

West Virginia and the Innovation Economy

A Quick Start Guide

"There is a global transformation underway. Innovative new business, economic and social models, coupled with access to rapidly advancing new technologies, are empowering people to transform our world. Positioning your company (state) to succeed in this transformational environment is not an option; it is an imperative. It is essential for succession and survival - and it is every leader's mandate to take part in that journey with intelligence, culture, and process."

*—Faisal Hogue, Author of Survive to Thrive: 27 Practices of
Entrepreneurs, Innovators and Leaders*



What is the Innovation Economy?

[The Innovation Economy](#), sometimes also referred to as the New Economy, capitalizes on workers' brains rather than their backs. It is talent and knowledge intensive rather than physical labor intensive. It requires continuing education in many forms, accessibility and adoption of technology, and a culture that encourages calculated risk-taking in business startups. [Innovation is central to economic growth](#) in today's knowledge-based economy. Rather than capital, land, and labor required for entry into the traditional or Old Economy, talent and knowledge are key to the Innovation Economy, where wealth is created and accumulated via intellectual property: patents, copyrights, and inventions, much of which is intangible. For example, it allows a kid from a working class family to come up with an idea, build a model in his family garage, and sell it to the world as the first Apple computer, or another kid to start up a social networking site in his college dorm room, and become a multi-billionaire with an idea called Facebook.

Knowledge workers in this economy are called "the creative class." They are designers, planners, makers, tinkerers—anyone who creates his or her job out of knowledge and skills, often technical, they have developed. Their jobs can't be mechanized.

According to the [Information Technology and Innovation Foundation 2014 report](#), West Virginia is 49th among states on the Innovation Economy Index, followed by Mississippi, which comes in at 50.

Create West Virginia believes our people can be reoriented to apply their native intelligence and creativity toward taking better care of themselves and creating their own prosperity.



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A Brief History of Innovation Economy Thinking in West Virginia

Create West Virginia began discussions about the needs and desires of the “creative class,” in 2006, when a group of business and professional people gathered informally to discuss early drafts of a white paper titled, [“Creativity, Culture and Innovation: West Virginia and the New Economy,”](#) written by Elizabeth Damewood Gauchier. The gathering was under the auspices of the Creative Class Working Group, a sub-committee of Vision Shared, a non-profit organized during the Republican Underwood administration in 2000.

The group that has become Create West Virginia began public activities in June, 2007, with a press conference to introduce the white paper to the public. In November, 2007, Create West Virginia hosted its first conference, at Stonewall Resort. “Creatives” from every sector—science and technology, education, many types of businesses, and economic and community development professionals, attended. We learned that entrepreneurs, scientists, and tech innovators are creatives as much as artists, architects, musicians, and writers. We learned that people who make their livings based on knowledge and talent are part of the “creative class.” Because of technological advances, these “creatives” frequently can choose where they want to live. They choose places where they feel safe to be themselves, and where they find a stimulating lifestyle.

Creatives of all kinds, from entrepreneurial software designers and scientists, to artists, curriculum developers to furniture makers, mathematicians to architects to venture capitalists--all are members of the Creative Class. This socio-economic class was first described by American economist and social scientist [Richard Florida](#), now head of the Martin Prosperity Institute at the [Rotman School of Management](#) at the [University of Toronto](#). The Creative Class is a key driving force for economic development in a [post-industrial](#) United States.

Following are brief summary overviews and links to Internet articles and various sources of information about aspects of the Innovation Economy and its five pillars that make for resilient communities: Diversity, Education, Entrepreneurship, Quality of Place, and Technology.



The Role of Government in the Innovation Economy

What is the state's role in developing Innovation Economy opportunities? What policies, attitudes, and infrastructure is needed to attract and retain job creators in the New Economy? Who are the innovators we should be recruiting?

