



KEY POINT INDICATORS FOR RURAL ECONOMIC DEVELOPMENT

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INTRODUCTION

Planning and strategy are important steps toward building strong rural economies. These efforts can be informed by two tools: (1) Interpretation of past events and their resultant data, and (2) Projections based on modeling and expectations. This Issue Brief will outline a Key Point Indicator (KPI) approach. KPI are measurable factors that may include everything from local wages to housing prices to business churn. Communities can identify KPI, examine performance in respective categories, and set goals for future success. Recognizing the diversity of rural spaces, this paper does not offer a prescriptive “one-size-fits-all” solution, but rather shares context and examples from which communities can draw individualized approaches.

OVERVIEW

Overall, rural economic data affirms the aphorism, “If you’ve seen one rural place, you’ve seen one rural place.” Like the diverse characteristics of their residents and local industries, rural economic data emerge from multivariate conditions and their aggregated results are accordingly best understood as representative but not necessarily dispositive for individual rural spaces. In similar vein, anticipating the impact of prospective factors

on rural economies must at the same time account for potential variables that could affect ultimate outcomes. In contrast, the defined and measurable nature of quantifiable KPI considers goal setting and ongoing reviews to assess status, track progress and adjust for growth as necessary.

This report also includes a focus on broadband. The economic impact of broadband on rural economies has been studied across a variety of platforms and within the context of social and industrial sectors.¹ Numerous reports find positive economic returns, including those rooted in employment impacts² and e-commerce activity.³ Other studies cite positive impacts on real estate values⁴ and agriculture⁵ as well as more-difficult-to-quantify areas such as education⁶ and health care.⁷ When estimating the impact of broadband deployment on rural spaces, it is important to differentiate between availability and adoption/engagement; broadband must be engaged for its impacts to be achieved.⁸ Although the task of quantifying the economic impact of rural broadband may be difficult, an observation stated nearly 15 years ago remains salient today: “[W]hile broadband will not bring immediate transformation to rural America, regions that lack broadband will be crippled.”⁹



SMART RURAL COMMUNITY promotes collaboration among locally operated rural broadband providers and other leaders to identify and deploy broadband-enabled solutions to improve agriculture, economic development, education, healthcare, and other vital services in rural spaces. For more information, please visit www.smartruralcommunity.org.



NTCA-THE RURAL BROADBAND ASSOCIATION (NTCA) represents more than 850 independent, family-owned and community-based telecommunications companies providing voice and broadband services in rural areas. NTCA's members build and deliver connectivity and operate essential services in rural and small-town communities across the United States. For more information, please visit www.ntca.org.



NATIONAL RURAL ECONOMIC DEVELOPERS ASSOCIATION (NREDA) is an individual-member, professional organization dedicated exclusively to the advancement of rural development, the development or member proficiency, and the achievement of social and human service objectives in rural areas. NREDA strives to equip its members to collaborate with strategic partners to drive measurable growth in rural America. For more information, please visit www.nreda.org.

PROFILE

SPRING GROVE COMMUNICATIONS (SPRING GROVE, MINN.)

Spring Grove Communications (SGC) partners with local economic development authorities to support incentive programs. In 2019, SGC secured grant funding from the Foundation for Rural Service to support the local Chamber of Commerce in the creation of a technology and business hub in a historic downtown building. The space, which includes computer stations, flatscreen monitors and Wi-Fi, provides training space for small businesses and entrepreneurs, as well as professional meeting and conference space for the Chamber's 55 business members and several local nonprofit boards.

DISTINGUISHING BETWEEN KPI AND ECONOMIC IMPACTS

As an overarching matter, the ability to quantify economic impacts is a key step toward the larger goal of building strategies to fortify sustainable rural economies. Ongoing evaluation of contributory factors enables stakeholders to continue pursuit of successful strategies while adapting or stopping less successful efforts. Economic developments strategies can be undertaken on individual community as well as regional bases.¹⁰ As noted above, many studies have endeavored to quantify the economic impact of broadband on the economy, generally, as well the impact of broadband on specific industry sectors. Many of these inquiries focus specifically

on rural spaces and identify positive outcomes. A KPI analysis, by contrast, considers a different type of inquiry that is aimed less at reporting outcomes and more at defining criteria and then building strategies around those metrics. Stated differently, economic studies either report *post hoc* findings or predict future conditions. In contrast, a KPI approach identifies proxies that can then be used to define programmatic strategies and goals.

