prospering in an era
OF ECONOMIC TRANSFORMATION

By Dr. Robert Atkinson

Consumers increasingly go to the Internet instead of to Main Street to buy a growing array of products and services. 1-800 Contacts, a company that fulfills prescriptions for contact lens over the Internet, employs over 550 workers in Salt Lake City, Utah, facilities.

My first grad school class in economic development began with a discussion of "growth vs. development." Indeed, this question over the appropriate goal of economic development – growth (becoming bigger) or development (becoming different and more advanced)– is a long-standing one, both among academics studying economic development and practitioners. To be sure, economic development is usually about both. But in an economy undergoing fundamental transformation, regions and communities need to place a special focus on development and helping their economies restructure to fit new economic realities. This article examines the nature of today's transformation, how past transformations can inform current practice, and what transformation means for local and regional economies and economic development practice.

UNDERSTANDING THE TRANSFORMATION OF THE REAL ECONOMY

Too many academic and Washington, DC-based economists focus on interest rates, prices and the mythical "equilibrium conditions," ignoring the real economy of companies, investors, workers, institutions and places, and how they change and evolve. Local economic developers have never had the luxury of living in the world of theory – they must deal with the real economy on a daily basis. However, there is one discipline of economics – evolutionary economics – that also focuses front and center on this real world.

Much of evolutionary economics traces its intellectual roots to Joseph Schumpeter, the former head of the American Economics Association, who wrote in the 1930s and 1940s to try to explain the Great Depression. Schumpeter's explanation was different than the prevailing Keynesian one that posited that fiscal and monetary policies caused the slowdown. Schumpeter proposed a radically different theory: it was the exhaustion of the old factory economy coupled with the embryonic emergence of the next new economy that led to the Depression. Indeed, in his view, economies went through periodic transformations during which growth slowed down only to be powered by a return of growth with the next new economy. He wrote: "The opening up of new markets, foreign or domestic, and the organizational development from the craft shop and factory to such concerns as US Steel illustrate the same process of industrial mutation – if I may use that biological term – that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating the new one."[1]

In other words, Schumpeter argued that economies don't just get bigger, they evolve. But Schumpeter's other key insight was that this evolution is not constant. Rather, it is punctuated by industrial/economic revolutions that "periodically reshape the existing structure of industry by introducing new methods of production – the mechanized factory, the electrified factory, chemical synthesis, and the like; *new* commodities, such as railroad service, motorcars, electrical appliances; *new* forms of organization – the merger movement; new sources of supply – La Plata wool, American cotton,

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PUTTING "DEVELOPMENT" BACK IN ECONOMIC DEVELOPMENT

Powered by globalization, innovation, and the information technology revolution, America's economy is rapidly changing. In such an economy undergoing fundamental transformation, regions and communities need to place a special focus on helping their economies restructure to fit new economic realities. This article examines the nature of today's transformation, how past economic transformations can inform current practice, and what transformation means for local and regional economies and economic development practice.

Katanga copper; *new* trade routes and markets to sell in and so on."[2]

Indeed, at least four great waves of technological change have broken over the United States in the last century and a half, each leading to major transformations and the demise of one kind of economy and the emergence of another. Each in turn changed the occupational structure, the organization of enterprises, the scope of markets, role of government, and the fortunes of different regions. Each in turn initially propelled the economy to new heights of growth and productivity until its potential for robust growth was exhausted. In the 1840s, a host of local small-firm manufacturing industries such as iron and textiles began to emerge, powering growth until the Depression of 1873. A new regional factory-based manufacturing economy emerged in the early 1890s, fueled by the development of cheap steel, precision machine tools, and electricity. A half century after that, the economy was once again transformed by industries such as electronics, chemicals, and mass consumer goods, creating a new national corporate, mass production economy. Indeed, the 1940s and 1950s 'mixed economy' was so different from the one that preceded it that in October 1955 *Fortune* magazine wrote about the 'New Economy.'

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It's not just goods that are being offshored, increasingly so are services. Infosys, one of the largest IT services companies, headquartered in Bangalore, India, employs over 39,000 workers.

Yet that post-war economy began to stagnate in the early 1970s, after which it became increasingly difficult to sustain robust rates of innovation and productivity. The result was a 20- year period of slow productivity and wage growth and significant regional economic distress. Indeed, it is no surprise that it was during this period that economic development as a field really took off, as many communities and regions significantly ramped up their economic development efforts to respond to this slow growth.

