

New Tools for Economic Development Targeting and Strategy

By Glen Weisbrod and Brett Piercy

APPLYING A LOCAL ECONOMIC ASSESSMENT PACKAGE

This article illustrates how economic development strategy and development of business attraction targeting have been changing over time, and how new analysis tools are enabling economic developers to become more sophisticated in their identification and refinement of feasible target strategies. **The "LEAP" approach to economic development evaluation is described to illustrate how such new tools can be applied.**

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new tools for economic

DEVELOPMENT TARGETING AND STRATEGY

By Glen Weisbrod and Brett Piercy

e EVERYTHING IS DIFFERENT AND YET IT LOOKS THE SAME

"I just want to say one word to you - just one word... plastics... There's a great future in plastics." That was the job advice given to the young college graduate played by Dustin Hoffman in the 1967 movie, *The Graduate*. It was actually not a joke. At that time, economic developers across the country were also seeking to attract the fast growing plastics industry to their communities and regions.¹ That technology target was replaced in later decades by "advanced ceramics and polymers," later by "electronics," followed by "back office telecom," then "computer software and hardware," and most recently "biotech".² Today, at least 40 states have developed economic development targets that include biotech. Are we all still guilty of all jumping on the same bandwagon?

EVOLVING "IN-VOGUE" TARGETS OVER 40 YEARS:

- Plastics
- Polymers
- Electronics
- Back Office
- Computers
- Biotech

Base Analysis" (based on Location Quotient and Shift Share), to "SWOT analysis" (Strengths-

Over the past three decades, there has also been significant change in the names of analysis methods that are used to identify economic development prospects and targets. The popular name for industry targeting methods has changed name labels over time, from "Economic



The Middle Georgia Economic Development Center in Macon used LEAP to help develop an economic diversification strategy.

Weaknesses-Opportunities-Threats) to "Economic Cluster Studies." Yet if you look more closely at the components of these studies, you can see that core analysis procedures remain nearly the same. For instance, a recent article published in *Economic Development Journal* discussed how location quotients and shift share techniques – the core of Economic Base Analysis in the 1970's – are still a critical foundation of the more recently promoted concept of "cluster analysis."³

In fact, regardless of the labels, nearly all economic development strategies developed over the past three decades have sought to balance three economic development goals: (a) to diversify our local economies away from mature core industries, (b) to build on existing local industry strengths, and c) to broaden into related or complementary industries. Twenty years ago, "industrial diversification" was the in-vogue keyword for strategy evaluation.

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APPLYING A LOCAL ECONOMIC ASSESSMENT PACKAGE

This article illustrates how economic development strategy and development of business attraction targeting have been changing over time, and how new analysis tools are enabling economic developers to become more sophisticated in their identification and refinement of feasible target strategies. The "LEAP" approach to economic development evaluation is described to illustrate how such new tools can be applied.

Until recently, “cluster strategies” was in-vogue as the term being promoted by consultants, though it is fading as evidence grows that some areas are also achieving economic success through alternative growth paths. For instance, recent research commissioned by the Appalachian Regional Commission shows that some areas can and do achieve economic development through growth paths based on tourism amenity resources, R&D or learning-based resources, supply chain transportation corridors or international trade connections – all growth paths that do not rely simply on geographic clustering.⁴

So despite the changing talk, we often end up with the same tools for analyzing our economies. And for good reason. After all, any type of economic growth strategy must start with a solid understanding of our own local economies. A typical local economic performance analysis would at least look at the area's economic performance and competitive characteristics and compare or benchmark them against other areas. The other areas may be competing regions, or they may be state or national averages.

It is the next step – what to do with that information – that is most critical. The most simplistic strategy is to just pick your preferred growth industries based on your conclusion from the local performance analysis, and then hire a firm to supply a prospect list. Twenty-five years ago, some (now defunct) firms sold target prospect lists representing America's fastest growing companies to eager economic development recruiters, who later found that their colleagues across America were all seeking to attract the very same companies. Needless to say, that approach has since lost some of its luster among economic developers, though it rises up from time-to-time as there are resurgences of industry chasing (most recently, the bandwagon pursuing biotech firms).

