%

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
	Population 62+	9,855	12.8%	12,989	14.7%	15,470	14.3%	57.0%
	Total Population	76,709		88,189		108,193		41.0%
VA, Shenandoah County	Pop0to4	1,639	5.9%	1,930	6.1%	1,948	5.6%	18.9%
	Pop5to9	1,855	6.7%	2,066	6.5%	2,250	6.4%	21.3%
	Pop10to14	2,157	7.8%	1,878	5.9%	2,311	6.6%	7.1%
	Pop15to17	1,558	5.7%	1,157	3.7%	1,302	3.7%	-16.4%
	Population 0 - 17	7,209	26.2%	7,031	22.2%	7,811	22.3%	8.4%
	Pop62to64	840	3.0%	1,025	3.2%	1,123	3.2%	33.7%
	Pop65to74	2,506	9.1%	2,970	9.4%	3,302	9.4%	31.8%
	Pop75to84	1,219	4.4%	1,743	5.5%	2,119	6.0%	73.8%
	Pop85Plus	362	1.3%	552	1.7%	662	1.9%	82.9%
	Population 62+	4,927	17.9%	6,290	19.9%	7,206	20.5%	46.3%
	Total Population	27,559		31,636		35,075		27.3%
VA, Warren County	Pop0to4	1,359	6.4%	2,042	7.8%	2,100	6.6%	54.5%
	Pop5to9	1,570	7.4%	1,959	7.5%	2,356	7.5%	50.1%
	Pop10to14	1,707	8.1%	1,475	5.6%	2,363	7.5%	38.4%
	Pop15to17	1,223	5.8%	910	3.5%	1,264	4.0%	3.4%
	Population 0 - 17	5,859	27.6%	6,386	24.4%	8,083	25.6%	38.0%
	Pop62to64	679	3.2%	609	2.3%	763	2.4%	12.4%
	Pop65to74	1,786	8.4%	2,051	7.8%	2,134	6.8%	19.5%
	Pop75to84	641	3.0%	1,025	3.9%	1,360	4.3%	112.2%
	Pop85Plus	153	0.7%	336	1.3%	399	1.3%	160.8%
	Population 62+	3,259	15.4%	4,021	15.4%	4,656	14.7%	42.9%
	Total Population	21,200		26,142		31,584		49.0%
WV, Hampshire County	Pop0to4	1,079	7.3%	1,150	7.0%	1,241	6.1%	15.0%
	Pop5to9	1,207	8.1%	1,132	6.9%	1,397	6.9%	15.7%
	Pop10to14	1,383	9.3%	1,337	8.1%	1,554	7.7%	12.4%
	Pop15to17	924	6.2%	777	4.7%	889	4.4%	-3.8%
	Population 0 - 17	4,593	30.9%	4,396	26.6%	5,081	25.1%	10.6%
	Pop62to64	408	2.7%	555	3.4%	586	2.9%	43.6%
	Pop65to74	1,182	8.0%	1,439	8.7%	1,687	8.4%	42.7%
	Pop75to84	518	3.5%	653	4.0%	946	4.7%	82.6%
	Pop85Plus	141	0.9%	169	1.0%	307	1.5%	117.7%
	Population 62+	2,249	15.1%	2,816	17.1%	3,526	17.5%	56.8%
	Total Population	14,867		16,498		20,203		35.9%
WV, Hardy County	Pop0to4	664	6.6%	710	6.5%	755	6.0%	13.7%
	Pop5to9	719	7.2%	717	6.5%	867	6.8%	20.6%
	Pop10to14	830	8.3%	719	6.6%	881	7.0%	6.1%
	Pop15to17	584	5.8%	494	4.5%	451	3.6%	-22.8%
	Population 0 - 17	2,797	27.9%	2,640	24.1%	2,954	23.3%	5.6%
	Pop62to64	296	3.0%	354	3.2%	360	2.8%	21.6%
	Pop65to74	862	8.6%	991	9.0%	1,074	8.5%	24.6%
	Pop75to84	415	4.1%	545	5.0%	618	4.9%	48.9%
	Pop85Plus	110	1.1%	148	1.3%	192	1.5%	74.5%
	Population 62+	1,683	16.8%	2,038	18.6%	2,244	17.7%	33.3%
	Total Population	10,030		10,977		12,669		26.3%
WV, Monroe County	Pop0to4	931	7.2%	739	6.0%	723	5.0%	-22.3%
	Pop5to9	1,004	7.8%	944	7.6%	800	5.5%	-20.3%
	Pop10to14	1,112	8.6%	788	6.4%	894	6.1%	-19.6%
	Pop15to17	758	5.9%	609	4.9%	516	3.5%	-31.9%
	Population 0 - 17	3,805	29.6%	3,080	24.8%	2,933	20.1%	-22.9%
	Pop62to64	404	3.1%	445	3.6%	416	2.9%	3.0%
	Pop65to74	1,116	8.7%	1,234	9.9%	1,222	8.4%	9.5%
	Pop75to84	591	4.6%	672	5.4%	791	5.4%	33.8%
	Pop85Plus	166	1.3%	194	1.6%	229	1.6%	38.0%

Table 3: GW NF Young and Old Population Characteristics								
		1980	% of County/State	1990	% of County/State	2000	% of County/State	% Change 1980 to 2001
	Population 62+	2,277	17.7%	2,545	20.5%	2,658	18.2%	16.7%
	Total Population	12,873		12,406		14,583		13.3%
WV, Pendleton County	Pop0to4	592	7.5%	527	6.5%	440	5.4%	-25.7%
	Pop5to9	542	6.9%	612	7.6%	503	6.1%	-7.2%
	Pop10to14	622	7.9%	487	6.0%	545	6.6%	-12.4%
	Pop15to17	395	5.0%	288	3.6%	301	3.7%	-23.8%
	Population 0 - 17	2,151	27.2%	1,914	23.8%	1,789	21.8%	-16.8%
	Pop62to64	251	3.2%	272	3.4%	258	3.1%	2.8%
	Pop65to74	728	9.2%	735	9.1%	775	9.5%	6.5%
	Pop75to84	379	4.8%	485	6.0%	494	6.0%	30.3%
	Pop85Plus	107	1.4%	171	2.1%	191	2.3%	78.5%
	Population 62+	1,465	18.5%	1,663	20.6%	1,718	21.0%	17.3%
	Total Population	7,910		8,054		8,196		3.6%
Total Forest	Pop0to4	29,357	6.3%	32,235	6.4%	33,619	5.8%	14.5%
	Pop5to9	32,150	6.9%	33,428	6.6%	37,357	6.4%	16.2%
	Pop10to14	36,438	7.8%	31,756	6.3%	39,146	6.7%	7.4%
	Pop15to17	25,951	5.6%	19,749	3.9%	22,879	3.9%	-11.8%
	Population 0 - 17	123,896	26.7%	117,168	23.1%	133,001	22.8%	7.3%
	Pop62to64	12,869	2.8%	14,562	2.9%	15,767	2.7%	22.5%
	Pop65to74	34,983	7.5%	40,960	8.1%	45,133	7.7%	29.0%
	Pop75to84	16,225	3.5%	21,842	4.3%	27,952	4.8%	72.3%
	Pop85Plus	4,536	1.0%	6,083	1.2%	9,071	1.6%	100.0%
	Population 62+	68,613	14.8%	83,447	16.5%	97,923	16.8%	42.7%
	Total Population	464,543		506,613		583,134		25.5%
Virginia	Pop0to4	360,686	6.7%	440,939	7.1%	461,982	6.5%	28.1%
	Pop5to9	387,524	7.2%	424,996	6.9%	495,084	7.0%	27.8%
	Pop10to14	431,051	8.1%	399,442	6.5%	495,955	7.0%	15.1%
	Pop15to17	295,073	5.5%	238,950	3.9%	285,241	4.0%	-3.3%
	Population 0 - 17	1,474,334	27.6%	1,504,327	24.3%	1,738,262	24.6%	17.9%
	Pop62to64	125,552	2.3%	146,345	2.4%	156,451	2.2%	24.6%
	Pop65to74	318,296	6.0%	403,382	6.5%	432,456	6.1%	35.9%
	Pop75to84	145,877	2.7%	200,837	3.2%	272,611	3.9%	86.9%
	Pop85Plus	41,131	0.8%	58,385	0.9%	87,266	1.2%	112.2%
	Population 62+	630,856	11.8%	808,949	13.1%	948,784	13.4%	50.4%
	Total Population	5,346,818		6,187,358		7,078,515		32.4%
West Va.	Pop0to4	145,583	7.5%	106,545	5.9%	101,805	5.6%	-30.1%
	Pop5to9	152,802	7.8%	120,332	6.7%	111,150	6.1%	-27.3%
	Pop10to14	157,489	8.1%	134,284	7.5%	116,182	6.4%	-26.2%
	Pop15to17	103,762	5.3%	83,045	4.6%	73,256	4.1%	-29.4%
	Population 0 - 17	559,636	28.7%	444,206	24.8%	402,393	22.3%	-28.1%
	Pop62to64	54,249	2.8%	56,422	3.1%	50,375	2.8%	-7.1%
	Pop65to74	147,298	7.6%	156,926	8.7%	148,463	8.2%	0.8%
	Pop75to84	71,161	3.6%	87,748	4.9%	96,653	5.3%	35.8%
	Pop85Plus	19,409	1.0%	24,130	1.3%	31,779	1.8%	63.7%
	Population 62+	292,117	15.0%	325,226	18.1%	327,270	18.1%	12.0%
	Total Population	1,949,644		1,793,477		1,808,344		-7.2%

Source: USDA Human Dimensions Model; U.S. Census

Table 4: GW NF Boundary Counties Population Per Square Mile 1990, 2000						
County	1990 Density	1990 Population	Weighted Average 1990	2000 Density	2000 Population	Weighted Average 2000
VA, Alleghany County	29.5	13,176	389,347	29.1	12,926	375,776
Covington city	1,575.8	6,991	11,016,731	1,111.6	6303	7,006,668
Total Alleghany Co.	565.6	20,167	11,406,078	383.9	19,229	7,382,445
VA, Amherst County	60.1	28,578	1,718,423	67.1	31,894	2,140,720
VA, Augusta County	56.3	54,677	3,076,578	67.6	65,615	4,436,836
Staunton city	1,237.8	24,461	30,277,870	1,210.2	23,853	28,866,850
Waynesboro city	1,320.6	18,549	24,496,066	1,270.8	19,520	24,806,667
Total Augusta Co.	421.5	79,138	33,354,448	372.2	89,468	33,303,686
VA, Bath County	9.0	4,799	43,299	9.5	5,048	47,912
VA, Botetourt County	46.1	24,992	1,150,900	56.2	30,496	1,713,791
VA, Frederick County	110.3	45,723	5,042,584	142.8	59,209	8,455,022
Winchester city	2,351.8	21,947	51,614,038	2,527.9	23,585	59,619,745
Total Frederick Co.	837.2	67,670	56,656,622	822.2	82,794	68,074,767
VA, Highland County	6.3	2,635	16,695	6.1	2,536	15,465
VA, Nelson County	27.0	12,778	345,642	30.6	14,445	441,745
VA, Page County	69.7	21,690	1,511,997	74.5	23,177	1,726,524
VA, Rockbridge County	30.6	18,350	561,506	34.7	20,808	722,067
Buena Vista city	938.2	6,406	6,010,181	929.6	6,349	5,901,874
Lexington city	2,790.5	6,959	19,418,807	2,757.8	6,867	18,938,028
Total Rockbridge Co.	1,902.7	13,365	25,428,988	1,879.5	13,216	24,839,902
VA, Rockingham County	67.5	57,482	3,881,707	79.6	67,725	5,388,798
Harrisonburg city	1,748.1	30,707	53,680,285	2,304.6	40,468	93,260,764
Total Rockingham Co.	652.7	88,189	57,561,992	911.8	108,193	98,649,563
VA, Shenandoah County	61.8	31,636	1,953,824	68.5	35,075	2,401,905
VA, Warren County	122.3	26,142	3,197,578	147.8	31,584	4,667,988
WV, Hampshire County	25.7	16,498	424,104	31.5	20,203	636,043
WV, Hardy County	18.8	10,977	206,523	21.7	12,669	275,122
WV, Monroe County	26.2	12,406	325,119	30.8	14,583	449,255
WV, Pendleton County	11.5	8,054	92,931	11.7	8,196	96,256
Forest Totals		469,714	195,395,165	4,926	542,806	246,863,088
Forest Weighted Average	416.0			454.8		
Virginia	156.3			178.8		
West Va.	74.5			75.1		
Source: U.S. Census, NRIS Human Dimensions Module						

