1. Introduction

1.1 Project Background, Purpose and Goals

1.1.1 Background

Rural America needs a better approach to economic development. By most economic benchmarks, rural places are lagging behind in the economic race, and in many cases the gap is widening. ¹ This problem is bad enough, but it is made worse by the fact that the majority of rural places seem unaware they are using a game plan in this economic competition that cannot succeed. Most of rural America is still using a 20th century strategy for a 21st century economy. This is not a recipe for success.

Globalization has profoundly changed both the scale and thrust of economic development. These changes have not been matched by corresponding shifts in economic development practice. The scale of economic development has grown bigger, shifting from a local to a regional level. Metropolitan areas and rural areas alike must now act regionally to compete globally. Global competition demands every ounce of resource to run the economic race; the only way to marshal these resources is to band together across jurisdictional lines. Yet most rural development efforts are still focused exclusively at the local level, rarely spanning the county lines and city limits drawn for a bygone economic era.

The economic “field of play” has also changed. It has shifted from recruiting businesses to places with low costs to capitalizing on new ideas quickly, a “knowledge economy.” Globalization constantly opens up new markets, to buyers and sellers alike. In the process, it finds an ever widening frontier of new places where the costs of production are lower than your own—often much lower. Few, if any, regions in rural America will win a race founded on cost alone. The new race rewards regions that can take new ideas to market swiftly and successfully, a process otherwise known as innovation. The real problem is that too many rural regions are still running the old race. Far too many places in rural America still have their eye on a 20th century prize: recruiting businesses by giving away excessive financial incentives.

The shift in the economic field of play has also changed the timeline and stakes for economic development. Economic recruitment had its home in the here and now. Putting more financial incentives on the table often brought immediate results. Ribbon cuttings became de facto trophies of success. Innovation, on the other hand, is a long-term process that takes years of investment in knowledge and an underlying regional system to achieve results. But in what things do rural regions invest when the economic harvest is often years into the future? Answers to this investment dilemma are not easy, especially in the fiscal environment the nation is now entering. Yet regions must find ways to wean themselves off the quick fix of recruitment and enter the brave new world of investing in their emerging economic opportunities.

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¹ In the current report the terms “rural” and “rurality” generally follow the definitions developed in our previous report, Unlocking Rural Competitiveness: the Role of Regional Clusters (2007). For that report, the team developed an Index of Relative Rurality (IRR) based on four dimensions of rurality: population, population density, extent of urbanized area, and distance to the nearest metropolitan area. These dimensions are unquestioned in terms of their contribution to rurality and are incorporated implicitly in many existing rurality definitions. The index is scaled from 0 to 1, with 0 representing the most urban place and 1 representing the most rural place. Details may be found in Section 3.2.2, pp.35-40 of the previous report at www.statsamerica.org/innovation/report_role_of_regional_clusters_2007.html.
To adapt to this new economic world, rural areas can do three things:

1. Adopt a whole new approach to economic development
2. Obtain and use effectively an improved set of tools to craft a regional strategy
3. Set sound investment priorities that put a practical strategy into action quickly

Rural areas need to shift their approach away from a concentration on business recruitment. Future prosperity will come from investments in a competitive advantage founded on regional action, education and innovation. This framework represents a whole new way of thinking about economic development, a paradigm shift that is neither natural nor easy. This report provides a roadmap to start the journey.

Although the tools and frameworks we have developed apply to both urban and rural economies, we focus on the specific needs of civic leaders and economic development practitioners in rural regions.

Urban areas are often blessed with a sizeable staff of economic development analysts, planners and other professionals. These professionals provide invaluable analytics and information to support the local leadership and help inform the civic dialogue as economic development strategies are being developed, vetted and revised. Rural areas are not typically endowed with a similar cadre of economic development professionals.

1.1.2 Purpose and Goals of the Project
The purpose of this project is to make it easier for civic leaders and economic development practitioners to understand the dynamics of their regional economy. This project also outlines how leaders can come together to develop practical strategies for investment. This report builds upon an earlier project, also sponsored by the Economic Development Administration, with the same purpose: to help leaders and practitioners understand their economy and develop strategies to strengthen it.²

The decision support tools created in the prior project focused on industry clusters. Specifically, industry cluster data were compiled and made available in a user-friendly format, including web-based access, for each county in the United States. These web-based tools allow economic development practitioners to combine individual counties so the industry cluster data can be compiled easily for any region.

