



Chapter XII: Economic Diversification after a Disaster

Overview

Economic diversification has an array of benefits to a region. Academic research has shown that a diverse economy improves cross-industry spillovers (externalities), increases productivity, and reduces frictional unemployment.^{62,63} Most importantly, economic diversity increases regional resiliency and stability.⁶⁴ A diverse region is more able to withstand shock, be it economic downturn or a natural disaster. This is known as a portfolio effect⁶⁵—a natural disaster or recession will affect certain industries more than others,^{*} but in a diverse region, the affected industry will make up a smaller portion of the local economy. The risk, ultimately, is distributed more evenly.

Amidst the chaos, a post-disaster situation can present an opportunity for change. This chapter will cover economic diversification as both a recovery strategy and a tool for communities to increase their resiliency for future disasters. The first part of the chapter will discuss the steps for creating and planning for an economic diversification strategy. This includes assessing the region—what sectors currently exist and what sectors may be in latent stages that can expand and diversify? This stage involves examining the workforce, looking for partners, and identifying resources. The second part will delve into economic diversification strategies and how to implement them. These strategies include:

- Promoting entrepreneurship and small business within the community
- Improving and building upon the local workforce
- Encouraging regional clusters
- Increasing export activity

Economic diversification works best in a regional setting. Economies don't operate strictly based on local jurisdictional divisions. Similarly, natural disasters do not stay contained within a specific jurisdiction, so it is beneficial to proactively take a regional perspective from the beginning. Including and involving regional players

⁶²Jacobs, J. (1969). *The economy of cities*. Random House; Audretsch, D. & Feldman, M., (2003). *Knowledge Spillovers and the Geography of Innovation*. Prepared for the Handbook of Urban and Regional Economics, Volume 4. Retrieved from: [http://spol.unica.it/didattica/paci/Economia%20applicata%20avanzata%20\(1mod\)/audretsch-feldman.pdf](http://spol.unica.it/didattica/paci/Economia%20applicata%20avanzata%20(1mod)/audretsch-feldman.pdf)

⁶³Scott, A.J. (1988). *Metropolis: from the division of labour to urban form*. Berkeley: University of California Press.

⁶⁴Xiao, Y., & Drucker, J. Forthcoming. Does economic diversity enhance regional disaster resilience? *Journal of the American Planning Association*.

⁶⁵Brewer, A. (1985, February). Trade with fixed real wages and mobile capital, *Journal of International Economics*, 18(1-2); Malizia, E. E., & Ke, S. (1993). The Influence Of Economic Diversity On Unemployment And Stability. *Journal of Regional Science*; Frenken, K., et al. (2007). Related Variety, Unrelated Variety and Regional Economic Growth. *Regional Studies*, 41(5)

* Hospitality and construction are less affected by disasters than luxury goods (some retail), for example.



before a disaster strikes will make it easier to create task forces and recovery programs when time is a crucial factor.

It is important to note that engaging in regionalism does not mean ignoring local realities and priorities. On the contrary, local needs may be better addressed under a regional approach as you expand your pool of resources. Similarly, in the wake of a disaster, diversifying is often a forced hand. By engaging regional partners and diversifying early, a community is much better prepared for a natural disaster or man-made hazard.

Depending on the stage of recovery and resources available for economic development, a community may explore options for a complete economic transformation, or in the face of limited resources might seek to work with existing systems to make incremental change in diversification. This chapter will provide guidance for communities at all stages on how to assess the regional economy, engage local partners, and choose and implement strategies for diversification.

Balancing the Recovery and Resilience Strategies

When EDOs are examining their recovery objectives there are often two competing priorities: do we build back to prevent future loss or do we build back quickly to hasten the recovery? Ultimately, the extent, scope, and severity of the incident will dictate which objective should be favored. However, EDOs should be challenged to seek some balance between the two approaches. While there are some academic arguments which challenge the compatibility of employing diversification or cluster-based initiatives, in a post-disaster environment conditions could be right for pursuing both objectives in parallel. To help paint the picture for how this balancing act might work, included below are some baseline assumptions and hypothetical scenarios that explore this topic further.

Assumptions

In considering these two different strategies, we have noted several underlying assumptions that form the basis for this approach:

1. Recovery-focused initiatives will seek to maximize the return on investment and minimize the time required to realize that investment.
 - a. Where the community sees a need to hasten the restoration (or creation) of jobs and business opportunity to replace those lost or displaced from the disaster.
 - b. Cluster-based initiatives are considered recovery-focused.
 - c. “Success” is often measured in terms of businesses establishments recovered and/or jobs created or saved.
2. Cluster-based initiatives focus on prioritizing and enabling the recovery, rebuilding, and expansion of existing concentration industries.
3. Resilience-focused initiatives will seek to minimize the potential future losses to the economic sector while not (necessarily) focusing on minimizing time required to realize the benefits. Instead, resilience-



focused initiatives will seek to maximize investment savings relative to the pre-disaster environment due to the opportunity presented by the rebuilding process.

- a. For example, it is far cheaper to construct a new building 14 feet above ground level than elevating an existing structure.
 - b. Diversification initiatives are considered resilience-focused
 - c. “Success” is often measured in terms of the proportion of industries relative to the total.
4. Diversification initiatives focus on expanding into related industries where there may be transferrable industrial or workforce assets already accessible in the community.

Balancing Strategies Example

Consider a hypothetical community who has a relatively “monolithic” industrial base. They have a strong dependence on a single industry and a small handful of firms in that industry. They also have some sub-industries supporting the primary as service providers and part of their supply chain. This community also sustains a modest service industry (e.g. restaurants, gas stations, grocery stores), but residents need to leave the community to satisfy their demand for goods.

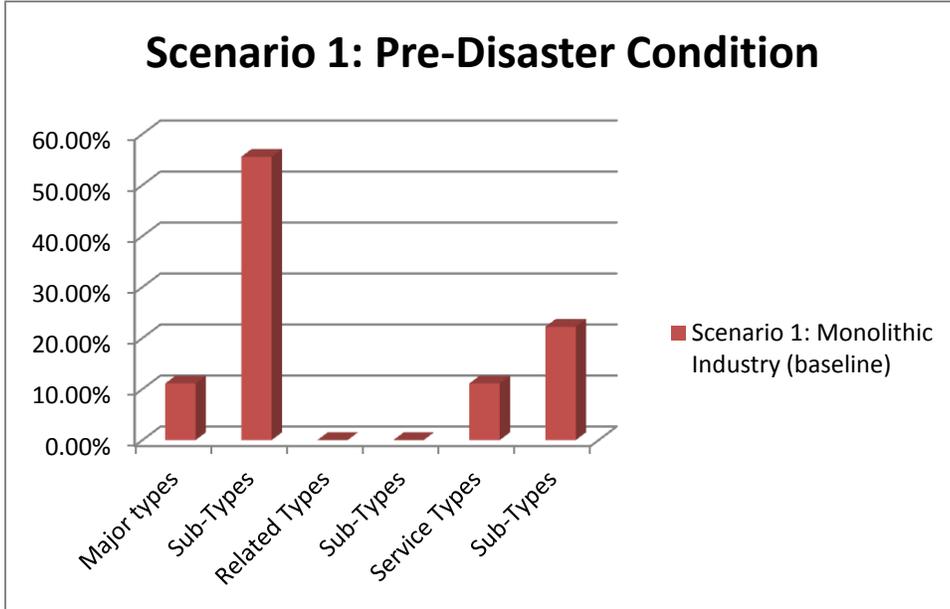
This example will explore the application of four scenarios; pre-disaster condition, diversification focused, cluster focused, and a blended approach.

