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## **FOR IMMEDIATE RELEASE**

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## **Results from East Kentucky Works Survey to be Unveiled During Sept. 7 Event in Hazard**

The results of a study cataloging the capability of Eastern Kentucky's workforce will be unveiled during a public meeting at Hazard Community and Technical College (HCTC) on Wednesday, Sept. 7.

The event will begin with breakfast at 9 a.m. in the First Federal Center of HCTC, located at 1 Community College Drive, followed by the public roll-out of the East Kentucky Works workforce study from 10 a.m. to noon.

Conducted by the Boyette Strategic Advisors group over the course of several months in 2016, the study was spearheaded by One East Kentucky and surveyed hundreds of adult workers in 27 Eastern Kentucky counties to determine workforce readiness in various industries and occupations. Results from the study will be used to assist in strategic planning and help in recruiting new businesses and economic investment to the region, said Industry Liaison Trish Adams with the Eastern Kentucky Concentrated Employment Program (EKCEP), one of several partner agencies that provided funding and other assistance.

"The East Kentucky Works survey will provide us with a fabulous selling tool that we can use to recruit new industry to our region, as well as show us where we need to implement trainings to strengthen our workforce," said Adams.

Chuck Sexton, CEO for One East Kentucky, noted that employers need to know what sort of workers they can expect to hire as they look to invest in new locations. The East Kentucky Works study will provide that data, and he's confident that once outside companies learn about the varied capabilities of the region's workforce, they'll be more willing to invest in Eastern Kentucky.

"Eastern Kentucky has the absolute best available workforce in the country," Sexton said. "I want this study to show that so that we can take that message to the world."

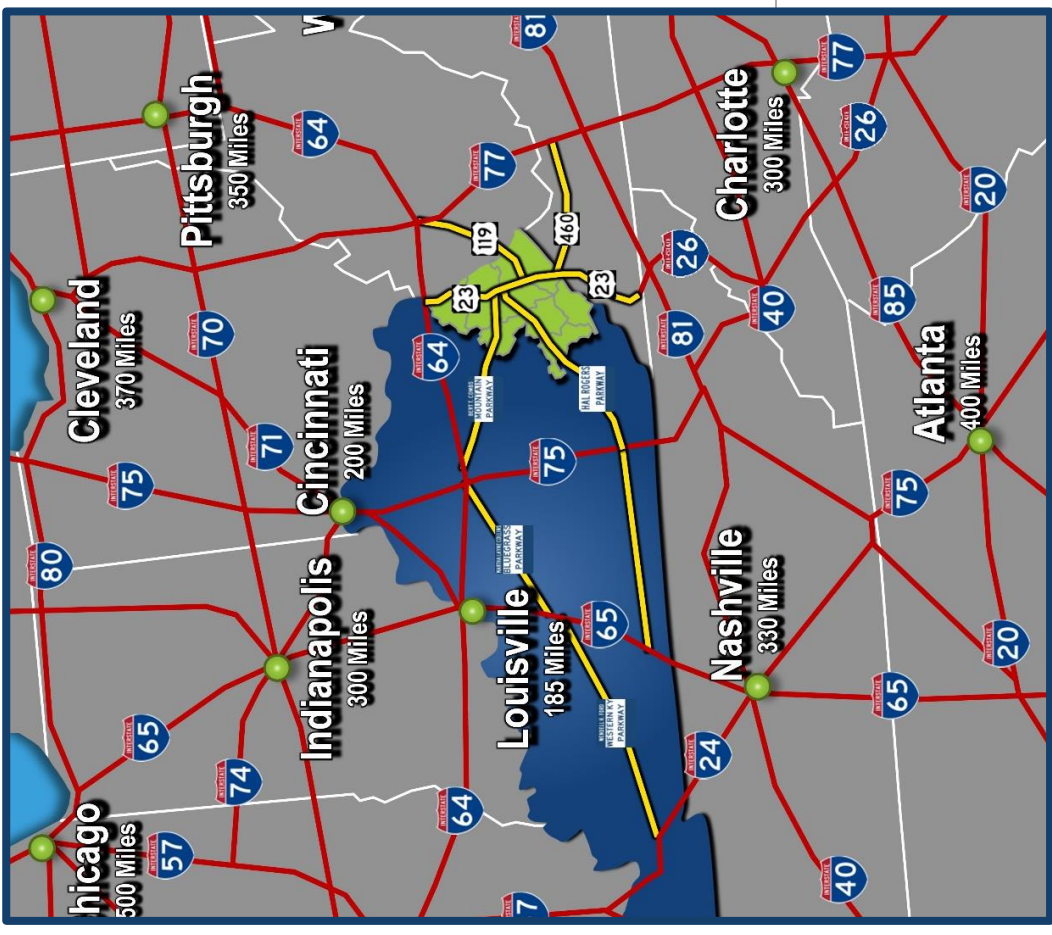
Partners in the study include EKCEP, One East Kentucky, AEP Kentucky Power, Big Sandy Community & Technical College, Shaping Our Appalachian Region (SOAR), Morehead State University, Center for Economic Development, Entrepreneurship & Technology (EKU), and the Ashland Alliance.

***EKCEP, a nonprofit workforce development agency headquartered in Hazard, Ky., serves the citizens of 23 Appalachian coalfield counties. The agency provides an array of workforce development services, administers the Hiring Our Miners Everyday (H.O.M.E.) program for dislocated coal miners and their spouses, and is the***

**White House-designated lead organization for the federal TechHire designation for Eastern Kentucky. Learn more about us at <http://www.ekcep.org>, <http://www.jobsight.org> and <http://www.facebook.com/ekcep>.**

# Aerospace Assessment and Marketing Strategies

PREPARED FOR:  
**ONE EAST KENTUCKY**  
BY  
COMMON SENSE ECONOMIC DEVELOPMENT  
&  
TUCSON/ATLANTIC CONSULTING  
SEPTEMBER 2016



# Economic impact of aerospace

- The Kentucky Cabinet for Economic Development reported “**aerospace exports have increased by an unprecedented 145.1 percent since 2010.**”
- Aerospace exports totaled \$8.7 billion in 2015 and are **currently on track to exceed \$10 billion in 2016.** In 2015, Kentucky ranked as the third largest aerospace exporter only behind Washington and California. **Remarkably, during the first six months of 2016, Kentucky ranked second only to Washington as an exporter of aerospace products.”**
- Aerospace products and services alone are now Kentucky’s leading export, comprising **one-fourth of the state’s total exports.**
- Kentucky’s aerospace industries do business with worldwide aerospace companies and supply **Boeing, Airbus, Lockheed** and many more.
- Not only is aerospace growing, it is growing and **pays its employees substantially more than traditional manufacturing industries.** Thus, it’s a very desirable target for the greater *One East Kentucky’s* economy.

## Economic advantages of aerospace

- Pike County average weekly salary for production workers in is **\$945**  
(Highest in region)
- Johnson County at **\$489** (Lowest in region)
- Average pay for aerospace skilled jobs in Kentucky is **\$1,624**
- Aerospace jobs are generally high-skill, high-wage and high-demand jobs that require technical training.
- And they make a prime target for communities and their industrial recruiting efforts.

# Primary Regional Airports



## Wendell H. Ford Airport (KCPF)

- Utilities: water, sewer and natural gas
- Industrial land adjacent to a taxiway: >10 acres
- Special considerations: Plans underway for a full ILS and lengthened runway
- Coal Fields Industrial Park nearby contains a large vacant industrial building

## Big Sandy Regional Airport, KSJS



- Utilities: water, sewer and natural gas
- Industrial land adjacent to a taxiway: >10 acres
- Special considerations: A Federal Bureau of Prisons High Security Penitentiary is located adjacent to the Eastern Kentucky Industrial Park. A previously occupied facility, constructed in 2012 containing 54,700 SF, and a 44,000 SF speculative facility constructed in 2005 are both located in the industrial park near the airport. Total additional industrial land available at the park is approximately 180 acres

# Pike County Regional Airport (KPBX)



- Utilities: Water, sewer and natural gas
- Industrial land adjacent to a taxiway: >10acres
- Special considerations: Runway 02/20 presently closed and available for development as industry site(s) with access to the active runway 09/27





# Aerospace strengths/assets

- Three regional airports capable of aerospace industry;
- Four industrial parks with infrastructure to support aerospace industry requirements:
  - East Kentucky Business Park, Marion's Branch Industrial Park, Gateway Industrial Park and Coal Fields Industrial Park;
- American Electric Power (AEP) is a strong and supportive economic development ally;
- Somerset Community College, located in Somerset Kentucky, offers a comprehensive FAA approved aviation maintenance program;
- Big Sandy, Southeast Kentucky and Hazard Community Colleges offer training programs.
- The eKentucky Advanced Manufacturing Institute (eKAMI), although new, has been remarkably successful retraining coal miners for advanced manufacturing jobs. eKAMI is destined to play an increasing role in transitioning skilled individuals to new employment

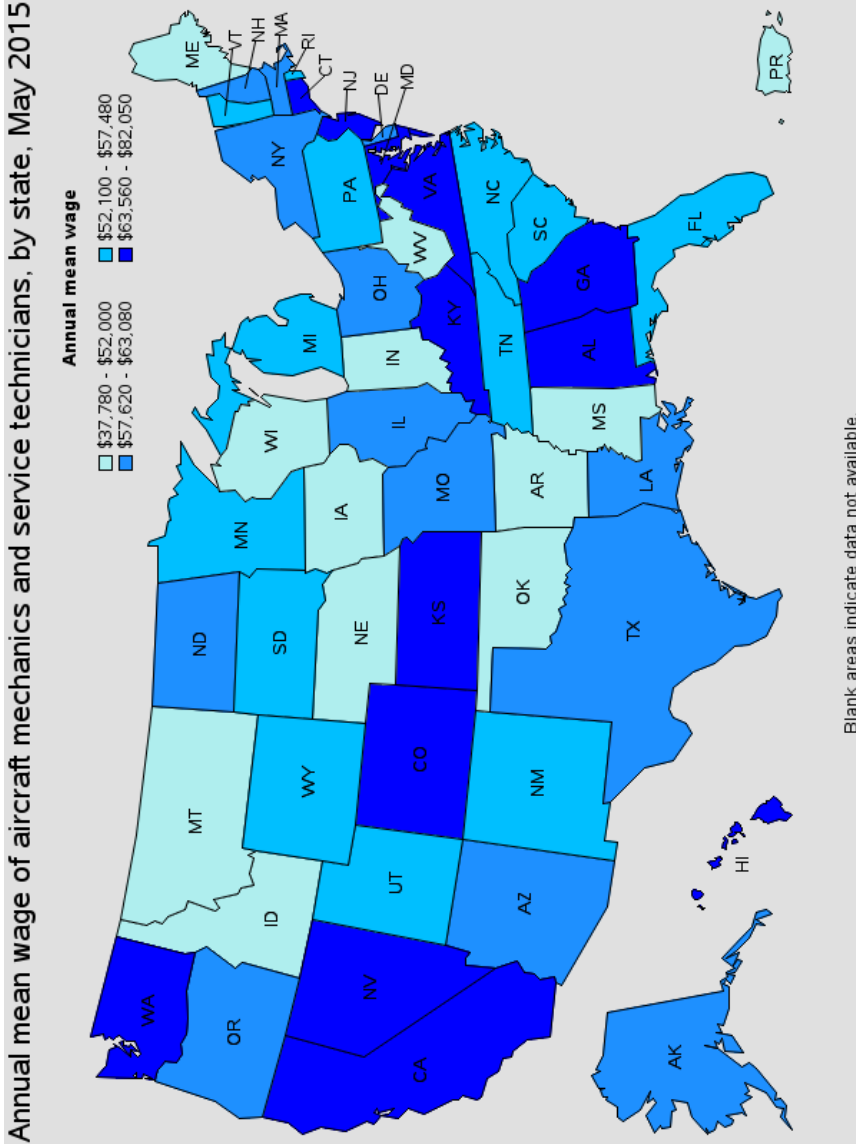
# Aerospace strengths/assets

- A rapidly expanding and diverse aerospace industry sector in the State of Kentucky;
- A Pro-business local leadership throughout the region and available financial resources, sites and buildings required to recruit and accommodate the aerospace industry;
- State-wide aerospace business executives;
- Huntington Tri-State Airport in nearby West Virginia a willing and potential partner in aerospace recruitment;
- The nearby Interstate 75-corridor from Dayton to Cincinnati and counties in Northern Kentucky is home to numerous and rapidly expanding aerospace industries;
- The Kentucky Cabinet for Economic Development, has designated the aerospace industry as a high priority target;
- The Morehead Space Science Center, a first-class research center. East Kentucky Univ., and the Univ. of Kentucky offer aerospace related courses.

# Aerospace weaknesses/liabilities

- Little local history or direct experience with aerospace industries;
- Limited aviation direct aerospace skill experience or training network entrenched within the community. This is especially noteworthy with A&P (airframe & power plant) FAA certified mechanics;
- There are currently no specialized A&P high school or college training courses available in the region to support and sustain an aviation facility involved with MRO (maintenance, overhaul or repair) of aircraft.
- Lack of an available expandable aircraft hangar facility or speculative building with taxi-way access at one of the three regional airports (in the 10,000- 50,000 square feet range) to attract a new MRO (maintenance, repair and overhaul) or other aircraft service businesses;
- Absence of an aerospace marketing plan to successfully recruit new aerospace industry that identifies regional partners committed to participate in the process.

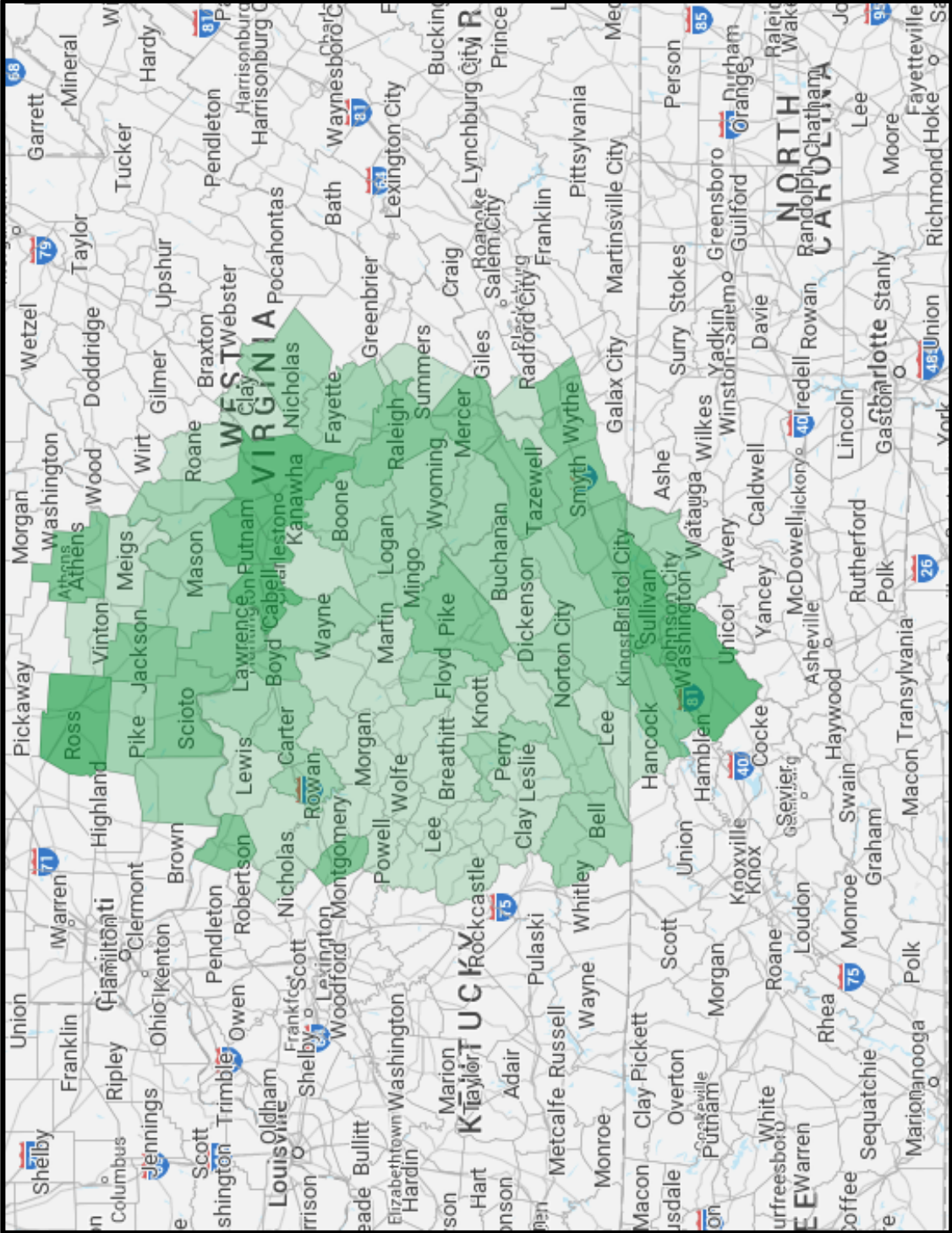
# Top five paying states for states Aircraft Mechanics and Service Technicians (49-3011)



State	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
<u>Kentucky</u>	1,780	0.97	1.08	\$39.45	\$82,050
<u>New Jersey</u>	1,720	0.44	0.49	\$35.76	\$74,380
<u>Washington</u>	4,550	1.53	1.70	\$33.75	\$70,200
<u>Maryland</u>	2,350	0.91	1.01	\$32.84	\$68,310
<u>Colorado</u>	1,760	0.72	0.80	\$31.39	\$65,280

# Aerospace employment and skills

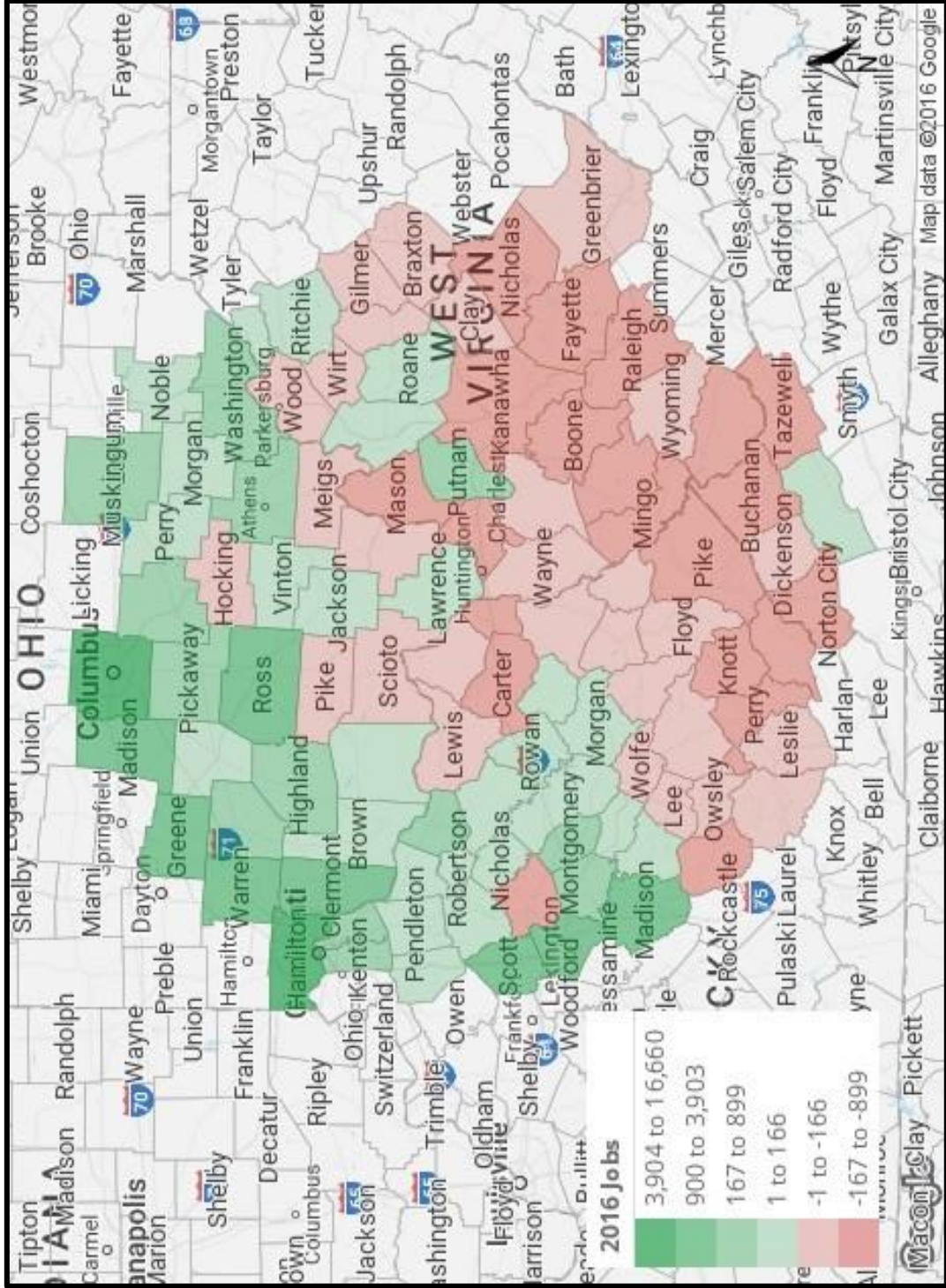
Density and location of 74-  
aerospace related skills,  
within 100 miles of Martin  
County KY, by county. Note  
the heaviest skill  
concentrations centered  
around the north, south and  
east of the One East  
Kentucky Region



# General aerospace skill job migration from SE to NW

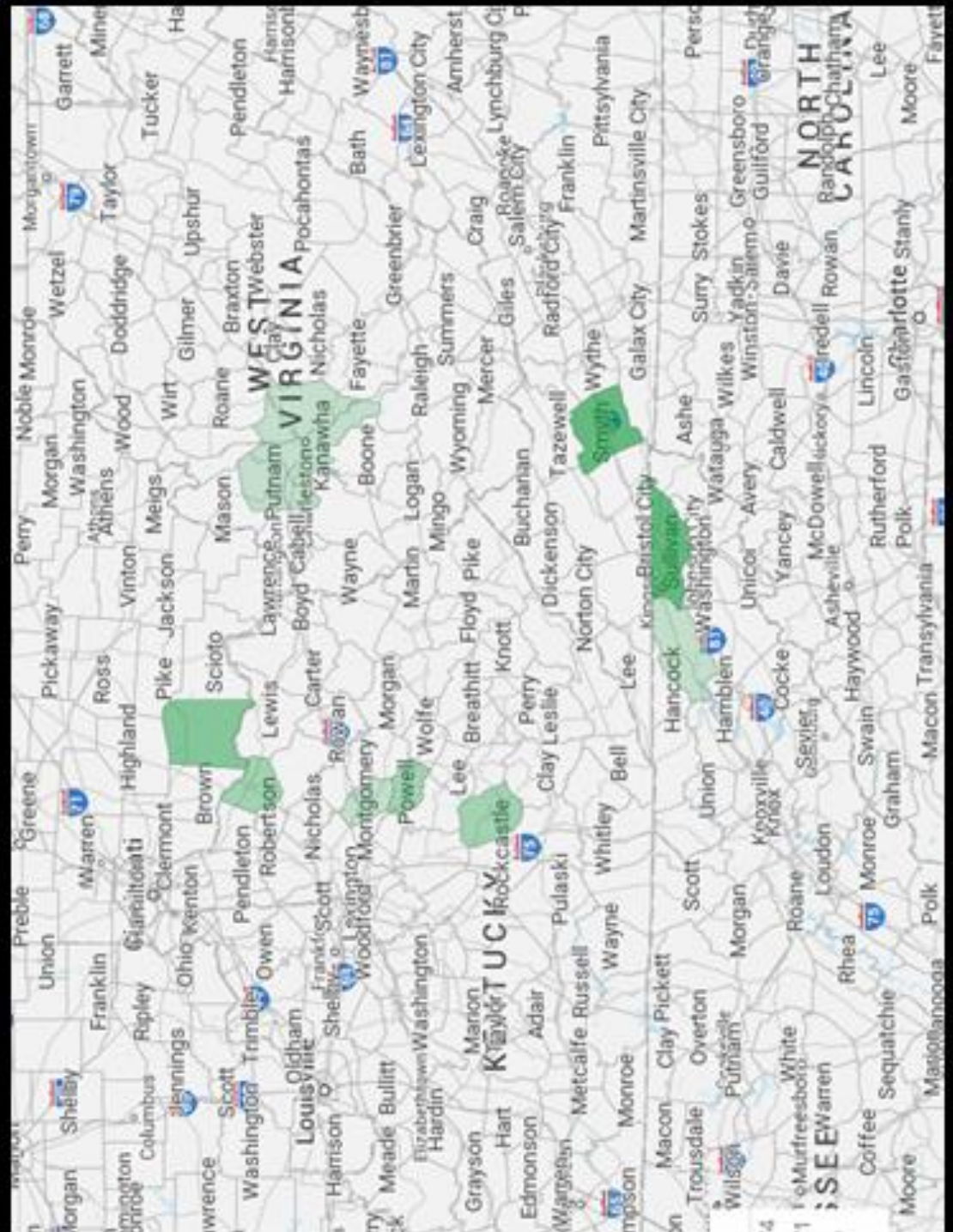
74-aerospace skills

Between 2010 and 2016, 1,222-skilled individuals have relocated from the SE to the NW, essentially relocating to other regions and depleting some of southeastern Kentucky's most skilled workers.



# Distribution of regional aerospace industries

The map shows the geographic location (by county) of 13- industries that employ 1,521 workers. **Martin County, KY +100-mile radius.**



Region	2010 Jobs	2015 Jobs	2020 Jobs	Change	2010-2015 Growth %
Martin County	1,015	1,512	1,510	495	49.0%
Kentucky Surrounding Region	509,364	514,725	528,918	19,554	1.1%
Nation					

# Regional aerospace industries and characteristics

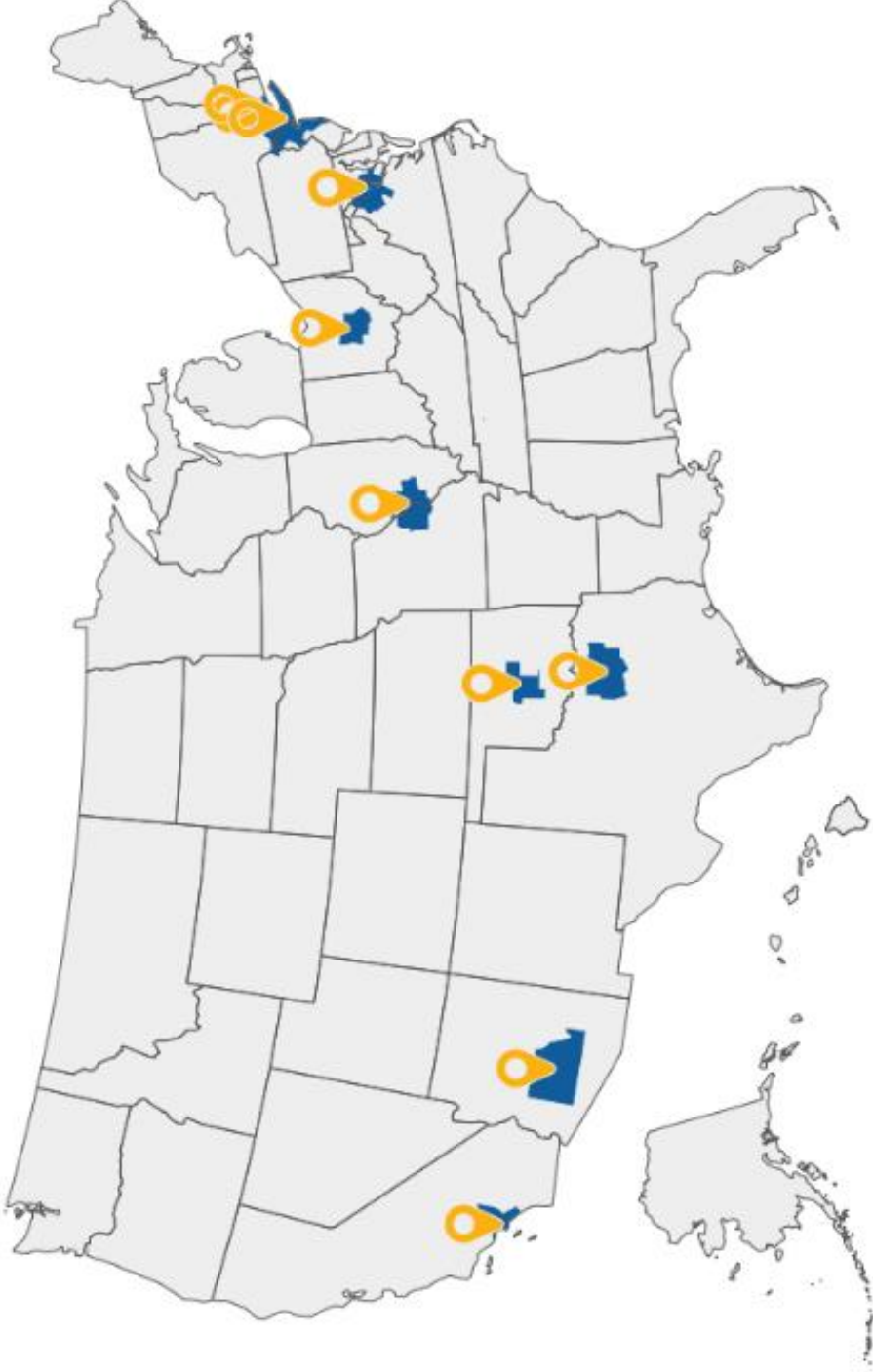
General Dynamics Armament/tech	336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	708
Aeronautical Accessories	336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	600
Bell Helicopter	336411	Aircraft Manufacturing	250
BAE Aerospace	336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	130
Superior Metal Products Inc.	336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	79
Cisco Helicopters	336411	Aircraft Manufacturing	5

13	1,767	0.45	\$84,442
Payrolled Business Locations	Jobs	Concentration	Earnings Per Job
Payrolled business locations increased by 5 over the last 5 years.	Jobs increased by 497 over the last 5 years. Projected to decrease by 2 over the next 5 years.	Regional concentration is 0.45 times national concentration.	Regional earnings per job are \$33,202 the below national earnings per job of \$117,644.



# One East Kentucky's competitive advantage

Target regions maintain aerospace clusters that offer the best recruitment opportunities given their high payroll, business location loss and high cost of labor compared to 100-mile radius centered around Martin County, KY.



# Primary Recruiting Targets

1. Los Angeles-Long Beach-Anaheim, CA	
408	\$124,431
Payrolled Business Locations (2015)	Avg. Earnings Per Job (2016)
This region lost 17 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	These region's industry earnings are above your state's industry earnings of \$85,667. Your state's cheaper average labor cost may make it easier to attract businesses.
<b>Top Info-group Businesses</b>	
Business	Business Size
Boeing Co	Large (250+)
Aerojet Rocketdyne	Large (250+)
Robinson Helicopter Co	Large (250+)
Rockwell Collins Inc.	Large (250+)
Rockwell Collins Inc.	Large (250+)

# Prime Recruiting Targets, numbers 2-10

2. Dallas-Fort Worth-Arlington, TX
3. Phoenix-Mesa-Scottsdale, AZ
4. New York-Newark-Jersey City,  
NY-NJ-PA
5. St. Louis, MO-IL
6. Bridgeport-Stamford-Norwalk,  
CT

7. Washington-Arlington-Alexandria, DC-VA-MD-WV
8. Columbus, OH
9. New Haven-Milford, CT
10. Oklahoma City, OK

# Marketing strategies for aerospace recruitment

- ❖ **Annual budget of \$30,000** for expenses and two-three years to successfully recruit an aerospace industry.
- ❖ **Receive endorsement and a funding commitment.**
- ❖ **Advise The Kentucky Cabinet through its Department of intention to market aerospace.**
- ❖ **Invite The Kentucky Cabinet's Department for Business Development, Somerset Community College, aerospace consultants, American Electric Power Co., economic development officials and other recruiting partners to spend a day in the region.**
- ❖ **Establish a strong committed regional aerospace/aviation alliance** within the 9-county *One East Kentucky* region. Also consider expanding the marketing effort to multi-regional area.
- ❖ **Interview and develop a personal network of aerospace industry managers and workers in** the area.

## Marketing strategies for aerospace recruitment, (Cont.)

- Meet with the USAF contracting office in Wright Patterson AFB.
- Create a formal marketing/recruitment strategy.
- Create a trifold brochure and web site & Include aerospace-related information on regional airports, workforce partners, city and county websites.
- Compose a list of Airbus' and Boeing's worldwide suppliers.
- Market the AEROready certification.

## Attend the following trade shows and marketing events

### Domestic:

Heli Expo- Focused on the helicopter industry both military and commercial. (February, various nation-wide locations).

NBAA- The National Business Aviation Association Show- specializes in commercial aviation. (October, various nation-wide locations).

MRO- This trade show concentrates on the Maintenance, Repair & Overhaul (MRO) of Aircraft. (April, various nation-wide locations).

Quad A- Primarily US Army military aircraft. (April, Nashville TN).

## Trade Shows & Events, (Cont.)

### International:

Paris Air Show-Civilian and military aircraft is also the world's largest airshow. Held in the odd years (i.e., June 2017, 2019, etc.) Le Bourget Airport, near Paris France.

Farnborough Air Show, held at Farnborough Airfield near London. This event is held on the even years alternating with the Paris Air Show. (June, Farnborough Airport, near London, England).

Singapore Air Show, held on the even years, four months prior to the Farnborough Air Show. (February, Singapore).



## AEROREADY Certification

The consulting team of Common Sense Economic Development, LLC and Tucson/Atlantic Consulting has surveyed and examined the *One East Kentucky* region, and its potential to target, recruit and support aerospace-related business and industry. Fourteen essential qualities in aerospace site location searches were evaluated, and many secondary aviation support criteria were evaluated to determine the potential for aerospace corporations to operate successfully in the nine-county region. These include, but are not limited to, the following:

1. Airport(s) with at least 10 acres of available land for economic development, supporting navigation aids for corporate aircraft and a minimum 5,000-foot runway;
2. Availability of local training of technical skills often needed by aerospace companies;
3. An FAA certified A&P (airframe and power plant) training facility located within the State;
4. Available industrial building(s) or hangar(s) suitable for aviation development;
5. An available skilled workforce suitable for aviation employment;
6. Adequate infrastructure to support the aviation industry;
7. Aviation support service business and industry;
8. A community pro-business environment;
9. Proximity to University- based aerospace programs and research;
10. Quality of Life assets in the region, which are essential to attracting executive talent.

It is our opinion that the area possesses the resources needed to attract and sustain aerospace- related companies, including those that require airport support services and infrastructure, as well as those that simply need high-quality sites or buildings.

The regional public and private leadership have shown a strong commitment to grow their market area and we are proud to endorse their aerospace recruiting efforts by certifying the ***One East Kentucky* region as an AEROREADY™ Region**, signifying its ability to successfully support the critical needs of the aerospace industry. This certification authorizes the ***One East Kentucky* and its aerospace partners** to utilize the **AEROREADY™ Region** logo in its marketing efforts and to publicize its **AEROREADY™ Region** status as needed to recruit aerospace related business and industry.

Robert Ingram

Common Sense Economic Development

Tucson Roberts

Tucson/Atlantic Consulting



## Betsy Sekula

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**From:** Debra L Kahn  
**Sent:** Wednesday, October 26, 2016 7:54 AM  
**To:** Allison D Barker; Bob Shurtleff; Brad N Hall; Charles E Tackett; Del Borden; Everett G Phillips; Gregory A Bell; Gregory G Pauley; Kenneth L Borders; Lloyd M Rayburn JR.; Michael G Lasslo; Ranie K Wohnhas  
**Subject:** Daily Independent Article 10-26-16

Article in this morning's paper in reference to "Aeroready Certification" of East Park . The last line mentioning that the study and certification were funded through a grant from AEP/KY Power.

**ASHLAND** The Tuesday morning announcement that Boyd County and Greenup County have been certified as AEROready was almost like a launch party.

Ashland Alliance President/CEO Tim Gibbs said he was "ready to start working on it today" and has already scheduled another meeting for Wednesday with community leaders from across the region "to start the conversation. This is the first step"

Robert Ingram and Tucson Roberts, consultants from Common Sense Economic Development and Tucson Atlantic Consulting, presented Gibbs with the certificate after an hour-long PowerPoint presentation to a small group who gathered in the Community Room at the Ashland Police Department.

State Rep. Lew Nicholls, D-Greenup, was one of those soaking up the information.

"I'm ready to go to work and do everything I can to get the aerospace industry in northeastern Kentucky," he said. "We have all the components.

"It was all I could do to keep from jumping up and down and saying 'Amen!'"

Nicholls said he has a "good relationship with (Education and Workforce Development Cabinet) Hal Heiner, who helped us get workers (from AK Steel) into classes at ACTC."

Ingram and Roberts spoke favorably about their impressions of the area from workforce to school systems, proclaiming the region in line with what the aerospace industry wants.

Aerospace is one of the fastest-growing industries in Kentucky.

It had shown a 145 percent increase since 2010. Last year, \$8.7 billion was made and the industry is expected to exceed \$10 billion in 2016.

The jobs include carpenters, welders, mechanics and dozens of others.

"When I saw that, I was like 'That's us,'" Nicholls said.

The consultants said the Ashland area had several attributes, including the airport in Worthington and a ready-made skilled workforce made for the industry.

"This is where displaced Steelworkers can go," Nicholls said.

Greenup County Judge-Executive Bobby Carpenter said the area's top assets was is obvious.

"I think our plus is our workforce," he said.

The consultants used a combination of methods, resources and information sources to compile data, assess competitiveness, and develop strategies as well as recommendations.

Ingram said Ashland was a pleasant surprise in a lot of areas including higher-end housing, EastPark and, of course, the skilled workforce.

"The potential is here," he said. "I love your community."

They combined this with one-on-one interviews with regional and utility economic development officials, administrators of three regional airports, airport board members, regional education institutions and the Kentucky Cabinet for Economic Development.

AEROREady is designed to help communities showcase advantages to aerospace related companies, prepare marketing for recruitment, and give assurance to private industry that an independent firm has verified the region can support them.

Boyd and Greenup counties join the nine counties of Floyd, Knott, Johnson, Lawrence, Letcher, Magoffin, Martin, Perry and Pike, already certified as AEROREady. Portsmouth is also a certified community.

"It's a big deal," Gibbs said of the certification. "The last couple of years we've been looking at how we can invest in our people and our sites. Aerospace makes a lot of sense for this region for the position we're in."

The consultants talked about the importance of thinking regionally in marketing.

"This industry tends to cluster," Roberts said. "You have three states — Kentucky, Ohio and West Virginia — positioned to take advantage. You can bring a lot of 'Bosses' to the table."

Roberts was referring to political "Bosses" like U.S. Congressman Hal Rogers.

Gibbs said aerospace is "a field that's growing and we have the pieces and parts to be competitive."

The study identified where the aerospace industry is strongest and some of the top sites were in California.

"But the cost of doing business here is significantly less than there," Gibbs said. "We may very well recruit those companies."

The study and certification were funded through a grant from AEP/Kentucky Power.

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# EKYWORKS

Workforce Analysis

08.2016

 We used to pray for a Saturday off. Now we just pray that we will get to work at all.”

Discovered in eastern Kentucky in 1750 by a pioneer, coal was recognized not only as a resource for fuel, but also as a change agent to the area. Notably, contemporaries of that pioneer included community leaders who established the first hospital in the colonies and a world-renowned inventor who was flying a kite during a storm that led to the discovery of electricity. One might ask what does coal, healthcare and electricity have in common, the elements are the fundamental backbones that have shaped our nation.

East Kentucky, through the discovery of coal and the determination and hard work of generations, is directly tied to the

development of the industrial age and the overall economy in the United States. With the region’s first mine opening in 1820, the United States began a long and arduous initiative to foster growth and development from coast to coast. Each and every American, past, present and future, owe a great debt to the pioneering men, women and children that dedicated their lives to coal mining.

When any region or local economy such as East Kentucky hinges on a single industry like the coal industry, the region has the opportunity to prosper as the market for that product allows. When the market for the product declines or dissolves, the geography and the people living within are at risk of unprecedented economic challenges. When the people living within the region experience these hardships, the region, state and nation must battle to avoid fallout such as human capital migration.

While coal may have changed the region, the people living within the region changed the fabric of Appalachia. The miners, their families and the general population are responsible for the development of some of the most rugged and treacherous terrain within the United States. The historic success of the coal industry



## INTRODUCTION

has a strong correlation within the region to the birth of colleges and universities, construction of roads and highways that hug hairpin curves, development of railroads to export coal from the region to electric power plants throughout the nation, formation of conservation initiatives to protect natural resources and creation of legends like Daniel Boone that have echoed throughout the land. And inherent to nearly every indigenous person was and is a nearly indescribable spirit of perseverance, hard work, tenacity, ingenuity and dedication, while collectively fostering one of the most humble cultures within the borders of our country. Best said by one of the coal miners who graciously shared their story, “We’ve been underground in nightmare conditions but we thrive in it.”

Today, a variety of challenges in the coal industry has left the people of Eastern Kentucky facing uncertainty and fear. The loss of 8,500 jobs in the last 10 years has caused a chain reaction of that has had a ripple effect across the region. Almost 24,000 people have left the region, and the workforce has declined by 20 percent or more than 45,000 workers.



“If there’s a job at the end of the rainbow, there’s not a whole lot I wouldn’t do.”

The East Kentucky region now seeks new opportunities and creative solutions to bring back more prosperous times. This workforce analysis has explored the many challenges and assets of the region to better understand how East Kentucky Works and how to strengthen in for the future. Economic opportunity such as new business locations, expansions of existing companies, innovative educational practices and progressive policy initiatives should be pursued to make sure East Kentucky Works today and for many years to come.

**Methodology.** This workforce analysis was designed to provide a better understanding of the assets and challenges of the workforce in a 27-county region of East Kentucky that has been severely impacted by job losses in the coal industry. To accomplish this, Boyette Strategic Advisors utilized a customized methodology and process developed specifically for East Kentucky Works and its unique needs.

## INTRODUCTION

The process included stakeholder engagement, combined with deep, rich data and secondary research, including a review of education and training programs, a skills assessment of the coal workforce, and identification of compatible occupations that utilize those skills.

The analysis examined data points related to demographics, labor force, commuting patterns, skill attainment, and employment trends for the broad East Kentucky region and four sub-regions.

The following components were collected and analyzed as part of this process:

- Stakeholder discussions with more than 500 members of the East Kentucky workforce;
- Interviews with representative employers, educators and community leaders;
- An online survey of employers from all sectors throughout the region to ascertain availability of labor, quality and cost of labor, future demand for workers and training needs.
- An analysis of knowledge, skills and abilities of key high unemployment occupations and identification of potential compatible occupations.

- A review of workforce education and training offerings in the region.

- 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 quantity of the regional workforce.

In addition to data findings, a series of strategic recommendations were developed for enhancing the region's workforce assets and better preparing workers to meet the challenges of the future.

Following delivery of the report, Boyette also provided a training session for economic developers in the region related to how to manipulate and utilize the data contained in the report.



**SUMMARY OF  
FINDINGS**

Summary of Findings. All data collected for this project was reviewed and analyzed to determine key trends, assets, challenges, and opportunities for further developing and marketing the East Kentucky workforce. Data points were further validated through in-depth stakeholder engagement with residents and employers throughout the region.

**Stakeholder Engagement.** Face-to-face conversations, combined with online surveys, provided opportunities for residents and employers to share their perspectives related to job opportunities, workforce quality, training needs, and commuting patterns.

In talking with residents at a series of regional forums and job fairs held in five locations, more than **500 workers** discussed their current employment situation and their dreams for the future. The following trends were identified as part of these discussions:

“Our people are intuitive, energetic and care about their work. They are as good as any people you will deal with.”

*EKY Employer*

- The regional workforce is **very humble** and is challenged to discuss their skills and assets of value to current or potential employers.
- As a group, they are **disappointed** with the current situation facing East Kentucky and believe the region has been “forgotten” by state and federal leaders.
- The workforce has a very **strong work ethic**, is **loyal** to its employers, and offers **broad skill sets** but limited credentials to demonstrate those skills to employers.



## SUMMARY OF FINDINGS

- Most residents are willing to pursue **additional skills training** if it will enhance their job opportunities.
- While many workers have historically worked near their home, virtually all indicated a **willingness to commute** at least one hour for a “good” job and many would commute up to two hours.

Almost **1,800 regional residents** also completed an online survey. Of those, 62 percent were currently unemployed. Survey respondents also indicated an interest in **additional training opportunities** if it would lead to additional job prospects. Half of the unemployed respondents said they would accept a new job paying **\$14.99 per hour or less**. To further validate the commuting information gathered through discussions, 55 percent of survey respondents said they are **willing to commute** more than 45 minutes one-way for work, with almost 30 percent willing to travel an hour or more.

More than **200 employers** also responded to an online survey, representing large and small employers from virtually all industry sectors throughout the 27-county region. An impressive **80 percent of respondents are satisfied or very**

**satisfied** with the quality of the East Kentucky workforce. The majority also said the **cost of labor in the region is about right or less expensive** compared to quality. Survey data also validated the loyalty of the regional workforce, with employers indicating that more than 60 percent of their workforce has been with the company six years or more.

**Data Analysis.** Data points related to demographics, labor force, wages, and key occupations was examined. Following are key findings of that analysis:

- The **regional population is projected to decline** by just less than two percent over the next five years.
- The **median age** of the region population, at 41.3 years, is higher than both the Commonwealth of Kentucky (39.1) and the U.S. (38.0).
- **Educational attainment** in the region is below both the Commonwealth and the U.S. A total of 19 percent of the region’s population age 25 plus holds and associate’s degree or higher, compared to 28.8 percent for Kentucky.



## SUMMARY OF FINDINGS




- The total **labor force in the region has declined** significantly in the last 10 years, with a decrease of almost 20 percent since 2006 and now totals 187,759. During the same period, total employment has declined by 21 percent.
- The regional **labor participation rate is 44.74 percent**, which is considerably lower than Kentucky (59.8 percent) and the U.S. (63.9 percent).
- The declining labor force and labor participation rate are due, at least in part, to a significant number of **long-term unemployed and discouraged workers**, both now and previously during the recession from 2007 – 2009.
- **Average hourly earnings** for all sectors in the region total \$17.53, which is lower than the Commonwealth at \$19.13 and the U.S. at \$22.57.
- Occupations that have **compatible skill sets** to key mining sector occupations are found in metal and equipment manufacturing, transportation equipment manufacturing, plastics product manufacturing, wood product manufacturing, and transportation and

warehousing. The **rail industry** provides a particularly strong match from a skills perspective.



**STRATEGIC  
RECOMMENDATIONS**

 **The whole area will be a ghost town before long, because everything revolves around coal.”**

**STRATEGIC RECOMMENDATIONS**

The decline of the coal industry has created a unique set of challenges and opportunities related to the East Kentucky workforce. If the tremendous assets of this workforce are to be retained and enhanced, these challenges must be addressed. Following are recommendations related to education and training; business recruitment and job creation; and marketing strategies related to the regional workforce.

**EDUCATION & TRAINING**

The East Kentucky workforce possesses unique and valuable skills that can be utilized to sell the region to potential new employers. Many of the workers interviewed for this analysis

expressed an interest in additional training to enhance their opportunities for future employment. Additionally, some members of the workforce would benefit from soft skills training and other tools to make them more marketable to new employers.

Following are specific recommendations related to enhancing the skills of the East Kentucky Workforce:

**Recommendation 1 – Education Coalition**

In order to efficiently address the education and training needs of the workforce across East Kentucky, a regional education coalition should be established. This group would bring together educators, training institutions, employers, workforce organizations and economic developers to focus on opportunities to align and integrate the region’s workforce training system and address skills enhancement needs of the regional workforce.

**Recommendation 2 – Soft Skills Training**

In conversations with residents in every area of the 27-county region, it was apparent that many people, particularly coal workers, are very humble and perhaps have lost confidence in



## STRATEGIC RECOMMENDATIONS

their value to employers. This has led some Kentucky employers in other areas of the state to express concerns about their ability to successfully interview for new jobs.

To address this challenge, a soft skills training program focused on interview skills and general motivation, should be developed. This program should be led by someone local who understands the regional culture and is trusted by area residents.

The program could also include a “train the trainer” component where some of those who complete the training and successfully secure new employment are used to deliver training to others. To make the offering convenient for all residents and to encourage participation, the program could be done in partnership with local churches and held in church facilities throughout the region.

In addition to a program to assist those who are seeking new employment, possibly by transitioning to a new industry, a component might also be developed for women who have not been in the workforce for an extended period. Many of these women have historically relied on their spouses’ income, but are now in situations that require two incomes.

### Recommendation 3 – Fast-Track Credential Training

Many coal miners possess a broad range of skills that have been acquired through on-the-job training and experience. Some of these skills are in areas where certification is available and often required to be considered for employment outside the mining industry. The areas with the greatest number of people trained but holding no credentials include welding, electrical, and plumbing. Additionally, many miners are trained as Mine Emergency Technicians (MET).

Currently, for these workers to secure credentials would require lengthy training that does not account for their years of experience in the mines. Education and training providers should develop fast-track programs to allow them to obtain credentials that would increase their value to potential new employers. A process for stackable credentials might also be explored to build on qualifications over time.

