



Northern Kentucky Economic Development and Marketing Recommendations

Part 4 of 4 Northern Kentucky New Economy Marketing Strategy

**Presented to:
Northern Kentucky Tri-ED**

February 2004



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AngelouEconomics presents Northern Kentucky Tri-ED with this *Economic Development and Marketing Recommendations* report, the final of the four-part *Northern Kentucky New Economy Readiness Strategy*.

The *Economic Development and Marketing Report* builds on the analysis from the *Community Assessment*, the *Target Industry Profile*, and the *Preparedness Assessment*. Report One, *Community Assessment*, provided a snapshot of Northern Kentucky's current economic strengths and challenges. Report Two, *Target Industry Profiles*, reviewed the location factors for eight new economy industries. Report Three, *Preparedness Assessment*, contained a side-by-side comparison of Northern Kentucky's assets against the needs of target industries, and benchmarked Northern Kentucky's performance against leading tech metros in the U.S.

This final report contains recommendations designed to help Northern Kentucky's leaders create a more attractive environment for tech companies including: improvements to quality of life amenities, workforce development programs, business inducements, marketing, and entrepreneurship.

The final report will be available at www.ThinkNorthernKentuckyUSA.com in March. Thank you for your input and commitment to this initiative.

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Project Overview

In August 2003, AngelouEconomics began a four-month process of assessing Northern Kentucky's preparedness as a location for high tech businesses. The intensive study focuses on revealing the region's most marketable high tech strengths and identifying actions that will improve its viability for high tech industry growth.

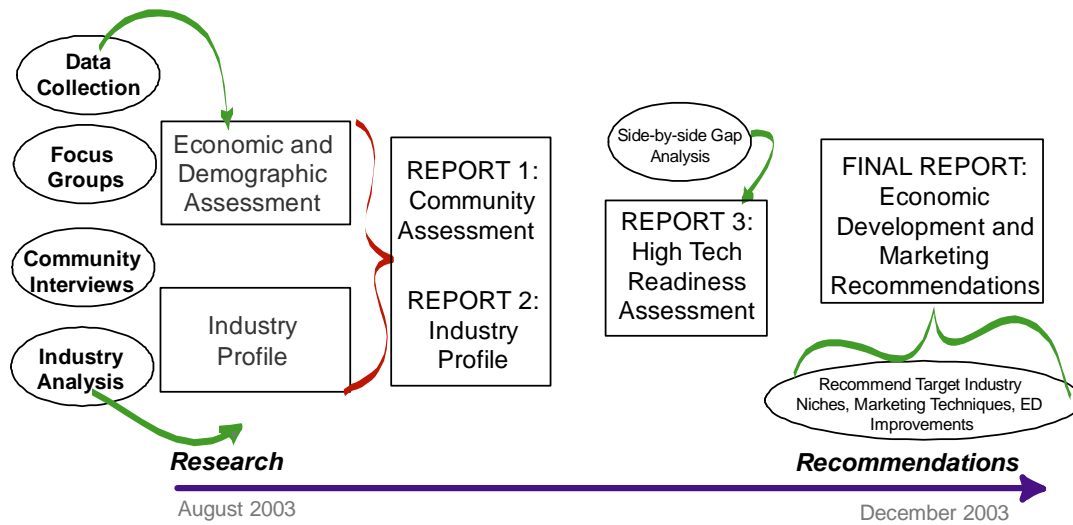
As the first report of four, the *Community Assessment* created an economic profile of Northern Kentucky relative to the site selection requirements of high tech businesses. It puts into focus the current state of Northern Kentucky's business climate. Research on Northern Kentucky is presented within twelve sections, each representing a different site selection criterion for high tech companies. This report follows a similar methodology as the one AngelouEconomics uses when conducting site selection for clients in the high tech industry.

The *Industry Profiles* report contains a snapshot of the industries currently targeted for Northern Kentucky. Each profile contains a description of the trends affecting each industry, as well as their unique site selection requirements. This report is intended to provide a background for the local leadership on the key "needs" of these industries, and begin a discussion of how well they can be served by Northern Kentucky.

Report Three, *Preparedness Assessment*, contains a side-by-side comparison of Northern Kentucky's assets against the needs of target industries, and benchmarks Northern Kentucky's performance against leading tech metros in the U.S. The report scores Northern Kentucky's performance in 25 different high tech site selection variables relative to the performance of 11 U.S. high tech metro areas. This analysis helped us identify the areas in most need of improvement and more narrowly define the high tech industry sectors recommended in this report.

This fourth and final report, *Economic Development and Marketing Recommendations*, contains economic development strategies for growing targeted high tech companies in Northern Kentucky. Rather than providing county-by-county recommendations, this plan offers strategies that should be implemented at the three-county regional level. A regional approach should be the priority at this early stage of the new economy initiative.

Process of Developing the New Economy Strategy



Definition of “New Economy”

Throughout this report, AngelouEconomics has used the terms “new economy,” “high tech,” and “technology” interchangeably. We have used a broad definition in an attempt to maximize the scope of our research and to consider a variety of industries that are both producers and consumers of technologies. With the increasing penetration of computer systems, Internet services, and advanced automation machinery in traditional sectors of the economy, clearly, the lines are increasingly blurred between what is and what is not a technology company.

The definition of “new economy” for Kentucky was broadly established by the Kentucky legislature in 2000. During this session, state officials adopted legislation that created the Office for the Commissioner of the New Economy (ONE) within the governor’s office. ONE was charged with launching a statewide initiative to “spur the growth of the knowledge-based economy or new economy in Kentucky.” Five industries were identified for development: biotechnology, health science, advanced manufacturing, energy, and information technology. Each of these sectors fit neatly within a definition of “technology” or “high tech” businesses.

Yet, the State’s emphasis on knowledge-based businesses allows us to expand the definition for this study. In years past, organizations such as the American Electronics Association narrowly defined “high tech” as companies in the biotechnology, electronics, semiconductor, telecommunications, and computer manufacturing sectors. Today, technology plays a significant role in the operations of traditional industries as well – from service firms to manufacturers. Which companies are “high tech” versus “traditional” depends more on the skills and activities of their individual employees rather than their final products.

A prominent economist at the University of Minnesota offered a new way to define technology. Rather than labeling a company “tech” or “non-tech” based on which industry they reside in, Anne Markusen suggested that companies with a high percentage of scientists and engineers (3x the national average) should rightly be called technology companies. Using this definition, Markusen labels about 10% of the U.S. economy as “high tech” (versus AEA’s 6%) and includes industries such as chemicals, plastics, and some financial services industries.

AngelouEconomics believes that **“technology” or “new economy” describes any business activity that produces or intensely uses new technologies.** New economy companies depend on knowledge workers who utilize computers, telecommunications, science, or design skills at a high level and usually in a new area of specialty. AngelouEconomics provides in the Appendix our current definition of technology industry using NAICS codes for future use by Northern Kentucky Tri-ED.

I. Target Industry Recommendations

Review of Research

AngelouEconomics evaluated Northern Kentucky for 25 specific factors, reviewed its list of targets, and now presents our recommendations on which industries Tri-ED should target. The requirements of each industry have been compared to Northern Kentucky's strengths and weaknesses as assessed in Report Three, the *Preparedness Assessment*. Industry growth potential, economic impacts, and external competitive forces were also analyzed during this process.

We recommend the following targets, which are covered in greater detail on the following pages:

- Automotive Suppliers
- Logistics
- Biomaterials, BioInformatics, and Medical Supplies
- Software
- Financial Services

We do not recommend:

Telecommunications – The Telecom industry is still experiencing a raft of problems from the overcapacity that developed during the tech boom. It is unlikely that many new manufacturing facilities will be constructed in the immediate future and telecom service oriented companies are still downsizing. These problems, coupled with the potential for re-regulation at the federal level, give Northern Kentucky a low success rate for capturing new growth.

Aircraft – The domestic aircraft manufacturing industry is undergoing a significant transformation and the largest American firm, Boeing, has faced increased competition in recent years from foreign competitors. Airbus, armed with innovative designs and large state subsidies has taken the lead in commercial airplane deliveries for the first time this year. Boeing has incited a bidding war for the company's latest manufacturing facility with many incentives packages topping the \$250 million mark.

Although Northern Kentucky is home to several aircraft suppliers, is near to several large manufacturers, and has many assets for attracting more of these businesses, this industry is not seen to have long-term growth potential in the region or U.S. Competition for these businesses is increasingly fierce, and communities are offering high levels of incentives. We do not recommend that Tri-ED utilize its resources to market to and incentivize aircraft businesses. The target industries recommended in this report promise greater future growth potential and economic return.

Conservation Technologies – The conservation industry has enormous potential but is currently a small industry that is clustered around corporate and university research centers. Many communities have attempted to attract the industry with limited success. Northern Kentucky should expand its existing high tech clusters rather than attempt to recruit conservation firms.

Review of Target Industry and Preparedness Scoring

	Workforce	Infrastructure	Cost of Doing Business	Research and Development	Economic Conditions	Overall NKY Fit	Long Term Growth Potential	Relative Economic Impact	Recommended Target	Development Timeline
Automotive Suppliers	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓	✓ ✓	✓ ✓ ✓	♦	♦	✓	Immediate
Biomaterials, informatics, supplies	✓ ✓	✓	✓ ✓ ✓	✓ ✓	✓	✓ ✓	♦ ♦ ♦	♦ ♦ ♦	✓	Long-Term
Financial Services	✓ ✓	✓ ✓	✓ ✓	✓	✓ ✓	✓ ✓	♦ ♦	♦ ♦	✓	Immediate
Logistics	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓	✓ ✓	✓ ✓ ✓	♦ ♦	♦	✓	Immediate
Software & Internet	✓ ✓	✓ ✓	✓ ✓	✓	✓	✓ ✓	♦ ♦ ♦	♦ ♦ ♦	✓	Mid-Term
Aircraft	✓ ✓ ✓	✓ ✓	✓ ✓	✓	✓	✓	♦	♦ ♦ ♦	✗	No
Conservation Technologies	✓	✓ ✓	✓ ✓	✓	✓	✓	♦ ♦	♦	✗	Long-Term
Telecommunications Equipment & Services	✓	✓	✓ ✓	✓	✓	✓	♦ ♦	♦ ♦	✗	Long-Term
✓ = Low ✓ ✓ = Medium ✓ ✓ ✓ = High										

Target Industry One: Automotive Suppliers

Kentucky is one of the nation’s top auto-producing states, ranking fourth in light vehicle production in 2001. Kentucky is home to manufacturing facilities operated by Ford, General Motors, and Toyota, in addition to being the headquarters for Toyota North America. Kentucky’s value added per production worker ranks highest among the major auto manufacturing states. This combined with Northern Kentucky’s infrastructure assets and operating environment, make the auto industry a great fit.

- Economic – Depending on their size, auto firms and suppliers need a large labor pool to recruit.
- Structural – Automotive firms and suppliers require an excellent transportation system and reliable utilities, both of which Northern Kentucky rates highly on.
- Workforce – Northern Kentucky has a workforce that fits auto industry requirements. In 2001, Kentucky auto employees had the highest value added in

the nation further enforcing this fact. Gateway Community and Technical College is currently working with the Ford Foundation on a Career Pathways project in high tech manufacturing. In addition, GCTC is one of three KCTCS institutions that are involved with creating the Automotive Center of Excellence, a multi-state effort to create a network of workforce centers to support automotive manufacturers.

- **Research and Development** – Research and development has not proved to be an important factor in recruiting auto manufacturers and their suppliers. Northern Kentucky again benefits from its close proximity to University of Cincinnati and University of Kentucky research and training programs.
- **Cost of Doing Business** – An area's recurring cost structure is extremely important to firms in the auto industry. After wages, facility operating costs are typically a firm's largest expense. NKY offers one of the lowest operating cost environments in the nation. Utility costs are among the nation's lowest and wages are competitive compared to high tech metros. NKY is at a disadvantage when comparing tax structures as Kentucky's overall tax burden is relatively high.

Niche Target #1

Foreign Suppliers – Headquarters and Manufacturing

Northern Kentucky is an ideal location for foreign automobile suppliers both for headquarters facilities and manufacturing operations. The area is the geographic center of the U.S. auto industry and is located with a day's drive of 70% of the U.S. population. The state also offers a good mix of American and foreign manufacturing with GM, Ford, and Toyota all operating manufacturing facilities in the state. The Northern Kentucky/Cincinnati International airport is very important and offers NKY an advantage many competitors will not be able to match.

Niche Target #2

Process Automation and Controls

Process Automation and Controls are the brains and brawn behind all advanced manufacturing facilities around the world. Today, automation systems consist of advanced software systems operating on supercomputers linked up to the machinery and robotics actually manufacturing. And while people are still the most important asset to manufacturing plants, automation has allowed the U.S. to remain competitive in many industries by making gains in efficiency. A modern semiconductor fabrication facility, for example, requires one-third as many workers as it would have just 15 years ago. The Cincinnati MSA has an above average number of engineers with industrial and electrical backgrounds whom automation firms employ. GCTC is home to a PLC repair and maintenance curriculum and provides PLC training to DHL and Thompson.

Target Industry Two: Biomaterials, BioInformatics, and Medical Supplies

On first examination, Northern Kentucky does not appear to be a strong region for biotechnology and life sciences companies. However, in looking at the region surrounding Northern Kentucky, one can find several assets that make the region attractive to niches within the biotechnology field. First, the Cincinnati-Northern Kentucky International Airport is an important strength. Workers within the biotechnology industry frequently travel, often internationally; therefore, close access to an international airport will be attractive. Second, the Pharmaceutical Science program at the University of Cincinnati is among the best in the nation, attracting top scientists from the country as adjunct professors and to pursue advanced degrees. Successful growth of the industry will depend on how well Northern Kentucky connects with the University of Cincinnati. Third, other Kentucky universities are developing significant life science and natural products research programs. Finally, Kentucky offers state level incentives to industry firms.

Competition for biotech firms is fierce, however, and Northern Kentucky will be competing with more qualified areas such as Raleigh-Durham and Boston. Successful recruitment will take 10-20 years, making this sector a long-term target for the region. Currently, Northern Kentucky is at a distinct disadvantage due to a lack of “wet lab” space for start-ups, though the area does have many traditional incubators.

- Economic – Northern Kentucky is a high growth area although it lacks a large technology cluster.
- Structural – While Northern Kentucky provides excellent infrastructure overall, it lacks certain amenities that biotech firms desire, such as wet lab space and a large research hospital. Budding entrepreneurs will need access to support networks and business mentors to commercialize their technologies into profitable products.
- Workforce – Northern Kentucky and the Greater Cincinnati area have a large embedded technical workforce and have adequate numbers of science and engineering graduates coming out of area universities. Key to start-up success is to have experienced executives who can shepherd products through lengthy and cumbersome governmental approval processes. Moreover, these executives must be capable of leading small companies with few resources, and still be able to make a profit.
- Research and Development – Northern Kentucky lacks a top-tier research university but benefits from its close proximity to the University of Cincinnati, the University of Kentucky, and University of Lexington.
- Cost of Doing Business – Northern Kentucky offers a clear advantage in wage rates over many of the nation’s technology metros.

Niche Target #1**Biomaterials and Medical Suppliers**

Biomaterials and Medical Suppliers include all medicine and pharmaceuticals, diagnostic substances, lab apparatus, optical instruments, surgical and medical instruments, dental equipment and supplies, x-ray apparatus, and electromedical equipment. The medical supplies industry, which is relatively immune to shifts in economic cycles, is expected to continue to grow at above-average rates.

Niche Target #2**Bioinformatics**

Bioinformatics uses powerful information technology for biological research. It is one industry feeding off the Human Genome Project that could also lead to more advances in the study of how the body works and potentially cure or eradicate some diseases. These advances in biotechnology will lead to more work for employees with and without advanced degrees who work in production lines. The Cincinnati MSA contains above average numbers of biologists, lab technicians, and computer engineers that bioinformatics firms require.

Target Industry Three: Financial Services

Financial service call centers and other back-office operations have gravitated from the Northeast to the Midwest over the last 20 years. The region's affordable, well-trained workforce and low operating costs make it ideal for call center facilities.

Both NKU and Gateway Community and Technical College (GCTC) have established strong relationships with Fidelity and Citigroup, two of the region's major financial services companies. GCTC, for example, recently was recognized in the top ten Bellwether award recipients for its corporate partnership with Citigroup. Its program with Citigroup has been so successful that other companies who are focusing on readiness, recruitment and retention of call center employees are using it as a model. In addition, GCTC has a grant from the National Endowment for Financial Education to create financial training materials for frontline workers and secondary students. Through the Kentucky Workforce Investment Board (WIB) and the KCTCS WINS program, Northern Kentucky workforce development leaders attract significant training resources to support this, and other target industry sectors.

