COUNCIL ON VIRGINIA'S FUTURE

Presentation to the Virginia Workforce Council

NOVEMBER 3, 2011

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Outline of the Presentation

- Council on Virginia's Future
- Virginia Performs
- Educational Attainment, Income, and Economic Growth
- Workforce Metrics
- Concluding Remarks

Council Overview and Membership

Established in 2003 (Code of Virginia, § 2.2-2683 et seq.) to serve as an advisory board to the Governor and the General Assembly, the Council is a forum where legislative, executive branch, and community leaders come together for work that transcends election cycles, partisanship, organizational boundaries, and short-term thinking.

The Council:

- Provides a long-term focus on high-priority issues.
- Creates an environment for improved policy and decision-making.
- Increases government accountability, operations, and performance.
- Informs citizens about performance and engages them in dialogue about Virginia's future.

The Honorable Robert F. McDonnell, Chair
Governor, Commonwealth of Virginia

The Honorable William T. Bolling
Lieutenant Governor, Commonwealth of Virginia

Mr. John O. (Dubby) Wynne, Vice Chair
President & CEO (retired), Landmark Communications

General Assembly Members

The Honorable Ward L. Armstrong
Minority Leader, Virginia House of Delegates

The Honorable Charles J. Colgan
President *pro tempore* & Chairman, Senate Finance Committee, Senate of Virginia

The Honorable M. Kirkland (Kirk) Cox
Majority Leader, Virginia House of Delegates

The Honorable William J. Howell
Speaker of the House, Virginia House of Delegates

The Honorable Yvonne B. Miller
Member, Senate Finance Committee, Senate of Virginia

The Honorable Thomas K. Norment, Jr.
Minority Leader, Senate of Virginia

The Honorable Lacey E. Putney
Chairman, House Appropriations Committee Virginia House of Delegates

The Honorable Richard L. Saslaw
Majority Leader, Senate of Virginia

Citizen and Business Community Leaders

The Honorable William D. Euille
Mayor, City of Alexandria

Mr. W. Heywood Fralin
President & CEO,
Medical Facilities of America, Inc.

Mr. Edward W. Gillespie
Principal & Founder, Ed Gillespie Strategies

Mr. Harris N. Miller
President & CEO, Career College Association

Dr. Edward G. Murphy
President & CEO, Carilion Clinic

The Honorable Michael J. Schewel
Partner, McGuireWoods LLP

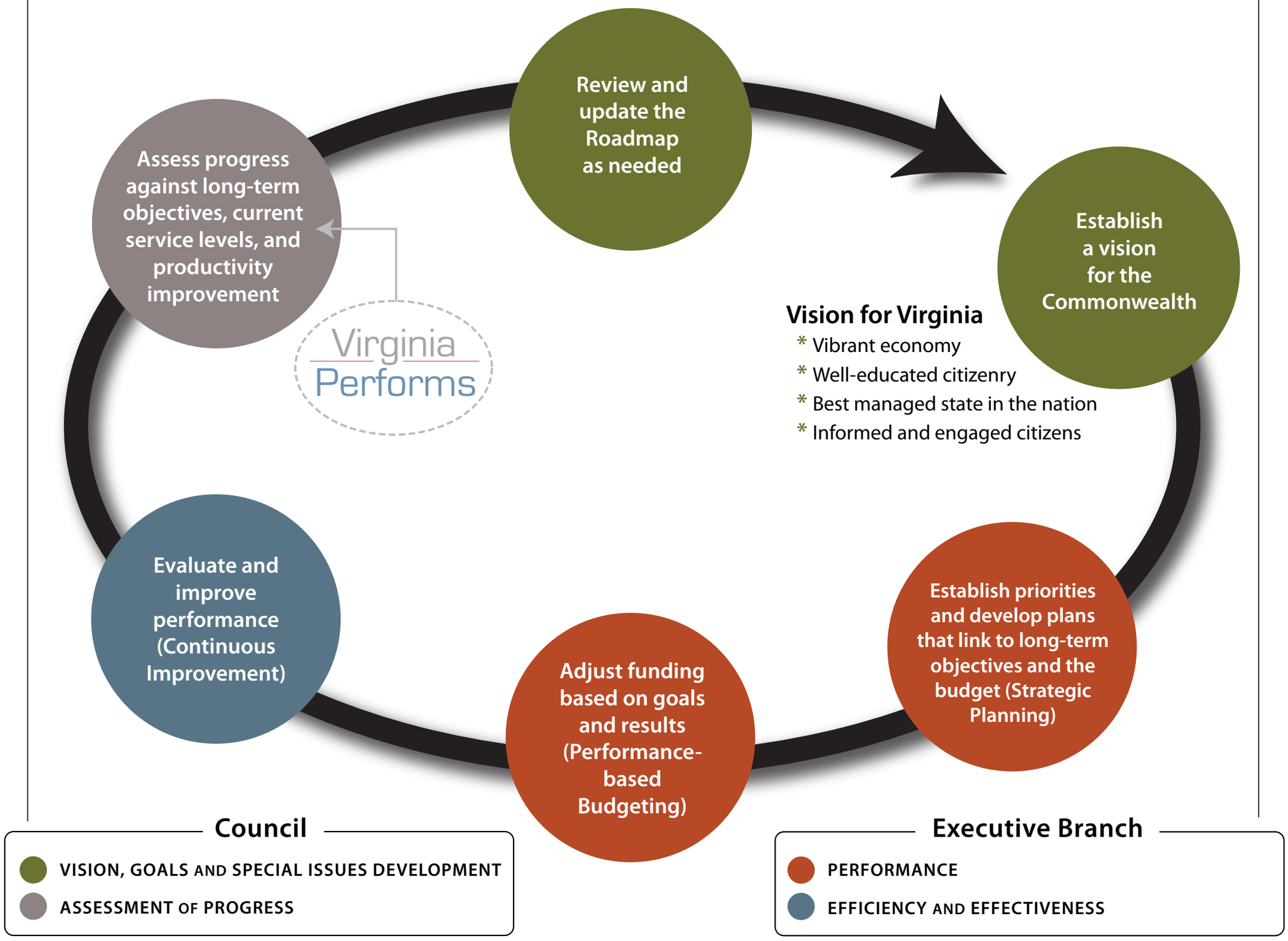
Cabinet Members

The Honorable Richard D. Brown
Secretary of Finance

The Honorable Martin L. Kent
Chief of Staff to Governor Robert F. McDonnell

Council support provided by the Weldon Cooper Center for Public Service at the University of Virginia and the Virginia Department Planning and Budget, in cooperation with the Governor's Office.

