Glossary of Labor Market Terms

Career Ladders. Traditionally, workers progressed in their careers by moving upwards, generally within the same company. A "career ladder" represents this vertical movement over time, where workers start from a lower organizational point of entry and work their way up in an orderly, predictable fashion.

Career Lattices. "Career lattices" are more typical of career progression in today's labor market. In many cases, workers must move horizontally or even backward by changing occupations or companies to garner positions of higher pay or responsibility. These unique patterns of career movement bear a greater resemblance to a garden lattice than a traditional ladder. By making lateral or sideways career moves, workers can better position themselves to acquire skill sets and experience that may eventually lead to career advancement, or a greater level of responsibility, and potentially, to greater earnings.

Coefficients of Specialization. See Location Quotient.

Comparative Advantage. Industries with similar modes of production, natural resource requirements, skill set needs or staffing patterns tend to co-locate in regions conducive to industry growth and profitability. Every geographic area has unique characteristics or advantages that attract and contribute to growth of particular industries. Comparative advantages can be: natural resources, such as metal ores or forests; proximity to a transportation hub, such as a seaport or railway; abundant, skilled labor, such as that supplied by a major university; high speed telecommunications systems access; intellectual capital; combined logistical support; or other related infrastructure.

Comparative advantages are the assets that make the geographic area attractive for a certain kind of industry mix. The ability of businesses to maximize the comparative advantages of any given region will significantly contribute to the long-term success and profitability of both the company and the region. The location quotient technique (see Location Quotient) is often used as a statistical signpost to identify industries that are optimally maximizing a region's comparative advantage.

Demand Industries and Occupations. A "demand" industry or occupation is one in which large numbers of job openings are likely to occur in that industry or occupation. Operationally, a demand industry or occupation is defined as one in which there are above average projected annual job openings.

It is important to differentiate between demand occupations (those with lots of jobs, regardless of job characteristics) and targeted occupations (those that are a subset of demand occupations, possessing distinctive attributes). Not all demand occupations will meet the local Board's targeting standards (see "Targeted Industries and Occupations"). Because of the operational difference between demand and targeted occupations, Boards may want to devise a separate list of pure demand occupations to guide direct placement or employer outreach activities, where the Board has determined that such services are appropriate. Similarly, a separate targeted

occupations list with parameters for greater post-completion earnings potential or enhanced training requirements may be used to guide formal classroom training priorities.

Economic Base Analysis. Each regional labor market is made up of a unique blend of industries, employers and occupations that comprise the local economy. The size, diversity, distribution and structure of those industries is a function of the region's comparative advantages. The group of industries that generate the greatest amount of employment and income in excess of the needs of the local community is referred to as the "regional economic base."

Economic base analysis is a very specific approach used to determine what the core and export industries in the region are, i.e., the ones that bring revenue into the region by virtue of producing more than can be consumed locally. The most common techniques applied in conducting economic base analysis are location quotients, shift-share analysis and input-output modeling. Most of these techniques are "share" methods, using ratios (or coefficients) from a larger, self-contained region, such as the state or nation, to determine whether local production levels and related employment exceed local "self-sufficient" consumption demand.

Economic base analysis serves two main purposes: to identify the major current sources of income and employment in the local area, and to anticipate the changes in the local area economic structure, both those that will tend to occur naturally and those that should be encouraged in the development of a healthy, diversified industrial base within a regional economy capable of successfully weathering a downturn in any one of its key industries. Where diversification of the economic base is a desired goal, the analysis can indicate which sectors of the local economy have greater concentrations of employment, and which sectors might be targeted for indigenous expansion or firm relocation recruitment efforts.

Environmental Scan. An environmental scan is a general economic analysis or an assessment of the external factors and trends evident in the regional economy that form the context within which all business and workforce development programs operate. An environmental scan might include analysis of occupations, characteristics of jobs, industry evaluations, production output, relative cost of living, global trends, changing business practices, demographic trends, and other regional economic variables.

Because all workforce development programs operate within the context of the regional economy, this analysis should include an assessment of the demographics and employment barriers facing potential customers and the dynamics of the regional economy. Boards must foresee how external factors in their labor market shape their environment and require specific workforce solutions that address those situations. As the external environment is in constant flux, performing such an analysis should be a regular precursor to developing a workforce development operational plan.

Export Industries. Every region has both local population-serving industries and export industries; the latter are the sectors that serve as drivers of the regional economy. Basic or export activities, which comprise a region's "economic base" and sell in export markets, are distinguished from non-basic or service activities, whose output is consumed almost entirely by local demand. An industry is an "export" industry, when its product surplus is sold to customers

in other parts of the state, in other states or in other countries. Industries that export their surplus production to customers outside the region are the prime source of incoming revenue, which fuels employment demand growth, future economic development and wealth accumulation.

