

Is the Glass Half Empty or Half Full?

A Whitepaper on Doing International Business In the Northeast Ohio Region

November, 2008

Bill Hauser, PhD
Department of Marketing & International Business
College of Business Administration
The University of Akron

AnneMarie Scarisbrick-Hauser, PhD
Department of Public Administration & Urban Affairs
& Fellow, Bliss Institute for Applied Politics
The University of Akron

This whitepaper was commissioned as an independent research project by the Northeast Ohio Trade & Economic Consortium (NEOTEC). NEOTEC serves as the administrator for Foreign Trade Zone 181, assists companies with export development through the NEOTEC International Trade Assistance Center (ITAC), and promotes Northeast Ohio to international and domestic businesses to increase the region's role in the global economy.

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of Akron

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EXECUTIVE SUMMARY

The Northeast Ohio Region

For companies considering doing business in Northeast Ohio, the region is a study in change and transition. Historically a global leader in manufacturing, the region is transitioning to the knowledge economy of the 21st century. While this change has been slow to materialize, the region has the technology, expertise, resources and motivation to succeed. Thus, the story may be a tale of two regions. On one hand, the region may be observing the worst of times with a distressed economy and low economic growth over the past decade. On the other hand, it may soon be the best of times as the Northeast Ohio region puts strategies, resources, and knowledge into play to retool its economy and chart a course to meet the needs of the new century.

Northeast Ohio consists of a 16 county quadrant in the northeast corner of the state. Bordered by Pennsylvania on the east and Lake Erie on the north, the region is geographically well situated between key cities in the United States and Canada. Over 4.1 million people currently live in the region. Northeast Ohio's major industries focus on healthcare and medicine, science and engineering, biotechnology, education, and manufacturing. Northeast Ohio is headquarters for over one-third of the top 1000 rubber and plastics companies and is home to world class medical research and patient care facilities.

Over 23,000 firms in the region are engaged in some form of international business that generated over 133,500 new jobs and \$37.4 billion in related output in 2006. While the majority of these businesses engage in exporting and importing, other major international activities include technology transfer and licensing of intellectual property, global networking and logistics, financial investments, joint ventures/partnerships/subsidiaries, and international insurance.

Doing Business in Northeastern Ohio

From a logistics perspective, access to markets is a key advantage of the area. The region is within a 500 mile radius of 41% of all U.S. households, 55% of all U.S. manufacturing facilities, 58% of the top 500 U.S. industrial headquarters, and 56% of the top 500 U.S. service corporate headquarters. Five major U.S. interstate highways intersect the area providing continuous roadways for the region's numerous over-the-road freight companies. The region also has a number of airports with Cleveland Hopkins (international) and Akron-Canton (regional) serving as the major hubs for air freight and passengers. The area is also served by three Class 1 carrier railroads and an additional 20 short line railroad companies. Finally, major ports are found on Lake Erie (Cleveland, Lorain) and on the Ohio River (Columbiana County) that handle the movement of raw materials and finished products throughout the United States and the world.

The region provides numerous benefits to foreign companies doing business in the area. Key to this is the U.S. Department of Commerce's foreign trade zones. These foreign trade zones allow foreign and domestic merchandise to move through the zone without a formal customs entry declaration or customs duties. Merchandise moving through the foreign trade zone is also exempt from federal and state excise/use taxes and personal property taxes.

Foreign Trade Zone (FTZ) 181 is located in the region and is administered by the Northeast Ohio Trade and Economic Consortium (NEOTEC) located on the campus of Kent State University. NEOTEC is governed by a 20 member board of trustees appointed by elected officials in each of the member counties. FTZ 181 is currently ranked 8th out of 260 general purpose zones in the United States in the total amount of merchandise shipped and received. Since 2000, FTZ 181 has helped the region attract over \$261 million in capital investment and the creation and retention of over 4,200 jobs.

In 2004, NEOTEC implemented an International Trade Assistance Center to provide services to companies wanting to implement or expand their importing and exporting activities. At the same time, NEOTEC helped create and administers the Northeast Ohio Logistics Network, a partnership of logistics services providers, businesses, government entities, and non-profit organizations.

Additionally, the region provides services to companies in the areas of immigration, resettlement, banking and professional services, and legal services. These services are available through experienced professional firms and, in many cases, can be referred to by a large number of private and public assistance agencies in the region.

The area also offers a number of research and development networks that include the region's institutions of higher education, major industry groups, and non-profit organizations to provide knowledge, innovative ideas, and intellectual capital to help new and existing businesses grow and adapt to the global competitive marketplace. Major regional academic institutions, such as The University of Akron and Kent State University are working at creating new businesses by converting research into applications and successfully transferring technology into actionable solutions. At the center of this is the State of Ohio Third Frontier Program that provides grants and numerous other forms of assistance to innovative, technology centered companies.

Ohio Department of Development

The State of Ohio provides additional services through its Department of Development's Global Markets Division and the Strategic Investments Division. Currently, the state has 13 international trade offices in 12 foreign countries. Related to this, the state has recently enacted a number of tax reforms with the goal of dramatically lowering the cost of doing business in Ohio. Key advantages of this tax reform include no tax on inventory, corporate income, and investments in machinery and equipment. It also reduces both personal income tax and state sales tax. To support this, the Ohio

Department of Development offers a wide variety of tax credits and exemptions to companies locating and expanding their businesses in Ohio.

Finally, the U.S. Government has over 20 agencies in the region that directly or indirectly interacts with international businesses. Key among these is the U.S. Department of Commerce and its International Trade Administration. Additionally, the U.S. International Trade Commission and the U.S. Customs and Immigration Service (USCIS) provide the necessary assistance to navigate through the myriad of import and export activities in the U.S.

Regional Workforce and Economy

The Northeast Ohio region is a microcosm of the United States. Its anchor cities have a long and varied history in the development of the region, state, and country. Its population is about equally split by gender and the median age is 39 years. Over 50% of the population reports having taken some post secondary courses. The region is ethnically diverse and is reflective of the overall U.S. population. Median household income in the region is approximately \$42,000 and approximately 94% of the eligible population is employed.

Economically, the region is going through a distressed economic period that is also affecting the rest of the country. This is brought on by the region's slow movement from a manufacturing economy to a knowledge economy. Across both the state and the region these distressed economic conditions have been further exacerbated by the recent banking, credit quality, mortgage, and telescoping oil costs crises. There is a shift occurring in the region and its anchor cities away from traditional manufacturing jobs to service sector jobs, especially in the healthcare sector. This is evidenced by the fact that the largest employers in each of the anchor cities and the region overall are major health systems. This movement to the service sector has generated numerous collaborative efforts, especially the sharing of innovative ideas and technologies, that has laid a solid foundation for continuous increased productivity in the region.

The economic situation in Northeastern Ohio is positioning itself for a major transition and change. While epochal change of this type is often slow and difficult, a number of key assistance and growth stimulants have been put into place to aid businesses in the region and to successfully attract domestic and international businesses into the region. Key among these is regional growth initiatives and Ohio tax assistance and reforms. Thus, the economic climate, out of necessity, is changing to one where the resources will be made available to generate new business and to stimulate growth of existing businesses in the area. The political, business, and resource infrastructure is there to provide opportunities and advantages to businesses committing and availing themselves of them. In this sense, the economic glass should be viewed as half full as the region sets its tools and policies in place to generate its rebirth.

Regional Initiatives

Instead of attempting to resolve the region's economic problems at an individual community level, public organizations, private foundations, and individuals have banded together to take a region-centric approach to economic development throughout the area. One of the cornerstones of this regionalism is the creation of The Fund For Our Economic Future (The Fund), a consortium of over 100 foundations and organizations in the area. Through their Advance Northeast Ohio regional economic plan, The Fund has supplied the resources for and implemented a number of initiatives. At the same time, other groups have been created to further the region's advancement. Organizations such as TeamNEO, MAGNET (Manufacturing Advocacy and Growth Network), NEOTEC, JumpStart Inc., BioEnterprise, NEOinc (Northeast Ohio Incubator Collaborative) and NorTech exist to provide knowledge, expertise, and financial assistance to companies in the area.

At present, regional growth is being driven by technology, healthcare, and educational endeavors. From this a cluster of growth businesses have emerged in the region. Key among these is healthcare and life sciences; logistics and distribution; polymers, liquid crystals, and plastics, advanced manufacturing, advanced energy, and insurance, financial and professional services. There are numerous commonalities among these growth clusters. First, each cluster provides products and services that meet current market needs. Second, companies in each of the clusters are open to flexibility and change. Third, innovation is at the heart of this growth. Fourth, each cluster continues to develop and adapt new technologies in their business models and practices.

Quality of Life

Finally, the Northeast Ohio region provides its businesses and residents with the elements needed to insure a high quality of life. Among these are world-class healthcare facilities, a broad spectrum of educational institutions, a wide selection of cultural and recreational opportunities and numerous diverse ethnic communities. The Northeast Ohio region houses highly visible and fan loyal professional sports teams, the 3rd most visited national park in the U.S., miles of Lake Erie shoreline, numerous lakes and streams, the second largest theater district outside of New York City, many small historic communities, and miles of open countryside.

Thus, the Northeast Ohio region offers its residents a very diverse and comprehensive quality of life. The region has strong educational, healthcare, cultural and entertainment resources. At the same time, it is able to provide this at a cost of living expense significantly lower than most other parts of the United States. Finally, while there is an air of uncertainty over the economy of the region, most residents feel that they are a part of the region and want to see it succeed and grow.

Conclusion

In examining the Northeast Ohio region one quickly observes that the area is well positioned to profitably participate in the global business arena. It offers a wealth of natural and human resources strengthened by the experience and leadership needed to forge the resources into innovative and actionable solutions. The resources are also enhanced by a superior logistical system where the region is serviced by major air, rail, water, and over the road systems. The region is geographically located to move goods quickly and efficiently between all key manufacturing and distribution centers in the United States and Canada.

While the region is in the midst of the same economic downturn facing the United States and the world, it is taking the appropriate measures to deal with the existing economic crisis and emerge as a stronger entity. At the heart of this are its residents. The region has a strong legacy of hardworking, forward thinking individuals whose history has been one of adaptation and innovation. This workforce is educated and companies in the area have a historical tradition of being leaders in manufacturing, business, and economic transformation.

Growth in the area is further being enhanced by a renewed sense of regional cooperation and collaboration. Numerous regional growth initiatives have been implemented during the past few years and appear to be gaining a strong positive impact in the area. This is evidenced, for example, in the continuing accelerated growth of the healthcare industry in the region. At the same time, the state and local governments, coupled with strong institutes of higher education and private and public agencies, appear to have a common focus on providing the materials, tools, resources, and assistance to successfully transform the region to meet 21st century global needs.

At its foundation is the quality of life available to Northeast Ohio residents. Northeast Ohio provides its residents and businesses with numerous diverse ethnic communities, world class healthcare facilities, a broad spectrum of post secondary educational institutions, and numerous cultural and recreational opportunities. Most importantly, this is accomplished with a cost of living expense significantly lower than most other areas in the United States.

Finally, when attempting to answer the ageless question of whether the glass is half-empty (pessimistic) or half-full (optimistic), the data indicate that international companies considering doing business in Northeast Ohio should optimistically view the glass as being half-full. The initiatives are in place, regional collaboration is growing, innovation and technology are fueling change and, most importantly, the region's people and businesses are motivated to successfully move growth forward. For an international company considering Northeast Ohio opportunities for growth and success abound.

SECTION 1: NORTHEAST OHIO: AN OVERVIEW

Welcome to the Northeast Ohio economic and cultural region. Composed of a sixteen county area in the northeast quadrant of the state of Ohio, the Northeast Ohio (NEO) region is rich in natural and human resources. However, with apologies to Charles Dickens, the Northeast Ohio region may be facing both the worst of times and the best of times. As a major contributor to the nation's manufacturing economies of the last century, this region has been historically perceived as being part of what was called the "rust belt" encompassing many of the eastern parts of the U.S. and especially the Midwest. Over the past few decades, manufacturing jobs have declined as companies have moved to new locales, outsourced to other countries, or been replaced by technology. As with other regions in this part of the country, the Northeast Ohio area was slow to react to these changes while they were occurring and are only recently implementing plans to revitalize the area. Thus, it may be the worst of times.

However, as it entered into the 21st Century, the Northeast Ohio area has gained a new sense of regionalism. This notion of regionalism appears to have changed from one focusing on one major metropolitan area to one which encompasses all areas of the region. This is important in that it allows the entire region to organize its talents and resources for the overall good of the area and minimize intra-regional competition and conflicts. Thus, it may be the beginning of the best of times.

Figure 1: Northeast Ohio Region



Demographically, the region consists of over 4.1 million individuals (U.S. Census, 2008 projections). Of this, 64% live in owner-occupied residences. Forty-five percent of the households have an annual income of over \$45,000 with many over the \$100,000 range. Powered by 26 private colleges and state universities, and a growing number of strong community college programs, the region currently has over 170,000 students seeking college degrees and boasts of a population where approximately 49% of all NEO residents have at least some college education. The labor force consists of over 2 million individuals with an employment rate of around 94%.

Industrially, the State of Ohio is ranked fifth in the nation for Fortune 500 companies, third in the size of its manufacturing sector, and seventh overall in total economic output. As a major part of this, Northeast Ohio's major industries focus on health and medicine, science and engineering, biotechnology and biomedical, education and manufacturing. Due to its long history in polymer innovation and development, the region houses over one-third of the top 1000 companies in rubber and plastic products. World renown medical facilities such as the Cleveland Clinic, University Hospitals, Summa Health System, Akron General Medical Center, Akron Children's Hospital and Rainbow Babies and Children's Hospital, not only provide world-class patient care, they are worldwide leaders in research and, in many cases, are the largest employers in their respective communities.

Finally, Northeast Ohio rates high in quality of life with easily accessible and affordable cultural and recreational attractions. Culturally, the region boasts of numerous internationally acclaimed art museums, orchestras and entertainment centers such as Playhouse Square in Cleveland. Recreationally, the region is home to the Cuyahoga Valley National Park, numerous biking and hiking trails, Lake Erie, and hundreds of small lakes. Athletically, the area is home to major professional sports teams and also has numerous amateur venues. Most importantly, the cost of living in NEO is approximately 12% to 20% below the national average.

What the Experts are Saying: An Interview with Robert Bowman

Robert Y. Bowman is the Deputy Mayor for Economic Development for the City of Akron, Ohio (2004-Present) and former Vice-President for Economic Development, Greater Akron Chamber of Commerce, (1988-2004). He is also responsible for insuring the state's effort at the Hanover Trade Show and the K Show in Düsseldorf.

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

“The negatives are the continual loss of traditional manufacturing jobs. But on the positive side there are jobs that are being generated in new technologies although not in the same volume as those lost. In a way, we're looking at a mid-course adjustment that will continue to go on simply because of the global marketplace and the change in the way manufacturing has incurred more automation, higher tech jobs in industries and the change in the clusters or industry mixes. The frustrating part sometimes is that the current workforce may be qualified for some of the new jobs that come along. I think that has to be part of the overall strategy of how we prepare and get people capable of transitioning into new positions. I think the resources are here and the infrastructure is here. I'd like to see the companies, like the employees, transition to new lines of business. For example, with our polymer processing companies, you have to get out of the commodity market because you're not going to compete with China or India.. Aging workforce and retraining is always going to be an issue but what we have found is that the older machinists have been able to say when they want to work and where they want to work. We do need younger people. One of the problems is that there's a perception of some of the manufacturing industries is that it's a dirty job when in reality you can eat off the floor in some of these places and the person working is operating three computers and working a machine at the same time. A lot of that has changed over time and there are a lot of nay-sayers out there who are not fully up to date on what is happening.”

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

“2-3 years is a very short window and I don't think we're going to see any drastic changes in 2-3 years. On the other hand, you take one step at a time and I think people are starting to understand what is going on and we're starting to see things in motion in a positive direction.”

If there were one or two major areas that need changed to improve conditions in northeastern Ohio, what are they and what do you think should be done?

“One of them is that really needs to be an internal sales effort. We have the resources and all I think all we need to do, although it is still a big task, is to understand the importance of education and retraining for workers and their children to get into these markets. It is not business as usual. The past is never going to be there again and some of the industries are not going to come back in the same way that they were there before. We are going to transition into new industries. I have said before that nobody likes change and change is going to have to happen. By 'we' I mean, local, regional, state and national. We have to begin believing in ourselves and, as they say, 'take the bit in the mouth and go after it'. We are everybody. I think everybody should read the book 'The World is Flat' because we have still a population that believes it is entitled to something and that by bullying the rest of the world or bullying somebody we're going to get it. That's not the way to get it back. We're going to have to reinvent ourselves, believe in ourselves, be willing to reeducate ourselves, and take time to do that. We can't just expect it to come to us. It's not going to do that.”

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

“In terms of NE Ohio the resources are there. In many cases one of the big problems we have is there has been the shifting in the automotive industry. There have been a lot of transplants into the south that have resulted through a combination of issues. One is that the federal government has routed a lot of infrastructure money over the last year into the south because it was a depressed area. They have done a much better job of marketing their states in foreign countries than the State of Ohio has. Not that the State of Ohio hasn't done that, but when you look at the Carolinas, Tennessee, Georgia, North Carolina, Mississippi and Alabama and you see how much they are putting into their marketing effort overseas that has a lot to do with why they are attracting some of the big automotive companies and how they have put incentives on the tables to attract them. The reason they have done this is not so much that they expect to get a return off those companies, but with the support companies that would follow and settle around them. I think people have seen how Honda has flourished in Ohio and Honda came here due to aggressive marketing by Gov. Rhodes. There is a willingness on the part of this administration to get involved, but there is not the same volume of large projects that were there years ago. You have to be aggressive and you have to have a program that is sustainable. One of the big problems we run into with some of the participants of overseas missions is that they go over one time and didn't get a lead or didn't get a project so they quit. If you are tracking foreign business it takes 3-4 years to decide on a location and it's really a lot of relationship building. It's not just the incentives, what do they know about you, can they trust you, can you deliver what you say you're going to deliver. If you aren't willing to participate in the game more than one time then you shouldn't be in the game at all.”

Likewise, how hard is it for NE Ohio companies to do business internationally?

“A lot of the problem is again it goes back to sense of entitlement. It goes back to the issue of 'we've had a strong market in the US why should I export product overseas'. The problem we have is trying to get companies to engage in exporting, most of them have gotten into exporting by accident. They went to a trade show, set up an exhibit, a foreign buyer comes by, likes their product and buys it. They supply it and somewhere down the line that buyer can get it cheaper from another source and 'boom' there goes that business! Then they wonder what happens. What has happened is that their business plan does not include international business. When you get into international you have to be prepared for the long-term, you have to have it as part of the business plan, you have to be willing to travel and meet face-to-face with people, and respect their cultures. Not everyone is willing to do that. Most of the products exported are done by some 60 US companies and we need to get more and more of our small and medium sized manufacturers exporting to the world. In many cases, they would do a lot better on the profit margin if they are able to do that. The president of the company needs to be fully engaged and supportive. I know of some companies that have generated so much business at trade shows they didn't know what to do with it and when they were asked about a return visit indicated that they did not have time. This lack of focus does not portray a sustainable profile to international businesses. An expert in the Brookings Institute wrote a treatise on export and how it's done here in United States versus how it's done in Europe. The conclusion he came to was that their companies are as scared as our companies to get into foreign markets. There is a different support system in those countries in many cases to where they use subsidies or backup support to move into foreign markets. At one time all we did was hand somebody a pamphlet and say 'okay, here's how you export' and then expect someone to export. This is a complicated process where you are going to need someone to hold your hand. We have an international trade assistance center with NEOTEC and a global department with the State of Ohio and federal offices in Cleveland with US trade policy. They are getting more and more into the 'hand-holding' situation. There are a whole lot of support systems out there and it's just amazing how companies don't see the opportunity.”

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

“I'm always optimistic. I don't know of too many places I'd rather work for than where and who I work for now. The backup systems are there, the commitment is there, that's the amazing part about it.”

