

# BACON'S REBELLION

The Op/Ed Page for Virginia's New Economy

## Peak Performance in a Flat World

**There is no easy path to prosperity and sustainability in a globally competitive economy, only the relentless pursuit of productivity and innovation. Virginia must bend every institution to that end.**

*By James A. Bacon*

**P**aul Rocheleau, a senior chemical industry executive with Richmond-based Albemarle Corporation told me a story two years ago that has always stuck in my mind. Back in 1997 he boarded a plane, an American-made Boeing, bound for Kunming, a sprawling city deep in China's mountainous interior. The airplane, he recalls was packed with Chinese and Thais; he was virtually the only westerner. Yet, as the plane taxied into the Kunming airport, the sound system was playing American Christmas carols sung by the likes of Gloria Estefan and Amy Grant.

Getting off the jet, Rocheleau was struck by how cosmopolitan this backwater Chinese city had become. The airport supported four flights per day from Bangkok alone. Who would have guessed? He could receive calls on his European-made cell phone. People were driving German-made Volkswagen cars. But modernity mixed poignantly with an ancient way of life: Within sight of the airport, peasants were plowing fields with oxen. That's when it hit Rocheleau how rapidly China was changing -- indeed, how rapidly the world was changing.

As *New York Times* columnist Thomas Friedman famously put it in a recent best seller of the

same name, "the world is flat." Technology, economic and political barriers to global trading continue to fall away. Twenty years ago, the nations of the global trading system -- North America, Western Europe, the Asian Rim, the petro-states and parts of Latin America -- constituted a billion to a billion-and-a-half people, depending on how you count them. Today, as chunks of China, India and the former Soviet bloc join that system, the number is closer to three billion. As isolated regions of China, India, Russia and Southeast Asia build the capacity to plug in -- airports, telecommunications, ports and highways -- tens of millions of new workers enter the trading system every year.

Globalization has brought extraordinary prosperity to the world, lifting people out of poverty at a rate unprecedented in human history, flooding the every continent with cheap material goods, and providing abundant capital for anyone who can invest it well. At the same time, the trading system has proven highly disruptive to uncompetitive businesses and traditional ways of life. In an earlier book, "The Lexus and the Olive Grove," Friedman explored how differently countries around the world were responding to the turmoil unleashed by what they perceived as "Americanization."

Here in the United States, Americans are no less anxious

about what we call "globalization" -- that which the rest of the world is doing to us. While lapping up inexpensive manufactured goods at Target and Wal-Mart, Americans also fear for their livelihoods. Change distresses them. They bash U.S. companies for investing overseas -- and protest when foreign companies buy American assets. They worry about immigrants entering the country -- and fear a brain drain out of the country. According to a recent *NBC/Wall Street Journal* [poll](#), 80 percent of the population believes the United States is undergoing a "long-term decline." Two-thirds believe their children's lives will be no better than their own.

Globalization and the frenetic pace of technological change that accompanies it is one of the great challenges of the United States in the early 21st century. (The other is the spread of militant, fundamentalist Islam, which threatens to undermine the global trading system, a topic beyond the scope of this series of columns.) While many Americans have been trained to look to the federal government for solutions, the challenge of globalization can be met only at the level of states, regions and municipalities. Congressmen and bureaucrats in Washington are not equipped to build more prosperous, more livable communities -- that is a task that must be performed by the citizens themselves.

When the challenge of economic development was simply to recruit business to the state, Virginia was a stand-out. The Old Dominion mastered that old economic development model,

chasing corporate investment. However, as the nature of the economy changed, requiring a new model of economic development, the Old Dominion stagnated.

The chart below, based on numbers from the Bureau of Economic Analysis, shows Virginia per capita income expressed as a percentage of national income. In 1970, Virginians' per capita income was seven percentage points behind the national average. However, in a sustained burst of growth, the state caught up to the national average in 1980 and zoomed past it by 1985. Then Virginia hit a 15-year plateau. Only since 2000 has the Commonwealth resumed its gains relative to the rest of the nation.