In this project, we have developed three additional tools, along with a practitioner’s guide, for local leaders and economic development practitioners:

1. The construction of occupational and skill clusters and associated data for each county in the nation. This is an analogue to the more commonly used industry clusters constructs and data that were emphasized in the earlier project.
2. An index of innovation for each county in the United States.
3. A framework and tool to enable economic development practitioners, local government officials, and other stakeholders to prioritize key public investments and ensure these investments are aligned, or consistent with, the local/regional economic development strategy.

The first two tools and the industry cluster work in the prior project help local leaders and others (a) gain a fundamental understanding of the regional economy and its unique characteristics, assets, and shortcomings;

² The prior project report can be found at www.statsamerica.org/innovation/report_role_of_regional_clusters_2007.html.
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(b) diagnose the regional economy in a fashion that helps point the way to where comparative and competitive advantages lie; and (c) create an economic development strategy that builds upon existing and potential areas of comparative advantage.

With an economic development strategy in hand, the next question is: How well do current and planned investments support the strategy? The third tool comes into play at this point. Specifically, the public investment tool provides a framework and discipline to help ensure that public resources are prioritized, aligned and invested in a manner that is consistent with the economic development strategy that is in place.

This project is part of the EDA’s Integrated Research Agenda. That agenda includes approximately 20 research and practice-related studies on such topics as regional planning and action, best practices in state and regional innovation, and various tools for regional economic development, e.g., local government fiscal analysis and industry and occupational cluster analysis. This Integrated Research Agenda has been conceptualized to link the different projects in a way that increases their usefulness much more than would otherwise be the case. EDA is also facilitating workshops and networking among the different universities and researchers to enhance synergy among projects and connectivity within the relevant scholarly community.

1.1.3 Why Emphasize Tools Linked to Skills, Innovation and Regional Strategy?

Throughout most of its history, the foundation of the U.S. economy, including the rural economy, lay in the production of various types of goods and commodities. Several decades ago, this goods- or commodity-oriented economy began to give way to an economy in which services were a major driving economic force. Economic development strategies, policies, programs and investments were reasonably well aligned to these two different stages in our economic evolution. However, today’s “new economy” is about neither goods nor services per se. Instead it can be thought of as a knowledge-based innovation economy.

Recently, the World Bank noted:

The application of knowledge is now recognized to be one of the key sources of growth in the global economy. The term Knowledge Economy (KE) has been coined to reflect this increased importance of knowledge. A knowledge economy is one where organizations and people acquire, create, disseminate and use knowledge more effectively for greater economic and social development (2009).

What is true at the global level is also true at the local level. The report of the Strengthening America’s Communities Advisory Committee (2005) provides strong justification for focusing much greater attention on our transformation to a knowledge-based innovation economy and aligning public policy and investments accordingly. Among the committee’s insights are the following:

With increasing competition from across the globe, U.S. industries can no longer rely on low-cost labor, access to raw materials, and low value-added products and services to drive success. In an innovation-based economy, skilled human capital has become the most important form of capital. Knowledgeable and skilled people and their ability to apply that knowledge creatively drive the engine of successful innovation.

Two key factors now drive regional competitiveness: education and innovation (Federal Reserve Bank of Cleveland 2005). The emerging focus on education and innovation makes sense. Globalization has erased
major sources of competitive advantage. Industrial land, serviced by basic infrastructure, is widely available. The elimination of trade barriers enables technology to cross national boundaries easily. Global capital markets are tightly integrated, so low-cost financing becomes a weaker economic development tool. The physical integration of global markets has added vast new sources of unskilled labor costing pennies a day.

In today’s global economy, each region’s brainpower—the education and skills of a region’s workforce—is unique and provides the basis for sustained competitive advantage. However, brainpower alone is not enough. Innovation translates brainpower into jobs and wealth. The region’s capacity to innovate ultimately determines how well the economy performs. A region may be capable of generating workers with high levels of education and skills, but if regional businesses do not innovate enough to grow, there are not enough jobs to absorb these workers and they will leave.

Many regional economies include a significant number of small towns and open countryside. A body of research—albeit limited—suggests that rural America can be an effective player in the “new economy,” although there may be certain hurdles or constraints to overcome. The research of Henderson and Abraham identified rural counties most often tied to a concentration of high-knowledge occupations; and concluded by noting that “knowledge is the new fuel powering economic growth in the 21st century… However, few rural places have tapped into this economic potential. Many are asking where to start” (2004, 88).

