

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:**

<b>ELECTRONIC APPLICATION OF ROWAN WATER,</b>	)	<b>CASE NO.</b>
<b>INC. FOR APPROVAL OF WATER TRAINING</b>	)	<b>2024-00103</b>

---

**APPLICATION**

---

Come now Rowan Water, Inc., its individual directors and its general manager (collectively, “Rowan Water”), and Honaker Law Office, PLLC (collectively, “Joint Applicants”) to apply for an Order from the Kentucky Public Service Commission (“Commission”) accrediting and approving a proposed water utility training program for continuing education credit pursuant to KRS 74.020 (6) and (7) and 807 KAR 5:070. **Joint Applicants request an Order by June 15, 2024.**

In support of its application, Joint Applicants respectfully state as follows:

1. The full name and post office address of Rowan Water, Inc. is: Rowan Water, Inc., 1765 Christy Creek, Morehead, Kentucky 40351. Its electronic mail address is rowanwater@windstream.net.

2. Pursuant to 807 KAR 5:001, Section 4(8), copies of all orders, pleadings, and other communications related to this proceeding should be directed to:

L. Allyson Honaker, allyson@hloky.com  
Brittany Hayes Koenig, brittany@hloky.com  
Heather S. Temple, heather@hloky.com  
HONAKER LAW OFFICE, PLLC  
1795 Alysheba Way, Suite 6202  
Lexington, Kentucky 40509  
(859) 368-8803

3. Rowan Water is a water association organized pursuant to KRS Chapter 273.
4. Rowan Water's territory includes Rowan, Carter, Elliot, Morgan, and Fleming Counties in Kentucky.
5. Rowan Water, Inc, is a non-profit corporation that was organized under the laws of the Commonwealth of Kentucky on May 21, 1968 and is currently in good standing.
6. Honaker Law Office, PLLC is a Kentucky Limited Liability Company that was organized under the laws of the Commonwealth of Kentucky on June 23, 2022 and is currently in good standing. It provides legal services to local, regional, and national clients.
7. Honaker Law Office, PLLC's mailing address is: 1795 Alysheba Way, Suite 6202, Lexington, Kentucky 40509. Its email for purposes of this Application is brittany@hloky.com.
8. Joint Applicants propose to sponsor and conduct a water management training program on August 20 and 21, 2024 at Rowan Water's office in Morehead, Kentucky. The program is entitled **Rowan Water Summer Training**. A copy of the proposed agendas for Day 1 comprised of six hours of training for August 20, 2024 and Day 2 comprised of six hours of training to take place on August 21, 2024 are attached to this Application as **Exhibit 1**.
9. The proposed program has been developed to follow the Commission's recommendations in Case No. 2019-00041<sup>1</sup> and the Commission decisions since that

---

<sup>1</sup> See Case No. 2019-00041, ("Case No. 2019-00041 Investigation") *Electronic Investigation into Excessive Water Loss by Kentucky's Jurisdictional Water Utilities* (Ky. PSC Nov. 22, 2019), Appendix L, Confronting the Problems Plaguing Kentucky's Water Utilities: An Investigative Report by the Kentucky Public Service Commission November 2019, pp 23-26.

investigative report that prioritize training for Directors' duty to maintain the financial, managerial, and technical integrity of the utility and which have encouraged discussions with neighboring utilities to coordinate buying materials in bulk, and discussing shared management, equipment, and resources. The training has been designed to support the Commission training regularly provided and will provide the additional hours required of Rowan Water's Directors to be in compliance with Commission Orders<sup>2</sup> and regulations:

a. **Round Table Discussions with Managers from Area Utilities**, discussing merger and regionalization each day with utility managers from Rowan Water, Bath County Water District, Judy Water Association, West Liberty Water Company, Olive Hill Utilities, Fleming County Water Association. The round table discussion will also address shared concerns unique to utilities neighboring Rowan Water due to specific terrain, and common problems developing the utility workforce, and planning for succession.

b. **Utility Regulatory Requirements and Recent Orders and Updates**, including a review of Kentucky utility statutes and regulations, and an update of Kentucky court cases. Additionally, the presentation will include a discussion of recent Commission Orders and changes in relevant legislation for water utilities.

c. **Assessing Financial Wellness**, including a review of the state of the market and economic projections, determining the affordability of a project and debt service coverage calculations, depreciation and evaluating different choices for financing.

---

<sup>2</sup> Case No. 2022-00252, *Electronic Application of Rowan Water Inc. for an Alternative Rate Adjustment and Investigation into Rowan Water Inc. and its Individual Directors, Larry Johnson, Randall Cox, Mike Collins, Enoch Blair and its Manager, Jerry Patrick for Allegedly Failing to Comply with KRS 278.300 and a Commission Order* (Ky PSC Oct. 17, 2023) ordering Rowan Water's Directors to obtain 12 additional hours to the regularly required annual 12 hours of training. A Disclaimer will be given each day to assert and acknowledge that the presentations are not from the Commission and the Commission only speaks through its Orders.

d. **Asset Management & Financing**, including a discussion of guidance for Directors and managers determining the current state of assets, managing maintenance, and long-term funding strategy.

e. **Working Effectively with the Board**, a detailed review of policies to encourage effective management of water utilities through defining roles, understanding duties and responsibilities and making policy to promote healthy oversight.

f. **Technical Update: Regulatory Compliance from the Division of Water**, these presentations will address compliance practices to meet statutory and regulatory requirements from the perspective of the Division of Water inspections, technical requirements, and addressing common issues reported through the Division of Water. **Cyber Security from the Division of Homeland Security**, addressing threats to Kentucky utilities' cyber systems and best practices to utilize federal resources available to protect Kentucky's water systems and information systems.

g. **Management Resources**, including customer service communication resources through practical demonstrations of billing software and best business practices for record keeping presented by the representative of the billing software used by Rowan Water and several water systems in the area, and a presentation from the director of planning of Gateway Area Development District that serves the Rowan Water area as well as their neighbors.

h. **Capital Planning with Engineer Consultant**, practical discussion of engineering consultants communication best practices and considerations for Directors and managers for distribution design, optimization, and capital planning.

i. **Managing for 811 Compliance and Call Before You Dig**, presentations by Kentucky 811 and Division of Inspections, Kentucky Public Service Commission regarding resources for training water utility staff to comply with 811 law, and practical applications for Directors and managers for procedures to support services when water lines are damaged in 811 incidents.

j. **Capital Planning Resources**, discussion with a representative from Kentucky Infrastructure Authority (KIA) regarding the WRIS portal, Clean Water grant funds, GIS mapping, and other resources available through KIA. A discussion of common issues with applications for funding and tips for better capital planning.

10. The proposed training program including two 6-hour sessions, consists of twelve hours of instruction and should be accredited and approved as water management training satisfying the requirements set forth in KRS 74.020(7) to establish a water district commissioner's eligibility for a maximum annual salary of \$6,000. **Joint Applicants are not requesting the proposed training program be accredited as a program of instruction for newly appointed commissioners.**

11. A biographical statement containing the name and relevant qualifications and credentials for the presenters is attached at **Exhibit 2** of the Application. There are representatives from some state agencies, and industry professionals who have committed to present, however their presentations will be made by representatives from their offices, including the Kentucky Public Service Commission, Division of Inspections; and the Kentucky Infrastructure Authority.

12. The written materials to be provided to each attendee are attached at **Exhibit 3**. Certain presentations are in outline form, containing the material to be covered in training

presentations. If any presentations are amended prior to the training, Joint Applicants will include a copy of any revisions to the presentations with their sworn statement and report regarding the instruction.

13. The Joint Applicants will retain a record of all water utility directors and management staff that attend the proposed training program.

14. Within 30 days of the proposed training program's completion, the Joint Applicants will file with the Commission a sworn statement:

- a. Attesting that the accredited instruction was performed;
- b. Describing any changes in the presenters or the proposed program curriculum that occurred after certification; and
- c. Containing the name of each attending water commissioner or director, their water district, and the number of hours that they attended.

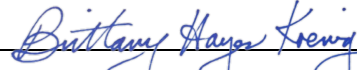
15. The Joint Applicants will include with the sworn statement documentary evidence of the program's certification by certifying authorities and a copy of any written material given to the attendees that has not previously been provided to the Commission.

16. The Joint Applicants will admit representatives of the Commission or the Office of Attorney General to the proposed training program at no charge to permit such representatives to assess the quality of the instruction, monitor the compliance with Commission decisions, regulations, or other requirements, should the Commission deem it necessary.

**WHEREFORE**, the Joint Applicants request that the Public Service Commission approve and accredit the proposed training program entitled, "**Rowan Water Summer Training**" for twelve hours of water utility management training.

Dated this 15<sup>th</sup> day of April, 2024.

Respectfully submitted,



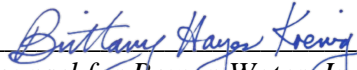
---

L. Allyson Honaker, allyson@hloky.com  
Brittany Hayes Koenig, brittany@hloky.com  
Heather S. Temple, heather@hloky.com  
HONAKER LAW OFFICE, PLLC  
1795 Alysheba Way, Suite 6202  
Lexington, Kentucky 40509  
(859) 368-8803

*Counsel for Rowan Water, Inc.*

**CERTIFICATE OF SERVICE**

This is to certify that foregoing was submitted electronically to the Commission on April 15, 2024 and that there are no parties that have been excused from electronic filing. Pursuant to prior Commission orders, no paper copies of this filing will be submitted.



---

*Counsel for Rowan Water, Inc.*

# **Exhibit 1**



# Rowan Water Summer Training I

*Presented by Rowan Water, Inc. and Honaker Law Office, PLLC*

*1765 Christy Creek, Morehead, Kentucky 40351*

**August 20, 2024**

**Day 1**

**8:00-8:30am**

**Registration and Welcome**

**8:30-9:00am**

**Regulatory Update (.5 hour):**

*Updates to Commission Orders, Relevant Legislation*

Brittany Hayes Koenig, Honaker Law Office, PLLC

**9:00-10:00am**

**Assessing Financial Wellness (1 hour)**

Kristen Millard, KRWA Finance/Raymond James

**10:00-10:15am**

**Break**

**10:15-11:15am**

**Asset Management & Financing (1 hour)**

Robert Miller, KRWA

**11:15-12:15pm**

**Roundtable with Utility Partners (1 hour):**

*Workforce Development; Shared Resources; Bulk Purchasing*

Bath County Water District, Morehead Utility Plant Board, Judy Water Association, West Liberty Water Company, Olive Hill Utilities, Fleming County Water Association, Rowan Water

**12:15-1pm**

**Lunch**

**1:00-2:00pm**

**Working Effectively with the Board (1 hour)**

Robert Miller, Kentucky Rural Water Association

**2:00-3:00pm**

**Regulatory Compliance with Division of Water (1 hour)**

Elizabeth Dowling, Drinking Water Branch, Kentucky Division of Water

**3:00-4:00pm**

**Cyber Security for Kentucky Utilities (1 hour)**

Colin Glover, CISSP, Cyber Security State Coordinator, Kentucky U. S. Department of Homeland Security

# Rowan Water Summer Training II

*Presented by Rowan Water, Inc. and Honaker Law Office, PLLC*

*1765 Christy Creek, Morehead, Kentucky 40351*

**August 21, 2024**

**Day 2**

**8:30-9:30am**

**Customer Service Resources (.5 hour)**

Daniel Dundon, Ampstun Corporation, Utility Billing Solutions

**Planning Resources (.5 hour)**

*Water Management Council, Planning Services, Project Administration Services, and GIS/Mapping Services*

Jocelyn Gross, Director of Planning, Gateway ADD

**9:30-10:30am**

**Capital Planning: Engineer Consultants (1 hour)**

Matthew R. Curtis, P.E, Bluegrass Engineering

**10:30-10:45am**

**Break**

**10:45-11:45am**

**Roundtable with Utility Partners (1 hour):**

*Common Issues/Solutions; Shared Management/Equipment; Best Practices in Customer Communication, Succession Planning*

Bath County Water District, Morehead Utility Plant Board, Judy Water Association, West Liberty Water Company, Olive Hill Utilities, Fleming County Water Association, Rowan Water

**11:45-12:30pm**

**Lunch**

**12:30-1:30pm**

**Managing for 811 Compliance (1 hour)**

Jamie Gaddis, Kentucky 811

**1:30-2:30pm**

**Call Before You Dig (1 hour)**

Kentucky Public Service Commission

**2:30-3:30pm**

**Capital Planning Resources (1 hour)**

*WRIS Portal, State Revolving Fund, Clean Water Act Grants*

Don Schier, Kentucky Infrastructure Authority

## **Exhibit 2**

# **HONAKER LAW OFFICE, PLLC**

1795 Alysheba Way, Ste. 6202 Lexington KY 40509  
[allyson@hloky.com](mailto:allyson@hloky.com), [brittany@hloky.com](mailto:brittany@hloky.com), (859) 358-8803 (o)

## **L. ALLYSON HONAKER**

University of Kentucky College of Law, J.D. – 1999  
Admitted to Kentucky Bar - 1999  
Clerk, Judge Gary D. Payne – Fayette Circuit Court 1999-2000  
Assistant County Attorney – Fayette County Attorney’s Office 2000-2006  
Associate Attorney, Gambrel and Wilder, Richmond, Ky 2006-2008  
Staff Attorney – Kentucky Public Service Commission 2009 – 2013.  
Of Counsel and Partner Goss Samford, PLLC 2013 – 2022  
Owner – Honaker Law Office, PLLC August 2022 – present.

Allyson has practiced a variety of law over her nearly 24-year legal career. She was a prosecutor for Fayette County and continues to train police officers annually regarding legal issues and procedures. For the past fifteen years, she has focused her practice on utility and energy law. Most of the cases she has handled have been in front of the Kentucky Public Service Commission regarding utility law. She was Staff Attorney at the Kentucky Public Service Commission for approximately four years where she worked on cases involving natural gas, electric and water. As the attorney that handled the accident and the investigation cases dealing with the Division of Inspections, she worked closely with the engineers and inspectors regarding routine inspections as well as the incident investigations. After leaving the PSC, she joined Goss Samford, PLLC of counsel and was later named partner. She worked utility rate cases for large and small gas, electric and water utilities, as well as advocating for utilities on regulatory matters involving a wide variety of energy law issues with Goss Samford for nearly 10 years before it dissolved. After the dissolution, she opened Honaker Law Office PLLC and continues to practice utility and energy law. Allyson is a member of the Kentucky Bar Association and the Fayette County Bar Association. She is general counsel for the Kentucky Gas Association, and regulatory counsel for several electric cooperatives.

## **BRITTANY HAYES KOENIG**

University of Kentucky College of Law, J.D. – 2003, Kentucky Law Journal  
Admitted to Kentucky Bar – 2004  
Clerk, Judge Pamela R. Goodwine – Fayette Circuit Court 2003-2004; 2015-2017  
Associate Attorney, Ward, Hocker, Thornton, PLLC- formerly Clark & Ward, PLLC, 2005-2008  
Assistant General Counsel and Staff Attorney – Kentucky Public Service Commission 2017-2022  
Of Counsel, Honaker Law Office, PLLC October 2022 – present.

Brittany worked cases involving both criminal and civil legal issues in state and federal court prior to her focus on utility law. In 2017, she started at the Kentucky Public Service Commission. She worked closely with the financial analysts and inspectors at the Commission as co-author of the investigative report, *Confronting the Problems Plaguing Kentucky's Water Utilities*. She trained utility managers and executives regarding regulatory compliance at multiple sessions annually. She was appointed as Assistant General Counsel at the PSC in July 2021, working and supervising attorneys on utility law matters that included water, gas, electric, and siting board cases until joining Honaker Law Office, PLLC in October 2022. Her experience at the Kentucky PSC has proven to be an asset to help our clients navigate rates cases and resolve their regulatory issues. At the PSC, she served on the Water Committee for National Association of Regulatory Utility Commissions (NARUC) for 5 years and presented on water infrastructure issues for the National Association of State Utility Consumer Advocates (NASUCA). She is a 2019 Graduate of the Kentucky Energy and Environment Cabinet Leadership Academy. Brittany is a member of the Kentucky Bar Association and the Fayette County Bar Association, and the Kentucky Gas Association.

## **HEATHER S. TEMPLE**

University of Kentucky College of Law, J.D. – 2003, Kentucky Law Journal

Heather joined Honaker Law Office in January 2024. Heather was a former Staff Attorney for the Kentucky Public Service Commission where she was the lead attorney on cases involving investor-owned utilities, primarily focusing on electric utilities. Heather has experience on rate adjustments, certificates of public use and convenience, integrated resource plans, fuel adjustment clauses, and utility securitized bond transactions. Heather also served as a Staff Attorney for the Kentucky State Board on Electric Generation and Transmission Siting. In that role she served as counsel for the siting of utility scale solar projects and assisted in drafting new regulations.

Prior to practicing utility and energy law, Heather was a criminal defense attorney with expertise in all aspects of criminal and civil motion practice and trials.

Heather resides in Elizabethtown, Kentucky with her husband and daughter.

**KRISTEN MILLARD**

Director  
Public Finance

**RAYMOND JAMES®**

T 859.232.8249  
F 859.232.8255

489 East Main Street  
Lexington, KY 40507  
kristen.millard@raymondjames.com  
www.raymondjames.com

**Kristen Millard, Director** - Ms. Millard has twenty-five years of experience in financial advisory services and in underwriting. In the third quarter of 1999, Ms. Millard began her investment banking career with another regional firm, and in April of 2003 she joined Morgan Keegan, which was acquired by Raymond James in 2012. Ms. Millard's municipal finance practice has been concentrated in general municipal government finance, infrastructure finance, quantitative analysis, pooled program structures and

healthcare financing projects for both individual issuers and statewide lending programs. Kristen has also managed the long-term pooled financing program for the Kentucky Rural Water Finance Corporation (now the Rural Water Financing Agency) since 2001 and has served as financial advisor on more than 80 transactions for over 250 cities and water districts through the KRWFC/RWFA program. She has also been an annual presenter at the Kentucky Rural Water Association's Utility Management Institute training sessions since 2005.

Ms. Millard graduated from the University of Kentucky in May of 1998 with a B.B.A. in Finance and Marketing, and is a Registered Municipal Securities Representative, holding the Series 7, 50 and 63 licenses.

**QUALIFICATIONS**

**EDUCATION**

*Bachelors–Management and Finance, University of Louisville, 1979*  
*Masters-Business Administration and Finance, Indiana University 1982*

**YEARS OF EXPERIENCE:** 38

**SPECIALIZATION**

*Senior Executive in Drinking Water, Wastewater, and Stormwater Industry*

**PROFESSIONAL AFFILIATIONS**

*American Water Works Association QualServe Peer Reviewer*

*AWWA Business Practices Standards Committee Member Vice-Chair (past)*

*AWWA Utility Management Standards Committee Member (past)*

*AWWA Finance, Accounting, and Management Controls Committee Chair (past)*

*AWWA Management Controls Sub-Committee Chair (past)*

*AWWA Research Foundation Project Participating Utility Member (past)*

*National Association of Clean Water Agencies, Utility and Resource Management Committee (past)*

**Professional Profile**

Senior utility executive with 38 years of experience in the drinking water, wastewater, and stormwater industry, including: executive management, strategic planning, policy development, customer service, information technology, and program management. Advocate for sustainability of water infrastructure and affordability for low-income customers. Education includes a Bachelors and Masters degrees in business management and finance.

**Qualifications and Experience**

**StraightLine Kentucky, Louisville, KY  
2021 – Present Consultant**

Advisor to drinking water, wastewater, and stormwater utility managers, regulatory officials, elected officials, and service providers.

**City of Jackson, Mississippi  
2017 – 2020 Director of Public Works**

Executive management of Drinking Water, Wastewater, Stormwater, Solid Waste, Streets, Facilities, Fleet, and Warehouse operations and maintenance.

**Sewerage and Water Board of New Orleans, Louisiana  
2009 – 2017 Deputy Director / Interim Executive Director**

Administrative management of Strategic Planning, Accounting, Budgeting, Purchasing, Customer Service, Human Resources, Information Technology, Risk Management, Fleet Maintenance, Warehouse, Internal Audit, and other operations support services.

**Municipal and Financial Services Group, Maryland  
2008 – 2009 Senior Manager**

Management consultant to water and wastewater utilities focusing on enterprise risk management, internal control, financial analysis, and rate studies.

**Louisville Water Company, Kentucky  
1991 – 2008 Vice President**

Administrative management of Finance, Information Technology, Risk Management, Business Planning, Human Resources, and Board Relations



## Colin Glover, CISSP

Cybersecurity State Coordinator, Kentucky

Colin Glover currently serves as a Cybersecurity State Coordinator (CSC) for the state of Kentucky. Mr. Glover supports homeland security efforts and contributes to the development of the national risk picture by identifying, assessing and monitoring risks to critical infrastructure assets.

As a CSC, Mr. Glover serves as the liaison between Federal services and State, Local, Territorial, and Tribal Governments, Critical Infrastructure and the Private Sector. He serves as the focal point for communications to promote Cyber Preparedness, Incident Response, Risk Mitigation, and Situational Awareness. Colin provides direct coordination, outreach and support in order to protect cyber components essential to the sustainability, preparedness, and protection of the Nation's Critical Infrastructure and Key Resources (CIKR) and State, Local, Territorial and Tribal governments.

Prior to joining DHS, Mr. Glover held positions within the private sector assisting companies achieve their cybersecurity goals and in the DoD where he served as a Counterintelligence Special Agent for the Defense Counterintelligence and Security Agency. Amongst other duties, he worked with Cleared Contractors to secure their networks against advanced threats.

Additionally, he served in the United States Marine Corps with multiple combat tours in Iraq.

Mr. Glover has a Master of Engineering in Mechanical and Aerospace Engineering from the University of Virginia. He holds multiple cybersecurity certifications to include Certified Information Systems Security Professional (CISSP), Certified Information Security Auditor (CISA), and Certified Ethical Hacker (CEH).





# Daniel Dundon

Sales Executive

[Ampstun](#)

[www.ampstun.com](http://www.ampstun.com)

419 W Main St Richmond, Kentucky 40475, United States

Business Services, Custom Software & IT Services

Employees:11 - 50

(888) 252-4784

Daniel Dundon is a Sales Executive at Ampstun based in Richmond, Kentucky.

## SECURE CLOUD BASED TECHNOLOGY

At Ampstun, we host the cloud based billing system on our own servers physically located in a secure data center in the central Midwest of the USA. All of the data sent between the utility office and our system are communicated with bank level 256-bit SSL encrypted connection.

Our data center is SOC 1/SSAE 16, Type II; SOC 2 & SOC 3 certified and we can provide certification documents to customers as needed for compliance audits.

Cybersecurity  
Office Services

---

---



## Jocelyn Gross

Director of Planning

Gateway Area Development District

110 Lake Park Drive | Morehead, Kentucky 40351

e. [jocelynr.gross@ky.gov](mailto:jocelynr.gross@ky.gov) | w. [gwadd.org](http://gwadd.org)

c. 859.274.2904 | t. 606.780.0090 ext. 2207

### *Jocelyn Gross Credentials*

BA – Geography w/ Emphasis in Regional Analysis and Public Policy & GIS Certificate, Morehead State University

#### 12 Years Water & Wastewater Planning Experience

- Project Administrator & Wastewater Planner  
Gateway Area Development District, January 2012 – June 2015
- WRIS Resource Analyst  
Kentucky Infrastructure Authority, June 2015 – July 2018
- Director of Planning  
Gateway Area Development District, July 2018 – Present

Gateway Areas Development District: Serving Bath, Menifee, Montgomery, Morgan, and Rowan Counties Since 1969

The concept of Area Development Districts (ADDs) originated in Kentucky in the early 1960s with the establishment of Area Development Councils. These Councils were organized in all counties and ultimately became the model for Area Development authorization in landmark federal acts such as the Appalachian Regional Development Act led by Kentuckian John Whisman and the Public Works and Economic Development Act of 1965. The fifteen Area Development Districts were formed during the period that followed, 1966 to 1972.

---

## **Matthew R. Curtis, PE**

*Project Manager and Engineer*

<b>EXPERIENCE:</b>	21 years
<b>EDUCATION:</b>	BS/2003/Civil Engineering: Water Resources; University of Kentucky
<b>PROFESSIONAL REGISTRATIONS:</b>	Professional Engineer: KY
<b>PROFESSIONAL AFFILIATIONS:</b>	AWWA, KSPE, NSPE

Mr. Curtis has over twenty-one years of professional experience as a consultant in the public utility (water, gas, stormwater and wastewater) sector. He has been responsible for the development of various projects from the conceptual planning, engineering design reports, and overseeing project completion through the construction phase for all aspects of the projects. Mr. Curtis has design experience and supervised various designers and engineers in the development of plans and specifications for wastewater treatment plants, wastewater collection systems, wastewater lift systems; water distribution systems, water treatment plants and water storage facilities.

Mr. Curtis is the Managing Member of Bluegrass Engineering, PLLC and oversees the day-to-day operation of the company. He also serves as a Project Manager with Bluegrass Engineering, PLLC where his responsibilities include completing contract documents, reviewing schedule and cost of ongoing projects, technical overview of projects, checking completed work under his supervision, and conducting research and investigation for compiling written reports. In addition, he maintains contact with clients during study, design, and construction, and is responsible for follow up after project completion.

### **REPRESENTATIVE PROJECT EXPERIENCE:**

#### **Water Treatment Plants**

- **Morehead State University – WTP Sludge Holding Basin, Project Manager/Engineer:** Provided professional engineering services for the siting, design and bidding services of a 0.300 MG Sludge Holding Basins for removal of TSS prior to discharge to Triplett Creek.
- **Morehead State University – WTP Chlorine Conversion, Project Engineer:** Provided professional engineering services for design, construction and start-up of the conversion of chlorine gas disinfection to liquid chlorine for a 1.260 MGD WTP.
- **City of Lewisport – WTP Improvements, Project Manager/Engineer:** Provided engineering services for replacement and modernization of the finished water meter, raw water meters, high service pumps, controls to allow the City to alter pump outputs to demands of the system during normal pump-fill cycles and constant pressure applications.
- **Morehead State University – WTP Dechlorination System:** Provided professional engineering services dechlorination system to meet KPDES requirements for backwash water from a 1.260 MGD WTP.

#### **Water Distribution & Storage Tanks**

- **Allen County Water District – US 231 Elevated Water Tank, Project Manager/Engineer:** Provided professional engineering services for tank site location, preliminary assistance with geotechnical study, design and construction of a 0.500 MG elevated tank, control valves, 10,000 LF of water main to reallocate customers to a new pressure zone and booster station improvements.
- **City of Lebanon Junction – Water System Hydraulic Model, Project Manager:** Provided professional engineering services to construct a hydraulic model of the City's distribution system to

---

## **Matthew R. Curtis, PE**

*Project Manager and Engineer*

determine feasibility of various operational changes to improve water quality and pressures throughout the system.

- **Morehead Utility Plant Board – Toms Drive Water Line Replacement, Project Manager/Engineer:** Provided professional engineering services to construct 2,000 LF of 8-inch water line to replace a section of D.I.P. which had deteriorated due to aggressive soil conditions.
- **City of Lewisport – County Booster Station Improvements, Project Manager:** Provided professional engineering services to replace the existing suction piping, discharge piping, pumps, and controls for improved hydraulic operation of an existing station.
- **Rattlesnake Ridge Water District – Phase 11 Water System Improvements, Project Engineer:** Provided professional engineering services for a five (5) contract project: Contract 1 – Waterlines: approximately 50,000 LF of new waterlines, Contract 2 – New Elevated Tanks: 0.10 MG and 0.075 MG tanks, Contract 3 – Rehabilitation of three water storage tanks, Contract 4 – Booster station improvements and Contract 5 – New Office Building.
- **East Daviess County Water Association – Yelvington Tank Recoating, Project Manager:** Provided professional engineering services for design of new coating system, bidding, construction administration and resident project representation for a 0.300 MG elevated tank.
- **Allen County Water District – Halfway Booster Station Improvements, Project Manager:** Provided professional engineering services for improvements to the existing BPS by upgrading pumps, piping and installation of VFDs for increased operational controls.
- **City of Lewisport – County Booster Station Improvements, Project Manager:** Provided professional engineering services for improvements to the existing County Booster Station (200 gpm) to improve efficiency and improved operational controls.
- **Allen County Water District – Walkers Chapel Elevated Tank, Project Manager:** Provided professional engineering services for a new 300,000-gallon elevated tank, demolition of existing 169,000-gallon ground storage tank and new site work.
- **City of Hardinsburg – Water Storage Tank Improvements, Project Engineer:** Provided professional engineering services for a new 250,000-gallon elevated tank, demolition of existing 100,000-gallon elevated tank, recoating of existing 250,000-gallon elevated tank and installation of mixing systems at two existing standpipe tanks.
- **City of Hawesville – Windward Heights Water Line Replacement, Project Manager/Engineer:** Provided professional engineering services to replace the entire water system within an established subdivision containing approximately 12,000 LF of new 6-inch water lines.
- **Hancock County Fiscal Court – US 60 Water Main Extension, Project Manager:** Provided professional engineering services to construct 6,000 LF of 8-inch water line to provide service to existing residents in Hancock County.
- **City of Lebanon Junction – 2022 Water Main Extensions, Project Manager:** Provided professional engineering services to construct 4,000 LF of 6-inch water line to improve water quality and remove dead-end water mains.

---

## Matthew R. Curtis, PE

*Project Manager and Engineer*

- **Georgetown Municipal Water & Sewer Service – Spring Court Waterline Extension, Project Manager/Engineer:** Provided professional engineering services to construct 1,600 LF of 16-inch D.I.P. to provide a secondary feed of potable water the eastern portion of their distribution system.
- **City of Jenkins – Waterline Improvement Projects Phase I & II, Project Manager/Engineer:** Provided professional engineering services to replace the entire water system (waterlines, meters & service line) to address the dilapidated water system.
- **Morehead Utility Plant Board – Pleasant Valley Booster Station, Project Manager/Engineer:** Provided professional engineering services to construct a new hydropneumatic booster station to serve 70 existing customers that experienced low pressures during high usage time periods.
- **Southern Water & Sewer District – Allen to Martin Water Transmission Main Project, Project Manager/Engineer:** Provided professional engineering services to replace failing waterlines from the WTP out into the distribution system including 14,000 LF of new 12-inch D.I.P., compliance related items at the WTP.
- **East Daviess County Water Association – Jack Hinton & Short Station Roads Water Main Extension, Project Manager:** Provided professional engineering services for 33,000 LF of new 6-inch water main to replace undersized water main.
- **Southern Water & Sewer District – Mink Branch Water Tank, Project Manager/Engineer:** Provided professional engineering services for tank site location, preliminary assistance with geotechnical study, design and construction of a 0.500 MG ground storage tank, control valves, 6,000 LF of water main to replace an existing storage tank that was undersized to improve reliability to existing customers.
- **Francis Water Company – KY 777 Waterline Extension Project, Project Manager/Engineer:** Provided professional engineering services for tank site location, preliminary assistance with geotechnical study, design and construction of a 0.065 MG standpipe tank, control valves, booster station, and 14,000 LF of water main to provide potable water to residents effected due to pre-law mining.
- **East Daviess County Water Association – Iceland Road Water Main Extension, Project Manager/Engineer:** Provided professional engineering services to construct 6,000 LF of waterline to provide service to existing residents without access to potable water.
- **City of Lebanon Junction – Preston Highway Waterline Extension, Project Manager/Engineer:** Provided professional engineering services to construct 6,000 LF of 8-inch waterline to provide a secondary feed to existing customers while also improving existing pressures by creating multiple internal loops within the distribution system.
- **City of McKee – Water System Improvements, Project Manager/Engineer:** Provided professional engineering services to install 20,000 LF of waterline to replace undersized and dilapidated waterlines throughout the distribution system.
- **Breathitt County Water District – Water System Expansion Feasibility Study**
- **City of Jenkins – Various Waterline Extensions**

---

## Matthew R. Curtis, PE

*Project Manager and Engineer*

- City of Hawesville – Various Waterline Extensions
- City of Lewisport – Various Waterline Extensions
- City of Beattyville – Various Waterline Extensions
- Breathitt County Water District – Various Waterline Extensions
- Francis Water Company – WTP Evaluation
- Southern Water & Sewer District – Various Waterline Relocations

### Distribution System Hydraulic Modeling

- East Daviess County Water Association
- City of Hawesville
- Rattlesnake Ridge Water District
- City of Lewisport
- City of Lebanon Junction
- City of McKee
- City of McKee
- Allen County Water District
- Gallatin County Water District
- Bracken County Water District
- Morehead Utility Plant Board
- City of Beattyville

### Wastewater Treatment Plants

- **City of Hawesville – WWTP Expansion, Project Manager/Engineer:** Provided professional engineering services for the siting, design and bidding services of a 0.300 MG WWTP Expansion with major modifications to headworks and sludge handling facilities.
- **City of Lewisport – WWTP Headworks Improvements, Project Manager:** Provided professional engineering services for design, construction and start-up of the conversion of new influent and effluent piping for the existing headworks facilities.
- **City of Warsaw – WWTP Improvements – Sludge Handling Facilities, Project Manager/Engineer:** Provided engineering services for replacement of existing centrifuge system with a new rotary press for sludge processing.
- **City of Warsaw – WWTP Improvements – UV System Replacement:** Provided professional engineering services for the replacement of the existing UV disinfection system with a new UV system.

