



## James L Estep has served as President and Chief Executive Officer of the West Virginia High Technology Foundation since June of 2000. His efforts have positioned the I-79 Technology Park as the premier economic

Park as the premier economic diversification effort in the state. Under his leadership, the I-79 Technology Park has expanded to 350-plus acres and 750,000 square feet of Class A office and lab space. The growth of the park has attracted both government and private tenants alike.

For example, the I-79 Technology Park is home to the National Oceanic and Atmospheric Administration's Environmental Security Computing Center, as well as two of the nation's most important satellite ground station programs – the Geostationary Operational Environmental Satellite program and the Joint Polar Satellite System. Estep is currently working to recruit additional economic anchors to the park.

Active in several business and technology efforts around the state, Estep serves as Chairman of the Mid-Atlantic Aerospace Complex.

He earned a master's degree in computer science from West Virginia University and a bachelor's degree in computer science from WVU Institute of Technology.

## **Balanced Economic Diversification**

James L. Estep, President and Chief Executive Officer West Virginia High Technology Foundation

The cry for industrial diversification in West Virginia has never been louder than it is today. It has never been louder because there has never been a bigger collapse of coal severance revenue. The collapse of this revenue is preventing state policy makers from doing what they have done for decades: namely, ignore how critically important

diversification is to the viability of our state's economy. This is ultimately a good thing, but also very sobering. The decade's-long neglect of economic diversification has created serious systemic problems that will be challenging to overcome, especially the issues associated with the state's workforce demographic.

The first order of business in economic diversification has to be the stabilization of the coal sector. It has been substantially diminished, but it's not dead. Coal must remain one of the "major slices of the economic pie" – just not the whole thing. Second, we must maximize the economic impact of the natural gas sector and ensure that it is not sucked out of the ground and shipped off to other locations that will reap all the benefits from its economic potential. The pursuit of a cracker plant and an ethane storage hub are viable and achievable objectives, but we need to identify other ways of leveraging the natural gas industry to economically benefit the state, as well, and pursue them aggressively. Third, we should determine what other sectors might be cultivated and nurture them. Fourth, we must look closely at the national economy and take steps to position West Virginia to participate in a meaningful and productive way. This is a fundamental requirement for a healthy state economy and for economic diversification. We must identify the fastest growing and most lucrative sectors and execute a strategy to engage.

## HIGH TECHNOLOGY. FOUNDATION BUILDING A STRONGER WEST VIRGINIA www.wvhtf.org

By far, the fastest growing economic sector in the country is in the technology or "knowledge sector." According to *Forbes* and Sageworks, it grew by 18 percent in the last year, which is more than double the average growth rate for all industries during the same period. Unfortunately, engaging this sector presents a significant and somewhat unique challenge for West Virginia.

A study released in 2017 by WalletHub, a credit score and financial information site, looked at the most and least educated states in America. The study ranked overall educational attainment and the quality of education in each state. A variety of sources were used as a basis for the report, including the U.S. Census Bureau, National Center for Education Statistics, *The Chronicle of Higher Education* and *U.S. News & World Report.* 

Predictably, West Virginia was ranked 50th among all states for educational attainment and came in last place for percent of associate degree holders, college-experienced adults, percent of bachelor's degree holders and percent of professional degree holders. While being ranked 50th in state-by-state comparisons has become an all too familiar thing for West Virginia, this ranking is especially significant. It's significant because it represents the biggest barrier to achieving balanced economic diversification.



The Robert H. Mollohan Research Center in Fairmont, West Virginia – Home to the West Virginia High Technology Foundation

The most important factor for basic participation in the national knowledge sector is the availability of an educated workforce. Simply put, the greater the availability of an educated workforce, the greater the opportunity for participation and success. Clearly, West Virginia is "officially" in last place in this regard. Nevertheless, West Virginia must participate in the knowledge sector if the economy is to be truly balanced and diversified.

How can this challenge be overcome? Do we ask the state colleges and universities to produce thousands more knowledge workers? We could, but without jobs available upon graduation, those workers will do what they have done for decades – move to other states that have the jobs. They won't stay home and wait for the jobs to come. It represents a tough "chicken and egg" problem for the state.

Expecting to address the problem from a workforce perspective is futile. The problem must be addressed from a "business case" perspective. West Virginia must establish a solid framework that creates a business reason for knowledge sector businesses to want to set up shop in the state. It must be a business case that enables these companies to make money. It also must be so compelling that it overcomes the serious workforce deficiencies.

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Over the last two decades, North Central West Virginia has seen a number of knowledge sector companies set up operations. Certainly, the availability of West Virginia University and Fairmont State University has contributed to that regional growth, but the most significant motivating factor has been the growing availability of federal contracting opportunities. It therefore stands to reason that an institutionalized effort by the state to recruit more of these operations would provide the necessary business case to overcome the challenges and achieve balanced economic diversification. This element must receive the highest priority in the state's economic diversification plan. V