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dear colleague

Ronnie L Bryant, CEcD, FM, HLM
IEDC Chair

I have been deeply honored to serve as chairman of the International Economic Development Council this past year. It has been a distinct privilege and humbling experience to have the opportunity to represent such a great organization.

My responsibilities have been both challenging and rewarding. As I've traveled throughout the world promoting the premier association for economic developers, I've learned how fortunate we are to have such visionary leadership. Jeff Finkle, his staff, and the entire board have been outstanding in supporting me throughout the year, providing quality services to our members and advancing the economic development profession. I particularly would like to thank the members of the board's Governance Committee, all of whom have shared their unique talents and vision in guiding IEDC.

Together, we have accomplished a great deal over the past year. We have implemented new, dynamic membership programs; assisted our hurricane-ravaged Gulf Coast in getting back on its feet; restructured the board under a new strategic governance model; and expanded international membership and influence to become a truly international organization.

It has been especially rewarding for me to represent IEDC at numerous events abroad, spreading awareness of the organization and interacting with fellow practitioners from around the world. In March, I represented IEDC at WAIPA's World Investment Conference to share the American practitioner's perspective on "Globalization and the New Protectionism." In late October and early November, I presented three master classes and delivered a keynote address on "New Tools, New Partnerships and New Approaches" at Economic Development Australia's annual conference. The conference gave me a wonderful opportunity to highlight IEDC's achievements with the Economic Recovery Volunteer Program and Professional Development and Certification.

From Australia, I traveled to Kuala Lumpur for IEDC's first appearance at the World Free Zone Convention. There, I joined an international panel to discuss developments in the global business and investment climate. My final stop was in Brussels for the European Association of Development Agencies' Annual Conference, where I joined a round table on innovations in business support services.

As I step down as chair, I leave the association in good hands. Incoming chair Robin Roberts, FM, will bring valuable insight to her new role. She has gained a wealth of experience both as current board vice chair and in other leadership roles with IEDC over the years.

However, I am not leaving IEDC. As immediate past chair, I will continue as an officer in the organization, and I look forward to seeing and working with many of you at upcoming IEDC events.

Peace,

Ronnie L. Bryant, CEcD, FM, HLM

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measuring up

By Robert D. Atkinson

How quickly things change. At the end of the millennium, America was riding high and leading the world in innovation and competitiveness. The information technology revolution was transforming our world, ending the business cycle, banishing scarcity, and creating a New Economy. Times were good, jobs plentiful, and government coffers full.

Yet, just a few short years later the "dot-bomb" implosion, the NASDAQ collapse, and slowdown of 2001 rapidly transformed exhilaration into pessimism, leading many to dismiss notions of a New Economy transformation. On top of that, almost overnight it seemed, states and communities confronted powerful new competitors – not from next door, but from around the world – from China, India, Eastern Europe, and other emerging regions. And the challenge now wasn't confined to traditional manufacturing, now it extended to high-tech manufacturing, services, and even research and development.

So what's going on? The reality is that all these changes and more are part and parcel of a broader and fundamental transition to a new economy that brings new opportunities and new challenges. As such it would be a mistake for economic development officials to dismiss the New Economy as some passing fad dreamed up by over-imaginative journalists. Rather, the New Economy is real and continues to transform state and regional economies. This article discusses what these New Economy changes are and presents results from the *2007 State New Economy Index*, a study which enables state and local economic developers to better assess where their states lie in the transformation to the New Economy.

The rise of low wage nations like China means that the competitive advantage of U.S. states and regions will come more from innovation.

WHAT IS THE NEW ECONOMY?

The New Economy refers to a set of fundamental changes in the structure and operation of the economy. The New Economy is a global, entrepreneurial, and knowledge-based economy in which the keys to success lie in the extent to which knowledge, technology, and innovation are embedded in products and services. (See Table 1)

This starts with the fact that the New Economy is *knowledge-driven*. Of course, managers and "knowledge workers" have always been part of the economy, but by the 1990s they became the largest occupational category. Managerial and professional jobs increased as a share of total employment from 22 percent in 1979 to 28.4 percent in 1995 and to 34.8 percent in 2003.[1] In contrast, around one in seven workers are employed as production workers in manufacturing, and even there, knowledge and continual skills enhancement is becoming more important.

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ASSESSING ECONOMIC STRUCTURE FOR SUCCESS IN THE NEW ECONOMY

The economic changes going on today are part and parcel of a broader and fundamental transition to a new economy that brings new opportunities and new challenges. As such it would be a mistake for economic development officials to dismiss the New Economy as some passing fad dreamed up by over-imaginative journalists. Rather, the New Economy is real and continues to transform state and regional economies. This article discusses what these New Economy changes are and presents results from the 2007 State New Economy Index, a study which enables state and local economic developers to better assess where their states lie in the transformation to the New Economy.

Table 1: The New and Old Economies[5]

Issue	Old	New
Markets	Stable	Dynamic
Scope of competition	National	Global
Organizational form	Hierarchical	Networked
Production system	Mass production	Flexible production
Key factor of production	Capital/labor	Innovation/ideas
Key technology driver	Mechanization	Digitization
Competitive advantage	Economies of scale	Innovation/quality
Relations among firms	Go it alone	Collaborative
Skills	Job-specific	Broad and changing
Workforce	Organization Man	"Intrapreneur"[6]
Nature of employment	Secure	Risky

Today's economy is *global*. While it is true that some firms have long had global links, today's globalization is pervasive, as more nations join the global marketplace, and as more goods and services are traded and as more of the production process is interconnected in a global supply web. Since 1980, global trade has grown 2.5 times faster than global GDP. World exports are now at $12.5 trillion, nearly 20 percent of world GDP[2]

Today's economy is *entrepreneurial*. While it is true that entrepreneurial growth, market dynamism, economic "churning," and competition have been features of the American economy since the colonial days, after the 1990s the center of gravity seemed to shift to entrepreneurial activity, while at the same time the underlying operation of the economy accelerated to a new speed, while becoming more customized and innovative. For example, in the 60 years after 1917, it took an average of 30 years to replace half of the 100 largest public companies. Between 1977 and 1998 it took an average of 12 years. Moreover, from 1980 to 2001 all of the net U.S. job growth was from firms less than five years old, while other firms actually lost jobs.[3]

Today's economy is r*ooted in information and new technologies*. While it is also true that information technologies have played a role in the economy since the invention of the telegraph, something happened in the 1990s when semiconductors, computers, software, and telecommunications became cheap enough, fast enough, and networked enough to become so ubiquitous as to power a surge in productivity growth. Indeed, information technology is now the key technology driving the economy, not just in the IT industry itself – which continues to see high-wage job growth – but also in the use of IT in virtually all sectors to boost productivity, quality, and innovation.[4]

Today's economy is *driven by innovation* – the development and adoption of new products, processes, and business models. Nations, states, regions, firms, and even individuals compete on their ability to accumulate, aggregate, and apply their assets in ways that create value in new ways for increasingly diverse customers all over the world. For example, as R&D is the key fuel of the engine of New Economy growth, it is not surprising that business-funded R&D has almost doubled from 1.19 percent of GDP in 1980 to 2.02 percent in 2002. Moreover, the number of patents issued has more than doubled since 1984, with over 185, 000 issued in 2004.

These fundamental changes have created an economy where the United States is being forced to compete on the basis of innovation, and more complex, capital, and knowledge-based production. In this environment, lower-cost developing nations now serve the role that lower-cost U.S. regions once did after WWII when they specialized in cost-based commodity production.

As production processes (in manufacturing or services) mature and are able to be conducted in lower-cost regions, they are now more likely to filter *out* to lower cost nations rather than filter *down* the urban hierarchy to lower cost places in the United States. In the old economy these establishments generally migrated from the high-cost North and Midwest to the low-cost South and Southwest. Now they migrate to Southeast Asia and other low cost regions. Indeed, this appears to be exactly what has happened in the last decade as the number of industrial manufacturing relocations and significant expansions has fallen from an average of 5,139 per year for 1995-2000 to 3,162 in 2005.[7] Many firms, in fact, go global early on, looking for global sourcing of the low-value, commoditized parts of the value chain even before the firm has fully matured.

As a result, in order to succeed in the new global economy, a growing share of regions can no longer rely on old economy strategies of relentlessly driving down costs and providing large incentives to attract cost-focused locationally mobile branch plants or offices. In the New Economy even the lowest cost regions will have a hard time competing for facilities producing commodity goods and services against nations whose wage and land costs are less than one-fifth of those in the United States. Rather, regions, even those that since World War II followed the low cost, branch plant path to success, must now look for competitive advantage in earlier-stage

product cycle activities. This can mean either fostering new entrepreneurial activities or helping existing firms innovate so that they don't become commodity producers searching for any number of interchangeable low cost locations. And to succeed in that process means developing the kinds of economic structure and assets suited for the New Economy.

ASSESSING YOUR STATE'S POSITION IN THE NEW ECONOMY

So how then does a state or region figure out how well it is positioned to compete and win in this New Economy? Most traditional state indicator exercises focus on old economy indicators, such as tax rates, utility costs, and other business climate factors. But the challenge now is not to be the lowest cost place for business, but the best place for business. This means being a place with knowledge workers, globally-linked firms, entrepreneurial dynamism, a solid IT infrastructure, and a foundation for innovation. In order to assess how well positioned states are to succeed in the New Economy, we developed the *2007 State New Economy Index* to examine the degree to which state economies are knowledge-based, globalized, entrepreneurial, IT-driven, and innovation based.[8]

So how then does a state or region figure out how well it is positioned to compete and win in this New Economy? Most traditional state indicator exercises focus on old economy indicators, such as tax rates, utility costs, and other business climate factors. But the challenge now is not to be the lowest cost place for business, but the best place for business.

The *Index* relies on 26 indicators divided into five categories that best capture what is new about the New Economy:

1) **Knowledge jobs.** Having a large share of knowledge jobs, that is jobs that require either college education or other kinds of higher skills, is a key to success. Indicators of this include employment of IT professionals outside the IT industry; jobs held by managers, professionals, and technicians; the educational attainment of the entire workforce; immigration of knowledge workers; employment in high value-added manufacturing sectors; and employment in high wage traded services.
2) **Globalization.** Global links lead to success, in part because firms that export pay more than those that don't. Indicators of globalization include the export orientation of manufacturing and services, foreign direct investment, and package exports.
3) **Economic dynamism.** Dynamic regional economies are more likely to succeed than more stable ones. Indicators of this include the number of fast-growing "gazelle" companies; the degree of job churning (which is a product of new business start-ups and existing business failures); the number of Deloitte Technology Fast 500 and Inc. 500 firms; the value of initial public stock offerings (IPOs) by companies; the number of entrepreneurs starting new businesses; and the number of individual inventor patents issued.
4) **Transformation to a digital economy.** In general, firms that adopt more IT are more successful than firms that don't and communities with more broadband are more successful than those with less. Indicators of digital economies include the percentage of population online; the number of Internet domain name registrations; technology in schools; the degree to which state and local governments use information technologies to deliver services; Internet and computer use by farmers; and residential and business access to broadband telecommunications.
5) **Technological innovation capacity.** Given that it is becoming more difficult for regions to compete on cost, they will need to compete more on innovation. Indicators of this include the number of jobs in technology-producing industries; the number of scientists and engineers in the workforce; the number of patents issued; industry investment in research and development; and venture capital activity.

In all cases, the report relies on the most recently published statistics available, but because of the delays in publishing federal statistics, the data may in some cases be several years old. In addition, data are reported to control for the size of the state, using factors such as the number of workers or total worker earnings as the denominator.

Globalization is bringing new challenges and opportunities.

THE RANKINGS

Table 2 shows the scores for the states. The highest possible score is 100. Moreover, each of the 26 indictors is weighted and the scores are summed to determine the overall rank.

The state farthest along the path to the New Economy is Massachusetts. Boasting a concentration of software, hardware, and biotech firms supported by world-class universities such as MIT and Harvard in the Route 128 region around Boston, Massachusetts survived the early 2000s downturn and has continued to thrive, enjoying the 4th highest increase in per-capita income. New Jersey and Maryland, states that ranked 5th and 6th respectively in 2002, increased their rankings and are now the second and third most New Economy states in the nation.

New Jersey's strong pharmaceutical industry, coupled with its high-tech agglomeration around Princeton and its advanced services sector in northern New Jersey, coupled with high levels of inward foreign direct investment help drive it to second place. Maryland scores high, in part because of the high concentration of knowledge workers, many employed in the suburbs of the District of Columbia and many in federal laboratory facilities or companies related to them. Washington state comes in at fourth, in part on its strength in software (in no small part due to Microsoft), but also because of the entrepreneurial hotbed of activity that has developed in the Puget Sound region and very strong use of digital technologies by all sectors.

These and the other top 10 New Economy states (California, Connecticut, Delaware, Virginia, Colorado, and New York) have more in common than just high-tech firms. They tend to have a high concentration of managers, professionals, and college-educated residents working in "knowledge jobs" (jobs that require at least a two-year degree). With one or two exceptions, their manufacturers tend to be more geared toward global markets, both in terms of export orientation and the amount of foreign direct investment.

All the top states also show above-average levels of entrepreneurship, even though some, like Massachusetts and Connecticut, are not growing rapidly in employment. Most are at the forefront of the IT and Internet revolutions, with a large share of their institutions and residents embracing the digital economy. In fact, the variable that is more closely correlated (0.87) with a high ranking is jobs in IT occupations outside the IT industry itself (e.g., network managers in banks or hospitals).

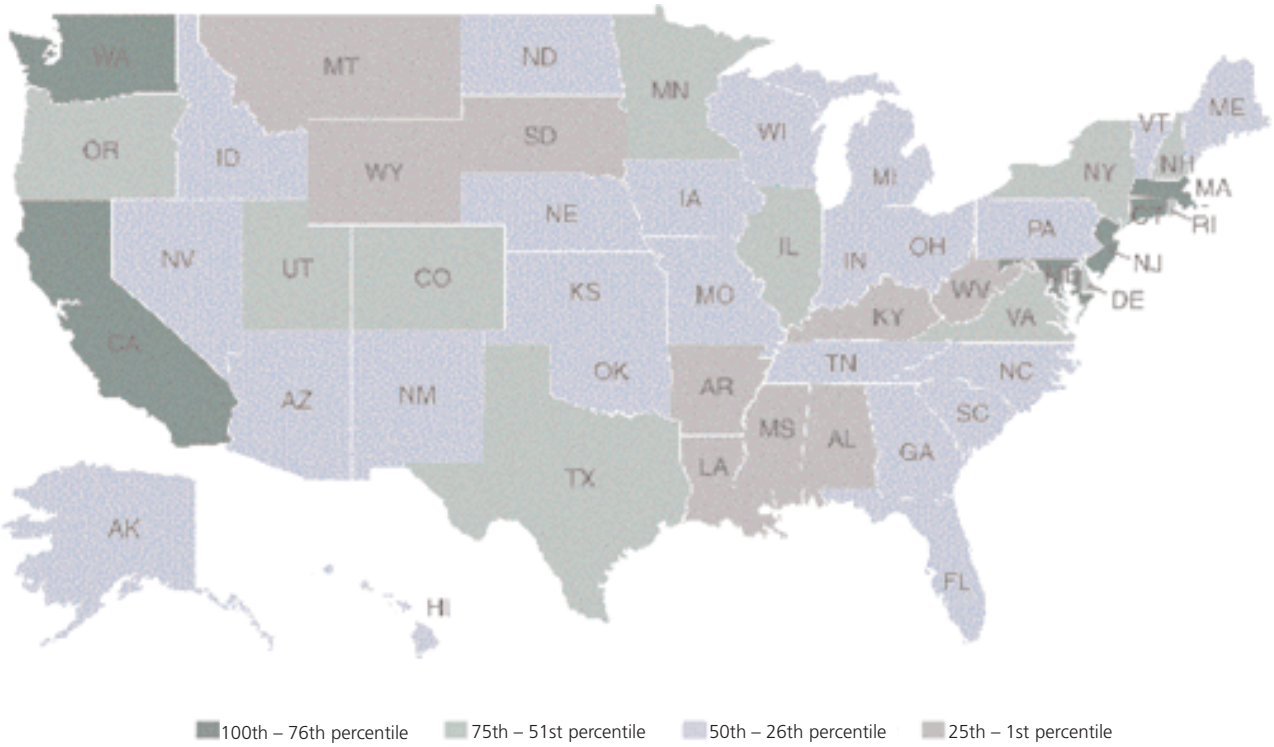
Most have a solid "innovation infrastructure" (such as high share of scientists and engineers and corporate R&D) that fosters and supports technological innovation. Many have high levels of domestic and foreign immigration of highly mobile, highly skilled knowledge workers seeking good employment opportunities and a good quality of life.

While top-ranking states tend to be richer (there is a strong and positive correlation of 0.78 between their

Table 2: State New Economy Index Rankings

2007 Rank	2007 Score	State
1	96.1	Massachusetts
2	86.4	New Jersey
3	85.0	Maryland
4	84.6	Washington
5	82.9	California
6	81.8	Connecticut
7	79.6	Delaware
8	79.5	Virginia
9	78.3	Colorado
10	77.4	New York
11	75.3	Minnesota
12	73.2	Utah
13	71.1	New Hampshire
14	68.6	Texas
15	68.6	Rhode Island
16	68.4	Illinois
17	66.8	Oregon
18	64.8	Georgia
19	64.7	Michigan
20	64.5	Vermont
21	63.6	Pennsylvania
22	63.2	Arizona
23	63.2	Florida
24	62.8	Idaho
25	62.4	Alaska
26	60.2	North Carolina
27	59.2	Nevada
28	59.0	Nebraska
29	57.8	Ohio
30	55.9	Wisconsin
31	55.8	Indiana
32	55.6	Maine
33	53.7	New Mexico
34	53.6	Kansas
35	53.5	Missouri
36	53.3	Tennessee
37	51.9	North Dakota
38	51.8	Iowa
39	51.5	South Carolina
40	51.4	Oklahoma
41	50.9	Hawaii
42	49.5	Montana
43	47.9	Wyoming
44	45.9	Louisiana
45	45.3	Kentucky
46	45.1	Alabama
47	44.7	Arkansas
48	43.8	South Dakota
49	36.5	Mississippi
50	35.6	West Virginia
	62.1	**United States**

Figure 1: 2007 State New Economy Index Scores



rankings and their per capita income), wealth is not a simple proxy for advancement toward the New Economy. Some states with higher per-capita incomes lag behind in their scores (for example, Alaska, Illinois, and Wyoming), while other states with lower incomes do relatively well (such as Texas and Utah).

The two states whose economies have lagged the most in making the transition to the New Economy are West Virginia and Mississippi. Other states with low scores include, in reverse order, South Dakota, Arkansas, Alabama, Kentucky, Louisiana, Wyoming, Montana, and Hawaii. Historically, the economies of many of these and other Southern and Plains states depended on natural resources or on mass production manufacturing (or tourism in the case of Hawaii), and relied on low costs rather than innovative capacity, to gain advantage. But innovative capacity (derived through universities, R&D investments, scientists and engineers, and entrepreneurial drive) is increasingly what drives competitive success in the New Economy.

While lower-ranking states face challenges, they can also take advantage of new opportunities. The IT revolution gives companies and individuals more geographical freedom, making it easier for businesses to relocate, or start up and grow in less densely populated states farther away from existing agglomerations of industry and commerce.

Moreover, metropolitan areas in many of the top states suffer from increasing costs (largely due to high land and housing costs) and near gridlock on their roads. Both factors will make locating in less congested metros, many in lower ranking states, more attractive.

Regionally, the New Economy has taken hold most strongly in the Northeast, the mid-Atlantic, the Mountain West, and the Pacific regions; 14 of the top 20 states are in these four regions. (The exceptions are Florida, Georgia, Illinois, Michigan, Minnesota, Texas, and Virginia.) In contrast, 15 of the 20 lowest ranking states are in the Midwest, Great Plains, and the South. Given some states' reputations as technology-based, New Economy states, their scores seem surprising at first.

