



# GREEN RIVER AREA DEVELOPMENT DISTRICT

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

2017-2021 EDITION

2020 UPDATE



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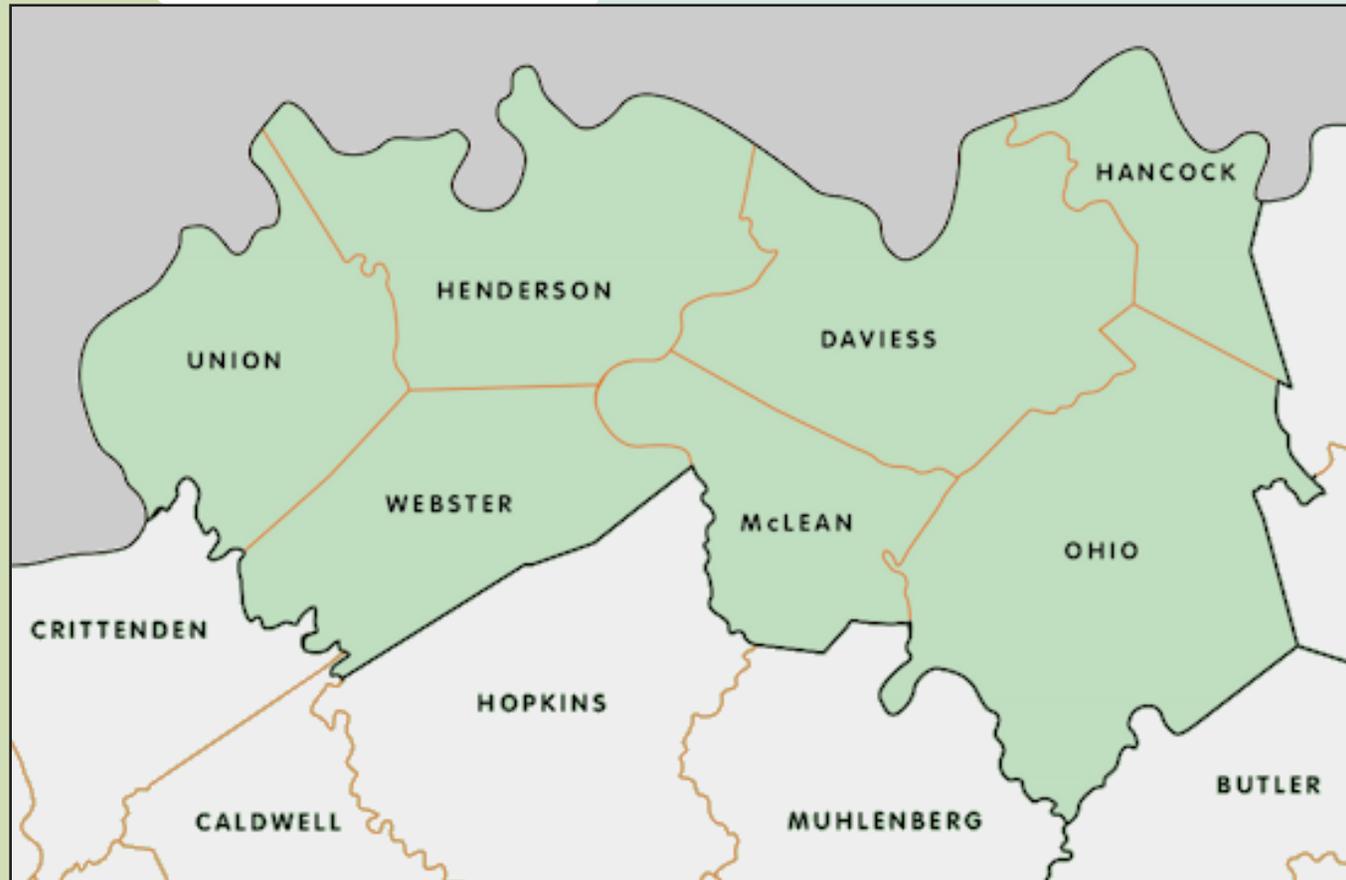
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## WHAT IS GRADD?

The Green River Area Development District is an Economic Development District (EDD) operating under the United States Economic Development Administration (EDA). GRADD includes seven counties in Northwestern Kentucky – Daviess, Hancock, Henderson, McLean, Ohio, Union, and Webster – and includes portions of the Green River and the Ohio River. GRADD serves 27 cities within its seven counties.

## WHAT IS A CEDS?

The Comprehensive Economic Development Strategy (CEDS) is a regional plan for economic growth and for developing resilience to economic shocks. The main parts of a CEDS are the [Summary Background](#), the [SWOT Analysis](#), the [Action Plan](#), and the [Evaluation Framework](#). The Summary Background explains the current conditions of the region. The SWOT Analysis flows into the Action Plan, and the Action Plan guides the Evaluation Framework. The Vision is inspired by the SWOT Analysis. All of the goals and objectives in the Action Plan are designed to bring the region's Vision to fruition.



# EXECUTIVE SUMMARY

The CEDS analyzes a variety of factors that impact the current economic status of the Green River Area Development District. In addition, the 2020 coronavirus pandemic has presented new challenges and obstacles to economic growth and well-being. Given the COVID-19 pandemic's impact to every aspect of life, it will be important to plan the region's recovery moving forward. Although the subject of COVID-19 was introduced in this CEDS plan, it is also necessary to create a COVID-19-specific plan. That project is in its earliest stages, with two staff members assessing the community needs and learning what will best allow the region to recover from the economic impacts of the pandemic and to become more resilient in the future if a similar event occurs again. Meetings with local governments, businesses, and individuals are taking the forefront of the efforts to find out those needs and innovative ideas for how to move forward. The plan will help the region prevent, prepare for, and respond to the coronavirus' shaping of the economy. Furthermore, a resource page on the GRADD website has been created as a one-stop location for resources regarding funding, loans, and other information about the pandemic in general. It can be viewed here: <https://www.gradd.com/covid-19-resources/>.



## Industry & Workforce Resiliency

COVID-19 has impacted all aspects of the economy across the globe. COVID-19 shutdowns and efforts to social distance in the workplace have resulted in a large spike in unemployment in the region, peaking in all counties upwards of 12% in April 2020. Dal-Tile, a major manufacturer and employer in Hancock County, was forced

to close in July, leaving its 67 employees without a job. While Owensboro has been able to bring unemployment rates down, the region as a whole may face a prolonged economic shock due to industry and business closures. Projects that encourage new investments in the region or that provide workforce development initiatives are important to increasing the region's resilience.



## Inadequate Broadband

Economic factors other than industry and workforce have also felt the influence of the pandemic in the Green River region, most noticeably in broadband. The greatest threat highlighted by the pandemic has been the region's lack of adequate broadband. Schools have migrated online to allow students to remain home, but many areas of the region have very poor or even no broadband capabilities. The broadband issue has put further stress on school districts who are already scrambling to adjust to the new normal. Employees cannot work from home and social distance if their home does not have sufficient internet speeds to complete their work. Many family households have students and parents learning and working from home and are unable to all work at once due to low bandwidth.



## Utility Revenue Loss

Another major concern caused by the pandemic is an enormous loss of revenue

for cities from their utilities. On May 8, 2020, Governor Beshear issued an executive order to halt utility disconnections due to non-payment and to waive the assessment of all late fees. This moratorium provided immediate relief to residents facing financial hardships due to the pandemic. However, non-payments through the life of the moratorium have created large budget shortfalls for cities. Customers have accrued large debts from non-payments that will eventually have to be paid back. Local utility providers are working with residential customers who are behind on payments to develop payment plans over at least six months, but city budget concerns will loom for at least the next year.



## Coal Mining Industry Decline

Separate from COVID-19 concerns, another major concern is the decline of the coal industry. Kentucky's economy has long relied on coal, especially in the GRADD region. Rising costs and environmental concerns have resulted in several mine closures within the past two years and the closure of two coal-fired power plants in favor of more cost-effective energy sources. It is vital that GRADD can diversify the economies of coal counties and provide workforce training to displaced mine workers.

The CEDS addresses these and other factors affecting the GRADD economy and strategizes ways to increase resilience and grow and strengthen the local economy.

# EXECUTIVE SUMMARY

## WHERE ARE WE NOW?

### STRENGTHS



- Well-developed transportation network
- Multiple options for higher education
- Low energy costs
- Low cost of living

### WEAKNESSES



- Retention of advanced degree holders
- Lack of jobs for advanced degree holders
- Not enough technically skilled workers
- Low entrepreneurship

### OPPORTUNITIES



- Tourism opportunities
- Infrastructure improvement
- Workforce development programs
- Development of new and innovative technology

### THREATS



- COVID-19
- Low industry diversity
- Decreasing state coal severance funds
- Adequate internet not available in all areas

## HOW DO WE MOVE FORWARD?

### GOAL 1

#### Create a diverse economy that is resilient to change.

Objective 1: Foster entrepreneurial efforts.

Objective 2: Encourage openness to diverse populations.

### GOAL 2

#### Strengthen the workforce and increase labor resilience.

Objective 1: Improve educational attainment.

Objective 2: Increase career readiness.

### GOAL 3

#### Encourage cooperation between counties.

Objective 1: Increase regional communication.

Objective 2: Collaborate to market the region.

### GOAL 4

#### Improve internet infrastructure.

Objective 1: Pursue upgrades to the ConnectGRADD network.

Objective 2: Pursue alternative options, including KentuckyWired.

## HOW ARE WE DOING?

### SHORT TERM

- Increase high school graduation rate to 95%
- Raise average ACT score above national average of 20.8

### MID TERM

- Increase number of businesses owned by women and minorities by 7%
- Increase post-secondary attainment by 3%

### LONG TERM

- Lower unemployment below state level of 4.0%
- Raise per capita income to state average of \$25,888

# SUMMARY BACKGROUND

## BROADBAND

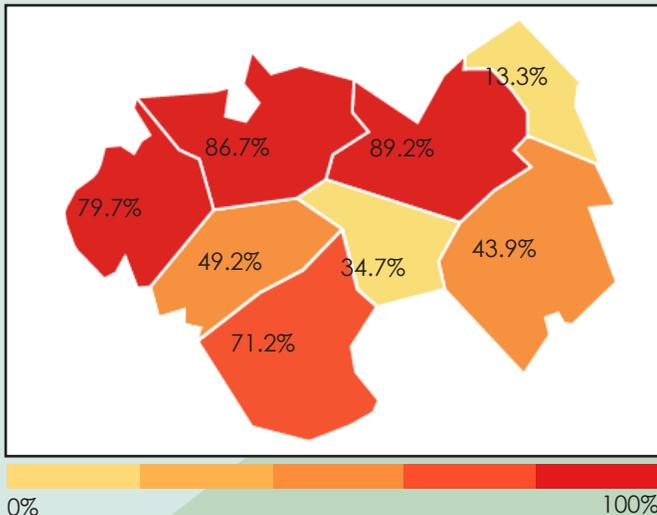
“WHAT HAVE WE DONE SO FAR?”

### The State of Broadband

The most significant need for economic development in the region is better broadband internet access. According to the U.S. Census Bureau, Kentucky ranks 44<sup>th</sup> in the country for broadband access. Because GRADD is primarily rural, there are many areas where internet access is inadequate or even completely unavailable. Even large companies sometimes struggle to get adequate internet service delivered. Internet service is a vital component to business, as well as everyday life. Inadequate broadband limits economic and educational opportunities and makes the region less attractive to people who use the internet to work remotely. One of GRADD's primary goals is to identify and pursue projects to improve broadband access in the region.

### FIXED BROADBAND AVAILABILITY

Percent of population with access to fixed broadband service at 25/3 mbps (FCC minimum definition of broadband) or higher advertised speeds



Source: Federal Communications Commission, Mapping Broadband Health in America, Broadband Gaps in America

### ConnectGRADD

ConnectGRADD is a partnership between GRADD and Watch Communications (formerly QWireless) to provide high speed internet to rural areas in the seven GRADD counties and neighboring Hopkins County. ConnectGRADD currently provides service at download speeds of two megabits per second (Mbps) to 20 Mbps to over 12,000 rural households. The Federal Communications Commission has identified 25 Mbps as the benchmark for adequate service speed. The organization is working to improve service, but the process will not be quick. In 2020, Henderson County was awarded \$339,320 from the Delta Regional Authority to upgrade three broadband communication stations to provide download speeds of 10 Mbps to 50 Mbps to currently unserved or underserved rural residents of Henderson County. The project will use three sites on the existing ConnectGRADD network where services are currently offered but speeds are limited. This project will bring an additional 7,121 businesses and households into ConnectGRADD's coverage area.