FORMALIZING STEPS AND FACTORS TO CONSIDER

We would like to believe that economic developers, as a profession, do learn and become more sophisticated over time. There is actually some evidence that this is true.



Photo Credit: Lloyd Wolf

The Development District Association of Appalachia (DDAA) represents 72 regional economic development agencies across 13 states. Based on discussions with the DDAA, the Appalachian Regional Commission supported LEAP and its use by LDDA members.

Evaluation Steps. First of all, the steps involved in the economic development process have become more formalized. The International Economic Development Council, with its training programs, has been a leader in that education process. The IEDC guidebook for certification, *Economic Development Planning*, lays out the core seven steps in any economic development planning and implementation process. This sequence of steps is shown in Table 1. As stated in the IEDC guide, this sequence starts out with assessment of the local economy as the foundation for formulating goals, priorities, and strategies. It ends with monitoring and evaluation of implementation outcomes, leading back to a reassessment and refinement of the local strategy. In other words, some form of evaluation of the local economy and its competitiveness is a critical foundation at the front end and back end of any complete economic development strategy.

Analysis Factors. Second, the factors to be considered in evaluating competitiveness have now been well studied and documented. Thirty years ago, researchers were conducting studies to determine what businesses felt were the key site selection factors affecting their site expansion, relocation and new startup location decisions. There is now a strong consensus on the key business location factors, which represent local competitiveness factors for economic developers. Those factors and some of the studies supporting the list are shown in Table 2.

A notable characteristic of this list is that many of the factors relate to *availability, quality and scale* of

Table 1. Basic Steps in Economic Development Planning & Analysis⁵

- 1) Pre-planning/Assessment of the Local Economy
- 2) Formulation of Goals and Objectives
- 3) Identification, Evaluation and Prioritization of Proposals
- 4) Development of Strategies and Plans
- 5) Implementation of Plans
- 6) Monitor and Evaluate Outcomes
- 7) Revise and Adjust Implementation

available local resources, in addition to the cost of living and cost of doing business locally. While early economic models attempted to evaluate business attractiveness based primarily on cost differences,⁶ it is now widely recognized by economic developers that availability, quality, and scale factors are equally important site location factors. In fact, non-cost effects (such as labor force size, worker skill training, and intermodal terminal availability) can represent fundamental location requirements for some types of business enterprise.

Therefore, a successful economic development strategy must determine the nature of the above factors in their own community relative to other communities, and improve non-competitive factors to the extent possible. Once competitive factors have been determined and shortcomings have been improved upon, a marketing campaign can be targeted to inform the relevant business and investment interests about local advantages.

A scan of state and regional economic development websites and marketing materials confirms that this approach is indeed being widely adopted. Figure 1 illustrates how some states across the nation are presenting themselves to potential businesses. Unsurprisingly, the features they address – either by emphasizing advantages or simply providing data for companies to view – coincide with the list previously shown in Table 2.

ANALYSIS METHODS: NEW OPPORTUNITIES AND PITFALLS

Three-Phase Evaluation Process. The seven basic steps in economic development planning & analysis can be supported by a three-phase evaluation process, with each phase aimed at helping practitioners identify target industries for economic development.

Table 2. Business Site Location Factors⁷

- Suitability of Business Parks, Land, and Buildings
- Scale and Skills of the Labor Market – Workforce
- Scale and Socioeconomic Characteristics of the Consumer Base
- Availability and Quality of Infrastructure – roads, power, water/sewer, broadband telecom, intermodal transportation terminals, and connections
- Access to Markets, as well as to airports, marine ports, and intermodal rail terminals
- Business Support services and business climate – job training, regulations, business organizations
- Quality of Life – including climate, arts and culture, recreation, and school quality
- Cost of Doing Business – including labor, utilities, infrastructure, and taxes

Figure 1. How States Present Themselves to Potential Businesses⁸

Iowa –



- Quality of Life: short commutes, low crime, great schools, clean air, recreation
- Worker productivity
- Top ranking academics, innovative environment
- Favorable tax policies
- Favorable business climate/business incentives

