

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 2013 estimated population was 8,260,405 which was 2.6 percent of the United States total. Among the 50 states, it ranked twelfth in population. With 39,594 square miles of land area, its 2013 population density was 208.6 persons per square mile, compared with 89.4 persons per square mile for the United States.

Population Trends

From 2004 to 2013, Virginia's population increased 10.6 percent versus 7.9 percent for the nation. Population trends since 2004 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>	
2004	7,468,914	-	%	293,045,739	-	%
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	* 8,186,625	1.0		313,873,685	0.7	
2013	* 8,260,405	0.9		316,128,839	0.7	

Source: *2012 and 2013 are US Bureau of the Census Annual Estimates as of January, 2014.

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 2012 the population of the Commonwealth and of the United States was distributed by age as follows:

AGE DISTRIBUTION 2012

<u>Age</u>	<u>Virginia</u>	<u>United States</u>
Under 5 years	6.2 %	6.4 %
5 through 19 years	19.3	19.9
20 through 44 years	34.5	33.6
45 through 64 years	27.0	26.4
65 years and older	13.0	13.7
	<hr/> 100.0 %	<hr/> 100.0 %

Source: US Bureau of the Census Annual Estimates as of June, 2013.

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, 87 percent reside in ten 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 2012 population of 5,860,342 (including Washington and Maryland's population of 1,895,109). 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 2012 population of 1,699,925 and is an important center of manufacturing and tourism. The Richmond MSA is the third largest metropolitan area with a 2012 population of 1,231,980. 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 2012 population of 310,118. Also in the western part of the Commonwealth are the Lynchburg and Kingsport-Bristol-Bristol MSAs, which are both manufacturing centers, and had 2012 populations of 255,342 and 309,006, 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 2012 population of 222,860 and home of the University of Virginia and significant manufacturing industries.

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 2012 population of 130,907. 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 2012 population of 128,372, is located in west central Virginia. It is a major retail, service and manufacturing center in the Shenandoah Valley. With a 2012 population of 178,933, 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. The Danville MSA with a population of 105,803 is located on the North Carolina boarder. In 2013 the Bureau of Economic Analysis reclassified Danville as a Micropolitan area due to a decline in the population of the core city. 2012 population figures for all eleven Commonwealth MSAs are shown below:

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

<u>MSA</u>	<u>2012 Population</u>	<u>Per Capita Income</u>
Blacksburg-Christiansburg-Radford	178,933	\$31,460
Charlottesville	222,860	46,667
Harrisonburg	128,372	32,998
Kingsport-Bristol-Bristol*	309,006	34,975
Lynchburg	255,342	35,243
Richmond	1,231,980	45,194
Roanoke	310,118	40,769
Virginia Beach-Norfolk-Newport News	1,699,925	44,321
Washington-Arlington-Alexandria**	5,860,342	61,743
Winchester	130,907	36,955
	2012	2012
	Population	Per Capita
Commonwealth of Virginia	<u>8,186,625</u>	<u>\$48,377</u>

* *Kingsport-Bristol-Bristol MSA includes West Virginia*

** *Washington-Arlington-Alexandria MSA includes Washington and Maryland.*

Source: Bureau of Economic Analysis("BEA"), November 2013 and MSA data from US Census as of September, 2013.

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 24.5 percent. This growth is slightly above 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 2003 through 2012:

<u>Calendar Year</u>	<u>Taxable Retail Sales</u>	<u>% Change</u>
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	89,773,478,959	-2.5
2009	85,869,132,300	-4.3
2010	86,420,963,843	0.6
2011	89,070,341,371	3.1
2012	93,335,660,137	4.8

Source: Department of Taxation and the Weldon Cooper Center.

Personal Income

According to the U.S. Department of Commerce, Virginians received over \$396 billion in estimated personal income in 2012. In 2012, the Commonwealth had per capita income of \$48,377, ranking tenth among states in per capita personal income and greater than the national average of \$43,735.

