# 7. Conclusions, Lessons Learned and Future Directions

## 7.1 General Background

This project was undertaken to develop new decision support tools and conceptual frameworks to help in shaping economic development strategy for regions throughout the United States, especially rural regions which often lack both the decision framework and the leadership capacity to yield effective development strategies. These tools and frameworks were designed for use by local leaders and economic development practitioners working not only in individual counties but, more importantly, in multi-county regions.

The project extended previous research, which developed related economic development data and tools analyzing industry clusters, by adding three new dimensions: occupation and skill clusters, measures and a new index of innovation, and a framework to help regional stakeholders prioritize public investments in support of a regional economic development strategy. The first two dimensions are captured in a web-enabled national database tool that provides access to detailed county-level data and lets users aggregate data across counties to understand the economic environment of multi-county regions.[42]

Insights gained from these tools and analyses can help regional leaders and economic development practitioners focus their strategies in ways that reflect a region's comparative advantages and disadvantages, especially those related to its potential to cultivate a knowledge-based innovation economy. Highlights from each component of this study are summarized in the following sections.

## 7.2 Regional Strategy Process

The economic development field has evolved over the past half century through traditional incentives-based industrial recruiting to competition based on reducing business costs to today's regional competitiveness era. Regional competitiveness emphasizes identifying each region's competitive advantages and then prioritizing public and private investments necessary to exploit those advantages.

Although authorities agree that the regional competitiveness approach offers the greatest promise for sustained economic gains, many local practitioners still cling to the older approaches. Regional leaders need new tools and new skills to understand and capitalize on the regional competitiveness concept. Accustomed to thinking in terms of their own local areas, these leaders must reach beyond their parochial interests to link assets and competitive advantages throughout their broader region, thereby increasing their competitive edge in global markets. Indeed, many of today's best economic opportunities only emerge at the scale of the broader region.

Three important elements are proposed as essential to the regional development process, represented by the "who," the "what," and the "how." The "who" element refers to identifying and bringing together the right mix of partners from the region's public, private and nonprofit sectors, reaching across jurisdictional

[42] See www.statsamerica.org/innovation/data.html.

boundaries to achieve the shared mindset of collaborating to compete. Few regions, achieve a solid strategic partnership at the outset; most must first overcome a history of competition or even distrust among the region's players.

The "what" element refers to the strategic outcomes necessary for the region to compete effectively and to sustain its growth. Critical outcomes include development of an open, resilient regional partnership, a strategic action plan, and a set of investment priorities to support the plan. The plan's goal is to identify opportunities likely to unlock the region's distinct potential to leverage its assets in ways that will transform its economy. A strategic investment agenda is then required to focus public effort and funding (in alignment with private priorities) on the most promising strategic alternatives. All three of these outcomes are essential to a strong regional foundation for a competitive economy.

The "how" element refers to the collaborative process through which the three desired outcomes come about. A three-component process is proposed, weaving together processes of collaboration, analysis and coaching. Collaboration involves building the trust by which a diverse set of regional actors become a partnership focused on a common mission, sharing a common understanding of competitive challenges and opportunities facing the region.

Analysis is a process of winnowing the wide range of possible targets for regional investment down to a small set that offer the most promise for increasing the region's competitive advantage. It is grounded on detailed information about the region's economy, its assets and liabilities; the tools developed for this study support such analysis. Finally, through the coaching process a neutral leader (coach) works with the strategic partners to engender trust and to facilitate both dialogue and analysis, helping the partners reach a point where they can make complex decisions as a unified group.

## 7.3 Occupation Clusters

The development of a new set of 15 occupation clusters and detailed, county-level data for them, coupled with industry cluster data at the same level, is a major contribution of this study. Analysis of this database offers regional planners valuable insight into their workforce dynamics, the ability to examine how well the kinds of jobs that are in increasing demand match the mix of industries found in the region. This helps planners understand the opportunities and challenges they face in charting a strategic path for their region's development.

Analysis and application of these data was tested in two pilot regions, leading to a number of observations about those regions' competitive strengths and weaknesses. These test cases illustrate the practical value of such analysis for "on the ground" planning efforts. Coupled with insights and guidance found in other sections of this report concerning assessment of innovation potential, identifying promising investment opportunities, and facilitating collaboration among regional players, the study has produced a potentially powerful set of tools to support economic and workforce development efforts in regions throughout the nation.

