



EDDA

Economic Development America

SPRING 2007

COMPETING GLOBALLY ★ GROWING REGIONAL ECONOMIES ★ CREATING JOBS

IN THIS ISSUE

The Power of Information: Using Data to Create and Refine Your Economic Development Strategy

Features:

- ★ How a Dose of Data Reality Can Enhance Your Region's Competitive Positioning
- ★ Using Location Intelligence to Attract Retail to Underserved Areas
- ★ Your Regional Knowledge Economy Strategy: Is It Succeeding?



U.S. DEPARTMENT OF COMMERCE
Economic Development Administration

Carlos M. Gutierrez
Secretary of Commerce

Sandy K. Baruah
Assistant Secretary of Commerce
for Economic Development

Matt Crow
Deputy Assistant Secretary
for External Affairs and Communication

Kelly O'Brien
Director of Public Affairs

Bryan Borlik
Deputy Director of Public Affairs

D. Palmer Gleason
Senior Public Affairs Specialist

Louise Anderson
International Economic Development Council
Editor

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Story ideas are invited and should be addressed to editor **Louise Anderson**, telephone (828) 350-8855, email landerson@iedconline.org.

Subscription management: *IEDC members should send updated contact information to Rachel Andrews (randrews@iedconline.org). NARC members should send updated contact information to Peggy Tadej (tadej@narc.org). All others may submit their changes to Louise Anderson (landerson@iedconline.org).*

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Welcome to the Spring 2007 edition of *Economic Development America*.

Living in the Information Age, we are constantly inundated with, well, information. Almost every imaginable fact and figure is literally at our fingertips. Success hinges on the ability to find, sift through and analyze data.

In everyday parlance, the words *data* and *information* are used interchangeably. In computer science theory, there is a clear distinction between data and information: Data are measurements that can be disorganized, and when data become organized they become information. *Information* is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the receiver. In other words, it is the context in which data are taken.

And that's truly what this edition is about: taking data and turning it into powerful *knowledge* that helps you create and refine your economic development strategy. If you hear the terms "information age" and "knowledge economy" on a daily basis, as I do, that's no surprise: Our economy truly has entered a new age, in which information is the key to competitiveness.

This edition showcases some of the many ways that data – transformed into information – play a key role in planning and executing your economic development program. Articles that address strategic planning issues include understanding

your community's competitive position; identifying and selecting clusters where efforts should be focused; and collecting data in order to attract retail development or grow the cultural sector of your economy. Once your strategy is in place, organized, strategic information can help your community sustain high-growth companies, as shown in the article on economic gardening. In addition, tools such as fiscal impact analysis help communities fully understand the effects of their actions, and GIS and other Web-based strategies can help economic development organizations be more effective. Finally, it's of vital importance to look at the "big picture" results of your efforts and evaluate the success of your strategy.

Information is vital to every aspect of the practice of economic development. However, in this increasingly fast-paced world, information overload is a potential setback. That's why collecting the right kind of data, and knowing how to use it, is vital to the success of any economic development strategy.

I would like to thank all the authors for contributing their knowledge to this edition of *Economic Development America*. I trust that you will find this information as valuable as I have in your quest to compete successfully in the 21st century, knowledge-based economy.

Sandy K. Baruah
Assistant Secretary of Commerce for Economic Development



Economic Development Administration
Economic Development Symposia

Mark your calendar!

EDA, its regional offices, the International Economic Development Council (IEDC) and the National Association of Regional Councils (NARC) are hosting a series of Regional Economic Development Roundtable Symposia in 2007.

Don't miss these opportunities for learning, networking, and training related to EDA programs!

<p>Thursday, June 14: Atlanta Regional Symposium in Atlanta, on Disasters and Economic Dislocations: Building a Disaster-Resistant Economy</p>	<p>Wednesday, September 26: Combined Denver/Chicago Regional Symposium in Kansas City, Mo., on Entrepreneurship</p>
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Attendance is free, but registration is required.
For more information, visit
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How a Dose of Data Reality Can Enhance Your Region's Competitive Positioning

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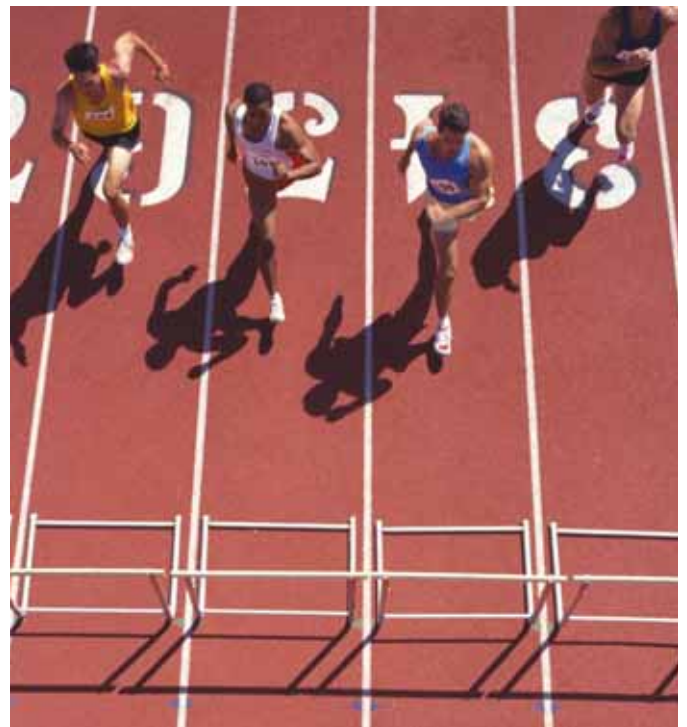
By Gene DePrez

Three trends are disturbing the sleep of regional developers these days. First, globalization has a full head of steam and will not be stopped. Second, the old marketing approaches to attracting businesses aren't working as they once did. And third, regions are recognizing that to stay competitive they must undergo change, perhaps dramatically – but how?

It's hardly news that the practice of economic development is changing as the world globalizes and job opportunities shift. It has been many years since Sun Belt developers could confidently lure industrial-based manufacturing, distribution and transportation businesses with the advantages of cheaper labor – plus government-assisted infrastructure and tax incentives – while Rust Belt regions wrung their hands. This business model is clearly not as effective as it used to be, especially since many of these traditional businesses are not even located in North America anymore – they are in Asia or Eastern Europe, and are looking at even less costly environments in Africa.

The changing model of economic development organizations reflects the findings of the 2006 IBM Global CEO Study. In the report, 765 CEOs around the world placed a high priority on innovation in response to massive shifts in the global competitive marketplace – and indicated that *business model innovation* in particular has the greatest impact on a firm's overall financial performance.

Recognizing that their employment environments are undergoing significant upheaval and that their economies must be redefined, forward-looking regions are successfully exploring economic development in a new way. They are focusing on attracting industries driven by intellectual capital – research, technology and services. These industries generally are more sensitive to idea collaboration and the requirements of venture capital, and are less susceptible to globalization. Instead of looking to government simply for tax and zoning breaks, these industries seek government



assistance in developing public-private value networks to promote collaboration and access to critical services.

Attracting these new industries to an area, and holding on to successful local businesses and industries, requires new thinking. The questions that early-adapting developers have been asking, and no doubt many others will ask soon, are basic, revealing and often uncomfortable. Who are we? What are our real strengths and weaknesses (in-depth, and without hometown bias)? How do our attributes stack up against others? What do prospective employers need and want from communities in this new century? Ultimately, a region needs to ask the most uncomfortable questions of all: Are there more opportunities here, or somewhere else? And even if we have the will to change, how do we do it?

Unbiased benchmarking

While the nature of today's business world may have economic developers pondering these qualitative questions, the quantitative and analytic tools available today can help provide answers and direction. An area that is serious about growing, or turning its economy around, or stemming the loss of established businesses, can employ the same tools and methodologies that businesses use when they explore growing or relocating to a new area.

But first, regions must get real. They must become significantly more systematic about how they view and present themselves. They need a dose of data reality, approaching development the way an investing business does, driven by hard data and rigorous analysis. Regions need a reality test to compare themselves against competitors who might be down the road or half a world away. What are businesses looking at when they make decisions to move or stay? What criteria? What data? What weighting? How do they score? How do they screen?

A true reality test comes from the investor perspective and is concrete, pragmatic and actionable. Businesses don't have the luxury of a second chance when they commit to a major site-location decision. Corporate decision-makers are confronted with a wide spectrum of issues and criteria that they must weigh when screening hundreds of possible candidate locations. These criteria include qualitative indicators, such as workforce availability and quality, access to markets, availability of sites or buildings and dozens of other factors. Criteria are evaluated according to their respective costs, after which decisions are made as to which trade-offs between the criteria and requirements are most acceptable. This is most often done by scoring weighted criteria against major costs categories.

To be a successful site candidate, regions must understand the nuances of these business screening processes, and how the assets of the region mesh with business needs. By employing a disciplined, sequenced approach of competitive analysis – using competitive mapping and benchmarking against peers to drive investment and marketing decisions – regions can better understand themselves and their opportunities.

IBM's five-step, data-driven methodology has helped several areas improve their attractiveness to employers in a variety of industries. We work with a region to build a deep and flexible database tool, drawing from licensed and public sources of information, just as a corporation or its consultants would in their screening process. We look at labor figures, demographics, workforce skills, real estate – data that are real drivers. We then assign weights to the data, and rigorously apply them against the criteria that the region sets. This is a reality test.

The five-step approach

The process begins with understanding the market – analyzing investment trends and matching them with current efforts in specific industrial clusters and location assets. The region will identify the types of industries it wants to target, then understand what drives those industries and their criteria for location.

Next is analyzing competitive positioning. After developing a current product profile of its strengths and capabilities, the region will identify the competing locations it wants to benchmark. Data-gathering follows, with analysis resulting in a list of key strengths and those areas needing improvement. By comparing these data with the initial market analysis, the region will define the most promising industry sectors for its eventual outreach.

The third step is identifying how to improve the region's positioning. Does it need new highway ramps, digital communications infrastructures, or specific skill sets from the community colleges? Gap and sensitivity analyses lead to critical questions of how the region can best invest in itself to improve. Typically, discussions become more intense at this step as planners and leaders wrestle with defining the right equation of cost, quality and value.

Only after the analyses of industry markets, competitive positioning and product improvement are complete does the region explore how to sell its product. Data drive this phase as well. The region aligns marketing initiatives, channels and tools with the findings and opportunities identified in the previous steps, targeting industry sectors and specific companies for both retention and expansion.

If good things already are going on in the region, developers plan marketing improvements to appeal more directly to the needs of the targeted businesses. If negative impressions exist (such as a high crime rate, for example), developers focus on the need to change perceptions based on data. Statistics generalized to a broad area may not be germane to smaller zones and can be misleading, so marketing must provide more context. Facts counter perceptions, and drive solid marketing and communications planning.

Finally, the region implements its plan. There is no single approach to this step – much depends on the region's size, commitment and resources.

Two recent examples of areas that are determined to reinvent their economies are worth noting – the relatively compact metro region of Toledo and northwest Ohio, and the Commonwealth of Pennsylvania, the seventeenth largest economy in the world.

By employing a disciplined, sequenced approach of competitive analysis – using competitive mapping and benchmarking against peers to drive investment and marketing decisions – regions can better understand themselves and their opportunities.

Competitive Positioning: A Five-Step Approach

1. Understand the Market

2. Competitive Positioning

3. Product Improvement

4. Marketing Channels

5. Implement & Integrate

Regional Growth Partnership (Toledo/northwest Ohio)

The loss of 200,000 jobs in auto parts and other manufacturing sectors over the past eight years made this region eager to explore new opportunities in innovative ways. The Toledo area's economic development agency, the Regional Growth Partnership (RGP), initiated the five-step process facilitated by IBM Global Business Services in 2006. The RGP's president and CEO, Steve Weathers, calls the process "the best thing this agency has done in years, and maybe ever done."

The Toledo region underwent rigorous self-examination and benchmarking against 10 U.S. peer communities that have attracted inward investment from large companies despite economic difficulties. It then built a database model to compare 10 industries and discovered, for example, that peer regions are more competitive in auto parts cost and quality. But northwest Ohio stands out in other industries, and is one of most competitive in transportation logistics. While the Toledo area has high quality in medical research and development, it also has high costs, so other regions are more competitive. But the region is highly advantaged in industrial engineering services – the lowest city on cost and second highest on quality. Among the surprises in the data is that costs for specialty food manufacturers are high not because of the workforce, but because of utilities.

The database model that offers these results is flexible and can be updated by researchers at partnering regional universities to adjust for economic changes. Data points include infrastructure, workforce, quality of living and cost of doing business (including labor and land costs, utilities and other factors).

The model highlights industries in which northwest Ohio can compete, such as alternative energy (biodiesel and wind), financial services and electronics. Regional executives say they want to stay ahead of the game, to understand what skills are needed in the new economy and where the region must invest to remain competitive in innovation and technology. A workforce and intellectual capital that can match rapidly changing business strategies are key.

With a solid, community-based tool in place – which the region will continue to refine and upgrade – the next step has been to find the money to invest. The RGP created Rocket Ventures, affiliated with University of Toledo, to target venture funds of specific industries highlighted by the research. Within six months, the RGP and Rocket Ventures moved from a base of zero to more than 60 funding opportunities in a variety of industry segments, including agriculture-related biotechnology and pharmaceuticals.

