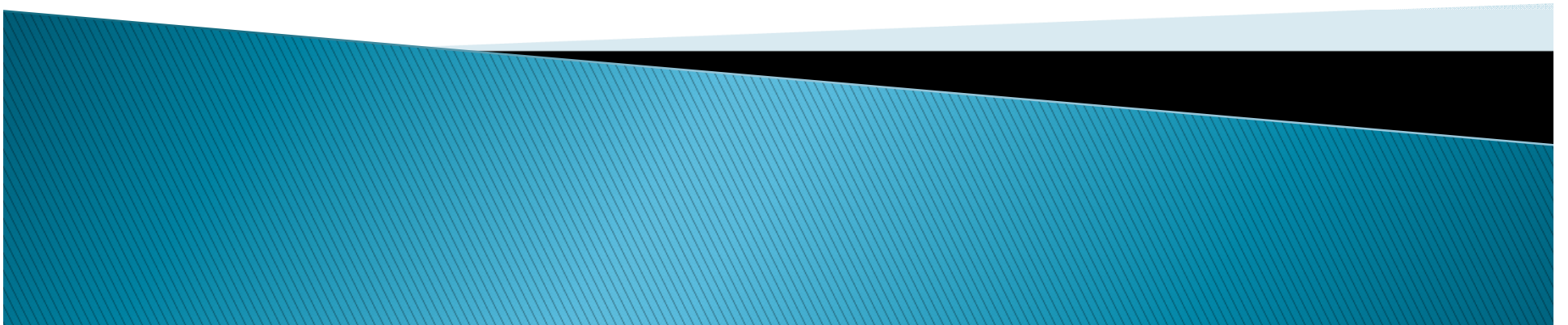




Creating the New Virginia Economy Strategic Plan

Maurice A. Jones
Secretary of Commerce and Trade

Virginia: Blessed with Assets



Virginia's Assets

- ▶ Virginia was founded as a business venture more than 400 years ago. That spirit of enterprise and entrepreneurship continues to grow strong.
- ▶ Virginia boasts a stable 6% corporate income tax—one of the lowest in the nation—that hasn't increased since 1972, property tax exemptions and one of the lowest combined state/local/use taxes at 5%.
- ▶ The Port of Virginia is the deepest port on the East Coast and the only port on the East Coast currently capable of handling Post Panamax vessels as a first or last port of call.
- ▶ With six major interstate highways, Virginia has the third largest state maintained transportation network in the country.



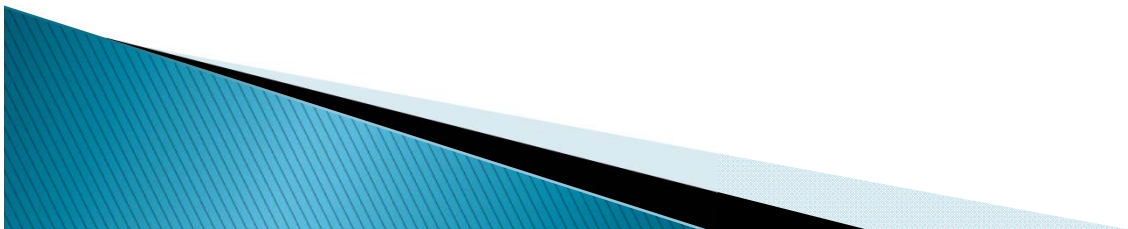
Virginia's Assets

- ▶ Fourteen railroads operate in Virginia, including Virginia-based Norfolk Southern and CSX.
- ▶ Fourteen airports serve Virginia, including Washington Dulles International Airport.
- ▶ Virginia ranks among the top 10 states best prepared to navigate the changing economy, in terms of knowledge jobs, globalization, economic dynamism, technology-driven and innovative, according to the "2014 State New Economy Index" published by the Information Technology and Innovation Foundation.



Virginia's Assets

- ▶ Virginia's higher education system is the 11th largest in the nation.
 - More than 80,000 graduates received associate, bachelor, master, and doctoral degrees at Virginia public and private institutions last year.
 - More than 500,000 students were enrolled in over 90 in-state institutions of higher education last year.
 - Virginia's education system hosts 23 community colleges – there is one community college within 30 miles of every resident in Virginia.
- ▶ Our highly skilled and educated workforce is evidenced by:
 - Over 20,000 doctoral scientists and engineers
 - Highest concentration of private sector high-tech workers in America for seven years in a row

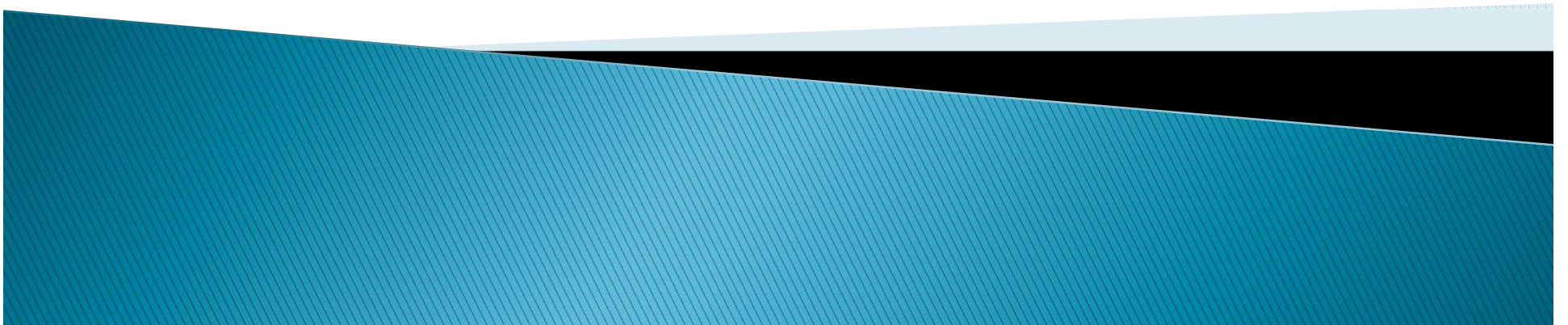


Virginia's Assets

- ▶ Employers benefit from an influx of 15,000 highly-trained military personnel who exit the U.S. military each year in Virginia.
- ▶ Virginia is in the center of the U.S. East Coast, with nearly 50% of the U.S. population and manufacturing base located within a 1,000 kilometer radius.
- ▶ The average unemployment rate in the Southeast (VA, NC, SC, GA, FL, KY, TN, AL and MS) is 6.8%. Virginia's 5.6% unemployment rate is 1.4% lower than the average for the region and is the lowest unemployment rate in the Southeast.