Are there any other comments, feelings, or opinions that you would like to add?

“First of all, you have to have a very stable organization or government to do this in the first place. One of the problems is anybody can dig up a lead. The question is 'can you bring it home'? And you have to have the infrastructure and capability to bring a deal home and it's not enough to say 'gee, I talked to five people that are interested.' You have to have an infrastructure that's capable of taking them by the hand and leading them into the process. In many cases that takes a lot of time and effort. That's where I separate the term 'economic developer' from 'business developer' A business developer is a person whose only job is to deal specifically with company needs and to be able to hold their hand and help them get access to capital or deal with business plan problems or a myriad of issues that need to be addressed. People need this to get through the rough times and international companies are even more complicated because you are dealing with visa issue in many cases, you're dealing with cultural issues, technical and somewhat of a concierge service. There's just a myriad of issues that you have to deal when working with international companies. Access to capital is probably one of the biggest obstacles because even though a company has experience, has a product, and has sold that product in international markets in the world, that doesn't necessarily qualify them for bank loan financial assistance over here. Banks are generally looking for 3 years financial history and sometimes you run into the fact that the way records are kept internationally are different from here and so local banks tend to shy away from these types of transactions.”

SECTION 2: DOING BUSINESS IN NORTHEAST OHIO

A recent (2007) study by Cirillo, Taylor and Austrian surveyed businesses in Northeastern Ohio as to the current activities and attitudes toward international business involvement in Northeast Ohio. According to their findings, in 2006, international business activities accounted for \$21.96 billion in direct and indirect revenues coming into the Northeast Ohio region. In turn, Cirillo, Taylor and Austrian (2007) report that the total output produced in NEO increased by \$37.4 billion as a result of these international activities. As a result of this 133,500 jobs were created.

The report projects that approximately 23,000 firms in the Northeast Ohio region are engaged in some level of international business. Of these, 76% report being active in exporting and 66% actively involved in importing. Additionally, the study found that 53% of the firms engaging in international business both import and export goods and services. Other major types of international activities engaged in by firms in Northeast Ohio include, but are not limited to, licensing of intellectual property and technology transfer, participation in global networking and logistics, financial investments, joint ventures/partnerships/subsidiaries, and international insurance. On average, these companies report doing business in 5 countries with the major ones being Canada, Mexico, China, United Kingdom, Germany, France, Japan, India, South Korea, and Brazil.

Finally, the firms in this study were asked about the region's strengths and challenges in engaging in international business. They viewed location, transportation infrastructure, skilled labor force, supply chain, professional services, diverse population, low cost of living and doing business, and access to capital as important assets the region can provide to companies. Similarly, they reported a number of key regional support services available to enhance these assets. These include shipping, legal support, banking, government support, sales representatives/partners in other countries, accounting/finance, customs, currency exchange, language translation, and human resources assistance. Cirillo, Taylor, and Austrian (2007) go on to report that reasons for the international growth focus on increasing globalization. Among these are:

- reduced market barriers
- expansion of markets into China and India
- shift of jobs to foreign locations
- more multi-national firms doing business in the area
- immigration issues
- success of nonprofits, foundations, private equity investors and venture capitalists in convincing companies to locate in the area

On the other hand, the respondents also reported a number of potential challenges and barriers. These included:

- problems with language and cultural differences

- costs in doing international business
- trade barriers and regulations
- lack of market presence in a country
- shipping costs/logistics
- banking and currency fluctuations
- competition (domestic and international)
- tariffs
- quality control
- protecting intellectual property

Logistics

Access to Markets

The business environment in Northeast Ohio is supported by a strong and very comprehensive infrastructure. In fact, this region is annually rated among the top logistical and transportation centers in the United States. With its excellent geographical location, all areas of the Northeastern Ohio region are easily accessible from any location in the United States, Canada, and the world. Situated on the shores of Lake Erie, the region has access to the Great Lakes, the Saint Lawrence Seaway, and, ultimately, the Atlantic Ocean. Also, because of its central location between major Eastern (e.g., New York City) and Midwestern (e.g., Chicago) cities, the region serves as a transportation hub with major interstate highways, international and regional airports, railways, and ports providing a strong and efficient intermodal network.

Figure 2: Northeast Ohio Regional Impact (NEOTEC Publication, 2007)



The Northeast Ohio region is bordered by Lake Erie on the north and the State of Pennsylvania on the east. It is dissected by five major U.S. Interstate Highways (77, 71, 80, 90, and 76) and is geographically situated between major U.S. cities such as New York City, Chicago, Detroit and Pittsburgh. The region also lies less than 100 miles from the Canadian border and provides easily accessible air, rail, water, and ground connectivity to Toronto and other Canadian cities. Every community in the region is close to a major airport with Cleveland Hopkins International (CLE) serving the greater Cleveland area, followed by the fast growing Akron–Canton Regional Airport (CAK) and the Youngstown-Warren Regional Airport (YNG).

Figure 3 shows the relative distances between Northeast Ohio and major metropolitan areas in Canada and the United States east of the Mississippi River. Distances are presented straight line (air and rail) and driving (trucking). Driving hours are estimated based on interstate highway speed limits.

Figure 3
Northeast Ohio Proximity to Key Markets

City	Straight line distance	Driving distance	Driving hours
Atlanta, GA	545	700	11.20
Baltimore, MD	280	349	5.60
Birmingham, AL	590	700	11.30
Boston, MA	540	655	10.00
Buffalo, NY	175	211	3.40
Charlotte, NC	410	485	8.00
Chicago, IL	330	360	5.50
Detroit, MI	130	186	3.00
Hamilton, ON, Canada	175	277	4.50
Indianapolis, IN	270	305	5.00
Jacksonville, FL	750	867	14.10
London, ON, Canada	120	305	5.10
Louisville, KY	315	340	5.00
Memphis, TN	630	720	11.20
Milwaukee, WI	365	452	7.00
Montreal, QC, Canada	500	596	9.50
Nashville, TN	460	510	8.00
New York, NY	390	434	6.80
Newark, NJ	370	424	6.50

Ottawa, ON, Canada	420	539	8.50
Philadelphia, PA	330	423	6.50
Pittsburgh, PA	86	107	2.00
Raleigh, NC	395	546	9.00
Sault Ste. Marie, MI	390	515	7.80
Toronto, ON, Canada	210	313	5.10
Virginia Beach, VA	410	546	9.00
Washington, DC	274	346	5.70

Infrastructure

In 2007, Expansion Management Magazine published the results of its seventh annual Logistics Quotient Survey on the U.S. Metropolitan areas with the strongest and most robust logistics infrastructure. This study examines ten logistical categories in each of the 362 metropolitan statistical areas (MSAs) in the United States and then ranks each of the MSAs based on highest overall percentiles (where 99% is the highest and 1% is the lowest). The ten categories consisted of: the overall transportation and warehousing industry climate; workforce labor costs/availability/skills level; road/highway basic infrastructure; road density and congestion; road and bridge conditions; interstate highway access; fuel taxes and fees; railroad services; water ports (i.e., river, lake, ocean); and air cargo service.

The top 20% of the MSAs are then classified as the “5 Star” or strongest logistical areas. In the most recent 2007 study, the Cleveland Metropolitan Statistical Area received a 5 Star rating with an overall score of 98% out of a possible 99%. In fact, only 5 other MSAs across the U.S. scored higher with a 99% overall score.

The region is served by eleven airports with four that have major length runways. Of these, two are major passenger airports with the remaining nine smaller airports primarily handling freight and cargo. The primary airport in the region is Cleveland Hopkins International Airport (CLE) located in the southern part of Cuyahoga County. According to the airport over 320 flights to over 80 destinations, domestic and worldwide, are offered each day. The Akron-Canton Regional Airport (CAK), located on the borders of Summit and Stark Counties is one of the fastest growing airports in the United States. Between 2001 and 2006 the Federal Aviation Agency ranked it as the second fastest growing airport in the country.

Over the last century, the region has served as one of the nation’s key transportation hubs for over the road freight carriers. Currently, the Northeast Ohio region is the home for 16 long distance freight companies. The region is within a 500 mile radius of 41% of all U.S. households, 55% of all U.S. manufacturing facilities, 58% of the top 500 U.S. industrial headquarters, and 56% of the top 500 U.S. service corporate headquarters. Also, the region is located within 500 miles of Canada’s major

metropolitan areas (Toronto, Montreal) and 65% of Canadian GDP (Northeast Ohio International Business Network, 2006). Concurrent with this, the Federal Highway Administration currently rates the Cleveland MSA as 6th in the United States for best interstate highway connectivity.

With Lake Erie bordering the north part of the region and the Ohio River on the southeastern corner of the area, Northeast Ohio is well positioned to move raw materials and finished goods via the waterways. Ports in Cleveland and Lorain provide excellent dock space at full seaway (27 feet) depth. Both facilities have significant holding space and can easily accommodate the intermodal movement of goods. Both of these ports have direct access to the US interstate highway system. Norfolk Southern and CSX railroad operations are in close proximity as is Cleveland Hopkins Airport.

Lesser known than the Lake Erie ports, the Ports of Columbiana County account for the handling of over 15 million tons of cargo on the Ohio River each year. This is extremely important as the Ohio River is a main conduit for the internal rivers and waterways running throughout the United States. According to Cleveland Plus (2007) the Ohio River accounts for over one-third of the maritime cargo moving inland in the United States each year, (approximately 275 million tons) and by comparison handles more cargo per year than the Panama Canal. When combined with the adjacent 10 county Port of Pittsburgh system, Columbiana County constitutes the 7th largest Port in the United States.

According to the Public Utilities Commission of Ohio (2007), Northeast Ohio is served by three Class 1 carrier railways and approximately 20 short line railroad companies. It is important to note that as part of its multimodal transportation plan, the State of Ohio has a long-standing commitment to insure that all areas in the state have access to railway lines. Three state-wide programs currently exist to achieve this goal. First, the goal of Rail Construction Program is to provide funds to new or expanding industries for rail siding construction. Second, the Rail Rehabilitation Program offers funding to refurbish old, deteriorated tracks and to construct other needed facilities. Third, the Rail Acquisition Program works with both local governments and private investors to encourage short lines to stay in business and to acquire those lines threatening to go out of business.

Therefore, Northeast Ohio is ideally positioned as one of the major transportation hubs in the United States. According to the Northeast Ohio International Business Network (2006), the region

- Is the home for numerous major trucking firms
- Has 30 steamship companies
- Is the third largest port on the Great Lakes
- Contains a major rail corridor

- Has two major airports and a major air freight terminal
- Has over 1,500 miles (2,400km) of super highways
- Is supported by two Foreign Trade Zones

Foreign Trade Zones

According to the U.S. Department of Commerce a foreign trade zone (FTZ) is defined as a site within the United States that is aligned with a U.S. Customs port of entry. As such, merchandise flowing through an FTZ is considered to be in the stream of international commerce. That is, foreign and domestic merchandise may move through the zone without a formal customs entry declaration or payment of customs duties. At the same time, such merchandise is exempt from federal and state excise/use taxes and from personal property taxes. Foreign trade zones are of two types. The general purpose zone includes multiple activities by multiple users (e.g., an industrial park). The second type, a sub-zone, is a one user plant or facility.

Any international or domestic company importing or exporting products can benefit significantly from having a location in a FTZ. Key benefits include:

- deferral, reduction, and elimination of duties
- elimination of drawback
- labor overhead and profit not calculated in dutiable sale of zone merchandise
- excise tax reductions
- inventory is tax exempt while stored in an activated FTZ
- zone to zone transfers
- inventory control and security measures

Northeast Ohio is currently served by two foreign trade zones: FTZ 40 and FTZ 181.

Foreign Trade Zone 40

Foreign Trade Zone 40 has been under the auspices of the Cleveland-Cuyahoga Port Authority since 1978. It currently has 17 general purpose sites located in Cuyahoga, Lorain, and Ashtabula counties. Foreign Trade Zone 40 has been the catalyst for approximately 7000 jobs.

Foreign Trade Zone 181 & the Northeast Ohio Trade and Economic Consortium (NEOTEC)

Foreign Trade Zone 181 is located in the Northeast Ohio multi-county economic region. In order to make the entire process more efficient for businesses utilizing the services, the general purpose and sub-zone authorities have collaborated to create the Northeast Ohio Trade and Economic Consortium (NEOTEC) to manage and market FTZ

181. NEOTEC, under the leadership of Ronald DeBarr (President & CEO), is located on the campus of Kent State University strategically near the geographical center of the region. Serving as the FTZ 181 administrator, NEOTEC endeavors to both promote the benefits of FTZ 181 to regional businesses to enhance their competitiveness in the global marketplace and, concurrently, to promote FTZ 181 and Northeast Ohio to domestic and international businesses to increase the region's role in the ever expanding global economy.

In 1995, six counties in Northeast Ohio entered into a cooperative understanding that recognized that the best way to draw businesses to the area was to set aside intra-regional competition and work as a co-equal team. Based on this vision, the Northeastern Ohio Joint Office of Economic Development (JOED) was established in 1996. At the heart of this collaboration was the establishment of equal governance across the member counties and the sharing of benefits. Member counties were encouraged to attempt, whenever possible, to have their different county interests fall within the goals set by the region in order to enhance existing development efforts and to minimize duplication. Finally, and importantly, the JOED called for the input and involvement from the region's multi-faceted private sector.

In order to achieve these principles and to carry out the economic development initiatives, the JOED established the Northeast Ohio Trade and Economic Consortium (NEOTEC) as the entity charged to implement the initiatives. In 2000, NEOTEC was restructured as a private not-for-profit 501(c)3 corporation. Since 2002, four more Northeast Ohio counties have joined the consortium bringing the total number to 10 and encompassing the majority of the Northeast Ohio geographical area. It is governed by a 20 member board of trustees appointed by elected officials in each of the member counties.

Of major importance to the Northeast Ohio region was the assignment of the Foreign-Trade Zone 181 Grant of Authority to NEOTEC in 1997 by the Akron-Canton Regional Airport Authority. This grant had been established based on authorization from the Foreign-Trade Zones Board in Washington, D.C. in 1994. Since then the Foreign-Trade Zone Program has expanded from the original 157 acre airport site to 36 general purpose and 1 special purpose sub-zone locations encompassing 6085 total acres.

Currently, the Foreign-Trade Zone 181 is ranked 8th out of 260 general purpose zone programs in the U.S. for general purpose zone activity, i.e., total amount of merchandise received and shipped. Additionally, since 2000, FTZ 181 has helped the Northeast Ohio region attract over \$261 million in capital investment and the creation and retention of over 4,200 jobs.

One of the key strategies NEOTEC created to achieve this is the integration of Northeast Ohio's logistics infrastructure and resources into a seamless transportation system which offers efficient and effective options (time, cost, flexibility) to companies shipping to and from Northeast Ohio. This was accomplished through the creation of the Northeast Ohio Logistics Network in 2001, a collaborative partnership of 280 logistics

services providers, businesses, government entities and non-profit organizations. This network works to bring together all relevant parties (i.e., shippers, carriers, third party logistics services partners) to address and resolve logistic issues to not only benefit existing companies, but to also attract additional capital to the area.

Benefits of free membership in the Northeast Ohio Logistics Network include reduced freight rates through the network and a collective voice on legislation relating to logistics issues. The goal of the network is to identify efficiencies for marketing purposes as well as needed improvements and other elements of a “world-class” logistics system and to also create one voice on issues affecting the flow of goods in and out of the region. One of the immediate benefits in this network was the partnership formed in 2003 between NEOTEC and the United States Shippers Alliance to provide volume discounts to companies for both domestic and international freight movements.

To further enhance their service to the international business community, in 2004 NEOTEC received approval and continuing financial support from the Small Business Administration and the Ohio Department of Development to establish an International Trade Assistance Center (ITAC) in order to further provide additional assistance to those firms desiring to grow their international business. ITAC works in partnership with the U.S. Commercial Service and the Ohio Department of Development’s Global Markets Division to provide international trade services and advice to businesses in the northeast Ohio region.

ITAC provides, at no cost to the client, market research, counseling, training, export readiness assessment, international trade compliance, and export and import assistance services. Firms using these services tend to be small to medium businesses who wish to expand their international activities. ITAC offers companies assistance in developing export compliance plans, international trade plans, country trade profiles, and required international shipping documentation. This is primarily accomplished through individual assistance, training, workshops, and seminars.

These services and their delivery are being further enhanced through a partnership with the U.S. Commercial Service’s Export Assistance Center (USEAC) in Cleveland, Ohio. A satellite USEAC office has been established within NEOTEC.

Immigration: Challenges & Assistance

The Northeast Ohio region’s history and economy was built on the foundation of generations of immigrants from around the world. However, in the first part of the 21st century with its distressed economy, loss of jobs, fear of terrorism, and rise of U.S. ethnocentrism, immigration has become a contentious issue. On one hand is the recognized need for educated and skilled labor to help jumpstart the economy. On the other hand is the strong protectionist sentiment about taking jobs away from American workers. This debate is complicated and while it is not the subject of this paper it must be mentioned as one of the leading perceptual challenges to foreign growth in the region.

Population growth normally happens in two different ways. The first is due to natural processes where the number of births exceeds the number of deaths in a given area. The second is due to migration with individuals moving into (immigration) and out of (emigration) the area. For years, the United States and the Northeast Ohio region have faced what has been termed as zero population growth or a relative equity between the number of births and the number of deaths. However, as the dominant middle-aged population in Northeast Ohio reach their senior years, the pendulum may actually shift to more pronounced negative natural population growth where the number of deaths significantly outnumber births. In this case, population growth in the region will be even more dependent on immigration.

In the 21st century, foreign immigration is no longer the traditional push strategy where poorer, unskilled immigrants move into the area to improve their financial and living conditions. Instead, it has become a pull strategy where skilled immigrants are being drawn to the area to fill needed gaps. Research has demonstrated that immigrants tend to start companies at a greater rate than the general population especially in the areas of small businesses, technology start-ups, and international trade.

Currently, two related initiatives are being proposed as innovative ways to deal with this issue. The first proposed initiative is called the Talent Blueprint Project. Designed by the Cleveland Council on World Affairs and Richard Herman, one of the region's leading immigration attorneys, the intent of Talent Blueprint is to collaborate with regional public and private entities to attract new foreign talent and capital to the area in the form of more foreign students, workers, and entrepreneurs. Currently, this initiative is focusing on lobbying congress and other governmental bodies to lift the cap on H1-B visas, especially for skilled foreign workers willing to settle in distressed economic areas. Additionally, this group is working to develop support for a "welcome center" that would be physical and/or digital and would provide comprehensive information and services on immigration and resettlement, as well as, marketing the region to potential target immigrants.

The second related initiative is the "high skill immigration zone." The intent of this initiative is to propose a new national immigration law that would create zones in the U.S.'s most distressed cities. At the heart of this would be the creation of immigration incentives that would be used to attract foreign companies to locate, grow, and especially remain in the region. Upon implementation, the hope is that the process would create a cumulative effect where companies will locate in the area because of the reduced barriers to hiring foreign talent. These new companies, as they grow and expand, will then create job opportunities for local workers. At the same time, the influx of talent and skills will draw other companies to the area and, therefore, stimulate the region's economy.

Neither one of these two initiatives should be viewed as a panacea to resolve immigration and economic problems in Northeast Ohio. They are innovative attempts at finding actionable ways to deal with the current situation. As one would expect, however, they are not without their critics. The primary debate here, as in other

discussions of immigration reform, is the fear of loss of jobs to U.S. citizens. While this debate is too complex and comprehensive to receive fair treatment in this paper, the above initiatives should at least be recognized as attempts by forward thinking organizations in the Northeast Ohio region to deal with an ominous challenge to its growth and revitalization.