An industry with a high location quotient (see Location Quotient) is by definition cataloged as an export industry. Export industries hold the key to local expansion, and therefore, identifying those sectors of the local economy that are export-oriented, and monitoring their change, provides a tool for both predicting and guiding regional economic changes.

Good Employment Growth Prospects. "Good employment growth prospects" is a generic phrasing intended to convey a broader umbrella of labor market growth potential-- including growth due to availability of large numbers of job openings or a high potential for sustained employment demand. Examples of different operational definitions of good employment growth prospects might include industries or occupations:

(1) whose percentage growth rate is, or is expected to be, above the state or national average (such as being projected to grow at or above 50 percent annually, thus allowing for small, but fast growing industries and occupations to be included),
(2) which are expected to have above average numbers of statewide or regional annual job openings (such as offering annual average job openings of at least 30 regionally or 100 statewide, regardless of whether those openings are the result of new growth or replacement demand), or
(3) which are projected to have above average net employment growth in the total number of jobs added within the state or region.

In assuring that “Good Employment Growth Prospects” is a characteristic that has been met for each occupation on the Board’s final targeted occupations list for classroom training, the Board has affirmed that the targeted occupation meets the high growth and high demand criteria it established for its local area.

High Demand. A “high demand” industry or occupation, to align with the Department of Labor’s (DOL’s) definition, must meet one or more of the following criteria. The industry or occupation must:

(1) have above average projected job openings statewide or regionally, thus demonstrating a high expectation of employment opportunity;
(2) have a significant impact on, or be a key driver of, the local economy;
(3) be customized or transformed by technology and innovation, requiring upgraded skill sets for workers to remain productive in high demand sectors; or
(4) be new and emerging in a vocational field that is projected to remain in sustained high demand.

Data to be used as locally established thresholds for further selection criteria may include information that is readily available on current or projected job vacancies, industry size, total employment, and number or sizes of business establishments.

High Growth. A “high growth” industry or occupation, to align with DOL’s definition, must meet one or more of the following criteria. The industry or occupation must:

(1) be projected to have substantial numbers of total job openings through high replacement demand;

(2) be projected to have substantial numbers of net jobs added to the economy through new job growth;
(3) be projected to have an above average growth rate either through replacement demand or new job growth;
(4) have an above average employment growth prospect that impacts the growth of other key industries in the local area; or
(5) be a new and emerging occupation or business that is projected to grow.

Each Board has local flexibility to develop its own regional criteria around industry trends and growth projections. Each Board may differentiate between replacement demand and net new growth as part of its analysis of high growth and high demand industries and occupations projected to add the most number of total jobs or grow percentage-wise at the fastest rate.

High Skill. A high skill occupation is one that requires substantial training or learning beyond the secondary educational level, and that meets other specific criteria a Board may establish. A Board, for example, may set criteria for use in targeting occupations that meet its own established local standards for high skill/high wage, such as those occupations:

- requiring significant postsecondary instruction or education, i.e., completion of an apprenticeship, or an Associate's degree or higher, and
- having above average expected earnings, i.e., at 150 percent or higher than that of the state median wage, or at a median wage at 125 percent of the state average or higher.

Industry Cluster. An industry cluster is a geographically-bounded concentration of similar, related or complementary businesses and complementary stakeholders, with active channels for business transactions, communications and dialogue, who share specialized interests for infrastructure, labor force needs and supportive services, and who are faced with common opportunities and threats. Businesses within a cluster are interconnected by the markets they serve, the products they produce, their suppliers, the trade associations to which their employees belong, and the educational institutions from which their employees or prospective employees receive training.

Key clusters are the related industry sectors most likely to be a source of above average job growth and high wages in the long run in a globally-competitive, knowledge-based economy. Some of the features of highly developed and successful clusters include: a critical mass of similar or related economic enterprises, specialized services and infrastructure, accessible and rapid exchange of information and knowledge, a social infrastructure, and a high enough level of trust to make it easier for firms to cooperate and learn from each other. Key cluster identification should include a reliance on historical industry employment growth patterns and other labor market data.

When using the term "clusters" in an economic development context, it implies a specific approach to engaging regional stakeholders in a vision designed around more than one inter-related industry or industry sector, along with those sectors' related support and/or ancillary industries. There are other collaborative approaches that might be better characterized as individual industry "coalitions," "sector initiatives," "business-led partnerships," etc., but these do not carry the same meaning nor implications of a broader, interconnected industry cluster. There is great value in all of the collaborative types of relationships and activities formed with

smaller segments of industries and businesses, and each has merit where its goal is to improve the economic prosperity and standard of living in the community. But, the term "clusters" should be reserved for those networks of connected upstream, core and downstream industries determined through a data-driven process to be economically advantageous for the region.

