Rural Development White Paper: A Mandate for Transformation

October 31, 2019

The Montrose Group, LLC

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Dear Community Leader:

The Montrose Group is a consulting firm that provides corporate site location, economic development planning, and lobbying services for public and private sector companies. We are proud to present the Rural Development White Paper: A Mandate for Transformation.

The goal of the *Rural Development White Paper: A Mandate for Transformation* is to define rural challenges and opportunities and build a transformational rural community economic action plan. The economic opportunities and challenges from rural communities are clear:

- Rural communities have grown economically slower than urban counterparts driven by slow population gains or losses and a lack of college educated workers;
- Rural communities' biggest economic strength is they offer a low cost of living, competitive industrial wage rates leading to a concentration of manufacturing jobs;
- Rural communities must continue to develop manufacturing jobs but diversify beyond this industry to attract a new generation of companies and workers to live, work and play.

The Montrose Group recommends three strategies for the rural community action plan: develop a centralized state leadership model to focus energy and resources on rural communities, retain and attract talent and industrial and tech job centers while growing local companies. Strong rural state leadership and funding support can be found with the North Carolina's Rural Infrastructure Authority, Ohio's Rural Industrial Loan Program, and Ohio's Rural University Program. Addressing the rural skills gap is happening with PickawayWorks, building connected communities and through enhancing broadband services is driven by state policy and funding, retaining quality rural healthcare is happening workforce development, telemedicine and regulatory support, and redeveloping rural Downtowns is happening through a range of public finance, tax credits and other local, state and federal programs. Finally, rural communities need to capitalize on existing industry strengths to develop high-wage jobs in energy-intensive industries, logistics, advanced manufacturing, and technology industries by capturing local energy sources, preparing sites with flexible zoning, public infrastructure, tax incentives and compensation agreements to support development investment, attract industry and fund impacted local governments and schools, capitalizing on federal the Opportunity Zone Program to develop sites, and building rural technology initiatives bringing IT work to rural regions, developing STEM workers, promoting access to capital and nurturing rural entrepreneurs.

Transformation is hard work but rural communities' economic future is worth the effort.

Sincerely,

David J. Robinson
Principal, The Montrose Group, LLC

MONTROSE GROUP'S RURAL DEVELOPMENT WHITE PAPER: A MANDATE FOR TRANSFORMATION

Executive Summary

Rural Communities across America face unique challenges and opportunities. Rural communities have grown economically slower than most urban counterparts driven by a lack of population growth and college educated workers needed by advanced services and tech companies as illustrated by a comparison of Ohio, Missouri and North Carolina rural counties. North Carolina's rural communities are performing better than Ohio and Missouri but still lag far behind the booming metro regions of Raleigh and Charlotte and rural Ohio illustrates strengths with the income its residents earn. Rural communities offer a low cost of living and competitive wage rates attractive to manufacturing companies as illustrated by the strong manufacturing base located in rural Ohio, Missouri and North Carolina but these rural regions must diversify their economy as manufacturing companies employ fewer and fewer people due to automation.

The Montrose Group recommends a rural community action plan based upon three strategies

1. Develop a centralized state leadership model that focuses energy and resources on rural communities to incentivize private investment

- North Carolina's Rural Infrastructure Authority focuses funding on rural communities
- Ohio's Rural Industrial Loan Program is primed to develop critical industrial sites
- Ohio's Rural University Program will support economic development, local government and public health in underserved rural markets

2.Focus on talent retention and attraction as it drives rural growth

- Rural communities need to develop skilled workers through local workforce connections and development programs like PickawayWorks in Circleville, Ohio
- Build connected communities through smart community and broadband enhancements to retain and attract younger talent in rural communities
- Keep quality healthcare in rural communities through workforce development, funding, telemedicine and regulatory support
- Redevelop rural historic Downtowns as a tool to attract younger workers to live, work and play through Historic Preservation Tax Credits, Downtown Redevelopment Districts, state grants and loans, New Market Tax Credits and Opportunity Zones

3.Focus on rural industrial and tech job centers while growing local companies

- Capitalize on existing industry strengths to develop high-wage jobs in energy-intensive industries, advanced manufacturing, and technology industries
- Launch attraction campaigns tied to energy-intensive industries from locally captured, reliable and affordable energy sources
- Prepare industrial and logistics sites with flexible zoning, public infrastructure, tax incentives and compensation agreements to support development investment, attract industry and fund impacted local governments and schools
- Capitalize on federal the Opportunity Zone Program to develop sites and promote residential, industrial, retail and commercial developments
- Build rural technology initiatives tied to bringing IT work to rural regions, developing STEM workers, promoting access to capital and nurturing entrepreneurs to grow in rural regions

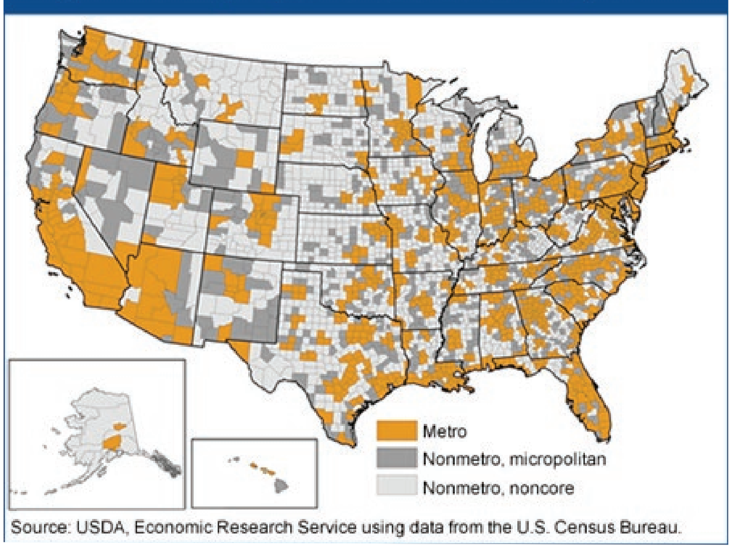
Rural Communities' Challenges and Opportunities. All regions have challenges and opportunities. High growth markets like Austin and Nashville bring new capital and income into markets but the regions face substantial growing pains as the infrastructure struggles to keep us with the demand of new companies and workers and high-income workers may create greater income inequality among the existing population. Slow growth markets don't face traffic challenges, have affordable sites primed for development but struggle to retain the younger generation that travels for work and play to growing markets. No place is perfect.

The purpose of discussing the challenges and opportunities of rural communities is to provide a data driven analysis of rural regions that can be the basis for establishing a strategy to address rural community challenges and capitalize on their opportunities. The data and analysis created in this report is provided by the BGSU Center for Regional Development, a U.S. Commerce Department Economic Development Center University Center and a state of Ohio Rural University Program designee, economic and demographic data and analysis will be provided that reviews, compares and benchmarks the performance of rural communities overtime and in their current forms. The research and analysis focus 'on: defining rural communities as not urban or suburban counties will be based upon understand regional economies in the states selected for review and not on federal designations that were created for other, valid purposes; selecting a group of rural counties in Ohio, Missouri and North Carolina and their urban markets in those states for an economic and demographic comparison provides an important snapshot and benchmarking exercise from states of common size who compete regularly for projects but we do not pretend this White Paper is a fifty state review of rural markets; and researching and comparing the economic and demographic performance of those rural markets in Ohio, Missouri, and North Carolina counties and urban markets in the following areas:

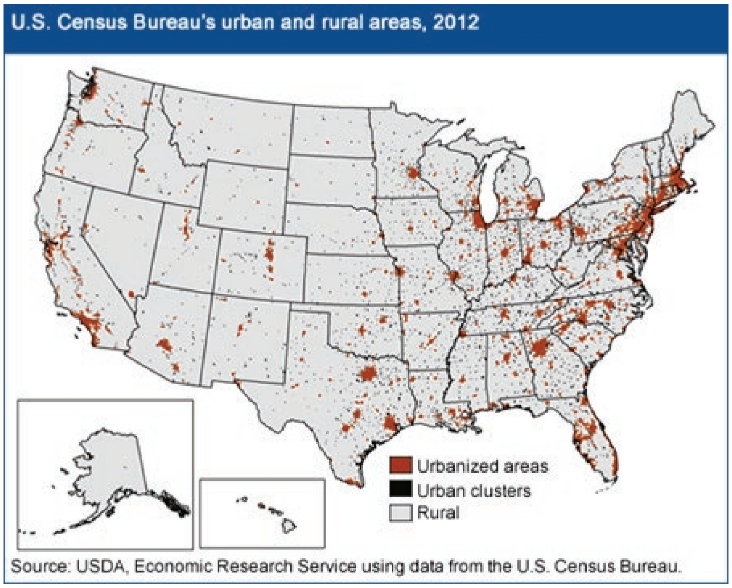
- Gross Domestic Product in total and growth overtime;
- Personal Income in total and growth overtime;
- Non-farm Private Payroll in total and growth overtime;
- Population in total and growth overtime;
- Education levels in total and growth overtime;
- Median Home Value in total and growth overtime;
- Manufacturing occupations wage rate in total; and
- Industry cluster analysis.

Defining Rural. Defining rural seems to be as much art as science. In 2013, the federal government's Office of Management and Budget (OMB) defined metropolitan (metro) areas as broad labor-market areas that include: central counties with one or more urbanized areas; urbanized areas (described in the next section) are densely-settled urban entities with 50,000 or more people; and outlying counties that are economically tied to the core counties as measured by labor-force commuting.[1] Under the OMB definition, outlying counties are included if 25 percent of workers living in the county commute to the central counties, or if 25 percent of the employment in the county consists of workers coming out from the central counties—the so-called "reverse" commuting pattern.[2] Non-metro counties are outside the boundaries of metro areas and are further subdivided into two types: Micropolitan (micro) areas, which are non-metro labor-market areas centered on urban clusters of 10,000-49,999 persons and defined with the same criteria used to define metro areas; and all remaining counties, often labeled "noncore" counties because they are not part of "core-based" metro or micro areas.[3] The Census Bureau provides the official, statistical definition of rural, based strictly on measures of population size and density, and rural areas comprise open country and settlements with fewer than 2,500 residents.[4] Urban areas comprise larger places and densely settled areas around them, but

Metro, nonmetro micropolitan, and nonmetro noncore counties, 2013



Source: USDA, Economic Research Service using data from the U.S. Census Bureau.



according to the Census Bureau, urban areas do not necessarily follow municipal boundaries.[5] They are essentially densely settled territory as it might appear from the air, and nearly all counties are both metro and non-metro. Again, the Census Bureau sees the magic number at 50,000 people for metro v. non-metro but they will also consider with the city have a core with a population density of 1,000 persons per square mile and may contain adjoining territory with at least 500 persons per square mile.[6]

For our purposes in this analysis, rural communities will be measured by county. Data at the census tract level is available and of high quality. However, when trying to determine the economic success of rural communities including a rural census tract from an urban area does not make economic sense. A farm field in Franklin County, Ohio that is part of the Columbus Metro Region is more likely to be tomorrow's home or industrial site not a farm. Regional economies are in tracts of land created by the Census Bureau- no one moves a company or residence to a location based upon its census tracts. Counties seem to be the simplest measure of how to define an area as urban or rural. In addition, while the OMB data is a good starting point it also ignore regional economic markets. However, the baseline determination of what this report considers rural or not is whether they have a population density of 250 people per square mile.

Target States and Communities. A review of targeted states and their rural communities' economic success is the starting point for this White Paper. States with like regions that compete for economic development projects is the best source for comparison of determining the economic success of rural communities. While a few states could be chosen, Ohio, North Carolina and Missouri are the three states chosen for measuring the challenges and opportunities in rural communities.

Targeted State Demographic & Economic Comparison

Fact	North Carolina	Missouri	Ohio
Population	10,383,620	6,126,452	11,689,442
Home ownership rate	65.00%	66.90%	66.10%
Median home value	$161,000	$145,400	$135,100
Bachelor's degree or higher	29.90%	28.20%	27.20%
Median household income	$50,320	$51,542	$52,407
Per capita income	$28,123	$28,282	$29,011
Poverty Rate	14.00%	13.20%	13.90%
State GDP (in millions $)	565,801	317,749	676192.5

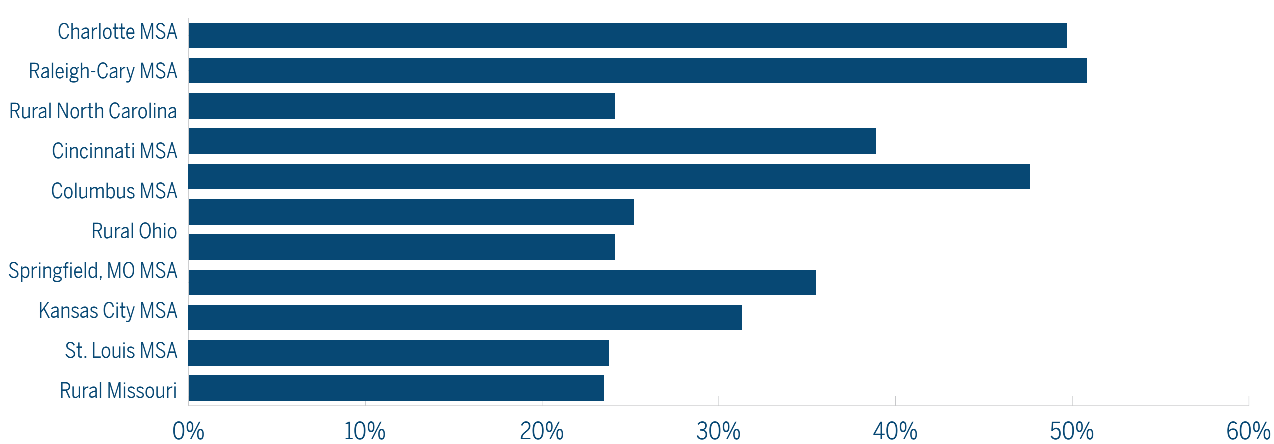
A review of the demographic and economic measures for North Carolina, Missouri and Ohio illustrates these states, while not identical, are clearly alike enough to compete often for a range of economic development projects. Ohio and Missouri are more developed industrial centers with long established manufacturing centers. North Carolina is a rising economic giant whose population and economy has enjoyed substantial growth in recent decades.

Digging a layer deeper in North Carolina, Missouri and Ohio, a review of these states regional economies illustrates the counties that are truly rural. North Carolina, Missouri and Ohio are dominated economically by midsized urban markets of Columbus, Cleveland, Cincinnati, Toledo, Akron, Canton and Youngstown (Ohio), Kansas City and St. Louis (Missouri) and Raleigh-Durham and Charlotte (North Carolina). Those markets are further served by ex-urban counties that have grown substantially in recent years who have transitioned for rural to urban communities.

The counties listed in Appendix A are the ones determined were going to constitute the rural counties for the purposes of this white paper. Rural counties in these states constitute 107 counties in Missouri, 77 in North Carolina, and 62 in Ohio constituting 2.6 M people in Missouri, 3.9M North Carolina resident and 2.8M Ohioans. As North Carolina and Ohio are roughly the same population it is clear their rural population makes up a larger share of the state population and Missouri's lower statewide population than Ohio is worthy of note as their rural population almost meets the Buckeye State. Ohio's rural population is lower than the comparison states likely because of a substantial migration of the rural population to growth centers like Columbus.