Table 5: GW NF Population Projections 2010 - 2030								
	April 2000	April 2010	Expected % Change 2000 to 2010	April 2020	Expected % Change 2010 to 2020	April 2030	Expected % Change 2020 to 2030	Expected % Change 2000 to 2030
Alleghany County, VA	17,215	16,400	-4.73%	16,000	-2.44%	16,000	0.00%	-7.06%
Covington City	6,303	6,000	-4.81%	5,800	-3.33%	5,700	-1.72%	-9.57%
Total Alleghany County	23,518	22,400	-4.75%	21,800	-2.68%	21,700	-0.46%	-7.73%
Amherst County, VA	31,894	32,900	3.15%	33,900	3.04%	34,900	2.95%	9.42%
Augusta County, VA	65,615	71,300	8.66%	76,100	6.73%	80,900	6.31%	23.29%
Staunton City	23,853	22,500	-5.67%	22,000	-2.22%	21,800	-0.91%	-8.61%
Waynesboro City	19,520	20,100	2.97%	20,500	1.99%	20,800	1.46%	6.56%
Total Augusta County	108,988	113,900	4.51%	118,600	4.13%	123,500	4.13%	13.32%
Bath County, VA	5,048	5,100	1.03%	5,300	3.92%	5,400	1.89%	6.97%
Botetourt County, VA	30,496	34,000	11.49%	37,500	10.29%	41,100	9.60%	34.77%
Frederick County, VA	59,209	72,300	22.11%	84,300	16.60%	96,100	14.00%	62.31%
Winchester City	23,585	26,000	10.24%	27,700	6.54%	29,300	5.78%	24.23%
Total Frederick County	82,794	98,300	18.73%	112,000	13.94%	125,400	11.96%	51.46%
Highland County, VA	2,536	2,500	-1.42%	2,400	-4.00%	2,400	0.00%	-5.36%
Nelson County, VA	14,445	15,100	4.53%	15,900	5.30%	16,600	4.40%	14.92%
Page County, VA	23,177	24,000	3.55%	24,700	2.92%	25,400	2.83%	9.59%
Rockbridge County, VA	20,808	21,800	4.77%	22,700	4.13%	23,600	3.97%	13.42%
Buena Vista City	6,349	6,100	-3.92%	6,000	-1.64%	6,000	0.00%	-5.50%
Lexington City	6,867	6,900	0.48%	6,900	0.00%	6,900	0.00%	0.48%
Total Rockbridge Cty	34,024	34,800	2.28%	35,600	2.30%	36,500	2.53%	7.28%
Rockingham County, VA	67,725	86,900	28.31%	92,800	6.79%	98,700	6.36%	45.74%
Harrisonburg City	40,468	46,600	15.15%	50,800	9.01%	54,800	7.87%	35.42%
Total Rockingham Co.	108,193	133,500	23.39%	143,600	7.57%	153,500	6.89%	41.88%
Shenandoah Cty, VA	35,075	39,100	11.48%	43,000	9.97%	47,100	9.53%	34.28%
Warren County, VA	31,584	36,300	14.93%	40,800	12.40%	45,200	10.78%	43.11%
Hampshire, WV	20,203	22,688	12.30%	24,538	8.15%	26,105	6.39%	29.21%
Hardy, WV	12,669	13,511	6.65%	14,283	5.71%	14,897	4.30%	17.59%
Monroe, WV	14,583	15,486	6.19%	16,243	4.89%	16,820	3.55%	15.34%
Pendleton, WV	8,196	8,569	4.55%	9,021	5.27%	9,504	5.35%	15.96%
Forest Total	587,423	652,154	11.02%	699,185	7.21%	746,026	6.70%	27.00%
Virginia Total	7,078,515	7,892,900	11.51%	8,601,900	8.98%	9,275,101	7.83%	31.03%
West Va. Total	1,808,344	1,895,921	4.84%	1,991,686	5.05%	2,089,105	4.89%	15.53%
Source: State of Virginia and West Va.								

Table 6: GW NF Boundary Counties Percent Rural Population 1980, 1990, 2000									
County	1980 Population Rural	1980 Population	1980 % Rural	1990 Population Rural	1990 Population	1990 % Rural	2000 Population Rural	2000 Population	2000 % Rural
VA, Alleghany County	14,333	14,333	100.0%	13,176	13,176	100.0%	9,378	12,926	72.6%
Covington city	0	9,063	0.0%	0	6,991	0.0%	0	6,303	0.0%
Total Alleghany Co.	14,333	23,396	61.3%	13,176	20,167	65.3%	9,378	19,229	48.8%
VA, Amherst County	14,976	29,122	51.4%	16,338	28,578	57.2%	20,112	31,894	63.1%
VA, Augusta County	50,950	53,732	94.8%	42,781	54,677	78.2%	51,153	65,615	78.0%
Staunton city	0	21,857	0.0%	139	24,461	0.6%	207	23,853	0.9%
Waynesboro city	0	15,329	0.0%	0	18,549	0.0%	448	19,520	2.3%
Total Augusta Co.	50,950	90,918	56.0%	42,920	97,687	43.9%	51,808	108,988	47.5%
VA, Bath County	5,860	5,860	100.0%	4,799	4,799	100.0%	5,048	5,048	100.0%
VA, Botetourt County	23,162	23,270	99.5%	22,126	24,992	88.5%	20,473	30,496	67.1%
VA, Frederick County	34,150	34,150	100.0%	45,723	45,723	100.0%	29,171	59,209	49.3%
Winchester city	0	20,217	0.0%	0	21,947	0.0%	0	23,585	0.0%
Total Frederick Co.	34,150	54,367	62.8%	45,723	67,670	67.6%	29,171	82,794	35.2%
VA, Highland County	2,937	2,937	100.0%	2,635	2,635	100.0%	2,536	2,536	100.0%
VA, Nelson County	12,204	12,204	100.0%	12,778	12,778	100.0%	14,445	14,445	100.0%
VA, Page County	15,817	19,401	81.5%	17,103	21,690	78.9%	18,354	23,177	79.2%
VA, Rockbridge County	17,911	17,911	100.0%	18,350	18,350	100.0%	20,044	20,808	96.3%
Buena Vista city	0	6,717	0.0%	0	6,406	0.0%	192	6,349	3.0%
Lexington city	0	7,292	0.0%	0	6,959	0.0%	0	6,867	0.0%
Total Rockbridge Co.	17,911	31,920	56.1%	18,350	31,715	57.9%	20,236	34,024	59.5%
VA, Rockingham County	53,749	57,038	94.2%	53,578	57,482	93.2%	45,478	67,725	67.2%
Harrisonburg city	0	19,671	0.0%	0	30,707	0.0%	61	40,468	0.2%
Total Rockingham Co.	53,749	76,709	70.1%	53,578	88,189	60.8%	45,539	108,193	42.1%
VA, Shenandoah County	24,932	27,559	90.5%	24,598	31,636	77.8%	26,743	35,075	76.2%
VA, Warren County	10,074	21,200	47.5%	14,262	26,142	54.6%	17,702	31,584	56.0%
WV, Hampshire County	14,867	14,867	100.0%	16,498	16,498	100.0%	20,203	20,203	100.0%
WV, Hardy County	10,030	10,030	100.0%	10,977	10,977	100.0%	12,669	12,669	100.0%
WV, Monroe County	12,873	12,873	100.0%	12,406	12,406	100.0%	13,081	14,583	89.7%
WV, Pendleton County	7,910	7,910	100.0%	8,054	8,054	100.0%	8,196	8,196	100.0%
Forest Total	326,735	464,543	70.3%	336,321	506,613	66.4%	335,694	583,134	57.6%
Virginia	34.0%			30.6%			27.0%		
West Va.	63.8%			63.9%			53.9%		
Source: U.S. Census, NRIS HD Model									

Table 7: GW NF Boundary Counties Per Capita Income 1990 and 2000									
COUNTY	1990 Per Capita Income	1990 Per Capita Income in 2004 \$'s	1990 Population	1990 Weighted Average	2000 Per Capita Income	2000 Per Capita Income in 2004 \$'s	2000 Population	2000 Weighted Average	2004 \$'s Real Average Annual Change 1990-2000
VA, Alleghany County	\$11,606	\$16,829	13,176	\$152,920,656	\$19,635	\$21,599	12,926	\$253,802,010	2.5%
Covington city	\$10,814	\$15,680	6,991	\$75,600,674	\$16,758	\$18,434	6,303	\$105,625,674	1.6%
Total Alleghany Co.	\$11,331	\$16,431	20,167	\$228,521,330	\$18,692	\$20,561	19,229	\$359,427,684	5.1%
VA, Amherst County	\$11,185	\$16,218	28,578	\$319,644,930	\$16,952	\$18,647	31,894	\$540,667,088	1.4%
VA, Augusta County	\$12,751	\$18,489	54,677	\$697,186,427	\$19,744	\$21,718	65,615	\$1,295,502,560	1.6%
Staunton city	\$12,912	\$18,722	24,461	\$315,840,432	\$19,161	\$21,077	23,853	\$457,047,333	1.2%
Waynesboro city	\$13,469	\$19,530	18,549	\$249,836,481	\$17,932	\$19,725	19,520	\$350,032,640	0.1%
Total Augusta Co.	\$12,928	\$18,745	97,687	\$1,262,863,340	\$19,292	\$21,221	108,988	\$2,102,582,533	4.1%
VA, Bath County	\$11,369	\$16,485	4,799	\$54,559,831	\$23,092	\$25,401	5,048	\$116,568,416	4.4%
VA, Botetourt County	\$13,810	\$20,025	24,992	\$345,139,520	\$22,218	\$24,440	30,496	\$677,560,128	2.0%
VA, Frederick County	\$13,671	\$19,823	45,723	\$625,079,133	\$21,080	\$23,188	59,209	\$1,248,125,720	1.6%
Winchester city	\$14,214	\$20,610	21,947	\$311,954,658	\$20,500	\$22,550	23,585	\$483,492,500	0.9%
Total Frederick Co.	\$13,847	\$20,078	67,670	\$937,033,791	\$20,915	\$23,006	82,794	\$1,731,618,220	4.2%
VA, Highland County	\$10,828	\$15,701	2,635	\$28,531,780	\$15,976	\$17,574	2,536	\$40,515,136	1.1%
VA, Nelson County	\$11,419	\$16,558	12,778	\$145,911,982	\$14,445	\$15,890	16,321	\$235,756,845	-0.4%
VA, Page County	\$11,304	\$16,391	21,690	\$245,183,760	\$16,321	\$17,953	23,177	\$378,271,817	0.9%
VA, Rockbridge County	\$11,287	\$16,366	18,350	\$207,116,450	\$18,356	\$20,192	20,808	\$381,951,648	2.1%
Buena Vista city	\$10,241	\$14,849	6,406	\$65,603,846	\$16,377	\$18,015	6,349	\$103,977,573	2.0%
Lexington city	\$10,077	\$14,612	6,959	\$70,125,843	\$16,497	\$18,147	6,867	\$113,284,899	2.2%
Total Rockbridge Co.	\$10,810	\$15,675	31,715	\$342,846,139	\$16,497	\$17,612	34,024	\$599,214,120	5.0%