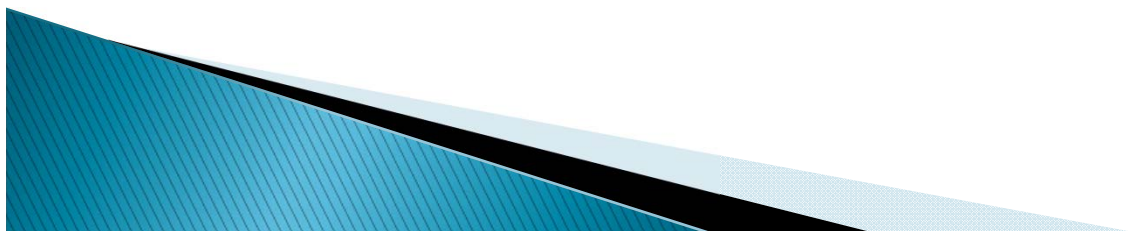


Virginia Economy: Risks



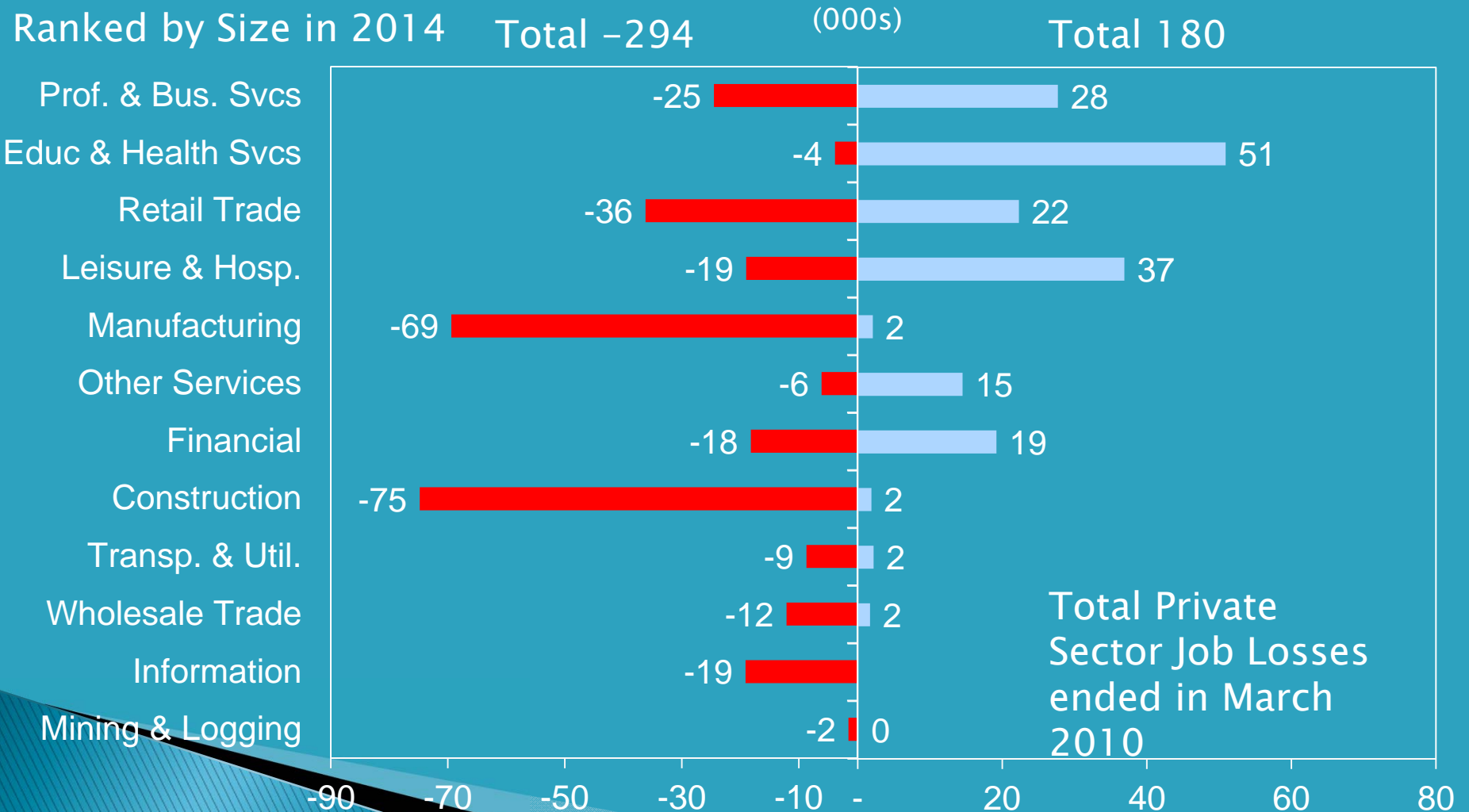
20 Largest Employers in Virginia

1. U.S. Department of Defense
2. Walmart
3. Fairfax County Public Schools
4. Huntington Ingalls Industries, Inc.
5. Sentara Healthcare
6. Food Lion
7. U.S. Postal Service
8. County of Fairfax
9. HCA Virginia Health System
10. U.S. Department of Homeland Defense
11. Prince William County School Board
12. Capital One Bank
13. City of Virginia Beach Schools
14. Loudoun County Schools
15. Inova Health System
16. University of Virginia Academic and Hospital Campuses
17. Virginia Tech Cooperative Extension Office
18. Virginia Commonwealth University
19. Lowe's Home Centers, Inc.
20. U.S. Department of Commerce