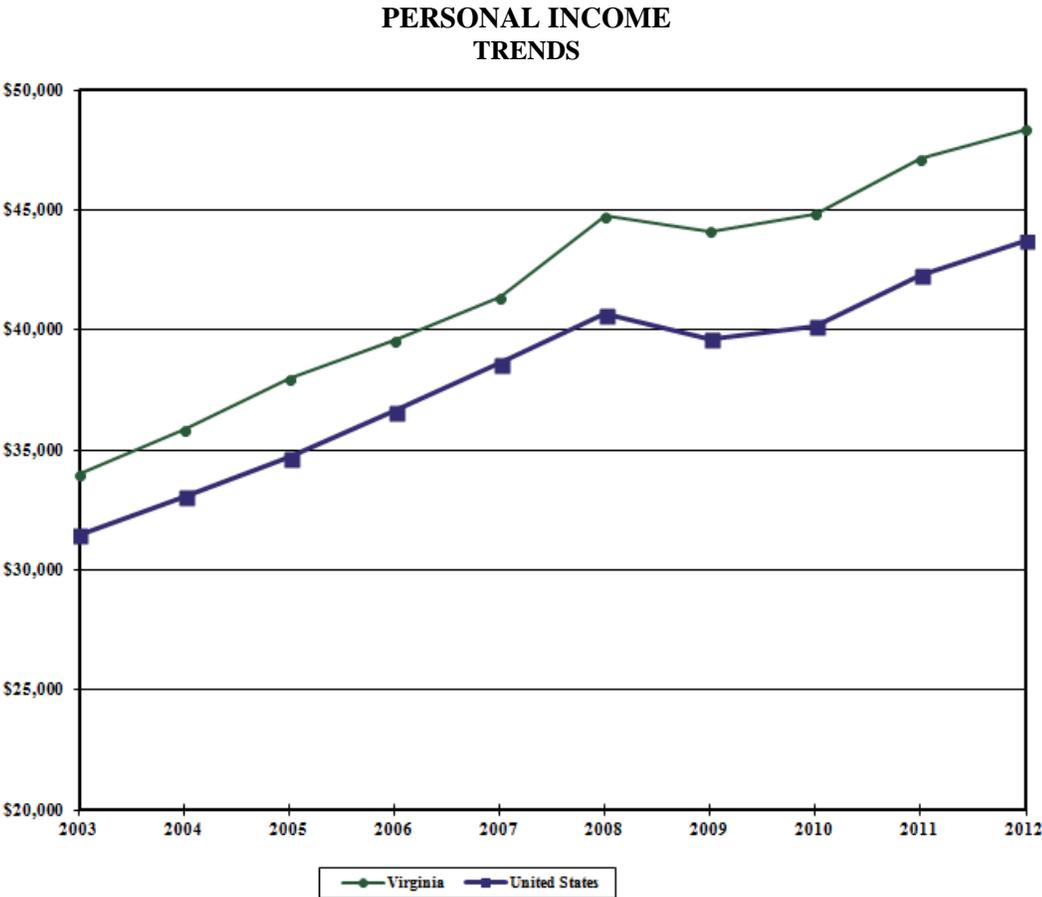
From 2003 to 2012, the Commonwealth's 3.4 percent average annual rate of growth in per capita income was more than the national average rate of growth of 3.3 percent. Virginia and United States per capita personal income are shown in the following table:

PERSONAL INCOME TRENDS

	<u>Virginia</u>		<u>United States</u>	
	<u>Per Capita Personal Income</u>	<u>Increase Over Preceding Year</u>	<u>Per Capita Personal Income</u>	<u>Increase Over Preceding Year</u>
<u>Year</u>	<u>Income</u>	<u>Year</u>	<u>Income</u>	<u>Year</u>
2003	\$35,910	- %	\$32,676	- %
2004	37,742	5.1	34,300	5.0
2005	39,825	5.5	35,888	4.6
2006	42,075	5.6	38,127	6.2
2007	43,921	4.4	39,804	4.4
2008	44,900	2.2	40,873	2.7
2009	44,063	-1.9	39,357	-3.7
2010	44,854	1.8	40,163	2.0
2011	47,126	5.1	42,298	5.3
2012	48,377	2.7	43,735	3.4

Source: Bureau of Economic Analysis as of September 30, 2013.