### KentuckyWired

KentuckyWired is a state-funded project to construct over 3,000 miles of high-speed, high-capacity fiber optic cable in every Kentucky county. Beginning in 2015, the project was originally scheduled to be completed by late 2018, but has faced significant delays. Currently, the project is scheduled to be completed by the end of 2020. As of June 2020, fiber optic cable construction was 95% completed, with remaining portions in Western Kentucky in progress or pending contract. A major obstacle to expanding broadband capabilities in rural Kentucky is the large cost to install the necessary infrastructure in areas that would have few customers. The significant investment and low expected payoff

discourage Internet Service Providers (ISPs) from locating in the area. The KentuckyWired project is a “middle-mile” initiative to provide the necessary infrastructure and encourage ISPs to connect to the network and bring faster, more reliable internet to rural areas.

### Impact of COVID-19

Technology and the internet are critical tools for continuing essential functions during the pandemic. School districts have mandated distance learning, heavily requiring the internet to complete assignments and view lessons. Many non-essential workers are being asked to work remotely using their home internet. Telehealth is becoming increasingly common as medical professionals look for ways to reduce in-person visits when possible. However, the capability to migrate daily activities online is not distributed evenly among the population. In rural areas, including much of GRADD, broadband availability is poor or literally non-existent. Without adequate broadband, these populations are severely disadvantaged.

Temporary solutions include distributing mobile hotspots or extending wifi from public buildings to be accessible from parking lots. Daviess County Fiscal Court and Daviess County Emergency Management partnered to develop hotspots at each of the county's seven volunteer fire departments for the public to use in their vehicles by parking nearby. These short-term solutions do not solve the larger issue at hand. The pandemic has only exacerbated the region's issues with broadband. In 2020 and beyond, internet infrastructure is as critical to the economic and physical health of the GRADD region as other, more traditional forms of public infrastructure. Projects that support enhanced broadband capabilities are vital in the long-term.

# SUMMARY BACKGROUND

## WORKFORCE DEVELOPMENT

“WHAT HAVE WE DONE SO FAR?”

Manufacturing is the region's largest industry with nearly 18,000<sup>1</sup> employees. Industry employers often struggle to fill open positions with employees who have the necessary technical skills and credentials. Several initiatives have been implemented across the GRADD region to increase the skilled workforce available to existing and potential new industries.

### The Kentucky Federation for Advanced Manufacturing Education (KY FAME)

KY FAME was created as a partnership between regional manufacturers and community colleges to provide career-pathway, apprenticeship-style technical education programs. The two local chapters, GO FAME and HCC FAME, have implemented programs through Owensboro Community and Technical College (OCTC) and Henderson Community College (HCC). Both programs offer an Advanced Manufacturing

Technician track, and GO FAME also offers a Computerized Manufacturing Machining track.

Students train in classes on two days of the week and work at a paired sponsor company for three days of the week. Upon graduation, students earn an associate degree and are on track to either enter the company as a full-time employee or to pursue an engineering or other bachelor-level degree. GO FAME has also created GO CAREERS, a business administration program at OCTC, to supplement the workforce for other growing industries in the region. COVID-19 has caused some disruptions to the FAME program. Moving classes online has been a challenge for some students, and some sponsor companies have limited the number of students they will sponsor. However, both HCC FAME and GO FAME are still allowing students some time on campus to complete hands-on training, and labs and both programs are continuing to operate.

To date, four cohorts have graduated from GO FAME and GO CAREERS with a total of 119 graduates, with an additional ten students graduating from HCC FAME. Thirty-one students are set to graduate from the GO FAME and GO CAREERS programs in 2021 and 27 more are on track to graduate in 2022.

### Greater Owensboro Facilitating Equitable Manufacturing and Leadership Educational Solutions (GO FEMALES)

GO FEMALES was developed by a collaborative partnership of local and state industry, workforce, and educational partners to provide technical training to underserved populations in the manufacturing workforce. By engaging non-traditional populations, GO FEMALES addresses the increasing need for skilled technicians and gender and socioeconomic disparities in career and wage advancement.



First GO FEMALES cohort

Owensboro Community and Technical College launched the first GO FEMALES cohort in 2019 in partnership with UniFirst Corporation, a uniform and workwear manufacturer with a large distribution center in Daviess County. Twenty female incumbent workers from UniFirst were selected to participate in the cohort. UniFirst supports the GO FEMALES initiative by paying participants full-time wages and benefits throughout the program, while providing eight hours a week of educational leave to attend classes.

The Green River Workforce Development Board and the Kentucky Education and Workforce Development Cabinet, using Workforce Innovation and Opportunity Act funds, provide GO FEMALES employees funds for training and required supplies. Funding is crucial



HCC FAME welding students in class

# SUMMARY BACKGROUND

## WORKFORCE DEVELOPMENT

“WHAT HAVE WE DONE SO FAR?”

to continue the efforts to advance women and other underserved populations in manufacturing.

The GO FEMALES program provides working adults unprecedented access to education by eliminating financial and accessibility barriers. Classes are held on-site, and lab training equipment is set up near UniFirst's actual production equipment. Offering instructional delivery at the worksite minimizes time away from production and maximizes worker participation and skill attainment. The GO FEMALES cohort completed their first semester with a 3.8 cumulative GPA, along with an exceptional retention rate of 95%.

### Kimberly Clark Incumbent Worker Training

Kimberly-Clark Corporation is undergoing a multi-million-dollar project to replace their current obsolete Distributive Control System with the newest technologies available. The company's manufacturing plant in Daviess County employs 357 employees, many of which needed extensive training to become proficient with the new system.

With Workforce Innovation and Opportunity Act funds, the Green River Workforce Development Board (GRWDB) assisted with the cost to provide training in the new technology to twenty-three employees through Owensboro Community and Technical College. This training program provided significant benefits both to the Kimberly-Clark Corporation and to the individual employees who participated. Kimberly-Clark was able to quickly and easily transition to the new system with employees who had the technical skills needed to operate it, and the employees who participated in the training gained transferable skills that have made them more competitive and resilient to changes in the manufacturing industry.

### Career EDGE

Career EDGE, a web-based platform to deliver virtual career services to job seekers, was implemented by the Kentucky Education and Workforce Development Cabinet in April 2020. Career EDGE consists of eighteen interactive modules with built-in virtual coaching, including a job interview simulator, resume and job application builder, guidance in developing a personal brand, and essential life skills curriculum to support career seekers in preparation for finding a job or advancing employment. This program helps job seekers to better prepare for job searching with remote access. During the pandemic, Career EDGE has built systems and implemented technologies to serve job seekers, employers, and staff 100% remotely.

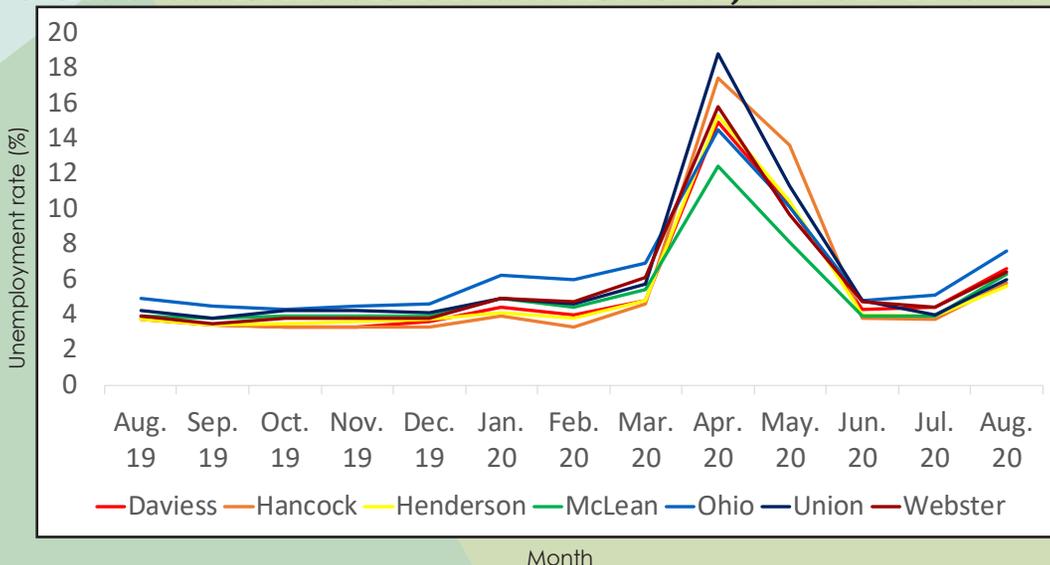
### National Dislocated Worker Grant

The unemployment rate in Kentucky skyrocketed during the summer of 2020, jumping

from 4.2% in February to 16.6% in April<sup>1</sup> as businesses began to feel the impact of social distancing and required closures. State and local workforce development leaders began developing programs to help workers impacted by the pandemic. The Kentucky Office of Employment and Training applied for and received a \$6 million National Dislocated Worker grant through the U.S. Department of Labor. From this allocation, the GRWDB applied for and received \$543,315 to develop a program to provide temporary jobs as well as career and training services to workers who have been displaced due to the COVID-19 pandemic.

The GRWDB will utilize this funding to assist residents of Daviess, Hancock, Henderson, McLean, Ohio, Union, and Webster Counties who have been laid off, who are underemployed, or who are unemployed for other reasons as a result of COVID-19.

**GRADD COUNTIES UNEMPLOYMENT RATE, MARCH - AUGUST 2020<sup>1</sup>**



<sup>1</sup>Source: U.S. Bureau of Labor Statistics

# COVID-19 UNEMPLOYMENT

## DEFINING OUR REGION

Owensboro is the only metropolitan area out of the 389 tracked by the Bureau of Labor Statistics where the average yearly unemployment decreased from June 2019 to June 2020. The unemployment rate was 4.4% in 2019 and lowered to 4.2% in 2020. Owensboro's monthly unemployment rate skyrocketed in April, similarly to the rest of the country. However, the city's unemployment rate was down to 4.2% within two months. In a time of great economic disruption caused by the coronavirus pandemic, Owensboro is the only city where the unemployment rate did not rise.

Owensboro may have fared so well with employment numbers because of the diverse economy of the metro area. With several large employers, there is no single sector responsible for a majority of the jobs. Many of the city's largest employers have been deemed essential during the pandemic. The largest of these employers – Owensboro Health – managed to keep all its employees on the payroll. While many non-emergency medical services were postponed,

employees working in those departments were reassigned to other departments that were still providing services. Despite the 65 percent revenue loss from an inability to perform elective surgeries in April, all 4,300 employees were still paid.

One of U.S. Bank's largest mortgage processing centers is located in Owensboro and is another major employer. A large demand for housing and low interest rates during the pandemic has kept the mortgage industry busy. Owensboro is also home to several manufacturers of essential items. Kimberly-Clark has worked to keep up with an increased demand for toilet paper, diapers, and other products. Another large employer in the city is the Ragu manufacturing plant. As a manufacturer of a food item, spaghetti sauce, Ragu was determined to be essential. UniFirst, maker of workplace uniforms, manufactures PPE and the uniforms that other essential workers wear every day.

With the alcoholic spirits industry deemed essential, the Green River Distilling Company (formerly the O.Z. Tyler Distillery) and Glenmore Distillery (owned by Sazerac) have also kept up their production. These companies have also expanded to manufacture hand sanitizer during the pandemic. The agriculture industry is another large employer in the area. This variety of employers kept Owensboro in business during an incredibly difficult time.



