

APPENDIX C
DEMOGRAPHIC AND ECONOMIC
INFORMATION

APPENDIX C
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INTRODUCTION

The following demographic and economic information is provided by the Commonwealth of Virginia, its agencies, institutions and authorities (the "Commonwealth"). The data were compiled by the Department of the Treasury and were not independently verified; however, the Department of the Treasury has no reason to believe that such material is not true and correct.

DEMOGRAPHIC CHARACTERISTICS

General

The Commonwealth is divided into five distinct regions -- a coastal plain cut into peninsulas by four large tidal rivers, a piedmont plateau of rolling farms and woodlands, the Blue Ridge Mountains, the fertile Shenandoah Valley and the Appalachian plateau region extending over the southwest corner of the Commonwealth. Approximately one-third of all land in Virginia is used for farming and other agricultural services. This variety of terrain, the location of the Commonwealth on the Atlantic Seaboard at the southern extremity of the northeast population corridor and its close proximity to the nation's capital have had a significant influence on the development of the present economic structure of the Commonwealth.

According to the U.S Census Bureau, the Commonwealth's 2012 estimated population was 8,185,867 which was 2.61 percent of the United States total. Among the 50 states, it ranked twelfth in population. With 39,594 square miles of land area, its 2012 population density was 206.7 persons per square mile, compared with 88.7 persons per square mile for the United States

Population Trends

From 2003 to 2012, Virginia's population increased 11 percent versus 8.1 percent for the nation. Population trends since 2003 for the Commonwealth and the United States are shown in the following table:

POPULATION TREND

	Virginia			United States		
	<u>Year</u>	<u>Population</u>	<u>Increase Over Preceding Year</u>	<u>Population</u>	<u>Increase Over Preceding Year</u>	
2003	7,373,694	-	%	290,326,418	-	%
2004	7,468,914	1.3		293,045,739	0.9	
2005	7,563,887	1.3		295,753,151	0.9	
2006	7,646,996	1.1		298,593,212	1.0	
2007	7,719,749	1.0		301,579,895	1.0	
2008	7,795,424	1.0		304,374,846	0.9	
2009	7,882,590	1.1		307,006,550	0.9	
2010	8,001,024	1.5		308,745,538	0.6	
2011	8,104,384	1.3		311,587,816	0.9	
2012	8,185,867	1.0		313,914,040	0.7	

Source: 2011 and 2012 are US Bureau of the Census Annual Estimates as of December, 2012.

AGE DISTRIBUTION OF POPULATION

Compared to the nation, a higher proportion of the Commonwealth's population is in the adult/working ages of 20 through 64. A lower proportion of Virginia's population is comprised of persons 65 and older and of persons age 5 through 19. In 2011 the population of the Commonwealth and of the United States was distributed by age as follows:

AGE DISTRIBUTION 2011

<u>Age</u>	<u>Virginia</u>	<u>United States</u>
Under 5 years	6.3 %	6.5 %
5 through 19 years	19.4	20.1
20 through 44 years	34.6	33.6
45 through 64 years	27.2	26.6
65 years and older	12.5	13.3
	<u>100.0 %</u>	<u>100.0 %</u>

Source: US Bureau of the Census Annual Estimates as of May, 2012.

GEOGRAPHIC DISTRIBUTION OF POPULATION

Like the nation as a whole, the Commonwealth has a high percentage of its citizens living in urban areas. Virtually all of the Commonwealth's population growth between 1950 and 1970 occurred in these areas. During the 1970s, however, non-metropolitan areas grew at a slightly faster rate than metropolitan areas. Since 1980, this trend has reversed with the metropolitan areas growing at three times the rate of the rest of the Commonwealth. Of the Commonwealth's population, 79 percent reside in eleven metropolitan statistical areas.

The largest metropolitan area is the Northern Virginia portion of the Washington-Arlington-Alexandria MSA. This is the fastest growing metropolitan area in the Commonwealth and had a 2011 population of 5,703,948 (including Washington and Maryland's population of 1,844,535). Northern Virginia has long been characterized by the large number of people employed in both civilian and military work with the federal government. It is also one of the nation's leading high-technology centers for computer software and telecommunications.

Spanning Hampton Roads is the Virginia Beach-Norfolk-Newport News MSA, which has large military installations and major port facilities. It had a 2011 population of 1,679,894 and is an important center of manufacturing and tourism. The Richmond MSA is the third largest metropolitan area with a 2011 population of 1,269,380. The Richmond MSA is a leading center of diversified manufacturing activity including chemicals, tobacco, printing, paper, metals and machinery. Richmond is also the capital of the Commonwealth and its financial center which includes the Fifth District Federal Reserve Bank. The Roanoke MSA is the manufacturing, trade and transportation center for the western part of the Commonwealth. It had a 2011 population of 308,861. Also in the western part of the Commonwealth are the Lynchburg and Kingsport-Bristol-Bristol MSAs, which are both manufacturing centers, and had 2011 populations of 254,171 and 309,793, respectively. The Kingsport-Bristol-Bristol population includes Tennessee portions of the MSA. Located at the foot of the Blue Ridge Mountains is the Charlottesville MSA, a community with a 2011 population of 203,882 and home of the University of Virginia and significant manufacturing industries. The Danville MSA is located on the North Carolina border and had a 2011 population of 105,696.

In 2003, the federal Office of Management & Budget recognized three new Virginia MSAs -- Winchester, Harrisonburg and Blacksburg-Christiansburg-Radford. The Winchester MSA is located at the northernmost tip of Virginia and had a 2011 population of 130,065. This fast-growing community has become increasingly attractive for both business and residential development due to its location bordering the Washington-Arlington-Alexandria MSA.

