Positioning the Commonwealth for Healthier Economic Growth



Partnering for Virginia's Future











Top Ten for Educational Attainment

Top Ten for Higher Ed

Top Ten for Public Schools

SLEBONE

Attractive Small Sites

Advantageous Mid-Atlantic Location

VT

VA

FL

NH

MA

Low Tax Burdens for Existing Firms



Volkswagen

Exceptional Port, Airport, and Spaceport Infrastructure

Diverse Array of High-Quality Employers



Dozens of Federal Laboratories



- Top 10 for educational attainment, higher ed, and K-12
- Attractive small sites (<25 acres) in some regions
- Mid-Atlantic location contiguous to Washington, D.C.
- Below-average state/local tax burdens for existing firms
- Impressive Port of Va., NOVA airports, and spaceport
- Diverse range of high-quality employers and HQs
- Impressive range of federal labs, higher ed research

WEAKNESSES

- Lack of customized workforce incentive program offering; insufficient CS pipeline
- Meager inventory of large sites (especially 100+ acres) and certified sites
- Site development timeline/cost challenges due to lack of investment and topography
- Uncompetitive state/local tax burdens for new investment
- Metro, traffic congestion challenges in NOVA; road limitations in rural Va.
- High reliance on federal governmentrelated activities
- Limited commercialization of intellectual property relative to our assets

In the Wake of Sequestration, Virginia's 5-Year Growth Rankings Plummeted

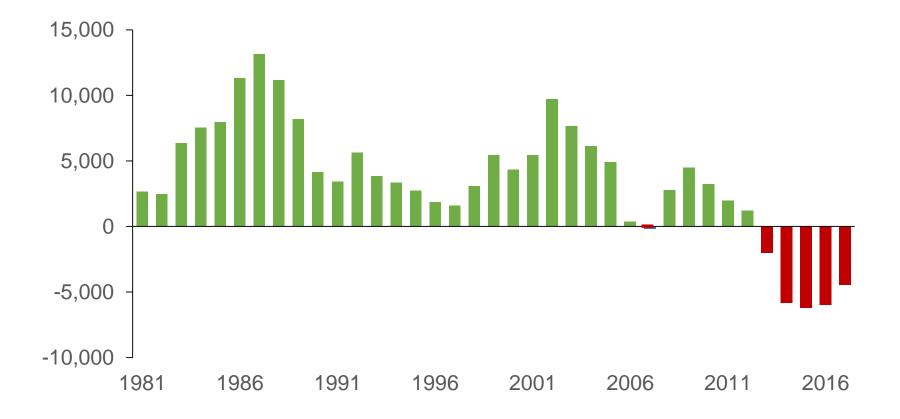


Total Employment

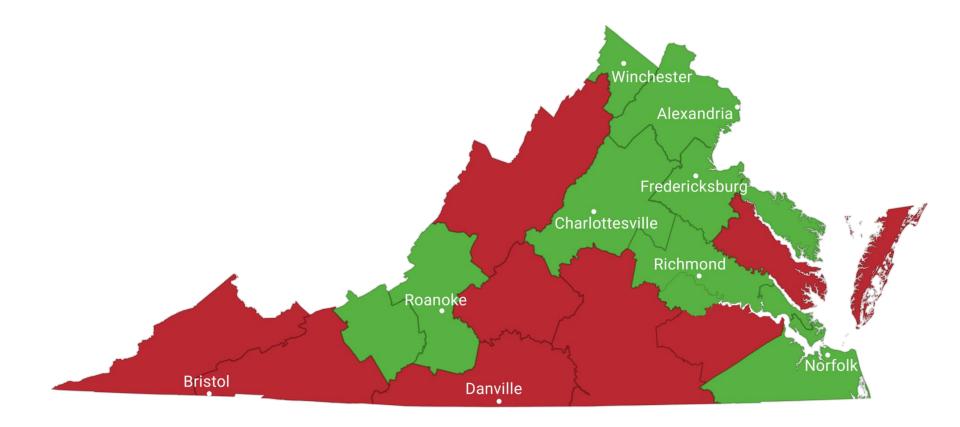
Gross State Product

Median Earned Income

With Slower Growth, Virginia Recently Began Experiencing Net Domestic Out-Migration