Virginia Payroll Job Change: Private Sector

The Great Recession and Recovery To Sept 2014



Source: Bureau of Labor Statistics (Seasonally Adjusted), GMU Center for Regional Analysis

Virginia Payroll Employment by Industry, 2000–2013, Not Seasonally Adjusted

Annual Employment (in 000's, ranked by size in 2013)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Prof. & Bus. Services	568.0	559.5	547.0	549.3	578.5	606.1	628.5	646.3	657.0	640.1	650.4	667.5	678.5	678.2
State & Local Gov't	471.7	481.9	488.3	489.8	499.2	510.1	520.3	526.4	534.5	533.8	530.2	535.9	535.6	536.4
Edu. & Health Services	336.2	351.9	368.7	376.5	387.6	399.5	414.4	432.0	451.9	460.3	468.0	474.9	485.0	497.1
Retail Trade	410.0	405.6	404.4	403.1	412.7	418.5	423.8	427.5	420.6	398.8	398.1	402.4	406.0	409.9
Leisure Hospitality	297.1	301.2	303.9	308.5	320.1	329.4	338.7	345.3	349.3	341.7	341.4	349.2	358.9	366.2
Manu- facturing	363.6	341.2	320.0	304.9	298.7	295.8	288.1	277.8	264.8	239.3	230.5	231.0	231.4	230.6
Other Services	160.7	168.6	177.3	176.6	179.4	181.0	181.6	185.5	188.8	185.9	184.7	187.9	192.2	193.9
Financial Activities	178.9	179.9	182.1	186.4	189.0	192.5	194.8	193.7	188.7	180.0	179.1	182.6	188.3	192.1
Construction	210.1	216.9	214.3	217.5	230.9	243.6	248.8	239.9	222.9	190.3	183.1	178.5	176.6	177.3
Federal Gov't	153.0	147.3	146.6	147.7	151.7	151.8	154.5	156.6	159.9	166.2	174.5	174.4	174.4	173.6
Transp. & Utilities	126.4	124.3	119.2	118.8	119.1	121.4	119.5	119.7	119.0	112.9	113.0	114.9	116.0	116.2
Wholesale Trade	114.3	114.7	112.8	113.2	114.6	117.2	119.6	120.9	119.5	112.6	110.0	111.4	111.4	111.2
Information	119.0	119.1	105.8	101.4	98.3	92.7	91.6	90.4	87.4	81.1	76.0	73.7	71.7	71.1
Mining Logging	11.5	11.4	10.6	10.1	10.3	10.7	11.3	10.9	11.1	10.2	10.4	10.9	10.9	10.1
Total	3,520.5	3,523.5	3,501.0	3,504.0	3,590.0	3,670.3	3,735.6	3,772.8	3,775.5	3,653.2	3,649.3	3,695.1	3,736.9	3,763.9

■ Gained in rank between 2000 and 2013

The GSP* Effects of Job Change in the Commonwealth of Virginia, March 08–Sept 14

(in billions of 2014 \$s)

	Job Change	Average GSP Value
	-294,400	\$146,964
	<u>+179,500</u>	<u>\$113,193</u>
Net Effect	-114,900	- \$22,948,049,000

Source: GMU Center for Regional Analysis
*Gross State Product



The Economic Performance of Maryland, DC and the Commonwealth of Virginia in 2013

<u>State</u>	<u>GSP Growth 2012-2013</u>	<u>US Ranking</u>
US	1.84%	
Virginia	0.06%	48 th
Maryland	0.01%	49 th
DC*	-0.49%	51 st

Source: U.S. Bureau of Economic Analysis

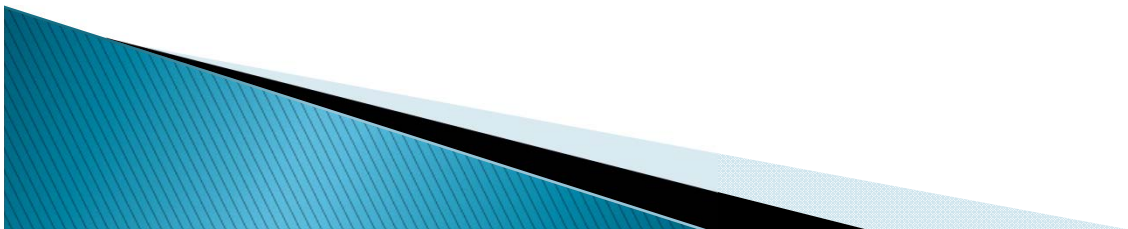


Recession Impacts

- The state lost 293,000 jobs

Impacts of Federal Spending Reduction

- Federal procurement \$s down by 15.2% from peak in 2011
- DoD procurement down 21.8%, or \$9.8 b
- There are 13,700 fewer federal jobs
- Federal payroll is down 7.5% or \$1.16 billion

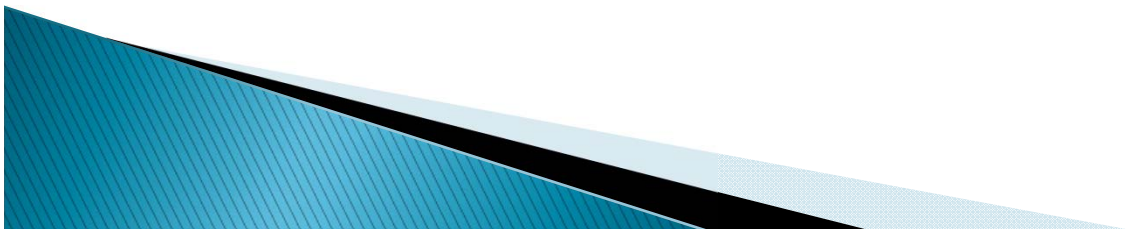


Commonwealth of Virginia

2013 Gross State Product Per Job by Sector (in 2013 dollars)

<u>Sectors (largest 1st)</u>	<u>GSP per Job*</u>
Professional & Business Services	\$126,267
Prof., Scientific, Technical	\$156,892
State and Local Government	\$69,102
Education/Health Services	\$63,890
Retail Trade	\$58,253
Hospitality Services	\$38,540
Manufacturing	\$178,652
Other Services	\$63,290
Construction	\$82,378
Federal Government	\$151,070
Military	\$121,681
Financial Services	\$242,966
Transport & Utilities	\$152,458
All Jobs in the Commonwealth	\$107,461