The Harrisonburg MSA, a community with a 2011 population of 126,562, is located in west central Virginia. It is a major retail, service and manufacturing center in the Shenandoah Valley. With a 2011 population of 162,487, the Blacksburg-Christiansburg-Radford MSA is located in the New River Valley in southwestern Virginia. The town of Blacksburg is the home of Virginia Polytechnic Institute & State University, Virginia's largest university and one of the nation's leading research institutions. 2011 population figures for all eleven Commonwealth MSAs are shown below:

**METROPOLITAN STATISTICAL AREA
POPULATION AND PER CAPITA INCOME**

<u>MSA</u>	<u>2011 Population</u>	<u>Per Capita Income</u>
Blacksburg-Christiansburg-Radford	162,487	\$29,733
Charlottesville	203,882	44,350
Danville	105,696	31,297
Harrisonburg	126,562	31,324
Kingsport-Bristol-Bristol*	309,793	33,035
Lynchburg	254,171	33,664
Richmond	1,269,380	43,046
Roanoke	308,861	39,115
Virginia Beach-Norfolk-Newport News	1,679,894	41,976
Washington-Arlington-Alexandria**	5,703,948	59,345
Winchester	130,065	35,048
	2011	2011
	Population	Per Capita
Commonwealth of Virginia	<u>8,104,384</u>	<u>\$46,107</u>

*Kingsport-Bristol-Bristol MSA includes a portion of Tennessee.

** Washington-Arlington-Alexandria MSA includes Washington, DC and a portion of Maryland.

Source: Bureau of Economic Analysis "BEA") and US Census Bureau as of November 26, 2012.

Distributed throughout Virginia are smaller urban areas, most of which historically have been trade centers for the surrounding areas and continue to be so today. These communities have attracted many of the new manufacturing facilities locating in the Commonwealth in recent years. The remainder of the Commonwealth's population lives in rural areas, including most of the towns and the remaining smaller cities.

ECONOMIC FACTORS

Taxable Retail Sales

Over the past ten years, taxable retail sales in Virginia increased by \$18.4 billion, or 26.1 percent. This growth is less than the average rate of inflation for this same period, which was 24.0 percent. The following table illustrates the changes in taxable retail sales for calendar years 2002 through 2011:

<u>Calendar</u> <u>Year</u>		<u>Taxable</u> <u>Retail</u> <u>Sales</u>	<u>%</u> <u>Change</u>
2002	\$	70,645,312,671	2.8 %
2003		74,973,561,726	6.1
2004		81,291,117,472	8.4
2005		77,290,441,767	-4.9
2006		89,478,625,283	15.8
2007		92,043,248,947	2.9
2008		90,106,122,080	-2.1
2009		85,869,132,300	-4.7
2010		86,420,963,843	0.6
2011		89,070,341,371	3.1

Source: Department of Taxation and the Weldon Cooper Center.

Personal Income

According to the U.S. Department of Commerce, Virginians received over \$373 billion in estimated personal income in 2011. In 2011, the Commonwealth had per capita income of \$46,107, ranking seventh among states in per capita personal income and greater than the national average of \$41,560.

From 2002 to 2011, the Commonwealth's 3.6 percent average annual rate of growth in per capita income was more than the national average rate of growth of 3.2 percent. Virginia and United States per capita personal income are shown in the following table:

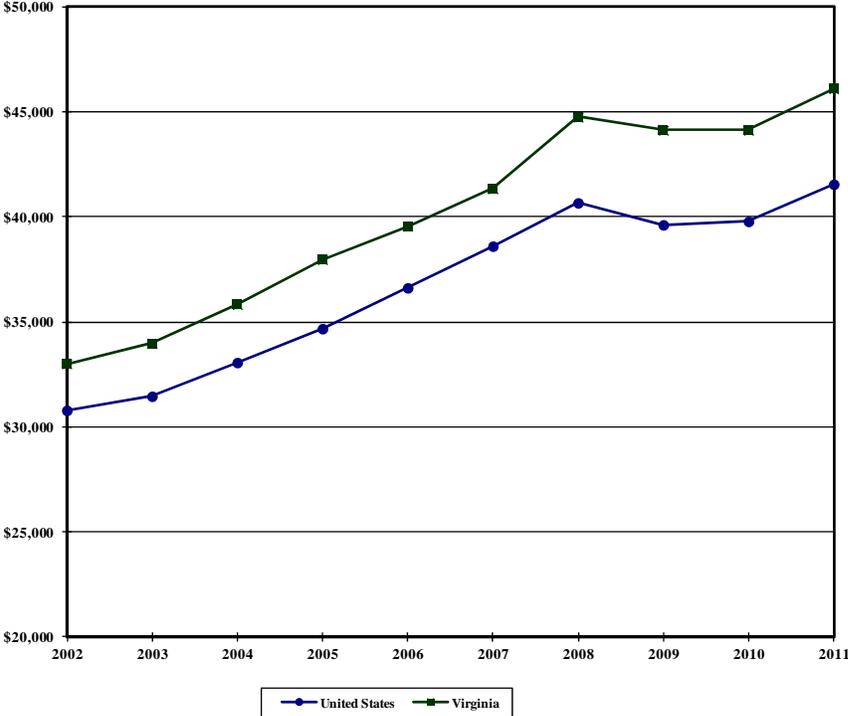
PERSONAL INCOME TRENDS

<u>Year</u>	<u>Virginia</u>		<u>United States</u>	
	<u>Per Capita</u> <u>Personal</u> <u>Income</u>	<u>Increase</u> <u>Over</u> <u>Preceding</u> <u>Year</u>	<u>Per Capita</u> <u>Personal</u> <u>Income</u>	<u>Increase</u> <u>Over</u> <u>Preceding</u> <u>Year</u>
2002	\$33,737	- %	\$31,481	- %
2003	35,033	3.8	32,295	2.6
2004	36,869	5.2	33,909	5.0
2005	38,898	5.5	35,452	4.6
2006	41,218	6.0	37,725	6.4
2007	43,261	5.0	39,506	4.7
2008	44,691	3.3	40,947	3.6
2009	42,929	-3.9	38,637	-5.6
2010	44,134	2.8	39,791	3.0
2011	46,107	4.5	41,560	4.4

Source: Bureau of Economic Analysis revised 2002-2011 as of September 25, 2012.

