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(This report is not for publication and is intended as a preliminary draft for discussion among economic development professionals, users of the economic development system, governmental officials and others. The goal is to conclude a final report for publication and distribution in spring 2004.)

Securing the Future: A Distinctive and Compelling Role for the Buffalo Niagara Region in the New Economy of the 21st Century

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Regional Economic Development Strategy



Institute for Local Governance and Regional Growth
University at Buffalo
State University of New York

Securing the Future:

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Foreword

This draft report presents a proposed Regional Economic Development Strategy for the Buffalo Niagara region of New York State. It has been prepared by the Institute for Local Governance and Regional Growth, University at Buffalo, The State University of New York, with the substantial assistance in time and perspective provided by a diverse group of economic development experts in the region.

The proposed strategy builds upon the preliminary Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) prepared as a part of this project in June, 2003 and, to a large extent, is also an outgrowth of a recent initiative of the Erie-Niagara Regional Partnership that issued a series of recommendations in December, 2002.

Moreover, this focus on economic development is being pursued in direct cooperation with the Framework for Regional Growth, a bi-county planning initiative of Erie and Niagara Counties. Similar to the Framework initiative, the geographic scope of this economic development strategy is the Erie and Niagara County area, but must be understood within the context of the larger Buffalo Niagara region, including eight Western New York counties and the Niagara region of southern Ontario.

I. Introduction

The purpose of this report is to propose an effective Regional Economic Development Strategy for the Buffalo Niagara region of New York State. It is drafted in recognition that the region currently faces an economic crisis. Indeed, the region's public sector faces overwhelming fiscal distress, as evidenced by a multi-billion dollar state deficit, the recent appointment of a financial control board for the City of Buffalo, and staggering local government health and pension costs. Also, recent studies suggest that economically Buffalo Niagara is one of the worst performing metropolitan regions in the country:

- Buffalo Niagara ranks **109th** out of 150 metro areas in Forbes 2003 "Best Places for Business and Careers" Study.¹
- The region ranks **31st** out of 50 U.S. metro regions (population over 1 million) in terms of its ability to compete in the new economy, according to the Metropolitan New Economy Index published by the Progressive Policy Institute.²
- In the Beacon Hill Institute "Metro Area and State Competitiveness Report," Buffalo Niagara ranks **49th** out of the top 50 metro areas based on an analysis of nine categories (government/fiscal policy; security; infrastructure; human resources; technology; openness/diversity; domestic competition; environmental policy).³

As one examines "turn around" scenarios in other regions of the world, it is clear that serious reform and substantial progress have often been prompted by genuine crises – frequently economic crises. Buffalo Niagara's present economic emergency creates a real and substantial foundation for a new, entrepreneurial approach to the region's economy and governance. It is a foundation that must not be squandered by inaction, fear or commitment to past norms and loyalties.

Fortunately, this effort is not pursued in the abstract and does not start from a blank slate. Numerous encouraging initiatives have been commenced in the Buffalo Niagara region, which are critically important parts of this proposed Regional Economic Development Strategy.

Such initiatives must be understood and pursued, however, within the context of a deliberate, coordinated strategy for regional growth that identifies a distinctive and compelling role for the region. This plan suggests that an effective strategy for pursuing such a role for the Buffalo Niagara region should be founded upon six new economy principles and focused upon four specific strategic goals. Moreover, special attention to five industry clusters within the Buffalo Niagara economy is recommended. These principles, goals and clusters comprise the heart of this report.

Trends in the New Economy

Clearly, the Buffalo Niagara region exists in an era of uncertainty, rapid change and technological advance. Many of these changes have been created by the new economy that has emerged over the past two decades. The new economy represents a shift from an industrial based economy to

¹ Forbes Magazine. "Best Places for Business and Careers 2003". Retrieved on September 10, 2003 from <http://www.forbes.com>.

² Atkinson, Robert D. and Paul Gottlieb. *The Metropolitan New Economy Index: Benchmarking Economic Transformation in the Nation's Metropolitan Areas*. Washington: The Progressive Policy Institute, 2001.

³ Houghton, Jonathan, and Corina Murg. *Metro Area and State Competitiveness Report, 2002*. Boston: The Beacon Hill Institute, 2002.

one founded on information and knowledge. The new economy is defined not by a set of new industries (the new economy is commonly equated with “high tech”), but rather by a set of changing economic trends permeating all sectors of the economy. These major economic forces, the foundation of this economic development strategy, include:

- 1) Globalization
- 2) Technological Advance
- 3) Knowledge-based Economy
- 4) The New Nature of Work
- 5) Innovation and Entrepreneurship
- 6) An Organizational Paradigm: the Network

Those sectors and regions that adapt to these trends will be successful; those that reject them will see their growth stifled.

Thriving in the New Economy

Traditionally the economic development community in Buffalo Niagara has relied upon firm-specific subsidies to attract new businesses to the region or fostering the growth of existing businesses. Subsidies, however, are common practice across the U.S., and therefore provide little competitive advantage for Buffalo Niagara. Indeed, if the region is to prosper in the new economy, it must complement its firm-specific subsidies with practices that promote growth in the new economy. Addressing the region’s approach to the following factors, which can either promote or stifle growth in the new economy, can assist the region in that regard:

- 1) Leadership Infrastructure
- 2) Laws, Regulations, Permitting Processes, Tax and Fiscal Policy and Regulatory Climate
- 3) Human Resources and Workforce Preparedness
- 4) Physical Conditions (e.g., shovel-ready sites; sensible municipal and county comprehensive plans)
- 5) Community Attributes
- 6) Technological Infrastructure
- 7) Business Formation and Support
- 8) Quality of Life

A Strategy for Regional Economic Development in Buffalo Niagara

In a recent SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the region, conducted in conjunction with this project, four areas of economic opportunity were identified for Buffalo Niagara. By focusing on these four areas within the context of new economy trends and factors that promote growth in today’s economy, the Buffalo Niagara region has the ability to become more competitive with other regions of North America.

The region should embrace **innovation and entrepreneurship**, countering its risk-averse tendency with support for product development and the formation of new businesses. Also, **quality of place** will be central in attracting a skilled workforce and new businesses. With the region’s service costs among the highest in the U.S., Buffalo Niagara must look to **entrepreneurial governance and regional stewardship** to build cross-sector, collaborative

relationships that improve the efficiency and effectiveness of the region's public services. Finally, rather than emphasizing firm-specific subsidies, the region's economic development community must begin focusing on providing critical resources for the **development of clusters** of synergistic businesses and activities, such as information technology and biomedical sciences. This strategy recommends focusing on the following economic clusters: life sciences, back office/professional support, advanced manufacturing, tourism and logistics.

Next Steps

Developing a vibrant, regional economy will create significant demands on the region, requiring new approaches and strategies. An inclusive, collaborative and entrepreneurial approach to economic development that is based on the principles of the new economy will help the region rise to the occasion and make the necessary commitment to compete with other regions in the U.S.

A goal of this report has been to set the stage for the creation of an economic development strategy for the region, but it is now imperative for the region to act upon the recommendations contained herein. The region must set the stage for growth in the new economy, adapting to economic trends in the 21st century and addressing how the region can change to thrive in this environment. This includes the support of entrepreneurial governance and small business development, enhancing quality of place, and focusing on strategic clusters of economic strength in Buffalo Niagara. To that end, 2004 must bring the beginning of implementation of this strategy on the part of economic development community and its support structure, including the region's social, political, educational and cultural sectors.

II. Regional Vision

Creating a crisp, compelling vision for any plan or organization is an essential but difficult task. The following is proposed as a vision for economic development in the Buffalo Niagara region:

A healthy, sustainable, and inclusive region achieved through the development and promotion of a coordinated regional economy focused on innovation, entrepreneurship, and quality of life and place.

Examples of alternative vision statements for regional economic development strategies are listed in Appendix A. It is recommended that all these possibilities be reviewed for the closest fit with the distinctive goals and challenges of the Buffalo Niagara region.

III. The New Economy

A. Trends in the New Economy

Today is an era of economic uncertainty and rapid change for many regions, including Buffalo Niagara. And while many regional economies in the early 21st century prosper – teeming with new construction, new job opportunities and cutting-edge firms – others founder, unable to retain, create or attract the kinds of firms necessary to sustain a regional economy.

Those regions with thriving economies typically have adapted to the new economy that has emerged over the past two decades, shifting from industrial-based economies to those founded on information and knowledge. This shift is having a profound effect on the way people live and work today. It is within the context of this new economy that a Regional Economic Development Strategy is proposed for the Buffalo Niagara region. It is important to understand that manufacturing – the economic engine of the region for more than a century but now representing only about 15 percent of the region's employment base – should remain a genuine economic strength of the region. Indeed, the pursuit of a new economy does not abandon that base, but deliberately expands beyond our industrial heritage while considering the following new economy trends:

Globalization. The idea that industries and regions operate in a global economy is now an accepted assumption of economic development. Globalization is not just an incremental change in international trade but a pervasive transformation of the world economy, affecting every aspect of economic life. For the first time in history, anything can be made anywhere and sold virtually everywhere. Firms are being forced to produce each component of their product and/or service in a cost-effective manner in order to compete on a global stage. As a result, there cannot be any sentimental attachment to geography. Firms will go wherever they must in order to find the competitive advantage necessary to succeed globally.

This shifting of functions and assets to areas of lower cost is a threat to regional economies in industrialized nations. At the same time, however, the opening of new world markets represents opportunities for expansion and diversification. Clearly, export, import and joint ventures create exceptional opportunities for growth and exchange of knowledge. A region must connect itself to world labor, supply and knowledge networks in order to prosper. Furthermore, the removal of trade barriers to facilitate world commerce has paved the way for smaller firms to become international traders. In the past, when international trade was more regulated, only large corporations could afford the cost of navigating through the myriad rules, regulations and bureaucracies of exporting. Today, small and medium sized firms have relatively easy access to global markets and capital. This presents another opportunity for many more firms to compete globally.

Technological Advance. Advances in technology, including telecommunications, biotechnology, nanotechnology and alternative fuels, will continue to drive the new economy. Technology and technological acumen is not an end in itself, but a means to productivity gains, profitability and a higher standard of living. Regions that can stay in front of the emerging waves of technology can create a competitive advantage for themselves in competition with other regions of the world.

Many mark the beginning of the new economy with the introduction of the personal computer and the breakup of the Bell System in the early 1980s. Personal computing and the deregulation

of the telecommunication industry triggered a flurry of entrepreneurial activity across the globe and made possible the explosive growth of the Internet. The Internet has, in turn, made the transfer of information and intellectual property seamless and has further advanced globalism. In addition to the development of personal computers and the emergence of telecommunications, progress in the areas of biotechnology, nanotechnology and alternative fuels also have significantly affected the global economy. Regions throughout the world are beginning to position themselves competitively as these new technologies progress. Measuring a region's strengths and weaknesses in relationship to these technologies is a critical first step in determining the role that the region may play in the future.