Visas

Foreign companies considering moving into the Northeast Ohio region should consider applying for a New Office L-1 visa. This visa allows companies to move key personnel into the U.S. to start up their operations. The U.S. government defines a new office as an organization doing business in the U.S. through a parent, branch, affiliate, or subsidiary for less than one year. In order to obtain this visa, companies must provide evidence that a sufficient brick and mortar physical office has been secured. The company must also demonstrate that it meets the one year continuous employment requirements and that it will support this U.S. operation with an executive or managerial position within one year.

As part of this process, the U.S. Customs and Immigration Service (USCIS) requires the petitioning company to file a short 8-12 page business plan that includes a personnel plan that details the number of employees hired during year one and estimates of the additional number of hires over the next five years. A financial plan is also required to demonstrate fiscal viability and projected growth. The petitioning company must also provide two organizational charts, one for the home country office and one for the new office in the U.S. Finally, the company must register itself as a legal entity in the state where the new office is located.

Recently, in 2007, the U.S. Immigration and Customs Enforcement (ICE) office created IMAGE (ICE Mutual Agreement Between Government and Employers) as a way to work with companies to enhance the awareness of fraudulent immigration and work documents and assist employers in developing a more stable and secure workforce.

Participation in the IMAGE Program is voluntary. Participating companies must agree to

- complete a self-assessment questionnaire
- enroll in the E-Verify program
- enroll in the Social Security Number Verification Service
- adhere to IMAGE Best Employment Practices
- undergo an I-9 audit conducted by ICE
- review and sign an official IMAGE partnership agreement with ICE

Upon completion of the above, the petitioning company is considered IMAGE certified. Once certified, the company is part of the Department of Homeland Security's E-Verify employment eligibility verification program. This will enable the employer to verify that newly hired foreign employees are eligible to work in the United States. Free access is provided to an internet based system providing information across all fifty states

along with access to the Social Security Administration's database and Department of Homeland Security records.

At the individual level, the H1-B visa remains the most common way of entering the United States for work purposes. It must be noted here that the allocation of H1-B visas has declined in recent years with only 85,000 visas allocated by lottery each year. Two other options are worthy of consideration. First are L-1 visas. This visa allows a company to transfer employees to the U.S. from their offices abroad for up to five years. However, the employees must work for the company for at least one year before receiving the visa. There is no limit on the number of L-1 visas available.

The second option is the EB-5 visa, known as the Investor's Green Card. Investors, their spouses, and their unmarried children can receive a permanent resident or green card if they invest at least \$500,000 in a designated investment center and create at least 10 direct or indirect fulltime jobs or \$1 million in investments outside the center. The EB-5 visa does not require the applicant to manage the day-to-day operations of the business. The applicant can invest in an existing or new business and can be a minority owner.

Immigration & Resettlement Assistance

As is observed in the previous discussion, immigration is currently a complex and contentious issue in the United States. As such, maneuvering through the process requires professional assistance. Northeast Ohio is fortunate to have a large number of resources from experienced immigration attorneys and law firms to international trade assistance groups available to help foreign businesses successfully navigate the process.

Similarly, the region has numerous private and public agencies that will help families resettle into the area. These groups or agencies are located in each of the region's major metropolitan areas. They can be accessed directly by companies and families or can be referred to by international business and trade groups in the region. In most cases, services are provided at little or no cost to the new immigrants and their families.

Financial and Legal Assistance

An area of extreme importance for companies engaged in international activities is banking and financing. Numerous resources are available through area banks, financial services and law firms. First of all, the Northeast Ohio region is the home of the Federal Reserve Bank of Cleveland. The Cleveland Federal Reserve Bank is part of a 12 bank Federal Reserve System that serves as the central bank for the United States. This bank serves the Fourth Federal Reserve District which is made up of banks in Ohio, western Pennsylvania, eastern Kentucky, and part of West Virginia. Besides serving to make national and regional monetary policy decisions with the Board of Governors in Washington D.C., this bank also monitors economic behavior in the region.

Additionally, the region is populated with a number of regional and community banks that provide a wide range of financial services to businesses in the area. Two of the nation's "super-regional" banks are headquartered in Northeast Ohio. These are National City Corporation and Key Bank. National City Corporation (NYSE: NCC) is based in Cleveland and is ranked number 188 on the Fortune 500 list. National City is one of the ten largest retail banks in the United States in terms of deposits, mortgages, and home equity lines of credit. It is also ranked ninth in the country in terms of revenue in the commercial banks industry. Its core businesses include commercial and retail banking, mortgage financing and servicing, consumer finance, and asset management. National City operates an extensive network of banks in Ohio, Illinois, Indiana, Kentucky, Michigan, Missouri, Pennsylvania, Florida, Wisconsin and other selected national markets. Like other banking institutions in the United States, National City is currently facing problems due to the poor credit quality, chaotic mortgage financing industry, and the overall economic downturn issues affecting the region. However, it is well regarded for its capabilities as a lender and in the areas of securities, currency trading, and underwriting. Its investment affiliate provides structuring and placement services for companies seeking capital for the construction of new facilities and the purchasing of new equipment.

KeyBank (NYSE: KEY) is also headquartered in Cleveland and is owned by KeyCorp. In 2007, KeyBank was ranked 319 on the Fortune 500 list. As of 2006, it is ranked as the 12 largest bank in the United States based on total deposits. KeyBank currently has over 2.2 million retail, small business, and corporate clients. There are 950 Key branches located in 13 states and 1,447 ATMs. KeyCorp maintains business offices in 31 states. Like National City, KeyBank is also facing the myriad of the issues facing the majority of banks in the United States. However, it has a long and successful history of providing lending, corporate treasury, trading, fund management, and investment banking services to firms desiring to do business in the area.

There are numerous other national and regional banks with a strong presence in the area. These include Chase, Fifth Third Bancorp, and First Merit to name just a few. All of these institutions offer a wide variety of financial products and services to businesses. Equally as important, companies can benefit from the employee advisory and service capabilities that these banks provide in the areas of pension plans, 401(k)s, and a myriad of consumer products and services. Additionally, numerous investment firms exist in the area to provide advice to companies in numerous specialized areas such as venture capital and real estate.

Related to the banking industry, there are port authority agencies residing in key counties throughout the region that assist companies in securing funds to purchase equipment and construct facilities. Through the port authorities and affiliated agencies, such as the Foreign Trade Zones and the International Trade Assistance Center, initial contacts are made with the banks and other professional services. The port authorities leverage their access to the securities market to help companies, especially those with strong credit histories, to secure loans and favorable interest rates. For companies with

predictable cash flows and acceptable collateral, these agencies will help broker the development of innovative packages that enable banks to underwrite the loans.

The region is also very well represented by accounting firms with international experience. These include the so called national Big Four (Deloitte & Touche, KPMG, PricewaterhouseCoopers, Ernst & Young) full service accounting firms and numerous regional firms with international expertise in unique areas of specialization.

International trade requires knowledgeable and experienced law firms to handle the plethora and the intricacies of the rules, regulations and laws that govern trade on a country to country and global basis. According to a recent study (Cirillo, Taylor, and Austrian, 2007), 80% of the Northeast Ohio law firms responding to the survey are currently handling legal matters on the international level. Twenty percent reported having more than 100 attorneys on staff. On the other hand, 68% of the respondents reported that their firm was comprised of ten attorneys or less.

The study also looked at the characteristics of the clients these firms serve. Accordingly:

- 90% handle legal matters in a number of countries/geographical areas.
- 65% represent both foreign based and U.S. clients.
- 60% represent manufacturers
- 60% represent distributors/wholesalers
- 30% represent retailers
- 25% represent financial service providers
- 25% represent other service providers.

It is very interesting to note that over three-fourths of these respondents felt that the practice of international law will continue to grow in the Northeast Ohio region. The rest of the respondents felt that it would stay the same, with no respondent indicating that it would decrease.

Research and Development Resources

One of the major strengths of the Northeast Ohio region is its networks of research and development institutions and collaborative efforts. These entities provide the knowledge, innovation, and intellectual capital to help businesses grow and adapt to the competitive marketplace of the 21st century.

The most comprehensive and robust driver of research and development in the area is the State of Ohio's Third Frontier Project. The purpose of this project is to provide financial and knowledge-based resources to companies using advanced technology to design, develop, and, especially, commercialize new products. While the Third Frontier Project provides companies and organizations with grants to accelerate the commercialization process, the real added value comes from the required collaboration between Ohio's higher education institutions, non-profit research organizations, and the companies directly involved in the product development and commercialization.

Third Frontier programs include:

- **Wright Centers of Innovation** – grants to support large-scale world-class research and technology platforms designed to accelerate commercialization.
- **Wright Projects** – grants to support specifically defined near term commercialization projects requiring major capital acquisitions and improvements.
- **Biomedical Research and Technology Transfer Partnership Program** – grants to support biomedical and biotechnology research leading to commercialization and long-term improvements to healthcare in Ohio.
- **Fuel Cell Program** – grants to support the growth of Ohio’s fuel cell industry.
- **Validation Fund and Seed Fund Initiative** – grants to increase the availability of professionally managed capital and associated services to accelerate the growth of early stage Ohio technology companies.
- **Product Development Pilot Program** – grants to support delivery of product development assistance to small and medium-sized Ohio manufacturers.
- **Innovation Ohio Loan Fund** – supplies capital to existing Ohio companies in targeted industries sectors that are developing next generation products and services, but are having difficulty securing funds from traditional sources due to technical and commercial risks.
- **Third Frontier Internship Program** – grants to partner organizations to develop college internships and educator externships with companies working in the knowledge economy.
- **Ohio Research Commercialization Grant Program** – grants to improve the commercial viability of Small Business Innovation Research, Small Business Technology Transfer, and Advanced Technology Program research and development projects.

Additionally, the Third Frontier Network initiative by the Ohio Board of Regents has over 1,600 miles of dedicated high-speed fiber optic network linking Ohio’s colleges and universities, elementary, middle, and high schools to local and state governments. This initiative continues to expand to link medical research centers and federal research centers (e.g. NASA – Glenn in Cleveland) into the network.

Through its Thomas Edison Incubator program, the Ohio Department of Development has helped to fund a number of business incubators in the Northeast Ohio region. The Akron Global Business Accelerator (AGBA) offers physical space (office, lab, and manufacturing) along with support and counseling to new businesses commercializing information technology, advanced materials, and electronics and instrumentation. The Braintree Center for Business Innovation in Mansfield assists start-up and emerging businesses in North Central Ohio, with counseling, customer referral,

access to capital, and training. Great Lakes Innovation and Development Enterprise (GLIDE) in Elyria are a comprehensive resource center and incubator that provides entrepreneurs with guidance and resources to grow all stages of their business. The Manufacturing Advocacy and Growth Network (MAGNET) in Cleveland help regional manufacturers by serving as a central location for public and private resources needed by the companies to complete globally. The Youngstown Business Incubator (YBI) serves the Mahoning Valley area that focuses on start-up businesses focusing on scalable technology and the development of business to business software.

In addition to the Third Frontier Program a number of other research and development programs are available in Northeast Ohio. Two examples (among many) are MAGNET and the NASA-Glenn Research Center. MAGNET has facilities in Cleveland and Youngstown and provides manufacturers with technical assistance in quality control, adherence to international standards, marketing, and worker training. The NASA- Glenn Research Center helps small business manufacturers to successfully apply and commercialize technical innovations through the Small Business Innovation and Small Business Technology Transfer programs.

The region's universities and colleges also provide numerous research and development programs in their areas of nationally recognized expertise. Not only do these institutions of higher education provide facilities and advanced research, they regularly turn out highly trained graduates that can be used by area companies to expand their knowledge, innovation, and applications.

In the area of advanced manufacturing and materials, a number of colleges and universities in the area provide advanced research programs. Also, many of these research programs are being done in collaboration with other region higher education institutions in the region in order share knowledge and minimize duplication.

The University of Akron's polymer education program is considered to the number two polymer science center in the nation. Kent State University is the world's leading facility for liquid crystal research and flat panel display technology. Case Western Reserve University (Cleveland) is considered one of the national leaders in biomedical engineering and Stark State College of Technology (Canton) is currently leading research in fuel cell technology and its commercialization.

Each of these universities and colleges is also strong in a number of other research programs in technology, materials development, business formation/growth, and commercialization to name just a few. Additionally, there are numerous other community colleges, public and private colleges and universities in the region that offer state of the art research facilities and programs in a multitude of advanced product innovation, development, implementation, and commercialization.

In the field of agribusiness, Northeast Ohio is the home to the Ohio Agricultural Research and Development Center (OARDC) in Wooster. This program is a part of The Ohio State University and has close to 300 research scientists working on over 400

projects. The OARDC manages over 7100 acres in Ohio and conducts research in eleven locations throughout the state. Faculty members at OARDC have shared appointments in the College of Food, Agricultural, and Environmental Sciences, the College of Biological Sciences, the College of Human Ecology, and the College of Veterinary Medicine at The Ohio State University.

The region is a global leader in bio-medical research. Numerous bioscience research collaborations are underway throughout the region. These are lead by the world class medical research institutions such as the Cleveland Clinic, University Hospitals Health System and Case Western Reserve University in Cleveland and Summa Health System, Akron General Medical Center, Children's Hospital and The University of Akron in Akron. These research collaborations are further enhanced by the large and growing body of medical and biosciences research currently underway in the majority of hospitals, medical centers and higher education institutions in the area.

One of the key lynchpins to this entire research process is the Northeast Ohio Universities College of Medicine (NEOUCOM) located in Portage County. This medical school and research facility is a collaborative effort between The University of Akron, Kent State University, Youngstown State University, and (recently) Cleveland State University. Not only does this facility provide doctors and biomedical research scientists to Northeast Ohio, it helps to serve as a research conduit across the region.

A renewed spirit of collaboration among the critical parties involved in biomedical research has recently been evidenced in the recently proposed biomedical corridor in Akron. The city's three major hospital systems are joining with The University of Akron, NEOUCOM, and city and county government to create a biomedical corridor in Akron. When completed, this corridor will stretch through downtown Akron from the Summa Health System complex on the east to the Children's Hospital complex on the west and then south to the Akron General Medical Center. Besides the hospitals, when completed this corridor will also be the home to biomedical research facilities, medical suppliers, and existing and new biomedical companies. This collaboration has already produced results with the recent construction of a new orthopedic hospital and a new shared long term care facility located in the corridor.

Assistance Available From the State of Ohio

A significant amount of assistance is available from the State of Ohio to help international companies to do business in Ohio and in the Northeast Ohio region. The State of Ohio Department of Development's (ODOD), Global Markets Division promotes the export of Ohio products and services to strengthen Ohio's economy and advance its leadership position in the global marketplace. Global Markets Division provides companies with market research; performs agent and distributor searches; participates in trade shows; organizes trade missions; and assists with export finance. Global Markets also works with the Strategic Business Investment Division to promote Ohio and attract foreign investments into the state.

Ohio's international trade offices are located in Brussels, Belgium; Tokyo, Japan; Toronto, Canada; Tel Aviv, Israel; Mexico City, Mexico; New Delhi, India; Sydney, Australia; Sao Paulo, Brazil; Santiago, Chile; Buenos Aires, Argentina; Johannesburg, South Africa and two offices in China, one in Beijing and one in Shanghai.

Also, the Ohio Department of Development's Strategic Business Investment Division works to create, retain and expand job opportunities for all Ohioans. The Division focuses on issues affecting Ohio's economy and provides a variety of business development resources to help Ohio remain at the forefront of economic development. The Division offers companies direct financial assistance in the form of low-interest loans, grants, bonds, and state and local tax incentives. The Division also offers assistance with employee training and infrastructure development.

The Strategic Business Investment Division provides Ohio businesses with access to technical assistance, counseling and training programs. Programs such as the 1st Stop Business Connection offer comprehensive information designed to assist small start-up firms with business development. The first in the country to offer electronic site selection information, Ohio's electronic site location proposals drastically cut response time while enhancing the quality of information available.

From new entrepreneurs starting small businesses to large corporations, the Strategic Business Investment Division provides business owners and executives with the information and support they need to make informed, critical decisions on location, infrastructure, job creation and retention, training and financial assistance.

Ohio Tax Reform

At the state level, Ohio is currently implementing a set of tax reforms that will change the long standing cost of doing business in the area. The goal is for Ohio to have the lowest business related taxes in the Midwest by 2010. In 2005, Ohio implemented a five year sweeping reform initiative to eliminate a burdensome tax system that had hindered many companies from setting up business in the state. Ohio's new business taxation model will make the state more competitive with the Midwest and coastal regions against whom it normally competes for business. It is expected that by 2010 companies may achieve a reduction in their state tax burden of up to 63%. This reduction in taxes coupled with numerous available state grants and financing assistance is expected to make the state an increasingly viable location for business growth (Cleveland Plus, 2007).

Key advantages of this tax reform to businesses include:

- No tax on inventory or corporate income
- No tax on investments in machinery and equipment
- Lower labor costs through a 21% reduction in personal income tax with a new top rate of 5.9%

- All companies taxed the same rate. Tax on net gross receipts of a business's activity within Ohio replaces the corporate income tax with a flat rate of .26% on sales in State of Ohio
- No tax on products sold to customers outside Ohio
- The first \$1 million in gross receipts are tax-free

Overall, to help businesses, the new tax initiative will eliminate the state corporate income tax and personal property tax. At the same time it will reduce both personal income tax and state sales tax.

Key Available Ohio Business Tax Credits/Exemptions

The ODOD Strategic Business Investment Division offers the following tax credits and exemptions for companies doing business in Ohio.

- **Ohio Job Creation Tax Credit** – Provides corporate franchise or state income tax credit for businesses that expand or locate in Ohio and create at least 25 net new full time jobs.
- **Ohio Job Retention Tax Credit** – Provides corporate franchise or state income tax credit for businesses that commit to retaining a number of full time jobs in Ohio (i.e., employ at least 1000 full time employees and make a capital investment of at least \$200 million).
- **Ohio Research and Development Investment Tax Credit** – Designed to encourage Ohio corporations to invest in increased R&D activities, this credit provides a nonrefundable tax credit against the corporate franchise tax.
- **Training Tax Credit** – Targeted at employers who provide training to existing employees who are at risk of losing job due to skills deficiencies.
- **Ohio Manufacturing Machinery & Equipment Grant/Ohio Manufacturing Machinery & Equipment Investment Tax Credit** – Non-refundable corporate franchise or state income tax credit for manufacturers located in Ohio that purchase qualified new or retooled machinery/equipment used in their manufacturing.
- **Technology Investment Tax Credit** – Provides a tax credit for taxpayers that invest in small, Ohio-based technology companies.
- **Research and Development Sales Tax Exemption** – Provides an exemption from state and county sales tax to those companies that purchase equipment for their research and development activities.
- **Manufacturing Machinery & Equipment Sales Tax Exemption** – Companies that purchase machinery and equipment for manufacturing activities are provided an exemption from state and county sales tax.
- **Warehouse Machinery & Equipment Sales Tax Exemption** – Provides a state and county sales tax exemption for those companies purchasing eligible warehousing equipment.
- **Warehouse Inventory Tax Exemption** – Provides an exemption from personal property tax for inventory bought into Ohio from out of state, held

in storage only with no additional processing and then distributed back out of state.

- **Enterprise Zones** – Provides real and personal property tax incentives for businesses that locate or expand in an Enterprise Zone in Ohio.
- **Ohio Historical Preservation Tax Credit** – Provides a refundable tax credit to owner of historic building based on expenses paid to rehabilitate the building.

For additional detailed information on the credit or exemption and eligibility requirements, the reader is strongly advised to contact the State of Ohio Office of Tax Incentives at (800) 848-1300 or (614) 466-2317.

Assistance Available from the United States Government

Numerous resources are available from the U.S. Government for companies desiring to trade internationally. The primary governmental agency dealing with international trade is the U.S. Department of Commerce. Within the Department of Commerce is the International Trade Administration (ITA). This organization focuses primarily on the exporting side of international trade. One of its key initiatives called “Invest in America” was launched in March, 2007. Invest in America serves as the primary U.S. government program managing foreign investment promotion. Its function is to

- facilitate investment inquiries
- act as ombudsman
- connect investors with U.S. states
- provide policy guidance
- educate investors

Invest in America is an essential governmental source providing both businesses and investors with information on entering the U.S., applying for visas and understanding the rules and regulations dealing with export control.