For example, North Carolina and New Mexico rank 26th and 33rd, respectively, in spite of the fact that the region around Research Triangle Park boasts top universities, a highly educated workforce, cutting-edge technology companies, and global connections, while

While lower-ranking states face challenges, they can also take advantage of new opportunities. The IT revolution gives companies and individuals more geographical freedom, making it easier for businesses to relocate, or start up and grow in less densely populated states farther away from existing agglomerations of industry and commerce.

Albuquerque is home to leading national laboratories and an appealing quality of life. In both cases, however, many parts of the state outside these metropolitan regions are more rooted in the old economy – with more jobs in traditional manufacturing, agriculture, and lower-skilled services; a less educated workforce; and a less-developed innovation infrastructure. As these examples reveal, most state economies are in fact a composite of many regional economies that differ in the degree to which their economies are structured in accordance to New Economy factors.

DO THESE RANKINGS MATTER?

Of course, economic development officials will want to know if these scores actually matter. In other words, how closely do high scores correlate with economic growth? If simple job growth is their goal, then economic development officials can safely ignore these rankings. States that score higher appear to create jobs at only a slightly faster rate than lower ranking states. Between 1999 and 2005 there was only a modest positive correlation (0.10) between the rate of employment growth and New Economy scores. For example, Nevada led the rest of the nation in job growth, but ranked just 27th on the *Index*.

However, for economic development officials seeking not just more jobs, but better jobs, then these indicators are worth paying attention to. Higher New Economy scores are positively correlated with higher absolute growth in state per-capita incomes between 1999 and 2005 (0.44). This is in spite of the slowdown of 2001 which hit the most technology-intensive New Economy states the hardest.

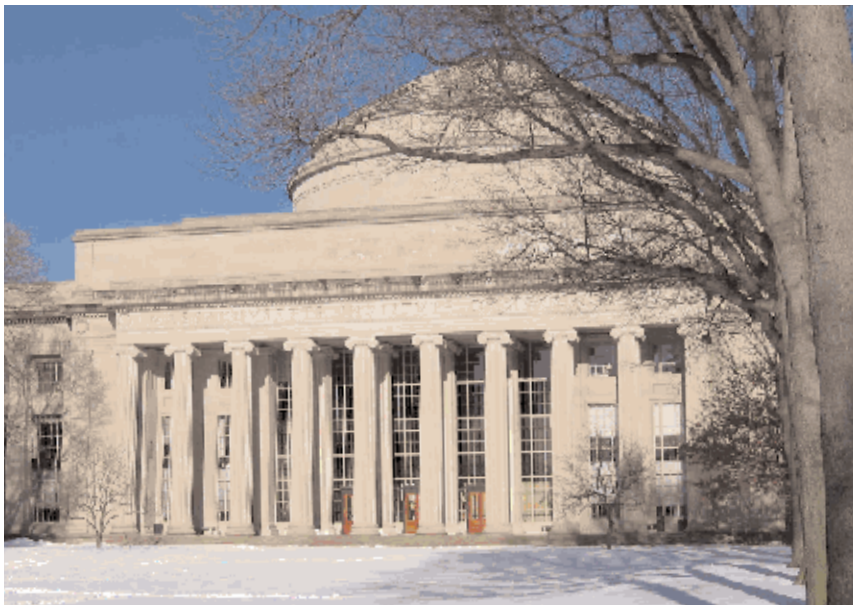
In many ways, these results are perhaps not too surprising. Most economic development officials might expect states like Massachusetts and California to be leaders in the New Economy. But there are a number of surprises in terms of where states rank on both individual indicators and overall.

To be sure, there are other paths to high income growth, at least in the shorter term. For example, Wyoming, which ranks 43rd, enjoyed the fastest absolute per-capita income growth between 1999 and 2005, largely due to increases in prices and demand for resource mining and oil and gas industries. While yielding impressive performance in the short term, this is not a winning strategy for the long run. As history has shown, such an undiversified approach leaves an economy at the mercy of world price fluctuations that bring busts as well as booms. On the other hand, states that embrace the New Economy can expect to sustain greater per-capita income growth for the foreseeable future, especially as competitive advantage for the nation will continue to be based on these new economy factors.

SURPRISES

In many ways, these results are perhaps not too surprising. Most economic development officials might expect states like Massachusetts and California to be leaders in the New Economy. But there are a number of surprises in terms of where states rank on both individual indicators and overall. For example, people might not think of New Jersey as a New Economy powerhouse, but it comes in second.

For individual indicators there are even more surprises. For example, Indiana ranks first on manufacturing value-added measured the percentage of a state's manufacturing workforce employed in sectors in which the value-added per production hour worked is above the sector's national average.[9] Almost half (48.7 percent) of its manufacturing workforce is in sectors that are more productive than the national average for that sector. This is important because high value added supports higher wages and strong competitiveness for the state's manufacturing sector.



MIT has helped Massachusetts be a New Economy leader.

With its image as a bucolic agricultural state, it's perhaps surprising that Vermont is the third most export-intensive state economy as measured by export sales per manufacturing and service worker. This is important because exporting has become more important as trade has become an integral part of the U.S. and world economies. Moreover, export industries are a source of higher incomes. On average, workers employed at

export-oriented manufacturing firms earn 9.1 percent more than workers at comparable non-exporting firms. In business services, workers at exporting firms earn an even larger premium, 12.9 percent more than their counterparts at comparable non-exporting firms.[10]

When it comes to fast growing "gazelle" companies (companies with annual sales revenue that has grown 20 percent or more for four straight years), many would expect "high-tech" leaders like Massachusetts, Washington, and California to top the charts. In fact, the two top states were Nebraska and Delaware, with Arkansas in 5th place. Something was going on in those states that led them to be hot-beds of fast growing entrepreneurial companies. In Delaware's case at least, it may have to do with the fact that the state developed several new seed and venture funds to spur gazelle growth.

The prevalence of new, rapidly growing firms – gazelles – is the sign of a dynamic and adaptive state economy. States that offer fertile ground for the entrepreneurial activity that spawns gazelles reap the harvest of robust job creation. Indeed, one study estimates that such gazelles (termed "high expectations entrepreneurs") are responsible for 80 percent of the jobs created by entrepreneurs.[11]

In the New Economy, skilled workers using advanced technology is the key to success.

Likewise, when it comes to broadband connections, few would think that our northernmost state, Alaska, would top the charts, with Minnesota at 4th and Wyoming 5th. Perhaps it's no coincidence that the coldest nations (e.g., Finland, Iceland, Sweden), like our coldest states, are among the leaders in broadband access. Being online beats being outside, at least in January. In the new digital economy, having a digitally-savvy population and business community, connected to broadband communications is an important factor for success. While in 2000, 46 percent of adults were online by 2006, this number had grown to 73 percent.[12]

Idaho, a state best known perhaps by people outside for its potatoes, in fact should be known for its patents. The state can boast the most patents per 1,000 workers, more than double the next highest state, Colorado. The number of patents issued is a key indicator of the capacity of firms to develop new products that will determine their competitive advantage and ability to pay higher wages.

Finally, when it comes to the leaders in R&D, few would think of Delaware and Rhode Island. Yet, the two smallest states are also the two biggest when it comes to the amount of industry-performed research and development (controlling for the kinds of industry in each state). Delaware, with its high-tech chemical firms is number one, and Rhode Island may score well because of its defense electronics and biotechnology firms and the fact that it instituted the nation's most generous R&D tax credit several years ago. Not only are R&D jobs very high paying, but they lead to other technology-related jobs being created.

CONCLUSION

Perhaps the most distinctive feature of the New Economy is its relentless levels of structural economic change. The challenges facing states in a few years could well be different than those today. But notwithstanding this, the keys to success in the New Economy now and into the future appear clear: supporting a knowledge infrastructure – world class education and training; spurring innovation – indirectly through universities and directly by helping companies; and encouraging entrepreneurship.

In the past decade, a new practice of economic development focused on these three building blocks has emerged, at least at the level of best practice, if not at the level of widespread practice. The challenge for states will be to adopt and deepen these best practices and continue to

Perhaps the most distinctive feature of the New Economy is its relentless levels of structural economic change. The challenges facing states in a few years could well be different than those today. But notwithstanding this, the keys to success in the New Economy now and into the future appear clear: supporting a knowledge infrastructure – world class education and training; spurring innovation – indirectly through universities and directly by helping companies; and encouraging entrepreneurship.

generate new economy policy innovations and drive the kinds of institutional changes needed to implement them. And it's this last challenge that is the key.

Success in the New Economy requires that a whole array of institutions – universities, school boards, firms, local governments, and economic development agencies – work in new and often uncomfortable ways. At the end of the day, this is a challenge of leadership. States with leaders who challenge their institutions and businesses and who follow through with bold new policies focused on innovation, learning, and constant adaptation – will be the ones that succeed and prosper.

ENDNOTES

1 U.S. Bureau of Labor Statistics. <www.bls.gov>.

2 Based on currency purchasing-power-parity measurement.

3 John Haltiwanger, "Entrepreneurship and Job Growth," (cited in *Competitiveness Index: Where America Stands*, Council on Competitiveness, 14 Nov. 2006: 76).

4 Robert D. Atkinson and Andrew McKay, "Digital Prosperity: Understanding the Economic Impact of the IT Revolution," (Washington, DC: The Information Technology and Innovation Foundation, 2007).

5 The "old economy" refers to the economy in place from after World War II until the mid-1970s when productivity growth slowed down significantly. And while the descriptors here are stylized, they are intended to reflect overall factors in each economic period. Source: Atkinson, op cit., (2004).

6 An intrapreneur is someone working for a large organization that is able to be entrepreneurial within that organization.

7 "Year-to-Date New Plant Report," (Conway Data, Inc, 1991-2005).

8 The report builds off two earlier reports (the *1999 State New Economy Index* and the *2002 State New Economy Index*) written by one of the authors when he was with the Progressive Policy Institute. Robert D. Atkinson, The *2002 State New Economy Index* (Washington, D.C.: Progressive Policy Institute, 2002). <www.neweconomyindex.org>.

9 Nationally, each NAICS three and four digit manufacturing sector's value-added was divided by the number of production hours worked to obtain an average value-added per production hour worked. The same was done at the state level, and the state and national figures were compared for each sector in each state. The number of employees in those state sectors that exceeded the national sector average for value-added per production hour worked by at least 10 percent were combined. These were then calculated as a share of the state's total manufacturing employment to obtain each state's final score.

10 J. Bradford Jensen, "Business Service Exporters," *Peterson Institute Working Paper*, 2007.

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12 Pew Internet & American Life Project, "Internet Adoption: Usage Over Time," 2006. <www.pewinternet.org/trends.asp#adoption>.

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by Carol Caruso

INTRODUCTION

2004 – the year that the U.S. Census bureau ranked Cleveland, Ohio's poverty rate the highest of any American city with a population over 250,000. It was also the year that government and civic leaders learned that the Pentagon was considering wiping out more than 1,200 jobs by closing the city's Defense Finance and Accounting Service (DFAS) as part of the 2005 round of Base Realignment and Closure (BRAC). But it proved to be the year that the seeds were sown for what became the most successful campaign to preserve jobs the city had ever known.

Cleveland Defense Industry Alliance campaign T-shirts stressed core messages of a quality workforce, effective operations and timely, accurate pay of the U.S. military services during wartime.

As the world center for Navy pay operations and a Reserve Pay Center of Excellence, the Cleveland DFAS office was the largely well-paying employer of 1,200 residents of the Greater Cleveland metro area, with most jobs in the accounting and IT sectors. The office had a $65 million annual payroll; it generated $1.3 million in annual Cleveland income tax revenue; and contributed $128 million in annual regional economic impact. Its loss would be simply devastating to the community.

The BRAC process was structured in such a way that little could be done at the local level to influence whether the facility was placed on the proposed closure list by the Pentagon. However, after it was placed on the list in May 2005, the Greater Cleveland Partnership (GCP), the Northeast Ohio region's business advocacy group, moved into high gear with a full court press designed to raise awareness of the DFAS office, identify what was at stake, and mobilize support to save the jobs. GCP is the largest private-sector economic development organization in Ohio and one of the largest metropolitan chambers of commerce in the nation, with approximately 17,700 members.

At best, the odds of success were slim. In previous BRAC rounds, Pentagon recommendations for shuttering Defense Department facilities were upheld by an independent BRAC review commission nine out of ten times. Local reaction by media, politicians and others to the proposed closure was pervasively pessimistic about Cleveland's chances for a reversal given that – (1) the city was a Democratic stronghold at a time of highly polarized national politics, and (2) the DFAS office, to the extent anyone knew what it was, was viewed as

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THE CAMPAIGN TO SAVE THE 1,200 JOBS OF THE CLEVELAND DEFENSE FINANCE AND ACCOUNTING SERVICE

When word came that the Pentagon wanted to close the Defense Finance and Accounting Service office in Cleveland, the city knew the situation was grim: the independent Base Realignment and Closure Commission upheld Pentagon recommendations nine out of 10 times. But giving up was no option. The Greater Cleveland Partnership, working through a broad-based public-private coalition, the Cleveland Defense Industry Alliance, executed a multi-pronged advocacy and public relations campaign to tell the community and the commission what was at stake and build support for retaining DFAS Cleveland. When the commission took its vote, it overwhelmingly found in Cleveland's favor. Some 1,200 jobs were saved and an unexpected 500 more were won.

nothing more than accountants in cubicles who theoretically could do their work in any office environment anywhere. No physical military base, with its submarines or aircraft carriers, existed that could serve as a rallying point for advocacy. But the case had to be made, and GCP formed the Cleveland Defense Industry Alliance (CDIA) to become the public face of the campaign.

The campaign's paramount objective was to convince at least seven of the nine BRAC commission members to vote to overturn the Pentagon's closure recommendation. CDIA was comprised of a broad spectrum of individuals with different strengths and backgrounds – experts in economic development, military affairs, real estate, communication, business and government advocacy – who together built a fact-based case that persuaded the BRAC staff and commissioners to look very critically at the Pentagon's recommendation. The case that CDIA unearthed and eventually presented revealed significant errors of fact, lapses in logic and inconsistent application of evaluation criteria. And in the end, the BRAC commission and, just as importantly, its staff realized that what the Pentagon was recommending deviated substantially from BRAC principles and needed to be fixed.

What it took to get to that point is the subject of this story. With a "failure is not an option" approach and a small but mighty cadre of community resources – public, private, and nonprofit – CDIA slowly but surely built a fact-based case that proved three things to the satisfaction of the BRAC commission:

- The Cleveland office was *not* interchangeable with every other DFAS site.
- Any service disruption during wartime would negatively affect our military and their families in very real ways.
- There were hidden flaws in the Pentagon's analysis that revealed criteria and calculations which unfairly stacked the deck against Cleveland DFAS in ways that were contrary to BRAC principles.

Conveying these realities to a broad spectrum of opinion leaders and decision makers was the cornerstone of our successful campaign.

RESEARCH, RESEARCH, RESEARCH

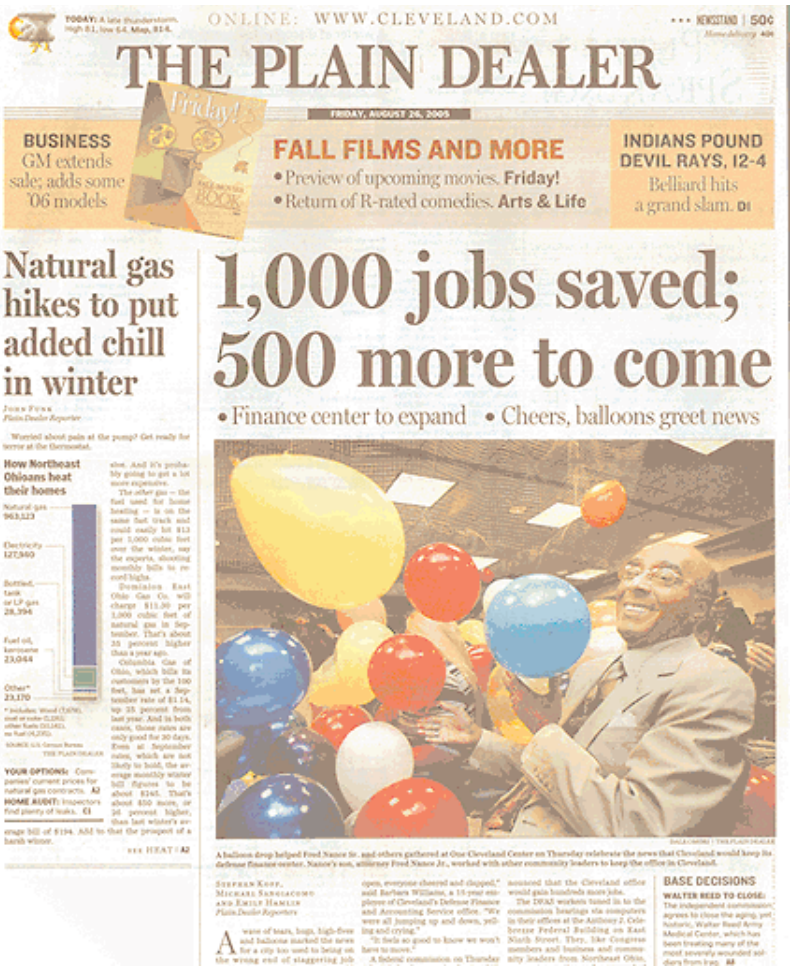
Since DFAS had not previously been subject to a BRAC, there was no history on which to base an effort to challenge the recommendation. All that CDIA knew were the Pentagon's closure criteria, and the names and backgrounds of the independent BRAC commissioners who would ultimately decide whether to accept or reject the Pentagon's recommendations.

Further complicating the situation: the local DFAS officials were required to be neutral during the BRAC process, so they could be of little help in the effort to construct a compelling story about what DFAS did and why anyone should care whether it closed in Cleveland.

Thus the campaign needed a strong backbone from which to begin, and that backbone was research in every imaginable form.

Intelligence from BRAC experts – CDIA engaged a military consultancy, the Spectrum Group, whose principals were veterans of past BRAC rounds to help us understand both the scope of the challenge before us and the subtext of the Pentagon analysis that landed us on the closure list. Spectrum advised that BRAC was apolitical and that the case for reversal, if it could be made, had to be made on the numbers. With this understanding, a CDIA subgroup set to work to dissect the Pentagon's methodology. What it found were flaws that revealed criteria and calculations which unfairly stacked the deck against Cleveland DFAS from the outset.

Internet research and media analysis – CDIA's public relations counsel continually combed the Internet for news and information about BRAC, DFAS nationally, and what other DFAS sites facing closure were doing. Through this effort, we learned that the Cleveland DFAS office would soon be the site of a Reserve Pay Center of Excellence, a decision the Pentagon made to address problems other DFAS sites (that were, ironically, remaining open according to the Pentagon's master plan) were having in promptly paying the reservists and National Guard soldiers serving extended deployments in Iraq and Afghanistan.



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BASE DECISIONS

WALTER REED TO CLOSE:

Cleveland's daily newspaper, The Plain Dealer, captured the celebration that followed after BRAC commissioners overturned the Pentagon's recommendation to close the city's DFAS, and unexpectedly added 500 additional jobs. Conducted against all the odds, it was the most successful campaign to preserve jobs the city had ever known. (Courtesy of The Plain Dealer.)

Interviews with rank-and-file employees – Frustrated by the inability to glean even basic information about Cleveland DFAS from the facility's top management, our public relations firm, Edward Howard, built relationships with DFAS' employee labor union leadership, which was not constrained from communicating during a BRAC. Coming to know these leaders made it possible for our PR firm to conceive the eventual message platform from which CDIA (1) educated the community about DFAS' workforce and its work, (2) humanized the stories, (3) explained what it all meant to the country's military and civilian personnel and retirees around the world during wartime, and then (4) rallied support for these fellow Northeast Ohioans.

Economic impact research The business attraction and retention group, Team NEO, which is a joint venture of the region's largest metro chambers, produced an analysis that quantified the devastating impact that the loss of 1,200 jobs would have on Cleveland's tax base when the city had already cut vital police and fire protection services. Although initially advised that this criterion would be considered only peripherally, we were determined to conduct the analysis and ended up drawing from its conclusions extensively throughout the communication efforts.