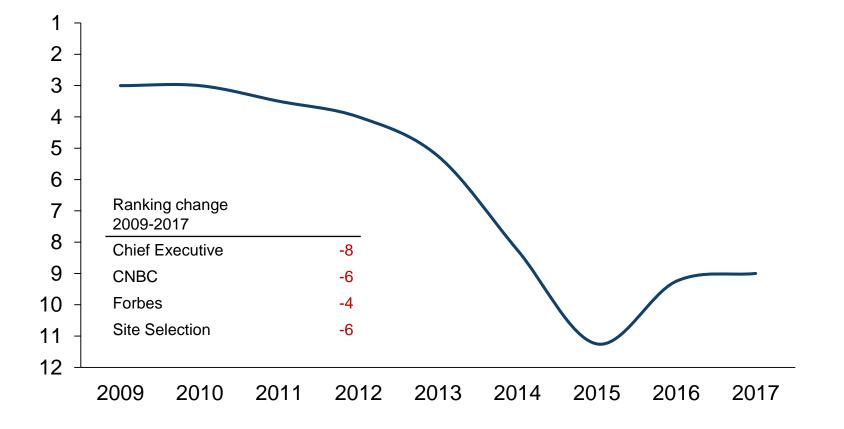


Employment Growth in Virginia Has Been Highly Uneven Across Regions (2007-2017)

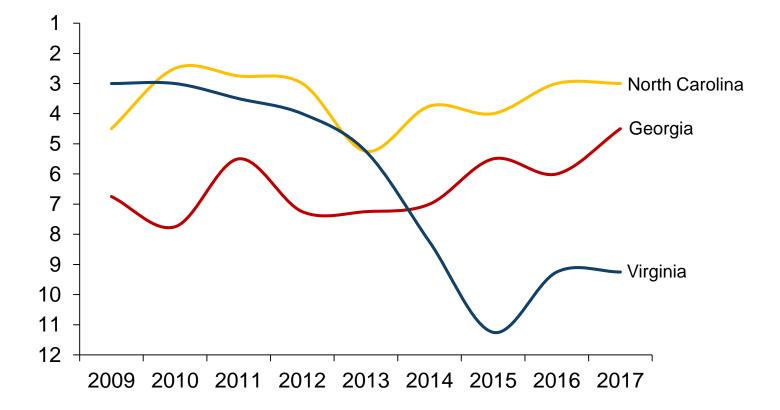




Since 2009, Virginia Has Dropped About Six Places in National Business Climate Rankings

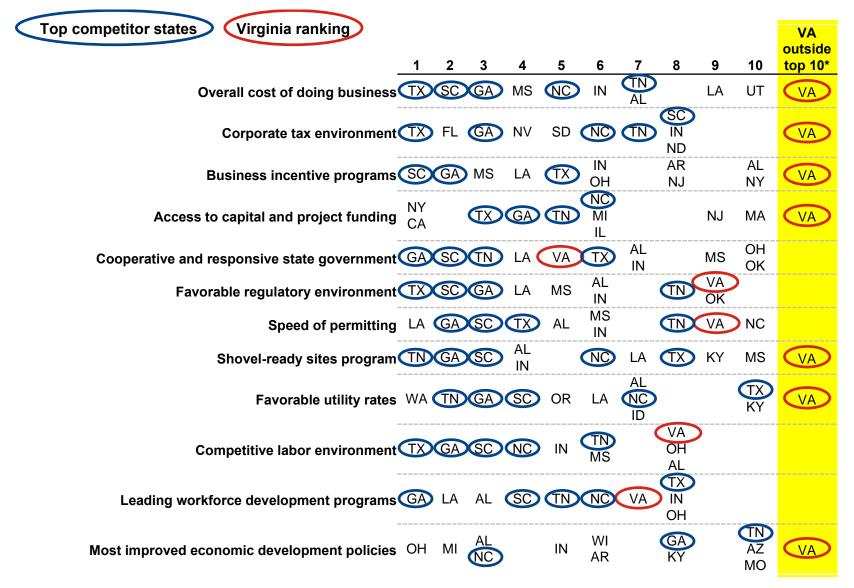


Virginia's Average Business Climate Ranking Lags Behind Aggressive Competitor States