Also, the Bureau of Industry and Security (BIS) provides information on exporting regulations and where products are allowed to be exported. Additionally, the U.S. Export-Import Bank provides information on financing available for exporting products and services from the United States. Other U.S. government offices providing export assistance include, but are not limited to, the U.S. Agency for International Development (USAID), the Foreign Agricultural Service (FAS), and the Office of Foreign Assets Control (OFAC).

On the importing side, a number of agencies in the U.S. Department of Commerce are tasked with providing foreign companies information and regulations on doing business in the United States. Within the Department of Commerce’s International Trade Administration is the Import Administration responsible for administering U.S. anti-dumping and duty laws. Additionally, the U.S. International Trade Commission (USITC) provides information on the impact of imports on U.S. industries, global trends, and

updated U.S. tariff schedules. Another area of immense importance is the U.S. Treasury Department, especially the U.S. Customs Agency. U.S. Customs is the first point of contact for foreign companies doing business in the United States. Similarly, the U.S. Treasury's Office of Foreign Assets Control (OFAC) administers economic embargoes implemented by the U.S. Government. Finally, the U.S. Trade Representative's Office handles trade negotiations for the U.S. Government.

The U.S. Department of Commerce is acutely aware of the role of litigation and legal costs when dealing with foreign direct investments. In a recent (2008) publication, the Department of Commerce discusses and addresses perceptions related to the U.S. legal system and its role in the process. According to the publication the key areas of concern for foreign investors center around four problems. These are: punitive damages, class action lawsuits, forum shopping (i.e., trying to identify which level court might be most sympathetic to the case), and the perception that the U.S. is a litigation culture. According to the article, a number of recent developments have helped to address these problems. Key among these are U.S. Supreme Court decisions limiting punitive damages and the Class Action Fairness Act of 2005. While tort reform still remains a work in progress, more than half of the states now limit damages.

It is important to note that a recent (2008) study of country investment environments by the World Bank found the United States at or near the top of its doing business indicators list. Of the 181 countries studied, the U.S. ranks first in employing workers, third in the overall ease of doing business, fifth in both obtaining credit and protecting investors, and sixth in enforcing contracts.

The above agencies and organizations are key starting points for companies considering exporting or importing products and services. It must also be mentioned that there are over 20 U.S. Government agencies that have some type and level of international trade involvement. Key among these is the U.S. Department of State, the Food and Drug Administration, the Department of Energy, and the Environmental Protection Agency. Fortunately, companies interested in importing/exporting can access the websites for all the above mentioned agencies and offices for additional information and contacts.

What the Experts are Saying: An Interview with Jim Matcham

Jim Matcham is the president of BEI Global International Transportation, an international supply chain and security consulting company located in Middleburg Heights, Ohio.

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

“Probably the number one issue is the number and size of companies doing business here. I think that if you did an analysis and looked at the actual number of shipments and the actual number of companies you might see some increases but I think the real issue has to do with risk management or perceived risk management. I really believe that this issue is part of the reality of difficult economic times. The next issue is imports vs exports. The number of resources that are available both in manufacturing and service around export trade are numerous. Now try to get import help in this town, it almost doesn't exist. The manufacturers are importing raw materials, the distributors are importing finished goods, but you can't buy good import/export expertise. It is coming from people who have a vested interest in that business.”

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

“There are two overriding negative issues: the first one is related to infrastructure. We have an infrastructure that is literally crumbling against an economy that is changing, it's no longer centered around a single large city, it's more spread out. Second negative issue is the complete lack of leadership by the single largest city, Cleveland. I think you have a real recipe for disaster. One big positive is the concentric circles out of Ohio. From Cleveland we have access to upwards of 60% population of United States with an overnight truck. NE Ohio is absolutely critical to the effective distribution of goods. If you layer FTZ onto what we just discussed you've got an opportunity that has the ability to create an economic driver for the region that takes into account all of the advantages that we have and would almost assuredly take the negatives and turn those negatives into non-factors because you now have the revenue and the direction for the region so you understand what it is you need to build and why which allows you prioritize the investment in a reasonable way.”

If there were one or two major areas that need changed to improve conditions in northeastern Ohio, what are they and what do you think should be done?

“We need a leader with a vision to emerge that has the ability to communicate that vision to all the stakeholders in the region. If you had a vision that included some opportunities for all of the stakeholders throughout the economic chain from executives all the way down to workers that would give you an opportunity to link into education, politics, infrastructure, business. There are more organizations than can be counted. I think that regionalism combined with a view of the future in such a way that's complex enough to allow for all the different kinds of people and organizations to jump on board but it's simple enough that the highlights at least can be communicated to people of all ages, races and intellectual capabilities.”

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

“Foreign companies do business based upon business decisions. So they're looking for is a market, infrastructure, overall reduced cost/increased profit to their own organization. More a matter of understanding what an individual organization is looking for and working with them to create an opportunity that makes sense. We should be far more strategic, far more communicative about what the region can and should look like in the future.”

Likewise, how hard is it for NE Ohio companies to do business internationally?

“Interesting question because it's very easy for them to do business on a global scale. However many of them don't know it. And in some cases they have no idea of resources available. I think that there's a communication gap in some cases, in some cases it's a perceived risk management issue, in other cases it's more along the lines of knowing where to get the resources, or internally inside of their own organization getting their arms around what international business really means for them. So you've got communication issues, risk management issues and this is an , opportunity for education to be able to step in.”

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

“It pains me that I am pessimistic about opportunities in northern Ohio over the course of the next five years. I think it goes back to my original comments having to do with leadership and Cleveland and Cuyahoga County. It has to do with the deteriorating tax base and an infrastructure that requires rebuilding.”

Are there any other comments, feelings, or opinions that you would like to add?

“I have never seen an economy like this. It's usually a bell curve where you have a handful of organizations on the one hand struggling and on the opposite end those who are doing extremely well and you have a whole bunch of folks who are doing reasonably well. Right now, we're not looking at a bell curve in Ohio, right now we're looking at an inverted bell curve. However, it does seem we're living through some times that we haven't seen in a long time and may not see again any time soon.”

What the Experts are Saying: An Interview with Dan Schjeldahl

Dan Schjeldahl is the Vice President and Director of Austin Consulting, a division of the Engineering Design in Cleveland that advises companies on location strategy.

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

“I guess I think that what is positive is the new collaboration on the regional level. The rebranding of Team NEO and the Cleveland Plus campaign I think has done a good job of capturing the strengths of the region. Now I would also say that on the negative side, one of the things that has always held us back is the ability to deliver at the local level. And when it comes to economic development it always ends at the local level. But we really need more of a wholesale redesign of the preparedness of communities at the local level.”

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

“I think there are real serious challenges in NE Ohio. I think Ohio in general and in NE Ohio in particular, the aging population and our inability to retain young energetic people. Where do I see the workforce over the next two to three years, I see it stagnating in terms of alignment of skills with what the world needs because young people are leaving the area. I'd like to think that we can move ourselves down a new path and I don't think it's going to happen in the next 2-3 years maybe in the longer term. When I say 'we' it's going to be the state government. The big government has to drive a lot of this high level industrial development, economic development. Down at the community level everyone needs to position themselves for development.”

If there were one or two major areas that need changed to improve conditions in northeastern Ohio, what are they and what do you think should be done?

“The level of collaboration. Create a more formal collaboration of business and community leaders at all levels and action plans which would include better preparedness to train for what's needed to move a plan forward not train for what is here right now.”

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

“Looking at the longer term prospects for the region and the challenges, NE Ohio is a tough sell to rest of the world. The perception of North East Ohio and it is a rudimentary perception is one of that it's stuck back in an earlier era, 60s to 70s.”

What do you think should be done to make it easier to either foreign businesses in the region and/or to create relationships for NE Ohio firms to do business internationally?

“The quickest fix and the best strategy is to figure out what is the best alignment of resources within the region and what's going on in the global economy. One of the things we do really well is manufacturing and engineering and design of industrial products and there's a lot of demand for that in the world. And it's not necessarily driven by low labor costs, it's driven by technical skill. So, if we can redefine ourselves and upgrade our training programs and put a new shine on and show the world that we 're going to be experts at this particular industry.”

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

“I am optimistic about the future but I think that we are on the verge of a new era of thinking. And one of the topics I talked about today was the different eras of economic development and that 10 years from now we won't even use the term economic development we will use the term 'sustainable development'. So I think the next half century is going to be very good for the world.”

SECTION 3: THE SOCIO-ECONOMIC ENVIRONMENT: BAD NEWS OR GOOD OPPORTUNITIES?

REGIONAL WORKFORCE DEMOGRAPHICS

As it has been throughout its history, the Northeast Ohio region is a microcosm of the entire United States. The anchor cities have a long and varied history in the development of the region, the state, and the overall country. However, as these cities age, major changes are occurring in population and migration. Recent figures continue to show emigration to adjoining counties that at one point in history were rural, but today are considered exurbia. As such, these counties are demonstrating growth in the region while declines are occurring in the more traditional central cities. Thus, these counties are growing in population at the expense of the more traditional counties. However, it should be noted that for the most part the moves are cross-regional moves and not moves outside the region.

When looking at a demographic profile of the area, a number of very important factors come into play. First, the region is about equally divided by gender, with slightly more females than males. This is to be expected in a mature area as the population ages. Currently, the median age of the population in the region is around 39 years of age. However, the population is strongly influenced by the large number of baby boomers who are rapidly approaching retirement age. Once again, this pattern is consistent with the overall age breakdown for the United States.

Residents of the region view higher education as being very important. Over 50% of the region's population report having at least taking some higher education courses. More importantly, about a third of this group report achieving a degree, be it associate, bachelor's, or graduate.

Ethnically, the population is very representative of the nation as a whole. While the majority is white, there is a very strong African American population and a growing Hispanic population. It is interesting to note here, that many of the ethnicities (be they European, African, Hispanic or Asian) continue to adhere to their cultural traditions in this region. In a sense, the region should be considered a "stew pot" instead of a "melting pot." That is, ethnicities in the region continue to add their unique flavor to the stew blend (accommodation). Individual's in the region can definitely identify with their ethnicity and, at the same time, enjoy and share that of others.

Household income in the region is consistent with national figures with a median income of around \$42,000. However, the higher income levels (\$75,000 and over) are expected to continue to grow over the next decade. This is based on a labor force where 94% of eligible individuals are currently employed.

Finally, over 70% of dwellings in the region are owner occupied. This would appear to indicate stability and a sense of "ownership" in the area. At the same time,

households appear to be single person or two person dwellings, suggesting a movement to smaller family sizes most likely brought on by an aging population.

In 2005, approximately 2,033,442 individuals in Northeast Ohio were a part of the labor force. Of this number, 93.72% were employed. The size of the labor force is projected to remain the same in 2010. Figure 4 displays how this employment is grouped by occupation.

Figure 4

Total Employees by Occupation (2005)

	Total	%
Executive, Managers, and Administrators	224,748	11.26%
Professional Specialty Occupations	314,453	15.75%
Sales Professionals	48,780	0.01%
Technologies and Technicians	76,710	3.84%
Sales Workers and Clerks	173,049	8.67%
Administrative Support Workers	367,225	18.39%
Technical, Sales, and Administrative: Field Occupations	6,001	0.30%
Private Household Service	175	0.01%
Protective Services	29,911	1.50%
Other Services: Site Based	274,719	13.76%
Other Services: Field Based	9,351	0.47%
Farming, Forestry, and Fishing	40,084	2.01%
Precision, Craft, and Repair: Site Based	176,616	8.85%
Construction, Repair, and Mining: Field Based	53,110	2.66%
Machine Operators, Assemblers, and Inspectors	63,781	3.19%
Transportation and Materials Moving Workers	62,701	3.14%
Handlers, Helpers and Laborers	59,098	2.96%

Source: Cleveland Plus, 2008

Thus, the Northeast Ohio region is representative of the population of the United States. It is an aging population, but there is an echo boom occurring with the younger generations. It is about equally split gender-wise and ethnically diverse. Individuals in the region value higher education with many achieving college degrees at all levels. It is in line with national standards on household income, with a projected potential to continue to grow at the higher income levels. The vast majority of those living in the region eligible to participate in the labor force do so. These individuals also tend to own

(mortgage) their homes. Finally, household sizes appear to be small with the majority of households being one or two individuals.

Economics

The following section discusses the economy in the region by first looking at the economic conditions for the overall State of Ohio. This is then followed by looking at the prevailing conditions in the region's four major metropolitan areas. Finally, this information is integrated into a discussion of the economic conditions facing the entire Northeast Ohio region and responses to this condition.

State of Ohio

The economy for the state of Ohio has evidenced many of the issues facing the traditional manufacturing states. The historical manufacturing appeal of the state in the 19th and 20th centuries has now stagnated as these traditional industries have moved domestically and internationally to achieve lower labor and production costs. With this decline are the changes in other related aspects of the economy. Housing, retail, and their affiliated industries remain soft in the state, exacerbated by the national mortgage and credit quality crisis. Also, the demographics of the state continue to age as the "baby-boom" generation enters the retirement phase of their lives and as the younger generations leave the state in search of educational and career opportunities.

There are approximately 11.5 million individuals living in the State of Ohio which ranks it seventh in the nation in overall population. During the first half of the 20th Century rapid population increases occurred as individuals and families moved into the state to be part of the growing manufacturing economy. However, the second half of the century demonstrated a significant slowdown. This trend is expected to continue throughout the first decade of the 21st Century. In fact, between 2000 and 2005, Ohio's population grew by 1.0%, while the overall national population grew by 5.3%. Geographically, the majority (80%) of Ohio's population lives in or around a major metropolitan area. Currently, the state's total population trends show a slight, but continuous decline, and emigration from the state continues to grow. For 2008, the population of Ohio is estimated to be at 11,472,000 and is expected to remain near this number for the next few years.

The unemployment rate for the state is projected to be 7.2% in 2008 and stay around this level in the future. Currently, Ohio's per capita income is approximately \$23,322 with a median household income of \$43,493. This is less than the national median household income of \$46,242.

Ohio's gross state product is approximately \$440 billion which makes Ohio the seventh largest state economy in the United States. Even with its decline, manufacturing still remains a large economic sector producing plastics, rubber, appliances, electrical equipment, and transportation equipment. Ohio is home to the corporate headquarters of 62 companies in the Fortune 1000 including Procter & Gamble, First Energy, Nationwide

Insurance, Progressive Insurance, National City Bank, Fifth Third Bank and KeyCorp. Additionally, Ohio's service sector accounts for about 75% of the state gross product. Companies in Ohio ship products to 209 countries and account for approximately 4.0% of the total U.S. export business.

As will be demonstrated in the regional and anchor metropolitan areas discussion below, the healthcare sector has become one of the leading employment growth drivers in the state. Leading employers across the state are: (1) Wal-Mart Stores, (2) Cleveland Clinic, (3) Kroger Company, (4) University Hospitals Health System, (5) Ohio State University, (6) Catholic Healthcare Products, (7) General Motors Corporation, (8) Wright-Patterson Air Force Base, (9) General Electric Company, and (10) JP Morgan Chase & Company. Of note is the fact that only two "traditional" manufacturing companies remain among the top 10 employers in the State.

On the more positive side, in order to survive and thrive in the 21st Century, the state has recently focused its attention on a series of initiatives (e.g., Third Frontier) to provide public and private resources to emerging technology centers and attracting venture capital to create new related businesses and attract others to the state. This coupled with the growing healthcare sector, especially in the Northeast Ohio Region, is a positive attempt by the state to better position itself in the information and service economy.

Ohio has become technology focused. According to a 2005 Battelle study (which, with a number of other like studies, led directly to the creation of the state's Economic Development Strategic Plan), there are over 28,000 technology based companies in Ohio providing employment to 820,000 individuals. This gives Ohio a 14% higher concentration than the nation in the number of technology firms which coupled with Ohio's strong educational and private research facilities, bodes well for the future as the state and country transition into the digital economy.

Anchor Metropolitan Areas

The Akron metropolitan area is estimated to have a population of approximately 699,900 individuals in 2008. This number has remained stable throughout the decade and is expected to remain flat in the foreseeable future. The unemployment rate for 2008 is projected to be 6.6%. As this metropolitan area continues to transition from its historical manufacturing economy, it is interesting to note that the top employers include: (1) Summa Health System, (2) Kent State University, (3) Akron General Health System, (4) Goodyear Tire and Rubber, (5) University Hospitals Health System, (6) Akron Children's Hospital, (7) First Energy Corporation, and (8) The University of Akron.

The above list of employers clearly portrays the transitional status of the metropolitan area. While the more traditional manufacturing (Goodyear) and utilities (First Energy) are still among the largest employers in the Akron metropolitan area, they are being replaced by the healthcare and education sectors. As with most comparable communities, the transition has been difficult and has had deleterious effects on the local

economy. Related to this are aging demographics, aging housing stock, and a lack of growth in immigration, personal income, and employment.

There are, however, a number of strengths to be leveraged. The dynamic growth of the healthcare industry coupled with strong research and training partnerships with the area's major academic institutions is moving the metropolitan area in a direction to appropriately deal with an ever-aging population and its future needs. At the same time, these changes are providing the additional knowledge, technologies, resources, and manpower to deal with the information based 21st century. These include an increasing number of academic and applied research facilities, an educated workforce, and an excellent location for logistics and transportation.

The Canton metropolitan area has an estimated 2008 population of 409,700 residents. This number has not grown in the past number of years and is not expected to change in the future. The unemployment rate for 2008 is expected to be around 7.2%. As with the other anchor communities in the Northeastern Ohio region, this area is changing from a longstanding manufacturing economy to a service economy and this transition is being lead by the healthcare sector. As such, the metropolitan area's top employers are: (1) Aultman Hospital, (2) Timken Company, (3) Mercy Medical Center, (4) Diebold, Inc., and (5) Affinity Hospital. Interestingly, however, both Timken and Diebold have recently demonstrated growth in the iron and steel sector as the global demand for steel and fabricated metals remains high.

The key weaknesses in the Canton economy are centered around a continued reliance on its stagnant industrial and manufacturing base and a lack of employment and personal income growth. While this is not expected to change dramatically in the next decade, the area's substantially lower than the national average cost of doing business, its high housing affordability, and the lower than average cost of living bodes well for companies and their employees moving into the area.

The Cleveland metropolitan area has long been considered the "hub" of the Northeastern Ohio region and, as such, its economic situation impacts the entire Northeastern Ohio economic community. Over the past decade this has proved to be very problematic. More than any other anchor metropolitan area in the region Cleveland has suffered the adverse affects from the dramatic decline of its once strong manufacturing base. This decline has affected all economic drivers with the 2008 metropolitan area population at approximately 2 million individuals and declining. The percentage of emigration from the area recently has been in double digits and is expected to remain at this level in the future. (However, a majority of these movers have stayed within the Northeastern Ohio region). Additionally, the unemployment rate for 2008 is expected to be at 7.1%.

As with the other anchor metropolitan areas, Cleveland's employment growth has moved to the healthcare sector. This is reflected in the fact that that its largest employers are the Cleveland Clinic (1), University Hospitals Health System (2), MetroHealth system (7), and Progressive Corporation (3), a major national insurance provider. The

only traditional manufacturer in this group is Ford Motor Company (4). While the financial industry continues to maintain a strong presence in the region, especially as the headquarters location for both Key Corp (5) and National City Bank (6), recent national economic and housing problems have severely limited this sector's position.

On the upside, the Cleveland metropolitan area is actively looking at ways to reinvent itself through major collaborations between the business, governmental, private funding, and educational sectors. This is especially true as Cleveland's world renowned healthcare infrastructure continues to expand and gain strength. Along with this is the continued growth of innovative technology businesses, especially biotechnology, residing in the area.