- Economic – Higher value-added call centers look for less competitive labor markets in more suburban areas. These facilities have low turnover and do not need an extremely large labor force to pull from. Northern Kentucky offers the suburban environment that fits these operations well.

- Structural – Due to the nature of a call center and similar back-office operations, reliable utilities and telecom services are very important. Other than electrical needs, these facilities are light users of other structural assets such as water and natural gas. Northern Kentucky's cheap, reliable electric supply is an asset, as is access to Cincinnati Bell's SONET ring that runs through the area.
- Workforce – These are not generic call center operations. Financial service firms require degreed individuals and pay above average wages. Northern Kentucky benefits from local universities such as NKU and UC and the many other universities in the tri-state area.
- Research and Development – Not typically an issue for this industry.
- Cost of Doing Business – These operations have gravitated to the Midwest in large part due to the area's low cost of doing business. Northern Kentucky offers affordable wage rates for educated workers and inexpensive utilities. An added bonus is that call centers prefer the neutral accent of Midwesterners.

Niche Target #1

High Value Added Call Center Operations

These are not typical call centers but rather technical customer support facilities (in-bound calls) staffed by college graduates. These operations are characteristically large campus settings such as the Fidelity campus in Northern Kentucky.

Niche Target #2

Back Office Operations

The financial services industry is clustered in New York, Boston, and Chicago, all areas with extremely high recurring cost structures. One of the quickest ways for firms to cut costs has been to move back office operations to lower cost environments. These facilities range from check processing operations to purchasing to human resources, anything outside of the firms specialty.

Target Industry Four: Logistics

Logistics and distribution businesses manage and facilitate the transportation of goods.

Distribution companies are those operations that handle the sorting of goods and the physical transportation of them from one location to another. Examples of distribution

operations are trucking companies, air cargo, or overnight mail hubs where packages are collected, sorted, and placed on trucks or airplanes for transportation. Companies in this field require affordable wage rates, excellent transportation infrastructures, and reasonably priced land, all of which Northern Kentucky possesses. Distribution facilities have low economic impacts however, and require large tracts of land that are becoming scarce throughout the area.

Distribution companies will continue to locate in Northern Kentucky. **Tri-ED does not need to incentivize distribution businesses or specifically target them through marketing and business development activities.**

Logistics companies are the “brains” supporting the distribution of goods. These are the businesses or business units that manage and track the flow of goods along distribution routes. Logistics operations are technology-intensive, utilizing computer networks, customized software, electronic tracking devices, and satellite technologies. Individuals employed by logistics operations are college-educated, highly skilled, and are paid above average wages. As compared to distribution companies, logistics businesses leave a smaller environmental footprint.

AE strongly recommends that Tri-ED target logistics businesses and business units. By targeting logistics sector, Tri-ED will be further advancing the current distribution industry by recruiting its more technology-driven, higher wage relative. A

- Economic – Logistics requires a growing economy to provide affordable labor and a growing market to supply. Industry firms also typically locate near metros with large distribution clusters.
- Structural – Logistics firms are comparable to data centers or software development operations. They are IT intensive and therefore demand reliable telecom and utilities. Affordable class A office space is also desired.
- Workforce – Worker needs can be specific, and firms will require experienced supply chain managers and technical administrators. Northern Kentucky is not currently strong in this area, but the recommended Advanced Logistics Institute at Northern Kentucky University would help to ease this insufficiency.
- Research and Development – Research at the university level can be important for industry firms. Again, the proposed Advanced Logistics Institute could enhance the area’s allure.
- Cost of Doing Business – The cost of labor, utilities, and office space, areas where Northern Kentucky has inherent strengths, are the most important factors for logistics firms.

Niche Target #1

Logistics Operational Headquarters

While Northern Kentucky has several large scale distribution facilities the area lacks a headquarters or control center facility. There are hundreds of small-to-medium sized command and control operations that manage distribution networks and corporate supply chains. Northern Kentucky is a perfect fit for these facilities and should aggressively recruit them.

Niche Target #2

Biologistics

Northern Kentucky offers advantages for logistics and distribution facilities for the pharmaceutical and bioscience industries. Several third- party distribution companies that specialize in storage and transportation requirements for biological products and medical devices have already located in Kentucky, primarily in the Louisville area. These companies provide climate-controlled, FDA and DEA-approved warehousing and distribution for pharmaceutical and biological products, and provide additional logistics and supply chain management services.

Target Industry Five: Software

Software is a component of all recommended target industries for Northern Kentucky. Within the automotive industry, we recommend process automation and controls (both hardware and software); within biotechnology we recommend bioinformatics; within financial services, the niches of high value call centers and back office operations; and within logistics, the operational headquarters that are filled with computer equipment and software for supply chain management and tracking shipments.

Software should be one of Tri-ED's target industries because it is an important component of many of the other target industries, it builds off of NKU's information science programs, and the level of future economic benefit associated with the industry is so great.

- Economic – Software firms desire a dynamic and creative workforce and have located in some of the more artistic cities in America such as San Francisco and Austin. Many of the largest firms in the industry are start-ups less than 25 years old, and the availability of venture capital can be important in determining where small software firms initially locate. Northern Kentucky is not as vibrant as many of the nation's tech metros, but it has made many improvements.

- Structural – A software firm will require reliable telecom infrastructure above all else, but utilities are important as well. Northern Kentucky's SONET ring access is a good selling point for firms in the industry.
- Workforce – Software firms need highly-educated workers more than any other input. Northern Kentucky produces an average number of science and engineering graduates annually, but even after taking into account its close proximity to Cincinnati, the area is still lagging behind many other metropolitan areas. Companies also require a pool of experienced technical managers.
- Research and Development – University software research is highly important to this industry, as many companies have research relationships or depend on software entrepreneurs to staff software start-ups. Northern Kentucky currently lacks the research institution that would naturally attract and create new software startups. Corporations will continue to depend on themselves for research, and a stronger NKU in the future will help to fill this gap.
- Cost of Doing Business – Operating costs are typically as critical of an issue for software firms. When it does come into consideration, wage rates for qualified workers matters the most. The Cincinnati metro offers much more affordable technical employees than any of the nation's tech metros.

Niche Target #1**Data Center Facilities**

Data centers are businesses that provide digital information storage for their customers usually in the form of Web sites. Data centers are composed of clusters of computers and network switching gear that allows efficient transfer of data over the Internet. These computers store the software programs and databases needed to run an Internet Web site. Many large corporations have begun constructing "back-up" data centers in non-metro areas to use in the advent of a large-scale terrorist attack. Northern Kentucky fits well with these particular industry requirements as the area can pull from a large metro workforce but is isolated enough for safety reasons. Many New York securities firms had located data centers too close to their headquarters and suffered during the most recent blackout.

Niche Target #2**Software Modeling and Automation for Manufacturing**

Software modeling and automation technologies have allowed many companies to increase productivity. New advances in factory automation software have led companies across a variety of industries to begin using them, especially the petroleum industry. Many offshore rigs are close to being fully automated, and everything from the movements of the platform in its adjustments to weather conditions to the actual retrieval of the oil and helicopter fueling systems are now controlled by automated systems. This industry fits well with the process automation recommendation and the region's large manufacturing base.

Niche Target #3

Grid Computing

Hook enough computers together and what do you get? A new kind of computing platform that offers supercomputer processing on tap. Many large public institutions, such as schools and government facilities, with large networked systems have begun renting out their computer networks at night. Many small research firms that require large computing systems can then rent these computer networks during evenings and weekends when they would otherwise sit idle. Northern Kentucky's low utility costs and excellent telecom infrastructure give the area an advantage over many competing areas.

II. Workforce Development and Education Recommendations

GOAL: Workforce development and education programs should be focused on preparing a workforce for Northern Kentucky's target industries.

Helping the Northern Kentucky workforce prepare for meeting the needs of its target industries can occur on several fronts. First, Northern Kentucky University can expand its impact on the community by broadening its services and focus. Second, Gateway Community and Technical College can ensure that its curricula are focused on future industry needs. Third, higher educational institutions in the tri-state area can work together to leverage their strengths. Fourth, Northern Kentucky secondary educational institutions can spark interest and desire for entrepreneurial achievement. Finally, several organizations in Northern Kentucky can create an environment that attracts and retains a young, highly skilled workforce.

Throughout this four-month planning process, AE has conducted interviews, focus groups, and surveys with more than 150 people. As a result, several important workforce strengths and challenges have surfaced. Both residents and businesses agree that Northern Kentucky University is among the region's top strengths, with an even greater potential in the future.

Residents feel that the Gateway Community and Technical College is an under utilized asset that is not promoted to the business community. GCTC has an excellent relationship with Northern Kentucky employers that rely on the college for providing the foundation of technical training to workers. Between 2002-2003, GCTC procured more than \$1 million from local companies to provide training services. We expect that this relationship will further strengthen as GCTC expands its campus and awareness of its programs increases.

Newcomers and long-term residents agree that the region is a wonderful place to live and are committed to their community. The community is home to hard working individuals. The combination of the hardworking nature and strong commitment to the region creates a "can-do" spirit that will be invaluable in pursuing new economic development initiatives.

In analyzing data for the Community Assessment and SWOT Analysis reports, three concerns emerged regarding the profile of Northern Kentucky's workers. The local population lacks entrepreneurial spirit. The conservative nature of the community has created a small number of entrepreneurs. In the past, local training programs have not focused on producing high tech workers. The Northern Kentucky Workforce Investment Board, however, recently has taken important steps to move training grants toward more high tech, knowledge based occupations. Retaining and attracting technical talent and mid-level managers is a challenge. The region must continue to keep its vision toward meeting the needs of future employers, businesses that will not be in manufacturing

sectors. If the steps outlined in this plan are implemented over the next five years, Northern Kentucky will be on the right track to the new economy.

Based on Northern Kentucky's long-term goals and AE's understanding of regional strengths and challenges, we offer the following major strategies to help craft strong workforce and education efforts:

1. Promote Northern Kentucky University as the regional and state center for entrepreneurial activity and study.
2. Create and enhance programs at Gateway Community and Technical College that meet the needs of the designated target industries.
3. Leverage the strengths and talents of higher educational institutions in the three-state area to attract and retain young people.
4. Establish a high school to develop and empower the next generation of entrepreneurs.
5. Create a quality of life that attracts young, highly skilled workers.

In the following pages, we have provided specific action steps to help Northern Kentucky complete these strategies.

Workforce Strategy One: Northern Kentucky University should become a primary driver of technology growth in Northern Kentucky.

Action 1: Northern Kentucky University should create an Advanced Logistics Institute.

The Institute will focus on the high tech aspects of the logistics industry, based on the University's expertise in the field of information technology. The Institute will conduct research in partnership with the large number of logistics and distribution operations located in Northern Kentucky. The program should be developed in collaboration with GCTC and Thomas More College, ensuring all three colleges have a role to play in preparing Northern Kentucky workers for this field.

Research and development projects will provide opportunities among industry, faculty, and students in areas such as:

- Remote security and monitoring technologies
- Information sharing and management issues in supply webs using XML-based technologies
- Supply chain event management systems (becoming increasingly important to just-in-time operations)
- Adoption and integration of new technologies

Action 2: Northern Kentucky should become home to a branch of the University of Kentucky's Visualization Center.

Visualization involves the use of high-performance computers to generate visual representation of complex data or virtual environments. This technology helps engineers and scientists to better interpret complex processes or large amounts of computer data by rendering such data into animated computer images. The technology can be utilized for the rendering of virtual environments whereby actual human subjects or objects are placed in a virtual environment created via high performance computers and state-of-the-art projection techniques, allowing interactions which were previously impossible.

This field of study is an exceptional match with the work that is being done at NKU and GCTC in information technology and computer science.

This visualization center will serve as a magnet for this emerging field of technology, attracting research and development projects as well as generating commercialization opportunities for local entrepreneurs. It will provide a valuable resource for local employers, constantly striving to find local collaborations and business applications.

The University of Kentucky has a visualization laboratory within its engineering department. Northern Kentucky leaders should work with state officials to establish a sub-center, or branch location, of the UK program.

Action 3: Expand Northern Kentucky University's entrepreneurship program.

In the future, entrepreneurship will be responsible for more than 70% of economic development in the U.S. As manufacturing jobs continue to be lost to overseas competition, the U.S. economy will be driven by small businesses.

Northern Kentucky University should adopt a full undergraduate degree program in entrepreneurship. The program should become the core of an increased focus on entrepreneurship at Northern Kentucky University.

Additional information on this action is provided within the R&D and Entrepreneurship Recommendations section of this report.

**Workforce and Education Strategy Two:
Increase workforce training funding to Northern Kentucky providers.**

Action 1: Acquire funding and support for Gateway Community and Technical College's proposed Center for Manufacturing Competitiveness.

Gateway Community and Technical College is planning to construct a Center for Manufacturing Competitiveness on its Boone Campus located off the Mt. Zion

Rd. near I-75/I-71 as the second phase of its planned flagship campus. Eventually the campus will include 400,000 square feet of space to serve between 5,000 to 7,500 students. The center will house the college's programs related to industrial and manufacturing technologies as well as general education programs to increase student access to programs in that geographic location. It will house special laboratory classrooms devoted to leading edge manufacturing processes, electronics, industrial maintenance as well as serving as a training site for individuals desiring to augment their careers with updated or new skills.

A goal of the center will be to develop and deliver customized training programs specifically designed for individual as well as clusters of manufacturing businesses. Through the college's Business and Industry Services Division workshops, classes, and entire programs that support production and distribution workers will be developed and delivered either at the center or at the business site, or both.

Total cost of construction for the Phase Two campus project is estimated at \$22 million dollars, including \$3-5 million dollars in equipment. The project is endorsed by the Northern Kentucky Chamber of Commerce's Washington "Fly-in" Committee, as well as the college's Board of Directors. The project presently is listed as the 2nd priority in the list from the Northern Kentucky Consensus Committee and 7th priority in the list of capital construction projects by the Kentucky Community and Technical College System (KCTCS).

Action 2: Support workforce development programs that train people in skills most demanded by targeted companies.

Workforce training plays a critical role in the overall plan that has been established for Northern Kentucky. Training programs must be designed to effectively meet the skill sets that are required by the target industries.

GCTC and KCTCS are in a position to bring significant training resources through the Kentucky WINS program that exceeds the funding available through the Bluegrass Skills Corporation. We encourage KCTCS, GCTS, and other local workforce service providers to continue funding and building upon current programs that support the Northern Kentucky's recommended new economy targets. Programs such as Center for Manufacturing Excellence, Ford Foundation Career Pathways project, the Automotive Center of Excellence, PLC repair and maintenance curriculum, and FIPSE entrepreneurial grant are all important foundations for further growth of Northern Kentucky's target industries.

Action 3: Increase workforce development funding at the state level.

The Bluegrass State Skills Program is under-funded with more applications for grants than there are available funds. At several million dollars per year, funding runs out very quickly and creates politicized environment for awards. AngelouEconomics recommends that funding be increased to meet demand for

services, and that the awards process be reviewed in conjunction with a funding increase.

In addition, local businesses are often unaware of the training programs that are available. The Bluegrass State Skills program should be more aggressively marketed as an incentive to targeted industries.

Action 4: Expand collaboration among Northern Kentucky University, Gateway Community and Technical College, and local employers.

Northern Kentucky University has set the standard for working with local businesses by establishing the on-campus Fidelity Investments customer call center. More relationships like this need to be built and expanded upon to provide work experience to students and a qualified workforce to industry. Citi LINC (Learning, Innovation, Networking and Community) is another model program between Citigroup and Gateway Community and Technical College. GCTC is providing training and awarding certificates that meet the company's growing needs and provides for Citibank leadership training. Collaborative efforts such as these not only benefit students and current employers, but make Northern Kentucky a more attractive location for future expanding and relocating high tech companies.

**Workforce and Education Strategy Three:
Generate National Recognition for Northern Kentucky Educational and Training Institutions.**

Action 1: Engage the University Presidents within the region on New Economy Issues

The Presidents' Alliance will be comprised of university and college presidents from universities along the I-75 / I-71 corridor, from Lexington and Louisville in the south to Dayton in the north. The educational resources within this region are enormous economic development strengths, providing local companies a rich supply of talent. Marketing this resource is difficult because there is little collaboration among the universities.