### Wastewater Collection System

- **Morehead Utility Plant Board – Derrickson Lift Station & Force Main Project, Project Manager/Engineer:** Provided professional engineering services for the siting of new lift station, routing of force main, coordination with KYTC for future road design, design, bidding and construction administration services for a 1.0 MG lift station and approximately 15,000 LF of 10-inch force main.
- **City of Lebanon Junction – West Oak Street Sewer Main, Project Manager/Engineer:** Provided professional engineering services for planning, design, bidding and construction administration services for a new 12-inch transmission gravity sewer main to improve flow capacity and reduce surcharging events for the northern portion of the collection system.
- **Morehead Utility Plant Board – US 60 & KY 801 SSO Correction Project, Project Manager/Engineer:** Provided professional engineering services for planning, design, bidding and construction administration services for two new lift stations, four lift station rehabilitations, 3,000 LF of gravity sewer main and 70,000 LF of 10-inch to 6-inch force mains.

---

## Matthew R. Curtis, PE

*Project Manager and Engineer*

- **City of Lebanon Junction – Truck Stop Lift Station Replacement, Project Manager/Engineer:** Provided professional engineering services for funding, planning, design, bidding, construction administration and resident project representation for a 0.250 MG lift station and 1,000 LF of 6-inch force main.
- **City of Mount Washington – Landis Lane Sewer Main Extension, Project Manager:** Provided professional engineering services for planning, design and construction administration for the extension of 8-inch gravity sewer to an unserved area within Mount Washington Service Area.
- **Georgetown Municipal Water & Sewer Service – West Woods Phase II Force Main Replacement, Project Manager/Engineer:** Provided professional engineering services for planning, design, bidding and construction administration for the installation of 3-inch force main that was undersized.
- **Morehead Utility Plant Board – 36-Inch Gravity Sewer Main, Project Manager:** Provided professional engineering services for the planning, bidding and review of CCTV for determination of replacement options for the main transmission main.
- **City of Jenkins – Main Street Sewer Rehabilitation – Phase I & II, Project Manager/Engineer:** Provided professional engineering services for planning, design, bidding and construction administration for the rehabilitation of the existing gravity sewer mains, new lift station, new force main, manhole rehabilitation, parallel gravity main to eliminate surcharging.
- **Northern Madison County Sanitation District – Terrill Wastewater Collection System Expansion, Project Engineer:** Provided professional engineering services for planning, design, bidding, construction and resident project representative services of 25,000 LF of gravity sewer mains to serve an existing development.
- **City of Beattyville – KY 11 North Wastewater Collection System Expansion, Project Manager:** Provided professional engineering services for planning, funding, design, hydraulic analysis of low-pressure system, bidding and construction administration services for 6,000 LF of gravity sewer main, 35,000 LF of force mains, upgrades to existing lift station and a new lift station.
- **Perry County Sanitation District #1 – Chaives Wastewater Collection System, Project Engineer:** Provided professional engineering services for the technical design, equipment analysis for basis of design, hydraulic analysis of low-pressure collection system and KDOW submittals.

### Wastewater Studies

- **Morehead Utility Plant Board – Main Lift Station Evaluation, Project Manager:** Evaluated the existing 4.0 MG Main Lift Station for compliance with current KY Division of Water Requirements for recommended improvements for increased capacity and adequate redundancies.
- **Morehead Utility Plant Board – Phase I Capacity Analysis, Project Manager:** Evaluated the western portions of the MUPB's collection system that covered western Rowan County, southern Fleming County and eastern Bath County, to determine the source of 85% of MUPB's SSO events. The evaluation included hydraulic modeling of a combination low-pressure and force main system with a total of 40 lift stations.

---

## Matthew R. Curtis, PE

*Project Manager and Engineer*

- **City of McKee – SSES, Project Manager:** Oversaw the completion of an SSES for compliance with an Agreed Order for purposes of identifying the sources of excessive Inflow/Infiltration (I/I).

### Regional Facility Plans

- City of Hawesville
- City of Jenkins
- City of Hardinsburg
- Perry County Sanitation District #1
- City of Ewing
- City of Louisa
- Northern Madison County Sanitation District
- City of Lebanon Junction
- Morehead Utility Plant Board

### Asset Inventories

- City of Lebanon Junction
- City of Frenchburg
- Georgetown Municipal Water & Sewer Service

### Natural Gas

- **Morehead Utility Plant Board – KY 377 Natural Gas Main Relocation:** Provided professional engineer design services for relocation of existing natural gas mains due KYTC Highway Road Realignment. Project included approximately 20,000 linear feet of 6-inch, 4-inch and 2-inch gas mains and five transmission gas main crossings.
- **EQT Resources – Various Gas Main Replacements, Project Engineer:** Provided professional engineer design services for KYTC Encroachment Permits for transmission main replacements throughout east Kentucky for EQT Gathering Operations.
- **City of Augusta – KY 19 Utility Relocation, Project Engineer:** Provided professional engineer services for establishing the impact of the KY 19 relocation for the City's gas distribution system, design of gas main routing, coordination with other existing underground utilities and provide construction administration for approximately 15,000 LF replacement of steel gas mains.
- **Jefferson Gas Company – KY 321 Utility Relocation, Project Engineer:** Provided professional engineer services for establishing the impact of the KY 19 relocation for the City's gas distribution system, design of gas main routing, coordination with other existing underground utilities and provide construction administration for approximately 15,000 LF replacement of steel gas mains.
- **City of Jenkins – Natural Gas Feasibility Study, Project Engineer:** Provided engineering services for the review of the possibility of the establishment of a natural gas distribution system.

### Site Development

- **City of Lewisport – Park Sidewalk Improvements, Project Manager:** Provided professional engineering services for the planning, design and resident project representative for the redevelopment of the city park. Services provided included site grading, utility layout (electric), design of sidewalks, stormwater and long-term planning.
- **The Landing Strip, LLC – The Landing Strip RV Park, Project Manager:** Provided professional engineering services for the planning, design and resident project representative for the redevelopment





---

## Matthew R. Curtis, PE

*Project Manager and Engineer*

of the former Morehead-Rowan County Airport into a RV park. Services provided included site grading, utility layout (water, sewer & electric), permitting with KDOW and on-site road work.

- **City of Lewisport – Park Pavilion, Project Manager:** Provided professional engineering services for the planning, design and resident project representative for the construction of 3,000 square foot pavilion at the city park. Services provided included site grading, utility layout (water, sewer, natural gas, & electric), design of sidewalks, stormwater and building design.
- **Frontier Housing, Inc. – Salt Lick Elementary Redevelopment, Project Manager/Engineer:** Provided professional engineering services for the planning, design, bidding, construction administration and resident project representative for the redevelopment of the Salt Lick Elementary School for a small residential subdivision. Services provided included site grading, Elevation Certifications, stormwater facilities, electrical, telephone, cable, sanitary sewer, potable water, roads, sidewalks and coordination with KYTC for new road intersection.
- **City of Morehead – Center Street Redevelopment, Project Manager/Engineer:** Provided professional engineering services for the planning, design, bidding, construction administration and resident project representative for the redevelopment of an existing trailer park for a small residential subdivision. Services provided included site grading, electrical, sanitary sewer, and potable water.

### Dam & Reservoirs

- **Heartbeat Ridge, LLC – Heartbeat Ridge Dam & Reservoir, Project Engineer:** Provided professional engineering services for increasing the height and impoundment area of an existing reservoir on a private farm in Harrison County, Kentucky.
- **City of McKee – McKee City Reservoir Dam Assessment, Project Manager** – Provided professional engineering services for an assessment of an existing 30-foot-high hazard dam that serves as the primary raw water supply for the City of McKee's Water Treatment Plant. The assessment evaluated alternative for the City of McKee in regards to financial and non-financial considerations to the Dam and WTP.

### Presentations

- **Kentucky Rural Water Association – 2024 Management Conference: Reducing Water Loss – Step by Step Approach, February 21, 2024.**
- **Eastern Chapter of KWWOA – Spring Regional Training – Hydraulics 101, March 29, 2023.**
- **Morehead Utility Plant Board – MUPB Training – System Hydraulics of Force Mains, December 7, 2022.**

### Prior to Bluegrass Engineering, PLLC

Kentucky Engineering Group, PLLC, Versailles, Kentucky

Nesbitt Engineering, Inc, Lexington, Kentucky

**Bryan K. Lovan, PE, PLS**

e-mail: [blovan@bluegrassengineering.net](mailto:blovan@bluegrassengineering.net)

Cell: **(859) 351-1714**

Fax: (502) 642-5180

[www.bluegrassengineering.net](http://www.bluegrassengineering.net)

## **Water**

Bluegrass Engineering PLLC offers municipalities, water districts, water associations and privately owned systems a vast experience in design of water distribution improvements. Each utility varies in its operation and size, but the goal of each is to provide safe reliable drinking water to the customers. Bluegrass prides itself in not only providing technical solutions but also the ability to assist the utility in optimizing the operations by getting to know how their system operates. This allows us to construct an accurate hydraulic model to displaying the current operations for improvements and to show the effects of proposed changes before the project is implemented and any other “what ifs” a client or operator may have.

- Water Treatment Plant Improvements
- Water Treatment Plant Design
- Distribution Expansion
- Distribution Optimization
- Hydraulic Modeling
- Booster Station
- Water Storage Facilities
- Kentucky Transportation Cabinet Relocations

## Kentucky 811 – Damage Prevention Managers

### **Eastern and Central Region:**

Jamie Gaddis

[jgaddis@ky811.com](mailto:jgaddis@ky811.com)

[\(859\) 457-0405](tel:(859)457-0405)

### **Western Region:**

Patrick Donoghue

[pdonoghue@ky811.com](mailto:pdonoghue@ky811.com)

[\(270\) 935-9935](tel:(270)935-9935)

Kentucky 811 is a non-profit corporation made up of member operators of underground facilities in Kentucky, designed to reduce the number of damages to buried utilities and promote safe digging state-wide. This free service helps prevent damage incidents which can result in millions of dollars in property damage, the interruption of utility service, personal injuries and even loss of life.

Kentucky's "[Call Before You Dig](#)" law requires everyone who digs to contact Kentucky 811 at least two full business days before starting a project. Upon receipt of a ticket, Kentucky 811 notifies our member utilities or their contract locators to request that they mark their buried utility lines in the area of the dig site.

### Our Story

Digging near buried utilities can be expensive and dangerous, and before Kentucky 811 was formed in 1987, the process for requesting that the approximate location of buried utilities be marked with flags or paint was cumbersome and involved calling multiple utilities directly.

To address this issue, the owners and operators of utilities in Kentucky founded the state's one-call center in 1987 under the name of Kentucky Underground Protection, Inc. The one-call center currently operates with hundreds of member utilities.

Today, Kentucky 811 is composed of industry leaders who specialize in damage prevention. If you are a utility operating in Kentucky and are not yet a member of Kentucky 811, [join today](#).

## Jamie Gaddis Bio

Hailing from Southeastern Kentucky, Jamie made her way to the Central Kentucky area via horsepower serving as the Special Events Manager at Kentucky Horse Park. She changed to a different kind of horsepower that helped her fly the friendly skies where she was a program manager at Eastern Kentucky University's Center for Aviation, most recently. During her tenure there, she also worked with various divisions for Ariat International, Inc.

After being stuck to a desk for the past 3.5 years, and not flying nearly as much as she wanted, she said she was ready for a change and to get back out on the road and back to her roots of Eastern Kentucky, helping people. She is excited to be part of the Kentucky 811 program and to tell its story and share the education helping lead the state into fewer damages and injuries.

A knack for talking with a passion for helping, Jamie 's background is all over the place, much like her. In a previous life, she was Director of Community and Economic Development at an electric co-op, working with various industries relocating to Kentucky as well as those who have been long time business members of the Eastern region. This is where she first learned of Kentucky 811 and its importance of not only saving lives but educating people to eliminate hardships for communities from cut utilities due to simply not calling a phone number or now, submitting a ticket online.

She is a self-motivated leader with a proven track record of working with leadership teams across various spectrums. Her background includes community, economic and workforce development, public relations, event planning and working with both non-profits as well as global corporations.

# **Exhibit 3**



# ROWAN WATER SUMMER TRAINING

HONAKER LAW OFFICE, PLLC

BRITTANY HAYES KOENIG

▶ August 20, 2024

**ROWAN WATER  
SUMMER TRAINING**


HONAKER LAW OFFICE, PLLC  
BRITTANY HAYES KOENIG  
▶ August 20, 2024

1

**Regulatory Update  
of COMMISSION  
ORDERS &  
RELEVANT  
LEGISLATION**

2

**Introduction  
& Disclaimer**



3

**Legislative  
Update**

HOUSE BILL 563 CREATES THE KENTUCKY WATER & WASTEWATER ASSISTANCE FOR TROUBLED OR ECONOMICALLY RESTRAINED SYSTEMS PROGRAM (WATERS PROGRAM), KENTUCKY INFRASTRUCTURE AUTHORITY BACKED, INTENDED TO ALLOW STRUGGLING WATER AND WASTEWATER SYSTEMS ACCESS TO NEEDED FUNDS, WHILE ALSO REQUIRING ACCOUNTABILITY AND CREATING INCENTIVES FOR GREATER REGIONALIZATION. THE SENATE BUDGET AMENDMENTS PROPOSE \$150 MILLION IN ONE-TIME SPENDING TO HELP KICKSTART THE PROGRAMS.

4

**Legislative  
Updates**



5

**COMMISSION  
UPDATES**

- \* More Training Dates Available
- \* Commission Training Materials Available



6

“ BOARD ACTION/INACTION  
 Financing  
 PSC Orders  
 Board Compensation  
 Rate Cases ”

7




### Comply with PSC Orders

Evaluate Rate Sufficiency to file a rate case when it is **NEEDED**, you can file sooner than ordered, and before 3-5 years, if needed.

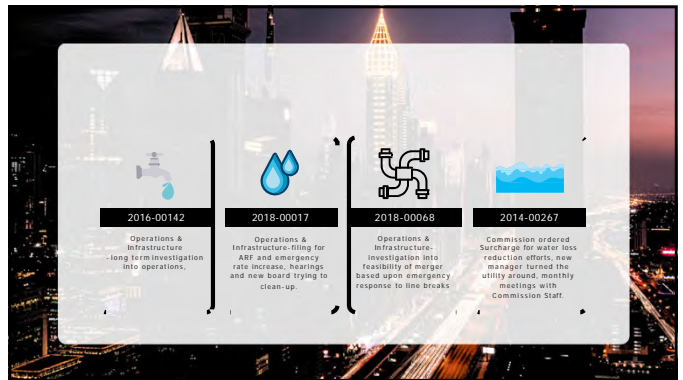
-  PSC Case No. 2022-00215: Failure to Comply with PSC Order by not filing a rate application within designated time. Final Order 8-24-2023
-  PSC Case No. 2021-00343: Failure to Comply with PSC Order by not filing a rate application within designated time and not filing Annual Report on time.





8

### CASE STUDIES

-  Issue: Financing or Issuing Debt  
 2017-00176, 2017-00467 ARF filing with hearing and discovered debt obtained without approval that led to show cause and board resigned.
-  Issue: Financing or Issuing Debt  
 Loans/Vehicles Requiring Approval: Review of debt acquired by former Board New Office Headquarters
-  Issue: Failure to File Rate Case  
 2022-09228-PWA Case-Ordered to file Rate Case, KRS 278.023 Case, Adopted New Policies, All PSC orders forwarded to Board Members, RCAP

9



 2016-00142 Operations & Infrastructure - long term investigation into operations.	 2018-00017 Operations & Infrastructure- filing for ARF and emergency rate increase, hearings and new Board trying to clean-up.	 2018-00068 Operations & Infrastructure- investigation into feasibility of merger based upon emergency response to line breaks.	 2014-00267 Commission ordered Surcharge for water loss reduction efforts, new manager turned the utility around, monthly meetings with Commission Staff.
---	---	---	---

10

## WATER LOSS INVESTIGATION

Case No. 2019-00041, Electronic Investigation into Excessive Water Loss by Kentucky's Jurisdictional Water Utilities (Ky PSC Nov. 22, 2019), Appendix L, Confronting the Problems Plaguing Kentucky's Water Utilities: An Investigative Report by the Kentucky Public Service Commission November 2019.

Board Training & Management Skills

Water Loss Review in every PSC Filing

More Frequent Rate Cases

11

## Current Cases to Watch

12



# Comply with PSC Orders

- \* Designate a position responsible for reading and distributing PSC ORDERS.
- \* Keep Running Record of Responsibilities under PSC ORDERS, Deadlines, etc.
- \* Make new Board/employees aware of the on-going responsibilities.
- \* Contact PSC to obtain copies of inspections and maintain good communication with inspectors to stay compliant.

**HONAKER LAW**  
**OFFICE, PLLC**

# WATER TRAINING

PRESENTATION BY BRITTANY HAYES KOENIG

1

## INTRODUCTION & DISCLAIMER

BRITTANY HAYES KOENIG



2

## REGULATORY COMPLIANCE UPDATE

### BOARD & RATE CASES



3

## AGENDA

- BOARD RESPONSIBILITY
- RATE CASE CONSIDERATION




4

**COMMISSIONERS ARE RESPONSIBLE FOR ENSURING THAT THE WATER UTILITY COMPLIES WITH THE LAWS OF THE COMMONWEALTH AND COMMISSION REGULATIONS**

**Water District Commissioners**

**KRS 74.020:**  
WATER DISTRICT IS ADMINISTERED BY BOARD OF COMMISSIONERS OR BOARD OF DIRECTORS WHO MANAGE THE AFFAIRS OF THE DISTRICT


**KRS 74.070:**  
DUTIES AND POWERS



**WATER ASSOCIATIONS**

KRS 273.215 CONTAINS STANDARD FOR DIRECTORS: GOOD FAITH; INFORMED BASIS; BEST INTEREST OF CORPORATION.

KRS 273.219 IS THE CONFLICT OF INTEREST PROVISION WITH FOCUS ON DISCLOSURE AND FAIRNESS



5

## PENALTIES

**KRS 278.990(1):**

Any officer, agent, or employee of a utility and any other person who willfully violates any of the provisions of this chapter or any regulation (promulgated by the commission), or fails to obey any order of the commission ..., or who procures, aids, or abets a violation by any utility, shall be subject to either a civil penalty to be assessed by the commission not to exceed two thousand five hundred dollars (\$2,500) for each offense.

**KRS 278.990(3):**

Any utility that issues any securities or evidences of indebtedness, or assumes any obligation or liability in respect to the securities or evidences of indebtedness of any other person, or makes any sale or other disposition of securities or evidences of indebtedness, or the proceeds thereof, for purposes other than the purposes specified in the order of the commission made with respect thereto under KRS 278.300, shall be fined not more than ten thousand dollars (\$10,000).



6

## "ETHICS" IS MANDATORY

**KRS 65.003**

- requires the governing body of each county to adopt, by ordinance, a code of ethics that applies to all elected officials. The boards, officers, and employees of special purpose governmental entities "shall" be subject to a code of ethics.

**KRS 65A.070(2)**

permits the governing body of a special purpose governmental entity to adopt ethics provisions that are more stringent than adopted by the establishing entity (the code of ethics of the county in which the principal business office is located).

7

## STATUTORY STANDARDS



**KRS 11A.005**

- Independent and impartial actions
- Policy and decision through established processes
- No use of position for private benefits
- Enforcement (KRS 11A.080)



**KRS 65.003**


- Disclosure of financial interests
- Operate with clear standards of conduct
- Have policy on employment of family members

8

## KRS 65.003

Code of Ethics adopted pursuant to KRS 65.003

- 01** • Prohibits use of influence in any matter which involves a substantial conflict of interest between private interests and public duties
- 02** • Prohibits use of position to obtain financial gain or creation of advantage or treatment in derogation of public duty
- 03** • Generally prohibits acceptance of extra compensation for performance of official duties (and requires the establishment of policies and procedures for certain public servants falling under an exception).
- 04** • Requires some individuals to file a financial disclosure statement



9

## Code of Ethics Addresses...

Nepotism

Representation of interests before governmental unit

**Gifts** (including travel and travel-related expenses)

Use of public property, equipment, and personnel

Misuse of confidential information

**Honoraria (extra compensation)**

Conflict of interest generally with emphasis on maintaining the proper discharge of public duties

Post-employment restrictions

Conflicts of interest, specifically, in contracts

10



**KRS 65A.070(2)**

• Additional policy of water district includes, among other things, prohibitions against:


- Gambling or money lending on site
- Intoxication from alcohol or drugs
- Sexual harassment of a fellow employee

Note: While these seem to be the type of things covered by an employee handbook, it underscores that ethical behavior is not separate or distinct from correct performance of the job.

11

## Reminders

- Affirmatively review for conflicts of interest. (Board Member)
- When a conflict exists, there should be a documentation of the conflict. (Minutes)
- Abstain means to abstain. (Board) Err on the side of caution, non-involvement. Remember, if you have a fiduciary duty to another organization, then you need to be very careful. Do not assume that other board members will know that you have a conflict.
- Do not fail to inform the other party/entity of the conflict or potential conflict.
- Do not communicate "off-the-record" or otherwise do indirectly what is not appropriate.




12

# MINUTES

*Official Record*

- Record Adherence to Open Meetings Rules
- Record Due Diligence (PSC Orders, water loss, rate sufficiency reviews)
- Record Attendance-Recusal if Conflict
- Record as a public record because they will most likely be filed in a rate case at some point.



13

# SELF DEALING



Board Members/Directors cannot use the utility to promote private gain and personal enrichment.



When the action involves the personal interest or private gain of a commissioner, an officer or director, there is a conflict of interest.



Both the members of the boards and boards as bodies must be diligent to prevent conflicts of interest from interfering with the management of the utility.

14

## Board Member Compensation

KRS 74.020(6): Each commissioner shall receive an annual salary of not more than thirty-six hundred dollars (\$3,600), which shall be paid out of the water district fund. Except that ... each commissioner who completes ... a minimum of six (6) instructional hours of water district management training ... may receive an annual salary of not more than six thousand dollars (\$6,000) to be paid out of the water district fund ... the salary shall be fixed by the county judges/executive with the approval of the fiscal court.

KRS 74.050: In addition to the compensation for commissioners as set out in KRS 74.020, as compensation for his or her services the treasurer shall receive an amount fixed by the [Water District Board], not to exceed two hundred dollars (\$200) per year.

KRS 74.020 (3): A commissioner who participates in any official action by the water district board of commissioners which results in a direct financial benefit to him may be removed from office ...



15

## BOARD MEMBER COMPENSATION

Case No. 2019-00268: FACTS

- Water District with about 3,000 customers filed for a rate increase pursuant to the alternative rate filing procedure in 807 KAR 5:076.
- Water Commissioners were receiving \$6,000 pursuant to KRS 74.020(6) and were being offered health, dental, vision, and life insurance benefits at the same level as the districts full time employees.
- The total compensation for water commissioners was \$71,023.84, \$80,714.42, and \$68,740.44 in 2017, 2018, and 2019.
- The commission found that the water commissioners had voted to approve the healthcare for themselves.


Case No. 2019-00268: DECISION & RESOLUTION

- The Commission held that any board member who voted to provide themselves insurance violated KRS 74.030 by participating in an official act that result in their direct financial benefit and that they could be removed from office.
- The Commission also held that the KRS Chapter 74 intended to specifically limit the compensation of water Commissioners to the amounts specifically authorized by KRS Chapter 74 i.e. \$6,000 for commissioners and an additional \$200.00 for the treasurer.
- The Commission ordered the district to cease offering compensation to the board beyond those amounts.
- The board members who voted to provide themselves the health insurance and other benefits resigned from the board.

16

# Rates

**KRS 278.010(12)**  
 ANY INDIVIDUAL OR JOINT FARE, TOLL, CHARGE, RENTAL, OR OTHER COMPENSATION FOR SERVICE RENDERED OR TO BE RENDERED BY ANY UTILITY, AND ANY RULE, REGULATION, PRACTICE, ACT, REQUIREMENT, OR PRIVILEGE IN ANY WAY RELATING TO SUCH FARE, TOLL, CHARGE, RENTAL, OR OTHER COMPENSATION, AND ANY SCHEDULE OR TARIFF OR PART OF A SCHEDULE OR TARIFF THEREOF.




17

# RATES

## METHODS FOR SETTING AND ADJUSTING RATES


- TARIFF FILING
- ALTERNATIVE RATE ADJUSTMENT
- PURCHASE WATER ADJUSTMENT
- NON- RECURRING CHARGES



18

## WHAT IS A RATE CASE

- THERE IS A DIFFERENCE BETWEEN FILING A BASE RATE CASE FOR AN INCREASE IN RATES PURSUANT TO KRS 278 .190 OR THROUGH THE 807 KAR 5 :076 ALTERNATIVE RATE ADJUSTMENT PROCEDURE FOR SMALL UTILITIES VERSUS WHEN A UTILITY FILES FOR APPROVAL OF A LOAN APPROVAL FOR UNITED STATES DEPARTMENT OF AGRICULTURE RURAL DEVELOPMENT (USDA/RD) PROJECT PURSUANT TO KRS 278 .023 .
- DEPRECIATION IS NOT ACCOUNTED FOR IN USDA/RD LOANS THE SAME AS PSC.



19

## Rate Cases

- There needs to be a reasonable nexus between the spending (expense) and the provision of reasonable service. Read the most recent rate case Order from the Commission and see if there were any expenses disallowed.
- The presentation to the board concerning the budget and expenditures should contain sufficient information to describe and detail the use of funds.
  - Candid with Attorneys and Provide the Most Information to Support your Position for Commission Staff
  - Utility should make their case for the rate they are asking for. PSC doesn't "give money" ratepayers pay.
  - PSC Staff required to get evidence in the record.
- Utilities should have policies that promote clear record keeping to hold the utility accountable to its customers. Be prepared to spell out procedures and intent very clearly because there is a lot of new Commission Staff with little experience in utility law.
- Commissioners
  - "That is the way we've always done it" = NO Excuse.
  - Educate yourself on decisions. Ask questions.
  - If you employ attorneys, understand that the utility/ratepayers are responsible for paying the fee and you are responsible for managing the direction of litigation costs.

20


- Directors/Commissioners need policies that
  - Address the unpopular/political problems.
  - Address periodic rate increases.
  - Address periodic infrastructure assessments.
  - New York Times Rule: "Don't do anything you wouldn't want to have on the front page of the New York Times."
  - On the record disclosure to the board
  - Advice of counsel and/or (where available) advisory opinion by ethics board
  - On the record removal (recusal) from the matter
  - Local Paper Rule: Would a reasonable, informed customer agree that it is fair?



21

## WATER LOSS

- CASE NO. 2019-00041, ELECTRONIC INVESTIGATION INTO EXCESSIVE WATER LOSS BY KENTUCKY'S JURISDICTIONAL WATER UTILITIES (KY. PSC NOV. 22, 2019 ), APPENDIX L, CONFRONTING THE PROBLEMS PLAGUING KENTUCKY'S WATER UTILITIES: AN INVESTIGATIVE REPORT BY THE KENTUCKY PUBLIC SERVICE COMMISSION NOVEMBER 2019 .
- FINDINGS AND RECOMMENDATIONS




22

## RATES

### ALTERNATIVE RATE FILING

- 807 KAR 5 :076
- PURPOSE: SIMPLIFIED AND LESS EXPENSIVE PROCEDURE
- UTILITIES NEED ONLY FILE SIMPLIFIED APPLICATION FORM WITH PSC
- ELIGIBILITY:
  - UTILITIES WITH GROSS ANNUAL REVENUES ≤\$5,000,000



23

## 807 KAR 5:076

### Alternative Rate Filing

- Section 3 :Record upon which decision made
- Section 4 :Application
- Section 5 :Notice to customers
- Section 6 :Notice to Commission
- Section 7 :Effective Date of Proposed Rates
- Section 13 :Role of non-attorneys
- Authorized water district personnel may
  - file application
  - responses to requests for information
  - appear at conferences
- BUT Attorney must represent at hearing (if held)

24

**RATES**


**PURCHASED WATER ADJUSTMENT**

**KRS 278.015**

- ADJUST RATES TO REFLECT WHOLESALE SUPPLIER INCREASE WITHOUT PSC PRIOR APPROVAL

**807 KAR 5:068**

- FILE APPLICATION WITHIN 20 DAYS OF ADJUSTMENT
- NOTICE TO CUSTOMERS
- FILE REVISED TARIFF SHEET WITHIN 20 DAYS OF COMMISSION ORDER APPROVING PROPOSED RATES




25

**RATES**

**NONRECURRING CHARGES**

**807 KAR 5:011 SECTION 10**

- DOCUMENTATION
- COST JUSTIFICATION
- PUBLIC NOTICE
- STATEMENT WHY REVISIONS WERE NOT INCLUDED IN MOST RECENT RATE CASE AND SHOULD NOT BE DEFERRED UNTIL NEXT GENERAL RATE CASE
- ONLY ENOUGH REVENUE TO PAY EXPENSES INCURRED



26

**HONAKER LAW OFFICE, PLLC**

**WATER TRAINING II**

PRESENTATION BY BRITTANY HAYES KOENIG



27

**REGULATORY COMPLIANCE TARIFF & CPCN**




28

**RATES: TARIFFS**

- KRS 278.160 : UTILITY MUST FILE AND ADHERE TO TARIFF
- KRS 278.170 : NO RATE OR SERVICE DISCRIMINATION
- KRS 278.180 : RATE CHANGES


- 807 KAR 5:001:rules of procedures for proceedings
- 807 KAR 5:006:general procedures for providing service
- 807 KAR 5:011:tariff regulations



29

**RATES: TARIFFS**

- KRS 278.160(1): RATES MUST BE FILED WITH PSC UTILITY MUST FILE TARIFF WITH PSC SHOWING SCHEDULE OF RATES FOR EACH CLASS OF CUSTOMERS TERMS AND CONDITIONS UNDER WHICH SERVICE IS PROVIDED TO CUSTOMERS
- KRS 278.160(2): FILED RATE DOCTRINE: UTILITY CANNOT CHARGE OR COLLECT GREATER OR LESS COMPENSATION FOR SERVICE RENDERED THAN ITS FILED TARIFF. CUSTOMER CANNOT RECEIVE SERVICE THAT DIFFERS FROM THE TARIFF



30

**KRS 278.170**


- NO UNREASONABLE PREFERENCE BETWEEN CUSTOMERS



31

**807 KAR 5:006: GENERAL RULES FOR PROVIDING SERVICE**

- SECTION 5: SUBSTANTIAL SERVICE CHANGES
- SECTION 6: SPECIAL REQUIREMENTS REQUIRE PSC APPROVAL
- SECTION 7: METER READINGS AND BILLING
- SECTION 8: DEPOSITS
- SECTION 9: NONRECURRING CHARGES
- SECTION 11: BILL ADJUSTMENT
- SECTION 15: REFUSAL OR TERMINATION OF SERVICE



32

**RATES: TARIFFS**

If it isn't in your tariff, you cannot do it

If it is in your tariff, you must do it


33

**KRS 278.180 :CHANGE IN RATES**

- 30 days notice to Commission
- File revised tariff sheets
- State proposed changes
- State time changed rates go into effect

**807 KAR 5 :011 : FILING REQUIREMENTS FOR TARIFFS**

- Customer Notice
- Billing insert
- Newspaper of general circulation
- Newsletter distributed to all customers
- Public posting in utility premises and web site



34

**Rates: Tariffs**

**PROPOSED RATES BECOME EFFECTIVE ON DATE STATED IF:**

- Proper notice to public
- Tariff sheet complies with 807 KAR 5 :011
- Commission does not suspend proposed rates per KRS 278 : 190

**•807 KAR 5 :001 :PROCEDURAL RULES FOR PROCEEDINGS**


- Section 16 : General Adjustment of Existing Rates
- Application not deemed filed until meets all requirements
- Section 17: Notice of General Rate Adjustment



35

**TARIFF**

- PROCESS OF REVISING TARIFF
- KRS 278.030
- KRS 278.160
- TARIFF HAS STATUS OF LAW
- FILED RATES MUST BE ENFORCED.



36

30 DAYS PRIOR NOTICE TO PSC  
 NOTICE IS FILING A NEW TARIFF SHEET  
 SUBMIT COVER LETTER & TARIFF SHEET IN THE TARIFF FILING SYSTEM  
 TARIFF SHEET MUST COMPLY WITH REGS  
 TARIFF SHEET SHOULD STATE EFFECTIVE DATE  
 ATTORNEY IS NOT REQUIRED  
 PUBLIC NOTICE MUST BE PROVIDED

## TARIFF REVISIONS

37

PSC Case No. 2022-0065  
 CPCN-Reasonable Alternatives Considered and Lack of Wasteful Duplication  
 PSC Case No. 2023-00192  
 CPCN-Raw Water Intake, Reasonable Alternatives Considered

## CPCN Applications

38



## CONSTRUCTION

KRS 278 .020 - CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

- Utility cannot construct any plant, equipment, property or facility until obtain certificate from the Public Service that public convenience and necessity requires the construction
- Exception: extensions in the ordinary course of business

39



## CONSTRUCTION

DEFINITION OF EXTENSION IN THE ORDINARY COURSE OF BUSINESS

EXTENSION THAT DOES NOT  
 CREATE WASTEFUL DUPLICATION  
 CONFLICT WITH EXISTING SERVICE  
 INVOLVE SUFFICIENT CAPITAL OUTLAY TO MATERIALLY AFFECT UTILITY'S  
 CURRENT FINANCIAL CONDITION  
 RESULT IN INCREASED CHARGES TO CUSTOMERS

807 KAR 5:001 SECTION 15(3)

PSC CONSIDERATIONS FOR ISSUING CPCN

- NEED FOR THE PROJECT
- REVIEWS OTHER ALTERNATIVES
- WATER SUPPLY - TREATMENT PLANT OR PURCHASE?
- LINE SIZES
- TREATMENT OPTIONS
- COST/BENEFIT ANALYSIS
- PREFERENCE FOR LEAST COST

40

## FINANCING

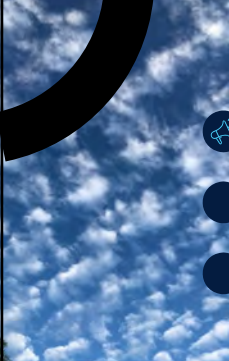
KRS 278.300

- No utility shall issue any securities or evidences of indebtedness...until it has been authorized to do so by order of the Commission.

