Assessing your local economy

One of the most fundamental questions a community must ask about itself is: "How strong is the local economy?" A strong local economy providing good jobs and income is a primary determinant of the quality of life and standard of living for a community's residents. The first step in assessing the local economy is to understand what industries comprise the economic base. Are these industries related or diversified? Are they growing or declining locally, nationally, and internationally? Often the answers to these questions are surprising to local officials and citizens, and serve as a wake-up call to pursue a more vigorous community and economic development policy. Economic impact analysis is an important component of local economic assessment. It provides a valuable public policy tool for selecting the best economic development alternatives. It also plays a leading role in helping communities decide on the level of economic development incentives to offer new or expanding companies.

Introduction

This lesson will provide an introduction to two key areas of economic assessment. The first is industry composition, using industry classifications and commonly available measures. Essentially, it includes the kinds of basic data that any person

involved in community and economic development might want to know in order to gain an overview of the local situation. A basic understanding of the local economic situation will facilitate informed decisions by board members, elected officials, and other community development stakeholders. With this knowledge, community and economic developers can better represent their areas and gain the necessary grounding to work with colleagues in the private sector, and within allied economic and community development agencies. The second area covered in this lecture is impact assessment, as a tool to evaluate the regional economy and support economic development decisions, especially the investments communities make to attract new businesses or retain existing businesses. Economic impact models have existed for many years and there are numerous companies that provide this type of service. Increasingly, communities are operating their own economic impact models so they can get immediate feedback on important economic development questions. Community and economic developers should be aware of these tools and understand their major underlying assumptions. Economic impact models can provide critical information when the time comes to vote or voice an opinion on a community infrastructure or business incentive decision.

Industry composition: learning about the local/regional economy

Economic development agencies and related organizations generally maintain demographic and economic information about regional and local economies for

use in assessing local conditions, recruiting companies, retaining and expanding existing businesses, helping start-up new companies, and a variety of other uses. Economic development agencies reside within many types of organizations including state, county, and local government, educational institutions, and the private sector (e.g., utilities, Chambers of Commerce). Given these many resources, it is beneficial to determine what types of existing information can help provide a basic understanding of local economic conditions and opportunities. Often a wealth of information is readily accessible through allied economic development agencies. The following might be good avenues:

• *State economic development.* State departments of commerce or economic development often have research staff who will have prepared reports of interest on economic development.

• *Utility companies.* Many utility companies, particularly the energy companies, are heavily engaged in economic development activities. Some of the areas they support include: direct funding of economic development agencies; specialized studies; project management and marketing; pre-planning and planning of industrial parks; community economic development services, and company expansion services. In many areas, utility companies act as secondary agencies supporting economic development. In other markets, the utility companies are not as active.

• *Universities.* Typically, there are resources within area universities that can be tapped – each state has a designated university that is its data center. Many states have dedicated economic development resources that reside within their university system. These may include industrial extension and engagement programs, programs focused on manufacturing processes and technology, as well as programs focused on small business. Many universities have affiliated research parks that serve a core economic development mission. This can be a tremendous asset to a community, especially when a university has public service and economic development as a core mission. Communities with such a university should work diligently to ensure that the university is appropriately engaged in economic development. Larger universities with public policy, public administration, and/or planning schools may also have specialized centers or institutes focused on areas of interest.

The World Wide Web. The Internet can provide a wide diversity of information on virtually any economic development topic. There are many specialty data services that provide information on topics of interest to economic development. These include: area, cultural and demographic information; specialized data sources; and information pertaining to schools and employee relocation. The Web can also be a tremendous source of information on the companies in a community, including recent business activity and financial disclosures.

• *Commercial services.* There are numerous fee-based or subscription services that one may tap for statistical, financial, and other information on companies.