Table 7: GW NF Boundary Counties Per Capita Income 1990 and 2000									
COUNTY	1990 Per Capita Income	1990 Per Capita Income in 2004 \$'s	1990 Population	1990 Weighted Average	2000 Per Capita Income	2000 Per Capita Income in 2004 \$'s	2000 Population	2000 Weighted Average	2004 \$'s Real Average Annual Change 1990-2000
VA, Rockingham County	\$12,647	\$18,338	57,482	\$726,974,854	\$18,795	\$20,675	67,725	\$1,272,891,375	1.2%
Harrisonburg city	\$11,607	\$16,830	30,707	\$356,416,149	\$14,898	\$16,388	40,468	\$602,892,264	-0.3%
Total Rockingham Co.	\$12,285	\$17,813	88,189	\$1,083,391,003		\$17,337	108,193	\$1,875,783,639	3.5%
VA, Shenandoah County	\$12,686	\$18,395	31,636	\$401,334,296	\$19,755	\$21,731	35,075	\$692,906,625	1.7%
VA, Warren County	\$13,580	\$19,691	26,142	\$355,008,360	\$19,841	\$21,825	31,584	\$626,658,144	1.0%
WV, Hampshire County	\$9,996	\$14,494	16,498	\$164,914,008	\$14,851	\$16,336	20,203	\$300,034,753	1.2%
WV, Hardy County	\$10,096	\$14,639	10,977	\$110,823,792	\$15,859	\$17,445	12,669	\$200,917,671	1.8%
WV, Monroe County	\$8,959	\$12,991	12,406	\$111,145,354	\$17,435	\$19,179	14,583	\$254,254,605	4.0%
WV, Pendleton County	\$9,391	\$13,617	8,054	\$75,635,114	\$15,805	\$17,386	8,196	\$129,537,780	2.5%
Totals			506,613	\$6,212,488,330			585,010	10,862,275,204	
Forest Average	\$12,263	\$17,781			\$18,568	\$20,424			1.4%
Virginia	\$15,713	\$22,784			\$23,975	\$26,373			1.5%
West Va.	\$10,520	\$15,254			\$16,477	\$18,125			1.7%
Source: U.S. Census, NRIS HD Model									

Table 8: GW NF Boundary Counties Unemployment Rate 1995-2001													
County	1995	1995 Unemployment	1995 Weighted Avg UI	1996	1997	1998	1998 Unemployment	1998 Weighted Avg UI	1999	2000	2001	2001 Unemployment	2001 Weighted Avg UI
VA, Alleghany County	6.4	551	3,526	5.6	6	5.2	444	2,309	5.9	3.1	3.8	307	1,167
Covington city	9.7	328	3,182	8	8.8	5.7	194	1,106	7.5	4.5	5.4	177	956
Weighted Ave. Alleghany Co.	7.6	879	6,708			5.4	638	3,415			4.4	484	2,122
VA, Amherst County	3.7	552	2,042	3.9	3.3	2.3	326	750	1.8	1.6	3.8	567	2,155
VA, Augusta County	5.9	1,798	10,608	3.9	3.1	2.2	696	1,531	2.4	1.7	2.8	916	2,565
Staunton city	5.1	584	2,978	4.8	3.5	2.4	270	648	2.3	1.8	2.5	295	738
Weighted Average Amherst Co.	5.7	2,382	13,587			2.3	966	2,179			2.7	1211	3,302
VA, Bath County	9.4	251	2,359	7	6.6	6.2	143	887	4.7	3.3	4.6	115	529
VA, Botetourt County	2.6	412	1,071	2.5	3.1	2.4	402	965	1.8	1.2	2.4	407	977
VA, Frederick County*	4.4	1,313	5,777	4.1	3.6	2.6	842	2,189	2.1	1.6	2.6	893	2,322
VA, Highland County	8.5	116	986	8.8	6.7	3.4	43	146	2.6	2.9	2.3	30	69
VA, Nelson County	3.7	255	944	4.1	3.9	2.9	201	583	2.2	2.3	3.5	254	889
VA, Page County	7.5	902	6,765	7.1	5.8	4.9	574	2,813	4	2.5	3.3	406	1,340
VA, Rockbridge County	5	487	2,435	4.4	3.3	2.2	215	473	2.1	1.7	2.7	297	802
Buena Vista city	4.5	188	846	4.4	4	2.9	90	261	2.8	2.2	3.5	120	420
Lexington city	4.5	78	351	4.4	4	2.9	52	151	2.8	2.2	3.5	52	182
Weighted Ave. Rockbridge Co.	4.5	266	1,197			2.9	142	412			3.5	172	602
VA, Rockingham County	3.1	1,138	3,528	2.7	1.8	1.3	477	620	1.3	0.9	1.9	750	1,425
VA, Harrisonburg city	4.5	424	1,908	4.4	4	2.9	249	722	2.8	2.2	3.5	380	1,330
Weighted Ave. Rockingham Co.	3.5	1,562	5,436			1.8	726	1,342			2.4	1130	2,755
VA, Shenandoah County	5.8	1,050	6,090	5	3.4	2.7	469	1,266	2.8	1.3	2.1	374	785
VA, Warren County	5.7	858	4,891	5.1	4.4	2.9	424	1,230	2.7	1.9	2.8	451	1,263
WV, Hampshire County	4	310	1,240	4.6	5.8	6.1	531	3,239	4.8	4.2	4.5	432	1,944
WV, Hardy County	4.4	304	1,338	4.1	4	4.2	292	1,226	4	2.6	2.7	217	586
WV, Monroe County	7	352	2,464	5.9	5.7	5.5	285	1,568	4.3	4.3	4	221	884
WV, Pendleton County	4.8	183	878	4.1	3.6	3.7	139	514	4.6	10.1	3.1	131	406
Total		17,523	93,135				9,830	32,544				10,789	32,514
Forest Wide Weighted Average	5.3					3.5					3.1		
Virginia	4.5			4.4	4	2.9			2.8	2.2	3.5		
West Va.	7.9			7.5	6.9	6.6			6.6	5.5	4.9		
Source: U.S. Census, NRIS HD Model													
* No data available for Winchester City													

Table 9: GW NF Boundary Counties Percent of Individuals in Poverty 1980, 1990, 2000									
County	1980 Percent Poverty	1980 Population	1980 Weighted Average	1990 Percent Poverty	1990 Population	1990 Weighted Average	2000 Percent Poverty	2000 Population	2000 Weighted Average
VA, Alleghany County	10	14,333	143,330	9.7	13,176	127,807	7.1	12,926	91,775
Covington city	12.4	9,063	112,381	13.1	6,991	91,582	12.9	6,303	81,309
Total Alleghany Co.	10.9	23,396	255,711	10.9	20,167	219,389	9.0	19,229	173,083
VA, Amherst County	10	29,122	291,220	9.8	28,578	280,064	10.7	31,894	341,266
VA, Augusta County	10	53,732	537,320	7.2	54,677	393,674	5.8	65,615	380,567
Staunton city	9.9	21,857	216,384	11.7	24,461	286,194	11.7	23,853	279,080
Waynesboro city	9	15,329	141,027	11	18,549	211,459	13	19,520	249,856
Total Augusta Co.	9.8	90,918	894,731	9.1	97,687	891,327	8.3	108,988	909,503
VA, Bath County	12.7	5,860	74,422	14.2	4,799	68,146	7.8	5,048	39,374
VA, Botetourt County	7.7	23,270	179,179	6.2	24,992	154,950	5.2	30,496	158,579
VA, Frederick County	9.8	34,150	334,670	7.1	45,723	324,633	6.4	59,209	378,938
Winchester city	14.9	20,217	301,233	11.3	21,947	248,001	13.2	23,585	311,322
Total Frederick Co.	11.7	54,367	635,903	8.5	67,670	572,634	8.3	82,794	690,260
VA, Highland County	15.1	2,937	44,349	13.6	2,635	35,836	12.6	2,536	31,954
VA, Nelson County	18.6	12,204	226,994	15.2	12,778	194,226	12.1	14,445	174,785
VA, Page County	14.9	19,401	289,075	11.8	21,690	255,942	12.5	23,177	289,713
VA, Rockbridge County	14.7	17,911	263,292	13.6	18,350	249,560	9.6	20,808	199,757
Buena Vista city	9	6,717	60,453	14.4	6,406	92,246	10.4	6,349	66,030
Lexington city	18.5	7,292	134,902	18.2	6,959	126,654	21.6	6,867	148,327
Total Rockbridge Co.	14.4	31,920	458,647	14.8	31,715	468,460	12.2	34,024	414,114
VA, Rockingham County	10.7	57,038	610,307	6.9	57,482	396,626	8.2	67,725	555,345
Harrisonburg city	16.4	19,671	322,604	21.5	30,707	660,201	30.1	40,468	1,218,087
Total Rockingham Co.	12.2	76,709	932,911	12.0	88,189	1,056,826	16.4	108,193	1,773,432
VA, Shenandoah County	12.3	27,559	338,976	11	31,636	347,996	8.2	35,075	287,615
VA, Warren County	10.7	21,200	226,840	7.7	26,142	201,293	8.5	31,584	268,464
WV, Hampshire County	16.9	14,867	251,252	18.2	16,498	300,264	16.3	20,203	329,309

Table 9: GW NF Boundary Counties Percent of Individuals in Poverty 1980, 1990, 2000									
County	1980 Percent Poverty	1980 Population	1980 Weighted Average	1990 Percent Poverty	1990 Population	1990 Weighted Average	2000 Percent Poverty	2000 Population	2000 Weighted Average
WV, Hardy County	20.8	10,030	208,624	14.6	10,977	160,264	13.1	12,669	165,964
WV, Monroe County	20.9	12,873	269,046	21	12,406	260,526	16.2	14,583	236,245
WV, Pendleton County	20.3	7,910	160,573	17	8,054	136,918	11.4	8,196	93,434
Forest Totals		464,543	5,738,453		506,613	5,605,062		583,134	6,377,092
Forest Weighted Average	12.4			11.1			10.9		
Virginia	11.8			10.2			9.6		
West Va.	15			19.7			17.9		
Source: U.S. Census, NRIS HD Model									

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Table 10: GW NF Boundary Counties Total Transfer Payments 1970-2000 in \$1000 of 2004 \$'s*																		
County	1970 Adjusted	1975 Adjusted	1980 Adjusted	1985 Adjusted	1990 Adjusted	1991 Adjusted	1992 Adjusted	1993 Adjusted	1994 Adjusted	1995 Adjusted	1996 Adjusted	1997 Adjusted	1998 Adjusted	1999 Adjusted	2000 Adjusted	2001 Adjusted	2002 Adjusted	Real Average Rate of Change 1970-2003
Alleghany + Covington, Virginia	\$49,728	\$84,349	\$93,911	\$101,705	\$111,074	\$114,714	\$120,574	\$118,939	\$119,802	\$123,810	\$124,271	\$123,061	\$124,694	\$125,035	\$128,127	\$136,139	\$137,678	3.2%
Amherst, Virginia	\$30,223	\$57,438	\$64,223	\$74,337	\$77,050	\$81,546	\$88,266	\$90,997	\$92,151	\$97,263	\$102,766	\$103,907	\$106,821	\$110,307	\$113,850	\$124,405	\$130,683	4.6%
Augusta, Staunton + Waynesboro, Virginia	\$100,137	\$196,792	\$220,623	\$276,348	\$302,305	\$318,029	\$349,404	\$355,230	\$360,824	\$380,191	\$393,065	\$398,184	\$404,353	\$411,877	\$429,633	\$468,857	\$489,069	5.0%
Bath, Virginia	\$9,380	\$15,332	\$18,251	\$18,832	\$19,079	\$20,165	\$22,883	\$23,374	\$22,187	\$22,564	\$23,212	\$23,804	\$23,638	\$24,326	\$24,195	\$26,271	\$27,281	3.4%
Botetourt, Virginia	\$28,319	\$45,353	\$52,794	\$58,314	\$66,129	\$68,852	\$74,836	\$76,580	\$82,705	\$87,943	\$92,303	\$94,349	\$97,577	\$101,723	\$106,523	\$114,362	\$118,231	4.5%
Frederick + Winchester, Virginia	\$59,395	\$104,479	\$115,883	\$135,691	\$164,958	\$175,614	\$196,557	\$197,099	\$205,401	\$218,755	\$230,460	\$235,605	\$242,992	\$251,105	\$265,033	\$291,967	\$305,384	5.2%
Highland, Virginia	\$4,495	\$7,227	\$8,054	\$8,473	\$8,110	\$8,561	\$9,881	\$9,883	\$10,307	\$10,802	\$11,389	\$11,504	\$11,388	\$11,576	\$12,130	\$12,845	\$12,895	3.3%
Nelson, Virginia	\$18,170	\$31,056	\$35,129	\$39,737	\$46,951	\$49,570	\$57,472	\$56,574	\$55,863	\$56,637	\$59,700	\$61,916	\$62,488	\$63,316	\$66,307	\$72,354	\$73,102	4.4%
Page, Virginia	\$27,277	\$48,333	\$53,084	\$65,333	\$67,764	\$70,246	\$78,123	\$77,635	\$81,004	\$85,151	\$88,036	\$89,601	\$92,504	\$92,764	\$95,603	\$102,725	\$108,327	4.4%
Rockbridge, Buena Vista + Lexington, Virginia	\$41,712	\$72,043	\$76,388	\$85,166	\$103,320	\$107,358	\$118,411	\$120,406	\$116,801	\$122,482	\$126,686	\$129,040	\$132,466	\$133,599	\$138,116	\$149,551	\$155,917	4.2%
Rockingham + Harrisonburg, Virginia	\$70,177	\$142,801	\$149,686	\$188,906	\$225,756	\$237,683	\$256,836	\$263,491	\$262,973	\$277,426	\$290,426	\$291,190	\$296,252	\$302,188	\$315,851	\$340,591	\$352,199	5.1%