Exception: does not apply to notes/bonds with terms of 2 years or less, renewals not to exceed 6 years

- Commission has 60 days to act once application filed.
- May be continued for good cause.
- Standard: Proper purpose/Effect on Utility's Financial Integrity
- Representative cases, discussion of recent decisions and liability.

41



## FINANCING

What is evidence of indebtedness?

- Note
- Bond
- Installment Purchase Contract/ LEASED VEHICLES
- Water Purchase Agreement (Maybe)
- Assumption of Other's Obligations/Debt

42





**SHOW CAUSE: FINANCING OR ISSUING DEBT**

- Case Studies-
- 2017-00176 & 2017-00467-ARF filing with hearing and discovered debt obtained without approval that led to show cause and board resigned;
- 2017-00469- debt obtained without approval found during rate case led to show cause hearing

43




**FINANCING**

**Duty**  
Utility Commissioners and Managers have a duty to comply with the law as part of their fiduciary duty.

**Read Statutes & Regulations**  
In a couple recent cases, the attorney for the water district has admitted to not reviewing the statutes and so not advising the utility they need PSC approval before assuming more debt. The Commission held the utility responsible.

**Ignorance is NO defense**  
In another case, the Utility Commissioners told the Commission the unauthorized debt was assumed on the advice of a bank executive. The Commission rejected that claim as well.

44



**FINANCING**

KRS 278.023—Federal Financing CPCN Cases. The Commission has limited oversight in these cases but does have the statutory authority to ensure the increased rates resulting from these cases to cover the cost of the loan is reasonable. They have begun asking for certain information in these cases which can be confusing to utilities who are used to the Commission simply approving these applications with no investigation.

45

**HONAKER LAW OFFICE, PLLC**

**WATER TRAINING**

PRESENTATION BY BRITTANY HAYES KOENIG

46

**REGULATORY COMPLIANCE GOALS**



47

**GOALS**

- ACTIVE BOARD, MANAGER, EMPLOYEES
- CLEAR POLICIES
- CALENDAR COMPLIANCE
- OPEN MEETINGS RULES
- TRANSPARENCY
- NOTICE
- BEST BUSINESS PRACTICES
- OVERSIGHT OF CONSULTANTS
- MAINTAIN PROFESSIONAL ASSISTANCE
- CHECK MAIL, READ ORDERS, GET TRAINING
- Thank you.

48



49



# Assessing Financial Wellness

A REVIEW OF THE STATE OF THE  
MARKET AND ECONOMIC  
PROJECTIONS

DETERMINING THE  
AFFORDABILITY OF A PROJECT

DEBT SERVICE COVERAGE  
CALCULATIONS

DEPRECIATION

EVALUATING DIFFERENT  
CHOICES FOR FINANCING.

To: Brittany Koenig

From: Kristen Millard

Date: March 27, 2024

---

**Outline for Informational Presentation to Rowan Water, Inc.**

**General Market Overview**

State of the Market/ Economist Projections  
Taxable versus Tax-Exempt rates

**Determining Affordability of a Project**

How to calculate estimated debt service  
Term of borrowing versus interest cost – how one affects the other.

What are the components of a debt service coverage calculation?  
Why is it necessary?  
Best practices for determining the debt service coverage needed.  
How do you fold in projected debt to determine how much you can afford?  
Interest rate increases and volatility – how does that affect your calculation?

Debt Service Reserves

Depreciation and the O&M Account

**How to Evaluate the Different Choices for Financing**

All of those statistics – what do they mean, and how to compare them.  
Timing and the process for getting to the actual financing.

**Available Choices for Financing**



# Asset Management & Financing

A DISCUSSION OF THE CURRENT STATE OF ASSETS, MANAGING MAINTENANCE & REPAIRS, AND LONG-TERM FUNDING STRATEGY.

# Asset Management and Financing



Kentucky Rural Water Association  
Utility Finance and Administration

1

## Selling the Benefits of Asset Management

- Prolonging asset life
- Improving decisions about asset rehabilitation and replacement
- Setting rates based on sound operational and financial planning
- Meeting regulatory requirements
- Improving responses to emergencies
- Reducing overall costs for both operations and capital



4

## The Fundamentals of Asset Management and Financing *using a Notepad, a Pencil, a Calculator, and Your Own Judgment*



2

## Five Core Questions

1. What is the current state of my assets?
2. What is required level of service?
3. Which assets are critical?
4. When to repair or rehabilitate or replace?
5. What is long-term funding strategy?



5

## Explaining Asset Management

Asset management is a process to make sure that:

- ✓ Planned maintenance can be conducted
- ✓ Assets can be repaired, rehabilitated, or replaced on time
- ✓ That there is enough money to pay for it.



*Because assets installed while Adolph Rupp was coaching eventually need to be replaced.*

3

## 1. What is the current state of my assets?

- a. What do I own?
- b. Where is it?
- c. What condition is it in?
- d. What is its remaining useful life?

6

### 1. What is the current state of my assets?

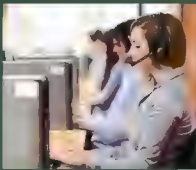
- Plan on multi-year effort to identify assets
- Use what you already have: maps, accounting records, and as-built drawings
- Focus on "what wakes you up at night"
- Identify what will need attention during the next five years

7

### 1. What is the current state of my assets?

Don't forget your back-office assets.

- Telemetry System
- Mapping System
- Accounting System
- Billing System
- Communications System



10

### 1. What is the current state of my assets?

- Source of Supply
- Treatment Plant
- Pumping Plant
- Chemical Feeds
- Transmission Pipes
- Storage Tanks
- Booster Stations




8

### 1. What is the current state of my assets?

Don't attempt it alone.

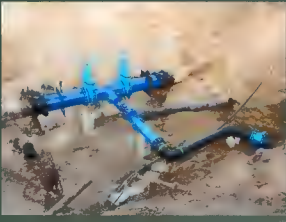
Get advice and assistance from retirees and field personnel.



11

### 1. What is the current state of my assets?

- Distribution Pipes
- Valves
- Hydrants
- Meters
- Vehicles and Equipment



9

### 1. What is the current state of my assets?

Gather identifying information:

- Make
- Model
- Serial Number
- Location
- Take photos.



12

## 1. What is the current state of my assets?

Develop your own evaluation scale:

- ✓ Routine maintenance needed.
- ✓ Rehabilitation needed.
- ✓ Replacement needed.

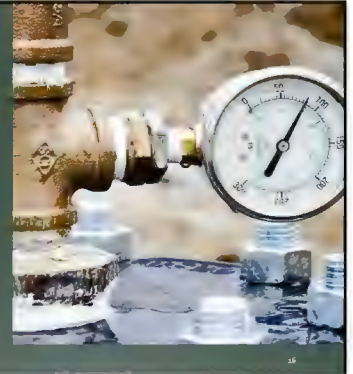
Asset	Condition Rating	Description of Condition
1	1	Asset is in good condition. No major maintenance needed.
2	2	Asset is in fair condition. Minor maintenance needed.
3	3	Asset is in poor condition. Major maintenance needed.
4	4	Asset is in very poor condition. Replacement needed.
5	5	Asset is in critical condition. Immediate replacement needed.

13

## 2. What is required level of service?

*Example: Water Pressure*

- What do my customers expect?
- What do regulators require?
- What is my actual performance?



16

## 2. What is required level of service?



What do my customers expect?



What do regulators require?



What is my actual performance?

14

## 2. What is required level of service?

*Example: Fire Hydrants*

- What do my customers expect?
- What do regulators require?
- What is my actual performance?



17

## 2. What is required level of service?

*Example: Water Main Break Frequency*

- What do my customers expect?
- What do regulators require?
- What is my actual performance?



15

## 2. What is required level of service?

*Example: Meter Accuracy*

- What do my customers expect?
- What do regulators require?
- What is my actual performance?



18




### 3. Which assets are critical?

- ⚠ How does it fail?
- ☢ What is the likelihood of failure?
- 🌪 How much advance notice is there of imminent failure?
- ☔ What are the consequences of failure?

19

### 3. Which assets are critical?




*How much advance notice is there of imminent failure?*

- ✓ Like a tornado, less than one hour
- ✓ Like a hurricane, three to five days
- ✓ Like climate change, several years

22

### 3. Which assets are critical?



*How does it fail?*


- ✓ It rusts.
- ✓ It just stops.
- ✓ Slowly at first, then rapidly.
- ✓ It bursts into flames.

20

### 3. Which assets are critical?

*What are the consequences of failure?*

- ✓ Routine
- ✓ Emergency
- ✓ Extreme
- ✓ Catastrophic




23

### 3. Which assets are critical?


*What is the likelihood of failure in next five years?*

- ✓ Not Likely
- ✓ Possible
- ✓ Likely



21

### 4. When to repair, rehabilitate, or replace?

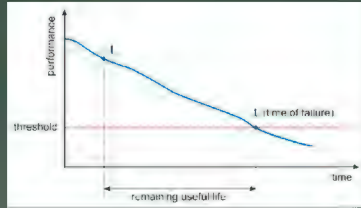


- How much time and money does repair take?
- How much time and money does rehabilitation take?
- How much time and money does replacement take?

24

## 4. When to repair, rehabilitate, or replace?

- How long does repair last?
- How long does rehabilitation last?
- How long does replacement last?



25

## KY PSC Approach to Ratemaking

- Utilities are being ordered to perform rate studies.
- Rate studies compute revenues required to recover operating expenses, debt service, and depreciation.
- Current rates typically recover operating expenses and debt service.
- New rates include depreciation
- Depreciation funds can be used reactively or proactively.



28

## Building an Asset Management Plan

### Considering:

- Current state of assets
- Level of service required
- Which assets are critical
- When to repair, rehabilitate, or replace

### Build a Five-Year Plan:

- ✓What new maintenance needs to be scheduled
- ✓What assets need to be rehabilitated
- ✓What assets need to be replaced

26

## How to Use Depreciation Funds

### Concept of Depreciation and Depreciation Reserve Fund

The concept of depreciation refers to the gradual decrease in the value of the capital stock either through the physical tear and wear, obsolescence or changes in demand for services of the capital.



29

## 5. What is long-term funding strategy?

- Transaction Approach:** Lump as much as possible into a "capital project" for grants and loans and accompanying rate increase.
- Asset Management Approach:** Look at revenues and requirements over multiple years using mix of debt and rates.

27

## Proactive vs Reactive Strategies

	Proactive Strategies	Reactive Strategies
<b>DEFINITION</b>	Proactive strategies are the strategies a company uses to anticipate possible challenges and threats	Reactive strategies are the strategies a company uses to respond to some unanticipated event only after it occurs
<b>USE</b>	Reacts to anticipated challenges	Helps to deal with unexpected situations
<b>EFFORTS FOR CRISIS MANAGEMENT</b>	Can reduce the effort a company makes for crisis management	Will not take any effort until a crisis happens
<b>TIME PERIOD</b>	Applicable for anticipated threats, challenges and future conditions	Applicable to the current situation

30

### KY PSC Approach to Ratemaking

- New rates may also include a water loss reduction surcharge.
- Established during a rate case at request of utility.
- Cost of purchased water, power, and chemicals above 15% water loss excluded from rates.
- May be recovered via fixed amount per bill for 48 months.
- Use limited to certain projects.
- Expenditures subject to prior approval by KY PSC.

31

### 5. What is long-term funding strategy?

	2023	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma	Proforma
Net Income	(18,661)	25,176	88,982	48,616	12,015	(26,560)
Plus Current Depreciation	185,276	185,276	185,276	185,276	185,276	185,276
Plus New Depreciation	-	21,725	31,592	48,448	59,983	67,304
Less Current Bond Principal Payments	(106,245)	(135,655)	(110,981)	(131,346)	(113,722)	(127,027)
Less New Debt Service Payments	-	(127,226)	(127,226)	(211,080)	(211,080)	(211,080)
Cash Generated from Operations	60,370	(30,505)	68,043	(60,086)	(67,528)	(112,087)

Determine Cash Generated from Operations for next five years.

34

### Recommended Approach

Build a five-year asset management financing plan using:

Sources and Uses of Funds	Maintenance Budget	Water Loss Surcharge *	Depreciation Funds	Loan Proceeds
Maintenance	✓	✓	✓	
Rehabilitation		✓	✓	✓
Replacement		✓		✓

\* Subject to prior approval by KY PSC

32

### 5. What is long-term funding strategy?

Identify and sequence planned capital improvements.

Walton Pike WM Replacement Replacement of approximately 3 miles of water main.	\$ 850,000
New Customer Radio Read Meters Installation of approximately 800 new customer meters.	\$ 325,000
Minerva BPS Installation of new above ground BPS.	\$ 350,000
Germantown Road WM Replacement Replacement of approximately 1 mile of water main.	\$ 850,000
Wellhead Protection Purchase of additional land to protect the well field.	\$ 260,000
Permanent Generator for WTP Installation of permanent generator at WTP.	\$ 100,000
Unplanned Capital Requirements	\$ 375,000
	\$ 3,110,000

35

### 5. What is long-term funding strategy?

- Start with the Income Statement from most recent PSC Annual Report.
- Make known and measurable adjustments to revenues and maintenance expenses.
- Project out for five years.

	2021 Actual	Known and Measurable Adjustments	2023 Proforma
<b>Operating Revenues</b>			
Total Metered Retail Sales	748,264	24,146	772,410
Other Water Revenues	-	(111)	(111)
<b>Total Operating Revenues</b>	800,739	24,146	824,885
<b>Operating Expenses</b>			
Total Operation and Maint. Expenses	500,155	14,110	514,265
Current Depreciation Expense	224,465	(39,189)	185,276
New Depreciation	-	3,570	20,549
Taxes Other Than Income	16,979	-	16,979
<b>Total Operating Expenses</b>	741,599	(11,509)	730,090
<b>Total Utility Operating Income</b>	59,140	45,655	104,795
Non-Operating Income	11,999	-	11,999
Current Interest Payments	(196,189)	-	(196,189)
Net Income	(65,041)	34,146	(30,895)

33

### 5. What is long-term funding strategy?

Assign to targeted year and increase for inflation.

	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma
Walton Pike WM Replacement Replacement of approximately 3 miles of water main.	\$ 850,000	\$ -	\$ -	\$ -	\$ -
New Customer Radio Read Meters Installation of approximately 800 new customer meters.	\$ 325,000	\$ -	\$ -	\$ -	\$ -
Minerva BPS Installation of new above ground BPS.	\$ -	\$ 350,000	\$ -	\$ -	\$ -
Germantown Road WM Replacement Replacement of approximately 1 mile of water main.	\$ -	\$ -	\$ 850,000	\$ -	\$ -
Wellhead Protection Purchase of additional land to protect the well field.	\$ -	\$ -	\$ -	\$ 260,000	\$ -
Permanent Generator for WTP Installation of permanent generator at WTP.	\$ 50,000	\$ 62,500	\$ 75,000	\$ 87,500	\$ 100,000
Unplanned Capital Requirements	\$ -	\$ -	\$ -	\$ -	\$ 375,000
	\$ 1,225,000	\$ 412,500	\$ 925,000	\$ 347,500	\$ 200,000

36

## 5. What is long-term funding strategy?

- Assign useful lives and compute new depreciation.
- Link to Income Statement.



	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma
Walton Pike WM Replacement Replacement of approximately 3 miles of water main.	13,600	13,600	13,600	13,600	13,600
New Customer Rodeo Road Meters Installation of approximately 800 new customer meters.	8,125	8,125	8,125	8,125	8,125
Minerva BPS Installation of new above ground BPS.	10,267	10,267	10,267	10,267	10,267
Germantown Road WM Replacement Replacement of approximately 1 mile of water main.	16,456	16,456	16,456	16,456	16,456
Wellhead Protection Purchase of additional land to protect the well field.	-	-	-	11,535	11,535
Permanent Generator for WTP Installation of permanent generator at WTP.	7,500	5,538	10,476	16,298	23,819
Unplanned Capital Improvements	21,275	31,992	48,448	30,983	67,904

37

## 5. What is long-term funding strategy?

Reduce size of capital program if necessary.  
Plan on preparing multiple iterations of financial plan.

	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma
Beginning Cash Balance	\$ 229,407	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809
Plus Cash Generated from Operations	\$ (30,505)	\$ 68,043	\$ (60,086)	\$ (67,528)	\$ (112,087)
Less Operating Reserve	\$ (90,014)	\$ (94,515)	\$ (99,241)	\$ (104,203)	\$ (109,413)
Cash Available for Capital Improvements	\$ 108,888	\$ 1,147,430	\$ 628,868	\$ 887,128	\$ 307,309
Less Indexed Capital Improvements	\$ (1,225,000)	\$ (453,750)	\$ (1,119,250)	\$ (462,523)	\$ (292,820)
Ending Funds Prior to Borrowing	\$ (1,116,112)	\$ 693,680	\$ (490,382)	\$ 424,606	\$ 14,489
Plus Borrowed Funds	\$ 2,200,000	\$ -	\$ 1,450,000	\$ -	\$ -
Ending Funds After Borrowing	\$ 1,083,888	\$ 693,680	\$ 959,618	\$ 424,606	\$ 14,489
Plus Operating Reserve	\$ 90,014	\$ 94,515	\$ 99,241	\$ 104,203	\$ 109,413
Ending Cash Balance	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809	\$ 123,902

40

## 5. What is long-term funding strategy?

Pull it all together into a financial plan.



	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma
Beginning Cash Balance	\$ 229,407	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809
Plus Cash Generated from Operations	\$ (30,505)	\$ 68,043	\$ (60,086)	\$ (67,528)	\$ (112,087)
Less Operating Reserve	\$ (90,014)	\$ (94,515)	\$ (99,241)	\$ (104,203)	\$ (109,413)
Cash Available for Capital Improvements	\$ 108,888	\$ 1,147,430	\$ 628,868	\$ 887,128	\$ 307,309
Less Indexed Capital Improvements	\$ (1,225,000)	\$ (453,750)	\$ (1,119,250)	\$ (462,523)	\$ (292,820)
Ending Funds Prior to Borrowing	\$ (1,116,112)	\$ 693,680	\$ (490,382)	\$ 424,606	\$ 14,489
Plus Borrowed Funds	\$ 2,200,000	\$ -	\$ 1,450,000	\$ -	\$ -
Ending Funds After Borrowing	\$ 1,083,888	\$ 693,680	\$ 959,618	\$ 424,606	\$ 14,489
Plus Operating Reserve	\$ 90,014	\$ 94,515	\$ 99,241	\$ 104,203	\$ 109,413
Ending Cash Balance	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809	\$ 123,902

38

## Is There a Spreadsheet Model Available?

Under Development by KRWA!

### FINANCIAL PLAN INPUTS 2023-2028

Model Inputs	2023	2024	2025	2026	2027	2028
Rate Increase	-	11.0%	11.0%	-	-	-
O&M Inflation Factor	-	5.0%	5.0%	5.0%	5.0%	5.0%
Capital Inflation Factor	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%
Beginning Cash Balance	\$169,037	-	-	-	-	-
Operating Reserve Requirement as Percent of O&M	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Debt Service Years	30	30	30	30	30	30
Debt Service Rate	4%	4%	4%	4%	4%	4%
Borrowed Funds	-	\$ 2,200,000	-	\$ 1,450,000	-	-
Additional Borrowing Required	No	No	No	No	No	No

41

## 5. What is long-term funding strategy?

Determine how much borrowing is necessary to ensure funding of operating reserve with positive ending cash balance.

	2024	2025	2026	2027	2028
	Proforma	Proforma	Proforma	Proforma	Proforma
Beginning Cash Balance	\$ 229,407	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809
Plus Cash Generated from Operations	\$ (30,505)	\$ 68,043	\$ (60,086)	\$ (67,528)	\$ (112,087)
Less Operating Reserve	\$ (90,014)	\$ (94,515)	\$ (99,241)	\$ (104,203)	\$ (109,413)
Cash Available for Capital Improvements	\$ 108,888	\$ 1,147,430	\$ 628,868	\$ 887,128	\$ 307,309
Less Indexed Capital Improvements	\$ (1,225,000)	\$ (453,750)	\$ (1,119,250)	\$ (462,523)	\$ (292,820)
Ending Funds Prior to Borrowing	\$ (1,116,112)	\$ 693,680	\$ (490,382)	\$ 424,606	\$ 14,489
Plus Borrowed Funds	\$ 2,200,000	\$ -	\$ 1,450,000	\$ -	\$ -
Ending Funds After Borrowing	\$ 1,083,888	\$ 693,680	\$ 959,618	\$ 424,606	\$ 14,489
Plus Operating Reserve	\$ 90,014	\$ 94,515	\$ 99,241	\$ 104,203	\$ 109,413
Ending Cash Balance	\$ 1,173,902	\$ 788,195	\$ 1,058,859	\$ 528,809	\$ 123,902

39

## What Does KY PSC think of this?

- ✓ Commission supports asset management approach.
- ✓ Commission has not yet considered a rate case for a rural water utility based on asset management approach.
- ✓ Discussions underway!



42

Questions?

43



# WORKING EFFECTIVELY WITH THE BOARD

A DETAILED REVIEW OF POLICIES TO ENCOURAGE EFFECTIVE MANAGEMENT OF WATER UTILITIES THROUGH DEFINING ROLES, UNDERSTANDING DUTIES AND RESPONSIBILITIES AND MAKING POLICY TO PROMOTE HEALTHY OVERSIGHT.

# Working Effectively With Your Board

Kentucky Rural Water Association

1

## Helping Your Board To...

- ... Understand Their Role
- ... Perform Their Role
- ... Improve Their Performance

2

## Helping Your Board Understand Their Role

- Policy Making
- Strategy Setting
- Regulatory Compliance
- Planning
- Financial Oversight
- Management Oversight
- System Oversight
- Decision Making
- Emergency Preparedness

3

## Understand: Policy Making

*"Each board must determine if it is a policy-making board or an operating board. They must pick a lane and stay in it."*

*"A policy is a decision made at leisure in advance to keep from making a mistake in haste later on."*

*"The keys to success in management are competence, character, and the freedom to act."*

4

## Understand: Policy Making



- Service Rules and Regulations
  - Water Main Extensions
  - Turn Offs for Delinquent Accounts
  - Resolving Billing Disputes
- Personnel Matters
  - Compensation
  - Vehicle Use
  - Paid Time Off
  - Discipline
- Purchasing
  - Competitive Pricing
  - Approval Limits
  - Credit Cards

5

## Understand: Strategy Setting

*"If you don't know where you are going, any road will get you there."*

- Water Treatment or Purchase
- Participation in Local Economic Development
- Extension to Distribution System
- Infrastructure Replacement
- Merger with Adjacent System
- Employee Succession Planning



6

## Understand: Regulatory Compliance




- Regulatory Duties and Current Status
  - Tariff
  - Kentucky Public Service Commission
  - Kentucky Division of Water
- Violations and Remediation Plans
  - Awareness
  - Communication
  - Follow Through to Resolution

7

## Understand: Planning

- Infrastructure Planning
  - Growth Related
  - Service Level Related
- Financial Planning
  - Ratemaking
  - Debt Issuance
- Succession Planning
  - Board Officer Roles
  - Critical Staff Roles



8

## Understand: Financial Oversight




- Timely Financial Information
  - Income Statement
  - Balance Sheet
  - Statement of Cash Flows
  - Completion of Audit
- Relevant Comparisons
  - Budget Variance
  - Prior Year Variance
- Key Metrics
  - Days of Cash and Debt Service Coverage
  - Collection Rate and Aging of Receivables

9

## Understand: Management Oversight

- Recruitment of Utility Manager
- Establishing Performance Criteria
- Obtaining Independent Measurements of Regulatory Compliance, Customer Satisfaction, and Employee Morale
- Evaluation of Performance
- Determination of Retention and Compensation



10


## Understand: System Oversight

- Metric Based with Trend Information and Variance Analysis
  - Water Quality and Pressure
  - Production, Sales, and Water Loss Volumes
  - Key Infrastructure Failures
  - Key Infrastructure Out of Service
  - Telephone Response Rates
  - Service Response Times



11

## Understand: Decision-Making



- What decisions does the Board want to ...
  - ... make on its own?
  - ... be consulted on in advance?
  - ... be notified of?
- All other decisions are the responsibility of the utility manager*
- How will the Board make its decisions?
  - By consensus or by majority vote

12



## Understand: Decision Making

### What decisions must be made by the Board?



- Approving the board meeting minutes
- Hiring of the utility manager
- Hiring of legal counsel and auditor
- Applying for changes in tariff and rates
- Authorizing borrowings
- Authorizing expenditures

13

## Understand: Emergency Preparedness

### Knowing What Can Keep Utility from Fulfilling its Mission:

- Disruption in water supply.
- Disruption in power supply.
- Disruption in treatment process.
- Disruption in transmission and distribution system.
- Disruption in workforce.

### Knowing What Will be Done to Restore System

### Knowing Who Will Communicate to Customers, Regulators, and Elected Officials



Be Prepared  
For Emergencies

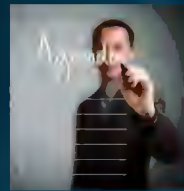
14

## Helping Your Board Perform Their Role

- Set Agendas for Meetings
- Provide Meeting Materials
- Presentations and Discussions
- Document Discussions and Decisions
- Follow Through
- Deal with Elected Official Participation
- Deal with Citizen Participation
- Deal with Media Participation

15

## Performance: Setting Meeting Agendas



### Establish calendar for the year of meeting dates and pre-scheduled topics:

- Review of Management Performance
- Review of Financial Results and Audit
- Review of System Condition

### Discussion between Board Chairman and Manager on Board Initiated Topics

### Follow-up Items from Previous Meetings

16

## Perform: Provide Meeting Materials

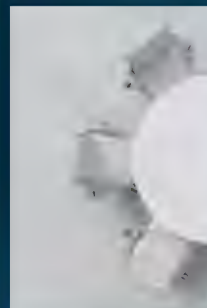
### Establish process for preparing and assembling materials for Board meeting:

- Must contain background information, recommended action, and draft resolution.
- Review for acceptance by Utility Manager
- Delivery format (print or electronic) including summary # days in advance of meeting
- Firm deadline for delivery to Board members
- Online availability to public and media
- Keep for permanent record



17

## Perform: Presentations and Discussions



- Staff presents background, key facts, alternatives considered, and recommendations.
- Presentations may be supplemented by consultants and vendors *with no surprises*.
- Chairman leads discussion by Board Members. Once discussion begins, no further participation by non-members.
- Chairman *may* require that each Board Member gets to speak once before any Board Member speaks twice.
- Chairman determines if Board is ready to vote and calls for motion.
- Once vote is conducted, move to next agenda topic.

18

## Perform: Document Decisions

### The Board speaks through its minutes!

- Create a permanent written record to document exercise of Board authority.
- Document alternatives, recommendations, and discussions.
- Document vote tallies, especially when not unanimous.
- Assume that it will be needed in litigation to defend actions.
- Do not retain audio or video records of meeting beyond minutes.

Note: Minutes do not need to be read if distributed in writing in advance of the meeting.

19

## Perform: Decisions by Consensus or Vote

### High Performing Boards Make Decisions by Consensus!

- Consensus requires understanding.
- Understanding takes time and consideration.
- Disagreement is a marker along the highway to agreement.
- Some decisions require more than one meeting.

With all that said, sometimes a decision must be made by a vote.

20

## Perform: Follow Through

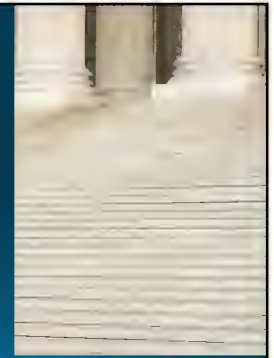


- Execute Board decisions as soon as practicable.
- Identify unresolved matters and assign for follow through.
- Include time to communicate follow through on unresolved matters at next meeting.
- Work with Chairman to determine if disagreements require fence-mending.

21

## Perform: Elected Official Participation

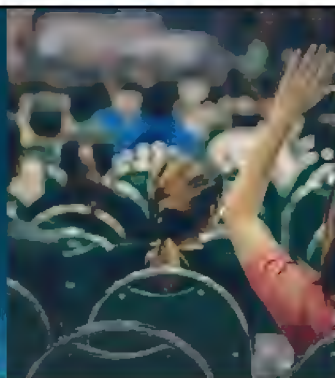
- Treat attendance by elected officials as honored guests without subordinating the role of the Board or the Utility Manager.
- Allow elected officials to speak at the beginning of the meeting without limit on time.
- Allow elected officials to speak on specific issues after staff presentation but before board consideration.
- Chairman is responsible for ensuring independence of board decisions.



22

## Perform: Citizen Participation

- Require written sign-in of all attendees.
- Require written indication of request to speak to Board, identifying agenda topic related to their remarks.
- Limit remarks to three minutes.
- Identify staff person to address their concerns.
- Do not engage in back-and-forth between customer and Board.



23

## Perform: Media Participation

- Ensure media receives board materials in advance of meeting, when requested.
- Allow media to create B-roll video footage of meeting room and attendees, but do not allow video recording of meeting proceedings.
- Allow media to speak after the meeting to one spokesperson designated by chairman and record interviews.
- Ensure that media has adequate time to gather necessary information and gain understanding while meeting their deadlines.



24

## Helping Your Board Improve Their Performance

- Facilitate Board Member Orientation
- Facilitate Board Calendar
- Track Attendance
- Monitor Terms
- Facilitate Compensation Discussion
- Ensure Time for Board Self-Evaluation
- Deal with Problematic Board Members

25

## Improve: Board Orientation

Orientation by Chairman and Utility Manager

- KY DOW and KY PSC regulatory requirements
- Tariff components
- Delineation of Board and Staff roles
- Procurement process
- Meeting preparation and attendance expectations
- Board decision-making style

26

## Improve: Board Calendar

Establish Rolling Twelve-Month Calendar:

Identify routine items for schedule

- Evaluation of Utility Manager Performance
- Setting annual goals for utility
- Adopting Annual Budget
- Meeting with Auditors to review financial results

Identify targeted dates for non-routine items

- Engineering and Financial Plans due dates
- Procurement due dates

27

## Improve: Track Attendance

Tracking board member attendance:

- Ensures proper compensation (if compensation is tied to attendance)
- Provides accountability to County Judge Executive and Fiscal Court
- Provides support for Chairman when evaluating Board performance



28

## Improve: Monitor Terms

<p><u>County Judge Executive:</u></p> <ul style="list-style-type: none"> <li>▪ Nominates Water District Commissioners</li> </ul> <p><u>County Fiscal Court:</u></p> <ul style="list-style-type: none"> <li>▪ Appoints Water District Commissioners</li> <li>▪ Sets term of service</li> <li>▪ Sets compensation</li> </ul>	<p><u>Board Secretary:</u></p> <ul style="list-style-type: none"> <li>▪ Tracks terms and expirations</li> </ul> <p><u>Board Chairman:</u></p> <ul style="list-style-type: none"> <li>▪ Offers suggestions for consideration</li> <li>▪ Reminds County Judge Executive of upcoming vacancies</li> </ul>
--	--

29

## Improve: Board Compensation

Components of Compensation:

- Community acceptance of compensation amounts
- Role performed on Board
- Amount of training accomplished

Chairman may advise County Judge Executive and Fiscal Court on current and proposed compensation amounts



30

## Improve: Board Self-Evaluation



Board members need time to evaluate their own performance (*individually and as a group*) without staff present:

- Attendance
- Preparation
- Participation
- Collegiality

31

31

## Improve: Problem Board Members

### Attributes of Problem Board Members:

- Attempting to Conduct Board business outside of meetings
- Directing staff on operational decisions
- Bullying other Board Members during meetings
- Unduly influencing procurement decisions or water main extensions

Board Chairman must confront and address problem behaviors



32

32

# Why?

Why Should a Utility Manager Help the Board on These Topics?

33

33

## Why Should a Utility Manager Help the Board on These Topics?

1. It helps the Board perform their role to the best of their capability.

34

34

## Why Should a Utility Manager Help the Board on These Topics?

1. It helps the Board perform their role to the best of their capability.
2. It helps ensure that the Manager has the necessary freedom to act.

35

35

## Questions?

36

36



# REGULATORY COMPLIANCE DIVISION OF WATER

COMPLIANCE PRACTICES TO MEET STATUTORY AND REGULATORY REQUIREMENTS FROM THE PERSPECTIVE OF THE DIVISION OF WATER INSPECTIONS, TECHNICAL REQUIREMENTS, AND ADDRESSING COMMON ISSUES REPORTED THROUGH THE DIVISION OF WATER.



Drinking Water Branch,  
Division of Water  
300 Sower Blvd.  
Frankfort, KY 40601

Presentation for Rowan Summer Training August 2024

## **Regulatory Updates from Division of Water**

- **Lead and Copper Rule Revisions and Improvements (LCRR and LCRI)**
  - **Status update: Initial Service Line Inventory**
  - **Compliance requirements for October 16, 2024 (initial deadline of LCRR)**
  - **Compliance delays and new deadlines instigated by LCRI**
  - **Customer communication and administrative requirements**
- **PFAS Rule**
  - **Overview of final rule requirements**
  - **Status of PFAS at Kentucky water systems**
  - **Treatment options**
- **Consumer Confidence Reports (CCR) Rule Revisions**
  - **Overview of new CCR Rule**

- Impact to water systems in attendance (requirements vary by water system size)



# CYBER SECURITY

DIVISION OF WATER  
PRESENTATION



## **The Cyber Threats Are Real: What You Need to Know**

- What is cybersecurity and why does it matter
- An overview of cyber threats
- A review of recent threats against utilities
  - Steps that can be taken to protect your organization
- A review of Business Email Compromise
  - Steps that can be taken to protect your organization
- A review of ransomware
  - Steps that can be taken to protect your organization
- A review of social engineering and malware
- An overview of available no-cost federal resources
- Closing comments with recommended actions for all organizations



# ROWAN WATER SUMMER TRAINING DAY 2

HONAKER LAW OFFICE, PLLC

BRITTANY HAYES KOENIG

▶ August 21, 2024

# MANAGEMENT RESOURCES

CUSTOMER SERVICE  
SOLUTIONS

CLOUD BASED BILLING

# MANAGEMENT RESOURCES

GATEWAY ADD WATER  
MANAGEMENT  
COUNCIL,

PLANNING SERVICES,

PROJECT  
ADMINISTRATION  
SERVICES, AND

GIS/MAPPING  
SERVICES.