Evaluating local/regional industry composition – an example

Industry composition assessment will help communities understand the types of industries in the area, their growth characteristics, their degree of concentration, and other important aspects. The inputs for this type of analysis may be sourced from several private data service providers as discussed above, and the data are also available from government sources

Evaluating industry clusters – refocusing industry assessment

Given the nature of economic development today, and specifically the convergence of industries that has occurred, it is often useful to regroup industries to form more meaningful "industry clusters." More information on industry clusters may be found by searching the Internet or development literature, or talking with an economic development research specialist. Figure 11.1 is a sample of an industry cluster, aerospace and defense, and shows its employment across a state by region (percentage of state employment in the region). Table 11.3 shows the four-digit NAICS composition of that particular industry cluster. In some cases, it may be more meaningful to evaluate employment by a particular cluster than by an industry, depending on the exercise.

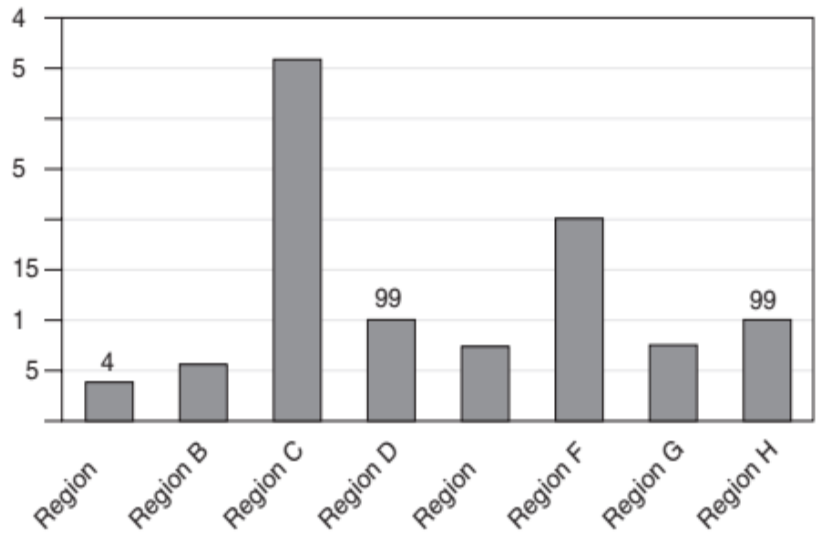

Figure 11.1 **Sample regional cluster**

Table 11.3 *Sample aerospace cluster definition (four-digit industry)*

Aerospace 4 digit NAICS	*Industry*
333200	Industrial machinery manufacturing
333500	Metalworking machinery manufacturing
333600	Engine, turbine, and power transmission equipment manufacturing
336400	Aerospace product and parts manufacturing
336900	Other transportation equipment manufacturing
541700	Scientific research and development services

Cluster analysis may be more meaningful to deploy in support of an industry-targeting exercise along with a detailed inventory of available assets. Some of the more common industry clusters are:

1 aerospace and defense

2 agribusiness

3 business and financial services

4 energy and environmental

5 health care

6 homeland security

7 life sciences

8 advanced telecommunications

9 multimedia.

Each of these clusters may have assets in the region that can form the core of an economic development strategy. Many communities and regions have developed successful marketing programs based on industry clusters.

An introduction to economic impact analysis

Economic impact analysis is an increasingly critical tool in guiding economic development and parallel efforts in smart growth, land-use planning and the like. The tools of economic impact analysis help identify the potential economic outcomes communities can expect from civic projects or new companies, and helps them explore the alternative futures they might realize. The specifics of impact analysis may not be widely understood and appreciated, but it can be very useful in addressing questions such as:

• What are the current economic conditions in the community?

• What will the economic and fiscal impact of a proposed investment or policy in our community be (jobs, payroll)?

• What components of the community have been growing and what components

have been declining?

• What are the community's options for improving its economic future and which of those options should be pursued first? Numerous tools and techniques may be used to give some insight into the functioning of a community's economy. The following considerations are an important part of any community economic impact analysis:

1 No single number generated by the analysis provides the answer to all of a community's concerns. For instance, when a firm experiences an increase in profits, it is still unknown whether the increase is caused by greater sales or more cost-efficient production. Each of those sources suggests a different strategy by the owner.

2 It is important to make comparisons among communities because the numbers used are not absolute. Just as any owner of a firm would compare his or her success against the industry average or similar firms, it is important for communities to make similar comparisons. These comparisons need to be with similar communities in order to increase the legitimacy of their analysis.