It was only when another new economy began to emerge in the 1990s, powered by the information technology revolution, including the Internet, software, the microprocessor and telecommunications, that robust growth returned. Productivity once again grew at around 3 percent year, compared to the anemic 1.2 percent per year in the prior 20 years. During the heady years of the late 1990s, many mistakenly viewed the new economy as something happening only in Silicon Valley. Others mistakenly thought it was some kind of millennial transformation on par with the British industrial revolution of the 1700s. Indeed, one could not open up a business magazine or turn on the news without hearing about the amazing New Economy and how it was transforming not just the economy but society. Within just a few years it has become fashionable to believe the opposite, to dismiss talk of a New Economy, believing that the events of the last few years prove that the New Economy was a flash in the pan, or in the words of Morgan Stanley's Stephen Roach, as 'bubble-induced excesses.'[3]

The reality is that the economy is significantly transformed from the one of just a decade ago. (See Table 1) The new economy is now essentially a global, world economy, as we are seeing with the rapid growth and integration of markets like India and China. The new economy is a knowledge-based economy, where the keys to success lie in the extent to which knowledge, technology and innovation are embedded in products and services. It is an economy that is characterized by dynamism, customization, and intense competition. And finally, it is an economy powered by information technology. Looking at a host of IT indicators including b-to-b and b-to-c e-commerce and broadband and Internet penetration, current use has exceeded projections made in the heady days of the late 1990s. In short, the New Economy is real and can be ignored by economic developers only at their peril.

One example of how different the economy and the sources of competitive advantage are today can be seen in how states used to market themselves compared to now in business magazines like *Fortune*. In 1955, Indiana advertised its strengths as "No State Debt," "Raw Materials" (including generous amounts of clay, wood, and gypsum), a workforce that was "97 percent native" (presumably "native" workers were less likely to join unions), and "23 railroads." In an economy in which the keys to success were low costs to support the mass production of factory goods, these may have been reasonable strengths to brag about.

How things have changed. Now Indiana still tries to lure companies (and now knowledge workers) to its borders, but it touts its clusters of "leading-edge, tech-savy companies," an abundance of "bright minds and new thinking," and a "lifestyle second to none." What changed? What changed is that success now has little to do with the old factors

of low costs, access to natural resources, and even proximity to markets. Now it's all about fostering an environment that enables firms to innovate and learn and that includes retaining and attracting knowledge workers.

ECONOMIC TRANSFORMATIONS REQUIRE NEW WAYS OF DOING BUSINESS

As the New Economy creates new success factors for most communities and regions it means that the challenge is to focus on development, not just growth. In other words, when the economy is undergoing structural transformation, communities can only succeed if they too transform their own economies. Trying to grow by doing more of the same (e.g., attracting even more branch plants in the industries that a region already specializes in) is likely to lead not to growth, but to stagnation.

If development were easy, everyone would be focusing on it. But it's precisely because it implies change – change in the skills of workers, change in the capabilities of a region's business service firms, change in how institutions like colleges, local governments, and development agencies work – that some communities prefer to stay with what's tried and true. It's much easier for everyone involved to just do more of the same, only more of it in the hope that the economy can keep growing. In a classic article written in 1976, Edgar Hoover, perhaps the premier regional economist of his day, wrote an article about his home town Pittsburgh that sums up why development is so hard:

> Rapid technological change means rapid obsolescence of physical facilities and skills alike. By that token it poses particularly serious adjustment problems to areas like the Pittsburgh region which have especially large proportions of their physical and human resources committed in terms of earlier technical conditions. Old industrial facilities are in general more expensive to keep up to date by piecemeal modernization, and the same holds true of old community layouts, public service facilities and housing. Very much the same holds true of human resources as well – the adaptability of workers and of business firms to new tasks and opportunities is less when a high proportion of those workers and firms have been doing substantially the same thing for a long time and have acquired a large stake in the status quo, and when there is a relative dearth of new and young entrants to the labor force and the business community who are prepared to take up new and unfamiliar functions.[4]

While Hoover was writing about one lagging metropolitan area struggling then (as well as now) to adapt, his message has particular relevance now, as many regions are struggling to adapt to structural change in the economy.

Table 1 Old and New Economies' Factors

Issue	Mass production corporate economy	Entrepreneurial knowledge economy
Economy-Wide Characteristics		
Markets	Stable	Dynamic
Scope of competition	National	Global
Organizational form	Hierarchical	Networked
Production system	Mass production	Flexible production
Key factor of production	Capital/labor	Innovation/knowledge
Key technology driver	Mechanization	Digitization
Competitive advantage	Economies of scale	Innovation/quality
Importance of research	Moderate	High
Relations between firms	Go it alone	Collaboration
Workforce		
Policy goal	Full employment	Higher incomes
Skills	Job-specific	Broad and sustained
Nature of employment	Stable	Dynamic
Economic Development		
Goal	Jobs/Growth	Higher incomes/ development
Means	Low costs	High quality/innovation
Source of competitive advantage	A fixed resource skill, or location	Organizational and individual learning and adaption

(Source: Robert Atkinson, The Past and Future of America's Economy: Waves of Innovation that Transform Cycles of Growth, Edward Elgar, 2005)

There are several key changes in the economy that make adaptation crucial. First, in today's information technology driven economy, facilitated by advances in global shipping and logistics and telecommunications, many companies can locate almost anywhere and serve customers throughout the globe. The recent rise of offshore services to places like India and Eastern Europe and the emergence of China as the world's factory floor is just the latest manifestation of how economic transformation changes the spatial locus of economies. This new market, essentially a global market for goods, services, labor, capital and information, means that for most places low costs alone are no longer the route to success.