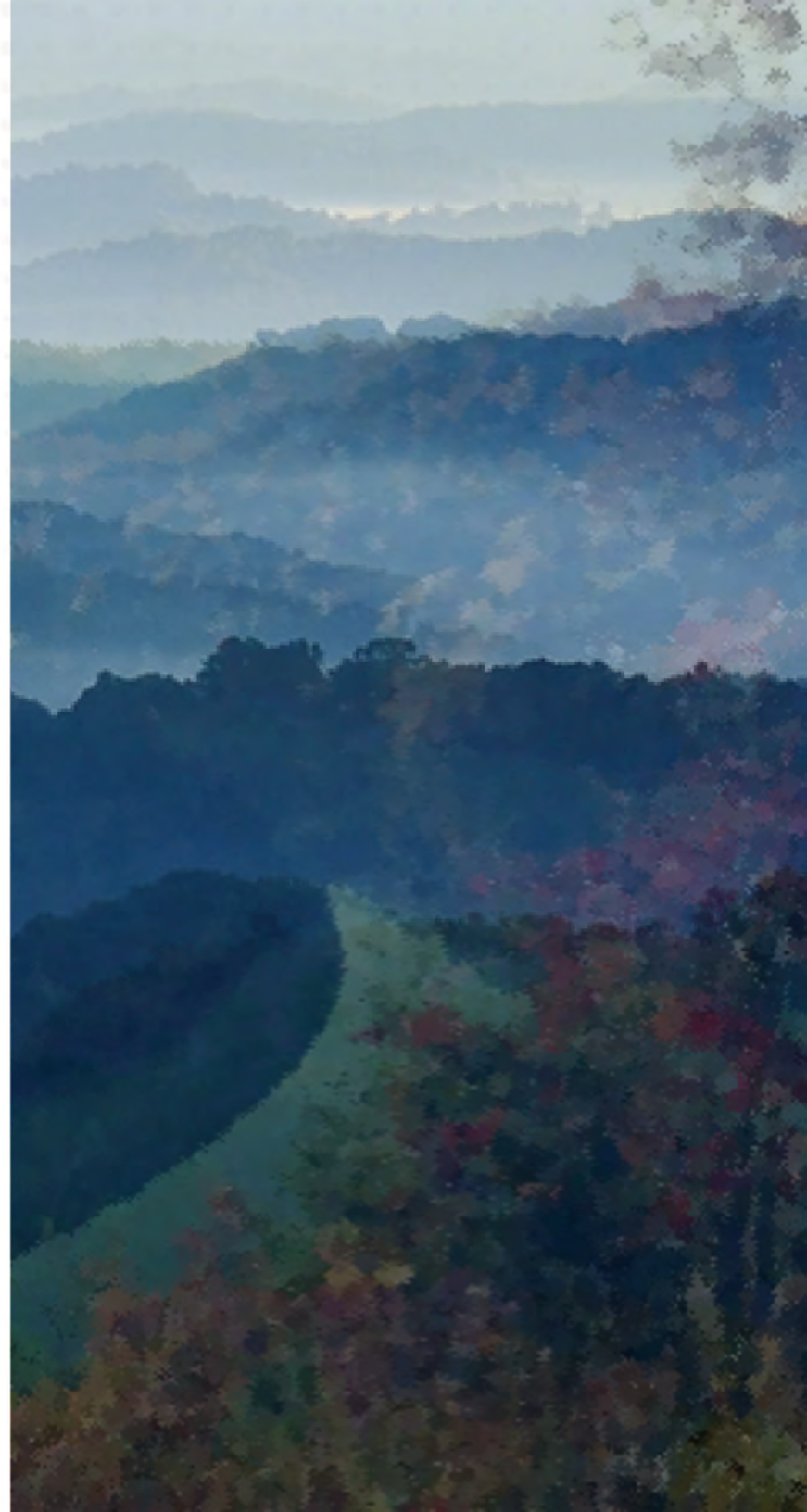


# Gateway Regional Workforce Development Plan

04.2022



Appalachian  
Regional  
Commission



# TABLE OF CONTENTS

Introduction	3
Findings	7
Workforce Profile	18
Target Sectors	42
Recommendations	58

# Introduction



# INTRODUCTION

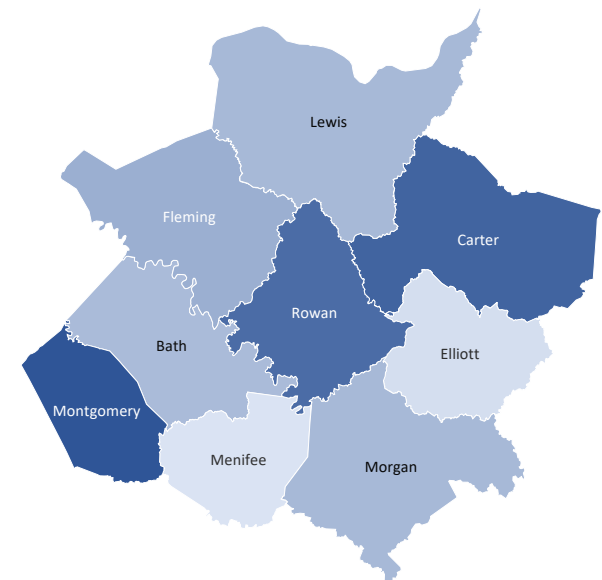
The Gateway Area Development District (GADD) engaged Boyette Strategic Advisors (Boyette) to complete a regional workforce development planning initiative to quantify the primary and emerging economic sectors within the region, while qualifying the region's workforce assets and labor market competitiveness. The study was funded through a grant from the Appalachian Regional Commission. Not only did this initiative strive to nurture and enhance the region's dynamic workforce, but also will prepare the region to quickly respond to economic shifts that significantly impact the workforce. While the region has historically thrived on legacy industry sectors such as agriculture, coal mining, and manufacturing, this transitional-focused workforce development and talent pipeline enhancement initiative has evaluated and uncovered a variety of data points.

Every workforce study presents unique opportunities and challenges that demand a custom approach. This study includes nine Appalachian Regional Commission (ARC) counties of Bath, Carter, Elliot, Fleming, Lewis, Menifee, Montgomery, Morgan, and Rowan, all of which are designated as distressed or at-risk by the ARC. Economic challenges such as the sensitivity of the Coal Industry Ecosystem (CIE) and impact of the COVID-19 pandemic, combined with low per-capita income levels, fluctuating unemployment rates, and low labor participation have all been considered in this project.

The project was launched in the midst of the COVID-19 pandemic and the unusual economic disruptions that accompanied it. At that time, unemployment rates were high as a result of lockdowns that caused companies to close for a period of time if they were not deemed essential, along with fear of the highly contagious virus among workers who were expected to continue working. Since that time, there have been peaks and valleys resulting from virus surges; but the economy has stabilized, with low unemployment rates and many businesses struggling to find employees to fill openings as people have opted to leave the workforce completely. The following goals were established for this project at the time the project was launched:

- Identify primary economic sectors and recent shifts within them
- Determine drivers for regional economic development
- Measure workforce capacity for existing and emergent sectors
- Identify potential impacts on existing and emergent sectors
- Recommend workforce development strategies to support existing and emergent sectors
- Determine skills transferability opportunities and re-skilling needs
- Mitigate impacts on the Coal Industry Ecosystem

Gateway Workforce Region





## METHODOLOGY

This Regional Workforce Development Plan includes analysis of the skills and abilities of the nine-county Gateway regional workforce, along with exploration of key industry sectors and how they align with workforce skills. Additionally, it evaluates a variety of data points related to the regional workforce, including labor participation, barriers to employment, perceptions of various industry sectors, and skills transferability opportunities.

In addition to primary and secondary research conducted for this project, Boyette also utilized regional input collected through both EKYWorks 2.0 and the Rowan County Workforce Pipeline Assessment. To ensure that this data is accurate and valid, Boyette worked with the GADD, as well as the Buffalo Trace and FIVCO Area Development Districts, to encourage adequate response rates to online surveys being fielded throughout the region. Additionally, Boyette also conducted interviews and discussions with major employers and elected officials throughout the region to discuss workforce assets, needs, and challenges.

In addition to interviews, surveys sought input from the following groups:

- Employers
- Residents/Job Seekers
- High School Students
- Post-Secondary Students

The analysis examined data points related to demographics, labor force, commuting patterns, skills attainment, sector growth, and employment trends in the project’s nine-county region. The following components were collected and analyzed as part of this process:

- Stakeholder discussions with employers and community leaders;
- Online surveys of employers, residents/job seekers, high school students, and post-secondary students;
- An analysis of past and projected future growth, along with occupational demand in seven key sectors;

Regional Workforce Development Planning Process	
PHASE 1	Boyette Viewpoint
	Project Launch Meeting
	Data Gathering and Analysis
	Stakeholder Engagement
	Phase 1 Delivery
PHASE 2	Goals, Strategies and Objectives
	Phase 2 Delivery
PHASE 3	Implementation Matrix and Action Planning
	Phase 3 Delivery
PHASE 4	Final Document Delivery
	Workforce Development Task Force Establishment

- A review of workforce education and training offerings related to the targeted sectors; and
- A review of key statistical and demographic data.

A thorough analysis of all data collected led to identification of important trends related to assets and challenges of the existing workforce, available training opportunities, and future trends that will impact the quality and availability of the regional workforce.

Prior to launching the project, Boyette conducted a high-level workforce competitiveness review of the nine-county region through the lens of a site location consultant, as well as a working knowledge of the key workforce drivers of employers. This preliminary review examined the area’s assets, value proposition, and competitive perception related to workforce requirements of potential prospects.

## DATA SOURCES

The following data sources were utilized to thoroughly assess the workforce in the Gateway region:

- Economic Modeling Specialists, Inc. (Emsi)
- Burning Glass Labor Insights
- Esri Business Analyst
- US Census Bureau
- US Bureau of Labor Statistics
- Kentucky Department of Education
- Sperling’s Best Places

Additional secondary research was also conducted, along with stakeholder input.

**Location Analytics/  
Site Selection  
Perspective**

**Corporate  
Workforce Drivers**

**Assets  
Value Proposition  
Competitive  
Perception**

**Workforce Demand  
of Existing &  
Potential New  
Employers**

# Findings



# FINDINGS

The data collected and analyzed for this workforce assessment has led to identification of important workforce assets in the Gateway region, as well as challenges and opportunities to enhance the workforce to better meet the demands of current and future employers. Additionally, seven key focus sectors were identified and their talent demands analyzed as part of this study. Those sectors are listed below. Data points were further validated through stakeholder conversations and surveys with residents/job seekers, employers, students, and elected officials across the region. Key findings from this research included the following:

- Availability of the workforce needed by regional employers is very challenging, even as most sectors have returned to normal operations during the COVID-19 pandemic
- Perceptions about careers in manufacturing and the skilled trades are somewhat negative, particularly among students
- While there is very little presence of the Aerospace/Aviation sector, the region does have significant employment in occupations that are compatible to those specific to the Aerospace sector
- The low labor participation rate will require a concerted effort to reach into those who are not part of the workforce in order to meet workforce needs
- The GenZ population is eager to stay in the region, but diverse opportunities for employment are lacking

More detailed findings are included below.

## DATA ANALYSIS

Demographics, labor force, wages, and key occupations were thoroughly analyzed. This data considered general characteristics of the population, along with specific occupational needs of employers in the seven identified target sectors. Following are key findings of that analysis:

- While regional population growth has been limited, with a 0.46% change over the last five years, it is projected to continue growing through 2027, which is unusual in the East Kentucky region, where population has declined by more than 25,000 or 8.4% in the last 10 years. Much of that population loss is attributed to a significant loss of jobs, particularly in the coal industry. Total population of the nine counties will exceed 149,000 in the next five years.
- The median age of regional residents is 40.6, with 38.4% of the population in the prime age range of 25 – 54 years. The regional workforce has 9,300 workers who are 55+ and nearing retirement, while there are 15,000 workers under the age of 35.

## GATEWAY REGIONAL FOCUS SECTORS

- Distribution/Logistics
- Food & Agricultural Technology
- Healthcare
- Manufacturing Technology
- Metals
- Transportation Equipment Manufacturing
- Wood & Paper Products

## WORKFORCE PROFILE Gateway Region

---

**0.46%**

POPULATION GROWTH (2017-2022)

**41,993**

LABOR FORCE

**\$41,038**

MEDIAN HOUSEHOLD INCOME

**45.9%**

LABOR PARTICIPATION RATE

**40.6**

MEDIAN AGE

**23.54%**

RESIDENTS BELOW POVERTY LINE

**22.6%**

ASSOCIATE'S DEGREE +

---

- Bath County is projected to have the largest growth through 2027 at 4%, with Carter County having the greatest projected decline in population at -3%. Over the same period, Kentucky has a projected growth of 1%, while the US rate is 3%.
- Rowan County has the lowest median age in the region at 33.6, which is likely due in part to the presence of Morehead State University there. Menifee and Lewis Counties both have a median age of higher than 43.
- The nine-county region has seen a significant decline in labor force since 2012. More than 59,000 were in the regional labor force 10 years ago, but that had dropped to approximately 42,000 by the end of 2021. The regional unemployment rate has also declined over the last decade from 10.79% in 2012 to 4.2% at the end of 2021.
- The declining labor force, combined with a 45.9% labor participation rate, are contributing to an overall shortage of workers. However, the prime age (25 – 54 years) labor participation rate is 64.5%.
- Montgomery County has the largest labor force and the highest participation rate among the nine counties, with nearly 11,000 workers and a participation rate of 50.1%. The lowest participation rate is in Fleming County at 40.9% with a total workforce of 4,478, while Elliott County has the smallest labor force with 1,909 workers.
- Almost 23% of residents have received an Associate's Degree or higher, with more than 34% reaching that level of educational attainment in Kentucky. Rowan County has the highest educational attainment in the region, with 33.75% of adults holding an Associate's Degree or higher. Generally, any community with the presence of a post-secondary institution will have a higher educational attainment rate because of the faculty attainment that is likely a Master's Degree or higher.
- The regional poverty rate of 23.54% exceeds both the Kentucky (16.98%) and US (12.93%) rates. All income measures – per capita, average household, and median household – are significantly lower in the region than the state and US figures. Elliott County has the highest poverty rate in the region at 31.75%, with Fleming County having the lowest at 18.16%.
- The average one-way commute to work in the region is 28.9 minutes, which is greater than the US at 26.9 and Kentucky at 23.6 minutes. Elliott County workers commute nearly 40 minutes each way to work, with Rowan County workers having only a 22.3-0minute commute time.

## STAKEHOLDER ENGAGEMENT

Stakeholder engagement is a critical component of a thorough workforce analysis. Input from economic development professionals, educators, employers, and residents/job seekers provides important perspective and serves to validate the data components. The Gateway regional analysis included interviews with employers, educators, and elected officials, with 26 individual stakeholders participating in those discussions. Additionally, online surveys were fielded with the following groups:

- Employers
- Residents/Job Seekers
- High School Students
- Post-Secondary Students

### Stakeholder Discussion Findings

Employers, educators, and elected officials participated in interviews as part of the stakeholder engagement process. Following are key themes identified through those conversations:

- Local officials expressed concern about workforce availability, saying it not only impacts existing employers, but it also makes recruiting new companies very difficult.
- A similar theme was heard from employers, some of whom said they have to recruit workforce from outside the region. Others said they would like to hire more local workers, but they can't find the skills they need in the region.
- Some of those interviewed said the workforce they are able to get in the region is qualified and loyal, with others saying their current workers have a good work ethic.
- Some stakeholders mentioned barriers to work that may limit the availability of workforce. Transportation and poor highway infrastructure was a concern, in addition to rental housing being difficult to find.
- The low labor participation rate indicates a significant number of adults who are not in the workforce for a variety of reasons. This "lost workforce" has issues ranging from generational poverty to criminal records. One stakeholder said he has hired a former inmate, but he doesn't have a driver's license, which is a hinderance.
- Employers believe the existing workforce is proficient in skilled trades such as welding and pipefitting, with some saying the former coal workforce is highly skilled for some positions.
- Maysville Community and Technical College was mentioned as a workforce asset, with employers saying the college offers good training programs for technical skills, with others mentioning technical programs in the high schools as being very important.
- Engineers and nurses were among the most difficult positions to fill, with some stakeholders saying it is difficult to find technicians with the skill to operate technology-driven equipment.

Survey Audience	Responses
Employers	134
Residents/Job Seekers	109
High School Students	2,289
Post-Secondary Students	114
<b>TOTAL</b>	<b>2,646</b>

- Employers believe that the regional workforce is willing to commute a significant distance for a good job. Some say they have workers driving in from Ohio, with others saying a one- to two-hour commute is not uncommon.
- When talking about specific workforce challenges, some mentioned the ability to attract young talent, particularly as they face a workforce that is aging out. Others said they understand that difficulty, feeling that young professionals don't have any real job opportunities beyond healthcare and education.
- Stakeholders expressed concern that childcare is an issue forcing many residents to leave the workforce. While it has been a challenge before COVID-19, some childcare facilities closed during the pandemic and have not reopened, which has worsened the issue.

### Resident Survey Findings

The resident survey had just over 100 responses, which is lower than needed to ensure survey validity. However, it does offer some helpful information, which is listed below.

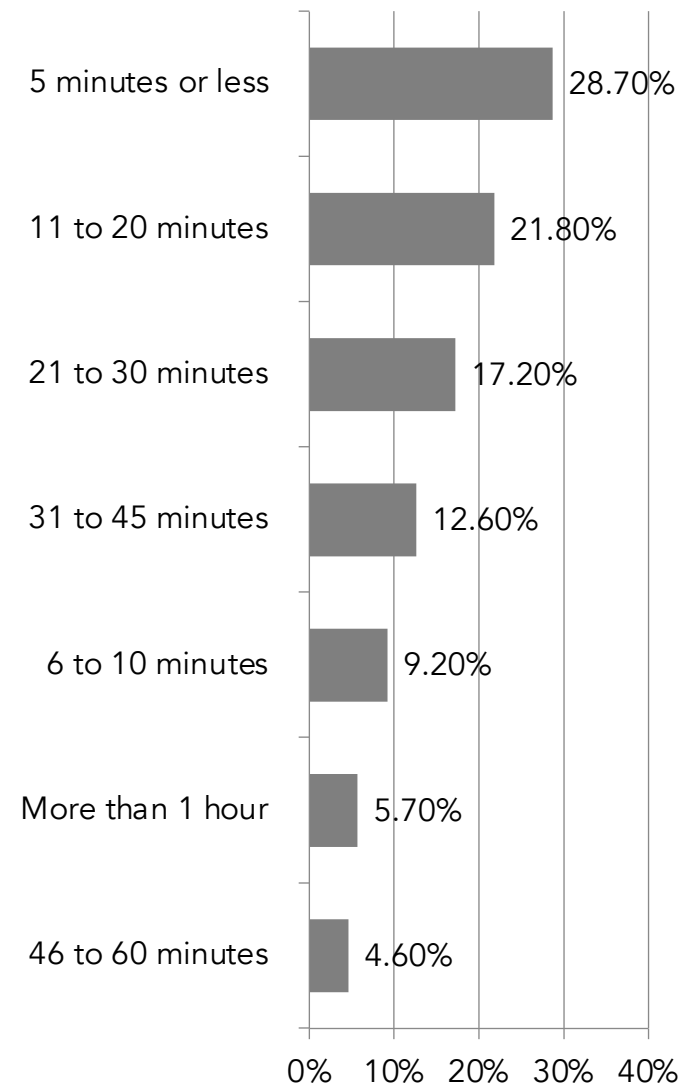
- Three quarters of the resident respondents are currently employed, with a high percentage of them - 29.5% - working in education. Additionally, the survey was heavily focused on professional and management-level positions.
- Approximately 23% of respondents commute 30 minutes or more to work.
- More than 43% say they have no barriers to employment, with one quarter saying a lack of jobs in their field is a barrier. Childcare needs was indicated as a barrier for 14.5% of respondents. Among unemployed respondents, 37% said age is a barrier followed by disability at 32%. Note that 9% of respondents were older than 65, with an additional 20% being between 56 and 65 years old.

### High School Student Survey Findings

The high school student survey had nearly 2,300 responses, with every county in the region represented among the sample. Following are key findings from that survey.

- Nearly half (44%) of students say their family expects them to enroll in a four-year college or university after high school, with one quarter saying they are expected to get a job.

### How long is your commute, ONE WAY, to work each day?



Resident Survey

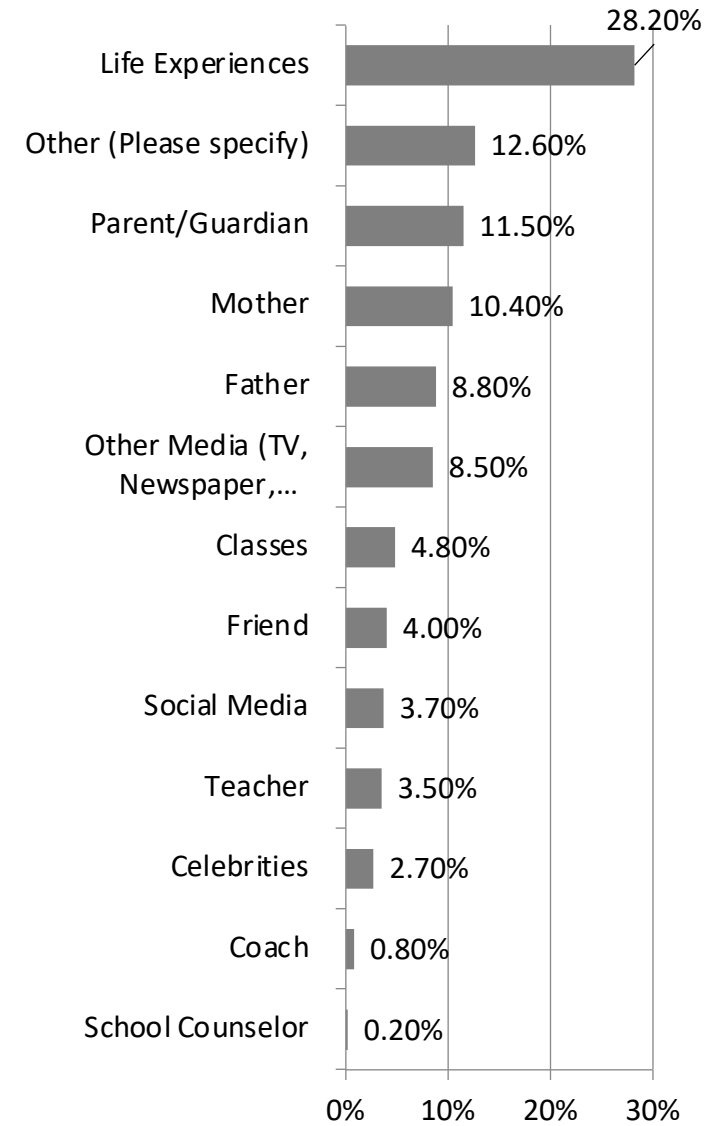
- However, only 32% of students say they plan to attend college full time after high school, with 19% saying they will work part time while enrolled in college. Only 6.7% of students plan to attend a trade or technical school.
- Nearly two-thirds of students agree or strongly agree that they have been given enough opportunities to explore career and educational opportunities, with only 10.8% who disagree or strongly disagree.
- More than one-quarter of student respondents are considering a career in healthcare, followed by 17% who want to be a business owner or entrepreneur.
- While life experiences was the single most common answer when students were asked who or what is influencing their career choice, but a combination of parent/guardian, mother, or father totals just over 30%.
- Almost 70% of students agree or strongly agree that working in manufacturing and skilled trades are respectable occupations. Yet, only 41% think that middle-skills occupations offer good opportunities for them.
- Nearly half of students believe there are good job/career opportunities for them in the Gateway region, with 36% saying they would like to stay in the region after high school. Half of students said a lack of job opportunities would prevent them from remaining in the region, followed by 34.5% who said quality of life would be a factor.

### Post-Secondary Student Survey Findings

The post-secondary student survey had a total of 114 responses with more than half completed by students at Morehead State University. Following are key findings from that survey:

- More than 70% of respondents are full-time students, with over half pursuing a Bachelor's Degree.
- One third of students are studying business, followed by 9% who are currently studying nursing. A quarter of students are considering a career as a business owner or entrepreneur, with 22% focused on healthcare.
- Students believe their post-secondary education is preparing them with problem solving and critical thinking skills; collaboration and teamwork; written and oral communications skills; and job-specific skills.

### Who/what is most influential in choosing your career pathway?



High School Student Survey



- More than 80% of students view manufacturing and skilled trades as respectable occupations, but only 63% think middle skill occupations offer good opportunities for them.
- Student plans after completing their education are nearly evenly split, with 35% saying they will remain in the region, 35% indicating they are uncertain, and 30% saying they plan to leave the region. Lack of job opportunities is the primary reason for leaving the region, followed by distance from family and quality of life.
- A high salary and good benefits are the top two factors important to students when they choose a career.
- Nearly half of students who had to switch to remote learning during COVID-19 believe that their education and career preparedness were negatively impacted, with only 15% seeing positive impacts.

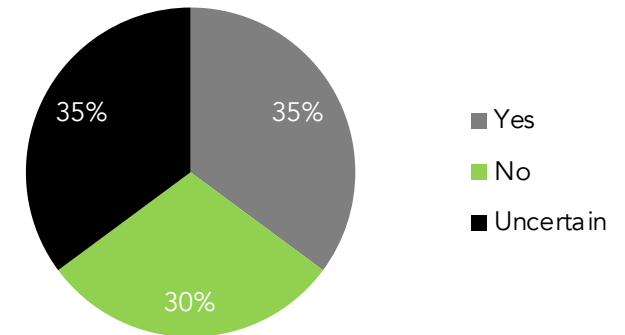
### Employer Survey Findings

The employer survey generated a total of 134 responses, with only Elliott County having no participants. Following are key findings from that survey:

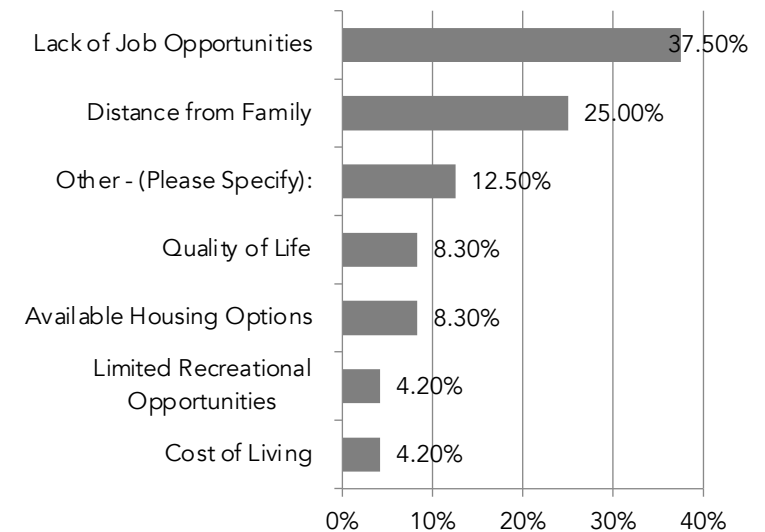
- Business sectors represented a cross-section among employers, with 17.6% in manufacturing, 14.7% in finance and insurance, and 11.8% in healthcare.
- More than 90% of employers indicated they are willing to hire from the “lost workforce,” but only half would hire someone with a criminal record or in recovery from an alcohol or drug dependency.
- More than 65% of employers are satisfied or very satisfied with the employees they hire in the Gateway region, with nearly 16% dissatisfied.
- Almost 80% of employers say it is difficult or very difficult to find workers in the region.
- More than half of respondents say the cost of labor is about right compared to quality in the region, with an additional 21% saying it is less expensive when compared with quality.
- Nearly a quarter of employers either laid off or furloughed employees during the COVID-19 pandemic, with 12% saying they increased employment. While 21% reported declining sales and revenue, 24% saw increased sales.

## FINDINGS

**Do you plan to remain in the Gateway region after completing your education? (Bath, Carter, Elliott, Fleming, Lewis, Menifee, Montgomery, Morgan, or Rowan County).**



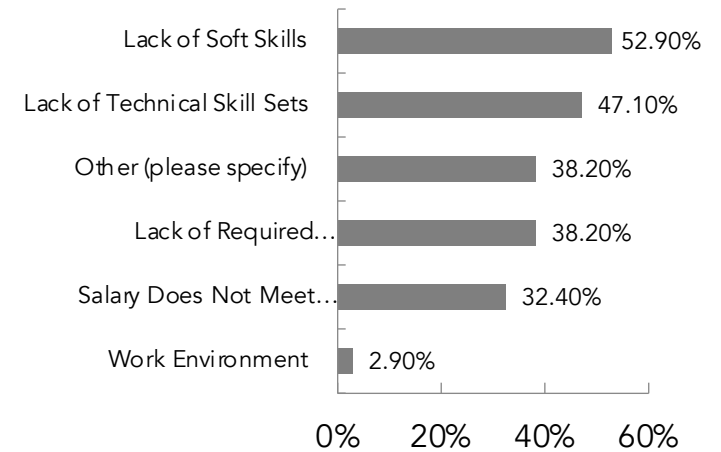
**What would prevent you from remaining in the Gateway region after completing your education?**



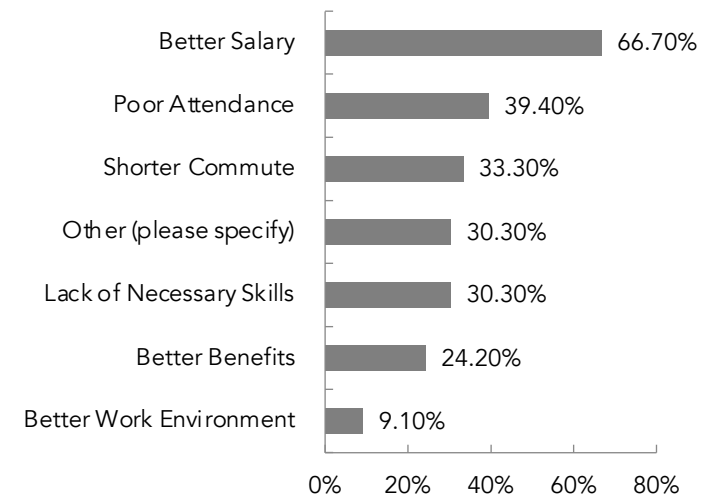
Post-Secondary Student Survey

- Skills gaps are the most common recruitment challenges of employers, with more than half citing a lack of soft skills and 47% saying a lack of technical skills. (Note that respondents could select multiple answers.)
- A better salary was the most common reason employees leave according to 66.7% of employers. Nearly 40% said poor attendance was a key reason, followed by a shorter commute with 33.3% (Note that respondents could select three answers.)
- Approximately 44% of employers said they expect workforce skills needs to change as a result of the COVID-19 pandemic, with 60% saying workers will need to be more flexible, and 47% saying there would be a need for additional training to transition workers to new occupations. Additionally, 40% of employers also believe there will be demand for more technology skills.
- Punctuality and a lack of technical skills are the most common deficiencies found in new hires, according to employers, with 32% choosing punctuality and 26.5% selecting lack of technical skills.
- Regional employers believe that communication and customer service are the top training areas not being adequately addressed in the region, followed by teamwork and resilient skills.

**What are the most common challenges you encounter in recruitment of new employees? (Please mark all that apply.)**



**What are the three most common reasons employees leave your company?**



**Boyette Viewpoint**

The Boyette Viewpoint research and analysis was conducted prior to the project launch meeting to provide a location analytics/site selection perspective to the regional workforce. Results of that research are found on the following pages.

Employer Survey



# BOYETTE VIEWPOINT

The Boyette Viewpoint is a high-level workforce competitiveness review of the **Gateway Area Development District** through the lens of a **site location consultant** and analyzes the area's assets, value proposition, and competitive perception related to workforce requirements of potential prospects.