Knowledge-based Economy. The new basic economic resource is no longer capital, natural resources or labor, but the knowledge housed in individual workers. As opposed to the industrial economy of the 19th and 20th centuries, when industries located near raw materials, their markets, or along navigable waterways or other means of transportation, industries today rely on access to a workforce with cutting edge knowledge. Thus, while globalization has eased geographic restrictions for firms, the importance of access to knowledge workers has made geography a critical factor in a firm's decision-making process.

Moreover, the importance of "place" to the knowledge worker has elevated the importance of a region's quality of life in terms of an economic development strategy. School quality, level of commitment to education and skills development, availability of cultural and recreational amenities and cost of living are just a few of the factors knowledge workers consider when deciding where to live. Buffalo Niagara must make improving its quality of place a key component of its economic development strategy.

The New Nature of Work. The nature of work in the U.S. has changed. With the rise of global competition, lifelong employment is no longer a guarantee. Downsizing, re-engineering, bankruptcies, mergers and acquisitions are common in today's economy. Moreover, automation, international competition and an emphasis on intellectual property and knowledge have contributed to the downsizing of the manufacturing sector. More than half of the U.S. workforce was engaged in manufacturing fifty years ago, compared to approximately 17 percent today. The service sector has taken over as the dominant industry, employing over three-quarters of the U.S. workforce. The world export of services and intellectual property now equals that of electronics and autos combined.⁴

Workers in the constantly evolving new economy can only maintain their value by committing to life-long learning and skills development. For communities or regions, creating a culture that values education and change is the only path toward sustainability in an ever-changing world.

Innovation and Entrepreneurship. The rapid pace of change in the new economy has given small and medium sized firms opportunities to compete with larger, better-capitalized firms. Today, over 50 percent of U.S. exports are created by companies with fewer than 19 employees. Furthermore, over 700,000 firms are created in the U.S. annually, and approximately four percent of those firms (commonly referred to as gazelles) create over 60 percent of all new, net jobs.⁵ Innovation and entrepreneurship are critical to the sustainability of the U.S. economy as well as regional economies.

⁴ Toffler, Alvin. *Creating a New Civilization: The Politics of the Third Wave*. Atlanta: Turner Publishing, Inc., 1995.

⁵ Frattaroli, Christopher. "Entrepreneurs: The Driving Force Behind the Economy." Retrieved on September 24, 2003 from <http://www.crossroadsgroup.com>.

Economies of speed have replaced economies of scale. Constant innovation is needed to compete. Younger, more aggressive companies replace the weaker, less adaptable ones. Just as companies need to commit to a continual renewal of products, systems, processes, markets and people, so too must communities. Regions must learn to understand the renewal process and create a climate that is entrepreneurial and supportive of innovation and change.

The Network: An Organizational Paradigm. The new economy is characterized by the rise of the network as the predominant organizational form. Networking represents a radical rethinking of the nature and functioning of the organization and the relationship among organizations. Networks enable small firms to overcome the advantages of larger firms such as economies of scale and access capital. At the same time, large firms benefit from smaller firms in terms of outsourcing, joint venture partnerships and strategic alliances that put the firm in touch with markets it may otherwise miss.

Regions can encourage the development of networks by creating a habitat for clustering that enables firms to share a specialized workforce, suppliers, customers, information infrastructure, technology and on-going research at local colleges and universities. The ease and speed of sharing these resources gives the region providing them a genuine competitive advantage in the new economy.

B. Thriving in the New Economy

Economic development practices in the Buffalo Niagara region have been based upon the traditional approach of providing firm-specific subsidies in order to compete with other regions of the country. The subsidies typically take the form of revenue bond financing, local and state tax abatement, below-market rate loans, loan guarantees and workforce training funds. Due to the high costs of doing business in New York State and locally, the region has very little choice but to do so. These subsidies are available in virtually every region of the country, thereby providing Buffalo Niagara with little if any competitive advantages. In other words, firm-specific subsidies are necessary but not sufficient for fostering regional economic development.

If the region is to prosper in the new economy, it must begin to diversify its approach to economic development, complementing subsidies with broader, long-term strategies and practices that foster growth. The following eight factors significantly influence today's businesses in making decisions about where to locate or expand. Buffalo Niagara must address its approach to these issues to determine whether its environment is one that encourages or stifles growth in the new economy.

Leadership infrastructure. Innovative and rapidly growing firms look for public and private leadership with the commitment and political will to resist the status quo. A region's leadership should have a clear, aggressively vision for shaping the future. Indeed, a region's long-term success is determined by its leadership infrastructure.

Laws, regulations, permitting processes, tax and fiscal policy and regulatory climate. The ease with which firms can do business within the region plays an important part in their decision on where to locate or expand their business. The need to innovate, to contract and expand facilities, to obtain permits quickly, and to expedite applications for assistance are critical to these decisions.

Human resources and workforce preparedness. A critical asset for any region is a workforce equipped with the specialized skills to both develop clusters of firms in emerging businesses and

apply new technologies and skills. Training programs designed specifically to foster industry clustering will also provide a competitive advantage for the region.

Physical conditions. A firm's expansion or relocation plans are significantly expedited by the availability of shovel ready sites, access to legal tools such as deed restrictions and covenants, clear and consistent design standards and zoning ordinances, and sensible municipal and county comprehensive plans.

Community attributes. A community's attitude, work ethic, business climate and level of support are all critical factors in a firm's decision to locate or expand there. Attractive regions are typically optimistic about the future, understand the new economy and are future-oriented. These attributes are determinants in attracting knowledge workers as well as the firms that employ them.

Technological infrastructure/acumen. The area's technological infrastructure includes capital investments (e.g., development of a fiber optic network) as well the intellectual infrastructure of the region. The presence of strong and well supported universities and colleges, library systems and secondary educational institutions are indicative of a forward-thinking, future-oriented region. Regions willing to invest in these resources will be more competitive in drawing new businesses and growing economically during the 21st century.

Business formation support. Resources that foster new business formation are critical to all sectors, particularly technological clusters. Regions with incubators, entrepreneurial development programs, available venture capital and other sources of capital, and new business support services are most likely to promote this important type of economic growth.

Quality of Life. When businesses in today's economy determine where to locate or expand, quality of life is top on their list of criteria, as this is what attracts a highly educated, highly skilled workforce. Buffalo Niagara must build on its quality-of-life strengths, including educational institutions, premier cultural assets, high quality, low cost housing and a well developed transportation infrastructure, while mitigating or eliminating our weaknesses in this regard.

IV. A Strategy for Regional Economic Development in Buffalo Niagara

A. Introduction

The four areas of opportunity identified by the SWOT analysis conducted in conjunction with this project must now be strategically pursued in the context of the new economy. By focusing on these areas of opportunity, the region has the ability to become competitive with other regions of North America. These areas of opportunity point to four strategic goals for Buffalo Niagara:

Goal 1: In order for the region to be competitive in the new economy, it must **embrace innovation and entrepreneurship and focus on those elements that will encourage and support innovators and entrepreneurs in the formation of new businesses and product development.** Steps must be taken to change the conservative and risk-averse culture that currently exists within the region. Furthermore, the region must become more tolerant and open to diversity in order to retain or attract the creative class that has propelled other regions of the country into the new economy.

Goal 2: In the new economy, **firms must locate where their potential workforce – people possessing competitive skills and knowledge – already lives or would want to live.** Thus place making, enhancing the region's quality of life and its urban, suburban and rural neighborhood centers becomes a key economic development strategy.

Goal 3: Encourage the development of an entrepreneurial approach to governance. The region's service costs are among the highest in the U.S., in large part due to the region's traditional approach to governance. The region has the opportunity to develop an entrepreneurial approach to governance and customer service in order to bring the cost of public services in line with the rest of the nation. A model for success can be found in a new type of leadership emerging in the new economy. Regional stewards in other regions are building relationships between various sectors and jurisdictions to develop a long-term vision for the region and to forge collaborative models for complex problem solving. Inclusionary, catalytic leadership is an economic development imperative.

Goal 4: Shift the economic development paradigm from one emphasizing firm-specific subsidies to one based on providing the resources that are critical to **cluster development and regional revitalization.**

B. Goal One – Innovation and Entrepreneurship

1. Embracing Innovation and Entrepreneurship

The economic development strategy for the region should address all of the elements necessary for encouraging innovation and entrepreneurship in order to create new firms and assist existing industry in making the transition from an industrial-based economy to one based on information and knowledge.

The U.S. economy is undergoing a transformation driven primarily by entrepreneurs who create opportunity for change and build new companies based on innovation and global markets. Since

1980, the United States has added 34 million new jobs despite the fact that Fortune 500 firms lost more than 5 million jobs during that same period.⁶

Each year, at least 700,000 new businesses are started in the U.S. and a small portion (approximately four percent) turn out to be fast-growing firms that significantly propel the economy forward.⁷ These high-growth firms, commonly called “gazelles” generate about 60 percent of all net, new jobs in our national economy.⁸

The National Commission on Entrepreneurship has devised a measurement tool called the “Growth Company Index” which measures the ratio of high growth firms (at least 15 percent growth per year for five years) with all firms started in 1992 or 1993 that had at least 20 employees by 1997. The GCI for Buffalo Niagara is 77, with 100 being the national average. In comparison to other comparably sized regions, Phoenix had the highest GCI of 197; Salt Lake City - 196; Dallas - 195; Atlanta - 190; Grand Rapids - 171; Cleveland - 156; and, Pittsburgh - 98. In fact, the only regions having a lower GCI than Buffalo Niagara are Tampa, West Palm Beach, Albany, and Syracuse.⁹ In order for this region to effectively compete in the new economy and to successfully develop clusters of new economy businesses and workforce, it must embrace innovation and entrepreneurship and focus on raising its Growth Company Index.

It is therefore recommended by the National Council on Entrepreneurship that the region focus on the following characteristics:

- Diversifying sources of capital;
- Creating an enabling culture;
- Developing strong local networks;
- Developing a supportive infrastructure; and
- Creating an “entrepreneur-friendly” government.

Diversify Sources of Capital. While many studies emphasize the importance of venture capital in encouraging entrepreneurship and the creation of new businesses, venture capital is but one indicator of an entrepreneurial region. In 1999, fewer than 4,000 of the 700,000 new businesses started had any venture capital support.¹⁰ It is important to note that 26 percent of all new starts had less than \$5,000 and that the average funding at inception was only \$25,000.¹¹

To become an entrepreneurial region, Buffalo Niagara must continue to develop diversified sources of capital through the following means:

- Expand its small network of “angel” investors;
- Find new sources of seed, or early-stage capital;
- Encourage a more flexible, less risk-averse banking system;
- Encourage the creation of new public-private partnerships;
- Create or expand state and regional venture funds; and
- Seek and encourage additional venture capital.