Sources: IHS Global Insight; GMU Center for Regional Analysis



Commonwealth of Virginia

Job Change by Wage Category between 2008 and 2013



Sources: QCEW & Self-Employed EMSI 2013.4 & GMU Center for Regional Analysis

Virginia and U.S. Economic Growth 2012–2018

(annual percent real change)

<u>Year</u>	<u>Virginia</u>	<u>U.S.</u>
2000–2007	3.0	2.5
2008–2009	-0.8	-3.1
2012	1.1	2.8
2013	1.0	1.9
2014	1.5	2.4
2015	2.3	3.2
2016	2.6	3.5
2017	2.7	3.2
2018	2.7	2.7

Sources: IHS Global Insight; GMU Center for Regional Analysis



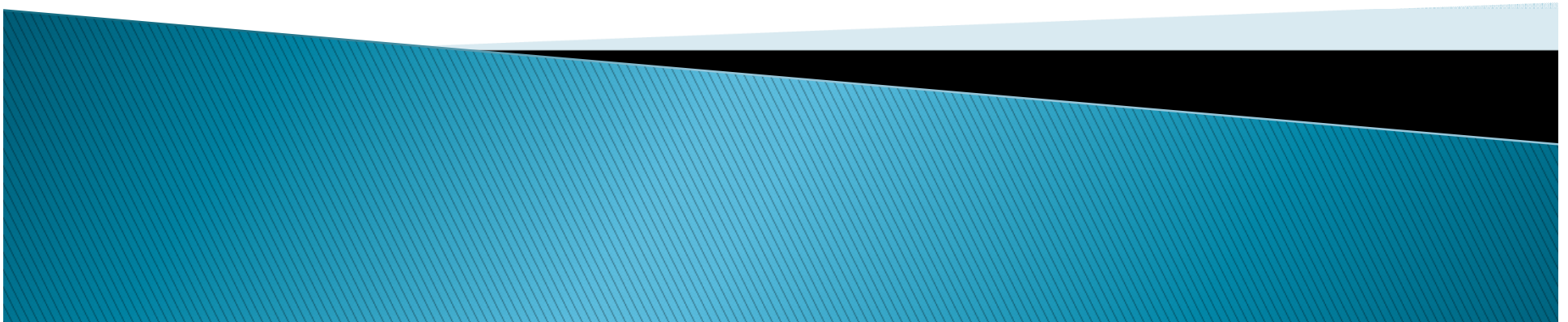
FY2015 Federal Budget Projections

Federal Contract Spending

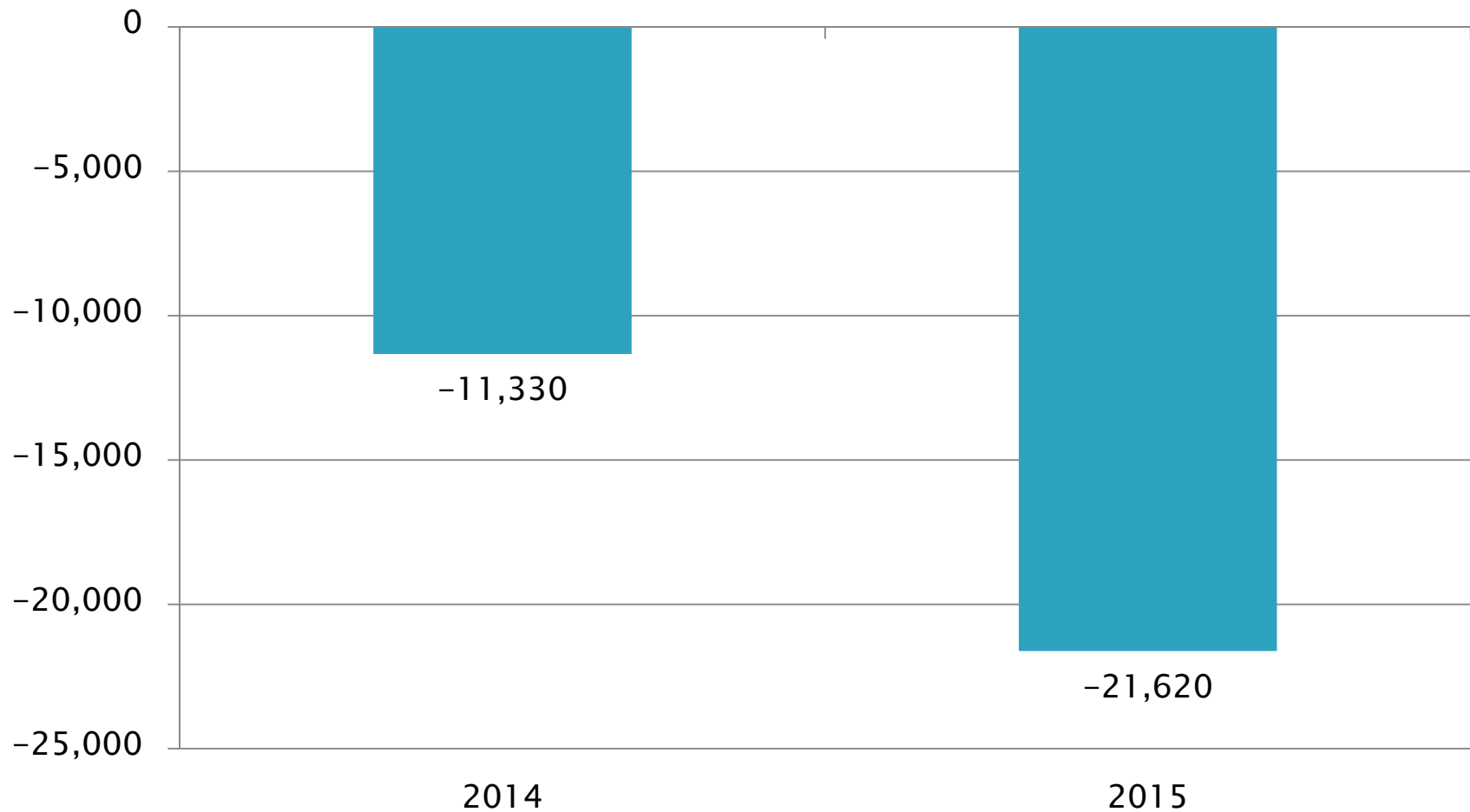
FY2014 -4.5%

FY2015 -9.2%

Sources: Delteck, GMU Center for Regional Analysis

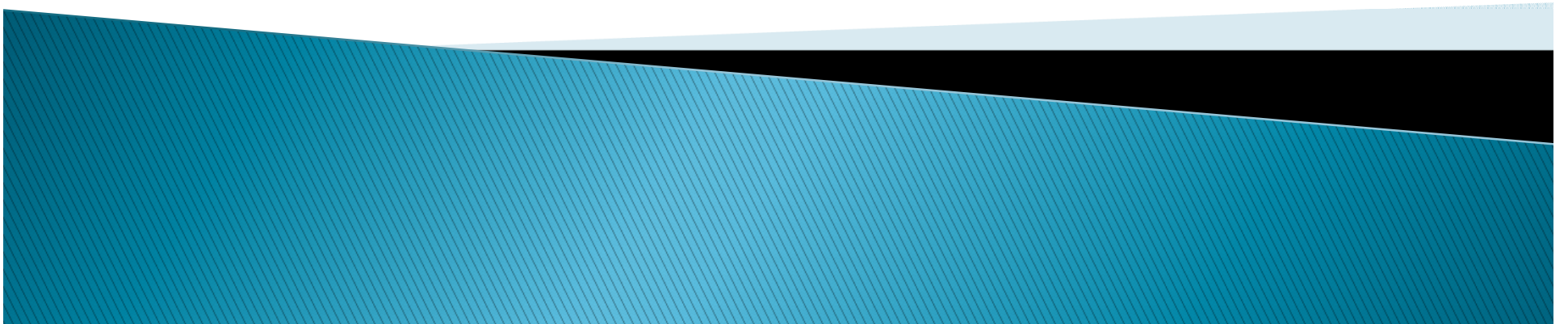