UniFirst and the Daviess County Fiscal Court each donated 10,000 masks to Audubon Area Community Services



Owensboro Health Regional Hospital

### Kentucky Labor Force Data, March - August 2020

	Mar 2020	Apr 2020	May 2020	June 2020	July 2020	Aug 2020
Civilian Labor Force <sup>1</sup>	2,066.3	2,052.3	2,029.3	1,920.7	1,837.4	2,010.8
Employment <sup>1</sup>	1,958.3	1,712.5	1,809.0	1,836.1	1,755.3	1,858.3
Unemployment <sup>1</sup>	108.0	339.7	220.3	84.6	82.1	152.5

Footnotes

(1) Number of persons, in thousands, non-seasonally adjusted.

<sup>1</sup>Source: U.S. Bureau of Labor Statistics

# SUMMARY BACKGROUND INDUSTRIAL DEVELOPMENT

“WHAT HAVE WE DONE SO FAR?”

Expansion of the manufacturing industry requires extensive land and resources to attract companies to a location. According to the Kentucky Cabinet for Economic Development, there are 29 industrial sites, buildings, or vacant land tracts available in the GRADD region. Fifteen of these sites are shovel-ready and four are build-ready. Shovel-ready sites have some site prep work done, some utilities available, and some transportation available. Build-ready sites have extensive site prep work completed, utilities available, and preliminary sketches of potential buildings.

The two largest regional parks are Bluegrass Crossings Business Centre and 4 Star Industrial Park, both of which are build-ready parks. In addition to meeting the criteria required of a build-ready site, both parks are fiber-ready, meaning that fiber-optic service can be extended to any lot in the park. Bluegrass Crossings Business Centre has 1,134 acres and serves Daviess, Hancock, McLean, and Ohio Counties, as well as neighboring Muhlenberg County. 4 Star Industrial Park has 334.5 acres and serves Henderson, McLean, Union, and Webster Counties.

In 2020, National Grid Renewables purchased approximately 1,500 acres in Henderson and Webster County, including 427 acres in 4 Star Industrial Park. Through a 20-year Power Purchase Agreement with Big Rivers Electric Corporation, Henderson Municipal Power and Light will purchase 100% of the output of the solar power plant. The facility is expected to produce 117 million kilowatt-hours of solar energy per year starting in 2023 and will fulfill about 20% of HMP&L's electricity demand.

## AVAILABLE SITES AND BUILDINGS

### SITES

● Shovel-Ready ● Build-Ready ● Located in an Opportunity Zone

Daviess	4701 Hwy 2830 East Industrial Site	●	
	MidAmerica Airpark	●	
	Owensboro-Daviess County Airport Site	●	
	Owensboro Riverport Rail Loop Site		●
Hancock	Skillman Bottoms		
	Hancock County Site 091-007	●	
	Lewisport Bozarth Property		
	Hawesville Site 091-006		
Henderson	Hancock County Industrial Park	●	
	City of Henderson Industrial Park	●	
	Henderson Ohio Drive Site	●	
	4 Star Industrial Park Sandy Lee Watkins Site	●	
Henderson	Henderson Bypass Rail Site	●	
	4 Star Industrial Park Building Pad	●	
	Henderson Site 101-025	●	
	Southside Site	●	
Ohio	Henderson Corporate Park	●	●
	Bluegrass Crossings Building Pad	●	●
Union	Bluegrass Crossings Business Centre	●	●
	Sturgis Airport Industrial Park	●	
Webster	Morganfield Industrial Park	●	●
	South Sebree Site	●	
	Webster County I-69 Business Park	●	

### BUILDINGS

Daviess	Marks Building	
Hancock	1765 River Road	
Henderson	Sitex Building	
Henderson	6217 Riverport Road	
Union	Morganfield Business Development Center	●
Webster	Former Carhart Building	

➔ [CLICK FOR MORE INFORMATION](#)

Source: Kentucky Cabinet for Economic Development

### OR VISIT:

[www.ced.ky.gov/locating\\_expanding/Available\\_Sites\\_Buildings.aspx](http://www.ced.ky.gov/locating_expanding/Available_Sites_Buildings.aspx)



Morganfield Business Development Center

# SUMMARY BACKGROUND

## OPPORTUNITY ZONES

“WHAT HAVE WE DONE SO FAR?”

### About Opportunity Zones

Seven Kentucky Opportunity Zones were established in the GRADD region by the U.S. Department of the Treasury and the Internal Revenue Service in 2018: one in Henderson, Union, and Webster Counties and two each in Daviess and Ohio Counties. The purpose of an Opportunity Zone is to encourage long-term private investment in low-income urban and rural communities by offering significant tax incentives to investors.

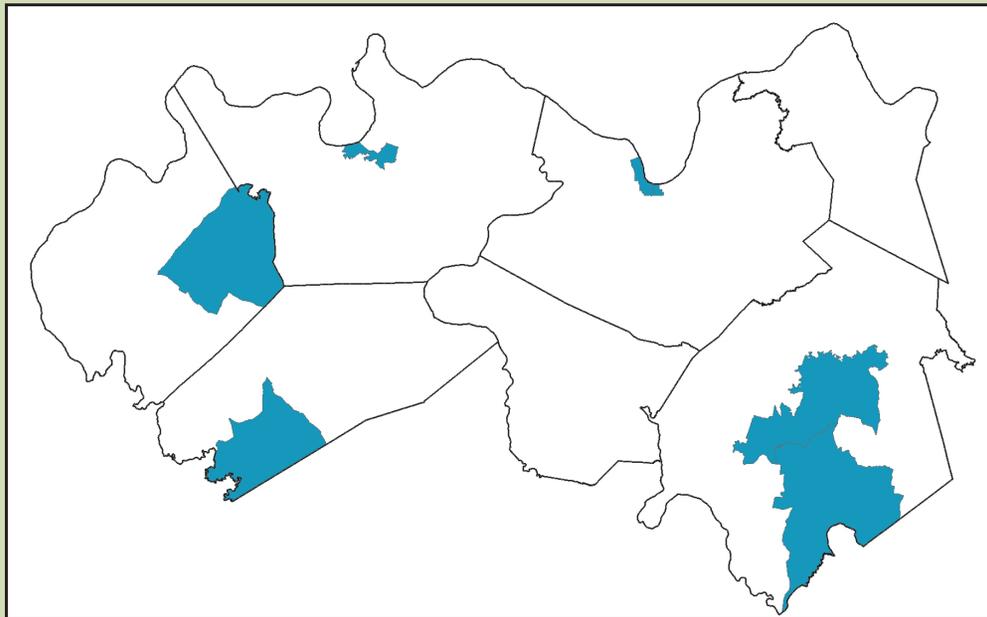
### Investments in Opportunity Zones

Investments in Opportunity Zones are made through Qualified Opportunity Funds (QOFs). A QOF is an investment vehicle organized as a corporation or partnership for the purpose of investing at least 90% of its assets in Qualified Opportunity Zone property. Qualified Opportunity Zone property includes partnership interests in businesses that operate in a Qualified Opportunity Zone, stock ownership in businesses that conduct most or all operations within a Qualified Opportunity Zone, or business property (like real estate) located within a Qualified Opportunity Zone. Business property investments must either be new use for the qualified property or double the basis of the building(s) on the qualified property within 30 months).



Available Build-Ready Opportunity Zone site in Bluegrass Crossings Business Centre in Ohio County

### GRADD OPPORTUNITY ZONES



### INVESTMENT INCENTIVES

A temporary tax deferral for capital gains reinvested in a QOF.

- The deferred gain must be recognized on the earlier of the date on which the Opportunity Zone investment is sold or December 31, 2026.

A step-up in basis for capital gains reinvested in a QOF.

- The basis of the original investment is increased by 10% if the investment in the QOF is held by the taxpayer for at least 5 years.
- If it is held for more than 7 years, the 10% becomes 15%.

A permanent exclusion from taxable income of capital gains from the sale or exchange of an investment in a QOF.

- The investment must be held for at least 10 years.
- This exclusion applies to the gains accrued from an investment in a QOF, not the original gains.

Federal Opportunity Zone deferrals will also be exempt from Kentucky income tax.

- For Kentucky income tax purposes, Opportunity Zone gain deferrals are treated the same as for federal purposes.

# SUMMARY BACKGROUND

## OPPORTUNITY ZONES

“WHAT HAVE WE DONE SO FAR?”

### Opportunity Zone Projects

GRADD has identified several projects within Opportunity Zones that will improve base infrastructure and further incentivize investments in those Opportunity Zones.

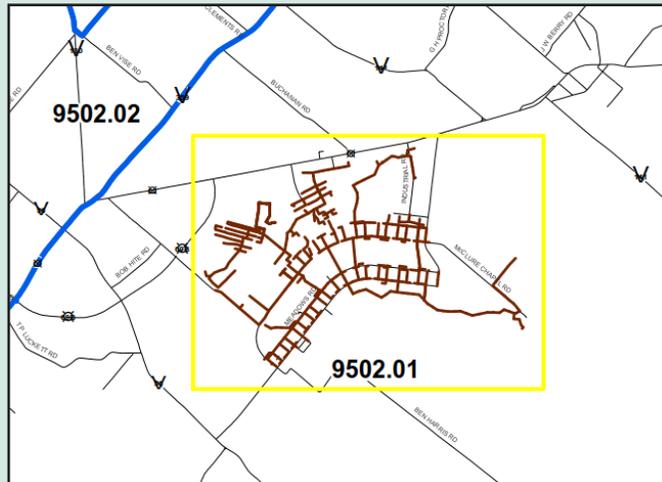
### Job Corps Sanitary Sewer Project

#### KIA Project Number SX21225035

The project consists of the following rehabilitation efforts regarding the Earle C. Clements Job Corps sewer system located in the City of Morganfield:

- Rehabilitation of approximately 67,000 LF of 8-inch clay pipe using cured-in-place pipe trenchless rehabilitation methods;
- Replacement of 18,000 LF of 8-inch sewer; and
- Replacement of 310 brick manholes in the Job Corps collection system which were installed in the 1940s.

### JOB CORPS SEWER PROJECT MAP



- Project Area
- Project Path

### Providence Sanitary Sewer Upgrades

#### KIA Project Number SX21233025

This is the first phase of a multiphase project to be completed over several years. This portion of the project includes a Sanitary Sewer Evaluation Survey (SSES). The SSES will include:

- CCTV and light cleaning of approximately 32,000 LF of sewer line,
- Heavy cleaning and root removal of approximately 8,000 LF of sewer line,
- Smoke testing of 32,000 LF of sewer line,
- Surveys of approximately 120 manholes,
- Cleaning of 6 pump stations.

The construction portion of the project will include the following components:

- Rehabilitation of approximately 10,000 LF of 8" gravity sewer;
- Replacement of approximately 2,000 LF of 8" gravity sewer;
- Approximately 100 service reinstatements for customers within the project area;
- Rehabilitation of approximately 100 manholes;
- Replacement of approximately 30 manholes;
- Replacement of 8,200 LF of undersized gravity lines (existing 6" to be replaced with 8");
- 20 point repairs; and
- Rehabilitation of 2 pump stations.

### Ravine Sewer Upgrade

#### KIA Project Number SX21059027

This project involves the reconstruction and upgrade of the Ravine Interceptor sewer (3,348 LF) that conveys combined sewage in the north central portion of Owensboro's combined sewer system. The condition of this line is unstable and there are structural issues with various sections of the pipe, including improper pipe sizing when originally installed.

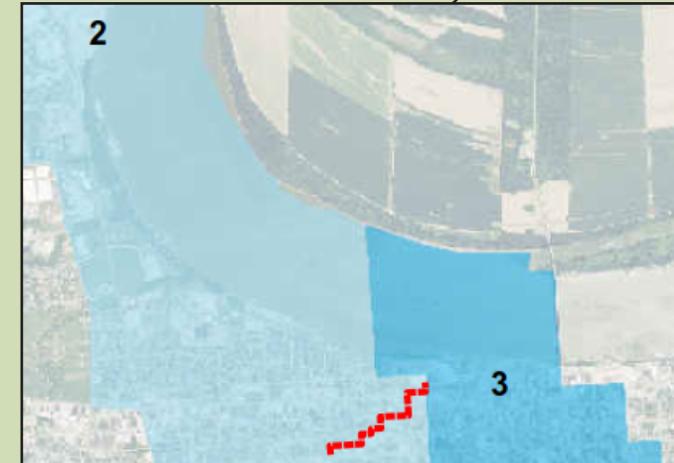
The line runs in a diagonal path across several city blocks that did not contain original dedicated easements that would have had

prohibited construction above the pipe. This in itself is problematic, and also creates potential damage to the structures if the line became compromised.