For each of the previously mentioned skills, miners should have the opportunity to be evaluated to determine their skill level and what training would be necessary to get them to certification levels of expertise. In the case of METs, there should be an opportunity to allow them to complete



## STRATEGIC RECOMMENDATIONS


Emergency Medical Technician (EMT) training that considers their skills as METs.

This evaluation for some positions could be accomplished in a “boot camp” format to quickly assess skills and offer the upgrades needed to qualify for positions in a manufacturing environment. Regional economic development professionals should work with training providers to identify occupations to be assessed in this format.

To efficiently deliver the training, a mobile training unit could be developed that would be equipped for the fast track programs and travel throughout the region to make the training accessible. Alternatively, the training might be offered at area high schools when other education facilities are not available in the local area.

### Recommendation 3 – Apprenticeship Program

The Commonwealth of Kentucky has recently re-launched an apprenticeship program that gives employers the opportunity to develop intensive on-the-job training programs, combined with technical instruction, to allow workers to be paid while



It’s not all just blue collar skill sets. They are as well educated and trained as someone on an automotive assembly line.”

*EKY Employer*

completing the training. The program is employer driven and primarily funded by participating companies.

EKY Works should work with local educational institutions to develop an aggressive apprenticeship program model that meets the Commonwealth program criteria. The model would then be available to existing companies wishing to expand their workforce, as well as new companies considering a location in the region. As the model is developed, it should provide a mechanism for collaboration between multiple employers who have similar needs for technical instruction as part of the apprenticeship program.





## STRATEGIC **RECOMMENDATIONS**

### **BUSINESS RECRUITMENT/JOB CREATION**

While ensuring a prepared workforce is a critical component in providing quality jobs for area residents, many of the sectors for which the East Kentucky workforce is qualified do not currently have a significant presence in the region. Additionally, unemployment rates are very high, which will continue to contribute to declining populations and reduced labor force participation if not addressed quickly. For those reasons, aggressive business recruitment tactics must be implemented to create high-value jobs for the regional workforce.

Following are recommendations for job creation to maximize the available workforce in East Kentucky:

#### **Recommendation 1 – SOAR To Take Lead as “Redevelopment Authority”**

The opportunities and challenges related the decline of the coal industry and many and varied and require focused attention to ensure that the region moves forward. For that reason, SOAR – Shaping Our Appalachian Region – should take the lead as a “Coal Redevelopment Authority.”

Redevelopment authorities generally serve to guide the reuse and redevelopment of an area impacted by the loss of a single industry or entity such as a federal installation and serves as the community point of contact for state and federal government partners. SOAR could be positioned to serve in that role and guide and support all opportunities for recovery.

As such, SOAR or a sub-entity would be responsible for managing implementation of the recommendations in this document, as well as others that have been proposed by additional organizations. Coordination of this effort would allow the region to maximize access to resources such as the Appalachian Regional Commission and any additional state and federal government agencies and programs that support of value to the redevelopment effort.

The structure for the organization would be similar to redevelopment authorities that have been created around the closing of a military base or other federal installation, such as USEC in Paducah. Those organizations typically address issues related to re-employment of the workforce; services for those impacted by job loss; potential re-use of closed properties; and general economic development of the region.



## STRATEGIC **RECOMMENDATIONS**

### **Recommendation 2 – Create Tax-Free Zones**

The East Kentucky region has long been dependent on the coal industry to drive its economy, often at the expense of developing other sectors. It is now essential that the region diversify its economy and work to create manufacturing jobs in the region. Many of the compatible occupations identified for coal workers through this study are found in the manufacturing sector, yet very few of those jobs currently exist in the region.

To spark development of the manufacturing sector, the East Kentucky region should be designated as a tax-free zone for manufacturers. This incentive would be available to companies qualifying for other Kentucky incentives and would be in addition to any other incentive programs they might access.

### **Recommendation 3 – Encourage Entrepreneurship**

Some residents who participated in this process have expressed a strong interest in entrepreneurship and starting their own business, yet most indicated that adequate resources are not currently available to assist them. The first step toward providing those resources would be creating an

entrepreneurial ecosystem that ensures that entrepreneurs are aware of available services and how to access them.

A key component to developing an ecosystem is rural areas is access to broadband technology, which allows entrepreneurs and their support system to interact electronically. In addition, networking opportunities should be provided to allow those interested in starting businesses or who have a fledgling business underway to connect with one another and share ideas and resources.

Additionally, all existing programs should be inventoried to determine what support is available, what gaps exist and if there is duplication of effort. This inventory would then be the basis to align existing programs and create new ones to ensure that a comprehensive entrepreneurship ecosystem is developed and nurtured.

The region should provide and promote tools to support small businesses with tasks such as developing business plans, accessing financing, navigating government regulations, and marketing their product. To further support development of new businesses, the region could establish Start-up Zones to provide tax incentives to start-up businesses in designated





## STRATEGIC **RECOMMENDATIONS**

areas. These zones might also focus on selected types of start-ups that have a greater opportunity for success. For example, given the current economic struggles in the region, e-commerce may be a better choice because it relies on purchases from outside the region. Offering specific programs to support e-commerce start-ups would potentially boost success of that entrepreneurial sector in the region.

### **Recommendation 4 – Government Contracts**

The federal government has a history of assisting regions like East Kentucky that have suffered economically as the result of losing one industry or major installation that has been impacted by government policies. East Kentucky must develop

a targeted strategy to engage Kentucky's congressional delegation and key state leaders to pursue opportunities for government contracts that would create new investment and jobs in the region.

To ensure a focused approach to pursuing federal contracts, the region should identify a limited number of sectors for which the area has the resources to compete and explore the associated contract opportunities. This could include potential re-use of abandoned mines and surrounding property for new purposes.

## STRATEGIC RECOMMENDATIONS

### MARKETING

As the training opportunities and business recruitment strategies are implemented, both will need to be supported by marketing efforts. Following are specific recommendations for marketing the assets of the East Kentucky workforce:

#### Recommendation 1 – Develop Messaging

The creation of new regional organizations such as SOAR and One East Kentucky have provided opportunities to promote and market the region for economic and business development. To focus that marketing effort, a series of key messages should be developed about the region and its potential for development of new business sectors. The messages at right are general messages about the entire EKY region, which could then be localized for use by local and regional economic development organizations across the area.

To further support the marketing of the region, workforce snapshots should be developed using information contained in this report. These snapshots should provide a quick overview of the data important in the site selection process and be specific to the industry sectors being recruited to the area.

### KEY MESSAGES

- The East Kentucky workforce is rooted in the challenging coal industry, which leads to a population with a strong work ethic, loyalty to employers and broad skill sets.
- Unemployment data does not adequately tell the story of the East Kentucky workforce, which has a significant level of underemployed and discouraged workers that are not included in unemployment rates.
- Employer satisfaction with the workforce is very high, with 80 percent of East Kentucky employers being satisfied or highly satisfied with their current workforce.
- The cost of the East Kentucky workforce is viewed as a value by employers, with many saying the cost of labor is in line with or less expensive compared to quality.
- While much of the regional workforce possesses a wide variety of technical skills, many do not hold the related credentials but are eager to obtain additional training to enhance their job skills.
- The coal industry workforce possesses a variety of transferable skills that are important to the metal, plastics, wood and transportation equipment manufacturing sectors, as well as the transportation/warehousing industry.



## STRATEGIC **RECOMMENDATIONS**

Similar to the key messages, these snapshots can be localized to focus on the specific strengths and assets of the local workforce. A sample snapshot for the 27-county region is found below as a starting point for local marketing tools.

To further enhance the marketing of the workforce, a profile of the coal worker should also be created. This will provide a means for highlighting the broad-based skills of the coal workforce and how those skills can be easily transferred to

other sectors. Additionally, it will give potential employers a look at the coal worker's culture and how that impacts their strong work ethic and loyalty as an employee.

SOAR and its associated redevelopment authority should create a social media EKY Works! marketing campaign featuring the regional workforce and its assets available to new companies locating in the region.

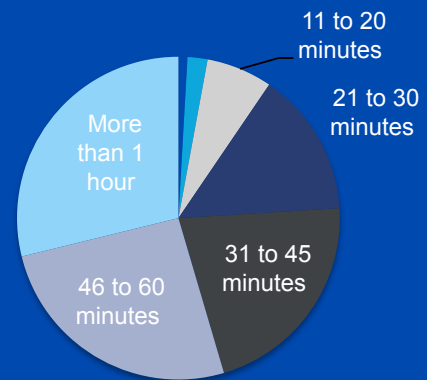
## EAST KENTUCKY WORKFORCE SNAPSHOT

The East Kentucky regional economy has been rooted in the coal industry for generations. With the decline of coal, the region seeks new opportunities and creative solutions to bring back more prosperous times. The people of East Kentucky have a nearly indescribable spirit of perseverance, hard work, tenacity, ingenuity and dedication, while collectively fostering one of the most humble cultures within the borders of our country.

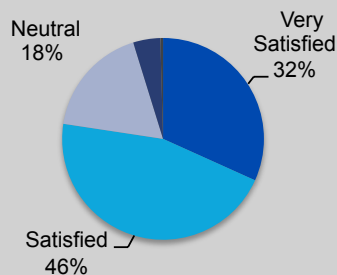
### Quantifying the Workforce



### WILLINGNESS TO COMMUTE



### OVERALL EMPLOYER SATISFACTION



### Workforce Quality

“Our people are intuitive, energetic and care about their work. They are as good as any people you will deal with.”

*East Kentucky Employer*

“If we post a job for operators, we will get 1,500 applicants. And the majority of them are qualified.”

*East Kentucky Employer*

Give us a call to learn more about how EKY Works.

**JARED ARNETT**  
 606.424.2048  
 jared@soar-ky.org

**SOAR**

[www.soar-ky.org](http://www.soar-ky.org)

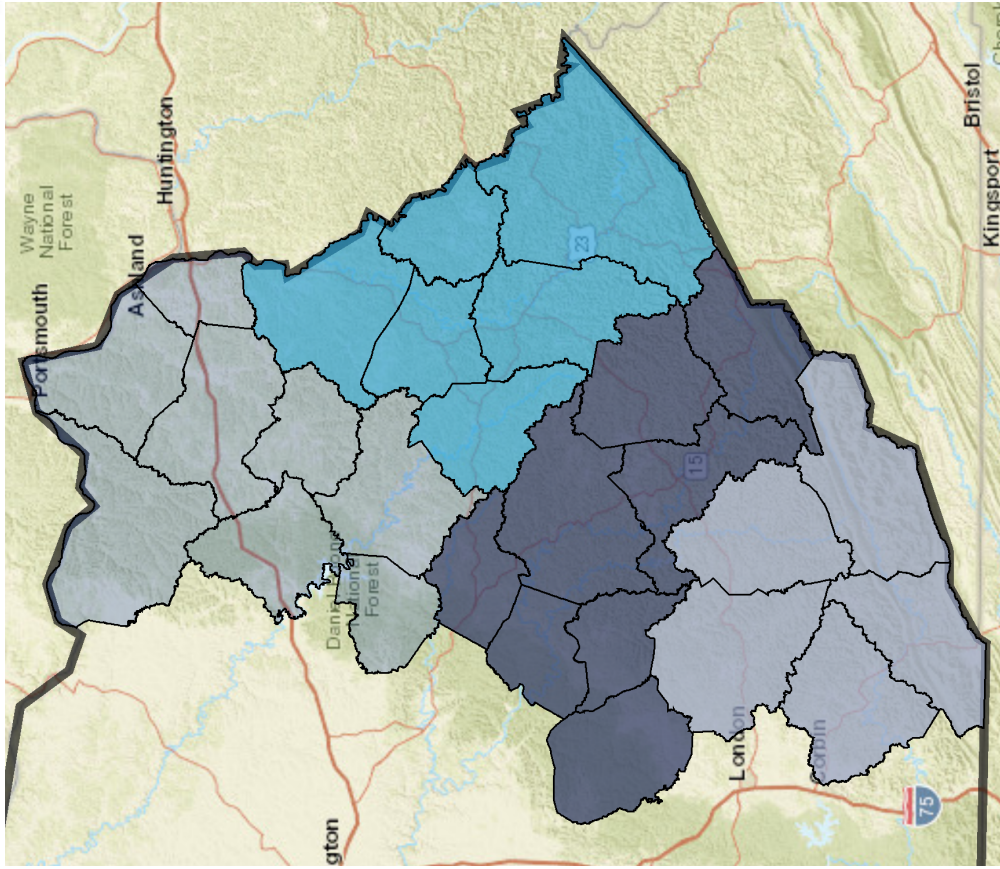


LABOR MARKET  
**PROFILES**

**4**

The 27-county East Kentucky Works region covers the eastern one-third of the Commonwealth of Kentucky. With a population of 570,000, the region is largely rural and projected to experience declining population over the next five years. The labor market for the large region has been examined in its entirety, as well as in four sub-regions. The sub-regions are as follows:

<b>SUB-REGION 1</b>	<b>SUB-REGION 2</b>	<b>SUB-REGION 3</b>	<b>SUB-REGION 4</b>
<ul style="list-style-type: none"> <li>• Bell</li> <li>• Clay</li> <li>• Harlan</li> <li>• Knox</li> <li>• Leslie</li> </ul>	<ul style="list-style-type: none"> <li>• Breathitt</li> <li>• Jackson</li> <li>• Knott</li> <li>• Lee</li> <li>• Letcher</li> <li>• Owsley</li> <li>• Perry</li> <li>• Wolfe</li> </ul>	<ul style="list-style-type: none"> <li>• Floyd</li> <li>• Johnson</li> <li>• Lawrence</li> <li>• Magoffin</li> <li>• Martin</li> <li>• Pike</li> </ul>	<ul style="list-style-type: none"> <li>• Boyd</li> <li>• Carter</li> <li>• Elliott</li> <li>• Greenup</li> <li>• Lewis</li> <li>• Menifee</li> <li>• Morgan</li> <li>• Rowan</li> </ul>



The data in this section will explore demographic trends, labor force size and quality, commuting patterns, employment by sector and by occupation, and transferable skills for occupations that are in rapid decline in the region.

Following is an overview of the primary labor market.



**LABOR MARKET PROFILES**

**Commuting Patterns.** While commuting patterns and an understanding of the willingness of a workforce to commute is an important factor in understanding labor draw areas, the situation in the East Kentucky Works region is unique. With the decline of the coal industry and very high unemployment rates, the workforce in the area is currently willing to commute much longer distances that they might have been 12 to 18 months ago. Additionally, the region's terrain and transportation infrastructure impact how commuting patterns are reviewed.

For those reasons, U.S. Census Bureau data for travel time to work is included in this study, but is a relatively insignificant data point for consideration at this time.

Travel time to work is part of the Census Bureau's Journey to Work dataset. The average travel time to work for all residents of the region is 25.3 minutes, with similar times seen in each of the sub-regions. The greatest number of East Kentucky residents drive 10 to 14 minutes to work, but almost 20,000, or 32.2%, travel 30 minutes or more one way to work.

**TRAVEL TIME TO WORK**

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY	US
<5 minutes	3,593	1,861	1,959	2,356	9,769	68,994	4,261,513
5-9 minutes	7,721	5,360	3,938	5,997	23,016	211,018	13,665,098
10-14 minutes	9,695	5,260	4,397	6,300	25,652	283,094	19,118,214
15-19 minutes	9,060	5,288	4,707	7,626	26,681	312,620	20,908,743
20-24 minutes	8,100	3,727	4,736	6,170	22,733	279,800	19,975,565
25-29 minutes	3,368	1,358	1,793	2,881	9,400	116,344	8,356,337
30-34 minutes	7,054	3,597	4,028	6,488	21,167	217,564	18,463,798
35-39 minutes	1,891	784	1,082	1,253	5,010	45,457	3,769,500
40-44 minutes	1,712	722	956	1,111	4,501	49,897	5,037,201
45-59 minutes	3,702	2,640	2,604	4,304	13,250	106,676	10,409,233
60-89 minutes	3,062	1,897	1,875	2,908	9,742	62,070	7,742,141
90 minutes or more	2,337	705	1,340	1,914	6,296	33,843	3,458,214
Average Commute to Work in Minutes	25.3	22.9	26.2	26.4	25.3	22.8	25.7

Source: U.S. Census Bureau American Community Survey



## LABOR MARKET PROFILES

**Population.** Following is an overview of population trends for East Kentucky and each of the sub-regions, compared to the Commonwealth and the U.S. Currently, the EKY region and each sub-region is projected to see population declines over the next five years, with the broad region at -1.84%. Sub-region 2 is projected to see the greatest decline at -2.53%,

while sub-region 4 has the smallest at -0.79%. The EKY region and each sub-region lags behind both the Commonwealth and the U.S., which are expected to see population increases through 2021.

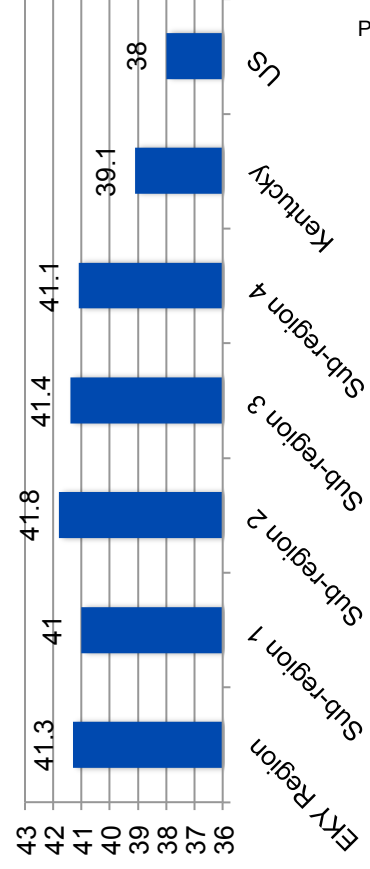
## POPULATION

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY	US
2016 Population	570,171	118,422	111,461	163,915	176,374	4,451,244	323,427,948
2021 Population	559,701	115,879	108,643	160,205	174,974	4,515,387	331,657,555
Projected Change	-1.84%	-2.15%	-2.53%	-2.26%	-0.79%	1.44%	2.54%

Source: EMSI Class of Worker 2016.2

**Age.** The East Kentucky region and each sub-region all have populations that are significantly older than the Commonwealth or the U.S. Each geography shows a median age above 41, with sub-region 2 the highest at 41.8 years. The Commonwealth median age is 39.1, while the U.S. is the lowest at 38.0.

## MEDIAN AGE







## LABOR MARKET PROFILES

Racial Composition. Following is an overview of the racial composition of East Kentucky and each of the sub-regions,

compared with the Commonwealth of Kentucky and the U.S.

### EKY REGION



- All Other Race/Ethnicities
- White, Hispanic
- Two or More Races, Non-Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic

### SUB-REGION 1



- All Other Race/Ethnicities
- White, Hispanic
- Two or More Races, Non-Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic

### SUB-REGION 2



- All Other Race/Ethnicities
- White, Hispanic
- Two or More Races, Non-Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic

### SUB-REGION 3



- All Other Race/Ethnicities
- Two or More Races, Non-Hispanic
- White, Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic



LABOR MARKET PROFILES

SUB-REGION 4



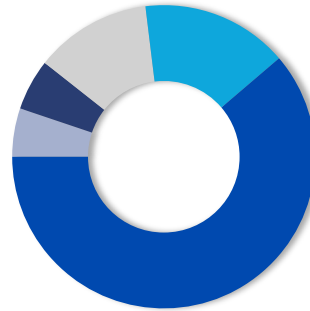
- All Other Race/Ethnicities
- Two or More Races, Non-Hispanic
- White, Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic

KENTUCKY



- All Other Race/Ethnicities
- Two or More Races, Non-Hispanic
- White, Hispanic
- Black, Non-Hispanic
- White, Non-Hispanic

US



- All Other Race/Ethnicities
- Asian, Non-Hispanic
- Black, Non-Hispanic
- White, Hispanic
- White, Non-Hispanic

“I’m ready to work. We don’t want a handout. We just want to work and contribute.”

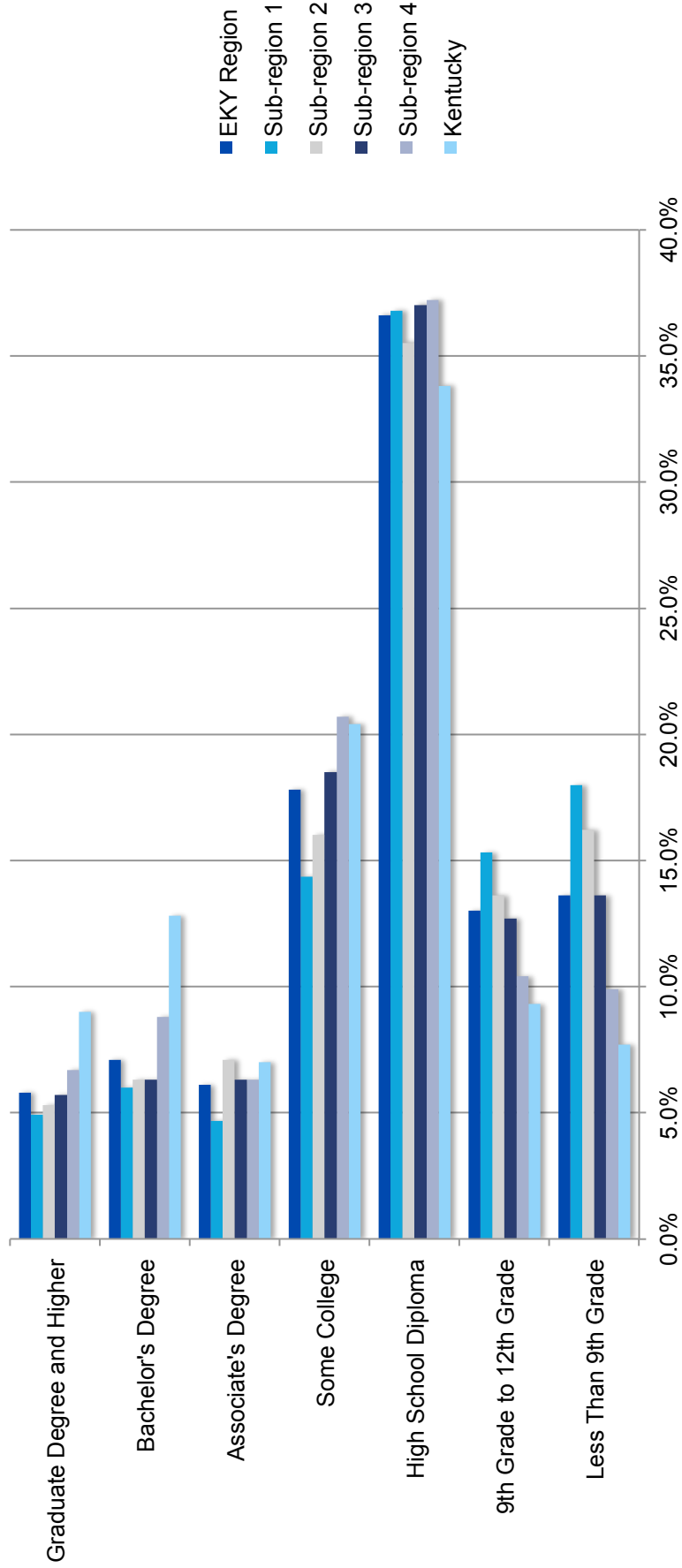


## LABOR MARKET PROFILES

**Educational Attainment.** Educational attainment of residents in the East Kentucky region is lower than the Commonwealth. Sub-region 1 has the greatest number of residents age 25 plus with less than a high school diploma, while sub-region 4 has a higher percentage of residents holding a Bachelor's Degree or

higher. Nineteen percent of residents in the broader region have earned an associate's, bachelor's or graduate degree, compared to 28.8 percent for Kentucky.

### EDUCATIONAL ATTAINMENT





## LABOR MARKET PROFILES

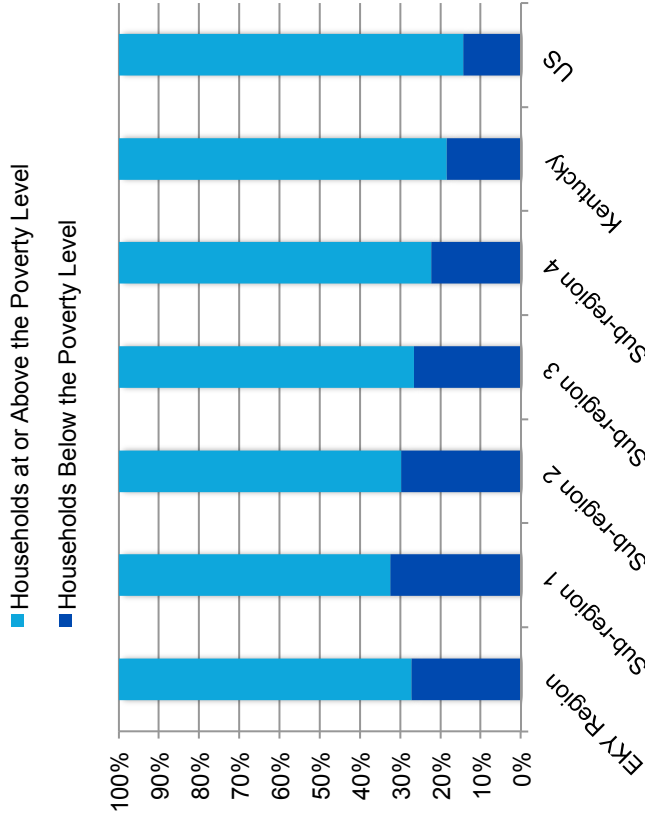
**Income and Poverty.** East Kentucky's income levels are significantly lower than those for the Commonwealth of Kentucky and the United States across all income measures. While the per capita income average in East Kentucky is slightly above \$19,000, the Commonwealth average is more than \$24,000. Sub-region 1 has the lowest averages for all income measures, while sub-region 4 has the highest.

Similarly, poverty rates throughout the region are above those for Kentucky and the US, with sub-region 1 have the highest percentage of households below the poverty level and sub-region 4 having the lowest.

Cost of living data is available at the county level and has been provided for each of the 27 counties in the region. The overall cost of living index is below the Commonwealth in every county, with Breathitt, Harlan, Leslie and Magoffin having the lowest overall index at 73, while Rowan has the highest at 85. The overall index for Kentucky is 88. Housing costs are extremely low throughout the region, with index

values ranging from 29 to 62, while most other index components are on par with the Kentucky values.

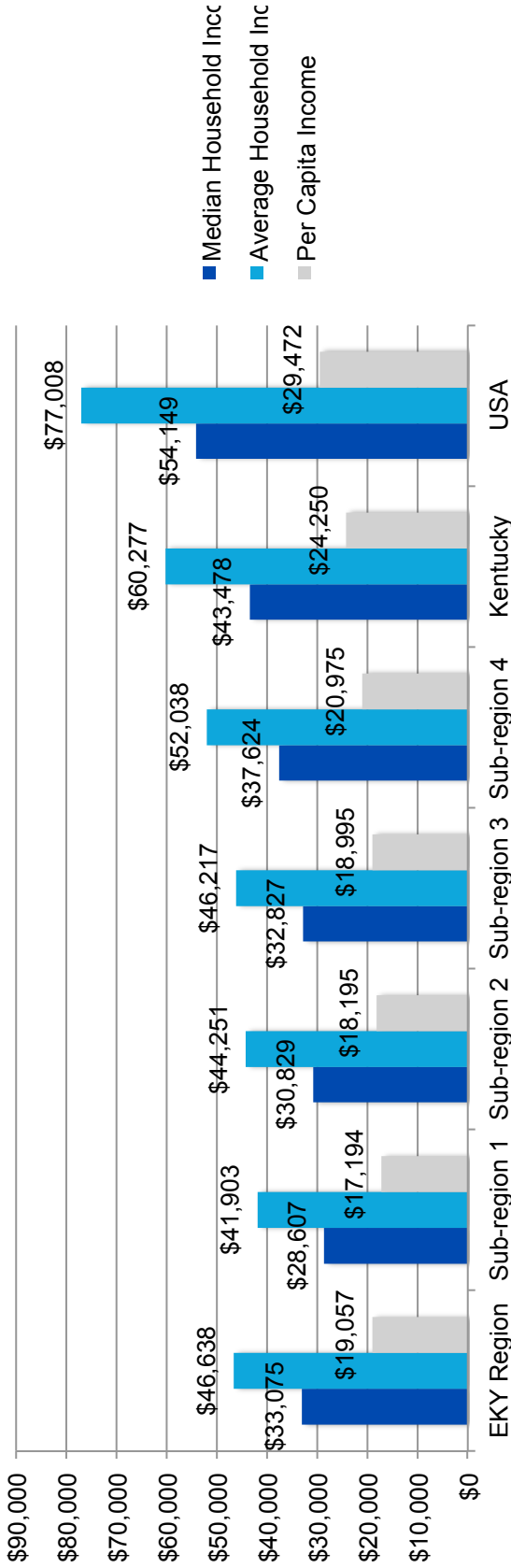
## POVERTY LEVEL





LABOR MARKET PROFILES

INCOME COMPARISON



COST OF LIVING

	OVERALL	GROCERY	HEALTH	HOUSING	UTILITIES	TRANSPORTATION	MISCELLANEOUS
Bell	76	93	98	38	92	95	94
Boyd	82	93	94	58	91	95	93
Breathitt	73	93	96	30	91	93	95
Carter	78	92	95	45	95	96	93
Clay	75	92	98	34	92	95	93
Elliott	77	93	95	41	91	96	92
Floyd	77	90	95	42	95	94	96
Greenup	81	92	95	54	92	94	95
Harlan	73	91	97	30	91	95	94
Jackson	76	91	98	37	92	97	93
Johnson	80	93	97	47	91	97	95
Knott	75	91	94	34	93	97	95
Knox	79	91	98	46	93	94	95



LABOR MARKET PROFILES

COST OF LIVING

	OVERALL	GROCERY	HEALTH	HOUSING	UTILITIES	TRANSPORTATION	MISCELLANEOUS
Lawrence	79	91	99	44	91	97	97
Lee	74	91	99	34	91	96	92
Leslie	73	92	98	30	92	95	93
Letcher	75	93	98	33	93	95	93
Lewis	76	93	97	36	93	95	94
Magoffin	73	93	97	29	90	95	96
Martin	78	94	96	46	95	95	92
Menifee	77	92	97	40	94	94	94
Morgan	78	93	99	41	92	97	95
Owsley	76	93	97	36	92	96	94
Perry	76	94	96	38	94	94	94
Pike	76	93	98	37	91	96	94
Rowan	85	93	99	62	91	97	97
Wolfe	74	93	95	30	91	95	96
Kentucky	88	92	97	74	93	95	95
<b>US</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Sperling's Best Places



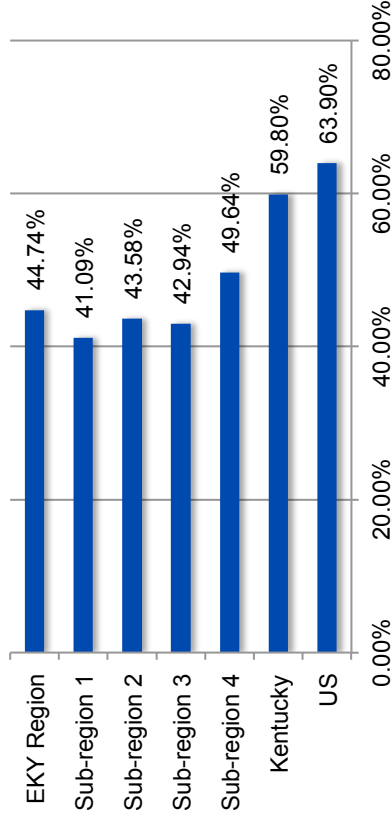
**LABOR MARKET PROFILES**

**Labor Force.** The East Kentucky regional labor force has declined by almost 20 percent since 2006 and now totals 187,759. Total employment in the region has declined by more than 21 percent during the same period. The regional unemployment rate was at 8.8 percent for April 2016, the most recent month available. In April, sub-region 3 had the highest unemployment rate at 10.2 percent, while sub-region 4 was at 7.3%. The declining labor force and unemployment rate are both impacted by long-term unemployment and discouraged workers leaving the labor force.

The regional labor participation rate is also lower than the Kentucky and US rates at 44.74 percent. Again, the

participation rate may reflect discouraged workers leaving the workforce.

**LABOR PARTICIPATION RATE**



**LABOR FORCE**

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY	US
Labor Force	2006	42,787	44,021	63,692	82,734	2,029,231	151,428,000
	2011	40,533	41,461	60,524	74,008	2,056,410	153,617,000
	April 2016	34,689	34,354	52,087	66,629	1,968,567	158,924,000
Total Employment	2006	39,370	40,670	59,420	77,350	1,913,472	144,427,000
	2011	35,415	36,621	54,082	65,514	1,862,928	139,869,000
	April 2016	31,561	31,149	46,793	61,759	1,876,399	151,004,000
Unemployment Rate	2006	8.0%	7.6%	6.7%	6.5%	5.7%	4.6%
	2011	12.6%	11.7%	10.6%	11.5%	9.4%	8.9%
	April 2016	9.0%	9.3%	10.2%	7.3%	4.7%	5.0%
Labor Participation Rate	44.74%	41.09%	43.58%	42.94%	49.64%	59.80%	63.90%



# EMPLOYMENT PROFILE



**“If we post a job for operators, we will get 1,500 applicants. And the majority of them are qualified.”**

Understanding the make-up of the workforce from both an industry sector and an occupational perspective is critical to

selling the skills of the workforce. Following is an examination of the East Kentucky region workforce by sector and occupation.

**Employment by Sector.** While coal mining has long been a critical component of the East Kentucky workforce, it does not currently dominate employment. The mining sector represents four percent of regional jobs, while government is the largest sector at 23 percent, followed by health care at 19 percent and retail trade at 15 percent. Sub-regions 2 and 3 are somewhat more dependent on the coal industry, with each having six percent of jobs in that sector.

**EMPLOYMENT BY SECTOR**

NAICS DESCRIPTION	EKY REGION		SUB-REGION 1		SUB-REGION 2		SUB-REGION 3		SUB-REGION 4		KY		US	
	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%
Crop and Animal Production	184	0%	39	0%	32	0%	29	0%	84	0%	12,053	1%	1,385,058	1%
Mining, Quarrying, and Oil and Gas Extraction	6,053	4%	1,229	4%	1,609	6%	2,897	6%	318	1%	12,594	1%	674,795	0%
Utilities	1,078	1%	217	1%	204	1%	388	1%	270	0%	6,654	0%	562,208	0%
Construction	4,894	3%	465	2%	462	2%	1,477	3%	2,491	4%	80,726	4%	6,899,132	5%
Manufacturing	8,472	5%	1,675	6%	334	1%	1,090	2%	5,373	9%	245,466	12%	12,323,252	8%
Wholesale Trade	3,612	2%	378	1%	626	2%	1,429	3%	1,179	2%	75,570	4%	5,926,054	4%
Retail Trade	24,934	15%	4,706	16%	3,912	14%	8,036	17%	8,280	14%	213,766	11%	15,864,346	11%
Transportation and Warehousing	5,405	3%	498	2%	852	3%	1,629	3%	2,426	4%	97,681	5%	4,901,217	3%
Information	1,931	1%	269	1%	355	1%	753	2%	554	1%	24,700	1%	2,768,064	2%
Finance and Insurance	4,267	3%	733	2%	710	3%	1,317	3%	1,506	3%	76,026	4%	5,890,257	4%



EMPLOYMENT PROFILE

EMPLOYMENT BY SECTOR														
NAICS DESCRIPTION	EKY REGION		SUB-REGION 1		SUB-REGION 2		SUB-REGION 3		SUB-REGION 4		KY		US	
	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%
Real Estate and Rental and Leasing	1,088	1%	186	1%	171	1%	350	1%	381	1%	18,974	1%	2,151,529	1%
Professional, Scientific, and Technical Services	4,875	3%	1,208	4%	566	2%	1,602	3%	1,499	3%	75,455	4%	8,890,562	6%
Management of Companies and Enterprises	592	0%	189	1%	183	1%	88	0%	132	0%	20,141	1%	2,249,324	2%
Administrative and Support and Waste Management and Remediation Services	5,447	3%	725	2%	1,073	4%	1,422	3%	2,227	4%	126,686	6%	9,012,798	6%
Educational Services	1,743	1%	667	2%	224	1%	642	1%	209	0%	31,160	2%	3,725,303	3%
Health Care and Social Assistance	31,637	19%	5,599	19%	6,806	24%	8,601	18%	10,631	18%	244,270	12%	19,046,140	13%
Arts, Entertainment, and Recreation	777	0%	92	0%	53	0%	312	1%	320	1%	21,330	1%	2,216,926	1%
Accommodation and Food Services	13,250	8%	2,403	8%	1,762	6%	3,748	8%	5,337	9%	168,159	8%	13,208,210	9%
Other Services (except Public Administration)	4,920	3%	835	3%	715	3%	1,422	3%	1,947	3%	69,698	4%	5,817,384	4%
Government	37,637	23%	7,440	25%	7,652	27%	9,730	21%	12,815	22%	362,854	18%	24,308,609	16%
Unclassified Industry	17	0%	<10	0%	<10	0%	<10	0%	<10	0%	410	0%	271,034	0%
<b>TOTALS</b>	<b>162,812</b>		<b>29,555</b>		<b>28,301</b>		<b>46,970</b>		<b>57,986</b>		<b>1,984,376</b>		<b>148,092,204</b>	

Source: EMSI Class of Worker 2016.2

**Location Quotient.** In addition to the percentage of jobs by location quotients for East Kentucky, each sub-region and the sector, the concentration of employment compared to the national Commonwealth of Kentucky. The mining sector has a very high economy was also examined. A location quotient (LQ) quantifies location quotient at 8.16 for the 27-county region, with sub-region how concentrated employment in a sector is, with an LQ greater 3 at 13.54. Sub-region 4 is much lower at 1.20. Utilities, retail than 1 indicating the sector is more concentrated in the location trade, health care and government also have LQs above a 1 in region compared to the U.S., while an LQ below 1 would signal a East Kentucky. sector that is less concentrated. The table below illustrates



**EMPLOYMENT PROFILE**

**LOCATION QUOTIENT BY SECTOR**

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY
Crop and Animal Production	0.12	0.14	0.12	0.07	0.15	0.65
Mining, Quarrying, and Oil and Gas Extraction	8.16	9.13	12.48	13.54	1.20	1.39
Utilities	1.74	1.93	1.90	2.17	1.22	0.88
Construction	0.65	0.34	0.35	0.67	0.92	0.87
Manufacturing	0.63	0.68	0.14	0.28	1.11	1.49
Wholesale Trade	0.55	0.32	0.55	0.76	0.51	0.95
Retail Trade	1.43	1.49	1.29	1.60	1.33	1.01
Transportation and Warehousing	1.00	0.91	0.91	1.05	1.26	1.49
Information	0.63	0.49	0.67	0.86	0.51	0.67
Finance and Insurance	0.66	0.62	0.63	0.71	0.65	0.96
Real Estate and Rental and Leasing	0.46	0.43	0.42	0.51	0.45	0.66
Professional, Scientific, and Technical Services	0.50	0.68	0.33	0.57	0.43	0.63
Management of Companies and Enterprises	0.24	0.42	0.43	0.12	0.15	0.67
Administrative and Support and Waste Management and Remediation Services	0.55	0.40	0.62	0.50	0.63	1.05
Educational Services	0.43	0.90	0.31	0.54	0.14	0.62
Health Care and Social Assistance	1.51	1.47	1.87	1.42	1.43	0.96
Arts, Entertainment, and Recreation	0.32	0.21	0.12	0.44	0.37	0.72
Accommodation and Food Services	0.91	0.91	0.70	0.89	1.03	0.95
Other Services (except Public Administration)	0.77	0.72	0.64	0.77	0.85	0.89
Government	1.41	1.53	1.65	1.26	1.35	1.11
Unclassified Industry	0.06	0.05	0.01	0.08	0.07	0.11

Source: EMSI/Class of Worker 2016.2



**EMPLOYMENT PROFILE**

Employment by Occupation. Occupations with the most workers in the East Kentucky region include office and administrative support occupations, health care practitioners and technical occupations, and sales and related occupations. Life, physical and social science occupations and farming, fishing and forestry occupations have the fewest jobs in the region. The following table provides additional information about employment by occupation.

<b>EMPLOYMENT BY OCCUPATION</b>														
OCCUPATION	EKY REGION		SUB-REGION 1		SUB-REGION 2		SUB-REGION 3		SUB-REGION 4		KY		US	
	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%
Management Occupations	6,477	4%	1,208	4%	1,138	4%	1,851	4%	2,281	4%	87,113	4%	7,274,405	5%
Business and Financial Operations Occupations	3,817	2%	685	2%	597	2%	1,130	2%	1,404	2%	71,025	4%	7,339,114	5%
Computer and Mathematical Occupations	1,194	1%	422	1%	153	1%	230	0%	389	1%	34,213	2%	4,214,810	3%
Architecture and Engineering Occupations	1,540	1%	245	1%	228	1%	462	1%	606	1%	24,878	1%	2,521,873	2%
Life, Physical, and Social Science Occupations	801	0%	130	0%	116	0%	232	0%	323	1%	10,029	1%	1,208,590	1%
Community and Social Service Occupations	4,105	3%	940	3%	961	3%	993	2%	1,210	2%	33,575	2%	2,475,589	2%
Legal Occupations	865	1%	165	1%	122	0%	342	1%	236	0%	9,613	0%	1,087,731	1%
Education, Training, and Library Occupations	13,179	8%	2,729	9%	2,672	9%	3,484	7%	4,294	7%	109,823	6%	8,696,712	6%
Arts, Design, Entertainment, Sports, and Media Occupations	833	1%	150	1%	148	1%	233	0%	301	1%	17,866	1%	1,999,039	1%
Healthcare Practitioners and Technical Occupations	15,855	10%	2,753	9%	3,057	11%	4,603	10%	5,443	9%	127,244	6%	8,302,478	6%
Healthcare Support Occupations	6,248	4%	985	3%	1,276	5%	1,746	4%	2,241	4%	54,082	3%	4,293,811	3%
Protective Service Occupations	4,484	3%	851	3%	866	3%	1,263	3%	1,505	3%	36,962	2%	3,496,211	2%
Food Preparation and Serving Related Occupations	15,289	9%	2,862	10%	2,229	8%	4,234	9%	5,963	10%	174,837	9%	13,087,674	9%



## EMPLOYMENT PROFILE

### EMPLOYMENT BY OCCUPATION

OCCUPATION	EKY REGION		SUB-REGION 1		SUB-REGION 2		SUB-REGION 3		SUB-REGION 4		KY		US	
	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%	JOBS	%
Building and Grounds Cleaning and Maintenance Occupations	5,332	3%	887	3%	952	3%	1,536	3%	1,957	3%	60,546	3%	4,970,875	3%
Personal Care and Service Occupations	4,529	3%	886	3%	1,102	4%	1,035	2%	1,506	3%	56,855	3%	5,010,981	3%
Sales and Related Occupations	16,449	10%	2,967	10%	2,506	9%	5,223	11%	5,754	10%	180,814	9%	14,901,628	10%
Office and Administrative Support Occupations	24,321	15%	4,459	15%	4,428	16%	7,143	15%	8,291	14%	298,798	15%	23,582,205	16%
Farming, Fishing, and Forestry Occupations	292	0%	68	0%	49	0%	55	0%	120	0%	10,784	1%	1,114,086	1%
Construction and Extraction Occupations	7,663	5%	1,235	4%	1,387	5%	2,765	6%	2,276	4%	71,801	4%	5,797,013	4%
Installation, Maintenance, and Repair Occupations	7,218	4%	1,210	4%	1,225	4%	2,343	5%	2,440	4%	84,784	4%	5,639,206	4%
Production Occupations	7,722	5%	1,380	5%	615	2%	1,562	3%	4,165	7%	197,379	10%	9,177,085	6%
Transportation and Material Moving Occupations	12,821	8%	1,968	7%	2,125	8%	3,994	9%	4,734	8%	177,095	9%	9,802,435	7%
Military Occupations	1,777	1%	370	1%	348	1%	514	1%	545	1%	54,260	3%	2,098,652	1%
<b>TOTALS</b>	<b>162,812</b>		<b>29,555</b>		<b>28,301</b>		<b>46,970</b>		<b>57,986</b>		<b>1,984,376</b>		<b>148,092,204</b>	

Source: EMSI Class of Worker 2016.2

**Occupational Location Quotients.** While the mining sector has a very high location quotient in the region, occupational location quotients do not indicate a similar dominance. This is likely because mining occupations are found in several occupational groups. Health care practitioners and technical occupations have the highest LQ at 1.74, while farming, fishing and forestry occupations are lowest at 0.24.



EMPLOYMENT PROFILE

LOCATION QUOTIENT BY OCCUPATION

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY
Management Occupations	0.81	0.83	0.82	0.80	0.80	0.89
Business and Financial Operations Occupations	0.47	0.47	0.43	0.49	0.49	0.72
Computer and Mathematical Occupations	0.26	0.50	0.19	0.17	0.24	0.61
Architecture and Engineering Occupations	0.56	0.49	0.47	0.58	0.61	0.74
Life, Physical, and Social Science Occupations	0.60	0.54	0.50	0.60	0.68	0.62
Community and Social Service Occupations	1.51	1.90	2.03	1.26	1.25	1.01
Legal Occupations	0.72	0.76	0.58	0.99	0.55	0.66
Education, Training, and Library Occupations	1.38	1.57	1.61	1.26	1.26	0.94
Arts, Design, Entertainment, Sports, and Media Occupations	0.38	0.38	0.39	0.37	0.39	0.67
Healthcare Practitioners and Technical Occupations	1.74	1.66	1.93	1.75	1.67	1.14
Healthcare Support Occupations	1.32	1.15	1.56	1.28	1.33	0.94
Protective Service Occupations	1.17	1.22	1.30	1.14	1.10	0.79
Food Preparation and Serving Related Occupations	1.06	1.10	0.89	1.02	1.16	1.00
Building and Grounds Cleaning and Maintenance Occupations	0.98	0.89	1.00	0.97	1.01	0.91
Personal Care and Service Occupations	0.82	0.89	1.15	0.65	0.77	0.85
Sales and Related Occupations	1.00	1.00	0.88	1.11	0.99	0.91
Office and Administrative Support Occupations	0.94	0.95	0.98	0.96	0.90	0.95
Farming, Fishing, and Forestry Occupations	0.24	0.31	0.23	0.16	0.28	0.72
Construction and Extraction Occupations	1.20	1.07	1.25	1.50	1.00	0.92
Installation, Maintenance, and Repair Occupations	1.16	1.08	1.14	1.31	1.11	1.12
Production Occupations	0.77	0.75	0.35	0.54	1.16	1.61
Transportation and Material Moving Occupations	1.19	1.01	1.13	1.28	1.23	1.35
Military Occupations	0.77	0.88	0.87	0.77	0.66	1.93

Source: EMSI Class of Worker 2016.2

**EMPLOYMENT PROFILE**

**Earnings by Sector.** The average annual earnings for all industries in the East Kentucky region is almost \$46,000, which is approximately 13 percent lower than Kentucky's average and almost 28 percent lower than the U.S. Earnings in the mining sector average \$75,000 for the region, with sub-

regions 2 and 3 averaging \$76,000. However, all sub-region averages are below the Commonwealth and the U.S. for mining. The following table provides additional details about average earnings.

**AVERAGE EARNINGS BY SECTOR**

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY	US
Crop and Animal Production	\$25,259	\$19,324	\$16,549	\$57,128	\$20,368	\$33,885	\$36,223
Mining, Quarrying, and Oil and Gas Extraction	\$75,006	\$71,999	\$76,303	\$76,346	\$67,853	\$81,754	\$121,875
Utilities	\$102,673	\$84,762	\$80,388	\$100,040	\$137,703	\$112,634	\$135,745
Construction	\$56,755	\$44,149	\$40,266	\$47,410	\$67,706	\$60,614	\$67,418
Manufacturing	\$67,917	\$46,394	\$44,411	\$54,428	\$78,826	\$69,680	\$79,188
Wholesale Trade	\$60,189	\$37,278	\$60,595	\$60,339	\$67,138	\$69,919	\$84,294
Retail Trade	\$28,309	\$26,714	\$28,752	\$28,656	\$28,669	\$30,900	\$35,493
Transportation and Warehousing	\$63,902	\$51,161	\$54,222	\$59,684	\$72,749	\$60,389	\$62,342
Information	\$52,355	\$47,240	\$48,955	\$56,073	\$51,962	\$63,554	\$112,607
Finance and Insurance	\$48,748	\$46,777	\$45,832	\$52,206	\$48,057	\$78,042	\$116,624
Real Estate and Rental and Leasing	\$37,475	\$38,376	\$35,952	\$41,500	\$34,020	\$45,170	\$61,652
Professional, Scientific, and Technical Services	\$55,473	\$37,150	\$56,625	\$58,563	\$66,503	\$70,460	\$102,701
Management of Companies and Enterprises	\$64,936	\$79,865	\$55,032	\$57,544	\$62,291	\$114,523	\$137,791
Administrative and Support and Waste Management and Remediation Services	\$33,150	\$32,437	\$28,133	\$31,485	\$36,863	\$33,535	\$43,609
Educational Services	\$33,425	\$24,294	\$32,758	\$46,150	\$24,207	\$32,714	\$47,600
Health Care and Social Assistance	\$53,188	\$45,687	\$47,663	\$57,869	\$56,888	\$55,340	\$56,501
Arts, Entertainment, and Recreation	\$17,356	\$10,377	\$19,463	\$19,436	\$16,981	\$26,007	\$42,120
Accommodation and Food Services	\$15,886	\$15,048	\$16,227	\$15,999	\$16,071	\$17,908	\$22,247
Other Services (except Public Administration)	\$25,984	\$20,879	\$26,253	\$29,234	\$25,701	\$29,255	\$35,153
Government	\$48,921	\$50,384	\$46,049	\$50,926	\$48,263	\$59,973	\$71,580
Unclassified Industry	\$59,264	Insf. Data	Insf. Data	Insf. Data	Insf. Data	\$62,734	\$58,466
<b>AVERAGE ALL INDUSTRIES</b>	<b>\$45,853</b>	<b>\$40,948</b>	<b>\$43,489</b>	<b>\$46,941</b>	<b>\$48,626</b>	<b>\$52,477</b>	<b>\$63,246</b>

Source: EMSI Class of Worker 2016.2



## EMPLOYMENT PROFILE

Earnings by Occupation. Management and legal occupations have the highest average hourly earnings in the region, while food preparation and serving and personal care and service occupations have the lowest earnings. The average hourly earnings of all occupations is \$17.53, which is below Kentucky at \$19.13 and the U.S. at \$22.57.