Virginia Has Fallen Out of the Top 10 States for Business in Every National Survey of Executives

| Top competitor states | Virgini | a rar | nking | | | | | | | | | | | | |
|--|---------|-------|-------|----------|----|----------|----|----|----------------|----------|----|----|----------------|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Area Development magazine "Top States for Doing Business" | GA | SC | | IN | LA | AL | IN | NC | MS | ОН | VA | FL | NY | ОК | MI |
| Chief Executive magazine "Best and Worst States for Business" | | FL | NC | SC | IN | NV | | GA | AZ | WI | ОН | UT | со | IA | VA |
| DCI (survey rank for business climate) "Winning Strategies" | | FL | GA | SC | NC | CA NY | | | ОН | NV UT | | IN | со | VA | AL |
| Site Selection (rank for Executive Survey) "Top U.S. Business Climates" | | SC | GA | TN AL | , | NC | FL | AZ | OH IN NV | | | MS | KY VA OK | | |

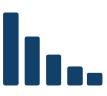


Virginia's Drop in Major Business Climate Rankings Can Be Tied to Three Main Factors

\$

BUSINESS COSTS

New rankings of some business costs (e.g., tax burdens on new investment) place Virginia in a relatively negative light



ECONOMIC CLIMATE AND GROWTH

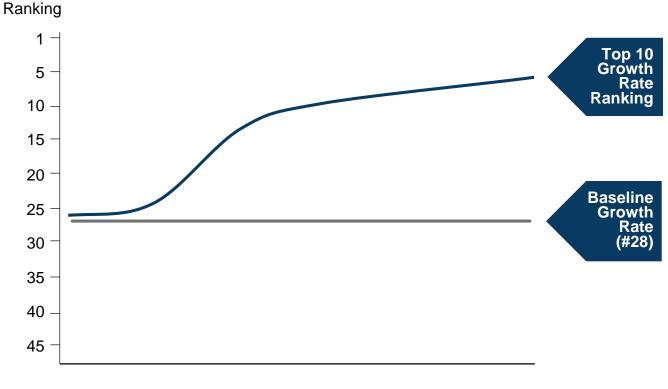
With federal sequestration and Virginia's reliance on federal spending, Virginia experienced a slowdown in growth



PERCEPTIONS OF CEOs

While still positive overall, CEO perceptions of Virginia's business climate declined after 2009

Virginia Must Add Tens of Thousands More Jobs per Year to Get Back Into the Top 10



2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

Source: Moody's forecast for 2016-2026 as of June 2017

Over the next several years, position Virginia to achieve a growth rate among that of the top 5-10 states in the U.S.



Ensure that every region participates in the growth of the Commonwealth

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Restore Virginia to its previous leadership position near the top of the national business climate rankings





Reestablish VEDP as America's premier state economic development organization

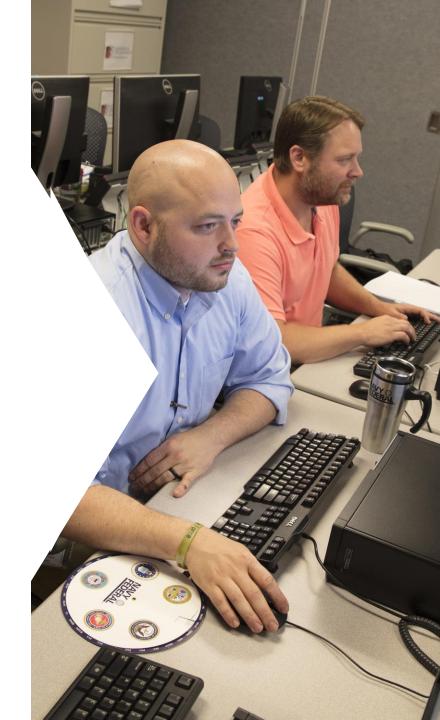




Exhibit collaboration and coordination as hallmarks of VEDP (i.e. place a central focus on the "P" in VEDP)