The Toledo region's next step is to compare itself with similar communities around the world. Although the enhanced tool won't give RGP the answers, as Weathers points out, it gives the agency the ability to find the answers that are right for the region and to put dollars into the areas of greatest impact.

Commonwealth of Pennsylvania

Facing traditional-industry erosion similar to Toledo's, the Commonwealth of Pennsylvania arguably has developed one of the most comprehensive efforts aimed at giving all state and regional officials objective, data-driven development tools. The Global Competitiveness Initiative analyzes the state's competitiveness and ability to attract new business by benchmarking 12 Pennsylvania regions and business sectors against 26 competitor regions in the U.S. and around the world.

Results from the early analyses show Pennsylvania has the opportunity to improve its positioning in areas such as integrated biopharmaceutical manufacturing, biotech research, alternative energy, agro-food processing, digital media and pre-fabricated housing. Strengths also exist in attracting regional headquarter facilities and in financial services.

As in other geographies, access to qualified workers is an ongoing concern. Pennsylvania has recognized that it must target workforce training initiatives to specific growth sectors of the economy, expanding community colleges and other programs that match training to employer needs.

Governor Edward Rendell called the initial analyses "a tremendous tool to persuade Pennsylvania companies to expand and other companies to come to Pennsylvania." The process, which began early this year, is ongoing.

Understanding trends

Our experience shows that it is critically important to understand globalization. Digital communications and instant connections are proving what Thomas L. Friedman wrote in his bestseller "The World is Flat" – that we have to run faster in order to stay in place. No matter where you are, you are affected. The challenge to U.S. economies is how to differentiate themselves and move up to a more innovative environment. For the nation and for local regions to stay ahead, they must undergo critical self-examination of strengths and weaknesses from a client-centered focus. Data and analysis, smartly employed, are key. ★★

IBM's Global Corporate Location Strategies team provides site selection, inward investment and economic development services to corporations and development agencies. Visit the Web site at www.ibm.com/bcs/pli, or contact the author at gdeprez@us.ibm.com.

Fiscal Impact Analysis Creates a Win-Win for Projects and Communities

By **Carlianne Patrick Crotty, CEcD**

Vice President, Research and Planning, Carroll Tomorrow

How do you know if the benefits a new company brings to your community outweigh the costs of recruiting and servicing the company and its employees? How are you held accountable for the public funds used to lure a relocation to your community? How do you ‘draw a line in the sand’ when it comes to incentives? Is your deal a ‘win-win’ for the company and your community? Is the new tourism project a white elephant?

These are questions that all economic developers should be able to answer, but most do so based upon gut instinct or inadequate models. These models usually only examine the benefits of the project, often swelling those benefits with an inflated multiplier. If more sophisticated analysis is done, it is frequently after the deal has already been closed, when a partner college, university or other agency is employed to analyze the project. If the results show that the deal is not in the best interest of the community, it's too late.

Fortunately, the development of local fiscal impact models has provided economic developers with an efficient and accurate way to answer those questions in-house. By analyzing projects and deals for their local fiscal impact, economic developers can negotiate more effectively on behalf of their communities, gain credibility with the public and show the return on investment to local governments.

Understanding fiscal impact analysis

To understand the value of fiscal impact analysis to the economic developer, it's necessary first to understand what is meant by the term and how it differs from economic impact analysis. Fiscal impact analysis is meant to measure the impact of a project on local government finances, while economic impact analysis measures economic outcomes. Both economic and fiscal analysis have value for economic developers, but only fiscal analysis can help practitioners improve



Fiscal impact analysis helped Carroll Tomorrow successfully negotiate an incentive package with Decoma International, an automotive fascia manufacturer, in 2002. The completed Decoma facility is shown above.

their negotiations with prospects and build community credibility.

Fiscal impact analysis should calculate the effect of new investment, construction, employment, population, school enrollment and other changes on a government's budget. All fiscal impact models seek to calculate the benefits of a development or project for a local government, but not all of them calculate the associated costs. For the model to assist the economic developer during the negotiation process and help build community credibility, it must calculate both revenues and costs. Be aware that many models used by site selection consultants and companies only calculate the benefits and are used as leverage by the consultants during negotiations for incentives. Armed with information on benefits *and* costs, the economic developer can effectively counter this tactic.

Generally, the benefits of a project include new property taxes generated, new sales taxes generated, and the additional miscellaneous fees generated by the project during both the



In addition to fiscal impact analysis, Carroll Tomorrow uses other technological tools to enhance its capabilities. Here, the author uses GIS and an interactive whiteboard to show state project managers the characteristics of specific sites.

construction and operating periods. These benefits are calculated based on the local government's specific tax and fee structures. Project costs are calculated based upon the particular local government's cost of providing services related to the project, such as additional fire and police protection, increased road maintenance, public infrastructure investments, incentives and so on.

Preferably, the model also calculates the costs of servicing new households created in the community by the project. New households require education, park and library space, social services, and create other demands on the public sector, while also generating additional property taxes, sales taxes and miscellaneous fees. In order to truly understand the fiscal impact of the project, these costs and benefits should also be included in the analysis.

Besides accounting for costs, fiscal impact analysis accounts for benefits more accurately than economic impact analysis because it draws on community and project-specific data. Community data required usually include property and sales tax structure, retail activity, the local government's budget, demographic data and basic economic activity data. Project data required usually include general facility information such as construction payroll and materials purchased, new equipment and furniture purchases, and annual operating expenses; plus employment and payroll, incentives and public investments, and property values. For tourism projects, visitor information also is required.

The amount of data required for fiscal impact analysis and the complexity of the analysis are the most-cited reasons why economic developers don't incorporate it into their protocol for projects – or if they do, why they don't conduct the analysis in-house. However, in-house analysis is necessary to improve negotiations for incentives. Fortunately, computer

programs for fiscal impact analysis have been developed that are user-friendly and don't require the user to have a degree in economics to conduct analyses for most projects.

Fiscal impact models such as LOCI (developed by the Georgia Institute of Technology) or the Federal Reserve Fiscal Impact Tool can be used on a regular desktop computer by a person who has received basic training. Even these models require a significant amount of data, but as shown in the experience of Carroll Tomorrow, the data collection process also can have benefits to the economic development organization.

The Carroll Tomorrow experience

The Carroll County Economic Development Foundation, d.b.a. Carroll Tomorrow, is a nonprofit community and economic development organization serving Carroll County, Georgia, and its municipalities of Bowdon, Bremen, Carrollton, Mt. Zion, Roopville, Temple, Whitesburg and Villa Rica. Carroll Tomorrow was formed in 2001 by local leaders concerned about rapid population growth approaching from Atlanta, recent layoffs in traditional industries and troubling social and educational statistics.

The organization's initial three-person team consisted of a veteran economic development professional with a reputation for innovation and effective use of technology; an experienced manager with a strong history of community leadership; and a recent graduate in development studies from the London School of Economics. The Board of Directors made

a commitment to provide staff with the tools necessary to fulfill their mandate – to change the way economic development was done in Carroll County, as outlined in an economic development strategy developed by more than 300 community volunteers.

Considering the staff and board of Carroll Tomorrow, it's not surprising that one of the first practices implemented was the use of fiscal impact analysis. When choosing the tool, staff examined several options. Georgia Tech's LOCI program was chosen because it includes both benefits and costs in the analysis, includes the impacts of households created by the project, features an easy-to-use interface, produces reports discernable by decision-makers, and carries an affordable price tag.

As with most fiscal impact models, LOCI requires a significant amount of data on the community and the local governments of interest. However, the time spent collecting and inputting the data up front then allows for quick turnaround when it's time to evaluate a project and negotiate.

In addition, the data collection process provides an opportunity to educate local government staff, elected officials and the community on the organization's use of fiscal impact analysis in the economic development process. While collecting the data, Carroll Tomorrow also spoke at local government public meetings about the practice. The knowledge that economic development projects were being evaluated with the well being of local governments and taxpayers



The Carroll Tomorrow team evaluated nearly 20 “what-if” scenarios for the Decoma International project, which included many different incentive packages. That process helped to refine a win-win deal for the community and the company.

in mind – and combined with recapture agreements – helped plant the seeds of trust and credibility with the community.

Since its inception, Carroll Tomorrow has used fiscal impact analyses to help shape the deals for every project with which it is involved. The community and local governments have come to expect the results of fiscal impact analyses to be included when projects and incentive packages are debated by elected bodies and authorities. LOCI results are presented in a way that companies understand, providing them with assurance that local governments can fulfill their commitments while continuing to be a high-quality place where employees want to live. The recruitment and negotiation of the DecoStar fascia manufacturing facility illustrates these dynamics well.

The case of Decoma International

In October of 2002, Decoma International, Inc. announced plans to invest \$85 million initially (and \$140 million over the life of the project) in a new, 300,000-square-foot automotive fascia manufacturing facility in Carrollton. The project, the largest in the state that year, had considered locations in communities throughout the southeastern United States and was highly competitive.

The company chose to locate in Carrollton despite the fact that the dollar value of incentive packages offered by competing communities was greater than that proposed by Carroll Tomorrow, the state, city and county. According to Robert Brownlee, president of fascia operations for Decoma International, the company’s decision was based on the county’s ability to meet Decoma’s extremely tight time schedule and a high comfort level with community’s ability to fulfill its commitments, beyond market forces.

The final incentive package included a \$2 million OneGeorgia Authority grant for site improvements and infrastructure; QuickStart training; additional public infrastructure improvements by the city and county; fee waivers; a performance-based ground lease; and city, county, and state ad valorem tax abatements totaling \$1.5 million over a 10-year period.

Even with these generous incentives, fiscal impact analysis of the project and deal structure showed over \$2.5 million net present value (NPV) to the affected local governments (county, city and school system). During the process, the Carroll Tomorrow team evaluated nearly 20 ‘what if’ scenarios, which included many different incentive packages. That process helped to refine a win-win deal for the community and the company.

During the last stages of negotiation, the company asked the community to match a competitor’s offer that included abatement of school taxes. Although it is the community’s policy not to abate school taxes, Carroll Tomorrow was able to use fiscal impact analysis to present a rational financial explanation as to why school taxes could not be included as part of the package. The analysis presented to company leaders showed that school tax abatement would drop the NPV to just over \$200,000. Most importantly, it removed all the value of the project to the school system; analysis showed a negative NPV of almost \$134,000 for schools.

In other words, the community’s ability to educate its children, the children of employees, and the company’s future workforce would be negatively impacted by school tax abatements. The company understood and no longer sought school tax abatements. In addition, the knowledge that the community evaluated its economic development deals in this manner gave the company confidence that local governments would have the financial strength to both meet its commitments in the short-term and service the company in the long-term.

In addition to providing for a better deal and creating company confidence in the community, the analysis also helped when it came time for the deal to become public and be approved by local governments. A recruitment deal in the community negotiated prior to the advent of Carroll Tomorrow had included an incentive package of almost \$12 million, for which the promised 900 jobs materialized into only about 200. This experience had left the public and elected officials wary of large incentive packages. Now, the combination of fiscal impact analysis and recapture provisions eased discomfort and suspicion about the deal, and local newspapers that had been critical of previous economic development projects praised the effort.

The project that didn't materialize

Just as the use of fiscal impact analysis helped provide public support for the Decoma project, it has also provided justification when a large project located elsewhere. Not long before Decoma was announced, the community was short-listed for a manufacturing and distribution facility promising 280 jobs and \$7.5 million in capital investment. Compared to the \$14.10 per hour average wage of Decoma, though, these jobs averaged \$6.50 per hour. Fiscal impact analysis showed the project resulting in a negative NPV of \$669,000 for the city, prior to any public investments or incentives.

Combined with the company's highly leveraged financial status, these results prompted the economic development team not to offer an incentive package. The company was welcome to locate, but no investment of public funds or abatements were offered. When the company located in another community that offered a package, the economic development team and local officials were questioned by local media and the public about the decision not to propose an incentive package and let 280 jobs locate elsewhere. With the results of the fiscal impact analysis in hand, all parties were ready to answer those questions. Rather than harsh criticism in the local media, the team was lauded for making a good decision for the community.

After Carroll Tomorrow's initial funding cycle was over and it was time to go back to local governments and ask for

another multi-year funding commitment, the information provided by fiscal impact analysis revealed localities' return on investment in the organization. With over \$5 million NPV of revenues generated by Carroll Tomorrow projects, local governments agreed that their return on investment justified continued funding and recommitted.

Lessons learned

With recruitment and expansion projects totaling over 1,500 direct jobs created and over \$225 million in direct capital investment, as well as tourism projects, there are numerous examples of Carroll Tomorrow's use of fiscal impact analysis. Each one would tell the same tale, though: Incorporating fiscal impact analysis in the process creates better deals, credibility and public trust.

The Carroll Tomorrow experience provides lessons for all economic development organizations. Although Carroll Tomorrow now has a much larger staff and budget, it incorporated the practice of using fiscal impact analysis when it was a three-person organization working with a start-up budget. Creating awareness among local government staff, elected officials and the public through the data collection process lays the foundation of credibility and trust. Most importantly, using fiscal impact analysis on an iterative basis, running 'what if' scenarios to determine deal structure, and being transparent with companies and elected officials about the process produces better deals for the community.