## AVERAGE HOURLY EARNINGS BY OCCUPATION

	EKY REGION	SUB-REGION 1	SUB-REGION 2	SUB-REGION 3	SUB-REGION 4	KENTUCKY	US
Management Occupations	\$37.04	\$35.41	\$35.53	\$38.59	\$37.37	\$43.29	\$53.83
Business and Financial Operations Occupations	\$24.16	\$22.72	\$22.98	\$24.45	\$25.18	\$28.66	\$34.91
Computer and Mathematical Occupations	\$25.31	\$25.12	\$22.55	\$25.18	\$26.63	\$30.92	\$40.20
Architecture and Engineering Occupations	\$29.59	\$28.03	\$28.23	\$29.09	\$31.20	\$33.22	\$39.27
Life, Physical, and Social Science Occupations	\$24.27	\$24.59	\$23.03	\$24.08	\$24.75	\$26.16	\$33.63
Community and Social Service Occupations	\$17.82	\$17.64	\$17.24	\$18.59	\$17.79	\$19.57	\$21.82
Legal Occupations	\$32.09	\$30.09	\$33.44	\$33.43	\$30.77	\$34.87	\$49.14
Education, Training, and Library Occupations	\$21.38	\$21.09	\$20.87	\$21.65	\$21.68	\$23.37	\$24.79
Arts, Design, Entertainment, Sports, and Media Occupations	\$15.56	\$14.18	\$14.62	\$14.86	\$17.31	\$19.76	\$26.86
Healthcare Practitioners and Technical Occupations	\$28.77	\$26.15	\$26.74	\$28.78	\$31.06	\$31.73	\$36.57
Healthcare Support Occupations	\$11.74	\$10.94	\$11.32	\$12.22	\$11.95	\$12.94	\$13.87
Protective Service Occupations	\$14.95	\$14.56	\$14.77	\$14.63	\$15.55	\$16.76	\$21.29
Food Preparation and Serving Related Occupations	\$9.05	\$8.83	\$9.22	\$9.31	\$8.90	\$9.60	\$10.75
Building and Grounds Cleaning and Maintenance Occupations	\$10.46	\$10.36	\$10.16	\$10.43	\$10.68	\$11.18	\$12.72
Personal Care and Service Occupations	\$10.17	\$10.04	\$9.95	\$10.56	\$10.14	\$10.67	\$12.02
Sales and Related Occupations	\$12.35	\$12.00	\$12.02	\$12.28	\$12.76	\$16.03	\$18.80
Office and Administrative Support Occupations	\$13.55	\$13.05	\$13.02	\$13.87	\$13.87	\$15.44	\$17.12
Farming, Fishing, and Forestry Occupations	\$13.36	\$13.34	\$13.55	\$14.06	\$12.99	\$12.95	\$12.38
Construction and Extraction Occupations	\$21.51	\$21.53	\$21.96	\$21.76	\$20.87	\$20.49	\$22.48
Installation, Maintenance, and Repair Occupations	\$18.89	\$17.81	\$18.96	\$19.73	\$18.55	\$20.57	\$21.73
Production Occupations	\$15.01	\$12.87	\$14.07	\$14.32	\$16.14	\$16.69	\$17.10
Transportation and Material Moving Occupations	\$16.53	\$15.78	\$16.73	\$17.05	\$16.30	\$16.14	\$16.64
Military Occupations	\$13.88	\$13.74	\$13.88	\$13.91	\$13.93	\$13.87	\$18.11
<b>AVERAGE ALL OCCUPATIONS</b>	<b>\$17.53</b>	<b>\$16.68</b>	<b>\$17.20</b>	<b>\$17.93</b>	<b>\$17.81</b>	<b>\$19.13</b>	<b>\$22.57</b>

Source: EMSI Class of Worker 2016.2





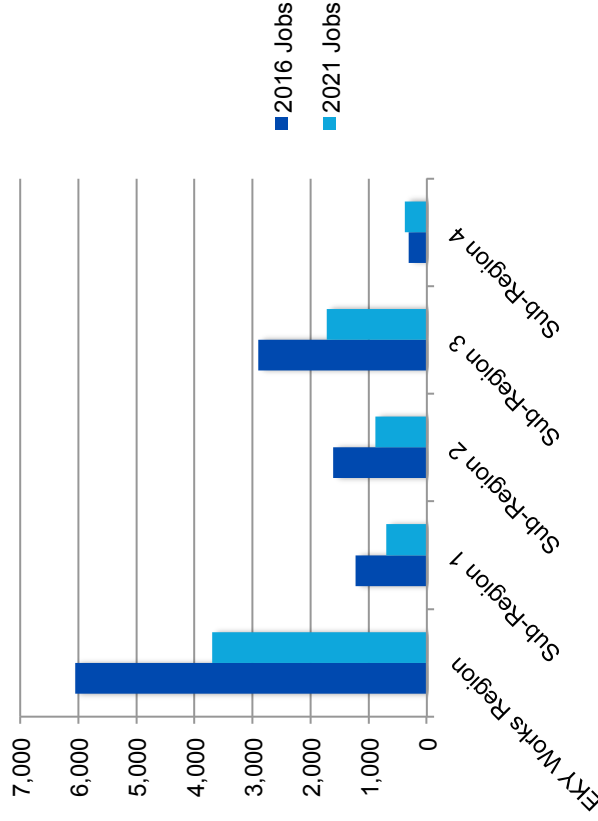
**EMPLOYMENT PROFILE**

**Occupational Employment in Key Sectors.** As the mining industry continues to decline, it is critical to understand the occupations employed in that sector, as well as occupations in other key sectors that might utilize similar skills. Following is an exploration of occupational employment in the mining, manufacturing, construction, and transportation and warehousing sectors.

mining occupations are projected to decline by 30 percent or more by 2021.

**Mining Sector.** Employment in mining currently totals approximately 6,000 in the East Kentucky region, with that number projected to fall below 4,000 by 2021. In the mining sector, extraction workers represent the largest occupation, followed by construction trades workers and material moving workers. Top executives and engineers have the highest median earnings, with financial clerks and other production occupations reporting the lowest earnings. All of the top 15

**MINING INDUSTRY EMPLOYMENT**



**TOP 15 OCCUPATIONS BY EMPLOYMENT IN MINING**

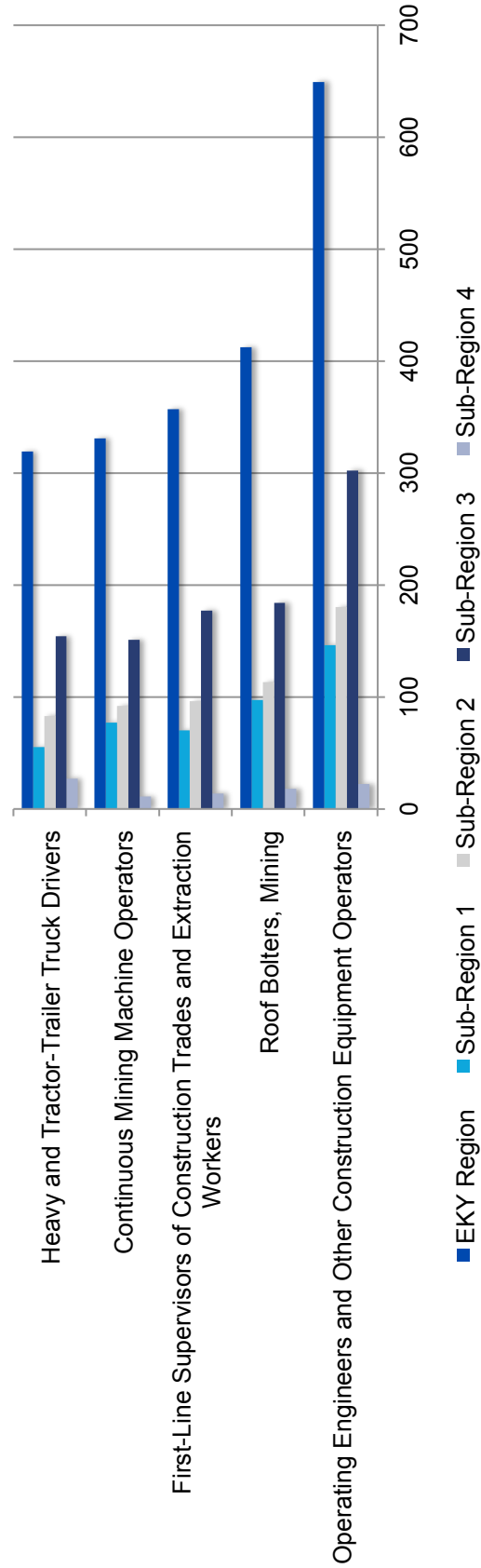
SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
47-5000	Extraction Workers	1,353	808	(40%)	\$23.28
47-2000	Construction Trades Workers	1,041	587	(44%)	\$19.31
53-7000	Material Moving Workers	921	500	(46%)	\$14.25
49-9000	Other Installation, Maintenance, and Repair Occupations	384	236	(39%)	\$17.60

## TOP 15 OCCUPATIONS BY EMPLOYMENT IN MINING

SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
47-1000	Supervisors of Construction and Extraction Workers	357	221	(38%)	\$29.35
53-3000	Motor Vehicle Operators	329	231	(30%)	\$14.77
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	252	142	(44%)	\$15.71
51-9000	Other Production Occupations	173	109	(37%)	\$13.58
17-2000	Engineers	138	83	(40%)	\$33.68
11-1000	Top Executives	101	72	(29%)	\$35.19
51-4000	Metal Workers and Plastic Workers	91	59	(35%)	\$15.60
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	82	48	(41%)	\$24.78
13-1000	Business Operations Specialists	73	49	(33%)	\$22.53
43-3000	Financial Clerks	65	44	(32%)	\$13.24
51-1000	Supervisors of Production Workers	60	38	(37%)	\$22.61

Source: EMSI/Class of Worker 2016.2

## MINING INDUSTRY TOP OCCUPATIONS

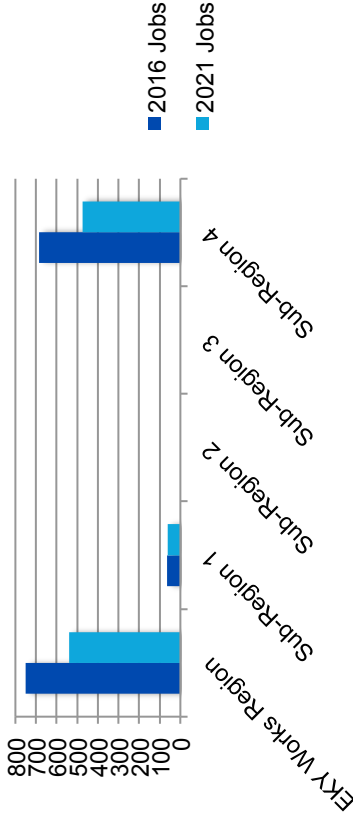




**EMPLOYMENT PROFILE**

**Primary Metals Sector.** Employment in Primary Metals totals more than 700 in the region and is projected to lose more than 200 jobs over the next five years. The sector is concentrated in sub-region 4, with sub-regions 2 and 3 having no jobs in the sector. Industrial machinery mechanics and rolling machine setters, operators, and tenders are the largest occupational groups in the sector, with both expected to decline by approximately 30 percent. None of the top 15 occupations are projected to grow through 2021. The highest median earnings are paid to electricians and crane and tower operators, while

**PRIMARY METALS INDUSTRY EMPLOYMENT**



cutting, punching and press machine setters and helpers – production workers earn the least.

**TOP 15 OCCUPATIONS BY EMPLOYMENT IN PRIMARY METALS**

SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
49-9041	Industrial Machinery Mechanics	84	60	(29%)	\$20.36
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	70	48	(31%)	\$18.52
51-4052	Pourers and Casters, Metal	49	27	(45%)	\$22.89
51-1011	First-Line Supervisors of Production and Operating Workers	41	29	(29%)	\$22.61
51-9198	Helpers--Production Workers	35	25	(29%)	\$12.11
51-4051	Metal-Refining Furnace Operators and Tenders	34	26	(24%)	\$19.38
51-4021	Extruding and Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	27	17	(37%)	\$16.25
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	25	18	(28%)	\$15.22
53-7021	Crane and Tower Operators	21	14	(33%)	\$23.64
53-7051	Industrial Truck and Tractor Operators	20	13	(35%)	\$15.16
49-9071	Maintenance and Repair Workers, General	18	15	(17%)	\$13.87
47-2111	Electricians	15	13	(13%)	\$25.36
51-4121	Welders, Cutters, Solderers, and Brazers	15	11	(27%)	\$14.58
51-4031	Cutting, Punching, & Press Machine Setters, Operators, & Tenders, Metal & Plastic	12	<10	(25%)	\$11.78
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	12	<10	(42%)	\$17.05

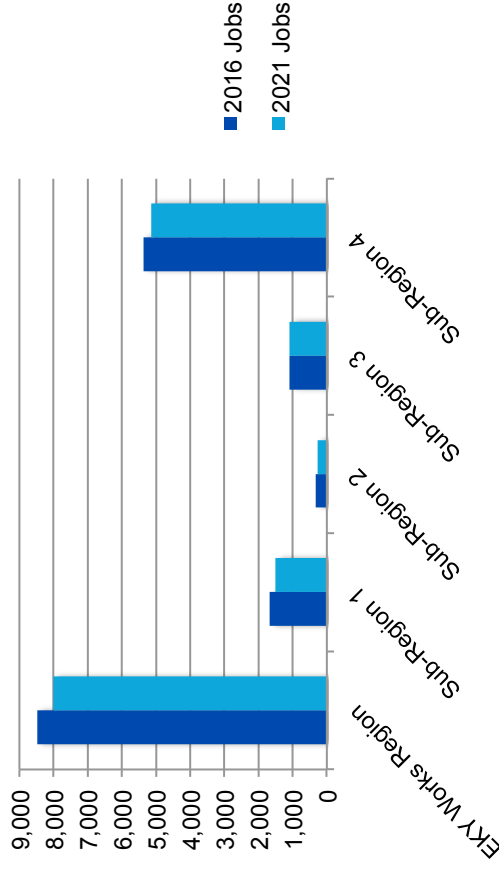
Source: EMSI Class of Worker 2016



**EMPLOYMENT PROFILE**

**Manufacturing Sector.** Employment in manufacturing totals more than 8,000 in the region and is projected to see a slight decline over the next five years. More than 5,000 of those manufacturing jobs are in sub-region 4, with sub-region 2 having only about 300 jobs in manufacturing. Other production occupations and metal and plastics workers are the largest occupational groups in the sector, with both expected to decline. Food processing workers and woodworkers are the only occupations among the top 15 that are projected to grow through 2021. The highest median earnings are paid to top executives and operations specialties managers, while food processing workers and textile, apparel, and furnishings workers earn the least.

**MANUFACTURING INDUSTRY EMPLOYMENT**



**TOP 15 OCCUPATIONS BY EMPLOYMENT IN MANUFACTURING**

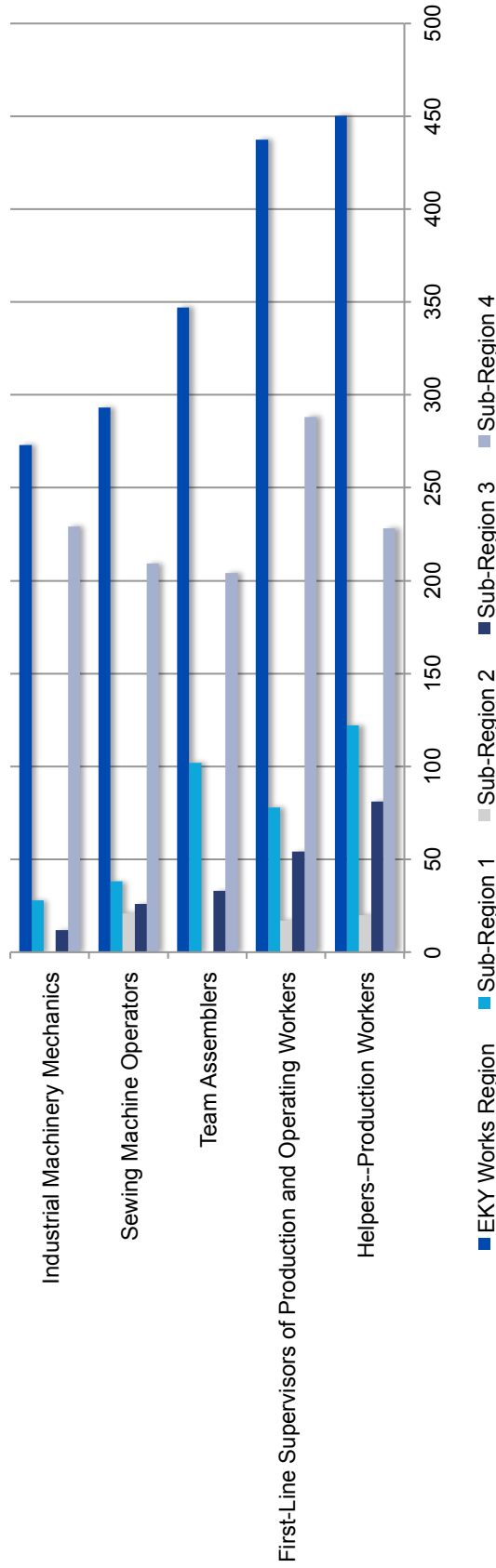
SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
51-9000	Other Production Occupations	1,600	1,538	(4%)	\$13.58
51-4000	Metal Workers and Plastic Workers	867	739	(15%)	\$15.60
53-7000	Material Moving Workers	863	812	(6%)	\$14.25
49-9000	Other Installation, Maintenance, and Repair Occupations	577	551	(5%)	\$17.60
51-2000	Assemblers and Fabricators	569	499	(12%)	\$12.52
51-1000	Supervisors of Production Workers	437	411	(6%)	\$22.61
51-3000	Food Processing Workers	418	440	5%	\$9.81
51-6000	Textile, Apparel, and Furnishings Workers	368	331	(10%)	\$9.96
53-3000	Motor Vehicle Operators	275	267	(3%)	\$14.77
51-7000	Woodworkers	246	249	1%	\$11.24
43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	184	176	(4%)	\$12.51

## TOP 15 OCCUPATIONS BY EMPLOYMENT IN MANUFACTURING

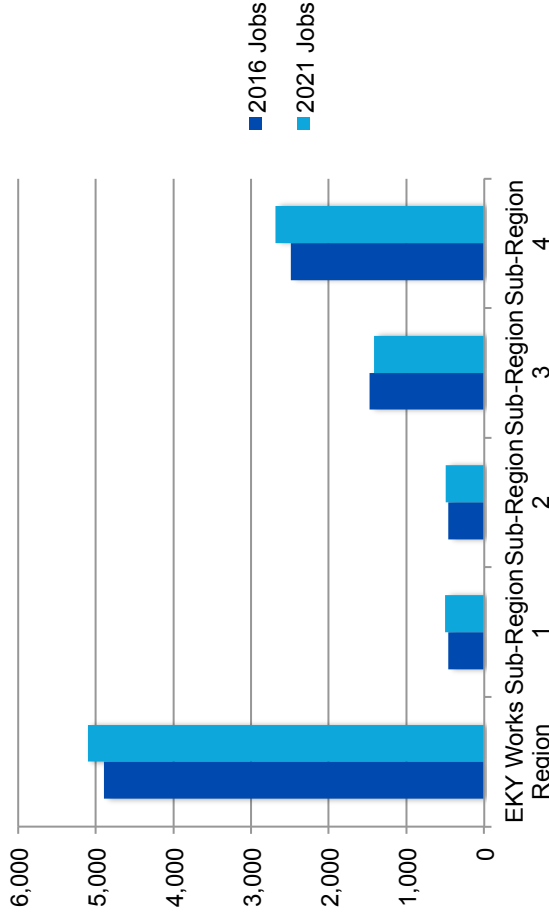
SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
17-2000	Engineers	176	167	(5%)	\$33.68
47-2000	Construction Trades Workers	161	157	(2%)	\$19.31
11-1000	Top Executives	149	145	(3%)	\$35.19
11-3000	Operations Specialties Managers	144	135	(6%)	\$34.88

Source: EMSI/ Class of Worker 2016.2

## MANUFACTURING INDUSTRY TOP OCCUPATIONS



## CONSTRUCTION INDUSTRY EMPLOYMENT



### EMPLOYMENT PROFILE

**Construction Sector.** Regional construction employment, which currently totals just under 5,000, is projected to grow slightly over the next five years. Construction trade workers represent the largest occupational group in the sector, followed by other installation, maintenance, and repair occupations. All but two of the top 15 occupational groups are expected to grow through 2021, with helpers, construction trades and financial clerks projected to decline. Top executives and other management occupations have the highest median earnings in the sector, with other office and administrative support workers and financial clerks seeing the lowest earnings.

### TOP 15 OCCUPATIONS BY EMPLOYMENT IN CONSTRUCTION

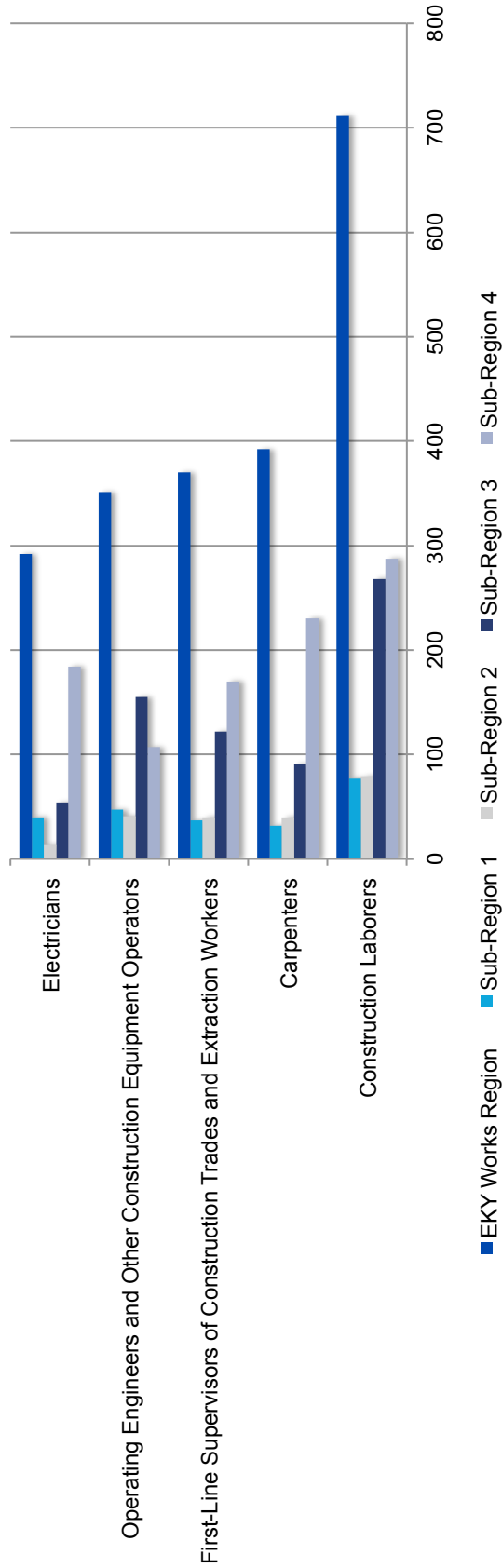
SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
47-2000	Construction Trades Workers	2,457	2,556	4%	\$19.31
49-9000	Other Installation, Maintenance, and Repair Occupations	375	395	5%	\$17.60
47-1000	Supervisors of Construction and Extraction Workers	370	391	6%	\$29.35
47-3000	Helpers, Construction Trades	192	185	(4%)	\$13.35
11-9000	Other Management Occupations	170	188	11%	\$30.41
53-3000	Motor Vehicle Operators	166	181	9%	\$14.77
43-6000	Secretaries and Administrative Assistants	129	130	1%	\$13.33
43-3000	Financial Clerks	114	111	(3%)	\$13.24
11-1000	Top Executives	110	115	5%	\$35.19
43-9000	Other Office and Administrative Support Workers	99	100	1%	\$12.38
53-7000	Material Moving Workers	78	84	8%	\$14.25
47-4000	Other Construction and Related Workers	68	75	10%	\$13.93

## TOP 15 OCCUPATIONS BY EMPLOYMENT IN CONSTRUCTION

SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
13-1000	Business Operations Specialists	62	65	5%	\$22.53
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	54	59	9%	\$15.71
51-4000	Metal Workers and Plastic Workers	52	53	2%	\$15.60

Source: EMSI/Class of Worker 2016.2

## CONSTRUCTION INDUSTRY TOP OCCUPATIONS

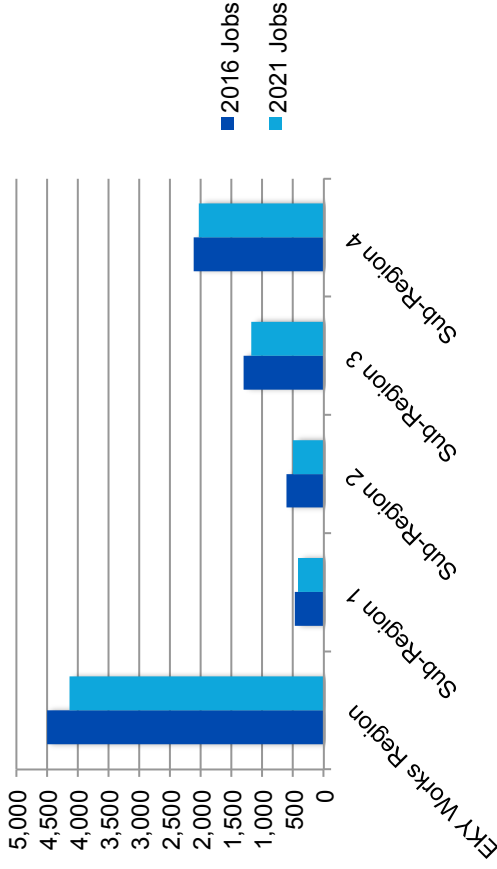




**EMPLOYMENT PROFILE**

**Transportation/Warehousing Sector.** Employment in transportation and warehousing is approximately 4,500 in the region, with more than 2,000 of those jobs in sub-region 4. The sector is expected to lose almost 500 jobs over the next five years. Heavy and tractor-trailer truck drivers dominate the occupational profile, followed by laborers and freight, stock and material movers. All of the top 15 occupations are projected to decline, with the exception of captains, mates and pilots of water vessels, which also has the highest earnings in the sector. Other top earners are general and operations managers and railroad conductors and yardmasters, with laborers and freight, stock and material movers and office clerks earning the least.

**TRANSPORTATION & WAREHOUSING INDUSTRY EMPLOYMENT**



**TOP 15 OCCUPATIONS BY EMPLOYMENT IN TRANSPORTATION/WAREHOUSING**

SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,436	1,264	(12%)	\$16.01
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	278	250	(10%)	\$10.38
53-4031	Railroad Conductors and Yardmasters	244	234	(4%)	\$29.73
53-4011	Locomotive Engineers	231	222	(4%)	\$28.67
53-7051	Industrial Truck and Tractor Operators	151	122	(19%)	\$15.16
53-4021	Railroad Brake, Signal, and Switch Operators	120	115	(4%)	\$17.92
49-3043	Rail Car Repairers	98	92	(6%)	\$24.02
53-3033	Light Truck or Delivery Services Drivers	96	88	(8%)	\$13.15
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and	92	84	(9%)	\$24.38

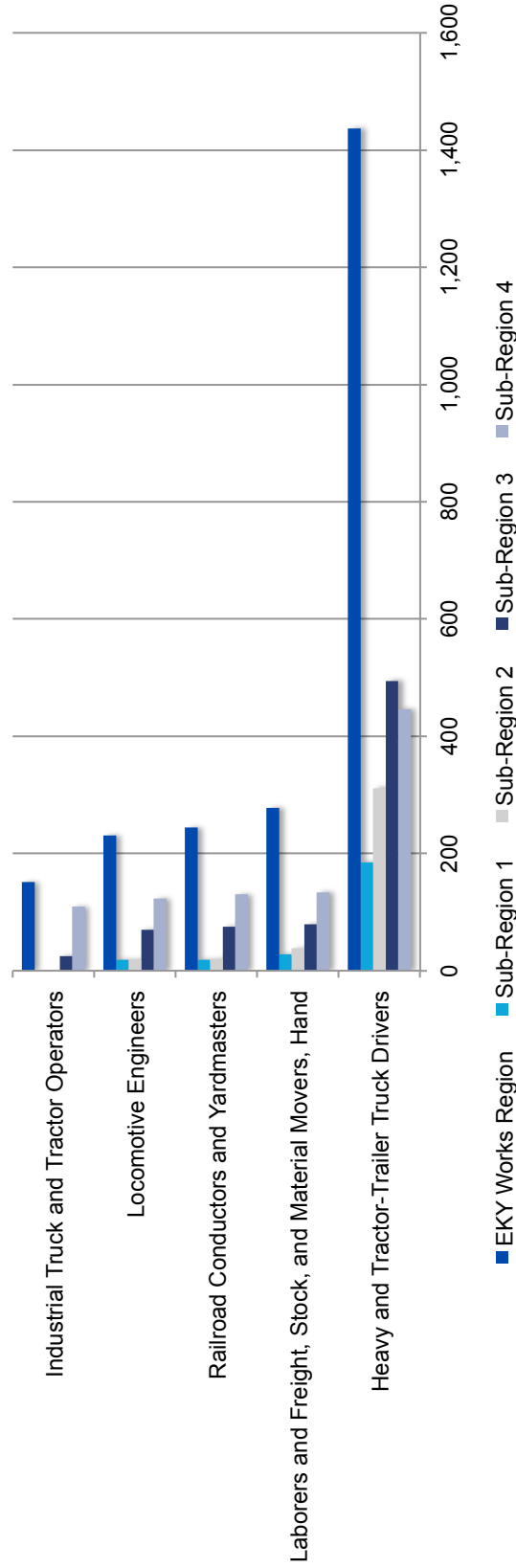


## TOP 15 OCCUPATIONS BY EMPLOYMENT IN TRANSPORTATION/WAREHOUSING

SOC	DESCRIPTION	2016 JOBS	2021 JOBS	% CHANGE	MEDIAN EARNINGS
	Vehicle Operators				
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	89	79	(11%)	\$15.83
11-1021	General and Operations Managers	60	57	(5%)	\$32.90
43-9061	Office Clerks, General	55	52	(5%)	\$12.08
47-4061	Rail-Track Laying and Maintenance Equipment Operators	53	52	(2%)	\$22.02
53-5021	Captains, Mates, and Pilots of Water Vessels	53	59	11%	\$44.06
43-5032	Dispatchers, Except Police, Fire, and Ambulance	52	52	0%	\$15.63

Source: EMSI/Class of Worker 2016.2

## TRANSPORTATION & WAREHOUSING INDUSTRY TOP OCCUPATIONS





**EMPLOYMENT PROFILE**

**Compatible Occupations.** As previously discussed, the deep decline of the mining industry requires exploration of new opportunities for thousands of workers. One approach is to determine other occupations that utilize similar skills to those found in the mining industry. Following is information on nine of the top mining occupations, along with potential compatible occupations and the top knowledge and skills competencies for each. The occupations explored include the following:

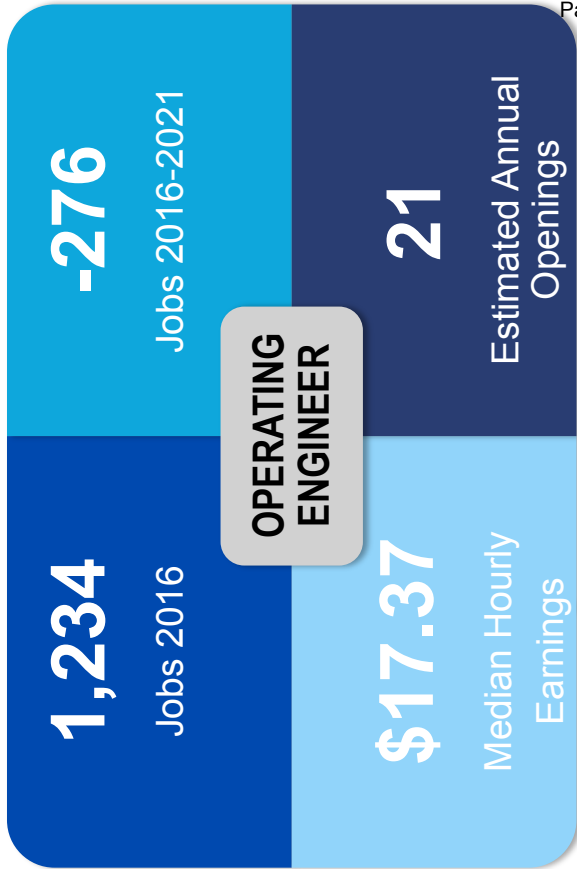
**KEY MINING OCCUPATIONS**

- **Operating Engineer**
- **Construction Laborer**
- **Supervisor of Extraction Workers**
- **Roof Bolter, Mining**
- **Continuous Mining Machine Operator**
- **Load Machine Operator**
- **Mine Cutting Machine Operator**
- **Mine Shuttle Operator**
- **Helper – Extraction Worker**

Knowledge refers to information of a factual or procedural nature which impacts job performance, while skills competencies relate to

the proficient manual, verbal or mental manipulation of data or things and can be readily measured by a performance test. Abilities are those competencies that relate to performing an observable activity at the present time. All occupations have a defined set of KSAs.

**Operating Engineer.** More than 1,200 operating engineers are currently employed in the mining sector in East Kentucky, with median hourly earnings of \$17.37. Many of the compatible occupations for this position are in the heavy construction sector, with six of the ten top occupations paying higher earnings than those earned by operating engineers.





EMPLOYMENT **PROFILE**

**OPERATING ENGINEER**

Top Compatible Occupations

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	97
Crane and Tower Operators	\$23.64	73	67	(6)	3	97
Earth Drillers, Except Oil and Gas	\$18.65	65	52	(13)	2	97
Pile-Driver Operators	\$24.19	<10	<10	0	0	97
Dredge Operators	\$21.88	<10	<10	0	0	96
Hoist and Winch Operators	\$17.36	<10	<10	(2)	0	96
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	\$13.70	19	15	(4)	1	96
Rail-Track Laying and Maintenance Equipment Operators	\$22.02	61	60	(1)	2	96
Logging Equipment Operators	\$17.30	44	35	(9)	1	96
Industrial Truck and Tractor Operators	\$15.16	670	623	(47)	18	96

Source: EMSI/Class of Worker 2016.2



EMPLOYMENT PROFILE

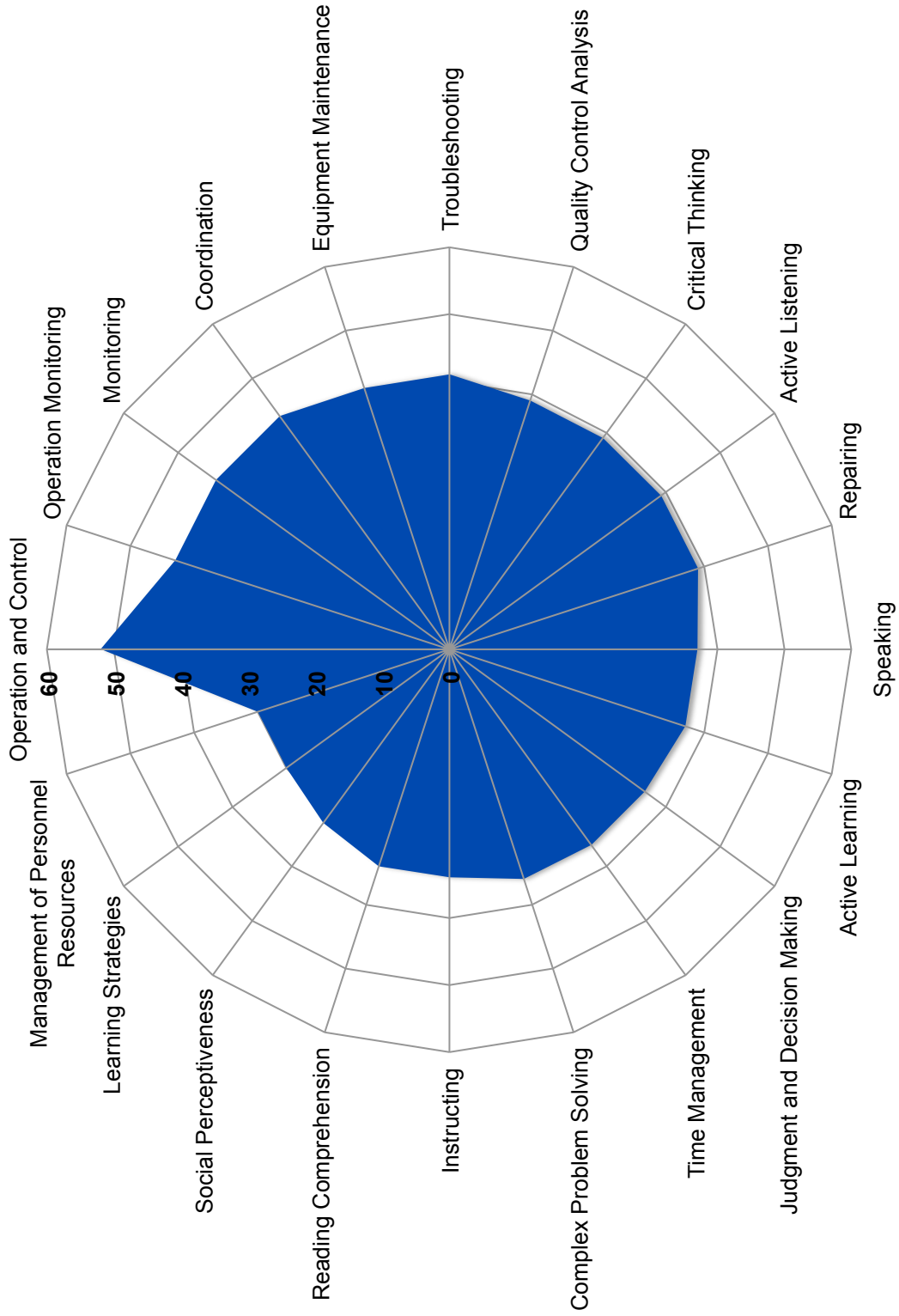
**OPERATING ENGINEER**  
**Knowledge Competencies**





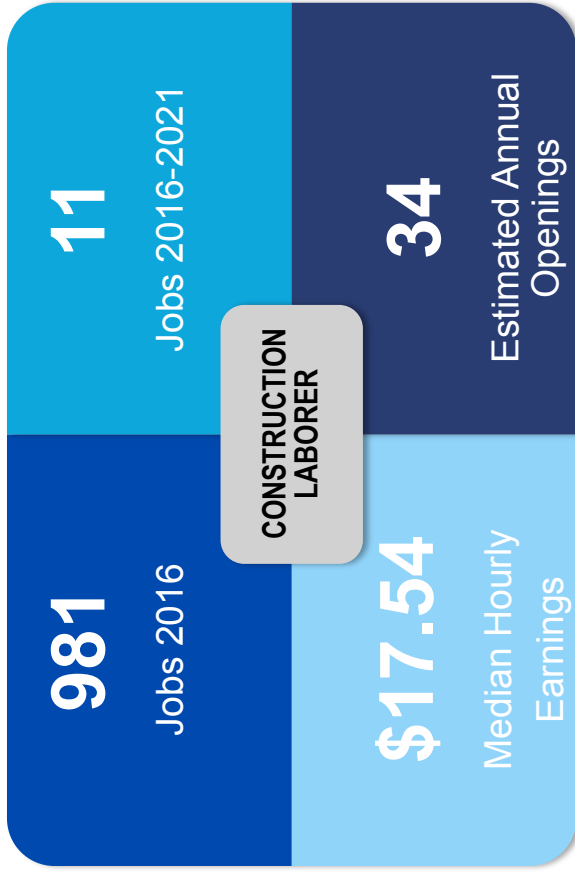
EMPLOYMENT PROFILE

**OPERATING ENGINEER**  
**Skills Competencies**



**EMPLOYMENT PROFILE**

Construction Laborer. With almost 1,000 jobs and median earnings of \$17.54, the construction laborer occupation is expected to see limited growth over the next five years. Compatible occupations are found in the mining and construction sectors, with six of the ten compatible occupations earning less than the construction laborer.



**CONSTRUCTION LABORER**

**Top Compatible Occupations**

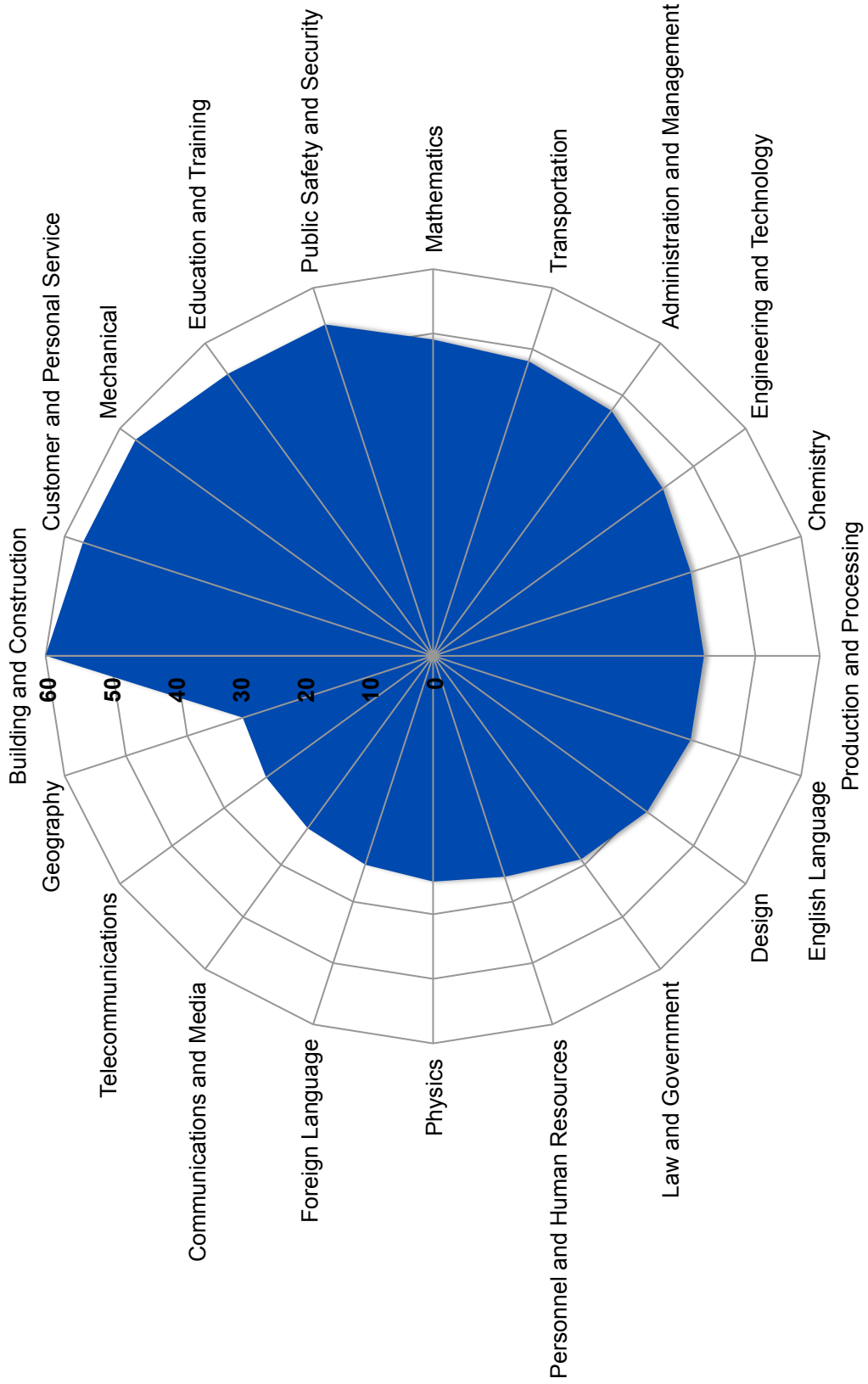
OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Rock Splitters, Quarry	\$19.04	13	18	5	1	96
Helpers--Carpenters	\$13.11	45	45	0	1	96
Painters, Construction and Maintenance	\$16.20	113	139	26	7	96
Roustabouts, Oil and Gas	\$12.23	74	69	(5)	2	96
Loading Machine Operators, Underground Mining	\$23.57	279	124	(155)	2	96
Pipelayers	\$24.26	82	77	(5)	1	96
Roofers	\$14.33	14	15	1	1	96
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	95
Insulation Workers, Mechanical	\$20.59	<10	<10	0	0	95
Paperhangers	\$11.68	<10	<10	0	0	95

Source: EMSI/Class of Worker 2016.2

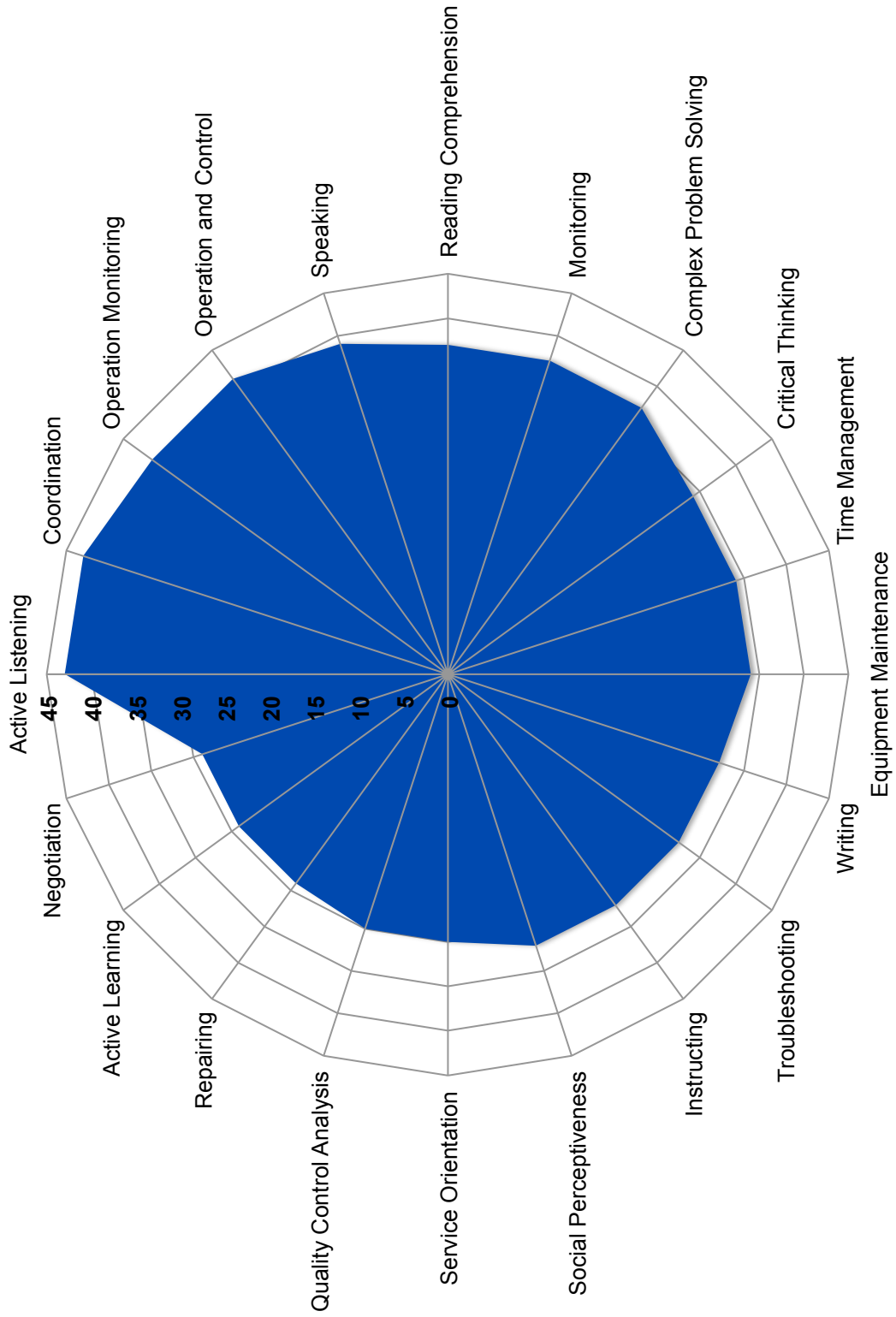


EMPLOYMENT PROFILE

# CONSTRUCTION LABORER Knowledge Competencies



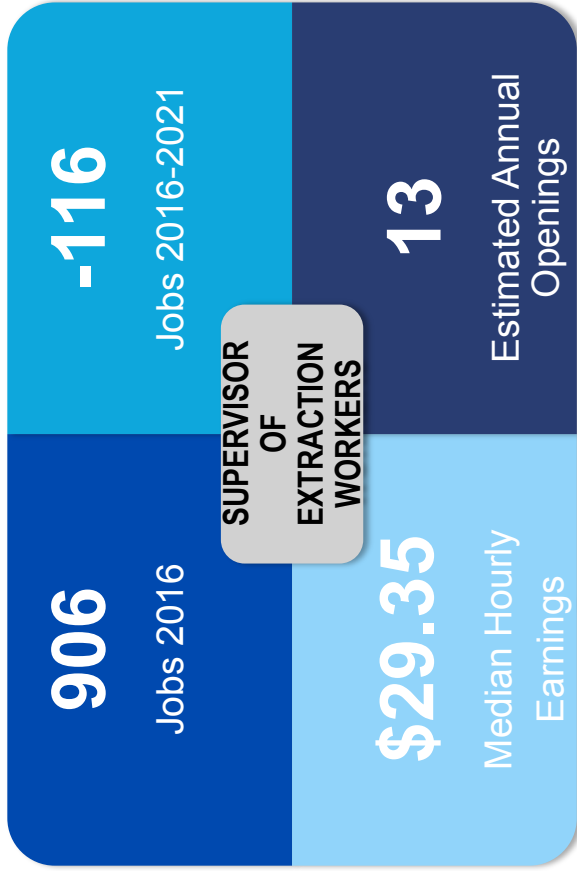
# CONSTRUCTION LABORER Skills Competencies





**EMPLOYMENT PROFILE**

**Supervisor of Extraction Workers.** The mining industry employs more than 900 supervisors of extraction workers, but more than 100 of those positions are expected to be eliminated over the next five years. With high median earnings of \$29.35, compatible occupations span several sectors, including production, transportation and energy. However, only solar energy installation managers have comparable earnings.