The pursuit of an industry clusters approach to economic development also should complement regional economic and workforce development initiatives. This is especially true, because underpinning any cluster-based approach is the prospect that the targeted set of inter-related industries has the potential for above average job creation. However, that does not mean that jobs are or will be available within the shorter-term training time frame associated with most workforce development programs. Hence, workforce development strategies should be built on a two-fold approach that incorporates a cluster-based targeting for new business growth and recruitment, and that simultaneously addresses the workforce needs of current job-seekers and established employers for promoting retention and expansion of existing businesses at the regional level.

With or without pursuing an optimal hybrid mix of approaches, the concept of industry clusters may be viewed as a viable strategy to maximize regional growth and target economic development resources. Any truly strategic cluster initiative represents a long-term approach for economic integration of, and collaboration among, key stakeholders. It also represents a means by which future education and training resources can be aligned with public and private research and development (R&D) investment, venture capital, leading edge scientific innovation, technology transfer strategies and local governmental policy to drive regional economic growth.

Just as in other areas of workforce policy-making, there is not a "one size fits all" approach to cluster development. Given the uniqueness of community politics, stakeholder composition, and business needs, there is also no such thing as a cookie cutter approach to how a cluster strategy is implemented. A regional cluster strategy will build on each region's special strengths and intentionally address areas of weakness – in those areas that are unique to each regional economy and unique to its economic development. As a result, while collaboration and partnership methods employed in a given cluster initiative, i.e., networking techniques, may be replicated in any cluster approach in any other region, the industry sectors, partners, resources tapped and trade-specific activities are uniquely characteristic of the context in which they were developed. An industry cluster strategy, as with any workforce or economic development initiative, is a widely shared transformative vision for a community. A successful cluster or economic development strategy will identify and respond to catalysts, plus build on the power of distinctiveness and comparative advantages industries possess in the local area.

Industry Evaluation. In generic terms, an industry evaluation is a process whereby industries within a region are compared for job opening potential, based on any number of empirical variables that either indicate or project job growth. Boards may use this as one of several approaches to identify key leading industries appropriate for increased outreach by regional business services representatives. It is useful for identifying industry sectors that are significant to the local economy, and thus, suitable candidates for the creation of employer-driven partnerships.

One structured, automated approach to such an assessment is provided in the Industry Evaluation Model (INDEVAL), a module in the SOCRATES labor market information system. The

industry evaluation model examines and ranks industries within a workforce board area, based on selected economic variables. This model allows users to weight various economic indicators based on their influence on the local economy, and applies those weights to the analysis using a rank ordering approach. The industries which rise to the top of the industry evaluation model's results are likely to have an increasing demand for workers, many of whom are still in the education pipeline. Colleges and other postsecondary intermediaries can use this type of analysis to explore the skill sets of workers associated with the key industry sectors it identifies.

Industry-Occupation Matrix. See Staffing Patterns.

Input / Output Modeling. This type of analysis is a standard tool for forecasting how economic activities in one industry will drive ripple effects across the rest of a region's economy. By tracking historical patterns in business-to-business transactions, reliable models have been built to predict how increased productivity or employment demand in one industry will impact productivity and employment among supply chain vendors upstream and distribution channels downstream, where the demand for a product is created.

The input / output (I/O) model is very useful for identifying clusters of industries that are tied together in supply chains. More importantly, the use of an I/O model can help identify where economic development and workforce funds can be leveraged for maximum return on investment.

Job Quality Characteristics. Additional factors or thresholds for consideration that a Board may impose on its selection of high growth and high demand occupations might be specific job characteristics that demonstrate the occupation's worthiness to be targeted based on attributes of quality. Such job quality characteristics may include: occupational skill requirements, standard preparation times, a track record of successful trainee placements, availability of certified or eligible training providers, post-training earnings tied to return on investment targets, benefits, career ladders or lattices, skill transferability, etc.

As economic conditions change, Boards monitor current economic trends and changes in job characteristics to give those persons learning new skills the best opportunity to secure jobs with good prospects for long-term employment resilience and career progressions leading to wages above the poverty threshold. A Board's ability to understand the dynamics of their local labor market, including specific job quality characteristics, can make a big difference in achieving the ultimate goal: the labor market success of their customers.

Labor Market Data-Driven Planning. Labor market analysis or data-driven planning serves as the basis for making informed decisions regarding classroom training investments in the occupational skill sets employers need. It also serves as a guidepost in data-driven career guidance and in focused business services that are responsive to the entire spectrum of vocational learning needs that may occur in developing and advancing the skills of incumbent workers and job seekers in the workforce.

As a result of labor market planning combined with local wisdom, the Board should have performed a labor market analysis validated by employer input that facilitates how the Board functionally and operationally implements its planning decisions, i.e. its strategic goals and

objectives. Those Boards that plan their work, and work their plans, have historically had the best performance outcomes.