Fortunately, technological developments have made it both efficient and affordable for economic developers to have in-house fiscal impact analysis capabilities. Practitioners should seek fiscal impact models that include both costs and benefits, calculate the costs and benefits of new households, are local-data driven, and feature a user-friendly interface. Once the model has been chosen, be sure to make the community and projects aware of your new practice, and start reaping the benefits of win-win deals, greater credibility and demonstrable return on investment. ★★ ★

For more information, visit Carroll Tomorrow on the Web at www.carrolltomorrow.com, or contact the author at carlianne@carroll-ga.org.

LOCI Summary Report
Fiscal and Economic Impact Analysis
Level 2 Analysis - Facility and Employees

Following are summary results from a fiscal and economic impact analysis conducted for a City in the state of Georgia. The impact analysis measures the amount of new revenues the jurisdiction can expect from all sources as a result of the project. Sources include sales tax, income tax, real and personal property taxes, fees, and utility revenues if those apply. These revenues are compared against projected increases in costs borne by the jurisdiction as a result of the new development. Costs include items found in the jurisdiction's budget such as police and fire protection, health, social services, and utility investments and operating expenses.

Community
Name: City of Carrollton
Description: City of Carrollton (not including school district)

Households in the jurisdiction: 7,121 Jurisdiction's local sales tax rate:
Total employment in the jurisdiction: 17,398 Jurisdiction's total operating budget:

Millage Rates:

	Non-Residential		Residential	
	Incorporated Areas	Unincorporated Areas	Incorporated Areas	Unincorporated Areas
Real Property:	5.24	N/A	5.24	N/A
Personal Property:	5.24	N/A	5.24	N/A
Inventory:	5.24	N/A	N/A	N/A

Project
Name:
Description:
SIC Code:
Facility payroll: \$5,100,000 Value of real property (building and land): \$5,850,000
Facility employment: 280 Value of personal property (equipment and furnishings): \$1,382,500

Results

The detailed reports are displayed in a cash flow format for the first five years and the last year of the forecast period. These results are based on a 10 year forecast.

Shown above is the user-friendly summary results page of a fiscal impact analysis report conducted for a project by Carroll Tomorrow. (Some information has been redacted for confidentiality purposes.)

Economic Gardening:

Using Information to Help Your Entrepreneurs Grow

By **Christian Gibbons**

Director of Business/Industry Affairs
City of Littleton, Colorado

Entrepreneurs create jobs and wealth, not economic developers. From this realization, an entrepreneurial approach to economic development called “economic

gardening” was created in Littleton, Colorado, over 20 years ago. Since that time, the city of Littleton has not spent a penny on incentives, while the number of jobs has doubled (from 15,000 to 30,000); sales tax revenues have tripled (from \$6 million to \$20 million); and the city’s population grew 23 percent.

How did we do it? A look at the context in which the program originated would be a good place to start.

Born in a crisis

In 1987, Littleton was in a recession due to the oil bust. Martin Marietta Aerospace, the community’s major employer, also laid off several thousand employees that year. Nearly a million square feet of commercial space was vacant, and the downtown vacancy rate was approaching 30 percent.

The Littleton city council, concerned about the lack of local power over the community’s future, directed city staff “to work with local businesses to develop good jobs.” From that simple charge, we set out on a journey to discover how to build an entrepreneurial economy, thereon focusing all our efforts on helping local companies grow.

Early on, the city made several significant policy changes:

1. We quit recruiting, cold turkey. In retrospect, it was the most productive change we made. During the 1970s and early to mid-1980s, we focused on recruitment and 4,000 jobs were created. In the following 18 years, 15,000 jobs were created – nearly four times the previous rate, and during a time period that included two recessions.
2. We were no longer concerned about being a low-cost place to do business. We were not interested in businesses that would move out as soon as the standard of living started to rise or the incentives ran out. We were a community with a highly paid workforce, scarce and valuable land and a moderate (but not low) tax rate. Our focus shifted to innovative knowledge companies that would create new wealth.



In addition to its economic gardening program, the city of Littleton, Colorado, considers quality-of-life infrastructure – such as parks, trails, and festivals like that shown above – to be integral to the city’s economic development strategy.

3. After much discussion, we concluded that the only real choice a community had was to grow its own entrepreneurs, or try to get other communities’ entrepreneurs to come in and save them. We chose the former as a smarter, more sustainable approach.
4. We then set out to identify the role of the public sector. Over the years, we have identified at least three legitimate roles: *information*, *infrastructure* and *connections*. From these roles, the economic gardening program was born, which is run by the city of Littleton’s Business/Industry Affairs Department.

Providing competitive information to high-growth companies

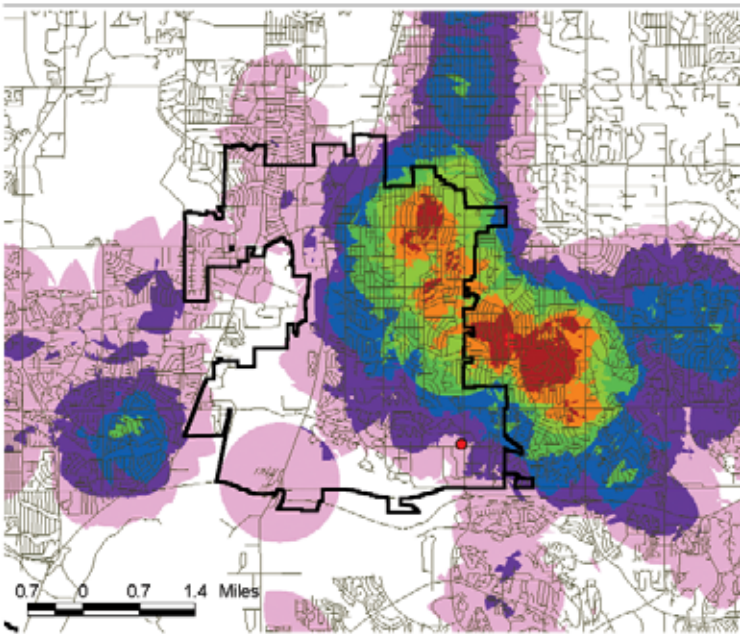
This article focuses primarily on the information component of economic gardening – which also constitutes the majority of the program – but the infrastructure and connections pieces deserve brief mention. Building infrastructure is a typical part of the public sector’s responsibility, and as a city, we construct streets, water lines and sewer lines. However, we also provide quality-of-life infrastructure (including parks, trails in every major drainage channel, downtown beautification, river preservation) and intellectual infrastructure

Business Customers Density Per Square Mile

CITY OF LITTLETON
Business/Industry Affairs
Geographic Information Systems

LEGEND

- Littleton Business
- City of Littleton
- Customer Density (/sq. mile)
 - 0 - 5.156
 - 5.156 - 10.312
 - 10.312 - 15.468
 - 15.468 - 20.623
 - 20.623 - 25.779
 - 25.779 - 30.935
 - 30.935 - 36.091
 - 36.091 - 41.247
 - 41.247 - 46.403
 - No Data



In addition to database capabilities, the city of Littleton has GIS expertise that enables it to plot the locations of a business's existing customers and map a color-shaded density pattern.

(working with colleges and universities to create courses and training programs), which we consider to be key to economic development as well.

Connections are not simply after-hours networking meetings. For us, it is more structured activities such as "Peerspectives," a CEO-to-CEO roundtable for growth companies. Research has shown that CEOs of high-growth companies prefer to learn from other CEOs who are experiencing growth issues. We also connect industry with academia in organizations like the Colorado Center for Information Technologies.

But it is the information component of the program where we have developed high levels of competence that have intrigued much of the country. In the late 1980s, we discovered database services and the powerful world they unlocked. Long before the arrival of the Internet, we were developing database-searching skills to find new markets for high-growth Littleton companies, to conduct competitor intelligence on their behalf and to produce insightful industry trend reports.

While the Internet continues to explode in its uses, it is still inferior to database searching when looking for business information. Whereas a typical search term on the Internet might produce millions of hits, that flood of undifferentiated information is of little use to someone looking for a specific answer to a specific question. Database searching, while expensive, drills deep in a specific area and provides a high level of actionable information.

We subscribe to a number of services that provide wide ranges of business information, including general business portals such as Lexis-Nexis, Dialog and Dun & Bradstreet, as well as lesser known companies such as Plunkett (for industry stats), SkyMinder (for information on companies in nearly every country in the world) and SRDS Direct Marketing (which provides direct marketing lists for everything from people with psoriasis to people who shop at Neiman Marcus). Each service has a number of databases and each database has a number of publications and even more articles. We are able to sort through literally hundreds of thousands of highly related articles to find well-documented answers for our customers.

Most businesses want targeted mailing lists, which we are able to provide quickly. Need a B-to-B (business-to-business) list of all medical instrument companies west of the Mississippi with 20 or more employees, sales of at least \$20 million and a growth rate exceeding 10 percent? We can provide that within the hour, often with the CEO name, address and phone number. Want a B-to-C (business-to-consumer) list of

everyone who makes over \$100,000, belongs to a PTA, drives an SUV and reads *Martha Stewart Living*? You'd be talking about the lifestyle known as "Turbo Boomers," and we know they are found only in select neighborhoods in nine major American cities.

For a company that sells church furniture and supplies nationwide, we developed a competitor intelligence report that identified 15 major competitors, noted their sales levels, number of employees, business strategy, financial stress rating and their D&B Paydex rating (how late they paid bills). We analyzed competitor Web presence, their page rank on Google and how long they had been in business. We identified key opportunities and threats for each competitor, such as companies that were struggling due to big box competition, mission statements that focus on social values, slow-loading Web sites and whether they were associated with a major church denomination.

Another example of information assistance is the industry trend report we prepared for a biometrics company. (The biometrics industry identifies fingerprints, iris scans, walking gaits, facial features and other biological markers that make positive identification for security purposes.) Since the terrorist attacks of September 11, 2001, this industry has exploded – but as we found out, it was also fairly disorganized. Common standards don't exist, and office buildings were having so much trouble with fingerprint readers they had to abandon the system. Still, the U.S. government intends to collect biometric data for every visitor who enters the country, and this alone will create a huge industry.

In addition to database searching, we have GIS expertise that enables us to plot the locations of existing customers and turn that map into a color-shaded density pattern. At the retail level, we can plot competitor locations and draw trade area circles to see where overlaps and gaps exist. For many local businesses, we can create expenditure patterns for several hundred consumer products, ranging from computers to clothes to cars. We can tell you how much ketchup is bought in the neighborhood next to you, should you want to know.

More recently, we have developed expertise in search engine marketing, which increases the visibility of a Web site in the results pages of search engines such as Google and Yahoo. We have tools to determine the number of people using a specific search term and the number of sites that have that term. We can analyze Web sites to determine if they are optimized for search engines. If you have “frames” or “flash” on your home page, for example, you are invisible to the search engines – no matter how much you paid for the site’s development.

Not just another name for business retention

There are numerous business assistance programs, run by organizations from the SBA’s Small Business Development Centers to local chambers to city economic development offices. But we believe that several characteristics distinguish economic gardening from traditional business assistance programs:

- **Growth, not movement:** Both recruiting and business retention programs focus on movement – moving a business in or keeping a business from moving out. Economic gardening, on the other hand, is about tools and concepts that support entrepreneurial growth, not movement.
- **Cutting-edge tools:** Economic gardening uses high-level corporate tools that small businesses don’t typically use, or may not even know exist. It should be noted, however, that economic gardening is not the tools themselves; it is an approach to economic development through the support of entrepreneurial activity. The tools we use in our program today are not those that we started with 20 years

ago and they will probably be different still in another 20 years.

- **Cutting-edge theories:** The business world is flooded with “flavor of the month” business concepts and new books with the latest examples of winning business strategies. Our focus, however, is fundamental theories that affect businesses, people and economies in all times and situations, not just this month. Visit our Web site, mentioned at the end of this article, for more information on how we incorporate leading thinking in areas such as complexity science, network theory, technology adoption curves and more into our work.
- **Open source:** Many people contribute to the conversation about an entrepreneurial economy. “Econ-dev” is an Internet mail list run by the City of Littleton for discussion about economic gardening. Over 600 participants use the list to debate ideas and theories, to uncover new research and to post requests for help from other professionals. Like the computer operating system Linux, the value of an “open source” idea is distributed intelligence. Many people are working on the problems and issues of an entrepreneurial economy and are constantly contributing better tools and theories.
- **Best practices:** How do we make sure we are using the best cutting-edge tools without opening up the entire program for every ephemeral idea that comes along? Under the best practices concept, there is a certain amount of seasoning that must occur before newer ideas enter the arena. At the same time, best practices allow necessary adaptation to changing markets, ideas and tools, and keeps economic gardening from ossifying.
- **Entrepreneurial organization:** In economic gardening, the support organization must reflect the entrepreneurial companies with which they work. Both are fast and innovative, quality conscious and customer-service driven. In picking staff for an economic gardening operation, passion for entrepreneurship is the overriding factor.