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



In 2012, the sources of personal income in the Commonwealth and the comparable sources of personal income for the United States are shown in the following table and pie chart:

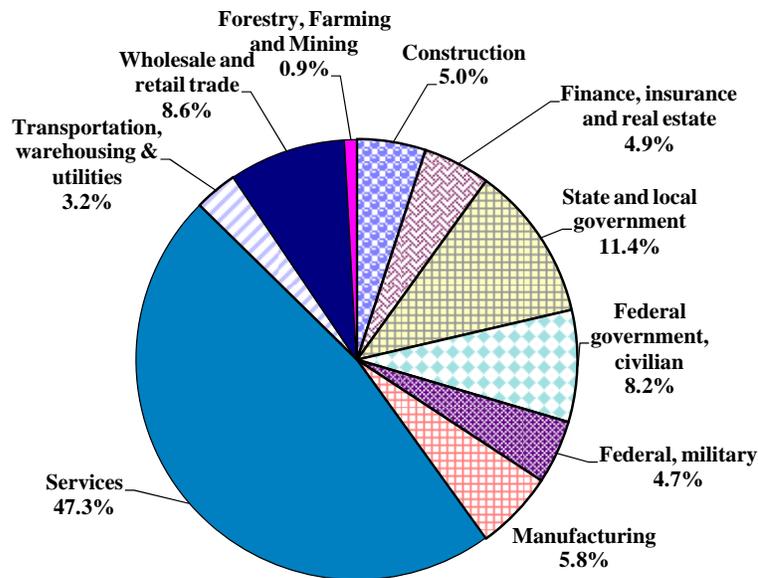
**SOURCES OF PERSONAL INCOME
2012**

	Virginia (in Millions)	Percentage of Personal Income Before Residence Adjustment	
		Virginia	United States
Forestry, fisheries, related activities and other	\$ 335	0.1 %	0.3 %
Construction	14,224	5.0	5.3
Farming	558	0.2	1.0
Finance, insurance and real estate	13,914	4.9	7.0
Government:			
State and local	32,299	11.4	13.0
Federal, civilian	23,252	8.2	3.1
Federal, military	13,257	4.7	1.5
Manufacturing	16,468	5.8	9.9
Mining	1,567	0.6	1.7
Services	133,831	47.3	42.0
Transportation, warehousing & utilities	8,973	3.2	4.2
Wholesale and retail trade	24,319	8.6	11.1
Subtotal	<u>\$ 282,996</u>	<u>100 %</u>	<u>100 %</u>
Contributions for government social insurance	(28,114)		
Plus:			
Dividends, interest and rent	77,309		
Transfer payments	51,449		
Personal income before residence adjustment	<u>\$ 383,639</u>		
Residence adjustment (1)	12,366		
Total Personal Income	<u><u>\$ 396,005</u></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 30, 2013.

**DISTRIBUTION OF VIRGINIA NONAGRICULTURAL SOURCES OF GROSS PERSONAL INCOME BY MAJOR INDUSTRY
2012**



Residential Construction

Residential construction was concentrated in three of the state's ten MSAs. The Virginia portions of the Washington-Arlington-Alexandria MSA, the Virginia Beach-Norfolk-Newport News MSA, and the Richmond MSA accounted for approximately 86 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>
2003	\$ 6,863.50	- %	55,996	- %
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
2012	4,026.66	18.4	27,275	17.21

⁽¹⁾ Excludes mobile homes.

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

Tax Year Ended 31-Dec	Real Estate	Public Service Corporation	Personal Property	Total
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	942,044,609,913	37,137,075,381	70,049,322,677	1,049,231,007,972
2011	949,019,441,456	38,455,832,384	71,600,491,421	1,059,075,765,261
2012	954,082,225,088	40,142,313,094	76,551,011,940	1,070,775,550,122

Source: Department of Taxation 2012 Annual Report.

Employment

As of December 2012, up to 4.2 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.