3 It is important to compare changes over time to sense the direction of community change. This comparison helps to confirm or deny perceptions of current and recent conditions.

4 It is crucial to use a variety of information sources. The steps in local economic

analysis in this lecture indicate that a lot of "hard data" can be collected from various agencies as a starting point. It is also important to incorporate into the analysis the insights local citizens have about their community and its economy. If there are differences, then these sets of information need to be challenged to determine which more accurately reflects current conditions.

Driving forces behind the local economy – the water analogy

Perhaps the easiest way to think of community economic impact analysis is to imagine the community itself as a tub with money flowing into the top as well as draining out of the bottom (Figure 11.2). This analogy represents a number of key concepts. First, any community is intimately linked with the rest of the world through the inflow and outflow of income and goods – the tap and the drain both lead to "everyplace else." Second, the economy (the pool of water in this analogy) uses resources, may be purchased elsewhere (come in through the tap), or may be available locally (be contained in the tub of local resources). Third, the amount of water (the local economy) is determined essentially by the inflow of outside income, the "recycling" of income within the local economy, and the volume of resources used to produce the community's output. When a community sells or "exports" the goods or services it produces to the next county, state or country, money flows into the local economy from the tap in the form of revenues,

profits, and wages. On the other hand, when local consumers spend their money outside of the area (e.g., in a shopping trip to another town), money flows out of the tub and reduces the level of local economic activity. Purely local industries such as barbershops and local restaurants, while important to the quality of life in the local community, typically recirculate money already in the economy and don't increase the overall level of the water. Economic development programs should therefore be based on recruiting, retaining, and starting export-based industries. Local restaurants and grocery stores will open as export-based industries grow.

In a broad sense, economic impact analysis is a systematic examination of this tub; the forces of supply and demand in a local economy. This can be translated into some basic economic development policy questions:

• What are the linkages with the rest of the world?

• What are some ways to increase the potential inflow of income?

• How can the community better use its existing resources and businesses to produce more output, associated jobs, and income?

• How can the community reduce the loss of resources to improve its local income situation? To stay with the simple "tub economy" analogy, the basic goal of economic development is to collect as much water in the tub as possible. This may be done by:

1 *Decreasing the size of the drain* (import substitution). This strategy involves

identifying and attracting industries that are currently not present in the community and whose products are, therefore, imported. One highly controversial example involves smaller communities that try to attract "big box" retailers. This strategy rests in the hope that shoppers will buy locally, keeping their dollars local rather than driving to a larger community to do their shopping. This outcome reduces the outflow, sends their money "down the community's drain," so to speak, and into the neighboring community's tap. This strategy is generally only applicable to the smallest communities and over a narrow range of industries; larger communities generally have all the retail and service activity they would need and manufacturers and other industries are almost never attracted to an entire region because they plan on serving just the local market.

2 *Patching the leaks*. This strategy of preventing local resource depletion can take numerous forms. Cities have attempted with some success to encourage economic growth through the preservation of the natural environment and "green space," making the regions more attractive for hi-tech businesses whose highly paid workers desire a good quality of life. Other communities have campaigned to retain their college graduates and/or recruit "creative workers," artists and the like, for much the same reason.

3 *Increasing the size of the tap* (an "export orientation" approach). This approach involves attempts to directly increase the exports of the regional economy.

Remember: exports increase the flow of money into the region from the rest of the country/world, thereby increasing the size of the tap. This may involve recruiting new export industries or working to retain and support such industries already in the region. For this discussion of economic impact analysis, the focus is on a single, fundamental question: How can a community increase the amount of water in the tub by increasing the amount of water flowing in through the tap? When a community chooses to expend resources to attract firms, the decision has (implicitly, perhaps) been made to promote economic development by increasing the size of the tap. In most cases (the exception being the import substitution scenario described above), a key characteristic of any firm that is recruited into a community should be that it is primarily an exporter (i.e., it serves a national or international marketplace). As an exporter, the firm is expected to bring money into the community from the rest of the world which means more water in through the tap and more water in the community tub. Many communities are interested in increasing the amount coming through their tap which means that they are all trying to attract the same kinds of firms. In any given year, depending on the state of the economy, there are literally thousands of communities seeking to recruit the several hundred or so company location projects that exist. Because of this competition for new investment, communities are more likely to have to pay (or at least provide a competitive baseline of financial incentives) to attract the firm(s) of