Estimated Direct Job Losses in VA Due to Federal Spending Cuts



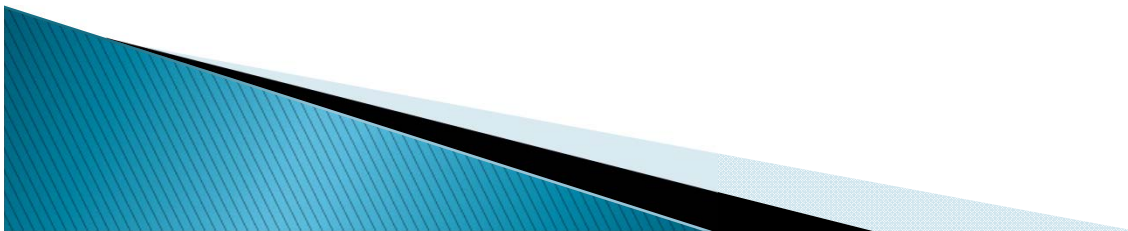
Source: Chmura Economics & Analytics – 2014

Strategies



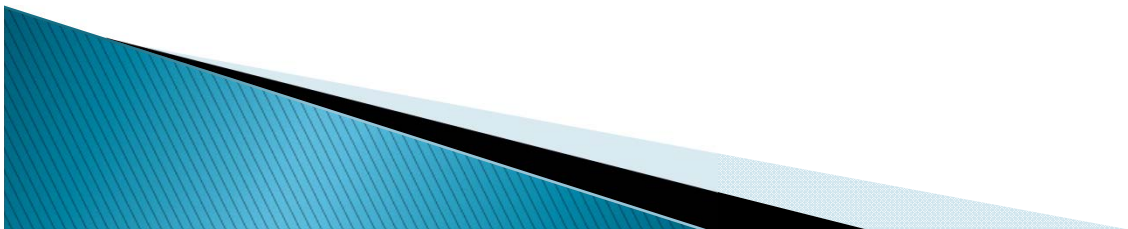
Infrastructure

- Broadband
- Energy
- Transportation
- Megasites
- Dulles
- Port
- Housing
- Regional Airport Traffic
- Quality of Life



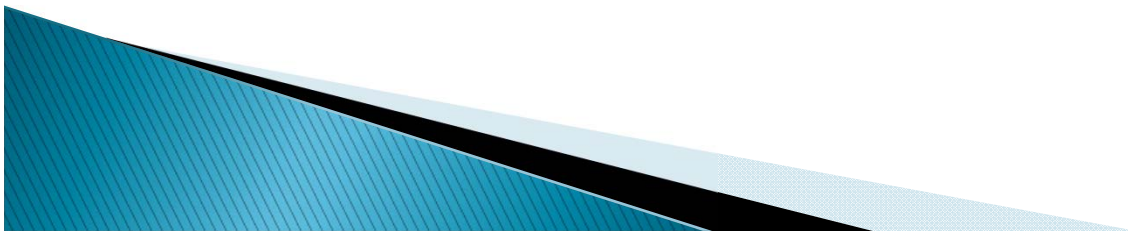
2014 Virginia Energy Plan

1. Diversify the economy by strategically growing the energy sector.
2. Innovate to reduce greenhouse gas emissions and lower energy consumption throughout the Commonwealth.
3. Strengthen our business climate by investing in reliable and resilient energy infrastructure.
4. Provide access to low-cost power in every corner of the Commonwealth.
5. Prepare Virginia's workforce to drive the energy economy into the future.