ROADMAP FOR VIRGINIA'S FUTURE



Council Interaction with Change-Focused Groups

Vision for Virginia
- Vibrant economy
- Well-educated citizenry
- Best-managed state
- Informed & engaged citizens

Council on Virginia's Future

Support change:
- Research
- Data analysis
- Methods for measuring success

Monitor progress:
- Incorporate into performance-based planning and budgeting
- Track approved goals and targets in Virginia Performs

Research, discussion, and analysis

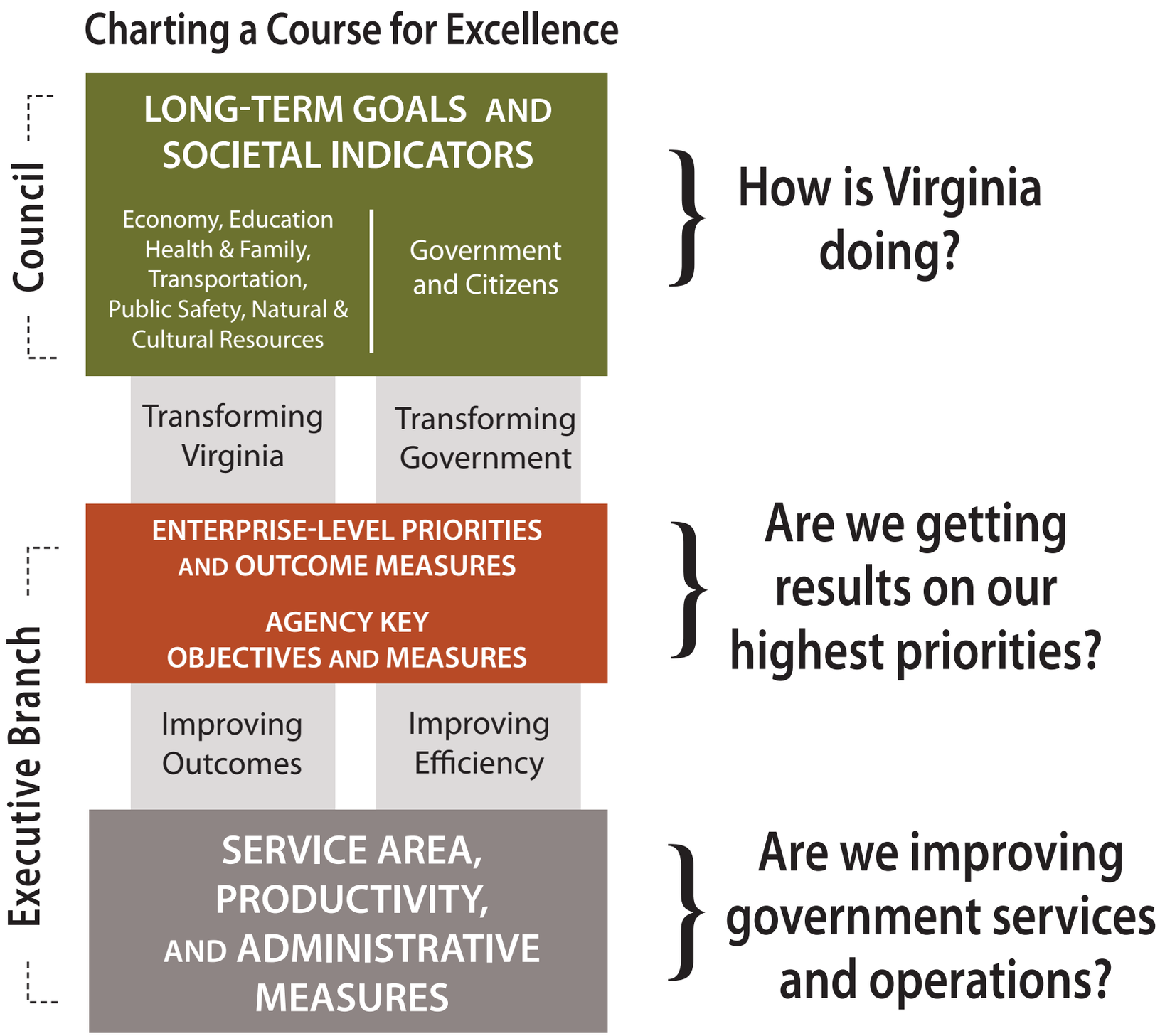
Findings and Recommendations

IMPROVED OUTCOMES

Change-Focused Groups

- Legislative and Gubernatorial Initiatives and Commissions
  - Government Reform & Restructuring
  - Higher Education
  - Jobs & Economic Development
- Enterprise-level Councils and Initiatives, e.g., The Virginia Workforce Council
- Agency-Level Initiatives
- State-Local Initiatives
- Other

Virginia Performs Architecture



SCORECARD AT A GLANCE

Virginia Performs | VISION FOCUS RESULTS

"Measuring what matters to Virginians."

Economy

Goal: Be a national leader in the preservation and enhancement of our economy.

Business Climate	↑
Business Startups	→
Employment Growth	→
Personal Income	↓
Poverty	↓
Unemployment	↓
Workforce Quality	↑

Education

Goal: Elevate the levels of educational preparedness and attainment of our citizens.

School Readiness	↑
3rd Grade Reading	→
4th Grade Reading/Math	→
High School Graduation	↑
High School Dropout	→
College Graduation	↑
Educational Attainment	↑
Lifelong Learning	→

Health and Family

Goal: Inspire and support Virginians toward healthy lives and strong and resilient families.

Adoption	→
Cancer	↑
Cardiovascular Disease	↑
Child Abuse and Neglect	↑
Foster Care	↑
Health Insurance	↓
Immunization	↓
Infant Mortality	↑
Life Expectancy	↑
Obesity	↓
Smoking	↓
Suicide	↓
Teen Pregnancy	↑

Each topic covers:

Why Is This Important?

How Is Virginia Doing?
- Over Time
- By Region
- Compared to Other States

What Influences the Indicator?

What Is the State's Role?

Public Safety

Goal: Protect the public's safety and security, ensure a fair and effective system of justice, and provide a prepared response to emergencies and disasters of all kinds.