When it comes to growing jobs, economic gardening may not be the right approach for every community. But in 20 years of developing the concept and putting it into practice, economic gardening has grown an impressive track record of success in Littleton, and we see more and more communities using the approach to foster the development of high-growth companies. By no means have we solved the economic development riddle, but we are confident that two things – increasing connections and the flow of information to growing entrepreneurial companies – are key. ★★

More information about economic gardening is available on the City of Littleton Web site at <http://www.littletongov.org/bia/economicgardening/default.asp>. Note the list of databases and GIS datasets, and the “Free and Low-Cost Resources” PDF document. Questions can be directed to Chris Gibbons at cgibbons@littletongov.org.

**In economic gardening,
the support organization must
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Using Location Intelligence to Attract Retail to Underserved Areas

Director of
Economic
Development,
MapInfo

By Patty Formosa

Many, if not most, U.S. cities experienced population decline in their densest areas over the past 40 years. As people moved out of urban neighborhoods, so too did retailers, who followed many of their customers to far-flung suburban developments. While it makes economic sense that retail development focuses on growth areas, this trend has left many central cities with little or no retail options for their remaining residents.

Recently, municipalities of all sizes have begun seeking location intelligence solutions to help them identify and recruit retailers, in order to provide shopping and employment opportunities for residents and increase city tax revenues. This combination of tools, including software, data and expert services, helps organizations identify opportunities that are overlooked through traditional demographic data and analysis. Using location intelligence, municipalities can leverage mapping, other location capabilities and psychographic (lifestyle) data to benefit their efforts during the planning and execution of retail revitalization projects.

The first step in any retail development project is to understand the city or town's retail trade area and demographics.

Are you being served?

Often, retail revitalization projects in urban areas are not created to serve the resident population, but to satisfy the retail needs of daytime workers or tourists and visitors to the area.

What remains, especially in smaller municipalities, is a consistently underserved segment of the population that must travel outside of the community for its retail needs.



Municipalities often have to take the lead to attract retail development. Plymouth, Michigan, which has retail springing up all around it, successfully found a niche by establishing a vibrant shopping area centered around a park.

While retail operators are beginning to understand that they are missing an entire segment of the population with significantly more buying power than previously accounted for, the move into typical urban neighborhoods has been slow. The number of success stories is growing, but some reluctance remains on the part of retailers to enter urban markets.

That means municipalities often have to take the lead to attract retail development. How do they do so, with limited resources? What type of information should be presented to retailers to generate interest? How is the information accessed? Municipalities have to learn how a retailer thinks, and present data stating why the retailer will make a good fit for the community.

When beginning the analysis process, the first step is to understand the trade area of the city and the demographics served within the area. When determining these data, it is best to avoid using mile rings as trade areas. These geogra-

phies are not reflective of shopping patterns, and usually retailers can pull that data for themselves. Also, the trade area most likely should extend outside city limits, as people's shopping habits vary and typically will involve travel outside of the jurisdiction.

One preferred method of defining a trade area is to use drive times. A drive-time trade area is more reflective of consumer thought patterns because people typically decide where to shop based upon how long it will take them to get there. However, be mindful that neighborhood or convenience-based retailers will have much smaller drive-time trade areas than larger stores such as Target or Home Depot.

The drawback to drive-time trade areas is that they do not take into account the location of competition, and physical or psychological barriers. The best option is a custom-defined "true" trade area. A true trade area may not be symmetrical, but it accurately reflects the drawing power of the community. This trade area is delimited by competing retail nodes and physical barriers such as rivers. The dividing line between a low-income and high-income area also is merged into the trade area. Once the trade area is developed, basic demographic data are gathered to describe whom the retailer will serve. More sophisticated information also must be incorporated to show the retailer that the community has an understanding of its customer base and why the retailer would achieve success at this location.

Getting the demographic details

Basic demographic data on a municipality can be obtained from a variety of sources, but it is important to be sure that the data provide an accurate demographic analysis. For example, U.S. Census data are already seven years old and will not be viewed as very relevant by retailers.

The specific demographic factors retailers seek include:

- Population and households (new developments should be included in the growth projections)
- Average and median household incomes
- Per capita income
- Daytime work population
- Education levels (the trend in younger, more educated people locating to cities can improve this data)
- Median age
- Percent homeowners
- Percent families with children

Along with basic demographics, lifestyle (psychographic) data are measured. Lifestyle data delve into individuals' shopping preferences and examine spending styles. These spending figure data are critical information for a retail operator considering a new site. When trying to attract retail to an area, the municipality can use this information to help determine which retail operators are the best fit for their community, thereby spending time and resources on those retailers who have the best chance of being attracted. A trade area may have 200,000 people, but if only 14,000 are the retailer's core customers, the retailer may not be successful.

Conversely, a trade area could have 25,000 people, and if 20,000 are the retailer's core customer, it is more likely that retailer will choose that location.

Lifestyle segmentation enables the municipality to determine the pre-defined lifestyle "clusters" in the trade area. A user can access information regarding the characteristics of each cluster to determine where the population is shopping and what they are buying, which in turn defines consumer habits and shopping/spending preferences.

Finding the perfect match

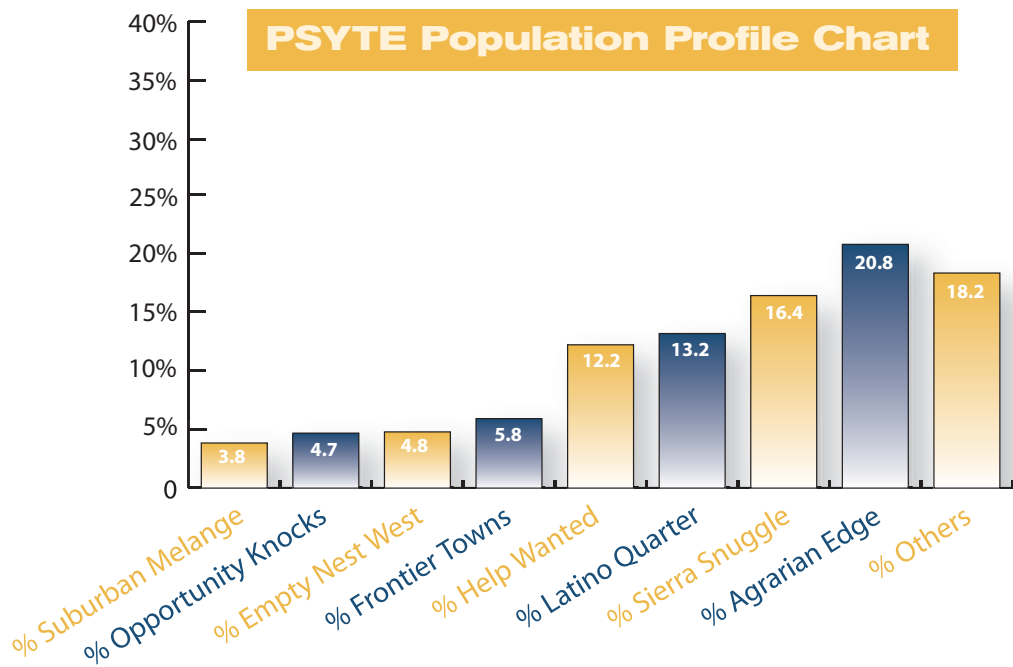
The goal behind all this analysis is to understand how retailers can be attracted to a particular community. Some of these matches are obvious, while others may take a little more research. For example, lifestyle clusters that are focused on more mature populations are more likely to need retailers such as drug stores, conventional grocers, medical supply stores, arts and craft stores and moderately priced apparel.

Likewise, in areas that reflect upper income groups, residents will be more likely to shop at Restoration Hardware, Pottery Barn, Ann Taylor Loft and Chico's. They may also shop at stores such as Tuesday Morning while avoiding what they would consider low-end stores, including many "dollar" store franchises.

In addition to the demographic and lifestyle characteristics, the data reflect the buying power of the trade areas. Data on expenditure potential can be obtained through most demographic data vendors and also from the U.S. Census of Retail Trade, which is updated every five years and based upon actual sales. Data gathered on consumer spending in



Trade area "B" shows a 15-minute drive time around a proposed retail site.



This PSYTE population profile chart shows a sample from one trade area of some of the 72 lifestyle clusters that could show up.

the area can be used to illustrate the potential success for a retailer, particularly in conjunction with information on known competitive locations.

For example, if a community wants to attract a discount department store and the nearest existing store is more than five miles away, it is imperative to highlight to the potential retailer that several million dollars in demand exists for this category, with no competition within a five-mile radius. Further, if the nearest competitor is a smaller retail operator, it should be emphasized that the new site could capture a significant proportion of the competitor's sales.

Recruiting the retailers

Once these data are gathered and the relevant retail categories or operators are identified, it is time to get the most important information in front of the retail real estate executives. Companies such as Trade Dimensions and Chain Store Guide can provide data on the appropriate contact person, and most retailers have Web sites with contact information available. Once this step is complete, the economic development group can put together a short packet highlighting the relevant information.

The packet should be no longer than 10 pages and should include charts, graphs and bullet points. The packet should summarize the trade area or areas, key demographic characteristics, lifestyle clusters and other factors that are unique to the site, such as a high daytime population or newly constructed freeway interchange. By focusing on data and unique elements of a community, the economic development team can present to the retailer why their community is an ideal location. Particularly for underserved urban areas, it is critical to elaborate on the sales potential for the retailer.

For large-format stores, retail development is planned at least three years in advance. However, to retain interest from a retailer, persistence can pay off. Once the market study packet has been sent, make sure to follow up with phone calls and agree to meet at various trade shows. Continue to keep the retailer informed of any changes in the market – for example, if new housing units are suddenly announced, especially ones that will increase the number of core customers based on the lifestyle segmentation clusters.

While it may seem like a daunting task, it *is* possible to attract major retailers to underserved areas. Take Chicago's south side, where the Target Corporation opened a store after years of diligent persuasion. This opening inspired confidence in other retailers to tap into urban areas. After the move into the south side, Target is actually beating its original sales forecast. Part of the push to attract Target was the dense population and the level of untapped potential in the underserved market.

More and more retailers are beginning to understand that they are missing significant sales potential in urban markets. While there is a trend towards returning to underserved urban areas, it is imperative that cities and neighborhoods actively encourage retail growth by providing retail operators with the data and materials they need to make the right decisions. As more and more success stories emerge, such as the Target on Chicago's south side, more retailers will be convinced to locate in our cities' underserved neighborhoods.

★★★

MapInfo provides location intelligence solutions, integrating software, data and services to provide greater value from location-based information. For more information, visit www.mapinfo.com. Reach the author at Patty_Formosa@mapinfo.com.

Targeting a Portfolio of Clusters

By **Aaron Smith**

Economics Research Associates

Since Michael Porter first introduced the idea of industry clusters almost 20 years ago, the concept has gained wide support in economic development practice as a fundamental strategy for targeted business recruitment and retention.

However, much of the discourse today focuses on technical (and often academic) discussions about what constitutes a cluster, while practical methodologies for measuring clusters and effectively targeting scarce economic development resources are often lost in the discussion. In a rush to identify clusters, communities often fall into three traps:

- **Too little diversification:** Some communities are too highly invested in a single industry cluster, which receives all of the organizations' resources for support. Unfortunately, this approach ties the community's economic fortunes too closely to a single industry's ups and downs, and leaves out other clusters that provide needed economic diversification.
- **Too much diversification:** Some regions focus on too many clusters at once. By not effectively targeting an appropriate mix of industries, regions cannot hope to direct services effectively to the right industries and truly support and develop the clusters.
- **Undifferentiated approach:** Economic development organizations sometimes treat all clusters equally and do not fully understand cluster types and what services will benefit each most.

An emerging approach to industry cluster development considers a region's clusters in the context of a portfolio of industries. By understanding clusters in the context of their lifecycle stage and needs for growth, economic developers can overcome the traditional cluster pitfalls and build a solid foundation for their organizations' strategic plans. Three critical steps in establishing a portfolio-based cluster strategy include *identifying*, *selecting* and *targeting* clusters.



Identifying clusters

The process of identifying clusters has been well covered in many publications over the past 10 years. The analysis for understanding clusters within a region traditionally focuses on two factors: the concentration of the industry within the market and the local economic conditions. Heike Mayer's article, "Cluster Monitor," in the Fall 2005 edition of the *Economic Development Journal*, provides a solid foundation of the various components and steps in evaluating market dynamics, industry concentrations, and the analytic methodologies for evaluating cluster concentrations.

The definitions of industry concentration and local economic (or market) conditions should be considered in terms of *inputs* and *outputs* of economic activity. Inputs into industry clusters provide the foundation in the economy that allows a cluster to thrive, while outputs are the resulting economic activity generated by the cluster. Instead of simply looking at economic and demographic conditions, a broader definition of inputs can describe the relative level of drivers supporting the cluster in the regional economy, or "market strength." Likewise, a broader description of outputs describes the contribution of the cluster to the regional economy, or "market activity."

A broader notion of market strength should focus on all of the institutional and infrastructure resources in the econ-

omy, including such things as highway infrastructure, job training programs, arts and cultural amenities, retail and live-work environments, technology penetration rates, and the cost structure of the real estate market. In addition, this analysis should describe the level of current interaction of a cluster's firms with each other, which will indicate the likelihood that they will support a cluster program. A complete picture of the local economy is necessary to understand why an industry would choose to locate in the area and what will help that industry thrive.