A quick-read brochure issued by the Cleveland Defense Industry Alliance described what DFAS did and what it meant to the average person as well as to the nation's servicemen and women.

FROM NORTHEAST OHIO TO BUFFALO, N.Y. – GETTING THE STORY OUT

In essence, there were two communication efforts in the CDIA campaign. One was entirely local, to inform and hopefully engage the community in the issue; the other was directed toward BRAC decision makers.

In the local effort, we had learned that Cleveland's office was essentially the "nerve center" for all of DFAS nationally – and the initial entry point for nearly every phone call and e-mail from servicemen and women in Iraq, Afghanistan, and around the world. Building on this insight, we began a process of humanizing DFAS that hit a crescendo in late summer 2005. Activities and public pronouncements converged under the CDIA's banner, carried a message platform aimed squarely at the BRAC decision points – *Excellent People. Excellent Performance. Excellent Value* – and included:

Campaign brochure – A quick-read snapshot described what DFAS did and what it meant to the average person; this was distributed to a broad base of stakeholders at events and briefings.

CDIA lapel pin – Worn by civic leaders, employees, and other supporters, these giveaways provided the CDIA with greater public identity.

TIMELINE

Fall 2004 –	Area leaders form Cleveland Defense Industry Alliance in anticipation of possible DFAS closure announcement by the Pentagon; work begins to produce preliminary campaign materials and cultivate relationships with DFAS rank and file
Winter/Early Spring 2005 –	CDIA holds first news conference to begin creating awareness of DFAS, its importance to the nation's servicemen and women and what is at risk if it closes and begins broader community outreach; conducts editorial boards to overcome media pessimism
May 2005 –	The Pentagon officially places Cleveland DFAS on the proposed BRAC closure list; CDIA goes into overdrive to preserve the 1,200 jobs; analysis of economic impact and basis for Pentagon recommendation begins; flaws are exposed
June 2005 –	CDIA holds community rally, hosts BRAC commissioner site visit and briefing, presents testimony before BRAC commission in Buffalo
July-August 2005 –	CDIA conducts ongoing briefings of BRAC staff and Ohio political leadership; continuing media outreach
August 2005 –	BRAC Commission overturns Pentagon recommendation to close Cleveland DFAS, and recommends the addition of at least 500 more jobs in addition to the 1,200 preserved

Hundreds of downtown employees, public officials and community members came out in force to rally around DFAS the day a member of the Base Realignment and Closure commission visited the facility. A TV report showed several attendees asking for honks of support from passing motorists.

Timed to coincide with the site visit by a BRAC commissioner and demonstrate support for the 1,200 DFAS employees, we organized a public rally involving hundreds of employees, public officials, and community members; we secured broad print and broadcast news coverage and the daily newspaper donated space for a full-page open letter to the commissioner on the day of his visit.

Media relations – A series of news releases and media advisories built and sustained the campaign's visibility; key messages and talking points anchored press conferences announcing major developments; CDIA leaders met with editorial boards of the most influential media, who were sowing the seeds of futility about the effort to save DFAS.

High-level briefings – Detailed briefing packages and white papers educated local, state and federal officials, as well as community leaders, to get them on the bandwagon to provide support for CDIA's efforts. In a show of regional unity, we obtained 37 resolutions of support from Northeast Ohio cities.

Public rally – Timed to coincide with the site visit by a BRAC commissioner and demonstrate support for the 1,200 DFAS employees, we organized a public rally involving hundreds of employees, public officials, and community members; we secured broad print and broadcast news coverage and the daily newspaper donated space for a full-page open letter to the commissioner on the day of his visit.

Campaign support materials – Message-reinforcing items such as flyers urging citizen action, T-shirts that appeared in numerous media photos, banners, and signs were part of the campaign.

While all of the local outreach was being implemented, the CDIA subgroup dedicated to analysis of the Pentagon's documents about Cleveland was ongoing.

The 2005 BRAC round was the first to look at DFAS facilities as candidates for the chopping block, and the first to be conducted in wartime. After it concluded its analysis, the Pentagon had recommended consolidation of the existing 26 DFAS centers into three – at Denver, Indianapolis, and Columbus, Ohio. In trying to determine why those three had been selected, our analysts would soon realize that the Pentagon methodology focused almost exclusively on physical facility issues, not on people, functions or services.

But people, functions, and services were – and are – what DFAS was all about. Applying such a methodology when the facility and associated building costs were 10 percent of the budget allocation marginalized the 90 percent of the budget allocation that represented the people and the work they performed for the nation's service men and women. The model may have been right for a physical Navy base, but for a Navy pay center, it was all wrong.

And so we began the arduous work of dissecting the original analysis to see how radically Cleveland's rankings had been affected by the Pentagon's severe miscasting of the questions to be asked and the data that were to be collected and evaluated.

The resulting analysis of the Pentagon's analysis found a number of critical errors – a miscalculation in scaling the Workforce Pool metric that actually affected the final rankings of all DFAS centers, not just Cleveland, and inconsistencies in applying the methodology in three categories – (1) whether a facility was sited on an existing Defense Department installation/military base; (2) how many one-of-a-kind process applications were performed at the facility, and (3) the facility's operating costs per square foot.

Equally disturbing was the realization that there was no consideration of quality-of-service or performance metrics and no detailed examination of the immediate availability of the skilled workforce needed elsewhere if Cleveland's operations were to be terminated and the functions transferred. (It had already been determined that most of the existing workforce would be unlikely to leave the Cleveland area in a closure.)

With these revelations, it became clear that early communication with decision makers was critical, and CDIA representatives began to talk, and later meet, with BRAC staff on these topics.

The engagement level of political officials, which originally started out lukewarmly, grew and grew as they became aware that the model didn't fit, that the deck had been stacked against Cleveland, and that speaking out about this could have some impact.

LOCATION, LOCATION, LOCATION

One of the most bizarre aspects of our own analysis was the discovery that Cleveland was penalized in the Military Value area for having an outrageous occupancy cost of $29 psf – the highest of all the centers that were considered for closure – in the downtown federal building where it was a tenant. Occupancy costs were determined by the landlord, the federal General Services Administration (GSA), and were completely out of kilter with the downtown market rate. As a result, Cleveland's ranking on the Operating Costs Per Square Foot metric was abysmal. Our real estate analysts found that GSA's formula for establishing lease terms had the effect of yielding higher than market rates when the downtown office market actually was in decline.

Working with our real estate consultancy, Allegro Realty Advisors, we generated an apples-to-apples comparison using real-world data that dramatically improved Cleveland's relative ranking on this metric. And we took it a step further by providing BRAC staff with a set of scenarios involving other available office space in Cleveland combined with various tax and other financing incentives to drive down the occupancy cost that would not only accommodate the existing Cleveland operation but also allow for significant absorption of additional workload in the future.

The regional public hearing where BRAC commissioners were taking testimony on the impact of the Pentagon's recommendations upon Cleveland was scheduled for Buffalo. By this point, we had so many arrows in our quiver it became a matter of how to present the information succinctly but compellingly. Attended by a caravan of local leaders, DFAS employees, and media, and led by our CDIA chairman, Fred Nance, a prominent local attorney who was a veteran of lobbying successfully on behalf of complex civic causes, the presentations dissected the Pentagon's analysis and exposed its flaws to the astonishment of the assembled commissioners.

LOBBYING, LOBBYING, LOBBYING

Still, all of the dogged analysis and ongoing communication efforts would have been for naught without one more element – the engagement of political officials who carried the water in situations that no one else could.

GCP's well-established government affairs group sprang into action, providing a steady stream of information to Northeast Ohio's bipartisan Congressional delegation and our two senators, and identifying funding for the campaign from federal, state, and local sources. Ohio's governor had named an Aerospace and Defense Advisor, a retired base commander who himself had gone through a BRAC, and who provided the initial funding, but we supplemented it at the county and city level as well.

The engagement level of political officials, which originally started out lukewarmly, grew and grew as they became aware that the model didn't fit, that the deck had been stacked against Cleveland, and that speaking out about this could have some impact. In fact, the member of the delegation who played one of the most pivotal roles in the process, U.S. Rep. Steven LaTourette, assigned a staff person (who had been a former Cleveland Plain Dealer reporter) to the issue, when he recognized how important it was to fight for this – even though DFAS itself wasn't physically in his district. His staffer plowed through Pentagon documents and spoke with numerous sources inside DFAS to help uncover the flaws in the original recommendations.


JOBS

U.S. Representatives Steven LaTourette and Dennis Kucinich, along with Cleveland Mayor Jane Campbell, were just three of many public officials who, in a sustained bipartisan effort, became a united front when confronted with the loss of 1,200 well-paying jobs to the regional economy. (Courtesy of The Plain Dealer.)

IN CONCLUSION

Ultimately, the Cleveland Defense Industry Alliance won in a no-win situation because:

- We had the right players at the table from the public, private, and nonprofit sectors; everyone knew what their contribution was to be; and everyone delivered.
- We put a public face on the effort via a coalition that had a name and several recognized spokespeople.
- We did our homework; we never stopped researching and learning.
- We never stopped communicating about what was at stake, even when opinion leaders and the news media suggested it was a lost cause.

- We humanized DFAS and articulated its critical importance to both the regional economy and to our men and women in uniform.
- The story we laid out became compelling, in its own way suspenseful and capable of mobilizing the general public.
- We built strong working relationships with everyone from BRAC staff to union members representing the DFAS employees.
- We proved the Pentagon's methodology was seriously flawed and if implemented in this case would generate effects that were contrary to BRAC principles.
- We identified alternative scenarios to counter objections.
- And we won the day by proving to the BRAC commission and the community that DFAS Cleveland was an operation of Excellent People, Excellent Performance and Excellent Value (to the nation's military and taxpayers).

We were given a lemon, and we made lemonade, transforming an unknown back office government operation into a community cause célèbre. The required seven commissioners not only voted to overturn the Pentagon's recommendation, but they also went further – they *added* a minimum of 500 new jobs. Our core messages – quality people, effective operations, timely and accurate pay of our armed services during wartime, and unacceptable economic harm to the community – were cited by commissioners as reasons for their action.

Previously skeptical and negative media were converted into champions of the campaign, with one respected journalist proclaiming it the "#1 story of 2005." Finally, numerous segments of the community overcame existing differences to present a truly united front, still cited today by local opinion leaders as a model for future regional economic development efforts, and one which we at the Greater Cleveland Partnership continue to use today.

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pivot point, yuma

By Matthew Spriggs, AICP and Charles Flynn

The newly opened Gateway Park features active recreation, beaches, and historic interpretation along the Colorado River and adjacent to the Pivot Point, Yuma hotel. The Ocean-to-Ocean bridge in the distance marks the transition from Gateway Park into the Yuma East Wetlands. (photo by Matthew Spriggs)

This article recounts the successful riverfront redevelopment planning efforts in Yuma, Arizona. After decades of false starts, the Yuma community has been able to muster the political will and the local, state, and federal funding in order to partner with a private developer for a prolonged period of land assembly, infrastructure improvements, and joint planning.

Since the project is located in a National Historic Landmark, the developer and city worked through and resolved significant historic preservation issues. Over a four-year period, the plan was flexible enough to respond to changing market conditions, progressing from a primarily retail orientation to a mixed-use plan with increased residential development. The development agreement, approved in December 2004, has now begun implementation with a $30 million hotel/conference center due to open in late 2008.

The authors attribute several key factors to the success of this project:

- *Sustained political commitment to the project over several administrations.*
- *Creation of a staff team that focused only on the riverfront and was capable of implementing projects from concept to completion.*
- *The National Heritage Area designation injected federal funding and led to a community-based plan, which provided an integrated framework for public and private investment along the riverfront.*

The story of the revitalization of Pivot Point, Yuma is unique but within its telling are principles that can be applied to any redevelopment project in any community. To fully understand the scope of the project, this article begins with the early history of Yuma, providing the historical context that makes the location so important to the community, state, and the nation.

Yuma, Arizona, is in the far southwest corner of Arizona, on the southern border of California and

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A PARTNERSHIP EFFORT TO REDEVELOP YUMA'S DOWNTOWN RIVERFRONT

The Pivot Point, Yuma project site (one of the most historically important locations in the state of Arizona) is 22 vacant acres in the heart of downtown Yuma adjacent the Colorado River. The site was once a vibrant hub for commerce and distribution but it has lain dormant since the early 1900's. In 1998, the city of Yuma assembled a dedicated team of professionals and partnered with Clark-Lankford, LLC to bring revitalization to the Pivot Point, Yuma site. Winner of the 2007 IEDC Partnership Award, the $32 million Pivot Point, Yuma hotel and conference center is under construction and a total of $100 million of construction is expected by 2012.

the eastern border of Mexico. It was once a bustling hub of transportation and commerce, having one of the first major crossings of the Colorado River and its downtown grew up around the Yuma Crossing. Yuma thrived in 1849, providing the southern route across the Colorado River for the California Gold Rush. Steamships, wagons, and ferries carried supplies from the Yuma Quartermaster's Depot to other forts throughout the southwest during the period of western expansion. In 1877, the first train to enter the state of Arizona crossed the Colorado River into downtown Yuma at Madison Avenue.

Even with the shift of transportation away from steamships, wagons, and ferries to locomotives at the turn of the century, the city continued to be an important crossing of the Colorado River and a vital link in the nation's transportation network into the 1900s. In 1915, the Ocean-to-Ocean Bridge was completed at the Yuma Crossing, connecting the United States, via US Highway 80, for the first time from the Atlantic to the Pacific Ocean. Through World War II, Yuma continued to adapt to the ever changing economy. However, sometime in the late 1950s or early 1960s, downtown Yuma began to struggle.

Yuma was once a major focal point for east-west travel across the Colorado River. By 1890 the rope ferries slowly gave way to train travel.

Multiple crossings of the now contained and tamed Colorado River and the emergence of air travel and transport eroded the city's importance in the national transportation network. The impact of the automobile was similar to the impact in many communities: the new federal highway bypassed the downtown and the suburbs became the destination for residents, with ample cheap land away from the declining businesses and neighborhoods in the downtown. The cost to the residents was a relatively short commute to work via automobile. With the relocation of its customer base to the suburbs and its increased mobility, the downtown saw major businesses relocate to the suburbs throughout the 1970s.

By the mid 1980s, the city of Yuma owned a majority of the downtown properties through the purchase of tax liens. In an attempt to keep the properties productive,

Etching of the Yuma Riverfront in its most vibrant use, circa 1880.

the city temporarily allowed light manufacturing in many of the buildings. With the decline of the downtown neighborhoods and the relocation of destination retail, the last connection between the community and the Colorado River was lost.

THE BEST LAID PLANS

Yuma was not blind to its most precious natural asset – the Colorado River. In a resolution in 1902, the city council declared that the land along the Colorado River that formed the northern boundary of the downtown would be held by the city for the benefit of the community in perpetuity. This resolution came at a time when the riverfront was a hub of commerce and transportation. Despite this resolution, many of the uses located in the riverfront area were subject to neglect and as the economy shifted after World War II, the downtown began a slow process of degradation.

In the 1970s, the community had moved away from the downtown as it continued its downward trend. In an attempt to stop the decline, the city started work on plans to revitalize the central business district and continued to provide land to state and federal government agencies to keep some productive uses in the downtown. Unfortunately, the 1975 Small Area Study: Inner City Revitalization Plan and the 1978 Phase II Downtown Development Program relied heavily on federal redevelopment money that was never obtained and the plans were not implementable.

In 1983, the city created a comprehensive redevelopment plan, the North End Redevelopment Plan, which provided the ability to assemble land and provide incentives for private investment for redevelopment. However, the stigma of the downtown as a place of high crime, homelessness, and blight was so strong that no businesses, other than light manufacturing, could be enticed into the downtown.

In the late 1980s, there was a resurgence of interest in the heritage of the downtown. The local preservation

community had worked with the US Bureau of Reclamation to take ownership of the historic Quartermaster's Depot and in 1990 the Yuma Crossing Council in conjunction with the city of Yuma and the Arizona State Historic Preservation Office created the Yuma Crossing Buffer Area Preservation Master Plan. Like its predecessors, this plan relied heavily on state and federal money to construct what would become a large historic interpretive venue, encompassing Yuma's entire downtown riverfront. Its downfall was that it would require continual public subsidy for maintenance and operation and it proved to be infeasible.

In 1994, the city developed the City of Yuma Neighborhood Plans Project, a refinement of the 1983 North End Redevelopment Plan residential neighborhood component. Its focus was on housing rehabilitation and the city began to clean up isolated properties. Unfortunately, the neighborhood project's effect was too dispersed to have much impact on the neighborhoods as a whole and it also relied entirely on public funds, namely Community Development Block Grants.

The Pivot Point, Yuma project site as of 1967 just after the opening of the Interstate 8 highway bridge that routed highway traffic out of the downtown.

In 1996, under the leadership of City Administrator Joyce Wilson, the city of Yuma engaged the community in a visioning plan, the Historic Downtown Yuma Vision 2020 Plan (2020 Plan). This was the first time since the 1983 North End Redevelopment Plan that a public/private partnership was considered for the riverfront and downtown. While the 2020 Plan was impractical, it renewed the call for bringing private investment to the downtown riverfront.

To further refine the possibilities of a public/private partnership, the city engaged a private consultant, the Waterfront Center, to work with the public to implement the 2020 Plan and the result was the 1998 Report to the City of Yuma and Its Citizens (Report). While mostly a bubble diagram of possibilities, the Report became the basis for focusing on bringing the riverfront back to the community and revitalizing the downtown as promised in the City Council Resolution of 1902.

GOING FROM REPORT TO REALITY

The city administrator recognized that the community had been planned to death. Yuma needed to move away from the empty promises of previous planning efforts and into real and immediate action if the downtown was ever to turn around. To implement the recommendations of the Report and the 2020 Plan, the city needed the support and dedication of each of its major departments, yet its day to day responsibilities to a rapidly growing community made it difficult to create the intense focus needed to bring about change in the downtown.

The city needed a full time dedicated staff whose sole focus was downtown revitalization. In addition, the task of reversing the image of the downtown, creating a destination out of an area that was long since forsaken, would take funding far beyond the city's available tax revenue, particularly for public improvements.

City Administrator Joyce Wilson pursued the revitalization of the riverfront with two actions: the creation of a small dedicated team of staff members from the major departments of Community Development, Parks and Recreation, and Public Works; and the pursuit of not only state and federal grant money, but designation of Yuma as one of the first National Heritage Areas west of the Mississippi River. A National Heritage Area is a federal designation through the US Congress and administered by the National Park Service. As a designated National Heritage Area, with a Management Plan approved by the Secretary of the Interior, a private non-profit management entity becomes eligible for up to $1 million a year in federal matching funds for ten to 15 years, depending on the authorizing legislation.

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The first step was the creation of a working committee of citizens lead by a staff member to pursue the National Heritage Area designation which started in 1996. The Yuma Crossing and Associated Sites National Historic Landmark, which covered both sides of the Colorado River in both Arizona and California, was the center of the Heritage Area focus, with emphasis placed on the south side of the river where Yuma was established. The National Landmark also bisected the riverfront site and included the historic Quartermaster's Depot which was now an Arizona State Historic Park, vacant and marginally developed land, and through the years the landmark, outside of the park, was severely degraded with little to no context remaining. However, securing designation as a National Heritage Area would provide Yuma with up to $10 million of federal matching grant funds that could be used to interpret and enhance the important history of the National Historic Landmark. In 2000, President Clinton signed the designation of Yuma as a National Heritage Area into law.

