

2 OVERVIEW OF LEAP

2.1 LEAP Structure

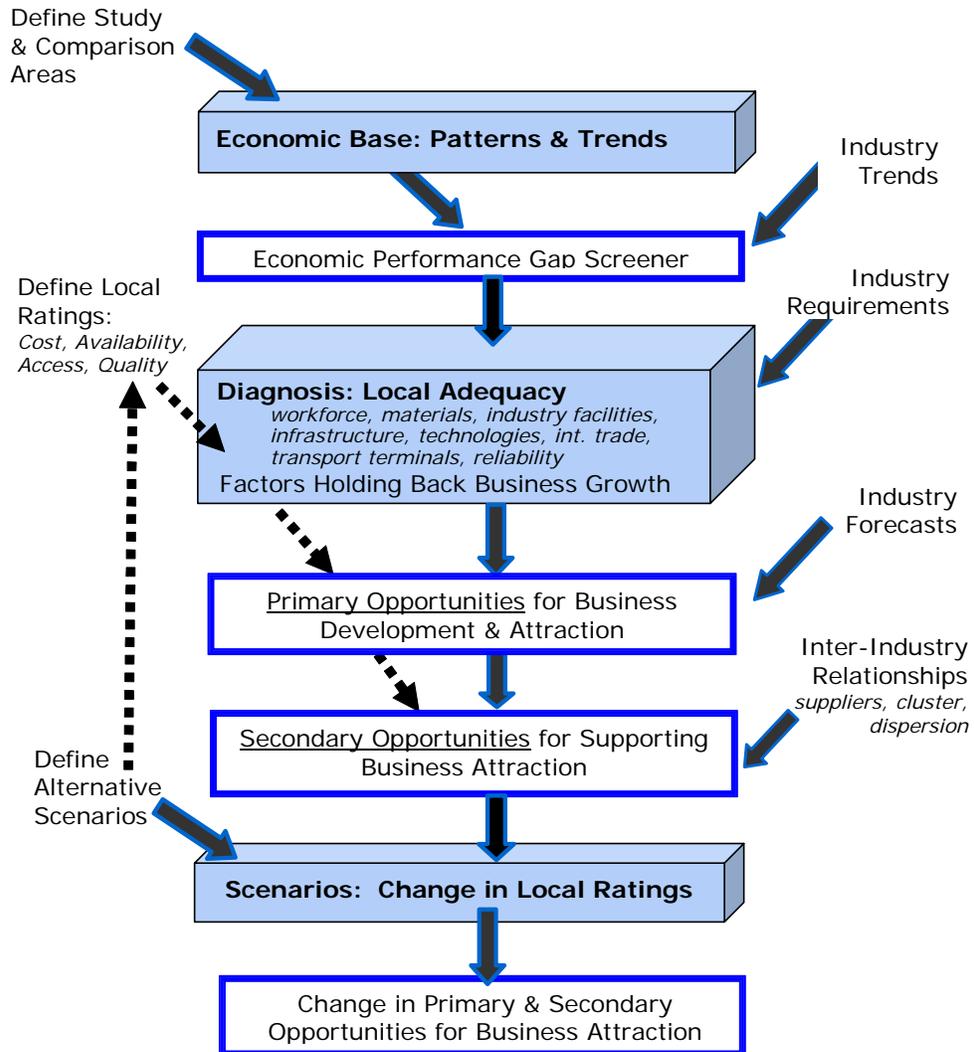
In recognition of these shortcomings, the Appalachian Regional Commission supported development of the “Local Economic Assessment Package” as a bundle of tools to give economic developers the ability to diagnose local competitive position, select appropriate targets and design economic development targeting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

Figure 2. LEAP Structure



An interesting aspect of this integrated system design is that it is 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 - the International Economic Development Council and ACCRA – the Council for Community and Economic Research.⁷