Local Wisdom. Knowledge of pending economic events and activities not yet captured in historic data series is called "local wisdom." Understanding the regional labor market also involves infusing local wisdom and incorporating employer input into the Board's labor market analysis. This type of first-hand information involves networking, staying in touch with local business events and engaging multiple stakeholders, including business leaders, training partners, community audit sources, and trade associations, to augment and validate the Board's analysis of their labor market. Quality labor market planning takes advantage of the best information possible, including verifiable first-hand information, locally collected data, and formal statistical data sets. Depending on the type of industry targeted, the planner or analyst can develop more specific questions for each employer directly related to special workforce requirements, supply chain issues or any unique interface with the public infrastructure, i.e. transportation, education, broadband or other telecommunications.

In validating the Board's labor market analyses and assessing customer satisfaction on workforce outcomes, Boards rely on a combination of statistical resources complemented with local wisdom garnered through networking and collaborative input. Boards should routinely infuse local research in augmenting and validating standard statistical data with employer and stakeholder feedback, especially in identifying the demand in the local area for emerging and evolving occupations or for customized incumbent worker skill upgrade training. It is this next level of locally gleaned information, referred to as "local wisdom," that can yield actionable results for regional community development.

Location Quotient or Coefficient of Specialization. The location quotient (LQ) calculation is a technique for gauging the relative concentration or specialization of one or more industries, industry sectors or industry clusters in a region. It is calculated as a ratio of an area's employment in a specific industry, cluster or sector compared to a larger, presumably self-sufficient geography (e.g. the United States) in the same industry, cluster, or sector. A major objective for calculating location quotients is to identify those industries that constitute the region's economic base and export sector. While the LQ technique can be applied to almost any data, including income, wage or sales data, its most common use is with employment data. Location quotients are relatively simple to calculate, and yet offer quick, and often valuable, insight into regional employment dynamics.

An LQ, also referred to as a "coefficient of specialization" or "coefficient of localization," can range from 0 to infinity, but LQs greater than 10 are very rare. If the percent employment in an industry (or occupation) at the local level relative to total regional employment is exactly the same as the percent employment of the industry (or occupation) at the national level, the LQ would be 1.00. If the regional percentage is greater, the index will be greater than 1.00; if it is less, the index number will be less than 1.00. An industry with a high LQ is very likely to produce more goods or services than can be consumed by customers in the region, and is then categorized as an export industry.

Employment in those industries with coefficients significantly greater than 1.00, or higher than 1.24, is designated as basic or export employment. Jobs in those industries with coefficients of significantly less than 1.00, or below 0.76, are designated as non-basic, import or service

employment. Any industry with an LQ greater than 1.24 typically is said to be concentrated in the region. By computing the coefficients for different time periods, an analyst may obtain an idea of whether the area is becoming a more or less specialized economy. In this manner, an analyst can identify trends and more accurately forecast the impact of economic policies on the employment status of individuals in various industries. For example, where an area is viewed as under-represented or over-specialized in a particular industry, coefficients of specialization can be used as a monitoring tool to assess the impact of economic development efforts over time.

One must always remember that the LQ is merely a rough, descriptive indicator of relative concentration as compared to a larger, presumed self-contained area. Just because a region has a large LQ does not necessarily mean there is, or will be, job growth in the future. It only means that, on a relative basis, this sector plays a significant role in the region's export base. Unknown factors, such as employment or dollar leakages due to inter-regional or global trade, and varied consumer tastes, preferences or consumption patterns in the local area can, in some cases, significantly affect the usefulness of the calculations.

Multiplier Effect. A "multiplier" is a concept that represents the degree to which every job in a basic or export sector creates or supports some multiple number of additional jobs in the supply chain, in distribution channels and in the non-basic, service sector. Computing the basic to non-basic or "export-to-service ratio" yields a figure that provides a comparison of basic to non-basic employment in the local economy. The basic to non-basic ratio, or multiplier, is then found by dividing total service employment by total export employment.

The basic to non-basic multiplier ratio is used only to calculate the number of service jobs that would be created by each new job in the export sector. The export multiplier calculates jobs that would be created in <u>both</u> the service and the export sectors for each new job created in the export sector. The multiplier effect, thus, is based on the concept that, if an area gains new jobs in the export sector, one would anticipate the creation of other jobs in the local sector. On the other hand, if an area looses jobs in the export sector, one would anticipate a decline in employment in the local sector. Assuming a constant state of consumer preferences, one can estimate the expansion or contraction of the local or non-basic sector as a function of the export or basic sector.

