

BROOKINGS

Commentary [Up Front](#)

Virginia's big bet on tech talent is working. Other regions are watching closely and taking notes.

[Pam Harder](#) and [Greg Wright](#) Wednesday, February 1, 2023

There is ample evidence that talent considerations have come to dominate the selection criteria of companies when deciding where to place job-creating business investments. For instance, “availability of skilled labor” has climbed to first on the list of factors companies care about most when making their site-selection decisions. This growing emphasis on talent has led to a much-needed reconsideration of local economic development strategy, which has traditionally focused on the provision of tax incentive packages that largely benefit a small set of firms. Research has found that these narrow tax incentives are largely ineffective at spurring local employment growth in part because they do little to attract new firms to the area. This stands in stark contrast to incentives that are directed at local skill development, which have been found to lead to far higher returns for communities. The good news is that policymakers have taken notice of these facts, leading to a shift toward economic development strategies that focus on investments in talent.

Virginia is an example of a state that took a big bet on a talent-forward approach to economic development. In 2018, the state launched an unprecedented, state-wide \$1.1 billion performance-based Tech Talent Investment Program, which ultimately became the centerpiece of Virginia's successful Amazon HQ2 bid.

Quote from an Amazon leader:

“We were particularly impressed by the dedication to higher education and the K-12 talent pipeline (in Virginia). The investments the local community and the state are going to make are really going to augment the great talent pipeline, which is a primary reason why we chose the Commonwealth for this new headquarters.”

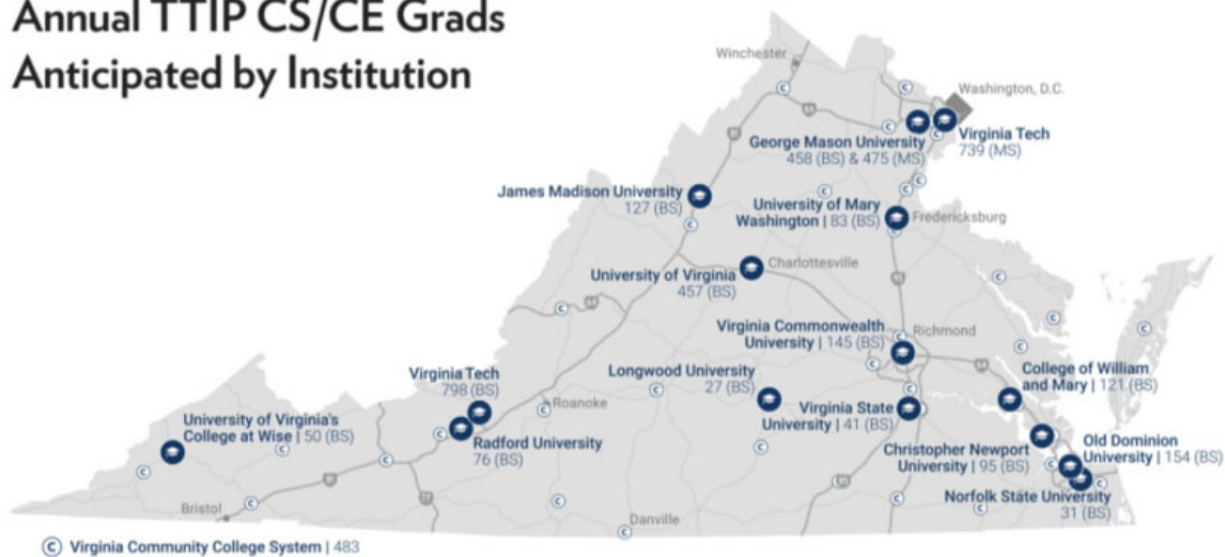
– Holly Sullivan, Head of Worldwide Economic Development, Amazon. Source: [Virginia EDO](#)

The CEO and President of Virginia's EDO at the time, Stephen Moret, led the charge in a close partnership with the President of the State Council of Higher Education for Virginia, Peter Blake. At the time, Virginia was taking a big gamble by shifting so markedly from the norm in economic development strategy.

Through Virginia's Tech Talent Investment Program, more than a dozen higher education institutions across Virginia will collectively produce 32,000 graduates in computer science and related fields, more than doubling the number of grads each year.

Figure 1. Overview of Tech Talent Investment Program

Annual TTIP CS/CE Grads Anticipated by Institution



Degree Fields of Study Eligible for Program Funds:

1. Computer Science
2. Computer Engineering
3. Computer Software Engineering

To add 32,000 BS and MS graduates in Computer Science and related fields over 20 years, Virginia is investing:

- ~\$675M in undergrad education, including 250-300 new faculty lines, startup packages, capital projects (new buildings and labs), and operational support
- ~\$375M in graduate education, including 50-75 new faculty lines, startup packages, capital projects (a new tech campus plus new buildings), and operational support
- \$25M in tech internships/apprenticeships in higher education
- \$25M in K-12 computer science education (e.g., professional development, online curricula)

Philanthropic gifts and corporate partnerships will add more than \$900 million to these state investments.

Source: Virginia EDO

As a result, hundreds of tech employers across Virginia will benefit from a more-skilled labor force, including but not limited to Amazon. This stands in contrast to the narrow benefits produced by cash and tax incentives for individual firms.

Now, three years into the most historic state-level investment in tech talent, how is Virginia's big bet paying off? The answer: surprisingly well.

It's time to promote regional economic development strategies that move away from zero-sum, incentive-based business attraction and, instead, foster innovative investments in people, in education and training systems, and in resources that will benefit the economy as a whole. Virginia's Tech Talent Investment Program is hopefully just the first of many talent-forward investment strategies that we'll see in the years to come.

The Brookings Institution is a nonprofit organization devoted to independent research and policy solutions. Its mission is to conduct high-quality, independent research and, based on that research, to provide innovative, practical recommendations for policymakers and the public. The conclusions and recommendations of any Brookings publication are solely those of its author(s), and do not reflect the views of the Institution, its management, or its other scholars.

Amazon is a donor to the Brookings Institution.

Brookings is committed to quality, independence, and impact in all of its work. Activities supported by its donors reflect this commitment.