Table 10: GW NF Boundary Counties Total Transfer Payments 1970-2000 in \$1000 of 2004 \$'s*																		
County	1970 Adjusted	1975 Adjusted	1980 Adjusted	1985 Adjusted	1990 Adjusted	1991 Adjusted	1992 Adjusted	1993 Adjusted	1994 Adjusted	1995 Adjusted	1996 Adjusted	1997 Adjusted	1998 Adjusted	1999 Adjusted	2000 Adjusted	2001 Adjusted	2002 Adjusted	Real Average Rate of Change 1970-2003
Shenandoah, Virginia	\$34,850	\$58,171	\$69,978	\$87,141	\$96,529	\$102,027	\$109,674	\$107,340	\$104,795	\$113,231	\$122,504	\$125,519	\$128,970	\$131,813	\$136,414	\$147,357	\$155,198	4.7%
Warren, Virginia	\$25,183	\$47,999	\$56,778	\$66,275	\$67,846	\$75,067	\$85,172	\$84,378	\$92,851	\$96,124	\$94,855	\$94,655	\$96,161	\$98,832	\$103,514	\$111,949	\$117,513	4.9%
WV, Hampshire County	\$19,538	\$30,762	\$36,448	\$48,185	\$55,510	\$60,865	\$69,189	\$72,195	\$71,523	\$74,122	\$78,194	\$80,091	\$82,357	\$83,358	\$87,187	\$95,893	\$104,370	5.3%
WV, Hardy County	\$14,026	\$23,078	\$26,358	\$32,055	\$35,073	\$37,636	\$41,271	\$41,794	\$40,405	\$41,699	\$43,765	\$44,979	\$46,081	\$46,928	\$48,418	\$53,313	\$58,484	4.5%
WV, Monroe County	\$25,046	\$35,718	\$43,098	\$49,903	\$52,768	\$53,808	\$58,398	\$60,416	\$58,613	\$59,868	\$62,310	\$64,134	\$64,504	\$65,041	\$66,725	\$73,263	\$78,726	3.6%
WV, Pendleton County	\$13,694	\$19,070	\$21,462	\$25,286	\$28,827	\$33,106	\$35,624	\$37,317	\$35,870	\$35,697	\$36,264	\$36,928	\$38,192	\$38,087	\$39,420	\$42,494	\$45,019	3.8%
Forest Boundary County Total	\$571,348	\$1,019,999	\$1,142,147	\$1,361,687	\$1,529,050	\$1,614,848	\$1,772,570	\$1,793,647	\$1,814,074	\$1,903,766	\$1,980,206	\$2,008,467	\$2,051,438	\$2,091,873	\$2,177,044	\$2,364,335	\$2,470,077	4.6%
Virginia	\$5,742,397	\$10,343,022	\$11,925,864	\$14,144,610	\$16,273,752	\$17,122,165	\$18,733,140	\$19,223,417	\$19,681,048	\$20,690,266	\$21,568,691	\$21,827,530	\$22,223,248	\$22,748,632	\$23,684,381	\$25,670,585	\$26,744,710	4.9%
West Va.	\$3,513,987	\$5,616,453	\$6,478,662	\$7,291,127	\$7,821,519	\$8,438,088	\$9,394,142	\$9,694,580	\$9,495,271	\$9,573,735	\$9,766,264	\$9,867,905	\$10,052,960	\$9,998,936	\$10,220,767	\$11,033,719	\$11,834,394	3.8%
Source: U.S. Bureau of Census from USDA Forest Service NRIS Human Dimension Model																		
*Nominal data converted to 2004 \$'s by the Consumer Price Index Price Deflators																		

Table 11: GW NF Boundary Counties Percentage of Female Head of Households with Children Present, 1990 and 2000						
	1990	1990	1990	2000	2000	
	Households	Female Head of Households	Percent of Households with Female Head of Households	Total Households	Female Head of Households	Percent of Households with Female Head of Households
		Children Present			Children Present	
Alleghany Co., VA	4,992	196	3.9%	5,149	214	4.2%
Covington City	2,990	113	3.8%	2,835	169	6.0%
Total Alleghany Co.	7,982	309	3.9%	7,984	383	4.8%
Amherst Co., VA	9,829	384	3.9%	11,941	839	7.0%
Augusta Co., VA	19,873	768	3.9%	24,818	2,134	8.6%
Staunton City	9,452	541	5.7%	9,676	667	6.9%
Waynesboro City	7,587	524	6.9%	8,332	772	9.3%
Total Augusta Co.	36,912	1,833	5.0%	42,826	3,573	8.3%
Bath Co., VA	1,930	64	3.3%	2,053	84	4.1%
Botetourt Co., VA	9,110	242	2.7%	11,700	379	3.2%
Frederick Co., VA	16,515	606	3.7%	22,097	1,171	5.3%
Winchester City	9,096	569	6.3%	10,001	684	6.8%
Total Frederick Co.	25,611	1,175	4.6%	32,098	1,855	5.8%
Highland Co., VA	1,086	24	2.2%	1,131	36	3.2%
Nelson Co., VA	4,788	215	4.5%	5,887	292	5.0%
Page Co., VA	8,012	309	3.9%	9,305	515	5.5%
Rockbridge Co., VA	7,167	311	4.3%	8,486	411	4.8%
Buena Vista City	2,460	135	5.5%	2,547	209	8.2%
Lexington City	2,163	93	4.3%	2,232	87	3.9%
Total Rockbridge Co.	11,790	539	4.6%	13,265	707	5.3%
Rockingham Co., VA	20,877	647	3.1%	25,355	1,029	4.1%
Harrisonburg City	10,250	590	5.8%	13,133	752	5.7%
Total Rockingham Co.	31,127	1,237	4.0%	38,488	1,781	4.6%
Shenandoah Co., VA	12,452	516	4.1%	14,296	709	5.0%
Warren Co., VA	9,940	414	4.2%	12,087	692	5.7%
Hampshire Co., WV	6,230	229	3.7%	7,955	449	5.6%
Hardy Co., WV	4,281	155	3.6%	5,204	251	4.8%
Monroe Co., WV	4,794	148	3.1%	5,447	212	3.9%
Pendleton Co., WV	3,073	113	3.7%	3,350	133	4.0%
Forest County Average	188,947	7,906	4.2%	225,017	12,890	5.7%
Virginia	2,294,722	133,401	5.8%	2,699,173	217,950	8.1%
West Va.	688,727	36,673	5.3%	736,481	48,732	6.6%
Source: U.S. Census: 1990 Data Tables P005 & P019						
2000 Data Tables P15 & P20						

Table 12: GW NF Counties Average Household Size - 1990 and 2000						
COUNTY	1990 Average Household Size	1990 Households	1990 Weighted Average Households	2000 Average Household Size	2000 Households	2000 Weighted Average Households
Alleghany Co., Virginia	2.64	1,990	5,252	2.46	5,149	12,667
Covington city, Virginia	2.34	2,990	6,991	2.22	2,835	6,294
Total Alleghany Co., Virginia	2.46	4,980	12,243	2.37	7,984	18,960
Amherst Co., Virginia	2.91	11,950	34,745	2.51	11,941	29,972
Augusta Co., Virginia	2.75	19,920	54,806	2.56	24,818	63,534
Staunton city, Virginia	2.59	9,452	24,461	2.19	9,676	21,190
Waynesboro city, Virginia	2.44	7,587	18,549	2.31	8,332	19,247
Total Augusta Co., Virginia	2.65	36,959	97,816	2.43	42,826	103,971
Bath Co., Virginia	2.49	85,868	213,513	2.34	2,053	4,804
Botetourt Co., Virginia	2.74	159,786	438,350	2.56	11,700	29,952
Frederick Co., Virginia	2.77	290,200	803,440	2.64	22,097	58,336
Winchester city, Virginia	2.41	9,096	21,947	2.28	10,001	22,802
Total Frederick Co., Virginia	2.76	299,296	825,387	2.53	32,098	81,138
Highland Co., Virginia	2.43	1,650,774	4,005,332	2.24	1,131	2,533
Nelson Co., Virginia	2.66	4,852,666	12,884,700	2.42	5,887	14,247
Page Co., Virginia	2.71	8,012	21,690	2.46	9,305	22,890
Rockbridge Co., Virginia	2.56	7,167	18,350	2.43	8,486	20,621
Buena Vista city, Virginia	2.60	2,460	6,406	2.38	2,547	6,062
Lexington city, Virginia	3.22	2,163	6,959	2.06	2,232	4,598
Total Rockbridge Co., Virginia	2.69	11,790	31,715	2.36	13,265	31,281
Rockingham Co., Virginia	2.75	20,877	57,482	2.61	25,355	66,177
Harrisonburg city, Virginia	3.00	10,250	30,707	2.53	13,133	33,226
Total Rockingham Co., Virginia	2.83	31,127	88,189	2.58	38,488	99,403
Shenandoah Co., Virginia	2.54	12,452	31,636	2.42	14,296	34,596
Warren Co., Virginia	2.63	9,940	26,142	2.57	12,087	31,064
Hampshire Co., West Va.	2.65	6,230	16,498	2.49	7,955	19,808
Hardy Co., West Va.	2.56	4,281	10,977	2.42	5,204	12,594
Monroe Co., West Va.	2.59	4,794	12,406	2.41	5,447	13,127
Pendleton Co., West Va.	2.62	3,073	8,054	2.40	3,350	8,040
Totals		7,193,978	18,759,394		225,017	558,381
Forest Boundary County Average	2.61			2.48		
Virginia	2.70			2.54		
West Va.	2.60			2.40		