⁶ Frattaroli, 2003.

⁷ Ibid.

⁸ National Commission on Entrepreneurship. *Five Myths About Entrepreneurs: Understanding how Businesses Start and Grow*. Washington: National Commission on Entrepreneurship, 2001.

⁹ National Commission on Entrepreneurship. *High Growth Companies: Mapping America's Entrepreneurial Landscape*. Washington: National Commission on Entrepreneurship, 2001.

¹⁰ National Commission on Entrepreneurship, 2001.

¹¹ Ibid.

Create an Enabling Culture. In regions considered entrepreneurial hotspots, company founders point to several characteristics as indicators that their areas were supportive and future-oriented. Developing an entrepreneurial culture consists of at least these five attributes:

- A shared, regional vision regarding the future;
- Supportive “anchor” companies;
- A commitment from local entrepreneurs to give back to the community;
- Openness and diversity; a region not dominated by an “old boy’s network”;
- Optimistic leadership with a positive attitude toward the future;
- Leadership that embraces collaboration and change.

Form Strong Local Networks. The region needs a wide array of formal and informal opportunities for networking in order to link entrepreneurs to sources of capital, new employees, strategic alliance partners and service providers such as lawyers, accountants, and consultants. The Buffalo Niagara region has many diverse and outstanding organizations that can provide significant networking opportunities. Wherever possible, the opportunities should be continued and expanded.

In addition to strong networking opportunities, the region must concentrate on providing an efficient and effective formal support system for entrepreneurship. The region must concentrate on enhancing the effectiveness and contribution of the following:

- A core of service providers: lawyers, accountants, and consultants well versed in the concerns of entrepreneurs;
- Business incubators developed for the specific needs of various types of start-ups;
- State of the art telecommunications infrastructure;
- An outstanding array of colleges and universities;
- An enhanced technology transfer process; and
- The region’s Entrepreneurial Service Network.

Foster an Entrepreneur-Friendly Government. In general, there is a culture clash between entrepreneurs and governments. Entrepreneurs move quickly and emphatically, are willing to take calculated risks, and are not afraid of failure. Governments move slowly and are risk-averse. In order to bridge that gap, government must learn to move more quickly and be more flexible. Additionally, public officials should celebrate entrepreneurship and encourage all public employees to act more entrepreneurial in dealing with all businesses in the region.

2. The Region’s Innovation and Entrepreneurship Strengths

The seeds for innovation and entrepreneurship exist in the region. Buffalo Niagara’s primary innovation and entrepreneurship strengths rest in the region’s university network. The Buffalo region has a wealth of higher education institutions, including the University of Buffalo, the flagship institution of the SUNY system and a major research center, and excellent smaller liberal arts colleges such as Canisius College and Niagara University. Research and development, which yields new product innovations and adds to the knowledge base of industry and the marketplace as a whole, is a key driver of economic growth. Both PPI and Beacon Hill rank the Buffalo MSA in

the top 15 MSAs in Academic R&D funding.¹² Likewise, The Buffalo MSA ranks 7th out of the 50 largest MSAs in National Institute of Health funding dollars per capita.¹³

The Buffalo MSA has a relatively large number of the population enrolled in degree granting institutions, which is an indicator of an educated workforce.¹⁴ An educated workforce is critical to increasing productivity and fostering innovation. Knowledge workers are important not only because the principal factor determining where high-tech firms locate is an adequate supply of skilled labor, but also because their presence boosts incomes. Entrepreneurs are more likely to have higher levels of education, and as entrepreneurial start-ups become more important to a region's economic success, having more knowledge workers increases entrepreneurial activity. PPI ranks Buffalo 18th in workforce education.¹⁵ Also, both PPI and Beacon Hill rank the region 4th in degrees granted in scientific and technical fields as a share of the workforce.

3. The Region's Innovation and Entrepreneurship Weaknesses

Buffalo Niagara's innovation and entrepreneurship weaknesses are linked to the inability of the region to capitalize on academic research being conducted at various universities, failure to hold on to young, educated individuals, and its inability to promote entrepreneurship. A key issue that was identified at Technical Advisory Committee meetings was the inability of the region to retain a critical mass of young, skilled labor.¹⁶ Those that do choose to stay are often underemployed.

There are several statistics that point to the region's inability to promote entrepreneurship and innovation. Steady growth in employment masks the constant churning of job creation and destruction, as less innovative and efficient companies downsize or go out of business and more innovative and efficient companies grow and take their place. This churning has accelerated over the last three decades as the number of new start-ups and existing business failures per year has grown. While such turbulence increases the economic risk faced by workers, companies, and even regions, it is also a major driver of economic innovation and growth. The Buffalo-Niagara Falls MSA has a relatively low number of new startups and failures, an indicator of job churning.¹⁷

In the last two decades, financial markets have embraced entrepreneurial dynamism. The number of initial public offerings (first rounds of companies' stock sold when they make their debut in public markets) has risen by 50 percent between the 1960s and the 1990s. IPOs are important because they indicate the degree to which an economy is producing companies that have long-term and substantial growth potential. Buffalo is tied for last out of 50 MSAs in the number of companies' initial public stock offerings as a share of gross metropolitan product.¹⁸ In relative terms, venture capital amounts to a small share of the overall capital markets, but its value goes beyond a simple dollar figure. Venture capital spurs growth at the critical early stages of growing companies' development. Moreover, venture capitalists don't just throw their money at start-up companies hoping to get lucky and pick a winner. They become involved as board members and management advisers, suggesting strategic partnerships and helping to refine business plans. Buffalo is ranked 37 out of 50 in venture capital invested as a share of gross metropolitan product.¹⁹ The creation of new firms is critical in the new economy and innovation and

¹² Atkinson, 2001 and Haughton, 2002

¹³ Haughton, 2002

¹⁴ Ibid.

¹⁵ Atkinson, 2001

¹⁶ Institute for Local Governance and Regional Growth, 2003.

¹⁷ Atkinson, 2001

¹⁸ Haughton, 2002

¹⁹ Ibid.

entrepreneurship. Between 1998-1999, the robust years of the recently deceased economic boom, Buffalo created negative 28.6 firms per 100,000 in the population.²⁰

4. Fostering Entrepreneurship

Annually, over 700,000 new businesses are created in the United States and a small portion of those new businesses, approximately 4 percent, create about 60 percent of all net, new jobs.²¹ This small majority of firms, called “gazelles”, are high-growth firms that are propelling the economy forward.

The National Commission on Entrepreneurship has devised a measurement tool called the “Growth Company Index” (GCI) that measures the ratio of high-growth firms with all firms started in 1992 or 1993 that had 20 employees by 1997. The GCI for the Buffalo Niagara region is 77, placing the region above only West Palm Beach, Tampa, Albany and Syracuse.²²

In order for the region to be competitive in the new economy, it must embrace innovation and entrepreneurship and focus on those elements that will encourage and support innovators and entrepreneurs in the formation of new businesses and product development. Steps must be taken to change the conservative and risk-averse culture that currently exists within the region. Furthermore, the region must become more tolerant and open to diversity in order to retain or attract the creative class that has propelled other regions of the country into the new economy. While other elements are also required to encourage new business formation such as access to capital and a supportive infrastructure, an enabling culture is the prerequisite for innovation and entrepreneurial development.

²⁰ Ibid.

²¹ Frattaroli, 2003.

²² National Commission on Entrepreneurship, 2001.

C. Goal Two – Quality of Place and Economic Development

1. The Role of Quality of Place in Developing a New Economy

For thousands of years cities and regions have been shaped by how the economy functions. Different economic eras possessed different bases of competitive advantage, which shaped where and how people worked and profoundly molded the physical form of both cities and their surrounding regions (see Table 1.3). As society enters the era of the new economy this progression is again taking place. The new economy is about speed and flexibility and is developing in an age of rapid advancement in technology, particularly communication technology. Many argue that this new economy will create a physical environment that is extremely dispersed, with urban settlements functionally obsolete. In this vision, knowledge workers work from home and, because of technology, “home” is anywhere – perhaps a farm in Saskatchewan or a villa in Tuscany. The people that argue this scenario have only scratched the surface of how the new economy’s basis of competitive advantage really works.

As Richard Florida of Carnegie Mellon University states, perhaps the greatest of all new economy myths is that “geography is dead.”²³ Cities and the regions that surround them are not obsolete. In fact, cities and regions are vitally important components of the new economy and the development of industry clusters. Quality of place is essential for building thriving economic regions today that can attract knowledgeable and skilled human resources – the most important asset for competitive advantage in the new economy. As Florida puts it, “regional economic growth is driven by the location choices of creative people – the holders of creative capital – who prefer places that are diverse, tolerant, and open to new ideas.”²⁴

Geography and quality of place are also important in that members of this “creative class” need access to one another for formal and informal networking. The physical, social, cultural and intellectual assets of a region can help to attract and hold intellectual capital, as well as stimulate networking and small business collaborations and growth.

So, what do the knowledge workers who fuel the new economy value in the places where they live and work? What people want today is different from what their parents wanted. Workers in the new economy are not moving to these places for traditional reasons. According to Florida: “The physical attractions that most cities focus on building – stadiums, freeways, urban malls and tourism and entertainment districts that resemble theme parks are irrelevant, insufficient or actually unattractive to many workers in the new economy people.”²⁵ Researchers at the James Irvine Foundation and Florida have both researched these questions, concluding in two separate but mutually reinforcing studies that workers in the new economy value:

- Economic Regions/Thick Labor Markets; Distinctive Quality of Life/ Lifestyle/ Authenticity;
- Vital Centers/Social Interaction;
- Choices for Living and Working;
- The Natural Environment; and
- Diversity.

²³ Florida, Richard. *The Rise of the Creative Class*. New York: Basic Books, 2002.

²⁴ Ibid.

²⁵ Ibid.

Table 1.2: Comparing Economic Eras*				
	BASIS OF COMPETTIVE ADVANTAGE	WHERE WE WORK	HOW WE WORK	PLACE
Knowledge Era (1990s-future)	Flexible Specialization	Variety	Variety Integration	Integrated Region
	Knowledge	Large, decentralized companies	Portfolio workers	Economic regions
	Quality	Fast-growth “gazelles”	Reintegration of work and home	Distinctive quality of life
	Speed	Home-based businesses		Vital centers
	Flexibility	Independent contractors		Choice for living and working
	Networks			Speed and adaptability
				Natural environment

Industrial Era (1940s-1980s)	Mass Production	Factory Model	Certainty, Separation	Dispersion and Isolation
	Low Cost	Large organizations, vertically integrated	Hierarchy	Subdivisions
	Quantity		Distinct workplaces	Technology Parks
	Stability		Separation of work and home	Office parks
	Capital Equipment		Single career path	Greenfield plants
	Control		Lifetime employment	Shopping centers
Early Industrial Era (1880s-1930s)	Small-Scale Production	Crafts	Separation	Connected, walkable places
	Expertise	Craftspeople	Separation of work from home	Walkable neighborhoods, towns, and villages
	Quality	Midsize companies		City centers
	Customization			Factory-gate neighborhoods
				Streetcar/railway suburbs
Agricultural Era (Pre 1880s)	Manual Labor/Weather	Small Scale Farms	Integration of work and home	Independent towns and villages

* From: Henton, Doug and Kimberly Welsh. *Linking the New Economy to the Livable Community*. Irvine CA: The James Irvine Foundation, 1998.