Crime	↑
Emergency Preparedness	↑
Juvenile Intakes	↑
Recidivism	↑
Traffic Fatalities	↑

Natural Resources

Goal: Protect, conserve and wisely develop our natural, cultural and historic resources.

Air Quality	↑
Energy	→
Historic Resources	→
Land Preservation	↑
Solid Waste and Recycling	↑
Water Quality	↑

Transportation

Goal: Ensure Virginia has a transportation system that is safe, enables the easy movement of people and goods, enhances the economy, and improves our quality of life.

Infrastructure Condition	→
Land Use	→
Traffic Congestion	↓

Government & Citizens

Goal: Be recognized as the best-managed state in the nation.

Bond Rating	↑
Civic Engagement	→
Consumer Protection	↓
Government Operations	↑
Internet Access	↑
Taxation	→
Voter Registration & Turnout	↑

Performance Trend

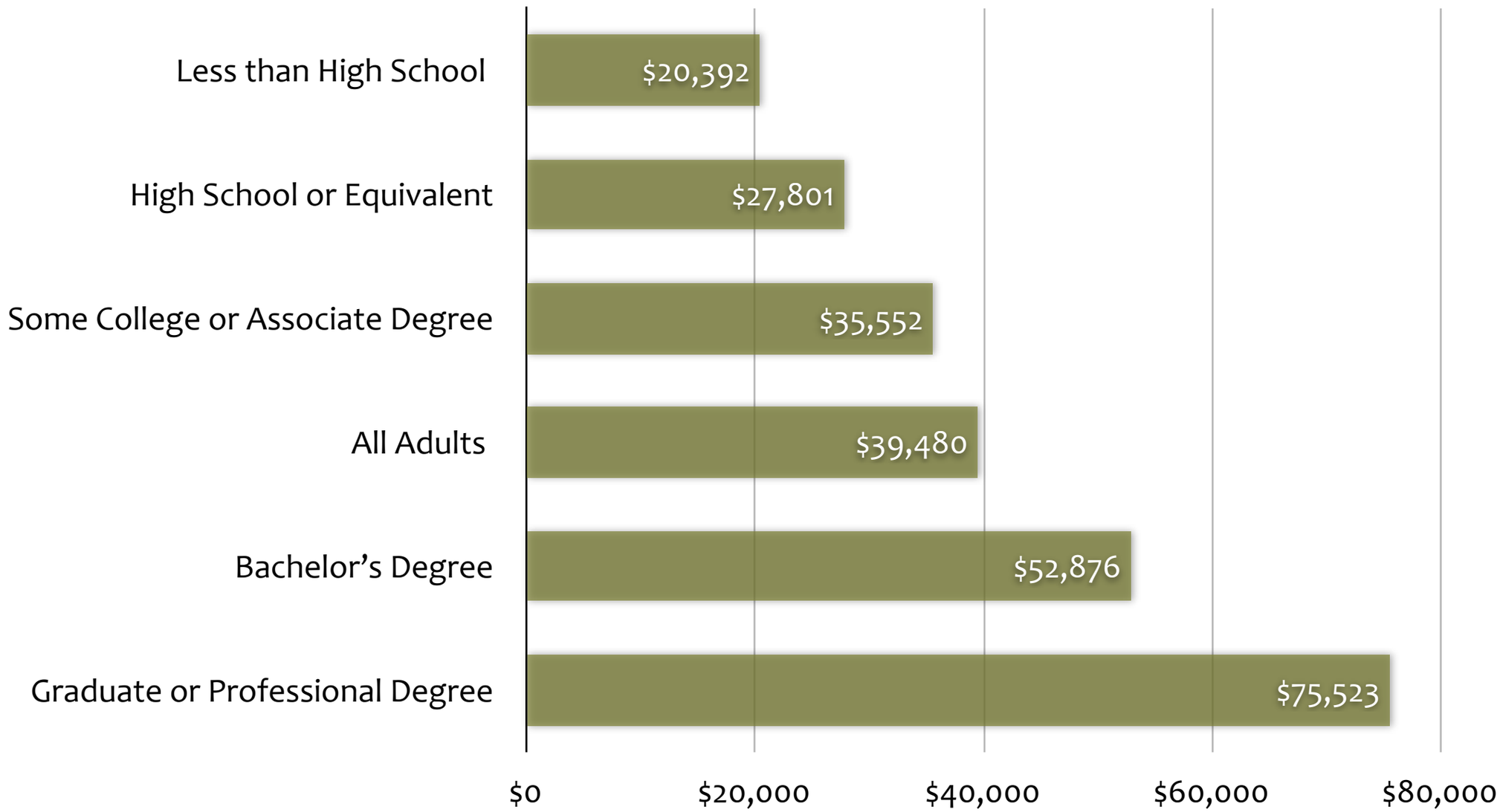
Improving	↑
Maintaining	→
Worsening	↓

Our Journey

- The Council has long considered a "vibrant economy" and "well-educated citizenry" to be the key foundations for Virginia's long-term prosperity.
  - The Council commissioned a survey of business leaders to learn more about the factors that are most important in creating and sustaining an excellent business climate. Not surprisingly, the quality of the workforce and an ongoing supply of skilled workers are vital.
  - The Council then began an extensive analysis of higher education attainment. The 100,000 new undergraduate degree goal of the "Preparing for the Top Jobs of the 21st Century: The Higher Education Opportunity Act of 2011" (Opportunity Act) stemmed from the Council's review of educational attainment. Among other items, the Opportunity Act provides a road map focused on increasing student enrollments, improving graduation and retention rates, and increasing degree completion for students with partial credits to achieve the 100,000 new degrees goal.
  - Given the strong correlation between education and the economy, the Council is now more broadly examining the drivers of economic growth including business environment, infrastructure, workforce skills alignment, innovation, and investment. The Council is working with Dr. Christian Ketels of Harvard Business School's Institute for Strategy and Competitiveness and Dr. Christine Chmura of Chmura Economics and Analytics on this review, and more specifically on the role of industry clusters as a framework for understanding the drivers of economic growth.

