People-based Economic Development Strategies: Regional Development Imperatives in the Innovation Economy

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Introduction[i]

We are living in an economic era vastly different than our ancestors. In the 19th century, the United States was an agrarian society that derived its wealth from natural resource extraction. Today, according to research by Professor Michael Porter, less than 1% of all jobs in the United States are tied to a geographically specific natural resource. In the 20th century, the US led the worldwide industrial revolution and became a great producer of machines and manufactured products. Today, manufacturing represents less than 15% percent of US national economic output and continues to decline in significance. In its place has arisen an economy based on service industries, led by growing sectors like telecommunications, information technology, and biosciences.

In this "new" economy, the predominant source of prosperity has shifted. Consider the basic economic formula that wealth is a function of land, labor, and capital. If in the 19th century land was the most valuable component, and in the 20th, capital goods were the most valuable, in the 21st century, it is labor, or human capital, which predominates. Today, the value of labor stems not from our ability to perform physical tasks, but from our intellectual capacity. Skilled people, not computers or raw silicon, are the fundamental source of the innovation that drives the economy.

This shift has created a new set of challenges for regional economic development. Responding to those challenges, this paper suggests five imperatives for regions hoping to improve the prosperity of their citizens.

Focus on Building Talent, Not Attracting Companies

The old regional economic development paradigm was characterized by communities chasing "smoke stacks." Regions competed for company relocations and expansions of major industrial sites by offering competing incentive packages, typically based on free land, tax abatements, and subsidized capital equipment purchases. In a world which company site selection was driven by primarily by cost considerations, such strategies made sense.

The world has changed. First, there are fewer smoke stacks to chase. In the US, there are only about 1500 major industrial operations located per year, as many firms move manufacturing abroad. In their place, many service industry operations are expanding. For these companies, expansion decisions are primarily about access to markets and a skilled workforce, not land and financial incentives. In a survey conducted by ontheFRONTIER for the US Council on Competitiveness in 2000-2001, over 500 firms from five diverse metro areas were asked to name the biggest threat to business

expansion in their region. The top barrier, mentioned by over 59% of the respondents, was an insufficient supply of skilled labor.

Even when industrial firms locate manufacturing plants, access to skilled labor and broader market characteristics can play a deciding role. A good example is Toyota's recent decision to locate a truck manufacturing facility in San Antonio, Texas instead of Marion, Arkansas. While the Arkansas site offered better access to the national rail and transportation infrastructure and a more financially attractive incentive package, the carmaker still chose San Antonio. Toyota based its decision on access to San Antonio's larger skilled workforce pool and its desire to be in an area that would help it tap into the Latin American market.

The new challenge for regions, then, is to improve at helping firms source and retain talent. This challenge has spurred a variety of responses. Like San Antonio, many regions are expanding and customizing workforce development programs. The Austin, Texas and Washington, DC Chambers of Commerce have designed multi-media marketing campaigns aimed at attracting skilled IT workers to their regions. In contrast to traditional recruitment strategies, these efforts are aimed at individuals, not companies. In Georgia, the state government, along with a group of six private and public research universities, has created the Georgia Research Alliance to attract top research professors to the state. This taxpayer funded effort provides additional salary and laboratory construction budgets—up to a million dollars— to individual professors who the universities believe will attract top grad students and generate company spin-outs.

Develop Local Talent before Attracting Outside Talent

Georgia is not alone in focusing on attracting star quality professors. Universities throughout the country, often supported by special state grants, are gunning for the same research talent. And while the recent US economic downturn has slowed the trend, engineers and top managers in targeted industries are still able to command salary premiums as competing recruitment firms shop their resumes to eager employers. Instead of smoke stack chasing, we are seeing more and more talent chasing.

From a regional perspective, this trend may actually be more dangerous than traditional industrial recruitment battles. While many regions have overpaid for the benefits of an industrial plant, at least the plants can't just pack up and leave at a moment's notice.

This presents a core challenge for regions. How can they ensure the continued existence of a large, qualified local talent base?

One answer is to invest in developing a skilled workforce that draws from the pool of labor *already in the region*. In the short term, this means developing a strong set of workforce training programs that are flexible to the needs of local employment sectors, and increasingly to individual firms. Through community colleges and local universities, regions can offer a variety of training and job placement support that serve the needs of regional companies and workers.

Building a strong educational system at the K-12 level can create even greater value by providing a source of labor-related differentiation from other regions. In our country of failing public schools, cities that graduate a large number of high school students capable of performing entry-level jobs are increasingly rare. Making public schools work for local residents has a number of important economic benefits. In terms of direct expense, there will be a reduced need for investment in post-high school workforce training. One also can expect less loss of talent to other regions as residents who grew up in the region remain due to their family and community ties. Finally, for regions concerned with social equity, a strong educational system is the best way to provide equal opportunity to individuals of all races and social backgrounds.