Strategic Sectors

- Advanced Manufacturing
- Cyber Security
- Big data & data analytics
- Information Technology
- Tourism
- Aerospace
- Energy
- Life Sciences
- Modeling and Simulation
- Data Centers
- Federal Government: BRAC Resilience
- International Trade
- Healthcare
- Agriculture and Forestry



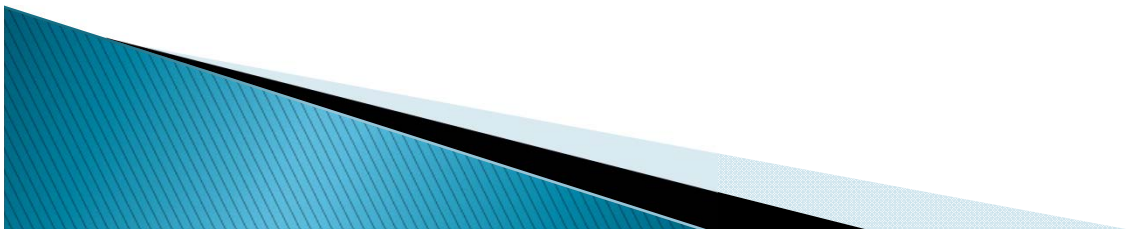
Virginia's Life Sciences Industry

- ▶ Virginia's Life Sciences Industry employs approximately 23,000 people at over 800 establishments in Virginia.
- ▶ Bioscience related distribution accounts for 29% of Virginia's Life Science Industry employment and 62% of its establishments.
- ▶ Research, testing, and medical laboratories account for 48% of Virginia Life Sciences' employment and 22% of its establishments.
- ▶ Drugs and pharmaceuticals production accounts for 20% of Virginia's Life Sciences Industry employment and 8% of its establishments. The Medical Devices and Equipment Production accounts for 6% of Virginia's Life Sciences Industry employment and 6% of its establishments.



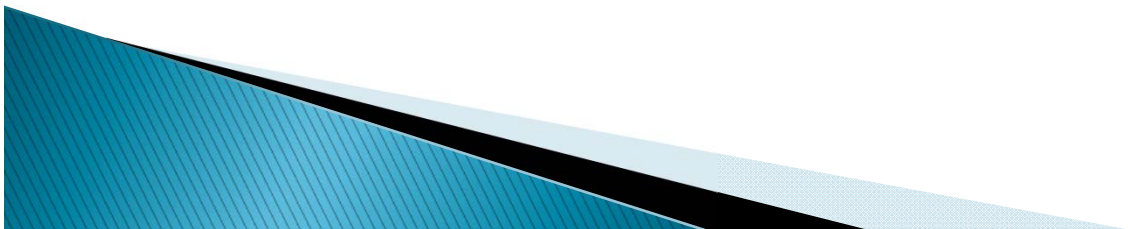
Virginia's Life Sciences Industry

- ▶ Virginia's Life Sciences Industry has a direct economic output of \$6.5 billion and supports an additional \$4.0 billion in economic activity around the state.
- ▶ Bioscience-related research accounts for 50% of all academic R&D spending in Virginia (more than \$1.135 billion in 2010)
- ▶ Virginia is home to 11 Federally Funded R&D Centers and 22 Federal Laboratory Consortia.



Virginia's Life Sciences Industry

- ▶ In 2012, Virginia ranked third in the U.S. with 338 SBIR awards (a total value of \$105.46 million)
- ▶ In 2012, there were 79 venture capital deals in Virginia (10th highest in the U.S.) including 12 in Biotech/Medical Devices
- ▶ In 2009, 344 clinical trials were initiated in Virginia with the highest number focused on cancer, heart disease, and neurological disorders



Virginia's Modeling & Simulation Industry

- ▶ Employs 10,300 people in the private sector
- ▶ Federal government and military Mod-Sim employment is estimated at an additional 2,600 people
- ▶ Consists of 189 companies with 257 locations
- ▶ In the past five years, 15 Mod-Sim projects have announced over 600 new jobs and investments of \$83 million
- ▶ Has a direct economic output of \$1.0 billion

Sources: Virginia Employment Commission
Virginia Economic Development Partnership
USAspending.gov



Virginia's Data Center Industry

- ▶ Approximately 700 data processing, hosting and related establishments are located in Virginia employing over 10,000 people
- ▶ TechAmerica, for the fourth year in a row, has ranked Virginia as the national leader for its concentration of high tech workers
- ▶ 70 percent of the world's internet traffic passes through the Metropolitan Area Exchange East in Ashburn, Virginia
- ▶ It is reported that Ashburn, Virginia is the “bullseye” of the internet, being the main hub for interactions throughout the world



Virginia's Cyber Security Industry

- ▶ Virginia is home to several federal agencies that focus on cyber security, including the U.S. Army Cyber Command (ARCYBER), U.S. Department of Defense, U.S. Department of Homeland Security's National Cyber Security and Communications Integration Center and the Defense Advanced Research Projects Agency (DARPA)
- ▶ Virginia has six universities and one community college that have been designated as Centers of Academic Excellence in Information Assurance from the National Security Agency (NSA).