The Ohio Valley Affiliates for Life Sciences (OVALS) initiative establishes an excellent precedent for bringing universities together around a specific initiative. Sponsored by the University of Cincinnati, University of Kentucky, University of Louisville, and Wright State University, OVALS links university research in the life sciences field with investors and entrepreneurs. OVALS also encourages collaboration among the research institutions.

- **Focus the summit on finding strategies to retain graduates in the region after graduation.**

Retaining students is an issue that is important to all educational institutions. Communities become more successful and competitive when they retain the best and brightest students who become future highly skilled workers. The greater regional approach will increase the level of resources and ideas that are dedicated to the problem.

- **Combine and package information about all of the universities in the region, with a focus on their high tech strengths.**

The material will be used to showcase the academic strength that is concentrated in this relatively small geographic area. A single collateral piece or Web site page that highlights their combined strengths relative to high tech should be the end result of this effort.

This collaboration will lead to continued cooperative efforts among the universities, local businesses, and economic developers.

Action 2: Leverage the strengths of the METS Center to bring national attention to Northern Kentucky University.

The Metropolitan Education and Training Services (METS) Center of Northern Kentucky University is the newly constructed, state-of-the-art center for corporate learning and workforce training. **NKU should create a targeted marketing effort aimed at recruiting and creating conferences, seminars, and networking events for the target industries that have been identified.**

These events will showcase not only the METS Center but will also highlight the achievements and capabilities of the University. Tri-ED will have an opportunity to showcase the region's strengths as a business location to executives attending the events.

**Workforce and Education Strategy Four:
Provide resources to help Northern Kentucky's K-12 students become future entrepreneurs.**

Action 1: Create a magnet high school dedicated to entrepreneurship that is accessible to students in Boone, Campbell, and Kenton Counties.

The school should be modeled after Cincinnati Public Schools' new Entrepreneurship High School, which offers students a basic core curriculum enhanced with entrepreneurial studies.

The school will provide students with mentors from local small businesses, space to start their own businesses, and coursework that encourages them to develop

their own business plans. The school curriculum will include science and math with an application to business along with electives in advertising, market research, banking, investing, and forecasting.

Students attending the magnet school could receive college credit through agreements with the Northern Kentucky University program for entrepreneurship and Gateway Community and Technical College.

The school will work closely with the Northern Kentucky University program in entrepreneurial studies.

Proposed program features:

- Small classes
- Space to set up a business
- Field trips to local businesses
- Internships
- Guest lectures by small business owners

Action 2: Create a mobile technology laboratory.

The laboratory will be used as an interactive marketing tool targeted at secondary students. The lab will generate excitement and interest in several areas of scientific research that have future business applications (not just academic use). This lab will demonstrate the process of commercialization and will not only create interest in the sciences but will stimulate the entrepreneurial spirit as well.

The mobile lab could be designed and operated by Northern Kentucky University. University students have the opportunity to share their interests and knowledge with high school students by sponsoring and providing tours of the lab from location to location.

Action 3: Create an Advanced Research and Technology Center for Youth.

The Center for Advanced Research and Technology (CART) in Fresno, California is the most comprehensive, state-of-the-art education reform effort at the secondary level in the United States. CART collaborates with businesses and community agencies to educate students in a cross-curricular, project-based environment that is academically rigorous and facilitated through a business based instructional model.

Northern Kentucky should consider the creation of a similar program. The CART combines rigorous academics with technical, design, process, entrepreneurial, and critical thinking skills. High school students who are participants in this program provide technical assistance to area businesses, giving them hands-on technical training in a unique environment.

Action 4: K-12 schools in Northern Kentucky should adopt the Seeding Innovation program.

Seeding Innovation is a new State of Kentucky outreach program designed to interest K-12 students in the fields of science and engineering. This new initiative will provide resources to create an entrepreneurial-minded culture among Kentucky high school graduates, teachers at all levels, postsecondary students and faculty, members of the workforce, policymakers, and the general public.

Strategies of the program include, but are not limited to, the following:

- Role model program
- Internships in business and research laboratories
- Summer camps
- Entrepreneurship – K-12 education
- Entrepreneurship – postsecondary education
- Governor’s Young Entrepreneurs Competition and other recognition events
- Seeds of Innovation program

All K-12 institutions in Northern Kentucky should aggressively begin this program, looking to the state and GTC for guidance and other participating Kentucky school districts for examples to model.

Action 5: Support an annual business plan competition for all high school students in the Northern Kentucky region.

Invite local business leaders to conduct business plan instruction each fall semester. In the spring, launch a competition in which students conceive of a business idea and submit an executive summary of a business plan. Winners should receive college scholarships or seed capital. Invite previous year’s winners to become mentors and judges in the competition. Northern Kentucky University should lead this initiative.

Action 6: Ensure that Junior Achievement programs are in every middle and high school in Northern Kentucky.

This program will invite local business owners to talk to students about why they started their own business, what they enjoy about it, and how they did it.

Action 7: Develop a Youth in Philanthropy project throughout the region.

Engaging young people in local philanthropic activities helps them develop a sense of pride for their community. It also increases the likelihood that they will live in the community after completing high school and college.

A model for this type of project exists in Fort Bend County, Texas. The George Foundation, the Fort Bend Chamber of Commerce, and local business leaders sponsor this project. Highlights of this effort include:

- Student-organized philanthropy – researching, planning, and implementing community service projects
- Winners receive cash awards to be donated to a charity of their choice
- Select scholarship awards are provided for exceptional work for community
- Total of \$25,000 in scholarships awarded by community-minded and committed leaders and businesses

Workforce and Education Strategy Five: Attract and retain a highly skilled workforce.

The most successful economic development regions in the U.S. also contain strong quality of life amenities. A quality environment plays a large part in the choice of young, skilled professionals in deciding where they move. It also plays a significant role in retaining good citizens.

The recommendations offered within this section are aimed at improving the quality of life for two audiences: young professionals and target industry companies. Both audiences look for cities with exciting, fun environments with a diversity of retail, restaurants, and nightlife options. Ample parks and green space, artistic and cultural amenities, vibrant downtowns (any size), and multiple housing options are all very attractive.

From the urban culture of Covington to the scenic beauty and mountainous terrain of Campbell County, Northern Kentucky contains many qualities that will appeal to young professionals. The region, however, continues to lose this population. Today, the median age of Northern Kentucky residents is 34, up from 31 a decade ago. The percentage of people between the ages of 25-34 years old is shrinking and decreased by 1,900 people or about 3% from 1990 to 2000.

Retaining young professionals is as important as recruiting them. In this section, we recommend improvements to existing quality of life features and the creation of new amenities that will show Northern Kentucky's young people that the region is progressive and paying attention to their needs. The projects we recommend are designed to generate a new energy in Northern Kentucky that appeals to a younger population.

Action 1: Expand and create more attractive urban environments.

- Continue to redevelop the river front with mixed-use projects
- Increase the availability of high-end retail and restaurants
- Improve residential options for young professionals

Active, beautiful downtowns are an essential feature of successful regions. They provide a space in which locals can gather, and they create an immediate, visual impression of the health of the local economy. A thriving, interesting downtown keeps residents living closer together and reduces sprawl, helping a community accomplish another important goal – preserving the natural environment and green space.

Creating an active downtown requires hard work and determination. It cannot occur overnight. Complete downtowns, no matter the size, offer a place to work during the day as well as places to live, learn, eat, shop, experience arts and culture, attend community events, and enjoy sports and recreation. To build a complete downtown, community leaders must commit to inducing as many activities as possible to locate downtown.

Action 2: Create a regional parks plan.

The organization Forward Quest has been working on a regional parks plan for some time and greater support and community involvement should be put into their effort. There has been division regarding specific details of the plan and these differences should be addressed. These differences should not hinder the overall goal of the plan.

Action 3: Support and encourage Northern Kentucky young professionals to participate in LEGACY. Invite LEGACY members to become spokespersons for Northern Kentucky and Greater Cincinnati on future marketing missions and prospect visits.

Ask local employers to promote membership in LEGACY, the region's young professionals (under 40) organization. With approximately 140 members, LEGACY has established itself as a dynamic group of young leaders. The Northern Kentucky business community should encourage and support LEGACY in its efforts to improve the quality of life and economic development of the region. LEGACY is nonpartisan and holds monthly educational meetings, featuring community and business leaders, scholars and entrepreneurs, on timely subjects. LEGACY also contributes op-ed articles to local media and hosts public events. In addition to attending Cincinnati events, the Northern Kentucky members should also host LEGACY activities at interesting, exciting places in Northern Kentucky to build a reputation of fun and excitement for the region.

The business community should identify LEGACY members for service as spokespersons for marketing missions and prospect visits. LEGACY is an excellent resource that will help build the region's appeal to creative, young individuals. It should be integrated into economic development efforts. (www.nkylegacy.com)

The Southern Tier Young Professionals organization is an excellent model of a successful organization (see http://www.styp.org/to_do.php).

Action 4: Extend and improve existing hiking and biking trails.

Outdoor recreation is an important factor impacting location decisions for young professionals. With today's technological infrastructure, skilled workers are more flexible as to where they live, no longer tied to the location of a major employer.

- Create a dedicated jogging trail that loops from one side of the Ohio River to the other utilizing the Purple People Mover Bridge.
- Work toward a long-term vision of a single trail connecting Boone, Campbell, and Kenton Counties.
- Create public spaces and then promote Campbell County as a regional center for mountain biking, hiking, and trail jogging.

Action 5: Retain Northern Kentucky University and Gateway Community and Technical College graduates in Northern Kentucky.

The two educational institutions should enhance the career placement offices and make an aggressive push to identify local job openings. Quarterly career fairs for both institutions should be held with the purpose of bringing in large and small Northern Kentucky businesses.

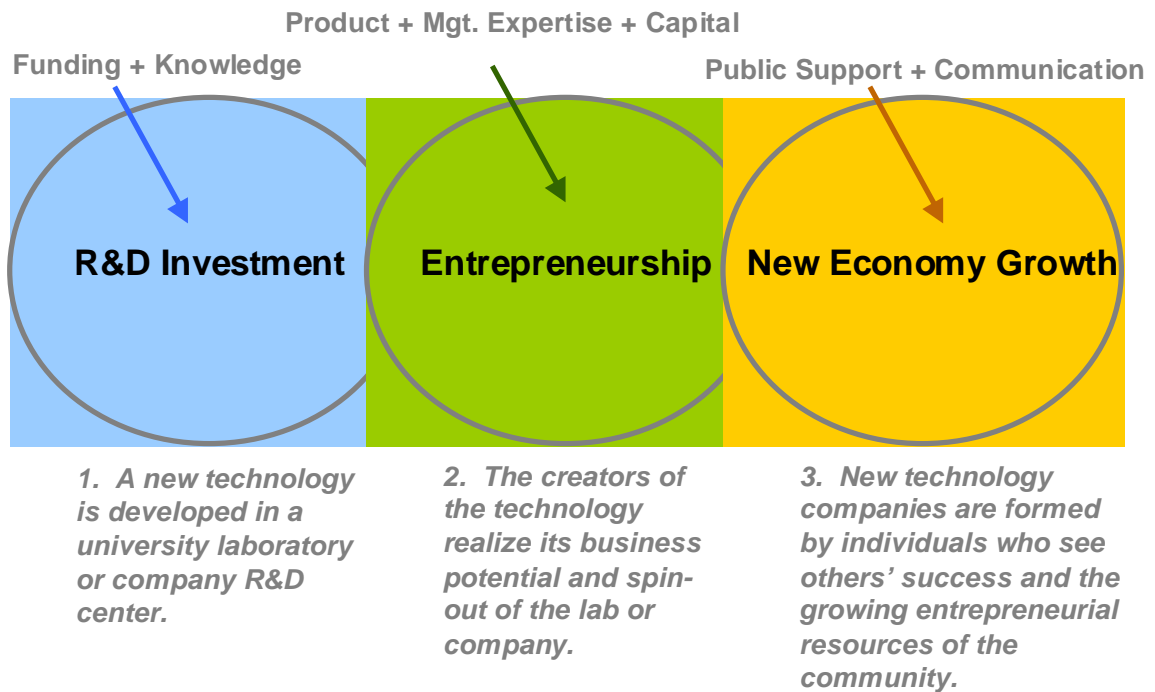
Internship and co-op programs with local employers should also be energized, assisting students in connecting with local employers. The program should be creative and flexible in providing course credit to students involved in the internship program.

III. Research and Development / Entrepreneurship Recommendations

GOAL: Entrepreneurship and technology commercialization in Northern Kentucky become strong engines for new economy growth.

Research and development activities are often the first step of entrepreneurship, and therefore the two are closely linked. As evidence, the nation’s top technology metros are also the cities that have the highest funding of research and development activities, as well as the highest levels of venture capital and business start-ups. The average annual university R&D spending in the 11 technology metros examined in the *Preparedness Assessment* (Report 3) is \$200 per capita compared with \$20 per capita in Northern Kentucky and \$116 per capita in Cincinnati.

Link between R&D, Entrepreneurship, and the New Economy



As discussed in the Preparedness Assessment, university research is one of the most important drivers of technology site selection decisions, particularly for small and mid-size firms. Research at the university provides: spin-off opportunities, education for the area workforce and entrepreneurs in new technologies, and lab space. Many of the

nation's most successful technology firms located in cities with university-level research activity. San Jose is home to hundreds of companies that started with local university graduates and technologies, for example Google, Sun Microsystems, and Hewlett Packard.

Most if not all of the nation's tech metros have at least one top-tier research university. San Jose has Stanford and Berkeley, Boston has Harvard and MIT, and Raleigh-Durham has Duke and UNC. According to data from the National Science Foundation in 2001 San Jose area universities received \$1.4 billion in R&D funding, Boston \$980 million, and Raleigh-Durham received \$921 million.

For Northern Kentucky and Greater Cincinnati to compete for new economy companies, investment in education, R&D, and entrepreneurial resources must be strong. The recommendations in this section are aimed at better focusing Northern Kentucky's current educational and entrepreneurial programs on the needs of the target niches recommended in this report.

The entrepreneur in the community is a primary contributor and mobilizer of resources to develop the economy, a provider of employment for others, and a stabilizing factor in the society. The following are some of the major benefits of entrepreneurship:

- Provide a productive outlet for energies of enterprising and energetic people
- Create jobs at relatively low capital cost, especially in the fast growing service sector
- Develop a pool of skilled and semi skilled workers who are the base for industrial expansion
- Source of innovation in products, services and techniques
- Serve a social function by creating career opportunities and upward social mobility, and by preserving, in many instances, a set of values increasingly needed in these days of large impersonal firm

Several entities currently provide services for entrepreneurship within the Northern Kentucky region with programs ranging from training, technical assistance, funding, and networking.

Madison E-Zone is a non-profit business accelerator in Northern Kentucky designed to attract and assist start-up, emerging and existing high technology businesses. It serves as the Regional Innovation and Commercialization Center (ICC) for Northern Kentucky. Its mission is to incubate, mentor, and gain exposure for start-up, emerging, and existing high technology businesses.

The **Fifth Third Bank Entrepreneurship Institute** at Northern Kentucky University teaches entrepreneurial skills to students and members of the business community, and serves as a resource for entrepreneurs.

The **Institute for New Economy Technology (iNET)** at NKU is working to attract and connect technology-oriented businesses to the university's resources. It helps provide companies with interns, academic scholars, and research facilities.

New Economy Transition Team (NETT) Formed by the Northern Kentucky Chamber of Commerce in 2000, its mission is to assist in the transition of existing businesses, government, and educational institutions into the new economy.

Innovation Group is an initiative of the Kentucky Science and Technology Council. It will partner with Madison E-Zone and C-Cap, the angel capital network in Greater Cincinnati to recruit and educate new angel investors to finance new business development.

The **High Bridge Ventures LP fund** is under development by the Kentucky ICC program to make early-stage investments. Investors will be eligible to receive a 40% state tax credit.

Kentucky First, is a proposed Northern Kentucky-based enterprise that will purchase and develop companies, products, and technology in the pharmaceutical industry and foster commercialization of university research in healthcare.

CincyTechUSA is an initiative from the Greater Cincinnati Chamber to promote a technology-based local economy.