### Virginia Per Capita Income

(expressed as a % of national income)

<a href="#">1970</a>	<a href="#">1975</a>	<a href="#">1980</a>	<a href="#">1985</a>
93	97	100	104
<a href="#">1990</a>	<a href="#">1995</a>	<a href="#">2000</a>	<a href="#">2005</a>
105	104	104	109

But the improvement from 2000 to 2005, concentrated largely in Hampton Roads and Northern Virginia, reflected a post 9/11 redistribution of federal spending to the state's military, intelligence and homeland security communities -- not an enduring increase in economic potential.

As a commonwealth, Virginia has yet to systematically re-think what it takes to prosper in a globally competitive knowledge economy amidst rapid technological change, rising energy costs and heightened environmental threats. Northern Virginia, a world-class technology center, has made some progress in re-conceptualizing the "economic development" piece

of the equation -- the recruiting and retention of businesses -- but it has flunked the test of refashioning itself as a more livable community. NoVa is choking in its own growth.

Outside Northern Virginia, the economic development model remains much as it was 20 years ago in the state's hey-day. No region has made a comprehensive effort to re-envision itself as a community adapted to the demands of the 21st century economy. Neither of the two dominant political parties, the Democrats or Republicans, are any help whatsoever. Captive to their own demographic constituencies and special interests, the two parties are mired in partisan bickering, divisive culture wars and a stale conventional wisdom.

In this series of columns, "Economy 4.0," I will try to lay out a comprehensive framework of analysis for building more prosperous and livable communities in the 21st century. Many of my thoughts about the overarching importance of human settlement patterns reflect a long and fruitful collaboration in *Bacon's Rebellion* with E M Risse, author of "The Shape of the Future" and a *Bacon's Rebellion* columnist for nearly five years. But I have sought to broaden the framework to other realms of Virginia's economy and society. Hopefully, many of the perspectives presented here will strike most readers as on the mark.

Just one warning: This is a work in progress. I am still thinking things through, so my conclusions are subject to change. But I am confident that this new framework for analysis will encourage citizens to begin the arduous process of thinking differently about some of the most vital issues of our era.

### New Urban Regions

The nation state is losing its preeminence as the fundamental unit of economic development in the world today. The cross-border flow of information, capital and technology is unprecedented, and the flow of labor is close to unprecedented. No country can long defy the "electronic herd" (another Friedman coinage) of money managers who shuttle billions of dollars between currencies, equities, bonds and derivatives around the world within nano-seconds. Even the mightiest nation on earth, the United States, must pursue monetary and fiscal policies within the constraints imposed by the herd or suffer the consequences.

Although important economic decisions continue to be made at the national level, many key differentiators in global competitiveness are occurring at the regional level. This shift has been called by some the rise of the "city state." Economic boosters allude to this phenomenon when they make statements to the effect that Richmond (or any other city you prefer to name) "isn't just competing against Raleigh or Charlotte, it's competing against Lyons, Dublin and Nagoya."

The "city state" image is somewhat overwrought, however, as cities in the United States are not sovereign entities comparable to Greek city-states of the ancient world or Italian city-states of the Renaissance. American "cities" do not maintain their own currencies or conduct their own foreign relations. We prefer Risse's term, New Urban Regions, or NURs for short.

A New Urban Region is roughly countermeasured with a Metropolitan Statistical Area (MSA), a

region of multiple municipalities bound by history, transportation and a common labor market. Historically, NURs originated as densely populated urban centers, which we conventionally refer to as "cities," but evolved into multi-jurisdictional entities as growth leap-frogged past the city borders. In Virginia, these outlying jurisdictions are labeled "counties."

For purposes of economic competitiveness, it is useful to think of a New Urban Region not as a gaggle of cities and counties but as a single social and economic entity: a labor market where citizens, businesses and institutions share a common geographic identity. That viewpoint is all the more compelling as human capital increasingly becomes the driving force of economic development among the advanced, industrial nations. If we view NURs as distinct labor pools, the workforce characteristics of the region – the general education level, the industry-specific skill sets, the capacity to teach new skills, and cultural attributes such as work ethic and appetite for entrepreneurial risk taking -- largely define its competitiveness.