The creation of a dedicated team was the next step. In 1998, the city hired Kevin Eatherly as the project manag-

er for the team. Eatherly was the former park manager for the Quartermaster's Depot State Historic Park. The city hired the co-author, a former executive director of a National Heritage Area, to manage not only the eventual Heritage Area (which is a separate private 501(c)3 that works in partnership with the city) but to also oversee the redevelopment of the historic riverfront and the downtown for the city. Roger Blakely was added briefly to the team from Parks and Recreation to coordinate ongoing planning and future construction of the interconnected greenway along the Colorado River. Tina Clark was added from Community Development as a grant writer and historian and co-author Matthew Spriggs, AICP, was added from Community Development as a planner. While Flynn managed and directed the team, each team member was still considered a staff member of their respective departments. Although inconvenient in some ways, that connection as a staff member of each affected department allowed the team members to expedite matters and come to quick solutions.

THE DEVELOPER

In 1999, the city issued a request for qualifications (RFQ) to select a developer to become the city's partner in redeveloping the riverfront. In order to assure public support of the selected developer, the review committee included a city councilwoman, a private citizen, and three city staff members.

The city chose to pursue an RFQ since not just any developer could succeed with this very complicated site. The developer needed not only a track record for successful public/private partnership developments, but would also have to possess a track record of perseverance, tenacity, and a willingness to work on a project with a longer term payoff. The site was very complicated and there was no guarantee of quickly going to construction.

The city also decided to add a very important "plum" to this RFQ. As part of downtown redevelopment, the city had committed to building a new 150,000-square-foot Municipal Complex in the south end of the downtown. The developer selected for the arduous process of riverfront redevelopment would gain the benefit of designing and building the new $30 million facility. In hindsight, this benefit helped sustain the developer over many years of planning and re-design of the riverfront.

The city received a dozen responses and narrowed the field to three developers. The interview and presentation by the three finalists provided the RFQ review committee with a clear choice: Clark-Lankford, LLC. Clark-Lankford was chosen due to its substantial success with redevelopment projects throughout the gas lamp district and Horton Plaza in San Diego and for Craig Clark's reputation and history of perseverance and tenacity.

At full build out the Pivot Point, Yuma project will contain:

- 230 Executive business class hotel rooms
- 25,000-square-foot conference center
- A 50-room boutique hotel
- 40 canal side town homes
- 50 upscale apartments
- Over 105,000 square feet of retail
- Over 80,000 square feet of office
- A 50,000-square-foot federal courthouse
- Over 26,000 square feet of restaurants and entertainment

Total private investment estimated at over $100 million.

Anticipated return to the city is $22 million in the first 15 years.

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THE SITE

Reclaiming the Colorado River as the main feature of the downtown was limited to a project site approximately a half mile across and 900 feet wide, containing approximately 47 acres of gross land area adjacent to the Colorado River in historic downtown Yuma. The property forms the gateway to Arizona for travelers east bound on Interstate 8 from California and Baja California or Sonora Mexico.

In 1998, the site was constrained in multiple ways (from west to east):

- The Yuma Quartermaster's Depot State Historic Park (9.5 acres) separated from the remainder of the site by the Yuma Main Canal and Siphon (7 acres);
- US Fish and Wildlife Service Kofa National Wildlife Refuge Headquarters (USF&W) (1.5 acres);
- US Border Patrol Yuma Sector Headquarters (1.5 acres);
- Historic Yuma City Hall (1 acre);
- Arizona National Guard Armory (3 acres);
- City of Yuma water treatment sludge drying beds and raw water takeoff pump house on land owned by Arizona State Parks with an historic covenant (2 acres);

- A massive, dilapidated, but historic hill with former railroad water settling tanks adjacent the Colorado River (2 acres);
- Archeological deposits of the Southern Pacific Railroad (SPRR) Hotel and the SPRR line where the first train entered the state of Arizona in 1877 (2 acres);
- City Water Treatment Plant (7 acres);
- Bisecting the entire site is the 80' wide inactive Yuma Valley Railroad line owned by the US Bureau of Reclamation (Reclamation), along with miscellaneous "orphan" parcels; and
- The north boundary of the site was further complicated by a 16", 650 psi natural gas line operated by El Paso Natural Gas Co., the exact location of which was not known.

Of the 47 total acres, 25 acres were excluded from assembly, nine acres were owned by the city and available for development but were scattered, and 13 acres would have to be cleared of their impediments.

Land assembly and master planning of the site began in 2000. The site had been used heavily by the federal government from 1845 until the 1960s and the property lines were so convoluted that it required over a year of survey work just to define property ownership and parcel boundaries. The partnership examined the project site in detail and determined that the first problem to be addressed was the presence of the massive, dilapidated, but historic "settling tank hill" that occupied the prime two-acre parcel adjacent the Colorado River. The tensions between the preservation community and the city were high and the developer would not proceed with the project if the hill could not be removed.

"Settling tank hill" was the last substantial record of the crossing of the first train into the state of Arizona. The city, developer, and the preservation community met over several months and came to an agreement that committed the city to meaningful interpretation of the railroad history of Yuma and in return "settling tank hill" could be removed. With this agreement in hand, the city approached the Historic District Review Commission, the city's local preservation board, for approval of the demolition of "settling tank hill." Although the agreement was made locally, not everyone in the local preservation community agreed and the State Historic Preservation Office (SHPO) was against the demolition of "settling tank hill" but was unable to act formally since there were no state or federal funds in the project. Regardless, the SHPO, through local preservationists, spoke out against the demolition during the commission's public meeting. Despite this opposition and after a long deliberation, the commission approved the demolition four to three.

With "settling tank hill" resolved, the partnership began to look at the site in earnest. Certain site constraints could not be resolved:

- The Yuma Main Canal and Siphon are not only historic but are critical to the survival of the community.
- The Yuma Quartermaster's Depot State Historic Park is one of the best preserved historic sites in Arizona and contains six of the 12 remaining state owned adobe buildings.
- The Yuma Main Street Water Treatment Plant would cost over $55 million to move.
- The Yuma Valley Rail Line, now owned by the US Bureau of Reclamation, might have its right-of-way narrowed but would remain in place.
- El Paso Gas was not willing to relocate its pipeline and its exact location continued to be unknown.

The remaining constraints were thought to be resolvable and master planning was undertaken over the next year as "settling tank hill" was demolished.

As a part of the master planning process, the city and the Yuma Crossing National Heritage Area recognized that for the Pivot Point project to succeed, a substantial public investment along the Colorado River had to be made. The need for the public investment was not driven just by Pivot Point, the community had been trying to take back the river for a century and restoring its relationship with the community was central to the mission of the Heritage Area.

The public investment would create a greenway beginning on the west with the development of the Yuma West Wetlands Park and Restoration project. The site of the West Wetlands was a former 110-acre city landfill adjacent to the Colorado River. Through the

Photo: Fred Phillips

Looking west from the restored Yuma East Wetlands toward "Prison Hill," "Indian Hill," the Ocean-to-Ocean bridge, and downtown Yuma.

Heritage Area, the city closed the landfill and secured over $4 million in grant funds to construct the active recreation park and another $500,000 in grant funds to restore the native bird habitat on lower bench adjacent the Colorado River.

Shortly after the completion of the West Wetlands, construction on the East Wetlands began in 2003, a quarter mile from the hotel and conference center site. Previously thought to be an impossible task, the city of Yuma, the Yuma Crossing National Heritage Area, and the Quechan Indian Tribe arrived at a consensus plan with over 29 major stakeholders for the restoration of 1414 acres of riparian habitat and backwaters along the Colorado River. The consensus plan has allowed the city, Heritage Area, and tribe to amass over $6 million in grants and to date has restored over 300 acres of habitat with over 200 acres of restoration in design and awaiting funding.

The keystone and connecting link of the East and West Wetlands is Gateway Park, located at the terminus of Madison Avenue. In its first act to reclaim the river, the city of Yuma amassed hundreds of volunteers and cleared the southern banks of the Colorado and established the Madison Avenue Beach Park. Despite the rustic condition of the park with very few amenities other than volleyball nets, a small beach, benches, and port-a-potties, it was immensely popular and its only access was Madison Avenue, where the hotel would be built. The city could not cut the public off from the park and the hotelier needed control over the access in the area and some degree of privacy. Additionally, the rustic nature of the park did not fit the forthcoming $32 million hotel and conference center. The city of Yuma and the Heritage Area renamed it Gateway Park and amassed $2.5 million in grants and $1.5 million in city and Heritage funds to improve and expand the park and relocate the entrance and parking lot from Madison Avenue to Gila Street a quarter mile to the east.

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The original Riverfront Master Redevelopment Plan, completed in August 2001 and calendared for City Council approval in November 2001, consisted of a 150-room executive business class hotel and a minimum conference center of 18,000 s.f., three restaurants, a entertainment venue, a 50-room boutique hotel, and over 185,000 s.f. of retail. Then on the morning of September 11, 2001 the world changed.

SEPTEMBER 11, 2001

The tragic events of September 11 had impacts all around the world and Yuma was no exception. The economic effects became clear when retail and entertainment spending suffered considerably throughout the nation. In Yuma's case, a downtown Brew Pub which opened in the summer of 2001 never recovered from the sudden downturn in spending and closed its doors in early 2003.

The effect on the riverfront redevelopment project was that the developer, C.W. Clark, saw interest in equity investment, especially for retail development, dry up. The city and C.W.Clark met in mid-2002 to discuss next steps and what was a reasonable timeframe for actual "in-the-ground" development. City staff pointed out that property acquisition from state and federal agencies would be time-consuming and projected that it would be another 24-36 months to amass all the land necessary to facilitate development.

Photo: Matthew Spriggs

The Yuma West Wetlands Park entrance. This former city landfill is now a 110-acre park and 35-acre restored wetlands. It is the western anchor to over seven miles of planned or restored river greenway.

Another factor forced a wholesale reassessment of the original plan. Historically, Yuma had been underserved in the retail market, but that was about to change. In late 2002, a major Phoenix-based mall developer secured farmland near a key Interstate 8 interchange and announced plans for a one-million-square-foot development, bringing in major national chains which had never been in the Yuma market. Scheduled to open in late 2004, Yuma Palms was developed by a joint venture between WDP Partners of Phoenix, Yuma-based Whitman Development, and Dillard's, Inc of Little Rock, Arkansas.

Yuma Palms revolutionized retail spending patterns in Yuma and its surrounding markets, both in Mexico and Arizona. It reduced the "bleeding" of spending into other markets and captured new spending from nearby markets—increasing local sales tax revenues dramatically. Inevitably, however, the new mall meant that downtown Yuma would not be competitive as a major retail center.

THE VISION FOR A REVITALIZED "DOWNTOWN NEIGHBORHOOD"

While city staff concentrated on land acquisition, C.W. Clark fundamentally rethought the nature of the riverfront redevelopment over the next 18 months. The hotel/conference center on the riverfront remained as the lynch-pin project. It would serve as the northern anchor of Madison Avenue, with the city's new Municipal Complex as the southern anchor of Madison Avenue. The retail portion was reduced considerably and served as the link between Yuma's Main Street and the riverfront hotel.

City staff and C.W. Clark agreed that the redevelopment should concentrate on new residential growth and office development. Clark commented at the time: "We need to build a retail market by attracting people downtown to live, to work, and to enjoy entertainment and culture. The retail here will follow, not necessarily lead."

To test the residential market, the city and C.W. Clark entered into an "early action" development agreement to build five "Shopkeeper" units on a vacant 12,000-square-foot site along Madison Avenue adjacent to the riverfront area. (The "Shopkeeper" unit includes 600 feet of office/retail downstairs with a two-car garage, and a 1,200-square-foot, three-bedroom residential unit upstairs.) Other than a land write-down to $2/square foot, C.W. Clark received no incentives to build this project. The project overcame some challenges – particularly in the mortgage financing of such a mixed unit – and was completed in 2004. All five units have been sold and are occupied. Based on this experience and general residential growth in Yuma, the new plan called for 40-80 condos, with the potential for another 50-60 rental units.

In 2004, another opportunity presented itself. In recent years, downtown Yuma had emerged as the headquarters for the city and county governments—and now the federal government expressed a strong desire to locate a new 50,000-square-foot federal courthouse in the downtown. After a competitive and wide-ranging search, the federal selection committee chose a site in the riverfront redevelopment area. In order to secure the federal courthouse, C.W. Clark agreed to relinquish his exclusive rights to develop the three-acre parcel. Clark believed that the overall project required the federal courthouse, which would generate other new office demand as well as create synergy with the riverfront hotel/conference center.

From these elements, a new plan for redevelopment was crafted. It now represented a more balanced approach to development, based on four foundations: residential, government/office, restaurant/entertainment, and retail. While more viable in the marketplace, the plan would still require some creative financing and innovative approaches to cement the public/private partnership.

Photo: Matthew Spriggs

Early action project creating "Shopkeeper" units just south of the Pivot Point, Yuma project site.

CREATIVE FINANCING

Throughout 2004, city staff worked with the city attorney's office and an economic consultant, Nielsen-Fackler Planning and Development, to craft a Development and Disposition Agreement (DDA). The ambitious plan had an initial multi-million dollar financing gap for the hotel conference center portion, but financial projections indicated that the overall project would generate a net financial revenue benefit to the city of over $22 million in a 15-year period if the gap were closed.

The challenge was to develop mechanisms to offset the early-year financial gap and get the lead project, the hotel and conference center, off the ground and viable.

- The first tool was one of the most commonly-used: land write-down, but with a twist. The city, once it had amassed the riverfront property, did not want it to move into private ownership. Thus it provided a zero-cost 50-year lease for the hotel/conference center property, with some reinvestment required in the later years and the property and improvements will return to the city at the end of the lease term. Other property within the project was leased for 50 years at 20 cents per-square-foot-per-year, with escalations built in every five years.
- The exception to the lease-only strategy was the for-sale residential condo development area of three acres adjacent the Yuma Main Canal which would be sold to the developer at fair market value.
- Since the state of Arizona does not have tax-increment financing, the city had to explore another avenue: the Government Property Lease Excise Tax (GPLET) and abatement. Basically, the GPLET is a mechanism to tax private development on government-owned property at a lower rate than standard property taxes. It also allows a full abatement of property taxes for the first eight years. The full eight-year abatement was used for Pivot Point.

- While GPLET provides obvious benefits to the developer, it also provides a more nuanced benefit to the city. The DDA established a Municipal Services Fee, which ensured that, after the first eight years, the developer paid the equivalent of full property taxes, but the difference between GPLET and full property taxes went to the city. Since the current property tax structure primarily funds school districts and the county (the city relies heavily on sales tax), this was a mechanism for the city to recoup some of its initial investment.
- The city wanted a downtown conference center of at least 18,000 square feet as part of the project, but the developer's pro forma did not cash–flow with that additional capital cost. In order for the conference center to be viable, the city agreed to invest $4 million in revenues from the project (from the surcharge, lease proceeds, land sales, etc) over a ten-year period into the project as an incentive to the developer to build and maintain the conference center.

Photo: Matthew Spriggs

City of Yuma staff, Developer, State Historic Preservation Officer, National Trust for Historic Preservation, and National Park Service working on the "Yuma Crossing Design Guidelines" to allow for the historic preservation covenant to be removed from the hotel and conference center property.

- There was considerable concern that, once the conference center was built, it would operate at a loss and the developer would tend to neglect its upkeep. To resolve this issue, the DDA included a Riverfront Development Surcharge of one percent on all sales tax eligible transactions within the project area. The surcharge is a contractual agreement and not a tax. Those funds would be collected by the developer at the point of sale and remitted to the city. For the first ten years, 100 percent of these funds are then returned to the developer for the maintenance and operation of the conference center. Thereafter, the city and developer would split these revenues, with the city's share restricted to public investment within the downtown.
- Finally, the city provided for sales tax rebates of up to 70 percent of sales tax generated within the project area over 15 years to cover infrastructure and structured parking costs. These rebates are performance-based. The developer is only assured of being made whole to the extent that the development is built out and generates sufficient taxable sales.

By the end of 2004, the DDA was ready to be taken to City Council for consideration.

Certainly the most difficult and most crucial land transaction involved two acres right in the middle of the proposed hotel site. This was federal land deeded to Arizona State Parks as part of the creation of the Yuma Quartermaster's Depot State Historic Park. A historic preservation covenant was placed on all the property deeded to the state with the intent of protecting the important historic resources of the park but was included on the vacant land to create a buffer for the park.

AMASSING THE LAND

Before the DDA could be taken to City Council for consideration, however, the city had to develop a plan to secure the land from the state and federal agencies. Only a sustained and persistent — if at times frustrating — effort by city staff assured success, as five separate and complicated transactions were involved, including helping fund and facilitate relocation:

1. **National Guard Armory site (3 acres):** In 2000, the city proposed to build a new "Readiness Center" in the far eastern section of Yuma called the "east mesa". The idea was to combine a community/recreation center within a new facility to meet the needs of a growing National Guard. The city was able to secure both federal and state appropriations for the new project and agreed to buy the old site for $450,000, so long as those funds were reinvested in the new facility. The new facility was completed in 2004, and the city cleared the old site by the end of 2004.
2. **USBP Yuma Sector Headquarters site (1.5 acres):** In this case, the Border Patrol had long since outgrown this downtown location and was building a new headquarters, which opened in 2003. Fortunately, the city had only leased this site to the Border Patrol for 50 years in 1954 and the property returned to the city in 2004.
3. **Arizona State Parks Vacant Land (2 acres):** Certainly the most difficult and most crucial land transaction involved two acres right in the middle of the proposed hotel site. This was federal land deeded to Arizona State Parks as part of the creation of the Yuma Quartermaster's Depot State Historic Park. A historic preservation covenant was placed on all the property deeded to the state with the intent of protecting the important historic resources of the park but was included on the vacant land to create a buffer for the park.

The two-acre parcel was vacant and blighted. Part of it was leased to the city of Yuma's water treatment plant for sediment drying basins. The covenant limited its redevelopment to a parking lot. For two years, the city worked with the developer, Arizona State Parks, the State Historic Preservation Officer (SHPO), National Park Service, Yuma Crossing National Heritage Area, General Services Administration, the National Trust for Historic Preservation, and local historic preservation interests to resolve this impasse.

In exchange for the land's release from the federal historic preservation covenant so that the hotel and conference center could be built, the city agreed in 2003 to rezone the entire 22-acre project area with an historic overlay and require all construction to adhere to the "Yuma Crossing Design Guidelines" (Guidelines). The Guidelines required only those projects built within the National Historic Landmark Boundaries to be reviewed and commented on by the SHPO and approval for all projects rested with the local Historic District Review Commission.

The Guidelines were written in a manner so that a new design would be sensitive to the historic context and yet allow the designer to approach the project in a creative manner. Through the process of developing the guidelines, Clark-Lankford gained a fuller appreciation of the significance of being able to bring new construction into a National Historic Landmark. In fact, the developer was so impressed by the history of the area that not only was the architecture tailored accordingly, the project was branded "Pivot Point, Yuma" after the concrete pivot at the terminus of Madison Avenue which is the last remnant of the 1877 railroad crossing into Arizona and abuts the east wall of the hotel.

4. **US Bureau of Reclamation (USBR) "orphan" parcels (approximately 1 acre):** These small random parcels scattered throughout the project area required an act of Congress for USBR to transfer to the city in a land exchange and purchase agreement. USBR and city staff began working on the land transfer in 2000. After testimony before the Senate by the mayor and with tremendous support from Senator Kyl, the 109th Congress passed the authorizing legislation in the last hours of the congressional session in December 2006.

   Although these parcels are not a part of the lead project, they are critical to another important public improvement, an Arizona Welcome Center across the street from the western boundary of Pivot Point and critical to the construction of the for sale condominiums in the second phase. Work is ongoing to finalize the exchange and purchase of properties and is expected to be complete in 2008.

5. **US Fish and Wildlife (USF&W) Kofa National Wildlife Refuge Headquarters (Headquarters) (1.5 acres):** From 2000 to 2006, the city worked with the USF&W to relocate the Headquarters. The city supported efforts to secure federal appropriations for a new facility and had originally hoped to complete the transaction through the USF&W regional office.

   There was a change in management and in opinion as to the level of authorization required to process the land transfer in 2005. In order for the site to come to the city and not be sold through the standard GSA disposal process, an act of Congress was required. The city's congressional delegation was able to insert this purchase into the pending USBR land transfer bill. In the final hours of that Congressional session, language was inserted that directed the city's fair market value purchase of the property to be redirected into the new USF&W Headquarters and not into the general treasury. The new facility will be complete in early 2008, making way for clearance and redevelopment.