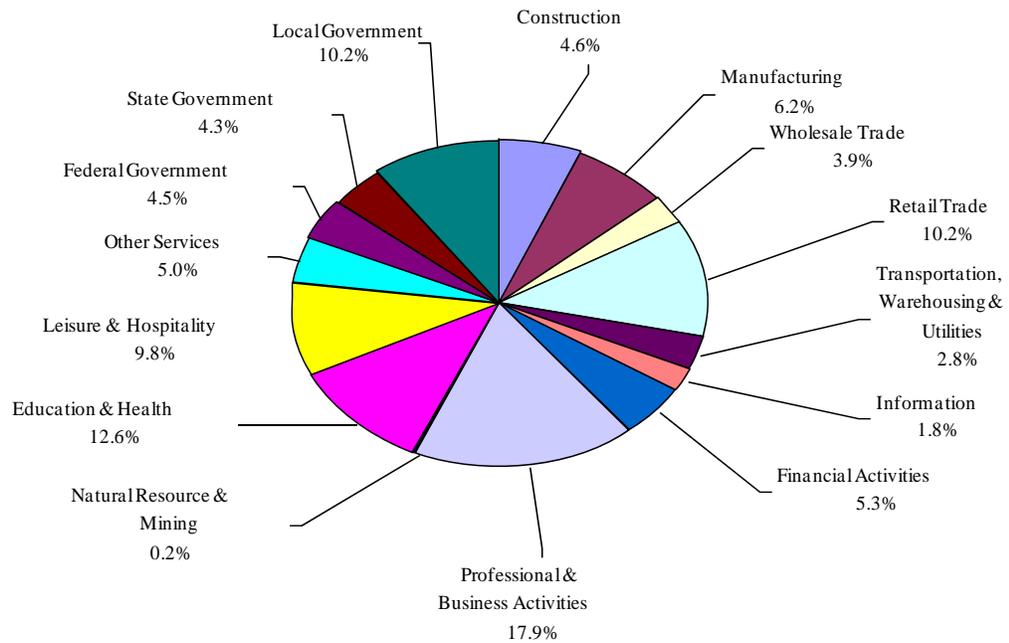
The following table indicates the distribution by category of nonagricultural employment in the Commonwealth and the comparative distribution in the United States.

**DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT
2013**

	<u>Virginia</u>	<u>United States</u>
Natural Resource & Mining	0.3 %	0.7 %
Construction	4.6	4.3
Manufacturing	6.2	8.8
Wholesale Trade	3.9	4.2
Retail Trade	10.2	11.2
Transportation, Warehousing & Utilities	2.8	3.7
Information Services	1.8	2.0
Financial Activities	5.3	5.8
Professional & Business Activities	17.9	13.7
Education & Health	13.2	15.2
Leisure & Hospitality	9.8	10.4
Other Services	5.0	4.0
Public Administration		
Federal Government	4.5	2.0
State Government	4.3	3.7
Local Government	10.2	10.3
	<u>100.0 %</u>	<u>100.0 %</u>

Source: U.S. Department of Labor, Bureau of Labor Statistics; and Virginia Employment Commission Report as of January 2013.

**DISTRIBUTION OF VIRGINIA NONAGRICULTURAL EMPLOYMENT BY MAJOR INDUSTRY
2013**



NONAGRICULTURAL EMPLOYMENT TRENDS

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>% Change 2009-2013</u>
Natural Resource & Mining	11,100	8,871	9,213	10,900	8,407	-24.3
Construction	194,900	184,474	177,832	175,900	178,002	-8.7
Manufacturing	236,100	229,656	231,573	232,100	230,579	-2.3
Wholesale Trade	115,845	111,469	112,928	101,073	111,297	-3.9
Retail Trade	409,055	410,027	414,730	416,923	405,503	-0.9
Transportation & Warehousing	117,500	109,547	109,366	113,704	108,340	-7.8
Information Services	78,700	75,879	74,604	71,800	71,020	-9.8
Financial Activities	186,300	171,688	174,619	188,200	180,390	-3.2
Professional & Business Activities	637,900	661,325	671,411	678,100	681,096	6.8
Education & Health	458,100	439,469	451,642	477,900	461,629	0.8
Leisure & Hospitality	333,000	336,654	344,660	357,500	374,228	12.4
Other Services	179,900	130,120	132,322	190,400	136,280	-24.2
Public Administration						
Federal Government	169,700	174,225	174,022	174,100	174,258	2.7
State Government	160,400	140,928	146,391	158,100	146,734	-8.5
Local Government	385,800	378,150	379,428	380,300	382,305	-0.9
Total	3,674,300	3,562,482	3,604,741	3,727,000	3,650,068	-1.0

Source: Virginia Employment Commission.