This project is designed to separate storm water and wastewater into separate pipes conveying storm water away and out of the combined sewer system that will in turn significantly reduce the storm water contribution to the combined sewer overflow.

At the downstream end of this project, the City of Owensboro is currently redeveloping multiple properties in the downtown area where storm and sanitary separation efforts have already been implemented. The timing of this project will be vital with the continuation of the redevelopment efforts. This project is the third phase involving up and down stream improvements and completing storm/sanitary separation improvements within this watershed.

### RAVINE SEWER PROJECT MAP



- Project Path
- Opportunity Zone Tract 3
- Opportunity Zone Tract 2

# COAL INDUSTRY DECLINE

## DEFINING OUR REGION

Coal mining has been an important industry in Kentucky since 1820, in both Appalachia and the Western Kentucky Coalfields, which includes GRADD. GRADD counties contribute significantly to Kentucky's coal economy, which extends beyond the industry's direct employment to jobs impacted by the coal industry in sectors varying from construction and transportation to service industries in mining communities.

Over the past several decades, the coal industry has significantly declined. The decline is primarily due to increasing operational costs associated with improving environmental regulations and a preference for less costly and more efficient energy methods like natural gas and solar energy.

Since 2019, four mines in the GRADD region have closed: Riveredge and Poplar Grove in McLean County, Genesis in Ohio County, and Dotiki in Webster County. The Dotiki mine was the last mine in Webster County, whose economy had been largely centered around coal for over one hundred years. The loss of a coal mine has a huge detrimental impact on rural counties. Mining jobs can pay up to \$100,000 a year, nearly four times the average per capita income in Kentucky. A



Last coal train out of Dotiki Mine

lack of comparable employment and industry diversity leaves former coal miners without many options for returning to the workforce. Additionally, coal mine closures impact the amount of coal severance revenue distributed to the county. Local Government Economic Assistance Fund (LGEAF) funds are distributed based on several factors, including the amount of coal severed. LGEAF funds can then be used by the county for a variety of types of projects, including public safety, public transportation, recreation, workforce training, and more. When mines close, the amount of coal severance funding drastically decreases. Workforce training and diversifying the energy industry are two necessary measures for the region to remain resilient against the loss of the coal industry.

Two coal-fired power plants in the GRADD region have also recently shut down. In May 2019, Big Rivers Electric Corporation ceased operations at the Station Two power plant in Sebree. The City of Henderson owned the power plant and had contracted with Big Rivers to operate it for almost five years. Henderson used the power it needed for the city and Big Rivers would sell the remainder on the open market. In February 2018, Big Rivers cut its contract with the city, saying it was no longer profitable for it to keep running the plant. Towards the end of Station Two's lifetime, it cost about 33 times more to produce energy than it cost to buy it on the open market. In 2020, National Grid Renewables purchased approximately 1,500 acres in Henderson and Webster County to become a solar farm. Through a 20-year agreement with Big Rivers Electric Corporation, Henderson Municipal Power and Light will purchase 100% of the output of the solar power plant starting in 2023, which will fulfill about 20% of HMP&L's electricity demand.



Elmer Smith Power Plant

In May 2020, Owensboro's Elmer Smith power plant followed suit. Owensboro Municipal Utilities, the owner and operator of the plant, similarly cited diminished profitability in its decision to close the plant. OMU has since implemented a contract to purchase power from Big Rivers Electric Corporation. They also have a contract in place to purchase solar power from Ashwood Solar beginning in 2022. Ashwood Solar has an 800-acre solar farm in Lyon County, Kentucky, which is about 70 miles southeast of the GRADD region.

Webster County has partnered with Madisonville Community College and Henderson Community College to develop a new Western Kentucky Regional Training Center. The project will acquire a building formerly used by a coal mine in Webster County to house training programs for Commercial Driver's License (CDL), utility linemen, and diesel mechanics. Similar trainings available at the Madisonville Community College have extensive wait lists for admissions, while the demand for CDL and utility linemen continues to rise. The program will provide dislocated coal miners with access to workforce training and certifications in high-demand fields.

# SUMMARY BACKGROUND

## INFRASTRUCTURE

“WHAT HAVE WE DONE SO FAR?”

### Kentucky Infrastructure Authority WRIS Portal

GRADD has made improving water and sewer infrastructure a top priority. One of the largest obstacles to infrastructure projects is the large cost associated with major projects. The Kentucky Infrastructure Authority (KIA) works to develop water and sewer infrastructure throughout the state by helping communities secure the funding needed to complete projects. KIA works with the Area Development Districts to maintain the [Water Resource Information System \(WRIS\)](#), an online database of identified projects under the Safe Drinking Water Act and the Clean Water Act. The WRIS portal is critical in helping communities identify and prioritize their water and sewer needs and develop their projects and find funding assistance. The WRIS portal also contains mapping and general information about water and wastewater systems throughout the state, which can also be a helpful tool in identifying needs and developing projects.

### GRADD Projects

Infrastructure projects in the GRADD region have been very successful. Some recently completed major infrastructure projects include the Friendly Village Subdivision Project in Daviess County, the Clay Waterline Replacement Project in Webster County, and the McLean County Regional Water Plant Project.

The Friendly Village Subdivision Project involved the abandonment of a failing package plant serving 69 single family homes in the Friendly Village Subdivision, as well as approximately 25 nearby mobile homes. The project replaced the package plant with a new pump station and force main to redirect wastewater to the Regional Water Resource Agency (RWRA) sewer collection system approximately five miles away.



*Groundbreaking of the McLean County Regional Water Commission in October 2015*

The Clay Waterline Replacement Project replaced deteriorated cast-iron waterlines for several residential streets. The old waterlines were installed in the 1970s and could no longer carry proper volume and pressure; 68 households and 12 businesses were affected by this project. This project and the Friendly Village Project were completed in late 2019.

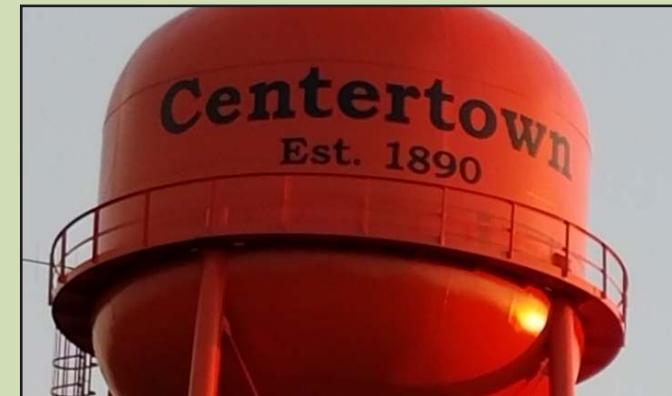
The McLean County Regional Water Plant Project was a massive undertaking to consolidate several independent water systems in McLean County. The project included the construction of a new water treatment plant, the purchase of the existing plant in Calhoun, the construction of interconnects to Sacramento and Island, boring across the Green River between Island and Livermore, installation of one new pump station, and installation of five new master meters. The project received the 2018 H2O Award for Outstanding Drinking Water Project.

These projects are only a few of many recent important infrastructure improvements made possible in the GRADD region by federal and state funding sources administered by the Kentucky Department for Local Government, including Community Development Block Grants, and KIA loans and planning assistance.

### Impact of COVID-19

On May 8, 2020, Governor Beshear issued an executive order to halt utility disconnections due to non-payment and to waive the assessment of all late fees for the duration of the State of Emergency issued in Executive Order 2020-215. This moratorium provided immediate relief to residents facing financial hardships due to the pandemic. However, nonpayments through the life of the moratorium have created financial hardships for cities and customers moving forward.

The moratorium was lifted on November 6, 2020 in an Executive Order that also designated \$15 million of federal COVID-19 relief funds to assist Kentuckians who are late on payments to catch up and prevent disconnection. However, a survey of utilities across the state conducted by the Kentucky Public Service Commission (KPSC) indicated that customers were behind on approximately \$75 million in payments. According to the survey, the KPSC estimates that the number could rise to at least \$150 million by the end of the year. Local utility providers are working with residential customers who are behind on payments to develop payment plans over at least six months. However, city utility providers are struggling to recover from the huge blow to their revenue.



*Water Storage tower in Centertown completed in 2009*



# SUMMARY BACKGROUND

## EDUCATION

“WHAT HAVE WE DONE SO FAR?”

### Secondary Education

Populations with high numbers of college graduates are able to attract new industries which pay higher wages and raise the quality of life while also diversifying the economy and increasing the region's resiliency to potential economic shocks. GRADD has two four-year colleges, Kentucky Wesleyan College and Brescia University, both in Owensboro.

Western Kentucky University in Bowling Green is about forty-five minutes south of Beaver Dam and has a regional campus in Owensboro. Murray State University also operates a regional campus in Henderson, as well as in nearby Madisonville. In southern Indiana, the University of Evansville and the University of Southern Indiana offer out-of-state universities less than a half an hour away from Henderson. However, GRADD struggles to retain college graduates. The percentage of residents over 25 years old with a bachelor's degree or higher ranges from 22.9% in Daviess County to only 9.8% in Webster County.

The Kentucky Community and Technical College System has many programs for both STEM and non-STEM associate's degrees and certificates. GRADD has two community colleges, one in Owensboro and one in Henderson. GRADD residents also often travel to Madisonville Community College in Hopkins County, which borders McLean and Webster Counties.

### K-12 Education

To support post-secondary degree attainment and to promote career skills development, GRADD emphasizes college and career readiness in K-12 education. Programs with a STEM focus are particularly important to the region's educational system. Several special programs have been created across the region to help increase educational performance and

attainment.

- Project Lead the Way is a national nonprofit organization that develops STEM curricula for elementary, middle, and high school students and is designed to encourage students to pursue careers in STEM fields. Fifteen schools in GRADD have implemented the program.
- In Daviess County, the Early College Academy allows students from two high schools to complete dual-credit courses at Owensboro Community and Technical College to earn an associate degree upon graduation from high school.
- The Owensboro Innovation Academy (OIA) is an alternative school which accepts students from both the city and county school districts and focuses on STEM fields. Students may choose to focus on computer science, engineering, or biomedicine courses and are also required to complete entrepreneurship courses, community service, and internships.

In 2020, the Delta Regional Authority awarded approximately \$245,000 to the Webster County Fiscal Court to purchase new training equipment for the Webster County Area Technology Center (ATC). The ATC provides both academic education and technical training to high school students in the area, in programs such as manufacturing, industrial maintenance, and computer-aided design (CAD). The grant will allow the ATC to purchase much needed updated equipment to ensure that graduates have the skills needed to operate the industry standard in machinery and technology.

### Impact of COVID-19

K-12 schools and secondary education institutions have had to rely on distance learning during the pandemic. Some schools initially allowed hybrid learning, providing students with

socially distanced in-person learning on some days and distance learning on others.

However, in November 2020, all school districts in Kentucky were mandated to operate fully through distance learning. Many challenges to this system have become apparent, including lack of childcare for children whose caregivers must work outside of the home during school hours. Some facilities, like the YMCA and the Cliff Hagan Boys & Girls Club, have offered childcare during school hours. However, employees are not trained educators.

Broadband presents perhaps the most significant obstacle to distance learning. Many students, particularly those in rural or low-income households, have poor or no access to the internet. Students in these households are severely disadvantaged by the distance learning system. This issue highlights the region's ongoing struggle to provide adequate broadband access to all residents.



Owensboro Innovation Middle School students attending in-person hybrid classes

# SUMMARY BACKGROUND

## TRANSPORTATION

“WHAT HAVE WE DONE SO FAR?”

### Infrastructure

Within the past ten years, the GRADD region has completed the I-69 designation of the Pennyrile Parkway from Henderson to I-24, the I-165 Spur designation of the Natcher Parkway from Owensboro to Bowling Green, the Wendell Ford Expressway (Bypass) designation as US 60 through Owensboro, and the US 60 Bypass extension in Owensboro.