Source: U.S. Census, 1990 Tables P005 & P008; 2000 Tables P15 & P17

Table 13: GW NF Boundary Counties Housing Units and Vacancies 1990 and 2000							
County	Percentage of Vacant Units	Total Number of Units	Number of Vacant Units	Percentage of Vacant Units	Total Number of Units	Number of Vacant Units	Percent Change in Harvest Units
	1990	1990	1990	2000			1990-2000
Alleghany County	9.8%	5,481	539	11.4%	5,812	663	6.0%
Covington city	8.3%	3,269	271	11.3%	3,195	360	-2.3%
Total Alleghany County	9.3%	8,750	810	11.4%	9,007	1,023	2.9%
Amherst County	7.3%	10,598	771	7.8%	12,958	1,017	22.3%
Augusta County	6.7%	21,202	1,421	7.2%	26,738	1,920	26.1%
Staunton city	5.7%	10,003	571	7.2%	10,427	751	4.2%
Waynesboro city	4.2%	7,902	334	6.0%	8,863	531	12.2%
Total Augusta County	5.9%	39,107	2,326	7.0%	46,028	3,202	17.7%
Bath County	27.0%	2,596	701	29.1%	2,896	843	11.6%
Botetourt County	6.5%	9,785	637	6.9%	12,571	871	28.5%
Frederick County	7.8%	17,864	1,394	5.2%	23,319	1,222	30.5%
Winchester city	7.4%	9,808	724	5.5%	10,587	586	7.9%
Total Frederick County	7.7%	27,672	2,118	5.3%	33,906	1,808	22.5%
Highland County	38.5%	1,759	678	37.9%	1,822	691	3.6%
Nelson County	31.9%	7,063	2,256	31.2%	8,554	2,667	21.1%
Page County	10.0%	8,948	893	11.9%	10,557	1,252	18.0%
Rockbridge County	9.7%	7,975	773	11.1%	9,550	1,064	19.7%
Buena Vista city	3.6%	2,494	90	6.2%	2,716	169	8.9%
Lexington city	6.0%	2,311	139	6.1%	2,376	144	2.8%
Total Rockbridge County	7.8%	12,780	1,002	9.4%	14,642	1,377	14.6%
Rockingham County	8.2%	22,614	1,864	7.2%	27,328	1,973	20.8%
Harrisonburg city	5.4%	10,900	590	4.1%	13,689	556	25.6%
Total Rockingham County	7.3%	33,514	2,454	6.2%	41,017	2,529	22.4%
Shenandoah County	17.9%	15,160	2,708	14.4%	16,709	2,413	10.2%
Warren County	12.0%	11,223	1,344	9.1%	13,299	1,212	18.5%
WV, Hampshire County	29.9%	8,817	2,635	28.9%	11,185	3,230	26.9%
WV, Hardy County	23.1%	5,573	1,287	26.9%	7,115	1,911	27.7%
WV, Monroe County	20.8%	5,994	1,245	25.0%	7,267	1,820	21.2%
WV, Pendleton County	32.2%	4,516	1,455	34.3%	5,102	1,752	13.0%
Forest Total	11.8%	213,855	25,320	11.6%	254,635	29,618	19.1%
Virginia	8.2%	2,496,334	204,504	7.1%	2,904,192	205,019	16.3%
West Va.	11.9%	781,295	92,738	12.8%	844,623	108,142	8.1%

Source: U.S.Census, USDA NRIS HD Model

Table 14: GW NF Boundary Counties Median Housing Values 1990 and 2000*									
County	1990 Value	1990 Housing Units	Weighted Average	1990 Value in 2004 \$'s	2000 Value	2000 Housing Units	Weighted Average	2000 Value in 2004 \$'s	Percent Real Change 1990 to 2000
VA, Alleghany County	\$50,200	5,481	\$275,146,200	\$72,790	\$77,500	5,812	\$450,430,000	\$85,250	4.44%
Covington city	\$38,500	3,269	\$125,856,500	\$55,825	\$52,500	3,195	\$167,737,500	\$57,750	3.15%
Total Alleghany Co.	\$45,829	8,750	\$401,002,700	\$66,452	\$68,632	9,007	\$618,167,500	\$75,495	4.12%
VA, Amherst County	\$56,800	10,598	\$601,966,400	\$82,360	\$88,800	12,958	\$1,150,670,400	\$97,680	4.57%
VA, Augusta County	\$70,000	21,202	\$1,484,140,000	\$101,500	\$110,900	26,738	\$2,965,244,200	\$121,990	4.71%
Staunton city	\$61,200	10,003	\$612,183,600	\$88,740	\$87,500	10,427	\$912,362,500	\$96,250	3.64%
Waynesboro city	\$68,300	7,902	\$539,706,600	\$99,035	\$89,300	8,863	\$791,465,900	\$98,230	2.72%
Total Augusta Co.	\$29,455	39,107	\$1,151,890,200	\$42,710	\$101,440	46,028	\$4,669,072,600	\$111,584	13.16%
VA, Bath County	\$45,700	2,596	\$118,637,200	\$66,265	\$79,700	2,896	\$230,811,200	\$87,670	5.72%
VA, Botetourt County	\$72,900	9,785	\$713,326,500	\$105,705	\$130,500	12,571	\$1,640,515,500	\$143,550	6.00%
VA, Frederick County	\$89,700	17,864	\$1,602,400,800	\$130,065	\$118,300	23,319	\$2,758,637,700	\$130,130	2.81%
Winchester city	\$88,100	9,808	\$864,084,800	\$127,745	\$108,900	10,587	\$1,152,924,300	\$119,790	2.14%
Total Frederick Co.	\$89,133	27,672	\$2,466,485,600	\$129,243	\$115,365	33,906	\$3,911,562,000	\$126,901	2.61%
VA, Highland County	\$52,300	1,759	\$91,995,700	\$75,835	\$83,700	1,822	\$152,501,400	\$92,070	4.81%
VA, Nelson County	\$50,400	7,063	\$355,975,200	\$73,080	\$95,100	8,554	\$813,485,400	\$104,610	6.56%
VA, Page County	\$62,500	8,948	\$559,250,000	\$90,625	\$86,300	10,557	\$911,069,100	\$94,930	3.28%
VA, Rockbridge County	\$55,100	7,975	\$439,422,500	\$79,895	\$92,400	9,550	\$882,420,000	\$101,640	5.31%
Buena Vista city	\$42,900	2,494	\$106,992,600	\$62,205	\$72,900	2,716	\$197,996,400	\$80,190	5.45%
Lexington city	\$73,100	2,311	\$168,934,100	\$105,995	\$131,900	2,376	\$313,394,400	\$145,090	6.08%
Total Rockbridge Co.	\$55,974	12,780	\$715,349,200	\$81,162	\$95,193	14,642	\$1,393,810,800	\$104,712	5.45%
VA, Rockingham County	\$71,500	22,614	\$1,616,901,000	\$103,675	\$107,700	27,328	\$2,943,225,600	\$118,470	4.18%
Harrisonburg city	\$88,300	10,900	\$962,470,000	\$128,035	\$122,700	13,689	\$1,679,640,300	\$134,970	3.34%
Total Rockingham Co.	\$76,964	33,514	\$2,579,371,000	\$111,598	\$112,706	41,017	\$4,622,865,900	\$123,977	3.89%
VA, Shenandoah County	\$74,100	15,160	\$1,123,356,000	\$107,445	\$99,400	16,709	\$1,660,874,600	\$109,340	2.98%
VA, Warren County	\$85,000	11,223	\$953,955,000	\$123,250	\$108,800	13,299	\$1,446,931,200	\$119,680	2.50%
WV, Hampshire County	\$51,400	8,817	\$453,193,800	\$74,530	\$78,300	11,185	\$875,785,500	\$86,130	4.30%
WV, Hardy County	\$47,900	5,573	\$266,946,700	\$69,455	\$74,700	7,115	\$531,490,500	\$82,170	4.54%
WV, Monroe County	\$41,800	5,994	\$250,549,200	\$60,610	\$64,700	7,267	\$470,174,900	\$71,170	4.47%
WV, Pendleton County	\$53,700	4,516	\$242,509,200	\$77,865	\$76,600	5,102	\$390,813,200	\$84,260	3.62%
Forest Weighted Average	\$61,003	213,855	\$13,045,759,600	\$88,454	\$100,106	254,635	\$25,490,601,700	\$110,117	5.08%
Virginia	\$90,400			\$131,080	\$125,400			\$137,940	3.33%
West Va.	\$47,600			\$69,020	\$72,800			\$80,080	4.34%

Source: U.S. Bureau of Census, USDA NRIS HD Model

*Nominal data converted to 2004 \$'s by the Consumer Price Index Price Deflators

Table 15: Aggregated Local Economy for GW NF --- 1990 & 2000 Data; Primary Effects					
Copyright MIG 2003	Total	Percentage	Total		Percent
	Value Added*	of Total	Value Added*	Percentage of Total	Annual Change 1990-2000
Industry	1990	1990	2000		
Other Agriculture	\$581.6	6.3%	\$486.9	3.2%	-1.8%
Range	\$47.5	0.5%	\$65.8	0.4%	3.3%
Total Agriculture	\$629.1	6.8%	\$552.7	3.6%	-1.3%
Minerals	\$94.7	1.0%	\$59.6	0.4%	-4.5%
Construction	\$462.6	5.0%	\$940.5	6.2%	7.4%
Other Manufacturing	\$2,405.5	26.2%	\$2,824.1	18.6%	1.6%
Wood Products	\$71.3	0.8%	\$120.7	0.8%	5.4%
Pulp & Paper	\$44,670	0.5%	\$79.3	0.5%	N/M
Furniture & Fixtures	\$30.4	0.3%	\$9.9	0.1%	0.0%
Total Wood Based Industries	\$146.4	1.6%	\$209.9	1.4%	3.7%
Total Manufacturing	\$2,551.9	27.8%	\$3,034.0	20.0%	1.7%
Transportation & Public Utilities	\$1,172.2	12.8%	\$1,524.0	10.0%	2.7%
Wholesale & Retail Trade	\$1,319.9	14.4%	\$3,390.4	22.3%	9.9%
Finance, Insurance, Real Estate	\$1,181.6	12.9%	\$2,150.7	14.1%	6.2%
Services	\$1,210.8	13.2%	\$2,097.6	13.8%	5.6%
Government	\$545.5	5.9%	\$1,443.9	9.5%	10.2%
Other Misc.	\$18.2	0.2%	\$9.8	0.1%	N/M
Totals	9186.5	100.0%	\$15,203.2	100.0%	5.2%

Table 16: GW NF Boundary Counties Shannon-Weaver Entrophy Indices*							
County	1990_4_Digit	1990 Employment**	Weighted Average	2000_4_Digit	2000 Employment**	Weighted Average	1990 – 2000 Percent Change
Alleghany + Covington	0.50222		6,258	0.56055		6,870	11.62%
Covington city	0.53355			0.52905			
Average for Alleghany Co.	0.51788	12,083		0.54480	12,610		5.20%
Amherst	0.56065	12,470	6,991	0.60047	13,159	7,902	7.10%
Augusta, Staunton + Waynesboro	0.61916		33,499	0.63608		38,889	2.73%
Staunton city	0.62946			0.60111			
Waynesboro city	0.58078			0.64586			
Average for Augusta Co.	0.60980	54,934		0.62768	61,957		2.93%
Bath	0.48622	2,864	1,393	0.46238	3,081	1,425	-4.90%
Botetourt	0.61812	7,542	4,662	0.64184	12,567	8,066	3.84%
Frederick + Winchester	0.61429		27,868	0.64403		36,093	4.84%
Winchester city	0.63373			0.60259			
Average for Frederick Co.	0.62401	44,659		0.62331	57,905		-0.11%
Highland	0.52655	1,306	688	0.57569	1,373	790	9.33%
Nelson	0.57614	4,607	2,654	0.58928	5,101	3,006	2.28%
Page	0.59040	8,564	5,056	0.60992	9,977	6,085	3.31%
Rockbridge, Buena Vista + Lexington	0.57543		8,934	0.55928		10,015	-2.81%
Buena Vista city	0.56963			0.52694			
Lexington city	0.56944			0.53166			
Average for Rockbridge Co.	0.57150	15,632		0.53930	18,570		-5.63%
Rockingham + Harrisonburg	0.60583		33,761	0.60417		42,566	-0.27%
Harrisonburg	0.63247			0.61647			
Average for Rockingham Co.	0.61915	54,528		0.61032	69,744		-1.43%
Shenandoah	0.63747	17,359	11,066	0.64092	19,743	12,654	0.54%
Warren	0.62415	10,153	6,337	0.64083	13,860	8,882	2.67%
Hampshire	0.58224	5,770	3,360	0.63118	6,774	4,276	8.41%
Hardy	0.50590	5,550	2,808	0.48865	7,770	3,797	-3.41%
Monroe	0.60589	3,791	2,297	0.58105	4,304	2,501	-4.10%
Pendleton	0.54430	3,636	1,979	0.59086	3,645	2,154	8.55%
Forest Boundary Counties Weighted Average	0.60128	265,448	159,609	0.60833	322,140	195,969	1.17%
Virginia	0.70796			0.703418			-0.64%
West Va.	0.69591			0.696076			0.02%

*Employment data from BEA is not available for each individual Census region in Virginia. Data is collected by total county count. Weighted average for each city in county is not possible because of this, so a simple average of indexes is performed for the index for the county total. Weighted average is taken from the resulting average index times the total employment for the county to get an average for the forest boundary counties.