During 2013, employment in the Transportation and Warehousing sector decreased by 4.7 percent from 113,704 in 2012 to 108,340. Construction employment increased during the year 1.2 percent to 178,002 from the 2012 average of 175,900, while Education and Health decreased 3.4 percent in 2013. Retail Trade employment decreased by 2.7 percent from 416,923 in 2012 to 405,503 in 2013.

The Leisure and Hospitality sector has shown recent growth, increasing by 4.7 percent in 2013. Employment growth decreased in the Other Services sector during the year, by 28.4 percent from 190,400 to 136,280. Total Public Administration decreased by 9,203 or 1.0 percent in 2013.

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 2013

<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	Inova Fairfax Hospital	Hospitals
7	Capital One Bank	Credit Intermediation and Related Activities
8	Lowe's Home Centers, Inc	Building Material, Garden Equipment and Supplies Dealer
9	Booz, Allen and Hamilton	Professional, Scientific, and Technical Services
10	Target Corp.	General Merchandise Stores

Source: Virginia Employment Commission Community Profile as of January 21, 2013

TOP TEN PUBLIC SECTOR EMPLOYERS 2013

<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	U.S. Department of Homeland Defense	Administration of Security
6	Prince William County Schools	Educational Services
7	City of Virginia Beach Schools	Educational Services
8	University of Virginia /Blue Ridge Hospital	Hospitals
9	Loudoun County Schools	Educational Services
10	Virginia Commonwealth University	Higher Education

Source: Virginia Employment Commission Community Profile as of January 21, 2014

Unemployment

The Commonwealth is one of 24 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 2013, Virginia had modest job growth in six of the 10 metropolitan statistical areas reported on by the Virginia Employment Commission. Those areas include Blacksburg-Christiansburg, Lynchburg, Northern Virginia, Richmond, Roanoke, and Virginia Beach-Norfolk-Newport News.. The Charlottesville metropolitan area experienced the largest job loss, down 1,000 jobs or 1.0 percent of nonfarm employment.

The following table shows the size of the Commonwealth's total civilian labor force from 2004 through 2013, the percentage unemployed during this period and the comparable national unemployment rate.

UNEMPLOYMENT TRENDS

<u>Year</u>	Virginia's		
	<u>Civilian Labor Force</u>	<u>Unemployment in Virginia</u>	<u>Unemployment in United States</u>
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
2012	4,209,532	5.90	7.90
2013	4,203,418	5.00	6.70

Source: Bureau of Labor Statistics as of January, 2014

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 from Virginia state agencies and entities, including the Virginia Economic Development Partnership.

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.

Rail is a critical component for the long-haul movement of containers to and from the marine terminals. In September 2010, Norfolk Southern completed its 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. The Commonwealth Railway is a 19-mile short line freight railroad serving the Virginia Port Authority and interchanging with CSX Transportation and Norfolk Southern.

Virginia Commercial Space Flight Authority: The Commonwealth of Virginia, through the Virginia Commercial Space Flight Authority ("VCSFA") and in partnership with NASA, has invested heavily in the development of the Mid Atlantic Regional Spaceport ("MARS") at Wallops Island, Virginia. Among the investments Virginia has made is over \$80 million in state funds that were used for the construction of the new Pad OA to support Orbital Science Corporation's contract with NASA for eight resupply missions to the International Space Station ("ISS"). With NASA turning to the commercial aerospace industry to conduct many of its mission critical activities, the Commonwealth is uniquely situated to serve a vital role in the future of our nation's space program. MARS, with its strategic location, serves not only as a valuable asset to the U.S. space program, but also as crucial link in Virginia's job creation and economic development efforts. Much of the recent investment at MARS has been predicated upon the potential economic benefits that can be derived from a thriving aerospace industry and launch facility. With completion of Pad OA, Virginia is now ready to turn MARS into a true multi-user facility and attract new customers and new opportunities.