their choice. From a public policy analysis perspective this is perhaps unfortunate, but it does reinforce the need for high quality analysis of the economic impact of a proposed project. A quality economic impact analysis of a potential new firm gives the community a good idea of just what they would be getting for their incentive package (what is the return on investment?) or, conversely, gives the economic development official a good idea of how valuable the new firm would really be for the local economy. The goal of the community economic impact analysis, in this situation, is to quantify the degree to which the firm in question would increase the size of the regional economy; or, given the very particular way in which this firm will affect the tap and the nature of the community's tub and drain, what effect would the firm have on the water level? A common term in any conversation about economic impact analysis is the "multiplier effect." Sticking with the tub analogy, the multiplier effect identifies the following: When the cash flows in from the tap, how many times will it swirl around in the tub before it runs down the drain? The more times it swirls around before draining out, the higher the water level and the bigger the regional economy will be. To see how the multiplier phenomenon works, image that a new manufacturing facility employing 50 local residents has just located in a community. As discussed above, the manufacturing firm sells its products outside of the community and brings in new income in the form of sales revenue, profits, and wages for the workers. The new firm buys some natural

resources and services locally, and the workers then spend some, hopefully most, of their wages in the community on groceries, haircuts, clothes, and so on, which increases incomes and jobs in these "secondary" sectors. In turn, the grocers, barbers, and clothing store owners spend some of their increased income locally which promotes a third round of job and income creation. The process repeats itself through several spending cycles. Hence, a dollar of new outside income flowing into the community's tap increases local income and economic activity (the level of the water) by more than just that dollar. At this point, it is important to dispel several myths about multipliers in order to avoid some very common misunderstandings:

1 There are several different multipliers: employment multipliers, which indicate the total number of jobs created per employee at the new facility; wage multipliers, which measure total additional wages paid in the region per dollar earned by employees at the new facility; and output multipliers, which measure the total of additional sales in the region per dollar of sales at the new facility. These are the most commonly reported multipliers, though several others will be seen from time to time.

2 The employment, output, and wage multipliers for a given project or facility are rarely equal. As a very general rule, employment multipliers for a project tend to be larger than wage multipliers, and output multipliers will tend to be higher

than either employment or wage multipliers. An impact analysis that assumes the same multiplier for different applications (e.g., an income multiplier to calculate the increase in the number of jobs) is probably not done correctly.

3 The size of any given multiplier will depend completely on the industry and the region in question; there is not a single regional multiplier that applies to all industries, or a single industry multiplier that applies to all regions. If a report assumes a regional or rule-of-thumb multiplier in the analysis, it is probably not done correctly.

Information requirements for economic impact models

Economic impact analysis is used to calculate the appropriate multiplier effect(s) in order to determine the total economic impact on the region of the firm in question. An analysis of this sort will be able to determine what the overall impact of a specific new firm will be on the overall size of the economy. While this lecture cannot provide all the tools needed to conduct an impact analysis, it can provide information to help understand how and when to use economic impact analysis.

An impact analysis should be conducted any time a firm requests any incentive concessions from the community to determine exactly what that community is getting for its money and what the return on its investment might be. Whether the analysis is conducted by the community or by a consultant, the more information available about the new firm, the better. The information that a community should

obtain to facilitate the best possible impact analysis includes details on:

1 *The industry of the firm in question.* A description of the activity in which the firm is engaged would likely be adequate, but providing the NAICS Code (North American Industry Classification System) or the more dated SIC Code (Standard Industrial Classification) for the industry maximizes the likelihood that the community will be analyzing the industry within the correct framework. These codes are self-reported by companies, so it is possible to use national data sources to identify codes, though firms may report multiple codes. It is important to note that different impact analysis tools operate at different levels of industry detail; some tools can identify only 14 different industry types, while others can identify over 700. When analyzing the economic impact of a new firm on a region, the more industry detail, the better the result.