Virginia and United States per capita personal income are shown in the following graph:

PERSONAL INCOME TRENDS



In 2011, the sources of personal income in the Commonwealth and the comparable sources of personal income for the United States are shown in the table and pie chart:

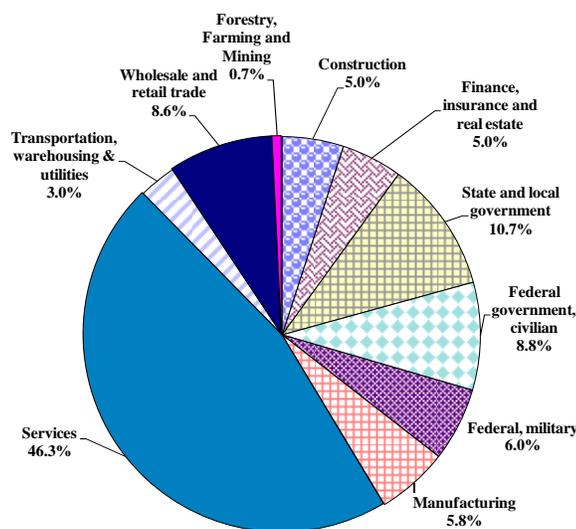
SOURCES OF PERSONAL INCOME 2011

	Virginia (in Millions)	Percentage of Personal Income Before Residence Adjustment	
		Residence Adjustment	
		Virginia	United States
Forestry, fisheries, related activities and other	\$359	0.1 %	0.3 %
Construction	14,049	5.0	5.3
Farming	492	0.2	1.1
Finance, insurance and real estate	13,929	5.0	7.5
Government:			
State and local	30,119	10.7	12.2
Federal, civilian	24,605	8.8	3.5
Federal, military	16,840	6.0	1.9
Manufacturing	16,385	5.8	10.0
Mining	1,233	0.4	1.2
Services	129,659	46.3	41.7
Transportation, warehousing & utilities	8,534	3.0	4.2
Wholesale and retail trade	24,042	8.6	11.1
Subtotal	<u>\$280,246</u>	<u>100 %</u>	<u>100 %</u>
Contributions for government social insurance	(27,133)		
Plus:			
Dividends, interest and rent	57,609		
Transfer payments	50,329		
Personal income before residence adjustment	<u>\$361,051</u>		
Residence adjustment (1)	<u>12,260</u>		
Total Personal Income	<u>\$373,312</u>		

- (1) Total personal income is reported by place of residence. However, income by industry is shown by place of work. Thus, this adjustment was necessary to account for income earned by Virginia residents who worked outside the Commonwealth. These were primarily federal government employees who lived in Northern Virginia but worked in Washington, D.C.

Source: Bureau of Economic Analysis as of September 25, 2012

DISTRIBUTION OF VIRGINIA NONAGRICULTURAL SOURCES OF GROSS PERSONAL INCOME BY MAJOR INDUSTRY 2011



Source: Bureau of Economic Analysis

Residential Construction

Residential construction was concentrated in three of the state's eleven MSAs. The Virginia portions of the Washington-Arlington-Alexandria MSA, the Virginia Beach-Norfolk-Newport News MSA, and the Richmond MSA accounted for approximately 77.6 percent of the state total.

AGGREGATE VALUE OF AND BUILDING PERMITS ISSUED FOR RESIDENTIAL CONSTRUCTION IN VIRGINIA ⁽¹⁾

<u>Year</u>	<u>Value of Construction in Current Dollars (in millions)</u>	<u>Percent Change from Preceding Year</u>	<u>Number of Permits Issued</u>	<u>Percent Change from Preceding Year</u>
2002	\$6,589.30	- %	59,445	- %
2003	6,863.50	4.2	55,996	-5.80
2004	8,050.30	17.3	62,579	11.76
2005	9,261.00	15.0	62,765	0.30
2006	7,266.80	-21.5	45,360	-27.73
2007	6,330.12	-12.9	38,319	-15.52
2008	4,106.78	-35.1	27,704	-27.70
2009	3,196.75	-22.2	21,455	-22.56
2010	3,311.10	3.6	21,404	-0.24
2011	3,399.52	2.7	23,271	8.72

Source: University of Virginia, Weldon Cooper Center for Public Service.

Assessed Value of Locally Taxed Property

The Constitution of Virginia provides that real estate, coal and other mineral lands and tangible personal property, except the rolling stock of public service corporations, are reserved for taxation by cities, counties, towns and other local government entities. Shown below is the assessed value of real estate and personal property as determined by the various taxing jurisdictions and the combined value of real estate and personal property for public utilities as determined by the State Corporation Commission. Cities and counties are required by law to assess real estate at 100 percent of market value.