Gross Domestic Product in total and growth overtime. The overall economy in rural communities across America is not growing at the same rate as the mid-sized urban markets located in the same state or other states. Measures of a region's Gross Domestic Product based upon federal government data is the best measure of overall economic growth in a region. Rural North Carolina has a GDP of $126B, Ohio has a GDP of over $109B, and rural Missouri, which is smaller from a population and market standpoint than Ohio or North Carolina has a GDP of $81 B. These are substantial economic markets. In fact, these rural markets combined are close to the same size of the urban markets of Kansas City ($134B), St. Louis ($163B), Charlotte ($171B). Raleigh ($86B), Cleveland ($134B), Columbus ($138B), and Cincinnati ($140B). As the table below illustrates, over a 10-year timeframe, counties in rural Missouri, Ohio and North Carolina are growing their economy at a slower pace than the mid-sized urban markets in their own state at a similar level. The North Carolina rural counties are growing economically at a faster rate than rural Ohio and Missouri, but they are even farther behind their urban counterparts of Raleigh-Durham and Charlotte than the rural communities in Ohio and Missouri.

10 Year GDP Growth



Source: BGSU Center for Regional Development

Only the slow-growth urban market of St. Louis and Cleveland are near the economic growth levels of rural counterparts which is more of a statement about the struggles of that region than the success of rural Missouri.

Personal Income in total and growth overtime. Measures of personal and household income is another method to determine the economic success of a region. Rural Ohio has a per capita income of $38,595, rural Missouri is $35,416, and rural North Carolina is $37,094. Rural communities in Ohio, Missouri and North Carolina's rural communities have all enjoyed some level of personal income growth as the table below illustrates.

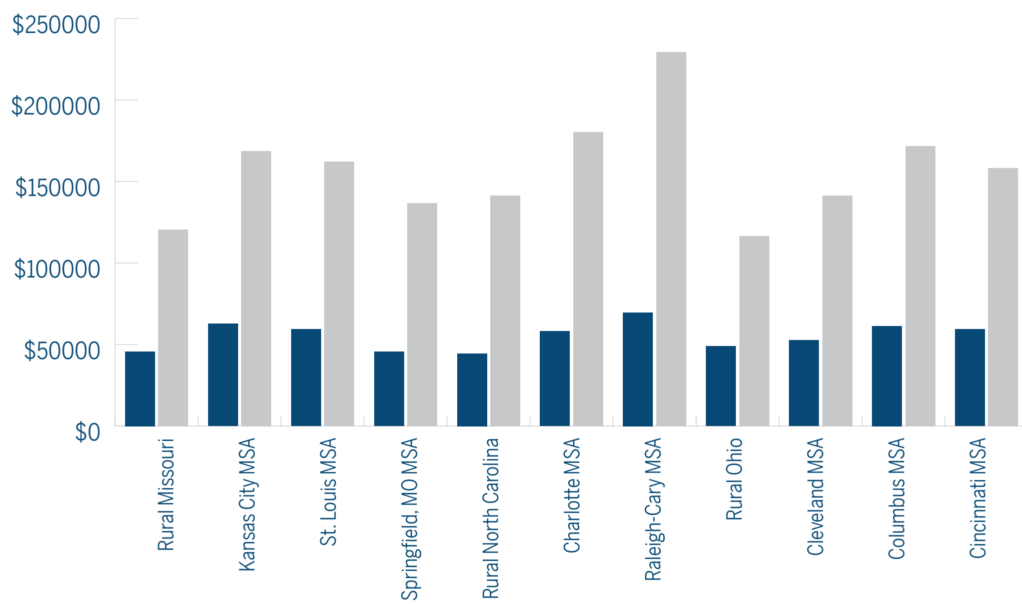
Rural Counties Personal Income Growth (Last Two Years)]

State	Percentage of Personal Income Growth
Ohio	3.22%
Missouri	3.16%
North Carolina	3.99%

Source: BGSU Center for Regional Development

Again, rural counties in the high-growth state of North Carolina are providing higher per capita income than their rural counterparts in Ohio and Missouri. However, as the chart below shows, the rural counties in Ohio, Missouri and North Carolina are not keeping pace with the median household income of their mid-sized urban counterparts in the same state. It is also interesting that Ohio's rural counties have a higher median income rate than Missouri and North Carolina.

Median Household Income and Home Value

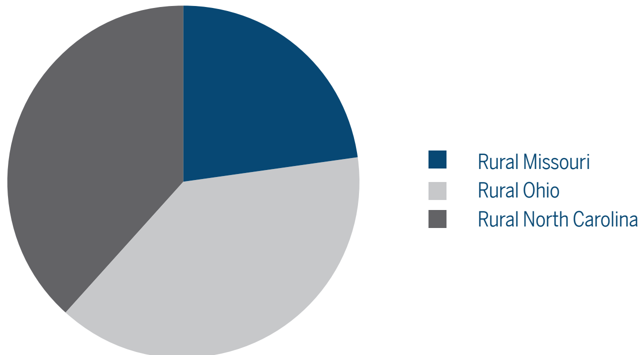


Source: BGSU Center for Regional Development

The table above also illustrates an important economic asset of rural communities in that they offer a relatively affordable cost of living. While rural incomes are below their urban counterparts, it is much more inexpensive to live in rural communities. The chart above shows the median home value alongside of the median family income to illustrates that while markets like Raleigh and Charlotte offer higher wages than rural counterparts the cost of a home is substantially higher than rural markets. Rural Ohio, Missouri and North Carolina all offer affordable housing which is a critical measure of how much it costs to live in a community. In fact, high-growth markets housing and other cost of living and doing business categories such as the cost of labor and real estate are generally lower in rural markets—creating a substantial economic opportunity for rural markets.

Non-farm Private Payroll in total and growth overtime. Private sector job growth is the basis of long-term economic success. The private non-farm payroll data for rural Ohio, Missouri and North Carolina illustrate the regions are roughly even in private sector payroll created. As the chart below outlines, rural Ohio is slightly ahead of rural North Carolina but from a population standpoint Ohio is slightly larger than the Tar Heel state. Missouri's private non-farm payroll is far below North Carolina and Ohio, but Missouri is small from a population and macroeconomic standpoint.

Privte Non-Farm Payroll 2017

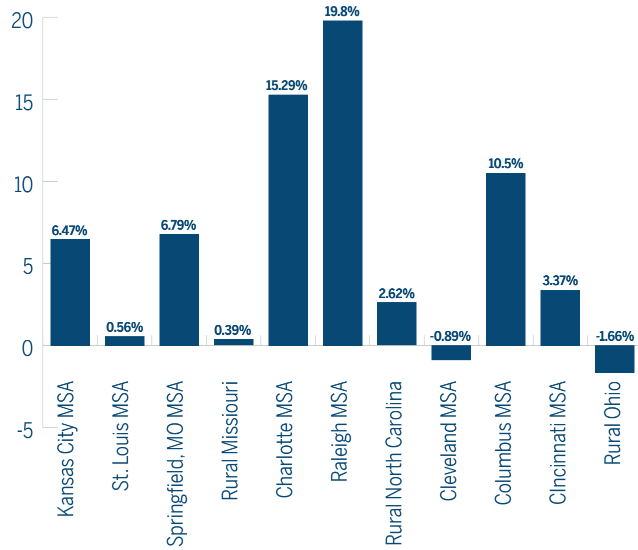


Source: BGSU Center for Regional Development

From a job creation standpoint, Ohio's rural counties' non-farm private payroll from 2010 to 2017 grew 24.76%%, Missouri's rural counties non-farm private payroll grew by 19.58%, and North Carolina's rural counties by 18%. All rural counties in our three same states illustrate payroll growth which is an indicator they are creating jobs and a sign of relative economic strength.

Population in total and growth overtime. While job growth in rural communities is an economic asset, the largest challenge facing rural communities is the loss of population. As the table below illustrates, rural communities are in large part losing population which is likely is traveling close by to their urban counterparts. Rural North Carolina shows the largest degree of growth over rural Missouri and Ohio. However, that is not a major accomplishment. Rural Ohio lost nearly 50,000 people from 2010-2017 and it appears most of them have moved to the growing urban center in Columbus as this community has grown by 10% during the same timeframe. Urban centers like Cleveland and St. Louis continue to struggle and are not benefiting from the migration of rural workers. Rural North Carolina is growing but its population growth is nowhere near the explosive growth in Raleigh and Charlotte as these mid-sized urban markets illustration not just regional dominance but become national and global economic players. Rural Missouri barely gained any population while their urban counterpart of Kansas City and Springfield illustrated population gains.

Population Change



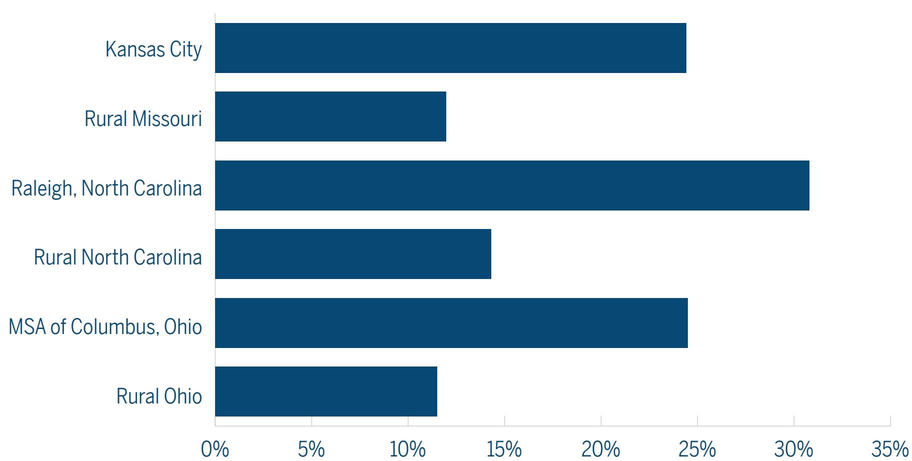
Source: BGSU Center for Regional Development

The continued depopulation of rural regions will have a dramatic impact on the economic future of rural communities across the United States. A declining population base eliminates the region from industrial growth as manufacturing facilities that have long relied on quality rural workers will have fewer and fewer workers to choose from. In addition, the loss of population will impact the location and expansion of the retail and health care facilities that follow homes and people.

Education levels in total and growth overtime.

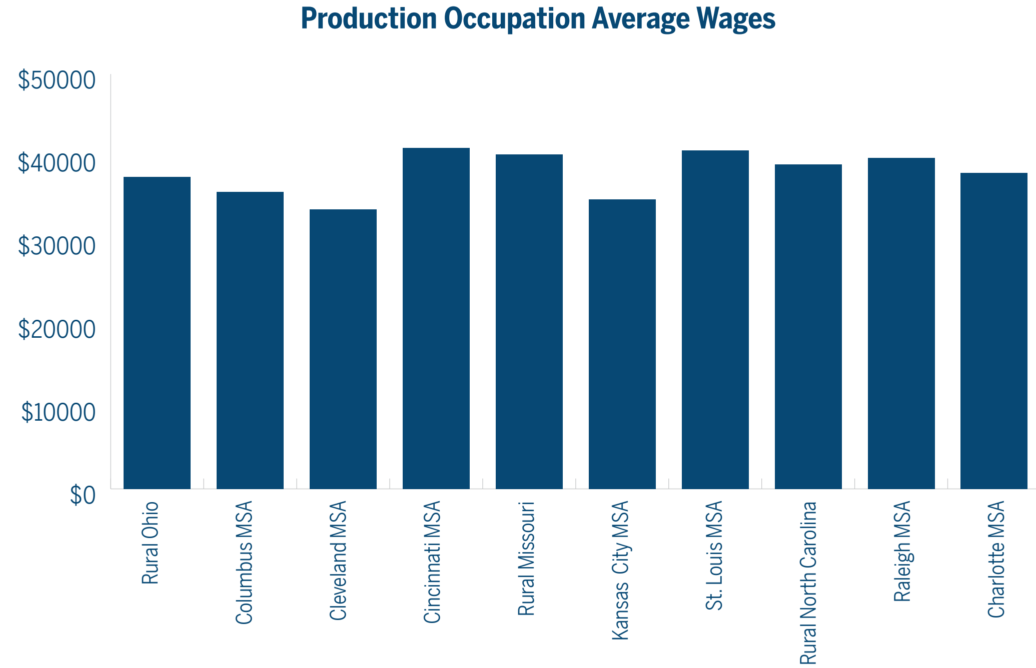
The level of education for a region impacts the industries in which the region can attract companies' industries. As an example, if a region lacks a large base of college educated workers, they will struggle to attract advanced services/white collar jobs that need a base of workers with a bachelor's degree or higher. Same goes with the occupations of STEM workers such as software engineers. As the table below illustrates, rural communities possess roughly half of the college educated workers that their urban counterparts in the same state have. Thus, urban markets in Ohio, Missouri, North Carolina and elsewhere have an opportunity to retain and attract a base of advanced services and technology jobs that demand college educated workers with a bachelor's degree.

Bachelors Degrees



Source: BGSU Center for Regional Development

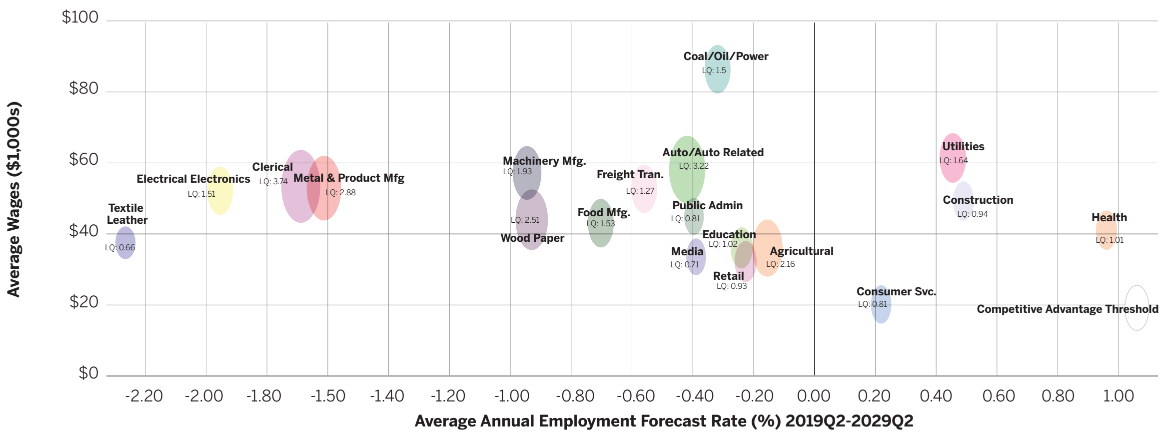
Rural communities hold an advantage for gaining manufacturing jobs when competing with their urban counterparts. As the chart below shows, the average wage for production occupations in rural Ohio, Missouri and North Carolina are lower than the neighboring urban centers. Again, even though North Carolina has seen the most urban and rural economic growth, its production occupations are by far the lowest from the comparison states—making it attractive to manufacturers.