**Source: U.S. BEA, REIS, Fulltime and Part Time Employment

Table 17: Summary of GW NF Commodity Trade										
	1990 Exports				1990 Imports				1990 Net Exports	2000 Net Exports
	2000 \$'s		2000 Exports		2000 \$'s		2000 Imports		Exports Less Imports	Exports Less Imports
	(Million \$'s)	% of Total	(Million \$'s)	(Million \$'s)						
Other Agriculture	\$185.6	2.8%	\$298.1	2.5%	\$332.1	4.1%	\$407.1	2.8%	-\$146.5	-\$109.0
Range	\$167.9	2.5%	\$79.1	0.7%	\$47.9	0.6%	\$6.3	0.0%	\$120.0	\$72.8
Total Agriculture	\$353.5	5.3%	\$377.2	3.2%	\$380.0	4.6%	\$413.5	2.8%	-\$26.5	-\$36.3
Minerals	\$30.5	0.5%	\$147.7	1.2%	\$207.8	2.5%	\$115.3	0.8%	-\$177.3	\$32.4
Construction	\$149.6	2.2%	\$233.4	2.0%	\$0.1	0.0%	\$3.3	0.0%	\$149.6	\$230.1
Lumber & Wood Products	\$143.1	2.1%	\$343.9	2.9%	\$143.0	1.7%	\$183.5	1.2%	\$0.0	\$160.5
Furniture & Fixtures	\$55.0	0.8%	\$41.5	0.4%	\$52.5	0.6%	\$29.0	0.2%	\$2.5	\$12.5
Pulp & Paper Products	\$564.5	8.4%	\$941.7	8.0%	\$104.7	1.3%	\$450.3	3.1%	\$459.8	\$491.4
Total Wood Products	\$762.6	11.4%	\$1,327.1	10.1%	\$300.2	3.7%	\$662.8	4.5%	\$462.3	\$664.3
Other Manufacturing	\$3,971.3	59.1%	\$7,947.3	67.1%	\$3,468.3	42.4%	\$6,794.5	46.2%	\$503.0	\$1,152.8
Total Manufacturing	\$4,733.9	70.5%	\$9,274.4	78.3%	\$3,768.6	46.1%	\$7,457.3	50.7%	\$965.4	\$1,817.1
Transportation, & Utilities	\$161.7	2.4%	\$138.4	1.2%	\$709.5	8.7%	\$1,000.8	6.8%	-\$547.8	-\$862.5
Wholesale & Retail Trade	\$289.4	4.3%	\$279.6	2.4%	\$510.0	6.2%	\$1,308.3	8.9%	-\$220.6	-\$1,028.8
Finance, Insurance, Real Estate	\$367.5	5.5%	\$581.4	4.9%	\$1,059.8	13.0%	\$1,827.8	12.4%	-\$692.3	-\$1,246.4
Services	\$459.0	6.8%	\$720.9	6.1%	\$1,294.4	15.8%	\$2,220.1	15.1%	-\$835.4	-\$1,499.1
Government	\$88.5	1.3%	\$4.5	0.0%	\$53.6	0.7%	\$42.8	0.3%	\$34.9	-\$38.3
Other Misc.	\$83.0	1.2%	\$81.6	0.7%	\$196.3	2.4%	\$310.5	2.1%	-\$113.3	-\$228.9
Total	\$6,716.8	100.0%	\$11,839.0	100.0%	\$8,180.0	100.0%	\$14,699.7	100.0%	-\$1,463.3	-\$2,860.6
In Millions of 2000 \$'s										

Table 18: GW NF Boundary Counties Payments to States (000 of 2004 \$'s* **)																		
GDP Deflator	1.57	1.53	1.49	1.44	1.39	1.33	1.29	1.26	1.23	1.2	1.18	1.15	1.13	1.12	1.04	1.02		
County Name	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2002	2003	2004	Change 1985-1998
VA, Alleghany County	\$57.9	\$51.1	\$45.0	\$52.0	\$45.2	\$41.8	\$59.0	\$70.3	\$100.4	\$106.2	\$87.4	\$82.5	\$92.1	\$62.8	\$0.0	\$0.0	\$80.4	2.4%
VA, Amherst County	\$22.8	\$20.0	\$17.7	\$20.4	\$18.3	\$16.9	\$24.0	\$28.6	\$40.8	\$43.2	\$35.5	\$33.6	\$37.5	\$25.6	\$32.9	\$32.8	\$32.6	2.6%
VA, Augusta County	\$78.5	\$69.2	\$60.8	\$70.3	\$62.3	\$57.5	\$81.3	\$96.9	\$138.3	\$146.3	\$120.4	\$113.7	\$127.0	\$86.8	\$111.8	\$111.3	\$110.5	2.5%
VA, Bath County	\$72.2	\$63.6	\$56.0	\$64.7	\$55.3	\$51.1	\$72.1	\$85.9	\$122.8	\$129.8	\$106.8	\$101.0	\$112.8	\$76.9	\$99.9	\$99.5	\$98.7	2.3%
VA, Botetourt County	\$38.5	\$26.2	\$28.9	\$24.9	\$33.4	\$38.8	\$29.5	\$41.6	\$40.7	\$56.8	\$45.5	\$42.3	\$32.5	\$35.5	\$43.8	\$43.3	\$43.0	0.8%
VA, Frederick County	\$1.9	\$1.7	\$1.5	\$1.7	\$1.7	\$1.5	\$2.1	\$2.4	\$3.4	\$3.7	\$3.1	\$2.9	\$3.3	\$2.1	\$2.8	\$2.8	\$2.8	2.8%
VA, Highland County	\$23.6	\$20.7	\$18.2	\$21.0	\$18.6	\$17.2	\$24.1	\$28.9	\$41.2	\$43.6	\$35.9	\$33.8	\$37.9	\$25.8	\$33.3	\$33.1	\$32.9	2.4%
VA, Nelson County	\$6.3	\$5.5	\$4.9	\$6.3	\$5.3	\$5.7	\$8.0	\$9.6	\$13.8	\$14.6	\$12.0	\$11.4	\$12.8	\$8.7	\$10.7	\$10.7	\$10.6	3.8%
VA, Page County	\$11.1	\$9.9	\$8.6	\$9.9	\$8.6	\$8.0	\$11.2	\$13.4	\$19.2	\$20.3	\$16.6	\$15.8	\$17.6	\$12.0	\$15.5	\$15.5	\$15.4	2.3%
VA, Rockbridge County	\$29.5	\$23.6	\$22.5	\$23.3	\$23.9	\$24.7	\$26.7	\$33.9	\$42.3	\$48.8	\$39.9	\$37.3	\$37.1	\$29.5	\$0.0	\$0.0	\$37.2	1.7%
VA, Rockingham County	\$57.0	\$50.3	\$44.4	\$51.1	\$44.5	\$41.1	\$58.1	\$69.3	\$98.9	\$104.5	\$86.0	\$81.3	\$90.9	\$61.9	\$80.2	\$79.8	\$79.2	2.4%
VA, Shenandoah County	\$31.6	\$28.0	\$24.6	\$28.5	\$24.0	\$22.3	\$31.5	\$37.5	\$53.5	\$56.6	\$46.6	\$44.0	\$49.2	\$33.6	\$0.0	\$0.0	\$43.1	2.3%
VA, Warren County	\$2.5	\$2.3	\$2.1	\$2.3	\$1.9	\$1.9	\$2.6	\$3.2	\$4.4	\$4.7	\$3.9	\$3.7	\$4.1	\$2.8	\$0.0	\$0.0	\$0.0	-100.0%
WV, Hampshire County	\$0.9	\$0.8	\$0.7	\$0.9	\$1.1	\$1.1	\$1.4	\$1.8	\$2.5	\$2.6	\$2.1	\$2.1	\$2.3	\$1.6	\$2.1	\$2.1	\$2.1	5.8%
WV, Hardy County	\$20.1	\$17.6	\$15.6	\$18.0	\$16.5	\$15.2	\$21.5	\$25.7	\$36.7	\$38.8	\$31.9	\$30.1	\$33.7	\$23.0	\$33.6	\$33.2	\$33.0	3.6%
WV, Monroe County	\$9.6	\$6.1	\$7.0	\$5.8	\$8.3	\$10.0	\$7.0	\$10.2	\$9.2	\$13.2	\$10.5	\$9.7	\$6.9	\$8.3	\$0.0	\$0.0	\$11.6	1.4%
WV, Pendleton County	\$66.1	\$110.6	\$73.3	\$100.4	\$100.9	\$117.7	\$129.9	\$164.7	\$115.4	\$182.6	\$222.9	\$193.0	\$227.0	\$202.0	\$205.8	\$203.4	\$201.8	8.3%
Forest Total	\$530.0	\$507.2	\$432.0	\$501.6	\$470.0	\$472.3	\$589.9	\$723.7	\$883.4	\$1,016.4	\$907.1	\$838.0	\$924.5	\$699.0	\$672.4	\$667.6	\$834.6	3.3%
Virginia	\$735.7	\$566.9	\$560.1	\$560.0	\$610.8	\$649.3	\$651.6	\$845.0	\$1,009.8	\$1,200.1	\$976.7	\$913.3	\$870.8	\$730.9	\$643.4	\$638.7	\$898.7	1.4%
West Va.	\$540.1	\$1,054.6	\$680.0	\$954.7	\$986.1	\$1,184.0	\$1,262.1	\$1,623.9	\$980.6	\$1,714.1	\$2,218.5	\$1,899.9	\$2,246.3	\$2,060.8	\$1,900.0	\$1,878.4	\$1,916.9	9.5%
Forest as a % of Virginia & W. Virginia	41.55%	31.28%	34.83%	33.11%	29.43%	25.76%	30.83%	29.32%	44.38%	34.88%	28.39%	29.79%	29.66%	25.04%	26.44%	26.52%	29.64%	
Source: NRIS Human Dimensions Model and USDA Forest Service Web Site																		
**1999 - 2001 data not available																		
*Deflated by GNP Price Deflator																		