## POPULATION

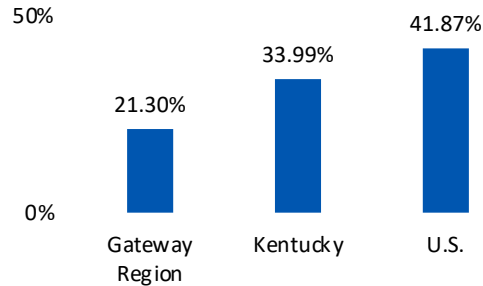
	Gateway Region	Kentucky	US
2015 Population	147,289	4,425,976	320,635,163
Population Change 2015-2021 %	0.17%	-1.9%	3.8%
2021 Population	147,545	4,499,494	332,855,403
2026 Population	147,830	4,541,223	340,092,434
Population Change 2021-2026	285	41,729	7,237,031
Population Change 2021-2026 %	0.19%	1%	2%

## LABOR FORCE (December 2020)

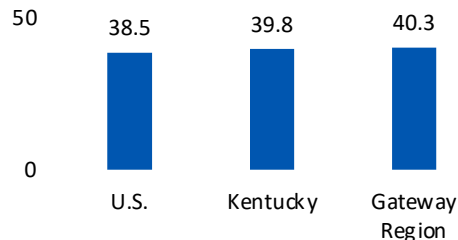
	Gateway Region	Kentucky	US (#'s in 000's)
Unemployment Rate	7.6%	5.7%	6.5%
Employed	50,670	1,893,311	149,613
Labor Force	54,674	2,007,867	160,017
Labor Force Participation Rate	N/A	57.2%	61.3%

## EDUCATIONAL ATTAINMENT

(Associate's Degree+)



## MEDIAN AGE



## INCOME MEASURES

	Per Capita Income	Median Household Income	Average Household Income
Gateway Region	\$20,881	\$38,506	\$53,725
Kentucky	\$27,976	\$50,617	\$70,264
US	\$34,136	\$62,203	\$90,054

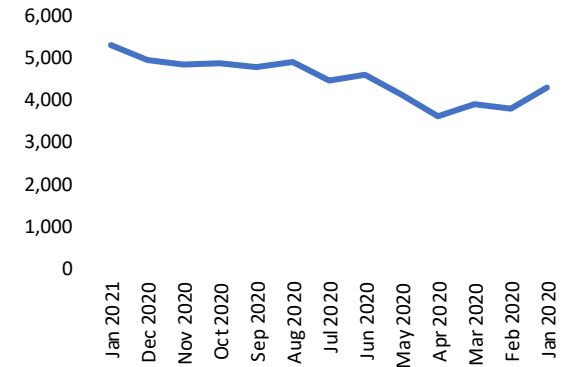
## 2019 ANNUAL #s EMSI VS BLS

	EMSI		BLS	
	2019 Jobs	Average Wages	2019 Jobs	Average Wages
Gateway Region	43,795	\$44,917	37,786	\$36,585
Kentucky	2,151,086	\$57,891	1,897,896	\$47,723
US	167,013,281	\$70,917	148,105,092	\$59,209

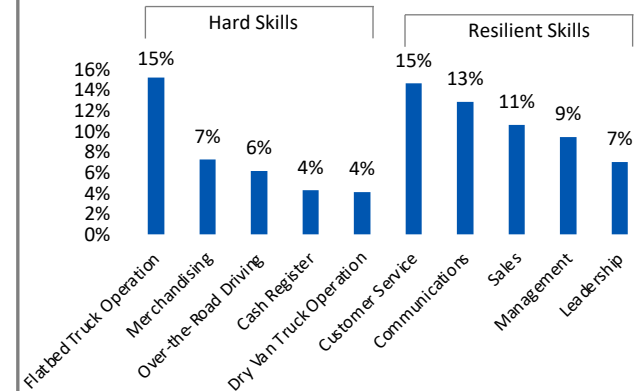
## COST OF LIVING VS. WAGES

	COL Adjusted Current Average Earnings	Average Industry Wages
Gateway Region	\$50,812	\$44,917
Kentucky	\$62,517	\$57,891
US	\$70,917	\$70,917

## UNIQUE JOB POSTINGS



## HARD SKILLS VS. RESILIENT SKILLS



## JOB POSTINGS SUMMARY

**22,103** Unique Postings      **4 : 1** Posting Intensity      **35 days** Median Posting Duration

There were 83,539 total job postings for the Gateway Area Development District from January 2020 to January 2021, of which 22,103 were unique. These numbers show a Posting Intensity of 4-to-1, meaning that for every 4 postings there is 1 unique job posting.





# BOYETTE VIEWPOINT

The Boyette Viewpoint is a high-level workforce competitiveness review of the **Gateway Area Development District** through the lens of a **site location consultant** and analyzes the area's assets, value proposition, and competitive perception related to workforce requirements of potential prospects.

## EMPLOYMENT BY SECTOR

Description	2021 Jobs	2016 - 2021 % Change
Government	9,538	(5%)
Manufacturing	6,600	(13%)
Health Care and Social Assistance	5,566	0%
Retail Trade	5,366	(12%)
Accommodation and Food Services	3,284	(2%)
Construction	2,785	11%
Other Services (except Public Administration)	1,879	(6%)
Administrative and Support and Waste Management and Remediation Services	1,761	17%
Finance and Insurance	1,242	2%
Transportation and Warehousing	973	(13%)
Wholesale Trade	803	6%
Educational Services	731	21%
Professional, Scientific, and Technical Services	670	(4%)
Agriculture, Forestry, Fishing and Hunting	536	(1%)
Information	382	8%
Real Estate and Rental and Leasing	366	10%
Utilities	173	5%
Mining, Quarrying, and Oil and Gas Extraction	148	(15%)
Arts, Entertainment, and Recreation	121	(18%)
Management of Companies and Enterprises	59	79%
Unclassified Industry	<10 <b>42,982</b>	Insf. Data <b>(4%)</b>

## ESSENTIAL VS. NON-ESSENTIAL EMPLOYMENT

	2021 Jobs	Percentage of Jobs
Essential Jobs	21,940	51.04%
Non-Essential Jobs	21,042	48.96%
All Jobs	42,982	

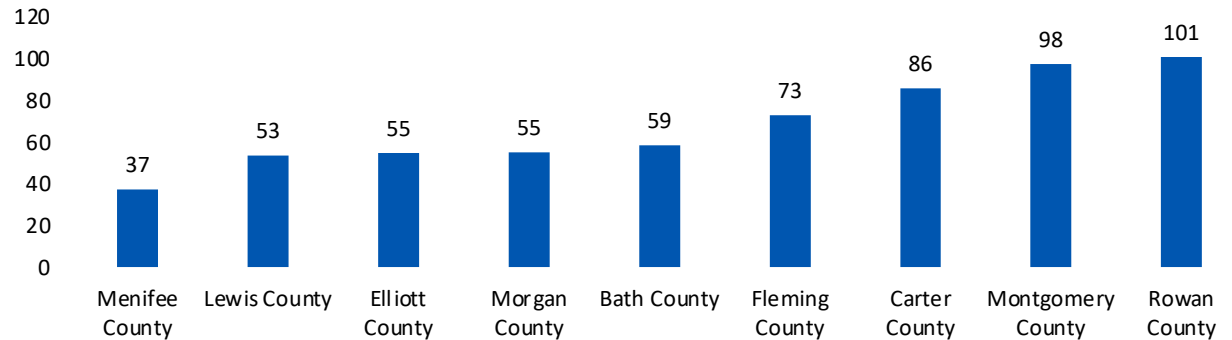
## ENTREPRENEURSHIP

Self-employed workers

2011 Jobs	2021 Jobs	2011 - 2021 Change	2011 - 2021 % Change	Avg. Earnings Per Job
18,262	18,619	357	2%	\$26,357

## COVID IMPACT

A higher score indicates the degree to which job losses may be greater. This index only measures the impact potential of a region related to the mix of industry employment.



Source: Chmura COVID-19 Economic Vulnerability Index

## STAFFING PATTERNS FOR ESSENTIAL SECTORS

Description	Employed in Industry Group (2021)	Employed in Industry Group (2026)	Change (2021 - 2026)	% Change (2021 - 2026)	Median Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training	Automation Index
Cashiers	799	725	(74)	(9%)	\$9.47	No formal educational credential	Short-term	105.5
Registered Nurses	612	613	1	0%	\$31.13	Bachelor's degree	None	85.3
Elementary School Teachers, Except Special Education	563	558	(5)	(1%)	\$24.31	Bachelor's degree	None	82.3
Home Health and Personal Care Aides	546	647	102	19%	\$10.52	High school diploma	Short-term	93.6
Teaching Assistants, Except Postsecondary	496	493	(3)	(1%)	\$10.95	Some college, no degree	None	89.7

Sources: EMSI, Class of Worker Data, 2021.1; ESRI, 2020; Bureau of Labor Statistics & US Census Bureau





## DEMOGRAPHICS & LABOR FORCE

- While the population increased by less than 1% since 2015, jobs decreased by 4%, which could indicate a challenging labor market for companies considering a new location.
- Total regional jobs are more than 42,981, with more than 1,800 jobs lost from the region over the last five years. The percentage decrease of 4% is less than the US growth rate of 2.8%.
- Rowan County (an ARC Distressed county) and Montgomery County (an ARC At-Risk county) make up 50% of the total jobs in the Gateway region.
- Cost of labor is below the national average at \$21.59 per hour vs. \$34.09 nationally. Likewise, cost of living adjusted wages result in almost \$6,000 more buying power.
- The region's top occupations are Production Occupations, Office & Administrative Support Occupations, followed by Sales & Related Occupations, Transportation and Material Moving Occupations, Food Preparation & Serving.
- With a median age of 40.3, the region has a lower concentration of Millennials than the state and national average.
- The region has a net commuter total of 12,660, meaning that the number of residents compared to jobs forces many of those living in the region to commute out for work.
- Total self-employed workers in the region increased from 18,262 to 18,619 since 2011, indicating a strong entrepreneurial culture in the region.
- The region had 22,103 unique job postings from January 2020 to January 2021, with 4,500 of those in Montgomery County. The median posting duration is 35 days, with a median advertised salary of \$60,096.

- While the population of the region is projected to increase by 0.19% over the next five years, all counties except Carter and Lewis are projected to have an increase in population, with Carter County projected to experience a 1.7% decrease in population and Lewis County projected to experience a 1.9% decrease in population over the next five years.
- While the population 25 years and older with an Associate's Degree or higher for the region is 21.30%, 31.25% of Rowan County's population has an Associate's Degree or higher, and 15.66% of Lewis County's population has an Associate's Degree or higher.
- The median age for the region is 40.3 years old, and Rowan County has the lowest median age at 33.3 years old, and Menifee County has the highest median age at 43.3 years old.
- As of December 2020, the unemployment rate for the region was 7.6%, and Fleming County had the lowest unemployment rate of 5.9%, and Carter County had the highest unemployment rate of 9.5%.
- The per-capita income for the region is \$20,881, and Morgan County has the lowest per-capita income at \$17,037, and Fleming County has the highest per-capita income at \$26,092.

## EDUCATION & TRAINING

- More than 21% of regional residents hold an Associate's Degree or higher, with 8% earning a Bachelor's Degree, which is 12% lower than the national average.
- Morehead State University supplies the largest number of educational completers in the region, with almost 1,700 graduates per year.

## COVID-19 CONSIDERATIONS

- Rowan County has the highest Economic Vulnerability Index score estimating potential impacts of COVID-19, and Menifee County has the lowest index score in the region.
- Essential jobs make up almost 51% of total jobs in the region, meaning that the 49% non-essential jobs are at risk during a crisis such as COVID-19.
- Job postings in the region have increased by more than 1,000 since January 2020. At the same time, unemployment has increased from a 6.4% annual rate in 2019 to 7.6% in December 2020. In April 2020, the unemployment rate for the region increased to 17.7 percent.
- Flatbed truck operation, merchandising, and over-the-road driving are the top technical skills sought in 6% to 15% of current job postings, while customer service, communications, and sales are the top resilient skills, with all mentioned in more than 11% of job posts.

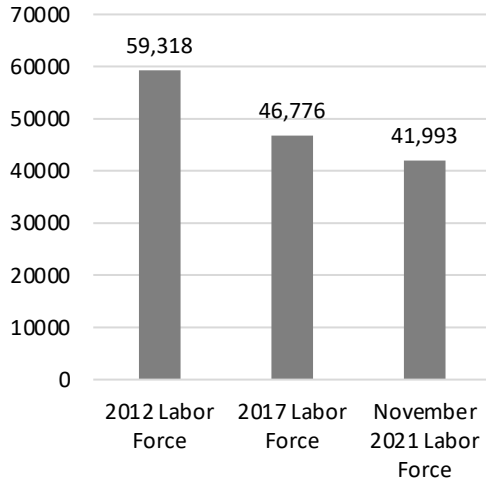


# Workforce Profile

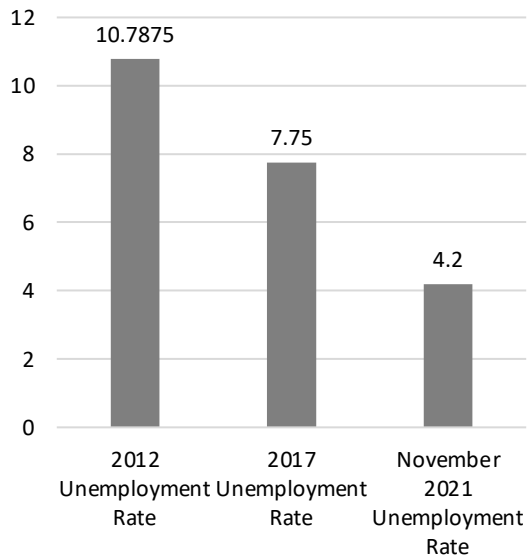


# Gateway Region

Gateway Region Labor Force



Gateway Region Unemployment Rate

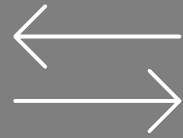


Data Sources: EMSI Class of Worker Data 2021.4, Bureau of Labor Statistics, ESRI, 2020



**147,816** 2022 Population

POPULATION



**1%** Population Change 2022-2027

AGE

**40.6** Median Age



**38.4%** of population are in Prime Age (25-54 years old)

EDUCATION

**22.6%**

of residents have Associate's or Higher

**15.8%**

of residents have Bachelor's + or Higher



**1,749+**

2020 College Program Completions at regional universities

INCOME



**\$21,462**

Per Capita Income

**\$41,038**

Median HH Income

**\$49,932**

Average HH Income

COMMUTE

**\$47,783**

Average Earnings

LABOR FORCE  
JAN 2021

**41,993**

Labor Force

**4.78%**

Unemployment Rate

**64.5%**

Prime Age Labor Force Participation Rate

## WORKFORCE PROFILE – Gateway Region

---

**0.46%**

POPULATION GROWTH (2017-2022)

**41,993**

LABOR FORCE

**\$41,038**

MEDIAN HOUSEHOLD INCOME

**45.9%**

LABOR PARTICIPATION RATE

**40.6**

MEDIAN AGE

**23.54%**

RESIDENTS BELOW POVERTY LINE

**22.6%**

ASSOCIATE'S DEGREE +



## POPULATION – GATEWAY REGION

In the past five years, the nine-county region that includes parts of the Gateway Area Development District, the Buffalo Trace Area Development District, and the FIVCO Area Development District saw less than 1% population growth. In the next five years, it is projected that the region will again experience growth of 1%, which is on par with the Kentucky population projection, but below the US projection of 3% growth.

Area	2017 Population	2022 Population	% Change
Gateway	147,135	147,816	0.46%
Kentucky	4,455,590	4,512,754	1%
USA	325,122,128	334,023,267	3%

Area	2022 Population	2027 Population	% Change
Gateway	147,816	149,033	1%
Kentucky	4,512,754	4,571,627	1%
USA	334,023,267	344,236,349	3%

Source: EMSI Class of Worker Data, 2021.4

## POPULATION – COUNTY

Montgomery County, Carter County, and Rowan County have the largest populations, all between 25,000-30,000 residents. All counties within the Gateway region are expected to grow in the next five years, except for Carter County, Lewis County, and Morgan County.

Area	2022 Population	2027 Population	% Change
Bath County	12,770	13,318	4%
Carter County	26,361	25,694	-3%
Elliott County	7,426	7,484	0.78%
Fleming County	14,662	14,684	0.15%
Lewis County	13,163	12,837	-2.40%
Menifee County	6,600	6,742	2%
Montgomery County	28,630	29,452	2.80%
Morgan County	13,170	13,089	-0.61%
Rowan County	25,034	25,733	2.70%
Gateway	147,816	149,033	1%
Kentucky	4,512,754	4,571,627	1%
USA	334,023,267	344,236,349	3%

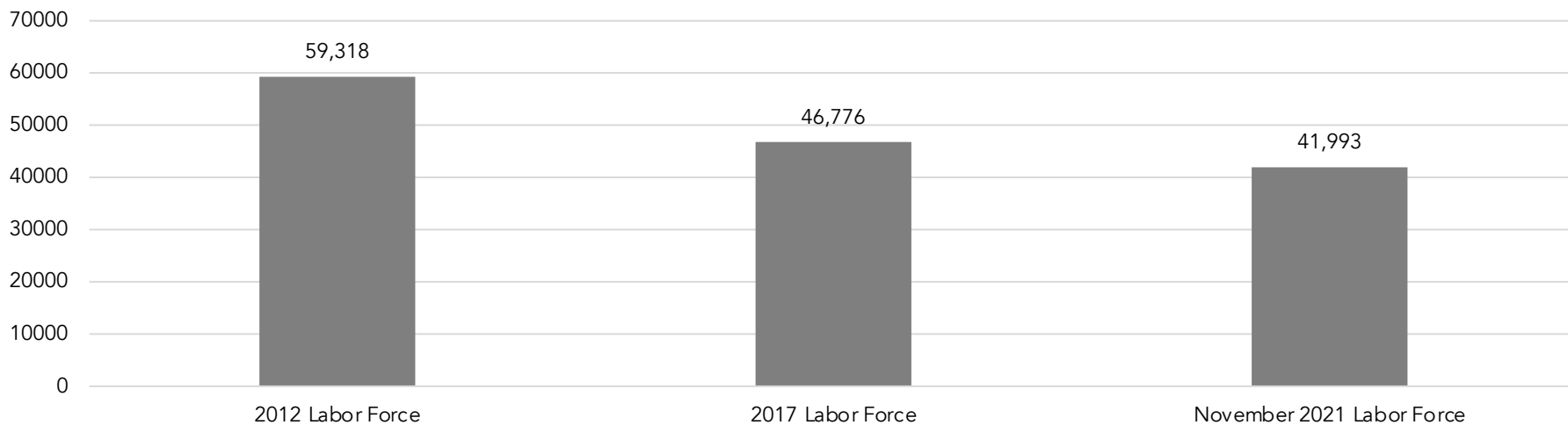
Source: EMSI Class of Worker Data, 2021.4

## LABOR FORCE - GATEWAY REGION

The labor force in the Gateway region has been declining since since 2012. In the past five years, the labor force has declined by almost 7%. Labor force participation rate in the region is less than 5%.

Area	2017 Labor Force	2021 Labor Force	Labor Force % Change (2017-2021)	Labor Force Participation Rate
Gateway	46,776	43,676	-6.63%	45.9%

Gateway Region Labor Force



Source: BLS

## LABOR FORCE - COUNTY

Labor force participation rates are below 50% in all counties in the Gateway region, except for Montgomery County. Elliott County has the lowest labor force participation rate at 41%.

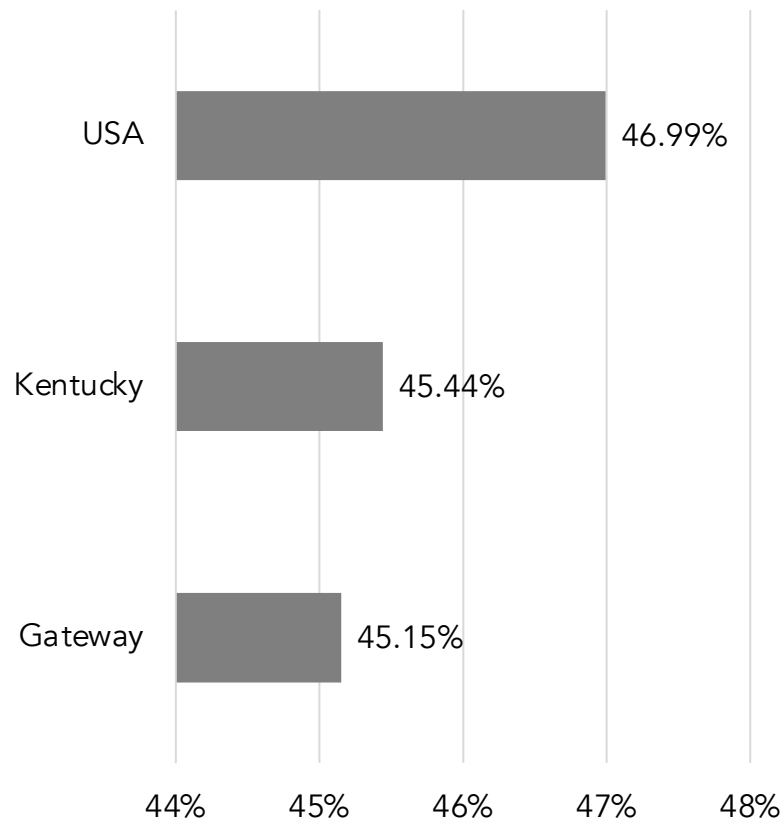
Area	2021 Labor Force	Labor Force % Rate
Bath County	4,415	46%
Carter County	9,417	45.60%
Elliott County	1,909	41%
Lewis County	5,862	43.30%
Fleming County	4,478	40.90%
Menifee County	2,159	46%
Montgomery County	10,941	50.10%
Morgan County	4,310	45.20%
Rowan County	9,602	46.10%

Source: BLS

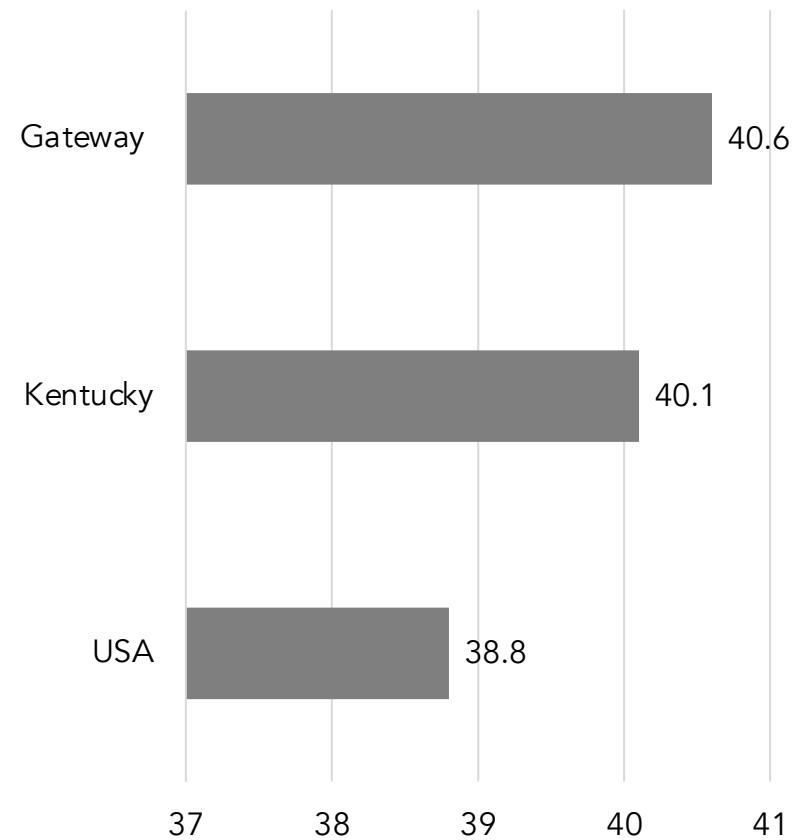
## AGE - GATEWAY REGION

The Gateway region has a higher median age and a lower Millennial/GenZ population when compared to Kentucky and the US, which could be a potential challenge from a workforce recruitment perspective.

Millennial/Gen Z Population



Median Age

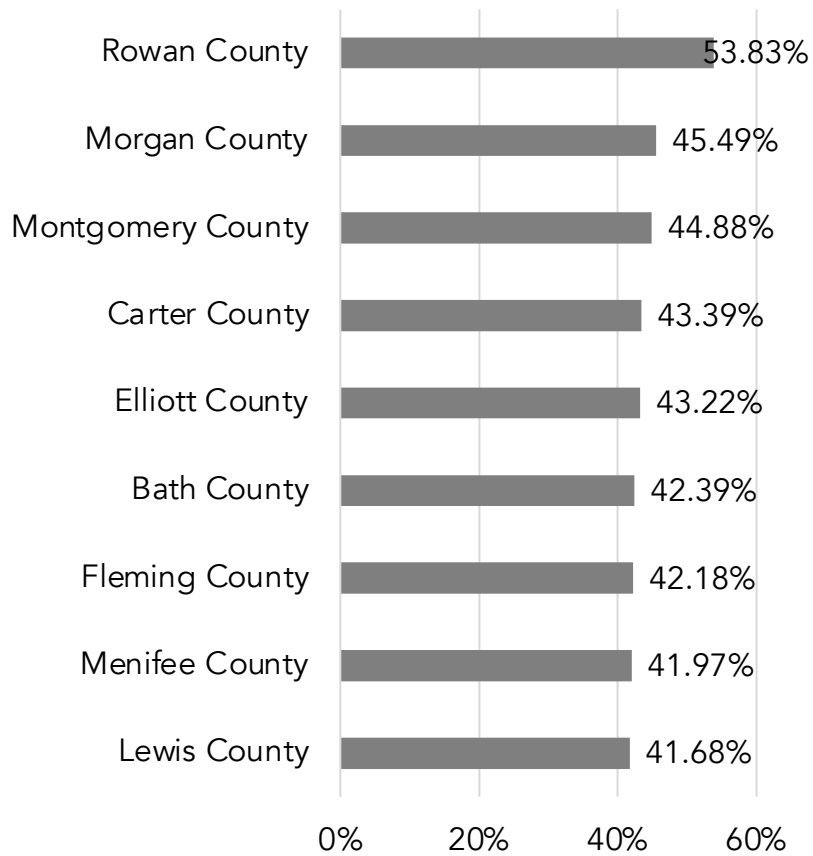


Source: Esri 2022

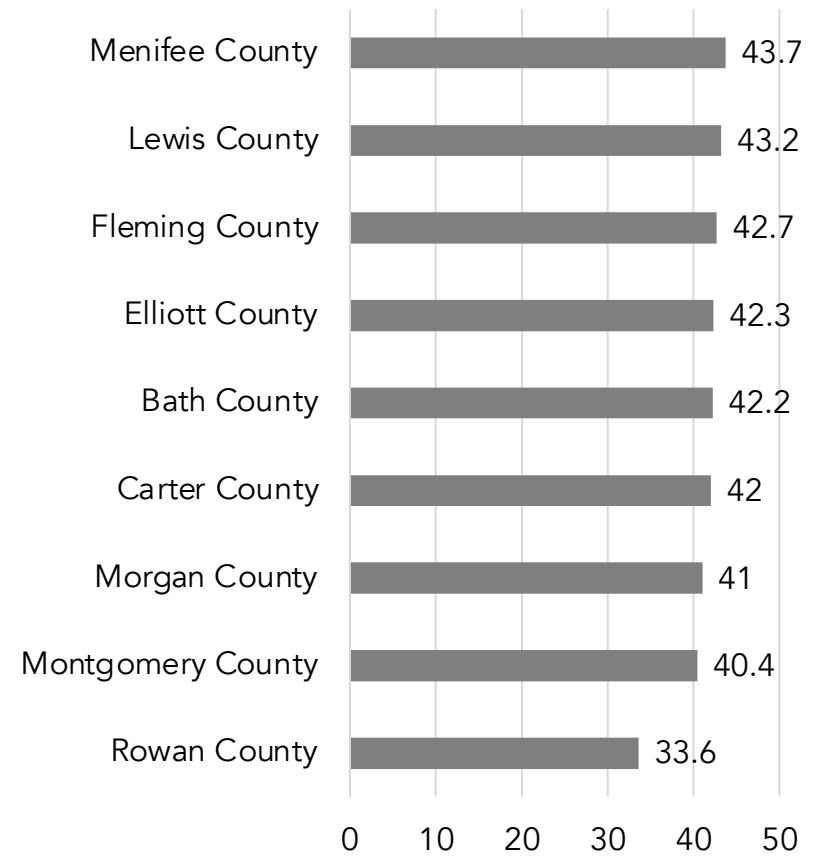


AGE - COUNTY

Millennial/Gen Z Population



Median Age

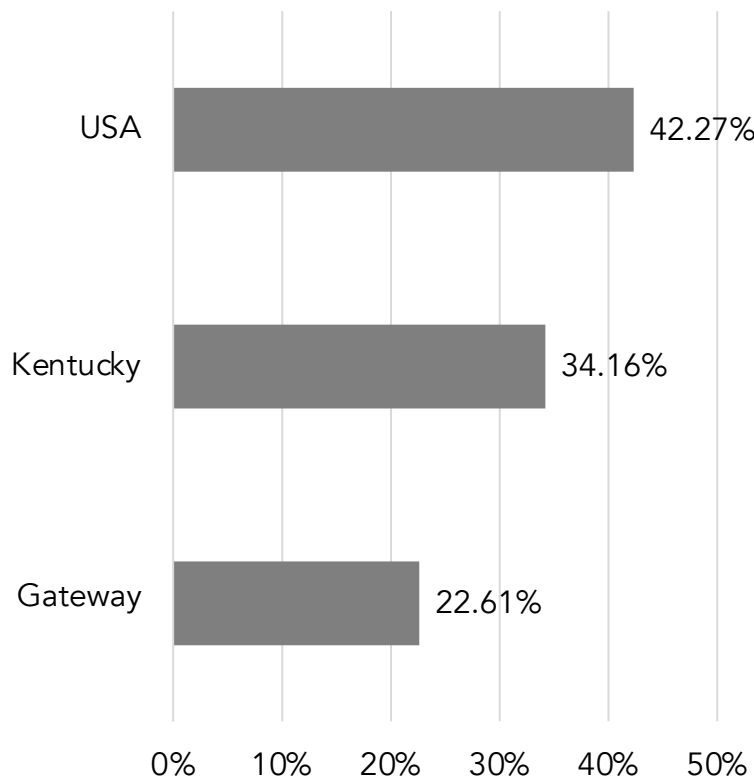


Source: Esri 2022

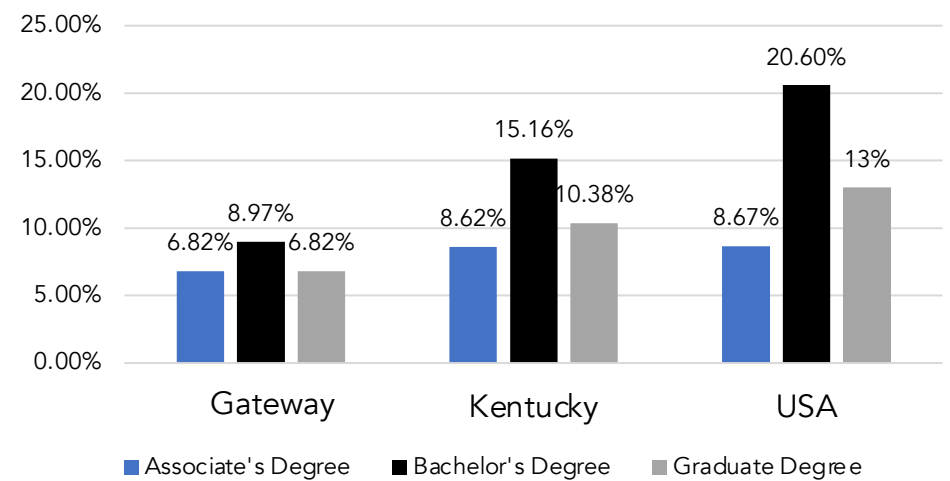
## EDUCATIONAL ATTAINMENT - GATEWAY REGION

Educational attainment levels in the Gateway region are lower than the State of Kentucky and the US levels.