2 *The region in question.* This can be a bit tricky and involve making some compromises. Good economic impact analysis tools generally use federal government data sources regarding regional economies. Because most of these data sources only collect information down to the county level, the analysis is generally going to be limited to defining a region as a single county or a group of counties. A few modeling tools allow analysis down to the zip code level of detail, but that level of economic data is very limited, so those tools will be using much less reliable information. In addition, some models can conduct true multiregional

analyses that would, for example, allow a regional planning council to determine the impact of a new firm locating in one county, on every individual county in their service area. Others might look only at a single region. The analyst will need to know the precise area(s) of interest when conducting the analysis.

3 *Employment and/or wages and/or output of the firm*. Technically, the analysis could be done with any one of these three numbers, but the more information provided on each of these, the better. Thankfully, the order of importance of these numbers for the analyst –

(1) employment,

(2) wages,

(3) output

– is probably the same order in which the firm is willing to provide the data. Firms are often reluctant to disclose project output (sales) data, so the analysis is often done with employment and wage data. It might also be important to know *when* the employment is expected. Some economic modeling tools allow for multi-year analysis, while others do not. If a community is interested in examining multi-year impacts, or the firm has definitive plans for increasing employment at the facility over time, it is important to use a multi-year modeling tool and to collect as much information as possible about the timing of employment increases.

4 *Construction and investment spending*. An important short-term impact of the new firm is likely to come in the form of these types of spending in the region. The more information provided to the analyst regarding the time, location, and type of expected investment, the better.

5 *The nature of the (potential) incentive package*. An important consideration of any impact analysis is how much a community is granting in incentives to get the firm. If this information can be provided, the analyst should be able to determine the net impact of the new firm including the concession package as well as the gross impact of the firm itself. If these concessions occur over time, then it would be best to provide the year in which those concessions occur (such as tax abatements). Alternatively, one could use the net current value of the recurring incentives. Again, under this type of assumption, it would be best to use multi-year impact tools.

6 *Other factors that might be of interest*. For every project, there may be some interesting bits of information such as the identity of any supply firm that is likely to relocate to the community because of the relocation of the firm in question; a major competitor firm already located in the region; or the kind of new school construction that will be necessary because of additional population moving to the region. If there are some potential special circumstances, or additional bits of data that might be important, the analyst should be informed.

Conclusion

This Lecture provided an introduction to assessing the local economy and using economic impact models. Both of these activities are highly data driven and, therefore, a community needs to understand where to collect the necessary data. Looking at local industry composition can be a valuable tool in understanding where a community is today and perhaps where it has come from. However, it will not tell us where a community needs to be in the future. This is a policy decision. The same may be said for economic impact models. While there are many such modeling tools available in the marketplace, one must be aware of the limitations and challenges presented by each approach. One common concern is that when a model fails to fully account for the public costs associated with a project, it leads to an overly optimistic assessment of the potential economic impacts. Local economic analysis and impact modeling are useful tools that can be used to support both economic development strategy formulation and decision-making challenges as they occur. Ultimately these tools and techniques just scratch the surface, but when accurately brought to bear on a problem, they can mean the difference between good and poor community decisions.

Programming techniques and strategies

Workforce training for the twenty-first century

Global competition has fundamentally changed the structure of America's economy. Traditional "high-tech" manufacturing jobs are being outsourced overseas and, internationally, mobile workers are competing everywhere for jobs at all skill levels, even the high-skilled, high-wage jobs that were once considered to be immune from export. Communities and states must focus on raising the skill levels of their resident workers or risk becoming noncompetitive in the global economy and losing jobs to other states and countries. This lecture discusses the kind of workforce development program that states and communities should develop to assure they will have sufficient numbers of trained workers in the twenty-first century. It provides examples of state and local initiatives for reaching this goal.