Pre-Disaster Condition

Industry Types	Scenario 1: Monolithic Industry (baseline)
Major types	11.11%
Sub-Types	55.56%
Related Types	0.00%
Sub-Types	0.00%
Service Types	11.11%
Sub-Types	22.22%
	100.0%



Scenario 1: Pre-Disaster Condition



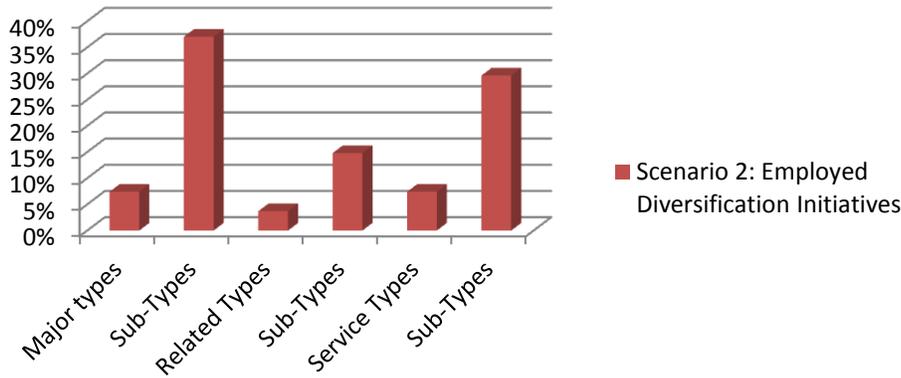
As the graph and table would suggest, this community predominantly has a single industry with some supporting service industries. For the purpose of the exercise, there are no additional industries.

Diversification Focused

Industry Types	Scenario 2: Employed Diversification Initiatives
Major types	8.70%
Sub-Types	43.48%
Related Types	4.35%
Sub-Types	17.39%
Service Types	8.70%
Sub-Types	17.39%
	100%



Scenario 2: Employed Diversification Initiatives



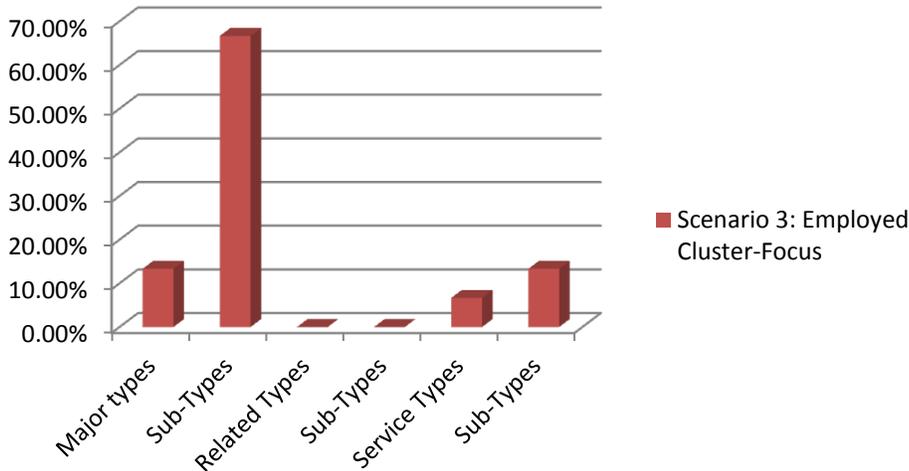
Here the community focused on employing diversification initiatives. In doing so, they sought to build the capacity to attract related types of industries to build on their existing industrial base. The increase in industry types also attracted more service sector firms.

Cluster Focused

Industry Types	Scenario 3: Employed Cluster-Focus
Major types	13.33%
Sub-Types	66.67%
Related Types	0.00%
Sub-Types	0.00%
Service Types	6.67%
Sub-Types	13.33%
	100%



Scenario 3: Employed Cluster-Focus



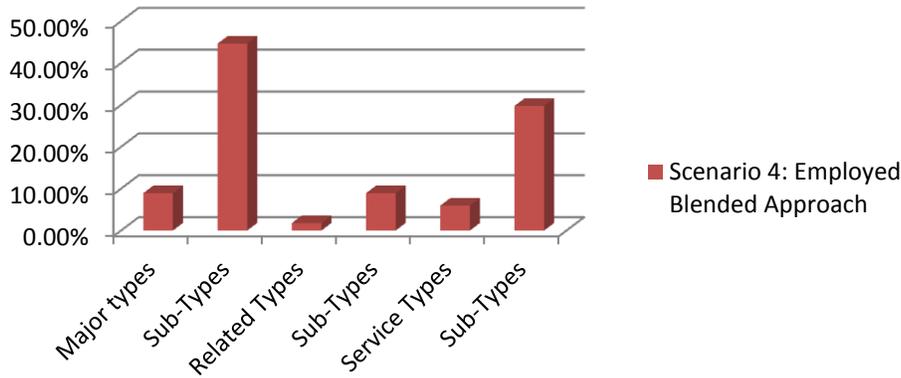
In Scenario 3 the community focused all of its energies into bolstering, supporting, and accelerating the recovery of their existing industry. This allowed for the expansion in demand for the number of establishments in the industry and the demand for sub-industries to support the supply chain. No efforts were made to attract other related industry types. Modest increase in demand for service sector firms occurred, but the lack of differentiation from the market previously served resulted in a more muted expansion.