Entrepreneurial networks are increasingly important to technology companies and startups. In fact, the exchange of ideas among workers and CEOs is a core benefit of industry clustering. Currently, Northern Kentucky and Cincinnati have the foundation organizations to serve this need. But anecdotal evidence suggests that these organizations are not well marketed to companies and that they have not been successful in bringing people together. Fragmentation between Cincinnati's entrepreneurial efforts and Northern Kentucky's efforts further hinders networking opportunities

Entrepreneurship has a long tradition in the Greater Cincinnati region. Many of the region's major employers were started by local entrepreneurs decades ago. Proctor and Gamble is an excellent example of this. Northern Kentucky has a tradition of entrepreneurship, also, in industries such as such as real estate development. These are the seeds of future innovation and creativity that must be expanded. Provided the proper tools, Northern Kentucky can begin growing its employment base one company at a time.

**Research and Development/Entrepreneurship Strategy:
Support Northern Kentucky entrepreneurship and technology
commercialization resources.**

It is critical to be preparing today's workforce for a future where they create their own jobs, rather than expect a job with a large employer to be waiting for them when they

graduate or transition into a new career. Entrepreneurship should be viewed as a career path that all Northern Kentucky residents can pursue. Like any discipline, with proper education and resources, individuals can learn to be successful entrepreneurs.

The Office for the New Economy (ONE) has outlined a specific role for each of the four regions of Kentucky. As the leader of the state's new economy initiative, ONE has recognized that each region's new economy specialty should be derived from strengths of their local universities:

- (1) The **Western region** is anchored by Murray State University, thriving tourism industry, and natural resources. The role of the region in statewide economic development is to take advantage of opportunities in the energy and environmental sectors.
- (2) The **South-Central region** is home to Western Kentucky University, a growing auto industry, and farming. The region has been charged with building upon WKU's Applied Research and Technology Program, connecting its agriculture sector with biopharmaceuticals, and applying technology to traditional manufacturing.
- (3) The **Eastern region's** Eastern Kentucky University may lead the high tech push. EKU's Rural Law Enforcement Technology Center could become a tool for commercializing safety and security products.
- (4) The **North-Central region** is the highest per capita income region and contains the University of Kentucky, the University of Louisville (Kentucky's two research universities), and Northern Kentucky University. Within this region the University of Kentucky and the University of Louisville are concentrating on becoming top tiered research institutions, particularly in the health sciences, biopharmaceutical, and engineering fields.

Action 1: NKU should adopt a bachelor's degree program in entrepreneurship.

NKU currently offers a minor degree for undergraduates and an MBA concentration in entrepreneurship, but the university does not currently have a B.A. entrepreneurship degree. The curriculum envisioned by the task force (Action 1) should be adopted as a full degree program(s) at NKU.

Action 2: NKU should require all undergraduate and graduate business students to take small business management and entrepreneurship courses. Students in information technology degree programs should also be encouraged to take these classes.

Northern Kentucky and the surrounding region are home to many engineers. Its manufacturing and distribution businesses contain cutting edge technologies, and the engineers who developed those technologies, but the region lacks the

management and commercialization expertise to help those engineers create businesses around their products.

The creation of small business management knowledge begins at Gateway Community and Technical College and NKU. NKU currently requires around 30 hours of entrepreneurship courses for undergraduate management degree students and 9 hours for MBA students concentrating in entrepreneurship. Students in other business degree programs are not required to take these courses. We recommend that the university take the bold step of making New Venture Creation and New Venture Management required courses for all undergraduate business majors. A Fundamentals of Entrepreneurship course could be created and required of MBA students. Currently MSIS students are not required to take any basic business courses, although these individuals are most likely to be creating the technologies that will form new businesses in the region. Consider requiring or making Fundamentals of Entrepreneurship an elective for all MSIS majors.

Action 3: Identify funding for Northern Kentucky University to establish an Advanced Logistics Institute.

As a hub for logistics and distribution within the U.S., Northern Kentucky currently contains the warehousing and transportation infrastructure that has attracted major distribution companies such as DHL and major manufacturing companies such as Toyota that rely on easy access to area suppliers and manufacturing plants.

Building the New Economy requires Northern Kentucky to look for high tech applications within its traditional industries. We recommend logistics and supply chain management software as a niche high tech target industry for Northern Kentucky.

NKU can play a significant role in sparking the growth of this target industry. The university should establish an Advanced Logistics Institute. The Institute could become the core area of specialty for the information systems department.

Additional information on this recommendation is provided in the Workforce and Education section of this report.

Action 4: Appeal to the Small Business Development Administration to create a Northern Kentucky SBA office.

Northern Kentucky University does have an SBA Small Business Development Center that provides classes and services to entrepreneurs. Northern Kentucky banks must work with the Lexington SBA District office when working with a Northern Kentucky entrepreneur. Northern Kentucky entrepreneurs also have the choice of working with the SBA district office in Cincinnati, which requires the

use of Ohio banks. An SBA district office is important to strengthen the regions commitment to entrepreneurship and encourage and build local relationships.

There is no chapter of the Service Corp of Retired Executives (SCORE) in Northern Kentucky. This organization is a resource partner with the SBA, and they provide managerial and operational support through counseling, seminars and workshops to start-up companies. Both of these partner organizations should have a major presence in the state's largest economic engine. The Madison E-Zone or (proposed future) Advisory Committee would provide these organizations with the regional knowledge and network to build upon.

Action 5: Continue to strongly support the Northern Kentucky Innovation and Commercialization Center.

All high tech regions contain an entity that is dedicated to fostering entrepreneurship. Often, this entity is a small business incubator. Other times, a local university serves this function. Though the format may differ between communities, an entrepreneurship assistance organization is a necessary feature of any community striving to develop its high tech industry.

Madison E-Zone currently serves this important function for Northern Kentucky. For the past three years, it has received start up funding from several local organizations, including Tri-ED. Now that its start-up phase is complete, it is time to assess the organization's successes and challenges. Reflect on the challenges of the past three years, and consider making improvements to the business model to correct for past problems. Northern Kentucky and state leaders must also identify future funding sources – either internally generated or contributions from public or private sector entities – to keep Madison E-Zone a strong, viable operation.

Action 6: Increase the opportunities for high tech workers and entrepreneurs to network with one another.

Though the Greater Cincinnati region contains numerous organizations dedicated to networking local businesses, Northern Kentucky lacks an entrepreneurship or high tech association.

According to a recent article by Erik Pages and Shari Garmise in the Economic Development Journal, "networks are a central component of an entrepreneurial climate – a cultural, social, and economic milieu that encourages and nurtures the creation of new business ventures." The objective of an entrepreneurial network is to provide a forum in which business executives and people who seek to become executives of their own companies can share ideas, do business together, and build relationships.

The Chamber of Commerce or expanded Madison E-Zone should create a Northern Kentucky Entrepreneurs' Association. The Association should promote

membership to small business owners, aspiring entrepreneurs, professional service providers, local civic leaders, economic developers, and investors. Membership to the Association should be a minimal price or no charge.

Good examples include AustinChips (www.austinchips.com), Austin's informal semiconductor networking group; the Silicon Valley Webguild (<http://www.webguild.org/>); and the Northwest Entrepreneur Connection (<http://www.nwen.org/nwenhome.htm>).

Action 7: Create a link on Tri-ED, the Chamber, and Madison E-Zone's Web sites to the searchable high tech company directory found on the Partnership for Greater Cincinnati's Web site.

The Partnership for Greater Cincinnati has developed an excellent, searchable database of all high tech companies in the region. Companies can be searched for by many factors including industry sector, employee size, and address. The database search results in an alphabetic listing of companies, each with a hot link to its Web site.

This is a good resource for all economic development and high tech related organizations in Northern Kentucky. Tri-ED, the Northern Kentucky Chamber, and Madison E-Zone, for example, should create a new page on their Web sites containing a link to the Partnership's database.

Action 8: Create a regional Entrepreneurship Foundation

The Foundation should be established to improve the quality of life for the people of the region through the advancement of entrepreneurial activities at all levels. An Entrepreneurship Foundation enables start-up companies to donate a portion of their equity to local charities.

The Foundation will provide leadership within Northern Kentucky by:

- Fostering the culture of the entrepreneurial spirit in Northern Kentucky
- Contributing to good community causes
- Keep entrepreneurs engaged in the betterment of the community

Look at the Austin Entrepreneurs Foundation (<http://www.takestock.org/index.html>) as a model for the Northern Kentucky / Greater Cincinnati program.

Action 9: Create an on-line Capital Connection for Greater Cincinnati.

Together with research and development activities, access to venture capital is a critical component found in successful high tech regions. In discussions with businesses and investment professionals in the Greater Cincinnati region,

AngelouEconomics received mixed perceptions about the availability of venture capital. While some individuals who were interviewed claimed that venture capital was easy to access, others said that there was very little available.

This inconsistency brings out an important point. Venture and angel capital might be present in the Greater Cincinnati region, but the region lacks a single organized system of connecting investors with new business opportunities. To solve this problem, we recommend the creation of a "Capital Connection" for Greater Cincinnati.

The Internet-based Capital Connection, managed by the (proposed) Office of the New Economy or by Madison E-Zone in coordination with CincyTech, would provide a virtual matchmaking service between entrepreneurs, venture, and angel capitalists.

The Web site would provide entrepreneurs a security-protected location on which they could post their business plans. Prior to posting, the Madison E-Zone team would work with entrepreneurs to ensure that the business plan meets specific criteria- is the business idea viable, well-researched, is the proposed management team qualified, is the marketing plan realistic? In this process, business plans are "screened" by the Madison E-Zone team to ensure that only the ones that have passed due diligence are posted.

Venture and angel investors register to use the site. Capital Connection investors should include all venture capital companies in the region. The Connection should also be promoted to national venture capital and angel investors. Once registered, investors can search the site and read posted business plans. If interested, the investor contacts can contact Madison E-Zone with an information request about the company. Ultimately, the investor is invited to contact the company directly or ask Madison E-Zone to connect them.

The Capital Connection can contain many different functions in addition to the business plan review. The system should contain information available to the general public about starting a business in Northern Kentucky / Greater Cincinnati. It can contain links and helpful articles for start-up companies and investors. Each month, a brief, electronic update should be sent to all registered investors alerting them of new business plans that have been posted to the site.

Ultimately, the region should host a Venture Capital conference at which start-ups compete for an opportunity to present their business plan to an audience of investors. The Capital Connection can become the Web site that promotes the event, provides on-line registration for the event, and provides information for start-ups interested in competing.

IV. Cost of Doing Business Recommendations

GOAL: State and local tax and incentive structures will appeal to the business climate needs of targeted high tech businesses.

It is difficult to assess Northern Kentucky as a place for high tech growth without examining the state's tax and incentives structure. To complete this task, AngelouEconomics was asked to offer broad recommendations related to local and state tax structure and offer incentives suggestions based on best practices we have seen in other communities. This section contains those recommendations.

We are proposing several changes to the state and local tax code that we believe will make Kentucky's business climate more competitive. These changes are also mirroring a nationwide trend of empowering local entities to have a greater stake in tax revenue generation and incentives decisions. Currently, 70 percent of all state and local tax revenue goes directly to the State, with some being redistributed to local governments. Kentucky's 70% state ratio is the 8th highest in the country and places Kentucky in the company of other low-growth states such as Alaska, Arkansas, and West Virginia. We believe that more local tax revenue empowers local leadership to act entrepreneurially and to benefit from smart economic development decisions. Giving Northern Kentucky a greater stake and control in its future is a core theme throughout these recommendations.

Cost of Doing Business Strategy One: Revamp state and local tax systems to be less complicated and more aligned with the operations of service companies.

Current Tax System

A community's tax structure has a great deal of influence over a business's decision to expand, relocate, or start-up operations in that community. Tax structures can vary significantly from state to state and region to region, and the adopted system sends a signal to the marketplace on an economy's direction. Currently, the Kentucky tax system sends a signal of confusion and complication to both individuals and businesses, and is more favorable to manufacturers than service firms. AngelouEconomics proposes an overhaul of the Kentucky tax system to better align it with new economy businesses.

Action 1: Explore tax reform at the state level.

- **Reduce the corporate income tax.**

As a first impression, Kentucky's corporate income tax is high. Kentucky imposes an 8.25% rate on corporate income versus the U.S. median of 6%. Kentucky ranks as the 34th worst for corporate income tax in the country, but still generates a relatively small amount of revenue (3.3% of

total tax revenues compared to the U.S. average of 4.2%). The small contribution of corporate taxes does not appear to be worth the negative impression the high tax rate gives to relocating companies. A lower corporate income tax rate will send the right signal to new economy industries.

- **Standardize the rates charged for the occupational license tax.**

Local governments rely heavily on the taxation of payroll. We believe that the payroll tax is a pass-through tax on employees and that businesses are effectively penalized each time they hire a new worker. There are better ways for local governments to benefit from the success of companies. In addition, there are also a very large number of cities and counties within the state with varying occupational license tax rates, which creates intense confusion and inefficiencies.

AngelouEconomics recommends that these local taxes be standardized across all jurisdictions, or removed entirely and replaced with other tax revenue.

- **Increase taxing authority of local governments – a local sales tax and increasing local property taxes.**

Currently, the state government in Kentucky earns 70% of all tax revenue generated in the state – about 20 percentage points higher than the U.S. average. This system of money flowing to the capitol and back down the local jurisdictions is inefficient, not transparent, and patriarchal. AngelouEconomics believes that local governments should be empowered to make bold economic decisions and be rewarded for their success (in the form of additional tax revenue).

AngelouEconomics recommends that local jurisdictions (cities and counties) be given the power to raise new tax revenue. In contrast to occupational license taxes, sales and property taxes are embedded in the economy and do not directly penalize job creation by companies. Currently, the state sales tax ranks well compared with other states, so a modest increase would not be devastating to the economy or taxpayer. A local sales tax of 1-2 percent would likely compensate for the loss of the occupational license tax. Higher property taxes would likewise fill the gap.

Another benefit to higher local taxes is the new ability of local jurisdictions to abate these taxes for targeted companies and projects. Incentives now become a local decision, and local governments put up their financial and political capital to recruit businesses, rather than relying on the state to concede an incentive.

Action 2: Allow a local sales tax option for economic development to be used for marketing and infrastructure development.

The most competitive incentives offered in Kentucky are controlled at the state level. Each incentive offer is decided in Frankfort on a case-by-case basis and local communities have very little to offer industry.

Local control of incentives allows a community to become as creative and as aggressive in business recruitment and development as the community wishes. This approach gives local leadership a greater amount of control of the community's future. It is this leadership that is much more in tune with the wants and needs of the community.

Incentives are often a demonstration of good faith by a community offering a business-friendly commitment. The incentive is in fact a contract between the company and the community and creates a bond between them. At this point local government is unable to create this bond.

The State of Texas has instituted a local sales tax for use in economic development over a decade ago and the program generated over \$325 million dollars for 500 communities in 2001 alone. Kentucky should model their program after the Texas program, which requires local voter approval and a cap of the tax rate at 1%.

**Cost of Doing Business Strategy Two:
Incentivize high tech and entrepreneurial companies.**

Incentives are an important component to every economic development strategy. They seek to improve a community's competitiveness by adjusting the bottom line for relocating companies that may experience higher tax burdens or operating costs (land, building, labor) compared to other communities. Incentives are often used to upgrade a community's resources, including workforce skills, site availability, or even R&D activity. For some industries, especially for high capital-intensive industries, incentives make or break a site selection decision. Other industries, such as software and service, require minimal incentives, but they place greater weight on a community's ability to support their workforce. In many cases, incentives help create a favorable business climate or overcome a psychological barrier about a community's desire for economic development and growth.

An incentive strategy should not be a one-size-fits-all proposition. Successful incentive programs in the U.S. are often tailored to specific industries. Not only does this customization provide maximum value to prospective employers, but it also makes a strong statement about a community's understanding of the unique needs of the industries it desires to attract.

Action 1: Tie state incentives to wage rates and targeted industries.

The majority of tax incentive programs available to expanding, relocating, and start-up companies focus on the number of jobs that are created.

New, expanding, or relocating companies that are involved in new economy industries often will have a small workforce that may be ineligible for an incentive, but that workforce will be compensated at a level that is many times more than typical old economy companies.

Kentucky should make specific mention of targeted new economy industries in each of their tax credit/job assessment fee incentives. The Kentucky Industrial Development Act, the Kentucky Rural Development Act, the Kentucky Jobs Development Act, and the Kentucky Economic Opportunity Zone Act should provide increased incentives for specific new technology industries in the form of an extension of years of the incentive and an increase in percentage under the job assessment fee collection by the eligible company.

Action 2: Alter the Kentucky Industrial Development Act to allow for eligibility of projects involving leased facilities.