Vermont –



- Quality workforce: skilled, educated, strong work ethic, less turnover
- Accessible government officials, favorable business climate
- Telecommunications infrastructure/fiber optics
- Quality of Life: outdoor recreation, no traffic, low-stress
- Market access – 80 million pop. within 500 mi radius

Tennessee –



- Market access – great roads, central location
- Labor force: dependable, educated, right-to-work state
- Quality of life
- Business climate: incentive packages and project fast-tracking

Arizona –



- Growing “high-tech” workforce
- Competitive operating environment: low taxes, business incentives
- Easy access to major markets: Phoenix airport, Canamex highway corridor
- Reliable utilities, low cost of doing business
- Affordable, available real estate
- Quality of life

Oregon –



- Business climate
- Business costs
- Business incentives
- Business financing
- Business assistance
- Quality workforce, low workers comp cost
- Available industrial sites



The Local Economic Assessment Package identified how opening of I-86 would help the Southern Tier West region of NY State overcome transportation access barriers and create new growth opportunities in manufacturing, distribution, and lodging.

1) Economic Performance Assessment – An assessment of economic conditions and trends. This starts out by considering the performance of local industries and hence the relative success of the local area in achieving desired forms of economic growth.

2) Targeting Diagnostics – Identification of industries that can provide the most appropriate basis for economic development. This requires evaluation of the connection between (a) performance of local industries and (b) competitiveness of local facilities and resources for serving those industries. That also serves to identify local improvements needed to attract and grow target industries.

3) Policy Development and Analysis – Careful monitoring of results and examination of the potential economic development consequences of future policy initiatives which affect local costs, labor force quality, available site and infrastructure adequacy, and supporting resource availability.

When done properly, this three-phase process requires substantial time and effort, which is burdensome for even the most sophisticated, well staffed and adequately funded organizations. In reality, many practitioners find themselves slogging through with significant staffing and budgetary constraints in their attempts to assess competitive factors and determine their implications for economic development targeting.

New Data and Analysis Sources. Some help is arriving. As the process and techniques of economic development have become more methodical and standardized, technology has been enlisted to help reduce this burden:

- *Employment and industry analysis* is now available on the internet. While the free public sources have data withheld for some industries in many of the US counties, private analysis systems have emerged to fill in the missing data (based on surveys or interpolations) and then calculate business mix profiles and trends for areas.⁹

- *Cost comparison* information is available on the internet, particularly for local housing costs, labor costs, and taxes, along with cost of living data. Additional economic modeling tools can now compare various elements of the “cost of doing business” in different areas.¹⁰

- *Economic impact* models can now show the broader regional economic effects of business expansions and relocations for any local area. This includes indirect impacts on suppliers to the affected industries and induced effects of worker spending on consumer goods, as well as tax impacts.¹¹

Pitfalls. Unfortunately, having a “hodge podge” of analysis tools can serve to further confuse economic developers. Each of these types of analysis has specific uses for displaying trends, comparisons, and impacts that are valuable for certain situations, but together they do not provide a coordinated toolkit to effectively support economic development targeting and strategy development. An uncoordinated set of tools will at best fail to address some issues; at worst, they can address the wrong issues. Examples of these problems include the following:

- Area industry mix patterns and trends are easy to assess, but most economic developers understand that such information is of limited value unless it can be compared to relevant neighbor and competitor areas to identify performance gaps, and then linked to business competitiveness factors to help explain those results.

An uncoordinated set of tools will at best fail to address some issues; at worst, they can address the wrong issues.

The problem of over-reliance on industry patterns and trends is that they can lead to a naïve conclusion that already strong industries represent clusters that should be the top priorities for further recruitment. More appropriately, economic development strategies should focus on identifying existing gaps and missed opportunities, desired growth paths, and the steps needed to overcome barriers now holding back achievement of those opportunities.

- Cost modeling is easy to assess and forms the core of economic simulation and forecasting models that focus on dollar flows and dollar cost differences to explain how industry growth and investment moves among areas. However, most economic developers understand that business location requirements also depend on a host of non-cost (size, quality, and access) factors that are at least as important as cost in determining competitiveness and resulting industry growth and investment shifts.