Blended Approach

Industry Types	Scenario 4: Employed Blended Approach
Major types	8.93%
Sub-Types	44.64%
Related Types	1.79%
Sub-Types	8.93%
Service Types	5.95%
Sub-Types	29.76%
	100%



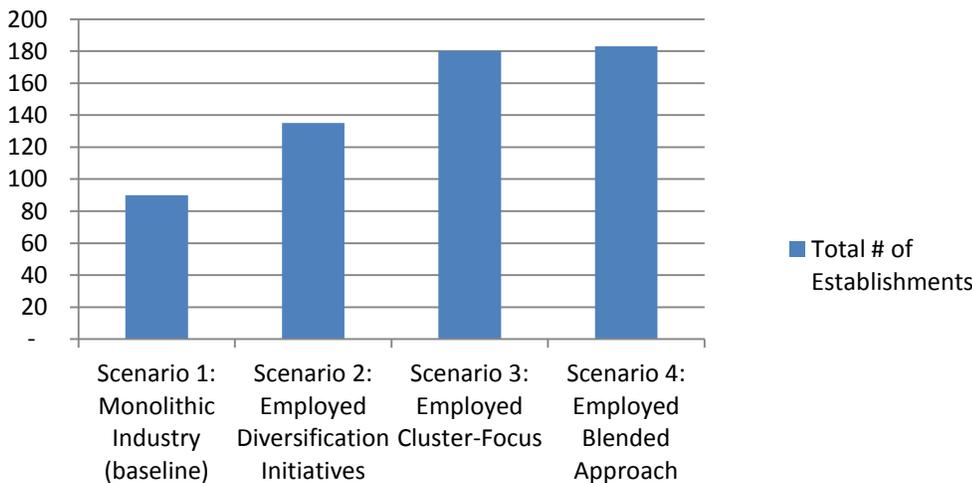
Scenario 4: Employed Blended Approach



Scenario 4 attempts to compromise the diversification model and the cluster model. In this scenario, the community divided its investment evenly between diversification and cluster initiatives. The result was a modest increase in the existing industry and an increase in the related industries. More expansion of the services sector was made possible by the growth in the existing industry and addition of new market demand by the related industry.

Recovery-Outcome Analysis

Total # of Establishments



The total number of establishments in each scenario can be used to evaluate the effectiveness of these scenarios for recovery. Where the objective in recovery is the rapid restoration of business and the resulting



jobs, the number of establishments (in this exercise) can serve as a reasonable proxy. As depicted in the figure above, the blended scenario and cluster scenario are comparable in terms of total establishments.

Summary Analysis

While the analytic process may appear somewhat laborious to explore, it provides a useful exercise to consider the advantages and disadvantages of balancing recovery and resilience strategies. Captured in the charts for the individual scenarios was the depiction of the spread of the industry concentration. For these scenarios, a sole focus on diversification would likely create the most positive outcome of broadening the industrial base, making the community more resilient. However, in considering the benefit of potential business establishment and job creation/retention that the cluster approach can facilitate, the blended approach is likely the optimum choice.

While this example does not consider long-term cost savings from diversification initiatives, it does suggest that it is important for a community to find the balance between accelerating growth in existing clusters and diversification.

Planning For Economic Diversification: Assessing the Region

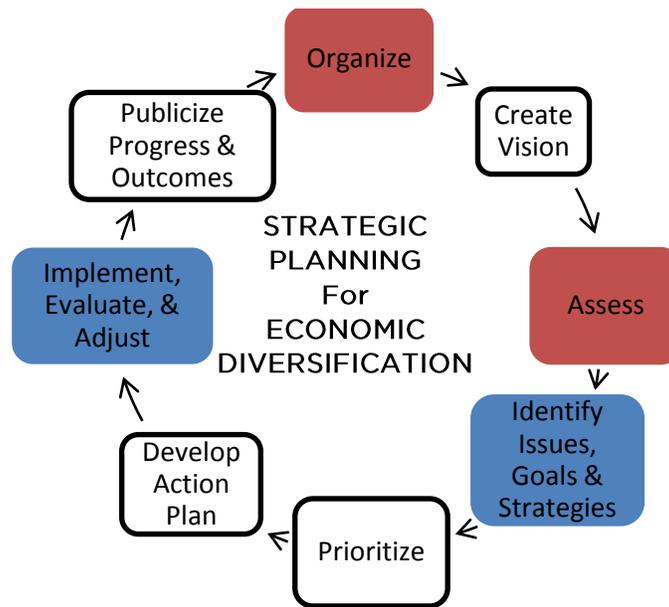
Introduction to the Strategic Planning Process

Economic diversification is a deliberate process that requires strong partners with a shared vision, clear goals and objectives, and a well-crafted implementation plan. It also needs a host of competent partners that work together to make the vision and the plan a reality. The strategic planning process, discussed earlier in the toolkit, serves as the basis for organizing relevant information, developing a strategy and executing it.

Communities may differ on timing and the level of depth on their assessment. The strategic planning process is continuous, customizable, and dynamic so communities may pick-up and continue regardless of what stage they are in the process. Below is a quick snapshot of that process. The colored stages will be discussed in depth in this chapter as they pertain to economic diversification. The stages in red are important for the next part of this chapter—assessing and mapping the region—and the blue stages will be discussed later in the chapter when focusing on implementation.

Organize and Assess: Partners, Existing Industry, and Workforce

As illustrated by the red-highlighted segments of the graphic, the strategic planning process is grounded in a thorough knowledge and assessment of the region. This assessment provides the foundation for a successful strategy through the evaluation of a region's strengths and untapped opportunities (please refer to the strategic planning chapter of the toolkit on how to conduct a SWOT analysis). For economic diversification, this means identifying potential partners for the planning and implementation process, and developing an inventory or "mapping" the region's leading industries and workforce assets.



Adapted from *Economic Development Strategic Planning (2011)*. International Economic Development Council, p. 14

Organize: Identifying EDOs

Potential economic development partners and engagement opportunities may come from the local, regional, and state level. Partners can include the state, county, and city public agencies, public authorities, public-private partnerships, nonprofit organizations, urban planners, community development corporations, chambers of commerce, trade associations, business leaders, educational institutions, and others.

Possible partner EDOs for developing a diversification strategy include:⁶⁶

- Economic development foundation, agency, or organization
- City or regional planning agency
- Chamber of commerce (local and state)
- Main Street organization
- Convention and tourism organizations
- Better Business Bureau
- Special improvement districts
- Business improvement districts
- County economic development authorities or commissioners
- Regional economic development councils or partnerships
- Council of Governments (COG)
- Government: city, county, and state
- Government advisory boards
- Convention center
- Community action agency
- Economic development districts
- Tribal organizations
- United Way

⁶⁶ Adapted from *Managing Economic Development Organizations (2011)* [Manual]. International Economic Development Council. Washington DC, pp. 110-112.