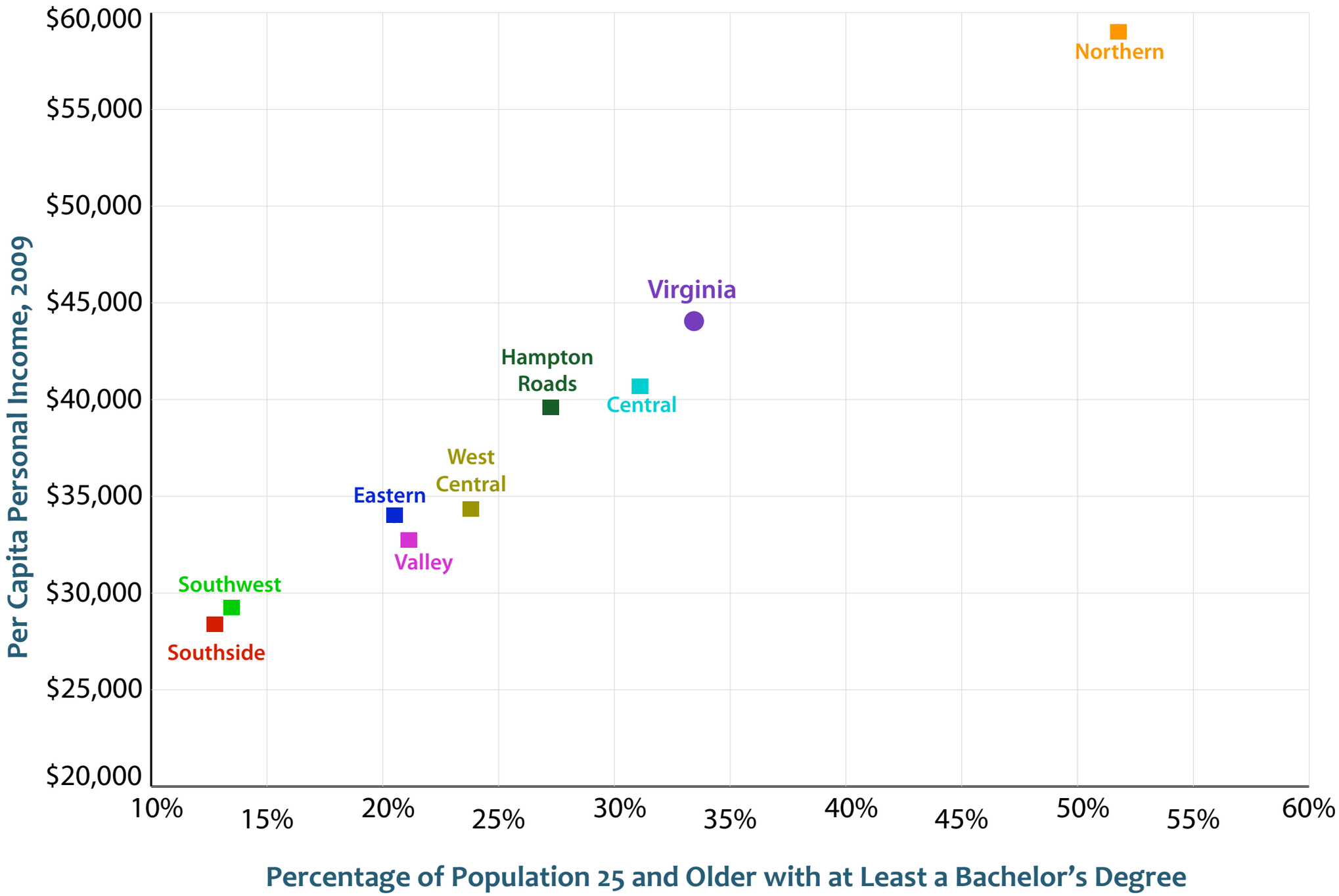
What the Data Tell Us: Education and Income

Median Earnings by Level of Educational Attainment, Virginia, 2010



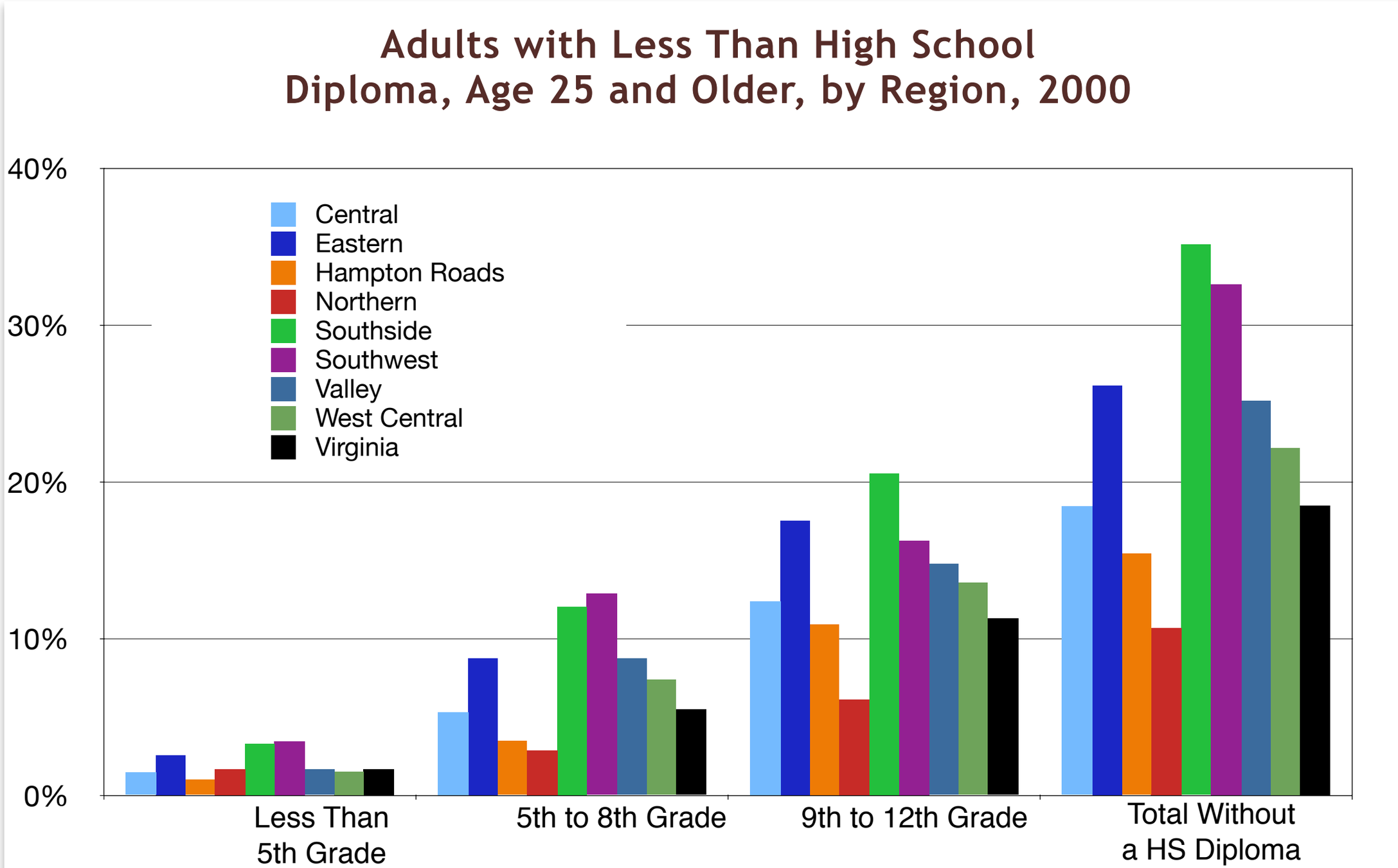
Source: 2010 American Community Survey, U.S. Census Bureau