The problem of over-reliance on cost comparisons is that they can lead to a naïve conclusion that local economic development strategy should focus just on cost incentives to attract economic growth. Often, economic development strategies need to focus more on identifying opportunities to overcome gaps in transportation facilities, job training, industrial park facilities, and/or business support services as ways to enhance quality.

- Economic forecasting and impact models can show how a given type of new business will generate additional flows of dollars to suppliers. However, most economic developers understand that part of their job is to make economic forecasting and impact models be wrong: (1) Economic forecasting models usually assume no change in competitiveness factors aside from costs, while economic developers may be working hard to make quality improvements in local facilities, job training or support services. (2) Economic impact calculations assume that dollars will “leak” out of the area if there are currently no local suppliers to serve a major new industry, while economic developers may be working hard to develop local supply chains that can keep those dollars in the local economy.¹²

The problem of reliance on economic forecasts and impact models is that they can lead to a pessimistic view of future prospects for local economic development, and wrong priorities for industry growth and attraction targets. More appropriately, economic developers need to take advantage of opportunities to enhance local supplier networks as a way of enlarging the indirect benefits of business expansion and attraction efforts.

INTEGRATED EVALUATION: LEAP STRUCTURE

In recognition of these shortcomings, the Appalachian Regional Commission supported development of the “Local Economic Assessment Package,” as a bundle of tools to give economic developers the ability to diagnose local competitive position, select appropriate targets, and

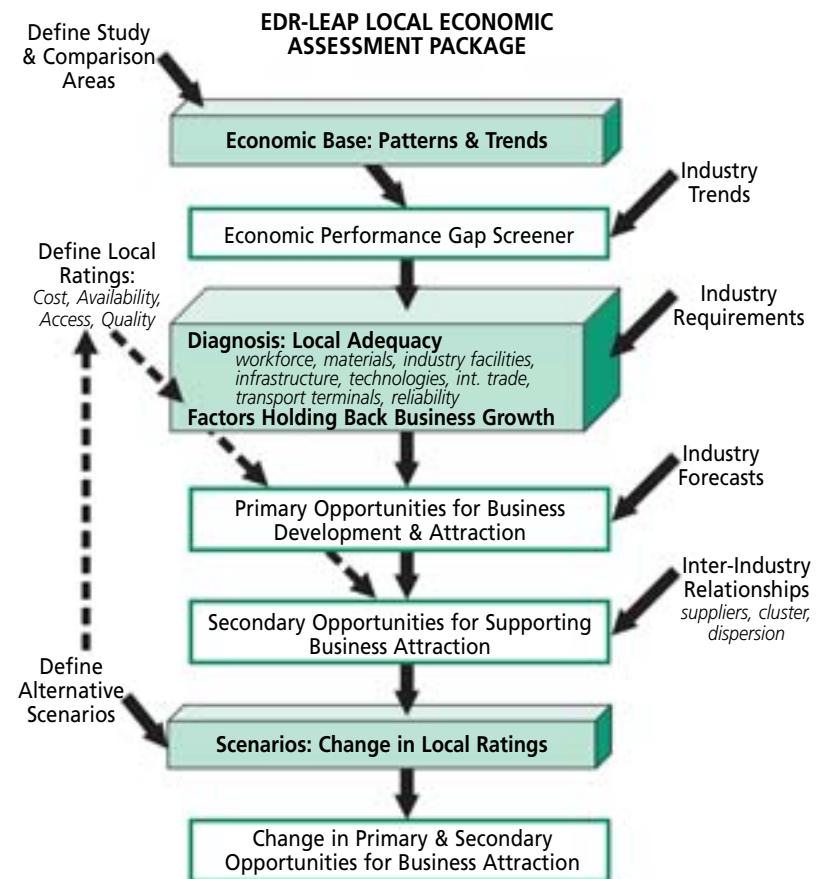
design economic development targeting strategies that build on strengths and minimize weaknesses. The resulting package of tools follows the evaluation process supporting IEDC’s *Economic Development Planning* guide and recommended targets and policy priorities. It is designed specifically to avoid the pitfalls just discussed.