### Associate's Degree or Higher



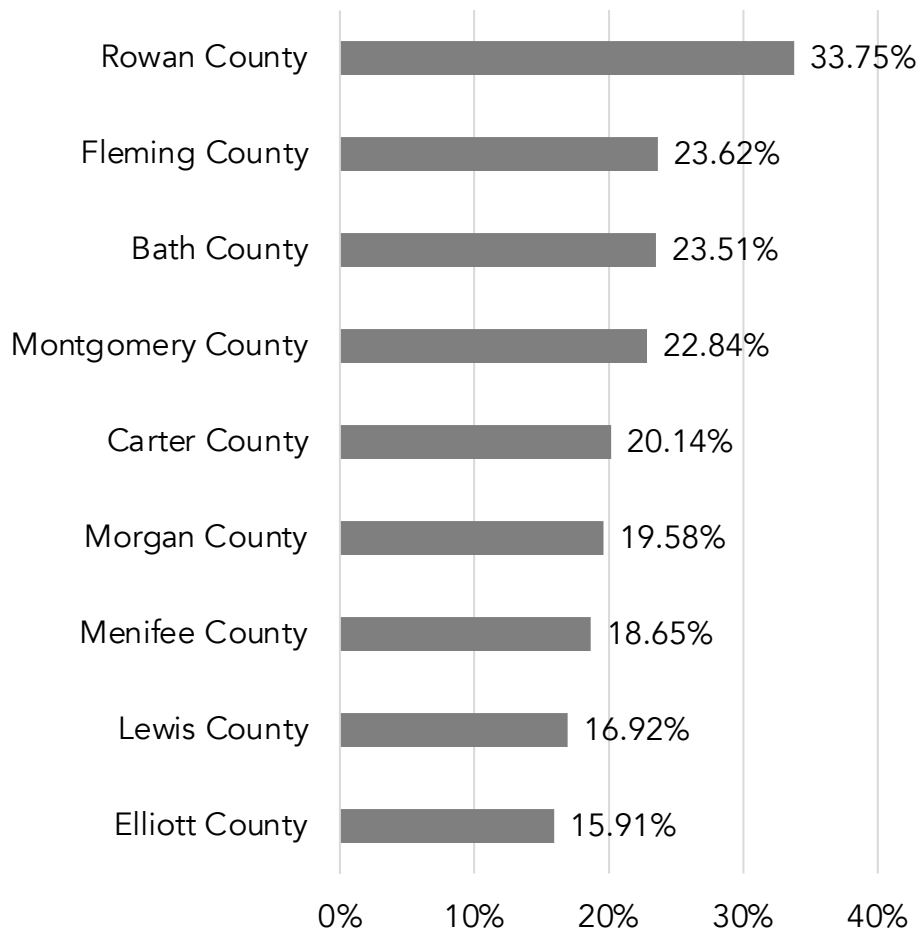
### Educational Attainment



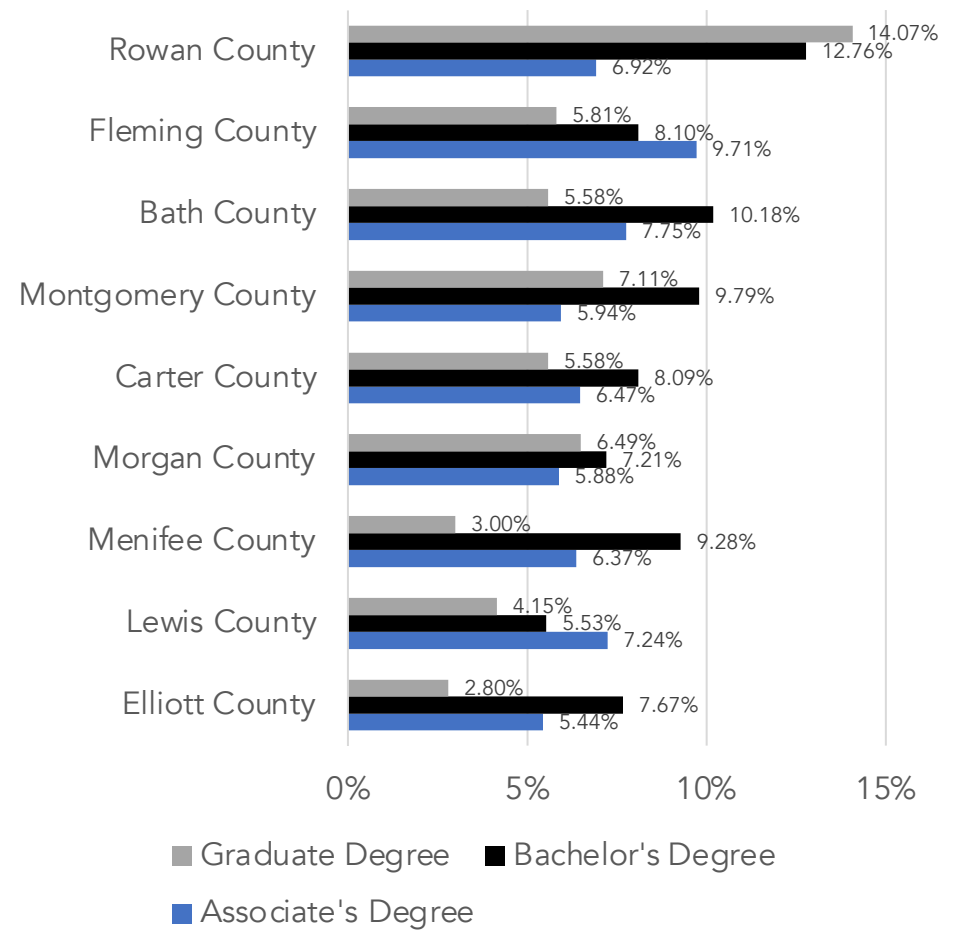
Source: EMSI Class of Worker Data, 2021.4

EDUCATIONAL ATTAINMENT - COUNTY

Associate's Degree or Higher



Educational Attainment

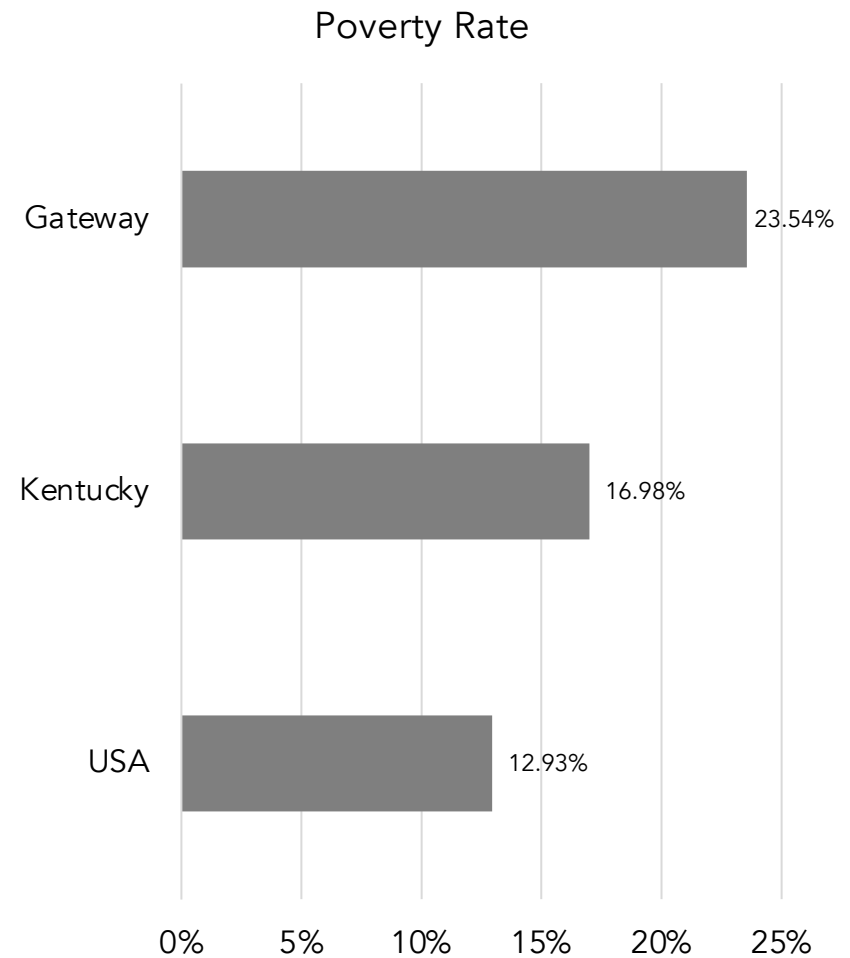
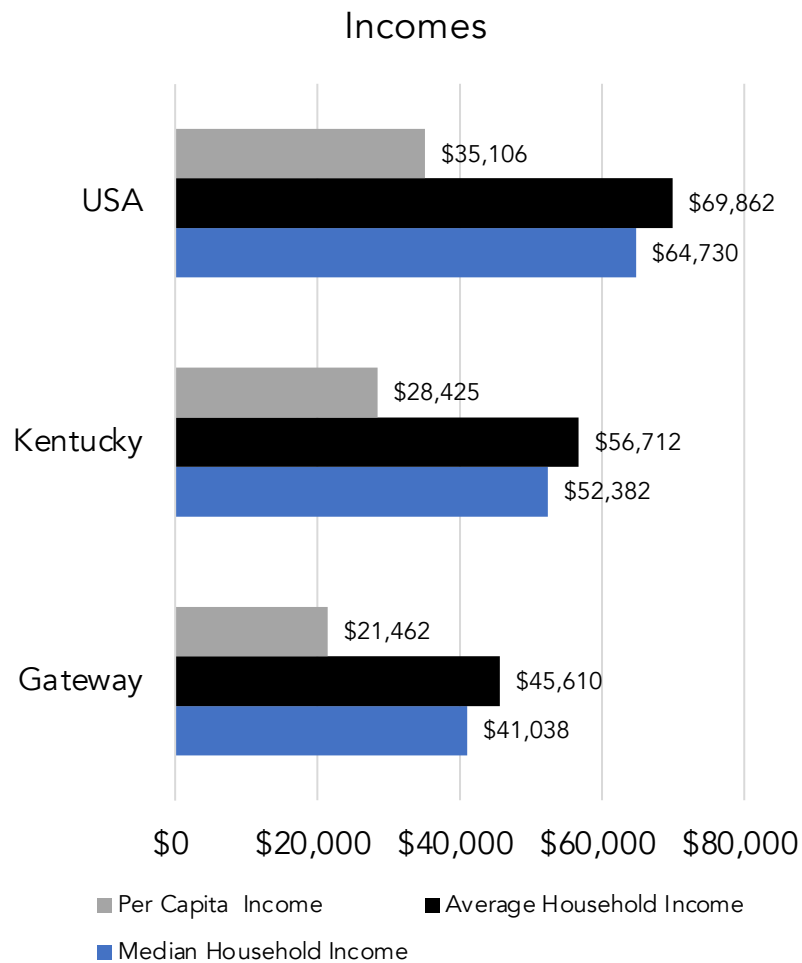


Source: EMSI Class of Worker Data, 2021.4



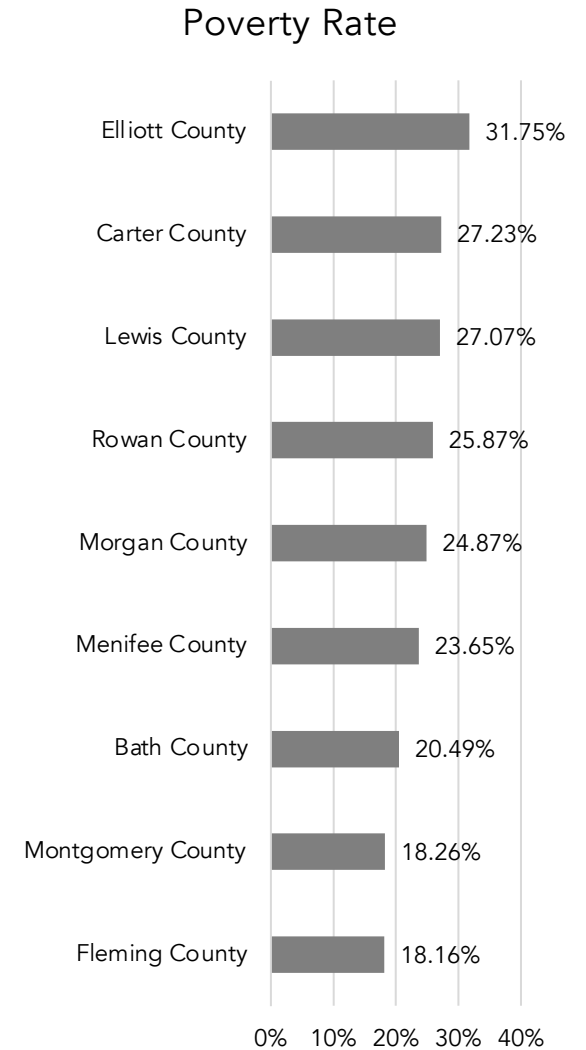
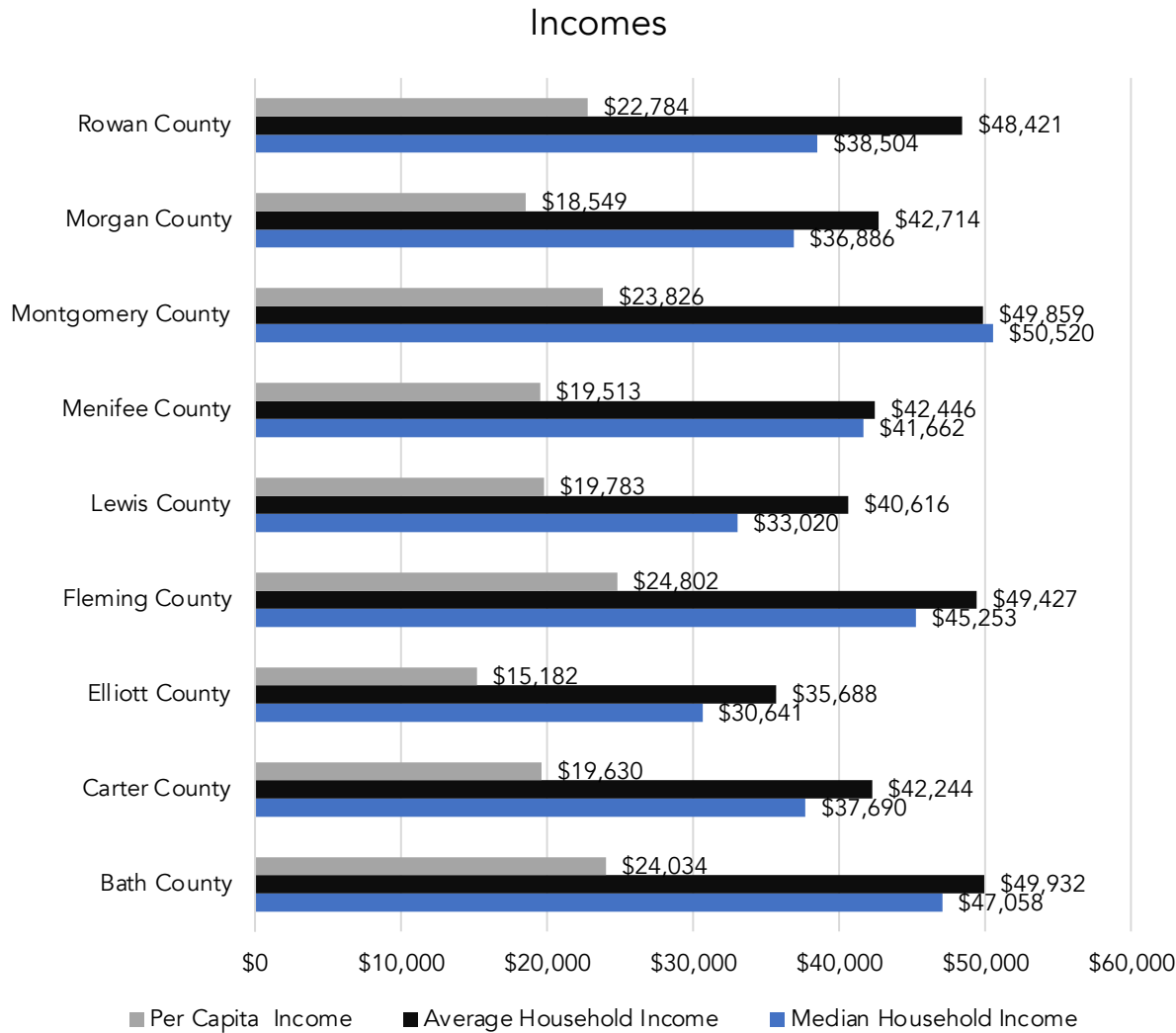
## INCOMES AND POVERTY - GATEWAY REGION

Incomes in the Gateway region are lower when compared to the US and Kentucky averages. However, this can be a competitive advantage for attracting industry and employers to the area.



Source: EMSI Class of Worker Data, 2021.4

INCOMES AND POVERTY - COUNTY

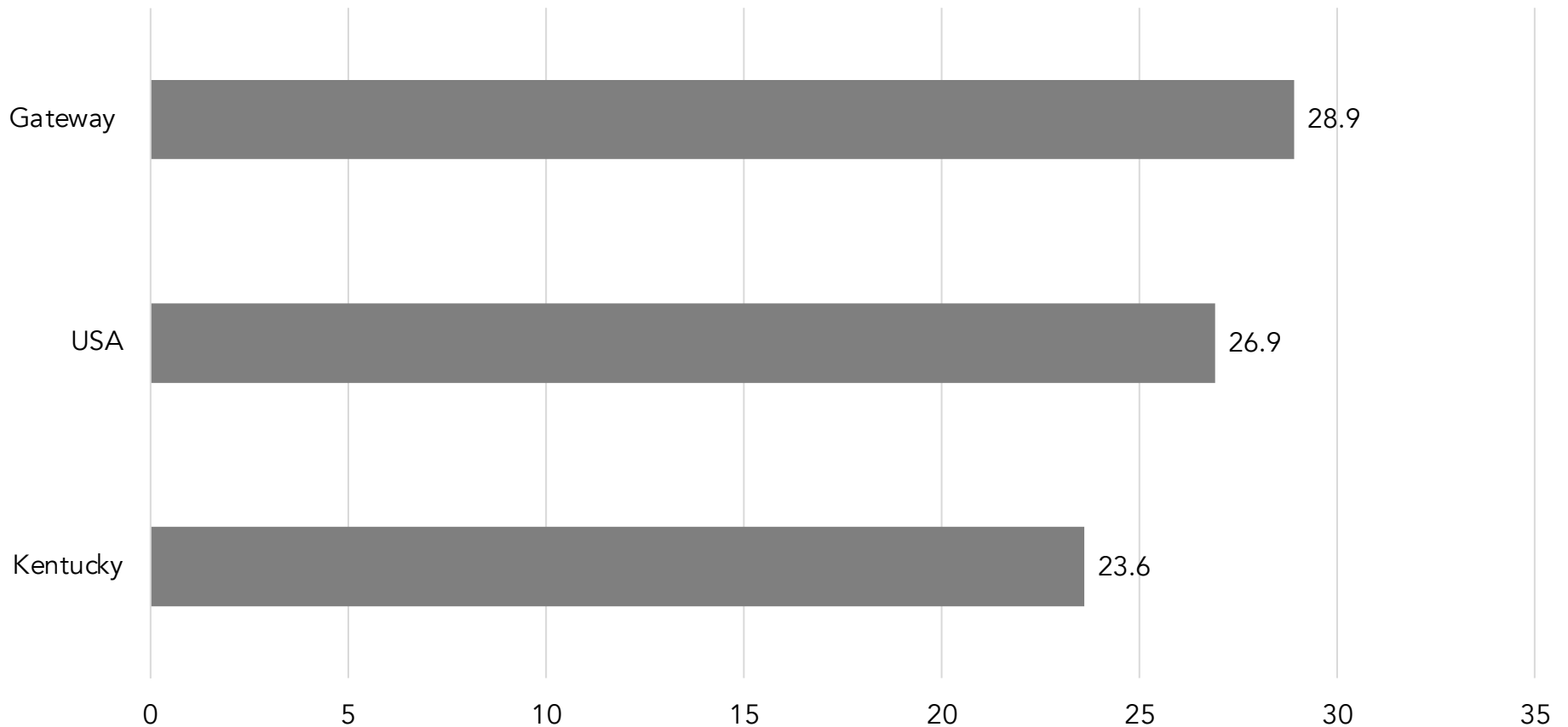


Source: EMSI Class of Worker Data, 2021.4

## COMMUTE TIME - GATEWAY REGION

The average commute in the Gateway region is greater than that for Kentucky or the US, but this is likely due to the rural nature of the region. The average commute time is still below 30 minutes.

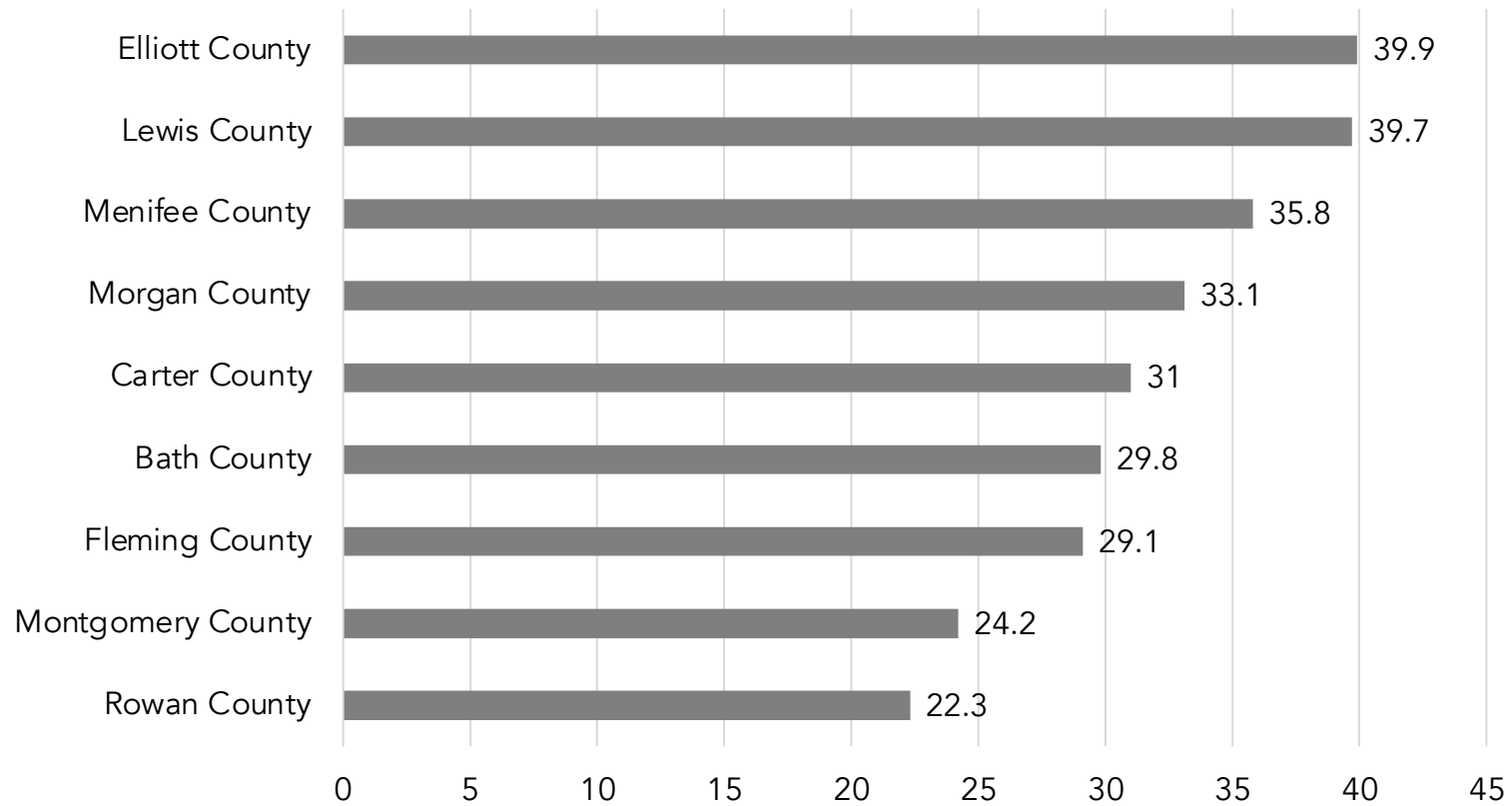
Average Commute to Work (Minutes)



Source: EMSI Class of Worker Data, 2021.4

COMMUTE TIME - COUNTY

Average Commute to Work (Minutes)



Source: EMSI Class of Worker Data, 2021.4

K-12 EDUCATION

Bath County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
92%	16:01	\$10,427	2,058	63.90%

Carter County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
97%	17:01	\$9,953	4,342	64.70%

Elliott County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
92%	14:01	\$10,979	1,036	70.10%

Fleming County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
95%	16:01	\$14,505	2,194	65.30%

Lewis County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
95%	16:01	\$10,042	2,259	71.50%

Source: Niche



K-12 EDUCATION (CONTINUED)

Menifee County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
95%	13:01	\$11,311	978	71.20%

Montgomery County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
94%	17:01	\$10,293	4,704	62.30%

Morgan County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
95%	17:01	\$15,982	2,007	71.20%

Rowan County Public Schools				
Graduation Rate	Teacher/Student Ratio	Average Expenditure per Student	Students	% Free or Reduced Lunch
97%	19:01	\$10,365	3,548	63.60%

Source: Niche

## MOREHEAD STATE UNIVERSITY

Morehead State University (MSU) is located in Rowan County and offers 142 undergraduate and 68 graduate degree programs. The university awards Associate’s, Bachelor’s, Master’s, Specialist, and Doctoral degrees, as well as undergraduate and graduate certificates.

MSU has a total enrollment of 9,300 students from 46 states and 18 countries, with 94% of undergraduates receiving financial aid, including \$18 million in scholarships and grants.

The university is designated as a NASA Space Grant University, which is a national network of colleges and universities that are working to expand opportunities for Americans to understand and participate in aeronautics and space projects. These institutions support and enhance science and engineering education, as well as research and public outreach efforts. Other affiliate groups include industry, museums, science centers, and state and local agencies.

Morehead State University Quick Facts	
2020-2021 Enrollment	9,304
2020-2021 Undergraduate Enrollment	8,618
2019-2020 Associate’s Degrees	153
2019-2020 Bachelor’s Degrees	1,139
2019-2020 Master’s Degrees	266

Morehead State University			
Key Programs			
Agricultural Sciences	Healthcare	Transportation Equipment	Manufacturing Technology
Agribusiness	Nursing	Geospatial Science and Technology	Engineering Technology
Agricultural Education	Imaging Science	Space Systems Engineering	Industrial Education
Agronomy	Radiologic Science		Systems Integration Engineering
Horticulture	Respiratory Care		
	Biomedical Science		

## Post-Secondary Educational Offerings

Morehead State University	
Program	Degree
General studies	Bachelor's
Registered nursing/registered nurse	Bachelor's
Social work	Bachelor's
Biomedical sciences	Bachelor's
Agriculture	Bachelor's
Engineering technology	Bachelor's
Accounting	Bachelor's
Psychology	Bachelor's
Medical radiologic technology/science - radiation therapist	Bachelor's
Special education and teaching	Bachelor's
Business administration and management	Bachelor's
Kinesiology and exercise science	Bachelor's
Sociology	Bachelor's
Business/commerce	Bachelor's
Elementary education and teaching	Bachelor's
Music	Bachelor's
Junior high/intermediate/middle school education and teaching	Bachelor's
Sport and fitness administration/management	Bachelor's
Fine/studio arts	Bachelor's
Marketing/marketing management	Bachelor's
Communication and media studies	Bachelor's

Source: Morehead State University



Post-Secondary Educational Offerings (Continued)

Morehead State University	
Program	Degree
Finance	Bachelor's
Public relations, advertising, and applied communication	Bachelor's
Health teacher education	Bachelor's
Legal studies	Bachelor's
Biology/biological sciences	Bachelor's
Engineering/industrial management	Bachelor's
Engineering technologies and engineering-related fields	Bachelor's
History	Bachelor's
Aerospace, aeronautical and astronautical/space engineering	Bachelor's
Mathematics	Bachelor's
Drama and dramatics/theatre arts	Bachelor's
Management information systems	Bachelor's
English language and literature	Bachelor's
Early childhood education and teaching	Bachelor's
Spanish language and literature	Bachelor's
Computer and information sciences	Bachelor's
Physics	Bachelor's
Social sciences	Bachelor's
Creative writing	Bachelor's
Political science and government	Bachelor's
Neuroscience	Bachelor's

Source: Morehead State University

Post-Secondary Educational Offerings (Continued)

Morehead State University	
Program	Degree
Philosophy	Bachelor's
Chemistry	Bachelor's
Geology/earth science	Bachelor's
International/global studies	Bachelor's
Manufacturing engineering technology/technician	Bachelor's
Health and physical education/fitness	Bachelor's
Music	Bachelor's
Registered nursing/registered nurse	Associate's
Medical radiologic technology/science - radiation therapist	Associate's
General studies	Associate's
Respiratory care therapy/therapist	Associate's
Management information systems	Associate's
Engineering technology	Associate's

Source: Morehead State University



## MAYSVILLE COMMUNITY & TECHNICAL COLLEGE

Maysville Community and Technical College (MCTC), one of 16 two-year colleges in the Kentucky Community and Technical College system, offers associate degrees, diplomas, and certificates in more than 25 areas of study. The college offers classes at the Licking Valley, Montgomery, and Rowan campuses, in addition to the primary Maysville location.

In Fall 2020, MCTC had a total enrollment of 3,447, with 34% of students enrolled full time. The largest cohort by age is students under 18 at 39.81%, followed by those 18 to 24 at 35.23%. This reflects the fact that 1,274 high school students are in dual enrollment/dual credit courses at the college.

MCTC is a participant in the Kentucky Federation for Advanced Manufacturing Education (KY FAME) program, which offers apprenticeship-style training with regional manufacturers. KY FAME is part of the Advanced Manufacturing Technician Program, which offers an Associate’s Degree and includes two years of paid work experience.

Maysville Community & Technical College Quick Facts	
2020-2021 Graduates	1,343
2020-2021 Credentials	2,503
2020-2021 Associate’s Degrees	468
2020-2021 Diplomas	193
2020-2021 Certificates	1,842

Maysville Community & Technical College		
Key Programs		
Healthcare	Manufacturing Technology	Transportation Equipment
Emergency Medical Services – Paramedic	Computerized Manufacturing and Machining Technology	Automotive Technology
Health Science Technology	Industrial Maintenance Technology	Aviation Maintenance Technology
Medical Assisting	Welding Technology	Diesel Technology
Medical Information Technology	Electrical Technology	
Medical Laboratory Technician		
Nursing		
Physical Therapist Assistant		
Respiratory Care		

Post-Secondary Educational Offerings (Continued)

Maysville Community & Technical College	
Program	Degree
Liberal arts and sciences/liberal studies	Associate's
Multi-/interdisciplinary studies	Associate's
Registered nursing/registered nurse	Associate's
Industrial mechanics and maintenance technology	Associate's
Medical administrative/executive assistant and medical secretary	Associate's
Business administration and management	Associate's
Computer and information sciences	Associate's
Respiratory care therapy/therapist	Associate's
Culinary arts/chef training	Associate's
Machine shop technology/assistant	Associate's
Executive assistant/executive secretary	Associate's
Childcare provider/assistant	Associate's
Criminal justice/law enforcement administration	Associate's
Clinical/medical laboratory technician	Associate's

Source: Maysville Community and Technical College



Post-Secondary Educational Offerings (Continued)

Maysville Community & Technical College	
Program	Degree
Welding technology/welder	Certificate
Licensed practical/vocational nurse training	Certificate
Business administration and management	Certificate
Diesel mechanics technology/technician	Certificate
Medical administrative/executive assistant and medical secretary	Certificate
Computer and information sciences	Certificate
Executive assistant/executive secretary	Certificate
Industrial mechanics and maintenance technology	Certificate
Heating, air conditioning, ventilation and refrigeration maintenance technology/technician	Certificate
Electrician	Certificate
Automobile/automotive mechanics technology/technician	Certificate
Machine shop technology/assistant	Certificate
Culinary arts/chef training	Certificate
Carpentry/carpenter	Certificate
Childcare provider/assistant	Certificate
Criminal justice/law enforcement administration	Certificate
Medical/clinical assistant	Certificate
Emergency medical technology/technician (emt paramedic)	Certificate
Clinical/medical laboratory technician	Certificate

Source: Maysville Community and Technical College

# Target Sectors



# TARGET SECTORS

## IDENTIFYING TARGETS

A significant component of this project involved research and identification of potential target sectors for the Gateway region, followed by an analysis of workforce quality and availability related to those sectors.

To select sectors for which the region had the necessary assets and infrastructure, data related to key three-digit NAICS codes was reviewed and analyzed based on projected future growth in the region. The broad sectors examined included:

- Agriculture
- Mining/Oil and Gas Extraction
- Food and Beverage Manufacturing
- Textile Manufacturing
- Wood and Paper Product Manufacturing
- Metal Manufacturing
- Computer and Electronic Product Manufacturing
- Wholesale and Retail Sales
- Transportation Equipment Manufacturing
- Information Services
- Healthcare
- Repair and Maintenance

After a deeper examination of four-digit NAICS codes, a refined list of potential sectors was developed and analyzed based on both historic and projected future growth in the region.

In addition to the data analysis, additional secondary research was completed for each of the above sectors to understand overall trends and opportunities in the sector over the next five years. That information follows on subsequent pages.

Following completion of all research and discussions with the Gateway core team, the final targets were selected (see table).

Both Automotive and Aerospace/Aviation are included in the Transportation Equipment target but are also considered as stand-alone aspirational targets given the region’s assets, even though the sectors do not currently have a significant presence in the area.

TARGET SECTORS OVERVIEW						
	2017 Jobs	2022 Jobs	2027 Jobs	2022 – 2027 % Change	2020 Payrolled Business Locations	Average Earnings Per Job
Distribution/Logistics	756	808	813	1%	92	\$57,739
Food/Agricultural Technology	1,527	1,463	1,281	-12%	13	\$59,379
Healthcare	5,832	5,618	5,835	4%	618	\$59,299
Manufacturing Technology	2,914	2,178	2,228	2%	58	\$63,252
Metals	598	371	415	12%	16	\$51,494
Transportation Equipment Manufacturing	1,025	984	983	-0%	6	\$62,784
Wood & Paper	993	1,024	1,117	9%	37	\$50,247

## DISTRIBUTION/LOGISTICS

### Cold Chain Logistics

The cold chain logistics market of the US is expected to show a growth of over 2% during the forecast period 2020-2025. The major imports and exports of the US include nuclear reactors and boilers, pharmaceutical products, chemical products, and food products like vegetables, fruits, and meat that require the temperature-controlled environment to be transferred safely from one place to another.

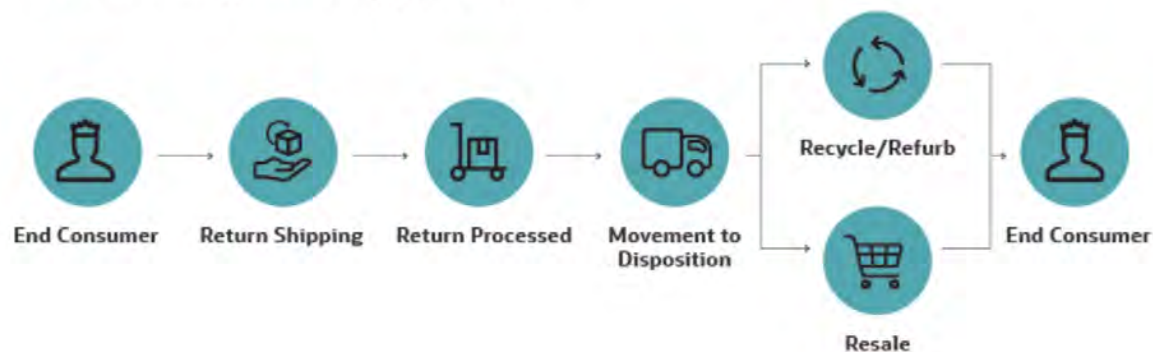
The food and beverage industry alone contributes 5% to the country's GDP, and the rise in the industry is proposed to drive a steady demand for refrigerated transportation. About 95% of new drugs that are developed and manufactured in the US require proper temperature-controlled logistics. The presence of large beverage companies in the US, given their immense dependence on the cold storage transportation facilities to deliver goods, is also one of the major factors that are expected to fuel the demand for refrigerated vehicles.