**SUPERVISOR OF EXTRACTION WORKERS**

**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Solar Energy Installation Managers	\$29.35	906	790	(116)	13	96
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$15.70	79	82	3	3	96
First-Line Supervisors of Production and Operating Workers	\$22.61	727	677	(50)	13	96
Non-Destructive Testing Specialists	\$19.68	36	36	0	1	94
Freight and Cargo Inspectors	\$33.61	32	31	(1)	1	94
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	\$19.06	151	143	(8)	5	94
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	\$24.38	331	309	(22)	11	94
Recycling Coordinators	\$19.06	151	143	(8)	5	94
Weatherization Installers and Technicians	\$16.13	22	22	0	1	94
Mechanical Engineering Technicians	\$18.45	16	15	(1)	1	94

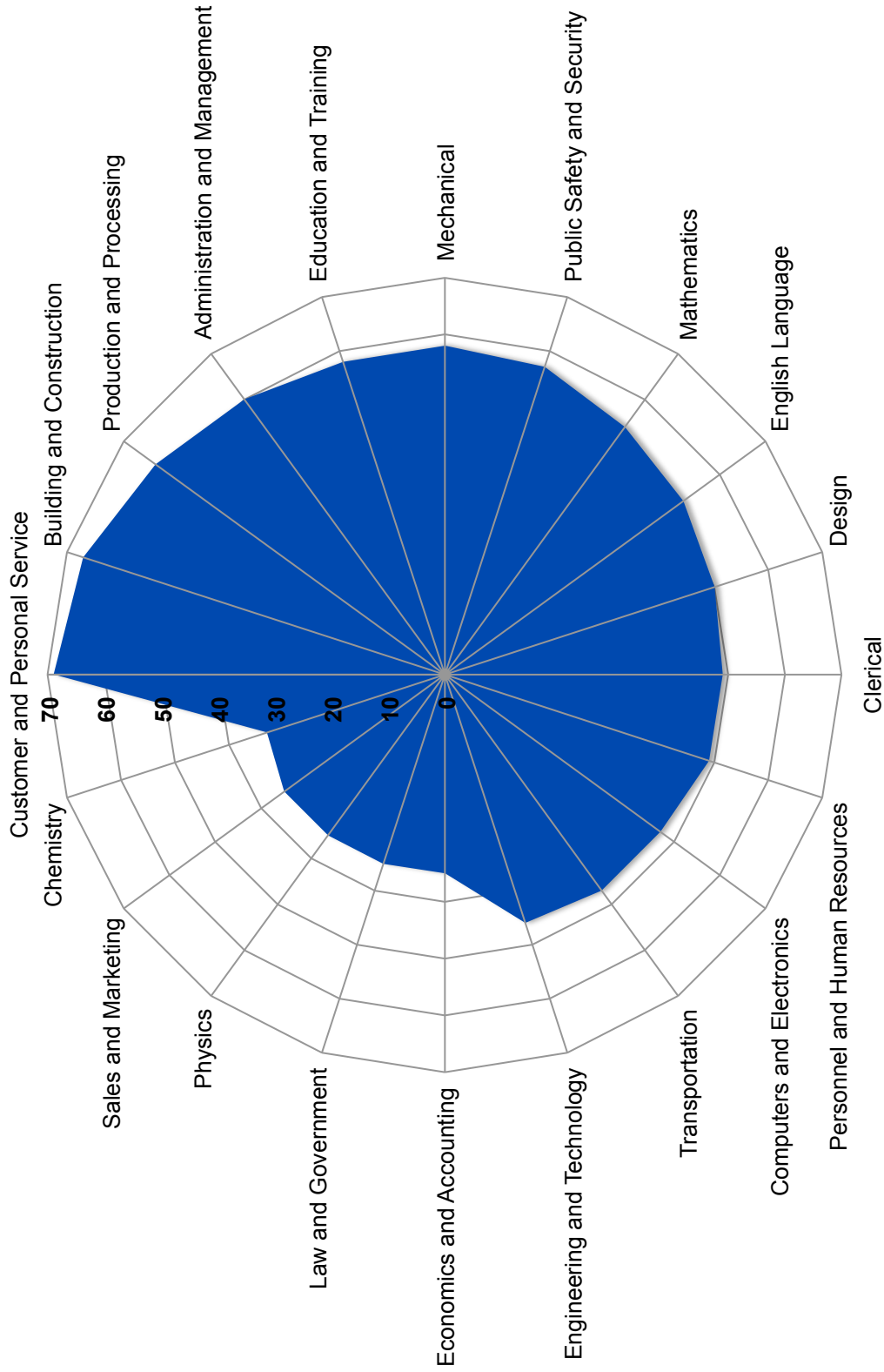
Source: EMSI Class of Worker 2016.2



EMPLOYMENT PROFILE

# SUPERVISOR OF EXTRACTION WORKERS

## Knowledge Competencies

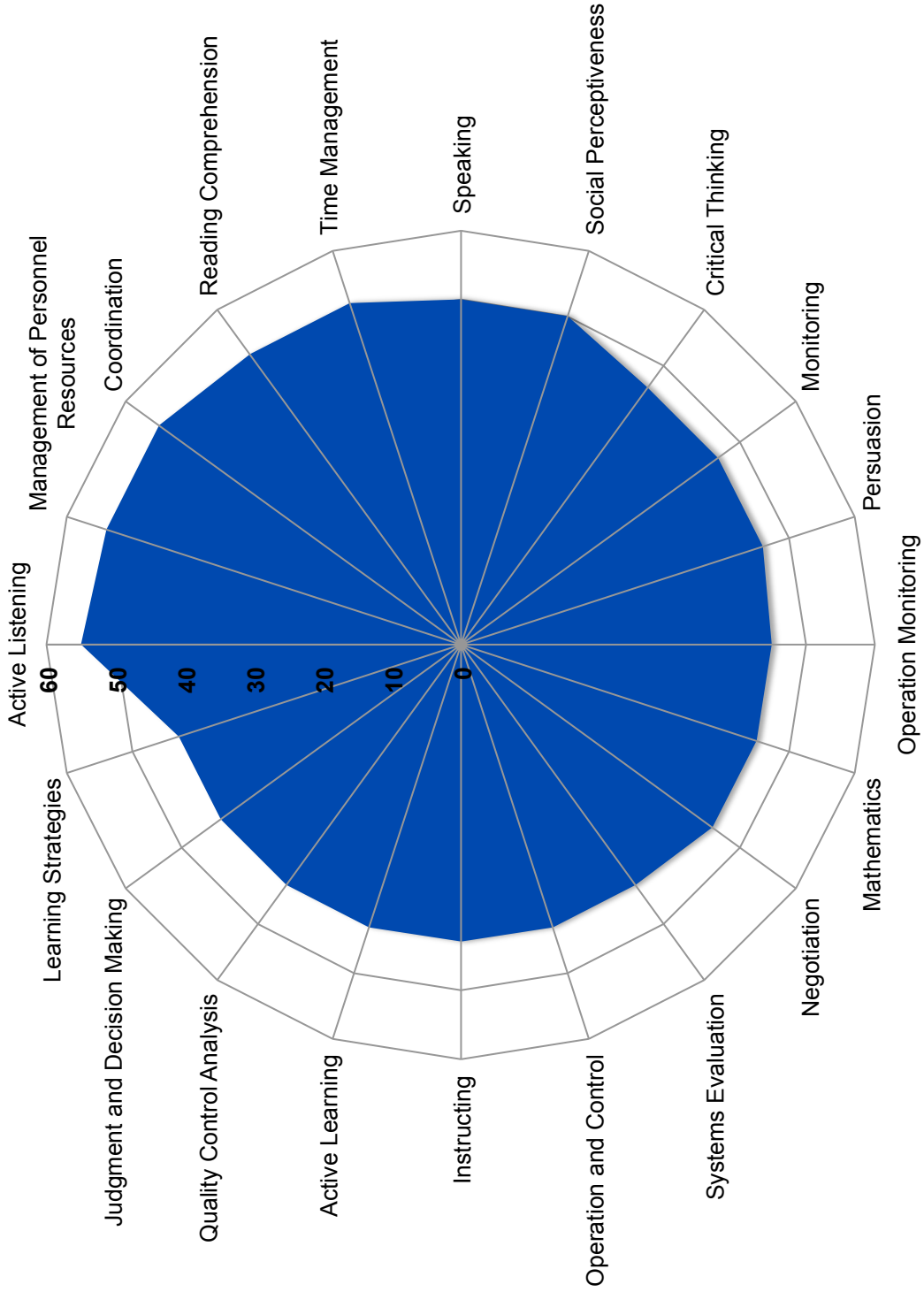




EMPLOYMENT PROFILE

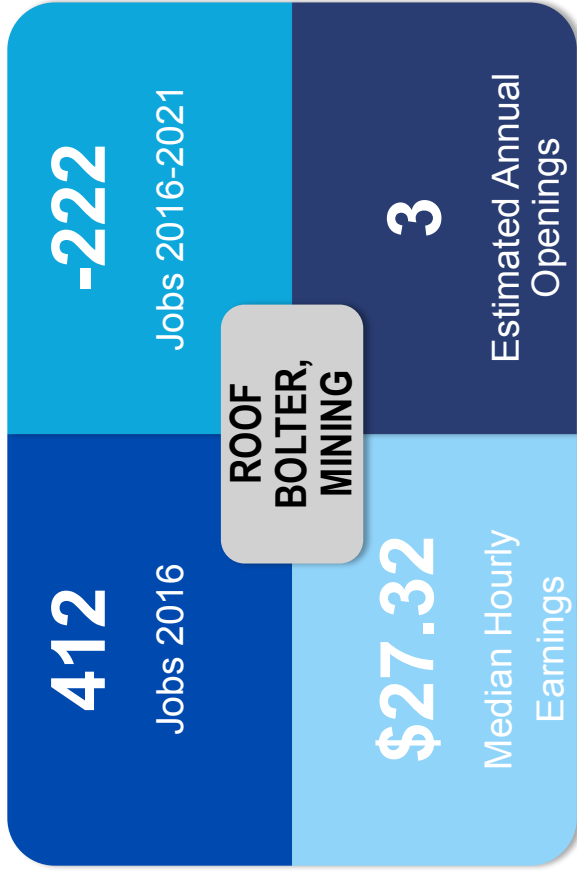
# SUPERVISOR OF EXTRACTION WORKERS

## Skills Competencies



**EMPLOYMENT PROFILE**

**Roof Bolter, Mining.** Approximately 400 mining industry positions are roof bolters, who have median hourly earnings of \$27.32. However, more than half of these positions are projected to be eliminated by 2021. Many of the top compatible occupations for roof bolters are also in the mining industry, with the transportation and heavy construction sectors. None of the compatible occupations have earnings as high as those paid to roof bolters.



**ROOF BOLTER, MINING**

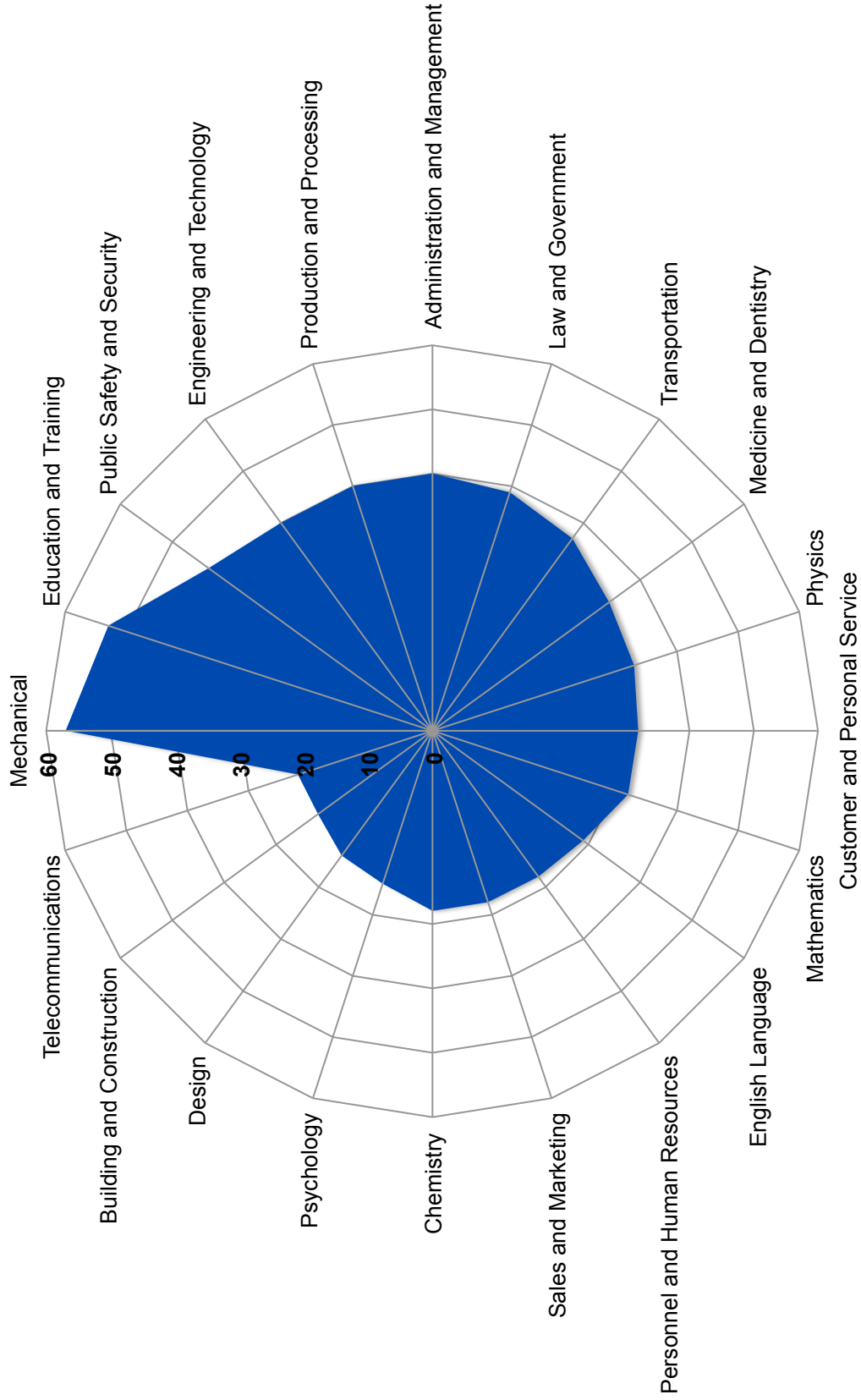
**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Loading Machine Operators, Underground Mining	\$23.57	279	124	(155)	2	96
Mine Cutting and Channeling Machine Operators	\$27.00	172	87	(85)	2	96
Roustabouts, Oil and Gas	\$12.23	74	69	(5)	2	96
Rock Splitters, Quarry	\$19.04	13	18	5	1	95
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	95
Helpers--Extraction Workers	\$15.04	149	118	(31)	3	95
Industrial Truck and Tractor Operators	\$15.16	670	623	(47)	18	95
Tree Trimmers and Pruners	\$11.87	145	153	8	7	95
Hoist and Winch Operators	\$17.36	<10	<10	(2)	0	95
Rail-Track Laying and Maintenance Equipment Operators	\$22.02	61	60	(1)	2	95

Source: EMSI Class of Worker 2016.2

# ROOF BOLTERS, MINING

## Knowledge Competencies

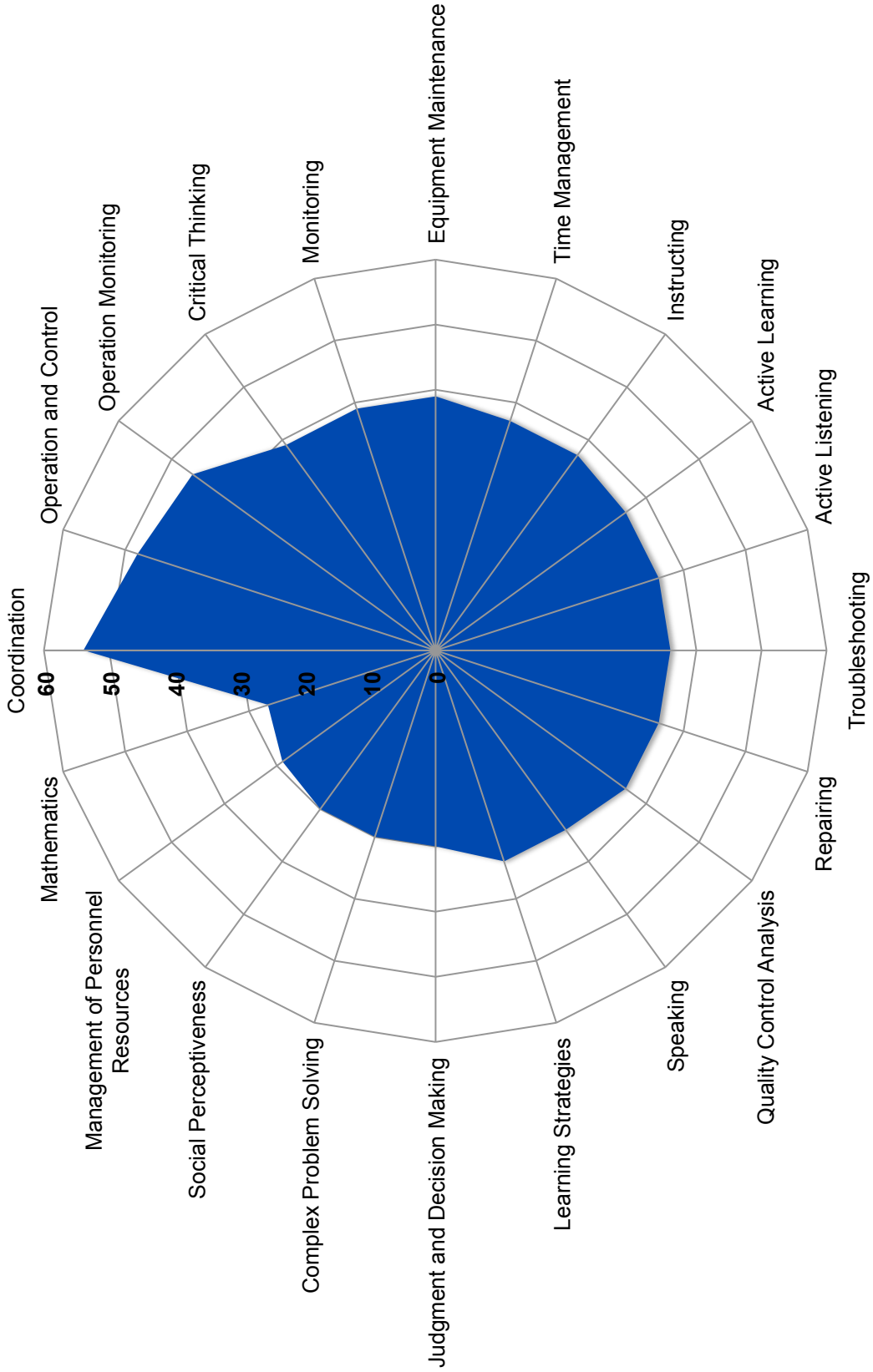




EMPLOYMENT PROFILE

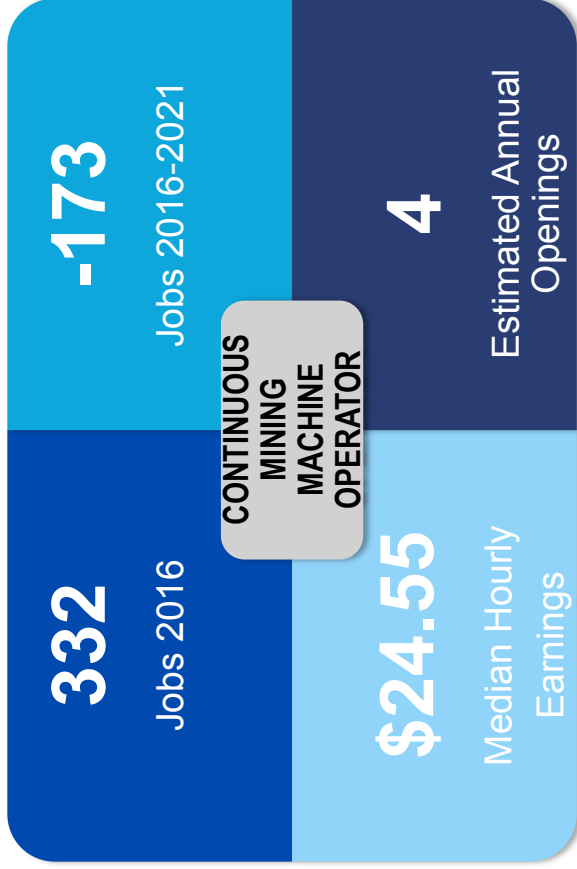
# ROOF BOLTERS, MINING

## Skills Competencies



**EMPLOYMENT PROFILE**

**Continuous Mining Machine Operator.** While current employment of continuous mining machine operators is at more than 300, more than half of those jobs are expected to be eliminated by 2021. Median hourly earnings for the occupations are high at \$24.55, with six of the compatible occupations having earnings above \$20.00. While several of those are in the mining industry, others are in transportation and construction.



**CONTINUOUS MINING MACHINE OPERATOR**

**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Pile-Driver Operators	\$24.19	<10	<10	0	0	93
Rail-Track Laying and Maintenance Equipment Operators	\$22.02	61	60	(1)	2	93
Highway Maintenance Workers	\$11.84	447	439	(8)	12	93
Loading Machine Operators, Underground Mining	\$23.57	279	124	(155)	2	92
Roof Bolters, Mining	\$27.32	412	190	(222)	3	92
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	92
Derrick Operators, Oil and Gas	\$22.26	15	15	0	1	92
Riggers	\$15.47	13	14	1	1	92
Pump Operators, Except Wellhead Pumpers	\$17.44	12	12	0	1	92
Crane and Tower Operators	\$23.64	73	67	(6)	3	91

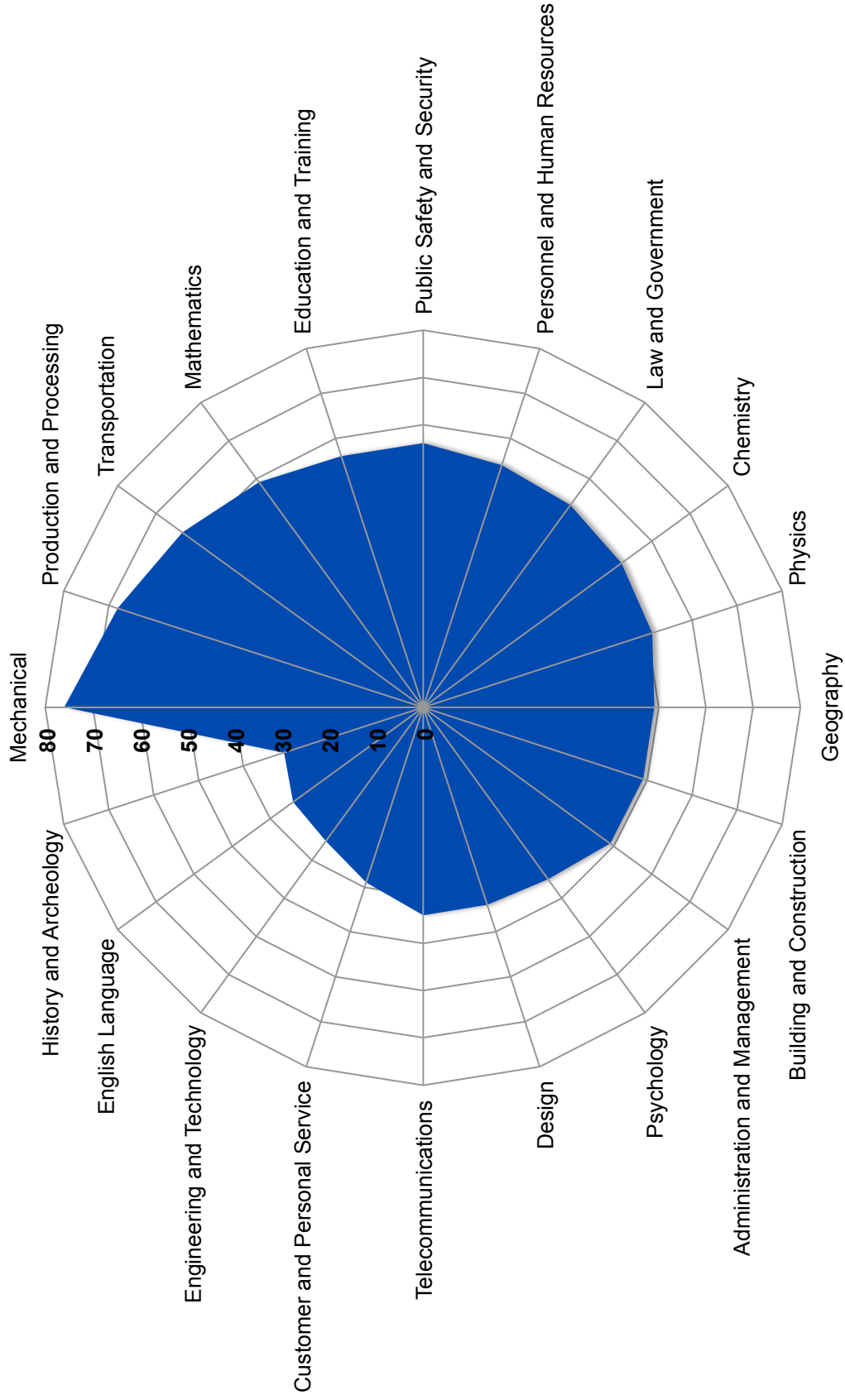
Source: EMSI Class of Worker 2016.2



EMPLOYMENT PROFILE

# CONTINUOUS MINING MACHINE OPERATOR

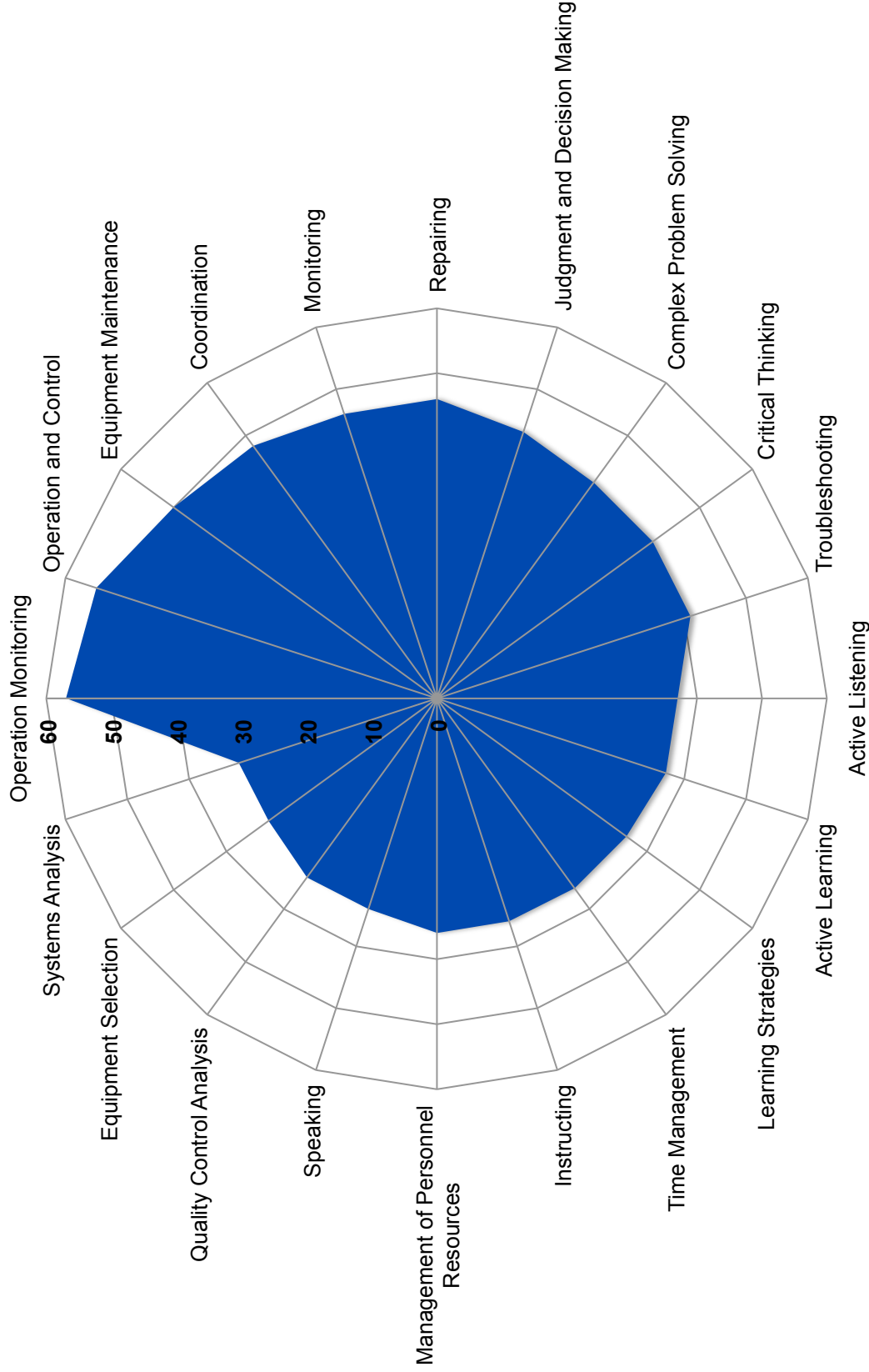
## Knowledge Competencies





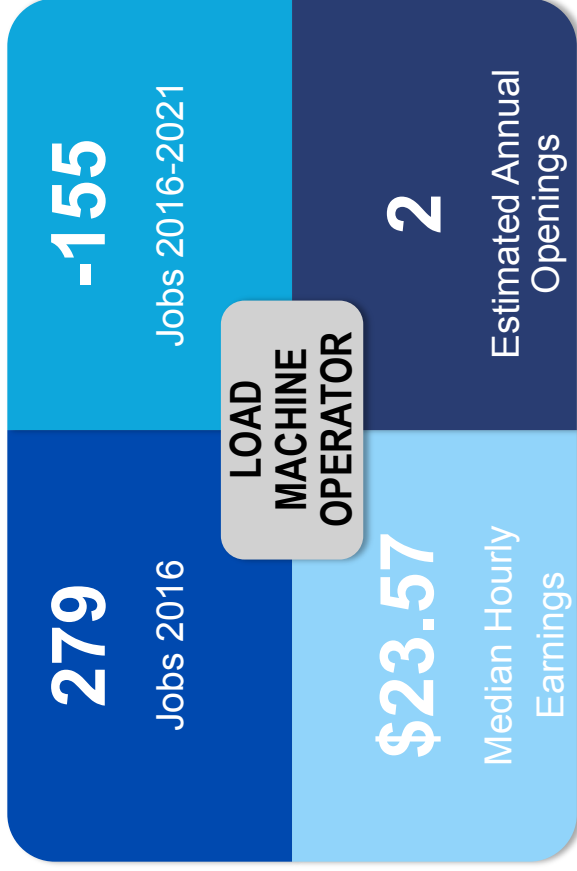
# CONTINUOUS MINING MACHINE OPERATOR

## Skills Competencies



**EMPLOYMENT PROFILE**

**Load Machine Operator.** While load machine operators represent only 279 positions, the median hourly earnings are at \$23.57. Like with other mining occupations, the load machine operator position is projected to lose more than half of its total employment over the next five years. The construction and mining sectors dominate the compatible occupations, with only roof bolters having higher median earnings.



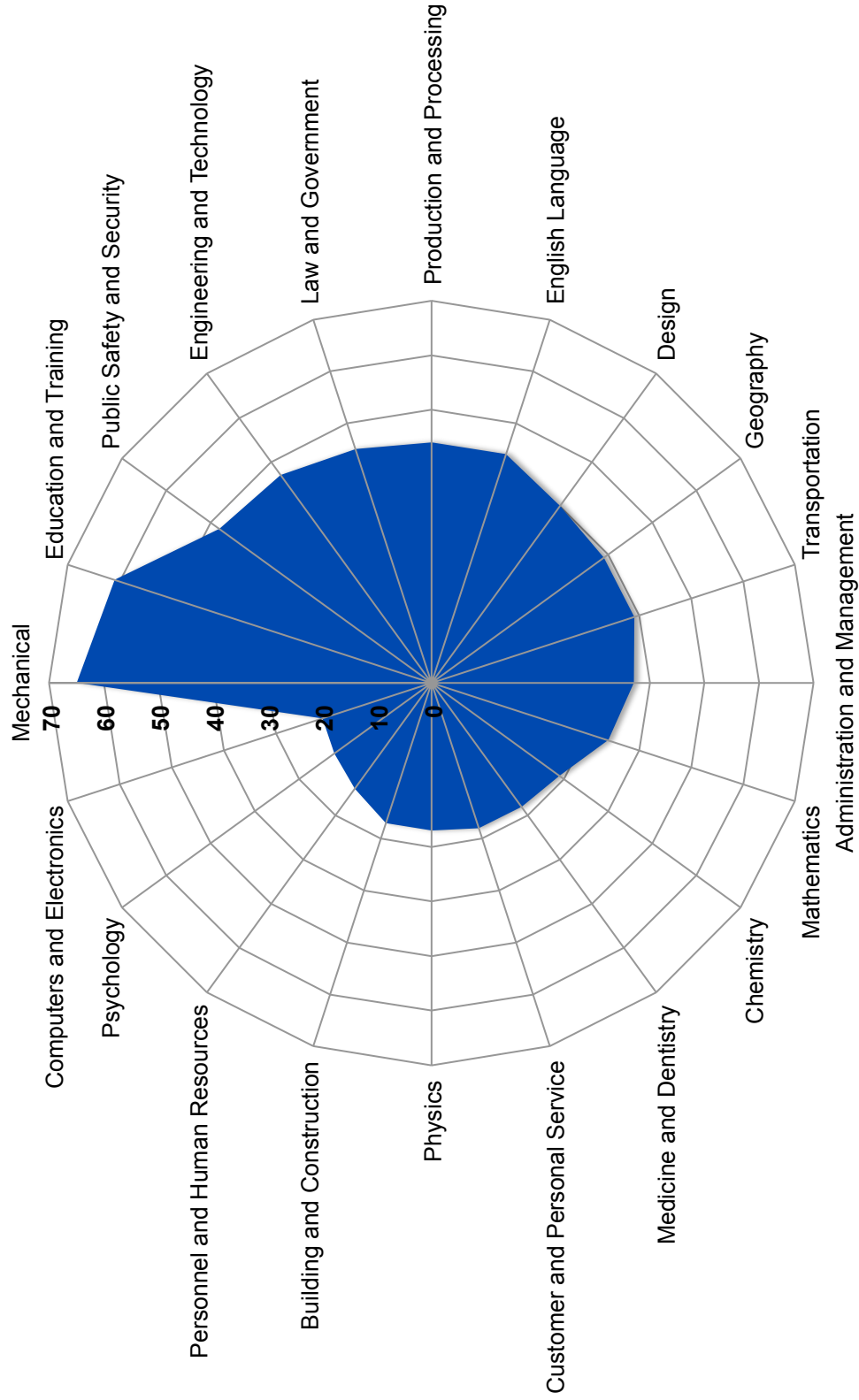
**LOAD MACHINE OPERATOR**

**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Rock Splitters, Quarry	\$19.04	13	18	5	1	96
Wellhead Pumps	\$22.22	12	12	0	1	95
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	95
Operating Engineers and Other Construction Equipment Operators	\$17.37	1,234	958	(276)	21	95
Refractory Materials Repairers, Except Brickmasons	\$20.55	<10	<10	(1)	0	95
Pile-Driver Operators	\$24.19	<10	<10	0	0	95
Recycling and Reclamation Workers	\$11.89	285	278	(7)	8	95
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	\$13.70	19	15	(4)	1	95
Roustabouts, Oil and Gas	\$12.23	74	69	(5)	2	95
Roof Bolters, Mining	\$27.32	412	190	(222)	3	95

Source: EMSI Class of Worker 2016.2

# LOAD MACHINE OPERATOR Knowledge Competencies

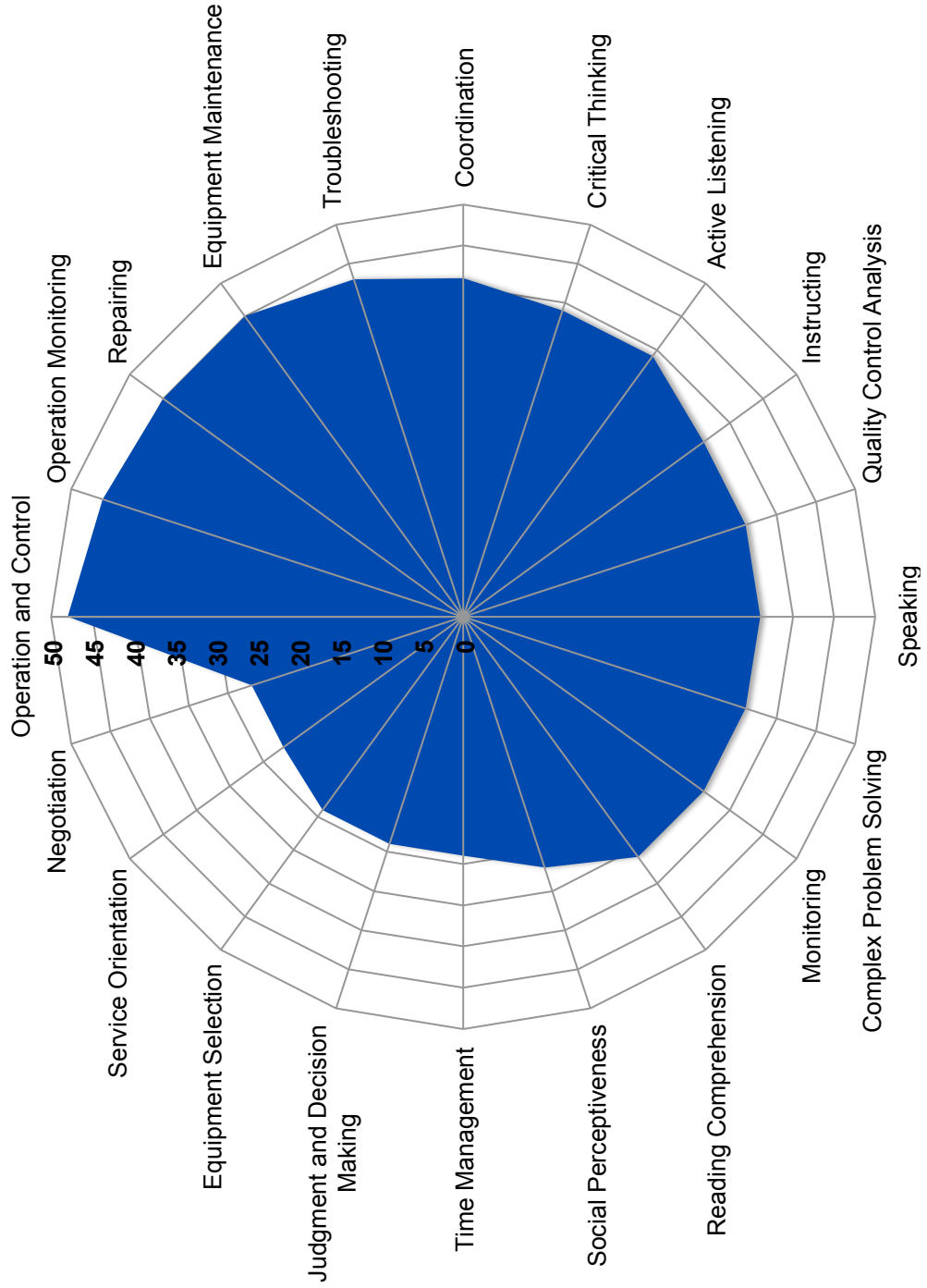




EMPLOYMENT PROFILE

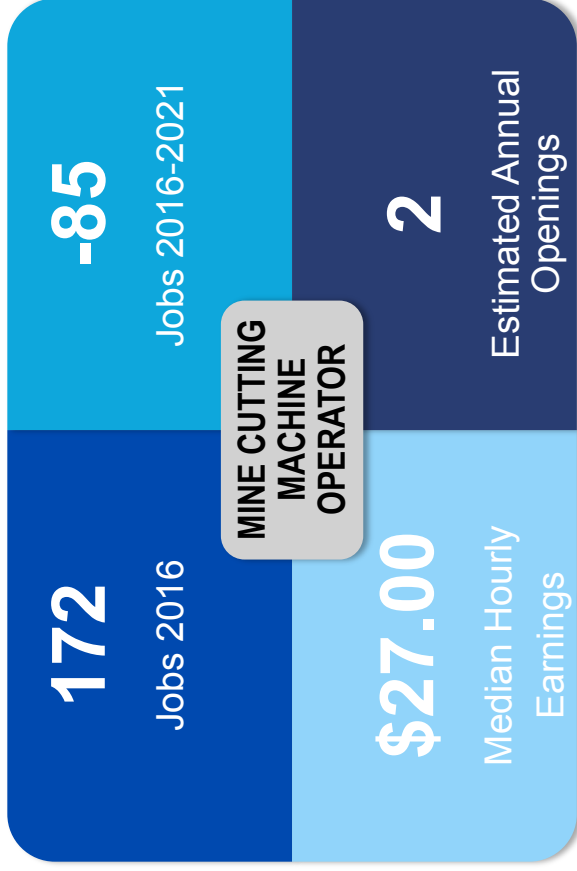
# LOAD MACHINE OPERATOR

## Skills Competencies



**EMPLOYMENT PROFILE**

**Mine Cutting Machine Operator.** The mining sector in East Kentucky currently employs more than 170 mine cutting machine operators, with that number expected to decline by 85 over the next five years. With median hourly earnings of \$27.00, compatible occupations, which are found in several sectors, do not pay as well as the mine cutting machine operator position. Dredge operators are the highest paying compatible occupation at \$21.88.



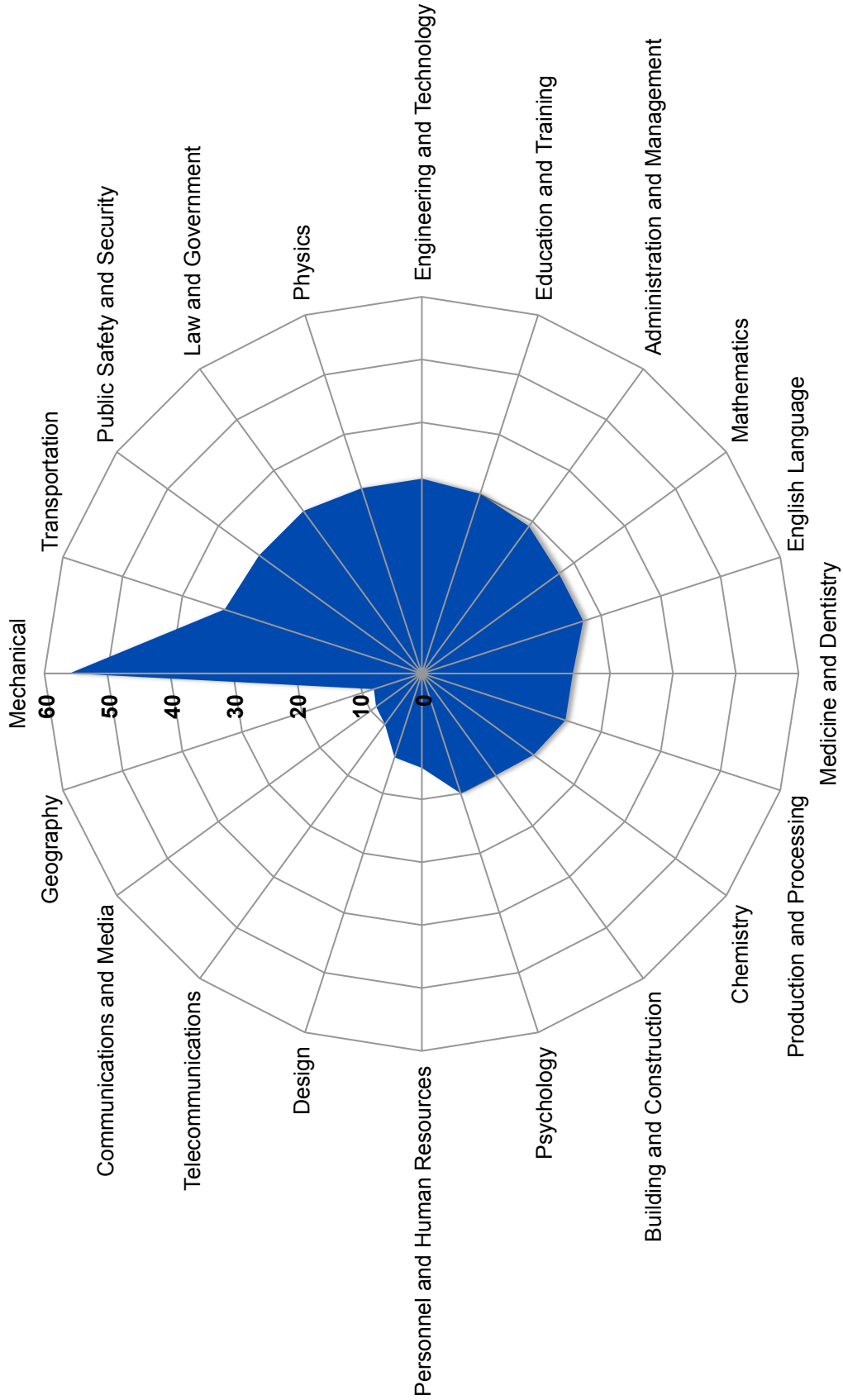
**MINE CUTTING MACHINE OPERATOR**

**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Hoist and Winch Operators	\$17.36	<10	<10	(2)	0	97
Logging Equipment Operators	\$17.30	44	35	(9)	1	97
Helpers--Extraction Workers	\$15.04	149	118	(31)	3	97
Dredge Operators	\$21.88	<10	<10	0	0	97
Refractory Materials Repairers, Except Brickmasons	\$20.55	<10	<10	(1)	0	96
Packaging and Filling Machine Operators and Tenders	\$10.49	239	241	2	11	96
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	\$12.49	118	115	(3)	3	96
Sawing Machine Setters, Operators, and Tenders, Wood	\$11.82	138	133	(5)	6	96
Molding and Casting Workers	\$12.46	31	29	(2)	1	96
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	\$17.34	83	86	3	4	96

Source: EMSI/Class of Workforce

# MINE CUTTING MACHINE OPERATOR Knowledge Competencies

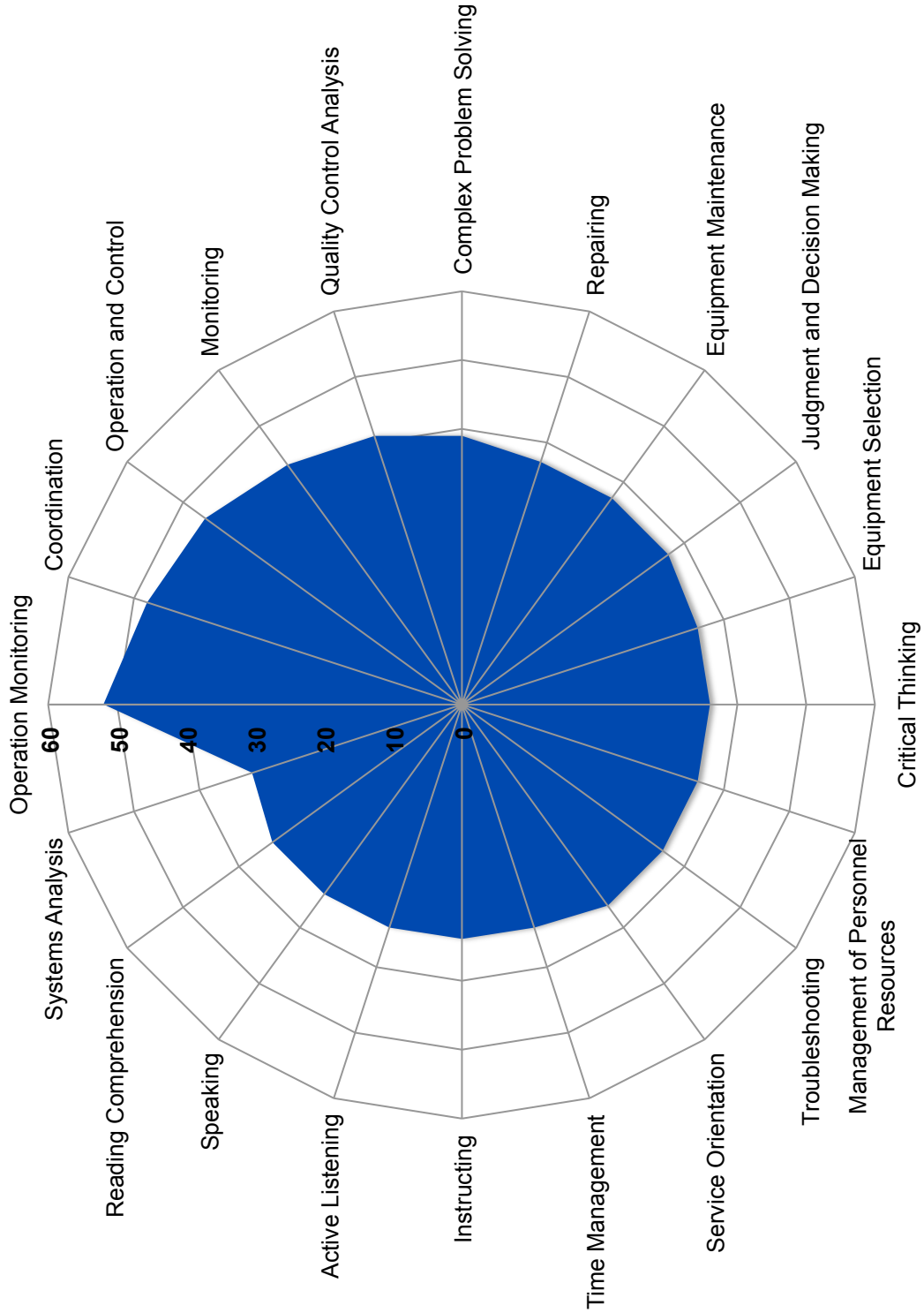




EMPLOYMENT PROFILE

# MINE CUTTING MACHINE OPERATOR

## Skills Competencies



**EMPLOYMENT PROFILE**

**Mine Shuttle Operator.** While mine shuttle operators represent only 172 positions in East Kentucky, the median hourly earnings are at \$26.95. Jobs in this occupation code are projected to decline by 50 percent through 2021. Compatible occupations are found in various manufacturing sectors, as well as agriculture and transportation. However, earnings for most are much lower than those paid to mine shuttle operators.