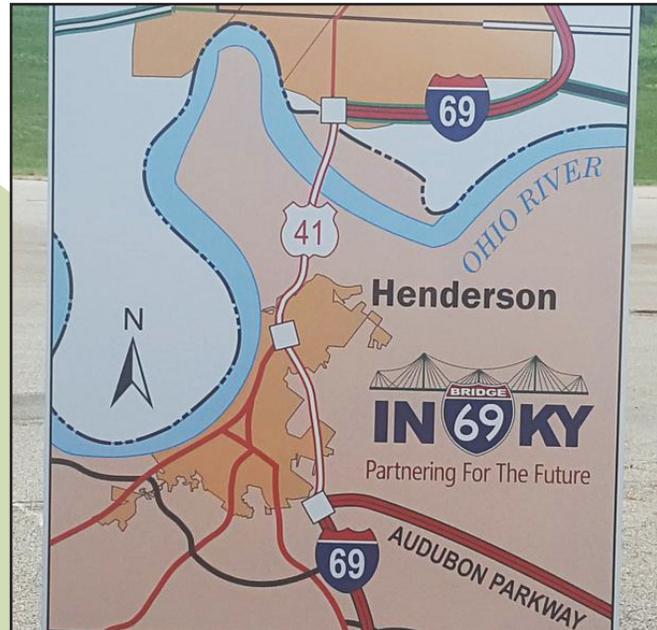
All GRADD counties except Hancock are top state agricultural producers, and the manufacturing industry is the largest employer in the region; therefore, the ability to transport goods quickly and efficiently is essential to the economy. The region is also located 60 miles from Pike County, IN which the U.S. Census Bureau determined is the median center of population in 2010. Because of its location, the region sees heavy traffic from distributors transporting goods.

Several important projects are currently in development or are scheduled to be in the near future. In 2019, legislation was passed to designate a portion of the Western Kentucky Parkway as an I-69 spur. The segment runs from the I-69/I-169 interchange near Nortonville in Hopkins County to the I-65 interchange near Beaver Dam in Ohio County. Improvements are needed to upgrade the road to interstate standards before it can be designated as I-569.

The FY 2020-2026 Kentucky Highway Plan includes projects to widen KY-54 in Daviess County from the US-60 Bypass to Jack Hinton Road to accommodate increased traffic due to significant rapid commercial development in the area during the past several years.

A bi-state plan to build a bridge connecting the Indiana and Kentucky I-69 segments has

been prioritized by both states. The bridge would connect Henderson, KY to Evansville, IN and would increase interstate traffic in the GRADD area. The bridge would complete the Kentucky portion of I-69.



I-69 Bridge Plan

Two projects listed in the FY 2020-2026 Kentucky Highway Plan relate to the proposed I-69 bridge: the first is to construct the portion of the Ohio River Bridge Crossing Project from the Henderson Bypass (KY-425) to US-60; the second is to work with the Indiana Department of Transportation to develop a \$1.1 billion Bi-State Package to create the bridge crossing over the Ohio River into Evansville, Indiana.

According to the American Society of Civil Engineers 2017 Infrastructure Report Card, only 8% of Kentucky's roads are in poor condition. This figure ties Kentucky with Indiana and Tennessee for having the third best roads in the U.S. As of

2015, 8.3% of bridges in Kentucky were structurally deficient, but according to data from the 2015 [National Bridge Inventory \(as compiled by the Washington Post\)](#), only 6.7% of bridges in GRADD counties were deficient. In 2019, Kentucky began to upgrade or replace structurally deficient bridges through the Bridging Kentucky program.

Henderson and Owensboro have riverports that are certified Foreign Trade Zones and have access to road and rail traffic. Having access to river transportation is a huge advantage, as barges are able to carry more cargo using less fuel than other methods of transportation. The ports are connected by the Ohio River to the Mississippi River System, which is one of the largest and most important trade networks in the U.S.

Five GRADD counties (Daviess, Hancock, Henderson, Ohio, and Union) have an airport located near industrial parks and sites for quick transportation of goods. CSX rail lines run through four counties and provide access to the two riverports. Smaller rail lines run through Ohio and Webster Counties.

### Public Transportation

Door-to-door public transportation for people with disabilities is provided throughout all seven counties at low or no cost by the Green River Intra-Transit System (GRITS). Medicaid-eligible clients without vehicles are provided transportation to approved Medicaid appointments at no cost. Fee-per mile service is available to the general public to anyone for any purpose. Fixed-route public transportation is available in Owensboro and Henderson through the Owensboro Transit System (OTS) and the Henderson Area Rapid Transit (HART). OTS and HART do not operate on Sundays. Fixed-route public transportation isn't available anywhere else in the region, limiting resources and opportunities for rural residents.

# SUMMARY BACKGROUND

## HOUSING & COMMUNITY DEVELOPMENT

“WHAT HAVE WE DONE SO FAR?”

### Housing Priorities

One of the most significant housing concerns throughout the region is a lack of moderately-priced single family homes for sale. Twenty-five percent of households are spending 30.0% or more of their monthly income on housing expenses.<sup>1</sup> For households earning less than \$20,000 annually, 74.7% are spending 30.0% or more of their income on housing expenses.<sup>1</sup>

Other priorities include expanding apartment availability near major employers and developing mid-range housing options in downtown areas for young professionals. Particularly in rural areas, walkability levels are low. Development of sidewalks from neighborhoods to destinations like grocery stores, schools, and retail shops is important to ensure that neighborhoods are safe and that residents are able to easily access important facilities.

### Recovery Kentucky

Funding through the Recovery Kentucky CDBG program has enabled two housing and substance abuse recovery facilities to operate in the GRADD region. Owensboro Regional Recovery (ORR) is a men's substance abuse recovery program in Owensboro and the Women's Addiction Recovery Manor (WARM) is a women's substance abuse recovery program in Henderson. ORR is one of ten men's Recovery Kentucky centers in the state and WARM is one of eight women's centers. These programs receive operational funding annually through CDBG's Public Services program and help combat both homelessness and substance abuse in the Commonwealth.

Recovery Kentucky centers across the state, including ORR and WARM, have faced severe financial hardships due to COVID-19. Funding for educational, workforce training, and

other programs for the residents of Recovery Kentucky Centers primarily comes from the Department of Corrections, who refers clients to the centers and subsidizes their participation in the Recovery Kentucky program. The Department of Corrections has drastically reduced the number of client referrals being made across the state due to delayed court sessions, reduced face-to-face contact between probationers and parolees and officers, quarantines to prevent new referrals from potentially spreading the virus to other clients or staff, and lowered capacities to adhere to social distancing requirements.



Owensboro Regional Recovery Sign

The loss of income in combination with large unbudgeted expenses for PPE and cleaning and sanitizing equipment leave both ORR and WARM in dire need of financial assistance to prevent the elimination of programs that help some of the region's most vulnerable people recover from substance abuse disorder.

### Community Development

Community services are an important factor to quality of life. Community development projects enhance the services that a city or county can provide to residents. Leveraging existing funds with grant funding allows GRADD communities to develop quality recreational opportunities and enhanced public safety initiatives. With better facilities, communities are

able to improve the quality of life of residents and retain and attract skilled workers who in turn will help the economy grow.

Several large community projects funded through the Community Development Block Grant (CDBG) program began construction in 2020, including the construction of a new public library in Lewisport and the renovation of the Livermore Fire Station.

Other important community development projects include park renovations, recreational trail development, police and firefighting equipment, and emergency communications technology. One of the most significant recent community projects is the Jeffreys Cliffs project in Hancock County. The Jeffreys Cliffs Conservation and Recreation Area opened to the public in June 2020 after several years of development and collaboration between the Hancock County Fiscal Court, the Kentucky Heritage Land Conservation Board, and the Hancock County Heritage Commission. The area is a 230-acre sandstone plateau formation with nearly five miles of hiking trails and some of the largest rock shelters in Kentucky, including Morgan's Cave.



Morgan's Cave in Hancock County

<sup>1</sup>Source: U.S. Census Bureau, 2019 ACS

# SUMMARY BACKGROUND

## AGRICULTURE

“WHAT HAVE WE DONE SO FAR?”

### GRADD Agriculture

Agriculture remains an important part of Kentucky's economy, including the Green River region. According to the 2017 Census of Agriculture (most recent data available), GRADD counties had 3,733 farms containing approximately 1,736 square miles of farmland. The market value of products sold by GRADD farms totaled over \$872.5 million and net income of GRADD farms totaled nearly \$323.8 million.

All GRADD counties except Hancock rank in the top 20 Kentucky counties for market value of agricultural products sold. Agricultural sales from Daviess, Henderson, McLean, Ohio, Union, and Webster Counties make up 14% of Kentucky's total agriculture sales. Daviess and McLean Counties have the top overall agricultural sales in the Green River area and rank 5<sup>th</sup> and 6<sup>th</sup> in the state, respectively.



Soybean farm in Union County

### GRADD COUNTIES IN THE TOP 5 KENTUCKY PRODUCERS, BY PRODUCT



#### SOYBEANS

Daviess	1 <sup>st</sup>	5.6 million bushels
Henderson	3 <sup>rd</sup>	4.6 million bushels
Union	5 <sup>th</sup>	4.3 million bushels



#### BROILERS

McLean	2 <sup>nd</sup>	29.3 million broilers
Webster	4 <sup>th</sup>	23.0 million broilers
Ohio	5 <sup>th</sup>	19.5 million broilers



#### CORN

Union	2 <sup>nd</sup>	14.7 million bushels
Daviess	3 <sup>rd</sup>	13.2 million bushels



#### TOBACCO

Daviess	4 <sup>th</sup>	7.1 million pounds
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### MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD BY GRADD COUNTY



#### CROPS

	Sales (\$1,000)	Rank in State
<b>Daviess</b>	<b>119,690</b>	<b>2</b>
Hancock	8,335	67
<b>Henderson</b>	<b>86,857</b>	<b>6</b>
<b>McLean</b>	<b>56,751</b>	<b>11</b>
Ohio	37,715	26
<b>Union</b>	<b>100,706</b>	<b>5</b>
<b>Webster</b>	<b>53,150</b>	<b>12</b>



#### LIVESTOCK, POULTRY, & PRODUCTS

	Sales (\$1,000)	Rank in State
<b>Daviess</b>	<b>66,189</b>	<b>14</b>
Hancock	3,263	86
Henderson	10,840	63
<b>McLean</b>	<b>134,087</b>	<b>4</b>
<b>Ohio</b>	<b>98,054</b>	<b>7</b>
Union	8,147	69
<b>Webster</b>	<b>88,732</b>	<b>9</b>



#### TOTAL

	Sales (\$1,000)	Rank in State
<b>Daviess</b>	<b>185,879</b>	<b>6</b>
Hancock	11,597	77
<b>Henderson</b>	<b>97,697</b>	<b>20</b>
<b>McLean</b>	<b>190,838</b>	<b>5</b>
<b>Ohio</b>	<b>135,769</b>	<b>11</b>
<b>Union</b>	<b>108,853</b>	<b>16</b>
<b>Webster</b>	<b>141,882</b>	<b>10</b>

Source: United States Department of Agriculture, National Agricultural Statistics Service, 2017 Agricultural Census

# SUMMARY BACKGROUND

## TOURISM & CULTURE

“WHAT HAVE WE DONE SO FAR?”

### Environment

The Green River is one of the most important ecological features in the region, home to more than 150 species of fish and endangered mussels. The river is a popular recreational area, with visitors boating and camping nearby. The Kentucky Drag Boat Association annually hosts the Thunder on the Green on the Green River at Livermore. The Green River State Forest in Henderson County is also open to the public for hunting, fishing, and hiking. The Ohio River on the northern border of GRADD is also an option for recreational boating.



*Thunder on the Green in Livermore*

In 2016, the John James Audubon State Park in Henderson County acquired 649 acres of adjacent wetlands and doubled its size. The park offers numerous outdoor recreational activities to visitors, including birding, boating, camping, fishing, and trail exploration. While it is the only state park in GRADD, the region has many parks and trails available for public use. Deer Creek Lodge in Sebree draws in hundreds of hunters and fishermen from around the world.