MAKING THE DEAL

In November 2004, Yuma City Council voted overwhelmingly to proceed with the DDA, which would facilitate $100 million of private investment on Yuma's riverfront. The DDA envisioned several phases of the project, with the $32 million Hilton Garden Inn and Conference Center as the cornerstone project. The phasing also factored in when various parcels would be

Timeline of the Pivot Point, Yuma project:

- 1999 Riverfront Team formed
- 1999 RFQ/RFP issued for the Pivot Point, Yuma project
- 1999 Clark-Lankford, LLC of La Jolla, CA selected
- 2000 Property assembly begins
- 2000 Settling tank hill demolished
- 2000 Master planning begins
- 2001 First master plan complete
- September 11, 2001
- 2001 Yuma Riverfront Master Redevelopment Plan adopted
- 2002 Reevaluation begins
- 2002 New city hall complete
- 2002 West Wetlands Park opens
- 2003 East Wetlands Restoration project construction begins
- 2004 Federal courthouse site selected
- 2004 US Border Patrol clears former headquarters site
- 2004 New National Guard Center complete
- 2004 Development and disposition agreement approved
- 2005 Demolition of the former National Guard Armory complete
- 2005 Historic covenant released, hotel site purchased
- 2006 Land transfers authorized by the US Congress
- 2006 New master plan complete
- 2007 US Fish and Wildlife Service site purchased
- 2007 Gateway Park opens

acquired by the city, which would occur between 2004 and 2008. The DDA also contained a "performance schedule", which required the developer to build the project in a set timeframe, or risk losing the exclusive rights to undertake later phases.

CONSISTENT POLITICAL LEADERSHIP AND A NETWORK OF PARTNERS

Perhaps the most noteworthy aspect of this project was that, through three different city administrators, two mayors, and a changing composition of City Council, riverfront redevelopment was never a "political football". Public opinion surveys over eight years consistently reflected strong support for riverfront development, with approval ratings running as high as 88 percent. Success was based on a continuous roll-out of new improvements with the support of the city's political and administrative leadership. It was also based on a high degree of coordination and cooperation among city departments, as well as with federal and state agencies.

Most telling has been the growing partnership between the city of Yuma and the Quechan Indian Tribe. The partnership began with a joint effort to restore and re-open the historic Ocean-to-Ocean Bridge in 2002, grew as the partners collaborated to restore the Yuma East Wetlands, and culminated when the Quechan made substantial investments in the city's downtown and riverfront.

LOOKING TO 2009

The public/private partnership is already yielding tremendous returns. The riverfront Hilton Garden Inn and Conference Center is under construction and will open in the fall of 2008. The companion Gateway Park opened in the summer of 2007, and the "Pivot Point Interpretive Site" adjacent the hotel interpreting the 1877 railroad crossing is in design. Featured will be a relocated 1907 Baldwin steam locomotive and tender on the Madison Avenue rail alignment, a synchronized sound system simulating the sounds of a steam engine chugging through town, and a laser light system showing where the 1877 rail bridge crossed the Colorado River.

In response to this private investment, the state of Arizona recently appropriated $4 million to build an Arizona Welcome Center as another gateway feature to the community. Located on previously mentioned USBR land to be acquired by the city of Yuma this year, this project is under design. There is no doubt that this investment by the state is a direct result of the continued success of the Pivot Point Partnerships.

The forecasted direct economic benefits to the city of Yuma of this public/private partnership are over $22 million in revenues in the first 15 years. The intangible benefits, such as the projects impact on the Arizona Welcome Center, are greater and probably more significant. The "Pivot Point, Yuma" project is reshaping the image of Yuma to all of the Southwest, and sets the stage for continued growth in the 21st Century.

What's Your Professional Development Plan?

IEDC's wide range of education courses are the leading source of learning for economic development professionals at all levels.

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- Economic Development Credit Analysis
- Real Estate Development and Reuse

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- Economic Development Finance Programs
- Economic Development Marketing and Attraction
- Economic Development Strategic Planning
- Entrepreneurial and Small Business Development Strategies
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- Neighborhood Development Strategies
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INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

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NEWS FROM IEDC

FORTY YEARS OF URBAN ECONOMIC DEVELOPMENT SYMPOSIUM IN PHILADELPHIA

On October 8-9 in Philadelphia, IEDC hosted "Celebrating 40 Years of Urban Economic Development," a meeting of the leading economic development professionals whose careers encapsulate the past 40 years of urban economic development. Participants reflected upon the past 40 years of urban economic development and looked ahead to the challenges that economic developers face today and will be facing in the coming decades.

This two-day event has been elaborated upon in a paper, which aims to capture many of the invaluable "lessons learned" and to create a living history of the participants' experiences to inform the next steps in the field of urban economic development.

ECONOMIC DEVELOPMENT RESEARCH PARTNERS

The Economic Development Research Partners Program (EDRP) is a relatively new membership level designed to help the economic development professional community with cutting edge research. EDRP participants collectively engage in the development of a research agenda that they believe will better enable communities to weather the challenges of globalization.

Participants meet several times annually to brainstorm among their peers on issues of critical economic development concern while providing feedback to information products to ensure they are strategic yet practical and widely relevant to all size communities. In August, the EDRP partners developed a research agenda and in September of this year they worked through a workplan. Strategic information tools are being developed for distribution in 2008.

ADVISORY SERVICES PANEL TO THE CITY OF NEW ORLEANS

IEDC developed an Organizational and Programmatic Plan for the City of New Orleans Economic Development Division. The project assessed the division and recommended strategies for effective staffing and program structures and functions. The IEDC member team included Tom Flynn, CEcD; Maria Mullins; Ron Coan, CEcD; and John Zakian, CEcD. They were joined by IEDC staff Ed Gilliland, CEcD and Rebecca Moudry.

2008 FEDERAL FORUM

The 2008 Federal Forum, to be held April 13-15 in historic Alexandria, Virginia, is centered on the Innovative and Entrepreneurial Environment: Where It's Going and How to Get There. Advancing on last year's theme of keeping America competitive, the 2008 Federal Forum takes these issues to the next level with different tracks on the techniques used to attain a competitive environment for communities, and ultimately, America.

The forum will take a fresh look at what to expect from a new presidential administration and how the White House will work with Congress. With no incumbent president or vice president running for the presidency in 2008, the opportunity arises for a new dialog of ideas, especially in the area of economic development.

Listen to the insiders and experts on what to expect with the transitioning administrations and how it will affect the economic development community.

2007 CALIFORNIA WILDFIRES ECONOMIC RECOVERY ASSESSMENT

IEDC partnered with the Business Civic Leadership Center of the US Chamber of Commerce to send a team of experts to San Diego County to offer economic recovery technical assistance. The team worked with the San Diego Regional Chamber, local chambers and business and community stakeholders. The final report highlighted the role of government in collaboration with the private sector in facilitating current and long-term economic recovery. The project was funded through a grant from the Office Depot Foundation.

MAKE 2008 YOUR YEAR TO ATTAIN CEcD DESIGNATION!

Take the next step in your career, and reward yourself for your commitment to the economic development profession. Join the body of Certified Economic Developers (CEcD). See IEDC's Calendar of Events for exam dates.

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

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CALENDAR OF EVENTS

IEDC sponsors an annual conference and a series of technical conferences each year to bring economic development professionals together to network with their peers and learn about the latest tools and trends from public and private experts. IEDC also provides training courses throughout the year for professional development, a core value of the IEDC. It is essential for enhancing your leadership skills, advancing your career, and, most importantly, plays an invaluable role in furthering your efforts in your community.

For more information about these upcoming conferences and professional development training courses, please visit our website at www.iedconline.org.

CONFERENCES

2008 Leadership Summit
February 3-5, 2008
Orlando, FL

2008 Federal Forum
April 13-15, 2008
Alexandria, VA

Building Cutting-Edge Public-Private Partnerships
June 8-10, 2008
Charlotte, NC

2008 Annual Conference
October 19-22, 2008
Atlanta, GA

PROFESSIONAL DEVELOPMENT

Business Retention and Expansion
January 7-8, 2008
San Antonio, TX

Economic Development Marketing and Attraction
January 9-10, 2008
San Antonio, TX

Economic Development Strategic Planning
Jan. 31-Feb. 1, 2008
Orlando, FL

Neighborhood Development Strategies
February 7-8, 2008
New Orleans, LA

Economic Development Credit Analysis
February 11-13, 2008
San Antonio, TX

Economic Development Marketing and Attraction
February 28-29, 2008
Atlanta, GA

Technology-led Economic Development
April 16-17, 2008
Alexandria, VA

Managing Economic Development Organizations
April 24-25, 2008
Baltimore, MD

Real Estate Development and Reuse
May 5-6, 2008
Billings, MT

Economic Development Credit Analysis
June 4-6, 2008
Charlotte, NC

Business Retention and Expansion
June 25-26, 2008
Savannah, GA

Workforce Development for Economic Developers
July 24-25, 2008
Baltimore, MD

Real Estate Development and Reuse
August 7-8, 2008
Monterey, CA

Business Retention and Expansion
August 26-27, 2008
Oklahoma City, OK

Entrepreneurial & Small Business Development Strategies
September 8-9, 2008
Louisville, KY

Economic Development Credit Analysis
October 6-8, 2008
Butte, MT

Real Estate Development and Reuse
October 16-17, 2008
Atlanta, GA

Entrepreneurial & Small Business Development Strategies
November 6-7, 2008
Baltimore, MD

Business Retention and Expansion
November 17-18, 2008
New Orleans, LA

CERTIFIED ECONOMIC DEVELOPER EXAM

Mar. 15-16, San Antonio, TX
(Appl. Deadline: Jan. 14)
April 12-13, Alexandria, VA
(Appl. Deadline: Feb. 11)
June 7-8, Charlotte, NC
(Appl. Deadline: April 7)
October 18-19, Atlanta, GA
(Appl. Deadline: Aug. 18)

RECERTIFICATION FOR CERTIFIED ECONOMIC DEVELOPERS

Fulfill a recertification requirement without tapping into your budget! Earn two credits towards your next recertification by having an article published in the Economic Development Journal, IEDC's quarterly publication.

This is one of a number of ways that you can pursue recertification credits. Submissions are accepted throughout the year. The Journal Editorial Board reviews all articles and determines which articles are accepted for publication.

For more information contact Jenny Murphy, editor, at murp@erols.com (703-715-0147).

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

The Power of Knowledge and Leadership

community capitalism

By Ron Kitchens, CEcD

"If you don't like change, you're going to like irrelevance even less." Those words by American four-star General Eric Shinseki could just as aptly describe today's worldwide battle for business as they do the need to morph military strategy with the changing times. Economic development in the 21st century is vastly different than it was even a decade ago. Companies, business models, and entire industries rise and fall with astonishing speed. Companies routinely merge, acquire competitors, restructure, relocate, expand and fail. Competitors can materialize next door or on the other side of the globe.

The picturesque Kalamazoo River winds through downtown Kalamazoo, with both historic and modern office buildings in the distance representing the city's celebrated past and promising future.

Recognizing that it was on the road to irrelevancy in the late 1990s, Kalamazoo, Michigan, responded by embracing change. The focus of its economic development efforts shifted dramatically from attracting big new manufacturing plants to creating an environment where existing and new business can grow and thrive. Rather than engage in rearguard efforts to retain jobs, the community has worked to figure out ways to enable and encourage dislocated employees to start companies of their own. The focus has been less on marketing the region as something it might become to making the most of existing resources. Finally, the community has relied less on incentives tailored to individual companies and more on creating the infrastructure that entrepreneurs and corporations can use as a platform for growth.

The results of this new "Community Capitalism" approach – as the innovative business model is now being called – speak for themselves. During the past four years, more than 25 life science start-up companies have launched in the region. The community leveraged nearly $1.6 billion in private and public investments to nurture the companies. Families are moving back into the city and there has been a marked up tick in real estate prices and public school enrollment. The unemployment rate for West Michigan now stands significantly lower than the rest of the state at 5.2 percent compared to 6.9 percent statewide.

All communities are unique, but the experience in Kalamazoo in recent years holds several important lessons on how cities and regions can make the most of their existing resources. Not all components of the region's quest for relevancy can be replicated, but many can. More importantly, the mindset and the sense of partnership and innovative thinking can inspire similar approaches. Here is Kalamazoo's story with the hope that it will serve as a model on how other communities can re-imagine their economic potential.

Ron Kitchens, CEcD, is the chief executive officer of Southwest Michigan First and the general partner of the Southwest Michigan First Life Science Venture Fund. He is also a director of the Southwest Michigan Innovation Center. For more information, call (269) 553-9588 or visit www.southwestmichiganfirst.com.

KALAMAZOO COMES BACK FROM THE BRINK

Like many cities across America's so-called "Rust Belt," Kalamazoo, Michigan, had suffered a long period of economic decline since the 1980s. Community and business leaders, educators, and the region's privately funded economic development organization, Southwest Michigan First, however, took a radically different approach to spur a reversal of fortunes. Now dubbed "Community Capitalism" and gaining national recognition for its successes to date, the economic development strategy rests on a set of initiatives, partnerships, and public-private efforts to revitalize the local economy by tapping into existing local resources – rather than looking to the state or federal government for help. The innovative model received IEDC's 2007 Multi-Year Economic Development Program Award for areas with a population of 50,000-200,000.

The Southwest Michigan Innovation Center, an incubator for life science companies, has launched more than 15 successful companies since it opened in 2003.

UNCOMMON RESPONSE TO COMMON PROBLEMS

Like many areas across America's so-called "Rust Belt," Kalamazoo had suffered a long period of economic decline since the 1980s when factories hummed making everything from Gibson Guitars to Checker Cabs. In 1999, a General Motors stamping plant closed, laying off 4,000 people. Six paper mills closed between 1999 and 2001, putting 1,200 people out of work. Perhaps most devastating was a series of mergers and acquisitions at Pfizer that eventually led to the loss of 4,000 high-paying jobs.

These business closings left a void in the city's tax base since most of the organizations that remained downtown – government, colleges and universities, theaters, museums, and other non-profit groups – were tax-exempt. The void forced tax increases on the city's lower class, driving families out of Kalamazoo and creating a disturbing domino effect: poverty, struggling schools, slipping home values, and shrinking middle- and upper-class populations.

When faced with similar problems, many communities would have looked to the state or federal government for help or thrown time and money at temporary solutions. Subsidized housing, shelters, food banks, lower standards for education, and programs for at-risk children are among the stopgap measures that cities often rely on in times of distress.

Kalamazoo, however, took a decidedly different tact. The community took to heart the proverb "If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a lifetime." Community and business leaders, educators, and the region's economic development organization began pulling together as never before to pool resources to attack the problem from a fundamentally different angle and create innovative programs to spur a "reversal of fortunes" in Kalamazoo.

Now dubbed "Community Capitalism" and gaining national recognition for its successes to date, the economic development strategy rests on a set of initiatives, partnerships, and public-private efforts to revitalize the local economy by tapping into existing resources. Simply put, the region dug deep into its own pockets to find the money and talent to place a high priority on education, funding for new companies, and opportunities to invest in local companies and programs. A description of some of the key initiatives follows.

SOUTHWEST MICHIGAN INNOVATION CENTER

It wasn't rocket science to see the writing on the wall at Pfizer. Big pharmaceutical companies across America had been consolidating and downsizing and with the mergers and acquisitions at Pfizer, many in Kalamazoo knew that one of its major employers was at risk. Rather than dread the day and be paralyzed by fear, the community took a bold step and built a 53,000-square-foot life

You're Fired to You're the Boss

When long-time Pharmacia/Pfizer executives David Zimmermann and Robert Gadwood got the word that Pfizer decided to move some of its pharmaceutical research operations out of Kalamazoo, they had two choices: pull up stakes and move elsewhere with the company or try to find a way to stay in the community. Thanks to forward thinking by Kalamazoo business leaders, a state-of-the-art business incubator with wet lab space was nearly ready to open.

The scientists jumped on the opportunity, founded a medical chemistry contract research firm they named Kalexsyn (www.kalexsyn.com), and were among the first life science start-ups to move into the Southwest Michigan Innovation Center. In addition to the low-cost space, Kalexsyn benefited from a $225,000 loan received through Western Michigan University's Biosciences Research and Commercialization Center (BRCC). The fledging company was also able to obtain free scientific equipment that Pfizer had donated to the university.

Kalexsyn grew rapidly, recording sales of $2.8 million in 2006. In March 2007, the company broke ground on new headquarters in Western Michigan University's Business Technology and Research Park near where the incubator is located. The new 20,000-square-foot building, outfitted with highly advanced laboratories and technology systems, will allow the firm to increase its staff from 23 to 32 employees.

Kalexsyn Chief Executive Officer David Zimmermann recalled recently, "I was a scientist, not a businessman. But the support we received at a time when our future looked bleak made all the difference in our ability to succeed."

Two other recent graduates of the Southwest Michigan Innovation Center are:

- **PharmOptima** (www.pharmoptima.com/) – This pre-clinical research and discovery company, which provides consulting and laboratory services with a goal of discovering antibiotic treatments for infectious diseases, announced plans to move into its own 10,000-square-foot facility in Portage Commerce Park in February 2007. Founded in 2003 with a staff of 10 people, the company recently hired its 25th employee and expects to expand to 35 employees by late 2007.
- **AureoGen Biosciences** (www.aureogen.com) – Another of the Innovation Center's original tenants, AureoGen was founded in 2003 by Dr. Ake Elhammer and Dr. Jerry Slightom – both former employees of Upjohn and Pharmacia. The company focuses on the development of novel, genetic engineering technologies for the discovery and production of cyclic peptide-based drugs. The company relocated in October 2006 into larger space about five miles from the Innovation Center.

science incubator to provide entrepreneurs with the wet lab space they needed to start companies of their own. When Pfizer announced that it would close its doors and lay off some 1,200 employees in 2003, the Southwest Michigan Innovation Center (www.kazoosmic.com) in Western Michigan University's new Business Technology and Research Park was ready to open. Rather than the announcement being an economic nail in the coffin, displaced scientists had the "bricks and mortar" and support system they needed to start their own companies rather than move elsewhere for employment.

Financed by $5 million in funds from the state of Michigan and $7 million from the city of Kalamazoo, Kalamazoo County, and private donors, the completely debt-free Innovation Center has been a resounding success. Some 15 companies have been born and nurtured at the center and all are still thriving today with upwards of 200 employees – many of whom are former Pfizer scientists. Three companies have already graduated and moved into their own facilities nearby (see sidebar on previous page) and several more are expected to graduate in the year ahead.

With a high percentage of the Kalamazoo Promise recipients opting to attend either Western Michigan University (shown here) or Kalamazoo Valley Community College, the region also benefits from the program.

The Michigan Technical Education Center at Kalamazoo Valley Community College (http://mtec.kvcc.edu/), which opened in 2001 as a collaborative effort among business, education and public leadership, has also provided valuable incubator space for life science companies that do not need wet lab space. It is now home to eight start-up companies, with several former Pfizer workers retained. It has also graduated one company into its own space.

KALAMAZOO PROMISE

In November 2005, anonymous donors from Kalamazoo's business community announced the Kalamazoo Promise (www.kalamazoopromise.com), a fund that pays 65-100 percent of the tuition of every Kalamazoo public school graduate that enrolls at a Michigan state college or university. The program – hailed as one of the most innovative economic development tools to ever be implemented in this country – has had a rapid and profound impact on the city.

In the 2006-2007 school year, enrollment in the Kalamazoo public school system increased by 986 students after a long period of decline. New students came from 88 Michigan communities, 32 different states and nine foreign countries. Local realtors began advertising

Home prices have shot up 10 percent since the Kalamazoo Promise was announced. Many realtors now advertise that homes in the Kalamazoo Public School district are "college tuition qualified."

"College Tuition Qualified" and "Education: Key to the Future" on homes inside the public school district. Home values have shot up 10 percent since 2005 and new home sales are up for the first time in 20 years.