The anchor metropolitan area that has suffered the most from the transition away from a manufacturing economy is Youngstown. With its central location in the Mahoning Valley between Cleveland and Pittsburgh, PA, this area has long been a major steel provider. As such, it is interesting to note that in 2008, WCI Steel, Incorporated (10) is the only steel company in the top ten employers. The estimated 2008 population for the metropolitan area is 582,300 individuals, a number that is expected to show small, but continued, declines throughout the rest of the decade. Related to this, the 2008 unemployment rate is estimated to be at 7.7% and is projected to stay around this level in the foreseeable future.

Once again, the Youngstown's major employers tend to be in the healthcare sector. Accordingly, these are: (1) Forum Health, (2) HM Health Partners, (3) General Motors Corporation, (4) Youngstown Air Reserve Base, (5) Sharon Regional Health System, (6) UPMC Horizon-Shenango Valley Medical Center, (7) U.S. Postal Services, and (8) Youngstown State University.

On the downside, the weak national demand for automobiles continues to be detrimental to the Youngstown area and continues to lead to layoffs and emigration of younger residents. However, on the more positive side, both the costs of doing business in the area and the cost of living are substantially below the region, state, and national levels.

Overall Northeast Ohio Region

The economy of Northeast Ohio closely reflects the conditions observed across the entire State of Ohio. The movement away from the long held manufacturing economy has been slow to materialize across the region and this slowness to change has detrimentally impacted growth in the region.

Currently, there are approximately 4.1 million people residing in the Northeast Ohio region accounting for approximately 34.5% of the population for the State of Ohio. This ratio is expected to remain stable or decline slightly over the next two decades. The unemployment rate for the Northeast Ohio region is estimated to be around 7.0% for 2008. The top 10 employers in the region are: (1) Cleveland Clinic, (2) University

Hospitals, (3) Progressive Corporation, (4) KeyCorp, (5) National City Corporation, (6) General Motors, (7) MetroHealth Systems, (8) Ford Motor Company, (9) Case Western Reserve University, and (10) Summa Health System.

A recently released study by the Fund for Our Economic Future, a consortium of approximately 100 funding groups and other organizations in Northeast Ohio, compares the economic performance of the Northeast Ohio region to other Metropolitan Statistical Areas (MSAs) in the United States. This study, titled *2007 Dashboard of Economic Indicators* completed by the Center for Economic Development, Maxine Goodman Levin College of Urban Affairs, Cleveland State University (Austrian, Lendel and Yamoah), is the second in the series of annual regional economic reports with the first study being completed in April, 2006 (Eberts, Erickcek & Kleinhenz).

The Dashboard compares the MSAs in the Northeast Ohio region (Akron-Canton-Massillon, Cleveland-Elyria-Mentor and Youngstown-Warren Boardman) to 132 other MSAs in the United States with populations ranging between 300,000 and 3.5 million. The study endeavored to identify what factors are related to regional economic growth. Thirty-eight variables, across the 136 metropolitan areas, were statistically analyzed and combined into following nine factors: skilled workforce and R&D, technology commercialization, racial inclusion & income equality, urban assimilation, legacy of place, business dynamics, individual entrepreneurship, location amenities, and the urban/metro structure-relationship of the central city to the overall metropolitan area. The Dashboard report ranks each of the MSAs across these factors and then assigns each MSA to a specific quartile.

Based on the nine factors, four measures were then used to assess regional economic performance. These included percentage change in per capita personal income, employment, gross metropolitan product, and productivity. According to Austrian, Lendel & Yamoah (2007), per capita income (i.e., total personal income of residents divided by total population in the area) approximates quality of life in the MSAs. Employment measures available job opportunities to the labor force. Gross metropolitan product measures output produced in the MSA and is the regional version of the national gross domestic product. Finally, productivity reflects the gross metropolitan product at the individual employee level and serves as a measure of competitiveness.

The findings indicate that between 1995 and 2005 the Northeast Metropolitan area grew at a modest rate in all four of the measures. However, it still lagged below the overall sample average. The report posits that this poor economic performance in the Northeast Ohio region was most likely due to the area's decline during the high growth economy of the late 1990s, a situation further exacerbated during the recessionary early years of this decade. The researchers suggest that the recession early in this decade had a more severe impact on the region than most other comparable regions in the country and that it lasted longer.

However, an interesting trend is evidenced during the later part of this period. During the three year period, 2002-2005, the region grew faster than at any other time in the ten year period. For example, Akron, which manifests the highest rankings across all of the Northeast Ohio's MSAs, actually moved to the second quartile in growth rates of per capita income and employment, but dropped to the fourth quartile in productivity growth. During the same period, the Cleveland and Youngstown MSAs improved their quartile rankings in growth of per capita income, while the Canton MSA improved in productivity growth.

Based on the findings of both the 2006 and 2007 Dashboard studies, it appears that economic performance in Northeast Ohio still lags behind most comparable regions in the country. While improvement in performance has been evidenced in recent years, this slow down and decline has been in place for a number of decades and will take time and new initiatives to dramatically improve the region's economy

The findings of the 2006 and 2007 Dashboard studies are further supported by the employment data presented in Figure 5. Over the 13 year period from 1993 to 2006, employment growth in the Northeast Ohio region lagged behind both the state and national numbers. Employment growth in the United States was 23.1% and Ohio 11.7% during the time frame, the Northeast Ohio region only grew at the rate of 6.8%.

Figure 5

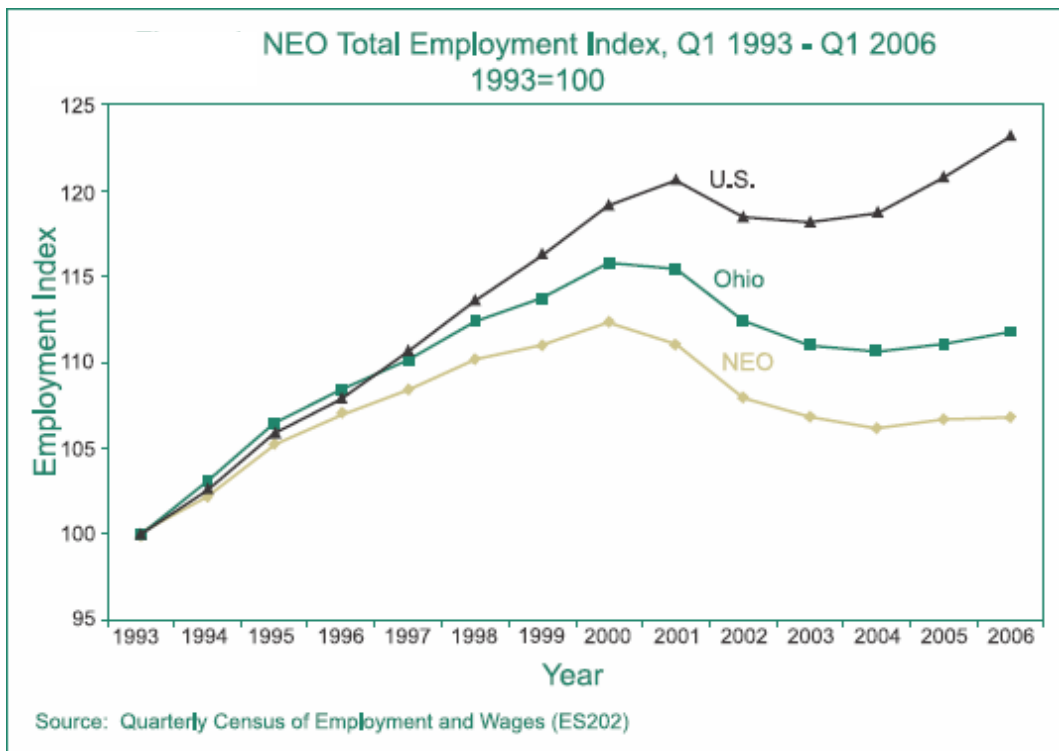


Figure 5 shows that in all three cases employment trends have followed similar trajectories since 1993 with sustained growth between 1993 and 2001. From 2001 to 2004 the curve trends down for the region, the state and the country. From 2004 to 2006 all three demonstrate an upswing. However this upswing is more pronounced at the national level than at the state or regional level. Ohio's growth rate is substantially less than the U.S. and Northeast trails behind the State of Ohio.

Discussion of the NEO Economy

According to one of the region's leading urban affairs and economic development experts, Ned Hill (2006), there are six major challenges to economic competitiveness in the region. First is macroeconomic uncertainty. While employment lagged behind economic recovery in both the 1990 and 2001 recessions by about 18 months nationally, it has actually lagged about three years in NEO region. Second is creative destruction where fewer and fewer people are recalled from layoffs. The original jobs are replaced by new jobs that require new equipment and processes which require new skills and training. Next, productivity growth declined during the most recent recession with area products generating less money and needing to be jumpstarted by new innovative products that produce more revenue per hour worked. Fourth is what Hill calls the "benefits wedge." In this case, the continuously rising health care and benefits costs have made it harder to hire new employees. Fifth is cost uncertainty where the existing environment precludes businesses from predicting raising costs from external factors such as healthcare, lawsuits and energy. Finally, and as importantly, failed business strategies from the large mainstay businesses in the area such as the auto industry (Cleveland), tire industry (Akron), steel (Cleveland), plastics (Wooster) and, by association, the supply chains that support them have significantly impacted the economic condition of the region.

From these areas of concern, Hill (2006) identified four threats to northeast Ohio. The first is the low to declining population growth. The second is the threat of the region becoming an increasingly commodity-driven economy, dominated by global competitors. Third, is the legacy of organized labor. Fourth, is an overall perception of the region as being dominated by industries under stress or in decline (e.g., "rust belt" image).

While the above discussion appears to portray a dismal economic environment, it also lays the groundwork for needed change in actions and perceptions. In order to do so, a recent analysis titled Northeast Ohio Economic Revenue Study (February, 2008), recommended that the area accelerate its growing emphasis on inclusion and integration across the region. After analyzing the effects of urban sprawl and lack of population growth on the region's fiscal inequality between core or anchor communities and outlying communities and, therefore, its obvious impact on local tax bases, the study strongly recommended that the region move forward with great haste to (1) promote consistent growth across the entire region; (2) achieve orderly sustainable development practices; and (3) increase collaboration across the myriad of municipal, county and regional governmental structures.

Northeastern Ohio is transitioning to a more service and knowledge based economy. As such, it will provide numerous opportunities and advantages to companies locating in and doing business in the area. This will be in the form of tax credits and other incentives, venture capital, start up funding, relocation funding, and a myriad of public and private research and development resources. This appears to be supported by recent studies (Hill 2006). In a study of venture capitalists, the growth in the region of polymers, medical equipment, fuel cells, nanotechnology, information technology, and micro-electrical mechanical systems are viewed as very promising areas for investment. Next, site locators surveyed observed potential regional strengths via a diverse network of population centers, professional services, depth and diversity in manufacturing and technical skills, educational resources, air access, and a strong research and development tradition. Finally, Hill (2006) indicated that the region is doing well in a number of areas that include household appliances, environmental technology, back-office operations for banking, and insurance carriers. Research and development continues to advance as does industrial design services. In the information technology area, solutions-oriented technology is growing along with polymers, liquid crystals and fuel cells.

The economic situation in Northeastern Ohio is positioning itself for a major transition and change. While epochal change of this type is often slow and difficult, a number of key assistance and growth stimulants have been put into place to aid businesses in the region and to successfully attract domestic and international businesses into the region. Key among these is regional growth initiatives and Ohio tax assistance and reforms. Thus, the economic climate, out of necessity, is changing to one where the resources will be made available to generate new business and to stimulate growth of existing businesses in the area. The political, business, and resource infrastructure is there to provide opportunities and advantages to businesses committing and availing themselves of them. In this sense, the economic glass should be viewed as half full as the region sets its tools and policies in place to generate its rebirth.

What the Experts Are Saying: An Interview with Doug Sibila

Doug Sibila is the President and CEO of Peoples Services a Canton-based warehouse, distribution, and transportation services provider.

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

"I think the slow realization that Ohio has definite advantages in its location and that logistics can play a very critical role in that. We have been preaching that message for I don't know how long and it seems to be finally resonating. People don't want to hear good news. It's like a filter. You know the job growth doesn't come from the large companies, it comes from the small companies. Yet many of the reports you see talk about what are the large companies doing as opposed to what are the small companies doing. That's where the innovation comes in and you know what, we see jobs follow investment. You see venture capital coming into this area because of a good workforce and good infrastructure. By infrastructure I mean all those things whether it's the phone lines, the highway, rail, water, air. We have some definite advantages. I think there has been an improvement in the local economy as far as some of the base fundamentals but will still take time until we reap the benefits. For example, the tax reform., the understanding that the tax base structure that we had was hurting business. Ask people here what they think of NE Ohio, almost half of them might have some kind of negative comment. The other half would say 'it's a great place to raise a family'. I think we're finally getting out of reporting negative and bad news as opposed to no-one wants to hear good stories. For example, in Canton a company, Hoover was here for over 100 years. That is like ten times the normal life cycle of most businesses. Yet that is all they reported on. The closing and those jobs didn't go overseas they went to Texas.. And yet a lot of people here were negative on what's happening and now that facility is going to be renovated and broken up into serving multiple companies."

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

"It will require more education for jobs in the future. To me the equivalent of a high school high school degree 30 years ago is the same as a college degree today. There's an effort of trying to reconnect the business and universities and it's being done through some of the research and partnerships. I think we are going to continue to see a growth of the technical and local community colleges. I think you're going to see hopefully emerging industry that would attract investment jobs to the area. It has already attracted investment. The location and logistic advantages will start to kick in as the new research and development is rolled out. I'm excited about the future. I think this area has a lot to offer. We just need to believe in ourselves. I think the trend will continue for investment, the dust settling on transition of a large quantity of industrial jobs to smaller businesses, some of them service oriented that will continue and I'm hoping as new industries emerge that we can be in a position to capitalize on that."

If there were one or two major areas that need changed to improve conditions in northeastern Ohio, what are they and what do you think should be done?

"Privatize workers compensation. Property taxes/real estate taxes need to be changed from the standpoint that jobs follow investment. So if you lower barriers to investment, you'll get more of it."

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

"I think that the one disadvantage that we see is the 'old rust belt' union mentality, even though it may not be the case. We're still painted with that label on occasion. The 'right to work' states is another label we have. What is interesting is that some of the companies that have gone south they are returning because they found that the quality of the workforce wasn't there."

"We have a lot of advantages within Ohio to that respect with energy and land and natural resources. One of the things I'd like to see is that we have not the seen the appreciation in property values, related sales tax or other broad based low rate would be a better vehicle than an over reliance on real estate taxes."

Likewise, how hard is it for NE Ohio companies to do business internationally?

"Within the business community, the pace of change is going to greatly increase. Cutting red tape would be a help. The international business can take care of itself if the government would get out of the way."

What do you think should be done to make it easier to either foreign businesses in the region and/or to create relationships for NE Ohio firms to do business internationally?

"I think marketing the area as a region and applaud the efforts of Neotec and TeamNEO that are trying to leverage off each other and some private public partnerships."

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

"Optimistic - very optimistic with the inherent advantages of the area, the people and the resources."

What the Experts Are Saying: An Interview with Nick J. Mihiylov

Nick J. Mihiylov is the SVP Business Development for ASW Global, a single source supply chain solutions provider located in Mogadore, Ohio

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

“I’ve seen an increase in foreign source materials coming into this area and it hasn’t been until recently within the last year that we have seen increase in exporting.

More inquiries from foreign based companies, but whether or not that materializes into business has yet to be seen in terms of the impact into this area. More interest has been generated into this area. A lot of the increased activity can be attributed to NEOTEC’s outreach efforts particularly with the Foreign Trade Zone status that we have. Also the efforts of the local governments and the outreach that the City of Akron has made..

For example, the trade mission generated a tremendous opportunity and I don’t think we have generated the full benefits of that opportunity yet. And we have not seen any interest from the polymers perspective per se but the area is seeing tremendous interest in the biotech field.

Everyone talked for years about a global economy that just kind of happened. Not that it was that simple of a process, but when it happened it really didn’t happen in a positive way for North-East Ohio. NE Ohio is probably a more depressed area in the state than some areas because we’ve lost our manufacturing base. However in some areas because of the service and location and amenities that this place has to offer, we’re now seeing some potential growth opportunities for distribution, warehousing and supply chain and operations.”

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

“I sense that we do an excellent job with the universities that we have and we have many excellent universities in NE Ohio. I think our challenge is to keep that talent that gets trained here. I think with the advent of biotech and some of the initiatives being undertaken now there is that opportunity that the economy is going to grow in a very positive way. And I think the Healthcare industry is going to be one of those stronger opportunities in this area.”

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

“It is a challenge because we’re not recognized as a growth area. Growth areas seem to be attracting those kinds of opportunities and those tend to be to the Carolinas, Georgia and Texas around the ports especially. But, with the FTZ and the inland port we do offer advantages that help with that value proposition. But, it is a challenge to attract to NE Ohio.

How do we properly represent ourselves in Europe and overseas? I think the city and local governments are being proactive by participating in a number of trade shows around the world which is beneficial. We need to participate in more of those ourselves and develop that network.”

What do you think should be done to make it easier to either foreign businesses in the region and/or to create relationships for NE Ohio firms to do business internationally?

“I think the work that Bob Bowman, City of Akron is doing is very helpful. He ties in with the state and the local level with the international trade shows and the sister city relationships. That all helps.”

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

Optimistic

SECTION 4: TOWARD REGIONAL GROWTH

Major Regional Initiatives

Instead of trying to resolve the issues at each individual community level, public organizations, private foundations, and individuals have banded together to take a region-centric approach to economic development throughout the area. The outcome of this is The Fund for Our Economic Future ("The Fund"). The Fund was implemented in 2004 and since then has grown to over 100 foundations, organizations, and individuals in the Northeast Ohio. The goal of The Fund is to unite philanthropy efforts in Northeast Ohio to support regional economic development initiatives, measure the region's economic performance, and engage and encourage the public and the region's leadership to take actions that support growing the economy. Currently, The Fund is in the process of implementing its regional economic action plan called Advance Northeast Ohio.

Advance Northeast Ohio is the result of two years of input, analysis and collaboration from the 20,000 citizens who participated in the Voices & Choices regional research initiative along with leading economists and researchers, business, labor, government, education and civic leaders who voiced their opinions and concerns about the region in a series of one to one interviews and town meetings. All of the initiatives of Advance Northeast Ohio are designed to grow, attract and retain businesses, capital and talent in Northeast Ohio. These initiatives have been grouped into four action areas: (1) Business Growth and Attraction, (2) Workforce Preparation and Educational Excellence, (3) Growth through Racial and Economic Inclusion, and (4) Government Collaboration and Efficiency.

Accordingly, the following initiatives have been or are being implemented in the past two years.

- **Cleveland +:** A multi-million dollar marketing campaign to promote the benefits of the region to businesses, tourists and conventions. The campaign highlights the strengths and diversity of the region as a whole and is aimed primarily at those out-of-town individuals who make business and travel decisions, as well as to encourage residents to be ambassadors for the region.
- **Minority Business Accelerator:** A \$1 million grant used to assist mid-sized to large minority-owned enterprises to boost sales by more than 20% and more than double employment.
- **Regional High-Tech and Health Care Jobs Portal:** An electronic web portal that provides information on the number of available jobs in the region's health care, technology and biosciences industries.

- **Pathway Innovation Project:** The purpose of this initiative is to improve student transition from high school into higher education and/or the job market.
- **Northeast Ohio Universities Collaboration and Innovation Study**
Commission: Under the leadership of Ohio Education Chancellor Eric Fingerhut, a consortium of state universities has been created to examine existing policies and procedures to streamline and make the system more efficient. Recommendations from this commission will be used to propose reforms to the Ohio State Legislature.
- **Among the other Fund driven initiatives are:**
 - Early stage capital fundraising campaign to help address the region’s need for \$375 million in seed and early-stage capital over the next five years.
 - Northeast Ohio Mayors and Managers Association’s exploration of revenue tax sharing.