Introduction

Workforce development strategies have become increasingly important in recent years as predictions concerning a "new economy" have begun to play out in the lives of individuals, businesses, and communities. Colleges and universities that have not evolved as the world has changed but remained grounded in academic tradition and policy must become more responsive to their role in economic

prosperity. Immigration policies that are politically driven must be revamped to permit the flow of needed talent into the country, especially in light of expected shortages due to the aging and retiring current workforce in any country. The changing economic realities of the twenty first century cannot be predicted with certainty but communities can prepare with a variety of tools, and a flexible workforce is among the most essential. It is not the strongest of the species that will survive, or the most intelligence, but ones most responsive to change. (Charles Darwin)

Primary and secondary education

Attention to early education is the most cost-effective strategy to increase the number of skilled workers in the workforce. Primary and secondary education provides students with strong foundations in reading, writing, mathematics, reasoning, and computer skills. It also paves the way for success in higher education and placement in employment. Community leaders often mistakenly focus workforce development efforts too narrowly, thinking only in terms of customized training for industrial recruitment or business retention. In reality, holistic workforce development begins in earnest at the secondary level with career exploration, academic preparation for postsecondary education, or technical preparation for entry into apprenticeship programs or job placement. Numerous reports and studies affirm that academic achievement at the high school level is

extremely important in preparation for the high-skilled, high wage, high-demand jobs of the new economy. This is equally true for the "vocational" student who traditionally moved through the education system focusing almost exclusively on trades-based studies, with less emphasis on academics such as math and communications skills that are now required across all levels and types of employment. To make significant progress, public education can no longer engage in "business as usual." High schools must do a better job of preparing students for either entry into the workforce or postsecondary education, as both are equally important to a competitive workforce.

Postsecondary education

If a community or state is to increase its competitive standing nationally and internationally, more graduating high school seniors and working adults must start or return to college. Postsecondary education is a crucial way that working adults can acquire the skills and credentials necessary to succeed in current and emerging business and industry. Unfortunately, since working adults have full-time jobs and family responsibilities, they often lack the time, money, and flexibility of schedule to fit into traditional higher education models. Recent studies report that working adults get very little financial aid from federal or state sources. Working adults who hold full-time jobs are typically able to attend school on a less than half-time basis, which renders them ineligible for most aid. The problem is not just the

absence of financing but, on the part of most institutions of higher education, the lack of programs and schedules developed to accommodate working adults. Degree attainment and other credential requirements often seem too daunting for a working adult attending school part time, who may have been out of school for several years and may require some level of basic skills remediation. The pathway connecting education with improved jobs is obstructed for many adults. The states do not effectively provide the financial aid, student support, and basic skills remediation essential for working adult students to advance in their education and career. Yet, the ability to compete effectively in the new economy is directly related to a community's or state's ability to increase the educational attainment of all its citizens, from those with minimal job skills to those seeking the highest in academic achievement. Numerous national studies have confirmed the direct correlation between academic attainment and earnings potential. The benefits of postsecondary education accrue not only to individuals but to families, communities, states and counties, and to the nation as a whole. The Bureau also documents that quality of life factors, such as improved health for individuals and families, are dramatically enhanced by higher levels of education. As quality of life issues are improved for the citizens of a state, the need for other state programs directed toward health issues and correctional activities is reduced. Policy makers increasingly recognize that improving educational attainment is a

key ingredient in their efforts to strengthen economic competitiveness and enhance quality of life. The role and contributions of community colleges in workforce development initiatives cannot be overstated. These institutions are uniquely positioned as the bridge between high school and university studies, yet are flexible enough to offer classes responsive to general community needs. Community colleges provide developmental, remedial classes to high school graduates without college-level academic preparation, and provide continuing education for non-degree-seeking students. These various approaches to education are important to the overall level of workforce quality, making a strong community college a valuable local asset. Because community colleges are deeply embedded in the local community, they are naturally attuned to the needs of local business and industry. Community colleges are extremely important in producing students to fill critical shortages in occupations such as nursing; providing industry certifications such as Oracle and Cisco; offering services that help students transition from secondary to postsecondary education or from postsecondary into the workplace; and providing direct services to local employers and organizations.