Yet during the 1990s, many states and communities, particularly in the South and Southwest, thought that they could prosper by just doing more of what they had done quite successfully since the 1950s: try to attract branch plants of companies by keeping costs low, partly by offering financial inducements. To the surprise and dismay of many communities, it has become clear that strategy failed to produce growth. In fact, the loss of an estimated one million manufacturing jobs in the past five years from the growing trade deficit has meant that many communities dependent on branch manufacturing have seen significant job losses. When

manufacturing plants in China enjoy an approximately 50 percent cost advantage in total labor costs (taking into account their lower productivity rates), competing principally on cost is not likely to produce competitive advantage. According to Industrial Technology Institute economist Dan Luria, a state could cut a manufacturer's total taxes (state and federal) by 10 percent and this would close the cost differential with China by just 1.6 percent. Cutting wages by 25 percent would close the gap by 18.3 percent of the differential (and why exactly would we want to cut wages when the goal of economic development is to boost living standards?). It's no better with traded services. Moving jobs like call centers, software development, and claims processing to a nation like India can lower a company's costs by between 15 and 50 percent.[5]

There are two big implications for economic development from this new globalization. First, it means that states and regions that compete principally on costs will find themselves growing more slowly, both in terms of income and jobs. There are really only two answers to the challenge posed by lower-cost developing nations. The first is to more aggressively fight foreign mercantilist trade practices of artificially keeping their currency prices low and their markets restricted. States and communities can't do much about these issues, although the economic development profession as a whole could and should be much more vocal about the need for global trade to be conducted on market-based terms, not mercantile ones.

The second answer is to focus on new sources of comparative advantage and that is something states and communities can do and are doing. To understand why this is so critical it's worth looking back at how the U.S. fared the last time markets and the economy were transformed. With the emergence of the corporate mass production economy in the 1950s and the rise of air travel, mass electrification, telephone networks, air conditioning, and the interstate highway system, what had hitherto been a distinct group of regional economies became tied together into a nationwide economic system. Companies now bought and sold from suppliers and customers throughout the nation.

Factories and offices that were once concentrated in the Midwest and Northeast began to migrate to the lower cost South and West. As a result, the "new economy" of the 1950s and 1960s faced its own "globalization" challenge, only this time companies were not moving to low-cost Southeast Asia, they were moving to the low-cost southeastern United States. Like today, there were large income differentials between the two regions, making relocation to the South an attractive way to cut costs. As a result, northern industries flocked south, leaving behind shuttered factories, devastated communities, and unemployed workers. For example, the Northeast's share of textile employment fell from 40.5 percent in 1950 to 22 percent in 1970, while New York and Pennsylvania's share of apparel employment fell from 47 percent to 24 percent. Then as now, unions sought to harmonize labor costs and standards. Operation Dixie was a massive, failed effort to unionize southern factories in the 1950s and tie the companies to national wage-setting in order to eliminate the wage differential. Then as now, low-wage regions (and nations) established economic development programs and offered substantial incentives to lure industry to their borders.

During that period transformation, losses of industry in the North were made up by gains in the South and West so that the overall U.S. economy was not hurt. In fact, by spurring growth of lagging regions and facilitating the development new industries in the North, the shift helped spur national growth. But not all the "old economy" regions fared equally. For example, while the Boston area lost tens of thousands of traditional factory jobs to southern migration, it was able to capitalize on its core strengths of vibrant capital markets, a skilled workforce (powered by increases in college enrollment after WWII) and strong universities (powered by the increases in federal R&D). The region successfully made the transition to the post-war New Economy by growing new companies, many of them electronics firms spun-off from universities like MIT, and expanding fast growing industries like their already strong financial services sector.

In contrast, many other parts of New England (and the Mid-Atlantic region), in particular former mill towns that thrived in the first half of the 1900s, had a much harder time. Having invested so much of their human, financial and physical capital in the economy system of the prior era, they were left with far fewer resources upon which to draw to thrive in the new one. This in part was the challenge Hoover described when writing about Pittsburgh. But it could have easily described a host of other places such as Fall River, Massachusetts; Providence, Rhode Island; Syracuse, New York; and Scranton, Pennsylvania. These and other similar communities never regained the robust growth that they enjoyed in the factory economy era of the first half of the 1900s. And while many continued to grow in both population and per-capita incomes, their growth rates lagged behind faster growing places that had caught the wave of that era's new economy. It was in response to the difficulties these and other communities were having in adapting to the new economy of the 1950s and 1960s that led President Kennedy to create the Area Development Administration, which in 1965 became the Economic Development Administration.