**MINE SHUTTLE OPERATOR**

**Top Compatible Occupations**

OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Helpers--Production Workers	\$12.11	711	644	(67)	24	93
Coil Winders, Tapers, and Finishers	\$13.39	<10	<10	(5)	0	93
Laborers and Freight, Stock, and Material Movers, Hand	\$10.38	1,982	1,991	9	71	93
Pourers and Casters, Metal	\$22.89	49	27	(22)	1	93
Cleaners of Vehicles and Equipment	\$9.46	306	318	12	15	92
Sawing Machine Setters, Operators, and Tenders, Wood	\$11.82	138	133	(5)	6	92
Dishwashers	\$8.63	268	273	5	14	92
Farmworkers and Laborers, Crop	\$11.60	125	135	10	6	92
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	\$13.70	19	15	(4)	1	92
Industrial Truck and Tractor Operators	\$15.16	670	623	(47)	18	92

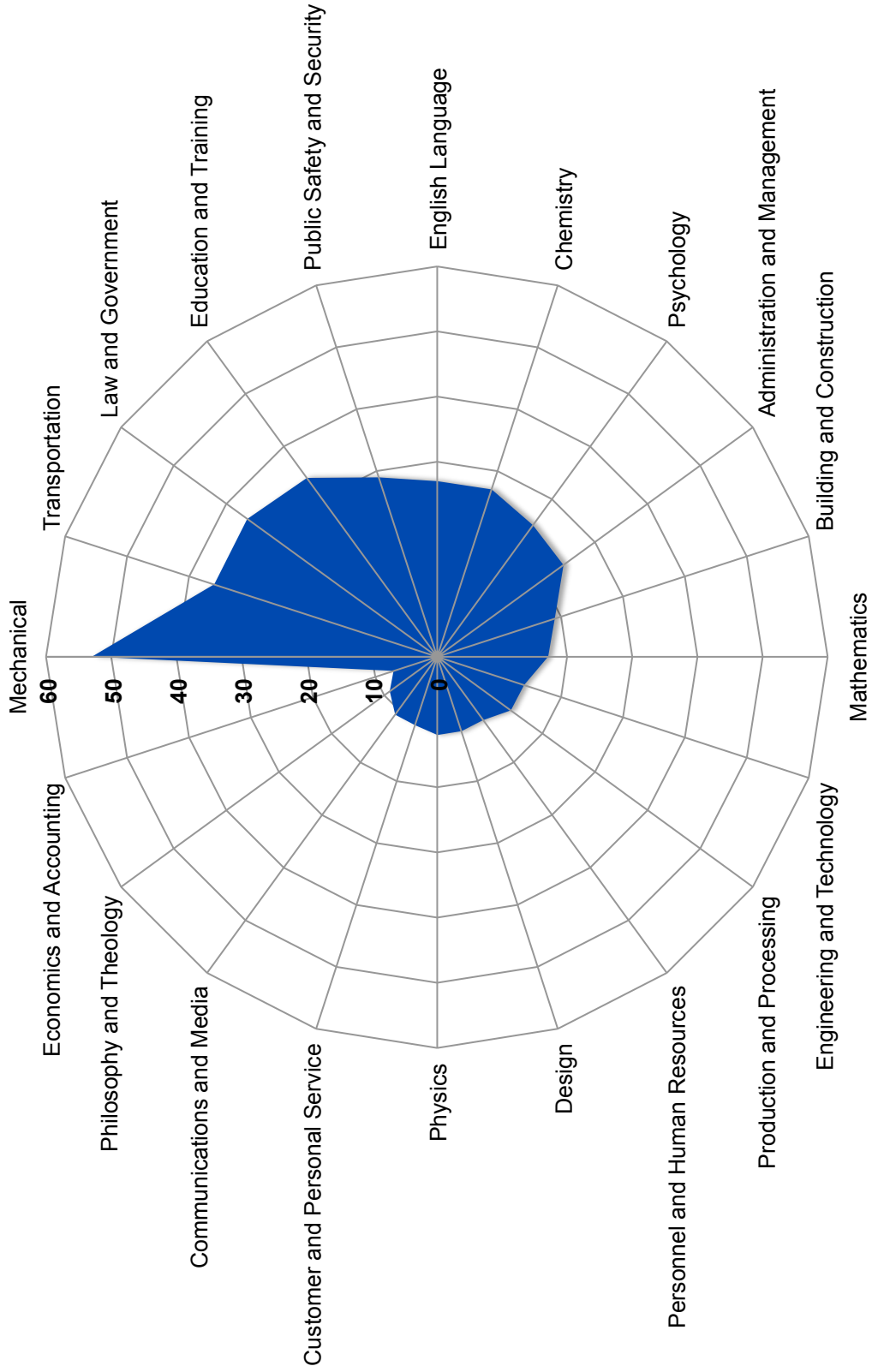
Source: EMSI Class of Worker 2016.2



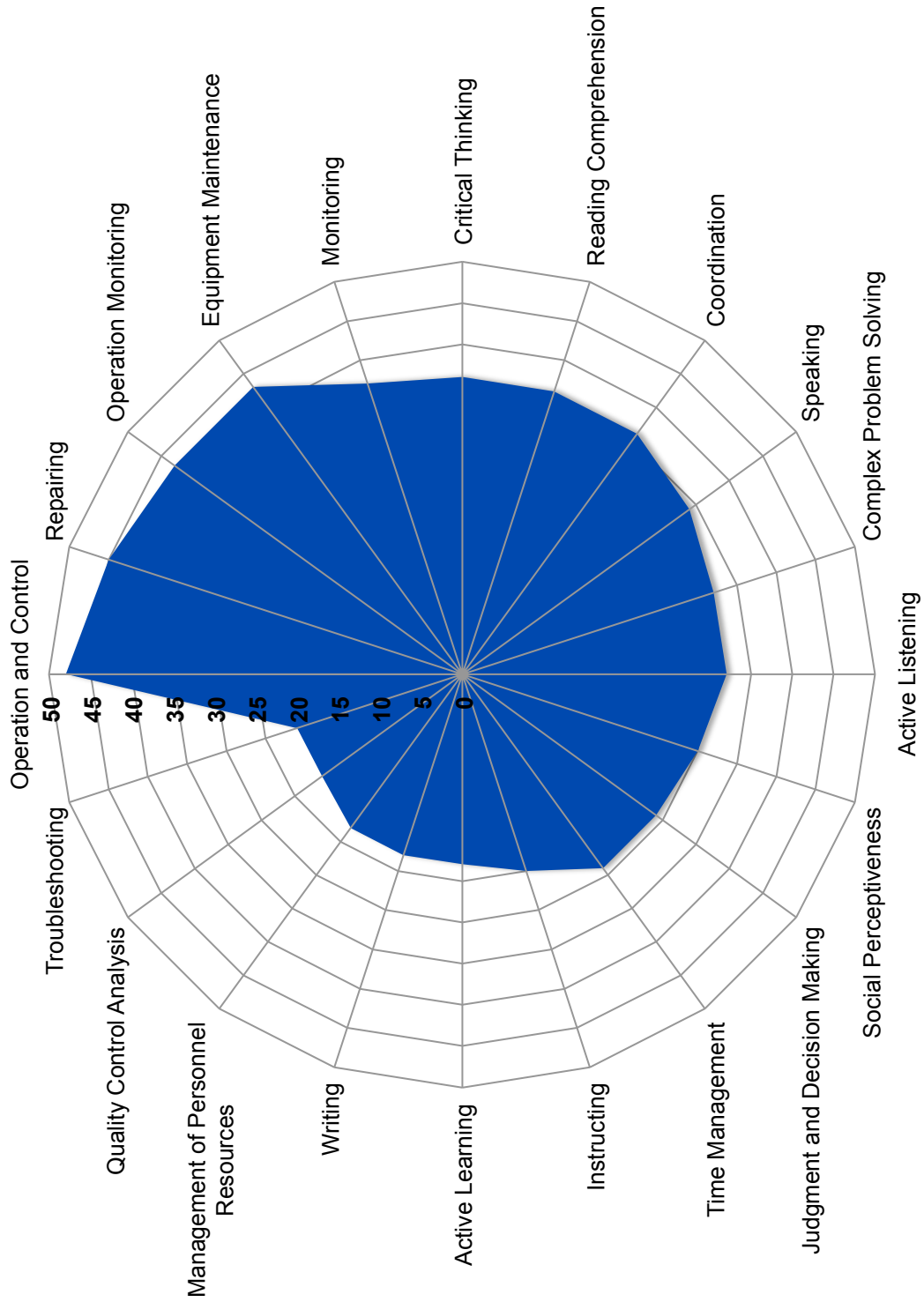


EMPLOYMENT PROFILE

# MINE SHUTTLE OPERATOR Knowledge Competencies

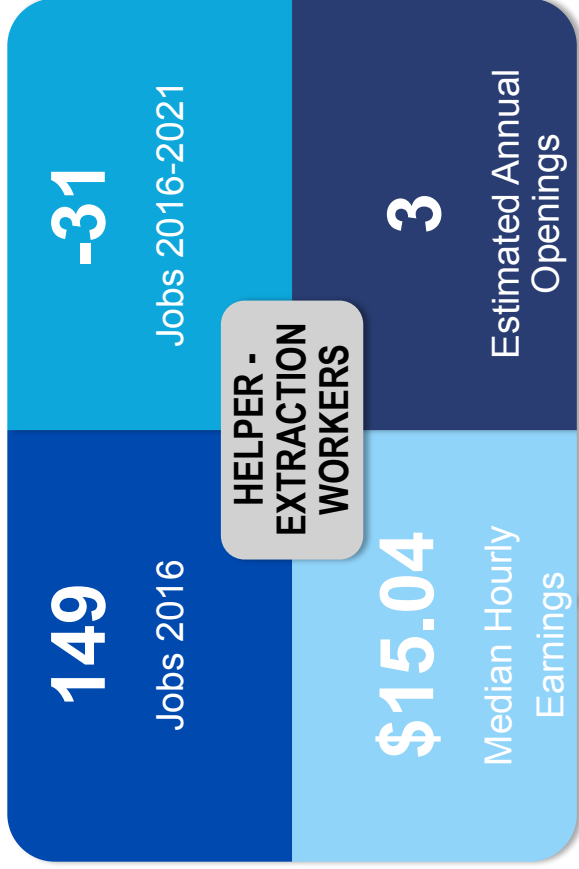


# MINE SHUTTLE OPERATOR Skills Competencies



**EMPLOYMENT PROFILE**

**Helper – Extraction Workers.** As an entry-level position in the mining industry, helper – extraction workers is an occupation that has fewer than 150 jobs, with lower median hourly earnings of \$15.04. While this occupation is projected to decline, the job losses are less than those projected for other mining occupations. Compatible occupations are found in the manufacturing and transportation sectors, as well as mining, with four of them paying more than \$20.00 per hour.



**HELPERS – EXTRACTION WORKERS**

**Top Compatible Occupations**

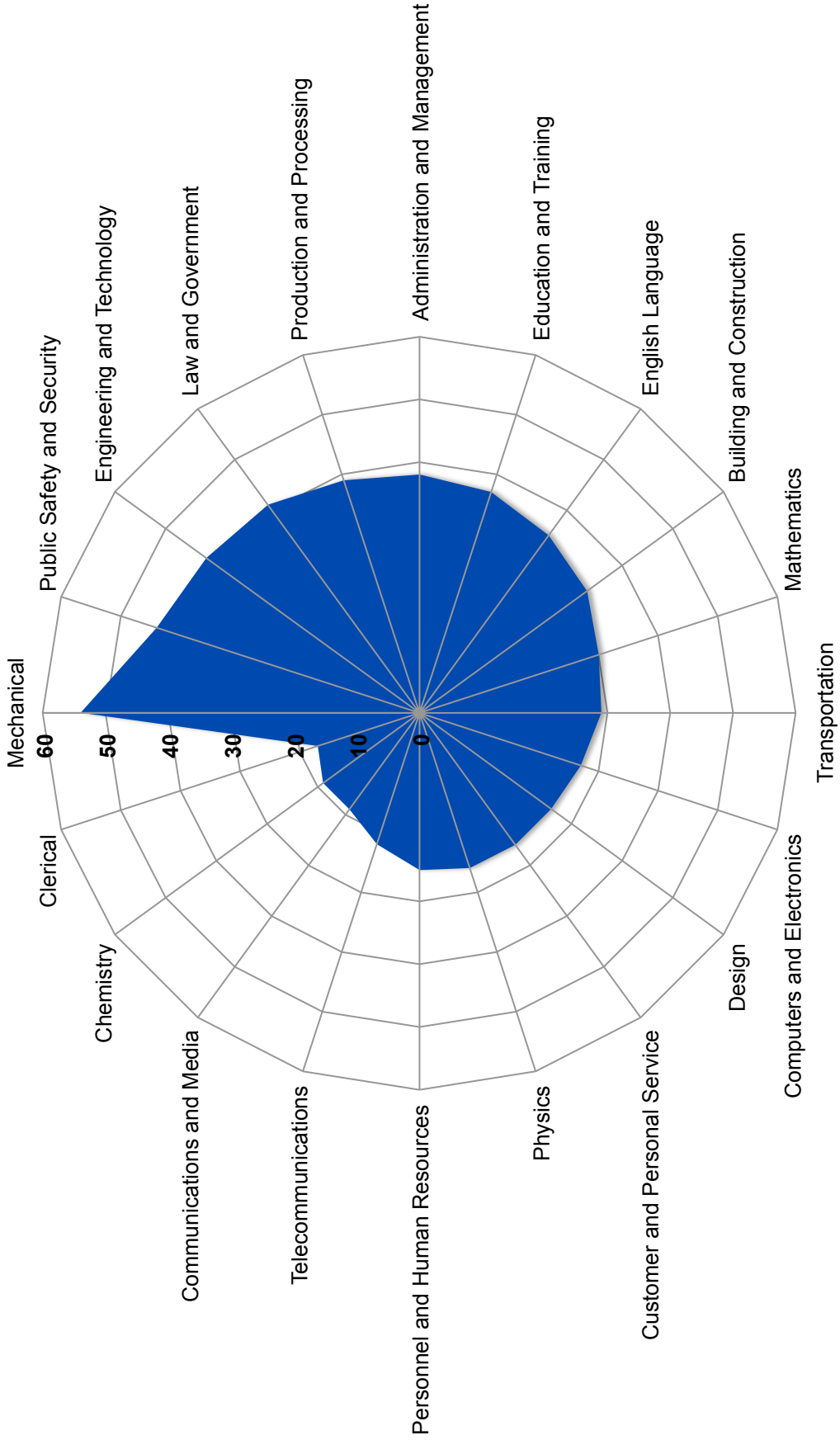
OCCUPATION	MEDIAN HOURLY EARNINGS	2016 JOBS	2021 JOBS	2016-2021 CHANGE	2016-2021 ESTIMATED ANNUAL OPENINGS	COMPATIBILITY INDEX
Mine Cutting and Channeling Machine Operators	\$27.00	172	87	(85)	2	97
Rail Car Repairers	\$24.02	100	95	(5)	3	97
Rail-Track Laying and Maintenance Equipment Operators	\$22.02	61	60	(1)	2	97
Molding and Casting Workers	\$12.46	31	29	(2)	1	96
Hoist and Winch Operators	\$17.36	<10	<10	(2)	0	96
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	\$12.49	118	115	(3)	3	96
Excavating and Loading Machine and Dragline Operators	\$20.88	290	185	(105)	3	96
Fence Erectors	\$12.63	36	40	4	2	96
Paving, Surfacing, and Tamping Equipment Operators	\$12.58	116	121	5	4	96
Roustabouts, Oil and Gas	\$12.23	74	69	(5)	2	96

Source: EMSI Class of Workers 2016.2



# HELPERS - EXTRACTION WORKERS

## Knowledge Competencies

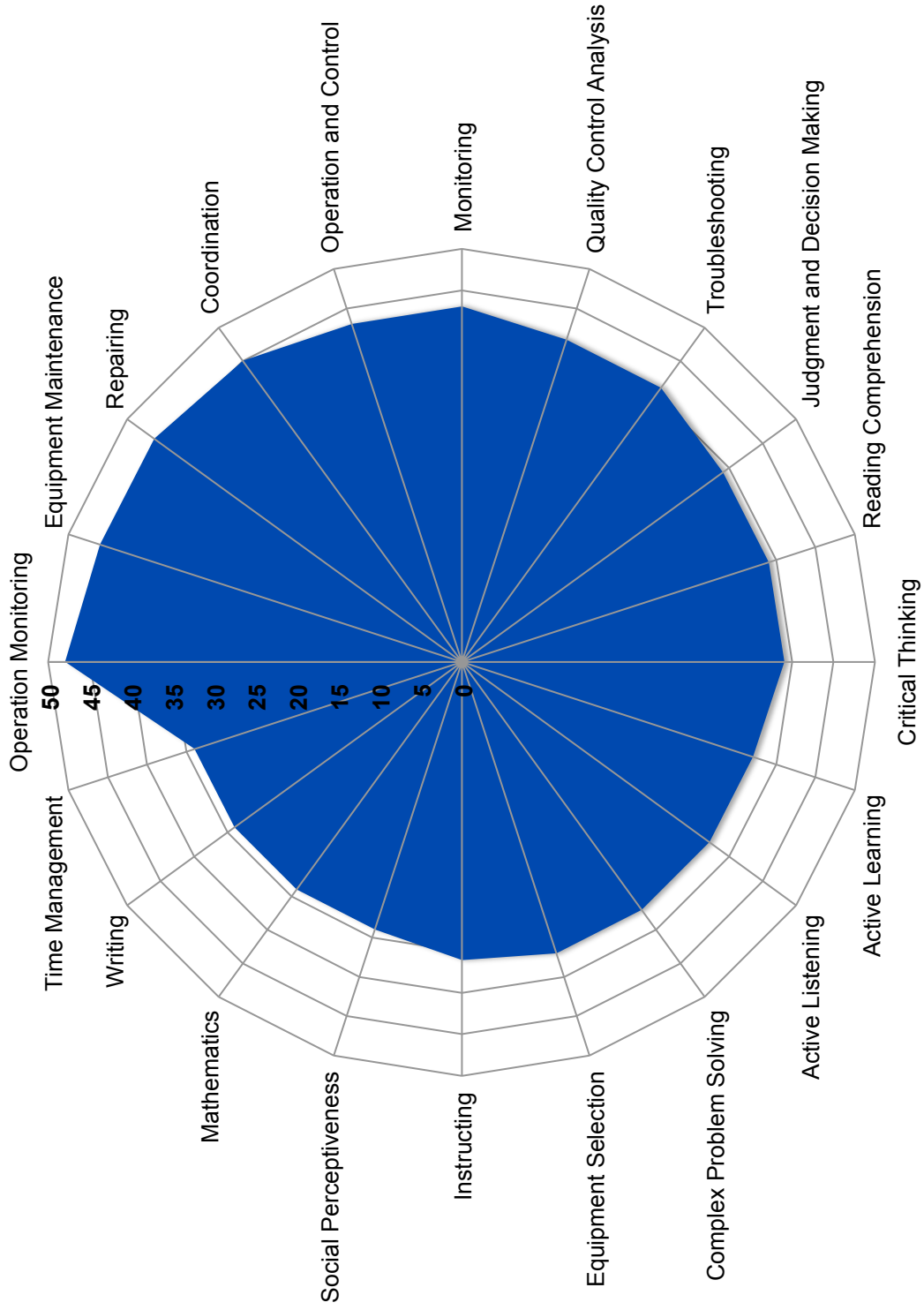




EMPLOYMENT PROFILE

# HELPERS - EXTRACTION WORKERS

## Skills Competencies





## EMPLOYMENT PROFILE

**Compatible Occupation Sectors.** The compatible occupations identified for the above mining occupations were further examined to determine those that have the greatest opportunity for transferable skills. In order to develop employment opportunities in those compatible occupation categories, it is important to know which industry sectors employ the compatible occupations.

The information below provides a listing of industries nationally that employ the compatible occupations that present the

greatest opportunity for mining workers. The data includes the percent of the occupation found in each of the top sectors, as well as the percent of total jobs for that occupation code in the sector.

Metal and equipment manufacturing, as well as transportation equipment manufacturing offer significant transferable skills opportunities. Plastics, wood products, and transportation and warehousing also employ several of the compatible occupations.

## WELDING, SOLDERING, & BRAZING MACHINE SETTERS, OPERATORS, & TENDERS

### Top Industries for Employment

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
336510	Railroad Rolling Stock Manufacturing	9.9%	18.7%
336390	Other Motor Vehicle Parts Manufacturing	4.2%	1.6%
332710	Machine Shops	3.0%	0.6%
332322	Sheet Metal Work Manufacturing	2.7%	1.4%
333120	Construction Machinery Manufacturing	2.6%	2.1%
336370	Motor Vehicle Metal Stamping	2.4%	1.6%
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	2.4%	1.6%
332312	Fabricated Structural Metal Manufacturing	2.3%	1.4%
333111	Farm Machinery and Equipment Manufacturing	2.3%	2.1%
333132	Oil and Gas Field Machinery and Equipment Manufacturing	2.2%	2.1%

Source: EMSI Class of Worker 2016.2

## WELDERS, CUTTERS, SOLDERERS, & BRAZERS

### Top Industries for Employment

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	4.3%	8.0%
561320	Temporary Help Services	3.6%	0.5%
332322	Sheet Metal Work Manufacturing	3.4%	12.5%
336611	Ship Building and Repairing	3.1%	11.3%
332710	Machine Shops	3.0%	4.2%
332312	Fabricated Structural Metal Manufacturing	3.0%	12.5%
336211	Motor Vehicle Body Manufacturing	2.1%	12.9%
332321	Metal Window and Door Manufacturing	2.0%	12.5%
236220	Commercial and Institutional Building Construction	1.9%	1.2%
333120	Construction Machinery Manufacturing	1.8%	10.0%

Source: EMSI Class of Worker 2016.2

## MOLDING, COREMAKING, & CASTING MACHINE SETTERS, OPERATORS, & TENDERS, METAL & PLASTIC

### Top Industries for Employment

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
326199	All Other Plastics Product Manufacturing	22.8%	10.2%
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	3.1%	10.2%
561320	Temporary Help Services	3.1%	0.1%
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	2.8%	10.2%
326111	Plastics Bag and Pouch Manufacturing	2.6%	10.2%
326160	Plastics Bottle Manufacturing	2.5%	10.2%
331511	Iron Foundries	2.4%	8.4%
326140	Polystyrene Foam Product Manufacturing	2.4%	10.2%
326122	Plastics Pipe and Pipe Fitting Manufacturing	2.1%	10.2%
336390	Other Motor Vehicle Parts Manufacturing	1.9%	1.6%

Source: EMSI Class of Worker 2016.2

## COATING, PAINTING, & SPRAYING MACHINE SETTERS, OPERATORS, & TENDERS

### Top Industries for Employment

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	7.9%	12.1%
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	7.5%	12.1%
337110	Wood Kitchen Cabinet and Countertop Manufacturing	3.2%	2.6%
332811	Metal Heat Treating	2.6%	12.1%
326199	All Other Plastics Product Manufacturing	2.3%	0.7%
332322	Sheet Metal Work Manufacturing	2.1%	1.8%
332312	Fabricated Structural Metal Manufacturing	1.8%	1.8%
322211	Corrugated and Solid Fiber Box Manufacturing	1.4%	1.4%
333120	Construction Machinery Manufacturing	1.2%	1.7%
332321	Metal Window and Door Manufacturing	1.2%	1.8%

Source: EMSI/Class of Worker 2016.2

## INDUSTRIAL TRUCK & TRACTOR OPERATORS

### Top Industries for Employment

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
493110	General Warehousing and Storage	16.8%	12.6%
561320	Temporary Help Services	9.4%	1.8%
444110	Home Centers	2.8%	2.3%
484121	General Freight Trucking, Long-Distance, Truckload	1.6%	1.7%
424410	General Line Grocery Merchant Wholesalers	1.4%	3.2%
493120	Refrigerated Warehousing and Storage	1.3%	12.6%
424490	Other Grocery and Related Products Merchant Wholesalers	1.3%	3.2%
561330	Professional Employer Organizations	1.2%	1.8%
452910	Warehouse Clubs and Supercenters	1.0%	0.4%
488510	Freight Transportation Arrangement	1.0%	2.7%

Source: EMSI/Class of Worker 2016.2



**SAWING MACHINE SETTERS, OPERATORS, & TENDERS, WOOD**

**Top Industries for Employment**

NAICS	INDUSTRY	% OF OCCUPATION IN INDUSTRY	% OF TOTAL JOBS IN INDUSTRY
321113	Sawmills	33.3%	19.9%
321920	Wood Container and Pallet Manufacturing	7.6%	6.2%
321911	Wood Window and Door Manufacturing	6.4%	6.2%
337110	Wood Kitchen Cabinet and Countertop Manufacturing	4.8%	2.0%
321918	Other Millwork (including Flooring)	4.7%	6.2%
321114	Wood Preservation	3.7%	19.9%
321999	All Other Miscellaneous Wood Product Manufacturing	3.3%	6.2%
321214	Truss Manufacturing	3.3%	5.8%
321991	Manufactured Home (Mobile Home) Manufacturing	2.8%	6.2%
337121	Upholstered Household Furniture Manufacturing	2.2%	1.6%

Source: EMSI/ Class of Worker 2016.2



**EDUCATION & TRAINING  
INVENTORY**

Understanding the educational and training programs that prepare workers for job opportunities is an essential component of assessing a regional workforce.

Following is data on both K-12 and post-secondary education and training opportunities available in the 27-county region and beyond. All public elementary and secondary school districts were reviewed, along with post-secondary training, certificate and degree programs within the region, as well as programs in Ohio, Tennessee, Virginia and West Virginia that are in proximity to the region.

“We’re good leaders if given the opportunity, because that’s the way we were taught when we were younger.”



EDUCATION & TRAINING **INVENTORY**

**ELEMENTARY & SECONDARY EDUCATION**

**District Overview**

County	District	Total Enrollment	Number of facilities	Spending per Student	% Free Lunch	% Reduced Lunch	Average Teacher Salary	Attendance Rate	Dropout Rate
Bell	Bell County	1,248	8	\$10,850	69.00%	6.10%	\$47,805	92	0.60%
Bell	Middlesboro Independent	487	5	\$10,465	68.60%	4.20%	\$48,895		3.00%
Bell	Pineville Independent	2,831	1	\$10,761	64.50%	6.20%	\$49,027	93.3	0.00%
Clay	Clay County	3,261	11	\$11,592	72.30%	3.90%	\$48,047	90.7	2.40%
Harlan	Harlan County	3,953	9	\$10,667	77.90%	2.90%	\$46,940	91	1.50%
Harlan	Harlan Independent	703	3	\$9,433	56.20%	2.30%	\$48,165	93.7	0.30%
Knox	Barbourville Independent	675	1	\$9,024	59.30%	4.00%	\$48,363	92.5	0.00%
Knox	Knox County	4,406	12	\$11,233	78.30%	3.80%	\$46,918	91.9	1.60%
Leslie	Leslie County	1,690	6	\$11,608	67.00%	4.10%	\$51,143	92.2	0.10%
Breathitt	Breathitt County	1,960	8	\$10,789	74.50%	4.10%	\$52,909		2.70%
Breathitt	Jackson Independent	376	1	\$10,261	55.60%	5.60%	\$49,583	92.3	0.00%
Jackson	Jackson County	2,118	7	\$11,618	69.50%	4.60%	\$48,773	91.9	1.80%
Knott	Knott County	2,290	7	\$11,728	74.50%	4.10%	\$49,957		1.80%
Lee	Lee County	984	3	\$10,300	73.90%	3.50%	\$49,508		0.60%
Letcher	Jenkins Independent	479	1	\$12,687	78.90%	4.40%	\$44,475		0.00%
Letcher	Letcher County	3,097	10	\$10,788	63.90%	6.40%	\$48,532	91.8	0.40%
Owsley	Owsley County	728	2	\$14,065	84.90%	0.70%	\$49,602		0.30%
Perry	Hazard Independent	931	3	\$9,275	56.70%	4.40%	\$47,377	93.3	0.20%
Perry	Perry County	4,004	13	\$10,414	71.20%	4.60%	\$50,454	93.2	1.20%
Wolfe	Wolfe County	1,304	7	\$11,661	76.70%	4.00%	\$49,779	93.6	0.30%
Floyd	Floyd County	5,902	15	\$10,765	68.60%	6.60%	\$48,893	94.1	2.00%
Johnson	Johnson County	3,681	9	\$10,846	64.40%	4.00%	\$50,164		0.20%
Johnson	Paintsville Independent	788	3	\$10,878	37.30%	7.00%	\$50,577		0.00%
Lawrence	Lawrence County	2,461	6	\$10,237	65.90%	3.50%	\$45,538	92.9	1.30%
Magoffin	Magoffin County	1,975	5	\$13,122	87.40%	1.10%	\$49,479		0.60%

EDUCATION & TRAINING **INVENTORY**

**ELEMENTARY & SECONDARY EDUCATION**

**District Overview**

County	District	Total Enrollment	Number of facilities	Spending per Student	% Free Lunch	% Reduced Lunch	Average Teacher Salary	Attendance Rate	Dropout Rate
Martin	Martin County	1,965	6	\$10,909	69.00%	2.80%	\$47,779		0.80%
Pike	Pike County	8,716	21	\$11,041	64.80%	5.70%	\$51,498	93.1	1.30%
Pike	Pikeville Independent	1,225	2	\$10,797	34.60%	2.30%	\$56,397	95.4	0.70%
Boyd	Ashland Independent	3,040	8	\$10,130	53.30%	5.80%	\$49,668	95	0.80%
Boyd	Boyd County	3,168	10	\$10,830	54.50%	6.50%	\$46,518		0.30%
Boyd	Fairview Independent	795	2	\$10,855	62.10%	10.10%	\$44,431		1.80%
Carter	Carter County	4,537	12	\$9,863	62.60%	5.30%	\$47,125	94.7	0.20%
Elliott	Elliott County	1,049	4	\$10,029	76.70%	2.40%	\$45,823		0.40%
Greenup	Greenup County	2,829	7	\$9,747	59.10%	5.60%	\$45,828	94.2	2.00%
Greenup	Raceland-Worthington Independent	1,034	5	\$8,826	42.90%	5.00%	\$50,012	95.8	0.00%
Greenup	Russell Independent	2,167	4	\$9,277	38.30%	4.10%	\$53,552	96	0.00%
Lewis	Lewis County	2,249	7	\$9,908	66.40%	4.40%	\$46,563	93.5	0.30%
Menifee	Menifee County	1,084	3	\$9,269	75.10%	3.60%	\$46,541	94	0.40%
Morgan	Morgan County	2,022	7	\$10,133	67.80%	5.30%	\$47,936	93.7	2.20%
Rowan	Rowan County	3,115	12	\$9,681	57.90%	4.20%	\$49,060	93.5	0.20%
	State	655,642		\$10,426	54.40%	5.60%	\$51,143	94.5	1.50%

**ELEMENTARY & SECONDARY EDUCATION**

**Workforce Readiness**

County	District	Graduation Rate (4-year)	% of Students in College	% of Students in Vocational Training	Work Keys (Graduating Preparatory Students Meeting Benchmark)	ACT Composite	# of AP Students Taking Test	% of AP Students Scoring 3-5 on Test
Bell	Bell County	90.2	64.10%	0%	6	18.3	113	24.3
Bell	Middlesboro Independent	91.2	27.20%	5.80%	3	18.4	11	38.9
Bell	Pineville Independent	87.8	N/A	N/A	0	18.9	N/A	N/A
Clay	Clay County	81.3	41.10%	0.90%	20	17.5	142	18.4
Harlan	Harlan County	87.5	70.40%	1.30%	0	18.2	N/A	N/A
Harlan	Harlan Independent	90.7	81.10%	0.00%	0	20.5	14	54.2
Knox	Barbourville Independent	91.9	66.70%	2.20%	7	17.7	N/A	N/A
Knox	Knox County	88.3	36.40%	1.60%	43	17.3	278	13.8
Leslie	Leslie County	100	65.40%	1.90%	0	18.9	47	20.9
Breathitt	Breathitt County	89.1	54.30%	3.10%	39	16.6	29	34.5
Breathitt	Jackson Independent	96	82.60%	4.30%	0	19.6	N/A	N/A
Jackson	Jackson County	87.9	41.10%	0.90%	34	17.7	75	16.7
Knott	Knott County	91.2	64.50%	4.40%	0	18.8	17	43.5
Lee	Lee County	94.6	57.10%	1.20%	0	17.5	N/A	N/A
Letcher	Jenkins Independent	84	74.40%	7.00%	0	17.7	N/A	N/A
Letcher	Letcher County	93.3	65.80%	7.30%	20	17.8	N/A	N/A
Owlsley	Owlsley County	89.6	40.00%	26.00%	0	17.6	N/A	N/A
Perry	Hazard Independent	93.1	84.00%	6.70%	5	20.6	N/A	N/A
Perry	Perry County	91.7	59.20%	0.40%	0	18.1	102	44.8
Wolfe	Wolfe County	90.9	53.10%	9.40%	16	17.1	N/A	N/A
Floyd	Floyd County	93.9	53.60%	10.80%	0	17.9	118	29.3
Johnson	Johnson County	N/A	44.90%	6.10%	80	18.9	116	30.4

**ELEMENTARY & SECONDARY EDUCATION**

**Workforce Readiness**

County	District	Graduation Rate (4-year)	% of Students in College	% of Students in Vocational Training	Work Keys (Graduating Preparatory Students Meeting Benchmark)	ACT Composite	# of AP Students Taking Test	% of AP Students Scoring 3-5 on Test
Johnson	Paintsville Independent	97.9	51.90%	28.80%	0	20.7	60	29.5
Lawrence	Lawrence County	92.6	54.20%	0.00%	28	18.1	38	40
Magoffin	Magoffin County	N/A	43.00%	2.50%	50	17.3	20	30.8
Martin	Martin County	91.4	39.70%	16.00%	0	17.6	27	38.7
Pike	Pike County	91	53.50%	17.20%	98	18.1	116	31.6
Pike	Pikeville Independent	N/A	75.30%	2.40%	1	20.6	128	33
Boyd	Ashland Independent	89.7	64.60%	4.70%	57	19.8	91	61.4
Boyd	Boyd County	93.4	42.70%	3.30%	0	18.7	29	29.3
Boyd	Fairview Independent	93.8	71.90%	1.60%	6	18.8	N/A	N/A
Carter	Carter County	98.8	46.50%	4.90%	0	18.2	295	18.7
Elliott	Elliott County	91.6	39.7	12.70%	0	17.5	N/A	N/A
Greenup	Greenup County	93.1	57.90%	0.50%	22	17.7	89	6.3
Greenup	Raceland-Worthington Independent	96.6	63.40%	3.70%	18	19.2	N/A	N/A
Greenup	Russell Independent	98.6	86.50%	0	0	21.7	126	61.8
Lewis	Lewis County	97	45.50%	13.00%	50	18.5	N/A	N/A
Menifee	Menifee County	96.4	48.40%	4.80%	14	17.9	N/A	N/A
Morgan	Morgan County	87	46.30%	9.60%	33	18.3	48	21.8
Rowan	Rowan County	98.7	48.90%	14.60%	37	19.4	85	32.4
	State	88	57.90%	5.50%	8,810	19.4	31,772	48

**TECHNICAL TRAINING**

Name	Type	Enrollment (Full-time equivalent)	Degrees Offered	Tuition	Selected Programs Offered			
					CDL	Electrical	EMT	Welding
<b>KENTUCKY</b>								
Ashland Community & Technical College	Public, 2 year	2,015.2	Diploma, Certificate, Associate Degree	\$147/hour <sup>1</sup>		X		X
Big Sandy Community & Technical College	Public, 2 year	2,433.3	Diploma, Certificate, Associate Degree	\$147/hour <sup>2</sup>	X			X
Bluegrass Community & Technical College	Public, 2 year	6,452.6	Diploma, Certificate, Associate Degree	\$147/hour <sup>3</sup>		X		X
Hazard Community & Technical College	Public, 2 year	1,787.9	Diploma, Certificate, Associate Degree	\$147/hour <sup>4</sup>	X			X
Maysville Community & Technical College	Public, 2 year	2,067.3	Diploma, Certificate, Associate Degree	\$147/hour <sup>5</sup>	X			X
Somerset Community College	Public, 2 year	4,053.7	Diploma, Certificate, Associate Degree	\$147/hour		X		X
Southeast Kentucky Community & Technical College	Public, 2 year	1,860.3	Diploma, Certificate, Associate Degree	\$147/hour <sup>6</sup>		X		X
OHIO								
ABLE/ORC Collins Career Center	Workforce Training	N/A	Certificate	N/A		X		X
Scioto County Career Tech Center	Workforce Training	N/A	Certificate	N/A		X		X
<b>TENNESSEE</b>								
TCAT – Jackson					X			X
TCAT – Morristown								X
TCAT – Knoxville								X
TCAT – Oneida								X
<b>VIRGINIA</b>								
Mountain Empire Community College	Public, 2 year	1,745	Diploma, Certificate, Associate Degree	\$149.25/hour		X		X
<b>WEST VIRGINIA</b>								
Southern West Virginia Community & Technical College				\$133/hour				



## EDUCATION & TRAINING **INVENTORY**

**Ashland Community & Technical College** offers 30 programs of study. These programs of study include diesel technology, electrical technology, welding technology and emergency medical services – paramedic. The emergency medical services – paramedic program admission is limited to those with EMT certification.<sup>7</sup>

**Big Sandy Community & Technical College** offers 28 different programs of study. Diesel technology, electrical technology, and welding are offered at Big Sandy Community & Technical College.

**Bluegrass Community & Technical College** offers more than 200 degree, diploma and certificate options. Some of those programs are computerized manufacturing and machining, electrical technology, paramedic technology and welding technology.<sup>8</sup> The welding technology program is currently at capacity and interested students are encouraged to join a waitlist.<sup>9</sup>

**Bluegrass Community & Technical College** offers students with low English, reading or math test scores the opportunity to

participate in an Academic Boot Camp to reduce or eliminate the need for developmental courses. There are a total of four workshops offered free of charge and students have the opportunity to retest upon completion of the workshops.<sup>10</sup>

**Maysville Community & Technical College** offers 27 programs of study. These programs of study include computerized manufacturing & machining, construction technology, diesel technology, welding technology and manufacturing industrial technology that includes a focus of electrical technology or industrial maintenance technology.<sup>11</sup>

**Maysville** offers an accelerated welding program that allows students to complete 700 lab hours in six months. Classes begin every six weeks and meet four days a week.<sup>12</sup>

**Somerset Community College** offers more than 30 programs of study. Those include computerized manufacturing & machining, construction technology, diesel technology, electrical technology and welding technology.<sup>13</sup>

**EDUCATION & TRAINING INVENTORY**

**Southeast Kentucky Community & Technical College** offers more than 50 different two-year, diploma or certificate programs.<sup>14</sup> Programs include welding and electrical technology.

The **Emergency Medical Services-Paramedic Program** offers students completing the four semester program a certificate. In addition to course work, students complete a filed internship and

summation in their final semester. Preference to applicants to the program may be given to those employed as an EMT at a licensed advanced life support ambulance service or emergency department.<sup>15</sup>

Following is a comprehensive listing of programs offered in Kentucky.

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Ashland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
3 D Modeler			X					
Aesthetician/Esthetician & Skin Care Specialist			X					
Accounting Technology/Technician and Bookkeeping						X		
Acoustical Carpenter				X				
Advanced Imaging in Radiography						X		
Agricultural Production Operations, General	X				X			
Agricultural Technician				X				
Aircraft Powerplant Technology/Technician						X		
Animation, Interactive Technology, Video Graphics and Special Effects		X		X		X		
Appliance Installation and Repair						X		

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Ashland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Technology/Technician								
Applied Horticulture/Horticultural Operations, General	X	X	X		X			
Applied Engineering Technology					X			
Architectural Drafting and Architectural CAD/CADD			X					
Audio Recording				X				
Autobody/Collision Repair Technology		X	X	X	X	X	X	X
Automobile/Automotive Mechanics Technology/Technician	X	X	X	X	X	X	X	X
Biology			X					
Technician/Biotechnology Laboratory Technician								
Bricklayer Trainee						X		
Broadband Technology		X						
Building/Property Maintenance and Management			X					
Business Administration and Management, General	X	X	X	X	X	X	X	X
Career				X				
Exploration/Awareness Skills								
Carpentry/Carpenter	X		X	X	X	X	X	X
Ceramic Arts and Ceramics								X
Certified Medical Technician						X		
Chemical								
Technology/Technician								
Civil Engineering		X						
Technology/Technician								
Clinical/Medical Laboratory			X	X	X	X	X	X

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Asland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Technician								
Communications Technology/Technician		X				X		
Computer and Information Sciences, General		X	X	X	X	X	X	
Computer Graphics					X			
Corrections			X					
Cosmetology/Cosmetologist, General	X	X		X	X	X		
Criminal Justice/Law Enforcement Administration	X	X	X	X	X	X	X	
Child Care Provider/Assistant	X	X	X	X	X	X	X	
Chemical Technology/Technician	X							
Cinematography and Film/Video Production			X					
Construction Technology		X						
Construction/Heavy Equipment/Earthmoving Equipment Operation								X
Construction Forms Helper				X				
Crafts/Craft Design, Folk Art and Artistry				X				
Culinary Arts/Chef Training	X	X			X	X		
Dental Assisting	X	X	X					
Dental Laboratory Technology/Technician			X					
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	X							
Diesel Mechanics Technology/Technician	X	X	X	X	X	X	X	X

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Asland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Digital Forensics		X		X		X	X	
Digital Game and Simulation Design					X			
Drafting and Design Technology/Technician, General	X	X	X	X	X	X	X	
Drama and Dramatics/Theatre Arts, General			X					
Dry Waller				X				
Educational/Instructional Media Design			X		X	X	X	
Electrical and Electronic Engineering Technologies/Technicians, Other		X	X		X	X	X	
Electrocardiogram Technician				X				
Electromechanical and Instrumentation and Maintenance Technologies/Technicians, Other		X	X					
Electrician	X	X	X	X	X	X	X	
Electronic Health Records Specialist		X	X	X		X		
Emergency Medical Technology/Technician (EMT Paramedic)	X		X	X	X	X	X	
Energy Management and Systems Technology/Technician		X	X		X			
Engineering-Related Fields, Other							X	

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Asland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Engineering and Electronics Technology		X			X			
Environmental Engineering Technology/Environmental Technology			X					
Equestrian/Equine Studies			X					
Executive Assistant/Executive Secretary	X	X	X	X	X	X	X	
Fine/Studio Arts	X			X				
Fire Science/Fire-fighting		X	X	X	X	X	X	
Funeral Service & Mortuary Science								
Geographic Information Science			X					
Graphic Communications, General		X				X		
Graphic Design		X				X		
Green Building Technology								
Ground Transportation, Other				X		X		
Health Foundations	X							
Health Information Technology				X				
Health Science Technology		X						
Heating, Air Conditioning, Ventilation and Refrigeration Maintenance	X	X	X	X	X	X	X	
Technology/Technician (HAC, HAC)								
Historic Preservation & Conservation							X	
Homeland Security			X					
Human Services		X	X	X			X	

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Ashtland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Industrial Mechanics and Maintenance Technology	X	X	X	X	X	X	X	
International Logistics		X			X			
Laser and Optical Technology/Technician					X			
Logistics Technology	X	X	X	X	X	X	X	
Liberal Arts and Sciences/Liberal Studies	X							
Licensed Practical/Vocational Nurse Training	X							
Lineman	X							
Machine Shop Technology	X	X	X		X	X	X	
Mason/Masonry	X	X	X		X	X	X	
Medical Administrative/Executive Assistant and Medical Secretary	X	X	X	X				
Medical/Clinical Assistant			X		X	X	X	
Medical Coding Specialist				X				
Medical Information Technology	X		X					
Medical Scribe		X	X					
Medium and Heavy Truck Technician				X				
Mining Technology/Technician		X		X			X	
Mobile Apps Development		X		X		X	X	
Motorcycle Maintenance and Repair		X						
Technology/Technician								
Multi/Interdisciplinary Studies, Other	X	X	X	X	X	X	X	
NCCER Skill Standard Level				X			X	

EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered							
	Ashland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College	
Nuclear Medical Technology/Technologist			X					
Nursing Assistant-Advanced		X			X			
Occupational Safety and Health	X							
Technology/Technician								
Painter Interior Finish				X				
Paralegal Technology						X		
Paramedic Technology			X					
Personal Trainer		X						
Pharmacy Technician/Assistant	X		X			X		
Phlebotomist	X							
Physical Therapist Assistant		X		X		X	X	
Plastics Engineering					X			
Technology/Technician					X			
Plumbing Technology/Plumber					X			
Programming			X					
Psychiatric Mental Health Technician		X						
Public/Applied History and Archival Administration							X	
Real Estate			X		X			
Real Estate Pre-Brokerage Management							X	
Regional Studies (U.S., Canadian, Foreign)				X			X	
Registered Nursing/Registered Nurse		X	X	X	X	X	X	
Release of Information Data Specialist				X				
Residential Roofer				X				



EDUCATION & TRAINING **INVENTORY**

**KENTUCKY TECHNICAL SCHOOLS PROGRAMS**

Program	Locations Offered								
	Ashland Community & Technical College	Big Sandy Community & Technical College	Bluegrass Community & Technical College	Hazard Community & Technical College	Maysville Community & Technical College	Somerset Community College	Southeast Kentucky Community & Technical College		
Respiratory Care Therapy/Therapist	X	X	X		X	X	X		
Securities Services Administration/Management			X						
Security and Loss Prevention			X						
Small Engine Mechanics and Repair			X		X				
Technology/Technician									
Supply Chain Management				X	X				
Surgical Technology/Technologist	X	X	X	X	X	X	X	X	
Surveying Technology/Surveying		X		X				X	
Truck and Bus Driver/Commercial Vehicle Operation		X		X	X				
Veterinary Assistant						X			
Visual Communications: Advertising and Design		X					X		
Volumetric Medical Imaging			X	X		X	X	X	
Web Administration			X						
Web Programming			X						
Webpage, Digital/Multimedia and Information Resources Design			X						
Welding Technology/Welder	X	X	X				X	X	
Workplace Safety Specialist				X	X				

**Collins Career Center** is located in Chesapeake, Ohio and offers workforce training. Tuition is by program and short term, diploma

EDUCATION & TRAINING **INVENTORY**

and certificate programs are offered. Some of the programs is based on WorkKeys scores. include electrical, EMT and welding.<sup>16</sup> Admission to the programs

<b>Collins Career Center</b>	
Trade and Industrial	
Auto Body Repair	
Auto Mechanics	
Electricity	
HVAC	
Industrial Maintenance	
Welding	
Allied Health Programs	
Cardiac Sonography I, II	
Clinical Medical Assisting	
Computed Tomography	
Dental Hygiene I, II	
Exercise Science I, II	
General Sonography I, II	
Medical Administration/Coding and Billing Specialist	
Medical Laboratory Tech I, II	
MRI Tech	
Paramedic	
Patient Care Technician	
Pharmacy Technician	
Phlebotomy Technician	
Practical Nursing	
Radiology Technician I, II	
Respiratory Therapy I, II	
RN	
Surgical Technology	
Protective Services	
Law Enforcement	
Human Services	
Cosmetology	
Short Term Programs	
Advanced Airway	

Collins Career Center
Advanced Medical Coding/Billing
Blood Borne Pathogen
Certified Nursing Assistant
CPR
EKG
EMT
Firefighters
First Responder
IV Therapy
Medical Coding/Billing
Medical Terminology
Stationary Steam Plan
<b>Additional Programs</b>
CADD
Computer Tech
Dental Assistant
Dialysis
Diesel
Electroneurodiagnostic Tech
Massage Therapy
Nail Technician

Scioto County Career Tech Center offers short-term and full-time workforce training programs including emergency medical technician, electricity and welding.<sup>18</sup>

Scioto County Career Tech Center
<b>Short-term Programs</b>
Emergency Medical Technician (Basic)
Nurse Aide
Phlebotomy
<b>Full-time Programs</b>
Automotive Technology

Scioto County Career Tech Center	
Dental Assisting	
Industrial/Constructional Electricity	
Industrial Maintenance	
Information Technology Professional	
Managing Cosmetology	
Medical Office Technology	
Medium/Heavy Truck Technology	
Patient Care Technician	
Pharmacy Technician	
Power Line Mechanic	
Practical Nursing	
Southern Ohio Police Academy	
Surgical Technology	
Welding	

The Tennessee College of Applied Technology has locations throughout the state. The following table is a

comprehensive list of programs offered at their Jackson, Morristown, Knoxville and Oneida/Huntsville locations.