An expanded definition of "market activity" as outputs that it contributes to the regional economy replaces traditional measures of concentration. To assess a cluster for focused economic development, its number of firms, concentration of employment, level of wages, long-term wage growth, occupation concentrations, new business formation, patent production, and other factors must all be considered to understand the impact the industry has on the local economy.

Selecting clusters

Using the two levels of analysis, market strength and market activity, a simple foursquare matrix helps provide a framework for selecting and targeting clusters. Plotting inputs of market strength on a vertical axis and outputs of market activity on a horizontal axis describes the position of any particular industry in terms of the strength of the local economy to support it and the concentration and activity of the industry. This methodology provides a framework for understanding the mix of industry clusters and how they relate to each other in terms of development and positioning.

The resulting diagram (Figure 1) describes the lifecycle stages of industry clusters. Industry clusters can grow, mature and fade in local economies over the long-term, and understanding that positioning is critical to applying target-

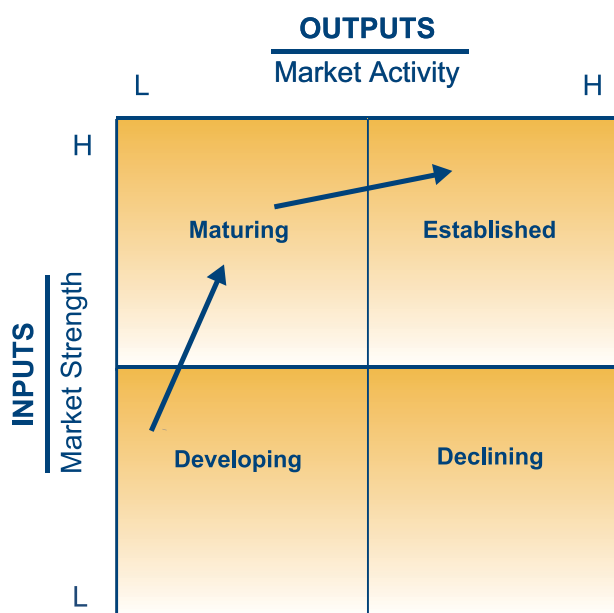
ed cluster strategies to the right industries and for selecting a portfolio of industries that will provide long-term economic development. The primary cluster lifecycle phases include: 1) developing clusters, 2) maturing clusters, 3) established clusters, and 4) declining clusters. The matrix identifies the lifecycle of each cluster by plotting its key inputs and outputs.

- **Developing clusters:** Clusters that fall in the bottom left square are developing. These industries show early signs of strength and activity but lack critical inputs of support to drive robust outputs of jobs and wage growth. These industries have long-term potential to be major clusters in a region.
- **Maturing clusters:** Maturing clusters, in the top-left quadrant, have high market strength but relatively low market activity. For these industries, the local economy presents a strong opportunity for development. For example, a region may have emerged only recently as a player in a certain research field, but the private sector has not yet discovered the region. This sector presents longer-term opportunities to leverage the regional market's strengths to develop a strong industry cluster.
- **Established clusters:** Industries falling in the top-right square have high market strengths and high market activity, established clusters with a strong local presence. These clusters provide for job growth through job retention and expansion plans.
- **Declining clusters:** Declining clusters, in the bottom-right square, show high levels of market activity but declining levels of market strength. Generally, these clusters have an increasingly difficult time competing based on macro-level changes in the competitive environment.

Once industries are plotted based on their market strength and market activity, it becomes easier to select a diverse range of industries for specific targeting. How should economic developers use this information in selecting their clusters? First, be selective. A list of 10 to 15 industries is too many. Even for the largest economic development offices, a long cluster list presents significant challenges for targeting and communicating to constituents and prospective companies. Clusters should be examined critically to assess the long-term prospects of supporting a comprehensive cluster program; focusing specifically on a few clusters will have higher returns than just grazing the surface of many.

Second, select a diverse roster of clusters both in terms of the lifecycle stage and the types of jobs created. The following section is dedicated to a discussion of cluster lifecycles and how selecting a diverse set of clusters can build a stable economy and help the economic development organization to allocate resources efficiently and strategically.

Figure 1. Industry Lifecycle Matrix



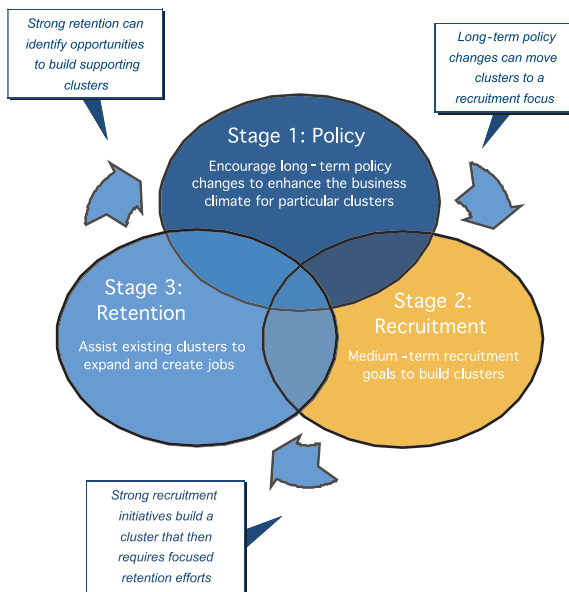
Targeting clusters

After identifying the lifecycle phase of the region's primary clusters, the industry lifecycle matrix becomes a useful tool for assessing how they relate to service delivery for the economic development organization. As described in Figure 2, economic development service offerings can be described in three primary components:

1. Long-term policy changes through working with the public and private sector;
2. Recruitment of new firms to the region to expand a cluster; and
3. Retention of existing firms and jobs by helping local firms to expand.

These three service offerings can be matched to clusters based on their current lifecycle phase. Economic developers work to move industry clusters from early lifecycle stages requiring policy efforts to later-stage services, requiring recruitment and eventually retention. Overlapping services are required in some cases, but this framework helps economic developers to target service delivery.

Figure 2. Economic Development Services



Developing clusters: Policy change

For developing clusters, long-term policy change and development of infrastructure and institutional resources are the most effective strategies for further building the cluster. In these cases, the local economy shows early signs of support for these particular clusters, yet it still requires additional strength to support the development of a robust cluster. In this situation, the economic development practitioner can focus on developing those institutional strengths in a long-term strategic plan that will help the economy attempt to remain competitive in anticipation of changes that will render other industries obsolete.

Several examples are available from communities that identified changing market dynamics early and invested in long-term development of new clusters. Austin, Texas, for instance, recognized the community's creative strengths and the linkages between the music and film industries and invested in converting the Robert Mueller Municipal Airport into a film studio location and expanding the SXSW music festival into a broader media and entertainment event. In doing so, the community spent several years cultivating the film industry, which resulted in successfully positioning Austin as an alternative location for film production.

Maturing clusters: Recruitment

For maturing clusters, the local market supports the industry, but the industry has yet to emerge as a primary center of activity. This presents a medium- to long-term effort for recruitment. The market presents a compelling case for companies to locate within the region, and a strong marketing, messaging and recruitment campaign can begin to build a strong cluster. For example, the New Hampshire seacoast emerged as a small high-tech center with strong supporting factors for the industry's development, including a lower-cost alternative to Boston's Route 128 corridor, a vibrant arts community and a highly educated workforce. Recognizing these market strengths and an emerging cluster, the seacoast region formed the eCoast Technology Roundtable to focus on cultivating the high-tech industry. The Roundtable has invested in building the region's image and focused on recruitment to capitalize on the region's market strengths.

Established clusters: Retention

For established clusters, retention becomes the obvious focus. These firms have a strong established presence locally and should receive focused retention efforts to help them expand jobs. With an established aerospace cluster, Fort Worth, Texas, focused efforts on retention through the creation of a workforce-focused organization designed to help the industry train employees to meet a wave of anticipated retirements. While the region can always benefit from policy changes and recruitment activities to build a supplier network, the mature cluster benefits most from retention efforts that focus on retaining and expanding local jobs.

Industry Lifecycle Matrix and Targeted Economic Development Services

CLUSTER STAGE	TARGETED SERVICES
Developing	Policy change
Maturing	Recruitment
Established	Retention
Declining	Evaluation

Setting a targeted cluster program will help the organization establish clearer goals for executing the strategic plan and provide a framework for the organization's internal operations and service offerings.



Declining clusters: Further evaluation

For declining clusters, the local market increasingly presents difficulties in competing in the national or global economy. Typically, these clusters exhibit high levels of market activity, but changes to such things as the global cost structure, more innovative approaches, or demands for new skills make it more difficult for the industry to compete and make the local environment less attractive to the cluster.

While these clusters benefit from both retention and policy change activities, further analysis is required to understand the probability that those activities can overcome the changing market conditions. The decline of the semiconductor manufacturing industry in Austin presents an example of changing market dynamics in a declining cluster. In response to those dynamics, local economic developers shifted focus

to replace the industry with biotechnology manufacturing, leveraging several of the same physical and human assets.

Putting the strategy into action

The industry lifecycle matrix provides a framework for analyzing clusters that can help organizations develop a clearer focus in their strategic plans and direct the right services to the clusters that can most benefit from them. This clearer strategic focus and plan has several direct benefits to the organization.

1) Clear communication of goals and objectives.

A focused and targeted list of clusters and services results in a clear, communicable strategy to investors and prospective companies. Investors in economic development, whether public or private, need to clearly understand how the investment will be directed. An easily explained strategy with actionable steps will help the organization recruit and retain investors. Corporations, existing or recruited, will also benefit from a clearer strategy that helps them navigate the economic development landscape in the community.

2) Effective allocation of limited resources.

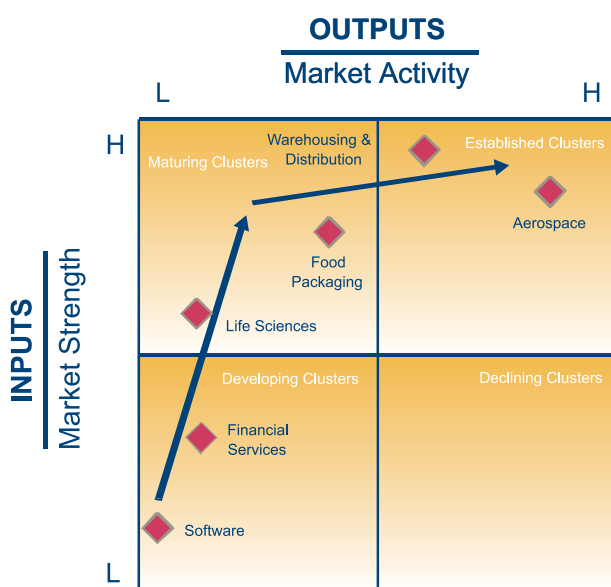
Economic development organizations work in constrained budget environments. By understanding clusters' lifecycle stages and targeting services appropriately, the organization can direct services where they are most needed and eliminate wasted efforts.

3) Clear objectives and organizational framework.

Setting a targeted cluster program will help the organization establish clearer goals for executing the strategic plan and provide a framework for the organization's internal operations and service offerings. Clearer objectives mean the staff has a focused framework to organize and execute the program of work. ★★★

ERA is an international consulting firm with nearly 50 years of experience in market and economic analysis for the entertainment industry, real estate industry, and the public sector. For more information, visit www.econres.com, or reach the author at aaron.smith@econres.com.

Figure 3. Example Plotting of the Industry Lifecycle Matrix



Quantifying the Creative Economy

By **Louise K. Stevens**

President, ArtsMarket

Economic development professionals have been hearing more and more about the benefits of a creative or cultural economy and are seeking ways to jump on

the bandwagon. First considered more buzzwords than reality, the creative or cultural economy is now sought by communities of all sizes, from rural towns in northern Maine to the metro areas of New York and Los Angeles.

Ralph Waldo Emerson must have been seeing well into the future when he said, “A creative economy is the fuel of magnificence.” Magnificent indeed, a creative economy shows incredible growth potential. Consider these statistics:

- In the United Kingdom, KPMG recently predicted 46 percent employment growth and 136 percent output growth in the creative industries between 1995 and 2015. Between 1997 and 2004, the creative industries averaged 6 percent growth, around twice the rate of the economy as a whole.
- A new report from the Los Angeles Economic Development Corporation (LAEDC) shows that the creative industries are now the number one engine of the Los Angeles economy, outpacing tourism and international trade. The LAEDC study demonstrates that the creative industries in Los Angeles account for far more than Hollywood entertainment jobs. Entertainment, in fact, accounts for only 35 percent of the jobs in Los Angeles’ creative industries.

The concept of the creative economy is new to many economic development professionals. It has no official description, and its terminology is interchangeable – some communities use the term “cultural economy,” some use “creative economy,” some use “arts economy.” What industries are included in the creative economy? And how can economic developers start examining their local creative industries and decide if there is a sizable enough base from which to leverage more growth?