Educational/Workforce Institutions

- Departments of public schools, technical schools, and higher education
- Primary education: public and private schools
- Higher education: universities (private and public, community colleges, vocational training centers, and career technology centers)
- Private training facilities
- Workforce investment boards
- One-stop shops
- Certified business incubators
- Libraries: local, regional, and/or state facilities

Local Businesses/Associations

- Retail and business establishments
- Industrial establishments
- Building centers
- News sources
- Civic clubs
- Professional associations
- Board of realtors, other real estate professionals
- Manufacturing alliances or associations
- Health care providers: hospitals and clinics

State Agencies and Organizations

- Department of Transportation
- Department of Revenue
- Department of Labor and Employment
- Department of Local Affairs
- Office of Economic Development and International Trade

Infrastructure and Utility Organizations

- Utility providers (electric, natural gas, water, sewer, waste management)
- Railroad
- Cable and IT communications
- Major telephone providers
- Regional airport

Financial Institutions

- Banks
- Credit unions
- Community development corporations
- Organizations with a revolving loan fund
- Angel investors

Assess: Examining Existing Industries

A diversification strategy rests on the culmination of many small steps. Rather than simply relying on attracting businesses in an underrepresented sector, a successful diversification strategy facilitates the process by working with existing businesses and figuring out what they need for expansion—start with one business and build. Look for opportunities for expansion and alignment with these businesses (for example, overlap with emerging technologies, missing supply chain links, new export markets, etc.). In the planning stage, identify:



Large employers: Determine who the largest employers are with regard to metrics such as the number of employees and revenue. Meet with the region's largest employers to learn more about their relevant successes, challenges, and any anticipated changes, such as planned relocation or downsizing.

Current and future employment trends: Use employment data and interviews with local businesses to analyze current employment by sector, determine the unemployment rate, and identify industries that are growing or declining.

Supply chains and key markets for local industry: This information may clarify existing gaps (and opportunities for expansion) in industry supply chains as well as which companies are already exporting or those that are considering expanding to new markets.

Several analyses can be used to identify economic concentrations and specializations – location quotient, shift-share analysis, and input-output modeling are the most commonly utilized.⁶⁷ These analyses help determine the relative importance of a specific industry to a local and regional economy. They are useful for identifying existing and emerging industry clusters, which will be discussed later.

Assess: Evaluating the Workforce

Aligning a region's economic diversification goals with workforce development creates a more comprehensive strategy. Workforce development can foster small business growth and strengthen cluster development—both of which are strategies for diversification. The second piece of the assessment, therefore, is evaluating the region's labor force. Identify:

- Existing workforce talents by industry and skill set: Develop an understanding of the regional workforce's strengths as well as areas of improvement.
- Local and regional training opportunities and providers: Seek out large or prominent programs and capacity of those programs to train workers. Look for potential areas of alignment between skill gaps and these programs. Include community colleges, universities, technical colleges, etc.

This information can be obtained from the Bureau of Labor Statistics and through conversations with workforce groups (such as the Workforce Investment Board) and anchor institutions (such as a university or community college).

Cluster Analysis

Cluster-based economic development has become widely deployed by economic developers in recent years. Examples of existing clusters are aerospace industry in the Seattle region and the automotive industry in the Midwest. Emerging clusters, however, are more difficult to identify. To measure clusters:⁶⁸

- **Inventory the region's assets:** determine the natural fitness for certain kinds of industries (for example, research specialties of a university or college, uniquely skilled workforce, presence of a certain resource, etc.). Look into industries that are starting to export—these may indicate an emerging cluster.

⁶⁷ *Strategic Planning Manual* (2011). International Economic Development Council. Washington, DC.

⁶⁸ *Strategic Planning Manual* (2011). International Economic Development Council. Washington, DC.



- **Evaluate the economic base:** Location quotient, shift-share, input-output or a combination of these techniques. Identify exporting (basic) industrial sectors.
- **Engage the research community:** Working with area research institutes and higher education (including satellite campuses) can provide a fertile ground for identifying commercialization opportunities.
- **Map groupings:** Once specialized exporting industries have been identified, group them together with their suppliers, intermediate goods and services, and raw materials related to their value chain.
- **Gather firm input:** Interview firms. Ask:
 - Who are your major suppliers and buyers by industry?
 - What percentage (approximate) of your production needs come from within the region?
 - What percentage of your customers are located in the region?
 - Why has your company located in this particular area?
 - What are critical resources that support your business?
 - How have your firm's sales been in the past three years?
 - Does your firm plan to hire additional workers in the next three years?
 - Do you engage in any joint ventures with nearby firms?
 - How much do you spend on R&D?
 - How many patents has your firm generated?
 - What kind of relationships do you have with local colleges and universities?
- **Analyze the competition:** clusters exist due to competitive advantage. Understand how the region compares to peer regions by calculating their LQs. Also do LQ calculations for each industry through time to see how the strength may be changing.

A cluster analysis may require a combination of the analyses used in the industry assessment. The EDA also has sponsored the development of some tools to provide cluster-specific analysis tools. These are especially targeted towards rural areas that can't use the MSA data given by most federal websites. They are:⁶⁹

1. [U.S. Cluster Mapping](#) – A web-based resource for analyzing clusters geographically; this came from an EDA partnership with a consortium led by the Purdue Center for Regional Redevelopment and the Indiana Business Research Center.
2. <http://www.statsamerica.org/innovation> – A tool to analyze innovation, clusters, and investment decisions; this was also sponsored by the U.S. EDA and produced and maintained by the Indiana Business Research Center at Indiana University.

⁶⁹ *Introduction to Economic Development* (2011). [Manual]. International Economic Development Council. Washington, DC.



Case Study: Post-Disaster Redevelopment Planning in Polk County, FL

As part of a comprehensive post-disaster redevelopment plan for Polk County, Florida, an economic analysis was conducted to determine the vulnerabilities in the community and accordingly plan for disaster recovery. Both physical damage and economic losses due to business disruption were evaluated. The analysis started with an examination of the major employers in the community and their current employment levels. An industry cluster analysis highlighted seven industrial sectors that should be targeted based on strong growth trends within the county and the surrounding region. The cluster analysis also compared growth trends to industry wages and determined that most of the top ten industrial clusters in the county had high employment concentration ratios (near or above national averages) as well as rapid employment growth in the recent past.

The analysis also looked for economic sectors that were particularly vulnerable to disasters and focused on the specific challenges that would make the redevelopment and recovery of each industry/cluster difficult. It analyzed factors that are often beyond the control of economic development stakeholders but still have a profound impact on the economic vitality of the community, such as educational attainment, transportation, etc.

An additional analysis that examined Polk County within the broader Central Florida region was conducted in order to understand the interdependencies between the industries/clusters in Polk County and the surrounding counties.