ASSESSED VALUES OF REAL ESTATE AND TANGIBLE PERSONAL PROPERTY

<u>Tax Year Ended 31-Dec</u>	<u>Real Estate</u>	<u>Public Service Corporation</u>	<u>Personal Property</u>	<u>Total</u>
2001	\$ 441,708,209,690	\$ 26,999,337,787	\$ 55,202,531,447	\$ 523,910,078,924
2002	495,156,975,902	29,239,165,763	57,949,553,914	582,345,695,579
2003	551,789,426,873	27,101,230,213	59,935,871,109	638,826,528,195
2004	617,559,007,920	27,379,304,201	61,349,533,127	706,287,845,248
2005	727,049,755,759	29,539,242,718	66,156,293,731	822,745,292,208
2006	900,079,538,628	28,843,374,447	69,815,543,837	998,738,456,912
2007	982,816,278,651	29,126,367,531	70,911,848,399	1,082,854,494,581
2008	1,023,386,154,546	31,749,628,737	71,398,689,437	1,126,534,472,720
2009	988,853,631,404	34,705,834,232	68,225,665,097	1,091,785,130,733
2010	940,691,278,363	37,137,075,381	70,049,322,677	1,047,877,676,422

Source: Department of Taxation. Assessed values for the 2011 year have not been finalized.

Employment

As of December 2012, up to 3.6 million residents of the Commonwealth were in the civilian labor force, which includes agricultural and nonagricultural employment, the unemployed, the self-employed and residents who commute to jobs in other states.

The following table indicates the distribution by category of nonagricultural employment in the Commonwealth and the comparative distribution in the United States.

DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT

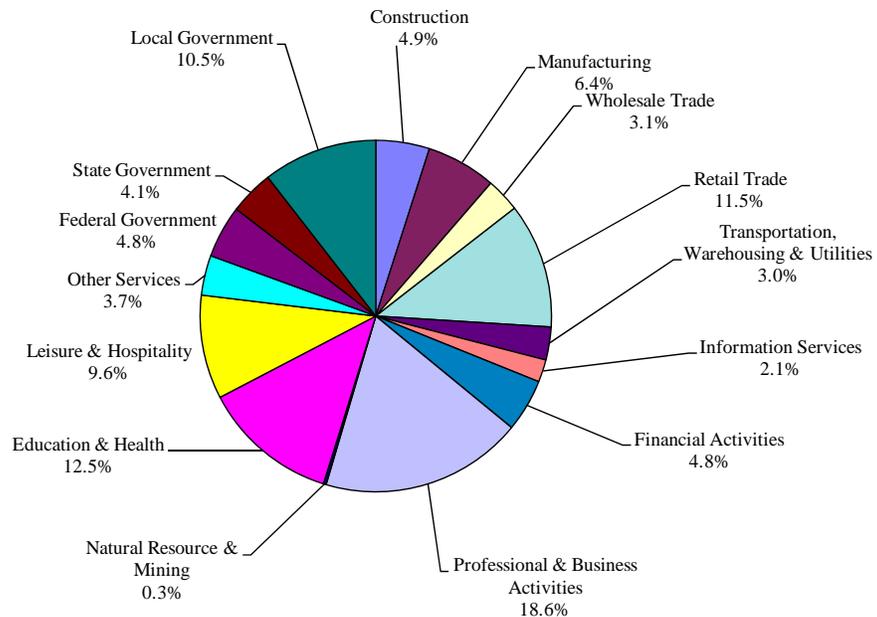
2012

	<u>Virginia</u>	<u>United States</u>
Natural Resource & Mining	0.3 %	0.6 %
Construction	4.9	4.2
Manufacturing	6.4	9.0
Wholesale Trade	3.1	4.2
Retail Trade	11.1	11.2
Transportation, Warehousing & Utilities	3.0	3.3
Information	2.0	2.0
Financial Activities	4.9	5.8
Professional & Business Activities	18.7	13.5
Education & Health	12.5	15.4
Leisure & Hospitality	10.1	10.3
Other Services	3.7	4.0
Public Administration		
Federal Government	4.8	2.1
State Government	4.0	3.8
Local Government	10.6	10.6
	<u>100.0 %</u>	<u>100.0 %</u>

Source: U.S. Department of Labor, Bureau of Labor Statistics; and Virginia Employment Commission Report.

DISTRIBUTION OF VIRGINIA NONAGRICULTURAL EMPLOYMENT BY MAJOR INDUSTRY

2012



NONAGRICULTURAL EMPLOYMENT TRENDS

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>% Change 2008-2012</u>
Natural Resource & Mining	11,100	11,100	8,871	9,213	9,128	-17.8 %
Construction	222,900	194,900	184,474	177,832	177,272	-20.5
Manufacturing	264,800	236,100	229,656	231,573	230,202	-13.1
Wholesale Trade	119,465	115,845	111,469	112,928	111,493	-6.7
Retail Trade	420,635	409,055	410,027	414,730	402,612	-4.3
Transportation & Warehousing	119,000	117,500	109,547	109,366	108,340	-9.0
Information Services	87,400	78,700	75,879	74,604	71,885	-17.8
Financial Activities	188,700	186,300	171,688	174,619	176,291	-6.6
Professional & Business Activities	657,000	637,900	661,325	671,411	675,871	2.9
Education & Health	439,400	458,100	439,469	451,642	452,806	3.1
Leisure & Hospitality	349,300	333,000	336,654	344,660	366,872	5.0
Other Services	188,800	179,900	130,120	132,322	134,238	-28.9
Public Administration						
Federal Government	159,900	169,700	174,225	174,022	173,986	8.8
State Government	154,000	160,400	140,928	146,391	145,493	-5.5
Local Government	380,500	385,800	378,150	379,428	383,182	0.7
Total	3,762,900	3,674,300	3,562,482	3,604,741	3,619,671	-3.8 %

Source: Virginia Employment Commission.

During 2012, employment in the Transportation and Warehousing sector decreased by 0.9 percent from 109,366 in 2011 to 108,340. Construction employment decreased during the year 0.3 percent to 177,272 from the 2011 average of 177,832, while Education and Health increased 0.3% in 2012. Retail Trade employment decreased by 2.9% from 414,730 in 2011 to 402,612 in 2012.