One major advantage to calculating basic to non-basic ratios and export multipliers lies in their predictive powers, in particular in identifying local economic linkages upstream in supply chains and downstream in consumption demand. The local area multiplier allows the planner to do much the same thing as a localized econometric input-output model, albeit with considerable less sophistication, cost and accuracy. If a firm that is in a local basic or export industry moves into the area or expands, the planner or analyst can make a rough estimate of the number of additional service jobs that will be created due to the multiplier effect. Once analysts identify multiplier effects, they better understand where public funds can be leveraged, when considering targets of opportunity for economic development initiatives.

O*NET. O*NET stands for the Occupational Information Network. The O*NET system is the most prominent federal source for applying a common language and terminology to describe occupational requirements. The O*NET database is a comprehensive source of descriptors, with ratings of importance, level, frequency or extent, for more than 950 occupations that are key to the economy. O*NET descriptors include: knowledge, skills and abilities (KSAs), duties and

tasks, work activities, work context, experience levels required, job interests, and work values/needs. Each O*NET occupational title and code is based on the most current version of the Standard Occupational Classification (SOC) system. This ensures that O*NET information links directly to other labor market information, such as standard time series data on wage and employment statistics.

The O*NET system contains continually updated information on skill requirements and occupational characteristics, which serves the demand-driven workforce investment system helping businesses, job seekers, students, and workforce investment and human resource professionals make informed employment, training, and business development decisions. O*NET information on related occupational interests and work values helps the public to select career goals and develop education and training plans for work they are likely to find satisfying.

Return on Investment. Return on investment (ROI), in the public policy context, is a phrase borrowed from the financial community to address the cost-effectiveness of programs from the tax payers' perspective. ROI models are developed to measure achieved results as a means of deciphering whether a greater asset or net gain is acquired as the direct and intended result of a program, effort, service delivery, or other publicly-funded activity or intervention.

Shift-Share Analysis. Shift-share is a type of labor market analysis that accounts for the competitiveness of a region's industries and assesses the local economic base. The approach examines how a region’s industries are performing by comparing and quantifying the national, local, and industrial mix components of employment change. This type of labor market analysis takes changes over time in a region’s industry-level employment demand and decomposes it into its key components. Once completed, the analysis provides a representation of changes in employment growth or decline, and it gives results useful for targeting industries that might offer significant future employment opportunities.

This methodology assists local planners and analysts in describing and documenting changes in their local employment base in a way that enables them to support business and community leaders in making sound and informed data-driven decisions. A shift-share analysis will provide a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries. It paints a picture of how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. Interpreting data provided by shift-share analysis allows exploration of the comparative advantages local industries enjoy, as well as identification of growth, or potential growth industries worthy of further investigation.

Small and Medium-Sized Enterprises. Small and medium-sized enterprises (SMEs) are businesses that generally are smaller than 250 employees per establishment. Although operational definitions can vary greatly, a small business can be generically defined as having less than 50 workers, and medium-sized enterprises can be defined as those businesses that employ 50 to 250 workers. Average firm size makes a difference for job hunting and job development strategies, because larger firms tend to have better defined ports of entry and in-house training capabilities. Large businesses have their own human resource departments with expensive and sophisticated applicant screening tools and skill assessment capabilities.

Instead of planning a generic skill assessment or skill inventory for every industry or all businesses in the area, a Board may develop targeted and more efficient strategies for marketing its business services to small- and mid-sized firms. In particular, the Board can develop a strategy to market the assessment tools at its disposal to the most receptive market niche. O*NET-based skill assessment data, coupled with input from firms on their labor market or staffing needs, can help the Board provide tailored outreach, recruitment and applicant screening services comparable to what large firms are capable of doing in-house. The Board may provide business services enhanced with an environmental scan that demonstrates the Board knows how many firms in their area fall into the potential small- to mid-sized market, plus how those businesses are distributed across industries and clusters.

The Board may also use the skills-based approach to help businesses with job descriptions, job postings, applicant screening and staff development. In using O*NET to help local firms with screening criteria, interview questions, internal promotion guidelines, management-employee relations, organizational issues, and other professional human resource consulting, the Board also assists the firm in complying with various disability, equal opportunity and labor laws.

Staffing Patterns or Industry-Occupation Matrix. The occupations generally associated with specific industries, and the percentages each occupation tends to occupy within an industry, form the relationships called the industry staffing pattern. A staffing pattern documents the relationship between industries and those occupations that comprise those industries. A matrix of these relationships is referred to as an industry-occupation matrix. In addition to the use of a formal industry-occupation matrix, other occupations that are new and emerging may be identified as belonging to the same industry or being linked through similar skill needs.

Targeted Industries and Occupations. Targeted occupations are a subset of demand occupations that also meet the various job quality criteria set forth by the local Boards as part of their regional labor market analysis, which is captured in their labor market plan. Therefore, a "targeted" occupation offers both:

- good employment growth prospects, i.e., a large number of expected job openings, demonstrating "high growth / high demand," **and**
- meets other job quality criteria determined by the local Board.