Source: BGSU Center for Regional Development

Rural Industry cluster analysis. Understanding the industries that thrive in rural communities impacts dramatically the economic development strategy that will succeed in these communities. Historically, 80% of economic growth comes from existing companies while a much smaller percentage is the result of new companies coming to a region. Economists measure economic strength of industries through an industry cluster analysis. An economic cluster comprises of a geographic concentration of firms within an industry.[7] It includes core firms and other organizations who can contribute to the industry's competitive success. Location quotient is an indicator of the economic concentration of a certain industry in a state, region, county or city compared to a base economy, such as a state or nation. A location quotient greater than 1 indicates a concentration of that industry in the area. A location quotient greater than 1 typically indicates an industry that is export oriented. An industry with a location quotient of 1 with a high number of jobs present is likely a big exporter and is bringing economic value to the community feeding the retail trade and food services sectors. The location quotient is an indicator of past success but is also a harbinger of future success.

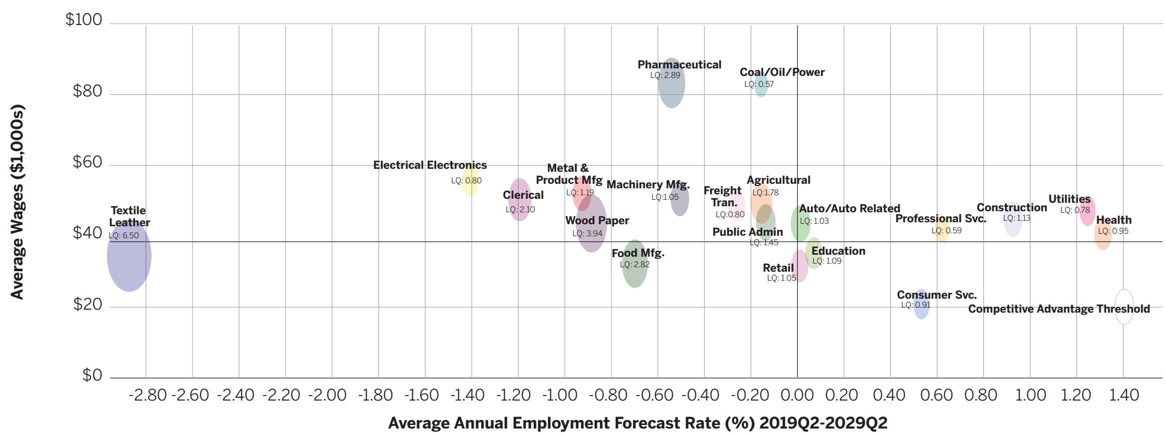
Industry Clusters for Rural Ohio Counties as of 2019Q2



Source: BGSU Center for Regional Development

As the location quotient-based industry cluster analysis illustrated by the chart above shows, rural Ohio has substantial economic strength in the manufacturing sector such as metal products, chemical, electric and electronics, machinery, food processing and freight transportation.

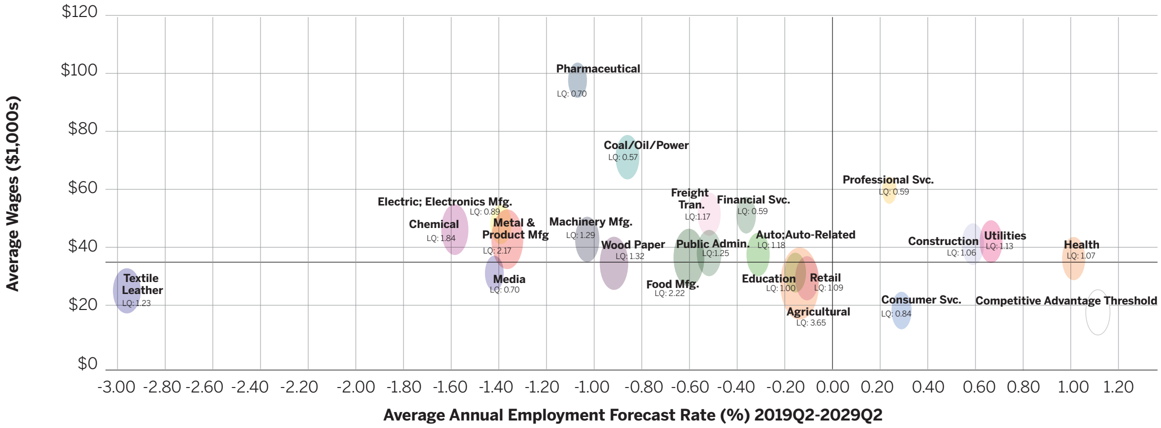
Industry Clusters for Rural North Carolina Counties as of 2019Q2



Source: BGSU Center for Regional Development

As the table above illustrates, rural North Carolina has substantial industry strength in pharmaceutical production, driven as an outgrowth of the Research Triangle park and the traditional chemical, food processing, metal products and other traditional manufacturing strengths seen in rural markets. The unusual pharmaceutical growth in rural North Carolina could be one of the reasons these rural communities outperform their Ohio and Missouri counterparts.

Industry Clusters for Rural North Carolina Counties as of 2019Q2



Source: BGSU Center for Regional Development

Missouri's rural counties look like North Carolina in they have the traditional heavy manufacturing industries as well as a strength in pharmaceutical manufacturing. This strength in pharmaceutical could be the result of the substantial life sciences sector in the greater St. Louis market.

Rural Community Action Plan- As with all economic development strategies, there is no "silver bullet" approach to capitalizing on opportunities and addressing challenges for rural communities. However, a multi-pronged action-oriented rural community strategy focuses on:

1. Centralizing state leadership to address the challenges and opportunities of rural communities;
2. Retaining and gaining younger, educated workers back to rural communities through workforce development programs, building connected communities with new residential options, providing quality healthcare and redeveloping Downtowns;
3. Retaining and attracting large scale industrial, logistics and technology employers to rural regions on lower cost land ready for development while growing locally grown companies;

Montrose Group Rural Community Action Plan

- Centralized State Leadership
- Gain Talent Through Workforce Development, Connected Communities, Quality Healthcare, Housing and Downtowns
- Focus on Industrial, Logistics and Tech Job Centers While Growing Local Companies

Centralize State Leadership Addresses Rural Community Opportunities and Challenges.

Rural communities cannot address their challenges and opportunities on their own. While the federal government has programs that provide targeted funding to rural communities, it is doubtful the federal government will take a leadership role in rural community development. This opportunity needs to be addressed at the state government level with support of the business community.

North Carolina Infrastructure Authority Supports Investment in Rural Communities. North Carolina offers an interesting rural economic development leadership model worthy of replication. The North Carolina Infrastructure Authority is a private body with a board appointed by the Governor and General Assembly of North Carolina that awards grants to North Carolina's rural and at-risk counties for building reuse, Community Development Block Grants, utility grants, Appalachian Regional Commission, Economic Development Planning, Rural Grants and Programs, Main Street Program, and Industrial Development Bond Fund.[8] In 2018-19, the North Carolina Rural Investment Authority plans to make $54M in grants to rural communities.[9] More recently, the North Carolina Rural Infrastructure Authority approved 21 grant requests to local governments totaling $10,790,000.[10] The requests include commitments to create a total of 1,314 jobs, 515 which have previously been announced, and the public investment in these projects will attract more than $123.7 million in private investment.[11] Examples of North Carolina's Rural Infrastructure Grant Program awards cover grants for the state's Building Reuse Program to local governments to renovate vacant buildings, renovate and/or expand buildings occupied by existing North Carolina companies, and renovate, expand or construct health care facilities that will lead to the creation of new jobs in Tier 1 and Tier 2 counties and in rural census tracts of Tier 3 counties. Recent 2019 grants are outlined below.

Vacant Building Category

- Burke County: A $500,000 grant will support the reuse of a 206,522-square-foot building in Hildebran. SynergyLabs, a developer and manufacturer of pet and veterinary products, plans to move its manufacturing operations from Florida to this location. This project is expected to create 42 jobs and represents an investment of $12,241,700 by the company.
- Cleveland County: A $500,000 grant will support the renovation of a 140,000-square-foot building in Shelby. Greenheck Group, a supplier of air movement, control and conditioning equipment for commercial, institutional and industrial buildings, is locating its operations in the facility. While a total of 403 new jobs are expected to be created by the company with an investment of $58.8 million, 86 of those jobs and an investment of $832,100 are tied to this grant.

Existing Building Category

- Granville County: A $500,000 grant will support the renovation of a 112,000-square-foot building in Creedmoor occupied by Altec Industries. The company provides products and services to the electric utility, telecommunications, tree care, lights and signs and contractor markets. Its products include aerial devices, digger derricks, truck bodies and related equipment. The company plans to create 72 jobs and invest $8,245,000 in this project.
- Montgomery County: A $500,000 grant will support the renovation of a 120,000-square-foot building in Troy occupied by AmeriQual Aseptic, a food processing company that specializes in the development, processing, packaging and distribution of shelf-stable foods. The project is expected to create 76 jobs with an investment of $23,315,327 by the company, as it adds a new product line.

Rural Health Category

- Camden County: A $50,000 grant will support the reuse of a 2,600-square-foot building in Camden, where Chesapeake Regional Medical Center plans to open a facility that will provide primary care services and lab services. The project is expected to create 5 jobs and attract $313,271 in private investment.
- Town of Scotland Neck (Halifax County): An $80,000 grant will support the renovation of a 217,800-square-foot building occupied by Our Community Hospital/Bryan Health & Rehabilitation Center. The 80-bed skilled nursing facility provides 24-hour nursing care. This renovation project is expected to add 8 jobs and attract $302,150 in private investment.

Community Development Block Grant

- Halifax County: A $750,000 grant will support major renovations to an existing industrial building in Weldon, to include construction of a mechanical tower, electrical improvements, construction of company offices, and mechanical and plumbing improvements. JBB Packaging, LLC, a plastic packaging manufacturer, plans to create 50 jobs at the facility, while investing $11,900,000 in the project.
- Town of Four Oaks (Johnston County): A $1 million grant will support the extension of public water and sewer infrastructure to an industrial site to meet sewer and fire protection needs for Broad River Retail, LLC, an Ashley HomeStore licensee. The company will locate a distribution center, retail store and corporate learning center at the site. The project is set to result in the initial construction of a 182,300-square-foot facility, the creation of 102 jobs and an investment of $16 million by the company. Overall, the new location is projected to create 161 jobs.

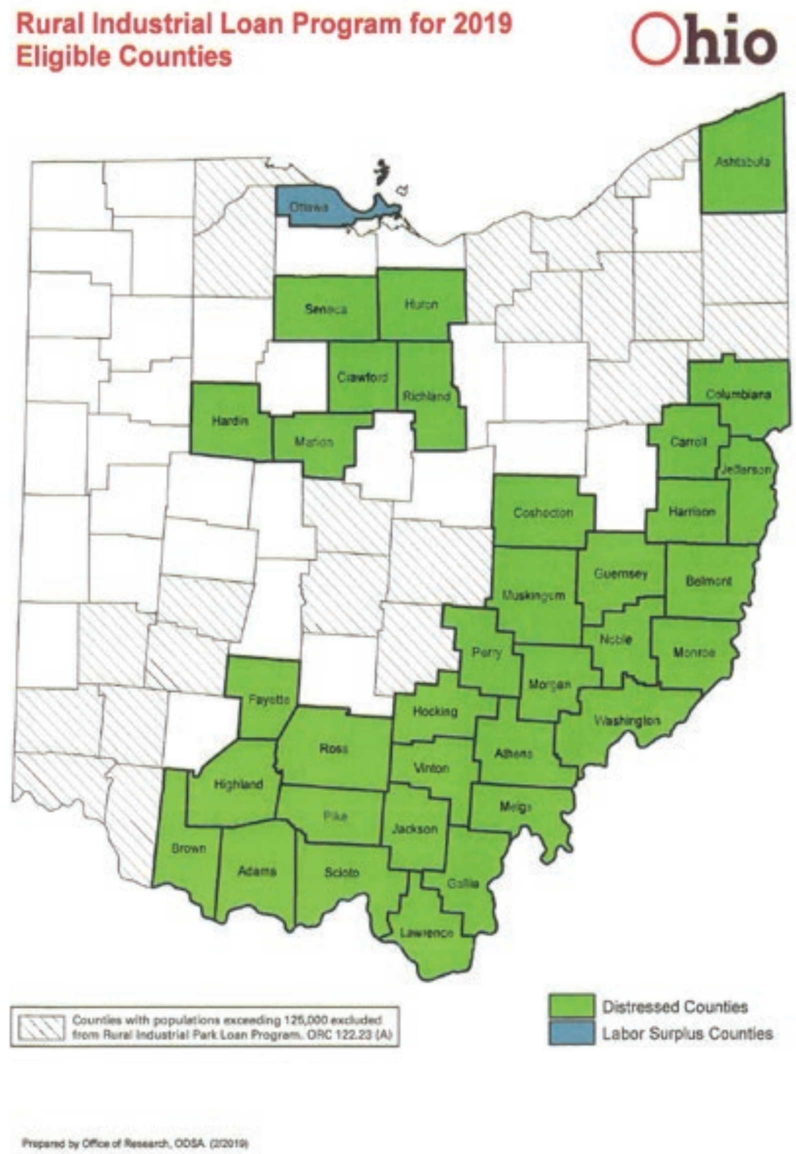
Industrial Development Fund - Utility Account

- Town of Oakboro (Stanly County): A $2.5 million grant will help the Town extend water and sewer infrastructure to support a site for industrial development.[12]

In essence, North Carolina uses a statewide port authority model to create a bond fund to provide additional infrastructure support and create a public-private-partnership to encourage community and economic development in rural counties.

Rural State Leadership Models
• North Carolina Rural Investment Authority • Ohio Rural Industrial Loan Program • Ohio Rural University Program

Ohio Rural Industrial Park Program Supports Industrial Development. Ohio created several programs designed to encourage economic development in rural communities. The Ohio Rural Industrial Loan Program is a model worthy or review and replication. With the support of Governor Mike DeWine, members of the Ohio General Assembly provide $25 M for the reinstituting of Ohio's Rural Industrial Park Loan Program. The recreation of an old program in Ohio has set-out to solve a portion of this problem. In conjunction with other programs in the state, most notably the site-ready program operated by Ohio's not-for-profit economic development entity JobsOhio, this program administered by the Ohio Development Services Agency will fill a gap in Ohio's efforts to attract and retain jobs in the rural parts of the state. An eligible applicant for the Ohio Rural Industrial Park Program is any of the following: a port authority as defined in division (A) of section 4582.01 or division (A) of section 4582.21 of the Revised Code; a community improvement corporation as defined in section 1724.01 of the Revised Code; a community-based organization or action group that provides social services and has experience in economic development; any other nonprofit economic development entity; or a private developer that previously has not received financial assistance under section 122.24 of the Revised Code and that has experience and a successful history in industrial development. The program is administered by the Ohio Development Services Agency. ODSA is required by the Ohio Revised Code to establish rules governing the program as well as rules to determine the governing criteria for evaluating applications. The Director of ODSA also is required to determine the fees, interest rates, payment schedules, and local match requirements; require each applicant for assistance to develop a project marketing plan and management strategy, inform local governments of the availability of the program, and issue an annual report regarding the program activities.



Ohio Rural University Program Supports Rural Communities Across Ohio. The Ohio General Assembly and Governor Mike DeWine included $500,000 in funding for Bowling Green State University, Ohio University, Kent State University and Miami University to support the growth and development of Ohio's rural counties.