More on Polk County can be found in [Case Study Appendix 2](#).

Take Action: Use Assessment to Develop Strategy

Successful economic diversification strategies are founded on principles of sound economic development planning and robust implementation. This section discusses the following strategies and tactics in detail along with examples of successful implementation in a community. Elements from multiple strategies may be necessary to develop a well-rounded economic diversification plan, rather than relying heavily on a single aspect.

- Align economic development resources and programs
- Encourage entrepreneurship and support small business development
- Workforce development
- Establish or enhance regional clusters
- Increase export activity



The Role of the EDO

The role of EDOs varies within the different strategies. EDOs are often thought of as facilitators and conduits for resources already available within the community. For some strategies, however, the EDO has the internal capacity to be a service provider. For example, when connecting small businesses and entrepreneurs to capital, some EDOs may have the ability to establish a revolving loan fund. Typically, however, EDOs have the most success with providing services already within the expertise and competency of the staff. This includes providing market research, providing guidance for business plans, etc. When deciding what services to provide, consider what is within the organization's capacity to provide and what resources are already established and available in the community.

Forming a Public-Private Partnership for Economic Diversification

Some communities may find it advantageous to create a public-private partnership (PPP) after a disaster to facilitate economic diversification. A PPP can lead or assist with the planning and implementation of a diversification strategy.

A PPP may be established as a nonprofit corporation, public benefit corporation, or authority, and receive funding and expertise from the private and public sectors. PPPs often act like for-profit institutions, but with a board of representatives from the public and private sectors, some of whom are politically appointed. Board members can include members from the partner organizations listed previously.

There are several benefits of a PPP when compared to a purely public EDO. A PPP is typically more financially and strategically flexible. A carefully constructed PPP can be a great asset to economic diversification. Characteristics of a successful public-private partnership include:⁷⁰

- A clearly defined mission that addresses the concerns of both the private and public sectors
- Consensus among members regarding how to implement the mission
- The commitment of both the public and private sector reflected by an adequate level of funding to achieve goals
- A validation system designed to establish and monitor performance, determine change-of-course program modifications, and justify continued support and funding

As mentioned previously, public-private organizations minimize many of the problems, and retain many of the advantages, of organizations in both sectors. Some examples of these advantages are listed below:⁷¹

- The goals and direction of the PPP reflect a consensus of the local government(s) and the business community, thus ensuring broader support for programs and initiatives.
- PPPs have a greater degree of freedom in hiring, firing, and setting salaries than public agencies. In addition, an unpaid board directing a public-private organization has little to lose from making bold decisions since their salaries are drawn from other sources.

⁷⁰ *Managing Economic Development Organizations* (2011) [Manual]. International Economic Development Council. Washington, DC.

⁷¹ *Ibid.*



- PPPs can use public resources and powers and often are not constrained by as many limitations or processes required of public agencies (e.g., a public process, citizen review, and civil service restrictions).
- Public/private organizations are free to expand their activities beyond that of local government(s) since they are not restrained by a city charter or county legislation.
- Public-private agencies can take on the straw man role, proposing the project, sampling public reaction, and allowing the local government to either support or oppose it.
- A PPP may be able to draw on a broader range of expertise than the public or private sectors would normally afford or traditionally use. Working together builds upon and creates new skills and understanding.

In addition, there are a variety of financial advantages to organizing as a public-private partnership:

- Public-private organizations can mobilize both public and private resources and are financially flexible.
- Public-private organizations can invest in a private business venture using their own funds, whereas public organizations will normally have to demonstrate a clear public purpose.
- The local government debt ceiling may not be affected by a public-private organization's borrowing since they are independent from the city. (However, note that local government financing is often required for major projects, such as infrastructure.)
- Public-private organizations are able to accept donations due to their tax-exempt status, thereby offering advantages to contributors benefiting from tax deduction advantage.
- A public-private organization can insulate governance from financial risk and liabilities through incorporation laws.
- Lastly, a public-private organization may eventually be financially self-supporting through management and service fees, and/or membership dues, thus eliminating the need for continued local government contributions.

PPPs also facilitate communication between different service providers in the region. This is an important attribute for the next section.



Case Study: Diversifying the Economic Base Following the Northridge Earthquake in San Fernando Valley

The San Fernando Valley's regional approach to recovery and diversification after the 1994 Northridge Earthquake began with the establishment of a public-private partnership. The resulting Valley Economic Alliance (VEA) was formed in 1996 as a 501(c)3 not-for-profit economic development and marketing organization. The partnership's four cities—Burbank, Calabasas, Glendale, and San Fernando—previously competed with each other. However, VEA leaders continually emphasized the need for a true regional economic alliance, eventually winning the full support of these cities and formally adding them to the group in 1997.

The establishment of the VEA allowed for improved workforce development and business assistance based on cooperation between the private and public sectors. To improve the workforce, the VEA established a Business Education Partnership with the Los Angeles Unified School District, vocational training programs, community colleges, California State University-Northridge, and other schools to help align curriculum with business needs. In turn, businesses expanded their internship and mentoring programs. The VEA also created business retention teams to work with at-risk companies after the disaster and encouraged major employers to stay in the Valley. These teams also worked to attract businesses by working together with the San Fernando Valley Conference and Visitors Bureau (a member of the VEA) to develop promotional marketing materials for target industries.

The full case study on the diversification of the San Fernando Valley can be found in [Case Study Appendix 9](#).

Strategy: Align Economic Development Resources and Programs

It is valuable to have a database of existing economic development programs in order to determine the most effective role for the EDO to take on, but it also creates efficiency and effective management of resources when implementing a diversification strategy. Programs and resources should be aligned both horizontally and vertically.

- Horizontal alignment: create a full spectrum of resources and services across different organizations. For example, if the local chamber offers networking and training, the EDO could focus on financing or providing marketing information. Seek out existing resources from other organizations and find a complementary, comprehensive strategy in how the programs can be administered.
- Vertical alignment: make sure that businesses are supported at all stages of growth and development. For example, fledgling businesses have access to permitting and business plan assistance and mature small businesses have access to angel or venture capital.



Together, this should form a matrix of programs available within the community that is irrespective of business stage and type:



Case Study: St. Louis, MS

St. Louis County, Missouri, received a grant from EDA to create a regional economic adjustment strategy in 2011. One of the plan’s recommendations was to catalog all of the existing entrepreneurship programs within the region and create a central source for entrepreneurs to have access to this information. St. Louis County Economic Council created an entrepreneurship asset map and a portal for entrepreneurs to ensure there are no programs that are overlapping or competing with one another within the region.

The result can be found here: <http://www.acceleratestlouis.org/>

More information on the diversification of St. Louis can be found in [Case Study Appendix 10](#).