Defining the creative or cultural industries

First, it’s important to get a handle on what is included in the full range of creative industries that exist in the non-profit, for-profit and education sectors. The United Kingdom



Photo by Kira Corser

A recent study found that the creative industries are a significant component of the Monterey County, Calif. economy. In this photo, the Fiesta Mexicana group dances folklorico (traditional Mexican folk dancing) at a community awards dinner.

defines the creative industries as “those that have their origin in individual creativity, skill and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.”

The LAEDC’s work investigating the creative economy has helped identify a range of industries therein, including:

- Architecture and interior design
- Art galleries
- Communications arts (including graphic design services, advertising agencies, package design, and display and direct mail advertising)
- Digital media
- Entertainment
- Fashion (including apparel and textile manufacturing, jewelry manufacturing, cosmetics, and footwear and handbag production)
- Furniture and accessories

- Product and industrial design
- Toys (design, marketing, wholesaling and manufacturing)
- Visual and performing arts providers, including theater and dance companies and museums
- Self-employed, independent artists, writers, designers, and performers

Economic development agencies can begin gathering statistics on the cultural sector by working with their local arts agencies or commissions, which maintain databases of local nonprofit organizations that deliver arts or cultural services and may also keep track of individuals who work as independent writers, artists, and performers.

Many local arts agencies, however, are just beginning to get up to speed on the for-profit aspects of the industry and may not be able to fully document the sector for economic development purposes. But as shown below in the case of Monterey County, California, it can be done.

Quantifying the creative industry base

ArtsMarket recently conducted an asset analysis for a cultural development planning initiative in Monterey County. The goal was to determine if critical mass existed in the creative sector to suggest promoting the arts and creative industries as one of the county's economic development clusters.

The Arts Council for Monterey County had a database of about 65 nonprofits and many individual artists, but knew its data did not fully describe the industry. So we turned to the U.S. Census drill-down reports for NAICS code 71 (arts, entertainment and recreation). By using the Census, we found 34 performing arts companies; 20 museums, gardens, zoos/aquariums and historical sites; nine promoters of performing arts; and 18 "independent artists" who are employers with payrolls.

This totals a greater number of employers than in the county's recreation segment, which includes all of the area's famous golf courses and recreation spots. Add on the non-employers – firms subject to federal income tax but without payroll, and the Census shows that the count for Monterey County grows by another 844 enterprises. That's more than twice the number of similar wholesale or retail trade enterprises in the county.

Even with this impressive count, we wanted to learn more. At the county level, U.S. Census data suppression may prevent reporting of certain NAICS industry groupings – for example, the subset of retail sales representing art galleries, NAICS 45392. Here's where turning to a data provider such as Micro IMPLAN can boost analysis.

IMPLAN draws its information from the Bureau of Labor Statistics (BLS) Covered Employment and Wages program, in which data are collected monthly by state agencies. It also includes statistics on self-employment drawn from the Bureau of Economic Analysis Regional Economic Information System (REIS). These are critical data in a field where freelancers and individual artists comprise a giant,

often vastly underreported share of the industry activity. It is also critical in capturing the typically underrepresented fields of art dealers, media artists and even furniture designers, all part of the arts industry.

IMPLAN showed that Monterey County's creative industry asset base was even larger than Census data indicated. We now could see a count of 7,569 workers within these same NAICS classifications. By adding the county's jobs in the remaining industries identified in the LAEDC report above, this number grew to 9,743 workers, representing over 4 percent of the current employment base within the county.

Comparing these figures with the other major industries within the county revealed that there are more creative industry jobs in Monterey County than there are jobs in residential construction or fruit farming, and nearly as many as in the county's healthcare industry. If the definition of creative industries includes book publishing (often but not universally included), then employment jumps to nearly 11,000, making the creative industries second only to agriculture as an employment base within the county.

IMPLAN data made it possible to determine that the creative industries are also a major economic force in Monterey County, currently driving \$557 million in output annually, not including book publishing. This is greater than the industry output of hotels and motels (\$454 million), wineries (\$386 million) or hospitals (\$296 million.)

The data illustrated the breadth of the creative industries as an economic sector. In the past few years, Monterey County has identified wellness, building and tourism as sectors to focus on, because of their current significance and their ability to grow. Based on current employment and industry output numbers, the creative industries may be even better positioned as an economic development strategy.

Getting the real picture

The Monterey exercise shows the importance of digging deep to gain a real understanding of the creative industry asset base. With industry size and economic output information in hand, Monterey used surveys and public meetings to gain further details about the diverse nature of the industry, and to focus on strategies to help it grow. A portfolio of initiatives ranging from microenterprise loans to training in business planning for artists and artisans to creativity-tourism partnerships quickly emerged.

A century ago, Monterey County was a magnet for the great wave of American impressionist painters who captured its images on canvases that today are in museum collections around the world. Thanks to data that show the size and nature of its creative asset base, Monterey County is once again readying itself for an explosion in creativity. ★★★

ArtsMarket specializes in cultural economic development planning and research. Visit the Web site at www.artsmarket.com, or contact the author at lstevens@artsmarket.com.

Economic Developer “Dinosaurs” Vs. Fast Internet Information

By **Anatalio Ubalde, MCP**

Chief Operating Officer, GIS Planning, Inc.

Disruptive technologies such as the Internet have quickly changed the data that people can access and how they get their information. This shift is dramatically impacting many industries, including economic development.

As a result, many traditional industries have had to adapt because business as usual could spell their ruin. Economic development organizations (EDOs) are not immune from this information transformation and are figuring out how to compete in a dynamic business environment.

EDOs that get in early to use new technologies for their work and capitalize on the opportunities that new information communication makes possible can create a competitive advantage. Alternatively, those that ignore new technology and data opportunities will have to play catch-up, or potentially become irrelevant.

If companies can't get the information they want from economic developers, they will simply bypass EDOs to find data from alternative sources, which are more accessible than ever.

So economic developers must ask themselves these important questions: “How is information technology changing our work, the work of our competition, and the expectations of our customers?” and “How can information technology help us?”

Economic developer dinosaurs

Historically, people have made a lot of money from being information middlemen. They created value knowing information that was not readily available to others and by brokering transactions.

But the Internet has spurred a new trend resulting in the disintermediation of many occupations such as travel agents, stockbrokers and car salesmen, due to the transparency of information which allows people to go directly to the source.

Some professionals – including some economic developers – are trying to hold on to old models of doing business by hoarding information, with the hope that the absence of information will force customers to call them. They have not adapted to a model in which they freely provide information that will *lead* customers to *want* to talk to them.

I often hear economic developers make this statement: “I don't publicly give out information about my community

**“The greatest danger in times
of turbulence is not the turbulence;
it is to act with yesterday's logic.”**

Peter Drucker

because businesses need to call me so I can explain it to them.” What these economic developers don't realize is that because they don't give the information out, they aren't going to get called at all.

Whetting the business appetite

Economic developers who resist sharing information need to reconsider their strategy because their competition is already adapting. They freely give detailed information and provide Internet tools so that businesses can analyze the benefits of their area.

Their tools include Web sites with searchable databases of sites and buildings, site-specific demographic analysis reports, business lists mapped by industry, and interactive mapping tools to identify the best business locations.¹ EDOs that provide these resources are getting called for more information.

Take FedEx's expansion, for example. It used Honolulu's Web site to gather much of the needed information using an interactive mapping program, and realized Honolulu might have specialized data it could use as well. So they called the EDO and were able to get what they were looking for. Lisa Gibson, then-COO of Enterprise Honolulu, described the experience saying, “We have a wonderful example of a major mainland company that used our GIS application in its

¹ “Web Tools to Put You on the Map,” by Katie Burns. “Economic Development Now,” 5/13/03. IEDC.

The Web Transforms Site Selection

	Then (5-6 Years Ago)	Now
Length of typical site selection search	6 months or more	4 to 8 weeks
Scope of initial screening	One or two dozen communities	Hundreds of communities
Percentage of site selection process done remotely versus in-person	40 percent remote vs. 60 percent in-person	80 percent remote vs. 20 percent in-person
Number-one tool for learning about communities	Personal visit	Website/Internet

Source: Bob Ady, *Forbes*, May 2006.

search, and that is FedEx as they were researching sites in Honolulu. They started with our site, so it's proven useful already."

How fast is your economic development?

According to Bob Ady, a pioneer in corporate site selection, "In the past five or six years, the dynamics of the site selection industry have changed more than the previous 40 years combined. What's driving such change? Simply put, the availability of information through the Internet."²

In March of 2006 there were 213 million Internet searches per day on the major search engines.³ This is relevant for economic developers because as many as 90 percent of business site selection searches begin on the Internet, although this number may actually be even higher.⁴

The site selection timeline has compressed and the Internet has replaced personal visits as the number one tool for learning about communities.⁵ "The site selection consultant uses the information from a community's Web site and other online sources. If a community doesn't have a Web site, the Web site cannot easily be found or it doesn't have the right type of information, the consultant moves on to other communities that have the information he or she needs," according to Ady.⁶

"The Internet and GIS, as well as other electronic means of developing a virtual scan of a region and community, will become ever more important in screening long lists of candidate areas. This is driven both by the speed of corporate and investor decision making, but also by the need to find niche opportunities in locations that may not be as well known or documented," says Gene DePrez, who leads IBM Global Location Strategies.⁷

The best way to communicate in economic development

The Internet provides EDOs with the most dynamic data and communication tool for marketing.⁸ Unlike static media, which become outdated quickly, Web sites can be updated any time.

EDOs don't sell a consumer product. They market "quality of place" in their community's geographic surroundings, including the property, demographics, labor force, transportation, environment, services, amenities, incentives, market proximity and more.⁹ All of these can be analyzed as data, and one of the best ways to communicate what economic developers have to offer to businesses is by using a geographic infor-

mation system (GIS), a combination of digital maps and tabular data that provides powerful data and analysis.

With GIS technology, the data analysis can persuasively quantify the benefits of starting, expanding or relocating a business. This information can be communicated easily to businesses that use the Internet for research and decision-making, which today includes nearly every modern business.

Yet the Internet has not changed the economic developers' value proposition. They still market the advantages of doing business in their geography. Instead, it expands and enhances how they make their value proposition.

There will always be a need for "high-touch" services that require personal interaction between an economic developer and a customer, especially where professional expertise is required. It will also be needed when the service can't be provided as well, quickly, or easily by an automated system.

The future EDO will incorporate a business model with high-touch economic developer interaction integrated with the best technology and data. This can result in EDOs becoming knowledge organizations where complicated interactions are delivered by economic development knowledge workers, while Internet tools provide information and data delivery programs accessed by internal staff and external customers.

Seven advantages of an improved information and data strategy

Economic developers can create a competitive advantage for their EDOs by improving information and data delivery strategies. By doing this, you can:

1. Out-service the competition through easy-to-use data communication programs.
2. Provide more and/or better data and information to create higher value.
3. Create a "visibility" advantage over economic developers who are less visible because of poor communication strategies.

² "The Internet Has Changed the Dynamics of Site Selection" by Bob Ady. *Forbes*. 5/06

³ Searchenginewatch.com by Danny Sullivan. 4/20/06.

⁴ "Milwaukee 7 to make splashy Web debut: Interactive maps, other features aim to attract investors to region" by John Schmid. *Milwaukee Journal Sentinel*. 11/25/06

⁵ An Angelou Economics survey in May 2006 showed that Web sites were the number one most effective marketing strategy for economic developers, with a survey result more than two times greater than the second place strategy.

⁶ Ady. *Forbes*, May 2006.

⁷ "Online Mapping Accelerates Site Selection," *Business Xpansion Journal*, February 2006.

⁸ Marc Andreessen discusses the flexibility of the Internet as a network media. *Newsweek*. 3/19/07

⁹ "Quality of Place" is a concept Jon Roberts of TIP Strategies has discussed in numerous settings.

4. Provide tools, such as GIS, that help businesses understand and visualize a community's data and show "what's in it for them."
5. Use optimal information distribution systems, such as the Internet, to maximize marketing.
6. Automate standard data analysis requests from external customers and internal staff that frees up valuable staff time for expert-level work.
7. Centralize data information, and decentralize data access, on a Web site.

There are many examples of how economic developers use the Internet to communicate data to businesses, persuading them to invest and grow in their communities.

Data communication case studies

• Out-service your competition

The Greater Oklahoma City Chamber of Commerce provides a well-known case of using Web site data to attract a major company by out-servicing its competition. According to Chamber President Roy Williams, "Dell made a major announcement about a new campus-style customer care center in Oklahoma City. They looked at 122 cities and the critical factor to Dell was their access to a sustainable workforce."

After hearing from other EDOs that it would take over two weeks to compile this workforce information, Dell's corporate real estate team was delighted when the Chamber was able to put together the data in less than 30 minutes from its GIS Web site. "OKCEDIS.com helped us show Dell the specific labor force attributes at multiple sites within central Oklahoma. Had we not had this Web site tool, we would have struggled to put those pictures together for Dell," said Williams.

The Dell project was expected to have cumulative economic impact in the range of \$764.7 million at the over 2,000-employee facility.¹⁰

• Economic development in your pajamas

Expansion Management told how one of the largest site-location projects of 2005 got started.¹¹ SeverCorr searched for two years and thought it found the right site for a new plant, only to discover that regulations made the location too costly. After tucking his kids into bed, Eddie Lehner, SeverCorr's CFO, was on the Internet and went to the Tennessee Valley Authority's Web site. From the comfort of his home computer, he found information that led to his company's future location. Geographic analysis mattered when considering the location, and TVAsites.com was an important factor in choosing the location. The power of quick access saved SeverCorr nine months in the location process.