Per Capita Income and Educational Attainment



Source: Educational Attainment - U.S. Census Bureau; 2009 Per Capita Personal Income - Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce.

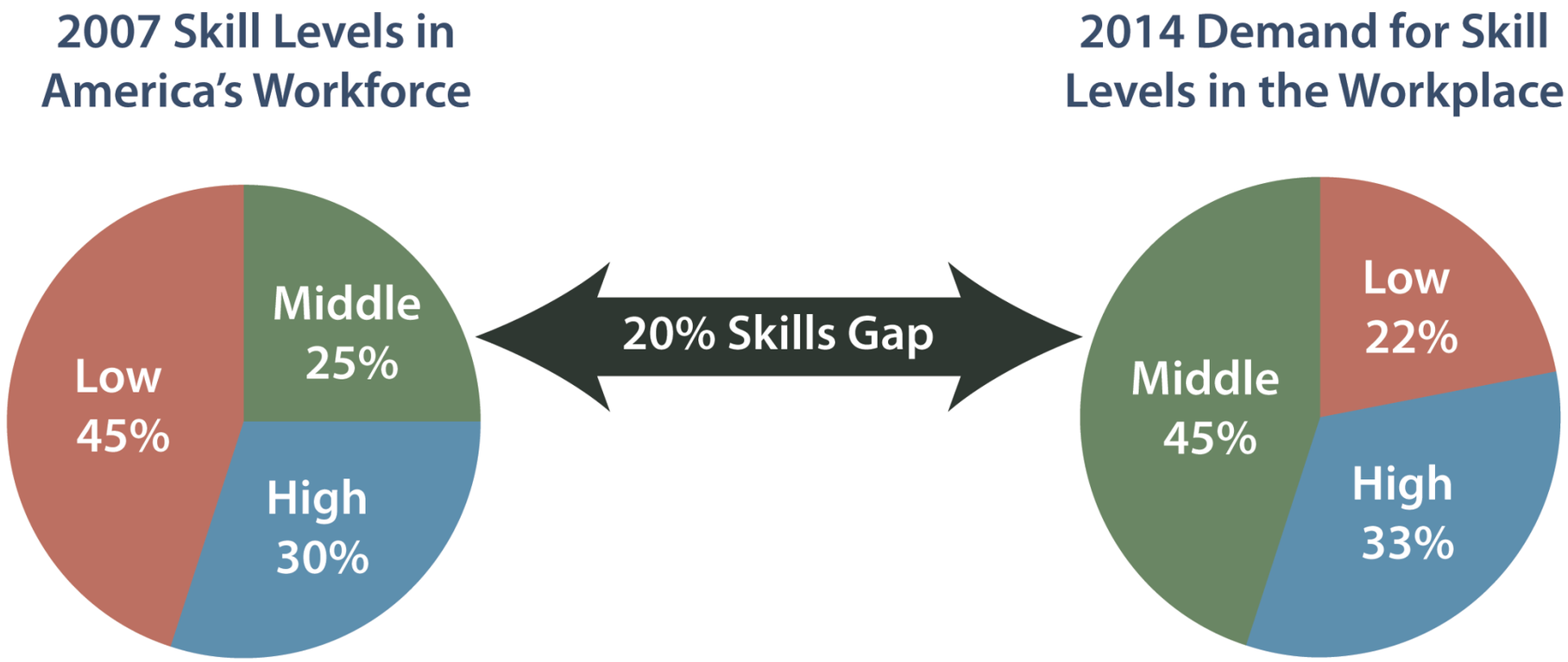
Less Than High School by Region



Source: 2008 American Community Survey, U.S. Census Bureau

Workforce Skills Gap

Workforce Skill Levels vs. Projected Workplace Skill Demands



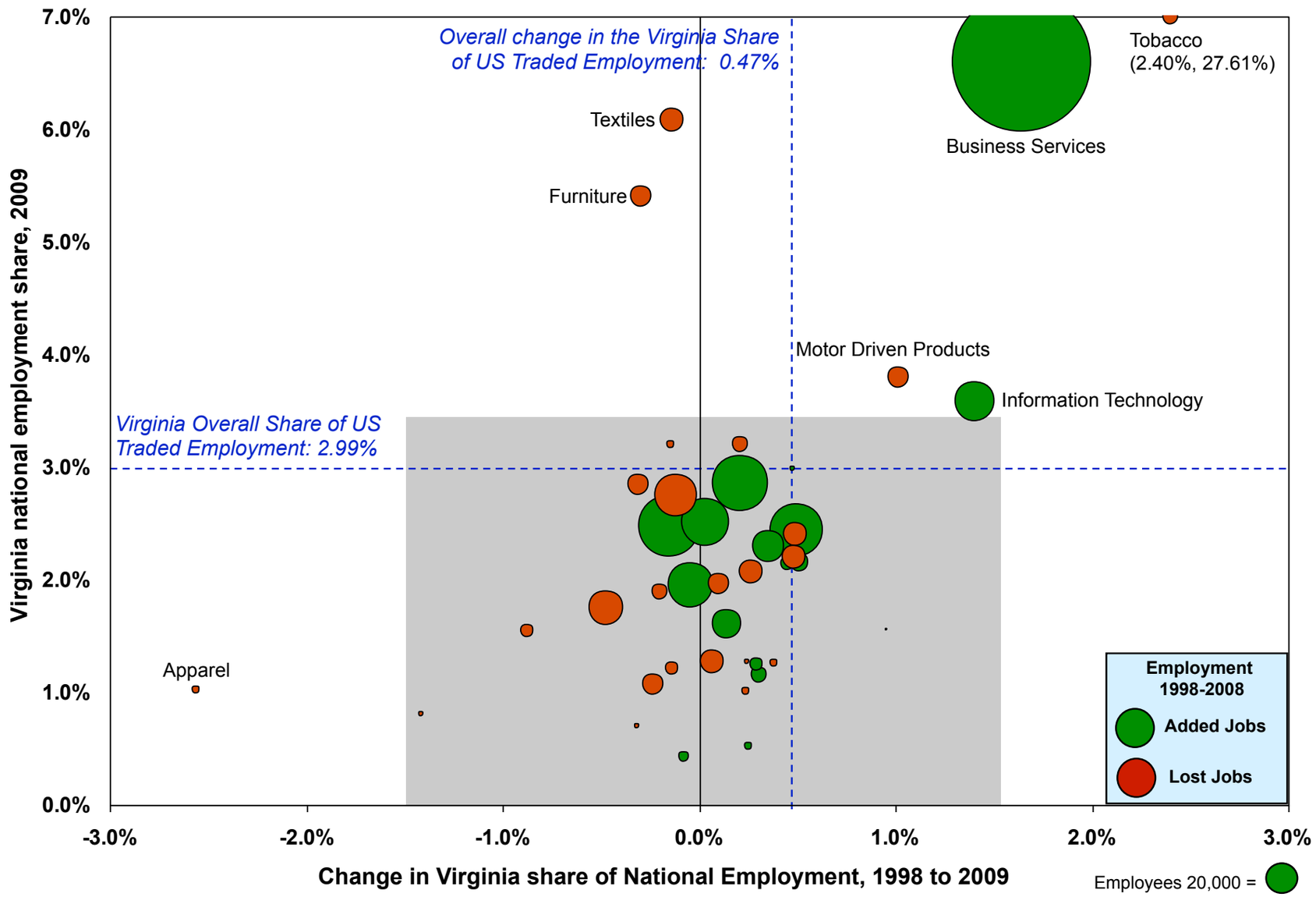
Source: Analysis by Chmura Economics and Analytics based on ACT data.
The supply side is based on education attainment. Low Skill = high school or less. Middle Skill = two years of education / training beyond high school. High Skill = four-year degree and higher.
The demand side compares requirements of jobs based on education and/or skills needed to be successful on the job. This information comes in part from the ACT Job Pro database and test and BLS O*NET information.

What National and State Leaders Tell Us: Economic Growth

- The Council has been working with Dr. Christian Ketels of Harvard Business School's Institute for Strategy and Competitiveness and Dr. Christine Chmura of Chmura Economics and Analytics.