### Bluegrass, Blues, & BBQ

Tourism has the opportunity to become a much larger industry in the region because of

its deep roots in bluegrass music. The Bill Monroe Museum opened in April 2018 in Rosine (Ohio County), Monroe's birthplace. The museum is the only one in the world entirely dedicated to the Father of Bluegrass. The Rosine Barn Jamboree offers live bluegrass music and dancing weekly from March to December. The Bluegrass Music Hall of Fame and Museum opened in Owensboro in late 2018.



*The Barn Jamboree in Rosine*

Livermore in McLean County, and Hartford in Ohio County, are working toward becoming Certified Kentucky Trail Towns. In addition, Owensboro has been designated as a Kentucky Bourbon Trail Town, featuring the Green River Distilling Company (formerly the O.Z. Tyler Distillery).

### COVID-19 Impact

Annual county fairs and festivals of all sorts are popular events, drawing in crowds from throughout the Green River region and beyond. Three of the most popular festivals are the W.C. Handy Blues and Barbecue Festival in Henderson, the River of Music Party (ROMP) in Owensboro, and the International Bar-B-Q Festival in Owensboro, the “BBQ Capital of the World.” The pandemic has forced the cancellation of live events, but

some festivals were able to offer innovative virtual options in place of traditional festivities.

June 2020 would have been the 30<sup>th</sup> annual W.C. Handy Blues and Barbecue Festival, but the live festival was canceled due to the COVID-19 pandemic. Instead, festival organizers partnered with the Henderson Brewing Company and Tom's Smokin' Bar-B-Q to create Handy to Go, a virtual version of the festival. From June 17<sup>th</sup> to 19<sup>th</sup>, the Henderson Brewing Company offered six-packs of Handy Festbier beer, a popular W.C. Handy Festival brew, and other seasonal beers available for carryout. Tom's Smokin' Bar-B-Q, one of the food vendors traditionally at the festival, stationed a food truck outside of the brewery for patrons to pick up barbecue to go. Finally, packs of Festbier included a QR code that linked to a curated playlist on Spotify containing three hours of music from artists who had been scheduled to perform at the 2020 Handymfest. Similarly, the ROMP festival in Owensboro canceled in-person events, but hosted a five-day online celebration with photos and videos from past festivals dating back to the first ROMP held in 2004.



*Henderson Brewing Co. employees with Handy Festbier for the virtual Handy to Go Festival*

# SUMMARY BACKGROUND

## INNOVATION INDEX

“WHAT HAVE WE DONE SO FAR?”

A region's capacity for innovation is important to its economic growth and resilience. The [StatsAmerica Innovation 2.0 Tool](#) is an interactive online tool which assesses a region's innovation inputs and outputs and assigns an index level to each county and economic development district based on how they compare to other regions. The Innovation 2.0 tool measures three innovation inputs (Human Capital and Knowledge Creation, Business Dynamics, and Business Profile) and two innovation outputs (Employment and Productivity and Economic Well-Being). Based on data from each of the other indexes, the tool also establishes an overall capacity for innovation (Headline Index). The data used to determine the rankings is from 2016 (Innovation 2.0 Tool's most recent data).

### INNOVATION INPUTS

#### Human Capital and Knowledge Index

Includes factors that affect a region's ability to engage in innovative activities (i.e., population growth of people aged 25-44, educational attainment, technology diffusion, and STEM education and occupations)

#### Business Profile Index

Includes factors that show a region's local business conditions and the resources it has available to entrepreneurs and businesses (i.e., broadband connectivity, number of small and large businesses, proportion of high-tech firms to the national proportion, and statistics about proprietors)

#### Business Dynamic Index

Includes factors that measure a region's competitiveness (i.e., entry/exit of businesses, formation of new businesses, and venture capital spending)

### INNOVATION OUTPUTS

#### Employment and Productivity index

Includes factors that show economic growth, regional desirability, or direct outcomes of innovative activity (i.e., job growth to population growth ratio, industry performance, gross domestic product, and patents)

#### Economic Well-Being Index

Includes factors that measure a region's standard of living as a result of innovative activity (i.e., per capita personal income growth, growth in wage/salary earnings per worker, income inequality, poverty rate, and unemployment rate)

### HEADLINE INDEX

OVERALL CAPACITY FOR INNOVATION

## GRADD INNOVATION INDEX

		GRADD	Daviess	Hancock	Henderson	McLean	Ohio	Union	Webster
 <b>Very High</b>	Human Capital & Knowledge Creation								
 <b>High</b>	Business Profile								
 <b>Normal</b>	Business Dynamics								
 <b>Low</b>	Employment & Productivity								
 <b>Low</b>	Economic Well-Being								
 <b>Very Low</b>	<b>Headline Index</b>								

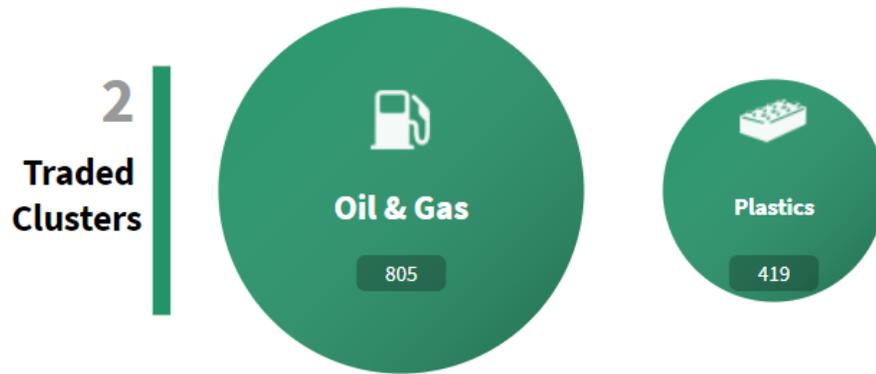
# SUMMARY BACKGROUND

## ECONOMIC CLUSTERS

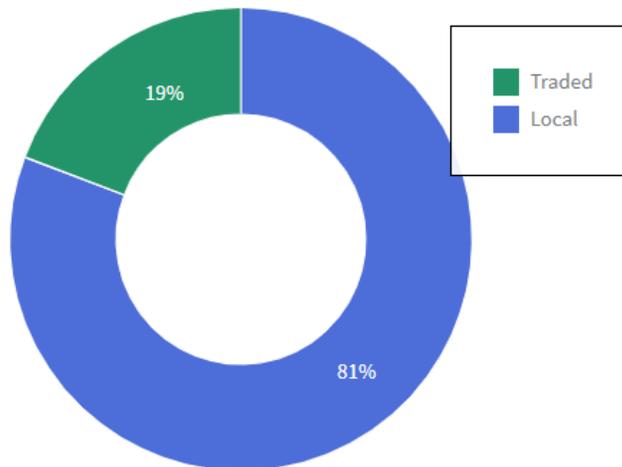
“WHAT HAVE WE DONE SO FAR?”

An economic cluster is a concentration of related industries in a region. Clusters are an important factor in a regional economy. They promote healthy competition among companies and encourage productivity and innovation. A strong cluster has high employment specialization in a region (ranking in the top 25% of all regions by specialization - and meeting minimum criteria for employment and establishment). Strong clusters attract outside interest and investment and draw in skilled individuals. Having multiple strong clusters creates a diverse and more resilient economy. Data for regional clusters is available at [clustermapping.us](http://clustermapping.us), a partnership between Harvard Business School and the U.S. Economic Development Administration. The data used in the tool is from 2017, the most recent year available.

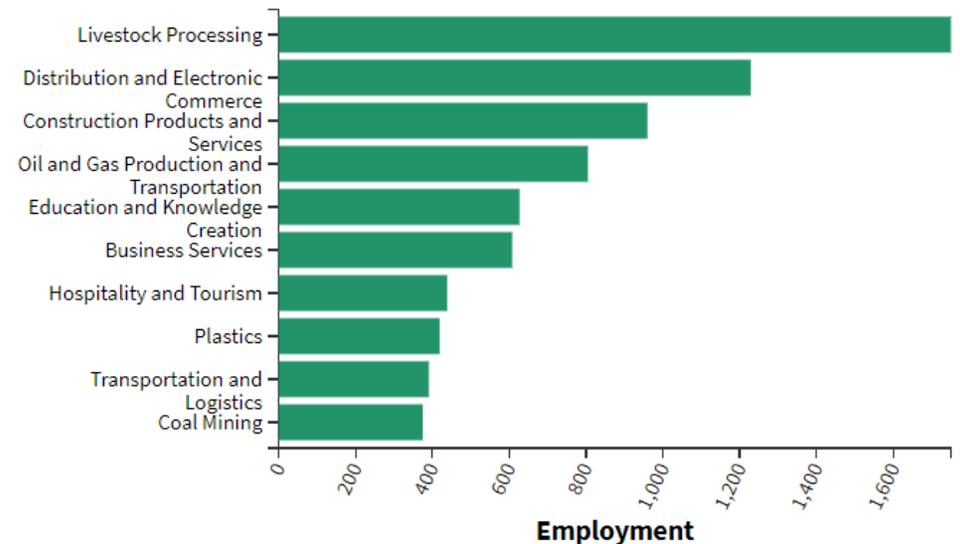
### Cluster Portfolio, 2017



### Traded vs. Local Clusters



### Top Clusters by Employment



# SUMMARY BACKGROUND

## PUBLIC & PRIVATE PARTNERSHIPS

“WHAT HAVE WE DONE SO FAR?”

Partnerships between the public and private sectors are key to the creation and implementation of the region's CEDS. Both the public and private sectors are responsible for creating and executing economic plans that help GRADD grow and become more resilient. Each partnership has its own goals and vision for the region. GRADD works with committees of partnerships to gather information about the regional economy's needs and then uses that information to create a CEDS that addresses a wide variety of the region's greatest needs.

- **ConnectGRADD Incorporated:** Partnership between Watch Communications and local governments to bring high-speed broadband to the GRADD area.
- **GRADD Board of Directors:** Establishes functional advisory committees as necessary to advise and conduct research to coordinate public and private actions.
- **GRADD CEDS Strategy Committee:** Works to prepare the annual CEDS by guiding the direction, identifying problems and strategies, and offering real-world perspectives on the economy.
- **GRADD Hazard Mitigation Council:** Maintains and updates GRADD's seven-county Multi-Jurisdictional Hazard Mitigation Plan.
- **GRADD Regional Transportation Committee:** Provides a forum for elected officials and the public to work together in solving regional transportation problems.
- **GRADD Water Management Council:** Works in conjunction with city and county officials, public water suppliers, the Kentucky Infrastructure Authority, and the Kentucky Division of Water to devise the long-range GRADD Water Management Plan.
- **Greater Owensboro Economic Development Corporation:** Works to attract new employers, grow existing primary employers, market industrial sites, and assist businesses with retention and expansion.
- **Green River Area Council on Aging:** Identifies the needs of the elderly and plans to meet those needs through a system of in-home and community-based services.
- **Green River Economic Development Corporation:** Oversees GRADD's loan fund pool and develops regional collaboration of economic development efforts.
- **Green River Housing Corporation:** Develops homeowner rehabilitation and homebuyer programs for low-to-moderate-income households. Constructs rentals for the senior population, and provides assistance to the near-homeless.
- **Green River Regional Health Council:** Works to improve the health and quality of life of residents through education, motivation, and evaluation.
- **Green River Regional Industrial Development Authority:** Works to recruit industry and manages the development of Bluegrass Crossings Business Centre, an industrial park co-sponsored by Daviess, Hancock, McLean, Ohio, and Muhlenberg Counties.
- **Green River Workforce Development Board:** Works in partnership with local elected officials to improve the region's employment training system to strengthen the workforce.
- **Hancock County Industrial Foundation:** Works with state officials to develop incentive programs to attract and develop industry in Hancock County.
- **Henderson Chamber of Commerce:** Works to advance the business community of Henderson County.
- **Henderson Economic Development:** Committed to helping business succeed and grow in Northwest Kentucky, particularly in Henderson County.
- **Ohio County Economic Development Alliance:** Works to attract new business, assist in the retention and expansion of existing businesses, develop a competitive and productive workforce and foster entrepreneurship in Ohio County.
- **Union County First:** Works closely with the local business community, local schools, Henderson Community College, and GRADD to strengthen Union County's workforce.
- **Webster County Economic Development Council & Webster County Industrial Development Authority:** Work together to promote industrial and economic growth in Webster County.
- **West Kentucky Coalition:** Works to provide a unified voice for regional pride, prosperity, and progress for the Western Kentucky region.
- **West Kentucky Regional Industry Development Authority:** An interlocal agreement among Henderson, McLean, Union, and Webster Counties established as a regional authority to oversee further development of Four Star Industrial Park.