## 7.4 Innovation Index

Innovation is a key ingredient in an economy's ability to shift from lower to higher value-added activities, which in turn improve firm profits, compensation and the standard of living for the region's residents. Building on past research, this study developed a new index of innovation derived from a number of individual indicators, some reflecting inputs that enhance a region's potential for innovation, and others reflecting outputs of innovative activity. Based on data representing a 10-year period, the resulting Portfolio Innovation Index (PII) is less influenced by year-to-year fluctuations in component indicators than are innovation indexes based on changes in the annual figures.

Individual county-level indicators were grouped into four categories. Two categories represent innovation inputs (factors, influences or conditions that promote innovation and create knowledge), and a sub-index was derived for each. The human capital sub-index reflects the extent to which a county's population and labor force are able to engage in innovative activities, while the economic dynamics sub-index measures business conditions and resources available to entrepreneurs and businesses. The other two indicator categories represent outputs of innovation. The productivity and employment sub-index suggests the extent to which local and regional economies are benefiting from innovation, generating growth in jobs and output. The economic well-being sub-index reflects the overall attractiveness of the region and growth in compensation. Each of these four sub-indexes was based on from five to seven separate measures.

Data were also compiled for a fifth category, state context, capturing data that are theoretically important but available only at the state level. These data are included in the study's online database tool, but they were not included in the PII itself.

Analysis of the county data for the PII and its sub-indexes revealed just over 1 percent of U.S. counties to be true innovation leaders, scoring above the national average on all four sub-indexes. At the other end of the spectrum, five of every eight counties scored below the national average on all four sub-indexes. The remaining counties demonstrated a wide range of combinations of input and output performance. In general, sub-index scores for innovation inputs were moderately correlated with those of innovation outputs, providing support for joining the two concepts into a single composite index such as the PII.

Finally, spatial analysis revealed that most high-innovation counties were located in or near metropolitan areas. Nonetheless, a number of rural counties were found to score above average in most or all of the innovation sub-indexes. The underlying causes for such strong rural innovation performance appear to derive from a variety of sources rather than one common characteristic across these counties.

## 7.5 Investment Framework

The process of identifying and selecting strategic economic development investments with good prospects for stimulating a region's prosperity represents a balancing act between their value to the public and their potential to attract private investment. The challenge lies in allocating investment across a portfolio of different kinds of investment opportunities that minimize investment risk while exploiting the region's competitive advantages.

This study presents a three-phase process to guide investment strategy. The process begins with the investment discovery phase, identifying opportunities for the region to combine its assets in new and different ways. Next comes the phase of setting investment priorities, weighing the potential returns and risks across the investment opportunities previously identified and choosing a mix of investments that balances these factors appropriately. The third phase is evaluation, monitoring the region's investments through a well selected set of metrics that will track progress toward the investment goals and providing guidance for future revisions to the region's investment portfolio.

Strategic investments can be classified into five categories representing critical ingredients for competitive regions. These categories are brainpower (the skills needed for today's workers and leaders to compete globally); innovation and entrepreneurship networks (creating a climate fostering new ideas and their commercialization); quality, connected places to live and work; branding (creating and conveying the region's competitive identity); and collaborative leadership (reinforced by regular, inclusive forums for dialog about the region's strategic opportunities and direction). Organizing current and potential economic development investments into these categories and then mapping onto that structure the region's strategic goals makes this framework a valuable tool for assessing the alignment of investments and the region's strategic priorities.

As investment decisions increasingly are being made by regions rather than individual communities, it becomes increasingly important to align the resources of the public, private, and nonprofit actors. As the pool of investable funds expands, more actors are involved and decision making can become more complex.

To facilitate regional investment decision making, this study introduces a Regional Investment Portfolio Tool (RIPT). The RIPT places into a decision matrix information on the region's inherent competitive advantages, the national outlook for growth in targeted sectors, the relative economic impact that investment in each sector would create, the region's fiscal capacity to fund projects, and a list of alternative projects under consideration. This decision matrix helps regional leaders compare different projects in terms of their impacts, prospects, and payback timelines. Guidelines are also offered regarding effective implementation of the RIPT to lead to consensus on the region's investment priorities.

After considering various alternative measures for evaluating the outcomes of public investments, an approach is suggested that takes into account the alignment of each investment with the region's strategic priorities, the stage of development of the investment project (coupled with the extent of private investment leverage), and other characteristics of the investment project such as scalability, replicability, and sustainability. The performance of projects in which public investments have been made may be compared by explicitly rating each investment on the above dimensions.