The BGSU Center for Regional Development will invest funds provided through the Rural University Partnership to enhance and expand the services provided to a wide range of partners from the public, private, and nonprofit sectors in rural northwest Ohio. In particular, the Center will use some of the funds to strengthen its partnership with the BGSU Center for Public Impact on the Vital Communities Initiative. The Vital Communities Initiative (VCI) pairs Bowling Green State University students and faculty members with Ohio communities to identify and address projects that serve the public good, engage students in high impact learning, impact citizens in the region, and catalyze community and university resources for sustainable, livable, and vibrant communities in the region and beyond. The projects deal with quality of life, community pride and engagement, individual and community success, smart use of resources, participation in city/community governance, access and diversity issues, health and wellness, and improved community spaces for attracting and retaining engaged, happy citizens.

The Ohio Rural University Program funds allow for not only service enhancement but also service expansion. CRD will use the funds for five new projects:

- *Economic Development Knowledge Hub:* The hub will serve the functions of creating a virtual center for data sharing, collaboration, and capacity building for business, government, and no n profit organizations in the region.
- *Economic Determinants of Health and Capacity Study for Rural NW Ohio:* CRD will conduct a regional study to assess economic and development related health factors in rural NW Ohio.
- *Industry Led - Sector Driven Workforce Development Strategy:* CRD will create industry/sector partnerships, which will bring together multiple employers in a targeted industry with the workforce, education and human service systems to determine skills demands across firms and identify training and employment strategies that meet those shared needs.
- *Non-profit Summit:* CRD will expand its regional coordination efforts to more fully include the non-profit sector by hosting a non-profit summit to bring regional organizations together.
- *Legislative District Economic Data Sheets:* CRD will create and distribute the sheets to state legislators, which will contain data on the economic conditions in their districts.

Ohio University's Voinovich School of Leadership and Public Affairs will invest funds provided through the Rural University Partnership to expand training and technical assistance provided to the Mayors' Partnership for Progress (MPP). This work will be conducted in collaboration and consultation with MPP members and the Governor's Office of Appalachia. Started in 1995, the Mayors' Partnership for Progress is a consortium of mayors, city managers and other municipal officials from 15 counties (over 60 communities) in southern and south eastern Ohio. Participating counties include Athens, Gallia, Hocking, Jackson, Lawrence, Meigs, Morgan, Monroe, Noble, Perry, Pike, Ross, Scioto, Vinton and Washington. Discussions are currently underway to bring additional southeast Ohio counties into the group.

MPP members meet monthly to share information and discuss the issues and opportunities faced by municipalities throughout the region. In addition, outside experts are brought in to speak on issues of importance to the group, including new state-level initiatives, legislation, and areas of concern. These monthly convenings also encourage increased communication with state- level agency heads and legislators who regularly participate. Over time, the relationships developed through participation in the MPP have resulted in cross- county collaboration (e.g. sharing snow removal equipment and securing state funding to help residents in small communities catch up on delinquent water bills). Ongoing mentoring relationships have also developed, particularly between long-established and newly elected officials.

Ohio University has an extended history of working with the MPP, signing its first contract to provide technical assistance to the group in 1996. Since then, Voinovich School staff have supported the mayors by providing a range of services, including coordination of meetings, research and training on critical issues, identification and scheduling of speakers, and technical assistance. In recent years, this work has continued in the face of funding cuts. Restoration of the Rural University Partnership line item will allow us to be more responsive to the needs of this critical leadership group. Specific assistance provided will be determined based on the identified needs of the group and its members, but examples of the types of assistance available include:

- Local Government Management;
- Economic and Community Development;
- Geographic Information Systems (GIS) Mapping;
- Capacity Enhancement, Leadership Development, and Team Building;
- Strategic Planning and Goal Setting;
- Training for Elected and Appointed Officials; and
- Targeted Policy Assistance.

Since 1985, Miami University's Center for Public Management and Regional Affairs has been focused on working with Ohio's small and rural local governments in primarily non-metropolitan counties. An original founding partner of the Rural University Project (Originally established by Amended Substitute H.B. 238 of the

116th Ohio General Assembly (1985). The goal of this line item is to improve the operational efficiencies of governments and other public services in rural and nonmetropolitan areas of the state by utilizing the expertise and resources of public institutions of higher education.

The Center's activities have been funded by external grants and contracts from a number of funding sources including the U.S. Department of Commerce, Economic Development Administration; the Ohio Public Works Commission; the Ohio Township Association, Gannett Foundation, U.S. Department of Justice, Ohio Department of Development, Scioto Foundation and several local governments throughout Ohio, Ohio's Rural University Project. Project Assistance may be available in the following areas:

- Local Government Management;
- Economic and Community Development;
- Community Surveys;
- Geographic Information Systems;
- Goal setting, Team-Building, and Strategic Planning;
- Training for Elected and Appointed Officials; and
- Public Health Policy.

Kent State University (KSU) will extend its partnership with the non-profit First Star and a consortium of community organizations to provide immersive, specialized academic, college prep programming and mentorship to high school foster youth in the counties served by KSU's eight regional campuses as part of their Rural University Program funding from the state of Ohio. The goal is to offer these at-risk students who live in the counties served by the Kent State regional campuses a pathway to higher education and better opportunities to contribute to the long-term success of their communities. First Star partners with universities and child welfare agencies around the country to make a long-term investment in foster youth. The Academies are the country's only long-term college readiness programs for high school foster youth that include both immersive residential summers on a university campus and monthly sessions during each school year.

The KSU First Star Academy is a four-year mentorship program based on the proven approach used by First Star in its existing academies at other universities across the nation. Each Academy prepares youth for higher education and the transition into adulthood through multi-faceted programming that focuses on three core components: (1) academics; (2) life skills; and (3) family and permanency supports. The Academies achieve their success by taking a two-front, holistic approach to serving participating youth: university immersion through a residential summer program and long-term year-round case management. The KSU First Star Academy will work with the foster youth's caregivers, schools, social workers, counselors, and attorneys to ensure the youth receive the necessary support to succeed in school, remain in the same placement, and gain the skills needed to successfully transition into adulthood. Nationally, only 50% of foster youth graduate high school and only 3% earn a bachelor's degree. First Star notes that 61% of foster youth who age out of the system are unemployed; 46% will be incarcerated; and, 24% will become homeless. The need for support of Ohio youth in foster care is exploding. Data show a significant increase in the number of children moved into foster care in Ohio in recent years In 2017, there were 14,961 kids in foster care in Ohio, an increase of 26% since 2012, including substantially larger increases in some counties (e.g. 82% increase in Portage County; 74% increase in Ashtabula County) .

According to First Star's 2018 Impact Report, foster youth participants have a 98% high school graduation rate and 87% enter post-secondary education. First Star Academy students say they are more supported (75%) and are more optimistic about their future (72%) since joining a First Star Academy. A 2018 Economic Impact report by EY (formerly Ernst and Young) shows that KSU has a $3.4 billion impact on the northeast Ohio economy and its graduates are making lasting contributions across the state, particularly in northeast Ohio. The partnership between First Star, Kent State and its consortium of community partners to serve foster youth will dramatically improve educational outcomes for these at-risk students and will make a positive contribution to the overall economic health and well-being of northeast Ohio communities and families.

Talent Retention and Attraction Drives Rural Growth.

No bigger challenge faces rural communities than depopulation driven by young, higher educated workers growing up in a rural community and leaving forever following graduation from school. Rural communities face a dramatic "brain drain," and this challenge must be addressed head-on through workforce development programs, building connected communities with new residential options, providing quality healthcare and redeveloping Downtowns.

Building Skilled Workforce Positions Rural Communities to Retain and Attract Jobs. The availability of a skilled workforce is critical to any region's economic success. Rural communities face a greater talent challenge as they often lack a small pool of available workers and, even worse, the workforce pipeline that begins with students in high school leaves town as soon as they graduate. Pickaway County, Ohio's Pickaway Works Program provides a model for addressing the rural workforce development challenge. The mission of Pickaway Works is to collaborate with education, business and community to build partnerships that create relevant career pathways for students and link them with resources and opportunities to succeed.[13] Their vision is to inspire and improve Pickaway County students' college and career readiness which will improve their quality of life and ultimately improve the economic stability of the area. As part of the fastest growing metropolitan region in the Midwest, Pickaway County is in the midst of significant change.[14] The Columbus Region is experiencing historic economic growth with nearly 150,000 new jobs created in the last five years creating substantial economic opportunity for rural Pickaway County located just south of Columbus.[15] To meet local job demand, the local school districts in Pickaway County have invested significant resources over the last several years in developing new career readiness initiatives intended to prepare and align students with local employment opportunities, entrepreneurial training, internships, 21st century skills curriculum and a variety of other tools are now being utilized to equip graduates for the workplace.[16] To foster collaboration with Pickaway County employers and local education and workforce training resources, local economic development leaders began a series of Workforce Connection meetings.[17] These sessions led to the creation of a workforce solution known as Pickaway WORKS – World of Real Knowledge and Skills – launched in November 2017.

Pickaway Works builds partnerships that create relevant career pathways and provide local career opportunities for students, meet workforce demands of local employers and strengthen the economic stability of our community by connecting educators with employers, promoting internships for students, preparing students through mock interviews, implementing college readiness programs and other efforts focused on reconnecting education with business and community, to better engage with each other and support a more authentic learning experience for students.[18]

Address the Rural Talent Gap
• Keep Quality Workers Through Workforce Development Programs • Build Connected Communities • Keep Quality Healthcare • Redevelop Historic Downtowns

Build Connected Community Attracts a Younger Generation of Workers. Building a connected community is often thought of as addressing the rural broadband challenge in rural America. Connected communities are about a lot more than broadband. Connected communities embrace technology in the operation of their city to better the lives of residents. Connected communities are attractive to younger, higher educated workers. This technology may enable autonomous vehicles, modern streetlights, gun-shot detectors and many other applications critical to public service needs. Connected communities do not just happen. They are the result of careful planning that begins with identifying a focus area for connected community activities, determining the technology platform that works for the community, understanding how technology can change government procurement, preparing to transition traditional government services to a digital platform, adopting critical privacy policies and reviewing potential connected communities financing strategies. Following the connected community planning process, local governments need to aggregate in a digital format on an Integrated Data

Exchange all the data that a local government possess, implement data analytics and management programs to determine how best to utilize this data and think through a mobile strategy for how the public can access this important data.

Following the development of the Integrated Data Exchange, connected communities need a broadband telecommunications network to link the Integrated Data Exchange with a sensor network in the community that gathers additional data and provides services to residents. Broadband networks are in place in most communities through the local telecommunications, cable or electric utility company. These telecommunications networks, which are often wired and wireless, are critical to gathering and communicating the data that is needed for a connect community to provide new and better public services. The digital data travels on this network that is gathered by a group of sensors place generally in the public right of way on streetlights and other objects. The broadband networks need to be utilized to act as the "backbone" for the connected community initiative.

Financing connected community programs can be a challenge. Potential capital project funding for connected community programs can come from several sources:

- Federal government agencies such as U.S. Department of Transportation;
- State government funding through community capital budgets;
- Public finance funding through Tax Increment Financing;
- City, township or county capital budget funding;
- Public-Private Partnerships including vendor financing and organizations created to finance Smart Community programs such as Smart City Capital;
- Third party organizations that could plan, build and/or operate Smart Community projects.
- Data marketplace with third party data purchasers of public information such as insurance companies.

Connected Community Strategic Planning
- Focus Area
- Technology Platform
- Procurement Changes
- Transition to Digital Services
- Neighborhood Focus
- Privacy Policy
- Financing Strategy
- Government v. PPP

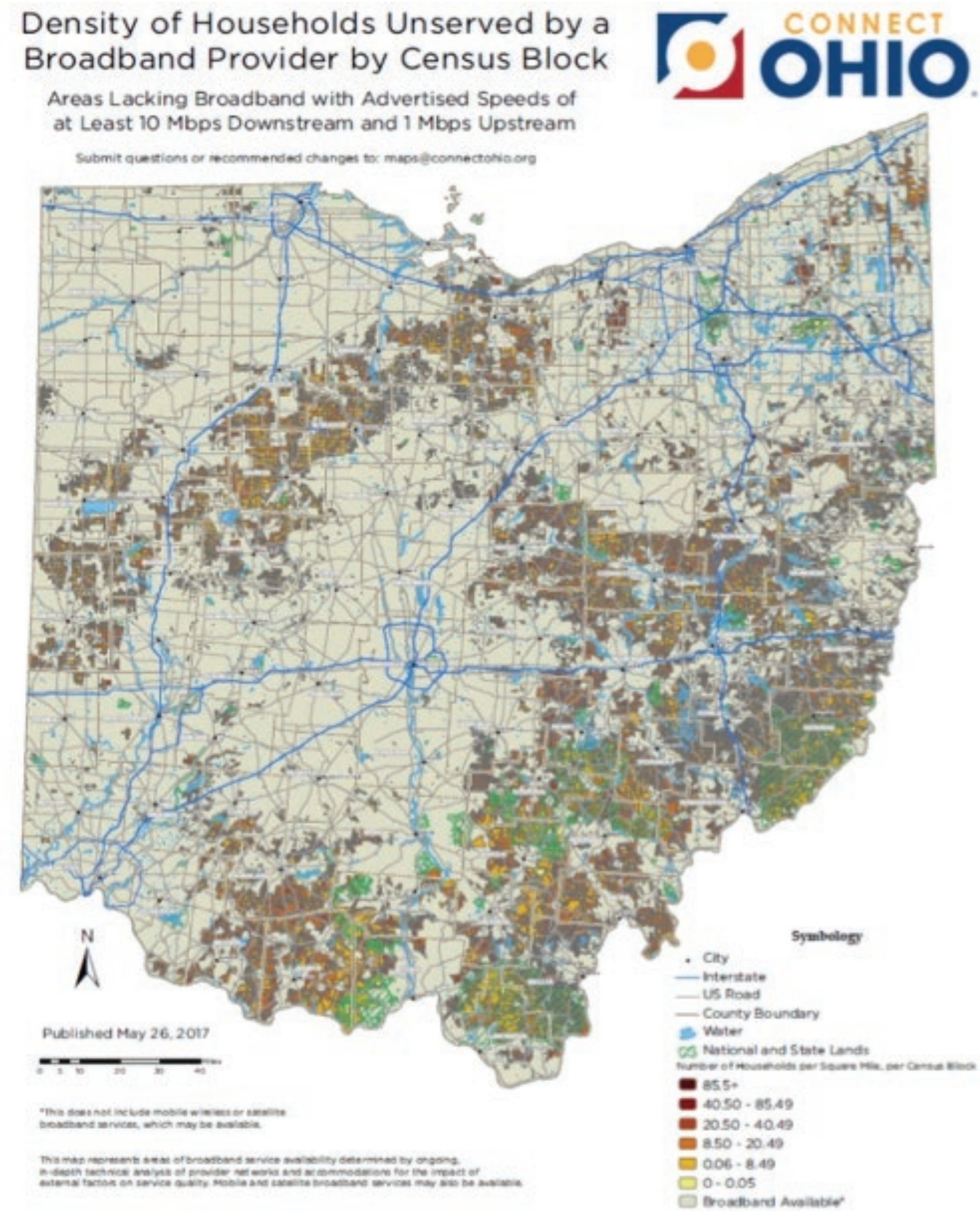
Integrated Data Exchange
- Data Gathering
- Data Analytics
- Data Management
- Mobility Strategy

Broadband Networks
- 5G & Small Cell Legislation
- Broadband

Sensor Network

Connected communities also work to address the lack of broadband services in generally impacting many rural communities. Consumers and businesses are using their mobile devices more than ever before to connect to everyone and everything around them. The demand for wireless data is on the rise with data usage on AT&T's network has increasing more than 360,000% from 2007 to 2017. Small cells help bring customers faster download speeds, improved call quality and a better overall wireless experience. With this increased demand and pressure on the mobile network, the telecommunications industry is working on ways to enhance their network, prepare for 5G network deployment and provide the best possible experience for our customers. Recently, the Ohio General Assembly passed House Bill 478 meant to streamline the process for the deployment of small cells throughout the Buckeye State. The legislation will promote the rapid deployment of small cell facility infrastructure and related capital investment while also ensuring municipal corporations retain local oversight. Ohio House Bill 478 illustrates how a state and its local governments can promote the adoption of broadband services and lay the foundation for the launching of 5G services in municipal environments. HB 478 is Ohio's Small Cell legislation and it establishes procedures for consent for small cell facility operator placement of small cell facilities and wireless support structures in the municipal public way, consent for non-operator (person who is not an operator) placement of these facilities and structures in the municipal public way, and the operator placement of small cell facilities on municipally owned or operated wireless support structures in the municipal public way. State adoption of small cell legislation will speed the deployment of 5G technology while protecting community's rights.