The Leisure and Hospitality sector has shown recent growth, increasing by 6.4 percent in 2012. Employment growth also occurred in the Other Services sector during the year, growing by 1.4 percent from 132,322 to 134,238. Total Public Administration increased by 2,820 or 0.4 percent in 2012.

Largest Employers

The ten largest private and public sector employers in the Commonwealth, each of which employed 1,000 or more persons, are shown below.

TOP TEN PRIVATE SECTOR EMPLOYERS 2012

<u>Rank</u>	<u>Name</u>	<u>Industry</u>
1	Wal Mart	General Merchandise Stores
2	Huntington Ingalls/Newport News Shipbuilding	Transportation Equipment Manufacturing
3	Sentara Healthcare	Hospitals
4	Food Lion	Food and Beverage Stores
5	HCA Virginia Health System	Hospitals
6	Capital One Bank	Credit Intermediation and Related Activities
7	Booz, Allen and Hamilton	Professional, Scientific, and Technical Services
8	Inova Fairfax Hospital	Hospitals
9	Science Applications International Corporation	Professional, Scientific, and Technical Services
10	Lowes' Home Centers, Inc.	Building Material and Garden Equipment and Supplies Dealers

Source: Virginia Employment Commission Community Profile as of January, 2013

TOP TEN PUBLIC SECTOR EMPLOYERS 2012

<u>Rank</u>	<u>Name</u>	<u>Industry</u>
1	U.S. Department of Defense	National Security and International Affairs
2	Fairfax County Public Schools	Educational Services
3	U.S. Postal Service	Postal Service
4	County of Fairfax	Executive, Legislative, and Other General Government Support
5	City of Virginia Beach Schools	Educational Services
6	Prince William County Schools	Educational Services
7	U.S. Department of Homeland Defense	Administration of Security
8	University of Virginia /Blue Ridge Hospital	Hospitals
9	Loudoun County Schools	Educational Services
10	Virginia Tech Cooperative Extension Office	Educational Outreach of Virginia's Land-Grant Universities

Source: Virginia Employment Commission Community Profile as of January, 2013

Unemployment

The Commonwealth is one of 22 states with a Right-to-Work Law and has a record of good labor-management relations. The Commonwealth's favorable business climate is reflected in the relatively small number of strikes and other work stoppages it experiences.

The Commonwealth is one of the least unionized of the more industrialized states. Three major reasons for this situation are the Right-to-Work Law; the importance of manufacturing industries such as textiles, apparel, electric and electronic equipment and lumber which are not highly unionized in the Commonwealth; and the importance of federal civilian and military employment. Typically the percentage of nonagricultural employees belonging to unions in the Commonwealth has been approximately half the U.S. average.

As of the third quarter 2012, Virginia had modest job growth in eight of the 10 metropolitan statistical areas reported on by the Virginia Employment Commission. Those areas include Blacksburg-Christiansburg, Charlottesville, Danville, Harrisonburg, Lynchburg, Northern Virginia, Richmond, and Virginia Beach-Norfolk-Newport News. The Winchester metropolitan area experienced the largest job loss, down 900 jobs or 1.7 percent of nonfarm employment. The Roanoke area lost 100 jobs or 0.0 percent of nonfarm employment.

The following table shows the size of the Commonwealth's total civilian labor force from 2003 through 2012, the percentage unemployed during this period and the comparable national unemployment rate.

UNEMPLOYMENT TRENDS

<u>Year</u>	<u>Virginia's Civilian Labor Force</u>	<u>Unemployment in Virginia</u>	<u>Unemployment in United States</u>
2002	3,744,636	4.20 %	5.80 %
2003	3,802,819	4.10	6.00
2004	3,857,950	3.70	5.50
2005	3,921,799	3.50	5.10
2006	3,983,717	3.00	4.60
2007	4,048,996	3.00	4.60
2008	4,188,397	4.00	5.80
2009	4,179,810	6.80	9.30
2010	4,185,321	6.90	9.60
2011	4,347,644	6.10	8.50

Source: Bureau of Labor Statistics as of January, 2013

Other Economic Factors ¹

Utilities: Adequate electric power is available throughout the Commonwealth mainly through the investor-owned utilities of Dominion Virginia Power (Dominion), Appalachian Power (APCO), Allegheny Power, and Kentucky Utilities. In addition, 13 electric cooperatives distribute power in rural districts and 16 municipalities have their own distribution systems with power purchased primarily from the previously mentioned companies. The electric utilities serving the Commonwealth are interconnected with neighboring utilities, both within and outside of the Commonwealth, for reliability of service.

Dominion completed construction of a \$1.8 billion clean-coal power station in Wise County, Virginia. The 585-megawatt Virginia City Hybrid Energy Center uses advanced technology designed to reduce emissions and protect the environment. The power station became operational in July of 2012.

Dominion is also taking steps toward constructing a third nuclear reactor at its North Anna Power Station in Louisa County. Dominion's application is currently under review by the Nuclear Regulatory Commission as well as the State Corporation Commission. Dominion Virginia Power announced on May 7, 2010, that it has selected Mitsubishi Heavy Industries' Advanced Pressurized Water Reactor (US-APWR) technology for the potential third nuclear unit at North Anna. Dominion has not officially committed to build the new unit, but wants to maintain the option to do so to meet projected demand for electricity in Virginia in the next decade.

In 2007 the General Assembly passed legislation to return Virginia to a cost-of-service regulation overseen by the State Corporation Commission (SCC). These actions reduce the possibility of "rate shock" by limiting the fuel adjustment to no more than 4 percent in residential rates. With few modifications, the SCC will have the powers it historically exercised before the deregulation process began. Virginia has also updated The Virginia Energy Plan which assesses Virginia's energy situation by examining the state's primary energy resources: electricity, coal, nuclear, natural gas, renewables and petroleum.