## 7.6 Regional Governance

The nature and level of region-wide governance exhibited in a region are a key factor in regional leaders' ability to understand and take advantage of the knowledge-based tools for economic development developed in this study. The presence of an established regional partnership with a history of effective collaboration and strategic planning greatly enhances the prospects to leverage these tools and concepts effectively.

The lack of regional partnership in the two Indiana regions examined in this study is typical of many regions' limited experience with regional collaboration; however, both of these regions have shown some promising beginnings towards such collaboration. The West Alabama-East Mississippi region, as well as a region in southern Minnesota, had somewhat more experience, and were able to move to an effective regional competitive strategy with some additional focused guidance. Communities throughout the nation could benefit from an organized approach to collaborating for economic development. The following guidelines are proposed to facilitate such efforts:

- Acknowledge the need for change
- Understand that regional action is needed to seize new economic opportunities
- Have a clear sense of the region's economic opportunities
- Map the region's assets, including the existing landscape of collaboration.
- Include representatives from the public and private (for-profit and nonprofit) sectors
- Use initial external funding as the catalyst to bring regional actors together to forge a new strategy
- Work with an economic development "coach" from outside the region to help create the initial plan
- Have an open and transparent planning process, accessible by all residents of the region and with a planning structure that is completely clear
- Create as part of the planning process a regional partnership mechanism that will provide ongoing oversight for the plan
- Keep the plan simple, have relatively few goals and objectives
- Make the plan's budget realistic—funding sources should be ready to access
- Specify measurements by which the plan's outcomes will be judged

The general lack of region-wide partnerships throughout much of the nation raises important questions about regional development generally and how the tools developed in this project may be used more specifically. The experience in Indiana underscores the conclusion that development tools lack real vigor when not paired with a robust region-wide mechanism for ongoing partnership. Tools may be necessary to crafting an effective regional strategy, but partnership is the necessary condition. This fact points to two important conclusions surrounding future work on regional development. The first is understanding the best timing and conditions in which to introduce knowledge-based tools in a region. The second is the ongoing need to develop the best possible guidelines for building regional governance, especially where it does not naturally occur. This remains a huge challenge not just in rural areas, but in most regions around the world. And because success depends on understanding the unique social and institutional landscape of every region, this policy frontier promises to be a hard one to claim.

## 7.7 Future Research and Application

The tools, methods and guidelines developed in this study show promising potential for helping guide analysis and strategic planning for the development of knowledge-based regional economies. Ongoing work with stakeholders in the pilot regions studied in this project will further test the usefulness of the study's products and concepts for facilitating regional collaboration and strategic planning. Similar application in other regions around the country will provide valuable feedback to guide future development of these tools and practices.

The research team plans to conduct further, more detailed analyses of occupation cluster data for the study's pilot regions to explore additional opportunities that may be evident. In addition, research designed to refine and extend the innovation index could enhance the value and power of this tool. Potentially productive innovation index research directions might focus on the following:

- Augmenting the set of innovation indicators
- Exploring whether some indicators such as establishment churn or knowledge-based technology occupations should be broken down further into their component parts
- Determining empirically which indicator has the greatest influence on an output measure for innovation, such as growth in GDP per worker
- Exploring the influence of county characteristics—e.g., size, proximity to a metro area, broadband connectivity—on economic growth or rates of entrepreneurship
- Updating the indexes to reflect more current data as it's released from the American Community Survey (all counties should be covered by ACS data by 2010)

Integrating the tools developed in this study into the emerging practices of regional leadership also presents some promising new directions. Learning how to use these tools effectively could be accelerated through a community of practice of leading regional leaders and practitioners. This learning network can develop practical tips for applying these tools and can offer continued suggestions for further development.

This community of practice could emerge in a number of different ways. The EDA is currently expanding a curriculum on regional leadership across the country. Through its network of university centers, EDA has another platform to deploy these tools. Finally, ETA is expanding its collaboration with the Employment and Training Administration at the Department of Labor. Recently, the Atlanta regions of both EDA and ETA held a joint forum on the challenges facing regional economies in the Southeast. These types of forums present excellent opportunities to expand the use of these tools and models. By partnering with ETA, EDA can help workforce development professionals gain new insights into their transforming regional economies.