TCAT (Tennessee College of Applied Technology)				
Program	Locations Offered			
	Jackson	Morristown	Knoxville	Oneida/Huntsville
Administrative Office Technology	X	X	X	X
Advanced Manufacturing Technology	X			
Automotive Technology	X	X	X	X
Aviation Maintenance Technology		X		
Collision Repair Technology	X	X	X	X
Computer Information Systems	X			
Computer Information Technology	X	X	X	X
Cosmetology			X	X
Dental Assisting			X	
Diesel Powered Equipment Technology				
Drafting and CAD Technology	X	X	X	
Health Information Management	X			

TCAT (Tennessee College of Applied Technology)					
Program	Locations Offered				
	Jackson	Morristown	Knoxville	Oneida/Huntsville	
HVAC/Refrigeration	X	X	X		
Industrial Electricity	X	X	X		
Industrial Maintenance Technology	X	X	X		
Machine Tool Technology	X	X	X		X
Medical Assistant				X	
Multimedia Design Technology		X			
Pharmacy Technician					X
Pipefitting and Plumbing Technology		X	X		
Powerline Construction and Maintenance Technology					X
Practical Nursing		X	X		X
Surgical Technology		X	X		
Technology Foundations					X
Tool and Die	X				
Truck Driving	X			X	
Welding	X	X	X		X

**Mountain Empire Community College (Big Stone Gap, VA)**

Mountain Empire Community College offers an emergency medical technician, electricity and welding certificates.<sup>19</sup>

Following is a full list of programs offered at Mountain Empire Community College.

Mountain Empire Community College	
Certificates	
3-D Design	
Administration of Justice Corrections	
Administration of Justice Law Enforcement	
Air Conditioning and Refrigeration	
Building Construction – Electrical	

Mountain Empire Community College
Cardiopulmonary Science
Chemical Process Operator
Child Development
Clerical Assistant
Clinical Research Coordinator
Computed Tomography
Computer Software Specialist
Construction
Corrections Management and Supervision
Dental Hygiene
Electricity
Emergency Medical Technician Basic, Intermediate, Paramedic
Energy Technology Electrical, HVAC
Funeral Services Assistant
General Education
Geographical Information Systems
Health Sciences
Help Desk Support
Industrial Maintenance
Information Technology Readiness
Law Enforcement Management and Supervision
Legal Office Assisting
Medical Office Coding and Procedures
Machinery Maintenance
Medical Receptionist & Transcriptionist
Medical Records Technician
Nursing Assistant
Nursing – LPN
Old Time Music
Pre-Pharmacy
Pharmacy Technician
Phlebotomy
Radiology
Real Estate
Small Business Management
Software Development I
Software Development II
Wastewater Plant Operator

<b>Mountain Empire Community College</b>	
Water Plant Operator	
Welding	
<b>Associate</b>	
Administrative Support Technology	
Administrative Support Technology – Medical Office Specialist	
Business Administration	
Computer Networking Technology	
Computer Software Specialist	
Computer-Aided Drafting and Design Mapping Specialization	
Computer-Aided Drafting and Design Technology	
Computerized Manufacturing Technology Electromechanical Technology Specialization, Industrial Electronics Specialization	
Correctional Services	
Emergency Medical Services Technology	
Energy Technology	
Energy Technology – Energy Specialization	
Environmental Science	
Environmental Science Water/Wastewater Specialization	
Forest Science	
Health Information Management	
General Studies	
General Studies – Software Engineering Specialization	
Management	
Medical Laboratory Technology	
Nursing	
Occupational Therapy Assistant	
Paralegal Studies	
Physical Therapy Assistant	
Police Science	
Pre-teacher	
Radiography Technology	
Respiratory Therapy	
Science	
Science, Engineering	
Welding	

**HIGHER EDUCATION**

EDUCATION & TRAINING **INVENTORY**

Name	Type	Enrollment (Full-time equivalent)	Degrees Offered	Tuition
KENTUCKY				
East Kentucky University	4-year, Public	16,305	Certificates, Associate, Bachelors, Master's, Doctorate	\$330/hour
Morehead State University	4-year, Public	11,000	Certificates, Associate, Bachelors, Master's, Doctorate	\$356/hour
University of Pikeville	4-year, Private <sup>20</sup>	1,847 <sup>21</sup>	Associate, Bachelors, Master's, Doctorate <sup>22</sup>	\$785/hour <sup>23</sup>
University of the Cumberlands	4-year, Private	N/A	Associate, Bachelors, Master's, Doctorate <sup>24</sup>	N/A
Union College	4-year, Private	1,089 <sup>25</sup>	Bachelors, Master's, Doctorate	\$345/hour <sup>26</sup>
Kentucky Christian University	4-year, Private	613	Bachelors, Master's <sup>27</sup>	\$605/hour <sup>28</sup>
Clear Creek Baptist Bible College	4-year, Private	N/A	Certificates, Associate, Bachelors <sup>29</sup>	\$270/hour <sup>30</sup>
Alice Lloyd College	4-year, Private	N/A	Bachelors <sup>31</sup>	\$212/hour <sup>32</sup>
Kentucky Mountain Bible College	4-year, Private	N/A	Associate, Bachelors	\$225/hour <sup>33</sup>

**East Kentucky University** is a public four-year university located in Richmond. In addition to many bachelor, masters and doctoral degrees, Eastern Kentucky University offers workforce training. Certificates are offered in advanced emergency medical care; basic emergency medical care; industrial fire protection; and land surveying.<sup>34</sup>

**Morehead State University**, located in Morehead, offers 140 undergraduate degree programs and 70 graduate degree programs to their 11,000 students enrolled.<sup>35</sup> Morehead State University does not appear to offer workforce training.

**University of Pikeville** is a private, liberal arts college located in Pikeville. The University of Pikeville offers 27 majors, 11 pre-professional programs, master's degrees and a doctor of Osteopathic Medicine degree.<sup>36</sup>

**University of the Cumberlands** offer bachelor's and graduate degrees as well as certificates in more than 15 programs including business administration, criminal justice, education and mission and ministry. Many programs are offered online.

<sup>37</sup>



EDUCATION & TRAINING **INVENTORY**

**Union College** is located in Barbourville and offers 32 majors, 29 minors, nine pre-professional programs, online programs and graduate studies.<sup>38</sup>

**Kentucky Christian University** is located in Grayson and offers students bachelor's and master degrees. Areas of study include biblical studies, Christian leadership, education and nursing.<sup>39</sup>

**Clear Creek Baptist Bible College** is located in Pineville. Degrees offered at Clear Creek Baptist Bible College are Associate of Arts in Ministry, Certificate in Bible and a Bachelor of Arts in Ministry.<sup>40</sup>

**Alice Lloyd College** is a liberal arts college that offers students work programs that contribute significantly to their out-of-pocket costs. Bachelor's degrees are offered in arts, science, and education.<sup>41</sup>

**Kentucky Mountain Bible College** is located in Jackson. Students may pursue an associate degree in biblical studies or a Bachelor's degree in religion.<sup>42</sup>



**STAKEHOLDER  
INPUT**

Stakeholder Engagement. Input from stakeholders is a very important component of this workforce study. The stakeholder engagement effort included a series of discussion forums with East Kentucky residents, many of whom are current or former coal miners; interviews with regional employers; and online surveys for both employers and residents. Following are the findings of the stakeholder engagement process.

#### STAKEHOLDER INTERVIEW SUMMARY

**Cultural Characteristics and Phenomena.** Through the discovery process including direct conversations with area residents, Boyette unearthed many ideological constructs that have created the cultural characteristics such as individual worldviews, personal and institutional relationships, beliefs, politics, cultural heroes, language and lifestyles that this region of the United States embodies. While Boyette interviewed more than 500 participants, many of the answers and much of the conversation was the same.

“Look how many people showed up here. We are hard working and can solve issues that others can’t.”

The terrain and general landscape has an effect on the general disposition of those that live in the region. Some of the small communities are extremely remote and rarely experience outsiders. This historic community rhythm causes some of the participants to be closed off and skeptical of available resources.

Coal miner jobs have a longstanding reputation of being legacy jobs that are held by a male household member and passed down through generations. This lifestyle has attributed to a household dependent on the male as the



## STAKEHOLDER INPUT

provider. Historically, the female household member was not a member of the workforce; however, because of the recent economic despair, many women have returned to the workforce. The coal mining industry is wrought with mixed feelings by many of the participants. Some want their life to go back to the way it was before the downturn, while others see no future in the coal industry and do not want to return to the mines.

Coal miners believe that the coal mining industry has been a double-edge sword for many years. On one side, the mining companies have provided good, high-paying jobs for eastern Kentuckians but on the other side the coal mining lobby has kept industry from locating in the area because of the fear that manufacturers would attract the talent away from the coal mines. Others stated that they have been mistreated by some companies who have promised a longstanding career in their coalmine only to be told they are being laid off only after a short time of employment. Additionally, some participants said that they are working even harder to keep their job including longer hours and accepting more difficult tasks.

While being a dependable and hard working employee is a common thread throughout this region, some interviewees said that low literacy rates in some areas add to the stigma that the region as a whole is uneducated.

While an unconfirmed statistic, one interviewee indicated that 75 percent of his high schools graduating class was employed by the mining companies. Interviewees said that they realize they must adapt to change in order to survive.

Many interviewees were skeptical of using computer-based processes such as applying online for jobs because of an “off the grid” mentality.

**General Commentary.** Many coal miners and residents blame the current condition of the economy on the Obama administration and suggested that there should be some type of trade regulation stating that the federal government would only support United States steel companies. However, some realize that the Clean Air Act of 1984, passed during the Regan administration, was the impetus for the current economic downturn in the coal industry. Some believe that regulatory agencies such as the Environmental Protection





## STAKEHOLDER INPUT

Agency (EPA) should be dissolved and that the economy will turn around once the election occurs in the fall of 2016.

Interviewees said that there should be some type of “emergency” clause for unemployment benefits for workers in regions that collapse when an industry for which the region hinges disappears. Notably, many believe that the coal severance tax funds haven’t been used to help the region but have been deployed to other state agencies for purposes outside of the scope of the sanctioned funds.

Stakeholders realize that within the region there are assets such as river, railroads and highways that will support some industries but deduce that no company wants to invest in the region.

Interviewees stated several issues that have created barriers to finding jobs including being an aging employee, drug use and competition with recent college graduates. Additionally, the lack of communication infrastructure such as broadband access is a detriment to the region.

**Valuable Workforce Characteristics.** Consisting of those currently in the workforce or those seeking employment, the

participants stated that they possess the following skills and competencies required by various broad industry categories.<sup>43</sup>

Below is a list of many of those skills.

- Bookkeeping/Accounting
- Carpentry
- Communication
- Computer technology
- Construction
- Customer service
- Dedication/loyalty
- Dependability
- Electrical
- Equipment operation
- Hard working
- Heavy equipment operation
- Leadership
- Maintenance
- Management
- Mechanical
- Medical



**STAKEHOLDER INPUT**

- Mining
- Project management
- Safety
- Teamwork

- Troubleshooter
- Welding
- Work ethic (driven)

**Entrepreneurship and Business Startup.** Participants expressed an interest in starting their own business when asked if they have ever considered starting a business or working for a startup company. Barriers for starting a business that were given as examples included the current condition of the economy, lack of financing options and lack of ideas. Stakeholders suggested that there are some support services that are needed such as assistance in writing a business plan.

**Training for the Future.** With a willingness to learn new skills, stakeholders responded with a broad range of interests when asked what types of training they would consider in preparation for a new job. Many realized that they need to seek training.

Additionally, almost all of the participants stated that they are willing to take training courses but currently do not have the time to take classes because they are constantly trying to

provide for their families. Taking classes and being out of work, what little work they can find, will sacrifice their ability to provide basic human needs such as food, clothing and shelter for their families. Others said that because these are critical times for the region they would like to see some type of “certificate fast track” for certain skills such as welding.

Participants were disappointed that employers do not value their skills and experience but rather only look at applicants that have certificates. Others stated that the training programs are full or at capacity and that they didn’t have time to wait. Interviewees said that they would do anything to keep from losing everything (family, house, car, etc.). Some interviewees said that they would consider an internship type arrangement that provided compensation and a path to obtain a full time position. Others said that they have considered going back to school to be licensed to drive a truck but that the reimbursement from the unemployment office prohibits



**STAKEHOLDER INPUT**

attending classes because they are unable to front the initial cost.

- Nursing
- Welding and welding certification

Interviewees said that the lack of computer access or broadband access creates significant hurdles when applying for jobs online or taking online educational courses.

**Workforce Migration.** When asked about their willingness to relocate for a job or if they would consider staying in the area, participants want to stay in their area for a job. However, many indicated that because there is a lack of jobs in the area that aren't directly related to the coal industry that they will have to consider relocating.

Types of training that participants were interested in are listed below.

- Commercial Driver's License (CDL)
- Certifications for existing skills
- Computer skills
- Construction management
- Electrical
- Fiber optics installation
- Heavy equipment operation
- Information technology
- Law enforcement
- Leadership
- Lineman
- Management
- Mechanical engineering

Stakeholders said that they are willing to drive up to four hours and in some instances across state lines for better paying jobs. Interviewees reiterated that they typically work more than 60 hours a week and driving for a job is not an issue. Others stated that they have considered working for extended periods of time out of state and coming home in between work periods so that their families are able to stay in the area.

Some examples of commuting times include traveling for two hours for \$21.00/hour jobs or working in Lexington during the week and coming home on the weekends for \$28.00/hour. Some indicated that they would drive up to 500 miles a day. Others are currently commuting one hour for \$9.30/hour jobs. However, many indicated that while they are familiar with the

## STAKEHOLDER INPUT

road and highways of the area it could become hazardous to drive some of the roads in the area daily. Other said that if the job pays very well, they would consider relocating near the company.

Participants indicated that companies in surrounding states have realized that many former coal miners have more advanced welding and electrical skills and are marketing open positions to the former coal miners. This initiative, while it allows for the coal miner to support his or her family, will cause a long-term talent deficit in the region.

**Wage Rate Concerns.** Many participants, specifically those that have worked in coalmines said that they historically have been compensated for their skills and abilities with salaries that range from \$60,000 to \$100,000 per year. They then indicated that the jobs that are currently available in the region offer minimum wage compensation and in some cases that wage is lower than the unemployment benefits that the individual receives from the United States Department of Labor (DOL).

**Dreams and Dream Jobs.** A large majority of those interviewed indicated that they simply want a job that allows

EKYWORKS

them to remain in the environment for which they have been accustomed or raised, affords them the opportunity to raise their children, and provides for a comfortable quality of life. Many stated that they want a job that provides stability and a long-term career. Others stated that they want to use the skills and experience that they have in certain areas such as machinery maintenance and welding for related jobs in the area; however, many of those jobs require a bachelor's degree and seemingly discount experiential on-the-job training. Some interviewees took the opportunity to express dream jobs such as a Corvette test driver, game warden, and guitar maker.

Participants shared their desire for the dream jobs in the areas listed below.

- Certified welder
- Chemical engineer
- Computer technology
- Construction
- Electrician
- Entrepreneur
- Game Warden







**STAKEHOLDER INPUT**

- Health care
  - Information technology
  - Law enforcement
  - Lineman/Electric Utility
  - Manufacturing
- Mining
  - Something with good benefits
  - Something that provides stability
  - Teach



## STAKEHOLDER INPUT

### RESIDENT SURVEY SUMMARY

A total of 1,796 residents of the East Kentucky Works region completed a resident survey. Many were distributed a job fairs and local unemployment offices, the survey was also available online.

Of those residents who responded to the survey, 62 percent were not employed, but looking for work, and 24 percent were employed full time all others were employed part time, self-employed or not employed and not looking for work.

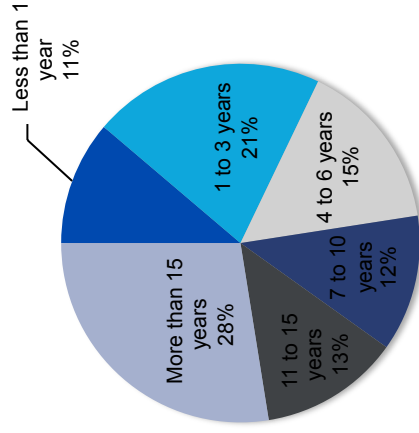
Employed. For those residents who are employed, more than half have been employed with their current employer three years or fewer. Nearly 30 percent have more than 15 years experience in their current field of employment.

For those employed residents, 48 percent would be interested in completing additional training in their current field. Computer training, management, business and office/clerical were the types of training employed residents were most interested in completing.

Fifty-two percent of employed residents have work experience or specialized training that qualifies them for a better job but cannot find that locally.

While employed residents commuted varying distances, 60 percent were interested in commuting more than 30 minutes one-way for a new job.

## HOW MUCH EXPERIENCE DO YOU HAVE IN YOUR CURRENT FIELD OF EMPLOYMENT?



## STAKEHOLDER INPUT

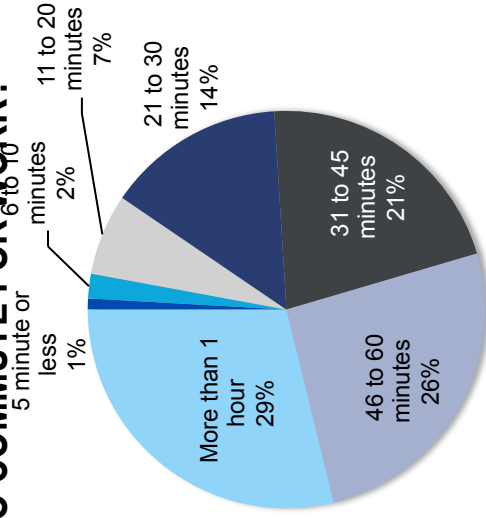
Unemployed. More than half of the unemployed residents were recently laid off or their company shut down. Forty-nine percent of those unemployed were employed as recently as three months ago. Many of the respondents' most recent job was in coal mining, retail and health care.

More than half of unemployed residents are willing to accept a new job paying \$14.99 per hour or less and another 24 percent would accept \$15.00 to \$19.99 an hour. When asked how far they were willing to commute one way for work 29 percent said more than one hour and another 26 percent responded 46 to 60 minutes.

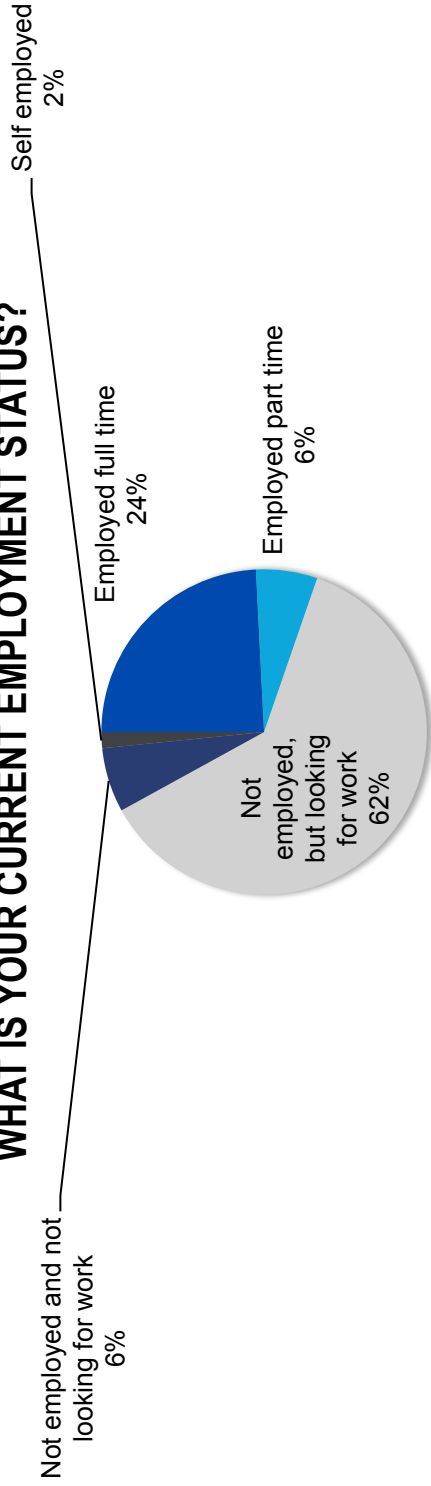
Most respondents did not have any limitations on employment options with the exception of lack of job in their field.

Following are the full survey results.

## HOW FAR, ONE WAY, ARE YOU WILLING TO COMMUTE FOR WORK?



### WHAT IS YOUR CURRENT EMPLOYMENT STATUS?



• •

### WHAT INDUSTRY BEST DESCRIBES THE NATURE OF YOUR EMPLOYMENT?

Other - Please Specify	Count
Food Service	7
Non profit	6
Call center	4
Customer Service Rep	3
Social work	3
Career Advisor	2
Case management	2
Community Action	2
Nonprofit Community Development	2
Auto Repair	1
Banking	1
Career Services	1
Cleaning	1
Climber	1
Coal Miner	1
Community Assistance	1
Community Connect Center Funded By USDA	1
Community Outreach	1
Community Services	1
Corrections	1
Cosmetology	1
Counseling	1



STAKEHOLDER **INPUT**

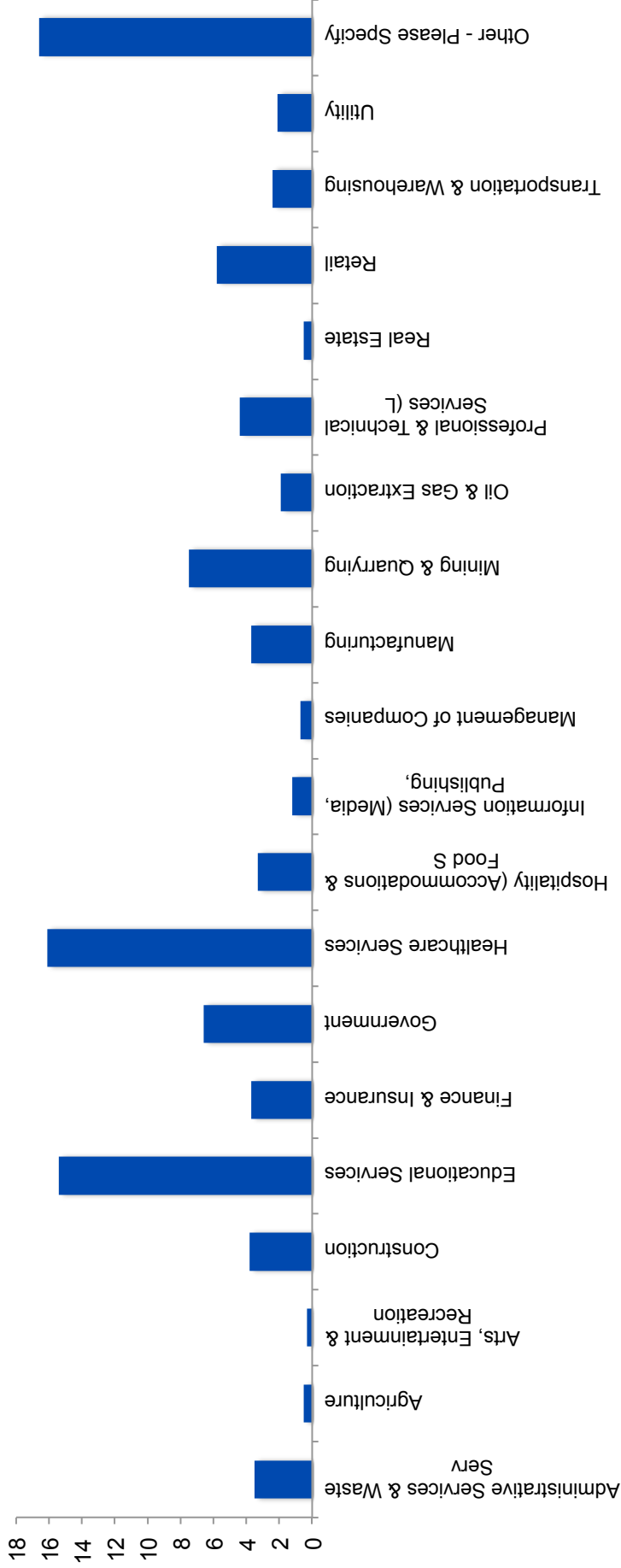
**WHAT INDUSTRY BEST DESCRIBES THE NATURE OF YOUR EMPLOYMENT?**

Other - Please Specify	Count
County	1
CSR	1
Custodial	1
Data Entry	1
Delivery	1
Disability Services	1
Dollar General	1
Factory Worker	1
Faith/Religion	1
Forestry	1
Graphic Design, Screen Printing, Vinyl Work	1
Head Start	1
Healthcare Research	1
Heavy Equipment Operator	1
Hospital Security	1
Housekeeping/Light Maintenance	1
Human Resources And Accounts Payable At A Durable Medical Equipment Company	1
Human Services	1
Insurance Adjustor	1
Labor Union	1
Market Research	1
Mental Health	1
Metal Recycling	1
Over The Phone Interviewer	1
Personal Assistant	1
Pharmaceuticals	1
Production Planning, Inventory Control, Buyer, And Seller	1
Property Maintenance	1
Sales	1
Security	1
Service	1
Self Contracting/ Handy Man	1
Social Security	1
Substance Abuse Counselor	1
USPS	1
Welder	1
Workforce Investment	1

STAKEHOLDER INPUT



WHAT INDUSTRY BEST DESCRIBES THE NATURE OF YOUR EMPLOYMENT?



WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?

Job Title	Count
Other - Please Specify	3
Case Management	3
Correction Officer	2
Career Advisor	



STAKEHOLDER **INPUT**

**WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?**

Other - Please Specify	Count
Cook	2
Equipment Operator	2
Interviewer	2
Mechanic	2
Substance Abuse Counselor	2
Accountant	1
Administrative Coordinator	1
Affordable Care Act Insurance	1
Americorps VISTA	1
Auctioneering	1
Bouncer	1
Bus Driver	1
Car Detailer	1
Case Worker	1
Certified Nurse Aide	1
Civil Servant	1
Climber	1
CAN	1
Commercial Roofing	1
Contract Labor	1



STAKEHOLDER **INPUT**

**WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?**

Other - Please Specify	Count
Cosmetologist	1
Custodial	1
Customer Service Representative	1
Data Entry	1
Development Coordinator	1
Electrician	1
EMT	1
Executive Director	1
Facilitator	1
Factory Worker	1
Fire Fighter	1
Forestry	1
Gas Fracturing Mechanic	1
Gas Station Attendant	1
Government Employed	1
Graphic Designer, Production Associate, And Bookkeeper	1
Grounds Keeping	1
Healthcare- Case Management	1
Housing Counselor	1
Instrumentation Tech	1





STAKEHOLDER **INPUT**

**WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?**

Other - Please Specify	Count
Insurance Adjustor	1
Intake Worker	1
Kitchen	1
Letter Carrier	1
Licensed Massage Therapist	1
Loss Prevention And Safety	1
Machine Operator	1
Medical Billing	1
Mental Health - Working With Youth	1
Mine Electrician	1
Mining Monitoring	1
Night Stock	1
Office Assistant	1
Office Manager	1
Operations Technician, Housekeeping Supervisor	1
Operator	1
Outreach Worker	1
Owner Director	1
Owner-Operator	1
Pastor	1



STAKEHOLDER **INPUT**

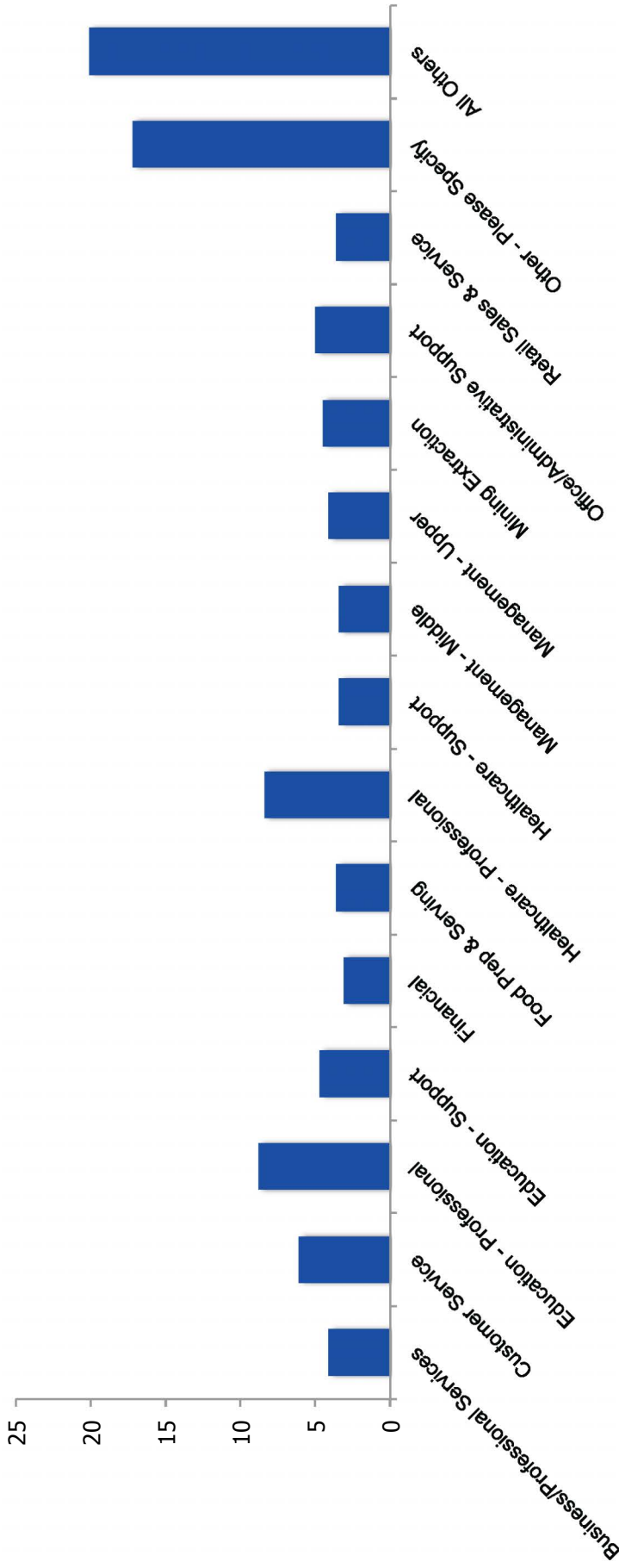
**WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?**

Other - Please Specify	Count
Pharmacy Technician	1
Police Examiner	1
Quality Inspector	1
Quality Technician	1
Research	1
Sales	1
Service Center Manager	1
Social Work	1
Soft Skills Trainer/Job Clubs Coordinator	1
Software Engineer	1
Senior Account Executive	1
Statistician	1
Substitute Teacher	1
Telemarketing	1
Truck Driving	1
Tutor	1
Unemployed	1
Welder, Pipefitter	1
Workforce Development	1



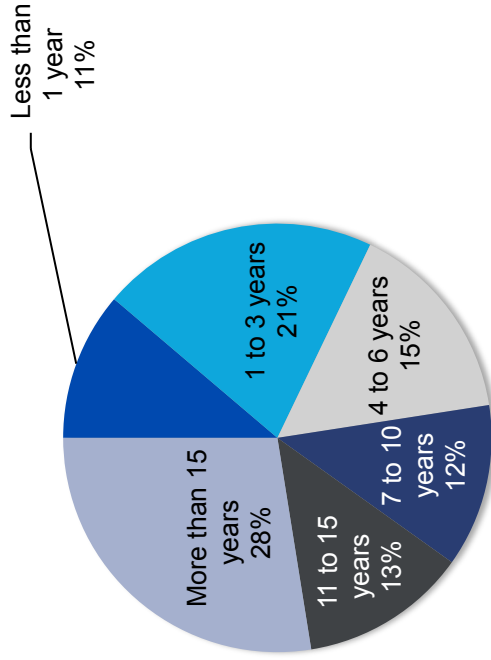
STAKEHOLDER INPUT

WHAT IS YOUR CURRENT JOB TITLE OR WHAT POSITION DO YOU CURRENTLY HOLD?

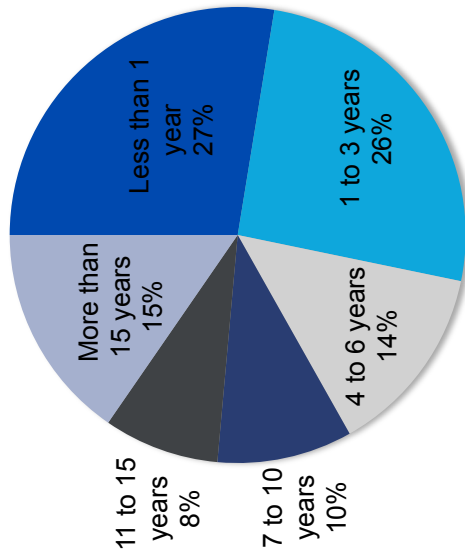




## HOW MUCH EXPERIENCE DO YOU HAVE IN YOUR CURRENT FIELD OF EMPLOYMENT?

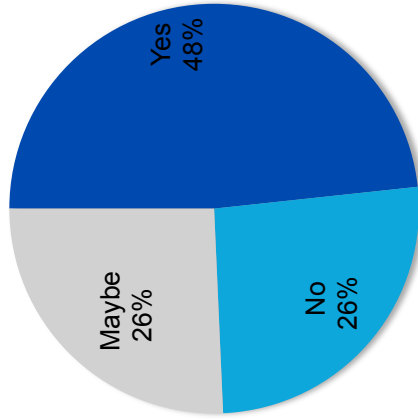


## HOW LONG HAVE YOU BEEN EMPLOYED WITH THIS COMPANY?



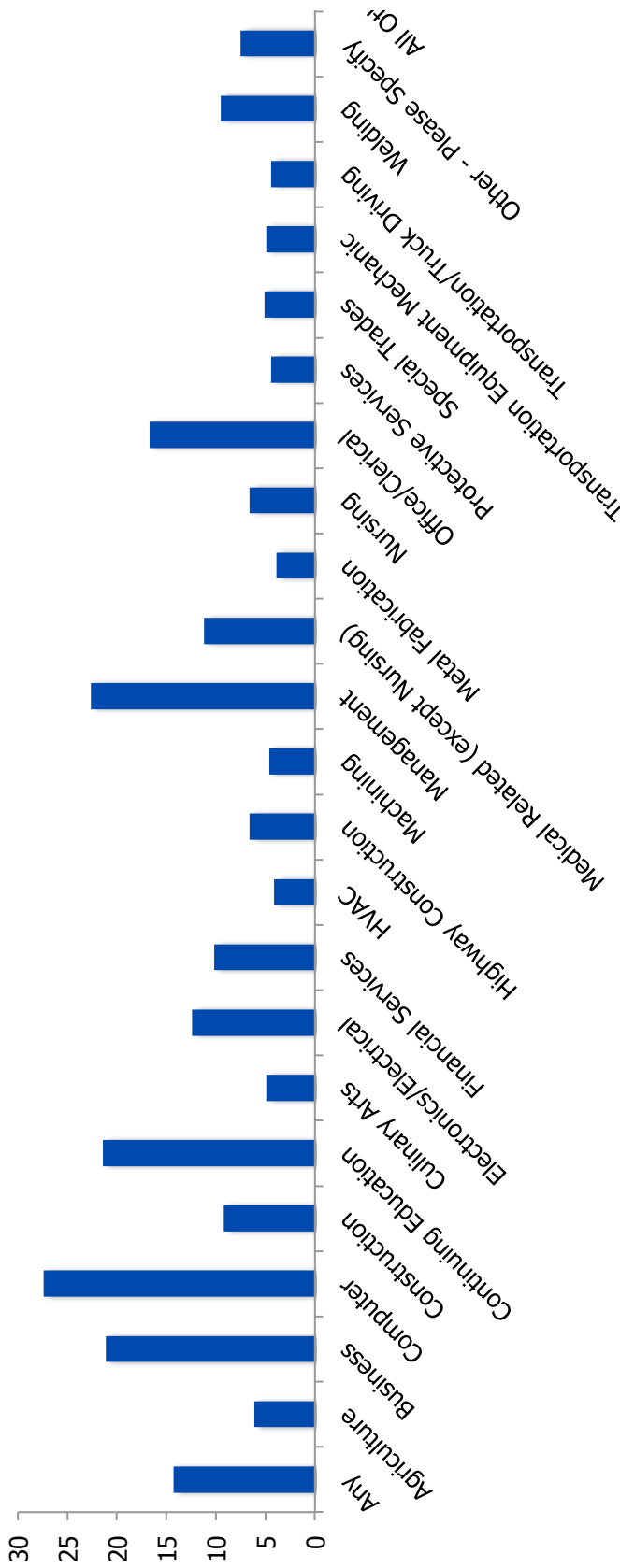


## WOULD YOU BE INTERESTED IN COMPLETING ANY TRAINING IN YOUR CURRENT FIELD OF EMPLOYMENT?





### WHAT TYPE OF TRAINING WOULD BE OF INTEREST TO YOU? (PLEASE MARK ALL THAT APPLY.)



### WHAT TYPE OF TRAINING WOULD BE OF INTEREST TO YOU? (PLEASE MARK ALL THAT APPLY.)

Other - Please Specify	
Any Professional Development	Grant writing and management
Billing	Human Resources
Blue prints	Human services



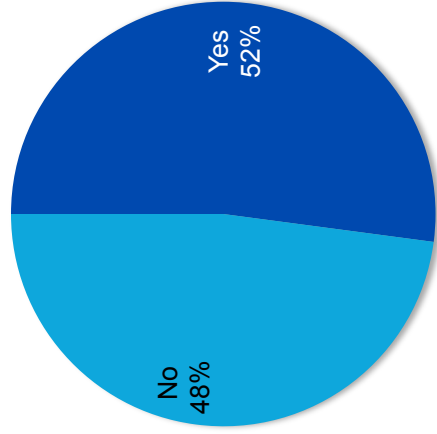
**WHAT TYPE OF TRAINING WOULD BE OF INTEREST TO YOU? (PLEASE MARK ALL THAT APPLY.)**

Other - Please Specify

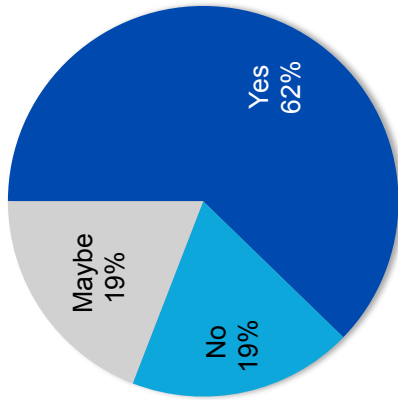
Carpentry	Leadership Development
Carpentry Work	Library Science
Classes on new techniques, computer program education	Office Work
Community Development	Paralegal
Computers	Photography
Customer/Human Services	Real Estate
Diesel Mechanic	Self-improvement and mentoring others
Educational	Social
Educational /Disabilities Children ages 3-4	Social worker or medical assistant
Educational doctorate	State police training
Educational/Disabilities	Technology
Food Service	Vet technical
Government Programs	



**DO YOU HAVE ANY WORK EXPERIENCE OR  
SPECIALIZED TRAINING THAT QUALIFIES  
YOU FOR A BETTER JOB THAN THE ONE YOU  
HAVE NOW BUT CAN'T FIND THAT  
EMPLOYMENT LOCALLY?**



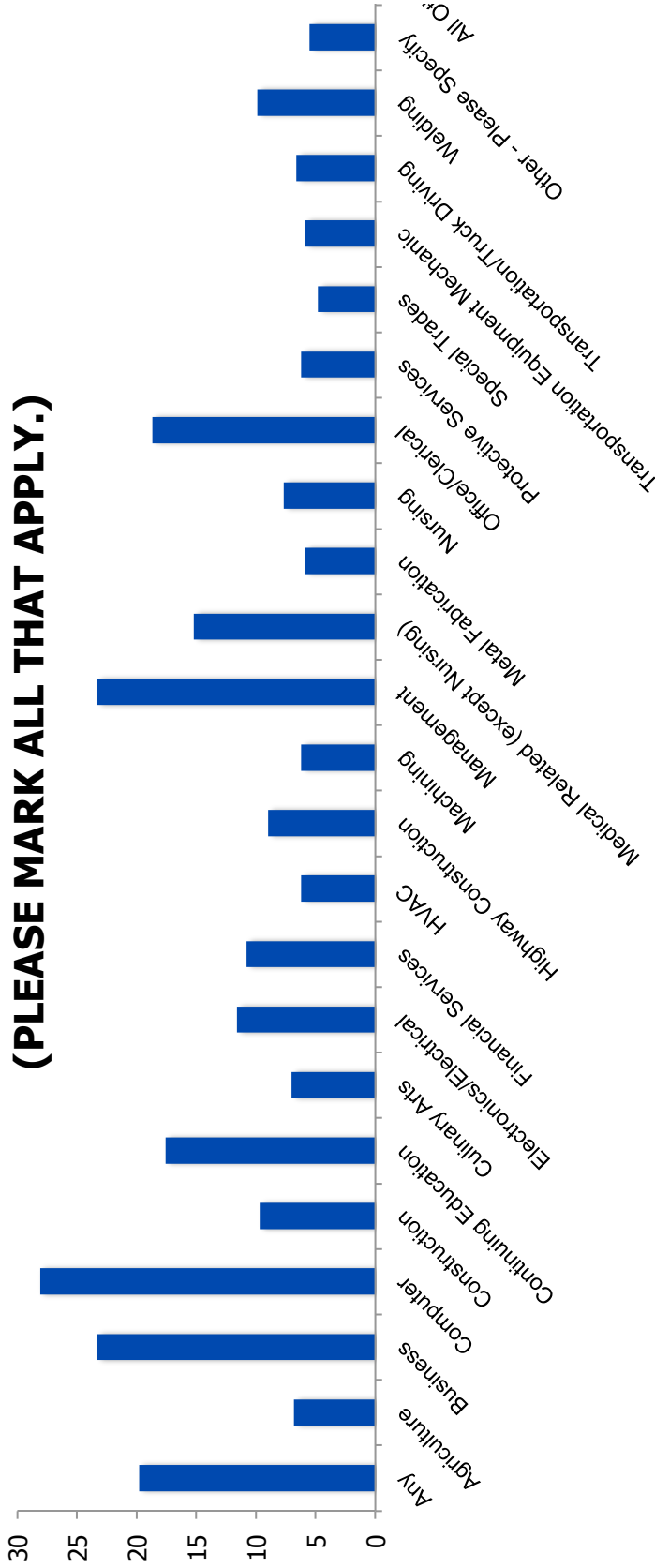
**WOULD YOU BE INTERESTED IN  
TRAINING TO ACQUIRE NEW JOB  
SKILLS?**





STAKEHOLDER INPUT

**WHAT TYPE OF TRAINING WOULD BE OF INTEREST TO YOU?  
 (PLEASE MARK ALL THAT APPLY.)**



**What type of training would be of interest to you? (Please mark all that apply.)**

Other - Please Specify	
Anything in law	Foreign languages
Any Professional Development	Human Resources
Architecture	Interior Design
Billing & Coding	Office work



STAKEHOLDER **INPUT**

What type of training would be of interest to you? (Please mark all that apply.)

Other - Please Specify	
Corrections	Paralegal
Counseling	Plumbing
Customer/Human services	Real Estate
Cutting tree stump removal	Sales
Education	Self-improvement and mentoring others
Educational administration	Surveying
Engineering	Tourism
Fine and performing arts	Vet. Assistant or Forestry

IN WHAT COUNTY DO YOU CURRENTLY RESIDE?