  - The Institute for Strategy and Competitiveness is led by Dr. Michael Porter, who in *The Competitive Advantage of Nations* proposed a new theory of competition and the sources of national and regional economic prosperity. His theory included the concept of industry clusters, which has led to a number of public-private cluster initiatives throughout the world.
  - Chmura Economics and Analytics provides advanced economic research and analysis to governments and organizations across the country. The workforce and consulting firm is based in Richmond, Virginia and led by Dr. Christine Chmura.
- What are industry clusters?
  - Industry clusters are a geographically concentrated group of interconnected companies and associated institutions in a field of several related industries.
  - Traded clusters compete to serve national and international markets, and drive prosperity within a region while local clusters serve almost exclusively local markets.

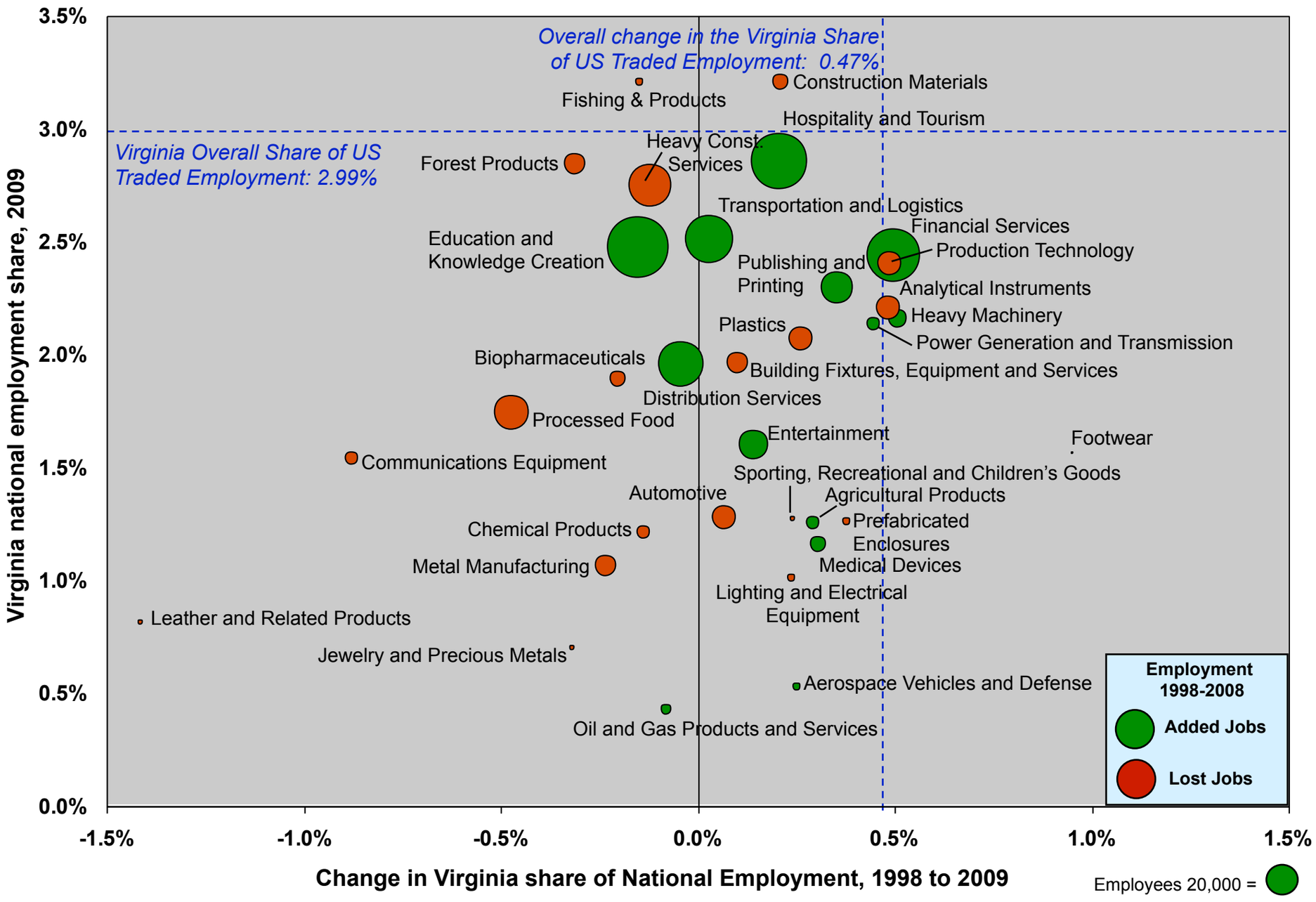
Traded Cluster Composition of the Virginia Economy