The \$850 million, 1.2 million-square-foot plant was expected to employ 450 workers with a \$70,000+ average salary. Over 1,000 additional jobs are expected to move to the region from related companies.

• Business retention facts over fiction

Data tools are important not just for business attraction, but also for helping businesses expand within your community, as San Francisco discovered using its Web site. "A San Francisco-

based business was looking to expand and was being pressured to move out of the city because no location could accommodate their needs. We used SFprospector in a meeting with the CEO and their real estate advisor to demonstrate there were numerous spaces which could accommodate their expansion. SFprospector opened up the CEO's thinking ... He ultimately decided to grow his business in San Francisco," said Todd Ewing, then managing director of the San Francisco Center for Economic Development.

The project will retain 400 jobs from a company worth \$680,000 in value to San Francisco each year and \$30 million to the local economy.¹²

• Rural and small communities are big on the Web

Small and rural communities in particular can benefit from the Internet because it provides a better opportunity for them to show up on the radar of expanding and relocating businesses. These communities were often overlooked because they were unknown, even if they had the right mix of geographic advantages and labor needed by a business. Today, they can provide convincing data with a Web site that looks as professional as those of big cities.

"A company out of California called FMM Corporation was looking for buildings in Oregon, went on OregonProspector.com with their specs, and found the perfect building in La Grande. They relocated, and attributed it to OregonProspector. Working for the State of Oregon, I serve 36 rural communities, and OregonProspector allows them to compete nationally," said Jill Miles, national business development officer for Oregon.

Don't get run over on the information superhighway

The quickest way to get run over is to look the wrong way when you cross the street.¹³

Too many economic developers are looking backward and are trying to resist the Internet information age and how it has changed the rules for the way businesses get information about their community.

Instead, economic developers need to look in the direction of current trends and future expectations when navigating the information superhighway – otherwise, they'll get run over. And if you are betting on who will survive the crash of economic developer dinosaurs versus the information superhighway, time will show that the dinosaurs become extinct. ★ ★ ★

GIS Planning is the leader in economic development Web site geographic information systems (GIS) that foster enhanced site selection, job creation, and employment growth. For more information, visit www.gisplanning.com, or contact the author at ubalde@gisplanning.com. For a more detailed version of this article, visit please www.gisplanning.com/eda.htm.

¹⁰ Greater Oklahoma City Chamber of Commerce.

¹¹ "Surfing the Web Leads Startup Company to Find its Site," by Ken Krizner. *Expansion Management*. 11/05.

¹² Todd Ewing, former Managing Director of the San Francisco Center for Economic Development.

¹³ *Business Week*. News and Insights Commentary. March 19, 2007.

Your Regional Knowledge Economy Strategy: *Is It Succeeding?*

President,
Eva Klein &
Associates,
Ltd., and
Managing
Partner,
IDEA
Partnerships,
LLC

By Eva Klein Evaluation of success in economic development today is far more complicated than ever – requiring, first, a regional perspective; second, metrics for elements of a complex, long-term strategy that includes asset-building; and third, measures of both inputs and outcomes. Following is a discussion of why we need new metrics, what is measured now, what should be measured and how to go about it.

Why we need new metrics

New ways to measure success are needed for four reasons:

- The global knowledge economy functions differently than the industrial economy.
- The base for measurement now must be regional, not local.
- Human resource inputs are a new imperative.
- Given globalization of production, innovation capacity and outcomes are essential.

Global and historical perspective

In the short space of about two decades, we have entered a transition from the industrial economy to the global knowledge economy – a transition so huge that it is hard to see it fully. To properly appreciate why we feel challenged, we must observe ourselves from a larger, longer perspective: We are in a transformation as great as the one our society underwent about 200 years ago, when parts of the world's ubiquitous agrarian economy entered the industrial economy. Innovations of industrialization brought with them entirely new social and economic structures – inventions such as new corporate organizations, labor laws, assembly processes and K-12 public education.

A Regional Knowledge Economy:

- Captures and commercializes innovation
- Advances the competitiveness of traditional industries
- Grows visible, globally competitive clusters in new knowledge enterprises
- Creates and sustains a highly skilled workforce

– Eva Klein, 1985

Today, our global economic context is characterized by rapid flows of information; globalization of financial, product and service markets; and reorganization of real economies into natural regions that cross political jurisdictions. As with industrialization, the knowledge economy requires invention of new social and economic responses—including invention of new metrics for our new context.

The essentiality of regionalism

Regionalism alone has presented stiff challenges, for good reasons. Our state, county, and municipal boundaries were established long ago, when the world seemed much larger than it does today. But they still dictate that elected officials devote themselves to advancing revenues and jobs for voters in the jurisdictions in which they are elected. In the industrial economy – when competition for manufacturing jobs could be considered a matter of local, regional or national competition – counting jobs, capital investment, and revenues at a local level was reasonable. Today, in vastly enlarged worldwide competition for knowledge-based enterprises, counties, for the most part, are too small for effective visibility in global marketplaces. It is necessary to position a *region*, with capabilities and assets that include at least one urban center; at least one major university; and many small towns, rural communities and amenities. Measuring progress and achievement on a regional basis is harder, but now necessary.

The human resource imperative

The second major challenge today centers on population and the skills level of that population. Much is written lately about challenges that rural areas face, with most analyses concluding that the presence of skilled, creative, entrepreneurial people makes the difference for such regions. Simply put, if the knowledge economy turns on ideas and innovation and, thus, on the presence of entrepreneurs and highly skilled people, then having more population and higher educational attainment levels are critical success factors in both urban and rural strategies.

The innovation imperative

In a world in which labor cost drives the location of low-tech product manufacturing and in which emerging economies are becoming effective in competing for skilled production and producer service industries, continuous innovation is the order of the day. A regional economy must cultivate the assets with which it produces innovation and then measure innovation outcomes.

Innovation is a complex process, operating in the domains of universities, government and industry. On the university side, measures of research and technology performance are helpful, but typical university practices in technology transfer are not yet focused on the goal of creating *regional* impact. On the industry side, measures of innovation also leave something to be desired. The matter is further complicated by the need to measure innovation in both products and services.

At present, this is perhaps the weakest area of measurement in our economy. The need to create new metrics for innovation is one of the clearest examples of the inventions required by our transition into the knowledge economy. In fact, this need is so great that in early 2007, the U.S. Secretary of Commerce impaneled a special Advisory Committee, comprising business and academic members, to develop an accepted set of innovation metrics.

What we measure now

Economic development is a relatively new art form, created essentially since the 1960s to respond to competitive challenges in the late stage of the industrial economy – the era of unquestioned U.S. dominance in industrial performance. What we know how to do well today we learned during that era.

The driver of prosperity in our advanced industrial economy was manufacturing jobs. Economic impact analysis basically began with these jobs, to calculate overall economic activity. In fact, the initial focus of economic development was *business recruitment* – creation of manufacturing jobs that would provide employment for hundreds or thousands of local people. The current focus on *business retention* and *expansion in place* – now considered critical – came later. The most recent addition to the repertoire was *business*

formation – bringing with it engagement of universities and colleges as major new partners in regional economic development.

In real estate-based strategies, one counts acres of developed land; square feet of space leased or occupied; numbers of employees in the facilities; and, sometimes, sales volume of companies. Only in the late 1990s did workforce development come clearly into focus as being within the professional domain of economic development – creating not the jobs, but the people with skills to fill the jobs (and thus attract them). Now, workforce analyses are a major new industry. More recently still, we begin to see comprehensive, regional knowledge economy strategies, in which universities, community colleges, government agencies and private industry combine assets to target new-economy enterprises.

To this day, some stakeholders still view the job count as the important measure of economic development. Many economic development organizations are tasked, above all, with job creation targets. Those who focus professionally on economic research have developed other metrics, including measures of competitiveness – for example, the well-used Cost of Living Index published by the Council for Community and Economic Research (C2ER, formerly ACCRA). Higher education lives by other metrics, such as external research funding, published by the National Science Foundation, and technology transfer metrics, published by the Association of University Technology Managers.

Benchmarking has become a widespread practice and is useful, although true comparability of situations is rare. But, arguably, U.S. economic development organizations still do not benchmark to their non-U.S. competition. Many comparative reports still provide data only about the 50 states. As a result, regions still do not have the data at hand by which to benchmark in an era of global competition, nor do we travel enough outside the U.S. to see our competition.

What should be measured

Inputs vs. outcomes

A new metrics model should track both inputs (assets) that the region's growth depends upon and outcomes (economic results) that the region's strategy should achieve, illustrated by the examples in the table below.

Examples of Input Metrics	Examples of Outcome Metrics
<p>What Our Region Has to Offer in Global Competition</p> <ul style="list-style-type: none"> Adult educational attainment High school completion College attendance and completion Regional population with college degrees Math/science/engineering graduates and students Young adult population (age 22-35) Annual R&D expenditures (especially in target clusters) \$ of business capital available (e.g. seed, angel, and venture) 	<p>What Our Region Accomplishes in Creation of Prosperity</p> <ul style="list-style-type: none"> Employment in high-tech occupations Personal income (per capita or household) Company births and deaths (net new companies) Employment in small or high-tech businesses Average wage of new jobs in the region Exports Growth of existing businesses in the region (e.g. in sales, employment, new product launches) \$ average price of home sales

Then, for both, it is useful to select some generic measures and some that relate to the targets defined in your regional strategy.

What is our progress in building our assets?

Political and community stakeholders typically understand why we measure outcomes. But it may be important to make the case for why you should regularly measure inputs.

Growing a regional knowledge economy is as much about using existing strengths to build assets that the region then promotes as its globally competitive competencies than it is about recruiting or building companies and jobs. Given that knowledge-based companies can start and grow anywhere in the world, it is essential to strengthen the case for *why* knowledge enterprises would form and grow in, or want to relocate to, your region.

What assets do we need to measure most? Overall, the inputs range from educated people to university research and innovation programs, from effective healthcare systems to business capital resources, from broadband access to attractive, livable communities. Two characteristics that matter most in the knowledge economy include *competence* in specific things and *scale* of resources. Niches of specialization or competence are important, because clusters grow around human resource talent pools and related assets. This is why cities are doing well today, whereas they suffered in the post-war, suburbanizing, late industrial economy. And getting to larger competitive scale – by counting and promoting regional assets such as medical facilities or university programs collectively – also is an essential strategy. In fact, many state investment strategies today aim at these very goals: niche competencies and collaborative scale-up.

Measuring people resources

Following are examples of possible metrics by which to track a region's people inputs, including measures for how many people we have and *how well they are educated*.

Examples of Human Resource Input Metrics

Total Population	<ul style="list-style-type: none"> • Per square mile • By age cohorts (young adults very important) • Change (net migration)
Educational Attainment	<ul style="list-style-type: none"> • 4th grade, 8th grade, and high school test scores, especially math/science • High school completion rate • Public school performance • College-going rate and/or college completion rate • Number of people enrolled in college-level programs • Degrees produced in the region (associate, bachelors, doctoral levels and by specific fields, e.g. engineering or life sciences) • Degrees held by population (associate, bachelors, doctoral levels and by specific fields, e.g. management, medical-related) • Numbers with certain skills in the workforce (engineers, computer specialists, etc.)

Measuring innovation capacity and outcomes

Until we develop more sophisticated approaches, following are examples of metrics that track factors in innovation from the perspectives of *university assets* and *industry performance*.

Examples of Innovation Capacity and Performance Metrics

REGION'S UNIVERSITIES	
Research Expenditures	<ul style="list-style-type: none"> • \$ annual total expenditures (all funding sources) • \$ annual expenditures in the field(s) targeted in the region's strategy • \$ annual expenditures funded by industry
Intellectual Property	<ul style="list-style-type: none"> • Number of patent disclosures • Number of patent applications filed • Number of patents awarded • Number of licenses executed • \$ license income
Regional Economic Impact of Innovation	<ul style="list-style-type: none"> • Number and value of local R&D cooperative agreements (university and industry) • Number of new company formations coming from (or related to) university faculty and research programs
Research Resources	<ul style="list-style-type: none"> • \$ of annual investment in new research faculty • Number (and growth) of graduate students in target disciplines • \$ of investment in intra-regional collaborative institutes or centers (both program and facility investments)
REGION'S INNOVATING COMPANIES	
Industrial R&D	<ul style="list-style-type: none"> • \$ of annual industry-based R&D
Company Formation and Growth	<ul style="list-style-type: none"> • Number of companies served by the region's incubation and commercialization programs and facilities (may not be an annual statistic) • Company births and deaths • Numbers employed in new companies
Direct Investment in Innovation	<ul style="list-style-type: none"> • Number of SBIR awards • \$ of seed capital invested • \$ of angel capital invested • \$ of venture capital invested • Number and \$ value of IPOs

How to develop a new metrics model

As economic development organizations already track metrics, in some cases, just reorganizing the process is needed. For others, a new approach may be required. Generally, starting from the beginning, the steps are:

1. Define your region correctly. The definition of your region will be the basis for tracking statistics (including benchmarks) and reporting accomplishments for a long time horizon. It is thus important to get widespread buy-in to the definition of what constitutes your region. This may be a metropolitan statistical area or a defined group of counties.