Strategies to identify and define KPI contemplate multi-player participation. These teams can include stakeholders drawn from local government, industry and philanthropic partners. Community KPI can include measurements from varied sectors, including construction spending (residential and commercial as well as new and renovated spaces); residential home sales; new business formation and business churn; manufacturing profits; retail profits; home ownership rates; and rental vacancy rates.¹¹ The different characteristics of individual communities necessitate individualized plans.¹² By way of example, average household earning, often used as a metric to measure economic performance, is best evaluated within the context of local cost-of-living data. Additionally, patience is advised for communities seeking fundamental economic resets. One author explains, “While the world is operating on ‘internet speed,’ one truism about economic transformation is that it often requires a generation to re-tool an economy.”¹³ A KPI-based approach enables communities to define metrics by which even incremental improvements can be measured. Outcomes can then be used to evaluate whether, and to what extent, strategic adjustments may be warranted.

PROFILE
**SHAWNEE COMMUNICATIONS
(EQUALITY, ILL.)**

Shawnee Communications works with large and small local businesses to ensure that broadband connectivity enables their ability to expand their market positions. A local manager of 30 tool store franchises improved his productivity rankings after fiber optic broadband that supports large file transfers and video conferencing was installed at his home office. A small pharmacy with two locations relies on broadband to support tele-pharmacy applications, which enable pharmacy technicians and patients real-time consultation with pharmacists in accordance with state laws. These measures have increased local retail revenues, created local jobs and contributed to business stability in the community.



ASSESSING CURRENT RURAL CONDITIONS

As noted above, the diversity of rural spaces argues against the creation of “one size fits all” approaches or solutions. At the same time, however, a review of national rural data provides context as local communities formulate their individually tailored KPI.

Generally, rural U.S. population is growing, yet this increase is attributable to growth in a minority of rural counties. Counties relying chiefly on agriculture were generally among those with declining populations. In contrast, counties with recreation and government-based economies have enjoyed greater levels of growth.¹⁴ While raw population in rural spaces has increased over the past two decades, between 2000 and 2018 the proportion of Americans living in rural counties declined from 16% to 14%.¹⁵ Stated differently, rural population is growing, but metro population is increasing at a higher rate.¹⁶ Population change is generally attributable to (a) net migration (the number of people moving in as compared to the number of people moving out) and (b) birth rates vs. death rates (for example, nature decrease, which refers to instances in which the mortality rate exceeds the birth rate). In rural areas, 19.9% of residents are 65 years or older, as compared to 16% in urban areas.¹⁷ Since natural decrease is generally more likely to occur in areas with a higher concentration of older adults, strategies to recruit and/or retain young workers can be critical to maintaining and growing populations.¹⁸

As is the case with population trends, individual rural spaces are tied to local economic forces, but many face degrees of common conditions. Gaps in post-Great Recession (p-GR) recovery remain.

Rural communities on average enjoyed 14.8% p-GR growth (measured in units of local and regional GDP) while urban areas saw an average 19.2% growth.¹⁹ Employment in both rural and urban areas rebounded after the Great Recession, and by 2019 rural employment returned to 97% of pre-recession levels before dropping to 92% during the COVID-19 pandemic. Employment levels in rural areas have since increased but have not recovered fully; urban areas reached pre-pandemic employment rates in 2022.²⁰

Popular perceptions identify agriculture as the leading economic force in rural spaces. However, while ag and food related industries accounted for \$1.420 trillion (or 5.5% of U.S. GDP) in 2022,²¹ rural spaces are also home to growing service industry sectors.²² Rural areas, especially those with robust broadband availability, offer



significant opportunities for telework as well as tech sector growth: While nearly 60% of rural Americans are interested in tech jobs and careers, rural America is home to just 50% of tech jobs (about 244,000) that one would expect to find based on national tech employment patterns.²³ Rural communities can capitalize on this gap by pursuing tech job creation strategies in their regions. Typical tech jobs include software developers, computer systems analysts, and cybersecurity and systems engineers.