Virginia's Cyber Security Industry

- ▶ George Mason University has created the Mason Center for Secure Information Systems (CSIS). This center just recently received a \$6.25 million grant from DOD to develop adaptive defenses against cyber attackers. The project will develop a new class of technologies called Adaptive Cyber Defense, which will force adversaries to continually re-assess, re-engineer and re-launch their cyber attacks. The center currently has 10 educational programs, 15 years as a National Security Agency Center of Excellence, is a top 10 national ranking and has been awarded more than \$38 million for research.
- ▶ Cyber@VT is an interdisciplinary collection of research groups and laboratories at Virginia Tech organized under the Hume Center for National Security and Technology that focus on the research challenges of cyber security. Through these groups, Virginia Tech provides a diverse research portfolio to address the critical challenges that lie ahead in the fields of computer and network security



Virginia's Cyber Security Industry

- ▶ The Cyber Security Innovations Laboratory, a partnership between Virginia Tech, the Naval Postgraduate School and L-3 Communications, is home to a number of cyber security-related programs in Virginia Tech's National Capital Region with focused research in the areas of wireless and network security
- ▶ James Madison University's Institute for Infrastructure and Information Assurance (IIA) integrates and supports the university's efforts in the area of homeland security. IIA actively seeks research sponsorship and provides funding for cutting edge research within the context of improving the nation's security
- ▶ Norfolk State University just received a \$25M grant to expand cyber security research and programs.



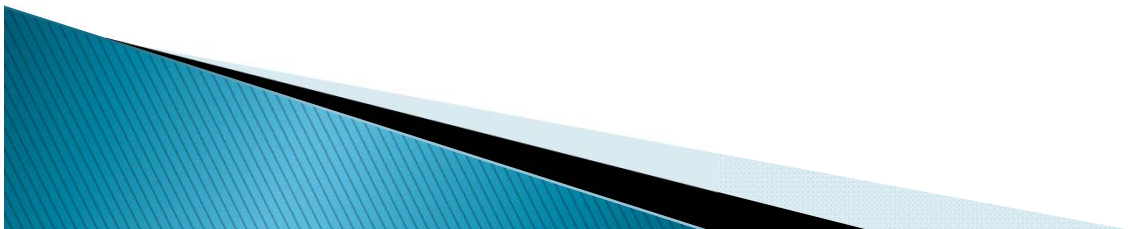
Virginia's Manufacturing Industry

- ▶ Virginia's 5,600 manufacturers employ almost 231,000 workers. The top sectors for manufacturing employment in Virginia are
- ▶ Transportation Equipment – 38,900 workers
- ▶ Food Products – 29,200 workers
- ▶ Fabricated Metal Products – 18,600 workers
- ▶ Machinery Manufacturing – 16,900 workers
- ▶ Plastics and Rubber products – 15,200 workers



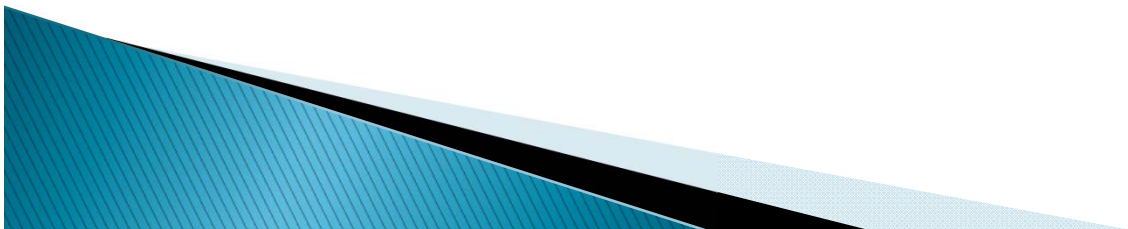
Virginia's Manufacturing Industry

- ▶ In the past 10 years, manufacturing firms have invested over \$13.7 billion and created more than 64,000 new jobs in the Commonwealth.
- ▶ Central location on the Atlantic Coast provides interstate and rail access to the Northeast, Southeast, and Midwest.
- ▶ Virginia manufacturers contribute \$34 billion to the gross state product and account for over 80% of the state's exports to the global economy.



Workforce Development

- Public sector
- Private sector
- Talent attraction
- Credentials that matter



Executive Order 23: Actions to Drive Virginia's Workforce System

1. Virginia will set a goal of attaining 50,000 STEM-H credentials, licenses, apprenticeships, and associate degrees that meet the immediate workforce needs during my administration. Many of these jobs will have high individual wages and bring a substantial return on investment to the gross state product.
2. Virginia will request that 10,000 businesses sign pledges of commitment for hiring our veterans. Virginia will double the number of veterans hired through the V3 program.
3. Diversify the economy by providing workers with skills to meet new private sector needs, encouraging innovation through entrepreneurship, retooling regions for economic advancement, and educating Virginia's workforce for the future.
4. Virginia will create the Commonwealth Consortium for Advanced Research and Statistics (CCARS) for workforce and education policy.

Overall Business Climate

- Low taxes
- Smart and low regulation
- Sufficient and relevant incentives
- Competitive



Incentives

- ▶ Governor's Opportunity Fund
- ▶ Governor's Agriculture and Forestry Industries Development
- ▶ Virginia Jobs Investment Program
- ▶ Clean Energy Manufacturing Incentive Grant
- ▶ Extremely competitive sales and use tax exemptions



Entrepreneurism

- Business plan competition
- Public policies
- Public/private sector partnerships
- Small business
- Entrepreneurial ecosystem



Business Plan Competition

- ▶ 250 Applicants
- ▶ Industries: Life Sciences, Cyber Security, Energy, Social Entrepreneurism and Agriculture
- ▶ 50 Judges and 125 Mentors
- ▶ Eligibility:
 - Any start-up company in the U.S. is eligible to apply.
 - Companies that are not located in Virginia must show how they will leverage resources in the state or otherwise do business or create jobs in the state to be eligible.