2.2 Elements of Integrated Evaluation

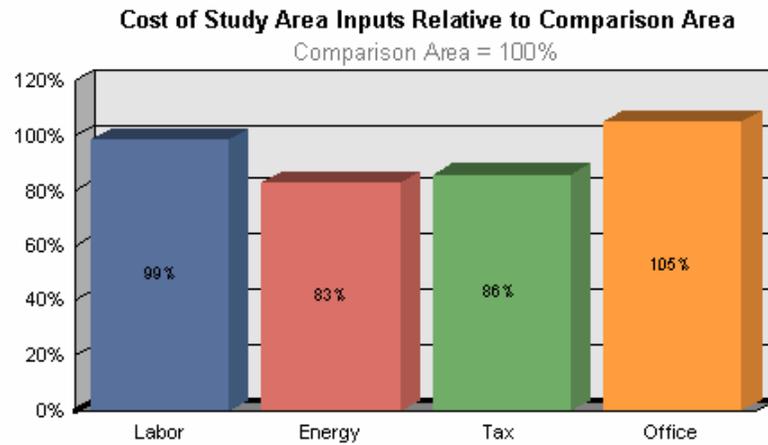
Assessment of the Economy. As noted by economic development textbooks, the three principal tools that form the starting basis for economic base analysis are Location Quotient (business mix analysis), Shift Share (business trend analysis), and SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis.⁸ 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.

⁷ ACCRA 2006 National Award for Applied Research; IEDC Honorable Mention for Research Studies, 2005

⁸ Bendavid-Val, Avrom. Regional and Local Economic Analysis for Practitioners, fourth edition. 1991.

Figure 3. Relative Cost Factor Comparison

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.

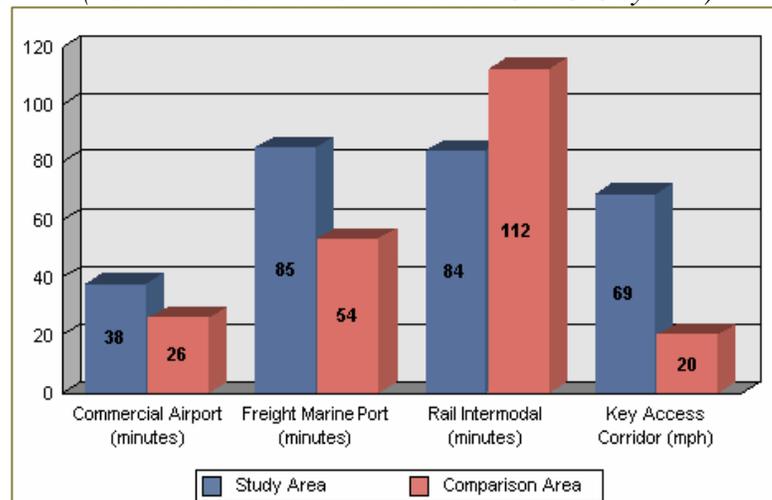
The LEAP approach takes this issue of information assembly head on, as it attempts to recognize all of the major business location considerations that are important to economic developers. The solution is two pronged:

- **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) costs 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.

Figure 4. LEAP Comparison of Area Access Characteristics
(note: access data obtained via ESRI GIS system)



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 the 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 currently 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. Figure 5 shows an example of a LEAP diagnostic report and the resulting identification of factors responsible for current industry performance gaps.

Figure 5. LEAP Diagnosis of Factors Holding Back Economic Growth in a Sample Study Area

Barriers Factors by Industry (1=Critical, 2=Important)