Alongside industrial diversity, regional differences in economic trends can also be identified, illustrating the usefulness of locally oriented KPI for community development. By way of example, coming out of the Great Recession, Great Plains states with strong agriculture sectors as well as a favorable mix of other industry

sectors fared better than regions that rely on a single major economic driver; Great Plains states also typically had lower proportions of manufacturing and professional service jobs.²⁴ The diversity of rural economies is reflected in the fact that only one in five non-metro counties rely on agriculture as their major economic driver.²⁵ The predominant economic force in rural spaces emerges from the services industry, including education, health and social services.²⁶

PROFILE

LIGHTSTREAM (BUFFALO, IND.)

LightStream coordinates regularly with local economic development leaders, including elected officials and local business owners. Company executives and employees work with area trade organizations to cultivate community growth and to demonstrate the value of broadband for different industrial and public service sectors. LightStream's board of directors itself represents a cross-section of interests and includes farmers, business owners, IT professionals, and local entrepreneurs. Their collaborative work has resulted in broadband-powered initiatives in local schools, healthcare clinics, government offices, and first responder resources.



ROLE OF BROADBAND

Broadband availability will inform a community's formulation of individualized KPI. While internet connectivity and broadband adoption remain a cornerstone of rural opportunity, rural economic innovation relies on the ability of different sectors to leverage broadband effectively. A 2016 report on the impact of broadband on rural economies noted,

The economic impact of rural broadband will be more important for the role it plays in changing what the economy is. It has also disrupted the role that location plays in the economy. This disruption will reach as far as the broadband speed required to support these uses will allow.²⁷

Federal policy has recognized these benefits, as well: Since the COVID-19 pandemic, the U.S. government has allocated an estimated \$64.5 billion that can be directed to broadband deployment and adoption. This includes \$20.4 billion from American Rescue Plan, \$1.6 billion from the Consolidated Appropriations Act, and \$42.5 billion from the Infrastructure Investment and Jobs Act.

The scope of broadband's impact can be understood by viewing broadband as general-purpose technology, *i.e.*, a common input that is used by different businesses in different ways to produce different types of intermediate and final goods and services. The importance of broadband is expressed in the frank assessment, "Businesses that rely on information technology largely avoid being in areas where they cannot get what they need."²⁸ As described above, numerous

PROFILE

HILL COUNTRY TELEPHONE COOPERATIVE (INGRAM, TEXAS)

Hill Country Telephone Cooperative (HCTC) assisted both the local Chamber of Commerce and the Economic Development Corporation to recruit an out-of-state business to build a manufacturing facility in its local service area. The plant supplies circuit card assemblies and fiber harnesses for the aerospace industry, supports approximately 200 jobs, and generated \$8 million in initial capital investment. The company uses HCTC's fiber broadband services to maintain high-capacity connections to its headquarter facilities nearly 1,400 miles away as well as to manage daily manufacturing operations through IoT connectivity.

studies report positive impacts of broadband deployment on sectors that include business development, employment and health care.²⁹ Accordingly, trends and performance among each of those sectors warrants consideration in developing rural KPI.³⁰ The full value of broadband, however, is realized when the deployed services are adopted by end-users. Toward this end, communities are encouraged to work with their local broadband service providers to develop pathways to ensure that those who are not currently connected to (and empowered by) broadband have access to digital tools and technology (for additional information, please see [SMART Tools for Digital Inclusion](#)).³¹

IDENTIFYING KPI AND ASSESSING LOCAL ECONOMIC STATUS

Rural KPI identify proxies for successful and sustainable spaces. KPI recognize the unique mosaic of rural spaces and can be used to reflect metrics that are accessible to stakeholders and policymakers. These criteria can be used to evaluate performance in agriculture, economic development, education and healthcare among other key sectors. KPI enables an active, if not aggressive, approach by establishing a *de facto* basis for review.³² Although it might present a new approach for many communities, a KPI basis provides a framework to evaluate strategies and success as technology, economies and communities evolve. These strategies can step from job creation to economy building, including goals for diversified local economic development and regional collaboration.