The structure of this approach is shown in Figure 2. It revolves around three steps or modules, shown by the shaded three-dimensional boxes: (1) Economic Assessment, (2) Targeting Diagnostics, and (3) Policy Analysis. They implement the three-phase evaluation process that was previously discussed to provide information for the IEDC economic development planning process. Most importantly, this approach avoids or minimizes the pitfalls of incomplete and inappropriate conclusions by making the critical connection between (a) local economic performance results to date and (b) local competitiveness factors (costs, quality, access, and market scale differences). That provides a basis for determining (c) potentially feasible business growth/attribution targets and actions needed to make them possible.

The steps are as follows:

- **Economic Base Assessment** – This step develops profiles of business mix and performance trends by industry, and benchmarks them against adjacent or

Figure 2. LEAP Structure



competing areas to identify leading & lagging industries, performance gaps, and business types with the greatest local growth or attraction potential.

- **Targeting Diagnostics** – This step rates competitive strengths and weaknesses of the area in terms of various costs (e.g., utilities, housing, land, labor, taxes), qualities (worker skills, industrial/office park amenities), access (to airports, highways, railroads), and supporting infrastructure (broadband, business resources). It uses a knowledge base of industry requirements, thresholds for business location, and inter-industry relationships to identify the key factors that are constraining local attractiveness for each industry, and potentially achievable business attraction targets.
- **Policy Analysis** – This step allows users to assess how changes in economic development conditions can affect the size and nature of potential future business attraction. It estimates changes in job growth associated with positive or negative changes in labor skills training, industrial/office park amenities, land availability, broadband access, and/or transportation accessibility. It provides a basis for prioritizing future economic development initiatives.

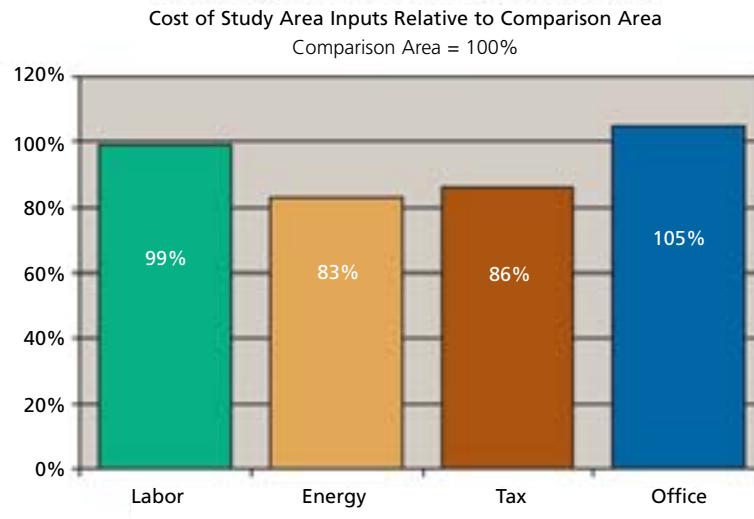
An interesting aspect of this kind of integrated system design is that it can be flexible in the choice of economic development targeting objectives, as the assessment of gaps, opportunities, and targets can be viewed in terms of (a) job creation, (b) income generation, (c) maximizing local value added or (d) increasing business sales. The choice can make a big difference in findings and recommendations, as some industries are growing in business sales while jobs or effective salaries are being cut. It is also flexible in the choice of comparison areas for benchmarking, which can be adjacent areas, national or regional competitors, or other areas that will be linked by new transportation corridor connections. That decision also depends on the purpose and use of the analysis.

Recognizing its flexibility, this system has now been adopted by the Appalachian Regional Commission and distributed to its Local Development Districts in 13 states to support and enhance their economic development targeting efforts. Applications of it have won national recognition awards from IEDC and C2ER (the Council for Community and Economic Research).¹³

SPECIFIC FACTORS TO CONSIDER IN CARRYING OUT AN INTEGRATED EVALUATION

Assessment of the Economy. As noted by economic development textbooks, the three principal tools that form the starting basis for economic base analysis are Location Quotient (business mix analysis), Shift Share

Figure 3. Relative Cost Factor Comparison



(business trend analysis), and SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis.¹⁴ These techniques are not new and they often form part of Comprehensive Economic Development Strategy (CEDS) documents funded by the US Economic Development Administration.