The Board should document an analysis of occupations at the local level that is consistent with the objectives its members set forth. Such criteria might include, but not be limited to: projected job openings, earnings, likely career progressions, generally accepted required training times, and other job quality thresholds. (See Job Quality Characteristics.) The occupational analysis should result in a subset of occupations that most closely match the priorities established by the local Board, and that demonstrate an understanding of the characteristics, including hiring requirements, of each of those occupations.

Targeted Lists. Because there is not a statewide targeted occupations list for an economy as broad and diverse as Texas,' Boards establish targeted occupations lists as pre-approved lists for classroom training in each of their regions. In addition to WIA-funded training, targeted lists may drive case management of intensive services, skills upgrading, and collaboration with regional educational partners. Boards should have one targeted occupations list for classroom

training purposes, and one or more additional targeted industry or targeted occupations lists for other career planning or business services.

Examples of supplemental lists that may be developed, in addition to the one for classroom occupational training, may include:

- those occupations that do not meet all Board-established criteria for classroom training, but that provide direct placement activity for low-skill, entry-level positions with opportunity for career advancement after skills upgrading;
- those industries or industry sectors supporting a regional industry cluster analysis, rural community development efforts or a regional planning approach;
- those industries targeted for business services, micro-enterprise support, entrepreneurship initiatives, expansion or retention activities, or economic development projects to assist in recruiting relocating businesses; and
- those industries or occupations identified for the purpose of coordinating certain cooperative activities with local Chambers of Commerce, apprenticeship programs or industry trade associations.

A list of "demand" industries and occupational skill sets that are most likely to be conducive of direct job placement or job development initiatives is particularly helpful in placing dislocated workers or targeting job development efforts to regional employers who are most likely to employ a particular skill set. Thus, the targeted industries and occupations list need not be the only list Boards use to guide occupational training, direct placement and job development initiatives.

Targeting Approaches. The practice of targeting implies that a tiered approach is employed to prioritize service delivery. For example, the objectives of workforce development and economic development are not necessarily the same. The same targeting strategy might not necessarily fit both. This is also true of Workforce Investment Act (WIA) funded education and training as opposed to business services -- or Unemployment Insurance (UI) claims intake as opposed to Rapid Response activities versus those serviced delivered to TANF-eligible customers.

The following are examples of targeting approaches appropriate for various types of workforce activities.

- When planning education and training services to workforce program or skills development customers, the Board may target occupations at a level that results in a good return on investment in terms of job placements at wage rates high enough to justify the training costs.
- When planning economic development, the Board need not go down to the occupational level to recruit new businesses. Rather, the Board may target the clusters or key industry sectors, where it wants to do outreach and focus its recruitment to lure firms into the area or expand existing ones in specific industries that form the long-term growth poles of economic development.
- When planning general business services to the existing employer base and direct placement of job seekers, the Board may focus on firm size, with the realization that the large firms already have their own in-house personnel staffing, human resources, training, recruitment, etc. This tactic enhances the Board's work in helping to retain and expand existing businesses.

- When planning administration of Unemployment Insurance and dislocated worker programs, the Board may do reverse targeting, i.e., it may look for declining industries that are likely to have mass layoffs in the near future. The Board may offer skill upgrade training in the hopes of heading those off, but at the same time, it may prepare for providing Rapid Response, UI intake and worker profiling, should the need for such arise.

The flexibility in creating several separate labor market focal points, and in selecting high growth and high demand potential for various workforce activities, should reflect the emphasis a Board places on specific areas of the labor market for service delivery decisions that are made in response to, and grounded in, the labor market characteristics of the local area.

Targeting Businesses. Boards understand that small- to mid-sized firms are the type of businesses most likely to be in need of workforce services to help with labor recruitment, applicant screening, incumbent worker skill upgrade training and management consulting to improve productivity as a hedge against layoffs. When Boards target businesses for outreach and services, the primary question asked is: what kinds of businesses are most likely to need the services the Board and its contractor can provide?

For example, the process a Board follows may involve setting criteria to answer the following questions.

- Which businesses are large enough to have more than merely incidental human resource needs, yet are not yet big enough to have in-house personnel departments to handle their recruiting and staff development problems internally?
- Which of those firms in the area meet the firm size most in need of workforce support?
- Which parts of the local business staffing pattern needs are the businesses likely to entrust to a workforce services contractor (as opposed to a high-priced head hunter or professional staffing agency)?
- How does the Board penetrate and outreach those firms within the optimal size classes?
- Where can the Board find current contact information to make sure outreach efforts connect with those managers within targeted firms, who are genuinely empowered to make decisions?