In today's economy, companies are searching for ways to remove the debt of fixed assets from their balance sheets. These companies will often prefer to lease facilities rather than purchase. Additionally, start-up companies will rarely go to the expense of purchasing a facility when square footage requirements will grow as quickly as the company does. This change will target the industries that will build a high tech community in Kentucky.

Action 3: Alter the Kentucky Jobs Development Act, removing restrictions of in-state revenue generation as applied to the targeted industries.

State incentive criteria that requires a percentage of revenue to be generated outside of the state destroys the very clustering effect of emerging technology industries that it wants to create. Technology companies naturally start by servicing the local economy first and expanding to a national client base. The state should encourage local new economy industries to do business together, generating more collaboration and more business for the state.

Action 4: Extend the life of the enterprise zones in the Northern Kentucky region by increasing lobbying efforts to the General Assembly in the 2004 session.

Northern Kentucky has two enterprise zones, one in Covington and one in Campbell County. Each zone has been described as successful.

The Covington zone is scheduled to end Dec. 31, 2004. Campbell County's enterprise zone is scheduled to expire on Dec. 31, 2007. The Covington zone

has been responsible for \$305 million in capital investment and 6,431 new jobs. During the past two fiscal years alone, Campbell County had \$114 million worth of capital investment, when Newport on the Levee was developed.

Action 5: Create a tax incentive that provides for an out-of-state tuition waiver for relocating employees and their families at all Kentucky universities.

The State of Texas has been offering this incentive very effectively for several years. This incentive allows highly skilled workers to continue educational advancement and that of their family's without penalizing them for their move.

Kentucky should model its out-of-state tuition waiver incentive on the State of Texas incentive: new Texas residents must reside within the state for 12 months to meet the eligibility requirements for the lower, in-state tuition. With the out-of-state tuition waiver program, the Texas Department of Economic Development (TDED) and the Texas Higher Education Coordinating Board waive the out-of-state tuition for the employees of companies that are creating new jobs in Texas. The process takes only two to three weeks.

Action 6: Actively promote adjunct professor opportunities for relocating CEOs, high-ranking executives, and serial entrepreneurs at Kentucky universities.

CEOs and other business executives relocating to Northern Kentucky may be seeking an intellectual outlet. Many of these individuals have served as adjunct professors at universities in their previous location. When relocating, they need to know that the same opportunity is possible in Northern Kentucky.

Adjunct professorships benefit Northern Kentucky University students who gain the wisdom, and experience of actual expert business practitioners. The program will generate attention and publicity for Northern Kentucky University, highlighting new initiatives in technology and entrepreneurship. Additionally, the will program allow for public recognition of the achievements and knowledge of the visiting professor.

Action 7: Trade out un-utilized incentives for free Airport advertising.

Tax credits and incentives often go unused by the companies that have received them. A creative alternative that will provide value to a company considering expansion or relocation is to offer airport advertising in lieu of unused incentives. Airport advertising can be extremely expensive and very useful to industry. The program in Denver, Colorado provides an excellent example.

Action 8: Provide a special Opportunity Zone that eliminates all taxes to a company that sets up operations in these zones.

These zones offer a tax holiday for a limited number of years. These zones could be used to encourage tech growth towards specific parks within the Northern Kentucky area. Pennsylvania has established these innovative zones and details regarding their program can be found at <http://koz.inventpa.com/>.

Action 9: Provide for sales & use tax refunds for consumables and services for high tech companies.

Tech companies have unique needs and often have no need to purchase real and fixed property or industrial equipment. However, they do utilize consumable goods. Tax refunds on these purchases are more applicable to their business model and are an attractive incentive.

V. Structural Assets Recommendations

GOAL: Northern Kentucky's Structural Assets will meet the quality and capacity requirements of the region's current employers and target industries.

Northern Kentucky is blessed with numerous resources and structural assets that will support its future growth. The region is well-served by its water and wastewater capacity, several interstates that pass through it, and the presence of the international airport.

The region enjoys a high number of sites and buildings for industrial and office uses along major highways, but a large technology park is not identifiable.

AngelouEconomics' structural recommendations are focused on increasing the supply of high quality locations for future technology growth and expanding the transportation assets of the region.

**Structure Assets Strategy One:
Expand the availability of large land parcels for campus-style technology development.**

Often, the lack of sites and infrastructure may remove a community from a site selector's review list. Many communities believe that a good supply of greenfields equates to a good supply of sites. However, companies are increasingly focused on the supply of developed, "shovel-ready" sites in communities around the U.S., thus raising the bar for corporate recruitment. Companies and site selectors are now approaching communities as they would a supplier, requesting specific information on their "product" (pre-developed sites or available buildings) prior to a thorough examination of the community. A corporate prospect that finds few or no sites that fit its unique needs will often discontinue its local search.

Action 1: Identify technology parks for future development.

Northern Kentucky has a shortage of sites to market to technology companies. Tri-ED should identify two or three sites that can be marketed as technology parks. Tri-ED and local county governments should ensure that each site is master planned, buffered appropriately, and is upgraded to shovel-ready status or has realistic plans to quickly upgrade the site once an investor is interested.

Boone should consider identifying new acreage west of the airport for manufacturing (separate from the distribution parks). Campbell should support development of low-scale office/research projects around the NKU campus and continue to support the development of the Technology Commercialization

Triangle. Kenton should continue to expand the availability of flexible office space near the river to create a startup software cluster.

These technology parks do not need to be land banks. Rather, government and economic developers are designating them for technology development through a new name, new marketing, and any new zoning/ordinances that may support its formation. In addition, the creation of wireless “hotspots” at these locations would do much to announce to the world the counties’ commitment to support technology in these locations.

Action 2: Identify incentives for the technology parks.

Secure commitments from local jurisdictions on incentives that would be available at the parks (requirements on investment, jobs, wage levels, types of industry). For example, the parks could be partially owned by local government or regional organization and sold for a discounted rate. Or, local government can pledge to fund utility upgrades and other infrastructure improvements as new users make investments. Enhanced payroll incentives can be pledged to companies that meet specific criteria (industry, wage, investment, etc).

Incentives don’t have to be pre-approved or even formally approved by elected officials. Clearly, some negotiation will need to take place. Rather, AngelouEconomics recommends that a strong marketing message be sent out to the marketplace that the parks will receive special incentives for specific types of companies. This will deliver greater interest in the parks, and ensure that a high-quality development occurs.

Action 3: Master plan the parks.

Make every effort to ensure a high quality project through a well-designed master plan (ordinances, points of entry, landscaping). Begin early improvements to a few parcels (clearing, grading, utilities/roads). Maintain as much flexibility on the sites’ parceling to allow a large diversity of sizes and shapes.

**Structural Assets Strategy Two:
Improve transportation flow into and out of Northern Kentucky.**

Congestion at the Brent Spence Bridge has increased substantially, and Northern Kentucky’s success as a technology center will depend on its ability to connect to technology centers in Cincinnati. In addition, east-west traffic flow is largely dependent on an increasingly congested I-275. More can be done to interconnect the counties and connect Northern Kentucky to the larger MSA.

Action 1: Lobby state and federal transportation authorities to fund the replacement of the Brent Spence Bridge.

The Brent Spence Bridge is located at the union of I-75 and I-71, providing the primary interstate crossing over the Ohio River. The bridge is currently too narrow to support the increasing traffic, and has become a bottleneck that dramatically slows the flow of goods and commuters traveling the Interstates.

Northern Kentucky and Ohio leadership must continue to lobby state and federal transportation authorities to keep the expansion or new bridge construction on their list of priority projects.

Action 2: Improve east-west transportation connection in the southern portion of Northern Kentucky.

Better east/west access in the central and southern portions of Boone, Campbell, and Kenton counties would provide greater opportunity for this under utilized portion of the region. Continue to lobby for funding for the proposed State Highway 536. The three counties should continue to work together to provide county road access.

**Structural Assets Strategy Four:
Reduce the negative impact of high airline prices.**

AngelouEconomics has heard much on how high airline prices are complicating the operations of companies in Northern Kentucky. High tech companies in particular are highly dependent on their ability to get their technical salespeople and engineers to client locations throughout the U.S. While the Cincinnati/Northern Kentucky International Airport is a tremendous asset and brings numerous direct flights and global access, the high cost does place a high burden on smaller, early stage technology firms.

Action 1: Identify discount-pricing options that can be used as an incentive to recruit new businesses to Northern Kentucky.

It is not uncommon for economic development organizations to secure discount pricing for relocating companies for relocation costs, hotels, and startup expenses. Northern Kentucky should consider ways to secure discount pricing from airlines to support the attraction of technology firms to the region. For example, Northern Kentucky could work with Delta to secure lower prices for the first six months or ramp-up phase of a company establishing operations in the region.

**Structural Assets Strategy Five:
Expand lifestyle amenities attractive to technology firms and their workforce.**

Quality of life rates high for workers with families in Northern Kentucky, and recent amenity improvements along the Ohio River has done much to improve the area as an entertainment destination. Amenities targeted to well-educated singles (the “creative class”) are improving but are still lacking. Furthermore, recreation options are not obviously available that would demonstrate an “outdoor and active” culture that technology workers typically desire (hiking, rough trail biking, canoeing).

AngelouEconomics does not recommend specific actions to be taken for this Goal, but encourages the community to continue its work to improve entertainment, recreation, and outdoor amenities.

VI. Economic Development and Marketing Recommendations

As discussed in the Northern Kentucky Preparedness Assessment (Report 3), Northern Kentucky has achieved continued success in economic development. During the past two years, the tri-county area has not experienced the same severe economic downturn as other regions of the U.S. Although prospect activity is lower than in the late 1990s, the number of “coded” prospects currently being tracked by Tri-ED is up 15 percent over last year. In particular, the region continues to draw interest from companies in the logistics and distribution industry.

While the region is successful, it has not completely seized upon the opportunities offered by the high tech industry. The first three reports of this study indicate that Northern Kentucky contains assets that will be especially interesting to niche companies in the financial, automotive, software, logistics, and biotechnology sectors. Should Northern Kentucky leaders agree to adopt a greater focus on high tech, several changes to economic development and marketing should be implemented.

Current Economic Development Activities

A table listing all economic development-related organizations in Northern Kentucky, Greater Cincinnati, and the Commonwealth of Kentucky is provided in the Appendix of this report. This table illustrates each organization’s primary responsibility, degree of high tech focus, brand identity, quality of its Web site, and degree of regional focus. Each of these organizations plays an important role in the region’s economic development activities.

In reviewing the table, several issues emerge:

1. There are many organizations in Northern Kentucky and Greater Cincinnati that contribute to economic development.
2. Among these organizations, it is unclear which target industries the region is specifically concentrated on growing.
3. Several initiatives overlap in scope.
4. While each organization has its own Web site, they do a poor job linking to one another and showing how they connect to the single purpose of increasing investment and wealth creation in the region.
5. Northern Kentucky and Cincinnati organizations rarely share the same regional brand identity.
6. Many Web sites, particularly those operated by public sector organizations, lack customer focus.

Recommendations in this section fall under two major goals: internal economic development initiatives and external promotion. A high tech concentration will require internal improvements to infrastructure, workforce development, and communication / coordination among regional and state organizations. It will also require an external

marketing effort to increase national and international recognition of the region as a high tech destination.

In the latter part of these recommendations, we aim to create a more unified high tech appearance and marketing message among organizations. Although the results of this project may not be considered by organizations in the Cincinnati region, it is important that as many economic development organizations in the region as possible create a unified approach to high tech development.

**GOAL ONE:
Launch a strong internal campaign that supports high tech development and understanding.**

An internal campaign should occur on several fronts. It will begin with the establishment of a new high tech initiative that is entirely dedicated to growing high tech investment in Northern Kentucky. The objective of the high tech initiative will be to improve local conditions and communication in order to (1) attract new investment from high tech companies expanding from outside of Northern Kentucky; (2) encourage current high tech businesses to expand in Northern Kentucky; and (3) spark the creation of new, entrepreneurial high tech businesses.

Northern Kentucky Economic Development-Related Organizations		Business Recruitment	Business expansion / retention	Entrepreneurial development	Community development	Business climate / policy	Workforce advancement	Tourism development	High Tech Development
Organization	Function:								
Kentucky Cabinet for Economic Development		★	★		★		★		
Northern Kentucky Tri-ED		★	★		★	★	★		★
Northern Kentucky Chamber of Commerce		★	★	★		★	★		
Boone County + Towns					★	★			
Campbell County + Towns					★	★			
Kenton County + Towns					★	★			
Northern Kentucky University				★			★		★
NKU Entrepreneurship Institute				★			★		
Madison E-Zone			★	★		★			★
Southbank Partners					★			★	★
Forward Qwest					★				
Gateway Community College			★				★		★
Northern Kentucky CVB					★			★	
Cinergy		★	★		★	★			

★ primary responsibility ★ secondary responsibility

Strategy One: Establish a high tech development initiative.

Within Northern Kentucky, Tri-ED is the organization dedicated solely to economic development: business recruitment and retention. Several other organizations, however, have significant responsibilities in impacting the region's attractiveness to business. These organizations include the Kentucky Cabinet for Economic Development, Northern Kentucky Chamber of Commerce, Boone County and Boone cities, Campbell County and Campbell cities, Kenton County and Kenton cities, Madison E-Zone, the Convention and Visitor's Bureau, Northern Kentucky University (NKU), NKU's Entrepreneurship Institute, Southbank Partners, Forward Qwest, and Gateway Community and Technical College.

The above table lists each major economic development-related or Northern Kentucky promotion organization. Blue stars indicate the organization's primary responsibility, while yellow stars indicate other, secondary activities, in which the organization is active. Although Northern Kentucky is home to a variety of organizations responsible for growing business investment and improving conditions for residents and businesses, there is no single organization with the primary function to foster high tech development.

Action 1: Tri-ED should invite the region's high tech leadership to participate on an advisory committee for the new high tech initiative.

Tri-ED should begin by identifying a group of individuals within Northern Kentucky who are passionate about high tech development. These individuals should be influential, innovative thinkers who energetically support the concept of high tech growth in Northern Kentucky.

Invite these individuals to form a New Economy Advisory Committee. The committee will be responsible for providing guidance and direction on the region's high tech initiative. This Advisory Committee will be structured by and provide support to the Tri-ED Board of Directors.

Action 2: Adopt goals for the Advisory Committee.

The Advisory Committee should be dedicated to: (1) working diligently to open the minds of local businesses and residents about the importance of high tech and entrepreneurial development; (2) embracing this Northern Kentucky New Economy Marketing Program and implementing its recommendations; (3) providing guidance to a new full-time staff position(s) at Tri-ED responsible for the day-to-day management of high tech development in Northern Kentucky.

Action 3: Tri-ED should create and staff a Northern Kentucky Office of the New Economy.

To implement this new economy effort, new staffing within Tri-ED will be required. AngelouEconomics recommends that a new office within Tri-ED be created to lead this high tech initiative. The Office would be headed by a Vice

President of New Economy, who should be executive-level, highly energetic, and have a strong knowledge of the high tech industry and entrepreneurship.

The Office of the New Economy would be responsible for the following:

- a. Day-to-day implementation of recommendations of this report
- b. Coordinating, together with Tri-ED's Board members, other organizations in the state, NKY, and Greater Cincinnati region that need to be involved with specific new economy initiatives
- c. Serving as the region's team of high tech experts
- d. Interacting with high tech prospects considering Northern Kentucky as a possible business location
- e. Working with Tri-ED's marketing team to launch a long-term, high tech promotional campaign
- f. Working in partnership with the region's economic development entities
- g. Identifying funding sources and responsible parties to help implement the recommendations in this strategy

Strategy Two: Launch a strong internal marketing campaign to educate local residents and businesses about the high tech industry and entrepreneurship.

As mentioned in earlier sections of this Strategy, before Northern Kentucky can become a true center of entrepreneurship, a mind shift must occur among its public leaders, residents, and businesses.

Action 1: Agree to a single definition of "new economy."

As discussed in the first report, the *Community Assessment*, the "technology" or "new economy" industry is used as a broad term to describe any business activity that produces or intensely uses new technologies and relies on technical knowledge workers. Knowledge workers are those individuals who utilize computers, telecommunications, science, or design skills to produce a good or service.

Action 2: Start an initiative that communicates this definition of "new economy" within Northern Kentucky.

This initiative should begin by asking all economic development-related organizations to distribute an e-mail or letter to each of their constituents / members that describes the organization's commitment to expanding high tech opportunities in Northern Kentucky. This e-mail or letter should include the definition of "new economy." These organizations could also include a page within their Web sites dedicated to expressing their commitment to high tech and providing a definition of the term.