Local educational resources can also play an important role in economic development. In the first instance, the evolving role of technology in services and manufacturing will require increasing technology skills and proficiency among rising students.³³ By way of example, the confluence of manufacturing job losses coupled with increased automation and robotics in remaining manufacturing opportunities will demand a workforce skilled at operating, maintaining and troubleshooting complex equipment. Regional efforts to create secondary and post-secondary programs to help students acquire those skills will be a key part of retaining youth for local work forces. **BOLD: Broadband Opportunities and Leadership Development**, a toolkit created by NTCA-The Rural Broadband Association and the National Rural Education

Association, provides rural schools and industry with recommendations and examples of programs to increase awareness among K-12 students of careers in the communications and tech industry.³⁴ Rural internet service providers (ISPs) have also established key relationships and programs with trade colleges and universities (for profiles, please see [Labor and Workforce Development in the Rural Telecom Sector](#)).³⁵

PROFILE

PEOPLE'S RURAL TELEPHONE COOPERATIVE (MCKEE, KY)

More than half of middle and upper-income workers can telework. The U.S. Bureau of Labor Statistics found that telework doubled in 2020. Teleworks USA is a regional effort among 23 Kentucky counties. The initiative facilitates telework opportunities across a broad range of industry sectors including online retail, hospitality and CX (consumer experience) specialists. The regional effort, enabled by broadband providers serving rural communities, supports 3,400 jobs and drives more than \$76 million in wage activity.

CREATING A KPI STRATEGY

As noted previously, each KPI set will reflect its community's unique needs. The following section offers a list of sample KPI questions that stakeholders can adopt or adapt for local consideration. Community stakeholders are encouraged to explore these questions together. For example, healthcare accessibility may be informed by access to public transportation.

KPI TEMPLATES AND EXERCISES



AGRICULTURE

- What proportion of the local economy is supported by farming?
- Are farms locally owned?
- Do farmers rely on off-farm income?
- Are farms using broadband-enabled agriculture technologies?



AMENITIES

- What amenities, either natural, cultural or other does this community offer?
- Is there an active economic development association, chamber of commerce or similar trade-oriented organizations aimed at assisting and promoting local businesses?



BUSINESS ENVIRONMENT

- What is the rate of new business development?
- How many new businesses have been created in the past one, three and five years?
- What is the survival rate of start-up firms?
- Does the local economy rely principally on a single or small group of employers, or is there a diversified localeconomy of small, medium and large businesses?
- How many of these businesses, and of what type, are locally owned?
- Does the community sponsor business accelerator initiatives or “buy local” campaigns?³⁶



BROADBAND AVAILABILITY

- Is the community served by a broadband provider?
- Is the broadband provider locally operated (commercial or co-op), municipal system or a larger regional or national operator?
- Is fiber optic broadband available?
- Do residential and business customers typically subscribe to broadband services?



CHILDCARE

- Are childcare options available from (a) public and (b) private providers, including for-profit, not-for-profit and faith-based organizations?
- Do local childcare options offer early drop-off and late-stay?
- Are childcare options in the community similar to or distinct from pre-K schools and programming?



COMMUNITY

- What challenges does the community or region face? How do they rank in difficulty or potential impact?
- Are (a) local and (b) regional populations stable, growing or declining?

What type of conditions exist regionally and in neighboring communities, and have these communities worked together?



EDUCATION

What is the local high school graduation rate?

Does the community or region have access to two-year colleges, trade colleges, four-year colleges or other post-secondary educational institutions?

What proportion of high graduates enter the workforce, post-secondary education or the military?

What degrees and certifications can be obtained within the community or a 30-to-60 mile radius?
What are the annual graduation rates from those programs?

Do local jobs rely predominantly on trades, middle-skills college degrees?



HEALTHCARE

Does the community have access to primary health care providers for children, adults and the elderly?

Does the community have access to health care specialists?

If not available locally, how far away is the closest full-service hospital?

Do local healthcare providers offer telehealth services?



HOUSING

Is housing stock available and in good condition?

Is housing stock, including rental and purchase options, affordable as compared to average starting wages and average household income?

What options exist for new construction?



TRANSPORTATION

What is the typical commuting time for local workers?

Is there local public transportation?

How close is the community to major transportation facilities, including highways?

How close is the nearest public bus line; rail station; airport?



WEALTH, WORKFORCE AND WAGES

What proportion of students is eligible for school lunch assistance programs, and how does that compare to regional, state and national averages?

What is the local poverty rate?³⁷

What is the average local household income?

What are average starting wages?

Does the community participate in talent recruitment programs?

How do these compare to average (a) national, (b) state, (c) regional wages?

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