In 2006, $1.2 million of the $2 million Kalamazoo Promise money used by college-bound students remained in the Kalamazoo community, with 73 percent of the recipients opting to attend either Western Michigan University or Kalamazoo Valley Community College. Equally important to the city's future is that the percentage of Kalamazoo public school students applying to college has increased by more than 10 percent in four years – from 79.6 percent in 2002 to 89.7 percent in 2006. The percentage of female African-American students attending college also jumped from 60 percent in 2005 to 93 percent in 2006.

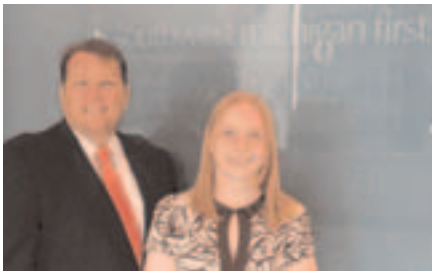
The Kalamazoo Promise, which has garnered worldwide media attention, has spurred numerous communities across America to mimic the program. Southwest Michigan First has consulted with leaders in North Dakota; Newtown, Iowa; El Dorado, Arkansas; and Orange, Texas, about how they might structure and launch their own version of the Promise.

THE MONROE-BROWN INTERNSHIP PROGRAM

Taking the Kalamazoo Promise one step farther, Kalamazoo announced the launch of a powerful new Monroe-Brown Internship Program in November 2006. The program, which bridges the gap between higher education and the local business community, is designed as an intellectual capital retention tool that works to keep the region's most talented students after graduation by connecting them with scholarships, internships, job openings, and networking events throughout the region.

In its inaugural year, 13 Kalamazoo-based businesses, including Stryker Instruments, A.M. Todd, Landscape Forms, CSM Ground, and life science start-ups like ProNAi and ADMETRx, agreed to hire a total of 20 interns at a working wage and offer a $500 bonus to all students who completed the program. With matching funds from the Monroe-Brown Foundation (www.monroebrown.org), participating students from Kalamazoo College, Western Michigan University, and Kalamazoo Valley Community College earned nearly $9,000 each in scholarship money, bonuses, and hourly wages.

Taking the Kalamazoo Promise one step farther, Kalamazoo announced the launch of a powerful new Monroe-Brown Internship Program in November 2006. The program, which bridges the gap between higher education and the local business community, is designed as an intellectual capital retention tool that works to keep the region's most talented students after graduation by connecting them with scholarships, internships, job openings, and networking events throughout the region.



Now a senior at Kalamazoo Valley Community College, MaryKate Compton was hired by Ron Kitchens at Southwest Michigan First as a summer intern as part of the community's highly successful first year of the Monroe-Brown Internship Program.

Feedback after the first year has been glowing. Students gain real-world career experience, a valuable regional network, and enough scholarship money in some cases to offset tuition costs. Meanwhile, employers saw the benefits in terms of helping them quickly and affordably build a talented and well-trained workforce.

Bob Brown, president of the Monroe-Brown Foundation, commented, "We wanted to create an internship program that would reward students for staying and growing in Kalamazoo…These are talented individuals that may have otherwise spent their summers working in other cities, but they have chosen to stay here. We hope they make that decision again after graduation."

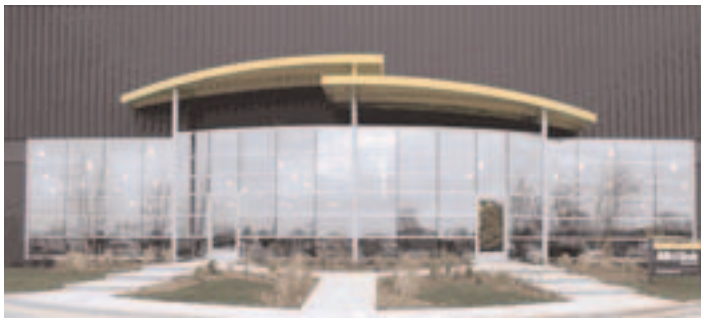
SOUTHWEST MICHIGAN FIRST LIFE SCIENCE VENTURE FUND

One of Kalamazoo's most potent economic development recruitment tools is its new Southwest Michigan First Life Science Venture Fund (www.southwestmichiganfirst.com/VentureFund.cfm). At $50 million, it is believed to be the largest sum of private capital ever to be raised and managed by an economic development organization. What also sets the venture fund apart is that its Scientific Board – made up of top scientific investment advisors from around the world – will only invest in companies that commit to a relocation or expansion in Kalamazoo.

With a focus on funding early-stage life science and medical device companies that fit well in its growing cluster in these knowledge-based industries, Southwest Michigan First has already funded five companies and expects to fund an average of six companies each year. EADevices (www.eadevices.com), which is developing energy-assisted medical devices such as biopsy needles, was attracted to Kalamazoo from Pittsburgh, Pennsylvania, by the seed capital the fund provided. The company's founder and CEO, Joshua Gerlick, remarked recently, "When our company received funding, we not only received the opportunity to relocate and to grow, but we were also introduced to a community that I know will help us grow and succeed in the future."

MIDLINK BUSINESS PARK

When General Motors closed its 2.2 million-square-foot stamping plant in 1998, Southwest Michigan First swung into gear to make sure that the massive facility did not soon become a "white elephant" like so many other automotive plants that dot the American landscape. The organization worked closely with Los Angeles-based Hackman Capital Partners and public and private partners to transform the dilapidated facility into a start-of-the-art business park.



Instead of letting the former General Motors stamping plant become a white elephant in the community, Southwest Michigan First worked with Hackman Capital Partners to transform the facility into the state-of-the-art Midlink Business Park.

Most dramatic was the move to divide the colossal facility into two separate buildings with a truck bay and loading docks down the middle. Hackman also re-branded the facility as Midlink Business Park (www.midlinkbusinesspark.com), with a more commercial image, with new lighting, paint, and landscaping. The 340-acre business park is now bustling with new tenants, drawn by its strategic location on the I-94 corridor mid-way between Chicago and Detroit, tax incentives provided by Michigan's Renaissance Zone program, and other benefits. Additional land is also available for office, industrial, and retail development.

GIRL SCOUT TRAINING AND PROGRAM CENTER

Going well beyond cookies and campfires, the Girl Scouts of Glowing Embers Council (www.gsgec.org) launched a bold new national urban model when it opened a sparkling new $4 million Program and Training Center in Kalamazoo in September 2007. Seven years in the making and funded with nearly 1,000 gifts from local foundations, businesses, and individuals, the center expects to reach 6,000 girls annually with up to 200 different programs in everything from math and chemistry to etiquette at a high-end city restaurant.

The center's goal is to introduce girls from rural areas to an urban environment to improve their chances of success if they go to colleges or jobs in the city. "Some girls have never seen a revolving door or an escalator, ridden a city bus or a train, eaten ethnic food or been to a big library or museum," said Jan Barker, CEO of the Glowing Embers Council. "Those girls might struggle when thrust into an urban environment, believing that they are less smart simply because they had no previous exposure to a city. That can shatter self-esteem quickly and lead to girls dropping out of college or leaving a good job."

A far cry from the typical school or church basement where most troops meet, the 27,000-square-foot center also provides an attractive location for the community to get involved. Plans call for local chefs, artists, and business executives to lead classes on cooking, art, and goal setting, for example. The center will also offer programs during Christmas vacations and spring breaks for girls that have never been away from home for either. Day camps and after-school programs are in the offing, too.

RADISSON REVITALIZATION

When Pharmacia announced that it would divest itself of all non-pharmaceutical businesses following its merger with the Upjohn Company, Kalamazoo businessman William D. Johnston knew that the company would rid itself of the Radisson Plaza Hotel and Suites (www.radisson.com/kalamazoomi) in the heart of downtown Kalamazoo. The Greenleaf Companies founder also knew that it would be difficult for an outsider to invest the money or imagination necessary to revitalize the hotel and conference center and turn it into the gold standard that Kalamazoo needed.

Rather than let the epicenter of Kalamazoo's downtown business community languish, Johnston purchased the Radisson from Pharmacia in May 2000 and got to work. He renovated the hotel from top to bottom, inside and out. Today, the 850,000-square-foot complex boasts 341 rooms and sufficient meeting space to make it the fourth largest conference and convention property in Michigan. The hotel's occupancy rate has risen steadily and should finish 2007 at 64 percent – a full five points higher than the state average. The hotel employs 680 people and brings 850,000 people to downtown each year as guests, diners, and conference goers. The four-diamond hotel currently ranks fifth among the 850 Radisson Plaza and Suites globally for its 260 percent increase in business during recent years.

The multimillion-dollar renovation of the Radisson Plaza and Suites was crucial to downtown revitalization efforts in Kalamazoo.

LESSONS LEARNED

With perspective that sometime only the passage of time can bring, Southwest Michigan First can offer the following "lessons learned" as the region has built its Community Capitalism model:

Think Ahead: When Pfizer announced its lay-offs in 2003, the Southwest Michigan Innovation Center was ready to open. Rather than the announcement being another devastating blow to the economy and the community helpless to do anything about it, displaced workers had the wet labs and office space they needed to get their feet back on the ground and remain in Kalamazoo. Thinking ahead and being proactive rather than reactive, paid off in spades for Kalamazoo and can for many other communities, too.

Be Bold: By taking the ultimate "build it and they will come" leap of faith to invest in the speculative incubator when there was not even a single lease commitment, Kalamazoo was able to retain its valuable scientific talent and avert the "brain drain" that so many other communities experience in the same situation. Bold initiatives rather than band-aid solutions are often what it takes to survive in today's ultra-competitive environment.

Find Partners: Southwest Michigan First could not have accomplished what it did on its own. The Kalamazoo Promise was made possible by the beneficence of anonymous donors with faith in the city's

future. To take the Promise one step further, the economic development organization partnered with a local foundation dedicated to furthering higher education to launch the Monroe-Brown Internship Program. Almost every community or region has pockets of wealth or organizations that can be tapped into for the greater good. Be creative about finding partners.

Provide Capital: No doubt about it: money talks. The Southwest Michigan First Life Science Venture Fund has attracted companies to Kalamazoo that might otherwise have gone elsewhere. It may be difficult for some communities to raise $50 million in private capital, but a much smaller seed fund will pay good dividends for a region's future if invested wisely in companies with good growth potential.

Spread the Word: When the Kalamazoo Promise was announced, Southwest Michigan First immediately recognized a golden opportunity to promote the highly unusual economic development program well beyond the region. It hired a New York City public relations firm to launch an aggressive media relations campaign to get the word out. The program made front-page news in *The Wall Street Journal*, was featured on ABC News and CNN, and grabbed headlines in *The New York Times*, *The Washington Post*, *The Chicago Tribune* and a number of other national newspapers and magazines. Most recently, Katie Couric traveled to Kalamazoo and did a five-minute segment on the Kalamazoo Promise for CBS Nightly News. Kalamazoo's appeal as a business location was no longer a best-kept secret and the city's turnaround got another strong shot in the arm.

With the steady drumbeat of positive press, Kalamazoo attracted the attention of the editors at *Fast Company* magazine and the city became the first ever to be named to the publication's prestigious "Fast 50" list in 2007. Kalamazoo's signature business model of Community Capitalism also got its first mention by name. A business book on Community Capitalism and lessons from Kalamazoo and beyond is now in the works.

CONCLUSION

As John F. Kennedy once said, "Change is the law of life. And those who look only to the past or the present are certain to miss the future." In today's fiercely competitive, global battle for business, communities that are stuck in the old model for economic development will wither and die. Those that embrace change and initiate their own version of Community Capitalism – in whatever form it might take – are on the road to relevancy and being able to compete for the next century.

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APRIL 13-15, 2008 ■ ALEXANDRIA, VA

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partnership builds a

KNOWLEDGE ECONOMY IN PONCA CITY, OKLAHOMA

By David Myers, CEcD

Located in the heart of the Great Plains 100 miles from three different metropolitan areas, Ponca City, Oklahoma, is what some might call strategically remote. Others, noting that the economy was built upon natural resources, would call the town of 25,000 rural, while others might simply say it is the epitome of small town America. For anyone familiar with Ponca City, however, there is total agreement that for most of its 100-year history, it was the classic company town.

HOME TO CONOCO OIL COMPANY

Founded following the Cherokee Land Rush of 1893, Ponca City became the home to the Conoco Oil Company. At its pinnacle in the mid 80's, the company employed over 5,000 people in Ponca City

Conoco operated three oil refineries in Ponca City, numerous office buildings, several state of the art research labs, oil transportation facilities, and more. Conoco employees enjoyed such onsite amenities as restaurants, full service gyms, a swimming pool that would make most five star hotels blush and, until recently, the community's only Starbucks.

In 2002, however, Conoco merged with Phillips Petroleum Company and shifted a number of employees to Houston while others were laid off. The refineries, the research labs, the oil transportation center, and other business functions remained but most were reduced. In short, the former Conoco campus became a shell of its former self.

The ConocoPhillips Ponca City campus and the University Multispectral Laboratory (UML). The UML can be seen to the right of the two towers.

Employment at the now ConocoPhillips site in Ponca City dropped to 1,500 employees in 2003, a level that is still generally consistent with today.

The impact on the community was considerable and it is not the subject of this article. The economic and psychological upheaval, however, was profound. It is a story told in many other rural communities hit hard by a global economy that takes no prisoners.

After the merger took effect, the community took a very hard and honest look at the economic

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RURAL COMMUNITY CONNECTS WITH CORPORATION AND UNIVERSITY TO REINVENT ITS ECONOMY

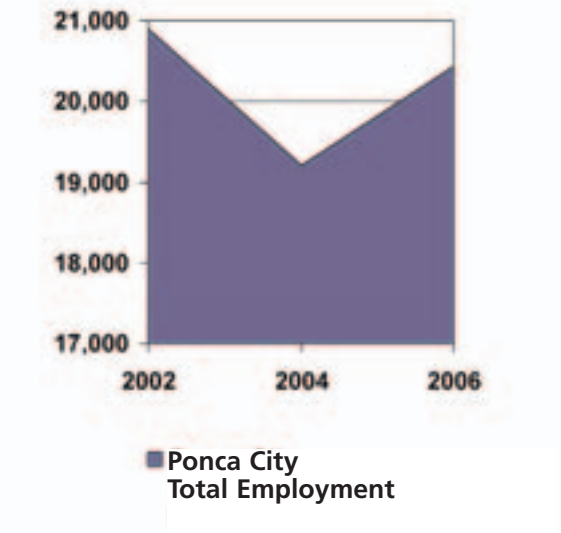
Many rural communities have been forced to reinvent themselves as a result of global economic changes. Ponca City, Oklahoma, was a company town for Conoco Oil for almost a century until a corporate merger in 2002 created significant economic upheaval. Seeking to diversify and develop a new economy based upon knowledge jobs, Ponca City aggressively sought to build economic ties with universities, businesses, and government agencies that were located outside the community. The result was the December, 2006 announcement of the University Multispectral Lab, a joint project of Oklahoma State University, ConocoPhillips, and the Ponca City Development Authority. The project received the 2007 IEDC Partnership Award for areas with a population of less than 50,000.

situation. With what was arguably a community consensus, community leaders made several difficult structural changes to the way the community approached economic development. These changes, described below, were designed to make Ponca City more aggressive and agile in the now imperative task of diversifying the economy.

One of the most contentious issues was the goal of pursuing knowledge-based jobs. Many in the community felt that a rural area could not be successful in this area, arguing that the lack of a university and an urban environment would make such an effort futile. They urged a strategy focused on the attraction of a large durable goods manufacturer in spite of the lack of an available workforce. Another vocal minority simply wanted a return to the past, although the methodology to achieve this goal was never fully defined.

Several key elected officials and business people, however, noted that the facilities left vacant by the merger included buildings that could be adapted to technical and scientific work. In addition, many of the newly unemployed energy industry workers were endowed with technical training. The combination provided the community with an excellent foundation upon which to build a new economy.

In July, 2003, the Ponca City Development Authority (PCDA) was formed by the city of Ponca City, separating most economic development functions from the chamber of commerce. The city commission appointed a seven-member board of trustees comprised of business people and a search was conducted for an executive director. PCDA was charged by city leaders with focusing on economic base jobs in a very streamlined manner while the chamber concentrated its work on retail and the important task of chamber business.



The 2002 merger between Conoco Oil and Phillips Petroleum had a significant impact on employment. Recent job growth has almost made up for jobs lost earlier this decade.

The Conoco Museum, located directly across the street from the UML, marks Ponca City's past as the birthplace and former home of a global corporation. The UML, local leaders believe, is building the foundation for the next century of economic growth.

The change also provided PCDA with the proceeds from the city's one-half cent sales tax dedicated to economic development. This tax, first approved by the voters in 1994, had already been successful in attracting a food processing plant and a call center. PCDA was now tasked with taking this resource and developing economic base jobs that could potentially replace the high wages paid by the mostly now departed Conoco management.

One obstacle facing the community, however, was that the sales tax was set to expire in October of 2003. The mayor and city leaders put their credibility on the line, promoting a vision of an economy that was knowledge based and not completely reliant on natural resources. Voters accepted the vision and approved a five-year extension of the tax by a margin of four to one.

BUILDING A PARTNERSHIP WITH A UNIVERSITY

In order to tackle the challenge of building a knowledge-based economy in a rural area, PCDA looked south 45 miles to Stillwater, home to Oklahoma State University (OSU). OSU was one of the state's two public comprehensive universities with a strong research base and, more importantly, a desire to aggressively grow that base.

PCDA consciously made a partnership with OSU a strategic objective. This began with developing relationships at the highest levels of the university administration through both PCDA staff and community leaders, even though a specific objective had not yet been identified.

The goal of establishing these relationships was based upon the assumption that connectivity to a research university was important, even if that university was not in town. Indeed, the lack of a university in the community made the need to connect to one even more vital in order to truly be successful in building knowledge-based jobs. Lacking a university did not mean we could not compete for knowledge-based jobs, it simply meant we had to work harder to do so.

As PCDA and the community were busy building bridges to the university, OSU researchers, separate and

Even though Oklahoma State University is not located in Ponca City, its mission as a land grant institution encourages the university to work with communities from across the state.

apart from the PCDA initiative, had begun to identify a potential niche for the university in the growing area of sensor research. Sensors are an almost $10 billion and growing annual industry in the United States. OSU had a strong history of participation in this field and wished to capitalize on its expertise to become a leader in the field.

The field of sensor research was growing, but the testing and evaluation of sensors was not keeping pace. University and commercial scientists developing sensors had limited opportunities to validate their work through a neutral third party. There was, OSU scientists discovered, no universally recognized "trusted agent" that could tell the market place that the sensor worked as advertised.

This was a particularly acute problem for the military. Sensors are vital parts of many mission critical components used by the armed forces. Testing a sensor in the field or "in theater," to use military jargon, is problematic at best.

Current sensor testing is done on an ad hoc basis. Many companies do their own, improvising tests and facilities and hoping the customer will accept their data. Others take it to independent labs that may be able to do some degree of testing and provide a third party validation. Such testing, however, is generally limited to one field, (i.e. chemistry) and is typically quite expensive.

ESTABLISHING A NATIONAL SENSOR TESTING CENTER

A national sensor test and evaluation center with the ability to test sensors in a wide spectrum of disciplines would allow military, commercial, and university researchers to have this work performed in a facility that is dedicated exclusively to this task, not as a sideline. The center would, in effect, give the customer confidence that the sensor did exactly what it said it would.

With its experience, expertise, and international reputation, OSU decided that it was well positioned to develop such a facility. But since it also participated in sensor research, the university recognized that a facility run by Oklahoma State on the OSU campus could defeat the important goal of being a "trusted agent." Another location was needed.

Meanwhile, back in Ponca City, the merger that created ConocoPhillips also created redundant facilities as the two companies became one. One facility no longer needed by the merged company was a 70,000-square-foot wet/dry lab on the Ponca City ConocoPhillips campus known as "Research East." The building, a three-story structure with the entire physical infrastructure required by a 1960's era lab, was suggested to OSU as a candidate site.