Develop a press release to be distributed to all local print and broadcast media that announces the completion of this project, the region's new high tech direction, and the definition of "new economy." The press release can also be sent to major employers to include information in future internal newsletters and/or memos to employees.

Action 3: Follow up on Action 2 by regularly distributing information about high tech in Northern Kentucky.

Develop a schedule of internal communications activities. Once a month, for example, write a one-page article about a component of Northern Kentucky's high tech initiative. One set of articles could describe Northern Kentucky's high tech target sectors, trends within the sectors, and interviews with local target industry companies. Another set of articles could focus on the economic impact of high tech activities, a summary of the greater region's high tech assets, an overview of all the organizations in Northern Kentucky, Cincinnati, and the Commonwealth of Kentucky that are dedicated to high tech growth. A final set of articles could focus entirely on entrepreneurial development, providing information on how to start a business in Northern Kentucky and what resources are available to start-up companies in the region.

These articles should be widely distributed throughout the community. Each article should reiterate the organization's commitment to high tech development. Utilize newsletters and e-mail correspondence generated by Tri-ED, the Chamber, Madison E-Zone, NKU, or GCTC, for example. Each article could be converted into a press release or opinion-editorial piece and be distributed to local print and broadcast media.

Speaking engagements are also good opportunities to describe the high tech initiative, the target industries, and Northern Kentucky's high tech assets. Ask local organizations to invite representatives from the Advisory Committee to speak at Board meetings and networking events.

GOAL TWO:

Launch a strong external effort to promote Northern Kentucky to high tech businesses and entrepreneurs.

Currently, information about high tech in Northern Kentucky is difficult for individuals and organizations unfamiliar with the local network to find. Since Web sites should be the primary external marketing and communication tool for economic developers, AngelouEconomics conducted a review of 25 economic development-related organizations in Northern Kentucky, Greater Cincinnati, and the Commonwealth. Among the Web sites reviewed, we found inconsistent brand identities, varying degrees of commitment to regionalism, unclear messaging, and poor linkages to other regional organizations.

For additional information on which marketing techniques are best suited for Northern Kentucky, please see the Marketing Techniques section of the Appendix.

Strategy One: Ensure high tech companies located outside of Northern Kentucky can easily find a single, consistent source of information about the region.

Every economic development-related organization in the region has its own Web site, some of which are very good. All organizations could make improvements that would greatly ease information gathering for high tech companies located outside of the region.

Action 1: All economic development-related Web sites should contain clear, easy-to-find links to one another.

Every community struggles to coordinate its numerous public and private sector organizations. To begin, develop a simple, customer-oriented overview of each economic development-related organization in Northern Kentucky and the region.

Example Common Links Page to include on all Northern Kentucky Web sites	
Sample Topic	Link to:
Economic data	Tri-ED, Chamber, Partnership for Greater Cincinnati
For Entrepreneurs	Madison E-Zone and NKU Entrepreneurship Institute
For Companies	Chamber of Commerce, Tri-ED
Incentives information	Chamber of Commerce, Tri-ED, and the Kentucky Cabinet for Economic Development
Financing assistance	Local banks, Madison E-Zone, and the Kentucky Cabinet for Economic Development
Technology commercialization	Northern Kentucky University
Professional development	Chambers of Commerce, Tri-State Chamber Collaborative
Workforce training	Gateway Community College, Regional Tech Workforce Alliance, NKU, UC
For High Tech	Innovation Center, CincyTech, Regional
For Developers	Tri-ED, OKI, local business park sites, GPS systems, County and town governments
For Residents	Chamber, Northern Kentucky CVB, Greater Cincy CVB
For R&D	Kentucky Innovation Group, NKU, KSEF, KSTC

The overview should be made available on each organization's Web site. Links should be as precise as possible, not necessarily to the organizations home page but to the specific page providing the information requested.

Action 2: Tri-ED's Web site should contain information specifically oriented to its high tech target industries.

Consider adding a new section to the Web site entitled "High Tech" that contains a description of Northern Kentucky's commitment to high tech, a listing of high tech companies, high tech sites, and statistics on regional high tech activities, workforce, and incentives.

Action 3: All economic development-related Web sites should contain a map on their home page.

Few Northern Kentucky organizations make clear reference to being located outside of Cincinnati. Even fewer, with the exception of Tri-ED, use the name "Cincinnati" as part of their marketing brand within their Web sites (Tri-ED is the only one whose Web site utilizes the name 'Northern Kentucky/Cincinnati USA').

The name recognition value of 'Cincinnati' is great for marketing Northern Kentucky nationally and internationally. Ideally, the entire Greater Cincinnati region, including Northern Kentucky and Indiana, would jointly market under one common marketing brand. Due to political boundaries and competition between organizations, however, this single branding is unlikely to occur.

All Northern Kentucky economic development-organizations should include a map on their home page. The map should highlight the three county Tri-ED region, the Northern Kentucky-Cincinnati International Airport, the Ohio River, and the city of Cincinnati. Users should be able to zoom out on the map to view the entire three-state region, illustrating Northern Kentucky's relative position to other strong cities such as Lexington, Louisville, Cleveland, Indianapolis, and Chicago. The maps contained on Tri-ED's Web site are excellent and could be adopted by other organizations.

Action 4: Dedicate one single Web site dedicated to promoting high tech development in Northern Kentucky.

This Web site could either be newly created or built off of an existing Web site. The NKY Office of the New Economy should develop and maintain the Web site. It should be designed as an umbrella, seamlessly linking to all other on-line high tech information about the region.

In the long-term, a consistent image, brand identity, and marketing message should be adopted by all economic development-related organizations in the region. The appearance of Web sites and collateral coming from the region greatly differs between organizations. It is particularly important long-term for Tri-

ED and the Chamber to adopt the same style (colors, font, graphic images), related brand identity, and marketing theme. These organizations should appear to come from the same family – all targeting the same end objective.

Strategy Two: Engage in an aggressive external marketing campaign to increase awareness of the region as a high tech location.

Personal selling is the most effective means of marketing to high tech businesses. Northern Kentucky currently has a low image as a high tech location. There is very little awareness of the region for high tech activity, but high awareness of the region as a distribution or manufacturing location. To change this perception, Northern Kentucky's leaders will need to engage in an aggressive marketing effort.

Though Web sites are valuable tools for executives and site selectors seeking additional information on a region, the process begins with direct interaction with those individuals to make them aware that Northern Kentucky is interested in their high tech business.

The most effective techniques for marketing to high tech companies are (1) direct selling and (2) public relations. Other means of promotion, such as brochures, direct mail, and advertising, tend to be less cost effective. The competition between communities is extremely high, and executives receive collateral from economic development organizations on a daily basis. Busy executives tend not to read brochures and post cards that are mailed to them from communities. Advertisements can be effective if they appear in national publications or highly targeted publications that are not already overcrowded with economic development ads. Advertisements, however, are often extremely expensive and require consistent, ongoing placement to truly catch the attention of the target audience.

Action 1: Travel outside of the region to promote Northern Kentucky to high tech prospects.

Northern Kentucky leaders should organize semi-annual marketing missions to top U.S. technology metros (e.g. those cities used as benchmarks in Report 3, Preparedness Assessment). Marketing missions are 2-3 day trips during which a coalition of Northern Kentucky / Greater Cincinnati business, education, and public sector leaders break into teams and meet one-to-one with high tech executives. During the missions, Northern Kentucky representatives can ask the economic development leaders of the technology metro to share their story on how their city became a high tech hot spot. This provides a valuable learning experience for participants, in addition to the excellent marketing opportunity.

These trips typically require four to six months of planning in advance. Northern Kentucky should consider hiring an outside consulting company to organize the trip.

Action 2: Initiate new programs and internal marketing aimed at promoting Northern Kentucky as an attractive place to live and work after college graduation.

The campaign should be targeted at students of NKU, GCTC, and other nearby colleges and universities.

Action 3: Launch a strong public relations campaign touting Northern Kentucky's and Greater Cincinnati's high tech strengths.

Public relations activities should be concentrated on high tech industry – specific publications. Piggyback on public relations campaigns that have been initiated by other organizations in the region. Support, for example, public relations activities initiated by the Partnership for Greater Cincinnati. Work with leaders of the Partnership to ensure that its internal PR staff or outside PR consultant is concentrating on promoting the region's high tech initiative.

Action 4: Re initiate an international marketing effort.

Northern Kentucky and Greater Cincinnati are already home to many European manufacturing companies. The region has a rich German heritage, and local residents share comparable values and personality traits. Its climate and terrain is similar to that of Western Europe. European companies are made to feel welcome and comfortable in the region.

Alert European companies currently located in Northern Kentucky that the region is interested in recruiting their high tech divisions and U.S. headquarters. Ask these businesses to help arrange conference calls and / or on-site visits between Northern Kentucky economic developers and their European management team. Incentivize these businesses to continue expanding in the region.

In addition to involving current European companies in the high tech marketing initiative, consider opening an international office in Germany. The office could be an offshoot of the Partnership for Greater Cincinnati or solely by Northern Kentucky. If an office is not feasible, consider hiring a business development consultant located in Germany to promote the region on Tri-ED's behalf. The office or business development consultant should help Northern Kentucky's economic development team schedule one annual visit to meet one-to-one with European companies.

APPENDIX

Focus Group and Interview Participants

Name		Title	Organization
Karen	Anderson	Research Manager	NKY TriED
Barbara	Aras	CEO	Main Street Ventures
Victoria	Archable	President	Creative Shapes
Betty	Baker	HR	HK Systems
Thomas	Banta	EVP	Corporex Companies
Casey	Barach	Executive Director	Madison E-Zone
Jeffrey	Bender	Principal, Sr VP	Turley Martin Tucker
Sam	Beverage	Chief District Engineer	Kentucky Transportation Cabinet
Tony	Bonomini		
Jonathan	Branson	Sr. Recruiter	ComAir
Gary	Bricking	VP	First Natl. Bank of NKY
Dr. Bill	Brundage	Commissioner	Kentucky Office of the New Economy
William	Butler	CEO	Corporex Companies
Tom	Caradonio	President and CEO	Northern Kentucky Convention and Visitors Bureau
Mike	Carrol	Dean of Business School	Northern Kentucky University
Ken	Carroll	Executive Director	Bluegrass State Skills Corporation
JR	Cassidy	Director	Northern Kentucky Symphony
Kevin	Cheek	Manager Human Resources	RA Jones
Bob	Cooper		Campbell County
Kevin	Costello	Executive Director	Boone County Planning Commission
Karen	Craddock	Economic Devevelopment	Cinergy
Rick	Cummins	President	ISOC.NET
Dennis	Cuneo	Sr. VP	Toyota Motor Manufacturing North America
Robert	Curry	Associate, Workforce Development	Kentucky Adult Education
Norm	Desmarais	VP Performance Technologies	Tier One Performance Solutions
Ralph	Drees	Chairman	Drees Co.
Dan	Dressman	Executive Vice President	Home Builders Association
Donna	Duncan	Commissioner	Kentucky Cabinet for Economic Development
Dale	Elifrits	Director of Pre-Engineering	NKU
Ken	Fightmaster	Staff	Greater Cincinnati Chamber of Commerce
Leo	Flischel	Chairman	Woolpert
John	Fonner	Director Tech Adoption	CincyTechUSA
Danny	Fore	President and CEO	NKY Tri-ED
Carol	Frankenstein	President	BIOSTART
Benjamin	Fuqua	Executive Administrator	Kentucky Cabinet for Economic Development
Kevin	Gavin	VP Legal	Wild Flavors
Frances	Gesualdo		ComAir
Allen	Gibboney	Plant Manager	OBARA
Bob	Green	Vice President	NKY Tri-ED
William	Green	President	Uniserve Media

Roger	Griggs	President	University of Kentucky
Jeff	Groob		
Mike	Hammonds	Executive Director	Forward Quest
Sheila	Hammons	Director of Finance	Cincinnati/Northern Kentucky Intl. Airport
Donna	Hancer	Assoc Dean for Admin Engineering	University of Kentucky
Richard	Harrison	VP Engineering	Northern Kentucky Water District
Michael	Hartmann	Executive Vice President	Turley Martin Tucker
Ron	Hasbert	Technical programs	Gateway Community and Technical College
Pam	Hatton	Director	Boone County Adult Education Center
Ronald	Haysbert	IT Instructor	Gateway Community and Technical College
Mike	Heath	Regional Service Engineer	Cinergy
Richard	Hempel		THG, LLC
Steve	Henry		Campbell County
Neil	Hensley	Senior Director Economic Development	Greater Cincinnati Chamber of Commerce
Donna	Hewett	Director Co-op Engineering Program	University of Kentucky
Wayne	Hicks	President and CEO	Cincinnati Business Incubator
Victoria	Higgins	Economic Development Specialist	NKY Tri-ED
Steve	Hinds	Operations Director	Wild Flavors
Dennis	Hinkel	Sr. VP Network Operations	Cincinnati Bell
Jonathan	Holifield	Executive Director	CincyTechUSA
Robert	Holscher	Director of Aviation	Cincinnati/Northern Kentucky Intl. Airport
Robert	Horione		Campbell County
Dale	Huber	Deputy Director of Aviation	Cincinnati/Northern Kentucky Intl. Airport
Jim	Huff	CEO	Huff Reality
Ed	Hughes	President	Gateway Community and Technical College
Don	Hyatt		Dept of Vocal Rehabilitation
Judy	Ingram	Promotion	CVG Airport
Dr. Howard	Jackson	VP Research	Univ. of Cincinnati
Ned	Jackson	Commercialization Director	Madison E-Zone
Dr. Linda	Johnson		CITE
Keith	Johnson	Attorney Intellectual Property	Cincinnati Children's Hospital
Dorsey	Jones	Exec VP	Gateway Community and Technical College
Mark	Kaser	VP Operations	
Wayne	King		Kentucky Cabinet Workforce Development
Robert	Koehler	Division Manager	OKI Regional Council of Governments
Pat	Longo		Hamilton Incubator
Ron	Lovan	President and CEO	Northern Kentucky Water District
Richard	Lunneman	Community Development Director	City of Florence
Fred	Macke		West Shell
Dr. Thomas	Mantei, Ph.D.	Head of Electrical and Computer Engineering	University of Cincinnati
William	Martin	Director Planning and Development	Cincinnati/Northern Kentucky Intl. Airport
Scott	Mayer	Sr. Vice President Human Resources	GE Capital Information Technology Solutions
Marcia	McMillen	President	McMillan Creative PR
Paul	Meier	Specialist Integrated Planning	Cincinnati Bell

Jim	Menning		KY Adult Education
Bryan	Mescher		AC Nielson Bases
Daniel	Meyer	VP Worldwide Marketing	Think3
James	Moening	Training and Development Coordinator	Gateway Community and Technical College
Jack	Moreland		Campbell County
Joe	Morgan		Dept. of Technical Education
Claire	Moriconi		Crescent Springs Kentucky
Paul	Nu	Dean	Cincinnati State Technical and Community College
Gloria	Olson		Ticona
Lauren	O'Rear	Marketing Coordinator	Clear Channel Entertainment
Wally	Pagan	President	Southbank
James	Parsons	County Administrator	County of Boone
John	Perry		
Janet	Pfeister	Assistant Director	Bluegrass State Skills Corporation
Mike	Philipps	Editor	The Cincinnati Post/Kentucky Post
Gary	Pratt	Assoc. Provost for CIO	NKU
Thomas	Prewitt	Attorney	Graydon Head & Ritchey
Dennis	Purcell		
Peg	Ramsey		Kenton County Workforce Development
Patrick	Raverty	Director of Business Development	Vector Construction
Tim	Rawe	President and CEO	Fifth Third Bank of NKY
Dick	Reed	Electronics Instructor	Gateway Community and Technical College
Carole	Reed-Mahoney	Dean Academic Affairs	Gateway Community and Technical College
Lance	Reid	Director Data, Internet and Transport	Cincinnati Bell
Al	Ridilla		Parkway TPS Group
Bill	Robinson	Managing Partner	Greenbaum
Ted	Robinson		River City Capital Funds
Mark	Romito	Director Governmental Relations	Cincinnati Bell
Larry	Runge	VP Marketing and Operations	DBA Direct
Kevin	Rust	Pre-Construction Engineer	Kentucky Transportation Cabinet
Kevin	Rust		
Clay	Sanders	Sr. Vice President General Counsel	GE Capital Information Technology Solutions
Phil	Schmidt	Director of Mathematics	Northern Kentucky University
Phil	Ciafardini		Campbell County
Jim	Seibert	Fiscal Director	Campbell County
Connie	Sketch,	Asst. Dean of IT	Cincinnati State
David	Smith	Manager Economic Development	Cinergy
Paul	Smith	VP Human Resources	Fidelity Investments
Robert	Snyder	Executive Director	METS
Chelley	Spenneberg	President	Carroll County Training Consortium
Nancy	Spivey	VP Workforce Initiatives	Northern Kentucky Chamber
Judy	Sprague	Staff	Boone County Adult Education Center
Judy	Sprigg,	Asst Coordinator of Adult Education	
John	Stanton	Deputy County Administrator	County of Boone