Targeting with Occupational Criteria. For occupational targeting, the primary questions Boards may ask are:

- what occupations are worth expending scarce training resources, even among leveraged funds, to train eligible customers to do, and
- what kind of investments in the occupational training of customers will result in the Board meeting its own performance standards on labor market outcome measures?

To gain answers to these broad questions, the Board may perform the following type of filtering, for example, or ask questions similar to these listed below.

1) What occupations are in high growth and high demand by:

- greatest number of total job openings,
- highest percentage growth rate,
- greatest numbers of new jobs added, and/or

- other combinations of growth and/or demand criteria set by the local Board?

2) Of those occupations determined to be in high growth and high demand, which:

- require some classroom training (as opposed to on-the-job training, as for a waiter/waitress), but
- do not require so much training that it would keep the WIA-eligible customer out of the labor force longer than he/she can be sustained and supported with scarce support services dollars?

3) Of those occupations with appropriate training time limits, which pay enough to comprise an adequate return on the investment of workforce training dollars? The Board will set slightly different earnings targets for different workforce programs, including sub-program funding streams, and will set as criteria levels which pay enough to raise the customer above the threshold for:

- workforce program eligibility for a welfare-dependent customer,
- the wage replacement threshold for the dislocated worker, or
- the self-sufficiency wage level for a job seeker or incumbent worker.

4) Of those occupations with appropriate wage levels, which have the best long-term prospects for:

- employment stability or resilience,
- skill level progressions through internships, career ladders or lattices, and
- earnings gains through eventual career advancement?

5) Of those occupations with career potential, which can be addressed through:

- the existing inventory of certified education and training providers and their training programs in the area, or
- an identified potential training provider that the Board intends to assist in becoming a certified training provider?

6) Of those occupational training programs with existing or potential training providers, which can be addressed through the existing inventory of education and training programs in the area with good track records of:

- customer completion in the training program, and
- customer placement in the occupation in which they were trained?

Targeting Practice. The targeting process employed by the Board should provide evidence of a prioritizing process, based on regional labor market demand, changes in industry trends, expected outcomes relating to local economic development efforts, or similar phenomena. For classroom training targeting, the final result of a labor market analysis or an industry analysis should be a subset of key industry sectors that have been locally deemed to offer the greatest employment opportunities for job seeking customers and those sectors that demonstrate the most critical labor shortage or skill needs. Targeting for other workforce or business services also will narrow down to a specific goal the Board wants to achieve. Therefore, the targeting practice is by nature designed to be limiting and prescriptive to work proactively in effectively and efficiently driving specific, desired results in the area.

While there is no statistical importance to thresholds that limit the number of targeted industries and occupations, the process of workforce program targeting requires setting limits in order to focus and prioritize limited training resources on those areas of greatest importance within a region. Careful attention to an analysis of labor market data, and to the industry and occupation

targeting process used by the Board, ensures that limited public resources are most efficiently used at the local level to achieve the highest return on investment for the job seeker and the taxpayer.

Focused targeting of occupations for training also increases the likelihood that Boards are effectively contributing to the skilled labor supply in the region and enhancing the availability of skilled labor for regional employers. Improving the quality of the labor pool is a critical component in economic development, and it supports the effort to recruit new businesses and expand existing businesses as a means to grow a region's economic base. Diligent targeting also results in improved job seeker outcomes, and, with employment secured, significantly increased chances for long-term self-sufficiency and welfare independence. In doing so, it helps the Boards achieve their labor market goals and meet their performance standards.

Taxonomies. Taxonomies are coding systems that create categories for classifying information. Coding systems are used to standardize and define data, and the methods for collecting information, in a manner that assists in making meaningful, valid and reliable comparisons. They also are a vehicle by which to effectively communicate information across subject areas, policy realms, programs and disparate industry sectors with overlapping occupational employment demands. Ideally, an economic base analysis or industry evaluation should be based upon the North American Industrial Classification System (NAICS), recently adopted by the Bureau of Labor Statistics (BLS). Occupational analysis should be based on the federally approved occupational coding system, the Standard Occupational Classification (SOC) system.

Relational connections can be made between and among industry codes, occupational codes, training program codes and usual educational requirements through readily available and carefully validated crosswalks. Similarly, if data have a SOC code, NAICS code or Classification of Instructional Programs (CIP) code attached, then a series of assumptions can be made to demonstrate the degree of "connectedness" with other data items. Intelligently applying these relationships, organizing data and recognizing the strengths and limitations of connections between data elements are all part of the fine art of labor market analysis.

Training Options. On-the-job (OJT) and customized training alternatives are appropriate solutions in situations where vocational training is needed for occupations that are not in high growth or high demand in the local area. In order to best draw distinctions between diverse training options, stakeholders should understand which alternatives may be offered to customers as solutions to staffing or employment situations, where the high-demand, high-growth criteria set by the local Board is not met or does not apply.