Another partnership in the Northeast Ohio region dedicated to pan-regional economic development and collaboration is Team Northeast Ohio. Team NEO is a consortium founded by a cross-section of public entities and private companies such as FirstEnergy Corporation, the Greater Akron Chamber, the Stark Development Board, the Lorain County Chamber of Commerce, the Youngstown-Warren Regional Chamber, and the Greater Cleveland Partnership. The Team NEO concept emerged in 2002 in response to the business community’s need for a strategically coordinated economic development agenda that leverages the strengths of Northeast Ohio.

The goals of Team NEO are to serve as a user-friendly central point to market the entire Northeast Ohio area as one region, to accelerate industry clusters in the region, and to champion creative new approaches that leverage regional strength while keeping local pride/energy.

NEOTEC provides Northeast Ohio with a wealth of resources in the areas of importing and exporting. Working closely with Foreign Trade Zone 40 and Foreign Trade Zone 181, companies planning on importing into the region and exporting internationally receive advice and direction in a myriad of areas including legal assistance, financial assistance, relocation assistance and, especially, logistic support.

The region provides a number of organizations that provide assistance to new start up entrepreneurial businesses. JumpStart Inc. is the largest regional effort focused on improving the region’s overall climate for entrepreneurs. Formed in 2004, it provides business consulting, networking and assistance services to entrepreneurs throughout Northeast Ohio. Its www.ideacrossing.org web site serves as an online matchmaking service for businesses. In addition, JumpStart is an early-stage venture capital firm investing in start-up companies with the potential for rapid growth.

BioEnterprise works with early stage companies in the health care market to accelerate their growth and attract venture capital. However, BioEnterprise does not directly invest in companies. Instead it helps companies attract venture capital. During the first six months of 2007, BioEnterprise helped the region's health care companies raise nearly \$200 million.

NEOinc (Northeast Ohio Incubator Collaborative) is a collaboration of the region's five business incubators that assist the growth of technology-based enterprises. The incubators are Braintree in Mansfield; Youngstown Business Incubator; MAGNET in Cleveland; GLIDE in Elyria; and the Akron Global Business Accelerator. The incubators each serve their surrounding communities and the region.

There are numerous other services for entrepreneurs throughout the region. Among these are Entrepreneurs Edge that focuses on assisting existing middle market companies with programs and services, NEO411.biz is an online resource for entrepreneurs and small businesses in Northeast Ohio and SCORE is an organization of retired business executives and professionals using their years of experience to provide assistance to entrepreneurial businesses.

One of the most forward thinking efforts at the municipal level is the Advance Akron Initiative implemented in 2007 by the Greater Akron Chamber. This five year plan or blueprint for regional economic development is a collaborative effort including the area's major businesses, academic institutions, and local government, along with numerous public and private organizations. At the heart of the blueprint are six priorities. The first priority is to grow Greater Akron through innovative, technology-based job growth and economic development efforts. The second priority is to invest in human capital by enhancing education, training, and workforce development programs using the area's strong educational resources. Third is to improve both internal and external perceptions of the Greater Akron community. Fourth is to revitalize the area's physical assets, especially the downtown area. Fifth is to enhance operational and financial value for the small businesses in the area to provide them with competitive advantages. Sixth is to create the capacity and wherewithal to succeed by uniting the community and leveraging the combined resources for long term global growth.

Growth Drivers

Technology

In the 21st Century, technology is the driving force behind logistics and infrastructure. Northeast Ohio is leading the way in this area with the formation of development organizations and collaborations. At the heart of this growth is a State of Ohio initiative, called the Third Frontier Project. This 10 year, \$1.6 billion statewide initiative was implemented in 2002, with the goal of creating continuous growth in Ohio's high technology research and applications capabilities. This is done primarily by

- building world-class research capacity in the state
- supporting early stage capitalization and development of new products

- financing advanced manufacturing technologies to help existing industries to become more productive

The Third Frontier Project is governed by the Third Frontier Commission which is comprised of the Director of the Ohio Department of Development, the Chancellor of the Ohio Board of Regents, the Governor's science and technology advisor, and six regional commissioners appointed by the Governor. This commission is responsible for funds allocation and has financial accountability to the Ohio General Assembly (state legislative body). The commission is supported by a 16 member advisory board made up of members from business, academia, and government. This board functions to advise the commission on strategic planning, general management, and coordination of programs.

In 2006, the Third Frontier Project Commission adopted the strategy of establishing regional and statewide clusters of technological excellence to enhance the state and, therefore, Northeast Ohio's global competitive advantage in the creation and enhancement of technologically-advanced companies and products. The objectives of this strategy are to:

- Increase the quantity of high quality research that has commercial relevance for Ohio
- Expand the availability of investment capital needed to form and grow new companies
- Grow and nurture an increasingly experienced pool of entrepreneurial management talent supported by organized systems of services and networking
- Expand the availability of capital and assistance to support product innovation in established companies
- Attract new-to-Ohio company activity that grows and strengthens the function of specific clusters of excellence.

In support of this, a recent NorTech (2007) study of the information technology workforce in Northeast Ohio found an estimated 96,000 IT professionals are currently employed in the region. The most common specialties are business application specialists (31%), programmers (13%), network specialists (7%), and information systems analysts (5%). According to the report, approximately 31% of the firms surveyed hired at least one IT professional in the past year and at any given time, over half of the businesses with over 25 employees are seeking to fill IT positions.

Since the demand for IT professionals currently out paces supply, Northeast Ohio is following the national trend of using non-permanent workers (e.g., consultants, temporary workers) to meet ever-increasing needs. According to NorTech, 22% of the companies surveyed reported using temporary IT workers during the past year to meet their needs. This is even more pronounced with IT consultants in that 42% of the respondents indicated that they have used consultants to fulfill project requirements during the past year.

Healthcare

The Northeast Ohio region is considered to be one of the top regions in the United States in the area of healthcare and medical research. Nationally ranked healthcare providers, such as the Cleveland Clinic, University Hospitals Health System, and Summa Health System, Akron General Medical Center, and Akron Children's Hospital, to name just a few, provide world-class healthcare and also drive the region's strong healthcare sector. Research institutions and medical schools in the area all contribute to ongoing innovation, the growth of bio-enterprises and first rate healthcare in Northeast Ohio.

According to a recent report by the Center For Health Affairs (2007), healthcare in Northeast Ohio has become one of the driving forces for economic growth in the region. As the population ages and new technologies surface, the healthcare industry in this area has moved quickly to become one of the nation's premier locations for new healthcare research and implementation. As this has occurred, both the healthcare facilities and supporting companies have grown to meet the increasing needs. In turn, this has caused a ripple effect where ancillary industries (e.g., building and construction) have also grown as more space and new facilities are needed. Also, because of the unique specializations of many of the hospitals in the area, millions of dollars are added annually to the local economy from patients and their families who do not reside in the region and, in many cases, the United States. At the same time, due to their research status, key hospitals in the area are awarded millions of dollars in research contracts from large funding agencies such as the National Institutes of Health.

Also, over the last decade the Northeast Ohio Region has purposely set out to make the region a nationally-recognized health care center of excellence in commercializing healthcare and its associated industries. This is currently being accomplished through the identification, development, and acceleration of venture-oriented small businesses and shared start-up companies. Aided by such collaborative groups as BioEnterprise and JumpStart, numerous entrepreneurs in the region have created businesses in the healthcare industry. BioEnterprise founders and partners are The Cleveland Clinic, University Hospitals Health System, Case Western Reserve University, and Summa Health System.

As an example, Summa Enterprise Group is one of the commercialization offices of the BioEnterprise partnership, the others being Cleveland Clinic Innovations and Case Research Institute Office of Technology Transfer. In 2002, Summa Health System created a center for innovation when it launched the Summa Enterprise Group (SEG). A 100-percent, fully owned subsidiary of Summa Health System, SEG was created to provide an entrepreneurial outlet for the system and to bring health-based products and services to the market. Since its inception, Summa Enterprise Group has formed several companies, including Cornerstone Medical Services, a business that specializes in durable medical equipment and CompMed, a business that specializes in collecting workers' compensation insurance claims for health systems.

In summary, healthcare in Northeastern Ohio is not only one of the region's largest industries; it is one of the fastest growing sectors of the economy. Major research and patient care facilities provide millions of dollars to the regional economy each year. At the same time, the healthcare industry is a pivotal force in the regional economy for as it grows other industries (e.g., construction) also expand to meet the growing needs. Concurrent with this, new entrepreneurial healthcare related businesses have grown dramatically throughout the region. In many cases, this has been spurred on by collaborative partnerships between private companies, government agencies and non-profit organizations.

But how do the residents feel?

According to the Northeast Ohio Regional Omnibus Poll (2005) when looking at healthcare, similar perceptions were found with both its quality and affordability. Overall, residents of northeastern Ohio felt that quality healthcare was readily available, but were very concerned about its costs. When looking specifically at the availability of quality regional health care, the majority (68.8%) rated the availability of such care as good or excellent. On the other hand, 17.6% of respondents rated the regional availability of quality health care as fair, while 13.7% rated regional health care as poor or very poor. Of particular interest is the fact that those individuals (employees, retirees) who were more likely to have health insurance were more likely to rate the availability of health care favorably.

When looking specifically at the cost of healthcare, approximately 27.9% of respondents felt that quality health care affordability in the region was good or excellent. A little over one third (35.6%) viewed affordability as being fair. However, the remaining 36.4% perceived affordability of healthcare in the region as being poor or very poor. As might be expected, those respondents from households with lower annual incomes or those that perceived their financial situation as being worse than in the past were more likely to rate the affordability of health care unfavorably.

Education

Northeast Ohio is considered a focal point for research and development. The foundation for this is the number and variety of higher education institutions in the area. Currently, there are 170,000 degree-seeking students attending 26 colleges and universities. At the same time, these colleges and universities produce, on average, annually 26,000 degreed individuals who add their talents to the knowledge base and talent pool in the region. As importantly, these centers of higher education provide a strong balance between pure, theoretical, academics and the practical applications of this knowledge. This serves the region well in both providing the highly educated workforce needed in today's economy and the brain power needed to create the innovations to move businesses and industries forward.

According to the Northeast Ohio Council on Higher Education (NOCHE), the twenty six Northeastern Ohio schools that make up their member schools offer academic programs of national and global standing in a wide range of fields including bioengineering, engineering, entrepreneurship, fashion design, industrial design, industrial psychology, management, medicine, not-for-profit management, nursing, organizational behavior, polymer science, urban affairs and urban design (2007).

Not only do these colleges and universities offer a diverse range of programs, they offer their students a wide selection of choices ranging from state to private institutions, public institutions to religious schools, large urban centers to small college towns, liberal-arts focus to research focus and different learning formats that meet individual needs. At the same time, the range of evening and weekend programs, online and service learning methodologies and accelerated degree programs make college degrees readily accessible to non-traditional students in the region. These schools also employ approximately 28,000 faculty and staff and have a combined annual budget of over \$2.5 billion. This makes higher education the second largest sector in the region's economy behind the healthcare industry.

In 2006, the Northeast Ohio Council on Higher Education (NOCHE), the representative body and service organization for universities and colleges in the region, commissioned a panel discussion of top educators in the area to discuss the state of higher education in the region. Panel members pointed out that by conventional economic measures such as total employment, institutional budgets, and individual spending by students, faculty and staff, the region's 26 universities and colleges make higher education one of NEO's oldest and largest industries. However, concern was voiced as to the immediate and long-term future of this industry due to the risk from underinvestment of public dollars by the state.

Another issue addressed by this panel was the fear of continued brain drain by the region's young and highly educated population. The panel stressed the significant public impact that higher education has in the areas of economic and community development, leadership development, and public policy. It also emphasized Ohio's need to motivate a substantial portion of the population to obtain the benefits of higher education pointing out that only 21 percent of Northeastern Ohioans have a bachelor's degree or higher, which is below the national average and compares very poorly to the high growth areas within the country. It then focused on the College 360 program's efforts to stem the brain drain in Northeast Ohio. The initiative has a three-pronged approach: to enroll a higher percentage of youth in college, to engage them in area activities, and to employ them in area companies and organizations.

On the other hand, the panel discussed the important role that universities in the NEO region play in technology transfer, where discoveries, inventions, processes and work products of university faculty, staff and students are transferred from the university laboratory to benefit the public. Funds generated by such discoveries are then be used to enhance additional research at the university. For example, with more than 350 active patents and filed applications, the University of Akron is a model for technology transfer.

Since 2000, more than a dozen new companies have been founded based on university research (2006).

In order to address many of the educational strengths and issues discussed above, Ohio's governor, Ted Strickland, has formulated a statewide education plan titled Turnaround Ohio (2007). The goal of this plan is to create and keep jobs in Ohio by investing in Ohio's strengths, such as energy production and entrepreneurship, and at the same time create new jobs for now and in the future by providing the most educated workforce possible. Key educational components of the Turnaround Ohio plan include providing every child a fair start through access to high-quality early care and education. Also, the plan intends to create schools that work for every child by giving teachers the tools and technology they need to stimulate creative, problem-solving students to power Ohio's 21st century economy. Finally, the plan intends to dramatically increase the number of students in Ohio's colleges and universities by broadening access and ensuring that those who attend succeed and graduate.

In summary, Northeast Ohio is well positioned in the realm of higher education. The number, sizes, types, and specialties of the colleges and universities provide the residents with diverse choices and opportunities in which to attend school and achieve the degree(s) of their choice. At the same time, many of these institutes are on the cutting edge of new technologies and innovation. Not only does this increase the reputation of these schools, it also brings additional capital and revenues to the region's economy. Finally, while the concern over the escalating costs of higher education is real, it appears that the governor and the state legislature are very serious about creating new directions and approaches to containing and controlling these costs.

But, how do the residents feel?

Looking at educational opportunities, the Northeast Ohio Regional Omnibus Poll (2005) found that the respondents were satisfied with the quality of colleges and universities in the region, but were less than satisfied with the perceived high costs of higher education. 87.4% of respondents rated the quality of colleges and universities in the region as good or excellent with another 10.9% rating higher education in the region as fair. Importantly, those respondents that had achieved higher levels of education were more likely to rate the quality of higher education in the region more favorably than those who had not.

On the other hand, the respondents were less likely to feel the same way when looking at the affordability of higher education in the Northeast Ohio region. Approximately 36% of respondents rated the affordability of colleges and universities in the region as good or excellent. Additionally, over one-third (37.6%) viewed the cost of higher education as fair. Conversely, a little over a quarter (26.5%) of respondents felt that the affordability of regional colleges and universities was poor or very poor.

Of interest here is the strong relationship between those who viewed the quality of higher education less than favorably and those that viewed affordability as poor or very poor. That is, those who felt that higher education in the region was not affordable were more than likely to see education in the region as being of poor quality.

CLUSTERS OF GROWTH BUSINESSES IN THE REGION

While the inevitable change from a manufacturing economy to a technology driven service economy has had drastic effects on the more traditional and monolithic industries in northeast Ohio, it has also provided the motivation for the more innovative and flexible business clusters to advance and grow in the early stages of the 21st century. Following are the strongest and fastest growing industry clusters in the Northeast Ohio region (Cleveland Plus, 2008).

The fastest growing cluster in the region is **healthcare and life sciences**. Anchored by major hospital/health systems (e.g., Cleveland Clinic, University Hospital Systems, Summa Health System), there are currently over 400 bioscience companies in the region. Since 2005, over \$420 million has been invested in the biotechnology and bioscience industry in the region. In cooperation with area universities offering graduate degrees and advanced research in biosciences, the 62 hospitals and their suppliers currently provide employment for 230,000 individuals in the regional healthcare and life sciences industry. Additionally, the development of innovative technologies has exponentially advanced the local medical device companies. This trend is expected to continue to grow and accelerate as evidenced by the fact that healthcare startups have raised over three times as much startup capital (\$241.8 million) in 2007 than they did in 2006 (\$87.9 million).

Northeast Ohio is nationally recognized in the area of **logistics and distribution**. This industry cluster continues to grow due to the region's central location and its easily accessible ground, air, and water multi-modal transportation makes it a national point of origin for distribution. This is further supported by it serving as the headquarters location for national/international trucking firms, its international and regional airports, its comprehensive railway system, and its ports on Lake Erie and the Ohio River.

The next growth cluster focuses on a center of excellence that originated, grew, and thrived in this region. Northeast Ohio remains a world leader in **polymers, liquid crystals, and plastics**. Driven by world class research and academic programs at The University of Akron (College of Polymer Science & Polymer Engineering), Case Western Reserve University (Macromolecular Institute), and Kent State University (Liquid Crystal Institute), the region is extremely strong in innovation, manufacturing, and commercialization of technologies and products in these areas. Companies such as Goodyear, Polyone, Sherwin Williams, and RPM International lead a multitude of local firms in end user product applications such as paints and pigments, industrial chemicals,

soaps and cleaners, rubber and plastic products, adhesives and sealants, and clay/concrete products.

In turn, this leads to another regional business growth cluster, **advanced manufacturing**. Many of the more traditional regional leaders in manufacturing have been able to use advanced, innovative technology to retool their expertise in instrumentation, controls, biomedical, industrial machinery, and durable consumer products. Leaders in this advancement include Eaton, Rockwell Automation, Timken, Diebold, and Parker Hannifan.

Related to this is the growth cluster of **advanced energy**. This cluster has gained increased importance with the ever-increasing concern over the telescoping costs of energy and petroleum. Advanced energy consists of renewable energy sources (e.g., wind, solar, biomass), fuel cells, advances in nuclear and coal technologies, and policies/procedures to enhance energy efficiency. This growth has reached even further importance due to a recently enacted state law that requires electric utilities to obtain at least 25% of their power requirements from advanced energy sources by 2025. Of major importance to this is the rapid growth and development of the fuel cell industry in the region. Backed by cutting-edge research at Stark State College of Technology, Case Western Reserve University, Kent State University, and The University of Akron, the region is considered a global leader in all phases of fuel cells from research and development, supply, manufacturing, and implementation.

A sixth major industry growth cluster is **insurance, financial and professional services**. With a Federal Reserve Bank located in Cleveland financial services is a thriving industry in the area. This is anchored by the headquarters of two national banks (National City, KeyCorp) and numerous state, regional, and local entities. Coupled with this is the growth of numerous professional services, financial management, and insurance firms in the region. Key among these is Progressive Insurance (Cleveland) and Westfield Insurance (Medina). As important, this industry cluster is at the forefront of providing innovation in “backroom” support in the areas of information technology and business intelligence.

Finally, two other business clusters continue to demonstrate sustainable growth in the region. First, due to its strategic location between producers and markets, the **food processing and distribution industry** remains a viable and growing cluster in the region. Key companies in the northeast Ohio area include Smuckers, Sugardale Foods, and Nestle Frozen Foods. Second, as the service economy continues to reshape the area, **data and contact call centers** have become one of the fastest growing clusters in the region. With the availability of diverse resources in telecommunications, fiber optic infrastructures and a readily available supply of highly skilled workers, regional companies such as InfoCision Management Corporation (Akron) are among the fastest growing (in volume and revenues) telecommunications companies in the United States.

A common thread.....

There are numerous commonalities among the regional industry growth clusters mentioned above. First, each cluster provides goods and services that are needed by today's domestic and international consumer and business to business markets. Second, the clusters are moving forward because of their participant's willingness to be flexible and to change. Third, innovation is viewed as clarion for future growth. Fourth and most importantly, is the ability of these clusters to continuously develop and adapt new technologies into their business models and practices.

What the Experts are Saying: An Interview with Tom Sudow

Tom Sudow is the Vice President, Attraction for Team Northeast Ohio (Team NEO) and is also the Director of Company Attraction for the Global Cardiovascular Innovation Center project in Northeast Ohio.

Looking over the past 3 to 4 years, what have you seen in the way of changes in the Northeastern Ohio area?