Secondary to postsecondary career pathways

One of the most common barriers to educational attainment is the difficulty encountered by students as they progress through the separate secondary and postsecondary systems. Rare is the occasion when high schools and colleges

develop occupational programs of study with curricula that are aligned. Aligned systems allow for articulation agreements; that is, concurrent and dual enrollment programs designed to allow high school students to acquire college credit prior to graduation. Career clusters provide a framework for grouping occupations according to common knowledge and skills. Using sequences of coursework required at secondary and postsecondary levels, a career pathway provides a student with a plan of study that leads to specific occupational titles found in his or her career cluster. Rather than training for a specific job, this allows students to acquire skills that are transferable across related occupational fields. For example, the health science career cluster includes pathways for therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. A student wishing to become a nurse would develop a plan of study in the therapeutic services pathway, which would include foundational skills that would be transferable to the other pathways in the health sciences career cluster if desired at a later time. This plan of study would map core, technical, and elective coursework beginning with the ninth grade through graduation. If the high school and the postsecondary institution have aligned coursework using the career cluster framework, the student could also map courses required for the nursing degree and identify opportunities to take college-level work while in high school. This would save tuition monies and reduce the time

between high school and employment. However, career pathways are also needed to enable adult individuals to advance, particularly in high-wage, high-growth careers, and to meet the long-term demands of the new economy. A framework of study must be developed to help an adult student start at the beginning of the career path, if necessary, then move along the path to a certificate or degree. This combination of structured learning creates achievable stepping-stones for career advancement of adult workers and increases the quality of workers at all levels. As such, career pathways directly link investments made in education with economic advancement.

Developing a demand driven workforce development system

Designing an effective workforce development system requires a new thought process. Traditionally, workforce training has focused on job training – developing the specific skills necessary for a particular job as well as the human interaction and leadership skills required for the team approaches of the past decade. Unfortunately, this approach may result in limited training and preparation, designed to move individuals into entry-level jobs without consideration of long-term skill development, thereby increasing the number of working poor people. Job training must be differentiated from workforce development, as the former is but a single strategy and too narrow for a comprehensive workforce development plan: "The world we have created is a product of our thinking; it cannot be changed

without changing our thinking" (Albert Einstein). The ideal workforce development approach is a demand-driven system of both short- and long-term programs and policies which integrate workers, employers, educators, community and economic developers, and government policies into one seamless system. The system must be coordinated as well as flexible and responsive to changing economic conditions. It must include strategies for incumbent workers, the unemployed and the underemployed, special needs populations, mature workers, and the future workforce. This will require ongoing collaboration among employers, trade associations, and labor organizations, Chambers of Commerce, economic developers, public and private secondary and postsecondary institutions, and community-based nonprofit organizations. Workforce development strategies for the twenty first century should be grounded in the community development process and support the economic development needs of the community. An effective demand-driven workforce development system will both bridge the traditionally separate policy domains of education, labor, and economic development, and address both demand- and supply-side issues. The demand side includes workforce development policies and programs that respond to employer needs in finding and retaining qualified workers, and increasing their skills so that the employer can be more competitive. This may include employer practices that increase on-the-job learning and getting employees to work in teams. On the

supply side, workforce development systems that support short and long-term economic priorities by producing increased skills among current and future workers. These systems help people find and keep jobs and advance in employment, with programs for out of school youth, those already working, those seeking employment, and special populations such as women, minorities, and the disabled. What sets demand-driven systems apart from other approaches is the focus on lifelong learning and advancement. To achieve this, systemic changes will be required in education policy to improve achievement levels of all students, to offer alternative pathways which facilitate lifelong learning, and to create more flexible credentials and course delivery methods that allow working adults to attain education in small increments over extended periods of time. The community development process detailed in this book should be the basis for a workforce development plan because it should be part of a larger overall strategic plan for the community. Because most communities have an established workforce development entity, it may be that a review, redirection, or consolidation of efforts is in order rather than starting from scratch. Common elements of most effective programs include programs that are employer/employee centered, maintain strong networks of diverse partnerships between government and community-based organizations, contain employers who value training for their employees, and serve a network of clusters in the industry, government, and educational

sectors. In addition to the community development process, the following are points to consider when developing a demand-driven workforce development system:

• Establish a vision for the workforce network supported by an action plan with key indicator targets and performance measures. The vision and action plan should contain labor market policies that both support local and regional economic development goals for job creation and economic growth, and contain financial strategies and incentives that support public and private sector investment in skills development.