Value	Percent
Bell County	8.0%
Boyd County	0.5%
Breathitt County	1.9%
Carter County	1.4%
Clay County	1.6%
Elliott County	0.2%
Floyd County	6.9%



**STAKEHOLDER INPUT**

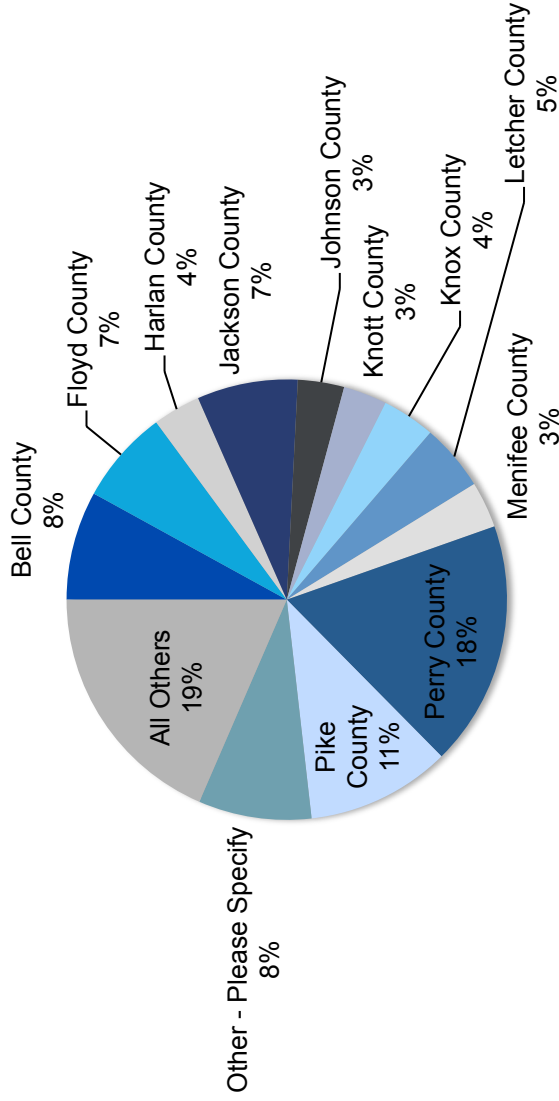
Greenup County	0.4%
Harlan County	3.5%
Jackson County	7.4%
Johnson County	3.4%
Knott County	3.2%
Knox County	3.9%
Lawrence County	1.2%
Lee County	2.8%
Leslie County	1.2%
Letcher County	4.9%
Lewis County	0.2%
Magoffin County	0.5%
Martin County	0.7%
Menifee County	3.4%
Morgan County	2.3%
Owsley County	0.9%
Perry County	18.0%
Pike County	10.6%
Rowan County	2.3%
Wolfe County	0.4%
Other - Please Specify	8.3%



STAKEHOLDER INPUT

- 

**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**



**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

County	Count
Other - Please Specify	5
Laurel County	3
Mingo County, West Virginia	2
Bath County	2
Estill County	2
Madison County	2
Montgomery County	2



STAKEHOLDER **INPUT**

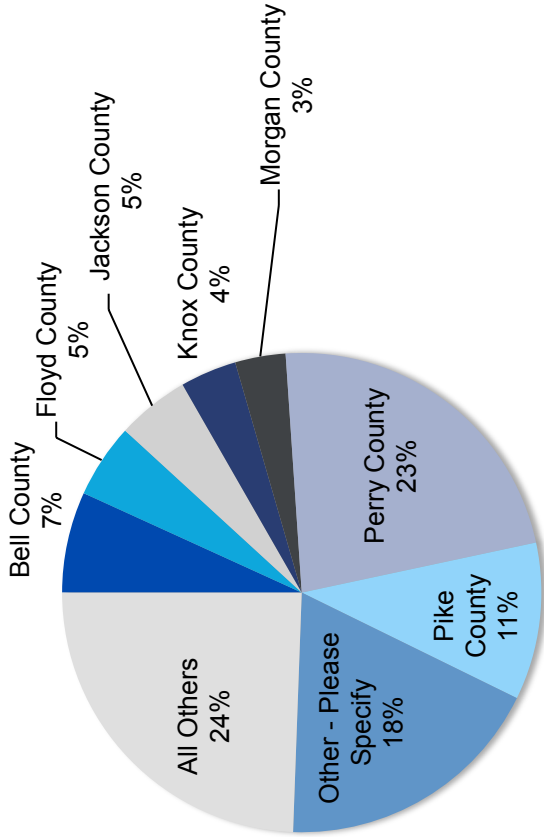
**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

Other - Please Specify	County
Whitley County	2
Adair County	1
Buchanan County	1
Fayette County	1
Fleming County	1
Logan County, West Virginia	1
Pulaski County	1
Tazewell County, Virginia	1
Warren County	1

•



### IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?



### IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?

Value	Percent
Bell County	6.8%
Boyd County	0.7%
Breathitt County	1.8%
Carter County	0.7%
Clay County	1.3%

STAKEHOLDER **INPUT**

**IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?**

Value	Percent
Floyd County	5.0%
Greenup County	0.5%
Harlan County	2.9%
Jackson County	4.9%
Johnson County	2.5%
Knott County	1.3%
Knox County	3.8%
Lawrence County	0.5%
Lee County	2.0%
Leslie County	0.5%
Letcher County	2.2%
Magoffin County	0.5%
Martin County	1.4%
Menifee County	2.2%
Morgan County	3.4%
Owsley County	0.7%
Perry County	22.7%
Pike County	10.6%
Rowan County	2.5%

STAKEHOLDER **INPUT**

**IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?**

Value	Percent
Wolfe County	0.2%
Other - Please Specify	18.3%

**IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?**

Other - Please Specify	County
Laurel County	9
Fayette county	5
Mingo County, West Virginia	3
Montgomery County	3
Whitley County	3
Estill County	2
Logan County, West Virginia	2
Madison County	2
Norton, Virginia	2
Adair County	1
Based in Lexington	1
Bath County	1
Belmont County, Ohio	1





STAKEHOLDER **INPUT**

**IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?**

Other - Please Specify	County
Buchanan County	1
Claiborne County, Tennessee	1
Clark County	1
Clarksburg, West Virginia (Harrison County)	1
Dickenson County, Virginia	1
Employed through Georgia and travel around Eastern Ky	1
Fleming County	1
Hamblen County, TN	1
I have to travel to Harlan, Manchester, Barbourville, Middlesboro, London, Prestonsburg and Tazewell TN	1
Indiana	1
Jefferson City, Tennessee (Jefferson County)	1
Lexington	1
Multiple Counties	1
Multiple including Laurel	1
Office is in Knott but travel the state	1
Perry County, but work in the Big Sandy Region	1
Powell County	1
Prichard, West Virginia	1
Pulaski County	1
Raleigh County, West Virginia	1



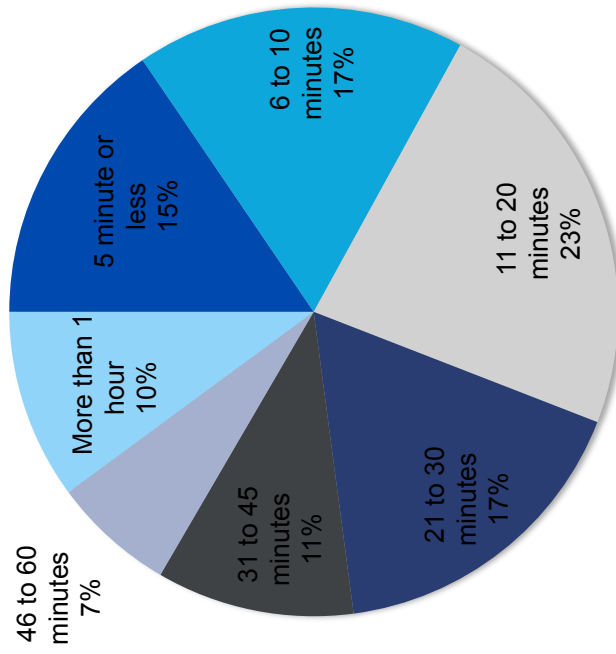
STAKEHOLDER **INPUT**

**IN WHAT COUNTY ARE YOU CURRENTLY EMPLOYED?**

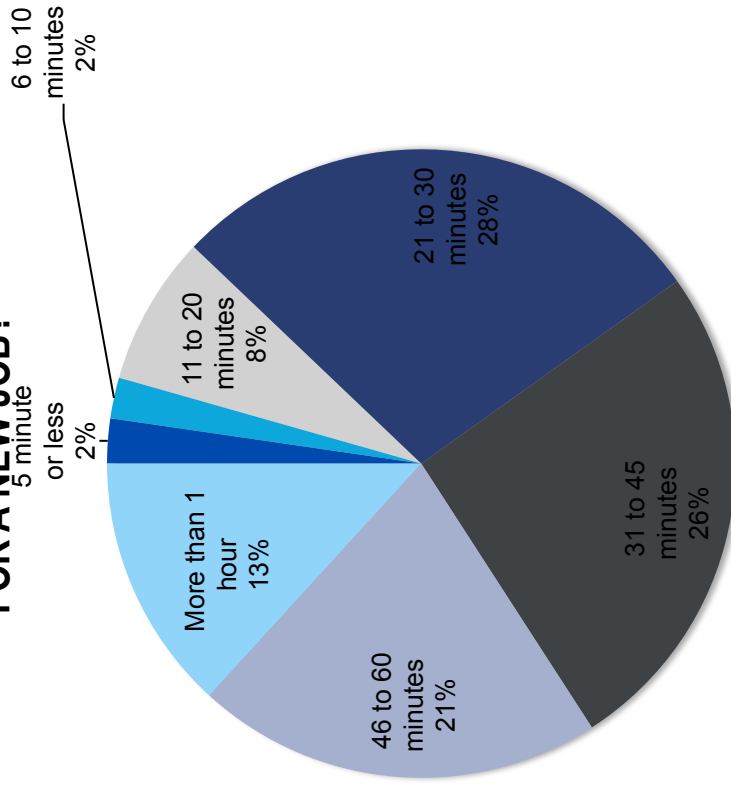
Other - Please Specify	County
Rockcastle County	1
Scott county	1
Tazewell County, Virginia	1
Tazewell, Tennessee (Claiborne County)	1
Tennessee	1
Warren County	1
Washington, Virginia (Rappahannock County)	1
Wayne County	1
Weston, West Virginia (Lewis County)	1
West Virginia	1



### HOW LONG IS YOUR COMMUTE, ONE WAY, TO WORK EACH DAY?

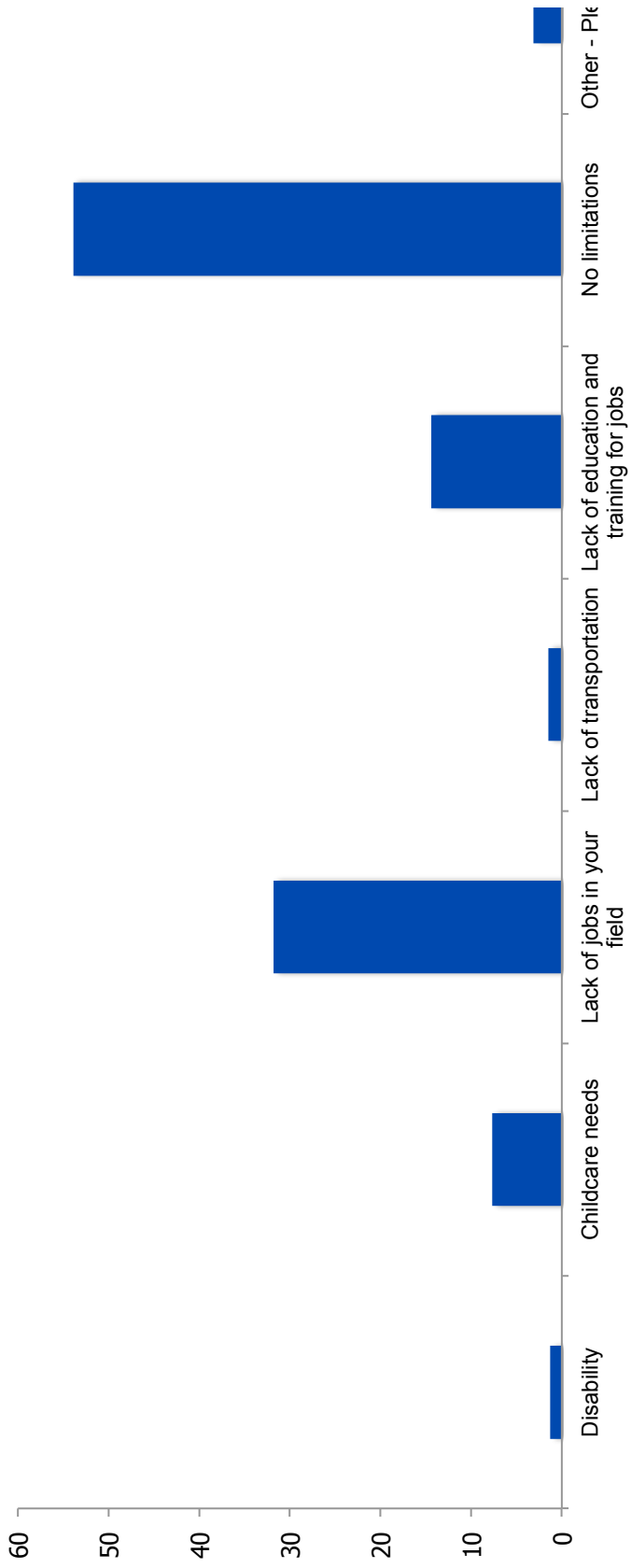


### HOW FAR, ONE WAY, WOULD YOU COMMUTE FOR A NEW JOB?





ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING? (PLEASE MARK ALL THAT APPLY.)



ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING? (PLEASE MARK ALL THAT APPLY.)

Other - Please Specify

Eldercare responsibilities. I am place-bound at this time.

Health related but not officially disabled

High speed Internet



STAKEHOLDER **INPUT**

**ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING? (PLEASE MARK ALL THAT APPLY.)**

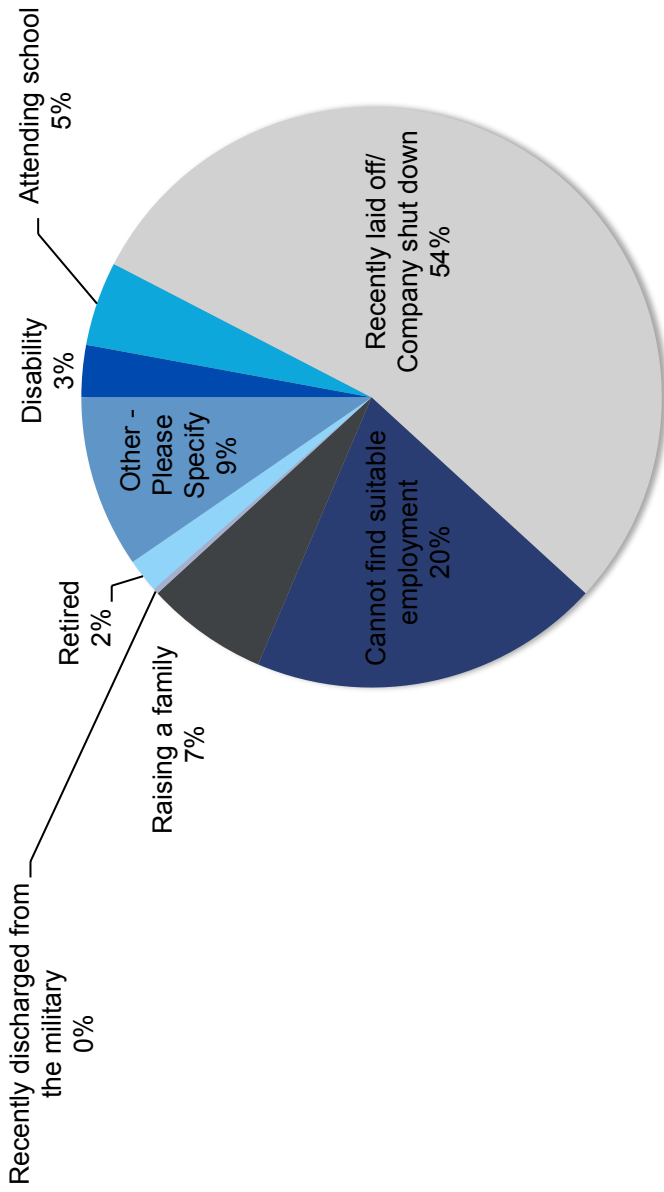
Other - Please Specify

In school
Inability to relocate, impractical commutes
Insufficient pay
Judged before given a chance.
Lack of jobs
Lower pay in my field in a Perry County
Mental health issues
Need 6 more years to retire
No jobs in ANY field in this county!
None
Not originally from area
Retired on social security
Snow/rain
Too much government. Less handouts, more free markets. End wasteful programs like SOAR



STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**



**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

Laid Off/Released/Fired

Discharged

Fired

Fired because of snow



STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

Laid off
Lay off
Lay off
Let go
Let go during medical leave for workplace injury
Released
Released from job
Terminated
<b>Injury/Medical Reason</b>
Got hurt on job
Had to miss too much work, due to being involved in a grotesque car wreck last month.
Illness
Injured at work
Medical
Medical leave
<b>Quite/Left Job</b>
Left job
Left job due to death in the family
Left overseas employment
Left previous job after being robbed at gunpoint



STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

Quit

Quit for personal reasons

Quit previous job

Recently quit due to company failures

**Recently released from incarceration**

Incarcerated

Just got out of prison January the fifth

Recently released from prison

Released from prison

**Relocated**

Just moved to find better opportunities

Just moved to the area

Moved

Moved from Indiana

Moved from Michigan

Moved here recently

Moved to care for family member

Moved to this area recently

New to Kentucky

Recently moved to area





STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

Recently moved to area

Relocated

Relocated

Relocating

Was working out of state and just moved back

**Seeking work environment or pay**

Looking for a job that pays better.

Need closer work

Need sufficient work hours

Wasn't happy with the hours that they provided

Workplace harassment and manager drug use

Seeking higher pay better benefits

Was not happy at Schneider

Wanted to do more

**Unable to find work**

Can not find a job at the time

Lack of work

Lack of work

New teacher, was unable to find employment

Not enough jobs



STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

**Other**

65+ social security

Attending school after company shut down

Bills

Clients

Coal miner

Company failing to work with employee

Company sold out

Completed assignment

Divorce

Family reasons

Graduated

Have special needs child can't find someone to work with schedule

Home maker

I worked at a detail shop and not much business

Immigrant

Just finished school

Just out of high school

Mines closed

Mines shut down



STAKEHOLDER **INPUT**

**WHY ARE YOU CURRENTLY UNEMPLOYED?**

Other - Please Specify

Never worked

No transportation

Not worked in years

OBAMA

Personal issues

Poor treatment at previous employer

Project closure

Recently graduated from school

Returning from military training

Self-employed

Taking care of elderly grandfather

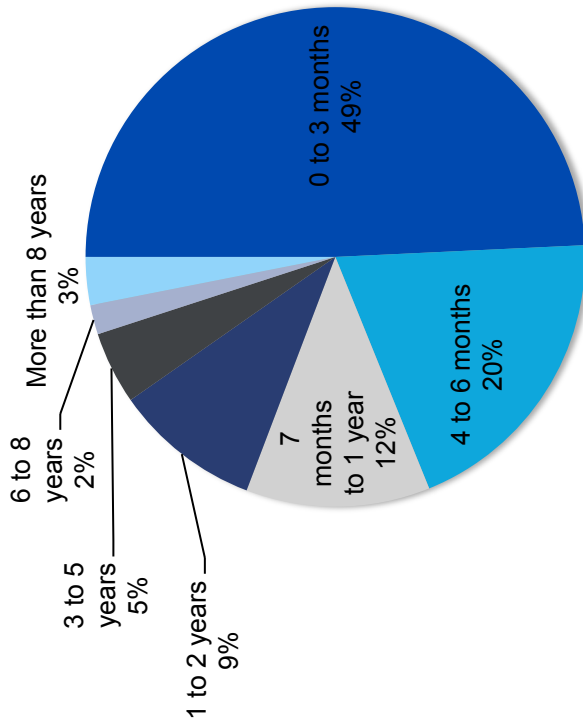
Taking care of parents

Waiting for correspondence from Uhaul to start work



STAKEHOLDER INPUT

HOW LONG HAS IT BEEN SINCE YOU WERE LAST EMPLOYED?



WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Coal Mining	136
Retail	42
Healthcare (CNA, Medical Asst.)	28
Clerical, receptionist	27
Fast Food	26
Foreman	21
Customer Service	16
Steel	16
Maintenance	15
Construction	14
Laborer/factory worker	14
Warehouse/Distribution	14
Security	13
Truck Driver	13
Mechanic	12
Housekeeping	10



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Cashier	9
Food Service	9
Education, not teacher	7
Oil and Gas	7
Railroad	7
Welding	7
Daycare worker	6
Manager	6
Equipment Operator	5
Landscaping/lawn care	5
Mine Boss	5
Teacher	5
Electrician	4
Nonprofit	4
Nursing	4
Operator	4
Pastor/Minister	4
Pharmacy technician	4
Self Employed	4
Sykes	4
Carpenter	3
Case worker/Case manager	3
General dynamics information technology	3
Job Shop	3
Never worked	3
Sales Associate	3
Smithfield	3
Aisin automotive	2
Assembly line worker	2
AT&T	2
Boilermaker	2
Car salesman	2
Corrections officer	2
Detail work/car washer	2
Dietary aid	2
Dishwasher	2
Driver	2
Dura-line	2
Electronic tech.	2
Heavy equipment operator	2
Human resources	2



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Janitor	2
Landman abstractor leasing agent	2
Line man	2
Logging/lumber	2
Marketing	2
Military	2
Painter	2
Printing	2
Rock springs	2
Server	2
Shift leader	2
Substitute teacher	2
Superintendent	2
Technical support	2
All American party rentals	1
Alpha	1
Engineer for American Electric Power	1
Knitter	1
U.S. navy- officer	1
(Ups) driver helper	1
@Home advisor	1
3m factory in cynthiana	1
A&A safety	1
Ac/dc repair	1
Academic consultant at HCTC	1
Account advisor	1
Account manager	1
Activity's assistant	1
Affinity apparel	1
American woodmark	1
Americorps NCCC - environmental stewardship	1
Any thing to do with physical education and sports management	1
Appalachian regional manufacturing	1
Assembly operator	1
Assistant manager for uk summer housing	1
Auto technician	1
B&w resources equipment operator	1
Barge loader	1
BB1 tech cable install	1
Belt examiner	1
Bell ringer - salvation army	1



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Bell Whitley/bell theater	1
Big sandy cap	1
Blaylock equipment company	1
Bma	1
Bo loader operator	1
BPM lumber in Hyden, Kentucky	1
Bristol group	1
Bus driver	1
Cable installation (network/surveillance)	1
Caster operator	1
Caudill seed	1
Certified dietary manager	1
Clean room technician	1
Cma	1
Coca cola	1
Concrete finishes	1
Conston	1
Coyne textile services ssr	1
Crane operator	1
Crew	1
Crst	1
Cti foods	1
Curd surveying & land contracting	1
D & F Comm - groundsman	1
D&f communication	1
DBA RW Recycling and Landscaping	1
Dcs	1
Deboard Kentucky	1
Delivery driver	1
Deputy clerk	1
Deputy project manager at leonie industries in Kuwait	1
Diesel tech	1
Director of IT	1
Docks Creek LLC - loading/off loading barges onto train cars	1
Dr. Mary Oldfield	1
Draftsman/cad tech	1
Drier/parts dept	1
Ds & 4 intern	1
DSP at Mending Hearts, INC.	1
Dtr	1
Dye iet operator textile plant	1



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Electrical engineer	1
Energy steam power maintenance	1
Energys	1
Engine operations	1
Engineer technician	1
Engineering consultant	1
England's furniture	1
Factory SEKRI	1
Fame & martin enterprise	1
Family pharmacy	1
Family support worker for Young Child / Every Child Succeeds	1
Farm	1
Field manager Rubicon Geological Consulting	1
Field supervisor	1
Finance officer	1
Firefighter	1
Fivcol home health	1
Five D Enterprise - highway ad airfield lightning and electrical	1
Floorhand	1
Flours bakery	1
Forklift operator	1
Fortress	1
Frenchburg job corp	1
Funeral Director and Embalmer	1
Gallaher Group - mail sorter	1
Gciii	1
Global marketing (Kirby)	1
Government-owned location in the Philippines	1
Greg day storm cleaning	1
Guardian srg global	1
Harry and David Seasonal	1
Hitachi automotive inc.	1
Hoisting engineer	1
Holiday inn express	1
Human services surveyor	1
Icog	1
IKIP job program	1
Instructional assistant	1
Insurance company	1
Insurance examiner	1
Intellisource	1





STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Intern at Ocean City Police Department, MD	1
Job corps	1
Kdmk	1
Kelly services	1
Key services	1
Kingsbrook lifecore center	1
KY Division of Forestry	1
KY staffing - ATCO industries @ SRC Global	1
Labor operator for pine mountain lumbers Pikeville yard	1
Laurel cookie factory	1
Laying block	1
Laying city water line	1
Librarian	1
Lion's apparel, inc	1
Machine operator	1
Manpower for Pregis Corporation	1
Martin fork security	1
Material handler	1
Mendingheards	1
Metal cutter	1
Meterman	1
Mid-south electric	1
Millwright LG Fox	1
Mis director	1
Monitors and evaluation support	1
MRI technologist	1
Msha	1
Nationwide services	1
Nestle foods	1
Nights shift manager at Patriots Travel Center	1
Nightwatching equipment	1
Ns corp	1
Nutritionist	1
O.O.N. at Generations of Middlesboro	1
Oa2 wdhr	1
Older worker coordinator	1
Overhead crane	1
Park way pe	1
Parts delivery	1
Parts manager	1
Parts sales	1



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
PC Technician / systems administrator	1
Pca hazard arh	1
Pec	1
Perry manufacturing	1
Pest control service technician	1
Piano teacher	1
Pioneer natural resources	1
Pitman	1
Plant operator/heavy equipment operator	1
Plating assembly/builder	1
Plumbing assistant	1
Police	1
Political office	1
Postmaster	1
Pre-shift examiner	1
Professional gasket maker	1
Program manager, med coordinator, day training manager	1
Project management for a global pharmaceutical	1
Quality inspector	1
Quality tech at Nitto Denko	1
Recreation specialist at F.C.I.	1
Repair man	1
Rescare	1
Rigger	1
Roofing	1
S&G global	1
Safety coordinator/production manager	1
Sales	1
Sanitation	1
Sawmill work	1
Seamstress	1
Senior Account Specialist with Startek	1
Senior operating technician	1
Service director for Boyd County ford	1
Servpro production tech	1
Shermco inds	1
Software implementation and customization for Lion	1
Southern monument co.	1
Special materials, inc.	1
Specialized staffing	1
Specimen technician	1



STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

Response	Count
Srg global	1
Srna	1
Starcon - BMA	1
Supervisor	1
Support tech at Alternative Outlook	1
Surveyor	1
Sutherland	1
SVS Ready Mix - driver/operator	1
Team lead	1
Tech assistant for Special Procedures	1
Teco	1
Telecommunications (fiber optic installer)	1
Teller at bank	1
Telpro Communications - field tech	1
Temp--Appalachian Wireless PBX operator	1
Ticket sales	1
Tipple attendant	1
Tlk, llc	1
Toyota/employment plus	1
Trackman	1
Tranco Services Inc. Electric Motor and Mining Equipment rebuild	1
Transportation	1
U S Department of Justice	1
U.P.S	1
Union millwright	1
Unlimited equipment	1
Ups	1
Vaughn septic	1
Veolo environmental services	1
Verifications researcher	1
Vet tech	1
Vice-president, Europe/Middle East	1
Virginia Fuel Corporation - Anger Foreman in Roanoke, VA	1
Volunteer recruiter - Intocision Call Center	1
Wall tender	1
Washer plant operator	1
Wildcat buildings	1
Work study	1
Wright block and precast	1
W/tw leasing	1
Wurtland manor	1

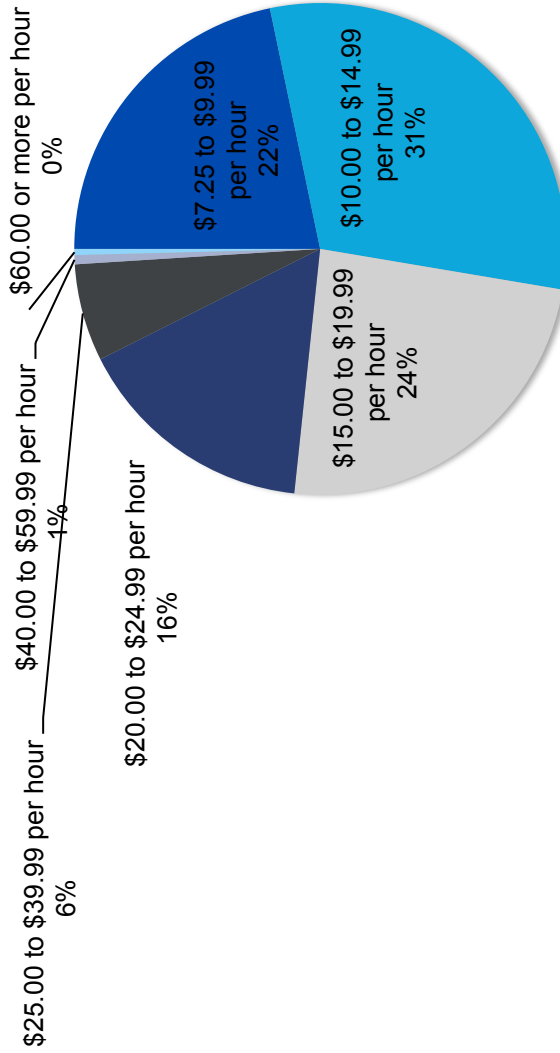


STAKEHOLDER INPUT

WHAT WAS THE LAST JOB YOU HELD?

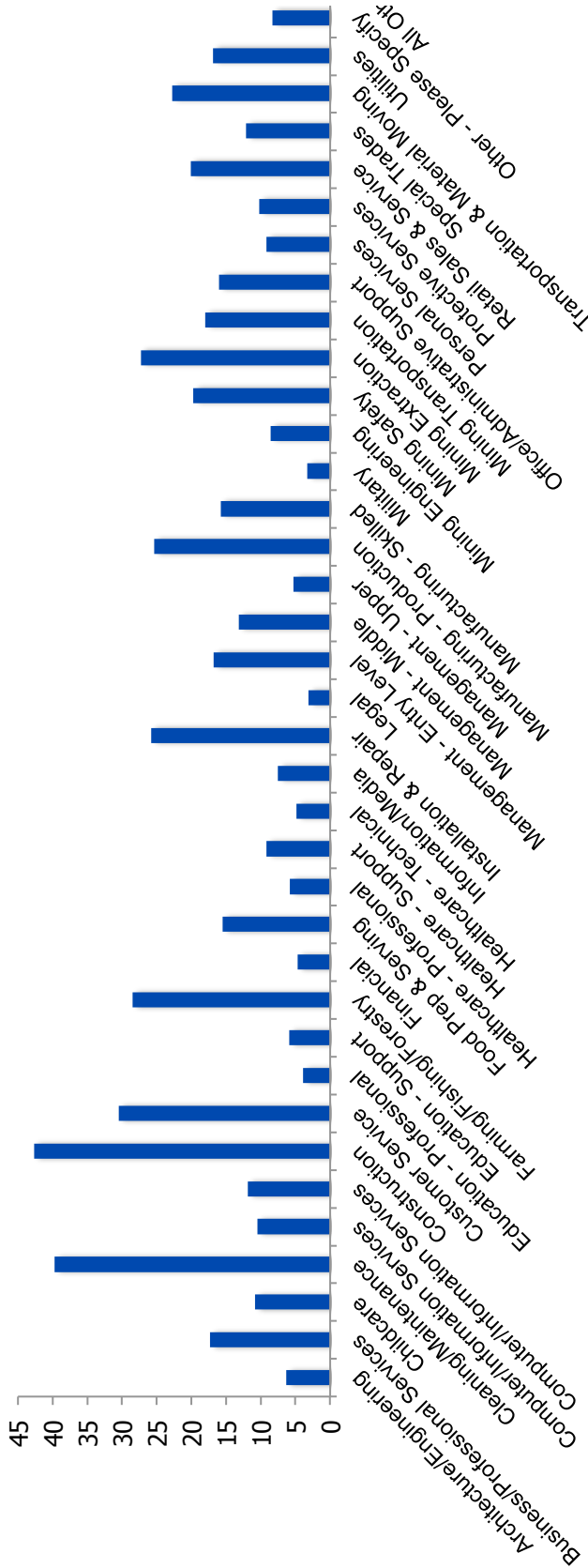
Response	Count
Xerox	1
Youth services coordinator	1
Youth worker for DJJ	1

WHAT HOURLY WAGE WOULD BE REQUIRED FOR YOU TO ACCEPT A NEW JOB?





PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.



PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.	
Value	Percent
Architecture/Engineering	6.3%
Business/Professional Services	17.3%
Childcare	10.8%
Cleaning/Maintenance	39.7%



STAKEHOLDER **INPUT**

PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.	
Value	Percent
Computer/Information Services Professional	10.5%
Computer/Information Services Support/Technician	11.9%
Construction	42.7%
Customer Service	30.5%
Education - Professional	3.9%
Education - Support	5.9%
Farming/Fishing/Forestry	28.5%
Financial	4.7%
Food Prep & Serving	15.5%
Healthcare - Professional	5.8%
Healthcare - Support	9.2%
Healthcare - Technical	4.9%
Information/Media	7.5%
Installation & Repair	25.8%
Legal	3.1%
Management - Entry Level	16.8%
Management - Middle	13.2%
Management - Upper	5.3%



STAKEHOLDER **INPUT**

PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.	
Value	Percent
Manufacturing - Production (unskilled)	25.4%
Manufacturing - Skilled	15.8%
Military	3.3%
Mining Engineering	8.6%
Mining Safety	19.7%
Mining Extraction	27.3%
Mining Transportation	18.0%
Office/Administrative Support	16.0%
Personal Services	9.2%
Protective Services	10.2%
Retail Sales & Service	20.1%
Special Trades	12.1%
Transportation & Material Moving	22.8%
Utilities	16.9%
Other - Please Specify	8.3%



STAKEHOLDER **INPUT**

**PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.**

Other - Please Specify	Count
Welding and fabrication	5
Miner/coal	4
CDL license	4
Electrical maintenance and HVAC	3
Electrician	3
Security/Corrections	3
Medical coding or billing	2
Phlebotomist	2
Warehouse worker/laborer	2
Auto mechanic	2
Advisor	1
Any customer service	1
Any kind of work out doors that involves working with your hands	1
Anything	1
Assembly line	1
At risk youth	1
Banquet and special event serving	1
Business Assistant	1
Carpenter	1





STAKEHOLDER **INPUT**

PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.

Other - Please Specify	Count
Case manager	1
CDC & Telecom	1
Chemical operations	1
CNA	1
Communication	1
Concrete finisher	1
Data Entry	1
Disabled	1
Driver	1
Electrical technician	1
Electricity	1
Environmental biology	1
Equipment	1
Equipment operator	1
Fiber optic installations or CEO installations	1
Fiber Optics, Electrical Equipment Repair	1
Forklift operator	1
Front end loader/operator	1
Graphic design	1



STAKEHOLDER **INPUT**

**PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.**

Other - Please Specify	Count
Heavy equipment operator	1
Hi-lo operator	1
Human services	1
I can do anything I set my mind to just need an opportunity!	1
Industrial maintenance/technician	1
Insurance	1
Insurance Agent	1
Leasing minerals for utility company	1
Linemen	1
Manual labor. Recycling companies	1
Meat fabrication and identification	1
Mental Health	1
Nutrition	1
Paralegal	1
Process tech, refinery/chemical plant operations	1
Realtor	1
Receptionist	1
Residential electricity	1
Sales associate	1



STAKEHOLDER **INPUT**

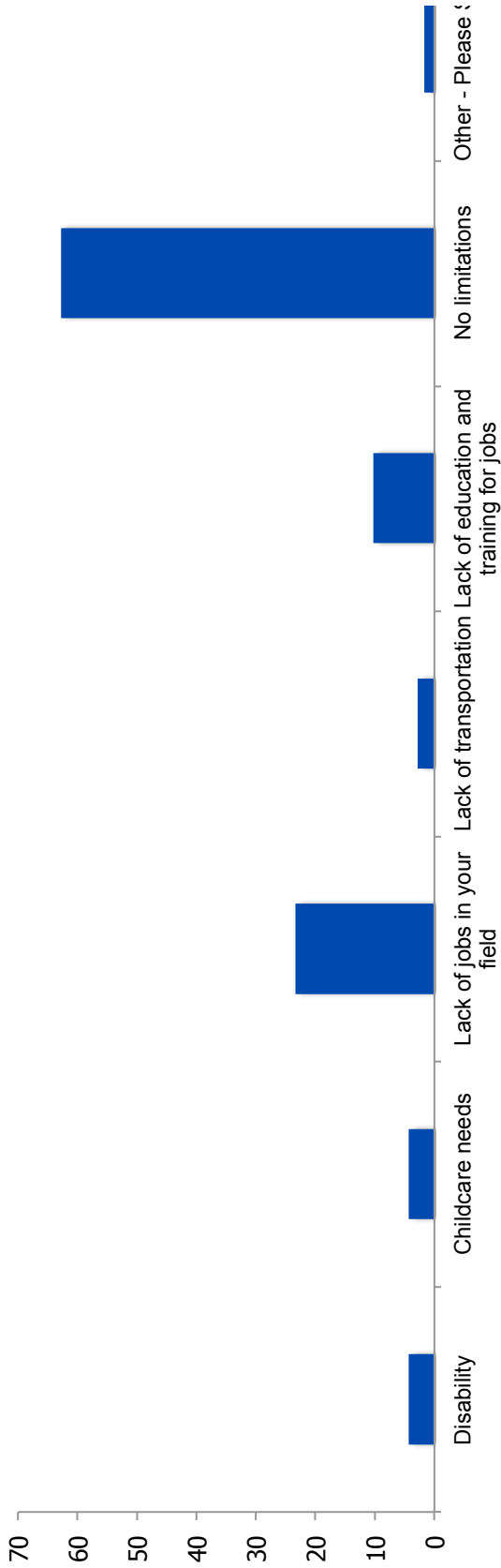
**PLEASE INDICATE THE TYPE OF JOB FOR WHICH YOU BELIEVE YOU HAVE THE SKILLS, EDUCATION OR TRAINING. PLEASE MARK ALL THAT APPLY.**

Other - Please Specify	Count
Small electronics repair	1
Social work	1
Substitute at Bell Whitley	1
Telemarketing	1
This will be 1st job	1
Tree trimmer	1
Truck parts and automotive parts	1
Vet	1



STAKEHOLDER INPUT

ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING?  
(PLEASE MARK ALL THAT APPLY.)



ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING? (PLEASE MARK ALL THAT APPLY.)

Other - Please Specify

Age and family illness

Asthma

College

Convicted felon



**ARE YOUR EMPLOYMENT OPTIONS LIMITED BY ANY OF THE FOLLOWING? (PLEASE MARK ALL THAT APPLY.)**

Other - Please Specify

Felony conviction

Felony record

Full time student

Heavy equipment operator

I have Multiple Sclerosis with disabling effects

Lack of HELP

Lack of jobs in the area

Lack of jobs in Perry County, Kentucky

Limitations

Location

Need hours to be while my children are in school

No education opportunities for unemployed miners. Retraining not available to miners. Qualifications to get education are out of reach, if you are an unemployed miner you should receive free education regardless of household income.

Pregnancy

Price of gas

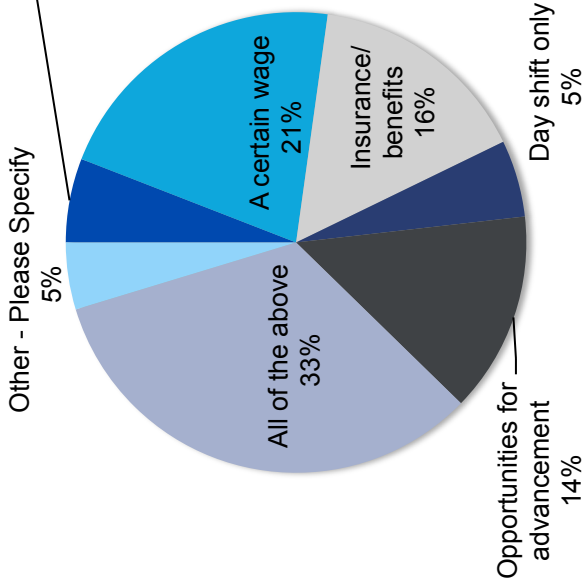
School

Too far from any jobs to drive



## WHAT WOULD YOU REQUIRE BEFORE ACCEPTING A JOB?

A short commute  
6%



Other - Please Specify  
5%

All of the above  
33%

A certain wage  
21%

Insurance/  
benefits  
16%

Opportunities for  
advancement  
14%

Day shift only  
5%

## WHAT WOULD YOU REQUIRE BEFORE ACCEPTING A JOB?

Other - Please Specify	Count
Any Job/No Requirements	12
Unable to Work	4
Stability	3
Shift Accommodations	3
Full Time	3
Certain Hours	3



STAKEHOLDER **INPUT**

**WHAT WOULD YOU REQUIRE BEFORE ACCEPTING A JOB?**

Other - Please Specify	Count
Flexible Hours	2
Retired not looking for work	1
Hourly wage	1
A Challenge	1
Consistent hours	1
Flexible hours	1
Full time	1
Hours that work with my class schedule	1
Days off for school	1
Job not requiring high school diploma	1
Nonunion	1
Not sure	1
On bus line	1

**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

Value	Percent
Bell County	8.2%
Boyd County	9.1%
Breathitt County	2.9%



STAKEHOLDER **INPUT**

**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

Value	Percent
Carter County	3.9%
Clay County	0.2%
Floyd County	3.8%
Greenup County	4.6%
Harlan County	10.5%
Johnson County	4.9%
Knott County	6.2%
Knox County	0.5%
Lawrence County	5.0%
Lee County	0.2%
Leslie County	4.4%
Letcher County	3.6%
Lewis County	0.5%
Magoffin County	2.3%
Martin County	1.8%
Menifee County	1.8%
Morgan County	1.4%
Owsley County	0.2%
Perry County	11.1%





STAKEHOLDER **INPUT**

**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

Value	Percent
Pike County	1.1%
Rowan County	5.2%
Wolfe County	0.3%
Other - Please Specify	6.7%

**IN WHAT COUNTY DO YOU CURRENTLY RESIDE?**

Other - Please Specify	Count
Lawrence County, Ohio	3
Scioto County, Ohio	3
Claiborne County, Tennessee	2
Wayne County, West Virginia	1
Fleming County	1
Mingo County, West Virginia	1
Bath County	1
Buchanan County	1
Cabell County	1
Gallia County	1

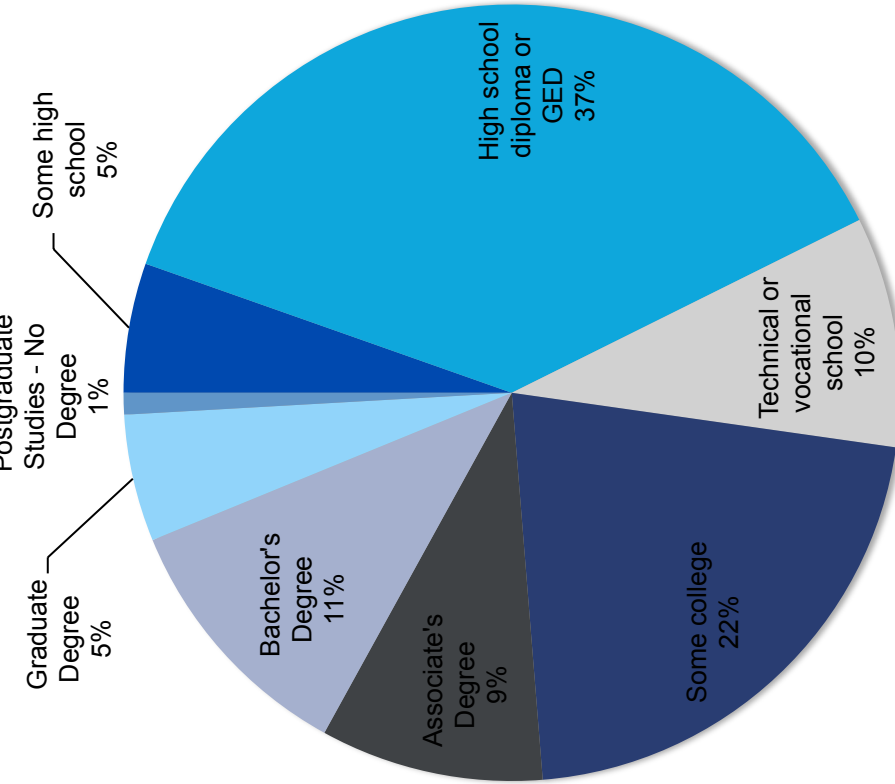


**STAKEHOLDER INPUT**

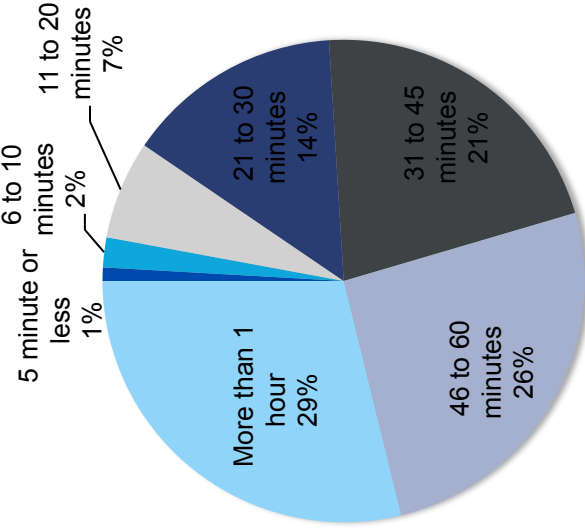
Kanawha County, West Virginia	1
Montgomery County	1
Kenton County	1
Putnam County	1
Sevier County	1
Whitley County	1



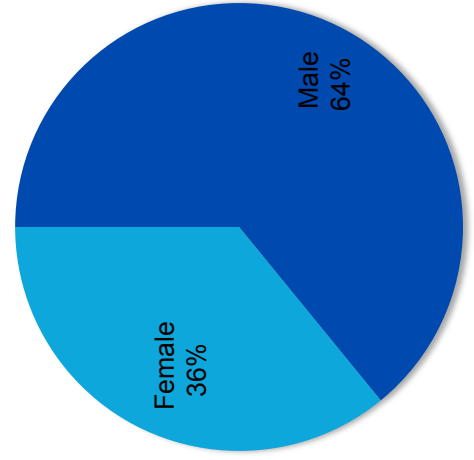
**WHAT IS THE HIGHEST LEVEL OF EDUCATION YOU HAVE COMPLETED?**



**HOW FAR, ONE WAY, ARE YOU WILLING TO COMMUTE FOR WORK?**



**WHAT IS YOUR GENDER?**





**EMPLOYER SURVEY RESULTS**

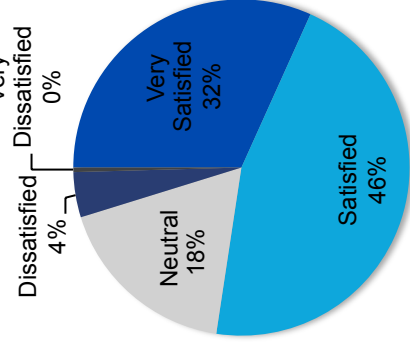
An online survey was designed to gain feedback from employers in the East Kentucky Works regions. The survey was in the field for 10 weeks, from January 20<sup>th</sup> to March 17, 2016. A total of 233 employers completed the survey.

Respondents represented all industry sectors and large and small employers. Most (66 percent) have been an employer in East Kentucky for more than 20 years and only one percent has been an employer less than one year. Employers also represented all counties in the region.

Nearly 80 percent of employers responding to the survey are satisfied or very satisfied with the employees in East Kentucky. Only four percent were dissatisfied and no one reported being very dissatisfied.

When asked to rank the top skills areas for employees and their satisfaction with those skills in East Kentucky. Trainability was considered the most important skill and 76.8 percent of employers are satisfied or very satisfied.

**PLEASE RATE YOUR OVERALL SATISFACTION WITH THE EMPLOYEES YOU HIRE IN EAST KENTUCKY:**



**SKILL AREAS IMPORTANT TO EMPLOYEES SUCCESS**

Rank	Skill	Very Satisfied/ Satisfied
1	Trainability (Ability to Learn New Tasks)	76.8%
2	Productivity	77.9%
3	Soft Skills (Reading, Writing, Basic Math, Communication, Teamwork)	71.8%
4	Technical Skills (Equipment Operation, Maintenance, Computer Skills)	73.9%
5	Employer/Employee Relationship	83.3%
6	Punctuality	71.7%

## STAKEHOLDER INPUT

Nearly half of employers have an average daily absenteeism rate of less than one percent and a third have less than one percent annual turnover. Better salary is the top reason employees leave a company followed by better benefits, according to employers surveyed. More than 60 percent of the employer's workforce has been with the company six years or more.

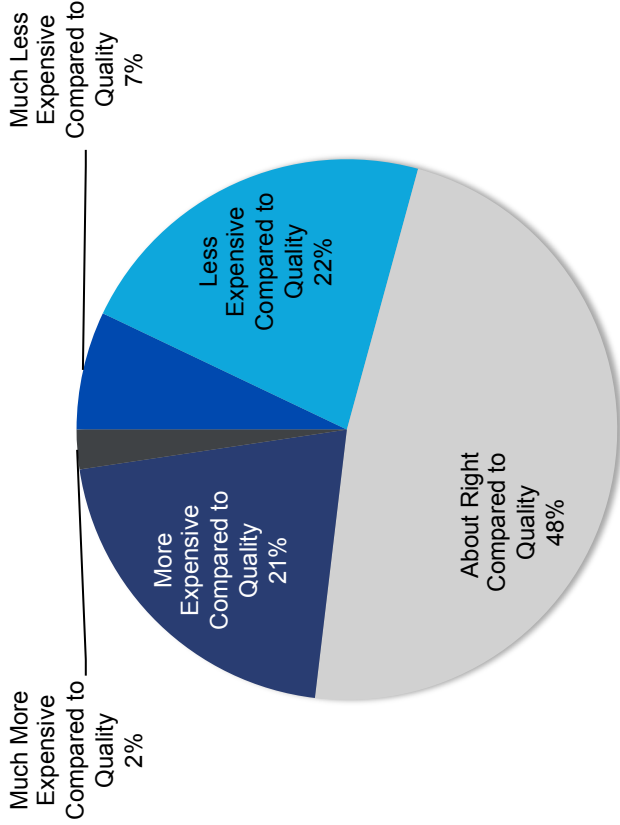
Overall employee availability is a challenge for employers with 53 percent saying it is difficult to find workers and another nine percent saying it is very difficult. The most common challenges include lack of technical skills sets, lack of required educational background and salary not meeting expectations.

A quarter of employers reported employees driving more than 50 miles one-way for work, with 49 percent driving 21 to 50 miles one-way.

The majority of employers considered the cost of labor to be about right or less expensive compared to quality.

## EKYWORKS

### DO YOU BELIEVE THE COST OF LABOR IN EAST KENTUCKY IS IN LINE WITH QUALITY?



Only 56 percent of employers recruit from outside of the regions for available positions. Of those employers 40 percent found it difficult and another 14 percent found it very difficult to recruit for those positions.