“I think that over the past three years maybe a little more we all recognize the fact that we have a problem which is step one. We're really working together to fix that problem. 'We' means the region. We're now developing several world class programs here in the area. We're in a position now where we finding a new level of expertise and advanced manufacturing and advanced energy are two others and we're starting to create world class clusters here. So it's positive the fact that we recognize that we have a problem and are working towards that problem to solve that problem is very, very advantageous. On the negative side, there are two negatives; one is that there are a number of old line attitudes that are hard to change. There are still large groups of people in this region who believe that the auto industry is going to come back and aren't willing to let go to move forward. Companies from China and Japan won't want to come here because of inhospitability, especially if the political leadership is lambasting them for all kinds of things. Number two is I still think we suffer from a severe inferiority complex as a region that holds people back. The third thing is that while we all identified the problem a whole host of people jumped into help the problem and what we have created is a very crowded infrastructure. At one point there was over 600 plus organizations in this area that said they did economic development.”

Where do you see northeastern Ohio heading (economically, educationally, workforce, etc.) in the next two to three years?

“Let me start by saying a caveat, assuming the economy doesn't totally collapse, as long as we're not in a recession or depression, in other words life being normal, we're starting see some successes, it will take more than 3 years. From an economic standpoint I think we're starting to see deals we haven't seen for a long time and I think we're going to close deals and I think that's going to be very effective for the region. We've already started closing deals and when I say we I mean Team NEO and some of the cities in the area. Educationally is a struggle. Large parts of the population in my view who are not getting the education on the K-12 level. At some point we have to think about a real intervention into these areas because the culture in a lot of these communities is not a helpful culture and I'm not talking about just inner city communities. We need people trained in high tech., we need people trained in engineering, and we need people trained in biomedical engineering. There are 5,000 jobs open in technology right now in this region. We need people with strong math and science skills. We need people with strong engineering skills and backgrounds who can take these jobs. And as we recruit new jobs these are not going to be factory labor jobs these would be higher skilled jobs. So we need people to fill those jobs. The pressure on the university structure in this area is the mission of training people in the right areas including community college and universities in general. Good news is that in Cleveland, Akron and Youngstown, there are good opportunities for business start-up companies in incubator units.”

Based on your experience, how much of a challenge is it to get foreign companies to do business in Northeast Ohio?

“I think it's easier than getting US companies to do business in Ohio. I have been doing this for five years now recruiting international companies and I think it's our real hope for the future. Foreign companies don't have the same negative perception of this area, they don't know the area and so we're able to create the perceptions. People in Texas all know Cleveland jokes as opposed to a company in Tanzania that has never heard of us.”

Likewise, how hard is it for NE Ohio companies to do business internationally?

“My experience has been that a lot of companies that would really benefit by doing it don't know how to do it and are scared to do it, that they don't do and then are stagnated. They don't understand that it's part of innovation and that they need to ramp up to go into these markets.”

What do you think should be done to make it easier to either foreign businesses in the region and/or to create relationships for NE Ohio firms to do business internationally?

“It's a matter of understanding the need. The Ohio Dept of Development has a wonderful network of offices able to reach out that can identify companies here that meet the needs of what the international companies are looking for.”

Would you say that you are optimistic or pessimistic about the future of NE Ohio? Why?

“I'm optimistic. I have had opportunities on numerous occasions to leave here and I stayed. I think we've got a great lifestyle here. However, U.S. visa requirements are a serious problem and we need to be creative about how we are going to do that. Cannot get their families into the country. More visas, more investment. Not to going to take American jobs.”

SECTION 5: QUALITY OF LIFE

The Northeast Ohio region provides its businesses and residents with the elements needed to insure a high quality of life. Among these are world-class healthcare facilities, a broad spectrum of educational institutions, a wide selection of cultural and recreational opportunities and numerous diverse ethnic communities. The Northeast Ohio region houses highly visible and fan loyal professional sports teams, the 3rd most visited national park in the U.S., miles of Lake Erie shoreline, numerous lakes and streams, the second largest theater district outside of New York City, many small historic communities, and miles of open countryside.

A Hardworking History

The history of the region is a reflection of the history of the United States. Originally inhabited by native Americans whose tribes were a part of the Iroquois Confederation of tribes, the area has always been blessed with the natural resources and waterways needed to make commerce flourish. More importantly, this geographical region instills in its inhabitants the industriousness to shape and mold these resources into innovation and growth.

During the early 18th century, the area was considered to be part of the western boundary for the new and fledgling United States. Claimed by the State of Connecticut as their western territory, Northeast Ohio came to be known as the “western reserve.” As the pioneers moved into the area, they brought with them the rugged determination and work ethic that has become the backbone of this region.

These values were further enhanced in the mid-1800s by the mass immigration of western European families seeking a better life. Fueled by this group’s strong work ethic and the products of the industrial revolution, Northeastern Ohio quickly became a national center for transportation and manufacturing. Its proximity to Lake Erie, along with its system of interconnected canals and waterways, and its quick adaptation of the railroad made the region a major center for U.S. western expansion during the middle and late 1800s.

As the nexus of this growth, the region soon became the home to major industries that helped shape America’s future through the 20th century. Key among these were steel (Cleveland, Youngstown), rubber (Akron), and oil/petroleum (Cleveland). With the availability of natural resources arriving via the Great Lakes to ports in the region, the large number of railway systems, the nearness of the automobile industry in Detroit, and the eventual growth of the region as the hub for the inter-state trucking industry, Northeast Ohio has been able to continuously, innovate, evolve, and lead.

Finally, as the manufacturing economy of the early to mid-20th century gradually gave way to the ever evolving technological and digital economy of the 21st century, the region has continued to demonstrate its adaptability to change and its capacity to lead. As a major global innovator in such areas as nano technology, liquid crystals and polymers, the region is well positioned to help companies grow and succeed now and in the future.

Perceptions of Living in the Region

No matter the historical legacy, economic conditions, or initiatives for growth in the future, it is the perceptions that the residents have about the region that dictate how successful the region will be. With this in mind, it is important to ascertain how people feel about living in Northeast Ohio. Two recent studies provide a good overview of these perceptions.

The 2005 Northeast Ohio Regional Omnibus Poll found that respondents were generally satisfied with the NEO region as a place to live. Overall, 61.7% of these residents rated their quality of life as good or excellent, while another 28.4% rated the region as fair. The small number (less than 10%) that rated the regional quality of life as poor or very poor generally cited employment and economic considerations as their primary reasons for the low rating.

However, individuals were more likely to rate their local community (e.g., city or township) as a more favorable place to live as compared to the overall Northeast Ohio region. Seventy-six percent of the respondents rated their local community as an excellent or good place to live, while 18.4% rated their community as fair. Only a small percent (5.6%) of respondents rated their local community as a poor or very poor place to live. Once again, when asked what they thought were the most important problems facing their local community, employment and economic concerns continued to rank the highest, but to a lesser degree than the overall region.

Next, when asked to rate the quality of job opportunities, in general, in Northeast Ohio, slightly over half rated the opportunities from fair to excellent with 13.7% of respondents viewing opportunities as good or excellent and another 40.2% rating the opportunities as fair. On the other hand, 46.2%, of respondents rated the quality of regional job opportunities as poor or very poor. Of major importance is the fact that the respondents rated the quality of job opportunities for young people slightly more favorably.

Finally, the Northeast Ohio Regional Omnibus Poll (2005) queried the respondents on their plans to change their residence in the next five years and, if so, whether they planned to remain in northeastern Ohio. The percentage of respondents indicating that they were likely to move in the next five years (45.2%) was only slightly higher than those not planning on changing their residence (42.7%). Respondents who indicated they would likely change their residence within the next five years were then asked whether they planned on remaining in the Northeast Ohio region. Nearly half,

48.6%, of the respondents who said they will change residence indicated they would likely leave the region. This amounted to 21.8% of all respondents. The most frequently cited reasons for intending to leave the region were related to employment opportunities.

Concurrent with the 2005 Northeast Ohio Poll, a second important regional survey called the 2006 NEO Barometer was created as a partnership between several key Northeast Ohio organizations. The purpose of the barometer is to measure community perceptions about the health of Northeast Ohio's economy and how the residents feel about the region. The survey asked a number of questions on the topics of attracting and retaining businesses, attracting and retaining the young and talented, creating new jobs for the region and perceptions of regional performance. The survey also asked residents to assess the priority level of various activities.

The 2006 NEO Barometer study found that 97% consider themselves part of the region. Fifty-four percent say they are likely to stay but there are significant differences by race, with Whites more likely to stay (57%), Blacks less likely (42 %) and Hispanics least likely (39%). Residents remain gloomy about the region's economy with only 13% rating it positive and 58% believing it to be worse today than five years ago. Fifty-nine percent gave a negative rating to job retention efforts. Only 29% believe the region can compete to retain the young and talented, but 58% rate the region as good/very good place to raise a family. The rate of residents that are extremely likely to recommend NEO as a place to live continues to decline with 24% in 2006 compared to 31% in 2003.

Benefits for sports fans (44%) and availability of parks, playgrounds and trails (40%) got the highest "very good" ratings, while climate (10%), job opportunities (11%), quality of public schools (16%) and vibrant night life had the lowest frequency of the top rating. Finally, residents embrace the idea of counties working together on most issues, and 56% favor a regional system of school funding.

In summary, residents living in the Northeast Ohio region identify with the region. As with many regions in the state and in the country, the residents are concerned about the economy and its effect on their quality of life. The majority of the residents feel that the colleges and universities in the area provide quality higher education, but they are very concerned about the increasing education costs and its overall affordability. They also view healthcare in a similar manner. Healthcare in the region is viewed by many as being among the best in the world. However, the ever increasing costs of healthcare pose a major concern to the residents.

Culture & Entertainment

Northeast Ohio, with its four distinct seasons, provides residents of the area with a plethora of activities running the gamut from hiking to the opera. To the north of the region is Lake Erie, one of the U.S.'s five great lakes. Lake Erie provides an excellent outlet for fishers, boaters, and swimmers. This waterway, coupled with miles of rivers, streams and wooded areas, offer outdoor sportsmen all types of seasonal activities such as skiing, hunting, hiking and camping. The region is also populated with a number of

parks all of which are in easy driving distance of the major metropolitan areas. Foremost among these is the Cuyahoga Valley National Park, the third most visited national park in the country.

Northeast Ohio is at the forefront of the national and international movement to connect communities with accessible open spaces or greenways. Greenways are defined (Marsh, 2006) as linear open spaces established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route. They include any natural or landscaped course for pedestrian or bicycle passage, open-space connectors linking parks, nature reserves, cultural features, or historic sites with each other and with populated areas; and locally, certain strip or linear parks designated as a parkway or greenbelt. Northeast Ohio participates in Ohio Greenways a project established to research greenway issues, to educate Ohioans on the vast benefits of greenways, to provide technical assistance to greenway projects and to devise strategies to expand greenway development in Ohio.

The region also has a long history in sports of all kinds ranging from the amateur to the professional level. The area boasts of three major sports teams, the Cleveland Cavaliers, the Cleveland Browns, the Cleveland Indians, and a number of minor league teams in baseball, hockey, basketball, and soccer. Golf is a very popular sport in the region with numerous private and public golf courses available. Each year the area hosts at least one international level professional golf tournament, such as the Bridgestone Invitational at the world renowned Firestone Country Club in Akron.

Along with the more traditional sporting events, the region also provides a venue for such annual events as the Grand Prix of Cleveland and the All American Soap Box Derby in Akron. During the past few years the region has also been able to attract special events such as the Dew (Extreme) Games, Special Olympics, NCAA Basketball Women's Final Four and Men's Regional tournaments, and FIFA level professional soccer exhibition matches for its residents' enjoyment.

At the same time, the region also offers a complete gamut of amateur sports activities at both the individual and club levels. Numerous leagues and venues are available to all ages and genders. One can participate in the more traditional sports such as swimming, basketball, baseball (softball), football or soccer, or in a variety of less traditional sports such as rugby and hurling. It is common for children to participate in a number of sports starting around the age of five and continue to be athletically active through their senior years.

The region is also home to a number of internationally known museums and hall of fames. Among these are the Cleveland Museum of Art, the newly renovated and expanded Akron Art Museum, the Butler Art Institute, Cleveland Museum of Natural History, and the Canton Museum of Art. Along with this the region also is the home location for the Professional Football Hall of Fame (Canton), the National Inventors' Hall

of Fame (Akron), the Great Lakes Science Center (Cleveland) and the Rock and Roll Hall of Fame (Cleveland). Within each of the communities in the region are a number of local and national historical sites that are easily accessible from all locations in the region.

Lastly, Northeast Ohio is home to the Cleveland Orchestra considered to be one of the top orchestras in the world. The Akron Symphony and Canton Symphony, as well as numerous other local symphonies, orchestras, and ensemble groups are well received throughout the area. In the area of performing arts and theater, the Playhouse Square Center in Cleveland, with its multiple venues, is the second-largest performing arts center in the country behind New York's Lincoln Center. Performances in these facilities regularly range from Broadway musicals to the Cleveland Opera, the Ohio Ballet and the Great Lakes Theater Festival to name just a few. Smaller, but very similar, facilities abound throughout the area, such as the E.J. Thomas Performing Arts Hall in Akron. These venues provide their residents with year around events ranging from local productions to international events.

Thus, the Northeast Ohio region provides its residents with a very diverse and comprehensive quality of life. The region has strong educational, healthcare, cultural and entertainment resources. At the same time, it is able to provide this at a cost of living expense significantly lower than most other parts of the United States. Finally, while there is an air of uncertainty over the economy of the region, most residents feel that they are a part of the region and want to see it succeed and grow.

REFERENCES

Reports

Akpadock, Frank (June 2007), A Comparative Evaluation of Business and Innovation Climate Indicators in the Youngstown-Warren-Boardman MSA.

Ameregis (February 2008), Northeast Ohio Economic Revenue Study.

Austrian, Ziona, Iryna Lendel and Afia Yamoah (August 2007), An Update of the Regional Growth Model for Large and Mid-Size U.S. Metropolitan Areas: Northeast Ohio Dashboard Indicators. Prepared for the Fund for Our Economic Future.

Center for Policy Studies, The University of Akron (2005), Northeast Ohio Regional Omnibus Poll 2005.

Cirillo, Patricia, Jill S. Taylor and Ziona Austrian (May 2007), International Business in Northeast Ohio.

Eberts, Randall, George Erickcek and Jack Kleinhenz (April 2006), Dashboard Indicators for the Northeast Ohio Economy. Prepared for the Fund for Our Economic Future.

Gesper, Matthew B. and Randall Carr (2006), Creating a Competitive Advantage in Global Trade. Global Data Mining, LLC.

Maxine Goodman Levin College of Urban Affairs, Cleveland State University and the Gallup Organization (May 2006), 2006 Northeast Ohio Barometer of Economic Attitudes. Prepared for The Fund for Our Economic Future.

Moody's Economy.Com (2008), Economic reports on

- State of Ohio
- Akron
- Cleveland
- Canton
- Youngstown

Northeast Ohio International Business Network (2006), Northeast Ohio's Economic Development Challenge.

Northeast Ohio Research Consortium (2006), Northeast Ohio Regional Day Report.

NORTECH (December 2007), Northeast Ohio Information Technology Workforce Report.

TeamNEO (June 2007), Northeast Ohio Economic Review

Ohio Department of Development (2006), International Trade Division Annual Report.

Ohio Department of Development (March 2008), Ohio Exports 2007, Origin of Movement Series.

Schott, Charles G (October, 2008), The U.S. Litigation Environment and Foreign Direct Investment, U.S. Department of Commerce.

Wilmer, Hale (January 2006), Entering the U.S. Market – Challenges, Opportunities, and Potential Pitfalls for Foreign Companies.

World Bank (2008), *Doing Business 2009: Comparing Regulation in 181 Economies*. Washington D.C.: Palgrave Macmillan and World Bank.

Information

Advance Northeast Ohio (2008), *Blueprint for International Talent*.
<http://www.advancenortheastohio/node/4251>

American Life, Inc. (2008), *Investor Green Card (Summary)*. http://www.amlife.us/green_summary.html

Cleveland Plus (2008), *Cleveland Plus Corporate Profile*. <http://www.clevelandplusbusiness.com>

Cleveland Plus (2008), *Cleveland Plus Industries + Clusters*. <http://www.clevelandplusbusiness.com>

Jumpstart, Inc. (2008), *Jumpstart Useful Links*. <http://jumpstartinc.org/content/usefullinks.aspx>

NEOTEC (2008). <http://neotec.org>

Ohio Department of Development (2008), *Business Tax Credits*.
http://www.odod.state.oh.us/edd/tax_credit.htm

Ohio Department of Development (2008), *Third Frontier Project and Related Programs*.
<http://www.odod.state.oh.us/tech/program.htm>

RealNEO (December 2007), *Immigration Opportunities*. <http://www.realneo.us/blog/ed-morison/immigration-opportunities>

U.S. Immigration and Customs Enforcement (2008), *ICE Mutual Agreement between Government and Employers*. <http://www.ice.gov/partners/opaimage/index.htm>

Visapro (2008), *Opening a New Office in the U.S. Using an L1 Visa*. <http://www.visapro.com/s/article-print-preview.asp?articleid=824>

Magazine & Online Articles

Burgh Diaspora Blogspot (December 2007), “Cleveland Diaspora, Rustbelt 2.0: Immigration Initiative.”
<http://burghdiaspora.blogspot.com/2007/12/rust-belt-20-immigratin-itiative.html>

Cleveland.com (July 2008), “Talent Blueprint Project Promotes Bringing in Foreign-born Business Talent.”
http://blog.cleveland.com/business/2008/07/talent_blueprint_project_promo.html

Curtiss, Tim (December 2003), “The Money Game: Answering the Needs for Business and Financial Services.” *Expansion Management.Com*.
<http://www.expansionmanagement.com/smo/articleviewer/default.asp>

Expansion Management Magazine (October 2007), “America’s Most Logistics – Friendly Cities: The 2007 Logistics Quotient.”