The university toured the facility and decided that it could potentially accommodate the proposed national sensor testing center. Several challenges were identified, however, including the age of the facility, the ownership of the building, the logistics of separating the lab from the ConocoPhillips campus, and more. Community acceptance was also an issue as many citizens of Ponca City did not understand what a sensor test and evaluation center was. Others resisted any changes they felt might discourage ConocoPhillips from returning any of the lost oil related jobs to the community.

For its part, ConocoPhillips was open to discussing the idea of using the vacant lab for the project. Its local leadership was, after all, comprised of Ponca City residents and they were acutely aware of the impacts to the community resulting from global economic changes. They were also business people and very sensitive to the business dynamics involved.

The UML also has a small facility in Stillwater where it connects directly to the campus of Oklahoma State and tests experiments that cannot be performed at the facility in Ponca City.

With an annual growth rate of 16%, and over 5,000 new sensors being developed each year, the international sensor market is a $6-$10 million (U.S.) industry.

Source: Oklahoma State University

The community was quite anxious to promote the facility as the new home for the national sensor test lab. After significant discussions with the university and the company, which involved numerous community leaders and the state of Oklahoma, a plan was developed.

DEVELOPING A PLAN TO MOVE FORWARD

At the strong urging of the Ponca City delegation to the state legislature, the state appropriated $125,000 for a feasibility study on the project. This was matched by an investment of $80,000 from PCDA. The study was bid and the contract awarded to AMTI, a consulting firm with expertise in the field.

The feasibility study concluded that the center would fill a national need; that there was potential funding available; the building had the physical characteristics desirable for a national sensor testing center; and the environmental, political, and financial risks were manageable. In short, the feasibility study green lighted the project.

From the perspective of Ponca City, this was welcome news. The study was not, however, an entirely optimistic appraisal. While the market and the timing were good, taking advantage of the opportunity would require a world class facility with top researchers and state of the art equipment. According to the feasibility study, funding was in place for operational support, but not for renovating the building or equipping the lab.

There was enough good news in the study to encourage the university to agree to fund a business plan for the center. Discussions began at the same time among the community, the company, the university, and the state about identifying the resources to turn Research East into a modern world class test and evaluation center.

Within three months, the business plan was completed and a copy was given to PCDA. The results, from the perspective of the creation of economic base jobs, were impressive. A total gain of 80 knowledge workers with 63 additional positions, a total annual payroll of over $7.5 million, and a capital investment of $27.5 million at build out was projected. Using PCDA's economic impact software, it was estimated that the project would create a positive economic impact of $140 million over the next ten years.

The completed business plan, and the opportunities it uncovered, accelerated the discussions among all parties. The university knew, from the studies, that it could financially operate the center. PCDA knew that it would be a major economic benefit to the community, bringing highly coveted knowledge-based jobs to a rural community, no small feat today. ConocoPhillips saw the opportunity to turn a stranded asset into a community resource benefiting a major supplier of workforce, (OSU) and one of its heritage communities.

UNIVERSITY MULTISPECTRAL LAB

On February 6, 2006 at City Hall in Ponca City, OSU, ConocoPhillips and PCDA jointly announced an agreement that would create the new University Multispectral Lab, (UML). The community, through PCDA, would invest $2 million in facility improvements. That community investment would be matched dollar for dollar by ConocoPhillips. The company would also donate the building to the university and provide a ground lease to the company for one dollar per year. The university would contract with AMTI (recently changed to Triton, LLC) to operate the facility, investing millions in university research resources to develop a truly world class center.

The funding from PCDA and ConocoPhillips, worked out between the two partners, calls for the funding to be spread out over four years with separate triggers required before the next round of funding can be provided. These triggers are intended to make the economic development incentives performance based and insure that the center is actually developed. They include specific operational benchmarks, job counts, community representation, and more. The triggers also restrict the funding to Ponca City to insure that it is not co-mingled with the university's sizeable regular budget.

This was not even the end of the beginning. The $4 million economic development incentive would be a good start towards the development of the physical plant, but more was needed. Ponca City's state delegation went back to work, securing capital improvement funding in both the fiscal 2006 and 2007 funding cycles.

The new University Multispectral Laboratory in Ponca City is housed in a 70,000-square-foot building that used to house Conoco oil research prior to the merger with Phillips Petroleum.

There was also a considerable amount of work to be done on completing the actual operational agreements for the facility. These issues included security and fence line questions, the issue of potential access for UML employees to ConocoPhillips facilities, the separation of utilities from the ConocoPhillips campus, first response issues, and many more. In addition, the UML was already actively seeking business and needed a place to operate until Research East was physically ready to become the new home to the center.

Fortunately, the partnership established at the beginning of the project created a sense of mission that allowed the partners to find solutions to these potential problems. "Can we do it" was replaced with "how do we do it?"

All of the issues were resolved one at a time throughout the remainder of 2006. On December 13th, the cer-

emonial keys to the door and the first checks from PCDA and ConocoPhillips were turned over to the university.

Less than one year later, the UML has landed its first major multi-million dollar contract for test and evaluation work. More significantly from the perspective of the community, there are 15 employees already on the job in Ponca City, working out of temporary quarters elsewhere on the ConocoPhillips campus until the phase one of the renovation is completed, scheduled for the end of 2007. As of this writing, the UML has already met the second year job creation requirements of 15 employees and had also satisfied the organizational benchmark of forming a separate 501(c)(3) corporation with community representation on the board of directors. Achieving these two milestones allows the UML to receive phase-two funding from PCDA and ConocoPhillips.

To fully maximize the potential of the center including spin-offs into the community, the partnership is expanding to include Pioneer Technology Center, Ponca City's public vocational technical training facility. Talks are under way with the local school district as well to develop alignment between the potential career paths of the future and the education of today.

CHALLENGE

The challenge of attracting knowledge workers to a rural community does not stop with job creation. As noted by many others, this breed of creative worker has many options and does not just follow the work.

In May of 2007, the voters of Ponca City approved a bond measure to develop a community wide recreation center, similar to those found in urban areas. Cultural centers in the community have been established and new housing options are in the planning stages. Targeted retailers are breaking ground and regional and national events are being recruited to provide a wide variety of options for residents new and old.

The impact of the UML on Ponca City will clearly go well beyond the economic impacts originally projected. Through the development of the partnerships mentioned earlier, Ponca City now has the soft infrastructure to grow an innovative economy in a rural area.

Most significantly, Ponca City has a new mission and a bright future. The UML accomplished something almost unimaginable five years ago. It has reinvigorated a community that once thought itself left behind by the global economy.

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This is an incredible opportunity to strengthen the communities in which we operate, and the profession as a whole.

For further information on membership details, please contact: Mary Helen Cobb, Director of Membership and Development at 202-942-9460 or mcobb@iedconline.org

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

The Power of Knowledge and Leadership

critical steps in the

CLUSTER BUILDING PROCESS

By Neil Reid, Michael C. Carroll, and Bruce W. Smith

INTRODUCTION

Hundreds of communities around the world have implemented cluster-based economic development (CBED) programs (Solvell et al. 2003). Products ranging from thoroughbred horses (Akoorie 2000) to Formula One racing cars (Henry and Pinch 2001) are being produced by industries that are part of an industrial cluster. Starting and maintaining an industrial cluster are challenging processes.

In an earlier *Economic Development Journal* article, we examined the challenges in initiating and maintaining a greenhouse industry cluster in northwest Ohio (Reid and Carroll 2006). The northwest Ohio greenhouse cluster was formally launched in January 2005. Since its inception, we have had the opportunity to reflect on the process of starting and managing a successful industrial cluster. In this article, we would like to share these reflections. In particular, we suggest a methodology for moving a cluster from identification to implementation. This methodology outlines a series of steps that are taken *once a particular industry has been identified as a target of cluster-based economic development.*

Numerous methods exist for identifying which industries might be legitimate candidates for a cluster-based economic development strategy. They can be identified through an analysis of industries that currently drive a local economy. Target industries can also emerge from political and industry interests. For example, the impetus for the development of a northwest Ohio greenhouse cluster resulted from strong interest on the part of the local Congresswoman to make the local greenhouse industry more competitive.

Northwest Ohio windmills. The region is in the process of developing an industrial cluster around emerging alternative energy technologies.

Interest on the part of a local industry can also provide the genesis for the development of an industrial cluster. For example, in northwest Ohio, businesses engaged in providing architectural, engineering, and construction services are in the very early stages of developing a cluster-based strategy for their industry.

Previous research has provided methodologies for identifying target industries (Feser et al. 2005, Rey et al. 2005) and has addressed the critical issue of financing (Osama and Popper 2006). However, there have been few attempts at providing a comprehensive and integrated methodology for cluster implementation.

CLUSTER-BASED ECONOMIC DEVELOPMENT

To provide a context for the methodology presented here, it is necessary to understand our con-

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THE ART AND SCIENCE OF CLUSTER-BASED ECONOMIC DEVELOPMENT

Economic development efforts organized around the concept of industrial clusters are increasingly popular. One of the challenges facing communities wishing to adopt such a strategy is the lack of a standard methodology that can be implemented once potential cluster industries have been identified. This article provides such a methodology. The methodology described in this article has been developed as the result of the authors' experience in developing a very successful greenhouse cluster in northwest Ohio. It is designed to assist any industrial cluster that is in the very early stages of implementation.

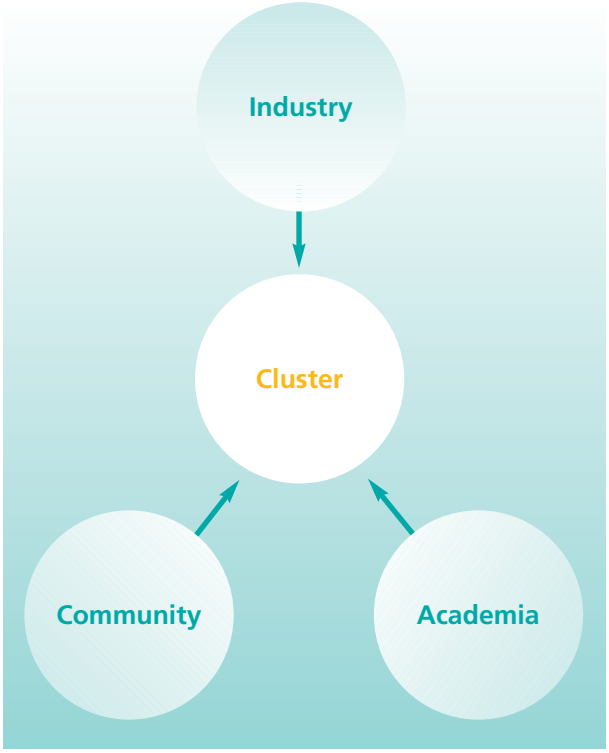
ception of CBED. An industrial cluster comprises a geographic concentration of firms within a particular industry. It extends beyond core firms, however, and includes any other actor or agency in the region who can contribute to the industry's competitive success. A cluster, therefore, should include supplier firms, university researchers, economic development practitioners, consultants, and any other individual or entity from the industry, academia, or the regional community who has skills, expertise, or resources that are of value to the industry (Figure 1).

The key to a successful cluster is collaboration among the members of the cluster. As noted by Porter (1998, 88), "the mere co-location of companies, suppliers, and institutions creates the potential for economic value; it does not necessarily ensure its realization". Similarly, Schmitz (1999, 1628) notes that "external economies are important to growth but are not sufficient to ride out major changes in product or factor markets; that requires joint action".

Joint action is the cornerstone of any successful cluster. Joint action allows members of an industry to collectively address challenges and solve problems that individual firms are incapable of addressing or solving by themselves. There are numerous examples of the advantages of collaboration within the framework of an industrial cluster (see for example Wolverhampton Telford Technology Corridor 2005 and Yorkshire Forward 2007).

If collaboration is paramount to a successful cluster, it follows that identifying the key people is critical. Elsewhere (Reid and Carroll 2006), we have argued that the infrastructure needed to operate a successful cluster be comprised of a Cluster Steering Committee (CSC), Cluster Strategy Team (CST)[1], Program Manager, and Cluster Champion. Selecting the appropriate people to fill these positions is critical to the success of any cluster. The people serving in these positions are the human glue that holds the cluster together. To a large extent, the success or failure of the cluster depends upon their performance in their respective roles. The methodology outlined here can help cluster initiatives to identify the best people to fill these various positions.

Figure 1.
Cluster Partners
Industry, Community, and Academia



GLOSSARY

CBED – Cluster-based Economic Development is a development technique that addresses challenges that may not be solvable by individual firms working in isolation.

CSC – Cluster Steering Committee is the group of people who initiate the process of starting a cluster.

CST – Cluster Strategy Team is the advisory and visioning group that is responsible for the oversight of the cluster.

I/O – Input/Output Analysis is an economic technique that identifies inter- and intra- industry linkages.

MSA – Metropolitan Statistical Area is a geographic entity consisting of a core urban area of 50,000 or more population and adjacent counties that have a high degree of social and economic integration with the urban core.

NAICS – North American Industrial Classification System provides industrial categories for reporting statistics about business activity in the U.S., Canada, and Mexico.

PCM – Potential Cluster Member is an individual or an organization that has the potential to contribute to the cluster.

PCR – Potential Cluster Regions are areas that potentially can support clustering activity because they contain the necessary concentration of firms in the industry and its associated supply chain.

SNA – Social Network Analysis provides a quantitative (and graphical) measure of the strength of interpersonal relationships within a defined group of people.

SWOT Analysis – Strengths, Weaknesses, Opportunities, Threats is a traditional technique for assessing the competitive environment of a firm or industry.

KEY STEPS IN FORMING A CLUSTER

In this section, we describe the step-by-step methodology that a new cluster initiative utilizes. This methodology should be implemented after a particular industry has been identified as a target for CBED (Figure 2).

A Cluster Steering Committee (CSC) will be responsible for implementing this methodology, after an industry has been identified as a target. The CSC is composed of a group of people in the region (from industry, academia, and/or the community) who have an interest in organizing an industry along the lines of a cluster.[2] Depending upon its genesis, the CSC may be more or less formal in nature. For example, if a local economic development agency is leading the cluster initiative, the CSC may be a formally designated ad hoc committee. Alternatively, the cluster initiative may result from more informal interactions among members of the industry and/or academia. In these cases the CSC might be a self-appointed, more loosely structured, group.

Define the Core Industry

It is critical that the core industry or industries being targeted for CBED be clearly defined at the very start of the cluster development process. Failure to define the core industry or industries at this early stage can result in ambiguity with regard to who should be at the table in the early phases of cluster formation. Later on, the article will describe the methodology used to define the core industry's supply chain.

If the core industry is a mature and established industry within a region, we recommend using the North American Industrial Classification System (NAICS) codes for the purposes of definition (U.S. Census Bureau 2002). Utilizing NAICS codes for defining the core industry is advantageous because one can easily access public data for analytical purposes. For example, in our work with the greenhouse industry in northwest Ohio, we defined the industry according to NAICS code 111422 (floriculture production). The product line covered by this NAICS code was a good match with the output of the northwest greenhouse industry.

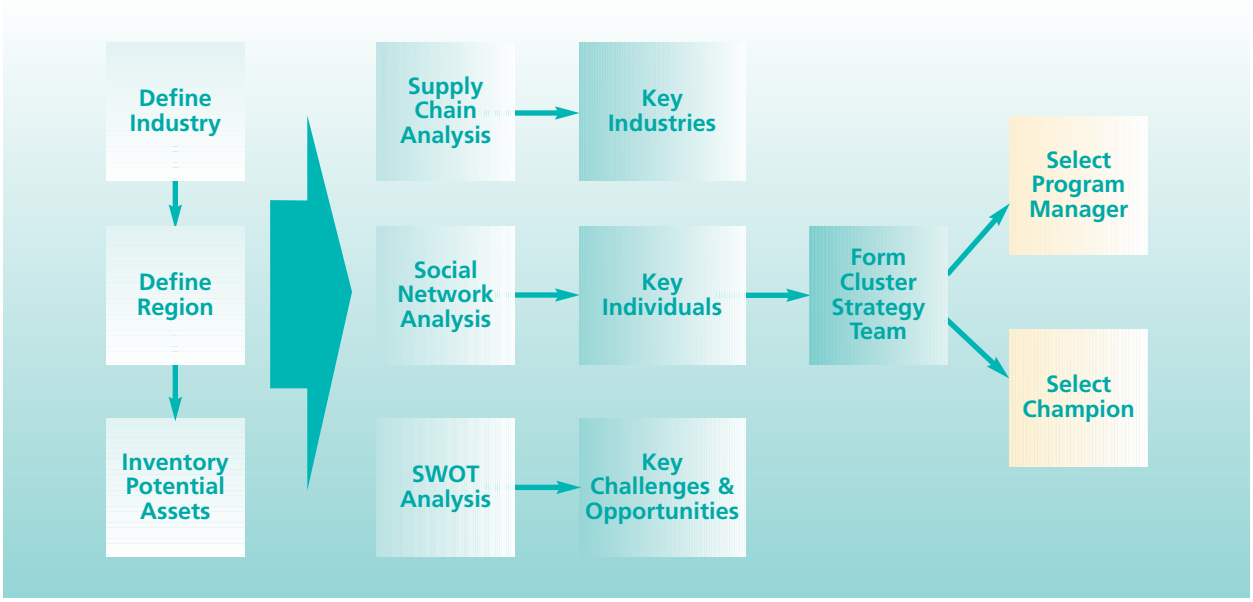
In some cases, NAICS codes may be of limited or no use in defining core industries. Some core industries, for example, are distributed across such a large and diverse number of NAICS codes. When this occurs, NAICS codes are problematic for the purposes of industry definition. The auto parts industry provides an example of such an industry. In a survey of over 300 auto parts manufacturers in Ohio, Rubenstein and Reid (1987) found that the parts manufacturers were distributed across 17 different Standard Industrial Classification (SIC) codes (SIC codes were replaced by NAICS codes in 1997)

It is critical that the core industry or industries being targeted for CBED be clearly defined at the very start of the cluster development process. Failure to define the core industry or industries at this early stage can result in ambiguity with regard to who should be at the table in the early phases of cluster formation.

NAICS codes are also problematic for defining industries that are at the beginning of the industrial life-cycle. Such industries are not of sufficient size to merit their own NAICS code. Where NAICS codes are not useful in defining the industry, it may be necessary to draw upon locally-based experts in the industry to provide definition.

The issue of industry definition is a basic, but necessary, first step in the process of building a successful cluster. It is particularly important if there are limited

Figure 2.
Key Steps in Forming an Industrial Cluster



resources to support cluster development. Concise definition of the core industry or industries permits efficient allocation of limited financial resources. It also facilitates efficient use of human resources by helping to identify who should and who should not be involved in the planning for cluster implementation.

Define the Potential Cluster Region

It is important to define the geographic region within which the potential cluster is going to function. Our strategy is to identify the "spatial footprint" of potential cluster regions (PCR). PCRs are areas that potentially can support clustering activities because they contain the necessary concentration of firms in the industry and its associated supply chain. PCR builds on the notion that spatial concentration is a necessary, but not sufficient, condition underlying CBED policy.

We recognize that a CBED is a network driven economic strategy that stresses collaboration among firms in the core industry, local suppliers, local government, and support institutions such as universities, think tanks, and development agencies. Consequently, a PCR only has the potential to be a cluster due to the co-location criterion. From this perspective, the examination of industry location patterns to delineate PCRs should be the initial step in a CBED, thereby eliminating the likelihood of failed cluster projects due to the lack of critical mass.