- Business services is Virginia's strongest industry cluster. Occupations within the business services can range from administrative assistants to mechanical engineers to marketing sales managers.



Source: Dr. Christian Ketels, *State Economic Growth: Applying the New Learnings to Virginia*, Presentation to the Council on Virginia's Future, October 3, 2011

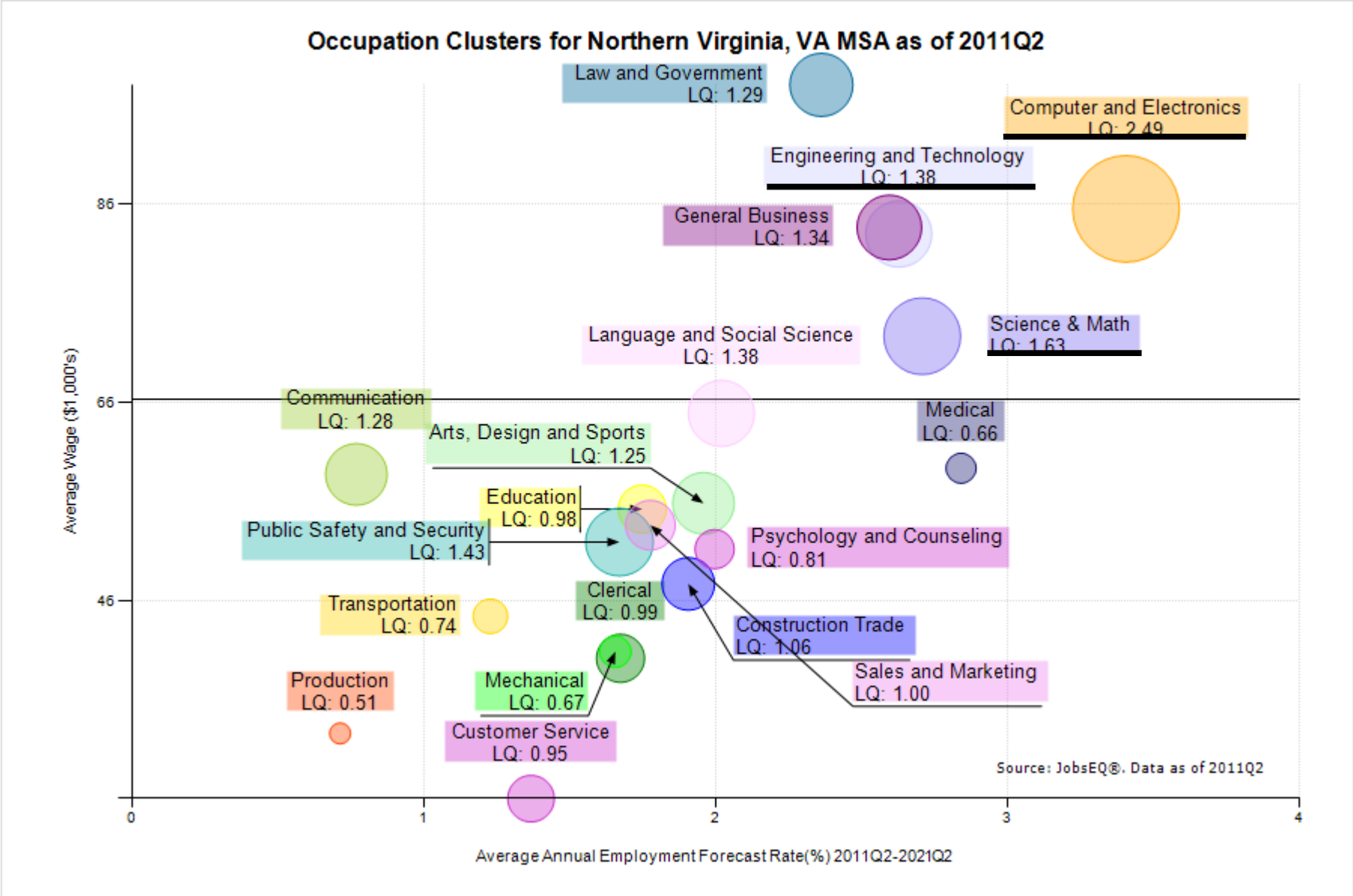
Traded Cluster Composition of the Virginia Economy (*continued*)



Source: Dr. Christian Ketels, *State Economic Growth: Applying the New Learnings to Virginia,* Presentation to the Council on Virginia's Future, October 3, 2011

Industry Clusters and Occupations

- Industry clusters consist of occupations that require certain skills.
- For example, the Northern Virginia region's strong occupational clusters require Science, Technology, Engineering, and Math (STEM) skills, which are easily transferable between industries.



Source: Dr. Christine Chmura, *Council on Virginia's Future State Perspective of Economic Growth*, Presentation to the Council on Virginia's Future, October 3, 2011

Industry Clusters and Occupations

In regions with strong production and mechanical occupational clusters, there are few employment alternatives for individuals with the skills required of these occupations. For example, textile workers' skills are not easily transferable to other industries.