Klingerman, Jerry (December 2003), “From Point A to Point B: Transportation and Logistics in Northeast Ohio.” *Expansion Management.Com*.
<http://www.expansionmanagement.com/smo/articleviewer/default.asp>

Morrison, Ed (December 2003), “The Innovation Economy in Northeast Ohio.” *Expansion Management.Com*. <http://www.expansionmanagement.com/cmd/articledetail/articleid/16186/default.asp>

Singh, Raghav (June 2008), "The Gathering Storm: Immigration Policy for Skilled Workers Needs a Major Overhaul." <http://www.ere.net/2008/06/30/>

Zitiello, Rose A. and Richard T. Herman (2004), "In the New Global and Multicultural Marketplace, Immigrants Hold a Key to Revitalizing NE Ohio." In Immigration Daily. <https://www.ilw.com/articles/2004,0426/herman.shtm>

**APPENDIX - INTERNATIONAL CORPORATE INVESTMENT IN
NORTHEAST OHIO OPERATIONS**
(BY COUNTY OF ESTABLISHMENT)

COUNTY	#EMPL.	CITY	COMPANY	NAICS	COUNTRY
Ashtabula	23	Ashtabula	Wheeler Mfg Div of Rex Int'l USA, Inc	332212	Japan
Ashtabula	30	Jefferson	King Luminaire Company, Inc	335122	Canada
Ashtabula	38	Geneva	Perfection Corp	332919	Germany
Ashtabula	69	Conneaut	Foseco Metallurgical	325199	United Kingdom
Ashtabula	120	Ashtabula	PlastPro Inc	32619	Japan
Ashtabula	135	Ashtabula	Elkem Metals Co	325998	Norway
Ashtabula	150	Ashtabula	ESAB Welding & Cutting Products	331491	United Kingdom
Columbiana	12	Salem	Foerster Systems	334514	Germany
Columbiana	40	Streetsboro	DMS Bliss Corporation	333516	France
Columbiana	50	Leetonia	Mitsubishi Heavy Inds America Inc	33241	Japan
Columbiana	50	Salem	Electric Furnace Co	333994	Belgium
Columbiana	180	East Liverpool	Von Roll WTI	562211	Switzerland
Cuyahoga	10	Cleveland	Kohl & Madden Printing	32591	Japan
Cuyahoga	10	Cleveland	TATA America Int'l Corp	541512	India
Cuyahoga	10	Cleveland	Pomini, Inc	333516	Italy
Cuyahoga	10	North Royalton	Sigmatek US	334419	Germany
Cuyahoga	10	Cleveland	Independent Order of Foresters	524292	Canada
Cuyahoga	10	Cleveland	Robert Bosch Tool Corp	333991	Germany
Cuyahoga	10	Cleveland	St. Marys Cement	327310	Brazil
Cuyahoga	10	Cleveland	Simbionix USA Corp	541511	Israel
Cuyahoga	12	Brecksville	NEC Business Network Solutions	561499	Japan
Cuyahoga	13	Cleveland	Mitsui and Co, USA, Inc	561499	Japan
Cuyahoga	13	Bedford	Dengensha America Corp	333992	Japan
Cuyahoga	14	Middleburg Heights	North America Cronite Inc	331492	United Kingdom
Cuyahoga	15	Middleburg Heights	Kintetsu World Express USA, Inc	48851	Japan
Cuyahoga	15	Cleveland	ATS Machine & Tool Co	333511	Canada
Cuyahoga	17	Cleveland	Alcan Chemicals	331311	Canada
Cuyahoga	18	Cleveland	TST Overland Express	484121	Canada
Cuyahoga	18	Strongsville	Olympus America Inc	339113	Japan
Cuyahoga	20	Cleveland	Stelfast Fasteners Inc	332722	Canada
Cuyahoga	20	Solon	Baldwin International	331221	Canada
Cuyahoga	20	Beachwood	CareerBoard/JobServe USA Ltd	561310	United Kingdom
Cuyahoga	20	Beachwood	Sylvester & Co dba Bernex	332812	Switzerland
Cuyahoga	20	Euclid	H C Starck Inc	332322	Germany
Cuyahoga	22	Highland Heights	Bodycote Thermal Processing	332811	United Kingdom
Cuyahoga	22	Valley View	Yamazen USA, Inc	423830	Japan
Cuyahoga	25	Garfield Heights	Moeller Electric Corp	335314	Germany
Cuyahoga	25	Independence	Sogeti USA LLC	541512	France
Cuyahoga	28	Middleburg Heights	Kuehne & Nagel, Inc	48851	Germany
Cuyahoga	29	Cleveland	Alcan Ingot	331312	Canada
Cuyahoga	30	Cleveland	LMT-Fette	332212	Germany
Cuyahoga	30	Cleveland	Akzo Nobel Coatings	325510	Netherlands
Cuyahoga	30	Cleveland	Kolbus America Inc	333293	Germany
Cuyahoga	34	Solon	Stuertz Machinery Inc	333319	Germany
Cuyahoga	40	Westlake	McNally Tunneling Corp	23412	Canada
Cuyahoga	40	Glenwillow	Saeco USA, Inc	421999	Italy
Cuyahoga	40	Middleburg Heights	Schenker USA	49311	Germany
Cuyahoga	41	Cleveland	Uddeholm	42151	Austria
Cuyahoga	45	Independence	TPC Wire & Cable	335931	United Kingdom
Cuyahoga	47	Solon	Barudan America Inc	333292	Japan
Cuyahoga	50	Brecksville	Akzo Nobel Coatings	325510	Netherlands
Cuyahoga	50	Cleveland	Hard Rock Cafe International, Inc	713990	United Kingdom
Cuyahoga	50	Walton Hills	NPK Construction Equipment	333120	Japan
Cuyahoga	50	Cleveland	Quark Biotech	325412	Israel
Cuyahoga	50	Brecksville	Promerus LLC	326199	Japan
Cuyahoga	50	Solon	Valtronic USA, Inc	334419	Switzerland
Cuyahoga	51	Cleveland	Empire Plow Co, Inc	333111	Canada
Cuyahoga	55	Brooklyn Heights	Sun Chemical Corp	32591	Japan
Cuyahoga	60	Westlake	Sachs North America	42122	Germany

COUNTY	#EMPL.	CITY	COMPANY	NAICS	COUNTRY
Cuyahoga	60	Cleveland	Feralloy Corp	42151	Germany
Cuyahoga	70	Cleveland	Millar Elevator Service Company	333921	Switzerland
Cuyahoga	75	Valley View	Gould Instrument Systems Inc	331421	Japan
Cuyahoga	75	Cleveland	Thermagon Inc	325211	United Kingdom
Cuyahoga	76	Cleveland	Clorox Products Manufacturing Co	325612	Germany
Cuyahoga	80	Cleveland	Prince Plating Inc	332813	Canada
Cuyahoga	80	Cleveland	Creativity for Kids	339932	Germany
Cuyahoga	80	Maple Heights	Alcan Rolled Products Co	331315	Canada
Cuyahoga	80	Cleveland	PE Technologies, Inc	33271	Japan
Cuyahoga	85	Independence	Getters Corp of America	334411	Italy
Cuyahoga	85	Westlake	Koyo Corporation of USA	332991	Japan
Cuyahoga	89	Bedford	Morgan Electro Ceramics	334418	United Kingdom
Cuyahoga	100	Chagrin Falls	Diversey Water Technology, Inc	325998	Canada
Cuyahoga	100	Independence	Efficient Die & Mold	333514	Indonesia
Cuyahoga	100	Cleveland	Exel Inc	48851	Germany
Cuyahoga	107	Euclid	H C Starck Inc	332322	Germany
Cuyahoga	110	Cleveland	Wolf Group	541821	Canada
Cuyahoga	110	Brook Park	RHI Refractories America	327125	Austria
Cuyahoga	110	Cleveland	Turner Construction	23332	Germany
Cuyahoga	120	Garfield	Heights Ultra Electronics Audiopack	334419	United Kingdom
Cuyahoga	125	Brecksville	FCI Automotive	333514	France
Cuyahoga	125	Cleveland	CSM Industries Inc	331491	Germany
Cuyahoga	125	Berea	Fosbel, Inc	811310	United Kingdom
Cuyahoga	134	Cleveland	CGI	541511	Canada
Cuyahoga	150	Solon	Zircoc	327125	Austria
Cuyahoga	150	Cleveland	Electrolux	335212	Sweden
Cuyahoga	150	Solon	Royal Appliance Manufacturing Co	335212	China, Hong Kong
Cuyahoga	150	Strongsville	Intier Automotive	336399	Canada
Cuyahoga	150	Valley View	Sematic USA	333921	Italy
Cuyahoga	150	Euclid	Seika Electric Co	42169	China, Taiwan
Cuyahoga	150	Solon	Smurfit-Stone Container Corporation	322212	Ireland
Cuyahoga	154	Westlake	Radiometer America, Inc	334510	Denmark
Cuyahoga	155	Solon	Clestra-Hauserman, Inc	332312	France
Cuyahoga	160	Independence	Linde Gas LLC	32512	Germany
Cuyahoga	160	Cleveland	Hot Sun Companies, Inc	445291	France
Cuyahoga	175	Euclid	Motch Corp	333512	Germany
Cuyahoga	200	Brook Park	Old Castle Glass	327215	Ireland
Cuyahoga	200	Cleveland	Copper and Brass Sales, Inc	331492	Germany
Cuyahoga	210	Solon	Demag Crane & Components	333923	Germany
Cuyahoga	220	Middleburg Heights	Ken-Mac Metals Inc	331221	Germany
Cuyahoga	230	Cleveland	Cleveland Range Co	333319	United Kingdom
Cuyahoga	250	Strongsville	ICI Paints/R&D	32551	United Kingdom
Cuyahoga	300	Mayfield Heights	Alcan Corporation	331315	Canada
Cuyahoga	308	Brook Park	Bridgestone\Firestone Credit Service Co	52221	Japan
Cuyahoga	322	Cleveland	Mayfran International Inc	333922	United Kingdom
Cuyahoga	350	Brecksville	Alys US, Inc	31142	France
Cuyahoga	350	Beachwood	Master Builders Inc	325998	Switzerland
Cuyahoga	350	Cleveland	Nestle USA	551114	Switzerland
Cuyahoga	350	Brook Park	Foseco Metallurgical	325199	United Kingdom
Cuyahoga	350	Cleveland	Southern Electric Supply DBA	42161	France
Cuyahoga	400	Cleveland	ICI Paints/Glidden	32551	United Kingdom
Cuyahoga	400	Cuyahoga Heights	St Ives	323110	United Kingdom
Cuyahoga	400	Cleveland	BP	44719	United Kingdom
Cuyahoga	450	Brooklyn	Hugo Boss Cleveland, Inc	315211	Germany
Cuyahoga	500	Solon	Matrix Essentials Inc	325621	France
Cuyahoga	500	Westlake	Viking Sewing Machine	333298	Sweden
Cuyahoga	950	Bedford	Ben Venue Laboratories Inc	325412	Germany
Cuyahoga	1000	Cleveland	ISG Cleveland Inc	331221	Netherlands
Cuyahoga	1000	Highland Heights	Philips Medical Systems	339112	Netherlands
Cuyahoga	1500	Cleveland	Mittal Steel USA	331111	Netherlands
Cuyahoga	2500	Solon	Nestle Frozen, Refrig & Ice Cream Co	311412	Switzerland
Cuyahoga	2500	Cleveland	Charter One Financial	522111	United Kingdom
Cuyahoga	7000	Maple Heights	Tops Friendly Markets	31134	Netherlands
Geauga	11	Chardon	Metal Coatings International Inc	32551	Japan
Geauga	50	Chardon	Metal Coatings International, Inc	332812	Japan
Geauga	70	Chardon	ACO Polymer Products, Inc	327999	Germany
Geauga	180	Chardon	Rhein Chemie Corp	326299	Germany
Geauga	200	Newbury	Saint-Gobain Crystals & Detectors	334510	France

COUNTY	#EMPL.	CITY	COMPANY	NAICS	COUNTRY
Lorain	20	Elyria	Sachs North America	49311	Germany
Lorain	25	Lagrange	Ceilcote Air Pollution Control	333412	Switzerland
Lorain	40	Lorain	Republic Engineered Products	331221	Mexico
Lorain	47	North Ridgeville	Zorbit Technologies Inc	524690	Canada
Lorain	60	Avon	ICI Paints Warehouse	493110	United Kingdom
Lorain	60	Lorain	Becotek Mfg, Inc	331222	Norway
Lorain	100	Lorain	Oak Hills Nursing Center	62311	Canada
Lorain	200	Oberlin	Quebecor World Oberlin	323110	Canada
Lorain	400	Lorain	Marconi Communications	334419	United Kingdom
Lorain	500	Elyria	Bendix Commercial Vehicle Systems	336999	Germany
Lorain	600	Avon	Henkel Consumer Adhesives	325520	Germany
Mahoning	10	Canfield	Kvaerner E & C	541330	Norway
Mahoning	15	Youngstown	AGA Gas Inc	32512	Germany
Mahoning	29	Youngstown	Dramex International Inc	331419	Canada
Mahoning	40	Canfield	Linde Hydraulics Corp	333996	Germany
Mahoning	100	Youngstown	Custom Direct Inc	323116	Canada
Mahoning	300	Austintown	NSDI Teleperformance	514211	France
Mahoning	440	Youngstown	V & M Star JV	331221	France
Mahoning	200	Youngstown	Cantar/Polyair Corp	326121	Canada
Mahoning	200	Youngstown	YSD Industries Inc	33651	Canada
Mahoning	115	North Jackson	Extrudex Aluminum Inc	331316	Canada
Medina	25	Medina	TLT Babcock, Inc (Plant Operations)	333412	Germany
Medina	28	Brunswick	Bohler Uddeholm Strip Steel LLC	42151	Austria
Medina	30	Valley City	Fuserashi International Technology, Inc	332722	Japan
Medina	43	Sharon Center	M&G Polymers USA	325991	Italy
Medina	50	Lodi	Knott Brake Company	33634	Germany
Medina	60	Wadsworth	Ebner Furnaces, Inc	333994	Austria
Medina	65	Medina	Advanced Technology Service	811219	Japan
Medina	76	Medina	S F S Intec, Inc	332722	Switzerland
Portage	12	Streetsboro	LCM	212324	France
Portage	30	Streetsboro	Lafarge North America	212321	France
Portage	33	Kent	Sorbothane, Inc	326299	Sweden
Portage	35	Streetsboro	Master Builders Inc	327999	Switzerland
Portage	35	Aurora	Saint-Gobain Performance Plastics	325211	France
Portage	57	Ravenna	Norton Performance Plastics Corp	336411	France
Portage	60	Ravenna	Saint-Gobain Performance Plastics	336411	France
Portage	75	Kent	Kent Tool	333911	Japan
Portage	100	Streetsboro	DaimlerChrysler	33611	Germany
Portage	130	Ravenna	Jefferson Smurfit Corp	322211	Ireland
Portage	140	Windham	RHI Refractories	327124	Austria
Portage	175	Kent	Gougler Industries, Inc	333515	Japan
Portage	195	Mantua	Saint-Gobain Performance Plastics	326220	France
Portage	200	Aurora	Saint-Gobain Performance Plastics	335929	France
Portage	350	Streetsboro	L'Oreal	325620	France
Portage	350	Aurora	Rotek Inc	332991	Germany
Stark	15	Stow	Mork Process Inc	423450	Denmark
Stark	25	Canal Fulton	Astro-Tech Mfg, Inc	327215	Japan
Stark	40	Canton	Axim Concrete Technology, Inc	325998	Italy
Stark	40	Canton	AGA Gas Inc	32512	Germany
Stark	55	Canton	Republic Engineered Products Inc	331513	Mexico
Stark	65	Alliance	Morgan Engineering Systems, Inc	333923	Canada
Stark	70	Massillon	Massillon Stainless Inc	331111	India
Stark	75	North	Canton McCann Plastics	325991	Japan
Stark	220	Hartville	Trelleborg Monarch Inc	32621	Sweden
Stark	300	Massillon	Ansell Perry	315199	Australia
Stark	300	Massillon	Republic Engineered Products Inc	332999	Mexico
Stark	450	North Canton	U. S. Ceramic Tile Company	327122	Switzerland
Stark	670	Alliance	Overhead Door Company/Genie	335999	Japan
Stark	800	Canton	Republic Technologies Int'l	331111	Mexico
Summit	10	Twinsburg	Ceia USA Ltd	425110	Italy
Summit	11	Akron	Modern Tires Dealer	51112	Netherlands
Summit	11	Hudson	Rademaker USA, Inc	333294	Netherlands
Summit	15	Stow	Twin Sisters Productions Inc	51211	Canada
Summit	18	Twinsburg	Matheson Tri-Gas, Inc	32512	Japan
Summit	20	Akron	American Feed Screw Inc	333111	Canada
Summit	20	Akron	Degussa Corp	325182	Germany
Summit	20	Twinsburg	Enjex U S A Inc	326199	Canada
Summit	20	Twinsburg	Bell Optical	339115	France

COUNTY	#EMPL	CITY	COMPANY	NAICS	COUNTRY
Summit	23	Akron	Kumho Technical Center	54171	South Korea
Summit	25	Twinsburg	Fuchs Lubricants Co	324191	Germany
Summit	25	Twinsburg	Hornell Speedglas Inc	327212	Sweden
Summit	30	Twinsburg	Exel Transportation	541614	Germany
Summit	30	Akron	Saint-Gobain NorPro Corp	332312	France
Summit	35	Akron	TLT Babcock	333412	Germany
Summit	35	Akron	Bekaert Corporation	314992	Belgium
Summit	35	Akron	Blair Rubber Company	326299	Canada
Summit	35	Twinsburg	Mirka Abrasive Inc	32791	Finland
Summit	37	Stow	VMI Americas Inc	33322	Netherlands
Summit	37	Cuyahoga Falls	Becker Pumps Corp	33391	Germany
Summit	40	Akron	Caliber Mold & Machine Inc	333511	Canada
Summit	45	Tallmadge	Summit Plastic Co	326122	Switzerland
Summit	45	Fairlawn	Bioproducts, Inc	31199	Japan
Summit	60	Akron	Akron Brick & Block Co	327331	Ireland
Summit	60	Akron	Vibren Technologies	541511	Japan
Summit	60	Akron	Shin-Etsu Silicones of America	32511	Japan
Summit	12	Akron	BillCom Akron	51112	Netherlands
Summit	61	Mogadore	Michelin North America Inc	326211	France
Summit	65	Norton	Fomo Products, Inc	325998	Switzerland
Summit	70	Norton	Adjusta-Post Manufacturing Co	332323	Canada
Summit	70	Stow	Saint-Gobain NorPro	325998	France
Summit	75	Twinsburg	Linde Gas LLC	32512	Germany
Summit	77	Cuyahoga Falls	Struktol Company of America	325199	Germany
Summit	80	Twinsburg	Heritage Group Limestone Quarry	23411	Ireland
Summit	80	Copley	Multibase, Inc	325991	France
Summit	80	Twinsburg	Shelly Company/Northern Ohio Paving	23411	Ireland
Summit	85	Akron	Diamond Polymers, Inc	325991	Japan
Summit	85	Twinsburg	Hitachi Medical Systems America Inc	33911	Japan
Summit	90	Norton	Isolab Inc	325413	Finland
Summit	90	Twinsburg	Hana Microdisplay	33431	Thailand
Summit	94	Twinsburg	G & D Cardtech Inc	326199	Germany
Summit	100	Hudson	Kobelco Stewart Bolling Inc	333220	Japan
Summit	100	Akron	Shincor Silicones Inc	32511	Japan
Summit	120	Akron	Firestone Polymers	54171	Japan
Summit	120	Stow	Audio Technica US, Inc	334220	Japan
Summit	120	Akron	Bridgestone\Firestone Inc	49311	Japan
Summit	150	Fairlawn	Republic Engineered Products Inc	331221	Mexico
Summit	150	Akron	Saint-Gobain Performance Plastics	326199	France
Summit	180	Twinsburg	Pepperl+Fuchs	335314	Germany
Summit	200	Akron	JPS Packaging Co	323112	France
Summit	200	Akron	Bridgestone\Firestone, Info Serv Co	541511	Japan
Summit	200	Akron	Pechiney Plastics Packaging	323119	France
Summit	200	Cuyahoga Falls	Coltene Whaledent Inc	339114	Switzerland
Summit	300	Barberton	Malco Products Inc	325612	United Kingdom
Summit	385	Tallmadge	Waltco Truck Equipment Co	332439	Finland
Summit	575	Akron	Bridgestone\Firestone Inc	54171	Japan
Summit	700	Akron	Beacon Journal	511110	Canada
Summit	1700	Akron	Sterling Jewelers Inc	44831	United Kingdom
Summit	2500	Twinsburg	DaimlerChrysler	33637	Germany
Trumbull	20	Warren	Lafarge North America Inc	212324	France
Trumbull	50	Lordstown	Automodular Corporation	336399	Canada
Trumbull	60	Niles	Indalex Inc	331316	United Kingdom
Trumbull	84	Warren	Ohio Star Forge Co	332111	Japan
Trumbull	90	Niles I	Indalloy/ Indalex Aluminum Solutions	331312	United Kingdom
Trumbull	95	Lordstown	Taylor Coil Processing	42151	Canada
Trumbull	135	Warren	Alcan Rolled Products Co	331319	Canada
Trumbull	150	Warren	Mittal Steel USA	324199	Netherlands
Trumbull	200	Lordstown	Intier Automotive	336399	Canada
Trumbull	400	Girard	Indalex Inc	331316	United Kingdom
Trumbull	590	Warren	Thomas Steel Strip Corp	331111	United Kingdom
Wayne	112	Rittman	Rittman Nursing Rehabilitation Ctr	62311	Canada
Wayne	114	Wooster	Tekfor Inc	332111	Germany
Wayne	305	Wooster	Akron Brass Co	333999	United Kingdom
Wayne	380	Wooster	Bosch Rexroth AG	333996	Germany
Wayne	750	Wooster	LuK Inc	336350	Germany