Training alternatives the Board plans, or integrates into their pallet of services along with classroom training, should be coordinated across all funding streams in a program-integrated approach to service delivery. The intent is to be responsive to the entire spectrum of training and career development needs that may occur in case managing and advancing the skills of incumbent workers and job seekers alike in the workforce.

Training Provider and Training Program Matching. Boards confirm the matching, one-to-one relationship between approved, eligible training providers in Texas' Eligible Training Provider Certification (ETPC) system and their regionally targeted occupations for classroom

training. Boards also will match each targeted occupation, and any emerging and evolving occupations the Board has identified, to the associated groups of Classification of Instructional Programs (CIP) codes. The list of associated CIP codes for the targeted occupations is maintained locally on site along with the occupational profiles.

Trend Analysis. In performing an analysis of trends, a Board selects two time periods most likely reflective of future trends. However, the Board still must take into consideration recent downturns and upswings in the particular industries that have a substantial hold in the local area. The easiest trick is to plot a time series of total employment over a ten-year horizon and see where the business cycles turn, e.g. where the data turn downward and where they turn upward. An analyst would take the full past ten years for the region and draw a straight-line right through the whole series of plotted data that reflects the overall trend for the past decade. The analyst can create a “best fit” line by using the regression function in Excel or simply "eyeballing" it. Then, an analyst would select the base and terminal years by identifying which annual data points fall closest to this line. As a rule of thumb, those data points will probably be three to five years apart.

Because of economic downward or upward turns, and the tremendous volatility seen in many regional labor markets, the selection of the time period for a labor market analysis can make a huge difference. In order to offset the seasonality differences among quarters of the year in the labor market data, it is often wise to select the same quarter for both the base year and ending period. In general, the larger the time frame chosen, the longer-term trends one will be able to identify, which gives a more realistic picture of overall trends. Local wisdom applied to this should reflect periods of significant expansions or downturns over the past several years, plus phases of job recovery taking place at any given growth rate.

Underemployment. An underemployed person is someone who is employed at less than his or her optimal capability or potential, given the skill set or knowledge base he or she possesses. His or her employment situation is, thus, characterized as one in which he or she is marginally productive, as evidenced by lower earnings or responsibilities. Underemployment is based on unused skills, knowledge or abilities (KSAs) that have a higher value in the labor market than what the individual currently earns.

There are many ways to think about underemployment, all of which are very difficult to measure. For example, an individual with a degree in engineering, who drives a taxi cab and earns less than an entry-level engineer, is underemployed, even if that career choice is voluntary. An individual whose maximal skill set is operating a forklift, who is employed as a forklift driver and earns $9.00 an hour, but believes he should be making $11.00 per hour -- or in fact may have, at one time, earned $11.00 an hour as a forklift driver -- is not underemployed. Just because a person has a higher wage history than current earnings does not automatically mean they are underemployed. Since underemployment is rooted in productivity, if a person’s skill sets have become obsolete or diminished, it is possible for current lower earnings to be consistent with the market value of their existing skill sets -- such a person is not underemployed.

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Connecting the Dots: The Labor Market View of Workforce Development, Essays for the Practitioner, Texas State Occupational Information Coordinating Committee, June 2000, http://socrates.cdr.state.tx.us/iSocrates/Files/ConnectingTheDots.pdf

Additional Dictionaries

Further sources or dictionaries that include other definitions of basic labor market terminology, such as “labor force,” “labor supply,” “cost-of-living index, “educational attainment,” “employment projections,” “job openings,” “import,” etc., include the following Internet sites.

Bureau of Labor Statistics Glossary, U.S. Department of Labor, at:
http://www.bls.gov/bls/glossary.htm

Acronyms, Terms and Definitions, Texas Workforce Commission, Labor Market and Career Information, TRACER2 website, at:
http://www.tracer2.com/admin/uploadedPublications/330_acronyms.pdf

Location Quotient Variable Definitions, Texas Workforce Commission, Labor Market and Career Information, Texas Industry Profiles Regional Location Quotients FAQs, at:
http://www.texasindustryprofiles.com/apps/locquot/TestLQ.aspx

Learning the Language of LMI: Basic Labor Market Information Terms and Concepts, Chapter 1, *Connecting the Dots: The Labor Market View of Workforce Development, Essays for the Practitioner,* Texas State Occupational Information Coordinating Committee, at:
http://socrates.cdr.state.tx.us/iSocrates/Files/ConnectingTheDots.pdf

Resources

The following documents have other resources for labor market information and analysis.

Labor Market Analysis Resources and Contacts, Texas Workforce Commission, Labor Market and Career Information with Workforce and UI Policy, May 2005, at:
http://www.twc.state.tx.us/boards/board_plan/lmi_resources.pdf

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