No one is against the installation of more broadband technology into rural communities. As the map below illustrates, rural communities in Ohio, as elsewhere, face a daunting challenge with access to high-speed data networks that people and companies demand to live, work and play. Two challenges exist with bringing enhanced broadband to rural communities. First is who should provide the service- the public or private sector. Many communities desperate for broadband services have launched publicly owned and operated broadband projects. Others are working to entice the private sector to provide these services. No matter who provides the broadband services, neither the public nor private sector will be successful without additional funding. Economist estimate the cost to provide a fiber optic network to underserved rural communities \$61B.[19] States are working to fill this financial gap through a variety of strategy. States often support broadband deployment through grants and loans to internet service providers, nonprofit utility cooperatives, and local governments.[20] States such as Tennessee offer only grants, while others, such as Virginia, provide both grants and loans.[21] The money for these grants and loans comes from sources that fall into three categories: special and general funds, state universal service funds, and other revenue streams.[22] Some states have a special designated fund in which money is set aside each year for broadband deployment such as Minnesota's Border-to-Border Fund account and North Carolina's Growing Rural Economies with Access to Technology (GREAT) program.[23] Michigan, for example, appropriated money from its general fund when it created a one-time broadband program in its 2017-18 appropriations bill.[24] Ten states have state universal service funds (USFs) to support broadband projects, and the federal government and states initially established the funds to enable "universal service," the idea that every American should have access to telephone service.[25] The federal Telecommunications Act of 1996—a federal law designed to help deregulate the telecommunications industry and promote competition—permits fees to be levied on telecommunications providers and passed on to consumers and is used to offset the cost of deploying phone and internet to areas without access and those that are expensive to connect, such as rural communities.[26] Fees for the use of public-right-of-way, civil penalties, toll road revenue, legal settlements with tobacco, financial and telecom companies have all been used to fund rural broadband projects.



Access to Rural Healthcare Critical to Economic Success. The availability of quality healthcare is another important aspect of a rural community that needs to remain. The local hospital is the economic anchor and, in many cases, the largest employer in urban and rural communities. In the state of Ohio, six of the twelve largest employers in the state are hospitals. Health care, driven by hospitals, is a major player in the American economy. The health care industry recently added an average of 28,000 jobs per month.

In Ohio's rural communities' hospitals face even bigger obstacles. According to The Chartis Center for Rural Health, 80 rural hospitals have closed since 2010 nationally. If rural regions lose their hospitals economic calamity is likely to follow as these institutions are not only large employers but serve as a magnet for other employers who wish their workers to have quick access to quality healthcare. What we do know, is that if no efforts are made to protect these vital community and regional assets the trend of rural hospital plight through closure and consolidation will continue. According to the U.S. Census Bureau, approximately 2.4 million Ohioans live in rural Ohio, which is equal to a quarter of the state's population.

America needs to adopt a rural hospital public policy agenda. Local, state and federal governments in partnership with leading rural hospitals need to address rural hospitals workforce development, regulatory compliance, federal and state reimbursement rate, and taxes and fees all focused on providing the economic support needed for these institutions to survive. Ohio is starting to take steps in this direction when Governor DeWine and Lt. Governor Husted supported the enhanced use of telemedicine. However, telemedicine alone is not a panacea for the challenges of rural hospitals and public policy efforts to support their growth and retention needs to think bigger.

- *Develop Rural Healthcare Workers.* Throughout the country 60% of the health professional shortage areas are in rural or partially rural areas. Federal and state governments need to have a specific workforce development focus on helping rural communities with retention and recruitment to fill these gaps. Without a separate specialized program for these workers, rural hospitals will continue to struggle to attract and retain the doctors, nurses, and other health professionals these areas need to provide high quality healthcare.
- *Address the Opioid Crisis & Other Addiction and Mental Health Issues.* Rural hospitals are many times on the front lines in the nation's and certainly in Ohio's fight against opioid and other drug addiction. There needs to be better alignment with rural hospitals, state, and federal efforts to provide access to treatment and care through specific programs and funding. Additionally, barriers to providing behavioral health services and eliminating information-sharing restrictions to have better coordinated care would be an important step in Ohio and at the federal level.
- *Flexible Regulation for Rural Hospitals.* Hospitals face several regulatory requirements at both the state and federal levels of government. The annual cost of non-clinical regulatory compliance for hospitals in the U.S. is $39 Billion, according to the American Hospital Association. These mandates have an even bigger impact of the rural hospital systems and should be reformed to provide relief from what are outdated and burdensome regulations, which are not focused on patients.
- *Higher Medicaid and Medicare Fees for Rural Hospitals.* Rural hospitals tend to have a higher per capita patient rate who are receiving healthcare coverage from either Medicaid or Medicare. Additionally, rural hospitals generally serve populations who are indigent or uninsured. For these reasons Ohio's rural hospitals as well as those around the country are more vulnerable when reimbursements are either held flat or in some cases decreased. The federal government along with states should look to boost program assistance through the Hospital Care Assurance Program (HCAP). HCAP helps hospitals with unpaid bills for individuals who are below the federal poverty level and who are ineligible for Medicaid coverage. The program also provides funding to hospitals who have a disproportionately high share of uncompensated care costs. Funding levels as well as eligibility adjustments should be considered. Additionally, Congress should look to create a specific rural hospital reimbursement structure, which reflects the nature of the patients who use the facilities. At the state level a similar approach should be undertaken to help support rural hospitals and their efforts to keep their doors open. Congress and states should eliminate site-neutral policies which seek to reduce reimbursement for non-emergency services provided at a hospital's off-campus provider-based department or PBD's. These policies attempt to match the cost for these services to the same reimbursement cost as if they were provided in a physician's office. Rural hospitals feel the pinch from these types of policies because PBD's are used more frequently as health-care access points in more remote areas.
- *Data Security.* Data protection is a long emerging area of concern not only in the information technology field, but throughout the whole economic sphere. As medical records and billing continue to become more digitally driven processes protecting an individual's data is very important. This area is another example of an increased cost associated with providing critical access to care, and both Congress and states should begin to look at providing support to entities who may struggle with these resources. We have discussed the challenges rural hospitals face and their limited access to additional revenue and resources. Adding an additional cost to protect patient data continues to erode the core functions of the hospital which is to provide healthcare.

Historic Redevelopment is a Rural Workforce Development Tool. Saving historic structures can be a key element to an economic development strategy—especially when it comes to redevelop rural Downtowns whose walkable areas are attractive to younger workers. Most rural Downtowns are filled with historic structures—many of which are underutilized and primed for redevelopments. The economic data on the benefits of historic preservation are clear: historic preservation increases land values and enhances the regional economy. For 41 years the U.S. National Park Services, in partnership with the State Historic Preservation Offices, has administered the Federal Historic Preservation Tax Incentives Program. The program provides a 20-percent Federal tax credit to property owners who undertake a substantial rehabilitation of a historic building in a business or income-producing use while maintaining its historic character, and is often matched by state historic preservation tax credits.[27] The Historic Tax Credit is designed to preserve and rehabilitate historic buildings, and to also promote the economic revitalization of older communities in the nation's cities and towns, along Main Streets, and in rural areas.[28] Since the program's inception in 1976, the NPS has certified the rehabilitation of more than 44,000 historic properties throughout the United States, leveraging over $162 B in private investment in historic rehabilitation and generating almost 2.7 M jobs.[29] In Fiscal Year (FY) 2018, 1,013 completed historic rehabilitation projects were certified by the National Park Service, representing $6.9 B in estimated rehabilitation costs that qualify for the 20% Federal tax credit.[30] 51% of the certified rehabilitation Historic Preservation Tax Credit projects in FY 2018 were located in low and moderate income census tracks and 75% were located in economically distressed areas.[31] Also, almost half of all projects in FY 2018 were under $1 million, and 18% were under $250,000 with that a quarter of all certified rehabilitation projects in FY 2018 were located in communities with under 50,000 in population and 15% in communities with under 25,000 in population.[32]

Most states, 36 to be precise, offer a historic preservation tax credit that enhances the value of the federal credit. The Ohio Historic Preservation Tax Credit Program is administered by Ohio's Development Services Agency to leverage the private redevelopment of historic buildings.[33] The program provides a tax credit for the rehabilitation expenses incurred by owners of historically significant buildings located across the state, and the tax credits subsidize up to 25% of qualified rehabilitation expenditures for historic rehabilitation projects, capped at $5 million per project.[34] The program is highly competitive and receives applications bi-annually in March and September.[35] With 22 rounds of funding complete, tax credits have been approved for 438 projects to rehabilitate 606 historic buildings in 71 different Ohio communities.[36] However, the vast majority of the program's tax credits have been awarded to projects in the larger urban areas of Cleveland and Cincinnati. The program is projected to leverage more than $6 billion in private redevelopment funding and federal tax credits directly through the rehabilitation projects.[37] Round 22 of the Ohio Historic Preservation Tax Credit Awards were announced on June 26, 2019 and the Ohio Development Services Agency awarded $28,033,063 in Ohio Historic Preservation Tax Credits to rehabilitate 49 historic buildings in 13 communities.[38] The awards include projects in three communities (Bellefontaine, Coshocton, and Miamisburg) that are receiving an Ohio Historic Preservation Tax Credit for the first time.[39]

The redevelopment of historic structures is creating an economic boom in urban, rural and suburban communities across the United States. In part, this historic building renaissance is driven by a new market-Millennials. The movement of Millennials to the urban core is bringing new light to the economic benefits of historic preservation. There are 77M Millennials between ages of 18-36 and they constitute the largest generation in American—just surpassing the Baby Boomers. Regions attracting Millennials gain workers and consumers that are major drivers of the American economy. However, attracting Millennials is not easy as their wants and needs differ from older generations-- 62% of Millennials want to live in mixed-use development, 40% of Millennials want to live in Urban NOT Suburban areas, 2/3 of Millennials are renters, Millennials own fewer cars as they aspire to live in a mixed use, pedestrian friendly environment. Fortunately for urban, rural and suburban communities, the older, established Central Business Districts often dominated by historic structures are primed to attract Millennials as they are designed before the car dominated America's development patterns.

The redevelopment of historic properties in rural Central Business Districts create a unique opportunity to spur economic growth through the attraction of Millennials to live, work and play. Most established Central Business Districts are home to arts, museums, office and other historic properties primed for redevelopment opportunities and are essential for attracting Millennials much more focused on the quality of place than wage of a job. Ohio is full of potential historic redevelopment projects including:

- 48 Certified National Historic City Halls;
- 51 Certified National Historic Theaters;
- 59 Certified National Historic Courthouses
- 91 Certified National Historic College/University Buildings;
- 139 Certified National Historic Hotels;
- 179 Certified National Historic Museums; and
- 239 Certified National Historic Office Buildings.[40]

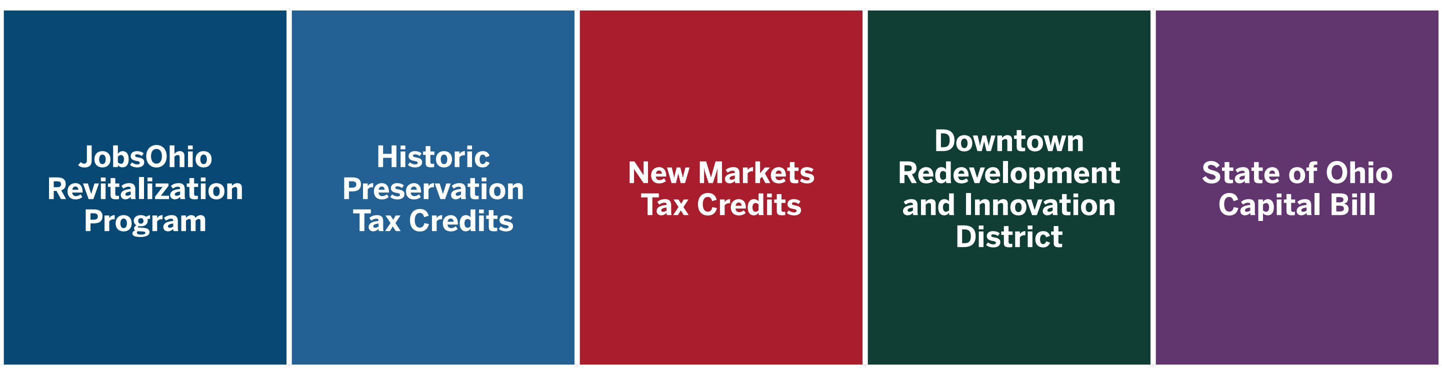
Rural communities looking to redevelop their Downtown also have the opportunities in states like Michigan and Ohio of utilizing the Downtown Redevelopment District program. Ohio municipal corporations can create downtown redevelopment districts (DRDs) and innovation districts to promote rehab of historic buildings if a city has a certified historic structure, creates a district as large as 10 contiguous acres around that historic structure and develops a DRD economic development plan. Six steps exist to redevelopment historic property using DRDs.

1. Historic Preservation Certification and Renovation Plan. The DRD process begins with the identification of a certified historic structure or undertakes the process of gaining that historic certification. DRD historic certification is accomplished through four different routes including if a building is on the National Register of Historic Places, contributes to a National Register Historic District, located in a National Park Service Certified Historic District or a Certified Local Government Historic District. Historic preservation certification also requires an approved renovation plan to keep historic building "historic."
2. Complete a DRD and Innovation District Economic Development Plan. DRD districts must have an economic development plan. A DRD economic development plan should identify the redevelopment project costs including building, infrastructure and operations, financial modeling of the parcels within 10 acres around the historic structure and review of other tax credits, grants, loans and private contributions to address those costs, a site development plan that considers the economic potential of the DRD through commercial, mixed use and research market research, determines the DRD broadband service to see whether the DRD qualifies as an Innovation District, and outlines that local government process and agreements needed to formally create a DRD.