Table 19: GW NF Boundary Counties PILT Payments 1991-2004*														
GNP Deflator	1.29	1.26	1.23	1.2	1.18	1.15	1.13	1.12	1.11	1.08	1.06	1.04	1.02	
County	1991 Funds 2004 \$	1992 Funds 2004 \$	1993 Funds 2004 \$	1994 Funds 2004 \$	1995 Funds 2004 \$	1996 Funds 2004 \$	1997 Funds 2004 \$	1998 Funds 2004 \$	1999 Funds 2004 \$	2000 Funds 2004 \$	2001 Funds 2004 \$	2002 Funds 2004 \$	2003 Funds 2004 \$	Real Average Increase 1991-2001
VA, Alleghany County	\$93,307	\$91,825	\$72,322	\$70,703	\$66,906	\$63,845	\$78,076	\$85,603	\$85,856	\$137,598	\$151,491	\$148,633	\$161,822	5.4%
VA, Amherst County	\$28,660	\$28,157	\$20,450	\$20,380	\$18,177	\$17,959	\$33,412	\$17,407	\$26,569	\$44,434	\$49,697	\$48,759	\$45,077	3.9%
VA, Augusta County	\$138,203	\$136,786	\$109,668	\$106,707	\$102,402	\$97,002	\$120,482	\$123,327	\$129,120	\$204,488	\$223,999	\$219,773	\$213,822	3.8%
VA, Bath County	\$114,281	\$94,407	\$70,335	\$72,447	\$69,334	\$78,243	\$78,980	\$105,200	\$89,606	\$157,904	\$185,735	\$182,231	\$151,133	2.4%
VA, Botetourt County	\$50,329	\$41,212	\$49,199	\$41,453	\$51,927	\$41,085	\$48,866	\$53,944	\$60,313	\$79,543	\$87,843	\$86,186	\$87,819	4.9%
VA, Frederick County	\$3,243	\$3,192	\$2,515	\$2,467	\$2,332	\$2,224	\$2,747	\$3,014	\$2,937	\$4,731	\$5,236	\$5,138	\$4,900	3.6%
VA, Highland County	\$34,713	\$34,189	\$26,275	\$25,829	\$24,007	\$23,130	\$32,057	\$29,128	\$32,047	\$52,031	\$57,590	\$56,503	\$53,671	3.8%
VA, Nelson County	\$20,208	\$17,601	\$14,365	\$13,826	\$13,674	\$12,698	\$14,604	\$15,735	\$16,137	\$24,940	\$26,993	\$26,484	\$26,837	2.4%
VA, Page County	\$53,864	\$52,744	\$48,186	\$45,674	\$47,630	\$43,270	\$45,431	\$47,652	\$49,022	\$71,720	\$75,849	\$74,418	\$81,469	3.6%
VA, Rockbridge Cnty	\$42,250	\$38,826	\$35,799	\$33,610	\$35,680	\$31,511	\$38,478	\$41,474	\$43,903	\$65,010	\$71,741	\$70,387	\$78,063	6.1%
VA, Rockingham Cnty	\$127,324	\$125,035	\$105,015	\$101,264	\$100,153	\$93,426	\$108,265	\$113,780	\$116,463	\$179,981	\$195,141	\$191,459	\$191,327	3.5%
VA, Shenandoah Cnty	\$49,263	\$48,461	\$38,061	\$37,233	\$35,169	\$33,629	\$41,654	\$44,850	\$45,471	\$72,937	\$80,305	\$78,789	\$85,780	5.4%
VA, Warren County	\$19,533	\$18,881	\$17,556	\$16,348	\$16,480	\$14,808	\$15,240	\$15,733	\$16,254	\$23,650	\$24,832	\$24,363	\$27,131	3.3%
WV, Hampshire Cnty	\$2,625	\$2,410	\$3,246	\$3,038	\$3,291	\$2,934	\$2,884	\$2,951	\$3,080	\$4,291	\$4,431	\$4,347	\$4,882	5.4%
WV, Hardy County	\$38,590	\$35,435	\$47,736	\$44,682	\$48,398	\$43,161	\$42,462	\$43,421	\$45,371	\$63,398	\$65,459	\$64,224	\$72,126	5.4%
WV, Monroe County	\$15,108	\$14,081	\$18,543	\$17,350	\$18,775	\$16,761	\$16,456	\$16,848	\$17,586	\$24,493	\$25,281	\$24,804	\$27,856	5.3%
WV, Pendleton County	\$72,984	\$60,750	\$71,271	\$69,002	\$93,349	\$73,034	\$70,344	\$79,437	\$78,918	\$115,868	\$135,189	\$132,638	\$128,118	4.9%
Forest Total	\$904,486	\$843,990	\$750,544	\$722,012	\$747,681	\$688,718	\$790,437	\$839,503	\$858,653	\$1,327,018	\$1,466,812	\$1,439,136	\$1,441,833	4.2%
Virginia	\$1,528,651	\$1,388,790	\$1,362,514	\$1,157,409	\$1,262,490	\$1,102,509	\$1,257,168	\$1,342,957	\$1,436,223	\$2,074,503	\$2,276,181	\$2,233,235	\$2,342,625	3.9%
West Va.	\$1,003,000	\$931,802	\$1,141,823	\$1,022,072	\$1,127,116	\$991,651	\$967,408	\$999,176	\$1,036,385	\$1,448,172	\$1,515,851	\$1,487,250	\$1,652,767	4.4%
Forest as a % of Va. & WV	35.7%	36.4%	30.0%	33.1%	31.3%	32.9%	35.5%	35.8%	34.7%	37.7%	38.7%	38.7%	36.1%	
Source: NRIS Human Dimensions Model and USDI Bureau of Land Management Web Site														
*Deflated by GNP Price Deflator														

Exhibit B

Table 1: GW NF Timber Competitive Zone Characteristics: Growing Stock									
Competitive Zone:	Vol. Growing Stock								
	cf	cf	cf	cf	cf	Forest Service	Other Federal	State & Local	Private
	Total	Forest Service	Other Federal	State & County	Private	as % of Total			
ALBEMARLE Co.	485,013,566	0	0	11,993,715	473,019,851	0.0%	0.0%	2.5%	97.5%
ALLEGHANY Co.	372,503,997	162,204,135	0	0	210,299,862	43.5%	0.0%	0.0%	56.5%
AMHERST Co.	353,429,965	119,184,737	0	8,317,879	225,927,349	33.7%	0.0%	2.4%	63.9%
APPOMATTOX Co.	162,012,538	0	0	15,376,546	146,635,992	0.0%	0.0%	9.5%	90.5%
AUGUSTA Co.	472,546,586	274,618,207	0	7,253,671	190,674,708	58.1%	0.0%	1.5%	40.4%
BATH Co.	496,469,271	255,742,244	0	21,727,112	218,999,916	51.5%	0.0%	4.4%	44.1%
BEDFORD Co.	485,524,401	26,724,220	0	19,216,105	439,584,077	5.5%	0.0%	4.0%	90.5%
BOTETOURT Co.	359,278,109	140,213,152	0	21,213,461	197,851,496	39.0%	0.0%	5.9%	55.1%
BUCKINGHAM Co.	420,980,888	0	0	27,649,221	393,331,666	0.0%	0.0%	6.6%	93.4%
CAMPBELL Co.	308,181,402	0	0	18,035,482	290,145,920	0.0%	0.0%	5.9%	94.1%
CLARKE Co.	73,343,584	0	0	0	73,343,584	0.0%	0.0%	0.0%	100.0%
CRAIG Co.	248,904,821	178,937,647	0	0	69,967,174	71.9%	0.0%	0.0%	28.1%
FAUQUIER Co.	301,834,665	0	1,350,231	18,676,007	281,808,427	0.0%	0.4%	6.2%	93.4%
FREDERICK Co.	249,058,688	7,049,327	0	0	242,009,361	2.8%	0.0%	0.0%	97.2%
GREENE Co.	82,980,789	0	0	0	82,980,789	0.0%	0.0%	0.0%	100.0%
HIGHLAND Co.	419,561,744	109,610,598	0	50,000,107	259,951,039	26.1%	0.0%	11.9%	62.0%
MADISON Co.	203,432,083	0	2,969,242	5,755,266	194,707,576	0.0%	1.5%	2.8%	95.7%
NELSON Co.	501,199,484	44,754,690	0	9,185,091	447,259,703	8.9%	0.0%	1.8%	89.2%
PAGE Co.	123,037,113	26,158,309	0	13,064,973	83,813,830	21.3%	0.0%	10.6%	68.1%
RAPPAHANNOCK Co.	111,069,655	0	0	0	111,069,655	0.0%	0.0%	0.0%	100.0%

Table 1: GW NF Timber Competitive Zone Characteristics: Growing Stock									
Competitive Zone:	Vol. Growing Stock								
	cf	cf	cf	cf	cf	Forest Service	Other Federal	State & Local	Private
	Total	Forest Service	Other Federal	State & County	Private	as % of Total			
ROANOKE Co.	105,504,908	6,050,694	0	11,326,155	88,128,060	5.7%	0.0%	10.7%	83.5%
ROCKBRIDGE Co.	430,925,582	116,725,715	0	11,281,955	302,917,912	27.1%	0.0%	2.6%	70.3%
ROCKINGHAM Co.	507,779,880	291,244,609	0	0	216,535,271	57.4%	0.0%	0.0%	42.6%
SHENANDOAH Co.	368,985,595	170,927,991	0	0	198,057,604	46.3%	0.0%	0.0%	53.7%
WARREN Co.	101,992,800	7,321,460	3,815,575	0	90,855,765	7.2%	3.7%	0.0%	89.1%
BERKLEY Co., WV	135,001,806	0	0	28,068,571	106,933,235	0.0%	0.0%	20.8%	79.2%
GREENBRIAR Co.,WV	860,216,002	168,454,442	0	8,828,403	682,933,157	19.6%	0.0%	1.0%	79.4%
HAMPSHIRE Co.,WV	417,238,963	9,049,290	0	20,922,492	387,267,181	2.2%	0.0%	5.0%	92.8%
HARDY Co.,WV	442,576,783	78,719,180	0	20,335,144	343,522,459	17.8%	0.0%	4.6%	77.6%
MONROE Co.,WV	296,306,683	16,543,147	0	0	279,763,536	5.6%	0.0%	0.0%	94.4%
MORGAN Co.,WV	173,914,034	0	0	12,469,366	161,444,668	0.0%	0.0%	7.2%	92.8%
PENDLETON Co.,WV	683,849,335	288,300,826	0	0	395,548,509	42.2%	0.0%	0.0%	57.8%
POCAHONTAS Co.,WV	1,165,838,251	798,377,527	0	37,331,128	330,129,596	68.5%	0.0%	3.2%	28.3%
TOTAL	11,920,493,974	2,498,534,620	8,135,048	398,027,849	8,217,418,929	21.0%	0.1%	3.3%	68.9%
Source: USDA FS FIA data at http://ncrs2.fs.fed.us , 2001 FIA Survey for Virginia; 2004 data for W. Virginia									
***USDA FS Cut & Sold Reports for 1995 AR .									

Table 2: GW NF Timber Competitive Zone Characteristics: Mortality									
	Vol. Growing Stock	Mortality of Growing Stock	Percent of Total Growing Stock with Mortality	Percent of FS Growing Stock with FS Mortality					
	cf	cf	cf	cf	cf	cf	cf		
		Total	Forest Service	Other Federal	State & Local	Private	Other		
ALBEMARLE Co.	485,013,566	3,841,009	0	0	0	3,841,009	0	0.8%	
ALLEGHANY Co.	372,503,997	5,419,640	2,939,324	0	0	2,480,316	0	1.5%	
AMHERST Co.	353,429,965	4,286,542	798,281	0	1,499,833	1,988,428	0	1.2%	
APPOMATTOX Co.	162,012,538	2,468,382	0	0	208,913	2,259,469	0	1.5%	
AUGUSTA Co.	472,546,586	8,131,178	4,643,611	0	0	3,487,567	0	1.7%	
BATH Co.	496,469,271	4,595,544	3,250,143	0	102,795	1,242,606	0	0.9%	
BEDFORD Co.	485,524,401	4,001,439	377,806	0	93,960	3,529,673	0	0.8%	
BOTETOURT Co.	359,278,109	4,952,726	2,795,310	0	0	2,157,416	0	1.4%	
BUCKINGHAM Co.	420,980,888	5,523,312	0	0	725,648	4,797,664	0	1.3%	
CAMPBELL Co.	308,181,402	5,686,048	0	0	0	5,686,048	0	1.8%	
CLARKE Co.	73,343,584	351,114	0	0	0	351,114	0	0.5%	
CRAIG Co.	248,904,821	6,114,158	5,591,350	0	0	522,808	0	2.5%	
FAUQUIER Co.	301,834,665	3,901,835	0	0	149,268	3,614,816	137,751	1.3%	
FREDERICK Co.	249,058,688	1,677,315	125,923	0	0	1,551,392	0	0.7%	
GREENE Co.	82,980,789	2,602,833	0	0	0	2,602,833	0	3.1%	
HIGHLAND Co.	419,561,744	4,182,558	844,971	0	895,199	2,442,389	0	1.0%	
MADISON Co.	203,432,083	3,366,652	0	1,137,107	0	2,229,545	0	1.7%	
NELSON Co.	501,199,484	9,912,851	811,456	0	785,840	8,315,555	0	2.0%	
PAGE Co.	123,037,113	2,466,615	279,704	0	0	2,186,911	0	2.0%	
RAPPAHANNOCK Co.	111,069,655	597,018	0	0	0	597,018	0	0.5%	
ROANOKE Co.	105,504,908	1,704,864	0	0	72,124	1,632,740	0	1.6%	
ROCKBRIDGE Co.	430,925,582	3,690,739	1,406,371	0	0	2,284,367	0	0.9%	
ROCKINGHAM Co.	507,779,880	8,180,654	4,498,660	0	0	3,199,955	482,039	1.6%	
SHENANDOAH Co.	368,985,595	3,559,180	1,550,683	0	0	2,008,497	0	1.0%	