Robust State Growth Every Region Wins Best State for Business Top State EDO Super Collaborator

Improve Virginia's Economic Competitiveness

Cultivate Virginia's Target Growth Clusters







- Create a turnkey, customized workforce recruitment and training incentive program via a VEDP/VCCS partnership
- Expand supply of high-need sub-baccalaureate degrees and other credentials in critical fields (i.e., FastForward)
- Expand supply of high-need baccalaureate degrees in critical fields (especially CS, data science, and related programs)
- Upgrade Virginia's labor market data infrastructure to empower data-driven decision-making
- Expand interest in technology education and careers by building excitement in K-12
- Provide targeted incentives to produce and retain talent with high-demand skills and experience







Strengthen/expand business & trade development programs



Become a national leader in incentives administration



>>>> New/Expanded VEDP Programs Funded for FY19



SUBSTANTIAL ALIGNMENT EXISTS BETWEEN THE GO VIRGINIA REGIONAL PLANS AND THE VEDP-CREATED STATEWIDE PLAN

| | | GO Virginia themes in regional plans | | Economic growth strat in VEDP Strategic Plan | |
|---|-------------------|--------------------------------------|---|---|---|
| | | IT / Cyber | • | ● IT / Cyber | |
| | Sector- driven | Logistics | • | Logistics | |
| 1 | | Manufacturing | • | Manufacturing | Takeaways ① Significant alignment in |
| | | Innovation | • | Innovation | themes and strategies across regions highlight high potential for collaboration |
| | Enabler driven | Human capital development | • | Human capital dev. | 2 VEDP Strategic Plan focuses on several areas with limited presence in regional GO |
| | | Sites readiness | • | Site readiness | Virginia regional plans |
| | | Broadband | • | Broadband | |
| | | | Γ | Marketing | |
| | | | 2 | Trade promotion | |
| | | | | Business services | |
| | | | | | |

ROUGH DRAFT

VEDP leads

- Marketing, branding, and lead generation
- Biz recruitment and project mgmt. for target industry sectors (e.g., IT, advanced manufacturing, BPO, distribution)
- One-stop shop for prospects, with close local/regional coordination and alignment
- Proactive business retention and expansion program for large/mediumsized firms, in partnership with localities
- Custom workforce recruitment/training incentive program for firms, with VCCS
- Trade development services
- Administration of business incentives
- Research / business intelligence
- State/local economic competitiveness

VEDP/GOVA Collaboration

- Site intelligence and development (VEDP will focus on site intelligence and managing site database; GOVA could fund site development)
- Cluster development (VEDP could focus on larger firms; GOVA could focus on cluster scale-up initiatives)
- Design of human capital development strategies, including various initiatives to fully leverage higher education's economic development potential

GOVA leads

- Design of targeted, regional product development initiatives (e.g., broadband strategy for a region)
- Workforce development initiatives for sectors/regions
- Research and technology commercialization initiatives
- Initiatives to encourage capital and/or business formation (?)
- Funding for development of regional growth plans
- Incentives to encourage regional collaboration

GO Virginia and VEDP both are focused on increasing growth in traded-sector employment and earnings