3. Adopt a DRD financial model. Next, the municipality must adopt a DRD financial model addressing the building, infrastructure and operational costs through an tax exemption up to 70% of the increased value of real property in the DRD providing the collection of service payments in lieu of taxes from the property owners and redevelopment charges assessed to property owners within the DRD- both of which may be levied without property owner approval. The DRD may not be exclusively residential and last for 10 years or 30 years with school board approval. Additional funding for the DRD can be gained from federal and state historic preservation and new market tax credits and state Capital Bill funding.
4. Build a DRD Innovation District. DRDs with a 100-gigabit broadband level or higher can become an Innovation District. Innovation Districts can use DRD generated funds to give grants and loans to high-tech companies. The Innovation District designation can ignite a tech-based economic development project by providing the capital needed for early stage capital tech companies.
5. Adopt the DRD District Ordinance, Public Hearing & File Annual Reports. DRDs are created through a city ordinance describing the area included in the district, the number of years the DRD will exist, the economic development plan, ID of the historic building (s) in the district, potential designation of an innovation district within a DRD, establishment of a special fund for the deposit and dispersal of service payments and redevelopment charges, and acknowledgement that city must file an annual DRD report to the Ohio Development Services Agency. Finally, the city must hold a public hearing on the proposed DRD ordinance and give notice of the hearing to each property owner in the district.
6. Negotiate DRD Agreements with building owners, school board and other funders. Following passage of a DRD ordinance, municipalities should enter into various agreements with building owners, school board and other funders of the project. Examples of these agreements include local government and school board revenue sharing agreements, development agreements with DRD participants to outline funding terms of the public-private-partnership and grant and loan agreements from other outside public and private sector funding sources.

Most of the time, the use of a DRD will not cover the full cost of redeveloping historic properties in rural Downtowns. Thus, other sources of funding need to be found.

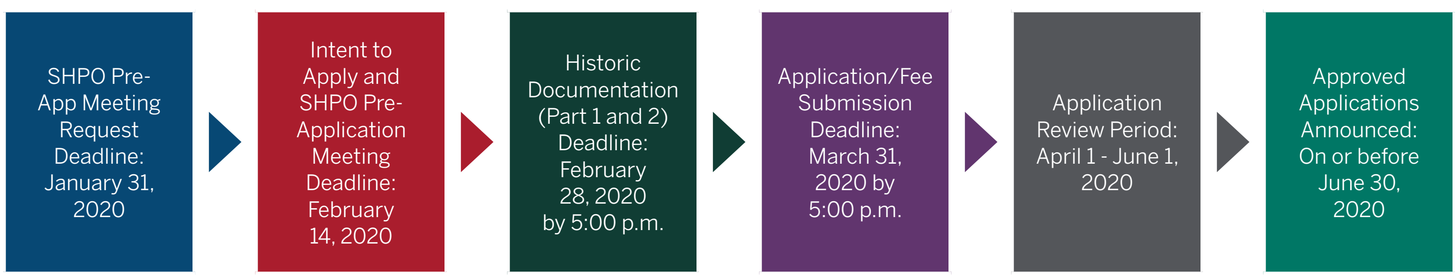
Historic Preservation Redevelopment Financial Model: The Capital Stack



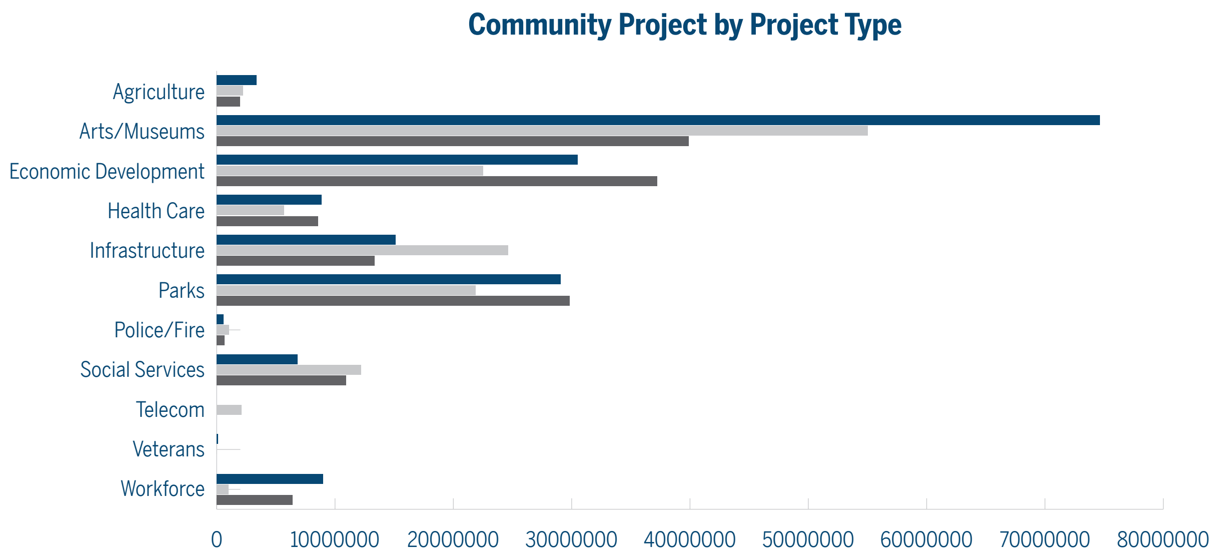
Beyond DRDs, Ohio historic preservation redevelopment projects should consider at least four other sources of funding to finance their projects.

- *JobsOhio Revitalization Program.* The JobsOhio Revitalization Program Loan and Grant Fund is designed to support the acceleration of redeveloping sites in Ohio. Primary focus for the program is placed on projects where the cost of the redevelopment and remediation is more than the value of the land and a site cannot be competitively developed in the current marketplace. Priority will be placed on projects that support near term job creation opportunities for Ohioans. Revitalization projects typically retain and/or create at least 20 jobs at a wage rate commensurate with the local market. Priority will be given to job creation and retention projects within JobsOhio targeted industry sectors, those making additional capital investment beyond remediation and redevelopment and/or projects with wages higher than the average local wage rate. Eligible applicants include businesses, non-profits or local governments where the entity committing the jobs has signed an agreement such as a letter of intent, option, lease or holds title for the project site and has a specific business plan, financing plan and schedule for redevelopment and job creation to occur. Eligible sites include an abandoned or under-utilized contiguous property where redevelopment for the immediate and primary purpose of job creation and retention are challenged by significant redevelopment constraints. Eligible costs include: demolition; environmental remediation; building renovation; asbestos and lead paint abatement; removal and disposal of universal and construction waste; site preparation; infrastructure; and environmental testing and lab fees.; remediation projects For environmental remediation loans and grants, a No Further Action letter issued by an Ohio Certified Professional is typically required for projects where long-term engineering controls are necessary on the site. In certain circumstances, JobsOhio may require a Covenant Not to Sue from the Ohio Environmental Protection Agency, depending on the project and site characteristics.
- *Historic Preservation Tax Credits.* State and federal Historic Preservation Tax Credits offer an important source of funding for historic preservation projects. The federal Historic Preservation Tax Credit proves a 20% tax credit for the rehab of certified historic structures, 10% federal tax credit for non-historic structures. The state of Ohio offers a 25% state tax credit for historic structures with a special $5M Ohio cap unless a Catalytic Certificate Project that can gain up to $25M. The program is applicable to financial institutions, foreign and domestic insurance premiums or individual income taxes, and used against liability or refunded up to $3 million in one year.

Spring 2020 Ohio Historic Preservation Tax Credit



- *Federal New Market Tax Credits.* Federal New Market Tax Credits provide a funding source for projects located in federally designated low-income areas. The Federal New Markets Tax Credit provides a 39% Federal Tax Credit Over 7 Years and $1M Ohio Tax Credit paired with Federal Credit for real estate investments in poor communities through complex transactions involving retail, office and manufacturing projects. New Market Tax Credit projects involve the gaining of an allocation of the federally awarded tax credit from an awardee of the credit. The challenge for use of this program is the demand for projects far exceeds the availability of New Market Tax Credits.
- *State of Ohio Capital Budget Community Projects.* In even numbered years, the Ohio General Assembly enacts a state of Ohio Capital Budget bill that provides for state funding for agencies, universities, schools and community projects tied to the arts and economic development. Capital budget community projects are often tied to the redevelopment of historic structures in Ohio such as theaters, museums, office and university buildings. If you break down the types of community projects into category types the biggest recipients of awarded projects include arts/culture, economic development/workforce, parks, and general infrastructure. (See chart below)



The average project award can vary based on projects and the overall amount appropriated. The average community project award decreased from approximately $600,000 in FY 2015-16 to just over $300,000 in the last capital budget of FY 2019-20. Communities across Ohio have infrastructure needs and the capital budget is a great place to advocate for state support for each community's priorities. Each capital budget there are approximately $1.2 billion in request for community project funding, with the average appropriated amount being approximately $140-70 million. This creates a lot of competition and having a good plan with local support and the right representation to help promote and advocate for your communities' priorities is key to being successful.

Growing Jobs Tied to Industrial, Logistics and Technology Spurs Rural Growth

Findlay, Ohio is a very successful rural community. Strong civic leadership has helped but so has the location of the corporate headquarters for Ohio's largest company, Marathon Oil, the headquarters for Cooper Tire, a major Whirlpool manufacturing facility and several other large manufacturers and distribution center with a college in Downtown to boot! Few rural communities have the assets that Findlay does, but this Northwest Ohio community offers a model for others to emulate. Rural communities need large employers to enhance their chance of growth and success.

Rural Targeted Industry Strategy is the Key to Large Scale Job Creation. Regional economies grow through the retention and expansion of like, growing industries already located in a region as measured by a review of the industry cluster and location quotient for the success of these clusters. How a rural community gains larger employer is really a specific strategy tied to that community. The work of retaining or gaining larger employers often starts with understanding what industries are growing in that specific region. The creation of an industry cluster analysis that is above average. The U.S. Department of Commerce, working with Harvard Professor Michael Porter, identified 51 industry clusters that dominate America's regional economies. North Dakota, Texas and several other states are leading an economic recovery. Whether an analysis is based upon the Porter industry cluster analysis or comparing which regions and states are growing based upon which industries, five drivers exist for regional economies that promote high-wage job retention and expansion and capital investment.

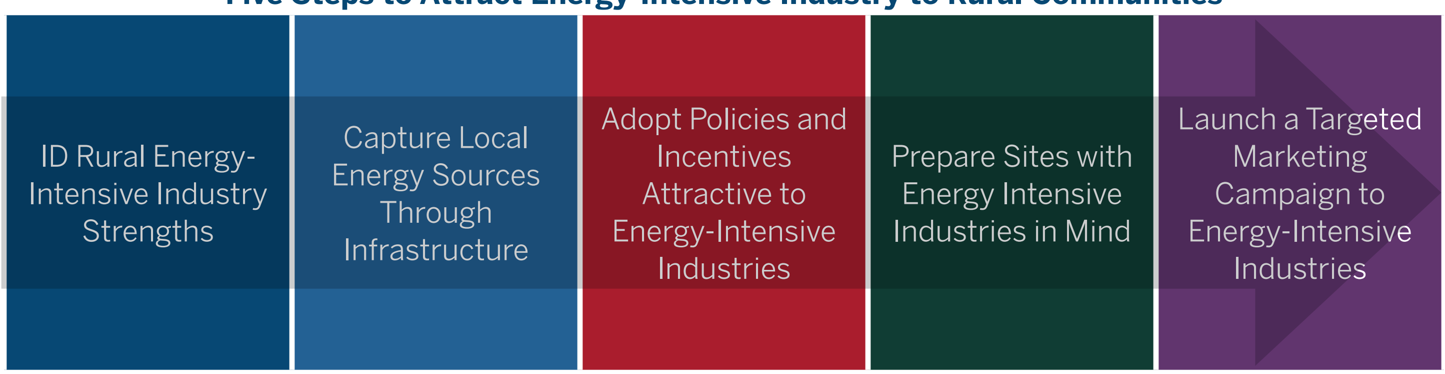
- **Energy** is a growth industry. Economic development studies indicate, midstream, and downstream energy and energy-related chemical companies plan to invest $346 million in the U.S. from 2012-2025.
- **Technology** companies are big business. Net tech employment (technology professionals working in technical positions and business professionals employed by technology companies) in the United States reached an estimated 11,812,147 workers in 2018, an increase of 2.3 percent or 260,865 new jobs.[41]

- **Logistics** is a booming industry driven by the growth of the $400 B e-commerce industry transforming the retail industry into the fulfillment center industry and Select USA determined that U.S. businesses face $1.66 T in logistics costs in 2018—growing regions are developing in part in success in the logistics marketplace.[42]
- **Manufacturing** is still a high-wage American job center. The average wage for 230,760 production workers in the United States is $16.58 an hour for an average annual wage of $34,490.[43]
- **Service** sector jobs dominates the American economy and regions with a large pool of college and university educated workers have an opportunity to gain high-wage, professional service jobs.

Successful regions and states build economies focused on the booming industry sectors of energy, technology, logistics, advanced manufacturing and advanced services. Rural communities with low cost land and lower site development costs are ready made for energy-intensive, industrial and logistics developments and a movement to shift tech jobs to rural communities and growing a new generation in rural areas shows interesting promise.

Rural communities with access to reliable and affordable sources of energy would be smart to seek energy-intensive industries. Natural gas prices remain low with a price of $2.28 per million BTUs, and oil remains in the $50 dollars a barrel range. Low energy costs drive economic growth. Energy is consistently a top 10 factor impacting corporate site location decisions. Regions, states and companies looking to capture the benefit of lower energy costs should take five steps to create an economic boom. The decline in oil prices created questions about the benefits of energy to the American economy. Just as energy could do no wrong when oil prices and domestic production were high so of course runs the public relations cycle the other way. Economies, while impacted by public relations, run on energy. The discovery and use of domestic energy sources are a substantial economic development opportunity located in large part in rural communities across the United States. Rural communities with an opportunity to attract energy intensive industries should focus on five key steps.

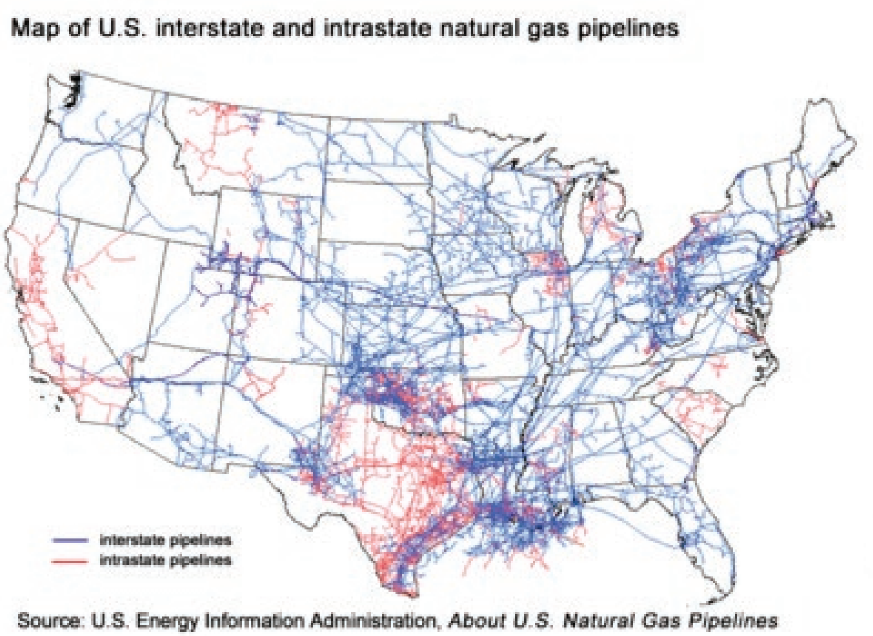
Five Steps to Attract Energy-Intensive Industry to Rural Communities



The first step is to identify rural regional market strengths and connect them with energy-intensive industries. Economic strengths are understood through industry cluster or market analysis. Regions with access to domestic energy should focus on energy-intensive industries. 30 percent of the U.S.'s energy consumption is tied to the American industrial sector. Energy-intensive industry sectors such as chemical, aluminum, glass, food products, cement and lime, iron, steel, paper and pulp, glass and refining are the prime users of American energy.