[Harvard Business Review: When Social Capital Stifles Innovation](#)

[World Economic Forum: What is government's role in sparking innovation?](#)

[Innovation Economy in Government Practices and Policy Development](#)

[Innovation Policy Platform.org/content/United States](#)

[Who Are the Innovators?](#)

Important Trends in the World of Work

How we work, collectively speaking, is changing. People go to their clients, some don't have offices. They contract, co-work, and connect to deliver their work products from all over the world. They are mobile, agile, and interested in amenities places offer them. Employment policy is critically important.

<http://www.techolicy.com/modernizing-employment-policies-to-unleash-the-new-economy.html>



Diversity Leads to Economic Growth

Research suggests that places with high levels of diversity are better able to adapt new technologies and ideas. We invite others to read the studies that chart the role of geographic isolation, proximity and cultural diversity on economic development from pre-industrial times to the modern era.

"It's time for diversity's skeptics and naysayers to get over their hang-ups. The evidence is mounting that geographical openness and cultural diversity and tolerance are not by-products but key drivers of economic progress. Proximity, openness and diversity operate alongside technological innovation and human capital as the key engines of economic prosperity. Indeed, one might even go so far as to suggest that they provide the motive force of intellectual, technological, and artistic evolution." Dr. Richard Florida

[CityLab](#)

[Cultural Diversity, Geographical Isolation, and the Origin of the Wealth of Nations](#)



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Diversity in the Workplace Unlocks Innovation and Drives Market Growth

New research provides compelling evidence that diversity unlocks innovation and drives market growth—a finding that should intensify efforts to ensure that executive ranks both embody and embrace the power of differences.

This research, which rests on a nationally representative survey of 1,800 professionals, 40 case studies, and numerous focus groups and interviews, scrutinizes two kinds of diversity: *inherent* and *acquired*. Inherent diversity involves traits you are born with, such as gender, ethnicity, and sexual orientation. Acquired diversity involves traits you gain from experience. For example, working in another country can help you appreciate cultural differences, and the challenge of selling to an exclusive base of men or women can give you gender smarts. Companies whose leaders exhibit at least three inherent and three acquired diversity traits have two-dimensional diversity.

[Harvard Business Review: How Diversity Can Drive Innovation](#)



Innovation in Education

The next wave of education innovation won't come from dumping technology in classrooms. Instead, it will come from deeply engaging with people and empowering them to make learning all their own.

At this link are two opposite views of how to improve education. Jodi Goldstein, who officially became head of [Harvard's i-lab startup incubation center](#) discusses the opportunities and challenges of bringing an entrepreneurial mentality into America's oldest university.

Mattan Griffel, founder of [One Month](#), a subscription-based online education startup, comes at the problem from the other direction, rethinking online education in the aftermath of the [MOOC \(Massive Online Open Course\)](#) explosion. "[Online education] has kind of overstepped its current effectiveness," he argues, "and everyone is saying what is possible by painting this picture, but the tools haven't reached that point yet."

[TechCrunch: Searching for the Next Wave of Innovation](#)





Entrepreneurship, Innovation, and Leadership

In his 1942 book, Capitalism, Socialism and Democracy, economist Joseph Schumpeter introduced the notion of an innovation economy. He argued that evolving institutions, entrepreneurs, and technological changes are at the heart of economic growth. But it is only in recent years that "innovation economy," grounded in Schumpeter's ideas, has become a mainstream concept.

Since 2009, Aspen Institute's Economic Innovation roundtables validate that innovation, to be effective, requires a real leadership impact that stems from collaboration, vision, and above all, the will to direct progress for long-term growth. It is about how to harness any organization's full potential through leadership mandates and actions for a sustainable future.

[Fast Company: The Three Pillars of the Innovation Economy](#)



Quality of Place and its Impact on Economic Development

For much of the 20th century, economic development and community development were largely separate. The resulting geography of innovation was dominated by isolated research parks. Today, cities are recognizing the reinforcing benefits of inventive people working in quality places that reflect local culture and history and fuel the constant exchange of ideas. Many of these cities are experiencing a rise of vibrant mixed-use districts created by people and companies who want proximity to networks of investors, entrepreneurs, researchers, and skilled workers.