- Recognize that robust economic development efforts are required to overcome VA's historic heavy reliance on the federal government and the Commonwealth's limited economic development investments (compared to many competing states)
- Invest in your regional EDO to increase awareness and leads with VA's small E.D. marketing budget (zero last year, but small budget restarted this year) and most cities located in medium- or small-sized metro areas, Virginia cities often are not top of mind for site consultants or corporate execs
- Collaborate with higher ed and state leaders to dramatically expand CS, data sciences, and related programs, as well as skilled trades, which are substantially undersupplied relative to demand in most regions
- Collaborate with VEDP and state leaders to strengthen Virginia's economic competitiveness on multiple fronts
- For NOVA localities: strengthen collaboration with DC and Maryland, as well as among NOVA localities, on regional economic competitiveness issues and regional marketing efforts

* The economic development of Virginia's cities is also constrained by the lack of state investment in marketing, custom workforce programs, competitive incentive offerings for high-impact projects, and high-demand academic credentials (e.g., computer science degrees); some of these were addressed in the FY19 state budget

While VA has relatively low state/local tax burdens for existing firms, we are less competitive for new projects

Location Matters 2015 Rankings

| | R | ank* | | |
|--------------------------------|-----|--------|-------|---|
| Business Type | New | Mature | Delta | |
| Capital-intensive manufacturer | 49 | 20 | 29 | |
| Labor-intensive manufacturer | 36 | 2 | 34 | |
| Corporate headquarters | 31 | 12 | 19 | • |
| R&D facility | 45 | 35 | 10 — | |
| Distribution center | 31 | 15 | 16 — | |
| Call center | 29 | 21 | 8 | |
| Retail store | 23 | 16 | 7 | |
| Straight average | 35 | 17 | 18 | |

No. 1 represents the lowest state/local tax burden rank

Relatively high state/local tax burdens on new projects and expansions negatively impact the perception of Virginia among site consultants and corporate executives, resulting in fewer leads and projects

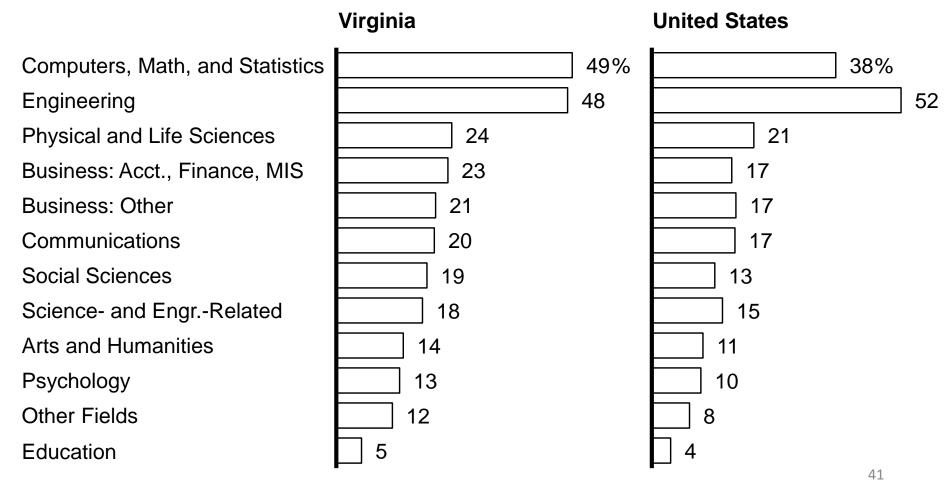
* VEDP has identified a potential error in KPMG's tax rankings that, if corrected, could improve Virginia's state/local tax burden ranking for new, capital-intensive manufacturers from nearly the worst in America to the mid-20s