Economic Regions/Thick Labor Markets. The region has replaced the nation-state or “citistate” as the primary source of economic development, largely due to the changing nature of work.²⁶ Regional economies are vital because they can support the industry clusters, which have become essential characteristic of the new economy and key attraction for a highly skilled workforce. Indeed, the presence of clusters of firms is important to new economy workers, who look for mobility, and therefore synergy and vitality, within their sector of employment. For instance, when Florida asked focus groups about the importance of employment the participants repeatedly said they were not looking for just a single job but for many employment opportunities.²⁷ Also, workers in the new economy do not expect to stay with the same company indefinitely; today’s careers are horizontal and not vertical and it is common for employees to jump from firm to firm. The key to economic growth then is to cultivate and attract this highly trained base of “knowledge workers” and simultaneously facilitate the growth of the industry clusters in which they seek employment.

Distinctive Quality of Life/Lifestyle/Authenticity. People are more essential as assets of the new economy than of the old economy, and is the basis of the central role quality of life plays in economic development today.²⁸ People, particularly skilled workers and entrepreneurs of the new economy, choose to live in places that offer both career opportunities and an attractive lifestyle. Distinctive quality of life is often weighted more heavily than employment when choosing where to live.

The lifestyle for workers in the new economy needs a mix of recreational and entertainment options. Due to the nature of modern work, which is typified by flexibility and unpredictable work schedules, employees want ready access to entertainment and recreation on a “just-in-time”

²⁶ Pierce, Neil. *Citistates: How Urban America Can Prosper in a Competitive World*. New York: Seven Locks Press, 1994.

²⁷ Florida, 2002.

²⁸ The James Irvine Foundation. *Linking the New Economy to the Livable Community*. Los Angeles: The James Irvine Foundation, 1998.

basis.²⁹ To satisfy diverse lifestyle demands regions must provide a mix of distinctive entertainment and recreation options as diverse as the population. Those options include everything from bike trails to bars, from coffee shops to theaters.

Workers in the new economy value authenticity as a key aspect of quality of life. Authenticity can come from several aspects of a community – historic buildings, established neighborhoods, a unique music scene or specific cultural attributes.³⁰ Simply put, authenticity is the opposite of ubiquity. An authentic place offers real, unique, and original experiences.

Vital Centers/Social Interaction. The new economy values the vital centers of cities, towns, and neighborhoods. Clusters gain their power through the force of face-to-face creative collaboration or networking. The proximity and density of centers promote social interaction, which is a key component of networking. This is because centers contain venues for social interaction, including coffee shops, cafes, bookstores, and bars. Sociologist Ray Oldenburg defines these venues as third places.³¹ That is they are neither home (the first place) nor work (the second place). The less formal atmosphere of third places is the perfect networking environment.

As the economy decentralizes, small companies and small workgroups of larger companies fit more easily into city and town centers than large, vertically integrated corporations.³² Neither polluting nor dangerous, most new economy work does not need to be separated from other uses. Likewise, as the lines between home and work become blurred, mixed-use centers will become more attractive to people and necessary for clusters. Land use planning, zoning, and other regulatory controls must make cohesion of working and living more, rather than less, difficult.³³

Choices for Living and Working. The new economy values choice of places to work and live within regions and choice among regions.³⁴ Successful regions must provide choice because the demographics of the U.S. have diversified over the last thirty years. The population is living longer, getting larger, is more ethnically diverse, and is waiting longer to get married, or not getting married at all. All of these factors have led to the diversification of the U.S. population. These diverse segments, which have replaced the once largely homogenous U.S. population, can now choose among a variety of environments for living and working. Successful regions must provide choices for individuals of all the diverse segments of the population, for all stages of their lives. Regions must provide people with meaningful choices about where and how they live, recognizing that citizens have a wide range of needs, values and goals for themselves and their communities.³⁵

The new economy not only needs to provide choices for living, but also to provide quality choices for living in urban, inner ring, suburban and rural environments. Likewise, clusters must have quality choices in the variety of types of commercial and industrial space available throughout the region. It is foolish to suggest that all office space be funneled into downtown central business districts in the same way it is foolish to suggest that central business districts should be left to wither and die. This is a far cry from the social engineering moniker that critics often attach to

²⁹ Florida, 2002.

³⁰ Ibid.

³¹ Oldenburg, Raymond. *The Great Good Place*. New York: Paragon House, 1989.

³² The James Irvine Foundation, 1998.

³³ Ibid.

³⁴ Ibid.

³⁵ Fulton, William. *The New Urbanism: Hope or Hype for American Communities*. Cambridge: Lincoln Land Use Institute, 1996.

regional planning. As noted urban designer/planner Jonathan Barnett states, fixing the fractured metropolis is about improving the new city, restoring the old city and reshaping the region.³⁶

The Natural Environment. The new economy values the natural environment as an important quality of place asset.³⁷ Natural environments are valued for recreational opportunities as well as for natural beauty. Both aspects enhance a region's attractiveness. Natural environments can include managed parks, publicly owned open space preserves, waterfronts, and connections such as bike trails that link natural environments. Natural environments are not privately owned open space found in subdivisions that require one-acre lot minimums. Natural environments can be found in the shared open space that exists in conservation subdivisions. Successful regions such as Austin, Texas, recognize the importance of the natural environment by linking environmental goals to economic goals.

Diversity. The new economy values diversity. Workers in the new economy actually seek out places known for diversity of thought and open mindedness.³⁸ They look for signs of diversity including people of different ethnic groups and races, different ages, different sexual orientation, and alternative appearances. A diverse community is a sign of a place open to outsiders. As Richard Florida states,

“Creative minded people enjoy a mix of influences. They want to hear different music and try different kinds of food. They want to meet and socialize with people unlike themselves...A person's circle of closest friends may not resemble the Rainbow Coalition – in fact it usually does not – but he or she wants to know the rainbow is available”.³⁹

Diverse inclusive communities that welcome gays, immigrants, artists, and freethinking “bohemians” are ideal for nurturing creativity and innovation, both keys to success in the new economy.⁴⁰

Richard Florida and Gary Gates have examined the role diversity plays in attracting high technology firms. Their research results found a strong positive correlation between a metropolitan area's level of tolerance for a range of people, including gays; its ethnic and social diversity; and its success in attracting talented people, including high-technology workers.⁴¹ The study ranked the Buffalo Niagara region last in tolerance for gays and placed the region 48th out of 50th in a composite index of tolerance.⁴²

2. The Region's Quality-of-Place Strengths

The region possesses many of the strengths that are commonly cited in the numerous best region/best city lists published annually. The region's institutions of higher education as well as many of the region's public school systems are a quality of place strength. Overall the region has low housing prices. Traffic congestion is not an issue in the region. Buffalo Niagara has relatively low rates of crime. Cultural amenities such as the Albright-Knox Art Gallery and the Buffalo Philharmonic Orchestra are some of the most highly regarded cultural institutions in the country. The region has the luxury of being home to two major league sports teams, and has many quality

³⁶ Barnett, Jonathan. *The Fractured Metropolis: Improving the New City, Restoring the Old City, Reshaping the Region*. New York: Harper Collins Publishers, 1995.

³⁷ The James Irvine Foundation, 1998.

³⁸ Florida, 2002.

³⁹ Ibid.

⁴⁰ Florida, Richard and Gary Gates, 2001.

⁴¹ Florida, 2001.

⁴² Florida, Richard and Gary Gates, 2001.

year-round outdoor recreation opportunities. Indeed, Buffalo Niagara is finally realizing the importance of reopening its Lake Erie and Niagara River waterfronts to the public.

Parts of the region offer genuine authenticity. For instance, Buffalo Niagara, particularly Buffalo, is rich in historic buildings. From the Parkside neighborhood in Buffalo to Main Street in East Aurora, the region boasts many beautiful established neighborhoods. The music scene here is especially unique - Ani DiFranco's Righteous Babe Records in Buffalo, for example, is an enormous asset for the region. Similarly, the diversity of entertainment options available both in the theater district and throughout the region is a clear quality of place consideration.

3. The Region's Quality-of-Place Weaknesses

Perhaps the region's greatest quality-of-place weakness is its lack of a thick labor market in most high tech sectors. Downtown Buffalo and Niagara Falls are rarely described as vibrant, although a substantial body of work by the University at Buffalo's Urban Design Project is addressing downtown quality of place issues. Likewise, there are a few pockets of vital centers outside the central cities. Because of this, the opportunity for social interaction described by Florida and Oldenburg is minimal. The cost of retrofitting the vast majority of sprawling developments that have been built over the last thirty years in order to facilitate social interaction and make it attractive to firms and workers in the new economy is staggering. This region, like many regions, offers choices in living environments, but it is much harder to validate whether or not the choices of living environments being offered in the region are quality choices. The region cannot afford ubiquity.

Though the region offers a wealth of outdoor recreation opportunities, whether the region values its natural environment is a difficult question to answer. The loss of open space over the last thirty years while the overall population of the region has steadily decreased would suggest it does not. Outcry over loss of open space throughout the region is more often than not thinly veiled NIMBY sentiments over new housing or construction of any type. The region, largely segregated by race and income, is diverse but it does not value or embrace its diversity. The region was arguably the worst performing MSA in the Florida/Gates study examining the connection between technology and tolerance.

4. Fostering Quality of Place

“Keep your tax incentives and highway interchanges, we will go where the highly skilled people are.” – Carly Fiorina, CEO Hewlett Packard⁴³

A common phrase spoken among many economic development agencies, local governments and politicians is that regions must develop a positive business climate. The heart of a strategy focusing on quality of place is developing a people climate in conjunction with developing a business climate that focuses on cluster development.⁴⁴ Developing a people climate is a general strategy aimed at attracting people. As Richard Florida states,

⁴³ Evans, Bob. “Business Technology: Where The Skilled Folks Are.” Retrieved on August 8, 2003 from <http://www.informationweek.com>.

⁴⁴ Florida, 2002.