Table 2: GW NF Timber Competitive Zone Characteristics: Mortality									
	Vol. Growing Stock	Mortality of Growing Stock	Percent of Total Growing Stock with Mortality	Percent of FS Growing Stock with FS Mortality					
	cf	cf	cf	cf	cf	cf	cf		
		Total	Forest Service	Other Federal	State & Local	Private	Other		
WARREN Co.	101,992,800	2,256,782	989,424	382,367	0	884,991	0	2.2%	
BERKLEY Co., WV	135,001,806	1,319,263	0	0	0	1,319,263	0	1.0%	
GREENBRIAR Co.,WV	860,216,002	4,748,501	3,482,798	0	0	1,265,703	0	0.6%	
HAMPSHIRE Co.,WV	417,238,963	1,534,174	0	0	500,033	1,034,141	0	0.4%	
HARDY Co.,WV	442,576,783	9,354,703	1,914,295	0	0	7,440,408	0	2.1%	
MONROE Co.,WV	296,306,683	1,693,461	0	0	0	1,693,461	0	0.6%	
MORGAN Co.,WV	173,914,034	2,679,316	0	0	0	2,679,316	0	1.5%	
PENDLETON Co.,WV	683,849,335	7,794,107	2,278,721	0	0	5,515,386	0	1.1%	
POCAHONTAS Co.,WV	1,165,838,251	10,362,235	7,222,693	0	49,440	3,090,103	0	0.9%	
TOTAL	11,920,493,974	135,734,055	38,578,830	1,519,475	5,083,053	89,932,908	619,790	1.1%	1.5%

Source: USDA FS FIA data at <http://ncrs2.fs.fed.us>, 2001 FIA Survey for Virginia; 2004 data for W. Virginia

Table 3: GW NF Timber Competitive Zone Characteristics: Removals												
							FIA Data	FIA Data Removals	Cut & Sold Reports	Cut & Sold Reports	FIA Data Removals	Cut & Sold Reports
	Vol. Growing Stock	Vol. Removals of Growing Stock	GW NF	GW NF	GW NF	GW NF As % of Competitive Zone	GW NF as					
	cf	cf	cf	cf	cf	cf	cf	as % Growing Stock in	Removals (MCF)***	as % Growing Stock in	Removals (MCF)***	% GW Growing Stock
		Total	Forest Service	Other Federal	State & Local	Private	Other	Competitive Zone		Competitive Zone Total		
ALBEMARLE Co.	485,013,566	9,784,635	0	0	0	7,276,366	2,508,269	2.0%				
ALLEGHANY Co.	372,503,997	6,047,272	4,796,598	0	0	1,250,673	0	1.6%				
AMHERST Co.	353,429,965	11,487,535	795,153	0	0	10,692,382	2,073,892	3.3%				
APPOMATTOX Co.	162,012,538	8,555,211	0	0	2,988,141	5,567,070	2,430,542	5.3%				
AUGUSTA Co.	472,546,586	4,062,707	250,368	0	0	3,812,339	0	0.9%				
BATH Co.	496,469,271	3,914,039	3,461,134	0	0	452,905	0	0.8%				
BEDFORD Co.	485,524,401	16,203,365	1,474,026	0	0	14,729,339	0	3.3%				
BOTETOURT Co.	359,278,109	5,870,257	1,609,030	0	0	4,261,227	3,087,227	1.6%				
BUCKINGHAM Co.	420,980,888	10,533,983	0	0	0	10,533,983	0	2.5%				
CAMPBELL Co.	308,181,402	4,200,428	0	0	0	4,200,428	167,539	1.4%				
CLARKE Co.	73,343,584	0	0	0	0	0	0	0.0%				
CRAIG Co.	248,904,821	686,740	459,422	0	0	227,318	0	0.3%				
FAUQUIER Co.	301,834,665	306,710	0	0	0	306,710	0	0.1%				
FREDERICK Co.	249,058,688	2,081,049	0	0	0	2,081,049	0	0.8%				
GREENE Co.	82,980,789	4,074,458	0	0	0	4,074,458	0	4.9%				
HIGHLAND Co.	419,561,744	1,804,774	0	0	0	1,804,774	0	0.4%				
MADISON Co.	203,432,083	979,087	0	0	0	979,087	0	0.5%				
NELSON Co.	501,199,484	5,974,426	0	0	0	5,974,426	0	1.2%				
PAGE Co.	123,037,113	514,323	0	0	0	514,323	2,494,807	0.4%				
RAPPAHANNOCK Co.	111,069,655	215,332	0	0	0	215,332	3,040,100	0.2%				
ROANOKE Co.	105,504,908	2,448,256	622,668	0	0	1,825,589	95,808	2.3%				

Table 3: GW NF Timber Competitive Zone Characteristics: Removals												
							FIA Data	FIA Data Removals	Cut & Sold Reports	Cut & Sold Reports	FIA Data Removals	Cut & Sold Reports
	Vol. Growing Stock	Vol. Removals of Growing Stock	Vol. Removals of Growing Stock	Vol. Removals of Growing Stock	Vol. Removals of Growing Stock	Vol. Removals of Growing Stock	Vol. Removals of Growing Stock	GW NF	GW NF	GW NF	GW NF As % of Competitive Zone	GW NF as
	cf	cf	cf	cf	cf	cf	cf	as % Growing Stock in	Removals (MCF)***	as % Growing Stock in	Removals (MCF)***	% GW Growing Stock
		Total	Forest Service	Other Federal	State & Local	Private	Other	Competitive Zone		Competitive Zone Total		
ROCKBRIDGE Co.	430,925,582	1,192,625	258,658	0	0	933,966	0	0.3%				
ROCKINGHAM Co.	507,779,880	3,824,086	1,984,459	0	0	1,839,627	0	0.8%				
SHENANDOAH Co.	368,985,595	1,601,408	0	0	0	1,601,408	0	0.4%				
WARREN Co.	101,992,800	2,212,821	0	0	0	2,212,821	144,726	2.2%				
BERKLEY Co., WV	135,001,806	3,922,274	540,085	0	0	3,382,189	4,702,015	2.9%				
GREENBRIAR Co.,WV	860,216,002	3,008,465	0	0	0	3,008,465	699,895	0.3%				
HAMPSHIRE Co.,WV	417,238,963	2,759,007	0	0	0	2,759,007	0	0.7%				
HARDY Co.,WV	442,576,783	2,360,290	0	0	0	2,360,290	0	0.5%				
MONROE Co.,WV	296,306,683	4,246,738	0	0	0	4,246,738	0	1.4%				
MORGAN Co.,WV	173,914,034	7,891,893	0	0	0	7,891,893	0	4.5%				
PENDLETON Co.,WV	683,849,335	10,469,567	8,256,075	0	2,190,482	23,010	0	1.5%				
POCAHONTAS Co.,WV	1,165,838,251	140,725,492	24,507,676	0	5,178,622	111,039,194	21,444,820	12.1%				
TOTAL	11,920,493,974	283,959,252	12,121,367	0	7,369,104	159,301,673	32,622,171	2.4%	1,103,197	0.01%	4.3%	0.04%
Source: USDA FS FIA data at http://ncrs2.fs.fed.us , 2001 FIA Survey for Virginia; 2004 data for W. Virginia												
***USDA FS Cut & Sold Reports for 2001 VA .												

Table 4: GW NF Timber Competitive Zone Characteristics: Net Growth									
	Vol. Growing Stock	Net Growth of Growing Stock	Ratio of Total Growth to Total	Ratio of FS Growth to FS					
	cf	cf	cf	cf	cf	cf	cf	Net Removals	Net Removals
		Total	Forest Service	Other Federal	State & Local	Private	Other		
ALBEMARLE Co.	485,013,566	18,449,596	0	0	15,814	18,261,801	171,982	2.5	
ALLEGHANY Co.	372,503,997	8,834,227	2,234,739	0	0	6,352,884	246,604	7.1	
AMHERST Co.	353,429,965	13,720,547	2,457,125	0	-600,768	11,695,505	168,685	1.3	
APPOMATTOX Co.	162,012,538	7,093,006	0	0	1,055,758	5,564,503	472,745	1.3	
AUGUSTA Co.	472,546,586	767,151	551,685	0	-63,700	279,165	0	0.2	
BATH Co.	496,469,271	11,510,262	5,654,882	0	471,670	5,383,711	0	25.4	
BEDFORD Co.	485,524,401	21,801,369	-54,144	0	461,014	21,394,499	0	1.5	
BOTETOURT Co.	359,278,109	8,530,327	1,766,164	0	507,487	5,841,081	415,594	2.0	
BUCKINGHAM Co.	420,980,888	17,445,957	0	0	828,334	16,617,623	0	1.7	
CAMPBELL Co.	308,181,402	10,263,941	0	0	619,879	9,628,424	15,638	2.4	
CLARKE Co.	73,343,584	3,357,480	0	0	0	3,357,480	0	0.0	
CRAIG Co.	248,904,821	-253,596	-1,871,125	0	0	1,617,529	0	-1.1	
FAUQUIER Co.	301,834,665	8,005,599	0	0	1,133,073	6,312,785	559,741	26.1	
FREDERICK Co	249,058,688	5,694,214	37,934	0	0	5,656,280	0	2.7	
GREENE Co.	82,980,789	2,001,833	0	0	0	2,001,833	0	0.5	
HIGHLAND Co.	419,561,744	9,885,884	4,229,679	0	321,750	5,334,456	0	5.5	
MADISON Co.	203,432,083	3,695,038	0	-901,715	2,358	4,594,394	0	3.8	
NELSON Co.	501,199,484	7,037,803	1,366,099	0	-685,122	6,356,826	0	1.2	
PAGE Co.	123,037,113	1,252,428	171,210	0	383,727	0	697,491	2.4	
RAPPAHANNOCK Co.	111,069,655	4,357,953	0	0	0	4,357,953	0	20.2	
ROANOKE Co.	105,504,908	4,154,670	40,390	0	920,409	2,620,502	573,369	2.3	
ROCKBRIDGE Co.	430,925,582	11,084,944	2,437,458	0	255,236	8,383,426	8,824	11.9	
ROCKINGHAM Co.	507,779,880	3,982,911	1,826,985	0	0	2,155,926	0	2.2	
SHENANDOAH Co.	368,985,595	7,138,983	5,112,996	0	0	2,025,987	0	4.5	
WARREN Co.	101,992,800	475,903	-741,425	223,005	0	994,324	0	0.2	

Table 4: GW NF Timber Competitive Zone Characteristics: Net Growth									
	Vol. Growing Stock	Net Growth of Growing Stock	Ratio of Total Growth to Total	Ratio of FS Growth to FS					
	cf	cf	cf	cf	cf	cf	cf	Net Removals	Net Removals
		Total	Forest Service	Other Federal	State & Local	Private	Other		
BERKLEY Co., WV	135,001,806	1,013,679	0	0	347,013	666,666	0	0.3	
GREENBRIAR Co.,WV	860,216,002	15,410,807	3,650,834	0	-6,338	11,766,311	0	5.1	
HAMPSHIRE Co.,WV	417,238,963	7,100,427	0	0	-452,913	7,553,341	0	2.6	
HARDY Co.,WV	442,576,783	2,544,387	-850,762	0	640,521	2,754,628	0	1.1	
MONROE Co.,WV	296,306,683	10,005,353	0	0	0	10,005,353	0	2.4	
MORGAN Co.,WV	173,914,034	1,722,639	0	0	0	1,722,639	0	0.2	
PENDLETON Co.,WV	683,849,335	-269,184	-1,443,610	0	0	1,174,426	0	-11.7	
POCAHONTAS Co.,WV	1,165,838,251	12,160,798	7,758,550	0	1,710,735	2,691,513	0	0.1	
TOTAL	11,920,493,974	232,218,787	26,577,114	-678,710	7,865,936	195,123,773	3,330,674	1.5	24
Source: USDA FS FIA data at http://ncrs2.fs.fed.us , 2001 FIA Survey for Virginia; 2004 data for W. Virginia									
Note: Net growth is defined as growth less mortality; several counties had more mortality than growth so negative numbers appear in their cells									