Steve	Stevens	VP Public Affairs	NKY Chamber of Commerce
Barbara	Stewart	head of Workforce	Northern Kentucky Area Development District
Dee	Stewart		
Mary	Stratton	Deputy Commissioner	Kentucky Cabinet Workforce Development
Gene	Strong	Secretary	Kentucky Cabinet for Economic Development
Kelly	Stuart	ED Project Manager	NKY Tri-ED
Chris	Sturm		
Eric	Summe	Director Governmental Affairs	Delta Air lines
Angie	Taylor	VP Community Development	Gateway Community and Technical College
Jeff	Taylor		Fine Arts Fund NKY
James	Thompson	Commissioner	Kentucky Dept. of Employment Services
Daniel	Tobergte	Executive Vice President	Northern Kentucky Tri-ED
Gary	Toebben	President	Northern Kentucky Chamber of Commerce
Adrienne	Trimble	Assistant HR Manager	Toyota Motor Manufacturing North America
Stanley	Turner		Campbell County
Nick	Vehr	VP Econ Development	Partnership for Greater Cincinnati
Tom	Vergamini		
Rebecca	White	Director Entrepreneur Programs	NKU
Fram	Whiteman		Campbell County
Josh	Wice		Campbell County
Carl	Wicklund	Plant Manager	Wagstaff/NK Training Consortium
Joseph	Wind	Associate VP Community/Gov	Northern Kentucky University
Pat	Wingo	ED Director	City of Newport Kentucky
Dee	Wright	Electronics Instructor	Gateway Community and technical College
William	Young	Field Office Manager	Department of Employment Services
Micah	Zimmerman	CFO	Optimum Pay

AngelouEconomics' Definition of the Technology Industry

Manufacturing

Computer & peripheral equipment

- 334111 Electronic Computer Manufacturing
- 334112 Computer Storage Device Manufacturing
- 334113 Computer Terminal Manufacturing
- 334119 Other Computer Peripheral Equipment Manufacturing

Communications equipment

- 334210 Telephone Apparatus Manufacturing
- 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
- 334290 Other Communications Equipment Manufacturing
- 335921 Fiber Optic Cable Manufacturing

Consumer electronics

- 334310 Audio and Video Equipment Manufacturing

Electronic components

- 334411 Electron Tube Manufacturing
- 334412 Bare Printed Circuit Board Manufacturing
- 334414 Electronic Capacitor Manufacturing
- 334415 Electronic Resistor Manufacturing
- 334416 Electronic Coil, Transformer, and Other Inductor Manufacturing
- 334417 Electronic Connector Manufacturing
- 334418 Printed Circuit Assembly (Electronic Assembly) Manufacturing
- 334419 Other Electronic Component Manufacturing

Semiconductors

- 334413 Semiconductor and Related Device Manufacturing
- 333295 Semiconductor Machinery Manufacturing

Defense Electronics

- 334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing

Measuring & control instruments

- 334512 Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
- 334513 Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
- 334514 Totalizing Fluid Meter and Counting Device Manufacturing
- 334515 Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
- 334516 Analytical Laboratory Instrument Manufacturing
- 334519 Other Measuring and Controlling Device Manufacturing

Electromedical Equipment

- 334510 Electromedical and Electrotherapeutic Apparatus Manufacturing
- 334517 Irradiation Apparatus Manufacturing

Photonics

- 333314 Optical Instrument and Lens Manufacturing
- 333315 Photographic and Photocopying Equipment Manufacturing

Communications Services

Communications services

- 517110 Wired Telecommunications Carriers
- 517211 Paging
- 517212 Cellular and Other Wireless Telecommunications
- 517310 Telecommunications Resellers
- 517410 Satellite Telecommunications
- 517510 Cable and Other Program Distribution
- 517910 Other Telecommunications

Software & Tech Services

Software publishers

- 511210 Software Publishers

Computer systems design & related services

- 541511 Custom Computer Programming Services
- 541512 Computer Systems Design Services
- 541513 Computer Facilities Management Services
- 541519 Other Computer Related Services

Internet services

- 518111 Internet Service Providers
- 518112 Web Search Portals
- 518210 Data Processing, Hosting, and Related Services

Engineering services

- 541330 Engineering Services

R&D testing labs

- 541710 Research and Development in the Physical, Engineering, and Life Sciences
- 541380 Testing Laboratories

Computer training

- 611420 Computer Training

Biotech

Pharmaceuticals & Research

3254 Pharmaceutical and Medicine Manufacturing

54171 Research and Development in the Physical, Engineering, and Life Sciences

Medical Equipment

3391 Medical Equipment and Supplies Manufacturing

Performance Metrics

Implementing the Northern Kentucky New Economy Readiness Strategy requires a monitoring system to track regional performance. AngelouEconomics identified data sets used during the strategic planning process that we believe will be good measures of economic performance for Northern Kentucky as it implements the plan. The data is available at state and national sources, and is available at the county level. The selected data should be good indicators of the overall economic health of the community and its citizens.

Many state and local economic development organizations already use similar performance metrics or “benchmarks.” Local data can be placed side-by-side state or national data for comparison. The performance metrics proposed in this plan provide Tri-ED leadership an opportunity to demonstrate positive results of their efforts and policies. These results when made public will help to build confidence among the general public that the economy is heading in the right direction.

AngelouEconomics has identified several performance metrics for each recommendation to track progress, some of which were used in the Community Assessment and Preparedness reports. The suggested metrics include:

Workforce Development

- Total job growth
- Job growth in non-manufacturing industries
- Job growth in targeted industries
- Average wage growth
- Unemployment rate
- SAT scores
- Educational attainment – Percent of population age 25-34 with a Bachelor degree or higher
- Drop out rates

Infrastructure Availability & Sites

- Existence of business parks and sites
- Available developable acreage (with utility service)
- Commuter congestion
- Office and industrial vacancy rates
- Office absorption

Cost of Doing Business

- Tax burden, corporate and personal
- Utility rates
- Labor costs
- Office/Industrial Lease Rates

Research and Development

- Patents per capita
- Research and Development expenditure per capita
- Small Business Innovation Research Funding (SBIR)

Quality of Life

- Percent of population in the 25-34 age group
- Net migration of new people to the county/region
- Per capita income
- Parkland acreage per capita
- Qualitative index/survey

Economic Development Effort/Marketing

- State or national media mentions relating to economic development
- Prospect activity (info requests or visits)
- Prospect activity within targeted industries
- Close rate of qualified prospects
- Tourism revenues
- Relocations out of Northern Kentucky

Tri-ED may choose some or all of these metrics, and may have additional metrics that fit well with the county's goals. AngelouEconomics recommends that performance be benchmarked against the U.S. where possible. Metrics are best used when they are calculated as a share of the U.S. average. For example: Northern Kentucky's average wage is currently \$33,181 (2002), or 93% of the U.S. average. Northern Kentucky can then set goals to bridge the gap over time with the U.S.

Performance metrics work best when they are easily updated on an annual basis, are easy to understand by the general public, and are measures of results not activity (such as measuring marketing calls or conference visits).

Most of this data can be easily found online at the Census, and the Bureau of Labor. Most data, but not all, is available on an annual basis.

AngelouEconomics recommends that Northern Kentucky identify the set of benchmarks that they will track, set goals for when the county will reach parity with U.S. levels, and monitor their progress. We provide an example table with actual benchmark data that can be used to start this discussion:

Potential Performance Metrics Northern Kentucky					
	Job growth (CAGR) 2000-02	Non-mftg job growth (CAGR) 2000-02	Average Wage 2002	Unemploy- ment Rate 2002	per capita Income 2001
Northern Kentucky	3.3%	4.6%	\$33,181	3.8%	\$28,591
Kentucky	3.2%	0.1%	\$30,599	5.6%	\$24,878
United States	-0.7%	1.0%	\$35,550	4.7%	\$30,413
NKY as % of U.S.	471%	460%	93%	81%	94%
NKY's Target Benchmarks as a Percent of U.S.					
2002	471%	460%	93%	81%	94%
2005	150%	150%	95%	80%	96%
2010	125%	125%	97%	80%	98%
2020	110%	110%	100%	80%	100%

Marketing Techniques			
Technique	Public Relations	Personal Selling	On-line Marketing
Description	Activities that communicate a positive image of a product or marketer. This includes any marketing message that is communicated through mass media but is not paid for by the organization.	Person-to-person communication in which the receiver provides immediate feedback to the marketer's message. This is most effective when the unit of sale is large or the product / service is complex.	Using the Internet to promote. On-line marketing is the electronic form of all other marketing techniques.
Examples	Press releases sent to target industry and general business publications, Article placement, Inviting journalists from target industry publications to tour the region, Writing or asking your business community to write opinion-editorial articles	One-to-one meetings with industry executives, Networking at target industry events	Static and informational Web sites, Advertisements placed on target industry association and news Web sites, E-newsletters and e-mail campaigns
Best Use	External and Internal Marketing	External and Internal Marketing	External and Internal Marketing
Priority for NKY's high tech initiative (Effectiveness)	High	High	Medium - High
Recommended NKY activity	Starting in 2004, retain a top-notch, national public relations firm to launch aggressive effort that is directly aimed at NKY's target industries.	Starting in 2004, organize semi-annual marketing missions to U.S. technology metros involving 10-20 NKY representatives. During the 2-3 day trip, break into teams and meet one-to-one with high tech executives. During the missions, Northern Kentucky representatives can ask the economic development leaders of the technology metro to share their story on how their city became a high tech hot spot. This provides a valuable learning experience for participants, in addition to the excellent marketing opportunity.	Starting in 2004, the V.P. of High Tech should work with other NKY and Greater Cincy organizations to ensure all Web sites are clearly linked and convey similar themes (see Marketing Recommendations section of this strategy and ED Organizations chart in the Appendix.) By 2005, Tri-ED and the Chamber should have developed a database of high tech industry executive e-mail addresses. Create an e-mail high tech update (newsletters) to be sent to database bi-monthly. It is essential that Tri-ED and other regional ED organizations keep their Web sites as up-to-date as possible - on-line searches are often a site selectors primary source of data collection.

Marketing Techniques <i>Continued</i>		
Technique	Advertising	Direct Marketing
Description	Impersonal form of communication about goods, services, or ideas paid for by an identified sponsor. Mass media is typically used to send advertising to its intended audience.	Direct selling, direct mail, catalog or cable-directed toward a specific targeted group for the purpose of soliciting a response from customers.
Examples	Purchasing advertisements in target industry publications, Purchasing billboard space in target markets, Radio and television commercials	Developing and distributing collateral materials, including brochures and gifts
Best Use	External Marketing	External Marketing
Priority for NKY's high tech initiative (Effectiveness)	Low	Low
Recommended NKY activity	Traditional advertising is a good way to reach a wide audience, but usually has a low return on investment. When approaching the recommended high tech targets, Tri-ED should de-emphasize advertising and focus more on public relations, personal selling, and ensuring Web materials convey a consistent, high tech image. If Tri-ED engages in advertising, make sure it is extremely targeted. For example, place ads in target industry publications where no other communities advertise, or purchase billboard space in another city, along a route leading to a major target industry employer.	Direct mail is one of the least effective economic development marketing techniques. Mailing postcards and information to industry executives is such a common practice that executives may receive hundreds each year. A majority of them are thrown away by the executives or their assistants. Unlike mail outs, a strong, attractive proposal format is important. Save money on direct mail outs and spend it on materials that are provided to a prospect once it makes an initial inquiry.

Overview of Northern Kentucky Economic Development-Related Organizations

Local	Internal or External Focus	Primary Role	Secondary Role(s)	Degree of High Tech Focus
<i>Northern Kentucky Tri-ED</i>	External	Business recruitment	Local business retention; Intermediary between businesses and state government (e.g. incentives)	Low
<i>Northern Kentucky Chamber of Commerce</i>	Internal	Local business advocacy	Small business assistance, new economy transition team, promoting NKY, international	Medium
<i>Madison E-Zone</i>	Internal	Entrepreneurial development / incubator	Mentoring companies; Networking small businesses with capital and partners	High
<i>Boone County + Boone Towns</i>	Internal	Community development	Tax and incentive policy	Low
<i>Campbell County + Campbell Towns</i>	Internal	Community development	Tax and incentive policy	Low
<i>Kenton County + Kenton Towns</i>	Internal	Community development	Tax and incentive policy	Low
<i>Northern Kentucky Convention and Visitors Bureau</i>	External	Tourism development	Promotion	Low
<i>Northern Kentucky University</i>	Internal	Workforce development - advanced	Entrepreneurship coaching	Medium
<i>Northern Kentucky University Entrepreneurship Institute</i>	Internal	Entrepreneurial development	Providing entrepreneurship resources to NKY region - businesses and K-12 students	High
<i>Southbank Partners</i>	Internal	Community development	Branding, promoting, and networking Kentucky cities along the south bank of the Ohio River	Low
<i>Gateway Community & Technical College</i>	Internal	Workforce development - entry level and retraining	Local business assistance	Medium

Regional	Internal or External Focus	Primary Role	Secondary Role(s)	Degree of High Tech Focus
<i>Greater Cincinnati Chamber of Commerce</i>	Both	Business retention and attraction	Business advocacy, education, ED (through Partnership), Tech (through CincyTech)	Medium
<i>CincyTech</i>	Internal	Technology development	Networking high tech companies in the region	High
<i>Partnership for Greater Cincinnati</i>	External	Regional economic development	Promotion; Information for entrepreneurs, job seekers, local businesses	Medium
<i>Cincinnati USA Regional Technology Workforce Alliance</i>	Internal	High Tech Workforce Development	Networking all high tech businesses, educators, and service providers in the region	High
<i>Tri-State Chamber Collaborative</i>	Internal	Support and advocacy for businesses in a 12-chamber region	Professional development for member Chamber	Low
<i>Greater Cincinnati CVB</i>	External	Tourism development	Events information for residents	Low
<i>Ohio - Kentucky - Indiana Regional Council of Governments (OKI)</i>	Internal	Transportation development	Community development - green space, water, land use planning	Low
<i>University of Cincinnati</i>	Internal	Workforce development - advanced	Research and development - specialty in engineering,	Medium

State	Internal or External Focus	Primary Role	Secondary Role(s)	Degree of High Tech Focus
Kentucky Cabinet for Economic Development	Internal	State's lead economic development organization	Oversees all economic development related activities in the state - business recruitment, retention, expansion; workforce development funding; economic information, policy, and regional / local economic development assistance	Low
Office for the New Economy (ONE)	Internal	Spur growth of knowledge-based economy in Kentucky	(1) Increase R&D capacity of KY universities; (2) Create entrepreneurship infrastructure; (3) Develop KY's intellectual pool	High
Kentucky Innovation Group	Internal	Entrepreneurial development	Manage Commercialization Innovation Fund; Manage Innovation and Commercialization Center network	High
The Kentucky Science & Engineering Foundation (KSEF)	Internal	Build science and engineering capacity of KY	Promote research competitiveness by awarding grants to KY R&D activities	High
Kentucky Science and Technology Corporation (KSTC)	Internal	Build entrepreneurial resources in Kentucky	Education and research support	High
University of Kentucky	Internal	Workforce Development - advanced	Research and development - specialties = human health / development; materials; manufacturing and engineering	Medium
University of Louisville	Internal	Workforce Development - advanced	Research and development - specialties = Cardiology; visualization; bio-pharmaceutical	Medium

Northern Kentucky Economic Development Organizations: Summary of Branding and Web Site Recommendations