“Building a people climate entails remaining open to diversity and actively working to cultivate it, and investing in the lifestyle amenities that people really want and use often, as opposed to using financial incentives to attract companies, build professional sports stadiums or develop retail complexes. Whereas companies – or sports teams for that matter – that get financial incentives can pull up and leave at virtually a moment’s notice, investments in amenities like urban parks, for example last for generations.”⁴⁵

Because of the diversity of the American population, there is no one-size-fits-all model for a successful people climate. Strategies must appeal to many different groups and identify barriers to providing quality living and working choices in urban, inner ring, suburban and rural environments. We waste energy - intellectual energy - debating the merits of city-versus-suburb when both are necessary elements of a diverse and successful region. Our intellectual energy should be spent devising development strategies to provide a full range of living, learning, working and recreation environments.

In this new paradigm, the traditional economic strategies of tax relief and subsidies must be buttressed by an equal emphasis on education, entertainment, natural environment and cultural and social diversity. Quality of life, in this model, holds equal standing with the economic environment for any economic development strategy.

⁴⁵ Florida, 2002.

D. Goal Three – Enhance Entrepreneurial Governance and Regional Stewardship

1. Introduction

In *Regionalism on Purpose*, University at Buffalo Professor Kathryn A. Foster describes the formidable challenge of effective regional governance:

“Even if a region does manage to determine common ground and align on political approaches, most regions in the United States lack a polity – a multipurpose entity authorized and empowered to act on behalf of the metropolitan public good. Unlike the counties, cities and towns that comprise them, regions have no chief executive, no legislature, no constitution, no by-laws, no public hearings, no place for the buck to stop. Thus, regions must typically identify issues, set a vision, seize opportunities, thwart crises, deliver services, broker conflicts and establish and achieve goals without any formal structure or authority for doing so.”⁴⁶

The notion of “governance” – how people organize or come together to address common challenges – necessarily involves all sectors of the region, including private and nonprofit sectors, and is therefore not limited to the public or government sector. As indicated by Foster, that large multipurpose constellation of people, organizations and constituencies almost always lacks a formal structure to identify and pursue regional goals. A region must nevertheless attempt to organize and collaborate in a manner that allows and encourages the region to progress and to meet difficult challenges – in many areas but most definitely in a critically important area such as regional economic development.⁴⁷

The challenge for regions is establishing open, collaborative governance structures that can address regional issues, as well as embrace and provide a venue for citizen leaders or regional stewards to take part in regional decision-making. In essence, entrepreneurial governance is the structural framework, while regional stewards are the critical components within that framework. A new economy, entrepreneurial approach to governance is one piece required as an essential foundation for an effective Regional Economic Development Strategy. Many of the same principles of innovation, information, technology, networking and others that drive a new economy can and should also drive the effort to achieve entrepreneurial governance for Buffalo Niagara.

Regional stewards are leaders who are committed to the long-term well being of places. They come from both the public and private sector and from a range of income levels and ethnicities. They are integrators who cross boundaries of jurisdiction, sector and discipline to address complex regional issues. The Alliance for Regional Stewardship states that regional stewards,

“...see the connection between economic, environmental, and social concerns and they know how to ‘connect the dots’ to create opportunities for their regions. Regional stewards are leaders who combine 360 degree vision with the ability to mobilize diverse coalitions for action.”⁴⁸

⁴⁶ Foster, Kathryn. *Regionalism on Purpose*. Cambridge, MA: Lincoln Institute of Land Policy, 2001.

⁴⁷ Ibid.

⁴⁸ Alliance for Regional Stewardship. *Regional Stewardship: A Commitment to Place*. Denver: Alliance for Regional Stewardship, 2000.

Alliances, competition, supply networks – the synergy that makes industry clusters work – is not caged within municipal or even county boundaries. Clusters operate at the regional level. Likewise, the complex challenges clusters and regions face pay no attention to municipal boundaries. Because of this, both entrepreneurial governance and regional stewardship are vital to clusters. Regionally focused entrepreneurial governance can address complex multi-jurisdictional challenges that effect clusters. Regional stewardship requires that regional decision making be open to a much wider range of participation than was common practice in both government and business during the 20th century. Old-boy networks and power elites may have worked in an economy where capital was king. In the economy where knowledge really is power, the decision networks have to be open to many more players. This is the goal of developing regional stewardship as the preferred leadership structure.

2. Entrepreneurial Governance

Looking first at the public or governmental sector, in spite of progress in tax and regulatory reform in New York State over the past decade, New York businesses continue to face overwhelming obstacles to growth and prosperity. Tax rates, worker compensation costs, health care costs and the governance/regulatory environment, for example, present major disincentives for expansion and new investment in the Buffalo Niagara region and throughout the state. An entrepreneurial approach to governance, in keeping with principles of the new economy discussed throughout this report, is an essential part of the region's efforts to reduce and overcome these barriers to effective economic development and regional growth.

In the Buffalo Niagara region, nowhere is the need for an innovative, entrepreneurial approach more evident or important than in the effort to create a seamless, user-driven economic development delivery system. As noted above, the need for more effective governance, including all sectors of the economy and region, is not limited to economic development systems. There are common themes that must be examined for their application to all aspects of the region.

As an example, entrepreneurial governance places great emphasis on competent measuring – particularly the measuring of success/failure based upon outcomes rather than inputs. Development of specific metrics, or performance measures, is fundamental to a government responsive to new economy needs.

Entrepreneurial governments also attempt to empower citizens and businesses by bringing them into an inclusive decision-making process. They attempt to promote healthy competition among service providers, including outsourcing and privatizing where appropriate. An entrepreneurial approach focuses not only on providing current services, but also on finding collaborative, long-term solutions to complex regional problems.

The Buffalo Niagara region will not become competitive in terms of cost of doing business or quality of public services simply by tinkering at the margins. Entrepreneurial governance must address the regional resources that affect cluster growth and development. By utilizing many of the same approaches and strengths that give the region hope for revitalizing the economy – innovation, information, technology, and educational resources – reinventing governance is an opportunity the region cannot afford to ignore.

3. Forging and Reinforcing Regional Leadership

Why We Need Regional Stewardship. As this report has mentioned many times, the characteristics of the new economy are fundamentally changing many aspects of society. These fundamental changes – globalization, networking as an organizational paradigm, and technological advance, among others – have created anonymity of leadership in many regions and limited traditional leadership.⁴⁹

Regional stewards go beyond traditional forms of leadership; they tend to be civic entrepreneurs and integrators, as well as particularly adept at crossing boundaries and building coalitions (see Table 1.4).⁵⁰

Table 1.2: Traditional Leadership vs. Regional Stewardship*	
<i>Traditional Leadership</i>	<i>Regional Stewardship</i>
One jurisdiction, one organization	Multiple jurisdictions and organizations
Specific problem or goal	Integrated vision for the region
Single network	Diverse collaborative networks
Commitment to an idea/cause	Commitment to place
*From: Alliance for Regional Stewardship. <i>Regional Stewardship: A Commitment to Place</i> . Denver: Alliance for Regional Stewardship, 2000.	

Civic entrepreneurs are the catalysts who help regions go through the change process. They provide the leadership that brings people and institutions together across sectors and jurisdictions to work on the long-term development of their region.⁵¹ Although civic entrepreneurs come from all sectors – public, private and nonprofit – they share common characteristics of entrepreneurial business leaders. They are risk takers and are not afraid of failure. They are passionate and energetic.

Regional stewards have a 360-degree vision, recognizing the interdependences among economy, environment and social equity. In many regions, leaders are addressing problems in each of these areas, but their approach is not integrated. Regional stewards help their communities develop an integrated approach to policy and planning based on a common set of values and a regional vision. They are “boundary crossers” – a term coined by nationally syndicated columnist Neal Peirce. They reach across jurisdictional, organizational, ethnic and other boundaries to seek solutions to community problems. Regional stewards are civic intermediaries who address regional challenges that transcend the reach of government, business or community institutions. Regional stewards also build new coalitions for change by pulling together support from political leaders, citizens, interest groups, and policy professionals within the community in new ways.

Promoting Regional Stewardship. First, regions need to understand and accelerate pathways to regional stewardship. Regional stewards generally start out by volunteering in something that has personal meaning to his or her own interests, and then progress over time into a leadership role. These leaders then become civil and social entrepreneurs. As mentioned, civic and social entrepreneurs bring innovative problem solving to community issues. To become regional stewards, these leaders need to recognize how their efforts fit in the broader vision for the region

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Henton Doug, John Melville, and Kimberly Walesh. *Grassroots Leaders for a New Economy*. San Francisco: Josey Bass, 1997.

and see the connections between economy, environment, and society. It is also critical that these regional stewards themselves be connected and pursuing synergistic partnerships. Indeed, regional stewards need to be nurtured. It is important for regions must develop networks for regional stewards to pursue these collaborative opportunities. Most importantly regional stewards must be given the opportunity to affect change. This can be achieved by building coalitions that work beyond traditional government/big business partnerships and instead create a new networked entrepreneurial governance approach to solving regional issues.

Some places are experimenting with regional training programs for civic leaders in order to expand their networks and their knowledge of regional issues. These programs convert civic leaders from all sectors into regional stewards by helping them see regional challenges in an integrated way. “The opportunity is for regions to identify these diverse, high potential civic leaders and accelerate their development along this pathway.”⁵²

In the 20th century economy, economic development could be the province of captains of industry and finance and elected officials. In the 21st century knowledge economy that group must be widened to include leaders of cultural, religious, educational and philanthropic organizations, and many other civic groups and engaged citizens. The citizenry’s discontent with the region’s decisions and decision-making processes regarding the Peace Bridge plan and the proposal to relocate Children’s Hospital of Buffalo expose the problems in pursuing the old top-down model of civic leadership.

4. The Region’s Governance/Stewardship Strengths

Over the last decade, the region has witnessed significant steps forward in cross-border, cross-sector cooperative arrangements. A recent survey of municipalities, for example, identified literally hundreds of formal and informal collaborations between and among areas cities, towns and villages in the eight-county region. Numerous regional initiatives, including many between the counties of Erie and Niagara, have been commenced in recent years such as the Framework for Regional Growth; Regional Economic Development Strategy; Buffalo Niagara Cultural Tourism Initiative; Regional Economic Development Database; the Niagara Power Project relicensing process; Buffalo Niagara Now effort and development of the Buffalo Niagara Medical Campus, among many others. Most often, these efforts engage not only the governmental sector, but private, nonprofit, education, and other sectors as well.

In short, several critical dimensions of a new economy approaches – networking, data/information development, improved planning, innovation – are much more a part of the fabric of governance in the region than several years ago.

Specifically within the economic development community in the region, cooperative initiatives have been pursued, for example, to create a countywide eligibility policy and to develop a point of access for site selectors and potential developers and businesses. Cross-staffing between economic development agencies is another example of current collaborations.

Likewise, there are many groups within the region that are composed of and led by outstanding civic entrepreneurs who could be tapped to become regional stewards.