A more recent report (Henderson 2007) begins with the question: “Can technology adoption help invigorate rural economies?” The author concludes that “as technologies mature, patent activity in smaller communities often rises… To boost productivity and prosperity, many rural firms have adopted new technological innovations to create new products, reach new markets, and enhance production efficiencies. The size and remoteness of rural places raise the cost of knowledge sharing and information transfer, which in turn limits radical innovation. However, creating networks that support the transfer and adoption of new technologies may lay a foundation for revitalizing many rural communities.”

Being an effective player in a new economy that requires new strategies built around knowledge, innovation and regional collaboration is no small task. Strong leadership and civic engagement is needed but so are analytical tools to help ground and guide the civic dialogue. Until now, we have not had the frameworks and tools available to give regional leaders much guidance on the existing skills of its workforce or on the capacity of the regional economy to innovate. The Economic Development Administration commissioned this research project to put tools into the hands of local civic leaders and economic development practitioners so that they can more effectively compete in a global context where knowledge and innovation are vital to competitive advantage. Specifically, what is needed are data and decision-support tools that (a) facilitate civic dialogue about the new economy, (b) help local leaders and other stakeholders gain an understanding of their knowledge and skill assets and gaps, and (c) show how public investments need to be aligned or realigned to be supportive of a knowledge-based innovation economy. The data and decision-support tools developed as part of this project are designed specifically for these purposes.

1.2 The Research Partnership
Five organizations conducted this research, and each brings a unique set of expertise and capacity. Although the focus, roles and responsibilities of each partner differed, the team made special efforts to maximize the strength of our collaboration. Coordinating a geographically dispersed team working on complex innovations is no easy task. Through the course of this project, some valuable lessons were learned about how to
coordinate a team across organizational and geographic boundaries. In these types of projects, leadership does not reside in any one organization. Rather, leadership emerges from a series of tasks necessary to complete the project. In our project, leadership passed from one organization to another as we passed through different stages.

The Purdue Center for Regional Development (PCRD) and Dr. Brigitte Waldorf of the Purdue College of Agriculture, with support from Economic Modeling Specialists Incorporated (EMSI), took the overall lead in constructing the occupation and skill cluster database and tools. Overall leadership for creating the index of innovation was vested with the Indiana Business Research Center (IBRC) at Indiana University’s Kelley School of Business. The framework and tool for prioritizing and aligning public investment was the responsibility of the Rural Policy Research Institute (RUPRI).

While these three tools were in the developmental stages, local stakeholders were engaged to provide feedback and make suggestions for improvement and modifications. These stakeholders included local leaders and economic development practitioners in four different regions: two in Indiana; a two-state region in Alabama and Mississippi; and a tri-state region in Illinois, Iowa and Wisconsin. Strategic Development Group (SDG) provided overall leadership for the field work framework and stakeholder mobilization strategy. SDG also facilitated the stakeholder focus groups, meetings and other processes for the two regions in Indiana. In the remaining two regions, RUPRI assumed this role.

Finally, IBRC took the leadership role in designing and creating the information architecture that allows the tools and data to be web-based and readily accessible by the intended audience and users.

### 1.3 Organization of the Report

This report consists of seven chapters plus extensive appendices. Also delivered with this report is a digital product—an interactive database publicly accessible on the Internet at [www.statsamerica.org/innovation](http://www.statsamerica.org/innovation).

Although the data and associated tools generated by the project are county-based, the most effective way to organize for economic development generally involves a regional, multi-county approach. Chapter 2 develops this argument and shows how a regional approach is not inconsistent with the economic development needs and opportunities of smaller jurisdictions within the larger region.

Chapter 3 focuses on occupation and skill clusters: the constructs, definition, methods and data used to create the various clusters; and the descriptive and analytic findings from the cluster component of the project. Chapters 4 and 5 take a similar approach in focusing on the index of innovation and the investment framework/tool, respectively.

Chapter 6 draws upon this experiential base and other sources in outlining and discussing key principles and insights around regional mobilization and governance.

Chapter 7 summarizes the main points, findings and conclusions from the project and offers suggestions for further research and applications.

The appendices include a variety of supporting materials, including cluster definitions, additional details on the innovation index, and profiles of the four pilot regions.
1.4 References