Because the U.S. economy is now undergoing a process similar to what the Northeast and Midwest went through 50 years ago, it's important to see

Digital Transformation on Main Street

The new global, information technology-based economy is not just putting jobs in a host of already traded industries (e.g., manufacturing) at risk, it's also rapidly transforming what were once largely local-serving sectors into traded sectors that can locate anywhere. In other words, what were once sectors that largely sold their output to local residents (e.g., book stores, barber shops, local newspapers) and could always be counted on for jobs, are increasingly becoming traded and footloose. The Internet and IT revolution mean that an increasing share of these activities will take place on line and at a distance. Indeed, a good rule of thumb in considering what the emerging digital economy will look like is to assume that virtually all processes that convey information through physical media or human interactions will become digital and traded.

In this new economy, Amazon.com is as local to me as my local mom and pop bookstore (which, by the way just closed). Take travel agencies for example. In the old economy, a community could be relatively sure that it would have at least one travel agency on Main Street employing local residents. Today, it's not quite such a sure thing. The number of Americans using the Internet to make travel reservations jumped from 30 million in 2000 to around 60 million just two years later. This year approximately one-third of all travel will be booked online. This is a major reason why the number of travel agent jobs declined by 6,580 in the last three years. But that's just the tip of the iceberg. A host of other local-serving industries are likely to shift in all or part to traded-sectors over the two decades, including video and music stores, banks and insurance, prescription drugs and contact lens, and even auto sales.

If you don't need a person standing in front of you to provide the service, then it's likely to be available online. This shift from face-to-face commerce to e-commerce has important implications for local economies now that a larger share of the local economy is now in play. It means that while employment in bricks and mortar main street establishments facing Internet competition will likely grow more slowly than otherwise, some communities will gain significantly if they attract or grow e-commerce companies. For example, Amazon.com employs hundreds of workers at their New Castle, Delaware, and Kansas City distribution facilities. Likewise, 1-800 Contacts, a company that fulfills prescriptions for contact lens over the Internet, employs over 550 employees in Salt Lake City, Utah, facilities. Main Street will increasingly move to the office/industrial park on the edge of town.

what lessons we can draw from that experience. The most important is that the *filtering down* to the South of economic activity from the more developed Northeast is now replaced by a *filtering out* of economic activity from the United States to developing nations. PPI estimates that 13 million service sector jobs involving processing information that can be transmitted over telecommunications networks have the potential to be done remotely. Forrester research estimates that almost 3 million of these jobs will be offshored to countries like India, China, and the Philippines within the next 10 years. So the key question is whether the U.S. economy will look more like Boston or Fall River, Providence, Syracuse, and Scranton did in the past transition. In other words, will the U.S. economy be able to adapt and move to higher value-added and more skilled economic activities or will it fail to move up and be forced to compete, often unsuccessfully, with lower cost overseas competitors?

There are a host of things states and communities can and are doing to compete in the New Economy. Indeed, the "new economic development" of the last decade focused more on promoting innovation and learning than simply cutting costs is a reflection of the need to adapt to new economic conditions. This includes targeted efforts to build clusters of firms, boost skills, expand an innovation infrastructure (e.g., university research centers, venture capital programs, and technology transfer programs), boost entrepreneurial activity, help existing traditional firms modernize and become more productive, and create a climate conducive to retaining and attracting knowledge workers. This isn't to say that many communities don't still pursue old economy strategies –attracting that branch plant through financial incentives. It's just that relative to the new economic development, this practice is becoming less important and less prevalent.

To be sure this does not mean that each region and community will be a new center for high-tech growth, if for no other reason than there are not enough high-tech firms for every region to specialize in technology. However, it does mean that all regions and communities can and should focus on adaptation, learning, and innovation in the sectors and functions that they have an existing or potential competitive advantage in. Perhaps in a decade or so, the new economy and the new economic development will stop being new and the opportunity will be more in simply trying to grow – e.g., attracting yet another biotech facility. But we aren't there yet, and economic developers in regions and communities that don't want to be left behind will need to make sure that they go back to their roots of being economic *developers*.

Endnotes

1. Schumpeter, Joseph A. (1942, 1975), *Capitalism, Socialism and Democracy* (New York: Harper Perennial), p. 83
2. Ibid, p. 68.
3. www.wired.com/wired/archive/10.07/Myth.html.
4. Edgar Hoover, 1976 "Pittsburgh Takes Stock of Itself," in Ben Chinitz (ed.) *Cities and Suburbs*.
5. Robert Atkinson, "Understanding the Offshoring Challenge", Washington, Progressive Policy Institute, 2004.