Regions and states have addressed this issue in a variety of ways. In Georgia, the state created the Hope Scholarship program, which offers a full scholarship to Georgia students who held a B average in high school and continue to hold a B average while attending a state college or university. In Austin, the city government, the local newspaper, the chamber of commerce, the largest workforce development agency have partnered to develop a series of industry-specific training programs targeted at the low income population in the region. In the State of Washington, the state government has mandated that all state community and technical colleges develop training programs in partnership with regional employers.

Protect and Improve Regional Quality of Life

Another way to address the challenge of building a talent base is by making sure talented people *want* to live in your region. As Denver mayor Wellington Webb argues, the key to a city's future is " attracting highly talented people…and the key to attracting those people is a high quality of life."[ii]

Until a few decades ago, talented people would identify the most innovative (and high-paying) companies and seek jobs wherever these companies were located. So, for example, a brilliant electrical engineer would graduate from MIT and then work for IBM in Armonk, New York or Kodak in Rochester. Today, that same MIT graduate is much more likely to pick the town in which she wants to live, and then look for employment. If the job market is tight, she is increasingly likely to start her own firm than look to a community that doesn't offer the amenities she seeks. Leading companies like Hewlett Packard, Cisco, and Intel have noticed this trend and are expanding operations in desirable cities.

In regions throughout the US, quality of life concerns are rising in priority. In response to the Council on Competitiveness survey question about threats to regional growth, firm leaders listed the quality transportation infrastructure/traffic (49%) and the quality of K-12 education (35%) as the third and fourth most important concerns.[iii]

There is also a clear trend in the US toward a greater appreciation of the natural environment and outdoor amenities. Richard Florida, author of the influential book, *Rise*

of the Creative Class, argues that outdoor recreation activities like hiking and rock-climbing are more important to creative workers than traditional high culture.[iv] Mayors of big cities have taken notice. According to New Orleans Mayor Marc Morial, " Some people used to dealing with big policy debates might be saying 'ho-hum, the mayors want to build parks, 'but I can tell you its one of the most critical issues we face."[v]

Colorado Springs, Colorado and Boise, Idaho are examples of cities that have thrived due in large part to their attractive natural environments. Once towns highly dependent on natural resource extraction and tourism, both cities have successfully attracted a number of successful of computer and software firms.

Cultivate a Dynamic, Tolerant Culture

Like its natural environment, a region's cultural environment is also relevant to its economic success. Surprising research by Carnegie Mellon University doctoral student Gary Gates supports this finding. Using 2000 US Census data, Gates undertook an effort to determine which single regional characteristic was most highly correlated with high technology job creation over the decade of the 1990s. Gates looked at dozens of social, demographic, and geographic variables, including some obvious choices like the number of university graduates, number of patents granted, number of research centers, and number of high tech firms at the beginning of the period. It turns out the most highly correlated variable he found was the relative percentage of homosexuals in the population.

Gates posits that the relationship is not direct. Gays are not, in fact, disproportionally represented in the high tech work force. However, gays *do* disproporitionally live in communities that accept life style differences and embrace new ideas. So too do creative workers generally. As Florida concludes in his book, "regional economic growth is powered by creative people who prefer places that are diverse, tolerant and open to new ideas."[vi] Innovators seek places that offer the physical environment and cultural environment that supports creative thinking.

Recent work by the National Commission on Entrepreneurship has identified a series of traits that typify a regional entrepreneurial culture. Successful entrepreneurial regions support attitudes and norms that encourage risk-taking, welcome new residents to the business community, promote diversity and allow failed entrepreneurs to start again. Annalee Saxienan in her book, *Regional Advantage*, argues that the relative success of Silicon Valley versus the Boston area in becoming the US's largest innovation hub is explained in large part by the willingness of Silicon Valley entrepreneurs to share ideas and information.[vii] In contrast to the informal networks and fluid business relationships found in Northern California, Boston firms and institutions stifled growth by holding to traditional ideas around firm self-sufficiency, hierarchy and strict protection of intellectual property.

A less well understood aspect of culture is the link between traditional arts and cultural amenities and greater regional innovation. With so much recent focus on creativity and

innovation, there has been a reexamination of the role of artists and cultural providers in communities. Beyond the intrinsic value of arts for arts sake, how else can "culture" be an economic boon for communities?

One clear way is that culture contributes to the quality of life of a region. Cultural amenities, be they traditional institutions like the symphony, ballet, and opera, or less traditional assets like rock climbing parks, street festivals and the local live music scene, play an important role in attracting and retaining talented young workers. As we have argued, this is an increasingly important contribution to economic development.