Nor are these techniques inherently complicated. In fact, they can be done quickly with spreadsheets following instructions in regional economic textbooks. The difficulties lie in (a) collecting data on dozens of industries at the appropriate level of detail, and then (b) making the right comparisons to extract findings on local strengths and weaknesses.

This is one area where LEAP diverges from traditional analysis approaches. The traditional approach for economic base analysis has been to compare a local area against national patterns and trends. Economic models similarly also compare local costs against national costs. The problem, of course, is that a rural region does not necessarily expect to compete against big metro regions for the same industries, nor does a lake recreation area expect to compete against mining or industrial centers. That is why a benchmarking approach, which compares local industry mix patterns and growth trends against relevant competing areas, will lead to totally different types of findings on local gaps than a comparison to state or national averages. Figure 3 is a graph generated by LEAP that illustrates a comparison of business cost factors in a study area relative to a user-defined comparison area.

Targeting Diagnostics. The diagnostic phase of LEAP includes an assessment of local advantages and disadvantages for each industry in which there is a potential for further business growth and attraction, as identified in the assessment phase. This set of diagnostics identifies “critical” and “important” weaknesses that need to be addressed if the area is to fulfill some of the growth potential identified in the local area assessment.

A major problem holding back systematic analysis of economic development opportunities in the past has been difficulty pulling together information on just how a local area stacks up against competing areas in terms of various “competitiveness factors” -- which can range from very specific (such as tax and utility rates) to very vague (such as business climate and quality of life). Traditional economic models sidestep the problem by ignoring those non-dollar factors and concentrating instead on the more easily measured business output trends and costs. Yet economic developers know that these scale, quality, and access factors can be at the core of economic competitiveness and addressing them can be critical to achieving success in business growth and attraction.

The LEAP approach takes this issue of information assembly head on, as it attempts to recognize all of the major business location considerations that are important to economic developers. The solution is two pronged:

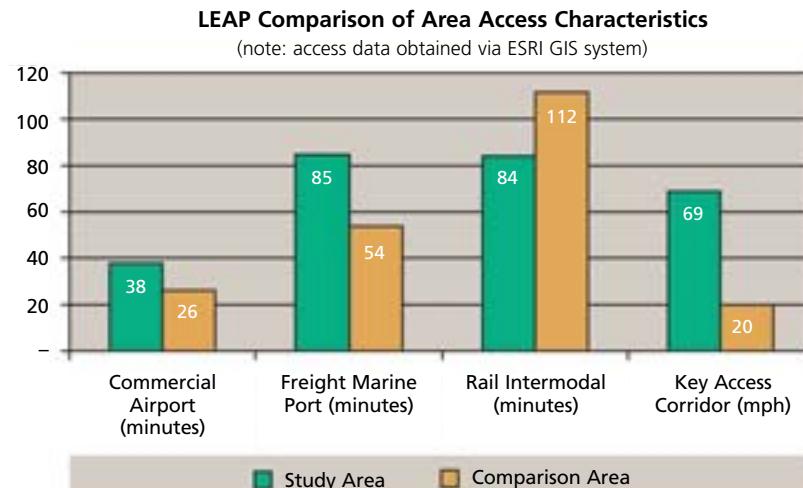
- **Use of Broader Data Sources.** Information on many factors that are not readily available can in fact be obtained through an up-front research effort to tap proprietary databases, with costs greatly reduced if they are spread over many users. That is done with an on-line version of LEAP, which includes measures for every US county of: (a) cost factors including labor, utilities, taxes, and buildings, (b) size and quality factors including delivery markets and education characteristics of the workforce accessible within a 40 minute drive, (c) access times and size of available commercial airports, marine ports and intermodal truck/rail terminals, and (d) availability and magnitude of broadband facilities, recreation activities, and international exports. Figure 4 illustrates this type of comparison.
- **Use of Local Information Worksheets.** To assess local conditions for some important factors that are not readily available, it is necessary to rely on locally completed worksheets. These include ratings based on detailed criteria for judging the quality features of local business parks and buildings, quality ratings for local training, business support services and business climate, and quality rating for local tourism support facilities and services. Practitioners have shied away from such measures in the past because they require judgment in assessing business facilities and supporting resources. However, the LEAP approach is based on an understanding that these factors cannot be fully measured by available public or proprietary databases, but they also cannot be ignored. By providing and allowing for optional use of local assessment worksheets, the system can provide a more robust and complete picture of local competitiveness factors.