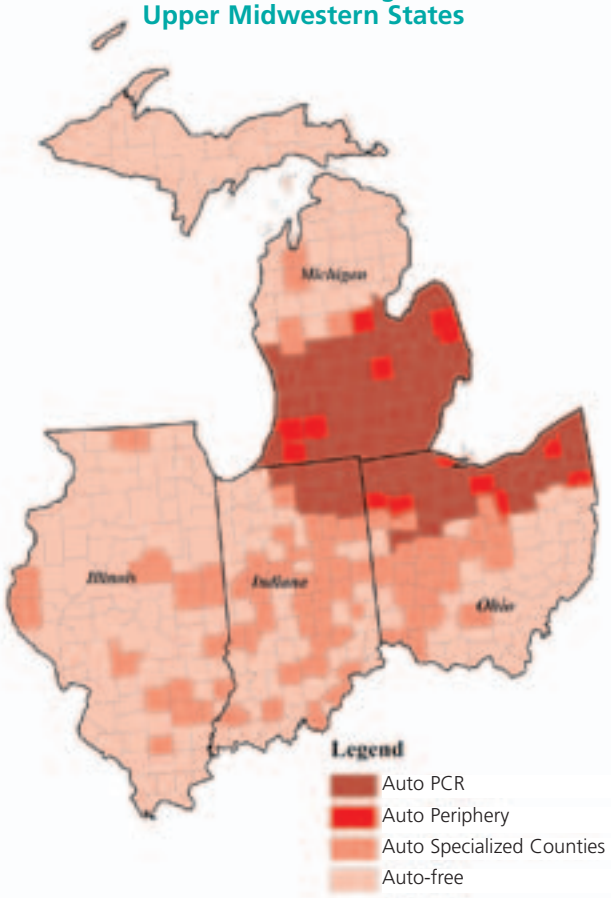
There are two basic approaches to delineating the PCRs. The easiest method is to choose a predefined region. A metropolitan statistical area (MSA), for example, is generally accepted by many analysts as an operational definition of a regional economy (Mayer 2005).

In specific cases, local economic developers may have a broader definition of the regional economy. For example, in northwest Ohio, the regional economy is defined as comprising an 11-county area. This reflects the service area of northwest Ohio's two primary regional economic development agencies - the Regional Growth Partnership (RGP) and the Northwest Ohio Regional Economic Development (NORED) organization. (Regional Growth Partnership, 2007). This definition is geographically larger than the Toledo MSA which comprises only four counties.

Another method of defining the potential cluster region is to derive it empirically using industry data to define the geographic footprint of the industry. Every industry has a unique spatial footprint, which may not conform to predefined regions. Some industrial spatial footprints are localized, encompassing a small number of counties, such as the greenhouse industry, while others are more geographically expansive covering a larger region, such as the auto industry. There are a number of quantitative methodologies relying primarily on census data, which can be used to define the geographic footprint of potential cluster industries (see for example Feser et al 2005, Miller et al 2001).

Our personal preference in defining PCRs is to use a methodology that combines the strengths of location quotients and measures of local spatial autocorrelation, such as Getis-Ord G_i^*. Location quotients measure the degree of industrial specialization within a county compared to the nation. In contrast, G_i^* measures spatial autocorrelation at the local level and it identifies "hot spots", or concentrations in spatial distributions in which counties and their neighbors have similar values of a given phenomena.

Figure 3.
Potential Auto Cluster Regions in Four Upper Midwestern States



A high G_i^* value indicates that high values are clustered near each other, whereas a low G_i^* value is indicative of low values being near each other (Wong and Lee, 2005). In this approach, a potential cluster region has location quotients greater than one and significantly high G_i^* values. Thus a potential cluster region is composed of counties which are more specialized in an industry than is the nation, and its neighbors also contain concentrations of that industry.

Figure 3 illustrates the output that can be produced using our methodology. In Figure 3 the counties identified as "Auto PCR" have the potential to be members of a regional automotive cluster. The geographic reach is extensive for the counties that could be part of an automotive cluster in the states of Illinois, Indiana, Michigan, and Ohio.

In reality, the region identified is probably too geographically large to operate as a single functional cluster. However, the information provided by this analysis could be used by a sub-region within the four-state area

to make an informed decision as to which counties should be part of a sub-regional cluster. For example, if northwest Ohio was interested in pursuing an automotive cluster, the Cluster Steering Committee could use the information provided to identify member counties. Another advantage of this methodology is that it can be applied on a nationwide basis, thus allowing identification of potential competitor regions located elsewhere in the country. The national clusters can be viewed as "geographic benchmarks" for monitoring industry trends.

Inventory Potential Cluster Members

Having defined the cluster industry, it is necessary to compile an inventory of potential cluster members (PCM). A PCM is defined as an individual or an organization that has the potential to contribute to the cluster and who, through that contribution, can provide value to the cluster initiative. PCMs should come from industry, academia, and the community (Figure 1).

In compiling the list of PCMs, expansive thinking and inclusiveness should be guiding principles, since it can always be reduced (or increased) in size at a later date. PCMs will provide the basis for the Social Network Analysis that will be conducted at a later date. The list of PCMs should be compiled by the Cluster Strategy Team, in consultation with regional industrial experts.

Conduct Supply Chain Analysis

The industry definition adopted in the first step of this methodology represents the core industries of the industrial cluster. In the case of the northwest Ohio greenhouse cluster, for example, the core industry comprised greenhouses that produce a variety of floriculture products, including bedding plants and hanging baskets. A cluster comprises much more than just the core industry. It also includes all the downstream suppliers of inputs and upstream customers. Identifying these downstream suppliers and upstream customers is crucial.

We suggest using an input/output (I/O) model to identify forward and backward linkages in the regional economy. One such I/O model, IMPLAN (MIG, Inc. 2004), deconstructs economic activity that results from inter- and intra-industry transactions. It uses a sectoring scheme that divides the regional economy into a 500 by 500 matrix.

Having defined the cluster industry, it is necessary to compile an inventory of potential cluster members (PCM). A PCM is defined as an individual or an organization that has the potential to contribute to the cluster and who, through that contribution, can provide value to the cluster initiative. PCMs should come from industry, academia, and the community.

The entries in the matrix are based on the dollar amount that each industry sells to (and purchases from) other industries in the economy of interest. It measures the amount of final consumption by residents of the region, as well as how much each industry exports from the region. County data are, in turn, aggregated or "rolled-up" to conform to the larger regional economy (Carroll and Smith 2006).

I/O modeling identifies supply chain relationships in the local economy. The model shows the dollar amounts an industry purchases from other businesses in the region. For example, a supply chain analysis of the northwest Ohio automotive industry shows that the local automotive industry purchases over $27 million of locally-produced steel pipes and tubes (Table 1).

The model also shows the percentage of the total demand for a particular input is procured locally and how much is imported from outside the region. Again, using the example of the northwest Ohio automotive industry, the model shows 60 percent of its steel pipes and tubes that are produced within the region. Alternatively, 40 percent of the industry's demand for steel pipes and tubes is being met by firms located outside of the local region (Table 1).

Table 1.
Regional Output and Supply Chain Share for Northwest Ohio Automotive Industry

Supply Industry	Regional Output	Local Supply Chain Share
Steel pipes and tubes	$27,950,014	60%
Blast furnaces and steel mills	$42,925,640	8%
Special dies and tools and accessories	$24,510,412	62%
Paperboard containers and boxes	$24,179,072	57%
Legal services	$23,989,134	38%

Source: Calculations completed by authors.

This information is necessary because it helps to define potential cluster members beyond the core industry, identifies existing relationships among regional production units, and identifies gaps in the local supply chain. For example, only eight percent of the northwest Ohio automotive industry's demand for the output of blast furnaces and steel mills is being met from within the local region. This information can be useful to local economic developers as they identify potential targets for their industrial recruitment efforts. The supply chain analysis permits identification of local industries (by NAICS codes) in the chain.

Specific data on firms within relevant industries that are located within the region can be obtained from business directories. There are a number of such directories that provide firm level information. The *Selectory Business Database* available from Dun and Bradstreet (2007) is a particularly useful directory. This database can be scanned to identify local firms that may become potential

cluster members. This information can be utilized to update the established list of potential cluster members.

Conduct a Social Network Analysis

The foundation of any successful cluster initiative is human relationships. Identifying the people who have the most appropriate relationships is critical. Critical relationships are those which are based on trust and respect.

In his book, *The Tipping Point*, Malcolm Gladwell (2003) identifies three types of key individuals – mavens, connectors, and salesmen. *Connectors* are people who are well connected. They know a lot of people within and beyond their industry. *Mavens* are individuals who have an expansive knowledge base about their particular industry. *Salesmen* are individuals with good persuasion skills.

It should be noted that different authors use varying terminology to describe what Gladwell refers to as connectors, mavens, and salesmen. For example, DeSantis (2006) uses the term *bridger* in place of Gladwell's *connector*. The critical issue is not the terminology. Rather, it is identifying the people who have the connections, knowledge, and inter-personal skills that are basic to the successful development of an industrial cluster.

Identifying key people, as well as relationships among cluster members, can be accomplished with social network analysis (SNA). SNA provides a quantitative measure of the nature and strength of inter-personal relationships within a defined group of people. These relationships are revealed by asking potential cluster members questions about their business-oriented social networks. For example, in the northwest Ohio greenhouse industry we asked all potential cluster members:

During the last 12 months, with regard to your work in the greenhouse industry:

1. Who have you worked with on a project?
2. Who has given you advice or support?
3. Who has given you new ideas?

The data collected from this survey are analyzed using specialized software that allows production of a series of network maps (Figure 4) and summary statistics. In mapping the northwest Ohio greenhouse industry, we used InFlow software. InFlow is a commercially available software that can be purchased as part of a package that includes consultant training in both social network analysis and software use (orgnet.com 2007).

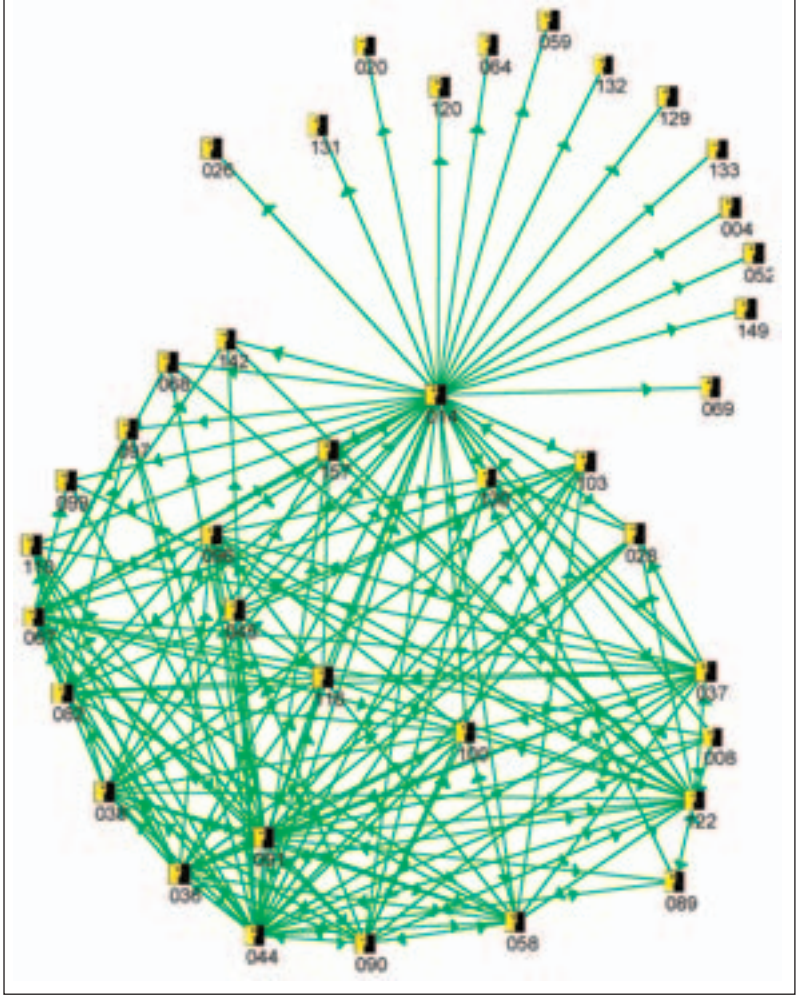
The network maps show the web of relationships that exist among potential cluster members. For example, in the sample network map from the northwest Ohio greenhouse cluster (Figure 4), the person represented as node 014 solely connects 13 people to the group, since those 13 people situated above node 014 in the network map have no other direct connections to the remainder of the cluster members.

Most importantly, the maps allow identification of influential people within the potential cluster. They show the people who members of the potential cluster currently collaborate with and go to for advice, support, and new ideas. These people may not necessarily be the region's *visible* political, social, or economic elite (DeSantis 2006). They are, however, the people who can get things done when it comes to moving the cluster forward and making it successful. They are, according to DeSantis (2006, 34) "the doers whose actual power far exceeds whatever formal authority their societal or even economic status would justify". In other words, they are the mavens and connectors.

The fact that these people may not be visible emphasizes the importance of the social network analysis. Simply talking with the visible leadership in the industry or community may not ferret out key connectors or mavens, but they should emerge through the process of the social network analysis.

Once the cluster is operational, the SNA should be periodically repeated because it is an "x-ray of the inner workings" of the cluster (Cross et al. (2006). It can help diagnose problems stemming from cluster members becoming too isolated or, alternatively, becoming so heavily involved that they do not have time to tend to their own business.

Figure 4.
Sample Network Map from Northwest Ohio Greenhouse Industry



Conduct SWOT Analysis

The next step is to complete a SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis. SWOT analysis has a long history as a strategic planning tool. It is useful with respect to developing an industrial cluster because it can provide focus for the Cluster Strategy Team as it develops action step priorities for the cluster. The results of a sample SWOT analysis are illustrated in Table 2.

The information and data that are necessary to complete the SWOT analysis can be obtained by a variety of methods including surveys, interviews, focus groups, reading trade journals, and conducting quantitative analysis (e.g. shift share analysis). All potential cluster members should be invited to provide their input to the SWOT analysis (US Department of Agriculture 1994).

Select Cluster Strategy Team, Program Manager, and Champion

Having completed the supply chain, social network, and SWOT analyses, the Cluster Strategy Team (CST) can be created from the mavens, connectors, and salesmen identified by the SNA. Ideally, the CST should comprise 10-12 individuals (CLOE 2006), and be representative of industry, academia, and the community.

Representation from all appropriate groups is consistent with the idea of a cluster being a venue for innovations and problem solving as a result of the cross-fertilization of ideas of people from varied points of view. We recommend that 50 percent of the CST comprise individuals from industry, with the remaining 50 percent being divided evenly between academia and the community. Having half of the CST membership from industry ensures that the CST is firmly focused on the needs of the industry.

For a cluster initiative to be successful, it is critical that the needs of the industry be its primary priority. With the CST established, the role of the Cluster Steering Committee (CSC) begins to diminish.

The CST is charged with oversight of the cluster. The first job of the CST is to hire both a Cluster Program Manager and Cluster Champion. We have described both of these positions in detail elsewhere (see Reid and Carroll 2006).

Briefly, the Program Manager is charged with the day to day running of the cluster. This person should understand the process of economic development; be able to communicate effectively with members of industry, academia, and the general community; and have the ability to rally disparate groups of people around the common goal of developing the cluster.

The Champion is the cluster's field agent and spends much of his or her time visiting and talking with cluster members (particularly firms). One of the Champion's major functions is to identify opportunities for collaboration among cluster members and to work with the Program Manager in implementing collaborations.

The Champion should have experience and knowledge of working in the industry and should be someone who is highly respected and trusted by cluster members. The choice of individual to fill the role of Champion should have wide acceptability among members of the cluster.

The ideal Champion should be a salesman, a maven, and a connector. For example, in the early days of the cluster the Champion will be required to sell the advantages of cluster participation to cluster members. As the cluster matures, the Champion will likely interface, as a salesman, with political and community leaders, suppliers, and other key organizations on behalf of the cluster.

Table 2.
SWOT Analysis Results for the Northwest Ohio Greenhouse Industry

STRENGTHS	WEAKNESSES
• Critical mass of growers • Extensive grower experience and knowledge • Passionate and committed growers • Predominantly family-owned and operated • Large regional production capacity • Access to local university, extension and Agricultural Research Service expertise	• Historically, little collaboration between growers • No identifiable market brands • Lack of strategic marketing • Small size of individual growers • Generational nature of business • Heavy reliance on traditional sources of fuel • Old greenhouse buildings • Dated production technology • Limited access to capital
OPPORTUNITIES	**THREATS**
• Increase collaboration with each other • Capitalize on latent market demand • Develop identifiable market brand and improve marketing • Development of niche markets • Alternative energy options available in region • Facility modernization • Adhere to higher quality standards	• Global competition • Price wars with regional competitors • Big Box store purchasing agreements • High and rising utility costs

Implement and Manage the Cluster

With the essential personnel now in place, it is time to implement and manage the cluster. In other words, it is time to move from having a *potential* cluster to having a *functioning* cluster. Again, we have described this process elsewhere (Reid and Carroll 2006).

In brief, the CST should meet monthly. There should be monthly membership meetings that are open to all interested stakeholders. Monthly CST meetings should be held during the week preceding the membership meeting. At these meetings, the agenda for the membership meeting should be established. Both the Program Manager and Champion should attend monthly CST

meetings. On the issue of cluster membership, the CST should decide on the membership rules and also on whether the cluster should have formal status, such as 501(c)3 tax exempt legal status.

It is critical that the newly formed cluster get off to a successful start. The CST should identify some early cluster projects that satisfy two key criteria. First, they should have a high probability of success. Second, they should demonstrate the value of the cluster initiative to cluster members.

CONCLUSIONS

We have outlined in this article a step-by-step methodology for identifying and implementing Cluster Based Economic Development. Creating the human infrastructure is critical to operating a successful cluster initiative. However, some "spadework" is necessary before focusing on the human element. For example, the appropriate geographic region must be delineated and inter-industry relationships examined through a supply chain analysis to capture the key industrial components of the cluster. These steps can be accomplished by academics who have a proclivity for applied research.

In terms of human infrastructure, much of what we have described hinges on finding the right people to fill the positions of Strategy Team members, Program Manager, and Champion. The right people are crucial to the success of any cluster initiative. This is because a successful cluster is predicated on healthy human relationships. This is why Social Network Analysis is such a critical component of this methodology.

Social Network Analysis will contribute to the identification of people with the qualities necessary to be Strategy Team members, Program Manager, or Champion. Equally important, the Social Network Analysis provides empirical evidence of the complex web of social relationships among cluster members. In order to strengthen the cluster, those social relationships must be fostered.

The authors developed the methodology outlined in this article as they went through the process of forming the northwest Ohio greenhouse cluster. The methodology, however, can be applied to any potential industrial cluster. In northwest Ohio, for example, there is interest in applying this methodology to the development of a number of other emerging clusters. These include alternative energy and architecture, construction, and engineering services. The methodology is also being considered as a tool to assist in the development of a greenhouse cluster in southeastern Michigan.

The development of a successful industrial cluster is both an art and a science. Human relationships play a critical role. On the other hand, it is also vital to have a rigorous analysis of available industry data to inform key decisions. The methodology described in this article recognizes the importance of both of these aspects of a successful cluster.

Regardless of the economic strength of an industry in a region, a cluster strategy will fail if critical human relationships are not properly understood and nurtured. This is why social network analysis is such a critical part of the methodology. At the same time, a cluster strategy cannot be successful without precise definition of an industry's economic structure, geographic footprint, challenges to be faced, and opportunities for growth.

The development of a successful industrial cluster is both an art and a science. Human relationships play a critical role. On the other hand, it is also vital to have a rigorous analysis of available industry data to inform key decisions. The methodology described in this article recognizes the importance of both of these aspects of a successful cluster.

The Northwest Ohio greenhouse Cluster Strategy Team: The Cluster Strategy Team provides oversight to the cluster.

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ENDNOTES

1 In the case of the northwest Ohio greenhouse cluster the Cluster Strategy Team is known as a Cluster Advisory Board. As a result of our work on the northwest Ohio greenhouse cluster we suggest that the term Cluster Strategy Team be used as this provides a better descriptor of this group's role.

2 In the case of northwest Ohio, the region's two universities, the University of Toledo (UT) and Bowling Green State University (BGSU), are taking the lead in the development of particular industry clusters. In particular, the Urban Affairs Center at UT and the Center for Regional Development at BGSU are leading their institutions' efforts in cluster development.

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