A less certain relationship is one that directly links a region's arts and cultural vitality to its economic success. The theory is that regional firms will innovate more if they operate in an environment with many creative people applying themselves to traditional arts like music, painting, and architecture. While this link has not yet been proven, many regions in the US are embarking on efforts to identify how their cultural sectors can be used to spur regional innovation and job growth.[viii] Notably, San Jose/Silicon Valley, Boston, and Austin, three of the US's most successful regions over the 1990s, are presently engaging in such efforts.[ix]

Get Connected: Partnerships and Networks Are Required

Speed, flexibility, and customization are key traits of successful firms in the new economy. They are also traits of responsive and supportive government institutions. However, delivering specialized products and services quickly and flexibly is almost always beyond the capability of a single organization.

Even the largest global corporations, those with the size and scope to support traditional vertically integrated organizations, choose not to do so. Pfizer, now the largest pharmaceutical company in the world, has a multi-billion dollar research budget and its own major research facilities throughout the world. However they also rely on over 250 research partners. Microsoft has an army of sub-contractors to develop software. Every Toyota plant relies on hundreds of suppliers and service companies, many of which locate branch operations in close proximity to support the carmaker's just-in-time production philosophy. The increased dependence of firms on interconnected supplier and service networks is strengthening the trend toward clustering of industry sectors within geographic regions.

Urban economic developers need to recognize this trend and can assist development efforts by adopting policies that embrace the cluster concept and foster interaction of cluster members. San Diego, California offers an instructive case study.

San Diego, now home to one of the world's fastest growing bioscience clusters, did not take off until the creation of UC Connect, a University-based networking organization. While researchers at the Salk Institute and University of California San Diego (UCSD) labs were busily focused on discovery, few ideas were being spun off into companies. Despite the fact that capital and business support services were available from institutions

just across town, the academics on campus and the bankers downtown rarely interacted. UC Connect was formed in the mid-1980s to catalyze the commercialization process. Among its first efforts was to host a series of seminars under the "Meet the Researcher" and "Meet the Business Professional" banners. Working with the local chamber of commerce, city government, and private research centers, UC Connect facilitated the interaction of business, government, and academic leaders necessary to spur cluster growth.

The case of San Diego highlights a key aspect of urban economic development policy in the 21st century. City governments cannot work alone. Economic boundaries cross political boundaries, disregarding city limits, county lines, and state borders. Economic growth relies upon the interaction of various sectors: private, public, university, and non-profit. Political leaders who focus on protecting their turf or who believe politicians alone can solve economic development challenges will be ineffective.

In the United States, where federalism and local control have led to a variety of overlapping government jurisdictions, our historical legacy makes regional cooperation difficult. Consider the Atlanta, Georgia metropolitan area, which is facing serious traffic and air pollution problems due to its recent growth. Its roads and its air inhabit a region with over 200 governmental entities, few of which have a tradition of working together. It is no wonder that the Governor created a special agency to oversee the problem.

In Atlanta, the US, and the world, building partnerships across political and sectoral boundaries is no longer innovative, it is imperative. Regions will compete in large measure based on the strength of their clusters and networks that support innovation.

Conclusion

In today's world, the most important natural resource is not wheat, gold, or oil. It is people. As Stanford Economist Paul Romer has eloquently stated, the only form of capital with infinite potential returns is human capital. To realize those returns, regions must create an environment that nurtures the development of its citizens. This means providing education opportunities that help students build basic skills, use technology, and strengthen their capacity to innovate. It means creating a quality of life that encourages those students to stay in the region and attracts talented transplants. It means fostering a culture that rewards risk-taking, values meritocracy and tolerates a wide diversity of ideas and lifestyles. It means focusing economic development efforts on helping regional firms to incorporate technology and strengthening networks that support clusters.

These are a tough set of tasks. Accomplishing them will require an active partnership of leaders from all sectors of the regional economy. Regions that can create such partnerships, and the people who participate in them, will be richly rewarded.

End Notes

[i] This paper draws heavily from a previous version written by Randall Kempner and Michael Fairbanks.
[ii] Blueprint Magazine, September 1, 2000, available at: www.ppionline.org/ndol/print?contenid=2113
[iii] "Overall Cost of Doing Business in the Region" was the second most listed concern.
[iv] See Richard Florida, *The Rise of the Creative Class.* (New York: Basic Books, 2002)
[v] Ibid.
[vi] Florida, p.249.
[vii] See Annalee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge, Ma: Harvard University Press, 1994)
[viii] For a fuller explanation of this issue, see Kieran Healy, "What's New for Culture in the New Economy." *Journal of Arts Management, Law and Society*, (vol 32, No.2 Summer 2002), p. 86-103.
[ix] The City of San Jose has crafted a 20/21 Regional Cultural Plan. Boston is a major participant in the New England Council's Creative Economy Initiative. In Austin, the Mayor has recently convened a citizen task force on Creative Economy and Cultural Vitality.

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