Port Facilities: The Port of Virginia is largely responsible for the Commonwealth's strong ties with international commerce. At 50 feet, the Port of Virginia offers the deepest shipping channels on the U.S. East Coast, and is serviced by more than 30 international steamship lines. Norfolk Southern and CSX offer on-dock, double stack intermodal service to key inland markets in the Midwest, Ohio Valley and Southeast.

Norfolk International Terminals (NIT) is the Port of Virginia's largest terminal, and has fourteen of the biggest, most efficient cranes in the world. The main channel leading to the terminal is 50 feet deep and the Virginia Port Authority has the authorization to dredge to 55 feet when needed. Slightly down the river from NIT is the second largest terminal, Portsmouth Marine Terminal (PMT). PMT has 3,540 feet of wharf, 3 berths, and 6 cranes, and has direct access to both CSX and Norfolk Southern railways, and will soon connect to the Commonwealth Railway. Located in Newport News, Virginia, the Newport News Marine Terminal (NNMT) provides 42,720 feet of direct cargo loading on and off ships to and from the CSX break-bulk rail service, and 3,480 feet of total pier space serviced by four cranes, covered storage, container storage, and accessibility from 3 major Virginia roadways. In 2010, the Virginia Port Authority executed a 20-year lease with APM Terminals North America, allowing VPA to assume operations at its facility in Portsmouth, Virginia. The 576 acre terminal is recognized as the most technologically advanced marine cargo facility in the Americas, and provides on-site rail with links to Norfolk Southern and CSX. APM has a current capacity of 1.4 million twenty-foot equivalent units (TEUs) annually, with room for further expansion.

The Virginia Inland Port (VIP) in Front Royal is the second smallest of the port facilities. The intermodal facility is serviced by Norfolk Southern, and accessible via Interstates 66 and 81. VIP provides access to markets in Washington, D.C., Maryland, Delaware, West Virginia, Ohio, Pennsylvania, and New York. In 2011, the Virginia Port

Authority entered into a five year lease with the Port of Richmond. The Richmond facility allows for barge service between the NIT and APM terminals in Hampton Roads and Richmond, and serves waterborne, rail and truck shippers in the Mid-Atlantic States.

In 2012, the Port of Virginia and the U.S. Army Corps of Engineers signed a partnership agreement for the Craney Island Eastward Expansion project. This dual-purpose project will extend the life of Craney Island as a dredged material management area and also provide land for the construction of a new marine terminal. With 522 acres, Craney Island Marine Terminal is expected to provide an 8,400 foot-long berth, 15 container cranes, rail access to Norfolk Southern and CSX lines, and a capacity of 5 million TEUs. The eastward expansion is currently under construction.

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 increasing the network's fiber route miles from 800 to 1,500 were completed in October 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”) located in Prince George County, Virginia, 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 North America, CCAM accelerates the transition of research innovation from the laboratory to commercial use.

The Rolls-Royce Crosspointe Campus, located in Prince George County, is the largest Rolls-Royce North America (“Rolls-Royce,”) site by area in North America and provides ample space to accommodate suppliers’ and partners’ co-location, as well as future expansion. The company’s 180,000 square foot rotatives facility opened in May 2011. In 2012 Rolls-Royce announced plans to expand by adding a second advanced manufacturing facility at its Crosspointe Campus. The new 90,000 square foot Advanced Airfoil Machine facility is expected to be completed early in 2014. Rolls-Royce, the University of Virginia and Virginia Tech have established the Commonwealth Center for Aerospace Propulsion Systems (“CCAPS”), which brings together best-in-class research disciplines from both universities to collaborate on specific research activities that are critical to aerospace propulsion at Rolls-Royce. Rolls-Royce is an active member of CCAM.