Performance Measurement = Employment
Actual Number of Jobs

NAICS	Sector	Potential Attraction	Prod Cost	Labor Cost	Land Cost	Energy Cost	Tax Cost	Work Force	Labor Skill	Water Trans	Air Trans	Rail Trans	Broad Band
511	Publishing Industries (except Internet)	814	-	-	-	-	-	-	2	-	2	-	-
514	Internet & data process svcs	507	-	-	-	-	-	2	-	-	1	-	-
521-523	Monetary, Financial, & Credit Activity	7,758	-	-	-	-	-	-	2	-	-	-	1
524	Insurance Carriers & Related Activities	6,394	-	-	-	-	-	1	2	-	-	-	-
533	Lessors of Nonfinancial Intangible Assets	387	-	-	-	-	-	1	1	-	-	-	1
541-551	Professional Scientific, Technical, Services	12,904	-	-	-	-	-	2	2	-	2	-	1
561	Administrative & Support Services	18,306	-	-	-	-	-	2	-	-	1	-	-
621-624	Health Care & Social Services	6,609	-	-	-	-	-	1	-	-	2	-	1
721-722	Accommodations, Eating & Drinking	23,057	-	-	-	-	-	-	-	-	-	-	-
811-812	Repair, Maintenance, & Personal Services	2,887	-	-	-	-	-	-	-	-	-	-	1
813	Religious, Civic, Professional, Organizations	5,203	-	-	-	-	-	1	-	-	-	-	1
TOTAL		84,826											

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 opportunities 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 business 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.

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 on 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 from LEAP 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 strategy plan. 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.

2.3 LEAP Uses for Appalachian Growth

Performance Indicators. For regional and state economic development agencies, LEAP was designed to be used in several ways. First, it provides economic development performance indicators, reflecting the area's economic performance, trends and growth opportunities, as well as comparison of those performance indicators to surrounding areas or counterparts elsewhere. LEAP provides a large volume of key information that would take considerable effort for local economic development agencies to assemble and process themselves. This includes the following

- The core data on *employment and business output* (patterns and shifts over time) is provided through a cooperative agreement with Minnesota IMPLAN Group, Inc. (MIG). It is developed from information compiled by the US Bureau of Economic Analysis, US Bureau of Labor Statistics, Zip and County Business Patterns, and the Economic Census, with additional enhancement to provide full details for small areas without suppression. We update aggregate estimates using information from more recent Dun & Bradstreet.
- Additional information on local concentration of *international exports* and local purchasing patterns is also provided by MIG under cooperative

agreement. The export estimates are based on International Trade Administration data, while further analysis of local source purchasing is derived from calibrated IMPLAN models.

- *Local travel times, accessibility measures, delivery markets and labor markets* are derived from highway network drive times along with business and demographic data, using a Geographic Information System (GIS) from ESRI.
- *Other local information* includes: (a) workforce characteristics, educational attainment and housing costs derived from the US Census; (b) Utility costs derived from the Energy Information Administration, Edison Electric Institute and Energy User News; (c) Local taxes and government revenues compiled from the Census of Government; (d) Airport, marine port, and freight intermodal facility locations and activity levels are based on inventories maintained by the US Dept of Transportation.

Support for Strategic Review. A second use of LEAP results is use of its evaluation reports to support both internal organization strategy and outside information dissemination. This includes the following:

- Profile of *business attraction strengths and weak nesses*, such as the size of the labor market and delivery market, availability of transportation and broadband telecommunications facilities, and workforce education.
- Tracking *change in the local area economy* is changing over time, in terms of gains and loses in employment and/or business sales in various local industries. Also identify local industries where local business sales are gaining while jobs are dropping as a result of increasing outsourcing and/or mechanization).
- Comparison of local *performance relative to adjacent or competing areas* (or the state as a whole), to identify how the local area has been over- or under-performing in terms of its business mix and business growth performance.
- Benchmarking of *local competitiveness* for various growth paths, by showing relative differences in workforce skills, educational attainment, transportation access, broadband penetration, and quality of industrial parks.

Strategy Development. Finally, LEAP can provide information that can help guide strategy for pursuing various growth paths. This includes the following elements:

- Identification of *barriers* holding back local current success in promoting business growth and attraction economic performance: LEAP identifies the specific factors that are constraining local business growth and attraction, and the specific industries that are being constrained.

- *Target Industries* that represent opportunities for business attraction. LEAP identifies the best industries to focus on, the magnitude of the potential opportunity and the extent of uncertainty associated with it. It also identifies mutually supporting and complementary industries that can be an indirect element of a growth strategy.
- *Policy Actions* that can affect the type and size of industry growth opportunities and targets. LEAP allows you to estimate how proposed scenarios for enhancing industrial parks, transportation infrastructure, job training and business support services may change target opportunities.