# SWOT ANALYSIS

“WHERE ARE WE NOW?”

A SWOT Analysis is an identification of competitive assets to a region, as well as factors that could hinder economic development. A SWOT Analysis is a helpful tool in determining what features a region has implemented or needs to implement to strengthen and grow their economy.

**Strengths** are a region's competitive advantages, like a skilled workforce or strong broadband capabilities.

**Opportunities** are factors that may help the region's economy to progress, such as the potential for a new industry in the region.

**Weaknesses** are a region's competitive disadvantages, like low education or inadequate broadband.

**Threats** are factors that may cause the region's economy to decline, such as a large employer considering leaving the region.

## STRENGTHS

## WEAKNESSES

Well-developed transportation network

Multiple options for higher education

Low energy costs

Low cost of living



Retention of advanced degree holders

Lack of jobs for advanced degree holders

Not enough technically skilled workers

Low entrepreneurship



Tourism opportunities

Infrastructure improvement

Workforce development programs

Development of new and innovative technology



COVID-19

Low industry diversity

Decreasing state coal severance funds

Adequate internet not available in all areas



## OPPORTUNITIES

## THREATS

# STRATEGIC DIRECTION & ACTION PLAN

“HOW DO WE WORK TOWARDS OUR VISION?”

## VISION

*GRADD desires to be a resilient region with strong broadband, sound infrastructure, innovative educational systems, and a skilled workforce to help our region become more competitive, industrially diverse, and prosperous to raise the quality of life for residents.*

The strategic direction looks at the region's vision and sets broad goals that will help achieve the vision. Each goal has a set of measurable objectives to meet, which allow the gauging of progress toward achieving the goal. The action plan outlines specific steps to be taken to meet the objectives and ultimately the goals. The strategic direction and the action plan are based on analysis of the region's background and SWOT.

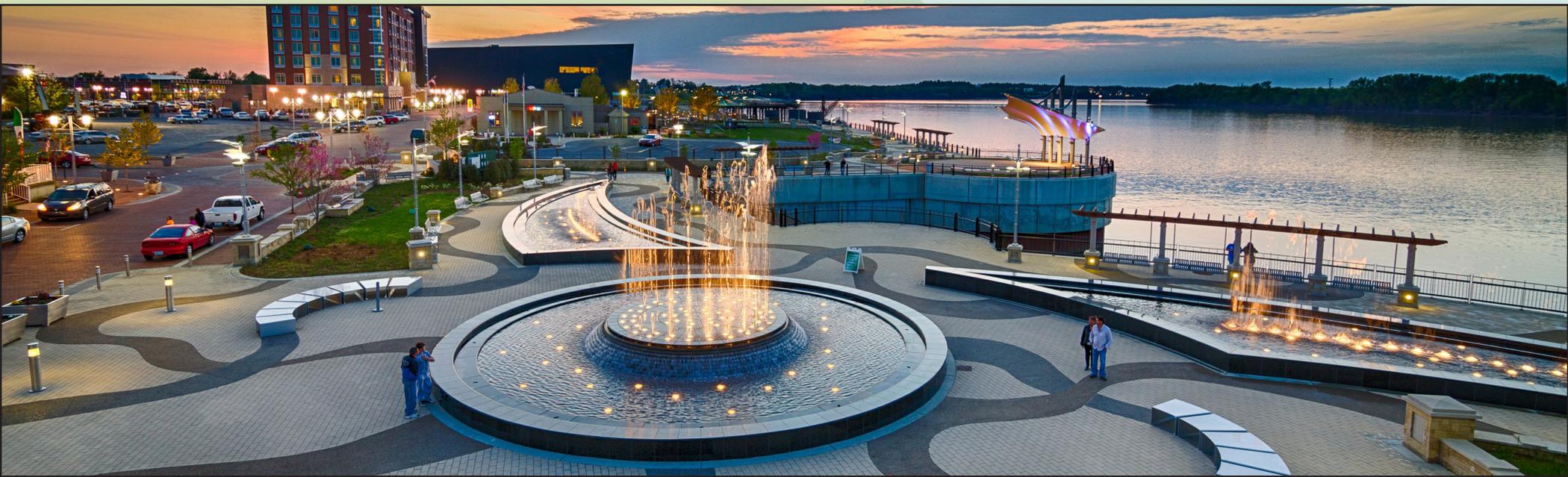
**GOAL 1** Create a diverse economy resilient to change.

**GOAL 2** Strengthen the workforce and increase labor resilience.

**GOAL 3** Encourage collaboration among counties.

**GOAL 4** Improve broadband availability and quality.

*Smothers Park in Downtown Owensboro*



# GOAL 1

## CREATE A DIVERSE ECONOMY RESILIENT TO CHANGE

### WHY IS THIS OUR GOAL?

GRADD's economy relies heavily on manufacturing, and it is important to make economic decisions to support the industry. However, the region must also work to diversify the economy to increase resiliency by encouraging new businesses and developing new industries. Quality of life and cultural factors are incredibly important to attracting and retaining entrepreneurs and highly skilled workers, especially young college graduates.

GRADD's goal for diversification is to attract and retain these individuals by supporting entrepreneurship, encouraging industries that value college education and technical skills to expand and invest in the region, promoting diversity in the community to create a strong and unique culture, and raising the regional standard of living.

### STRATEGY

#### Objective 1: Foster entrepreneurial efforts.

- Create and support business incubators that offer services and assistance to entrepreneurs.
- Encourage an entrepreneurial spirit among young people through programs like Junior Achievement.

#### Objective 2: Encourage openness to diverse populations.

- Develop county contingency plans for changing economic realities.
- Promote acceptance of different people and ideas through multicultural events.

### METRICS

- 3% growth in biotech/IT jobs within 5 years
- 3% increase in minority population by 2030
- Creation or expansion of entrepreneur assistance programs within 5 years
- Lower unemployment rate
- Increased minority population
- Increased number of businesses owned by minorities and women
- Growth in technology-related industries



*Small business in Hartford*

## GOAL 2

# STRENGTHEN THE WORKFORCE & INCREASE LABOR RESILIENCE

### WHY IS THIS OUR GOAL?

Workforce development is a key factor in making GRADD more resilient. The region needs more skilled individuals to attract more industries and businesses. By establishing and promoting programs that teach critical technical skills, the region will create a workforce that draws in manufacturing companies with positions that pay well; raising the overall quality of life for residents. These programs also ensure that workers are able to withstand the effects of economic change and layoffs, as they can transfer their knowledge from one job to another.

Education is also vital to creating a strong workforce. Early and K-12 education are important foundations for higher education or technical school. Graduates of higher education bring different and valuable skills and help diversify the economy.

## STRATEGY

### Objective 1: Improve educational attainment.

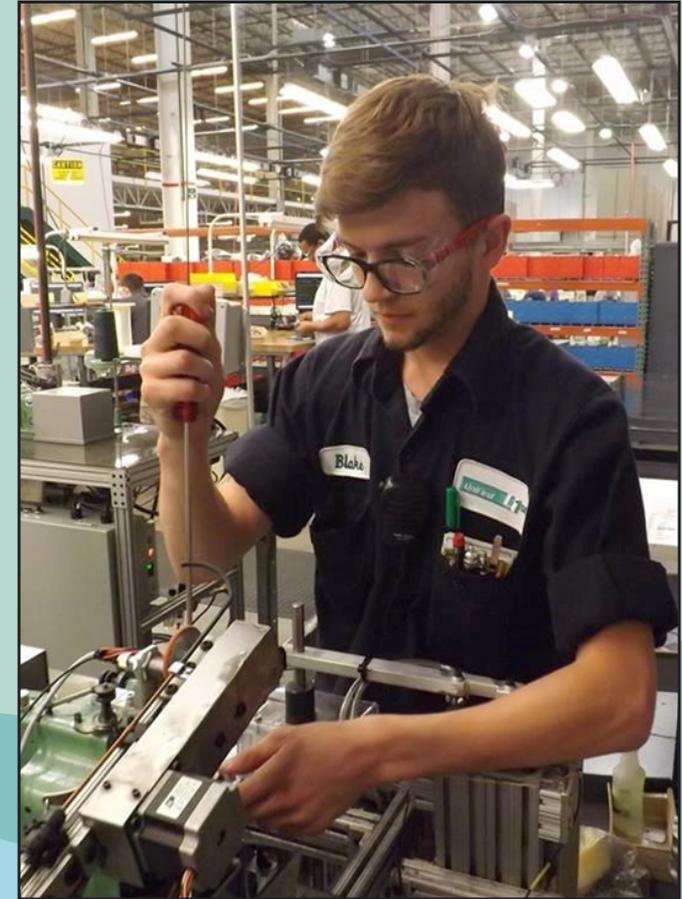
- Support early learning through programs like HeadStart & Early Learning Academies.
- Improve high school graduation rates through tutoring and remediation.
- Increase the number of students pursuing post-secondary degrees & technical certifications by promoting programs.

### Objective 2: Increase career readiness.

- Encourage work-ready programs and increased training for workers.
- Continue to provide job retraining programs for displaced workers.

## METRICS

- 95% high school graduation rate by 2025
- 3% increase in bachelor's attainment within 5 years
- 5% increase in participation of technical programs within 5 years
- Lower unemployment in all counties to less than 5.5% within 5 years
- Increased kindergarten readiness
- Increased college and career readiness



KYFAME student

## GOAL 3

# ENCOURAGE COLLABORATION BETWEEN COUNTIES

### WHY IS THIS OUR GOAL?

GRADD has two urban cities, Henderson and Owensboro, with populations over 25,000 and four other smaller cities with a population of over 2,500. The remaining 21 cities are more rural. Of the region's population, 53.35 percent live in rural areas and 46.65 percent live in urban areas. Collaboration is important for overall economic growth to benefit both urban and rural residents.

To bring about comprehensive growth, counties and cities must make collaboration and communication priorities. Cooperative efforts to market the region as a whole allows cities and counties to leverage nearby resources to attract new industries and investments. Additionally, county collaboration on events could expand the tourism industry by marketing each county's resources as a unique and attractive culture.

### STRATEGY

#### Objective 1: Increase regional communication.

- Increase representative participation in inter-county boards and committees.
- Encourage intercounty events/tourism.

#### Objective 2: Collaborate to market the region.

- Compile regional economic data including industrial sites to create a website/app & brochure as a marketing tool.
- Compile information on regional culture and quality of life to create a website/app & brochure as a marketing tool.

### METRICS

- Creation of economic database within 2 years
- Creation of website/app & brochure within 2 years
- Increased tourism
- Economic growth distributed throughout counties
- Economic growth in the agricultural industry



*Advertisement for the Bluegrass, Blue & Barbecue region of Kentucky, which includes all GRADD counties*

## GOAL 4

# IMPROVE BROADBAND AVAILABILITY AND QUALITY

### WHY IS THIS OUR GOAL?

Internet infrastructure is vital to a region's capacity for growth. It impacts both economic factors and quality of life factors. GRADD has made huge strides in improving broadband services, but adequate internet and cell service is still not available in all areas of the community.

Without fast and reliable internet, local small businesses are unable to use online services and cannot compete with larger businesses with better connections. Lack of strong internet infrastructure makes it harder to market the region to new industries or investors. Residents may be unable to work remotely and may be forced to travel long distances for work or school.