In the Fall of 2012, Amazon.com, Inc., opened two distribution centers in Chesterfield and Dinwiddie counties. The Seattle-based company opened a one million-square-foot fulfillment center in eastern Chesterfield, which ships smaller products and employs approximately 1,000 people. The Dinwiddie fulfillment center is also one million square feet, employs approximately 350 people, and ships larger products.

MeadWestvaco Corporation (“MWV”) has made a series of investments across the Commonwealth, including the construction of a new \$285 million state-of-the-art biomass boiler at its mill in Alleghany County, and the development of a state-of-the-art plant in Henrico County in 2012. The MWV’s Center for Packaging Innovation develops and tests new products and technologies as part of the company’s effort to find creative packaging solutions for customers across the globe.

Unilever United States, Inc., announced in March 2013 that it will invest \$96.2 million to expand and upgrade its Lipton Tea manufacturing plant in the City of Suffolk. The facility is the largest tea production facility in the US, employs nearly 300 people in Hampton Roads, and has been in existence for nearly 60 years.

On January 30, 2013, Microsoft Corporation announced that it would invest \$348 million to expand its modular data center in Mecklenburg County. This expansion will allow Microsoft to meet the growing demand for consumers and businesses for cloud services in the region. The existing center was built in 2010 and involved 50 jobs. The new expansion will accommodate 30 additional new jobs.

In May 2013, HP Hood, one of the largest branded dairy operators in the United States, announced that it will invest \$84.6 million in its Frederick County plant. The 75 new jobs associated with this investment will bring total employment at the plant to approximately 500.

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 2013 Virginia ranked first 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, 2011 and 2012. 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 2013, 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 fourth most business-friendly state in their annual independent study titled, *Pollina Corporate Top 10 Pro-Business States for 2013*. 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 2012; and third in 2008.

CNBC recently ranked Virginia as America's fifth best state for business in 2013. CNBC had ranked Virginia as America's third best state for business in 2012. 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 the top five states for business, claiming the number one spot in 2007, 2009 and 2011 while receiving second in 2008 and 2010.

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.

Virginia's public schools are financed through a combination of state, local and federal funds. The private sector also contributes through partnerships with schools and school divisions.

The apportionment of the state funds for public education is the responsibility of the General Assembly, through the Appropriations Act. General fund appropriations serve as the mainstay of state support for the commonwealth's public schools, augmented by retail sales and use tax revenues, state lottery proceeds, and other sources.

Counties, cities and towns comprising school divisions also support public education by providing the locality's share to maintain an educational program meeting the commonwealth's Standards of Quality.

While public education is primarily a state and local responsibility, the federal government provides assistance to state and local education agencies in support of specific federal initiatives and mandates.

Historically, state funding for public education represents about one-third of the state general fund budget.

In the 2012-13 academic year, 409,075 students were enrolled in the Commonwealth's 39 public colleges, community colleges and universities. Of these students, 194,435 attended 23 community colleges on 40 campuses within the Virginia Community College System. A total of 1,264,764 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**

Academic Year	Higher Education			Public
	Public	Private	Total	Primary and Secondary
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
2012-13	409,069	123,144	532,213	1,264,880
2013-14	403,975	125,343	529,318	1,273,211

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 \$17 billion in annual economic benefits to the Commonwealth. According to its 2013 State of the Forestry report, documented values such as wildlife, and forest-based recreational activities, environmental benefits, such as water quality and quantity, air pollution reductions and other services, provide an addition \$9 billion dollars annually.. The forest industry provides employment for more than 103,000 Virginians. 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 \$52 billion annually and provides more than 357,000 jobs in the Commonwealth. The industries of agriculture and forestry together have a total economic impact of almost \$70 billion. Every job in agriculture and forestry supports 1.6 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 \$34.6 billion in total industrial output. Agriculture-related industries contribute an additional 310,900 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 2012 increased to \$21.2 billion, a 4 percent increase over 2011. Approximately 210,000 Virginia jobs were directly supported by travel spending in 2012, 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 \$2.7 billion in combined state and local tax revenues in 2012.