• Ensure that the vision and subsequent decision making are data- and fact-driven to provide an analysis of the labor market including current economic conditions, major forces, and local trends. Routinely evaluate current programs funded under the Workforce Investment Act and other public programs using data to measure progress toward goals and to modify and adjust strategies as conditions warrant. Use data and creativity to replace bureaucracy with innovation.

• Involve all stakeholders in visioning and planning, especially if agencies may be eliminated, reduced, or combined. Develop strategic linkages among stakeholder groups including service providers (secondary and postsecondary educators, state agencies, private companies); clients (employers, unions, current workers, those in the pipeline); government agencies (policy makers, state and federal

funding sources); and community-based organizations and individual citizens. In this way, the system will be characterized by responsiveness to economic needs, continuous improvement, and results-based accountability. Because industry representatives are the best source of information for layoff aversion strategies, as well as of advance knowledge related to preparing for emerging jobs, they are critical team members in developing workforce strategies.

• Give strong consideration to regional programs since today's mobile workforce is not necessarily restricted to a specific municipality or county. Because economies are regional in nature, develop workforce development strategies that are also regionally focused. Develop industry-led regional skills alliances to address areas of skills shortages across the region, in order to provide training for industry clusters rather than individual companies.

• Design incumbent worker training programs so that recipient firms are required to develop long-term, work-based training plans before financial assistance is provided. Firms should be required to consider overall training needs rather than providing quick fixes for immediate needs.

• Build a seamless learning system that focuses on other systems that produce graduates with marketable skills. To achieve this, education must be viewed as one system rather than separate secondary and postsecondary silos. It also involves advocating for overall high school reform and implementing increased linkages

between high school and college.

• Make sure higher education understands the economy and advises students of current and emerging job opportunities so that education is aligned with available employment opportunities. Increase resources of community colleges so that services can be expanded for students pursuing a four-year degree, those seeking technical certifications for beginning employment, and incumbent workers needing to acquire new skills to keep abreast of changes in the workplace. This will help people raise their standards of living through increased educational attainment.

• Create strategies for certifying knowledge and skills that are recognized by employers though gained outside the formal education system, and build pathways for continuing education in the informal and formal learning systems for adults and youth including literacy programs, apprenticeship, vocational training, youth development, technology-enabled learning, and alternative education programs.

Labor market intermediaries

Workforce development is a complex system of services and service providers that offer academic and technical skills training, social support services that make it possible for job seekers with extenuating needs to obtain training, and connections to the employers that offer employment. These services are delivered by a variety of labor market intermediaries (LMI) including government agencies, community

colleges, nonprofit community-based organizations (CBOs), and more recently, for-profit corporate providers. LMIs may offer services that are industry specific or services that target a specific segment of the workforce development system. They may operate independently or form networks or alliances with other providers. The scope and mission of LMIs are markedly different in scope and mission from their predecessors, due primarily to welfare reform and the revamping job training programs. The increased competition for workforce development services contracts challenged many community-based organizations and prompted greater collaboration among agencies and organizations in the public, private, and nonprofit sectors.

Conclusion

An insurance company advertisement from the late 1990s gives good advice for today's community leaders: "You can't predict. You can prepare." To navigate successfully in the new economy, communities must develop an agile workforce in the throes of continual change and uncertainty, characteristics of the new workplace. Employees must be equipped not only with industry-specific technical know-how, but have both the ability to create, analyze, and transform information that helps solve real-world problems, and to work and communicate effectively with others. Both formal and informal learning must become lifelong in nature, as opposed to stopping after a degree or certificate is attained or employment found.

Employers must understand that investing in and facilitating employee training affects productivity and, therefore, determines the company's competitive position. Policy makers must provide a demand-driven workforce development system that is flexible, responsive, and innovative – more than just "business as usual