APPENDIX

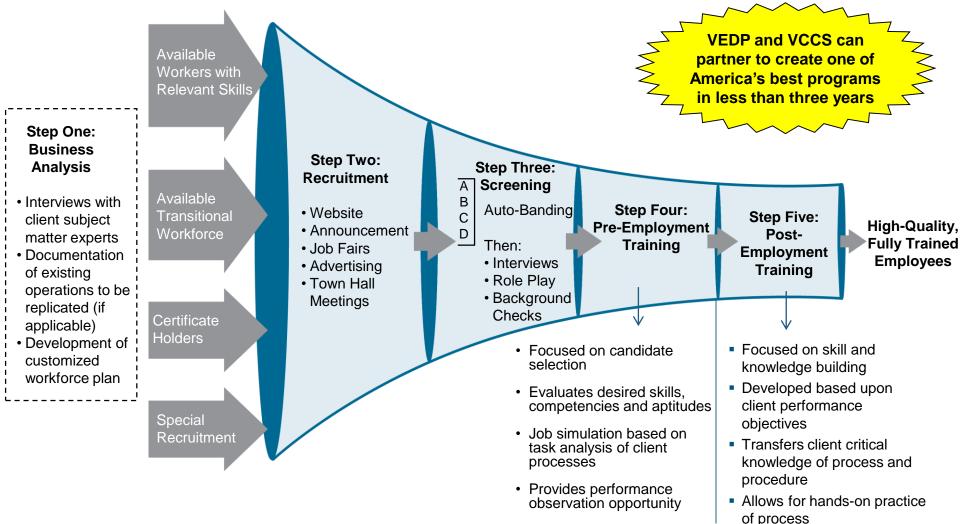
College graduates with CS and engineering degrees are highly concentrated in Virginia's advanced industries

Percentage (%) of Employed Adults with a BA/BS or Higher Working in Advanced Industries, by <u>Undergraduate</u> Field of Degree



Source: U.S. Census ACS Public Use Microdata Sample (3-yr., 2010-2012); TEConomy: advanced industries NAICS; VEDP analysis

Top-ranked state workforce development programs (GA, LA) offer fully customized, turnkey solutions



Every project is delivered by a mix of full-time employees (roughly one-third) and specialized contractors (roughly two-thirds) who are assembled to meet the needs of the particular client

Examples of benefits to community colleges of VEDP and VCCS creating a customized workforce incentive program

- Strong relationships with new and expanding business establishments
- Tighter linkages with state economic development efforts
- Direct exposure to and engagement with the next generation of industry technologies
- Greater demand for community college programs (certificates, degrees, and/or custom training)
- Opportunity to strengthen workforce training programs, equipment, and facilities
- Opportunity to highlight community college strengths
- Opportunity to create more workforce success stories and community college testimonials`

Examples of what higher ed institutions can do to improve employment outcomes and help drive economic growth

- Place greater focus on (and investment in) career services in particular helping undergraduates to secure professional work experiences (e.g., internships) prior to graduation
- Leverage insights from the literature and promising national initiatives to ensure that college graduates consistently attain college-level skills (e.g., critical thinking, writing) during their undergraduate studies
- Continue to support University-Based Economic Development (UBED) group, which provides a POC for every public institution so businesses have easy access to public college/university resources
- Work with SCHEV and VEDP to survey alumni to better understand what is driving out-migration of Virginia's college graduates
- Support SCHEV and VEDP efforts to build a stronger understanding of the underemployment problem among Virginia's college graduates
- Explore opportunities to further integrate computational sciences across the undergraduate curriculum (e.g., courses, minors)

An opportunity to build a more robust understanding of the predictors of employment outcomes: an alumni survey

- Building on SCHEV Chair Heywood Fralin's assessment of graduate outcomes initiative, colleges and universities could make a big impact by encouraging alumni to participate in a landmark survey of employment outcomes
- Current datasets in Virginia are more comprehensive than in most states, but we are missing some key variables, for example:
 - Current occupation
 - Whether current job requires a college degree
 - ✓ Hours worked (i.e., whether employed full-time or part-time)
 - Number of internships completed during college
 - ✓ Use of career services office during college
 - ✓ Willingness to relocate to another metro area for an attractive job
 - Field of study for graduate degree(s) not earned in Virginia
- One option to consider would be to craft an opt-in survey for alumni (with blessing of college presidents) to complete the missing variables, which would enable new and important insights about employment outcomes of college grads
- The results of such a survey would build a more robust understanding of the predictors of employment outcomes as well as interstate migration of graduates