Strategy: Encourage Entrepreneurship and Support Small Businesses

Small businesses are an important asset to the local economy. Encouraging small businesses and entrepreneurship is a way to diversify by growing the local and regional economy from within.

Although each small business employs a few people, as a class they represent a large share of employment and a majority of new net jobs. Small firms are flexible and innovative as compared to larger firms: According to the SBA, “Of high patenting firms (15 or more in a four-year period), small businesses produced 16 times more patents per employee than large patenting firms.”⁷² Since small businesses and entrepreneurs are locally based, money that is spent at a local business stays and recirculates in the regional economy at a higher rate. Locally owned businesses tend to generate two to three times the amount of local economic activity than national chains.⁷³

⁷² SBA Office of Advocacy (September 3, 2012). *Frequently Asked Questions*[Resource]. Retrieved from: http://www.sba.gov/sites/default/files/FAQ_Sept_2012.pdf

⁷³ Urban Conservancy and Civic Economics (September 2009). *Thinking Outside the Box*. Retrieved from: <https://bealocalist.org/thinking-outside-box-report-independent-merchants-and-local-economy-profile>



There are several ways to assist small businesses and entrepreneurs after a disaster, including but not limited to:

- Business counseling and loan application assistance
- Establishing a business recovery center
- Creating local financial programs such as a bridge loan program or revolving loan fund
- Encouraging local spending in small business through a “buy local” marketing campaign

After a disaster, some of these services can be extended beyond the short-term recovery phase to promote small business and entrepreneurship as a long-term recovery and diversification strategy. Jefferson Parish received CDBG funds from the state of Louisiana to assist in their recovery after Hurricane Katrina. The Jefferson Parish Economic Development Corporation used these funds to create a revolving loan fund to assist small businesses. Even though Hurricane Katrina occurred in 2005, as of 2012 Jefferson Parish continues to use the revolving loan funds to assist new and emerging entrepreneurs and small businesses in the region.

Longer-term strategies for supporting small businesses and entrepreneurs include:

- **Provide space for new businesses to grow in a supportive environment, such as a business incubator.** Incubators created with the goal of economic diversification may want to consider housing emerging manufacturing or service firms due to their job-creation potential.
- **Connect the research and development efforts of regional industries and universities with entrepreneurs and small business support services.** Research and development activities at universities provide numerous opportunities for businesses to be spun off. It helps generate additional local economic activity and may even help retain talented workers in the area. This strategy can be combined with an incubator strategy—tech industry incubators are often supported by universities. Often, communities will create policies for small business support that target high-technology clusters of small business. Additionally, tech transfer offices at universities can help university researchers that are looking to commercialize their products connect with small businesses.
- **Provide supportive networks and structures for small businesses.** Examples of this include economic gardening, networking and educational events, and counseling for all stages of business growth.
- Continue to develop and encourage “buy local” campaigns.
- **Connect small businesses and entrepreneurs to financing.** EDOs don’t necessarily need to provide the financing themselves. Rather, they should be able to connect small businesses and entrepreneurs to existing resources in the community.



Case Study: St. Louis, MS

St. Louis was struck by multiple economic and natural disasters throughout the 1990s and 2000s. In response to defense cutbacks, floods, and major plant closures, St. Louis began to diversify its economy as a resiliency and recovery strategy. St. Louis County has built several incubators and four enterprise centers to encourage small business, including the Center for Emerging Technologies located near and funded by the University of Missouri.

In 2010, the St. Louis County Economic Council and the Donald Danforth Plant Science Center received a \$4.6 million grant from EDA to target and expand the plant and life science industries. This money went towards an incubator called the Helix center, which supports entrepreneurs in early stage plant and life science companies. The incubator includes wet lab spaces and its own seed capital fund to assist in the commercialization of technologies.

More detail on St. Louis' incubators and their role in the diversification strategy can be found in the [Case Study Appendix 10](#).

Strategy: Workforce Development

Workforce development efforts aim to improve the quality and skills of the workforce, help businesses meet their human resource demands, and provide channels for businesses and workers to connect. This ongoing process should be part of a continuous feedback loop between economic developers, workforce development professionals, major employers, local educational institutions, and other relevant stakeholders. Workforce development includes education as well as job training, and involves basic skills such as literacy and math, hard skills such as welding and IT certification, and soft skills such as work ethic and attitude. As part of an economic diversification effort, workforce development is an opportunity for economic developers to better align or enhance existing connections between the needs of employers, existing workforce skills and knowledge, and educational programs.

A workforce development strategy should be developed with a consideration of workforce, industry, and market realities. Once an assessment of the existing workforce has been completed, economic developers can then ask:

- What knowledge and competencies (existing or needed) are applicable across different industries?
- What knowledge and competencies (existing or needed) are transferable across segments of the workforce?
- What are the institutions best suited to promote and instill new types of knowledge or produce patents?
- How can we measure and validate the existence or growth of a new cluster in our region?

In Akron, Ohio, economic developers focused on workforce development when the community faced the prospect of losing thousands of jobs with the decline of the rubber industry. With a desire to keep the local workforce in the community, economic developers worked with employers and local universities' polymer science and polymer engineering programs to transition workforce skills from rubber to polymers. As a result,



Akron was able to minimize job losses, and create new jobs for the local economy. Akron is currently home to world-class facilities for polymer research, testing and training.

Workforce development efforts should be collaborative and include representatives from the economic development, business, education, and workforce sectors. This effort should be organized and utilize the unique perspective of the different sector representatives. Possible workforce development objectives for this type of group include:⁷⁴

- Encouraging business participation in the workforce system: Business executives have knowledge about their specific industries and the direction in which these industries are moving, and they can provide valuable insight on the skills and training necessary for new jobs.
- Creating public-private partnerships between firms, labor unions, and government agencies to expand skilled workforce
- Reorganizing economic development and workforce development to achieve better alignment
- Partnering with educational institutions and businesses to link educational programs with industry needs.

Aligning workforce and economic development initiatives with colleges and local training centers will help to train existing and upcoming workers in target fields. This will help to make diversification efforts more effective, especially if communities are looking to expand into new industries or technologies. Benefits of working with universities, community colleges, and training centers include:⁷⁵

- Community colleges and other institutions of higher education
 - Adapt education offerings to current economic conditions
 - Tailor programs to local industry needs and labor shortages
 - Work with private-sector partners to define needs
 - Provide professional instruction, training facilities and advanced technologies
 - Serve as the region's most valuable information source
- Establishing training centers
 - Act as outside consultant to develop training programs and curricula
 - Verify industry needs and labor shortages
 - Nonprofit training centers will partner with businesses to increase available services

Conducting a cluster analysis in conjunction with a workforce development strategy can be beneficial to diversification efforts. A cluster analysis will help economic and workforce development practitioners identify the skill sets that are required or need to be upgraded by the business community.⁷⁶ This is discussed in more detail below.