Alternative Occupations for Textile Knitting and Weaving Machine Setters, Operators, and Tenders in Southwest, Virginia

Occupation Title	Approximate Training Rank	Current Employment	Total Average Annual Demand
Helpers - Production Workers	1	527	9
Mail Clerks and Mail Machine Operators, Except Postal Service	2	106	2
Shoe and Leather Workers and Repairers	3	3	0
Pourers and Casters, Metal	4	7	0
Printing Machine Operators	5	82	2

Source: Dr. Christine Chmura, *Council on Virginia's Future State Perspective of Economic Growth*, Presentation to the Council on Virginia's Future, October 3, 2011

Virginia Performs: Workforce Measures

Societal Level	
Workforce Quality	**Education**
• Percentage of workforce in science and engineering occupations • Percentage of populations with less than a high school diploma, age 25 and older (statewide and regional) • Real output (in dollars) per worker • Percentage of populations, age 25 and older with a master's, professional, or doctorate degree	• Graduates per 100,000 residents by degree level • Percentage of public high school seniors planning to attend community colleges and four year colleges • Educational attainment rates (high school, bachelor's, or higher) • Percentage of adults participating in adult educational activities, age 16 and above • Percentage of degree seeking students that earn an associate's degree within three years • Percentage of degree seeking students that earn a bachelor's degree within six years • High school graduation rates including on-time graduation • Average scores on NAEP fourth grade reading and math tests

Virginia Performs: Workforce Measures

Agency and Enterprise Level

Public K-12 Education

- Percentage of students successfully completing Algebra I by the eighth grade
- Number of students passing selected competency assessments from the National Occupational Competency Testing Institute (NOCTI) and selected industry certifications
- Percentage of high school students who exit high school with a diploma
- Percentage of school divisions offering General Educational Development (GED) testing
- Percentage of students enrolled in one or more Advanced Placement, International Baccalaureate, or dual enrollment courses
- Percentage of high school students earning the advanced studies diploma
- Percentage of third graders passing the third grade Standards of Learning test

Two- and Four-Year Public Colleges and Universities [1]

- Progress toward an agreed upon target for the total and percentage of graduates in high-needs areas (engineering, medicine, nursing, and teaching)
- Number of degrees awarded
- Number of degreed awarded per Full-Time Equivalent students
- Number of transfers from two-year colleges to four-year colleges
- Number of K-12 partnerships
- College retention and graduation rates

Higher Education Centers and Institutes

- Number of students enrolled in the Institute for Advanced Learning and Research's (IALR) supported academic programs who earn a certificate or degree
- Cumulative number of participants in the service region attending IALR sponsored science, technology, math, engineering, and entrepreneurship (STEM-E) programs, internships, workshops, courses, and seminars
- Number of students enrolled in credit-based advanced learning courses supported by IALR
- Number of client inquiries serviced by the Career Center of the Roanoke Higher Education Center
- Number of students participating in pre K-12 STEM programs at the Southern Virginia Higher Education Center

VA Department of Labor and Industry

- Number of apprentices participating in the Registered Apprenticeship training program

State Council of Higher Education for Virginia

- State appropriation for higher education financial aid

VA Department of Correctional Education

- Percentage of adult offenders administered the WorkKeys assessment who earn a Career Readiness Certificate (CRC)

[1] Indicators for Virginia's four- and two-year universities and colleges are maintained by the State Council of Higher Education for Virginia (SCHEV) as a part of the Higher Education Restructuring Act of 2005. Performance standards will be realigned to reflect the goals of the Virginia Higher Education Opportunity Act of 2011.

Other States and Regions: Workforce Measures

Maryland	Florida	Georgia	North Carolina
• Number of people in the labor force • Number of employed people • Labor force participation rate • Number of adult basic education participants • Number of adult secondary education participants • Median age of workers • Percentage of workforce with a high school degree or equivalent • Percentage of workforce with a bachelor's degree • Percentage of workforce with an advanced degree • Number of seniors who took an AP Exam during high school • Number of associate, bachelor's, and gradate and professional degrees awarded • Number of registered apprentices by occupation	• Percentage of population aged 25 to 64 years with at least a bachelor's degree or higher • High school graduation rates • Percentage of full time bachelor's degree seeking students earning a degree within six years • Percentage or students testing proficient or above on the NAEP eighth grade math test • Percentage of population enrolled in graduate science and engineering programs • Percentage of workforce with science and engineering doctorates • Percentage of students testing proficient or above on the NAEP eighth grade science test • Number of workers employed by industry	• Number of Adult Basic Education (ABE) graduates • Passage rate of adult learners who enrolled in an ABE course with the goal of obtaining a GED • Number of companies that receive company-specific training from the Customized Business and Industry Services program • Percentage of employed graduates of the Jobs for Georgia Graduates program that achieve a full time placement • Graduation rate of Jobs for Georgia high school seniors • High school graduation rate • Education level of population 25 years and older • College retention and graduation rates	• Percentage of population completing high school • Percentage of adults with college degrees • Technical education attainment rates • Basic skills, vocational, and technical training rates • Average annual wage • Equitable pay

- Virginia uses workforce measures similar to those used by its peer states.
- However, ensuring a high-quality workforce necessitates developing a few simple metrics that can be used to measure workforce on a broader scale.

Concluding Remarks

- Collaborative long-term efforts currently underway will help improve outcomes that will increase overall workforce quality and economic growth across Virginia, such as:
  - College and Career Readiness Initiative that is aligning post-secondary expectations with high school performance;
  - Virginia Education Wizard;
  - *Achieve 2015*, the new strategic plan for the Virginia Community College System that establishes goals for Access, Affordability, Student Success, Workforce, and Resources; and
  - Data initiatives, including the Workforce Quality Data Initiative and a new federal grant to establish a longitudinal database, drawing data from the Department of Education, SCHEV, VCCS and VEC to track educational attainment and workforce quality.
- A great opportunity is emerging to transform the way we assess and improve Virginia's workforce:
  - A few key measures of workforce that transcend funding, institutional, and programmatic boundaries can help to drive the development of a high-quality workforce in Virginia.

Sites of Interest

Virginia Performs:
VaPerforms.virginia.gov

Council on Virginia's Future:
future.virginia.gov

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