The steps for creating networking opportunities and open organizations that focus on regional issues are happening. Formal efforts and groups such as the Framework for Regional Growth and

⁵² Alliance for Regional Stewardship, 2000, pg. 25.

the Erie-Niagara Regional Partnership, coupled with more informal gatherings and efforts of various governments and business sectors provide a strong base from which regional stewards could affect change.

5. The Region's Governance/Stewardship Weaknesses

In spite of recent advances and initiatives, the region has the highest, or near highest, cost of services in the nation. The region's tax rate is among the highest in the country and municipal bond ratings within the area are the second worst in the nation.⁵³ Particularly in economic development services, Buffalo Niagara has complex and fractured delivery systems that have not been effective in turning around the regional economy. Moreover, it remains unclear, and a source of continuing tension within the region, under what conditions firms should receive assistance of various types. The fractured nature of these service delivery systems is probably more indicative of the need for more cooperation among municipalities and with other levels of government in the region than the sheer number of cities, towns and villages.

Basically, the region has failed to develop a system that users find to be efficient, responsive and coordinated. The goal of a user-driven, seamless system, and a structure to accommodate that system, has not as yet been achieved in the Buffalo Niagara region.

Also, there is a perception in the region that leaders in the community are reluctant to become educated on and engaged in the issues relevant to strengthening the region, particularly if those issues do not fall into their immediate field of work.⁵⁴ Indeed, the regional steward potential within existing community groups has not been tapped. These budding leaders are not invited onto boards and working groups. The result is that the same group of people serves, while others, including the region's younger promising citizens, sit on the sidelines without any leadership opportunities.⁵⁵ The organizations that work on regional economic development issues are perceived as closed organizations that would not be friendly to the regional stewardship model.⁵⁶ This is the antithesis of regional stewardship.

6. Fostering Regional Economic Development and Stewardship

Strategies responsive to the need for entrepreneurial governance in the region are properly the subject of an entire, separate study. The topic of improving governance, again involving all sectors of the economy and region, involves an enormous set of issues, controversies and challenges that are beyond the scope of this economic development strategy.

Nevertheless there are a few specific strategic approaches which have a very direct bearing upon the location of a compelling economic development strategy for the region that need to be a part of that larger picture. Examples include:

- Increased attention to carefully crafted and rigorously applied performance measures should be employed as an integral part of an economic development strategy. Such metrics can be used both to measure (1) internal factors such as program efficiencies and numbers of businesses served, and (2) outcomes such as jobs created, customer satisfaction, per capita income, etc.

⁵³ Haughton, 2002.

⁵⁴ Institute for Local Governance and Regional Growth, 2003.

⁵⁵ Ibid.

⁵⁶ Ibid.

- The region should pursue innovative ways to integrate a much broader group of people, groups and initiatives (transportation professionals, for example) into the process to provide essential services, incentives and support to achieve regional economic development goals. Greater attention to shared staffing, clustering of “subject matter experts” (e.g. business development, finance, neighborhood development, administration, etc.) across organizations, and other networking models can dramatically improve regional effectiveness, flexibility and speed. Such models, some of which are currently in use but need to be significantly accelerated, can serve as the foundation of a “one-stop shop” discussed below.
- Further development of a “one-stop shop” to provide an enduring, seamless and user-driven point of access for the consumer of economic development services. The focus must be upon the question “what structure most effectively and efficiently implements the overall strategy and achieves the vision?” Such a structure must be efficient in administration, as well as innovative and flexible in taking advantage of emerging opportunities. In addition to serving as a point of access, an entrepreneurial model of economic development governance must serve as a platform for cross-county collaboration and provision of services best accomplished on a regional scale (research, data gathering and analysis, best practices information, administrative services, etc.) In many cases the entity would identify the best provider of services from existing organizations and resources in the region.

Strategies focusing on regional stewardship should concentrate on three issues:

- Promoting regional stewardship. How can the region catalyze existing civic entrepreneurs into regional stewards? A regional stewardship education program would address this issue.
- Supporting regional stewardship. How can the region foster and promote regional stewardship? The development of mechanisms for networking and collaboration for regional problem solving would address this issue.
- Integrating regional stewardship. How can organizations that focus on regional issues integrate regional stewards into their organizations allowing them to affect change? Do new organizations need to be created in the regional stewardship model? What specific policies prohibit integration from happening and how can they be changed?

Regional stewardship is not about creating regional governments. Regional stewardship is not about creating a regional bureaucracy. Regional stewardship is about tapping the wealth of intelligent, civic minded citizens in this region who care about what happens here. Regional stewardship is about making sure their knowledge is heard and that it effects change (See **Appendix B** for examples of regional stewardship from across the country).

V. Goal Four – Cluster Development

A. Using Cluster Analysis to View the Regional Economy

Clusters are groups of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. Clusters may take various forms depending on their depth and sophistication, but most include end-product or service firms; suppliers of specialized products and services, components, and equipment; financial institutions, and firms in related industries. Clusters may also include customers; producers of complementary products; specialized infrastructure providers; government and other institutions providing specialized training, education, information, research, and technical support, such as universities, think tanks, and workforce training organizations. Also important cluster components are its influencing entities, including government agencies as well as trade associations and other private- and nonprofit-sector entities.⁵⁷

Thus an industry cluster is different from the classic definition of an industry sector in that clusters represent the entire value chain of a broadly defined industry from suppliers to end products, including support services and specialized infrastructure. Cluster industries are connected by the flow of goods and services and by the geographic concentration of related industries and institutions.

Clusters rarely conform to standard industrial classification systems, which fail to capture the linkages between and among the firms and the related institutions within the cluster. Clusters, therefore, represent a distinct way of organizing economic data and viewing the regional economy. Because parts of a cluster often fall within different traditional industries or service categories, significant clusters may be obscured or even go unrecognized using traditional industrial sector analysis.

Cluster analysis is more helpful in understanding the dynamics of a regional economy because clusters align better with the nature of competition and the sources of competitive advantage. Clusters, because they are broader than industry sectors, capture important linkages, complementarities, and spillovers of technology, skills, information, and customer needs that cut across firms and industries.⁵⁸ Viewing a group of firms and institutions that support them through the lens of a cluster highlights the region's opportunities for providing or enhancing specialized services and skills and other factors that will give the region a competitive advantage in nurturing and growing the cluster. Recognition of the cluster furthermore will provide an effective and efficient forum for creating dialogue among the related firms and their suppliers, government, and other important institutions.

Why Are Clusters Important? High-value, outward-bound industry clusters drive the regional economy. They create jobs for residents and drive employment growth in business support industries such as banking, insurance, and real estate, and in population-serving industries such as retail and food services. They also generate revenue for public services that enhance the region's quality of life.

⁵⁷ Porter, Michael E. *On Competition*. Boston: Harvard Business Review Book, 1998.

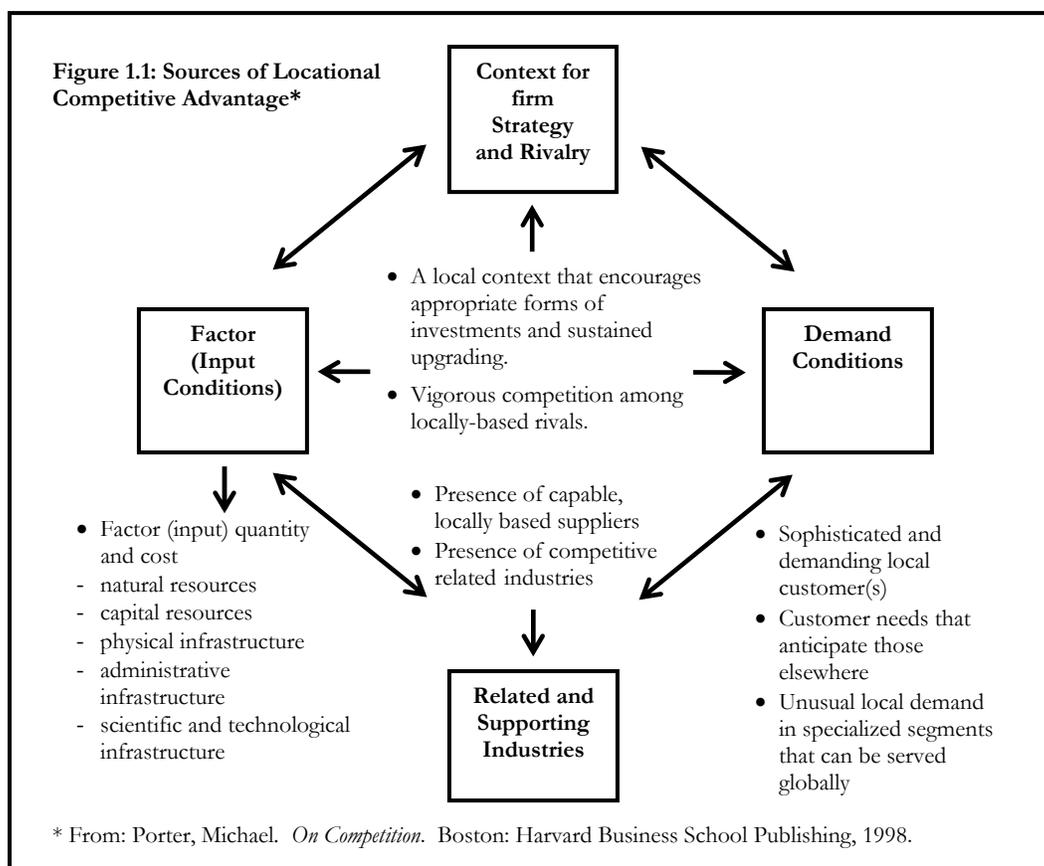
⁵⁸ Ibid.

Clusters are often catalysts for innovation as firms compete and collaborate within the cluster, and a source of entrepreneurship as talented people move from firm to firm to start their own new firms.⁵⁹ Clusters provide a positive ripple effect on both economies and communities.

What Differentiates a Group of Private Firms from a Cluster? Although there seems to be no universal definition of what constitutes a cluster, consensus has been reached on the minimal requirements of a cluster. The first is the *scale of demand* among employers that produces external economies, i.e., a critical mass of firms with common or overlapping needs to create or attract more services and resources, including labor, than would be available at a competitive price to more isolated firms.⁶⁰

The second requirement is the *depth of relationships* among the members within the region. The dynamics of clusters are embodied in the value- and knowledge sharing chains among its members.⁶¹

Clusters as Sources of Locational Competitive Advantage. Michael Porter, a faculty member of the Harvard Business School and leading authority on competitive strategy and the competitiveness and economic development of nations, states, and regions, modeled the effect of location on competition using four interrelated influences to illustrate the important role clusters play in making a region competitive (see Figure 1.1.).⁶²



⁵⁹ Joint Venture: Silicon Valley Network. *Building the Next Silicon Valley: Strategy and Actions*. San Jose: Joint Venture: Silicon Valley Network, 2003.