Process

- ▶ Executive Order 26 signed
- ▶ 9 roundtables around the Commonwealth
 - Richmond, September 11
 - Virginia Beach, September 19
 - Northern Virginia, October 10
 - Eastern Shore, October 16
 - College and University Presidents, October 31
 - Southwest Virginia, November 4
 - Roanoke Valley, November 4
 - Shenandoah Valley, November 4
 - Southern Virginia, November 5
- ▶ Analyze online surveys and notes from roundtables
- ▶ Report complete by December 1
- ▶ Governor and Secretary Jones present recommendations at Virginia Chamber Economic Summit on December 5



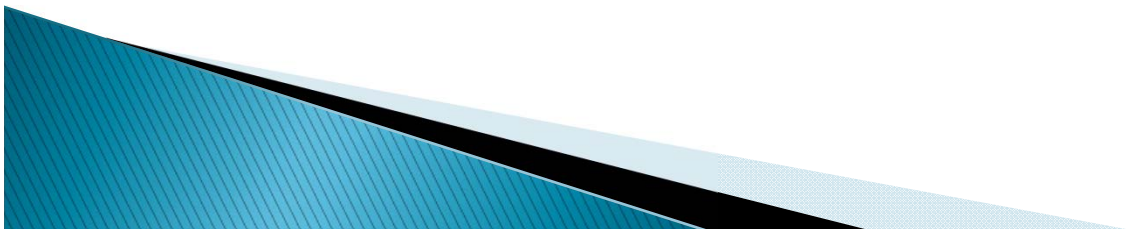
Richmond Region

- ▶ Improve energy and tax costs to manufacturers
- ▶ Re-establish programs like Certified Community Program
- ▶ Expand Enterprise Zones and Technology Zones
- ▶ Better access to fiber, gas and water
- ▶ Tax incentives for innovation districts to attract young entrepreneurs, credits for angel funders
- ▶ Keep focus on high growth industries
- ▶ Develop strategies to help 5–7 year old companies expand that are primed for growth
- ▶ More turnkey sites
- ▶ University research commercialization



Virginia Beach

- ▶ Find more use of Wallops
- ▶ Focus on workforce– credentials, transitioning military
- ▶ Support second stage companies that are in high growth industries
- ▶ Technology commercialization office at the state level
- ▶ Inventory of skills to market the workforce
- ▶ Pre–permit sites to be project ready



Northern Virginia

- ▶ Manufacturing apprentice programs
- ▶ Build infrastructure that's beyond nascent space, next stage companies
- ▶ Brand Northern Virginia, differentiate from Maryland
- ▶ Workforce universal awareness campaign
- ▶ Better regional transit system
- ▶ Expand research capabilities
- ▶ Celebrate the next generation of a company



Eastern Shore

- ▶ Bring in offshore dollars by better using the Port of Virginia and expanding international trade
- ▶ Market Virginia Tourism to Northern States
- ▶ Inspire the next generation to go into agriculture or advanced manufacturing
- ▶ Feed the world from Virginia– promote quality agriculture and aquaculture
- ▶ Brand middle skills jobs to K–16
- ▶ Improve infrastructure– natural gas and rail
- ▶ Mentoring and loan funds for entrepreneurship



Southwest Virginia

- ▶ Keep manufacturing productive by funding new equipment and tools
- ▶ Restore the land to restore the people
- ▶ Expand CTE offerings
- ▶ Encourage students to create their own jobs through entrepreneurship
- ▶ Improve infrastructure for advanced manufacturing
- ▶ Showcase quality of life and pride in the region
- ▶ Expand ways to attract and retain millennials
- ▶ Improve broadband to homes, last mile
- ▶ Expatriots– Solicit mentors that have moved from the area to help grow businesses



Roanoke Valley

- ▶ Fully fund Governor's Opportunity Fund
- ▶ International Trade opportunities
- ▶ Need more private sector leadership to look at gaps in education and community
- ▶ Preserve sites
- ▶ Fund community colleges' workforce efforts
- ▶ Transportation: air, I-73 to Martinsville
- ▶ Broadband
- ▶ Fund all levels of projects, not just large



Shenandoah Valley

- ▶ Graduate students with a skill not a diploma
- ▶ Better small business network, look for niche not to recreate another business that already exists
- ▶ Sliding scale on incentives for smaller projects
- ▶ Revitalize existing buildings
- ▶ Better educate businesses what is available to them
- ▶ Valley Scholars Program– 7th grade to JMU
- ▶ Tiered storm water requirements, distance from bay
- ▶ Business Plan Competition
- ▶ Increase technology GAP funding



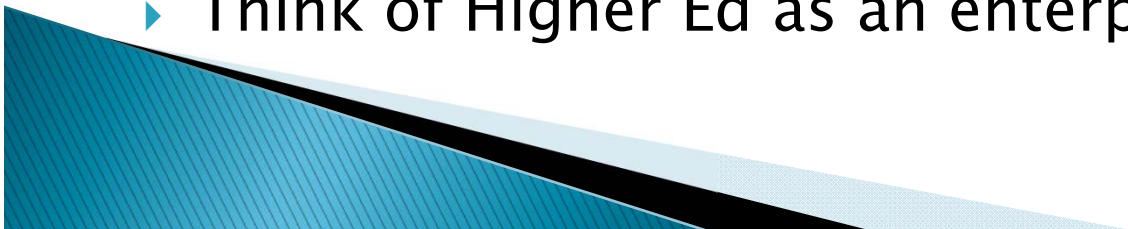
Southern Virginia

- ▶ Conduct an infrastructure study
- ▶ Fund community college workforce programs
- ▶ Map supply chain in Virginia and by region
- ▶ Prevent brain drain by encouraging entrepreneurship
- ▶ Downtown revitalization–historic and architectural tax credits
- ▶ Incentivize ISPs to reach out and grow networks
- ▶ Map out workforce delivery system
- ▶ State and regional collaboration/competition
- ▶ Each state agency should have regional strategic plans



Presidents Roundtable

- ▶ Statewide Innovation Network
- ▶ Tax incentives for high tech startups
- ▶ Build infrastructure for R&D– equipment, facilities and computing resources
- ▶ World Trade Concept
- ▶ Nationally competitive online option
- ▶ Veteran Entrepreneurship
- ▶ Use Departments of Continuing Ed for workforce solutions and training
- ▶ Tactical tool kits for new business creation
- ▶ Commercialization beyond STEM– social science and arts
- ▶ Think of Higher Ed as an enterprise



Thank you

If you have any comments or questions, please contact Kelly Spraker at (804) 225-4522 or kelly.spraker@governor.virginia.gov.