The Brookings Institute has identified [innovation districts](#)— dense, amenity-rich enclaves that are typically anchored by R&D institutions and facilitate new ideas and businesses—as a new geography of innovation that joins economic development and placemaking for quality growth. [The Bass Initiative](#) will continue this research and extend its inquiry to additional types of emerging vibrant commercial and cultural districts. These entrepreneurial hubs are anchored by assets such as advanced research universities, medical campuses, historic warehouses, waterfronts, main streets, and public markets, and serve as destinations for their local communities.

[The Brookings Institute: Innovation and Placemaking](#)



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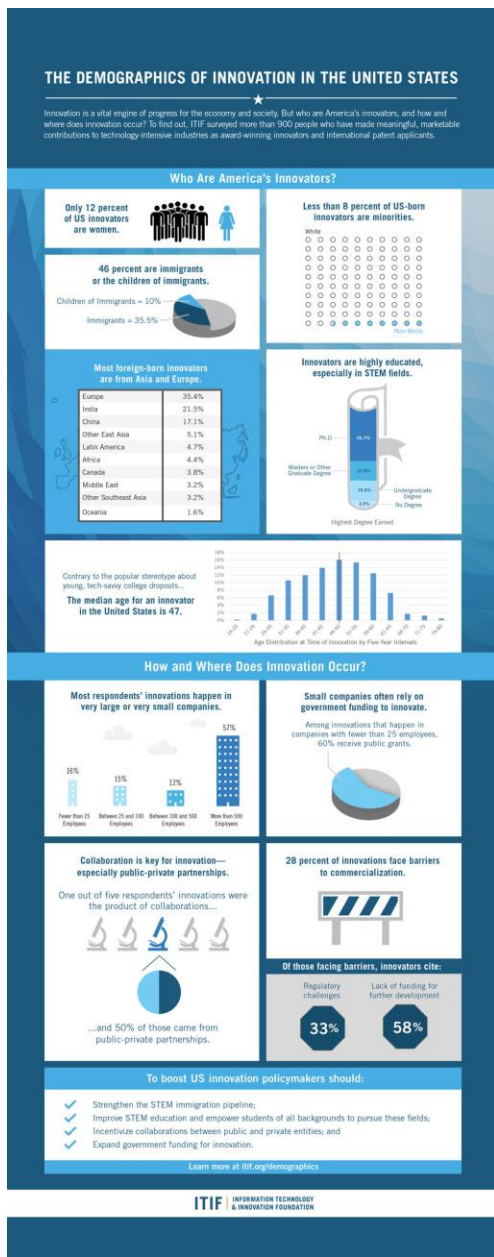


Technology: Its Role in Development

At a time of immense economic volatility, West Virginia could be developing policies, infrastructure and investments that will attract and retain people who create new jobs. Nations smaller than our state are creating technological infrastructures that directly impact their economies.

[World Economic Forum: Five Ways Technology Can Help the Economy](#)

Who Are the Innovators and How Do We Cultivate, Attract, and Retain Them?



Behind every technological innovation is an individual or a team of individuals responsible for the hard scientific or engineering work. And behind each of them is an education and a set of experiences that impart the requisite knowledge, expertise, and opportunity. These scientists and engineers drive technological progress by creating innovative new products and services that raise incomes and improve quality of life for everyone.

But who are these individuals? How old are they? Were they born in the United States or abroad? Are they male or female? What are their races and ethnicities? What kind of education do they have? Identifying the characteristics of the individuals who create successful, meaningful innovation in America can shed important light on how to broaden and deepen the country's pool of potential innovators through STEM education (science, technology, engineering and math), immigration, and overall innovation policies.

This study surveys people who are responsible for some of the most important innovations in America. These include people who have won national awards for their inventions, people who have filed for international, triadic patents for their innovative ideas in three technology areas (information technology, life sciences, and materials sciences), and innovators who have filed triadic patents for large advanced-technology companies. In total, 6,418 innovators were contacted for this report, and 923 provided viable responses. This diverse, yet focused sampling approach enables a broad, yet nuanced examination of individuals driving innovation in the United States.

[Read more at Information Technology & Innovation Foundation](#)



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