In addition to available electric power, the Commonwealth is also served by four major interstate natural gas transmission companies: Nisource Transmission (Columbia Gas Transmission), Dominion Transmission, Williams Pipeline (formerly Transcontinental Gas Pipe Line Corporation (Transco)), and Spectra Gas Transmission (formerly Eastern Tennessee Natural Gas).

With few exceptions, municipalities and several highly urbanized counties own their own waterworks systems. In some instances, the system of a municipality serves nearby communities and suburban areas. Some federal installations and many industrial plants have their own water supplies. Larger municipalities usually depend on surface water supplemented by ground water. Of Virginia's 2,500 public water supply systems, 2,300 use ground water. More than 6.1 million Virginians are served by public water systems and of these citizens, 95% receive fluoridated water.

All cities, many towns, and some counties have their own sewage collection systems. Existing or planned facilities provide wastewater treatment which meets, or will meet established federal and state water quality standards.

Transportation: The Commonwealth has the nation's third largest system of state-maintained highways totaling approximately 58,000 miles of interstate, primary and secondary roads. The system includes approximately 20,000 bridges and culverts. In addition, independent cities and towns maintain about 11,500 miles of local streets and receive funds from the Transportation Board for such purpose. More than a dozen railroad companies and services, including nine freight railroads, operate over 3,500 miles of railway in Virginia. The Commonwealth is a junction point between major north-south and east-west rail lines. CSX Corporation Railroad has offices in Richmond and Norfolk Southern Corporation is headquartered in Norfolk. Rail freight service is provided by these two Class I railroads, along with nine local railroads, and two switching companies.

¹ Information contained in this section was compiled by the Virginia Economic Development Partnership (VEDP) with assistance from other Virginia state agencies and entities. It contains data recently published by Federal agencies and entities.

Virginia is served by 14 commercial airports (including those just across the state line at Bluefield, West Virginia; Blountville, Tennessee; Greensboro and Raleigh-Durham, North Carolina; and Baltimore, Maryland). Scheduled commercial airline service is provided to over 145 non-stop destinations around the world. Dulles International and Ronald Reagan Washington National Airports offer daily international non-stop flights to approximately 40 destinations. The commercial airports are supplemented by 58 general aviation airports licensed for public use. Washington Dulles International has been one of the fastest growing airports in the country. Ronald Reagan Washington National Airport, located in Arlington, historically has been one of the world's busiest airports.

The Port of Virginia is largely responsible for the Commonwealth's strong ties with international commerce. The four general cargo marine terminals, Norfolk International Terminal, Portsmouth Marine Terminal, Newport News Marine Terminal, and the new, state-of-the-art APM Terminals, handled over 2 million twenty foot equivalent units (TEUs) with nearly 1963 vessel calls. The Virginia Inland Port in Front Royal serves as an intermodal collection point for containers from West Virginia, Ohio, Pennsylvania, Northern Virginia, and elsewhere. The Port of Virginia offers world-class shipping facilities, one of the largest intermodal networks on the East Coast, and the deepest channels of any port on the U.S. East Coast (50 feet deep).

On July 6, 2010, the Virginia Port Authority executed a 20-year lease with APM Terminals North America, allowing the Port Authority and its private operating company, Virginia International Terminals, to assume operations at this terminal. The 576-acre APM terminal is proclaimed as the most technologically-advanced marine cargo facility in the Americas. In addition to 4,000 linear feet of berth and 3.3 miles of on-site rail with links to Norfolk Southern and CSX, the highly-automated facility boasts a current capacity of 1.4 million TEUs annually with room for further expansion to over 2 million TEUs.

The Port of Virginia and the U.S. Army Corps of Engineers have signed a partnership agreement for the Craney Island Eastward Expansion project. The proposed 522 acre Craney Island Marine Terminal will feature an 8,400 foot-long berth, 15 container cranes and non-terminal rail access to CSX Transportation and Norfolk Southern Railway lines.

Rail is a critical component for the long-haul movement of containers to and from the marine terminals. In September 2010, Norfolk Southern completed their Heartland Corridor rail project, a direct double-stack container route between the marine terminals and the Midwest markets. This project is a public-private partnership between Norfolk Southern and West Virginia, Virginia, Ohio, and the Federal Highway Administration to create the shortest, fastest route for double-stacked container trains moving between the Port of Virginia and the Midwest. Containers from the marine terminals can reach Columbus, Ohio in one day, and Chicago, Illinois in two days. National Gateway, a similar double-stack corridor initiative by CSX was announced in October of 2011. The public private partnership will increase freight capacity between the East Coast and the Midwest that will link the Port of Virginia to the railroad's intermodal ramp in Northwest Ohio. The project is expected to be completed in 2015.

Telecommunications: Virginia is one of the most connected states in the country with more than 18.5 million access lines, over 7.2 million wireless telephone subscribers and 3.7 million high-speed lines. Mobile services are provided to the Commonwealth's communities by ten mobile telephone facilities-based carriers. More than 97 percent of households in the Commonwealth have telephone service. The largest exchange carrier in Virginia is Verizon. There are a multitude of competitive providers with large scale national and international backbone networks in operation in the Commonwealth, including Level (3) Communications, AT&T, Verizon Business, Sprint, COX Business Services and many regional network providers.

Customers in the Commonwealth have access to a full range of high quality, technologically advanced communication services. Virtually all major cities and towns are linked by fiber optic lines crisscrossing the Commonwealth, which, in turn, are tied into recently constructed national fiber optic networks.