### STRATEGY

#### Objective 1: Upgrade ConnectGRADD.

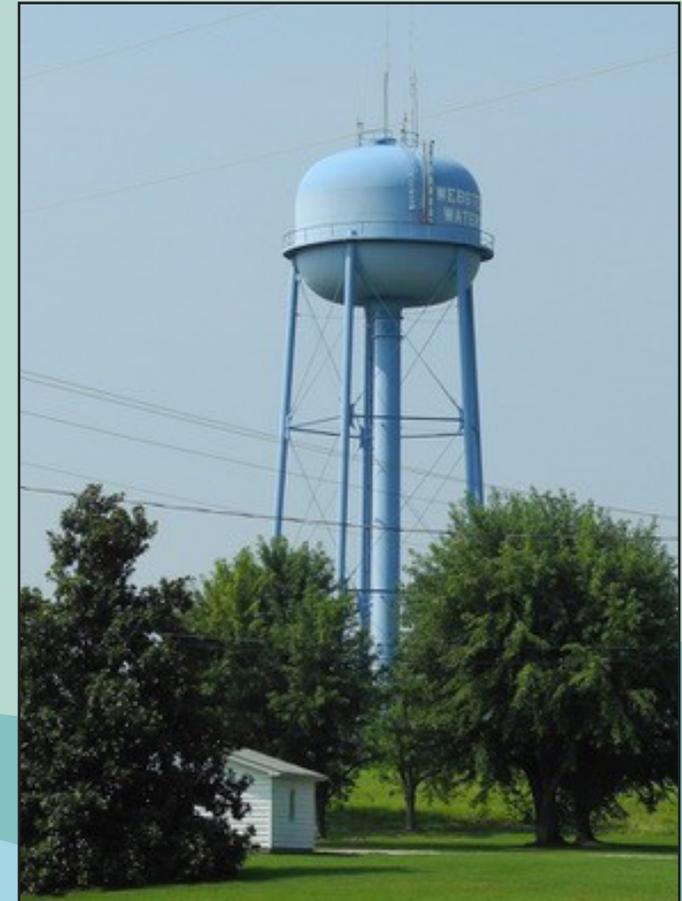
- Monitor emerging technologies that could improve speed and service capabilities.
- Secure funding for the integration of these technologies into the network.

#### Objective 2: Pursue alternative options.

- Monitor progress of the KentuckyWired program statewide.
- Encourage private investment to offer alternative options for access.
- Encourage partnerships to speed up the process of bringing high-speed internet to the region.

### METRICS

- 5 % increase in ConnectGRADD subscribers within 5 years
- Have a vendor providing KentuckyWired service to all counties within 5 years
- Better broadband service in rural areas
- Increased online education participation
- Increased online business by local business owners
- Increase of locally-owned small businesses



ConnectGRADD equipment on a Webster County water tower

# EVALUATION FRAMEWORK

“HOW ARE WE DOING, AND HOW CAN WE DO BETTER?”

The evaluation framework is a tool for gauging progress on the successful implementation of the CEDS. The performance measures and goals set by GRADD are indicators of growth and increased resilience and prosperity.

TIMEFRAME	PERFORMANCE MEASURE	GOAL	BENCHMARK FOR PROGRESS	RESPONSIBLE ENTITY
SHORT (1-3 YEARS)	Higher graduation rates	95% graduation rate	GRADD's 2017 average graduation rate is 90.2% <sup>1</sup>	School districts
	Higher average ACT score	ACT score raised above national average of 20.8	GRADD's 2017 average composite score is 19.8 <sup>1</sup>	School districts
MID (3-5 YEARS)	More minority/women owned businesses	7% increase in number of minority/women owned businesses	GRADD's 2012 number of minority/women owned businesses is 4,521 (7% increase yields 4,838) <sup>2</sup>	Economic development organizations, city and county governments, GRADD
	Increased post-secondary attainment	3% increase in number of post-secondary degrees	GRADD's 2017 number of residents with post-secondary degrees is 40,592 (3% increase yields 41,810) <sup>3</sup>	School districts, high school counselors, colleges
LONG (5+ YEARS)	Lower unemployment rate	Unemployment rate decreased below the state rate	GRADD's 2018 annual average unemployment rate is 4.2% compared to Kentucky's of 4.0% <sup>3</sup>	GO FAME, HCC FAME, GRADD, economic development organizations, city and county governments
	Higher per-capita income	Per capita increased to meet or exceed state average	GRADD's 2017 per capita income is \$24,408 compared to Kentucky's \$25,888 <sup>3</sup>	Workforce development organizations, colleges, industry leaders

Sources:

1. Kentucky Department of Education, Kentucky School Report Card
2. U.S. Census Bureau, Statistics for Firms by Gender, Ethnicity, and Race
3. U.S. Census Bureau, 2019 ACS

# DAVISS COUNTY STATISTICS



Owensboro Riverfront



## PEOPLE

**99,937**

Population

**38.7**

Median Age



## EDUCATION

**90.0%**

High School Graduates  
Over Age 25

**22.9%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$130,800**

Median Home Value



## ECONOMY

**\$27,462**

Per Capita Income

**\$49,836**

Median Household Income

**16.1%**

Individuals Below Poverty Line

**5.4%**

Unemployment

## COUNTY PRIORITIES

- Upgrade the Audubon and Natcher Parkways to interstate standards.
- Expand broadband accessibility in the county and provide redundancy in fiber optics.
- Increase public awareness of drug abuse and strengthen treatment opportunities.
- Continue identification and development of industrial parks.
- Promote regionalism among the GRADD counties, particularly in terms of solid waste coordination, animal shelters, prisons, and E911 call centers.

# HANCOCK COUNTY STATISTICS<sup>1</sup>



Vastwood Park

## COUNTY PRIORITIES

- Continue to expand the vocational and technical classes available at Owensboro Community and Technical College's Hancock County Center.
- Extend broadband throughout the county.
- Construct a county wellness center.
- Establish childcare facilities for working families near major industrial sites.
- Extend waterlines to unserved areas and create a regional water system with interconnects between each utility system.



### PEOPLE

**8,719**

Population

**39.4**

Median Age



### EDUCATION

**84.9%**

High School Graduates  
Over Age 25

**11.0%**

Bachelor's Degree Holders  
Over Age 25



### HOUSING

**\$110,300**

Median Home Value



### ECONOMY

**\$23,523**

Per Capita Income

**\$52,019**

Median Household Income

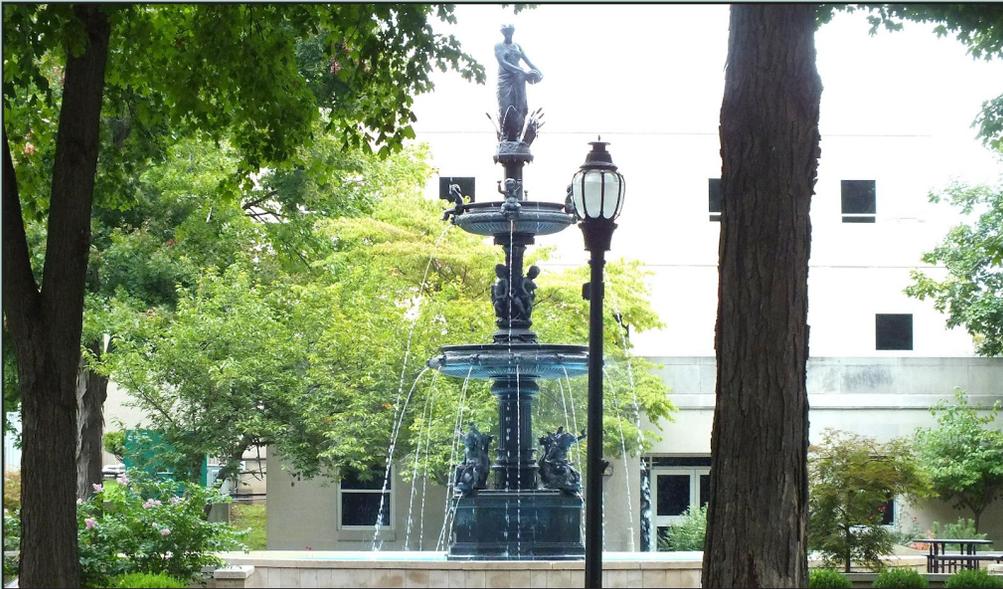
**12.8%**

Individuals Below Poverty Line

**5.8%**

Unemployment

# HENDERSON COUNTY STATISTICS<sup>1</sup>



Central Park fountain in downtown Henderson



## PEOPLE

**46,137**

Population

**40.8**

Median Age



## EDUCATION

**86.8%**

High School Graduates  
Over Age 25

**17.9%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$127,200**

Median Home Value



## ECONOMY

**\$25,376**

Per Capita Income

**\$45,389**

Median Household Income

**18.6%**

Individuals Below Poverty Line

**4.7%**

Unemployment

## COUNTY PRIORITIES

- Continue to effectively manage county finances to maintain the lowest tax rates possible while still maintaining core services and assisting with economic development opportunities.
- Strongly support efforts to help build the I-69 Ohio River bridge.
- Improve internet service in underserved parts of the county.
- Support and complement the Henderson Economic Development agency's efforts in industrial recruitment/expansion and small business development.
- Assist and support local and regional efforts to restore our economy and help local citizens get back to work.
- Promote the services and programs at Henderson Community College and Henderson County High School's Career and Technical Education program.
- Maintain and improve local infrastructure that supports our businesses and industries and improves the quality of life for residents.

Source: U.S. Census Bureau, 2019 ACS

# MCLEAN COUNTY STATISTICS<sup>1</sup>



Livemore Riverwalk on the Green River



## PEOPLE

**9,331**

Population

**41.3**

Median Age



## EDUCATION

**87.2%**

High School Graduates  
Over Age 25

**12.0%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$98,500**

Median Home Value



## ECONOMY

**\$24,557**

Per Capita Income

**\$50,445**

Median Household Income

**16.9%**

Individuals Below Poverty Line

**7.0%**

Unemployment

## COUNTY PRIORITIES

- Assist the Cities of Livemore and Calhoun in the construction of new fire department facilities through state, federal, and local funding.
- Develop a plan and funding mechanism for a waterline extension to the new coal mine and for an interconnection between Calhoun and Sacramento water district services.
- Seek funding to improve recreational development opportunities, especially at Myer Creek Park.
- Encourage new small businesses to open in vacant storefront lots.

# OHIO COUNTY STATISTICS<sup>1</sup>



Beaver Dam Amphitheater



## PEOPLE

**24,071**

Population

**40.6**

Median Age



## EDUCATION

**82.1%**

High School Graduates  
Over Age 25

**13.3%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$91,300**

Median Home Value



## ECONOMY

**\$24,231**

Per Capita Income

**\$42,826**

Median Household Income

**20.5%**

Individuals Below Poverty Line

**9.1%**

Unemployment

## COUNTY PRIORITIES

- Construct a new county jail.
- Continue working to build a resilient and effective workforce and become a workforce-ready community.
- Develop recreational trails throughout the county, including water trails.
- Develop a five-year detailed road plan to improve and maintain the county's infrastructure.

# UNION COUNTY STATISTICS<sup>1</sup>



Downtown Morganfield

## COUNTY PRIORITIES

- Complete the improvements to Heavy Haul Road on Highway 56 from US 130 past Morganfield to Shawneetown.
- Continue to develop and promote all industrial parks in Union County, particularly the Sturgis Airport site.
- Continue to find ways to improve local parks, especially for sporting activities and tourism.
- Continue to provide health care for the underserved, including finding a provider to serve the needs of the full population for an urgent care clinic and finding a provider of dialysis services to locate in Union County.



## PEOPLE

**14,802**

Population

**37.6**

Median Age



## EDUCATION

**87.4%**

High School Graduates  
Over Age 25

**11.0%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$86,500**

Median Home Value



## ECONOMY

**\$22,027**

Per Capita Income

**\$42,844**

Median Household Income

**22.2%**

Individuals Below Poverty Line

**8.2%**

Unemployment

# WEBSTER COUNTY STATISTICS<sup>1</sup>



Providence City Lake



## PEOPLE

**13,155**

Population

**41.1**

Median Age



## EDUCATION

**81.4%**

High School Graduates  
Over Age 25

**9.8%**

Bachelor's Degree Holders  
Over Age 25



## HOUSING

**\$81,300**

Median Home Value



## ECONOMY

**\$21,880**

Per Capita Income

**\$40,947**

Median Household Income

**22.1%**

Individuals Below Poverty Line

**4.9%**

Unemployment

## COUNTY PRIORITIES

- Develop and promote Sebree South Business Park.
- Develop and promote Webster County I-69 Industrial Park.
- Improve water and wastewater infrastructure throughout the entire county.
- Institute workforce development programs with KCTCS
- Improve high speed internet access