### Reverse Logistics Operations

Reverse logistics is a type of supply chain management that moves goods from customers back to the sellers or manufacturers. Once a customer receives a product, processes such as returns or recycling require reverse logistics. Reverse logistics can also include processes where the end consumer is responsible for the final disposal of the product, including recycling, refurbishing, or resale.

The growing e-commerce industry, coupled with a rise in reverse logistics operations, increase in trade-related agreements, surge in the number of tech-driven logistics services, and growing adoption of Internet of Things (IoT)-enabled devices, will continue to fuel the growth of the global logistics market. Emergence of last-mile deliveries, in addition to logistics automation, is expected to create lucrative opportunities in the industry.

### Reverse Logistics Supply Chain





## AGRICULTURE

### Indoor Farming

Startup companies continue to receive support for the indoor production of produce such as lettuce and tomatoes. Hundreds of vertical farming startups aim to utilize sensors and protective culture to produce vegetables in small spaces close to urban areas. Investors will also continue backing rural operations such as AppHarvest in Kentucky.

Indoor vertical farms are expanding across the country. Despite the fact that AgFunder Network Partners estimates that it is “three to five times more costly to grow in a vertical farm compared to conventional farming,” there are a lot of advantages to indoor vertical farming.

### Agricultural Machinery

The US agricultural machinery market is projected to witness a Compound Annual Growth Rate of 4.7% during the forecast period (2020-2025).

Increasing farm labor charges, labor scarcity, and average farm size are the major factors that are driving the agricultural machinery market in the country. According to USDA, average farm wages in the US have increased by 10.5% in four years. According to Farm Bureau Survey in 2019, California farmers have adopted various farm mechanization technologies to overcome the labor challenge. The survey showed that more than 40% of the farmers have faced labor shortages in the past five years, leading to farm mechanization in the state.

Agricultural machinery are different tools or machinery used for various purposes of agricultural operations such as planting, harvesting, fertilization, seeding, and so on. Tractors, combine harvesters, planting machinery, ploughs, tillers, and weeders are some of the farm machinery. A detailed analysis of tractors, plowing and cultivating machinery, haying, and forage machinery, planting machinery, harvesting machinery, sprayers, and irrigation machinery are covered in the report.

## HEALTHCARE

### Medical Devices

The future of the medical device market looks good with opportunities in hospital and homecare sectors. The medical device market is expected to reach an estimated \$432.6 billion by 2025, and it is forecast to grow at a Compound Annual Growth Rate of 4.1% from 2020 to 2025. The major drivers for market growth are increasing healthcare expenditures, technological development, growing aging population, and chronic diseases.

### Wearable Medical Devices

The major advancements in research and development and adoption of major innovations in the medical sector stand as a key trend in the global wearable medical devices market. The collaboration between the medical sector and electronics industry is considered a major factor contributing to the growth of the market in the coming years.

The value of the global wearable medical devices market is likely to rise from \$6.8 billion earned in 2017, with a significant Compound Annual Growth Rate of 17.7% to reach an estimated \$29.6 billion by the end of 2026.

### Medical Equipment Maintenance

The global medical equipment maintenance market size is expected to reach \$61.7 billion by 2027, according to a report by Grand View Research, Inc. It is expected to expand at a Compound Annual Growth Rate of 7.9% from 2021 to 2027. Rising focus on preventive device maintenance, adoption of advanced funding mechanisms, growth of the associated devices markets, and increasing market share of refurbished medical devices are anticipated to drive the market over the forecast period.

Based on equipment, the imaging equipment segment dominated the market with a share of 35.8% in 2020 as a result of increasing consumption of the devices in the industry. The surgical instruments segment is anticipated to register the highest Compound Annual Growth Rate over the forecast period due to an increase in global surgical procedures.

## MANUFACTURING

### Additive Manufacturing

The Global Additive Manufacturing Market is expected to reach \$26.68 billion by 2027, growing at a high rate of 14.4%, according to a report by Reports and Data. Increasing government support to enhance additive manufacturing technology across various regions is a key factor influencing market demand. For instance, America Makes, the leading national program in the US, which has been exclusively committed to research in additive manufacturing (3D printing technology), was awarded \$90 million in funding from the government and business and non-benefit divisions.

The global IoT in Manufacturing market size is projected to reach \$1.0388 billion by 2026, from \$567.2 million in 2020, at a Compound Annual Growth Rate of 10.6% during the forecast period 2021-2026.

Due to growing competition and demand from end-users, manufacturers are more concerned about manufacturing high-volume and high-quality goods. This, in turn, led them to concentrate on key areas, such as the manufacturing process, asset monitoring, and the repair and support of equipment in the factory. Automation will allow manufacturers to increase productivity, enhance consistency of processes or products, and improve quality by eliminating errors and reducing variability. These advantages by IoT are expected to drive the growth of IoT in Manufacturing.

The global smart manufacturing market size is estimated to reach \$514.3 billion by 2027, registering a Compound Annual Growth Rate of 11.8% over the forecast period, according to a study by Grand View Research, Inc. The growing adoption of digital technologies, such as industrial IoT, autonomous robots, and big data analytics, to enable the fourth industrial revolution, is the prime driving factor for the market growth. Moreover, growing emphasis on increasing production efficiency and gaining visibility across the entire value chain will also boost the prospects of smart manufacturing. In addition, availability of advanced technologies, such as 3D printing, manufacturing execution systems (MES), and plant asset management solutions to small and medium enterprises, is further accelerating the market growth.

## TRANSPORTATION EQUIPMENT: AUTOMOTIVE

### General Automotive

The North American Automotive Market is projected to grow with a Compound Annual Growth Rate of about 7.22% during the forecast period. With growing stringent emission norms, automakers have been shifting their vehicle production more toward vehicle electrification, and the growing demand for commercial vehicles from logistics and e-commerce industry is one of the major factors that has been driving market growth.

### Electric Vehicles

The electric motors for the electric vehicle market are expected to register a Compound Annual Growth Rate of over 28.63% during the forecast period (2020 - 2025). Some of the major factors driving the growth of the market are the enactment of stringent emission and fuel economy norms, government incentives, and improving charging infrastructure, leading to the increasing adoption of electric vehicles. This adoption of electric vehicles may propel the demand for electric motors during the forecast period.

The massive investments in electric vehicles by major automotive companies, such as Toyota, Honda, Tesla, General Motors, and Ford, among others, are expected to drive the electric motor market in the near future. Additionally, the evolving partnerships between motor manufacturers and automotive companies are expected to expand the electric motor for the electric vehicle market, globally.

The electric motor market is expected to face challenges in the form of procurement of rare earth metals used in permanent magnets for synchronous motors, as the metals used in these motors are subject to export restrictions and supply risks. The electric motor for the electric vehicle market is mainly dominated by some of the major automotive players, such as Tesla, BYD, Toyota, Nissan, and Honda.

## TRANSPORTATION EQUIPMENT: AEROSPACE/AVIATION

### Aerospace and Defense

The US Aerospace and Defense Market is projected to grow from \$416.63 billion in 2020 to \$550.78 billion, registering a Compound Annual Growth Rate of around 2.37% during the forecast period (2021-2030).

The US is ranked as the world's leading defense manufacturer and exporter. According to SIPRI, the US defense expenditure grew by 5.3% to amount to \$732 billion in 2019, which is around 38% of the global defense expenditure. The US Foreign Military Sales (FMS) increased by \$15 billion to reach \$83.5 billion during FY2020. Besides, the US is one of the world's largest FDI investors and the leading beneficiary of FDIs. In 2018, FDIs in the US aerospace industry totaled nearly \$22 billion. This resulted in a significant upgrade of the manufacturing capabilities of key industry incumbents in the US. For instance, in January 2019, Airbus initiated the construction of its A220 Manufacturing Facility in Alabama. Similarly, in September 2018, Planet Labs Inc. invested around USD 183 million to open a 27,000-square-foot new satellite manufacturing and testing facility in San Francisco. In 2020, Lockheed Martin completed the construction of its USD 350 million satellite manufacturing facility, located at the company's Waterton Canyon campus near Denver. As the US envisions to retain its technological superiority over rival forces in terms of deployed platforms and weaponry in the aerial domain, a significant inflow of monetary resources is anticipated to occur during the upcoming period, thereby driving the US aerospace and defense market.

### Aerospace Engineering

In 2019, the overall aerospace engineering market was valued at \$78.96 billion. However, the sector experienced a decline of about 42% in 2020 due to reduced investments towards aircrafts as a result of travel restrictions. The market was estimated to reach to \$45.40 billion in 2020. With international travel expected to resume from 2021, coupled with continued investments in UAVs, the market is expected to grow at a Compound Annual Growth Rate of 7.1% during the forecast period from 2020 to 2028 considering post-COVID-19 recovery.

## WOOD & PAPER PRODUCTS

The wood pulp market is expected to witness a Compound Annual Growth Rate of 2.1% during the forecast period.

The drivers identified in the market are increasing demand for wood pulp from the paper industry, rising consumer demand for tissue paper products, and growth in the trade of wood pulp products.

The restraints identified in the market are stringent environmental regulations, with respect to deforestation, and increasing energy and transportation costs.

Amid the COVID-19 crisis, the global market for Manufactured Wood Materials, estimated at \$366.2 billion in the year 2020, is projected to reach a revised size of \$505.6 billion by 2027, growing at a Compound Annual Growth Rate of 4.7% over the analysis period 2020-2027.

Plywood is projected to record a 4.7% Compound Annual Growth Rate and reach \$242.6 billion by the end of the analysis period. After an early analysis of the business implications of the pandemic and its induced economic crisis, growth in the Veneer Sheet segment is readjusted to a revised 4.5% CAGR for the next seven-year period.

## DISTRIBUTION/LOGISTICS

The distribution and logistics sector is expected to grow by 1% over the next five years in the Gateway region. The total employment in the sector is currently 808.

Below is a table with the top occupations in the distribution/logistics sector, as well as all the occupation data for the the top five occupations within that industry sector. For the distribution/logistics sector, Heavy and Tractor-Trailer Truck Drivers is the largest occupation with 179 employed in the industry.

INDUSTRY		
<b>756</b>	<b>808</b>	<b>813</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>1%</b>	<b>\$57,739</b>	
Percent Change 22-27	Average Earnings	

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
53-3032	Heavy and Tractor-Trailer Truck Drivers	179	175	(2%)	470	481	2%	\$17.97	\$37,372.51
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	117	116	(1%)	717	733	2%	\$14.61	\$30,385.88
53-7051	Industrial Truck and Tractor Operators	78	74	(5%)	267	266	(0%)	\$18.88	\$39,268.36
53-7065	Stockers and Order Fillers	51	49	(3%)	619	622	0%	\$11.43	\$23,783.00
53-3033	Light Truck Drivers	26	27	4%	211	223	6%	\$15.45	\$32,129.23

Source: EMSI Class of Worker Data, 2021.4

## FOOD/AGRICULTURE

The food/agriculture sector is expected to decrease by 12% over the next five years in the Gateway region. The total employment in the sector is currently 1,463.

Below is a table with the top occupations in the food/agriculture sector, as well as all the occupation data for the the top five occupations within that industry sector. For the food/agriculture sector, Packaging and Filling Machine Operations and Tenders is the largest occupation with 217 employed in the industry.

INDUSTRY		
<b>1,527</b>	<b>1,463</b>	<b>1,281</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>-12%</b>	<b>\$53,379</b>	
Percent Change 22-27	Average Earnings	

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
51-9111	Packaging and Filling Machine Operators and Tenders	217	186	(14%)	302	275	(9%)	\$17.62	\$36,642.63
51-3092	Food Batchmakers	117	111	(5%)	125	119	(5%)	\$19.66	\$40,893.22
51-3093	Food Cooking Machine Operators and Tenders	98	76	(22%)	102	80	(22%)	\$12.54	\$26,088.56
51-9198	Helpers--Production Workers	87	62	(29%)	298	277	(7%)	\$14.34	\$29,823.74
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	86	72	(16%)	717	733	2%	\$14.61	\$30,385.88

Source: EMSI Class of Worker Data, 2021.4



## HEALTHCARE

The healthcare sector is expected to grow by 4% over the next five years in the Gateway region. The total employment in the sector is currently 5,618.

Below is a table with the top occupations in the healthcare sector, as well as all the occupation data for the the top five occupations within that industry sector. For the healthcare sector, Registered Nurses is the largest occupation with 586 employed in the industry.

INDUSTRY		
<b>5,832</b>	<b>5,618</b>	<b>5,835</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>4%</b>		<b>\$59,299</b>
Percent Change 22-27		Average Earnings

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
29-1141	Registered Nurses	586	587	0%	679	680	0%	\$31.29	\$65,089.47
31-1128	Home Health and Personal Care Aides	597	670	12%	684	763	12%	\$11.26	\$23,427.96
31-1131	Nursing Assistants	360	351	(3%)	394	385	(2%)	\$12.23	\$25,443.04
29-2052	Pharmacy Technicians	206	204	(1%)	257	252	(2%)	\$13.67	\$28,432.77
29-2061	Licensed Practical and Licensed Vocational Nurses	188	185	(1%)	222	220	(1%)	\$20.17	\$41,952.05

Source: EMSI Class of Worker Data, 2021.4

## MANUFACTURING TECHNOLOGY

The manufacturing technology sector is expected to grow by 1% over the next five years in the Gateway region. The total employment in the sector is currently 2,178.

Below is a table with the top occupations in the manufacturing technology sector, as well as all the occupation data for the the top five occupations within that industry sector. For the manufacturing technology sector, Miscellaneous Assemblers and Fabricators is the largest occupation with 164 employed in the industry.

INDUSTRY		
<b>2,914</b>	<b>2,178</b>	<b>2,228</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>2%</b>	<b>\$63,252</b>	
Percent Change 22-27	Average Earnings	

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
51-2098	Miscellaneous Assemblers and Fabricators	164	143	(13%)	730	695	(5%)	\$15.71	\$32,668.36
51-1011	First-Line Supervisors of Production and Operating Workers	112	116	3%	309	311	1%	\$25.32	\$52,673.08
51-9198	Helpers--Production Workers	96	97	2%	298	277	(7%)	\$14.34	\$29,823.74
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	93	93	(0%)	106	106	0%	\$14.40	\$29,944.47
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	80	71	(10%)	216	196	(9%)	\$17.97	\$37,377.39

Source: EMSI Class of Worker Data, 2021.4

## METALS

The metals sector is expected to grow by 12% over the next five years in the Gateway region. The total employment in the sector is currently 371.

Below is a table with the top occupations in the metals sector, as well as all the occupation data for the the top five occupations within that industry sector. For the metals, Miscellaneous Assemblers and Fabricators is the largest occupation with 31 employed in the industry.

INDUSTRY		
<b>598</b>	<b>371</b>	<b>415</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>12%</b>	<b>\$51,494</b>	
Percent Change 22-27	Average Earnings	

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
51-2098	Miscellaneous Assemblers and Fabricators	31	29	(6%)	730	695	(5%)	\$15.71	\$32,668.36
51-4121	Welders, Cutters, Solderers, and Brazers	29	32	11%	174	192	11%	\$19.06	\$39,638.70
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	21	21	0%	125	116	(7%)	\$15.50	\$32,241.67
51-9198	Helpers--Production Workers	21	23	11%	298	277	(7%)	\$14.34	\$29,823.74
51-1011	First-Line Supervisors of Production and Operating Workers	21	24	16%	309	311	1%	\$25.32	\$52,673.08

Source: EMSI Class of Worker Data, 2021.4

## TRANSPORTATION EQUIPMENT MANUFACTURING

### INDUSTRY

The transportation equipment manufacturing sector is expected to grow by 0% over the next five years in the Gateway region. The total employment in the sector is currently 984.

**1,025**                      **984**                      **983**

2017 Jobs                      2022 Jobs                      2027 Jobs

**0%**                                      **\$62,784**

Percent Change 22-27

Average Earnings

Below is a table with the top occupations in the transportation equipment manufacturing sector, as well as all the occupation data for the the top five occupations within that industry sector. For the transportation equipment manufacturing sector, Miscellaneous Assemblers and Fabricators is the largest occupation with 300 employed in the industry.

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
51-2098	Miscellaneous Assemblers and Fabricators	300	291	(3%)	730	695	(5%)	\$15.71	\$32,668.36
51-4121	Welders, Cutters, Solderers, and Brazers	86	97	13%	174	192	11%	\$19.06	\$39,638.70
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	50	44	(12%)	125	116	(7%)	\$15.50	\$32,241.67
51-1011	First-Line Supervisors of Production and Operating Workers	37	38	1%	309	311	1%	\$25.32	\$52,673.08
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	38	41	9%	95	100	5%	\$19.69	\$40,962.59

Source: EMSI Class of Worker Data, 2021.4

## WOOD AND PAPER

The wood and paper sector is expected to grow by 9% over the next five years in the Gateway region. The total employment in the sector is currently 1,024.

Below is a table with the top occupations in the wood and paper, as well as all the occupation data for the the top five occupations within that industry sector. For the wood and paper sector, Miscellaneous Assemblers and Fabricators is the largest occupation with 136 employed in the industry.

INDUSTRY		
<b>993</b>	<b>1,024</b>	<b>1,117</b>
2017 Jobs	2022 Jobs	2027 Jobs
<b>9%</b>	<b>\$50,247</b>	
Percent Change 22-27	Average Earnings	

SOC	Description	Employed in Industry			Overall Occupation				
		Employed in Industry Group (2022)	Employed in Industry Group (2027)	% Change (2022 - 2027)	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Median Hourly Earnings	Median Annual Earnings
51-2098	Miscellaneous Assemblers and Fabricators	136	139	2%	730	695	(5%)	\$15.71	\$32,668.36
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	123	138	12%	129	142	10%	\$13.92	\$28,945.07
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	90	96	7%	92	98	8%	\$13.04	\$27,115.82
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	71	78	11%	717	733	2%	\$14.61	\$30,385.88
53-7051	Industrial Truck and Tractor Operators	58	64	11%	267	266	(0%)	\$18.88	\$39,268.36

Source: EMSI Class of Worker Data, 2021.4

# Recommendations



# RECOMMENDATIONS

The qualitative and quantitative research and analysis has informed a series of strategic recommendations designed to maximize available resources, while enhancing the future talent pipeline for Gateway regional employers. In addition to a series of sector strategies, these recommendations address skills gaps and development opportunities, strategies to address barriers to employment in an effort to engage with the “lost workforce,” partnerships and collaboration to maximize resources, and talent attraction and development recommendations to further expand the available workforce. Below is a summary of the strategies and action items recommended as part of this workforce analysis project.

In addition to the specific recommendations related to particular components of a workforce strategy, it is critical to have one organization responsible for implementing the recommendations of this study. A regional steering committee should be established with membership representing all workforce development players, including K-12 education, higher education, regional workforce boards, and employers. This committee would be charged with determining timelines and responsible parties for each recommendation, in addition to establishing metrics to measure success. The GADD would appoint a staff person to facilitate the committee’s work.

Strategic Recommendations				
Skills Enhancement	Barriers to Employment	Partnerships & Collaboration	Talent Attraction & Development	Sector Strategies
Support & Expand Career & Technical Education Programs	Develop a “Lost Workforce” Training Curriculum	Encourage Collaboration Between Employers and Educators	Explore Scholarship Programs in High-Demand Occupations	Establish an Entrepreneurial Incubation Facility
Develop Programs to Address Skills Gaps	Address Specific Barriers Facing the “Lost Workforce”	Facilitate Partnerships Across Educational Institutions	Create a Remote Worker Program	Expand K-12 Programs to Support Target Sectors
Enhance Workforce Soft Skills	Implement a Communications Strategy to Change Perceptions of the “Lost Workforce”	Support Regional Workforce Marketing	Engage the Millennial and GenZ Workforce	Create Career Pathways to Support Targets
				Expand Work-based Learning Options in the Region

## SKILLS ENHANCEMENT

Both quantitative and qualitative research indicates that there are opportunities to enhance existing skills with the Gateway regional workforce. While there are upskilling needs among the existing workforce, it is also clear that there are some alignment considerations and additional program offerings that could enhance the quality of the workforce pipeline coming out of high school and post-secondary education and training programs.

### Support & Expand Career & Technical Education Programs

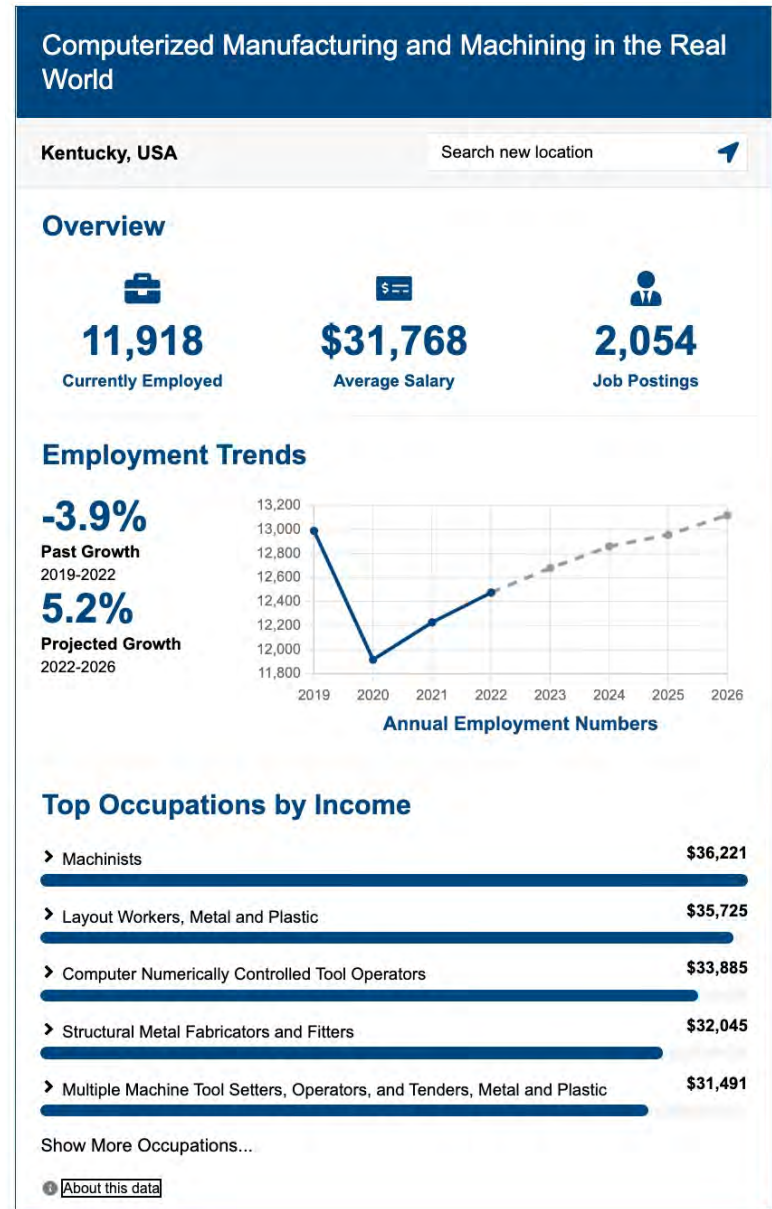
Career and Technical Education (CTE) programs are a critical component of the workforce training ecosystem. It often is a student's first exposure to workforce-specific skills. Additionally, those programs also represent the beginning of a career pathway for many students who earn credit in high school that carries forward to their post-secondary education.

#### Action Item: Connect CTE programs with post-secondary programs

An audit of CTE programs and current articulation agreements should be conducted to ensure that high school students are able to maximize their CTE credits as they transition to a post-secondary program. There are a variety of ways to provide that credit, including dual credit, dual enrollment, and receiving credit for completed courses upon entering a college or university.

#### Action Item: Expand exposure to career pathways at the high school level

As students enter high school and have opportunities to take CTE courses, it is critical that they have access to information about career pathways. This information would show them the types of careers available in a wide variety of sectors and show the different levels of training that are available and necessary for entry level through management positions in that career. The pathway should focus on occupations that are in demand in the Gateway region, along with learning where to engage in training and the earning potential of each occupation. The example to the right is from the Maysville Community and Technical College website. This is a good beginning for career pathways, but it is missing the specific education and training required for various occupations.





## SKILLS ENHANCEMENT

### **Action Item: Engage high school counselors with CTE instructors**

High school counselors often have a massive workload that results in career counseling becoming a lower priority. In addition, many counselors do not have the materials or training to effectively help students explore the varied opportunities available to them after high school. A significant first step to improving career counseling would be for counselors to have a stronger connection to the CTE programs being offered in their schools and districts. Having regular engagement between counselors and CTE instructors would allow for an exchange of information about students enrolled in CTE, their future aspirations, and their engagement with employers.

### **Develop Programs to Address Skills Gaps**

Employers interviewed for this project indicated a shortage of both soft skills and technical skills. Additionally, they expressed concern about an aging workforce, with an inadequate pipeline of talent coming out of education and training programs to replace those who are retiring.

### **Action Item: Develop an upskilling program**

A number of occupations needed by the identified target sectors are projected to decline over the next five years, likely due primarily to automation. Workers in those occupations likely are good candidates for an upskilling program that prepares them for higher-skilled positions that are in high demand in the same sector. The regional workforce boards should explore those opportunities with employers and education partners, who would develop targeted upskilling programs to prepare workers to transition to new occupations as their current jobs are phased out.

### **Action Item: Create rapid credentialing programs for high-demand occupations and skills transferability**

The Gateway region has seen a decline in sectors that typically have a highly-skilled workforce, such as coal mining and metal manufacturing. Workers who have previously worked in those sectors likely possess some high-demand skills, such as welding, but may not hold a credential. These rapid credentialing programs would be designed to build on participants' past experience to allow them to achieve a credential in less time than is typically required.

### **Action Item: Support skills pivoting classes/programs for military veterans**

Military veterans are often found among the "lost workforce" because the training they receive in the military may not clearly align with civilian occupations. Helping veterans describe their skills in a way that relates them to high-demand occupations is critical, including how they frame their military experience and training. Additionally, skills programs that help veterans address any skills gaps between their military training and compatible civilian occupations should be explored.

## SKILLS ENHANCEMENT

### Enhance Workforce Soft Skills

Employers in the Gateway region indicated that the workforce has a lack of essential skills that ensure their success in a work environment. Described by some as soft skills, this deficit within the workforce is impacting quality and availability of a skilled workforce in the region. The Eastern Kentucky Comprehensive Employment Program (EKCEP) offers soft skills training using the Work S.E.N.S.E. and Ethics S.E.N.S.E curriculum, which is funded through a grant. Making this effort sustainable at the conclusion of the grant period is very important and will require business community buy-in that could be facilitated in the Gateway region by the steering committee for this project.

#### Action Item: Offer professionalism and essential skills training courses

There is some debate among educators about how to effectively teach essential skills – integrated into curriculum across the board vs. developing curriculum and offering a requiring a course focused only on professionalism and essential skills. Educators and employers in the Gateway region should explore options for enhancing workforce skills that are critical to employability across all business sectors and develop a plan for addressing essential skills with high school and post-secondary students, as well as a training offering for employers and their incumbent workforce.

#### Action Item: Explore essential employability certification options

In 2018 a small number of Kentucky post-secondary institutions began a pilot program that integrates essential skills into existing curriculum and results in an employability certification if students successfully complete the program. Since those pilot projects, Kentucky Council on Post-Secondary Education has partnered with The QA Commons to certify additional institutions to use the program. Currently the University of Kentucky is utilizing the program in its Accounting, Clinical Leadership and Management, and Equine Science and Management programs. Additionally, Murray State University, Jefferson Community and Technical College, Gateway Community and Technical College, and Bluegrass Community and Technical College are also using the program.

Morehead State University and Maysville Community and Technical College should explore participation in this program, which requires certification through The QA Commons. If this initiative is pursued in the Gateway region, an aggressive marketing effort should be incorporated to ensure that regional employers are aware of the program and its potential benefits to both workers and employers.

### The Eight Essential Employability Qualities

Effective Communication

Teamwork

Critical Analysis

Problem Solving

Learning & Adaptability

Professionalism & Responsibility

Motivation & Initiative

Digital Literacy

## BARRIERS TO EMPLOYMENT

Some potential members of the workforce are not able to hold a job as a result of certain barriers to their employment. These barriers can range from a lack of transportation to no access to childcare. Additionally, the “lost workforce” often has additional barriers that leave them virtually unemployable. Addressing these barriers is critical to any effort to increase the Gateway region’s labor force participation rate, which is much lower than the national rate.

### Develop a “Lost Workforce” Transition Program

The “lost workforce” must have some training opportunities and other supportive services if they are to become employable and enter the workforce. This strategy will require collaboration among recovery organizations, detention facilities, local entrepreneurs, and the public sector to create public-private partnerships that will drive change in the re-entry process.

#### **Action Item: Partner with regional community colleges to develop a training curriculum for the “lost workforce”**

Members of the “lost workforce,” particularly those caught in the generational poverty cycle, often have very low educational attainment and no job skills. Additionally, it is difficult to engage these people in a program offered on a college campus. The Gateway region should work with community colleges and workforce development agencies to develop a basic employability curriculum that can be offered in local areas with a significant target population. This training should be bundled with supportive services in order to have the opportunity to engage with these potential members of the workforce. For those who have not graduated from high school, the program should also provide a simultaneous process for obtaining a GED.

#### **Action Item: Align prison training programs with high-demand occupations**

Most state prisons require inmates to have a “job” during their incarceration and, in some cases, provide training to prepare them for those jobs. However, these training and work programs seldom align with high-demand occupations, limiting the inmates’ opportunity to secure a job upon their release from prison. The Gateway region should work with the prison system to create a pilot program that offers training and work experience tied to high-demand occupations.

#### **Action Item: Incorporate employability training into all programs**

Because most members of the “lost workforce” have a variety of reasons that they are not employable, it is essential that any effort to engage this population includes an essential skills training component. It should be a requirement to participate in this training before pursuing any job-specific training. While the EEQ program described in this document may address many of the training topics, it is likely that the “lost workforce” training would need to have a more entry-level approach.

## BARRIERS TO EMPLOYMENT

### Address Specific Barriers Facing the “Lost Workforce”

Beyond the general lack of both essential skills and job-specific skills, the “lost workforce” generally faces additional barriers to employment that must be addressed in order to get this population to enter the workforce. The Kentucky Chamber and Kentucky Chamber Foundation has provided leadership in developing re-entry initiatives for those formerly incarcerated or in recovery from substance abuse, which should be integrated into regional efforts to assist this population. Collaborating with the state Chamber will be an important partnership to maximizing resources for the “lost workforce.”

#### **Action Item: Provide support programs to address common barriers**

Members of the “lost workforce” range from those in generational poverty, the homeless or home insecure, as well as those who are previously incarcerated or are in recovery from addiction. Some barriers are common across all of those groups – lack of transportation and no access to childcare, for example. Transportation challenges may include not having a driver’s license, not having a car, or not being able to afford gas for the car. And in rural areas, public transportation is rarely available. Others may be unique to a portion of the “lost workforce,” such as a recovering addict who does not have a driver’s license, which is required by many employers. Any “lost workforce” engagement effort must have supportive programs to address these issues.

#### **Action Item: Explore opportunities to offer quality, affordable childcare**

Access to childcare is an issue that reaches well beyond the “lost workforce.” In conversations that were part of this project, many stakeholders mentioned that some childcare facilities that closed during the COVID-19 shutdown have not reopened, further stressing an already-inadequate system. With the “lost workforce,” the issue is both availability and affordability. There are some government programs that will help low-income families offset the cost of childcare, but those programs do not address a shortage of childcare availability and often are not adequate to bridge the gap for workers in low-paying occupations. The Gateway region should consider conducting a childcare needs assessment that would consider availability, cost, and flexibility in scheduling, among other topics.

#### **Action Item: Identify resources to engage the formerly incarcerated population**

Those who are formerly incarcerated may be discouraged by the challenges in finding employment after being released from prison. Programs that offer training and help them address other issues, such as needing a driver’s license, should be offered to give them a comfort level that they are prepared to re-enter the workforce. This may include identifying employers who are willing to hire those with a criminal record and having opportunities to engage with those employers. Additionally, the Second Chance Pell Grant program, created in 2015, has recently been expanded to provide funding for education while incarcerated. Maysville Community and Technical College is the only Kentucky institution currently allowed to offer the Second Chance program. Gateway region employers should work closely with the college to encourage enrollment in programs that tie to growing sectors and high-demand occupations.



## BARRIERS TO EMPLOYMENT

### Implement a Communications Strategy to Change Perceptions of the “Lost Workforce”

Efforts to train and prepare members of the “lost workforce” will not be successful if employers are not committed to hiring these workers. An aggressive communications strategy should be implemented to change perceptions of the “lost workforce” and position them as more employable as a result of programs being developed for this population.

#### **Action Item: Launch a communications strategy to change perceptions of hiring members of the “lost workforce”**

A communications strategy, targeted primarily to employers, will help improve perceptions of people in the “lost workforce” and the value they can provide as an active member of the workforce. The strategy should include a mix of communications tactics, including social media, presentations or speeches to groups of employers, and talking points used during business retention and expansion visits with employers. Information should include programs that are being provided to these potential workers, in addition to testimonial success stories of employers who have experience in hiring these workers and former “lost workforce” members who have completed training and are now working.

## PARTNERSHIPS & COLLABORATION

The most efficient and effective workforce programs are those that involve a strong partnership between employers and educators. This collaboration ensures that education and training programs more effectively prepare the future workforce with the skills needed by employers. Additionally, partnerships among educational institutions from K-12 through post-secondary education and workforce training help ensure effective career pathways that establish an on-going talent pipeline for employers.