2. **Develop a comprehensive regional strategy.** It is much harder to define outcome metrics properly if you lack a clear focus on what you seek to accomplish. A well-defined regional strategy includes priorities for knowledge economy market targets and internal regional asset cultivation.
3. **Define your model, with selected input and outcome metrics.** *Input metrics* measure progress in building your regional assets (competitiveness). Depending upon elements of your regional strategy, these may include metrics for population, workforce, education, research funding, student enrollments and venture capital. *Outcome metrics* measure your progress in increasing economic prosperity. They are driven by elements of your region's strategy and targets, and can include measures such as per capita or household income, employment, numbers of establishments (in certain business segments) and new company formations (in target segments).
4. **Create a process, including report format, baseline data for the metrics in your model, and report intervals.** Evaluation requires a process, format, schedule for reporting updates, and baseline data. Make the report format as user-friendly as possible, with graphics and simplified explanations, as it should be a routine report with a relatively broad audience. Determine if there are a few peer regions to which you want to benchmark consistently and consider possibilities for including international peer regions, if data for benchmarking to them exists. Determine what is reported at which time intervals.
5. **Educate your audiences.** Economic development professionals know more about metrics than their public and private stakeholders know. Since many elected and appointed officials may still think in terms of counting jobs created, it is important to cultivate understanding among decision-makers of the new metrics model and why it is important. Educating local media also can be helpful.
6. **Stay with it.** The future may dictate changes in regional strategy or in standard comparative data sources. Either could lead to altering your model, but the overall goal is to see progress on the same metrics over a long-term period.

A word about qualitative measures

This discussion has focused on quantifiable, data-driven metrics. But to complete the story, it is clear from observation of successful strategies that there are unquantifiable, "soft" factors that are critical to economic outcomes. Three intangible but critical success factors are:

- A comprehensive, long-term strategy;
- Stakeholder buy-in and collaboration; and
- Effective leadership.

In this analysis, it is assumed that public, private and academic stakeholders in your region have come together to articulate a vision for *long-term economic growth*, as well as specific targeting strategies and immediate action tactics for next-stage investments. (In fact, if that is the case, you may

skip steps 1 and 2 above.) Thus, the first qualitative measure of success is whether or not a regional strategy of this nature exists.

A beautiful strategy document – even prepared by a top consultant – that has not achieved sincere commitment by local leaders is of little value; metrics will not matter. Thus, true buy-in to the common vision, strategies, and tactics by the many stakeholder organizations that must collaborate in its implementation is the second qualitative success factor.

Finally, it is easy to observe that some regions progress faster than others because a leader or champion exists who not only is committed to the vision, but who also possesses sufficient stature and credibility to influence and mobilize others. There is something elusive but quite real about the leadership factor. Continuity of strong leadership, by one individual or by a small influential group, can make a major difference in success – often overriding other factors and even real obstacles.

Conclusions

To achieve future prosperity, one must accept that old approaches to improving a regional economy no longer suffice. While announcements of new plant openings make everyone feel good, long, slow asset-building efforts and cultivation of globally competitive competencies are more important. Today, we must nurture entrepreneurship and we must help existing industry to innovate. The *knowledge workforce* (from technician to PhD) is essential to success, as is a working system that supports the region's innovation efforts, from research to commercialization.

None of this is cultivated quickly. And almost none of it can be accomplished without a collaborative approach that engages many organizations over a long time horizon.

For these reasons, the new metrics are far more complex, incorporating measures that only individual organizations cared about in the past, but which now are part of the region's common, big-picture agenda. New input metrics must include measures of human capital, innovation capacity and regional competence. New outcome metrics must include measures of wealth, high-quality employment and business growth.

The world has become far more complicated and competitive. Thus, a well-defined strategy, collaborative stakeholder buy-in, and steady, effective leadership are important additional, intangible factors to which statistics cannot be applied. ★ ★ ★

Eva Klein & Associates assists universities and economic development agencies in creating strategies for the global knowledge economy. IDEA Partnerships partners with institutions to develop new places and communities in the knowledge economy. For more information, visit www.evakleinassociates.com or www.ideapartnerships.com.

“We Have the Site, But We Need the Workforce!”

President,
McHenry
County
Economic
Development
Corporation

By **Chris Manheim**

How often have you heard that phrase from a site selector or owner-operator seeking a new location or preparing to expand? If you are a local or regional economic developer in the field, the answer is probably “many times.” More often than not, that question is posed before the prospect even asks about buildings or sites.

That’s why it’s important to have a thorough understanding about local economic trends and your existing and emerging labor supply, and to be able to convey this information quickly and easily to site selectors or expanding businesses.

Fortunately, finding this information does not require an expensive consultant study. There are many tools available to the local economic developer at little or no cost, although they may require collaboration and partnerships. Some of the tools that we commonly use in Illinois may already be in your toolkit and some may not, but all are readily available.

Answering questions from site selectors

As you most likely know, good site selectors probably know as much about your region and county as you do, from readily available government and commercial data. That includes the characteristics of the available workforce. By the time your agency is contacted about a project, chances are your community is on the short list; every other candidate has been eliminated. The reason you are now getting the call is because that consultant requires the next level of local information and to confirm regional information.

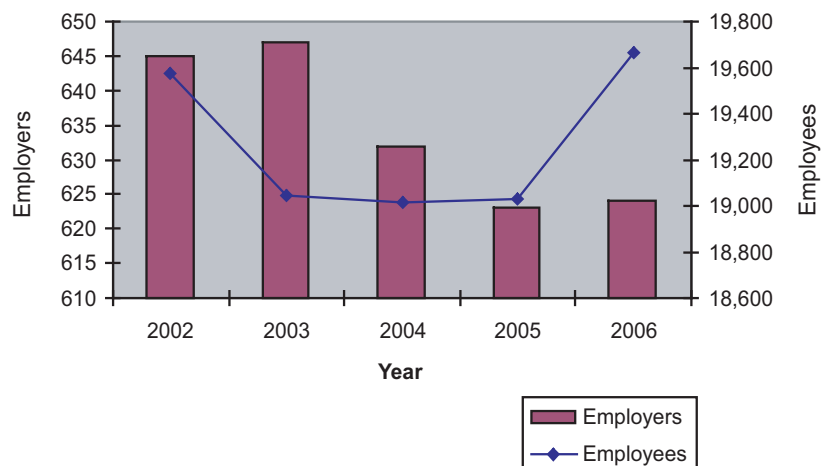
For example, the site selector is more or less sure about the major employers in the region. The consultant’s call may be simply to confirm the 20 largest employers. In many cases, simply knowing these companies, plus the demographic profile of the search radius, will tell the consultant all that is necessary to make a recommendation to the client.

As part of due diligence, though, the site selector may send you one of those lengthy and infamous questionnaires. These questionnaires may appear a bit sadistic, but there are good reasons for their existence. First, the consultant is trying to collect local data, but in a very standardized format. Second, the consultant is looking for the community to present

reasons *why* it should remain in the running for a project. Frequently, available workforce and training are keys to winning a project. Here are a couple of examples of the kind of information the site selector may be seeking.

Figure 1, below, was developed from the typical Labor Management Information (LMI) data that can be obtained from state and federal labor department Web sites. These data were compiled from sections of one of the Illinois Department of Employment Security’s Web sites called “Where Workers Work” (<http://lmi.ides.state.il.us/wwwork.htm>). Having this type of information on hand – preferably in a section of your Web site – for various key industries helps illustrate the current status of your local employment picture. Figure I shows that in McHenry County, while the number of manufacturers has declined since 2002, the number of employees has actually risen. (Keep in mind, though, that these data are usually based on workers’ compensation coverage, and therefore exclude many small businesses

Figure 1. McHenry County Manufacturing Trends



Source: Illinois Department of Employment Security

that don't participate in the system. Thus, a major part of the local economy is not represented.)

Figure 2 is taken from data compiled by Economic Modeling Specialists, Inc. from a product called Strategic Advantage. This example examines local employment over the same period, but is much more in-depth than the employment data shown above. A site selector now has a snapshot of the key business clusters in your area. As above, this information can be put into a relatively clean and easy-to-read line chart.

There is a cost associated with such value-added information, but one that can be shared with the local Workforce Investment Board (WIB), the community college and other economic development agencies. A side benefit to such collaboration is that each agency casts its own values on the information, adding insights that you, or the site consultant, may not have had earlier.

Keep in mind...

These are just the basics that your agency should have available on your Web site. Too often, the request for information ("demand" may be a more appropriate term) comes suddenly, as a Friday afternoon phone call with an impossible deadline of close-of-business Monday. Yet with a little planning, these data can be on your Web site already. Then the response time to such a request is quick: just copy and paste into the form. Remember, the more precise your community's information, the more likely it will make it onto the 'short' list, as well as a future search by that consultant.

Also remember that the *type* of industry the site selector represents will help determine the kind of information requested. Here are two examples:

- A manufacturer may be searching for a workforce that is available within a 30-minute driving distance of the plant. This drive time may have been estimated based upon the distance an employee will drive for a \$12 per hour wage rate (beyond that range, the drive might be too expensive). Again, value-added reports will provide these data. These reports generally include visuals, such as ring maps and aerials, that make data interpretation easier.
- A retailer may want to know the number of spouses and children over 16 within a five-mile radius of a new store, since it will be providing largely part-time employment. Most of these data can be found from any number of commercial demographic reports or services, or free from the U.S. Census Bureau and local universities.

If your community is using a service for your building and site database, the service will include these reports automatically for each location. Many of us in Illinois and the Midwest use Location One, designed for state and local economic development agencies, but other popular commercial

Figure 2. Rank Clusters Report

Region: McHenry County, Illinois / Ranked By: 4-Year Growth

Cluster Name	2002 Jobs	2006 Jobs	Growth	Growth %
Construction & Materials	16,611	20,196	3,585	22%
Health	7,374	8,915	1,541	21%
Food Products & Services	9,455	10,443	988	10%
Computers & Software	882	1,688	806	91%
Metals & Machining	4,356	4,980	624	14%
Information	1,369	1,786	418	30%
Energy	725	404	-321	(44%)
Communications	4,966	4,580	-386	(8%)

Source: Economic Modeling Specialists, Inc., 4/07

services may be licensed as well.

Here's an obvious question that we haven't answered yet: For workforce information, why doesn't the consultant just go to the WIB's Web site, or contact another labor or training agency? Well, as the typical the first point of contact for site selectors, it benefits the local economic development organization to know this information and be able to provide it readily. Plus, keep in mind that your employment and training partners may not have the economic development best practices training that you do and, therefore, may not be able to pull together the information as quickly or easily, or understand the intricate connections among demographics, available locations and workforce.

The benefits of collecting and sharing information

Developing partnerships and sharing information with the WIB, the community college and other training agencies will enhance your ability to provide better data about your existing workforce.

In McHenry County, the workforce information our partnership collects is being used on several levels. First, county planners are incorporating our research into the upcoming 2030 comprehensive land use plan. Second, long-standing partnerships with McHenry County College, the WIB and local employers have resulted in a "boot camp" concept to train replacement workers for retiring baby boomers; welding is an example of a prime workforce skill that is now being successfully addressed. Finally, the information is essential to shaping our own agency's economic development strategies, as well as those of our sister agencies at the community level.

Besides, just having the information readily available will make life easier for you and your prospects. The more easily you can answer their questions, the more likely your community will end up landing a project or expansion. Simply put: it's customer service. ★★

For more information, visit the McHenry County Economic Development Corporation on the Web at www.mcedc.com.

About EDA Information Clearinghouse Partners

Part of the United States Department of Commerce, the mission of the **Economic Development Administration (EDA)** is to lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy.



EDA was established to generate jobs, help retain existing jobs, and stimulate industrial and commercial growth in economically distressed areas of the United States. EDA assistance is available to rural and urban areas of the nation experiencing high unemployment, low income, or other severe economic distress.

The **International Economic Development Council (IEDC)** is the premiere organization for the economic development profession. Serving close to 4,000 members, IEDC is the world's largest professional membership organization providing a diversity of economic development services, including research and advisory services, conferences, professional development and legislative tracking. Visit IEDC's website at www.iedconline.org to learn more about membership, upcoming events and IEDC services.



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734 15th Street, NW, Suite 900
Washington, DC 20005

New Research Reports from EDA

- **Unlocking Rural Competitiveness: The Role of Regional Clusters.** This EDA-funded report by Purdue and Indiana University developed a database and method to assess regional economic competitiveness in rural areas of the United States. The research was organized into two major projects: Project 1 built a comprehensive database for cluster studies, and Project 2 uses the database developed in Project 1 to analyze the cluster structure of regions. Go to <http://www.ibrc.indiana.edu/innovation/data.html> for more information on the ongoing data updates.
 - **Rural Clusters of Innovation: Berkshires Strategy Project – Driving a Long-Term Economic Strategy.** This report provides an overview of a collaborative effort between Monitor Group and the Berkshires Region of Massachusetts to assess the Berkshire regional economy and formulate a strategic plan for economic growth.
- Both reports are available online in PDF format at www.eda.gov.**