⁷⁴ *Workforce Development Manual* (2011). International Economic Development Council. Washington, DC.

⁷⁵ Ibid.

⁷⁶ Sheely, S. (2005, October). *Regional Industry-Driven Centers of Excellence as a Vehicle for Investment in Innovation*. [PowerPoint Presentation]. Lancaster County Workforce Investment Board. Lancaster, PA



Strategy: Establish or Enhance Regional Clusters

In general, cluster development is a strategy that builds on concentrations of competing and complementary firms within industrial sectors. As mentioned earlier, efforts in cluster development should be based in data and analysis—clusters cannot be created artificially out of nothing.

In order to diversify, a community can both expand upon its existing industry clusters and anticipate and facilitate the emergence of new clusters to add new industries to the region. Regional clusters foster innovation and knowledge sharing through externalities, linkages, and spillovers. These externalities include technology transfer, access to specialized human resources and suppliers, pressure for higher performance (production and efficiency) due to proximity between firms, and the development of pools of employees with specialized expertise.⁷⁷ Clusters can be linked vertically through buyers and suppliers and horizontally through businesses that compete in the same market or share resources (such as technology, raw materials or workforce). More specifically, clusters can be built around the support services of:^{78,79}

- complementary industry segments and interconnected companies
- supplier chains and specialized suppliers
- venture capital availability and entrepreneurial capability
- masses of talent, technology, and capital
- research facilities and specialized infrastructure

Strengthen clusters from existing alignments and areas of under-capacity

Engage existing and partially-developed clusters to identify their needs and seek out solutions to address them (e.g. workforce training, marketing, etc.). One method of doing this is to create a business satisfaction survey for businesses within a targeted cluster. Structure questions around local amenities and their importance to business success. How do the businesses rate the current amenities? This information can be used to address specific business needs and increase the region's competitiveness. Portland's cluster organization framework is a culmination of best practices for the planning and implementation process needed for developing clusters from existing or emerging alignments.⁸⁰ Once the analyses and planning stages have been completed, a community can decide what interventions need to be made. For complete details, please visit their website: <http://www.pdxeconomicdevelopment.com/industries.html>

Facilitate start-ups of related businesses

To strengthen emerging clusters, create an environment that supports spin-offs and supports small businesses and entrepreneurs. The athletic and outdoor (AandO) apparel cluster in Portland, Oregon is a good example of encouraging cluster-related start-ups. Anchored by large, established firms such as Nike, Adidas, and Columbia

⁷⁷ Porter, M. (2007, November). *Clusters and Economic Policy: Aligning Public Policy with the New Economics of Competition* [Policy White Paper]. Harvard Business School, pp. 2-3.

⁷⁸ Posila, W.H. (2004). State science- and technology-based economic development policy: History, trends and developments, and future directions. *Economic Development Quarterly*, pp. 18.

⁷⁹ Porter, M. E. (1998). Clusters and the New Economics of Competition. *Harvard Business Review*, November-December, pp. 77-90.

⁸⁰ Portland Economic Development Strategy Overview. (n.d.). *Portland Economic Development Strategy*. Retrieved from: <http://www.pdxeconomicdevelopment.com/industries.html>



Sportswear, the AandO cluster has encouraged entrepreneurship in the region. As the large anchors grew, employees established spin off businesses, and entrepreneurs opened hundreds of smaller firms that offer services to larger employers.⁸¹ Similar to an entrepreneurship strategy, make sure there are resources such as financing and counseling programs to facilitate the emerging start-ups.

Utilize Anchor Institutions

Technology clusters are often targeted as part of a larger technology-based economic development strategy. Technology clusters benefit from support firms such as technicians, consultants and lawyers and a financial network of financial institutions and venture capitalists. A university or core institution can support a technology cluster through research and workforce training. They also provide specific infrastructure. Ponca City, Oklahoma built a cluster around a technology lab after the departure of their major employer, Conoco Oil Company. Ponca City had discovered a potential niche in sensor technology through a study done by Oklahoma State University and the Ponca City Development Authority. The city, university, development authority and ConocoPhillips partnered to develop a national sensor testing and evaluation center that would allow military, commercial, and university researchers to work on sensor technology in a single location—the University Multispectral Lab (UML). The lab has attracted more businesses in the technology and professional services industry. Companies work with the UML to develop propriety products or utilize the lab space and other infrastructure for research.⁸²

Create cluster-based workforce training improvements

Workforce training strengthens cluster development by relating the incumbent workforce to the value chain. Cluster analysis will shed light on the skill sets that are needed or need to be upgraded. Question⁸³:

What knowledge and competencies are applicable across different industries?

What knowledge and competencies are transferable across segments of the workforce?

What are the institutions best suited to promote and instill new types of knowledge or produce patents?

How can we measure and validate the existence or growth of a new cluster in our region?

Work with workforce development organizations, universities, and training centers to update workforce skills needed for new industries. Once a desired cluster is targeted, the skills and competitiveness of the incumbent workforce will be important in attracting the related competing and complementary industries in the cluster.

Strategy: Increase Export Activity

The final economic diversification strategy discussed in this chapter is to increase export activity within the region. Increasing export activity increases a region's resiliency to economic downturn. If a region is struck by

⁸¹ Muro, M. (2010, November 29). *This is What a Cluster Looks Like*. Brookings Institute. Retrieved from: <http://www.brookings.edu/blogs/the-avenue/posts/2010/11/29-clusters-muro>

⁸² RestoreYourEconomy.org (n.d.) Economic Diversification into Knowledge-based Industries in Ponca City, Oklahoma[Case Study]. Retrieved from: <http://restoreyoureconomy.org/diversifying-into-knowledge-based-industries-in-ponca-city-oklahoma-after-the-departure-of-conoco-phillips-case-study/>

⁸³ *Workforce Development Manual* (2011). International Economic Development Council. Washington, DC.



disaster and experiences a demand shift, exporting industries are less likely to be affected since their customer base is more diverse. An export strategy is two-pronged. It should:

Help companies that are already exporting reach new markets (if appropriate)

Help companies looking to export enter the export market

The first step is to create a regional export plan. The regional assessment should include the role of exports in the overall economy and top exporting industries. Then determine what foreign markets should be targeted and reach out to them. It may also be useful to begin including export metrics when determining overall indicators of economic performance.