### Encourage Collaboration Between Employers and Educators

#### **Action Item: Host a regional skills summit**

To bring employers and educators together for a productive discussion, the Gateway region should host a regional skills summit. The event would include presentations and roundtable discussions focused on high-demand skills and skills gaps that exist in the region. Employers would be able to explain their skills needs, while educators could showcase existing and potential programs designed to prepare students for the workforce.

#### **Action Item: Encourage school districts to establish business advisory councils**

The Gateway region should provide encouragement and resources for regional school districts to establish Business Advisory Councils. These groups would help ensure ongoing communication between educators and employers, in addition to engaging employers in offering support to beneficial educational programs. That support might include speaking to CTE classes, offering tours of their facilities to expose educators and students to the work environment, and hosting teachers for externships to give them experience in the work environment.

### Facilitate Partnerships Across Educational Institutions

Educators across the region should develop partnerships that maximize available resources and ensure that students have opportunities to build on their K-12 education as they pursue post-secondary training.

#### **Action Item: Convene annual work-and-learn planning sessions**

Each year school districts across the region should come together to discuss opportunities to address employer talent needs. These discussions may be sparked by the work of the business advisory councils and their talent demands, as well as trends in adapting curriculum, effective externships, and other successful relationships with regional employers.

#### **Action Item: Ensure articulation agreements are in place**

Local school districts must work with regional post-secondary institutions to ensure that articulation agreements are in place to give students the opportunity to carry credits from high school to community college and on to a four-year institution without having to repeat coursework. These agreements will be a critical part of the career pathways to be developed for all target sectors and high-demand occupations.

## PARTNERSHIPS & COLLABORATION

### Support Regional Workforce Marketing

The nine-county regional workforce offers a number of assets that should be marketed collectively.

#### **Action Item: Develop a series of key messages about the regional workforce**

Each county's economic development leaders and the regional workforce organizations should all be given a series of key messages for use in communicating regional workforce assets. These messages would be focused at the regional level and supplemented with local messages, as appropriate. The key messages should be the basis of all workforce communication, including social media, speeches and presentations, and responses to Requests for Proposals from potential new business prospects.

#### **Action Item: Consider a regional name to market the workforce**

Marketing of the workforce could be further enhanced if the region used a specific name to refer to the regional workforce. That name would then be incorporated into the key messages, which would begin to build brand equity in how the workforce is presented. One example is the Virginia SkillsBelt region, which encompasses 50+ counties across the southern portion of the state.

#### **Action Item: Promote truly unique workforce development programs**

The Gateway region is home to some unique workforce programs that should be featured in regional workforce marketing efforts. For example, the aerospace program at Morehead State University is very well respected in the industry, but the program is not well known locally. All economic development and workforce officials in the region should be able to provide information about this program as they work with existing and potential new employers. Other unique programs may also exist at Morehead State University and at Maysville Community and Technical College, such as the Second Chance Pell Grant program. Talking points about these programs should be developed and regularly updated.

## TALENT ATTRACTION & DEVELOPMENT

In order to fully address the workforce needs of existing and future employers will require attracting new talent, as well as further developing the current workforce in the region.

### Explore Scholarship Programs in High-Demand Occupations

#### **Action Item: Offer a scholarship program for healthcare workers**

A scholarship program targeting high-demand healthcare occupations could be established to encourage those educated in the region to stay and work in local healthcare facilities. Educational institutions are offering significant training options in healthcare, but many of those who complete the programs then leave the region. This program would require scholarship recipients to commit to a minimum number of years working in the region after completing their education.

#### **Action Item: Develop a scholarship program to incent college graduates**

An additional option to keep recent graduates in the region might include a scholarship program that targets students who have internships in the region during their college career. The scholarship would be tied to internships that students had during their college career. The program would pay for remaining tuition after the internship until graduation if the student committed to remain in the region or state after graduation. The length of their residency requirement would be equivalent to the period of time covered by the scholarship. If the graduate chose to leave the area early, the scholarship would convert to a loan requiring repayment.

### Create a Remote Worker Program

#### **Action Item: Offer a remote worker incentive package**

Following COVID-19, more companies are allowing workers to permanently work from home. This gives workers the option to live anywhere, even while working for a large corporation. Some workers have shown interest in moving out of high-density metropolitan areas to more rural areas like the Gateway region. While these workers already have a job when they relocate, they bring their skills with them and might consider working for a local company at some point. The Gateway region should develop a remote worker incentive program that would provide a financial incentive to remote workers who relocate to the region. Incentives might include a monetary payment, initial rental assistance, or help in purchasing a home in the region.

### Engage the Millennial and GenZ Workforce

#### **Action Item: Create tools to more effectively engage the Millennial and GenZ workforce**

Employers often express concerns about the attitudes of the Millennial and GenZ workforce. However, these workers are the future leaders of our businesses, and Millennials are already the largest generation in the workforce. An employer toolkit and associated training should be developed to more effectively engage with and manage the Millennial and GenZ workforce.



## SECTOR STRATEGIES

One component of this project was to identify target sectors for which the region has the assets, including an adequate workforce. In order to fully support and develop these industries, the Gateway region should create sector strategies that are focused on developing and supporting the talent pipeline needed by these employers. Each regional workforce board should work with the individual counties to identify specific sectors that are economic drivers in those counties and how to participate in the sector strategies appropriate to their economy.

### Establish an Entrepreneurial Incubation Facility

The regional economic base is built on small businesses started by area residents. Establishing an innovation/incubator facility, with associated programs, would provide critical services and potential office space to these businesses. Additionally, both residents and students expressed a desire to own their own business as entrepreneurs. Both issues might be addressed through an incubation facility in the Gateway region.

#### **Action Item: Explore development of an entrepreneurial incubator in the region**

An incubator program in the region would provide important support to small businesses across various industry sectors, while also offering training for students. The facility would provide both space and shared business services for startup firms and entrepreneurs. Additionally, a strong partnership with both Morehead State University and Maysville Community and Technical College would be important to success of this concept, in addition to K-12 school systems in the region who could begin encouraging entrepreneurship among high school students. Small, early-stage companies might also have access to product development resources at the facility, as well as to obtain guidance related to starting a business.

A similar concept has been discussed and a feasibility study conducted for the Gateway Regional Incubator, which explored the concept and includes recommendations relate to location(s), space usage, construction costs, operating expenses, and potential revenue sources. This document should be utilized to guide development of a regional incubator.

This innovation facility concept is critical to allowing existing companies to expand their operations through funding, research, and other supportive services. At the same time, it will provide support for the growing number of young people who are interested in starting their own businesses and may allow some of them to stay in the region and develop their business, rather than feeling the need to move to a larger market to get the support they need.

## SECTOR STRATEGIES

### Broadband Infrastructure

Broadband access has garnered significant support in rural areas in recent years, but there is still work to be done. Adequate and affordable broadband must be available in the region in order to support existing and potential future businesses, as well as residents.

#### Action Item: Enhance availability of broadband

All business sectors must have access to broadband connectivity in order to succeed and utilize available technologies. Expanding service and enhancing affordability will be essential to multiple components of this strategy. First, the remote worker initiative will not be successful if those workers do not have access to reliable broadband. Remote workers spend their entire workday utilizing internet services for research, communication, and virtual meetings. Additionally, regional entrepreneurs – both those in the incubator and those working from other locations – also require effective internet access. The incubator facility should be targeted as the first remote work hub in the region, with opportunities for others to develop as the infrastructure and demand are available.

### Expand K-12 Programs to Support Target Sectors

Ensuring that K-12 programs align with major employers and key sectors in the region helps ensure an adequate talent pipeline for both existing and potential new businesses.

#### Action Item: Expand the Trade Wars program

Trade Wars is a competition that started in 2019 but was not held in 2020 or 2021 because of COVID-19. The competition will be held in late April 2022 and give students at Area Technology Centers the opportunity to compete in categories related to the skilled trades industry. Participants are judged by current and former Maysville Community and Technical College students, as well as faculty. They will consider accuracy, workmanship, safety, and the proper use of tools, equipment, and materials. This program should be expanded to ensure that students throughout the nine-county region have the opportunity to participate.

#### Action Item: Expand the aerospace pathway options for K-12 students

Aligning Career and Technical Education programs with post-secondary programs helps ensure a pipeline of post-secondary students. Students entering aerospace-related courses at the college level come without adequate practical skills, such as working in machine shops, using power tools, and laying out an electrical circuit. If those skills were available at the high school level, students would be able to begin acquiring more advanced skills when they enter college-level aerospace and advanced manufacturing programs.

## SECTOR STRATEGIES

### **Action Item: Expand adoption of Project Lead the Way**

Project Lead the Way is a PK-12 program that provides students with access to real-world, applied learning experiences. It offers pathways in computer science, engineering, and biomedical science with curriculum available for pre-kindergarten through high school seniors. The approach gives students the opportunity to explore their interests, design solutions to real-world challenges, and become problem solvers. The program also offers professional development training for teachers. Some stakeholders mentioned this program during stakeholder interviews, saying they had seen students who were very advanced in their career preparation as a result of the program. Project Lead the Way is currently being utilized in school districts across Kentucky, including in the Mason County School District.

### **Create Career Pathways to Support Targets**

#### **Action Item: Develop graphic print and digital career pathway documents**

Career pathways should be developed for all seven target sectors in the region. These pathways should include a progression of occupations employed in the region, along with local training and education opportunities and potential wages for each occupation. This is a critical component of this study focused on aligning education and training programs with essential workforce needs of companies in each of the target sectors.

The pathways should provide information that allows a member of the workforce to begin a program of study at the high school level, who can then earn certificates or other credentials, followed by an Associate's or Bachelor's degree and post-graduate studies, where appropriate. Any articulation agreements that are in place between K-12 school districts and post-secondary institutions should also be included to allow students to see how to maximize their educational opportunities. The career pathways should be shared with both employers and educators, including high school counselors, along with training in how to utilize them in providing career counseling to students. Additionally, the pathways should be available online and be promoted to parents, who are the most common influencers as students think about their future career.

A trained team of workforce specialists should be engaged to develop the content of these pathways specific to each county in the region. While they will be localized, it is essential that there are consistent, uniformed messages on all versions of the pathways across the nine-county region.

## SECTOR STRATEGIES

### Expand Work-Based Learning Options in the Region

Work-based learning has become increasingly important in recent years. These programs allow students to be exposed to the real-world work environment, while also giving employers opportunities to learn more about students and how they might fit into their organizations on a permanent basis. Kentucky has developed a wide range of work-based learning opportunities that should be maximized within the region.

#### **Action Item: Provide a work-based learning toolkit to employers**

Employers are sometimes hesitant to tackle developing an internship or apprenticeship program because of the time involved. This could be addressed by supplying employers with a toolkit that provides guidance on the structure of the program, the types of experiences students need, the benefits to the employer, and how to recruit students into the program. Additionally, employers and educators must collaborate to put together a program that aligns work and learning concepts and evaluation. Employers may identify an intern or an apprentice that they would like to have join their company full-time when they complete their education. This becomes a very valuable retention tool to keep trained workers in the region. The Kentucky Department of Education has put together a work-based learning manual that would be a good starting point for the toolkit. It could then be supplemented with region-specific information and ideas to enhance work-based learning opportunities in the region.

## CITATIONS

### Distribution/Logistics

<https://www.mordorintelligence.com/industry-reports/united-states-cold-chain-logistics-market>

<https://www.prnewswire.com/news-releases/logistics-market-to-reach-12-97-billion-globally-by-2027-at-6-5-cagr-allied-market-research-301233308.html>

### Agriculture

<https://agriculture.trimble.com/blog/top-10-agriculture-trends-to-watch-in-2021/>

<https://www.holganix.com/blog/8-hot-trends-in-agriculture-for-2020>

<https://www.mordorintelligence.com/industry-reports/united-states-agricultural-machinery-market>

### Healthcare

<https://www.prnewswire.com/news-releases/the-medical-device-market-is-expected-to-reach-an-estimated-432-6-billion-by-2025--and-it-is-forecast-to-grow-at-a-cagr-of-4-1-from-2020-to-2025--300980092.html>

<https://www.prnewswire.com/news-releases/wearable-medical-devices-market-to-rise-at-17-7-cagr-during-20182026-and-earn-us-29-6-bn-by-2026--innovative-product-launches-with-additional-assistance-to-spur-growth-tmr-301199257.html>

<https://www.prnewswire.com/news-releases/medical-equipment-maintenance-market-size-worth-61-7-billion-by-2027-grand-view-research-inc-301192642.html>

### Manufacturing

<https://www.prnewswire.com/news-releases/additive-manufacturing-market-to-reach-usd-26-68-billion-by-2027--cagr-of-14-4-reports-and-data-301163846.html>

<https://www.prnewswire.com/in/news-releases/iot-in-manufacturing-market-size-is-projected-to-reach-usd-1038-8-million-by-2026-at-cagr-10-6-valuation-reports-864022771.html>

<https://www.prnewswire.com/news-releases/smart-manufacturing-market-size-worth-514-3-billion-by-2027-grand-view-research-inc-301054641.html>

## CITATIONS

### Transportation Equipment: Automotive

<https://www.businesswire.com/news/home/20200721005623/en/North-American-Automotive-Market-Report-2020-2025---ResearchAndMarkets.com>

<https://www.mordorintelligence.com/industry-reports/electric-motors-for-electric-vehicle-market>

### Transportation Equipment: Aerospace

<https://www.mordorintelligence.com/industry-reports/us-aerospace-and-defense-market>

<https://www.businesswire.com/news/home/20210219005354/en/Global-Aerospace-Engineering-Market-2020-to-2028---Featuring-WS-Atkins-Bombardier-and-Cyient-Among-Others---ResearchAndMarkets.com>

### Wood & Paper Products

<https://www.mordorintelligence.com/industry-reports/wood-pulp-market>

<https://www.prnewswire.com/news-releases/366-2-billion-worldwide-manufactured-wood-materials-industry-to-2027---impact-of-covid-19-on-the-market-301267927.html>

### Maysville Community & Technical College

[https://issuu.com/maysvillectc/docs/annual\\_report\\_2020-21](https://issuu.com/maysvillectc/docs/annual_report_2020-21)

<https://maysville.kctcs.edu/workforce-solutions/kyfame/>

### Morehead State University

<https://www.moreheadstate.edu/about-msu>

<https://www.moreheadstate.edu/about-msu/nasa-space-grant>

<https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitId=157386>



# Distribution Design and Optimization

PRACTICAL DISCUSSION OF ENGINEERING CONSULTANTS & COMMUNICATION  
BEST PRACTICES AND CONSIDERATIONS FOR DIRECTORS AND MANAGERS FOR  
DISTRIBUTION DESIGN AND OPTIMIZATION.



# UNDERGROUND FACILITY DAMAGE PREVENTION

367.4901 LEGISLATIVE DECLARATION — SHORT TITLE FOR KRS 367.4901 TO 367.4917. THE GENERAL ASSEMBLY FINDS THAT THE OBJECTIVE OF UNDERGROUND FACILITY DAMAGE PREVENTION AND THE RESULTING BENEFITS OF PUBLIC AND WORKPLACE SAFETY AND PROTECTION OF CONSUMER SERVICES REQUIRE AN EFFECTIVE UNDERGROUND DAMAGE PREVENTION PROCEDURE. KRS 367.4901 TO 367.4917, WHICH MAY BE CITED AS THE “UNDERGROUND FACILITY DAMAGE PREVENTION ACT OF 1994,” ARE CREATED TO PROVIDE FOR THIS PROCEDURE AND ACCOMPLISH THIS OBJECTIVE.



**Kentucky 811**<sup>®</sup>

**SAFETY IS IN YOUR HANDS.  
EVERY DIG. EVERY TIME.**

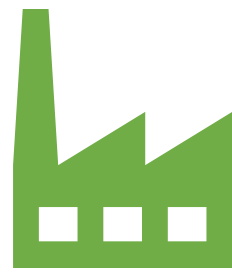


# But first, a disclaimer...

For general informational purposes only; it is strongly recommended to obtain legal advice from a qualified professional

No legal advice is being provided and any interpretation of the law should not be derived from this information. It is highly suggested to find expert assistance for any specific queries





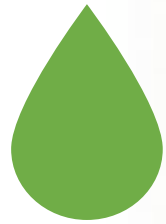
Natural Gas  
Distributors



Transmission  
Pipelines  
(natural gas and  
petroleum)



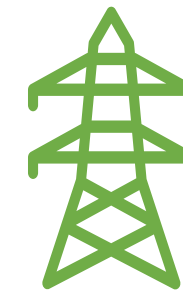
Telecommunications  
and cable



Water and Sewer

# Who does Kentucky 811 represent?

MEMBERS ONLY



Electric (distribution  
and transmission)



Government and  
Municipal



Kentucky does not require membership from ALL utilities

What does this mean to you?

Most people do not realize not only do you have to call 811 before starting any projects, but it is also required to call all non-member utilities in the area to request a locate

# Transition Update

Transition to One Call Concepts took place October 1, 2022

Nearly 80% of inbound tickets are web tickets

ITICnxt Software has improved efficiency and reduced costs

Speed of answer ~30 seconds



>1% Tickets Returned for Correction

# Ticket Volume Update



The largest increase of all SOCS (Southeastern One-Call Systems) states



Over 10% increase of inbound volume (2023 v 2022)

Outbound ticket ratio has gone from 5:1 to 4:1



Ratio decrease resulted in over \$500K less in billing cost to members



# Company Update

WWW.KENTUCKY811.ORG

Addition of two damage prevention managers and a business administrative manager



Membership has grown 14% (still voluntary)

100% virtual operation



Improvements to magazine, safety summit and a greater social media presence (more education to a different demographic)



New website and webstore coming

Damages While Exempt

Working Day Definition

Tolerance Zone

Work Site Contact

Utility Locate Response Time

Unmapped or unlocatable



Positive Response

Large Projects

2<sup>nd</sup> Notice Request

On-Site Exposed Facility

Waiver of Liability

Civil Penalties

# Underground Facility Damage Prevention Act of 1994 2021 & 2022 Law Changes

KRS 367.4901 – 367.4917



# Damages While Exempt

Call 811 to have a line located if there is any chance of it existing; ignoring this could lead to exemption loss if one is hit

“Positive response” is an automated or written communication system provided by each member operator which facilitates the identification of underground facilities by excavators, locators, operators, etc. and obliges operators and excavators to respond and verify to satisfy their respective requirements of the Underground Facility Damage Prevention Act of 1994

“Working Day” is everyday, except weekends and holidays established by federal or state statute. A locate request must be made two days prior to commencement of digging. (ie. Locate request is submitted on Monday, work may not begin until Thursday (after positive response is obtained))

# Ticket Submission

WWW.KENTUCKY811.ORG

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
01 Ticket submitted to 811	02 WAIT!	03 WAIT!	04 DIG! (AS LONG AS POSTIVE RESPONSE HAS BEEN RECEIVED)	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	01	02	03	04



“Second Notice Request” is a notice that is made by an excavator to the 811 center when an operator has failed to comply with the positive response requirements of two (2) full working days

Within one (1) working day after receiving a second notice request from an excavator, the operator shall locate its facility and update the positive response system

# Ticket Submission

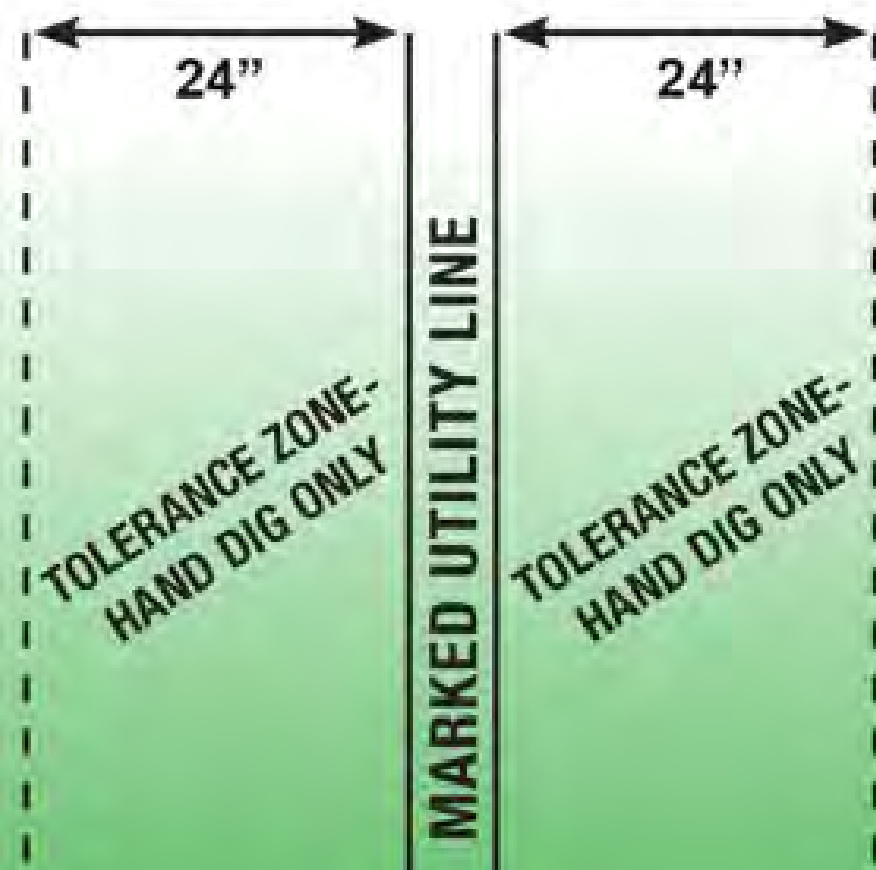
WWW.KENTUCKY811.ORG

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
01 Ticket submitted to 811	02 WAIT!	03 WAIT!	04 If no positive response received – 2 <sup>nd</sup> notice submission	05 WAIT!	06 DIG WITH CAUTION!!!	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	01	02	03	04



**SAVE TIME, GO ONLINE!**

Whether you're a homeowner or a professional excavator, Kentucky811.org is the quickest way to submit your dig request.



“Tolerance Zone” is a strip of land at least four (4) feet wide but not wider than the width of the underground facility plus two (2) feet on either side of the outer limits of the facility



## Tolerance Zone Exemptions

To remove the pavement or other manmade hard surface if used during the initial penetration only to the depth necessary and if an individual other than the equipment operator visually monitors the excavation activity;

To remove indigenous rock if used during the initial penetration only to the extent necessary, if an individual other than the equipment operator visually monitors the excavation activity, and if the excavation is planned to avoid damage to the underground facility. However, if the underground facility contains flammable, toxic, corrosive, or hazardous products, the excavator shall notify the facility owner of the excavator's intent prior to removing indigenous rock;

To remove materials that are more than 12 inches in any direction from the outer edge of the located facility if the excavator visually identifies the precise location of the underground facility or visually confirms that no facility is present within the depth of the excavation, if an individual other than the equipment operator visually monitors the excavation activity, and if the excavation is planned to avoid damage to the underground facility; and

To place shores into an existing excavation or remove shores from an existing excavation.



Work site contact – means an individual that will be present at the excavation site when the excavation will occur

**367.4911 (3) (c)** – Name and phone number of work site contact

**\*\*\*MUST BE A PERSON PRESENT AT THE WORKSITE\*\*\***





“On-Site Exposed Facility Request”  
When an excavator has complied with the law regarding proper notice, positive response and timelines followed and evidence of an unmarked underground facility is uncovered, the operator shall have six (6) business hours to identify the underground facility.

**BUSINESS HOURS: 8am – 6pm  
Eastern Time**

# Ticket Maintenance

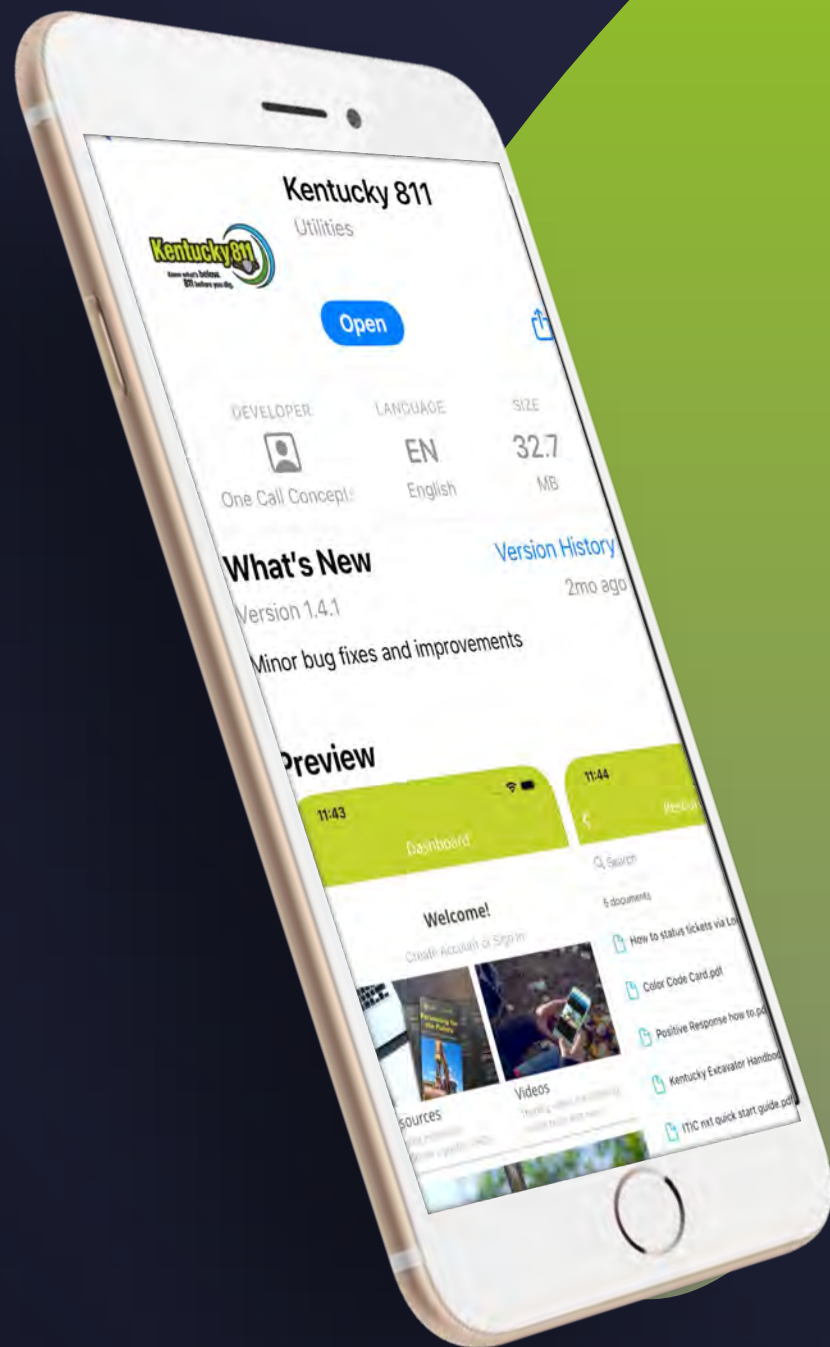
Excavator operators should always ensure they have a “good” ticket PRIOR to digging, regardless of who

- Anyone can check ticket statuses by going to [kentucky811.org](http://kentucky811.org) or downloading the app.

Sometimes, tickets will be returned as further information is needed

- Did the correct utilities get notified (is the excavation polygon correct)
- Can the utilities/locators find the area (is there an address, driving directions, or other instructions that are clear)
- Will the utilities/locators know what to mark once on site (you’d be shocked how many times there are no defined marking instructions or scope of work)

ALL THIS EFFECTS YOU and your timeline of starting and completing your project. A good ticket = a good locate = a good dig



# Emergency Call Outs



811 tickets are still required in emergency events

Kentucky law defines an emergency as a situation where there exists a substantial likelihood that loss of life, property, inability to restore interrupted utility service, an imminent danger to health or the environment or the blockage of public transportation facilities will result

If a ticket is submitted but not a true emergency, a fine of \$1,000 may be administered

How long do operators have to respond to emergency tickets?

Kentucky law requires operators to respond to emergency tickets within **48** hours. When submitting a ticket over the phone or online, any additional processes that are requested (e.g. direct phone calls to certain parties) will be put into action

## Reporting Damages

If an underground conduit used to transport gas or hazardous liquid (natural gas/petroleum and sometimes wastewater) is damaged, it is now mandatory under federal and state law to immediately halt digging and report the incident to 911

It's essential to inform 811 of any destruction; new locates may be needed to service the damaged line in a different area



# Did you know?

- Local city, county, and state agencies can enforce violations of the Underground Facility Damage Prevention Act of 1994
  - Unless or until the PSC initiates an investigation, at which point no other agency can continue enforcement on the same alleged violation.
- Penalties/Fines collected shall be paid to the general fund of the agency that issued the citation.

IT'S ALL THERE IN KRS 367.4917 (5)



**KENTUCKY**  
**damage prevention**



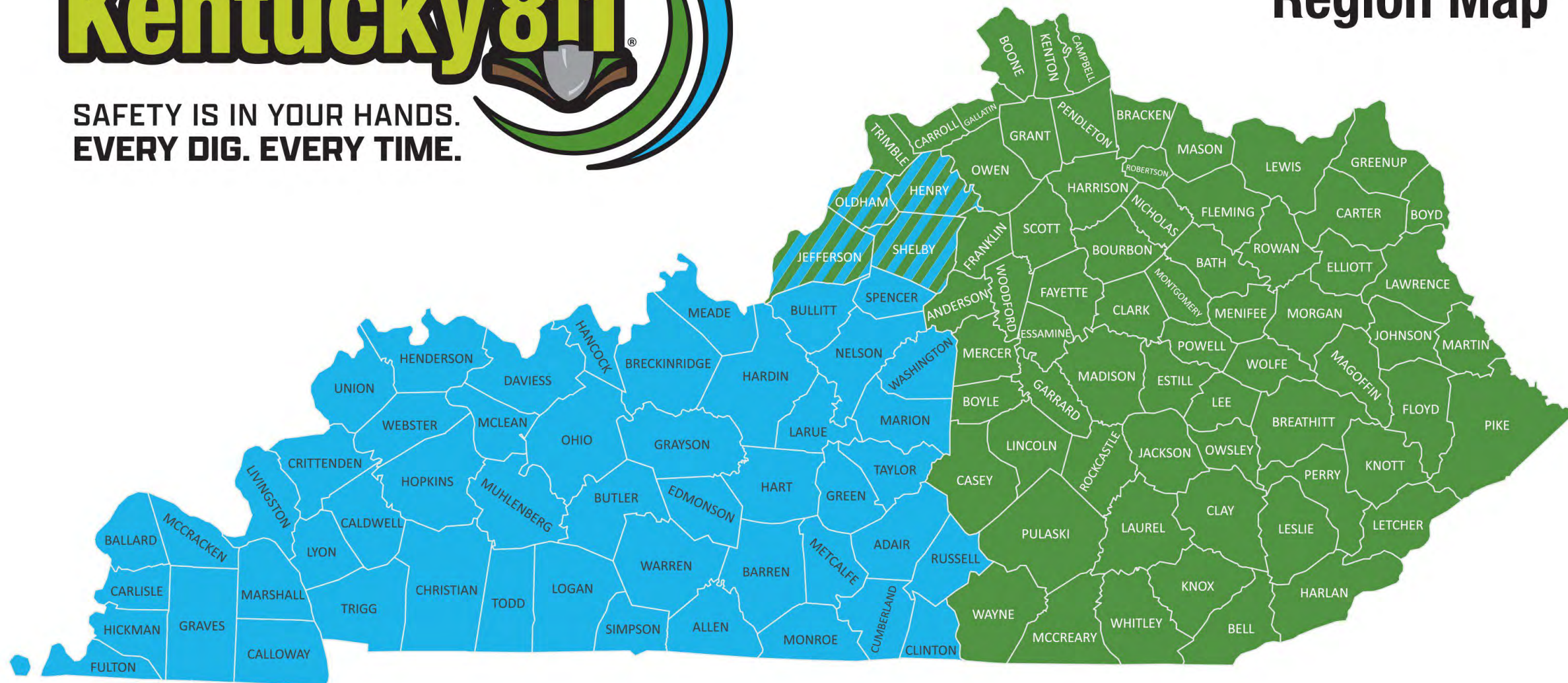
**SUMMIT**

**A CGA REGIONAL PARTNER EVENT**

June 25-27, 2024  
Embassy Suites, Lexington/UK Coldstream



## Damage Prevention Manager Region Map



**Patrick Donoghue**  
Western Region  
pdonoghue@ky811.com

**Ms. Jamie Gaddis**  
Central & Eastern Region  
jgaddis@ky811.com

Shared Counties

For additional support, visit [www.Kentucky811.org](http://www.Kentucky811.org) or call 502.266.5677



# Thank You

FOR YOUR TIME

Tim Vaughn – Executive Director – [tvaughn@ky811.com](mailto:tvaughn@ky811.com)  
Jamie Gaddis – Damage Prevention Manager (Central & Eastern Region) –  
[jgaddis@ky811.com](mailto:jgaddis@ky811.com)  
859-457-0405  
Patrick Donoghue – Damage Prevention Manager (Western Region) –  
[pdonoghue@ky811.com](mailto:pdonoghue@ky811.com)  
502-266-5677



# CAPITAL PLANNING RESOURCES

## KENTUCKY INFRASTRUCTURE AUTHORITY (KIA)

- THE WRIS PORTAL
- CLEAN WATER GRANT FUNDS
- GIS MAPPING
- OTHER RESOURCES AVAILABLE THROUGH KIA
- COMMON ISSUES WITH APPLICATIONS FOR FUNDING
- TIPS FOR BETTER CAPITAL PLANNING.