Nationally renowned as a model for rural economic development, the Mid-Atlantic Broadband Cooperative's ("MBC") world-class fiber-optic backbone network began providing services in 2006 and continues to expand. Through this initiative, 800 miles of new 144 strand advanced fiber optic cable have been installed in Southside Virginia connecting 4 cities, 20 counties, and more than 100 Virginia business, industrial and technology parks (called GigaParks). This cable network provides opportunities for the region to connect directly with major Tier 1 peering and

carrier collocation centers. The MBC, backed by grants from the U.S. Department of Commerce's Economic Development Administration and the Virginia Tobacco Indemnification and Community Revitalization Commission, will continually expand as other communities want to be included and as funds are available to fulfill the requests. Three major MBC projects are currently underway that will increase the network's fiber route miles from 800 to 1,500 by late 2013.

Efforts are underway to further expand and enhance Southwest Virginia's technological capabilities. Grants from the Virginia Tobacco Indemnification and Community Revitalization Commission and the Virginia Coalfield Economic Development Authority will enable electronic upgrades as well as last-mile connections. Broadband infrastructure along Virginia's Interstate 81 is currently undergoing expansion work that will create a second connection between the Bristol Virginia Utilities Authority ("BVU") and MBC. Specifically, an additional 49 miles of BVU's OptiNet fiber-optic backbone from Abingdon up I-81 to Virginia Route 16 from Marion into Grayson County will link up with Citizens Telephone. When complete, the route will connect existing facilities owned by Citizens Telephone in Independence, VA, to BVU's facilities in Marion and west along the Virginia Route 11 corridor. BVU OptiNet is recognized as the first municipal broadband network in the United States to provide triple-play services over an all-fiber-optic network. OptiNet was launched in Bristol, Virginia in 2003 and has since grown to encompass more than 850 miles across eight counties in Southwest Virginia.

Research and Development: The Commonwealth is home to many internationally recognized research and development (R&D) facilities. Federally funded R&D facilities, coupled with the research from Virginia universities, provide Virginia businesses access to leading researchers and technologies. Virginia is home to more than 210 private sector R&D operations, 11 federally funded R&D Centers, and 20 FLC Laboratories such as the Homeland Security Institute, NASA Langley Research Center, and the Thomas Jefferson National Accelerator Facility. Twelve unique university research parks across the state offer private companies opportunities for co-location and cooperative relationships with Virginia universities, federal labs and other research consortia.

Philip Morris completed a research and development center at the Virginia Biotechnology Park in downtown Richmond. The Park features more than 1.2 million square feet of space in nine buildings, and employs more than 2,000 scientists, researchers, engineers and technicians in fields that include drug development, medical diagnostics, biomedical engineering, forensics and environmental analysis.

The NASA Langley Research Center and the National Institute of Aerospace Associates (NIAA) have joined forces to create the National Institute of Aerospace (NIA) for cutting-edge aerospace and atmospheric sciences research and graduate education. The NIA facility is housed on a new five building research and education campus in Hampton and operates through a consortium of research universities including Virginia Tech, University of Virginia, Old Dominion University, The College of William and Mary, Georgia Tech, University of Maryland and North Carolina State University.

SRI International, a world-class, nonprofit research institute based in Menlo Park, California, established a Center for Advanced Drug Research in the Shenandoah Valley. The Center is partnered with James Madison University and other Virginia universities to focus on advancing state-of-the-art drug research. SRI opened the Center for Advanced Drug Research ("CADRE") at the Shenandoah Valley facility in 2009. CADRE focuses on improving the productivity of the pharmaceutical industry. Overtime, SRI Shenandoah Valley plans to add high technology programs in areas such as security and defense, microscience, energy and computing technology.

The Commonwealth Center for Advanced Manufacturing ("CCAM") is an applied research center that bridges the gap between fundamental research typically performed at universities and product development routinely performed by companies. The only collaboration of its kind in the North America, CCAM accelerates the transition of research innovation from the laboratory to commercial use.

Business Climate: Virginia is ranked highly in three of the most comprehensive and impartial independent studies to date evaluating America's top states for business: Forbes.com, Pollina Corporate Real Estate, and CNBC.

In 2012 Virginia again ranked second in the country in the Forbes.com "*Best States for Business*". Virginia took the top spot in 2006, 2007, 2008, and 2009 and ranked second overall in 2010 and 2011. The review examines multiple objective measurements, including business cost, regulatory climate, quality of the workforce, and economic growth. Forbes.com is the official Internet site of the Forbes family of business publications. According to Forbes.com, the Commonwealth has a strong, educated labor force and a pro-business regulatory climate.

In 2012, Pollina Corporate Real Estate, a full-service brokerage and consulting firm representing corporations in real estate matters on a national and international basis, ranked Virginia as America's second most business-friendly state in their annual independent study titled, *Pollina Corporate Top 10 Pro-Business States for 2012*. The study evaluates and ranks states based on 32 factors including taxes, human resources, right-to-work legislation, energy costs, infrastructure spending, worker compensation legislation, jobs lost or gained, economic incentive programs and state economic development efforts. Virginia demonstrated strength particularly in the areas of taxes, education, and infrastructure, combined with excellent incentive programs and an efficient and effective state economic development department. The Commonwealth ranked first in the Pollina study in 2007, 2009, 2010 and 2011 while ranking second in 2006 and third in 2008.

Also in 2012, CNBC ranked Virginia as America's third best state for business. The network evaluated each state on 43 different measures of competitiveness in 10 categories: cost of doing business, workforce, quality of life, economy, transportation and infrastructure, technology and innovation, education, business friendliness, access to capital, and cost of living. CNBC commends Virginia for its strategic location, friendly business climate, and diverse economy. Since the rankings began, Virginia has remained one of the top three states for business, claiming the number one spot in 2007, 2009 and 2011 while receiving second in 2008 and 2010.