Opportunities and Barriers. The crux of the matter, then, is to connect an area's economic performance gaps (unfulfilled opportunities) to its shortfalls in the various competitiveness (cost, scale, quality, and access) factors. To diagnose which of the competitiveness factors are acting as barriers to business growth and attraction, LEAP relies on a base of information concerning detailed industries, their relative business requirements for these factors, and how industries respond to changes in these factors.

This approach recognizes that industries must meet thresholds for some factors in order to make their business operations economically viable at a given location. For instance, the thresholds can be minimum market size requirements (common for financial and business services), maximum access times to airports (common for electronic products), and/or delivery time and reliability requirements along supply chain corridors (common for just-in-time automotive parts). Additional elements of the information base include baseline industry growth forecasts and inter-industry supplier and buyer relationships, which together provide information on how attracting one industry can create spatial cluster opportunities to also attract additional growth through complementary industries.

In this way, LEAP identifies sets of industries that are good targets for economic development based on the match of local characteristics and the operating requirements of each industry. For those industries that are cur-

Figure 4.



rently lagging but could offer future growth opportunities, it identifies the nature of current disadvantages that need to be overcome in order to effectively promote more local business activity.

Armed with these diagnostics, LEAP identifies industry targets with the greatest opportunities for direct business attraction, the magnitude of potentially achievable growth, and the factors that must be addressed to realize those results. It also helps practitioners consider oppor-

The fundamental concepts of performance benchmarking, identification of barriers, and assessment of business attraction opportunities, have many types of application. They are illustrated by the range of ways in which LEAP has been used.

- The Tennessee Dept. of Transportation commissioned a study using LEAP to assess opportunities for attracting more jobs as a result of completing the Corridor "J" highway link between Chattanooga, TN and London, KY.
- The Middle Georgia Development Center used LEAP to develop an economic diversification strategy plan in response to possible military base realignment. (The report is available on its web site at <http://mgrdc.org/jointplan/documents.html>.)
- The Colorado Springs Economic Development Corp. commissioned a study using LEAP to help assess local competitive strengths and weaknesses and the effect of utility costs on business attraction. The results were used to help refine city utility fees for new business.
- In NY State, the Southern Tier East Regional Planning and Development Commission used LEAP to generate reports on shifts in business patterns, and is now applying it for their CEDS (Comprehensive Economic Development Strategy) report.
- The Coos Valley Regional Development Center in Georgia applied LEAP for its CEDS report and for identifying competitive business attraction strengths and weaknesses. It is now starting to use LEAP as part of an effort to assess job training needs.

tunities for building upon inter-industry linkages – in other words, sets of industries that build on common needs and buyer-supplier relationships. Complementary industries are types of businesses which are not primary target industries, but which may nevertheless represent growth opportunities because they are suppliers of goods and services to the primary target industries or otherwise interact with them. In this case, any direct opportunities for business growth may also indirectly create opportunities for growth in complementary industries that do not directly depend on highway access.

Economic development targets identified via LEAP or any other analysis system will only be achieved if a strategy plan is put in place to address remaining needs and to actively entice such business growth and attraction.

Policy Analysis considers how some barriers to business growth and attraction can be minimized or overcome by the programs and projects of local planners and economic developers. Local public policies and programs and projects can include improvements in the availability and adequacy of local education; workforce skills training; infrastructure enhancement; business site development; access to airports, sea ports, and rail; and improvements to highways or initiation of improved

support services. By applying the base of information on industry growth factors, the system can then identify the potential impact of proposed policies or projects on business attraction, and present estimates of the range of resulting impact on jobs, income, value added or business output. The impacts are expressed in terms of range estimates, based on risk factors including industry volatility and sensitivity to business cycles.