Local	Brand Identity	Tagline	Web site	Regional-ism	Web Recs.
<i>Northern Kentucky Tri-ED</i>	"Northern Kentucky/Cincinnati USA"	"Just-in-Time"	Good	References Cincinnati on Web site and in brand identity	Create a new section that provides data and links for high tech target industries; Clearly list the target industries
<i>Northern Kentucky Chamber of Commerce</i>	"Northern Kentucky"	"Taking Care of Business"	Good	Only NKY info, no links to larger region	Add a map, NKY's location w/in larger region; Add more references about being located in Greater Cincy; Link to Greater Cincy resources; More links to Tri-ED
<i>Madison E-Zone</i>	"Northern Kentucky"	"Northern Kentucky's Original Technology Accelerator"	Fair	Web site contains no info about Cincy	Add a map of NKY's location; improve the site, become the single community source for information about high tech and entrepreneurship; link to www.53ei.com
<i>Boone County + Boone Towns</i>	"Boone County, Kentucky"	none	Poor	No mention of Cincy	Add a map showing Boone and NKY in greater region; Adopt Tri-ED colors, images; Provide info for newcomers
<i>Campbell County + Campbell Towns</i>	"Campbell County, Kentucky"	none	Poor	No mention of Cincy	Add a map; Links to Tri-ED; Adopt Tri-ED colors, images; Provide info for newcomers
<i>Kenton County + Kenton Towns</i>	"Kenton County, Kentucky"	"The Keystone of Northern Kentucky, The Crossroads of America"	Fair	Mentions Greater Cincy on Home page	The logo and tagline gives location information; Adopt Tri-ED colors, images; Provide info for newcomers
<i>Northern Kentucky Convention and Visitors Bureau</i>	"Northern Kentucky"	"The Southern Side of Cincinnati"	Good	Yes, provides info on NKY and Cincy activities	Include information on the METS Center and links to ED organizations
<i>Northern Kentucky University</i>	"Northern Kentucky University"	"Learner Centered Teaching"	Good	No mention of proximity to Cincy - may help attract prospective students	Provide info on NKY entertainment and quality of life for students and prospective students; create a local events page; Make it easier to find the Entre. Institute on the Web site
<i>Northern Kentucky University Entrepreneurship Institute</i>	"Entrepreneurship Institute"	none	Good	Yes, partners with Cincy activities	Provide information on why NKY is a great place to start a business, link to local ED and entre resources
<i>Southbank Partners</i>	"Southbank"	"Covington Newport Bellvue"	Good	Yes, between counties	Better explain the purpose of Southbank; Provide map of the region
<i>Gateway Community & Technical College</i>	"Gateway Community and Technical College"	"Changing Lives - Bringing Your Future into Focus"	Good	Yes, within Northern Kentucky	Easy to navigate

Regional	Brand Identity	Tagline	Web site	Regionalism	Web Recs.
<i>Greater Cincinnati Chamber of Commerce</i>	"Cincinnati USA"	none	Fair	Yes, three state	Simplify home page, too much text
<i>CincyTech</i>	"Cincinnati USA"	"Cincinnati USA's voice for technology and innovation"	Good	Yes, but doesn't directly mention KY	Solution Search is a searchable database of support orgs.- other regional groups should link to this
<i>Partnership for Greater Cincinnati</i>	"Cincinnati USA"	none	Very good	Yes, three state	Great high tech company search; Lists Tri-ED as a partner; Tri-ED should provide clear links to this
<i>Cincinnati USA Regional Technology Workforce Alliance</i>	"Cincinnati USA"	Training to Work	Good	Yes, three state	Good recent report on the regional tech workforce; Good information on entrepreneurship
<i>Tri-State Chamber Collaborative</i>	"Tri-State Chamber Collaborative"	none	Fair	Yes, 12 chambers in three states	Confusing role - clarify the difference between the Cincy Chamber, Tri State Chamber, and Partnership
<i>Greater Cincinnati CVB</i>	"Cincinnati USA"	none	Fair	No, primarily focused on Cincy	Riverfront map for tourists only shows Cincy side; Doesn't mention "Kentucky" but does "Newport on the Levee;" Make easier to navigate
<i>Ohio - Kentucky - Indiana Regional Council of Governments (OKI)</i>	"OKI"	none	Good	Yes, three state	Web site contains lots of good data and links to regional plans
<i>University of Cincinnati</i>	"University of Cincinnati"	none	Fair	No focused almost entirely on campus	For information about the region; Now, UC links to the Cincy newspaper, consider the CVB or Chamber events page instead

State	Brand Identity	Tagline	Web site	Regionalism	Web Recs.
<i>Kentucky Cabinet for Economic Development</i>	"Think Kentucky"	none	Good	Yes, Statewide	Web site is attractive and provides good links to other economic development-related organizations; Consider providing a distinct brand identity and clearly identifying the state's target industries
<i>Office for the New Economy (ONE)</i>	"Kentucky's New Economy"	"Brilliant Science, Bright Future"	Fair	Yes, Statewide	Home page should be less about the organization and more about Kentucky as a high tech destination; Confusing links to acronymed government departments
<i>Kentucky Innovation Group</i>	"Kentucky Innovation Group"	none	Fair	Yes, Statewide	Site should be more oriented to helping businesses and residents; Confusing links to other similarly-acronymed government departments
<i>The Kentucky Science & Engineering Foundation (KSEF)</i>	"KSEF"	none	Fair	Yes, Statewide	Difficult to navigate, not customer friendly
<i>Kentucky Science and Technology Corporation (KSTC)</i>	"KSTC"	none	Poor	Yes, Statewide	Not clear on exactly what it can do for a customer. Links didn't work.
<i>University of Kentucky</i>	"University of Kentucky"	none	Good	Yes, Statewide	Offer current and prospective students easy links to fun information about the region and events calendar
<i>University of Louisville</i>	"University of Louisville"	"Dare to be Great"	Good	Yes, Statewide	Offer current and prospective students easy links to fun information about the region and events calendar

**Summary of Recommendations: Proposed Start Date, Responsible Parties, and Impacted County:
Workforce Development and Education**

Recommendations	Priority	Suggested Responsibility
<p>Workforce Development and Education <i>High = Near term, Medium = Mid-term, Low = Long-term</i></p>		
<p>Strategy 1: NKU becomes a primary driver of technology growth in Northern Kentucky</p>		
<p>Action 1: NKU should create an Advanced Logistics Institute</p>	<p>High</p>	<p>Northern Kentucky University</p>
<p>Action 2: Northern Kentucky should become home to a branch of the University of Kentucky's Visualization Center</p>	<p>High</p>	<p>Northern Kentucky University</p>
<p>Action 3: Expand NKU's entrepreneurship program, create a entrepreneurship degree</p>	<p>Medium</p>	<p>Northern Kentucky University</p>
<p>Strategy 2: Increase workforce training funding to Northern Kentucky service providers</p>		
<p>Action 1: Acquire funding and support for GCTC's Center for Manufacturing Competitiveness</p>	<p>High</p>	<p>GCTC, Chamber, KCTCS</p>
<p>Action 2: Support workforce programs that train people in the skills most demanded by target tech industries</p>	<p>Ongoing</p>	<p>GCTC, Chamber, WIB</p>
<p>Action 3: Increase workforce development funding at the state level</p>	<p>Medium</p>	<p>State Government</p>
<p>Action 4: Expand collaboration between NKU, GCTC, and local employers</p>	<p>Ongoing</p>	<p>NKU, GCTC, local employers</p>
<p>Strategy 3: Generate national recognition for NKY educational and training institutions</p>		
<p>Action 1: Engage the university presidents within the region on new economy issues</p>	<p>High</p>	<p>Northern Kentucky University</p>
<p>Action 2: Leverage the strengths of the METS Center to bring national attention to NKU</p>	<p>High</p>	<p>Northern Kentucky University, METS</p>

GOAL: Workforce development and education programs are focused on preparing a workforce for Northern Kentucky's target industries

Workforce Development and Education Continued...			
GOAL: Workforce development and education programs are focused on preparing a workforce for Northern Kentucky's target industries	Strategy 4: Provide resources to help NKY's K-12 students become future entrepreneurs		
	Action 1: Create a magnet entrepreneurship high school	Low	Local school districts
	Action 2: Create a mobile technology laboratory	Low	Northern Kentucky University
	Action 3: Create an Advanced Research and Technology Center for youth	Medium	Local school districts
	Action 4: K-12 schools in Northern Kentucky should adopt the Seeding Innovation Program	Medium	Local school districts
	Action 5: Support an annual business plan competition for all high school students in Northern Kentucky	Low	Local school districts, Madison E-Zone, Chamber of Commerce
	Action 6: Ensure that Junior Achievement programs are in every middle and high school in Northern Kentucky	Low	Local school districts
	Action 7: Develop a Youth in Philanthropy project throughout the region	Low	Local school districts, Chamber
	Strategy 5: Attract and retain a highly skilled workforce		
	Action 1: Expand and create more attractive urban environments (river front, high end retail, residential for young pros)	Ongoing	City and county governments, local developers
	Action 2: Create a regional parks plan	Low	Northern Kentucky University
	Action 3: Establish a NKY chapter of the Cincinnati Young Professionals organization	Medium	Chamber
	Action 4: Extend and improve existing hiking and biking trails	High	City and county governments, KY Dept of State Parks
	Action 5: Retain NKU and GCTC graduates - ask NKU and GCTC to promote the benefits of Northern Kentucky to students	High	NKU, GCTC

R&D and Entrepreneurship Recommendations

Recommendations	Priority	Suggested Responsibility
<i>R&D and Entrepreneurship</i>		
Strategy: Support Northern Kentucky entrepreneurship and technology commercialization resources.		
<i>GOAL: Entrepreneurship and technology commercialization in Northern Kentucky become a strong engine for new economy growth.</i>	Action 1: NKU should adopt a bachelor's degree program in entrepreneurship	Medium Northern Kentucky University
	Action 2: NKU should require all business and IT students to take small business/entrepreneurship classes	Low Northern Kentucky University
	Action 3: Identify funding to NKU for establishing an Advanced Logistics Institute	High Northern Kentucky University, Tri-ED, Chamber
	Action 4: Appeal to the SBA to create a Northern Kentucky office	Medium Madison E-Zone, Northern Kentucky University, Chamber of Commerce, Kentucky SBA Office
	Action 5: Continue to strongly support the Northern Kentucky Innovation and Commercialization Center	Ongoing Northern Kentucky / State public and educational institutions
	Action 6: Increase the opportunities for high tech workers and entrepreneurs to network with one another	High Madison E-Zone, Northern Kentucky University, Chamber of Commerce
	Action 7: Create a link on Tri-ED, Chamber, and Madison E-Zone's Web sites to the searchable high tech company directory found on the Partnership for Greater Cincinnati's Web site	High Tri-ED, Madison E-Zone, Chamber of Commerce
	Action 8: Create a regional entrepreneurship foundation	Low Chamber of Commerce, Madison E-Zone
	Action 9: Create an on-line Capital Connection for Greater Cincinnati	High Partnership for Greater Cincinnati, Madison E-Zone, CincyTech

Cost of Doing Business Recommendations

Recommendations	Priority	Suggested Responsibility
Cost of Doing Business		
Strategy 1: Revamp state and local tax systems to be less complicated and more aligned with the operations of service companies		
Action 1: Explore tax reform at the state level	High	Chamber, State Government
Action 2: Allow a local sales tax option for economic development to be used for marketing and infrastructure development	Low	State Government, Counties, Cities
Strategy 2: Incentivize high tech and entrepreneurial companies		
Action 1: Tie state incentives to wage rates and targeted industries	Low	Chambers, Cities, Counties, TRIAD Partnership, Advantage West, NWPCOG
Action 2: Alter the Kentucky Industrial Development Act to allow for eligibility of projects involving leased facilities	Medium	Kentucky Cabinet for Economic Development, Chamber, Tri-ED
Action 3: Alter the Kentucky Jobs Development Act, removing restrictions of in-state revenue generation as applied to the targeted industries	Low	Kentucky Cabinet for Economic Development, Chamber, Tri-ED
Action 4: Extend the life of the enterprise zones in the Northern Kentucky region by increasing lobbying efforts to the General Assembly in the 2004 session	High	Chamber, County and City governments
Action 5: Create a tax incentive that provides for an out-of-state tuition waiver for relocating employees and their families at all Kentucky universities	Low	Kentucky Council on Postsecondary Education, Chamber, Tri-ED
Action 6: Actively promote adjunct professor opportunities for relocating CEOs, executives, and serial entrepreneurs at Kentucky universities	Low	Tri-ED, Northern Kentucky University
Action 7: Trade out un-utilized incentives for free Airport advertising	Medium	Tri-ED, CVG Airport
Action 8: Provide a special Opportunity Zone that eliminates all taxes to a company that sets up operations in these zones	Low	Kentucky Government, Local counties, cities, Chamber
Action 9: Provide for sales and use tax refunds for consumables and services purchased by high tech companies	Low	Kentucky Cabinet for Economic Development, Chamber, Tri-ED

GOAL: State and local tax and incentive structures will appeal to the business climate needs of targeted high tech businesses.

Structural Assets Recommendations

Recommendations	Priority	Suggested Responsibility
Structural Assets Recommendations		
GOAL: Northern Kentucky's structural assets will meet the quality and capacity requirements of the region's current employers and target industries		
Strategy 1: Expand the availability of large land parcels for campus-style technology development		
Action 1: Identify technology parks for future development.	High	Tri-ED and County governments
Action 2: Identify incentives for the parks.	Medium	Tri-ED and County governments
Action 3: Master plan the parks.	Medium	Tri-ED, County governments, private developers
Strategy 2: Improve transportation flow into and out of Northern Kentucky		
Action 1: Lobby state and federal transportation authorities to fund the replacement of the Brent Spence Bridge	High	Chamber, OKI
Action 2: Improve east-west transportation connection in the southern portion of Northern Kentucky	Low	Kentucky Dept of Transportation, Local governments
Strategy 3: Reduce the negative impact of high airline prices		
Action 1: Identify discount pricing options that can be used as an incentive to recruit new businesses to Northern Kentucky	Medium	Chamber
Strategy 4: Expand lifestyle amenities attractive to technology firms and their workforce		

Economic Development and Marketing Recommendations

Recommendations	Start	Responsibility	
<i>Economic Development and Marketing Recommendations</i>			
<p><i>GOAL ONE: Launch a strong internal campaign that supports high tech development and understanding.</i></p> <p><i>GOAL TWO: Launch a strong external effort to promote Northern Kentucky to high tech businesses and entrepreneurs.</i></p>	Strategy 1: Establish a high tech development initiative		
	Action 1: Invite the region's high tech leadership to participate on an advisory committee for the new high tech initiative	High	Tri-ED, Chamber
	Action 2: Adopt goals for the Advisory Committee	High	Tri-ED
	Action 3: Create and staff a Northern Kentucky Office of the New Economy **	High	Tri-ED
	Strategy 2: Launch a strong internal marketing campaign to educate local residents and businesses about the high tech industry and entrepreneurship		
	Action 1: Agree to a single definition of "new economy"	High	Tri-ED, Chamber, Madison E-Zone, NKU, GCTC, and County / Town governments
	Action 2: Start an initiative that communicates this definition of "new economy" within Northern Kentucky	High	NKY ONE and Chamber
	Action 3: Follow up on Action 2 by regularly distributing information about high tech in Northern Kentucky	High	NKY ONE and Chamber

Economic Development and Marketing Recommendations Continued...

GOAL ONE: Launch a strong internal campaign that supports high tech development and understanding.
GOAL TWO: Launch a strong external effort to promote Northern Kentucky to high tech businesses and entrepreneurs.

Strategy 3: Ensure high tech companies located outside of Northern Kentucky can easily find a single, consistent source of information about the region

Action 1: All economic development-related Web sites should contain clear links to one another	Medium	All NKY and Greater Cincinnati economic development organizations (see table in back of Report Four)
Action 2: Tri-ED's Web site should contain information specifically oriented to its high tech target industries	High	NKY ONE and Chamber
Action 3: All economic development-related Web sites should contain a map on their home page	Medium	All NKY and Greater Cincinnati economic development organizations (see table in back of Report Four)
Action 4: Dedicate one single Web site dedicated to promoting high tech development in Northern Kentucky	High	Tri-ED

Strategy 4: Engage in an aggressive external marketing campaign to increase awareness of the region as a high tech location

Action 1: Travel outside of the region to promote Northern Kentucky to high tech prospects	Low	Tri-ED
Action 2: Initiate new programs and internal marketing aimed at promoting Northern Kentucky as an attractive place to live and work after college graduation.	Medium	Tri-ED, NKU, GCTC
Action 3: Launch a strong public relations campaign touting Northern Kentucky's and Greater Cincinnati's high tech strengths	Medium	Tri-ED, Partnership for Greater Cincinnati
Action 4: Re-Initiate an international marketing effort	Low	Tri-ED

**** Priority Project**