Local Government: As of June 30, 2011, Virginia had 95 counties, 39 incorporated cities and 36 incorporated towns. Cities and counties are units of general government that have traditionally provided all services not provided by the Commonwealth. The Commonwealth is unique in that cities and counties are independent and their land areas do not overlap. Cities and counties each levy and collect their own taxes and provide their own services. Towns, on the other hand, are a part of the counties in which they are located. Towns levy and collect taxes for town purposes, but their residents are also subject to county taxes.

The largest expenditure by local governments in the Commonwealth is for public elementary and secondary education. Each county and city in the Commonwealth, with few exceptions, constitutes a separate school district. Counties, cities and towns typically also provide such services as police and fire protection, water and sewer services and recreational facilities.

According to figures prepared by the Auditor of Public Accounts of Virginia, the total outstanding debt of counties in the Commonwealth was approximately \$14.9 billion as of June 30, 2011, of which over 52 percent was borrowed for public school construction. The outstanding debt for cities at that date was computed by the Auditor of Public Accounts to be approximately \$10.6 billion. The outstanding debt for towns, as of June 30, 2011, was calculated by the Auditor of Public Accounts to be approximately \$633.6 million.

Education: The Constitution of Virginia vests the supervision of public elementary and secondary schools in local school boards. The State Board of Education is, however, required to prescribe standards of quality and has prescribed minimum competency tests for high school graduation.

The costs of elementary and secondary education are apportioned between the Commonwealth and the localities in the manner prescribed by the General Assembly. In the fiscal year ended June 30, 2011, the Commonwealth paid \$5.2 billion of the approximately \$13.1 billion cost of operating local schools. Of the remainder, \$1.4 billion was paid by the federal government and \$6.5 billion was paid from local sources.

In the 2011-12 academic year, 413,019 students were enrolled in the Commonwealth's 39 public colleges, community colleges and universities. Of these students, 198,850 attended 23 community colleges on 40 campuses within the Virginia Community College System. A total of 1,258,520 students attended public elementary and

secondary schools. The following table illustrates enrollment levels for all educational levels for the last 10 academic years.

**ENROLLMENT FOR PUBLIC AND PRIVATE INSTITUTIONS OF HIGHER EDUCATION
AND PUBLIC PRIMARY AND SECONDARY SCHOOLS**

<u>Academic</u> <u>Year</u>	<u>Higher Education</u>			<u>Public</u> <u>Primary and</u> <u>Secondary</u>
	<u>Public</u>	<u>Private</u>	<u>Total</u>	
2002-03	337,302	52,522	389,824	1,176,128
2003-04	342,151	53,557	395,708	1,190,977
2004-05	343,550	58,395	401,945	1,205,701
2005-06	349,377	65,951	415,328	1,213,616
2006-07	357,857	70,785	428,642	1,220,440
2007-08	370,598	79,073	449,671	1,230,857
2008-09	383,459	86,959	470,418	1,235,064
2009-10	401,352	100,514	501,866	1,244,873
2010-11	409,277	110,495	519,772	1,251,949
2011-12	413,019	122,275	535,294	1,258,520

Source: State Council for Higher Education in Virginia, Virginia Department of Education.

Natural Resources: Virginia’s five physiographic provinces are underlaid by rocks of different ages, kinds, and character. Consequently, the state has a wide variety of mineral resources. Today, the value of mineral production in Virginia is nearly \$3.3 billion. In terms of value, the most important commodity is bituminous coal. Seven counties in the Appalachian Plateau region constitute the Southwest Virginia Coal Field. According to *Virginia Economic Indicators* published by the Virginia Employment Commission (Vol. 43, No. 4), the mining industry is expected to follow energy markets. It is predicted that utilities will use more coal when oil prices are up.

Virginia’s forests provide more than \$27.5 billion in annual economic benefits to the Commonwealth. More than \$23.4 billion is generated by the forest products industry with \$2.4 billion in forest related recreational spending. The forest industry provides employment for more than 144,000 Virginians, according to a 2010 state of the forest annual report. In addition, the forestland in Virginia provides citizens with valuable ecological services, including protection of water and air quality and habitat for many plant and animal species.

Virginia’s geographic location contributes to the success of its seafood industry. Its ports are rarely, if ever, closed in the winter. Its catch is widely diversified, preventing dependence on any one species. Among the 50 commercially valuable seafood species harvested from some 620,000 acres of water are sea scallops, clams, oysters, blue crabs, summer flounder, striped bass, croaker and spot. The Virginia Institute of Marine Science has reported the annual economic impact of Virginia’s seafood industry to be over \$500 million.

Agriculture: The agricultural industry has an economic impact of \$55 billion annually and provides more than 357,000 jobs in the Commonwealth. Every job in agriculture and forestry supports 1.5 jobs elsewhere in the Virginia economy.

Production agriculture employs nearly 60,000 farmers and workers in Virginia and generates approximately \$2.9 billion in total output. Value-added industries, those that depend on farm commodities, employ an additional 76,000 workers and generate \$26 billion in total industrial output. Agriculture-related industries contribute an additional 221,000 jobs and nearly \$26 billion in total output.

Tourism: Another of Virginia’s most important economic assets is the travel and tourism industry. Tourism’s economic contribution to Virginia in 2011 increased to \$20.4 billion an 8 percent increase over 2010. Approximately 207,000 Virginia jobs were directly supported by travel spending in 2011, including employment in such travel-related businesses as lodging establishments, restaurants, museums, amusement parks, retail stores and gasoline service

stations. Tourism is also a significant source of government revenues and was responsible for \$1.32 billion in combined state and local tax revenues in 2011.