Second, the energy that is being produced in a rural region must be captured to serve that region. Efforts to retain and attract energy-intensive companies first must solve the infrastructure puzzle that will connect their community to the oil, natural gas and even electricity flowing from new local sources. Traditional infrastructure tools such tax increment financing, tax exempt bond financing, local, state and federal grants all come into play to fund the "last mile connection" from the massive national natural gas pipeline network shown below.

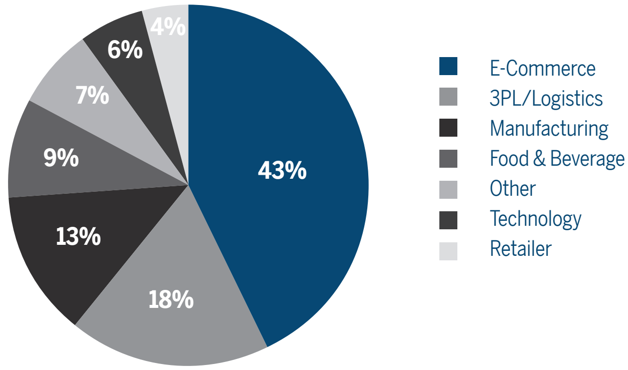
Interstate Natural Gas Pipeline Map



Third, regions looking to attract energy-intensive companies need to develop economic development incentives to retain and attract these companies, but a focus needs to center on a workforce certified to by ready from day one to work in the industry they are recruiting. Regions should focus on creating a workforce pipeline to develop a pool of workers trained and ready to work in the facilities for the industry in which they are required. Fourth, regions need to develop sites to fit the unique needs of the targeted energy-intensive companies. Regions looking to capture energy-intensive sites need to develop large scale sites with power, road, direct rail, and, in many cases, water access. The infrastructure needs to be in place to ensure the site is shovel ready. Again, traditional infrastructure tools such as tax increment financing, utility partnerships, and local, state and federal funding will be needed to develop these sites. Finally, the region's energy-intensive industry strength needs to relate to a marketing campaign. First, a deep dive needs to occur within the targeted energy-intensive industries to create a target list of companies. This industry and the list of companies should be the targeted for a marketing strategy built on regional brand awareness tied to this industry as well as social media, earned media, paid media, trade association and conference participation and, ultimately through direct recruitment. Low energy costs offer a tremendous economic opportunity but capturing that market involves a complex strategy executed to perfection.

Rural Communities are Primed to Capitalize on Manufacturing and Logistics Investment. Rural manufacturing and logistics projects not tied to energy-intensive companies are also prime targets for rural communities. Logistics is by-far the largest growth market in the industrial sector as the chart below illustrates.

CBRE Warehouse Tenent Demand by Industry - Top 100 Deals



More importantly, logistics jobs are paying higher wages driven by higher demand for workers created by the e-commerce explosion. Current estimates of 10% of consumer purchases happening through e-commerce platforms are projected to rise to 17% by 2022 according to a CBRE analysis. However, the growth of logistics-based projects will likely need to occur in a labor shed connected to an urban market as fulfillment and distribution centers are likely to locate near to a market for delivering these goods. Rural Pickaway County, Ohio is an illustration of a rural community just south of urban Franklin County in Central Ohio that has capitalized on the logistics market to transform farmland into millions of square feet of warehouses holding logistics and manufacturing jobs adjacent to the Rickenbacker Intermodal.

Industrial or logistics projects must have a site prepared for development through a multi-step process involving several levels of local government that designates permitted land use, develops required infrastructure, provides for needed tax incentives to attract end users and provides for tax revenues for local governments and schools impacted by the development.

Zoning	Public Infrastructure	Tax Incentives	Compensation Agreements & Revenue Estimates
• Zoning Amendment • Industrial/Logistics Districts	• Joint Economic Development District • Tax Increment Financing • Water & Sewer Agreements	• Community Revinvestment Area • Enterprise Zone • Sales Tax Exemption	• Schools • Townships • County • Cities

The property in question whether in a township or municipal boundary must be properly zoned. In an Ohio township, the Rural Zoning Commission is the first stop to seek a change in the zoning for a site. In many regions, specific industrial and logistics business development districts are set up with specific zoning standards to attract industrial and logistics developments. Zoning applications must be developed following the creation of engineering and consulting reports that outline the transportation and infrastructure investments need to permit the site to operate. Pre-zoning briefings with local government officials outline the scale and scope of the project as well as the transportation and infrastructure needed and the Return on Investment estimates for the local community. Approval will be sought with the local zoning and planning commission before a city council or township trustee board votes to approve of the zoning change.

If the site is in a township adjacent to a municipal corporation, the property will likely benefit from the formation of a Joint Economic Development District. This allows for the provision of infrastructure to be brought to the properties including sewer and water and roadwork. To tap into these services the property must apply to be included in the JEDD area. There is an income tax levied on employees who work in the JEDD which can be as high as 2.5% in Ohio. The JEDD is governed by a board of directors that approves the inclusion petition. Before the JEDD Board will approve the petition to be in the JEDD, the township trustees and village or city council must approve the request to be included in the JEDD and proper zoning needs to be in place. Ordinances and agreements will need to be negotiated that provide funding for site infrastructure and set income tax revenue splits and service arrangements between the local governments.

The site will also need to have a substantial tax abatement to attract industrial and logistics projects as these primarily compete on an interstate basis. In Ohio, a Community Reinvestment Area. Being in this area allows for the taxes on real property to be abated. Tangible personal property is not taxed in Ohio and in a township the County Commissioners and in a city the city council and mayor/manager have the authority to approve a CRA agreement. CRA's do not abate the taxes on the buildings; thus, the property tax value gain can be captured to use for Tax Increment Financing. Part of gaining a tax abatement is negotiating a compensation agreement with local governments- primarily local school districts. In Ohio, there must be revenue sharing with the school district in order to achieve 100%, 15-year abatement and several local models exist where the developer provides revenue sharing through a Tax Increment Finance District on the land that redirects the increased taxes on land to the school district with the CRA only abating taxes on the buildings.

Ohio law also allows Port Authorities to own property and lease it to private entities. The largest benefit for a private entity to use a port authority is for the exemption of sales tax on construction materials. Local port authorities do these transactions frequently and has an agreement with the county or city to provide port authority financing in the county will be required. This is another funding opportunities for local governments but also provides a substantial reduction in sales tax tied to a project's construction materials.

Opportunity Zones Create Rural Development Opportunities. The location of a rural project in one of the 8700 Opportunity Zones also presents an important chance to gain in infrastructure financing for industrial, logistics or tech projects. Opportunity Zones jumped into the world of economic development with much fanfare last year seen as the key to addressing substantial income inequality in both urban and rural communities. There can be no doubt that many Opportunity Zone Funds have been formed but many more communities, developers and companies are still seeking investment. Hundreds if not thousands of Opportunity Zone Funds have been formed and directories can be found at https://www.ncsha.org/wp-content/uploads/NCSHA-Opportuntity-Zones-Fund-Directory-7.17.19.pdf and other sites. Newmark Knight Frank reports, an estimated $20+ billion is currently being raised by funds nationally, for the purpose of investing in Opportunity Zone product. However, what is the best tactic for a community, developer or company to attract this growing base of capital designed for Opportunity Zone investment—it is to prepare the Opportunity Zone site for development through a proactive infrastructure investment strategy.

The federal government through the Commerce Department's Economic Development Administration (EDA) recently announced that are adding Opportunity Zones as an Investment Priority. This new Investment Priority will significantly increase the number of catalytic Opportunity Zone-related projects that EDA can fund to spur greater public investment in these areas. EDA's investment priorities guide the agency's investment portfolio to ensure its investments make the strongest impact on sustainable regional economic growth and diversification. Through its competitive grant process, EDA evaluates all project applications to determine the extent to which they: align with EDA's investment priorities; effectively address the creation and/or retention of high-quality jobs; document that the applicant can or will leverage other resources, both public and private; demonstrate the applicant's capacity to commence the proposed project promptly, to use funds quickly and effectively; and provide a clear scope of work that includes a description of specific, measurable project outputs.

EDA has previously taken steps in its 2018 Notice of Funding Opportunity for Public Works and Economic Adjustment Assistance Programs to make eligible entities within qualified Opportunity Zones generally eligible for EDA funds. To date, EDA has invested close to $30 million in 40 projects in designated Opportunity Zones to help communities and regions across the country build the capacity for economic development.

The state of Indiana designated six sites will receive technical assistance and capacity-building support as part of the Rural Opportunity Zone Initiative. The purpose of this initiative is to build the capacity of Opportunity Zones in rural Indiana to attract private, public and/or philanthropic sector investments that support locally driven priorities. This program is funded by a Rural Business Enterprise Grant from the Indiana U.S. Department of Agriculture Rural Development. The selected county sites are as follows: Crawford; Daviess; DeKalb; Knox; Newton; and Switzerland. The Indiana Office of Community and Rural Affairs completed an initial assessment of the zones and determined forty-six sites are rural opportunity zones. Each Indiana site may receive support to include: guidance in establishing a task force; proprietary data products that profile types of properties in the area; assessment of key economic drivers; profile of existing businesses and companies in the zone and surrounding areas; transportation infrastructure and connectivity; discovering the area's community/economic development assets; suitability analysis; mapping of broadband services in the zone; and more. The goal of the Indiana Opportunity Zone initiative is to encourage long-term private capital investment in low-income urban and rural communities. Whether through local, state or federal funding or private capital, preparing an Opportunity Zone site for development through proper site planning is the key to its economic success.

Rural communities account for nearly half of all the Qualified Opportunity Zones and the accounting firm Novogradac reported that Opportunity Zone Funds have reported raising $2.5 B in assets.[44] Novogradac is tracking 264 Qualified Opportunity Funds. In the aggregate, those funds are seeking to raise more than $63.5 billion for investment in opportunity zones.[45] The 264 QOFs range in size as well as focus with ten of the 264 have a capacity of $1 billion or more, and 66 percent report a fund capacity of $100 million or less.[46] Approximately 20 percent of the 264 funds are focused within one city or metropolitan area and nearly 28 percent plan to invest nationwide.[47] Of the 112 Qualified Opportunity Funds that Novogradac has fundraising information for, these funds are targeting to raise $25.8B, have raised $2.5B, and on average have raise $22.2M per fund.[48] The funds Novogradac is tracking run the gamut of geographical footprints from local, to regional, to state and multi-state, to national, and the targeted investment areas for the funds as a whole range from mixed-use, industrial, office, retail, multifamily, student housing and senior housing to hospitality, renewable energy, disaster relief and professional sports.[49]

Crawford County, Ohio is working to develop their Opportunity Zone sites into industrial centers in Galion and Bucyrus, Ohio. These North Central Ohio communities are primarily rural in nature but have a long history based in manufacturing. Galion has focused its Opportunity Zone efforts on a 370-acre site that is north of town on State Route 61/Wachs Rd. and US 30 with access to the Galion Municipal Airport to its east and CSX railroad to its west. The site is served by Galion for water, and sewer can be provided to the site through the extension of a line coming from Galion. The City of Bucyrus is focusing its Opportunity Zone efforts on two sites; the first being a 78-acre site that has all utilities in place including a cul-de-sac industrial road that has access from Mansfield St. The site is less than one mile from US 30 and has direct rail access from the Genesee & Wyoming Railroad. The second site in Bucyrus is along State Route 98 and US 30. The site has railroad access through the Norfolk Southern Railroad mainline. All utilities are available to the site. The site is directly west of the Ohio Crossroads Industrial Center, a SiteOhio Authenticated Site. Crawford County is focused on preparing their Opportunity Zone sites for development by:

- Preparing an industry cluster analysis to determine the industry that exists in the area that is likely to locate on these sites.
- Developing a site development, infrastructure and transportation analysis to determine the transportation and infrastructure for each site and the related costs to develop each site.
- Launching an Opportunity Zone attraction and marketing strategy to identify and attract new investment to these sites from developers and companies.
- Implementing a finance and incentive strategy to understand how to fund infrastructure and transportation on the sites and determine the incentives needed to attract OZ investment.
- Connecting with Opportunity Zone Funds to attract investment at the site to fund infrastructure and investment in eligible companies.

Technology Initiatives Build Long-Term Success for Rural Communities. Rural communities' key to long term success is to diversify their economies through expansion in the technology sector. Technology Based Economic Development strategies for rural regions address challenges and opportunities but focus on bringing technology work to rural communities, developing a rural STEM workforce, enhancing access to capital for rural companies, and supporting the creation of start-up companies in rural communities.

Rural Technology Based Economic Development Initiatives
• Rural Forge • STEM Workers • Access to Capital • Entpreneurship

The Rural Forge Model- Bringing Tech Workers to Rural Communities. Jefferson, Iowa's recruited Pillar Technology to open a software innovation center to this small rural community. Pillar's innovation centers are known The Forge. The Forge is just part of a larger coalition focused on bringing tech jobs to Greene County, Iowa.[50] In addition to opening a new Forge in Jefferson, Pillar Technology will be launching a software development training program in collaboration with Greene County Community School District and local community colleges.[51] Students that go through the program will enroll in fourth months of tuition-free software development training provided by Accenture and designed to prepare rural area students for high-demand, software development jobs in Iowa.[52] A long list of California tech companies and entrepreneurs — Microsoft's Kevin Scott, LinkedIn co-founder Allen Blue, venture capitalist Greg Sands and Ripple CEO Brad Garlinghouse — have committed personally or through their companies to help Jefferson's effort.[53] The Jefferson, Iowa Forge is an example of corporate America's engagement in directing business to rural markets.

Developing a STEM Workforce for Rural Communities. Another major economic development incentive trend used in retain and attracting technology companies is supporting the development of a workforce for this vital industry. Developing a technology industry workforce is essential for companies and regions focused on economic growth. Workers in the Science, Technology, Engineering and Math (STEM) fields are the core for any effort to build an energy friendly workforce. STEM workers constitute about 5 percent of the U.S. workforce, but accounts for more than 50 percent of the nation's sustained economic growth according to the Department of Labor. Again, according to the Department of Labor, if current trends continue, more than 90 percent of all scientists and engineers in the world will live in Asia. The growth in STEM related jobs is expected to exceed the demand for non-STEM related occupations. However, while the U.S. leads all industrial nations in the raw number of STEM graduates, the U.S. is losing ground when it comes to developing younger STEM workers to meet workforce demands created by retiring Baby Boomers.