Follow On Actions. Economic development targets identified via LEAP or any other analysis system will only be achieved if a strategy plan is put in place to address remaining needs and to actively entice such business growth and attraction. Once potential opportunities for targeting future business growth and attraction have been identified, along with needs for addressing existing barriers, the economic developer must devise a process to work with other area agencies and leaders in forging a strategic plan to address those issues. This includes agreement on targets and goals, and a program of action steps covering organizational, staffing and financing plans to pursue the goals, as well as some form of monitoring and evaluation of results. 

ENDNOTES

1. This was pointed out by economic development consultant, Thomas Ticknor.
2. Source: Biotechnology Industry Organization (BIO) as discussed in Krizer, Ken. "Expanding Biotech Companies Use Clusters to Grow Their Operations," *Expansion Management*, April 1, 2006.
3. Heike Mayer, "Cluster Monitor," *Economic Development Journal*, Fall 2005, p.45
4. Economic Development Research Group, Regional Technology Strategies and MIT, *Sources of Growth Paths for Economic Development*, four volumes, prepared for the Appalachian Regional Commission, 2007.
5. *Economic Development Planning*, International Economic Development Council (2002).
6. Treyz, George: *Regional Economic Modeling: A Systematic Approach to Economic Forecasting and Policy Analysis*, Kluwer Academic Publishers, 1993.
7. The top site location factors are widely recognized in the field of economic development today, though most of the research to identify them took place over the prior decade. Sources include: (1) *Portland 2002: Strategy for Economic Vitality*, Appendix 2-3: "Location Factors," 2002, (2) Sloagett, Gordon and Mike Woods. "Critical Factors in Attracting New Business and Industry in Oklahoma. Oklahoma Cooperative Extension Service;
- (3) Kotler, Philip et al. *Marketing Places*. The Free Press, 1993; (4) Lyne, Jack, "Quality of Life Factors Dominate Many Facility Location Decisions," *Site Selection Handbook*, August 1988, and (5) Finkle, Jeffrey. "Developing Strategies for Economic Stability and Growth," Council for Urban Economic Development, 1997. For quality of life, also see (6) Segedy, James. "How Important Is Quality of Life in Location Decisions and Local Economic Development" in R. Bingham and R. Mier (Eds.) *Dilemmas of Urban Economic Development*, Sage, 1997.
8. As found on respective state economic development websites: www.iowalifechanging.com ; www.dca.state.vt.us ; www.state.tn.us/ecd/bizdev_new.htm ; www.commerce.state.az.us/whyaz.asp ; www.oregon4biz.com/index.htm
9. Analysis systems that fill in non-disclosed data and show industry mix and trends include LocalEconomy.net from Regional OneSource, Economic Forecaster from EMSI , DevSight from REMI and LEAP from Economic Development Research Group (using custom data from IMPLAN). All of these sources involve a charge to users.
10. Analysis systems that calculate and display various elements of the cost of doing business by industry and area include DEALS from Dealtek, LEAP from Economic Development Research Group and Policy Insight from REMI. The first two address many facets of industry competitiveness, while the third one focuses just on cost competitiveness. All three are proprietary systems offered for a fee by private providers.
11. Analysis systems for calculating local economic and tax impacts of business expansion/contraction include Retention and Relocation Model from Elliott Pollack & Co., IMPLAN Model from Minnesota Implan Group, REDYN Model from Regional Dynamics and Policy Insight Model from REMI. All are proprietary systems offered for a fee by private providers.
12. An economic impact model applied before the opening of the BMW assembly plant in South Carolina would normally have calculated that the flow of dollars to auto parts suppliers would go mostly out of state, since there was no major auto parts industry in the state at that time. It would not have known that the cooperative efforts of BMW and the state would subsequently lead to the attraction of 49 new auto parts suppliers, creating thousands of additional jobs.
13. Council for Community and Economic Research 2006 National Award for Applied Research; IEDC 2005 Recognition Award for Research Studies.
14. Bendavid-Val, Avrom. *Regional and Local Economic Analysis for Practitioners*, fourth edition. 1991.



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