⁶⁰ Rosenfeld, Stuart A. "Just Clusters: Economic Development Strategies that Reach More People and Places." Carrboro, North Carolina: Regional Technology Strategies, Inc. 2002.

⁶¹ Ibid. P.11.

⁶² Porter, 1998.

As Figure 1.1 shows, Factor (Input) Conditions include tangible assets such as natural resources, transportation infrastructure, and university research institutes. To increase productivity, factor inputs must improve in efficiency, quality, and ultimately must become specialized to particular cluster areas.⁶³ Specialized factors not only foster high levels of productivity, but tend to be less tradable or available from elsewhere.⁶⁴

The Context for Firm Strategy and Rivalry refers to the rules, incentives, and norms governing the type and intensity of local rivalry. Weak regional economies with low productivity have little local rivalry; most competition comes from imports.⁶⁵ The move to a robust economy requires developing a vigorous local rivalry, which can be advanced by healthy clusters. The context for strategy and rivalry can be divided into two primary dimensions.⁶⁶ A region must provide a healthy climate for investment. As Porter states: “macroeconomic and political stability at the national level set the context for investment, but microeconomic policies are also important.”⁶⁷ These microeconomic policies include, the structure of the tax system, the corporate governance system, and labor market policies affecting workforce development incentives. The other dimension of the context for competition is local policies affecting rivalry itself.⁶⁸

Demand Conditions at home have much to do with whether firms can and will move from imitative, low-quality products and services to competing on differentiation. As Porter states,

“Firms in low productivity economies learn about demand primarily from foreign markets. Advancement requires the development of increasingly demanding local markets. The presence or emergence of sophisticated and demanding home customers presses firms to improve and provides insights into existing and future needs difficult to gain from foreign markets alone.”⁶⁹

Clusters of linked industries can play a key role in pushing local demand conditions to more sophisticated levels.

Related and Supporting Industries are simply the presence of locally based suppliers and support industries such as legal and financial firms and the presence of competitive related industries.

B. Clusters in the Buffalo Niagara Region

Historically, strong regional economies have been built on the cluster principle. For example, Buffalo at its industrial peak was very much a cluster economy in which all the conditions for heavy industry came together: easy transportation, first by water, then by rail; access to raw materials, as a result of transportation and location; ready access to a skilled work force, fed especially via a stream of immigrants to the region. Hence we had the steel making and milling, and metal bending and shaping industrial decades from the late 19th through mid-20th century; and of course this same phenomenon occurred around the Great Lakes Basin in Chicago, Cleveland, Pittsburgh, Detroit, etc.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid.

The development of mid 20th century industry clusters is exemplified in entertainment, e.g. New York (Broadway) and Hollywood (film, and then video, and the digital arts) and late 20th century clustering is exemplified by Silicon Valley (micro-chips, software, etc.) and Route 128 (computing and information technology).

Does Buffalo/Niagara have prospects for a cluster based 21st century economy? The answer is a qualified yes. We have several candidates for cluster development in the decade ahead:

Based upon the scale of demand and the depth of relationships among the various firms in the region, it is recommended that the region focus on five clusters to develop a comprehensive, Regional Economic Development Strategy. Five clusters have been identified by our technical advisory committee. They include:

- Life Sciences e.g., Bioinformatics, pharmaceuticals, pharmacokinetics, etc.;
- Professional/ Business Support Services;
- Advanced Manufacturing;
- Tourism; and
- Logistics (the 21st century return to Buffalo's strategic location advantages).

A separate initiative, funded by the Erie County Industrial Development Agency, is being undertaken to determine whether these five clusters offer the region its best opportunity for growth and prosperity. The study will also attempt to identify other clusters that may be possible to develop and nurture in the future. It has been estimated that this initiative will run parallel to the development of this strategy and should be completed by the end of summer 2004.

C. Requirements for Cluster Growth and Success

Clusters do not develop in a vacuum or overnight. A region that shifts from a traditional economic development approach of providing firm specific subsidies to an economic development approach that supports and promotes clusters must address other factors to ensure the successful development of a cluster based economy. These factors include: promoting innovation and entrepreneurship, understanding and strengthening the links between quality of place and economic development, establishing entrepreneurial governance, and supporting and embracing regional stewardship. These factors have generally remained out of the purview of traditional economic development practices. They are however, an integral part of cluster development. Places with robust, cluster based economies such as San Diego, Silicon Valley, and Austin address these factors simultaneously with their cluster development efforts. Simply put these factors are part and parcel to developing successful clusters.

Innovation and Entrepreneurship. By embracing a culture of innovation and entrepreneurship the Buffalo Niagara region can generate the volume of new, fast-growing firms integral to cluster development. As part of an emerging cluster, competition between new growth companies will spark the flurry of economic activity necessary for an enhanced cluster foundation and further growth. If there are companies located elsewhere producing a good or service integral to the cluster, they will not only perceive the region as the place to be for success, but will need to be a part of the cluster for their own survival. Growing and attracting new, competitive companies related to the region's clusters increases productivity and ultimately the success of a cluster. The

importance of innovation and entrepreneurship to cluster development and success is elaborated on in STRATEGY ONE.

Quality of Place. Geography/place has always played an important role in the competitive advantages of regions. For thousands of years regional competitive advantages were based on relative proximity to transportation routes, usually waterborne, and natural resources. This has changed with the increase in technological innovation and globalization. Virtually anything can be made anywhere. The competitive advantages that regions have traditionally based their success on are now only nominal factors in firm location decision-making. Because of this many have argued the “death” of geography or place. Geography/place is not dead, in fact, it’s more important than ever but for different reasons.

Geography/place continues to be important because the relative quality of a place is an important factor in the success of clusters; there are several reasons for this. Geography is important to clusters because firms and people gain from being in the same place. Clusters gain their power through the force of face-to-face creative collaboration or networking. The physical form of a region plays an important role in spurring both formal and informal networking. Since knowledge is the new competitive advantage firms are interested in locating in places that offer their workers quality choices in living and working environments. Workers in the new economy have different values than previous generations and in general they place greater value on things that can be associated with quality of place such as vital centers, authenticity, the natural environment, and diversity. The link between economic development and quality of place is elaborated on in STRATEGY TWO.

Entrepreneurial Governance/Regional Stewardship. The notion of “governance” – how people organize or come together to address common challenges – necessarily involves all sectors of the region, including private and not-for-profit sectors, and is therefore not limited to the public or government sector. A region must attempt to organize and collaborate in a manner that allows and encourages the region to progress, that embraces and provides a venue for citizen leaders or regional stewards to take part in regional decision-making, and meets difficult challenges – in many areas, but most definitely in a critically important area such as regional economic development. Michael Porter argues that proper governance is crucial for cluster development,

“Economic progress is thwarted as much by inaction as by a lack of knowing what steps are necessary. Strong forces oppose economic upgrading, ranging from obsolete views about competitiveness to entrenched interests that prosper from the status quo. Only a long term process, with accompanying institutions, can counteract these forces. The process must involve all key constituencies and rise above the politics of any particular administration or government. The process must encompass the general conditions affecting all industries as well as the upgrading of clusters.”⁷⁰

The importance of entrepreneurial governance and regional stewardship are elaborated in STRATEGY THREE.

D. The Region’s Cluster Strengths

Buffalo Niagara’s clusters have formed, and will continue to grow, with a focus on their locational competitive advantages (see Figure 1.1). Studies by the Progressive Policy Institute (PPI) and The

⁷⁰ Porter, 1998

Beacon Hill Institute rank Buffalo Niagara against the 50 largest metropolitan areas in the United States based on the region's locational competitive advantages. The region has strengths in Input Conditions and the concentration of Related and Supporting Industries.

Input Conditions such as natural and human resources, transportation infrastructure, and university research institutes are regional strengths for cluster formation and growth. Buffalo Niagara ranks 7th in National Institute of Health funding dollars per capita according to Beacon Hill.⁷¹ The PPI study ranks Buffalo Niagara in the top 15 in Academic R&D.^{72, 73} Both PPI and Beacon Hill rank Buffalo Niagara 4th in Science and Engineering graduates per capita.^{74, 75} PPI ranks Buffalo Niagara 18th in workforce education.⁷⁶ Beacon Hill ranks the region 18th in the number of residents enrolled in degree granting institutions per capita and the amount of high school finishers as a percentage of 18-year olds.⁷⁷

Natural resources and transportation infrastructure are a regional strength. Goods, services, tourists and residents travel through the region on an extensive transportation system of highways, watercourses, air routes, and rail lines.⁷⁸ The region sits adjacent to one of the largest sources of freshwater on the planet and "the Falls," one of the wonders of the world.⁷⁹ Within a 500-mile radius resides 55 percent of the United States and 62 percent of Canada's population including the Boston/NYC/DC metroplex, the Greater Toronto Region and Canada's capital, Ottawa. The region sits at a key point between the US and Canada which have the largest bilateral trade relationship in the world with US \$590 billion in trade in 2000. Approximately 17.4 million vehicles cross the region's US/Canada border bridges annually including 18 percent of the total weight of trucked goods crossing US/Canada border bridges.⁸⁰

The concentration of law firms, consulates, custom brokerage, and logistics firms able to assist regional companies that wish to expand import/export operations provides a regional competitive advantage for cluster formation and growth.⁸¹

E. The Region's Cluster Weaknesses

As noted above, Buffalo Niagara's clusters have formed, and will continue to grow, with a focus on their locational competitive advantages (see Figure 1.1). The region has weaknesses in locational competitive advantages such as the Context for Firm Strategy and Rivalry, Input Conditions, and Demand Conditions.

Regional cluster weaknesses in the Context for Firm Strategy and Rivalry include governance, image, and economic development processes. Costs of doing business in the region are well above the national average. The tax burden on Buffalo Niagara's gross output of goods and

⁷¹ Haughton, 2002.

⁷² Atkinson, 2001.

⁷³ Haughton, 2002.

⁷⁴ Atkinson, 2001.

⁷⁵ Haughton, 2002.

⁷⁶ Atkinson, 2001.

⁷⁷ Haughton, 2002.

⁷⁸ Institute for Local Governance and Regional Growth. *State of the Region: Progress Report 2002: Equity in Buffalo Niagara*. Buffalo: Institute for Local Governance and Regional Growth, 2002.

⁷⁹ Institute for Local Governance and Regional Growth. *Preliminary SWOT Analysis*. Buffalo: Institute for Local Governance and Regional Growth, 2003.

⁸⁰ Greater Buffalo-Niagara Regional Transportation Council. *Strategic Transportation Directions*. Buffalo: Greater Buffalo-Niagara Regional Transportation Council, 2003.