There are other factors, as we shall argue, that affect an NUR's ability to prosper in a globally competitive economy. The quality of life, which affects the re-

<b>Wealth Creation in Virginia</b> (Per capita income as % of national average)			
	1967	2006	Gain/ Loss
Charlottesville	85	103	18
Washington-Arlington-Alexandria, DC-VA-MD-WV	123	141	18
Richmond, VA	95	106	11
Winchester, VA-WV	76	87	11
Bluefield, WV-VA	68	74	6
Virginia Beach-Norfolk-Newport News, VA-NC	91	96	5
Kingsport-Bristol-Bristol, TN-VA	75	79	4
Roanoke	91	95	4
Danville	71	75	4
Lynchburg	82	84	2
Harrisonburg	78	79	1
Blacksburg-Christiansburg-Radford	74	72	-2
Staunton-Waynesboro, VA	86	84	-2

gion's ability to recruit and retain skilled and educated workers, is one. The level of taxation, the health of the environment, and the condition of the physical infrastructure -- broadband, roads, rail, water, sewer -- are others. But human capital, the wellspring of productivity and innovation, is paramount. In the knowledge economy, all other considerations are secondary.

New Urban Regions and their economically dependent hinterlands have shown widely varying degrees of success over the past several decades. Some have prospered in the globally competitive economy, giving rise to new knowledge-based industries with tremendous growth oppor-

tunity. Others have declined as traditional industries have eroded with nothing to replace them.

Those regions whose political, civic and business leaders understand the challenges, build the necessary institutions and create the right conditions will have the potential to achieve unprecedented prosperity. Those who cling to familiar, comfortable ways of thinking will stagnate. Some may even regress to Third World living standards.

The disparity in performance can be seen in the yellow chart below, based on Bureau of Economic Analysis (BEA) data.

Compare the fate of Bridgeport, Conn., the affluent New York suburb, with the likes of Detroit, Cleveland and Rochester. In 1967, Bridgeport's income was 153 percent of the national average. Four decades later, it has increased to 195 percent -- nearly double -- the national average, for a gain of 42 percentage points. Rochester incomes, by contrast,

<b>Wealth-Creating Winners and Losers</b> (Per capita income as % of national average)			
	1967	2006	Gain/ Loss
Bridgeport-Stamford-Norwalk, CT	153	195	42
Boston-Cambridge-Quincy, MA-NH	115	137	22
Charlotte-Gastonia-Concord, NC-SC	90	107	17
Durham, NC	86	102	16
Detroit-Warren-Livonia, MI	119	109	-10
Cleveland-Elyria-Mentor, OH	116	103	-13
Rochester, NY	116	98	-18

have declined from well above the national average to below it.

Over the same 40-year period, Virginia New Urban Regions have out-performed the nation. Charlottesville and Northern Virginia led the state with 18 percentage-point gains in relative national standing, with Richmond and Winchester logging in respectable 11 percentage point gains. (See blue chart on previous page.) Only Blacksburg-Christiansburg and Staunton-Waynesboro lost ground, and even they did so only by small amounts.

As the BEA data makes clear, over long periods of time New Urban Regions (or MSAs) can significantly out-perform or under-perform the national average. While some factors are beyond a region's control, such as rising/falling price of petroleum, coal or agricultural commodities, which can devastate major industries, critical factors such as the development of human capital, the level of taxes and investment in infrastructure are entirely within a community's realm of influence.

### **Productivity and Innovation**

As a high-wage state in the nation with the highest wages in the world, Virginia cannot compete in the global arena on the basis of low labor costs. It must find other competitive advantages. Two advantages consistent with a high standard of living are productivity and innovation.

Productivity is the ability to perform economically value-added work that can support high wages and salaries.

Innovation is the capacity to create new technologies, products and business models that reap outsize economic gains.

*Disruptive* innovation enables enterprises to leap past its rivals' incremental improvements.

It cannot be stated forcefully enough: *To maintain its standard of living in a globally competitive knowledge economy, Virginia must develop a productive workforce and an innovative business community.*

In a world where other New Urban Regions are discovering and acting upon this basic truth, the Commonwealth of Virginia and its NURs must do the same. Indeed, we must go a step beyond: We Virginians must apply our unremitting focus to productivity and innovation. We must reinvent every supporting institution -- land use, government, transportation, education, health care -- to support these sources of wealth creation. We must embed an obsession with productivity and innovation deep in our culture. For individuals, that translates into better education, more skills, higher levels of personal discipline. For business enterprises, that means more technology research, more product development, greater attention to process improvements, and a greater capacity to solve complex problems.