Utilize the State Trade and Export Program

There are a few key federal funding sources for the promotion of exports. The Small Business Administration (SBA) has the State Trade and Export Promotion (STEP) program, which was an initiative of the Jobs Act of 2010. Michigan's STEP program, funded by the SBA, is managed by the Michigan Economic Development Corporation and connects businesses to export opportunities. Michigan has established offices in Canada, Brazil, and China. Small and medium enterprises looking to export or expand their exporting can receive reimbursements for 50 percent of their costs up to \$12,000⁸⁴. Michigan has used these funds to successfully connect exporters to foreign markets through business counseling and funding. Funded activities from the STEP program include:

- Overseas trade mission participation
- International or domestic trade show participation (such as hotel costs)
- Foreign market sales trips
- U.S. Department of Commerce services (such as counseling, match-making, or Gold key)
- Website and/or marketing material translation services
- Agent, distributor and/or customer searches
- Foreign market research^{85,86}

Additional information can be found at <http://www.sba.gov/step-grants/by-state/CO>.

Align with other initiatives

States have benefitted from aligning exports with other economic development initiatives. For example, in order to receive STEP program funding in Oregon, candidates must fit within Oregon's targeted industry categories (specifically the state's priority business clusters). Universities can also be a key resource in export initiatives. In addition to aligning export initiatives with cluster development, consider aligning exporting with workforce development. Faculty and students at Michigan State University, through the Michigan Export Growth Program, assist businesses in their export goals⁸⁷. Projects have included:

- "exploring markets for paint exports in Turkey

⁸⁴ Pure Michigan (n.d.). Export Assistance [Webpage]. Retrieved from: <http://www.michiganbusiness.org/grow/export-assistance/>

⁸⁵ The U.S. Small Business Administration (n.d.). *Office of International Trade Resources* [Fact Sheet]. Retrieved from: <http://www.sba.gov/content/state-trade-and-export-promotion-step-fact-sheet>

⁸⁶ Business Oregon (n.d.). *International Export Assistance*[Webpage]. Retrieved from: <http://www.oregon4biz.com/Grow-Your-Business/Export-assistance/>

⁸⁷ Michigan State University (n.d.) Michigan Export Growth Program. Retrieved from: <http://global.broad.msu.edu/megp/>



- detecting potential acquisitions and partners in the metal forming and machining industry
- identifying export restrictions for security-based software
- locating potential buyers of seafood in European markets
- determining supply chains for after-market automotive components in China⁸⁸

Students help the business community and in return, gain experience that will help them professionally in the workforce.⁸⁹

Export Financing, Counseling, and Services

There are multiple avenues for financing exports. In addition to the state STEP assistance, funding sources include:

1. Export loan programs (SBA, Export-Import Bank)
2. Export-Import Bank Loan Guarantee Program
3. Export-Import bank export credit insurance policies
4. The U.S. Trade Development Agency grants

More detail on available financing programs can be found at <http://export.gov/finance/index.asp>. The Export.gov website is a useful resource for regions and businesses looking to export. It provides assistance for creating export plans, lists export information by industry, and lists available financing opportunities and service centers. There are several U.S. Export Assistance Centers located in major metropolitan areas that are staffed by SBA, the U.S. Department of Commerce, the U.S. Export-Import Bank, and other public and private organizations. These centers provide a one-stop-shop for export counseling and technical assistance.

International partnerships are also highly beneficial. Akron, OH, as part of its diversification strategy, made a \$1 million investment in an Israeli business incubator in exchange for the understanding that when companies are ready to graduate, they will look to Akron to locate a branch of their operations. Nearly 30 European companies bringing 2,500 jobs have located in the Greater Akron area—about one-third of them within city limits—as a result of the City’s international marketing efforts. Akron shows that exports do not necessarily have to be goods, but services and funding as well.

Export initiatives are complex, but national initiatives have opened up a variety of services available to regions and businesses. Export initiatives can be combined with both cluster development and workforce development such as in Oregon and Michigan. Although this section has presented common export assistance strategies, the Akron case study has shown that creative programs and partnerships can be just as effective.

⁸⁸ Michigan Export Growth Program (2009). [Brochure] East Lansing, MI: Michigan State University, Eli Broad College of Business. Retrieved from: <http://ibc-static.broad.msu.edu/sites/globalinit/megp/pdf/megp-brochure.pdf>

⁸⁹ Michigan State University (n.d.). Michigan Export Growth Program. Retrieved from: <http://global.broad.msu.edu/megp/>



Summary

Diversification requires a regional planning perspective, numerous partnerships, and long-term strategies. Different communities will have different timeframes and varying access to information. It is important to be cognizant that more rural areas may take longer to diversify than urban areas. Similarly, no community has unlimited resources to implement all the strategies at the same time, and it is important to prioritize based on local and regional considerations. Organizational capacity, resources available, timelines, and how the strategies interact with each other are all relevant considerations for prioritization.

Regional stability and resiliency is an ongoing process and can be encouraged through the strategies presented in this chapter. Although presented separately, these strategies can and are encouraged to be interwoven and utilized comprehensively. Diversification is a very long-term strategy and it may be impossible to see results until 15-20 years; however, the end goal of resiliency and stability will better prepare the region for future natural disasters.

Resources

Potential analyses:

- *Cluster analysis*: identify both existing (or established) clusters and emerging clusters.
- *Retail Leakage and Capture Analysis*: identify leakage (when consumers spend dollars outside of the community) and capture (retail sectors are receiving more dollars than what the local community can supply)
- *Input-output models*: Determine regional multipliers
- *Shift share*: determine regional competitive advantages
- *Location Quotient (LQ)*: identify exporting industries

Federal Resources for Creating Assessments: ⁹⁰

- Bureau of Labor Statistics: employment, LQ
 - Consumer Price Index
 - Consumer expenditure survey to analyze retail potential
 - Current employment statistics
 - Occupational employment statistics
 - Information on mass layoffs
- Bureau of Economic Analysis
 - Regional Economic Information System (compiled from sources on metro and state data)
 - Estimates of gross state product
 - Data on foreign direct investment
 - Produce Regional Input-Output Modeling System multipliers (best source of multipliers for state and metropolitan economies)
- U.S. Census
 - demographic and workforce data

⁹⁰ *Strategic Planning (2011)* [Manual]. International Economic Development Council. Washington, DC, p. 62.



- Five-year economic census (for years ending in 2 and 7) of 20 industry sectors for states, metropolitan areas, micropolitan areas, counties, and place
- Annual survey of manufacturers for U.S. and states
- County business patterns for states, metropolitan areas, micropolitan areas, counties, and ZIP codes
- OnTheMap (service from the U.S. Census)
 - Location of jobs based on where people live and work
- ReferenceUSA
 - Supply chains for cluster