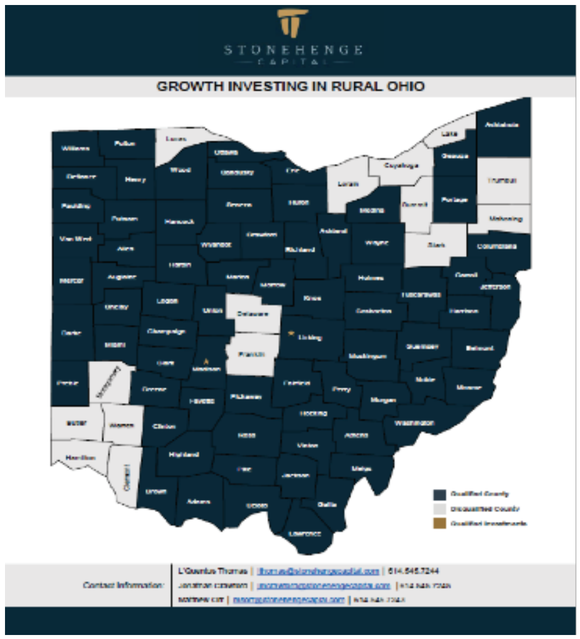
Florida is a leader in rural STEM workforce development. The Northeast Florida Education Consortium (NEFEC) Rural Initiatives for STEM Education (RISE) builds partnerships with STEM professionals to develop connections among students, teachers, schools, higher education, businesses and industries to develop a STEM workforce for Florida's rural regions. RISE builds partnerships with STEM professionals to provide:

- Independent and collaborative opportunities through workforce experiences for students
- Student and teacher mentoring opportunities with business, industry and community leaders
- Needs-driven professional development for local school educators, administrators, guidance counselors and teachers,
- Rigorous STEM challenges that engage students and teachers and help them to build conceptual understanding of STEM concepts.[54]

RISE seeks to develop connections among students, teachers, schools, higher education, businesses and industries to develop a STEM workforce for Florida's rural regions.[55] Florida's Rural Initiatives for STEM Education provides professional learning in content and pedagogy for teachers, leadership support for administrators, career support for guidance counselors, and opportunities for students.[56] RISE supports include professional learning in both STEM content and pedagogy for teachers, STEM leadership support for administrators, and STEM career support for guidance counselors, and also provides opportunities for students to engage in rigorous hands on STEM experiences.[57] The NEFEC STEM Expo features student projects and presentation that focuses on STEM careers, educational pathways, and college programs of study. In addition, students and teacher have the opportunity to discuss STEM careers, STEM programs of study, and campus-based STEM opportunities with post-secondary partners and STEM business representatives.[58] The

NEFEC 2017 STEM Expo is open to students and sponsoring teachers in NEFEC member districts to share STEM projects and/or presentations to a public audience, and this is an opportunity for students to speak to other students about their interests in STEM fields.[59] Business partners for this project include: Apple; Atkins; Duke Energy; Florida Works; and the Jacksonville Chamber of Commerce, and college partners include: Daytona State College; Embry-Riddle; Florida Gateway College; Florida State University; North Florida Community College; St. Johns River St. College; University of Florida; and University of North Florida.[60]

Building Rural Capital Access Capabilities. Access to capital is a critical issue facing the growth of technology and other companies in rural communities. The private sector is also involved in the promotion of capital investment in rural Ohio that is a key to its economic success. Stonehenge Capital Company, operates at the nexus of finance and community development and is a nationally recognized specialty finance company with expertise in tax credit finance, structured finance and private equity with over 60 professionals.



Stonehenge Growth Capital manages private equity, mezzanine and venture capital funds totaling over $700M and currently has investments in portfolio companies primarily with a focus in the Southeast, Northeast and Texas. Stonehenge Community Development has received and manages over $1.2 billion of federal and state New Markets Tax Credit (NMTC) allocations, including state NMTC funds in 13 states. Stonehenge has extensive experience structuring and financing over $3.0 billion in premium tax, income tax, and franchise state tax credits across the United States generated by film, historic rehabilitation, renewable energy, and brownfield projects. Stonehenge Capital is actively seeking investment opportunities in rural Ohio Businesses. Currently, Stonehenge has a $25M fund focused on investing in Ohio rural businesses, has made $3.5M investments to date and is actively seeking investment opportunities. Stonehenge's rural investments will be structured as non-bank senior debt with mezzanine debt, and equity financing, target investment range of $1.5M to $5M, with minimal Amortization and up to 7-year term. Stonehenge is focused on growth capital financing, recapitalization, equipment financing asset acquisition, and bridge financing. Prime investment candidates are: Businesses located in or relocating to rural Ohio

- Principal location in rural or minor-metro Ohio counties;
- Must have less than 250 total employees;
- Typically, at least $1M in revenue and profitable;
- Investments that have a positive job creation/retention impact;
- Proven management team with industry experience; and
- Stable operating history with compelling industry fundamentals.

Rural Innovation Centers Promote New Company Start-ups. Developing technology incubators and innovation centers is another step rural community have taken—often in partnership with a local university. The Ohio University Innovation Center is a business incubator that provides resources and guidance to startup companies located in Athens and the surrounding region.[61] Created in 1983 by Ohio University, the center was the first university-based business incubator in the State of Ohio and just the 12th in the United States.[62] The Ohio University Innovation Center is located in its custom-built 36,000 square foot facility on the west side of Athens and is a key player in fueling the economic development of Southeast Ohio.[63] The center supports its clients with a considerable range of resources including professional office space, biotechnology laboratories, meeting space, onsite executive coaching, access to an expansive network of experts and key office amenities like front desk reception, a fully-equipped business center, high-speed internet, USPS address, parking, and more.[64]

Universities can do more than operate an incubator or innovation center. They can promote entrepreneurship in a region. Again, Ohio University is taking a leading role in this effort to create new companies in rural Ohio and West Virginia. Entrepreneurs addressing the region's long-standing social challenges now have customized tools and assistance to create businesses, new jobs and social impact, as well as achieve financial success, with the Social Entrepreneurship Ecosystem (SEE) Appalachia.[65] Since its May 2017 launch, SEE has assisted more than 90 startups and small enterprises that address the most important social challenges facing Appalachia, and the program participants have already created 68 jobs and achieved more than $9 million in resources.[66] Led by Ohio University's Voinovich School of Leadership and Public Affairs, SEE is a partnership with Foundation for Appalachian Ohio, Parkersburg Area Community Foundation, Rural Action and experienced local expert consultants. SEE covers 13 counties in Ohio and West Virginia.[67]

Large public universities are not the only players in spurring innovation and company creation in rural communities. Ohio Christian University recently opened its Southern Gateway Economic Innovation Development Center — a new job creation and workforce development center at Ohio Christian University's Main Campus in Circleville, Ohio.[68] The Southern Gateway Economic Innovation Development Center is being developed as a public/private partnership to help attract new businesses and workforce opportunities to the tri-county region, and it will link education in Pickaway, Ross, and Fayette counties, providing a seamless system of expertise and learning that will prepare the community for success in the local economy.[69] The Southern Gateway Center is a $5 million, 24,000 square foot business incubator; it will serve Pickaway, Ross, and Fayette counties, and was funded in part through a federal Economic Development Administration, state Capital Budget Community Project and private grants.[70]

APPENDIX A

List of Rural Ohio, Missouri and North Carolina Rural Counties

Missouri Rural Counties	Rural North Carolina Counties	Rural Ohio Counties
Adair County, Missouri	Alexander County, North Carolina (37003)	Adams County, Ohio (39001)
Andrew County, Missouri	Alleghany County, North Carolina (37005)	Ashland County, Ohio (39005)
Atchison County, Missouri	Anson County, North Carolina (37007)	Ashtabula County, Ohio (39007)
Audrain County, Missouri	Ashe County, North Carolina (37009)	Athens County, Ohio (39009)
Barry County, Missouri	Avery County, North Carolina (37011)	Auglaize County, Ohio (39011)
Barton County, Missouri	Beaufort County, North Carolina (37013)	Belmont County, Ohio (39013)
Bates County, Missouri	Bertie County, North Carolina (37015)	Brown County, Ohio (39015)
Benton County, Missouri	Bladen County, North Carolina (37017)	Carroll County, Ohio (39019)
Bollinger County, Missouri	Brunswick County, North Carolina (37019)	Champaign County, Ohio (39021)
Buchanan County, Missouri	Burke County, North Carolina (37023)	Clinton County, Ohio (39027)
Butler County, Missouri	Caldwell County, North Carolina (37027)	Columbiana County, Ohio (39029)
Caldwell County, Missouri	Camden County, North Carolina (37029)	Coshocton County, Ohio (39031)
Callaway County, Missouri	Carteret County, North Carolina (37031)	Crawford County, Ohio (39033)
Camden County, Missouri	Caswell County, North Carolina (37033)	Darke County, Ohio (39037)
Cape Girardeau County, Missouri	Chatham County, North Carolina (37037)	Defiance County, Ohio (39039)
Carroll County, Missouri	Cherokee County, North Carolina (37039)	Erie County, Ohio (39043)
Carter County, Missouri	Chowan County, North Carolina (37041)	Fayette County, Ohio (39047)
Cass County, Missouri	Columbus County, North Carolina (37047)	Fulton County, Ohio (39051)
Cedar County, Missouri	Craven County, North Carolina (37049)	Gallia County, Ohio (39053)
Chariton County, Missouri	Currituck County, North Carolina (37053)	Guernsey County, Ohio (39059)
Christian County, Missouri	Dare County, North Carolina (37055)	Hancock County, Ohio (39063)
Clark County, Missouri	Davidson County, North Carolina (37057)	Hardin County, Ohio (39065)
Clinton County, Missouri	Davie County, North Carolina (37059)	Harrison County, Ohio (39067)
Cole County, Missouri	Duplin County, North Carolina (37061)	Henry County, Ohio (39069)
Cooper County, Missouri	Edgecombe County, North Carolina (37065)	Highland County, Ohio (39071)
Crawford County, Missouri	Franklin County, North Carolina (37069)	Hocking County, Ohio (39073)
Dade County, Missouri	Gates County, North Carolina (37073)	Holmes County, Ohio (39075)
Dallas County, Missouri	Graham County, North Carolina (37075)	Huron County, Ohio (39077)
Daviess County, Missouri	Granville County, North Carolina (37077)	Jackson County, Ohio (39079)
DeKalb County, Missouri	Greene County, North Carolina (37079)	Jefferson County, Ohio (39081)
Dent County, Missouri	Halifax County, North Carolina (37083)	Knox County, Ohio (39083)
Douglas County, Missouri	Haywood County, North Carolina (37087)	Lawrence County, Ohio (39087)
Dunklin County, Missouri	Hertford County, North Carolina (37091)	Logan County, Ohio (39091)
Franklin County, Missouri	Hoke County, North Carolina (37093)	Madison County, Ohio (39097)
Gasconade County, Missouri	Hyde County, North Carolina (37095)	Marion County, Ohio (39101)
Gentry County, Missouri	Jackson County, North Carolina (37099)	Meigs County, Ohio (39105)
Grundy County, Missouri	Lee County, North Carolina (37105)	Mercer County, Ohio (39107)
Harrison County, Missouri	Lenoir County, North Carolina (37107)	Monroe County, Ohio (39111)
Henry County, Missouri	McDowell County, North Carolina (37111)	Morgan County, Ohio (39115)
Hickory County, Missouri	Macon County, North Carolina (37113)	Morrow County, Ohio (39117)

Holt County, Missouri	Madison County, North Carolina (37115)	Muskingum County, Ohio (39119)
Howard County, Missouri	Martin County, North Carolina (37117)	Noble County, Ohio (39121)
Howell County, Missouri	Mitchell County, North Carolina (37121)	Ottawa County, Ohio (39123)
Iron County, Missouri	Montgomery County, North Carolina (37123)	Paulding County, Ohio (39125)
Jasper County, Missouri	Moore County, North Carolina (37125)	Perry County, Ohio (39127)
Johnson County, Missouri	Nash County, North Carolina (37127)	Pickaway County, Ohio (39129)
Knox County, Missouri	Northampton County, North Carolina (37131)	Pike County, Ohio (39131)
Laclede County, Missouri	Pamlico County, North Carolina (37137)	Preble County, Ohio (39135)
Lafayette County, Missouri	Pasquotank County, North Carolina (37139)	Putnam County, Ohio (39137)
Lawrence County, Missouri	Pender County, North Carolina (37141)	Ross County, Ohio (39141)
Lewis County, Missouri	Perquimans County, North Carolina (37143)	Sandusky County, Ohio (39143)
Lincoln County, Missouri	Person County, North Carolina (37145)	Scioto County, Ohio (39145)
Linn County, Missouri	Pitt County, North Carolina (37147)	Seneca County, Ohio (39147)
Livingston County, Missouri	Polk County, North Carolina (37149)	Shelby County, Ohio (39149)
McDonald County, Missouri	Randolph County, North Carolina (37151)	Tuscarawas County, Ohio (39157)
Macon County, Missouri	Richmond County, North Carolina (37153)	Union County, Ohio (39159)
Madison County, Missouri	Robeson County, North Carolina (37155)	Van Wert County, Ohio (39161)
Maries County, Missouri	Rockingham County, North Carolina (37157)	Vinton County, Ohio (39163)
Marion County, Missouri	Rutherford County, North Carolina (37161)	Washington County, Ohio (39167)
Mercer County, Missouri	Sampson County, North Carolina (37163)	Williams County, Ohio (39171)
Miller County, Missouri	Scotland County, North Carolina (37165)	Wyandot County, Ohio (39175)
Mississippi County, Missouri	Stanly County, North Carolina (37167)	
Moniteau County, Missouri	Stokes County, North Carolina (37169)	
Monroe County, Missouri	Surry County, North Carolina (37171)	
Montgomery County, Missouri	Swain County, North Carolina (37173)	
Morgan County, Missouri	Transylvania County, North Carolina (37175)	
New Madrid County, Missouri	Tyrrell County, North Carolina (37177)	
Newton County, Missouri	Union County, North Carolina (37179)	
Nodaway County, Missouri	Vance County, North Carolina (37181)	
Oregon County, Missouri	Warren County, North Carolina (37185)	
Osage County, Missouri	Washington County, North Carolina (37187)	
Ozark County, Missouri	Watauga County, North Carolina (37189)	
Pemiscot County, Missouri	Wayne County, North Carolina (37191)	
Perry County, Missouri	Wilkes County, North Carolina (37193)	
Pettis County, Missouri	Yadkin County, North Carolina (37197)	
Phelps County, Missouri	Yancey County, North Carolina (37199)	

Pike County, Missouri
Polk County, Missouri
Pulaski County, Missouri
Putnam County, Missouri
Ralls County, Missouri
Randolph County, Missouri
Ray County, Missouri
Reynolds County, Missouri
Ripley County, Missouri
St. Clair County, Missouri
Ste. Genevieve County, Missouri
St. Francois County, Missouri
Saline County, Missouri
Schuyler County, Missouri
Scotland County, Missouri
Scott County, Missouri
Shannon County, Missouri
Shelby County, Missouri
Stoddard County, Missouri
Stone County, Missouri
Sullivan County, Missouri
Taney County, Missouri
Texas County, Missouri
Vernon County, Missouri
Warren County, Missouri
Washington County, Missouri
Wayne County, Missouri
Webster County, Missouri
Worth County, Missouri
Wright County, Missouri

ENDNOTES

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