### **Evolution of Economic Development Paradigms**

To succeed in the 21st century, the economic-development nostrums of the 1970s and 1980s won't serve anymore. Every New Urban Region must develop a strategy to bolster productivity and innovation. To borrow yet another of Thomas Friedman's coinages, Virginia communities must upgrade their economic operating system.

Here is how I dissect the evolution of economic-development paradigms in Virginia over the past 40 years.

**Economy 1.0: Buffalo Hunting.** The industrial-recruitment model of the 1960s, '70s and '80s achieved economic growth by recruiting outside manufacturing: bagging the trophy quarry. Municipalities and regions focused on (1) marketing to corporations, and (2) building industrial infrastructure, primarily Interstate highways, rail lines, industrial parks, water, sewer and electrical power. As long as there was abundant unskilled and semi-skilled labor, there was little need to worry about human capital.

**Economy 2.0: Safari Hunting.** In the 1980s, some economic developers began updating their industrial-recruitment model for the service economy. They didn't chase just smokestacks anymore -- they went after back-office operations, call centers, distribution facilities, even corporate headquarters. Like safari hunters, they hunted anything that moved.

Corporate requirements became more sophisticated. Broadband Internet access joined the list of "must have" infrastructure. Service companies typically had specific skills requirements, so economic developers became more attuned to the nuances of labor markets, collaborating with high schools and community colleges to ensure that workers could acquire those skills.

**Economy 3.0: Tending the Garden.** The shift from the "hunting" model to the "grow your own" model took root in the 1990s. According to this line of thinking, fast-growing, entrepreneurial companies -- gazelles, as MIT economist David Birch calls them -- are the greatest job creators in the U.S. economy. Drawing upon the success of Silicon Valley and the Boston area, NUR leaders began thinking about "soft" infrastruc-

ture such as research universities, incubators and networking groups, to encourage entrepreneurial start-ups, and gave more attention to the small-business tax and regulatory climate.

#### **Economy 4.0: The Creative Class and Sustainability.**

Economy 4.0, the economic development model that advanced New Urban Regions are now moving towards, contains all the elements of the previous models -- and more. Savvy NURs still recruit corporate investment, build and maintain hard infrastructure, tend to the soft infrastructure and nourish a business climate where entrepreneurs can thrive. But Economy 4.0 adds a new component: the systematic building up of human capital.

Economy 4.0 springs from the realization that the ultimate source of productivity and innovation is people. A disproportionate share of value-added economic activity and innovation emanates from a group of entrepreneurs, scientists, artists, educators and complex problem solvers that Richard Florida refers to as the "creative class." The central challenge for civic leaders adopting the economic development-through-innovation model becomes developing, recruiting and retaining members of this creative class. In recognition of the reality that "creatives" are highly mobile and that they often choose where to live on the basis of values and lifestyle considerations, economic development then morphs into community development: the building of more livable regions.

While the civic elites of several New Urban Regions in Virginia have gotten the message about the "creative class," they have only recently begun to decipher the attributes in a region that the creative class values. Often,

civic boosters still get it wrong. Spending money on Economy 2.0-like projects like convention halls, sports stadiums and performing arts centers goes in entirely the wrong direction, squandering resources that could be spent more usefully in other ways.

There are two other characteristics of the next-generation economic development model that warrant comment here. Regional economies are inextricably embedded in a global energy system and a global environmental system. Virginia, like the rest of the U.S., has built its economic base and physical infrastructure on cheap, abundant energy. Indeed, Virginia's economy is one of the most electricity-intensive in the world. As a consequence, the state will see its competitiveness erode in the face of rising energy costs propelled by surging demand from China, India and other developing countries. Furthermore, intense resource consumption has deleterious effects on Virginia's environment, degrading the state's natural capital of clean water, clean air and clear earth. A comprehensive model for economic development, I would argue, seeks to minimize resource consumption and its adverse environmental impact.

Future sections of this series will elaborate what it takes to achieve Economy 4.0.

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