⁸¹ Institute for Local Governance and Regional Growth, 2003.

services and the S&P/Moody's composite bond rating for Buffalo Niagara are at the worst and tied for the worst in the country, respectively, in the Beacon Hill study. Buffalo Niagara, the birthplace of public power, now has the 47th highest power rate in the nation according to the Beacon Hill study. The region is tied with Rochester for the highest public and private sector union membership in the country of 70.8 percent and 17.3 percent, respectively, according to Beacon Hill.⁸² There is an image that the Buffalo Niagara business community is reluctant to accept "outsiders" into their ranks and negative stories about the difficulties businesses face when negotiating government and economic development process abound.⁸³ Compounding the high costs and poor image of doing business in the region are a largely fractured economic development delivery system, which leads to inefficiencies and the perception that the system is an uncoordinated process. Economic development outcomes are still measured in the context of the old economy.⁸⁴ The strong science and engineering programs in our region are not linked through economic development strategies to firm creation.⁸⁵ Beacon Hill rates Buffalo Niagara last in net firm creation per 100,000 inhabitants and PPI ranks the region 37th in venture capital invested as a share of gross metropolitan product.⁸⁶ Technology employment and skills of the region's residents is lagging. High-tech payrolls in Buffalo Niagara represent 2.4 percent of the total payroll according to PPI compared to a national average of 3.1 percent.

Buffalo Niagara trains, but does not retain, a critical mass of the best young skilled labor, the vital human resources necessary for locational competitive advantage. Those who do stay are often not employed in their field of choice. As the occupational mix in the new economy shifts from industrial labor to managerial, professional and technical jobs – precisely the jobs higher education graduates have been trained for – we are watching our professional graduates leave the region.⁸⁷ PPI ranks Buffalo Niagara 24th in the percentage of managerial, professional and technical jobs as a share of the total workforce.⁸⁸ In addition, many of Buffalo Niagara's graduates that stay may have the right technical knowledge and skills to prepare them for the workforce, but some do not possess the "soft skills" such as punctuality and proper workplace etiquette.⁸⁹

Despite the strong transportation infrastructure emphasized above, the region scores poorly in some infrastructure input factors. The region once possessed a competitive advantage in telecommunications capacity but it is now not as developed in others areas of the country.

Regional demand conditions are not sophisticated, demanding, and specialized enough to create a locational competitive advantage for cluster development because Buffalo Niagara does not fully capitalize on its strategic location between Canada and the United States. Trucks and automobiles crossing the border with valuable goods often drive right through instead of originating or stopping in the region. Unresolved Peace Bridge and cross-border security issues threaten to divert trade traffic to Detroit and other border crossings.⁹⁰ The region ranks 36th with only \$25,000 worth of manufacturing export sales per manufacturing worker according to the PPI study.⁹¹

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Haughton, 2002.

⁸⁷ Ibid.

⁸⁸ Atkinson, 2001.

⁸⁹ InfoTech Niagara. *Western New York: IT Workforce Skills Assessment. Buffalo.* InfoTech Niagara, 2003.

⁹⁰ Institute for Local Governance and Regional Growth, 2003.

⁹¹ Ibid.

F. Strategic Framework for Cluster Development

In the most advanced economies worldwide, one or more industry clusters serve as the driving force of the regional economy. At the core of these clusters are geographic concentrations interdependent, internationally competitive firms in related industries. Clusters can also include competitors, customers, specialized service providers as well as local institutions and government agencies that can assist and nurture the development of the firms within the cluster.

A salient feature of clusters is that their component parts are self-generating and mutually synergistic. Intense competition and close cooperation spur innovation across industries, often spawning the development of new companies and sometimes, entirely new industries. The development of clusters create demand for new products and services, some of which can be supplied by existing or new local firms. In essence the cluster dynamic gives companies and their respective regions a competitive advantage against others.

By focusing on clusters and learning about the competitive requirements of the firms within the clusters, Buffalo Niagara can adopt and embrace an economic development strategy that is responsive in a way that gives the region a unique and competitive advantage over others. The specific and competitive needs of the cluster will give the region a focus to all of its economic development initiatives.

VI. Summary and Next Steps

In order to create a healthy, sustainable, and inclusive community, the Buffalo Niagara region must develop a comprehensive and coordinated regional economy focused on clusters.

Requirements for cluster growth and success include: promoting innovation and entrepreneurship, addressing quality of place, developing entrepreneurial governance, and incorporating regional stewardship. These crucial requirements must be addressed in an economic development strategy focused on clusters.

A new economy, which has been evolving over the past two decades, is having a profound effect on the way its citizens live, work and play. The six principal forces of the new economy that have been used to establish the context for an analysis of the regions' strengths, weaknesses, opportunities and threats are as follows:

- **Globalization;**
- **Technological Advancement;**
- **Knowledge** as a basic economic resource;
- **The Changing Nature of Work;**
- **Innovation and Entrepreneurship;** and
- **Networking** as the new organizational paradigm.

Developing a vibrant, regional economy will create significant demands on the region, requiring new approaches and strategies. An approach to economic development that is based on the principles of the new economy and is inclusive, collaborative and entrepreneurial will help the region rise to the occasion and make the necessary commitment to compete with other regions of the nation.

The creation of an economic development strategy for the region has been the goal of this report, but this must now be followed up by determining how the four strategic goals can be effectively implemented to develop the life sciences, back office/professional support, advanced manufacturing, and tourism clusters. This cannot be done in a vacuum; rather, those practitioners of economic development and those involved in its support structure must apply these goals and strategies to our particular set of circumstances in Buffalo Niagara.

To that end, 2004 must bring implementation of this strategy, but in order to do so a process and timeline for implementation needs first to be developed. This timeline takes into account the varied progress in the development of the four clusters, and therefore does not attempt a cookie-cutter approach for all.

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Appendix A: Vision Statements

Additional Proposed Vision Statements for Economic Development in the Buffalo Niagara Region

Example 1 – We will build on our wealth of natural and man made resources to achieve an innovative, entrepreneurial, and collaborative network for pursuing economic development in the new economy, resulting in sustainable, inclusive, and attractive communities with a heightened quality of place for all.

Example 2 – Using our rich human capital, history, architecture, cultural, and natural foundations, a highly developed collaborative network, and a technically sound economic development strategy Buffalo Niagara will enhance the quality of life and sense of well being enjoyed by all residents. We will build a diverse economic base anchored by vibrant core cities attracting innovative, entrepreneurial knowledge workers, companies and investment to the region.

Example 3 – Buffalo Niagara will be a region of outstanding commercial, cultural, natural and creative assets in and around vibrant, healthy, prosperous and inclusive core cities, communities and landscapes. Using a technically sound economic development strategy, a highly developed collaborative network and our rich history in all areas we will create a region distinguished by a quality of life and sense of well being enjoyed by all residents for generations to come.

Example 4 – Regional economic development pursued in a highly developed collaborative network will create a strong foundation for innovation, entrepreneurship, and the realization of a healthy and inclusive quality of place.

Example 5 – Buffalo Niagara will be a region distinguished by a quality of life and sense of well being enjoyed by all residents and serving as a foundation for future generations. We will build upon the unique strengths at the core of our economy, community and landscape to create a positive regional image, vibrant core cities and diverse economic base. Using a technically sound economic development strategy and highly developed collaborative network we will build a region which an increasing number of people choose to call home.

Vision Statements for Economic Development in Other Regions

Creating Sustainable Advantage: A Vision for the “Next Century Economy” – An economy based on expanding high technology industry clusters and new emerging industries. A long-term commitment to protect the region’s environment, to improve the quality of life, and to address social disparity issues as the economy develops. A collaborative approach to problem solving across the region, within and among its industry clusters, and between the public and private sectors – *The Austin Region’s Economic Challenge*

Carolinas Partnership Vision – Position and market the Charlotte Region as a highly competitive, growing, and vibrant regional economy with an increasingly attractive quality of life. – *Charlotte USA Strategic Plan*

2010 Vision – We will use our innovative, entrepreneurial spirit to create a strong foundation of regional stewardship, so future generations can enjoy Silicon Valley’s broad prosperity, healthy and attractive environment and inclusive communities. – *Silicon Valley 2010: A Framework for Growing Together*

Appendix B: Regional Stewardship Precedents

Communities all over the country are searching for ways to incorporate regional stewards into the regional decision making process. Below is a synopsis of some regional stewardship efforts underway throughout the United States. Each of these examples is unique; they are focused on various regional issues and have different forms of organization and composition. This suggests that there is no one perfect regional stewardship model for a region to adopt.

Greater Washington, DC: The Potomac Conference – The Potomac Conference brings together regional business, government, and education leaders to develop a common agenda designed to promote a “world-class connected community” for the new economy. This agenda focuses on innovation, education, inclusion, quality of life, and regionalism.

Greater Pittsburgh: Innovation Works – The Heinz Endowments embarked on an effort to increase awareness of Pittsburgh’s entrepreneurial economy by creating a “hot team” of young entrepreneurs to develop a strategy to retain top talent, and helping to form Innovation Works, a public private initiative that helps bring venture capital and support to innovative businesses and to share information about Pittsburgh’s innovative economy.

Chattanooga, Tennessee: Vision 2000 – Chattanooga’s Vision 2000 brought together thousands of citizens in hundreds of projects that have made Chattanooga one of the most sustainable communities in America. This long-term commitment has begun to change the whole culture of the community by focusing on a series of tangible projects.

Greater Charlotte: Central Carolina Choices – Central Carolina Choices is regional collaborative that was created after a Peirce Report called for the formation a regional citizen based group. Representing 14 counties, it acts as a convener on regional issues. It was formed through the collaboration of several key regional organizations. Focusing on rapid growth and sprawl in the region, the organization involves a broad range of community members, business leaders and environmental advocates.

Greater San Antonio: Quality Employment Through Skills Training (QUEST) – QUEST works with regional employers and local community colleges to develop industry-specific job training and placement that have helped redefine relationships between employers, community colleges, and local communities.

Greater Los Angeles: The Metropolitan Alliance – The Metropolitan Alliance is a regional collaboration of community-based organizations, labor unions, religious institutions, and service providers anchored by the community organization AGENDA (Action for Grassroots Empowerment and Neighborhood Development Alternatives). The vision behind the Metropolitan Alliance is to help unify diverse constituencies and develop a vehicle for community residents to build their own power and participate in policy making.

Greater Chicago: Chicago Metropolis 2020 – Chicago Metropolis 2020, created by the Commercial Club of Chicago, a business leadership group, outlines goals for the economic, social, and physical development of the region in an integrated way. Chicago Metropolis 2020 has engaged the community in a series of eight regional forums to establish priorities for the region. Chicago Metropolis 2020 has been a leading example of combining business clout and civic engagement to become a “regional civic catalyst” that spotlights critical issues, organizes civic teams to address

those issues, and reports on progress as a means of educating regional leaders and stimulating further action.

Greater Cleveland: Civic Lab – The Cleveland Foundation recently launched a \$200,000 “civic innovation lab” to unearth and then support, projects that can yield tangible economic impact in the community. The lab provides business mentors that help turn innovative business ideas into reality.