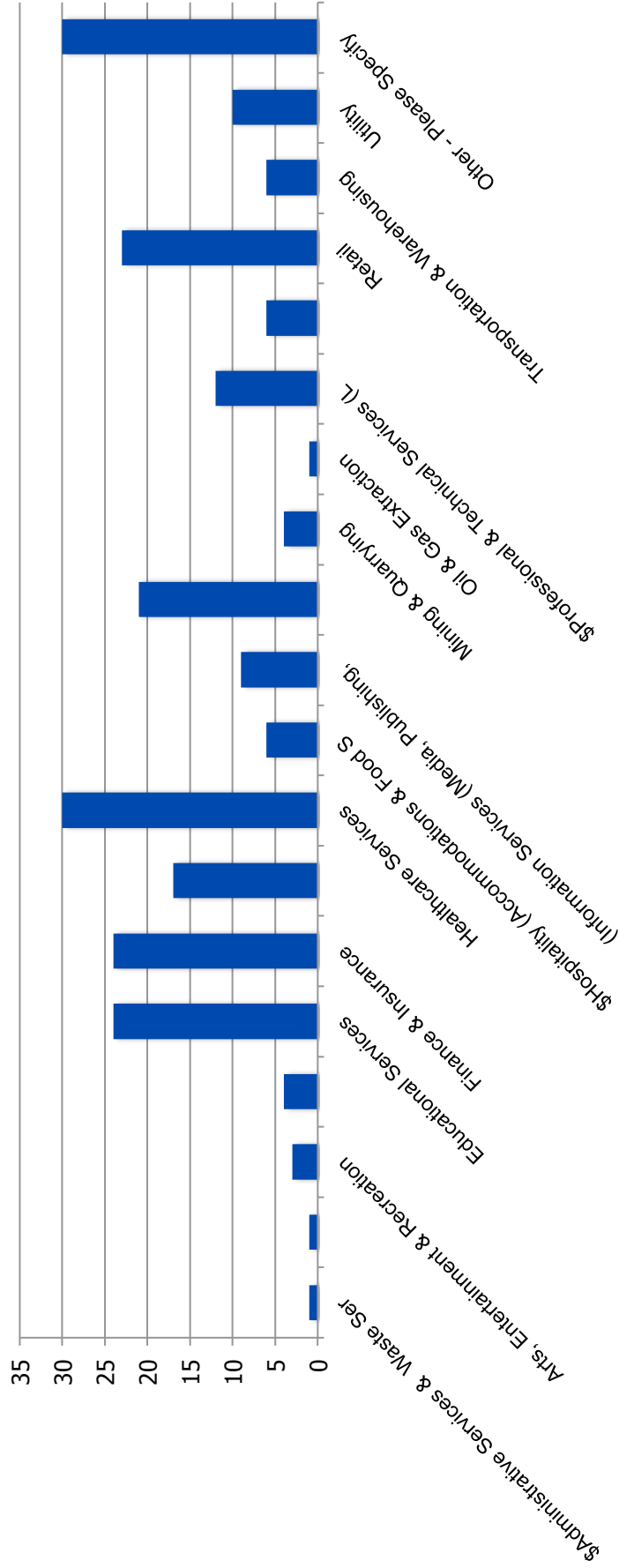


## STAKEHOLDER INPUT

Forty-two percent of employers have hired a college graduate for a job that does not require a degree. The primary reasons were an abundance of degreed individuals and a degree not relevant to the jobs.

More than half of employers said a high school diploma or GED was the required education level for the majority of positions at their facility. Employers felt computer, mining/quarrying, soft skills and welding were training areas being most adequately addressed in the region.

## WHAT IS THE PRIMARY BUSINESS SECTOR IN WHICH YOUR COMPANY OPERATES?





STAKEHOLDER **INPUT**

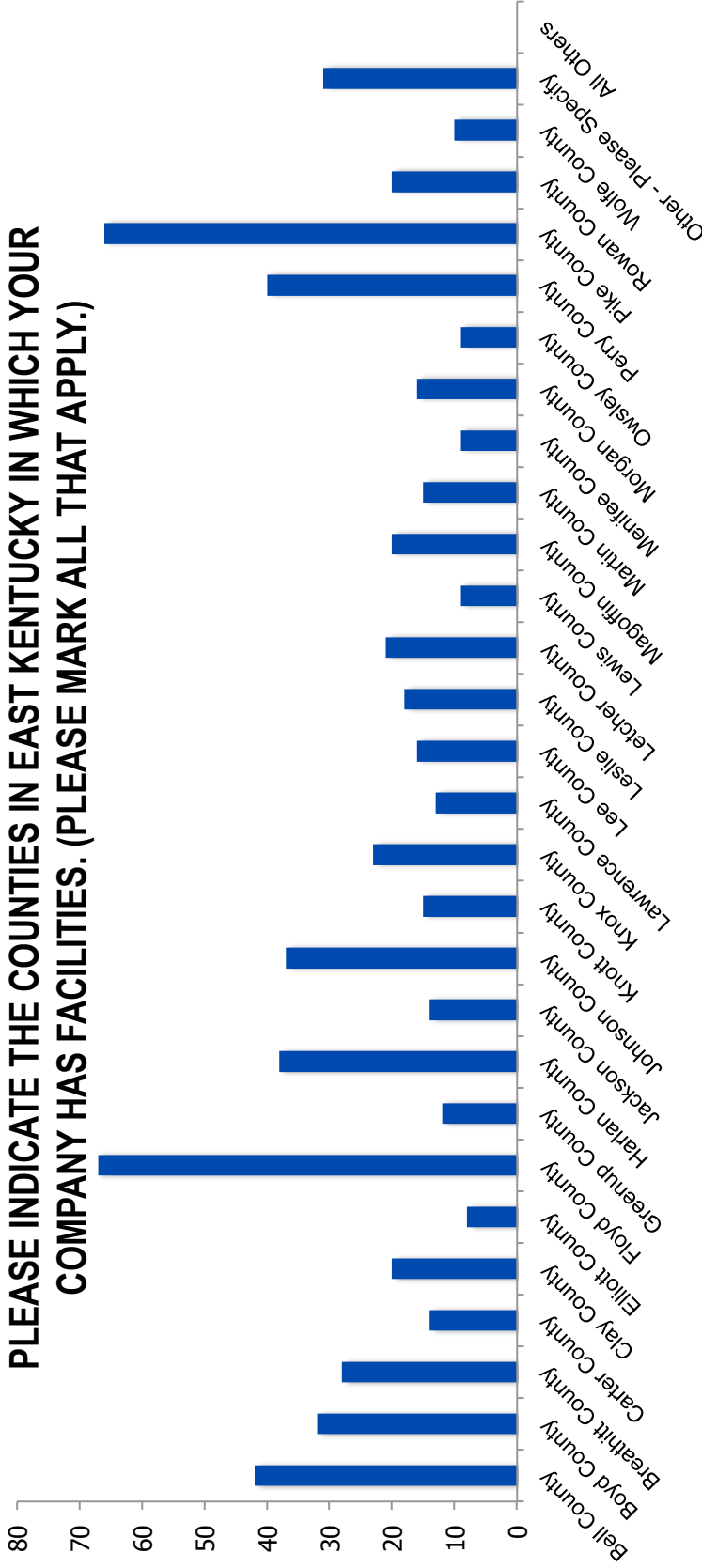
**WHAT IS THE PRIMARY BUSINESS SECTOR IN WHICH YOUR COMPANY OPERATES?**

Other - Please Specify

Automotive	IT
Automotive sales/parts/service	Job Training and Placement
Banking	Media
Business consultants	Non-Profit
Church/Non-Profit	Non-Profit with emphasis on retail and job placement
Commercial Refrigeration services	Nonprofit Organization
Construction/Mining/Quarry	Non profit service provider
Distribution	Nonprofit Social Services Agency
Economic development	Operations & Maintenance
Energy	Pet health care
Environmental Consulting	Public Transit
Federal Credit Union	Social Outreach
HVAC	Social Services
Income tax refund	Substance Abuse Counseling and Testing
Insurance	Telecommunications

STAKEHOLDER INPUT

PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES. (PLEASE MARK ALL THAT APPLY.)



PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES. (PLEASE MARK ALL THAT APPLY.)

Value	Percent	Count
Bell County	18.1%	42
Boyd County	13.8%	32
Breathitt County	12.1%	28
Carter County	6.0%	14





STAKEHOLDER **INPUT**

**PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES.  
(PLEASE MARK ALL THAT APPLY.)**

Value	Percent	Count
Clay County	8.6%	20
Elliott County	3.4%	8
Floyd County	28.9%	67
Greenup County	5.2%	12
Harlan County	16.4%	38
Jackson County	6.0%	14
Johnson County	15.9%	37
Knott County	6.5%	15
Knox County	9.9%	23
Lawrence County	5.6%	13
Lee County	6.9%	16
Leslie County	7.8%	18
Letcher County	9.1%	21
Lewis County	3.9%	9
Magoffin County	8.6%	20
Martin County	6.5%	15
Menifee County	3.9%	9
Morgan County	6.9%	16
Owsley County	3.9%	9



STAKEHOLDER **INPUT**

**PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES.  
(PLEASE MARK ALL THAT APPLY.)**

Value	Percent	Count
Perry County	17.2%	40
Pike County	28.4%	66
Rowan County	8.6%	20
Wolfe County	4.3%	10
Other - Please Specify	13.4%	31

**PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES.  
(PLEASE MARK ALL THAT APPLY.)**

Other - Please Specify	Count
Casey	1
Estill	1
Fayette	1
Gallatin	1
Jefferson County	1
Jessamine	2
Laurel	11
Madison County	2
Montgomery	6

STAKEHOLDER **INPUT**

**PLEASE INDICATE THE COUNTIES IN EAST KENTUCKY IN WHICH YOUR COMPANY HAS FACILITIES.  
(PLEASE MARK ALL THAT APPLY.)**

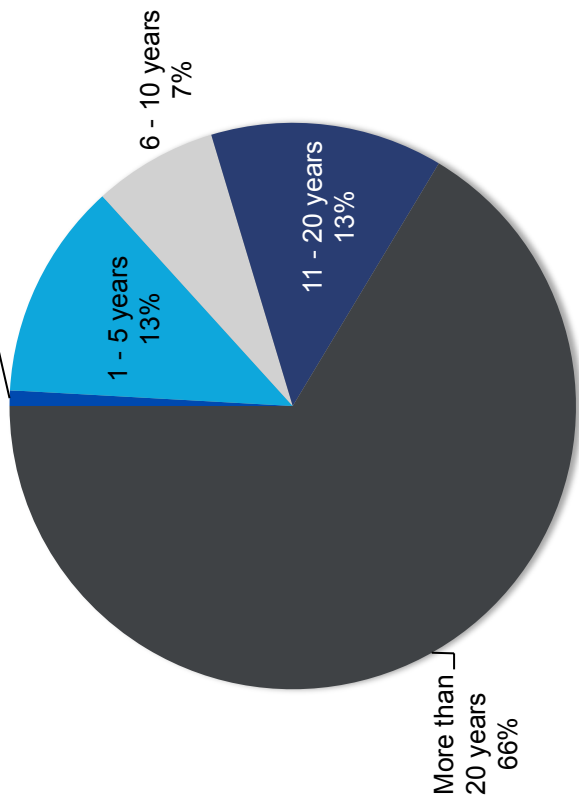
Other - Please Specify	Count
Powell	1
Pulaski	2
Rockcastle	3
Russell	1
Warren County	1
Whitley	7
Located in South Central Kentucky but currently hiring workers from East Kentucky	1
We are located at all Kentucky Community and Technical College System schools and Adair County	1
We are looking to add at least one associate to every county in this region.	1



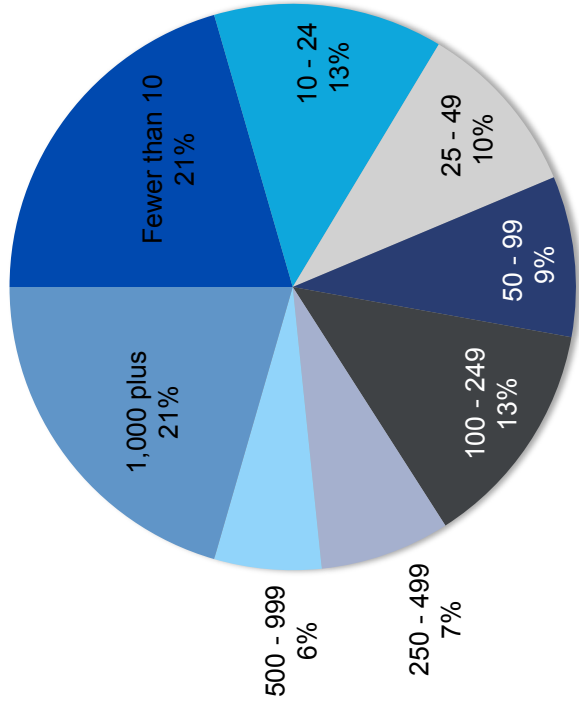
STAKEHOLDER INPUT

**HOW LONG HAVE YOU BEEN AN EMPLOYER IN EAST KENTUCKY?**

Less than 1 year 1%



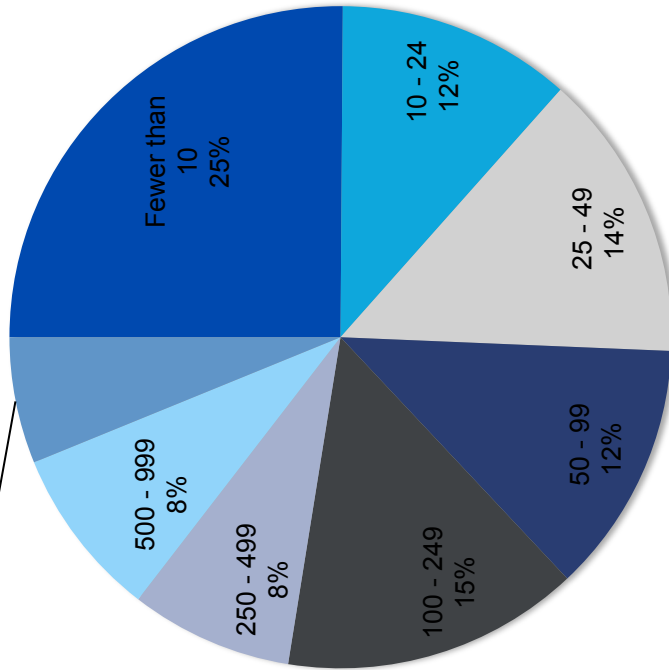
**HOW MANY EMPLOYEES WORK FOR YOUR COMPANY AT ALL OF ITS LOCATIONS?**



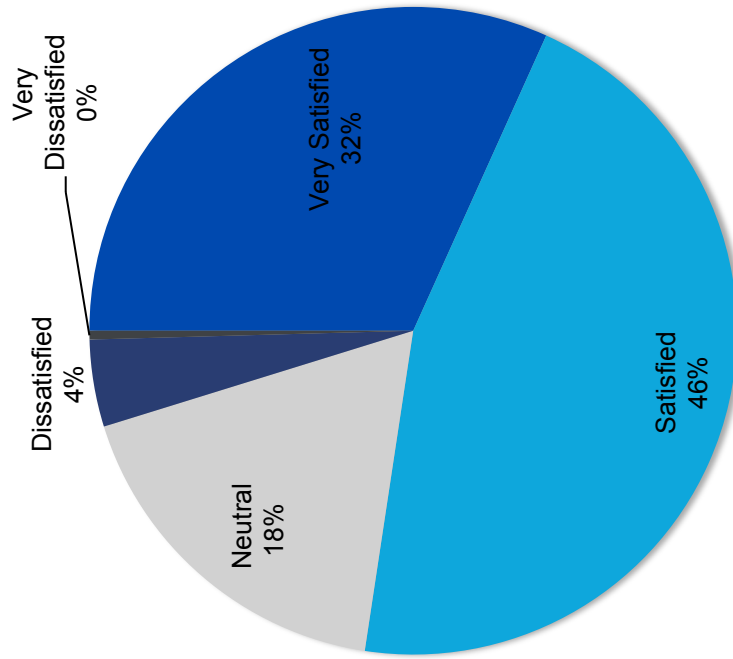


STAKEHOLDER **INPUT**

**HOW MANY EMPLOYEES WORK FOR  
YOUR COMPANY IN EAST KENTUCKY?**  
1,000 plus 6%



**PLEASE RATE YOUR OVERALL SATISFACTION  
WITH THE EMPLOYEES YOU HIRE IN EAST  
KENTUCKY:**





STAKEHOLDER **INPUT**

**IF DISSATISFIED OR VERY DISSATISFIED, PLEASE EXPLAIN WHY.**

Attendance Issues
Employees lack motivation, experience, training and are unreliable.
Lack of education, inability to pass drug screenings
Lack of work ethic, high absentee issues
Not sophisticated in business or culture. Need business etiquette and communication skills.
The corporate tax rate in Middlesboro, KY (BELL CO.) is extreme in relation to not only the number of employees you have, but also for this geographical region. They're always talking about "revitalizing downtown", but they continue to tax small businesses to the point of forcing their doors closed and losing revenue because of the resulting 5-10 unemployed workers that would have been, and actually were satisfied with their jobs; the employer couldn't afford to pay 2.5 % on gross wages just for a city tax! If New York city can eliminate corporate taxes on small businesses, Middlesboro should have no problem either.
Work ethic and attendance is low
Poor work ethic
Turnover rate over 70%
Under qualified, less than professional, lack of soft and hard skills
Work ethic; poor, very poor education; limited social skills; poor problem solving skills

**PLEASE RANK THE FOLLOWING SKILL AREAS OF YOUR EMPLOYEES IN TERMS OF THEIR IMPORTANCE TO YOUR SUCCESS, WITH 1 BEING MOST IMPORTANT AND 6 LEAST IMPORTANT. Note that each number 1-6 can only be selected for one skill area. For example, if the respondent assigns one skill area a rank of 1, no other skill are can be given that rank.**

Overall Rank	Item
1	Trainability (Ability to Learn New Tasks)
2	Productivity

**STAKEHOLDER INPUT**

**PLEASE RANK THE FOLLOWING SKILL AREAS OF YOUR EMPLOYEES IN TERMS OF THEIR IMPORTANCE TO YOUR SUCCESS, WITH 1 BEING MOST IMPORTANT AND 6 LEAST IMPORTANT. Note that each number 1-6 can only be selected for one skill area. For example, if the respondent assigns one skill area a rank of 1, no other skill area can be given that rank.**

Overall Rank	Item
3	Soft Skills (Reading, Writing, Basic Math, Communication, Teamwork)
4	Technical Skills (Equipment Operation, Maintenance, Computer Skills)
5	Employer/Employee Relationship
6	Punctuality

**PLEASE RATE YOUR SATISFACTION WITH THE FOLLOWING SKILL AREAS OF YOUR EMPLOYEES:**

	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied
Employer/Employee Relationship	34.4%	48.9%	13.7%	3.1%	0%
Productivity	23%	54.9%	15%	7.1%	0%
Punctuality	22.1%	49.6%	18.6%	9.3%	0.4%
Soft Skills (Reading, Writing, Basic Math, Communication, Teamwork)	20.7%	51.1%	16.3%	11%	0.9%
Technical Skills (Equipment Operation, Maintenance, Computer Skills)	23.9%	50%	18.1%	7.1%	0.9%
Trainability (Ability To Learn New Tasks)	27.2%	49.6%	18.3%	4.9%	0%

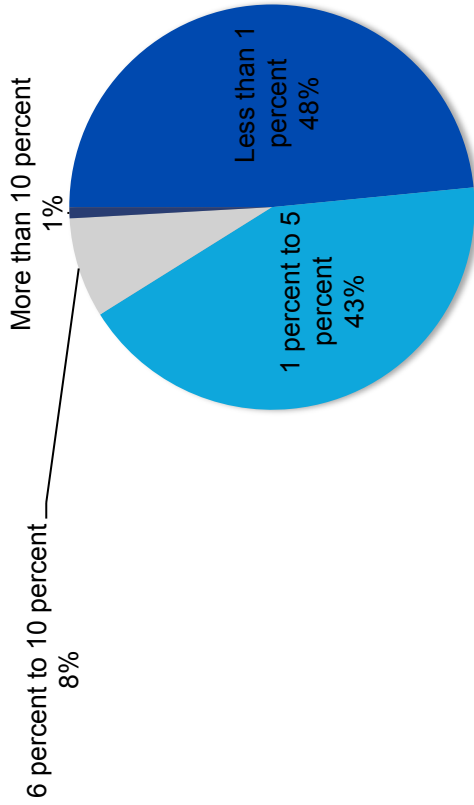


STAKEHOLDER **INPUT**

**PLEASE RANK THE FOLLOWING SKILL UPGRADES IN TERMS OF IMPORTANCE FOR YOUR OFFICE WORKERS, WITH 1 BEING MOST IMPORTANT AND 4 LEAST IMPORTANT. Note that each number 1-4 can only be selected for one skill area. For example, if the respondent assigns one skill area a rank of 1, no other skill area can be given that rank.**

Overall Rank	Item
1	Communication (Written and/or Verbal)
2	Word Processing
3	Database Management
4	Spreadsheet Development

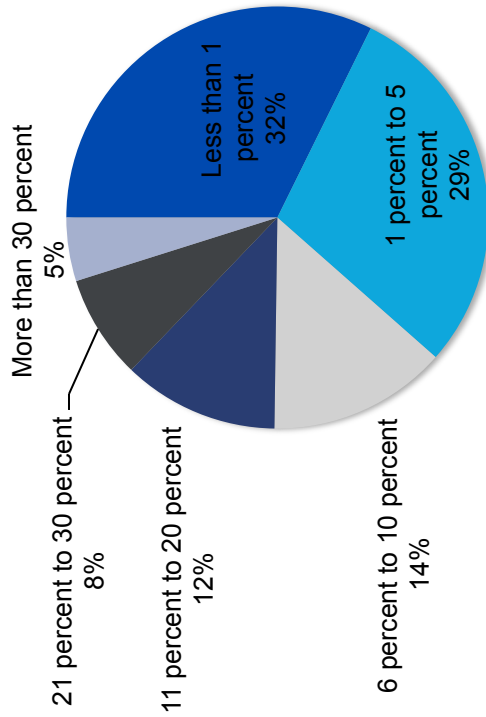
**WHAT IS YOUR AVERAGE DAILY ABSENTEEISM PERCENTAGE (NUMBER OF EMPLOYEES ABSENT/TOTAL NUMBER OF EMPLOYEES)?**







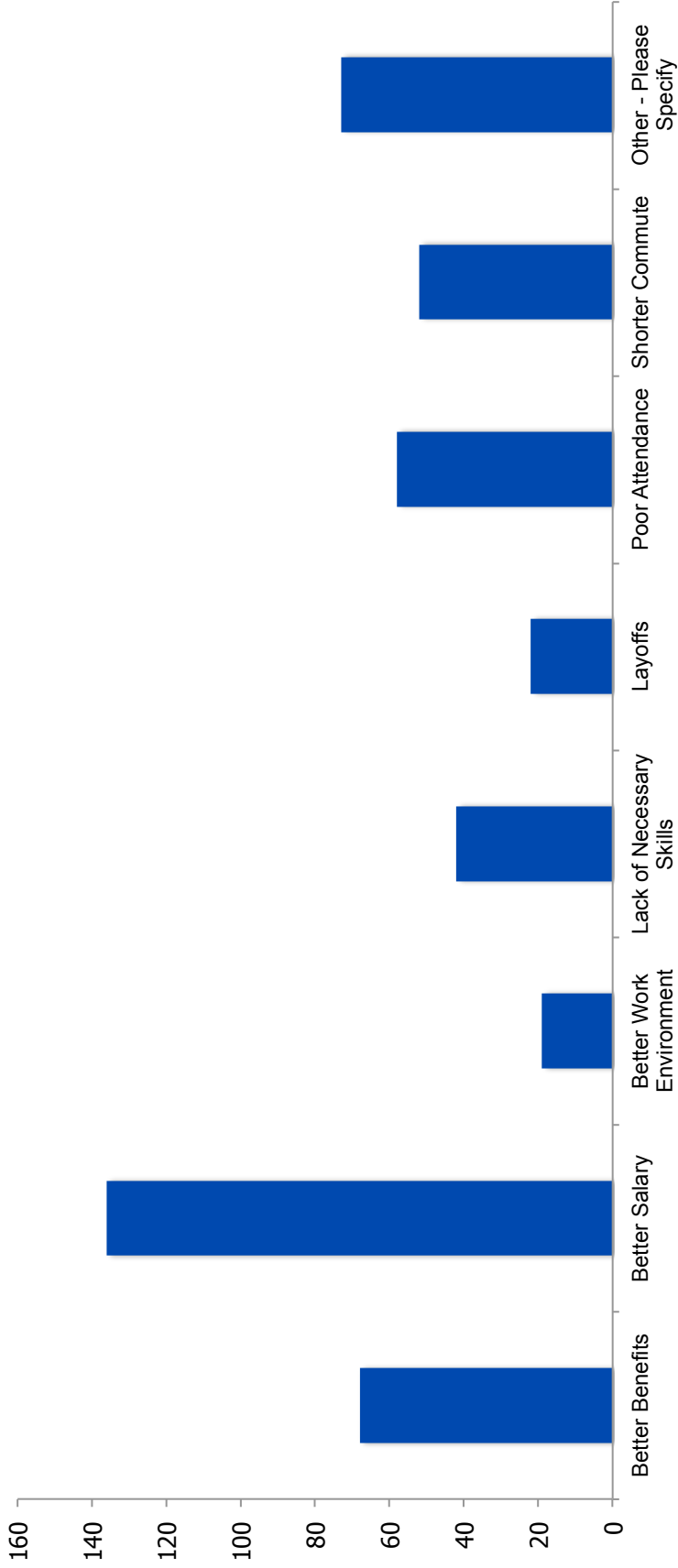
## WHAT IS YOUR ANNUAL TURNOVER PERCENTAGE (TOTAL NUMBER OF EMPLOYEES LEAVING VOLUNTARILY/TOTAL NUMBER OF EMPLOYEES)?





STAKEHOLDER INPUT

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



WHAT ARE THE THREE MOST COMMON REASONS EMPLOYEES LEAVE YOUR COMPANY?

Other - Please Specify	Count
Retirement	9
Relocation	7
Better Advancement	6



STAKEHOLDER **INPUT**

**WHAT ARE THE THREE MOST COMMON REASONS EMPLOYEES LEAVE YOUR COMPANY?**

Other - Please Specify	Count
Day shift/work schedule	5
Won't work/laziness	4
Not applicable	3
Changing career	2
God's call to another ministry	2
Seasonal employees usually	2
Burnout due to stress	1
College schedule	1
Communication and training	1
Disciplinary Step Process-Violation of Company Policy	1
Drivers who want to do something different	1
Drug issues	1
Employee refused to wear glasses. Said it made him look "old."	1
Failed Drug Test	1
Get out of public accounting	1
Inability to pass exams & personal issues	1
Job not for them	1
Job Performance	1
Job Security	1
Lack of competence	1
Leave the area or profession	1



STAKEHOLDER **INPUT**

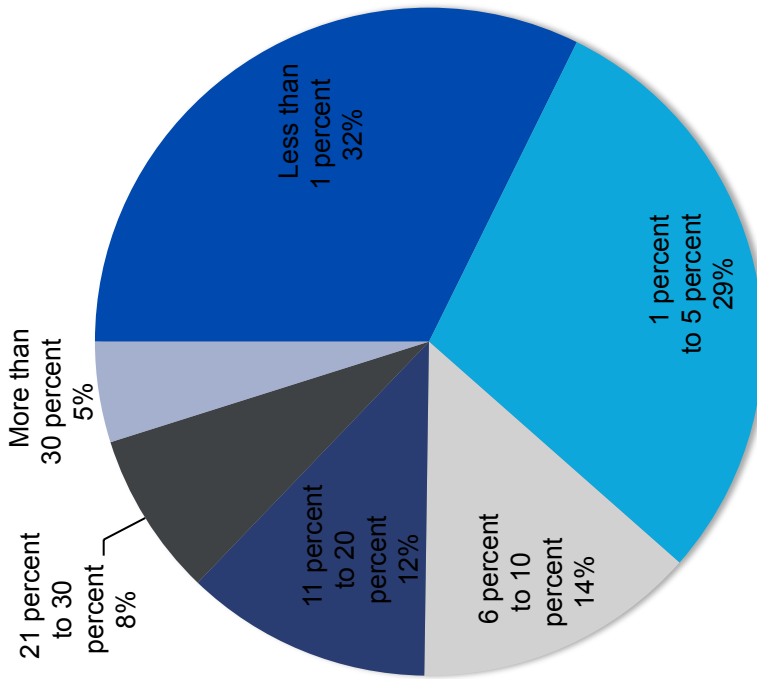
**WHAT ARE THE THREE MOST COMMON REASONS EMPLOYEES LEAVE YOUR COMPANY?**

Other - Please Specify	Count
Leaving the Real Estate business	1
Medical Reasons	1
Most are part time looking for fulltime	1
move closer to family	1
No Call No Show	1
Non-Compliance	1
Not a team player	1
No one has left yet	1
Not meeting sales goals	1
Personal / Family	1
Poor performance	1
Return to school	1
Since we pay on a commission scale and a persons career depends on what they put into it; some find it is not their kind of work.	1
Terminated for cause	
To access public benefits such as food stamps, housing, KTAP, etc.	1
Want more hours	1
Work/life	1
Wrong fit for the career	1

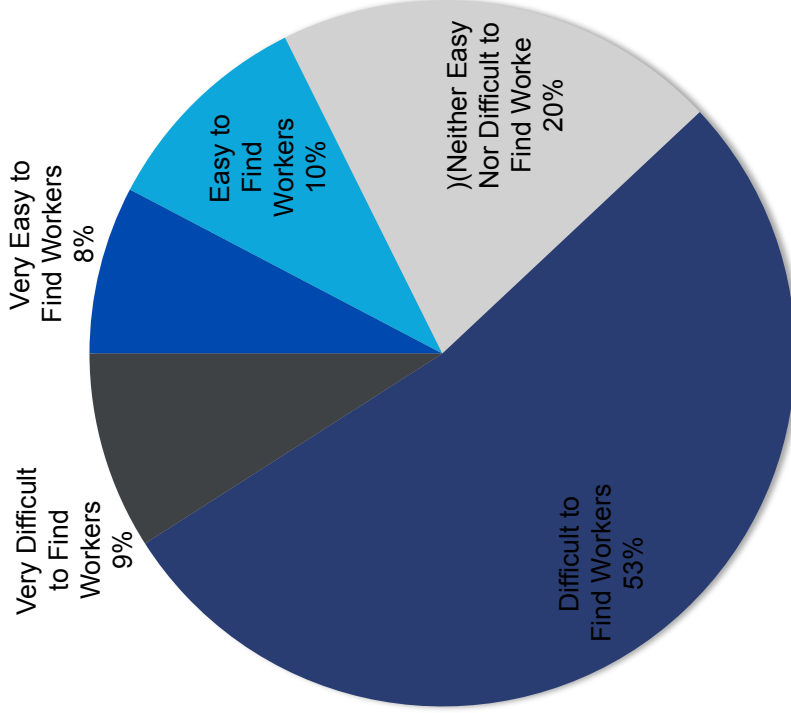


STAKEHOLDER INPUT

**WHAT IS YOUR ANNUAL TURNOVER PERCENTAGE (TOTAL NUMBER OF EMPLOYEES LEAVING VOLUNTARILY/ TOTAL NUMBER OF EMPLOYEES)?**



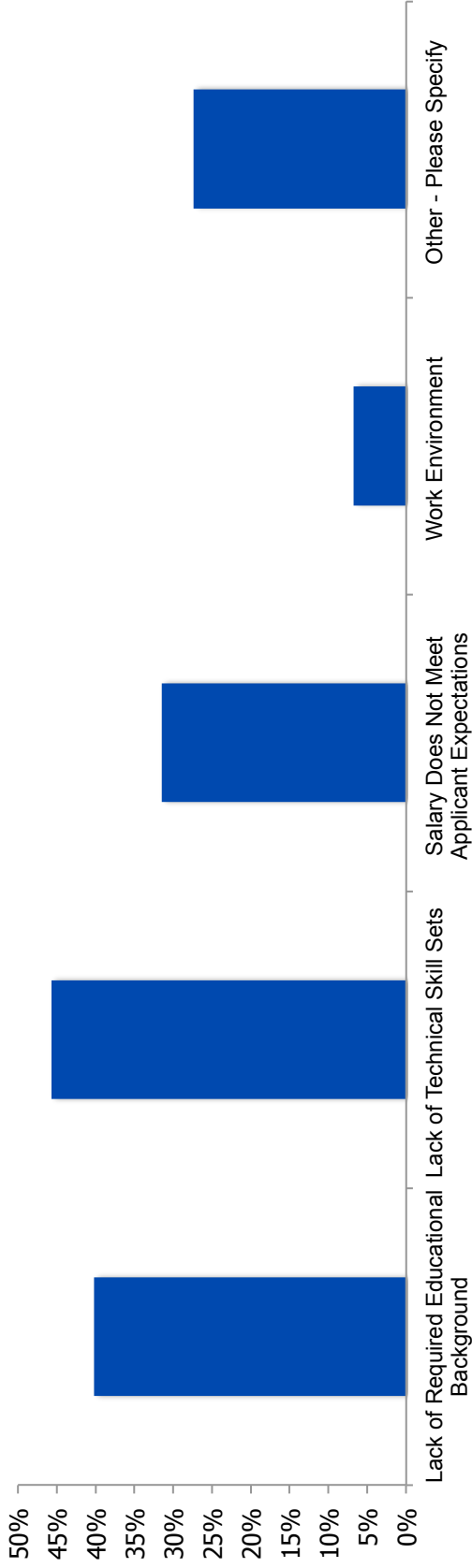
**PLEASE RATE THE OVERALL EMPLOYEE AVAILABILITY IN EAST KENTUCKY:**





STAKEHOLDER **INPUT**

**WHAT ARE THE MOST COMMON CHALLENGES YOU ENCOUNTER IN RECRUITMENT OF NEW EMPLOYEES? (PLEASE MARK ALL THAT APPLY.)**



**WHAT ARE THE MOST COMMON CHALLENGES YOU ENCOUNTER IN RECRUITMENT OF NEW EMPLOYEES?**

Other - Please Specify	Count
<b>Applicant qualifications</b>	
Experience	1
Lack of a good work history	1
Lack of essential (soft) skills	1
Lack of Experience &/or Poor Job History	1
Lack of steady work	1



**WHAT ARE THE MOST COMMON CHALLENGES YOU ENCOUNTER IN RECRUITMENT OF NEW EMPLOYEES?**

Other - Please Specify	Count
Poor work history	1
Religious qualification not reached	1
<b>No challenges</b>	
Currently no challenges	1
Decline in business, no need for new employees	1
No challenges to date	1
<b>Passing Pre-employment Screening</b>	
Can't pass drug test	5
Background check / drug test failure	3
Able to pass a background	2
Dishonest, can't pass drug screen	1
<b>Work Ethic and Soft Skills</b>	
Attendance	2
Work ethics	2
Eagerness to work	1
Lack of desire to work.	1
Lack of intra personal skills	1
Lack of sales ability, lack of personality, unprofessional appearance, lack of production, unavailability of licensed individuals at hire	1
Lack of work and moral ethics	1
Low sense of professionalism	1

STAKEHOLDER **INPUT**



**WHAT ARE THE MOST COMMON CHALLENGES YOU ENCOUNTER IN RECRUITMENT OF NEW EMPLOYEES?**

Other - Please Specify	Count
No motivation	1
People skills	1
Spirit of exceeding expectations	1
Wanting to work	1
Will not do hard labor	1
Willingness to work	1
<b>Other</b>	
Appearance	1
Benefits/hours	1
Commissions usually scare people, however the ones that understand it, love it.	1
Commitment, accepting work shift and policies	1
Competition for RN's	1
Diversity	1
Drive	1
Eastern Kentucky culture	1
Hard to attract college grads to what they think is Eastern KY	1
Lack of applicants	1
Lack of need to work	1
Lifestyle choices	1
Manpower resources	1



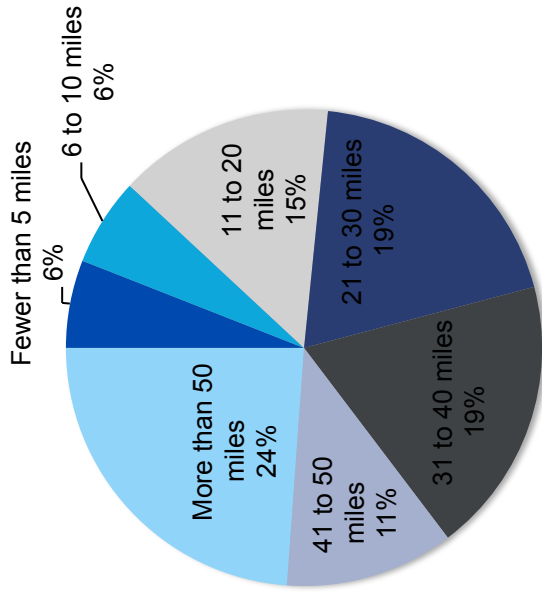


**WHAT ARE THE MOST COMMON CHALLENGES YOU ENCOUNTER IN RECRUITMENT OF NEW EMPLOYEES?**

Other - Please Specify	Count
No applicant flow	1
Number of certified people	1
Offering part-time employment and they are looking for full-time employment	1
Our career is generally a fit with less than 40% of the population in the US	1
People want great pay for no experience	1
Potential employees are on government benefits and do not wish to give them up for employment	1
Quality of people	1
Salary for ex coal miners is not what they are used to.	1



## WHAT IS THE LONGEST DISTANCE YOUR EMPLOYEES DRIVE ONE-WAY TO WORK?



## PLEASE INDICATE ALL COUNTIES FROM WHICH YOUR EMPLOYEES COMMUTE TO WORK. (PLEASE MARK ALL THAT APPLY.)

County	Sub-Region 1	Sub-Region 2	Sub-Region 3	Sub-Region 4
Bell County	54.2%	21.1%	14.2%	13.7%
Boyd County	8.3%	9.9%	17.9%	60.8%
Breathitt County	20.8%	43.7%	15.1%	25.5%
Carter County	5.6%	9.9%	13.2%	51.0%
Clay County	25.0%	23.9%	9.4%	11.8%
Elliott County	2.8%	5.6%	8.5%	29.4%
Floyd County	22.2%	28.2%	67.0%	31.4%
Greenup County	4.2%	7.0%	10.4%	47.1%
Harlan County	56.9%	32.4%	20.8%	21.6%
Jackson County	12.5%	14.1%	7.5%	11.8%
Johnson County	16.7%	25.4%	54.7%	23.5%
Knott County	22.2%	36.6%	34.0%	23.5%



**PLEASE INDICATE ALL COUNTIES FROM WHICH YOUR EMPLOYEES COMMUTE TO WORK. (PLEASE MARK ALL THAT APPLY.)**

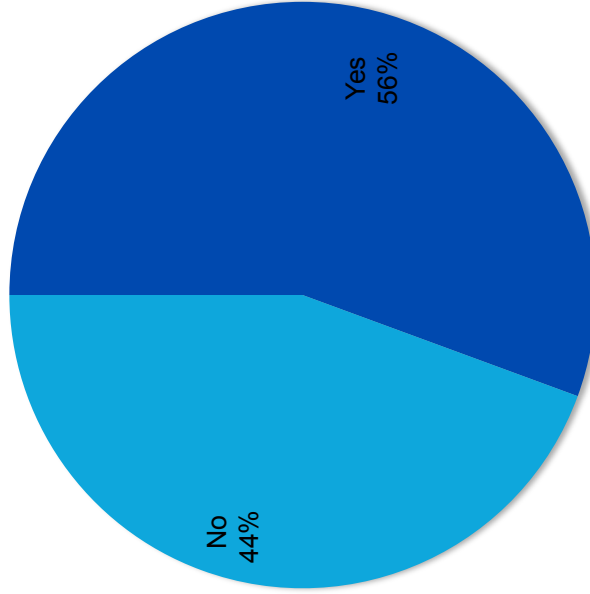
County	Sub-Region 1	Sub-Region 2	Sub-Region 3	Sub-Region 4
Knox County	44.4%	23.9%	16.0%	21.6%
Lawrence County	6.9%	9.9%	24.5%	25.5%
Lee County	15.3%	23.9%	6.6%	13.7%
Leslie County	19.4%	23.9%	11.3%	15.7%
Letcher County	26.4%	33.8%	27.4%	17.6%
Lewis County	4.2%	5.6%	7.5%	27.5%
Magoffin County	18.1%	28.2%	35.8%	39.2%
Martin County	9.7%	12.7%	23.6%	15.7%
Menifee County	5.6%	9.9%	7.5%	29.4%
Morgan County	9.7%	21.1%	16.0%	45.1%
Owsley County	11.1%	22.5%	4.7%	9.8%
Perry County	23.6%	47.9%	28.3%	25.5%
Pike County	26.4%	32.4%	62.3%	31.4%
Rowan County	5.6%	9.9%	8.5%	37.3%
Wolfe County	5.6%	18.3%	8.5%	15.7%
Other - Please Specify	29.2%	21.1%	8.5%	17.6%

**PLEASE RANK THE TOP FIVE COUNTIES FROM WHICH YOUR EMPLOYEES COMMUTE TO WORK:**

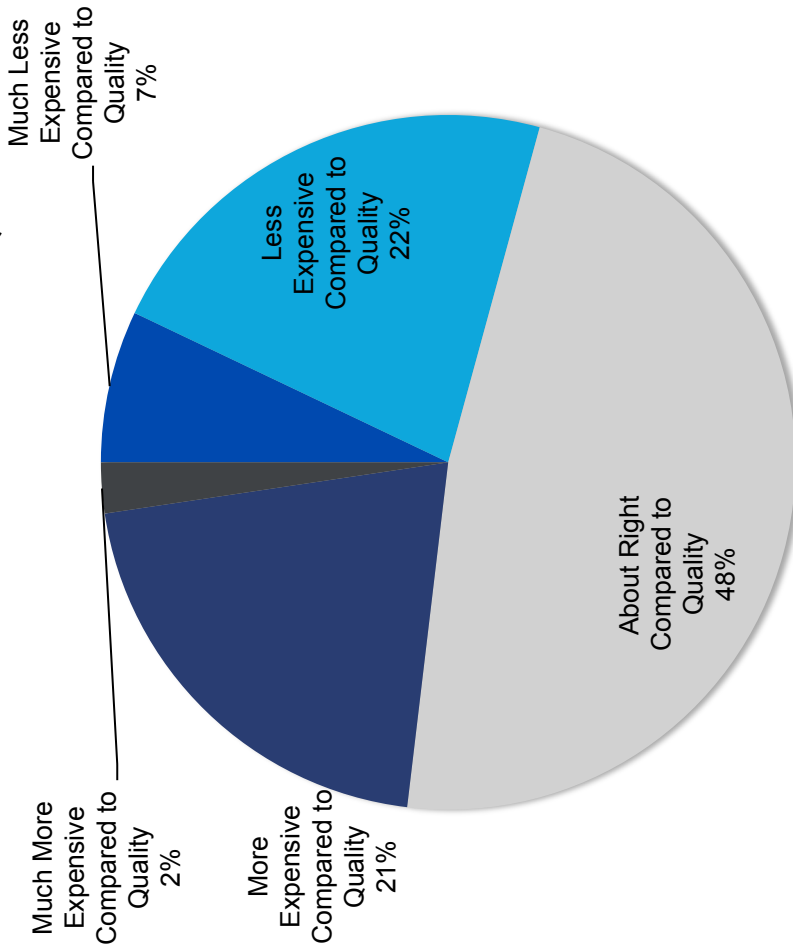
Sub-Region 1	Sub-Region 2	Sub-Region 3	Sub-Region 4
Harlan County		Floyd County	Boyd County
Bell County	Breathitt County	Pike County	Carter County
Knox County	Pike County	Johnson County	Rowan County
Clay County	Knott County	Magoffin County	Greenup County
Floyd County	Lee County	Knott County	Pike County – Morgan County



### DO YOU RECRUIT FROM OUTSIDE OF EAST KENTUCKY FOR AVAILABLE POSITIONS?

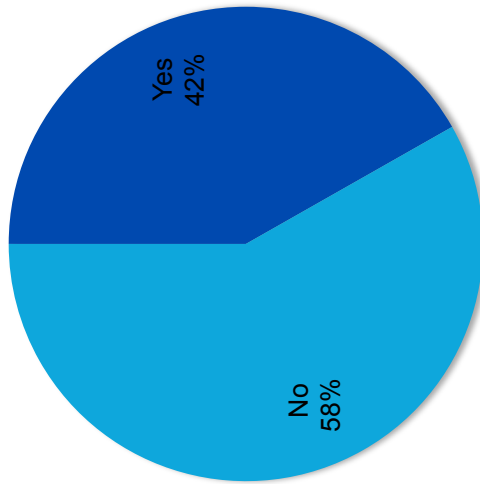


### DO YOU BELIEVE THE COST OF LABOR IN EAST KENTUCKY IS IN LINE WITH QUALITY?

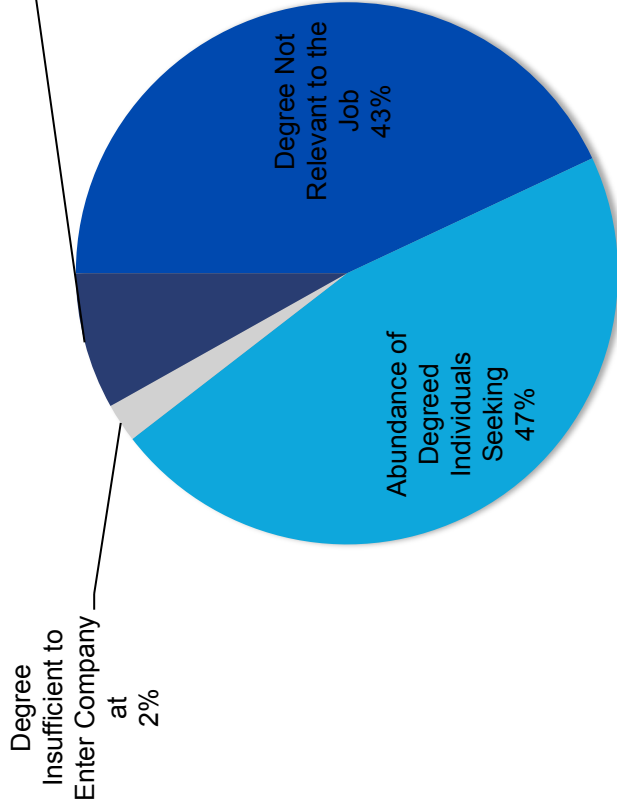




### HAVE YOU HIRED MANY COLLEGE GRADUATES FOR POSITIONS THAT DO NOT TYPICALLY REQUIRE A FOUR-YEAR DEGREE?



### IF SO, WHAT ARE THE PRIMARY REASONS?



### IF SO, WHAT ARE THE PRIMARY REASONS?

Other - Please Specify
Correctional Officer is the main job we have and it does not require a degree. Much easier to get this job.
Degree is preferred but not required
To promote within the company.



**STAKEHOLDER INPUT**

**IF SO, WHAT ARE THE PRIMARY REASONS?**

Other - Please Specify

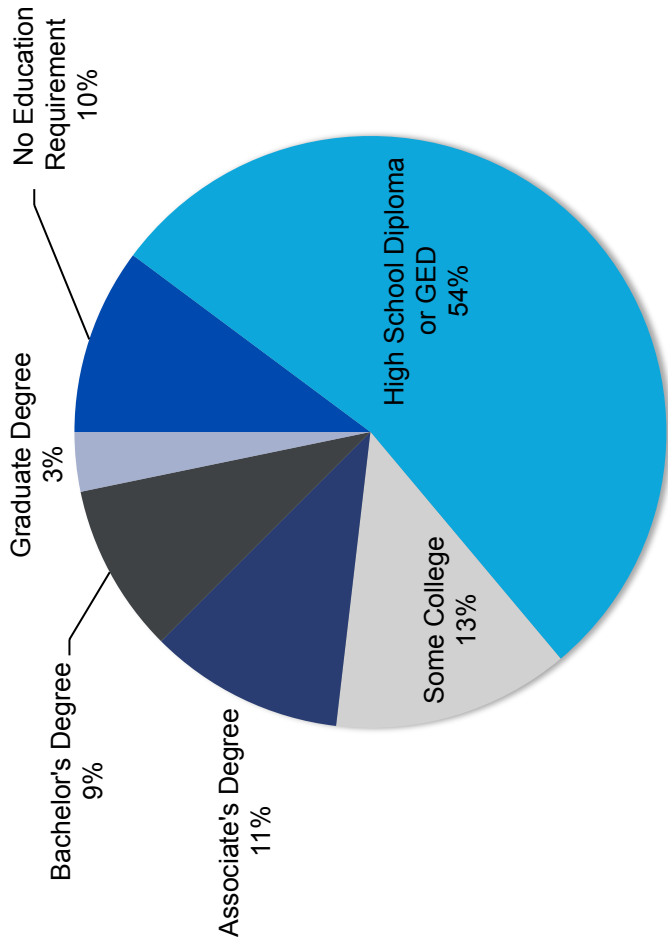
Willing to work

We do not require a degree as we train individuals the career. What we need are individuals that are willing to work with the public and earn a 6-figure income.

Degree does not measure commonsense or work ethic.

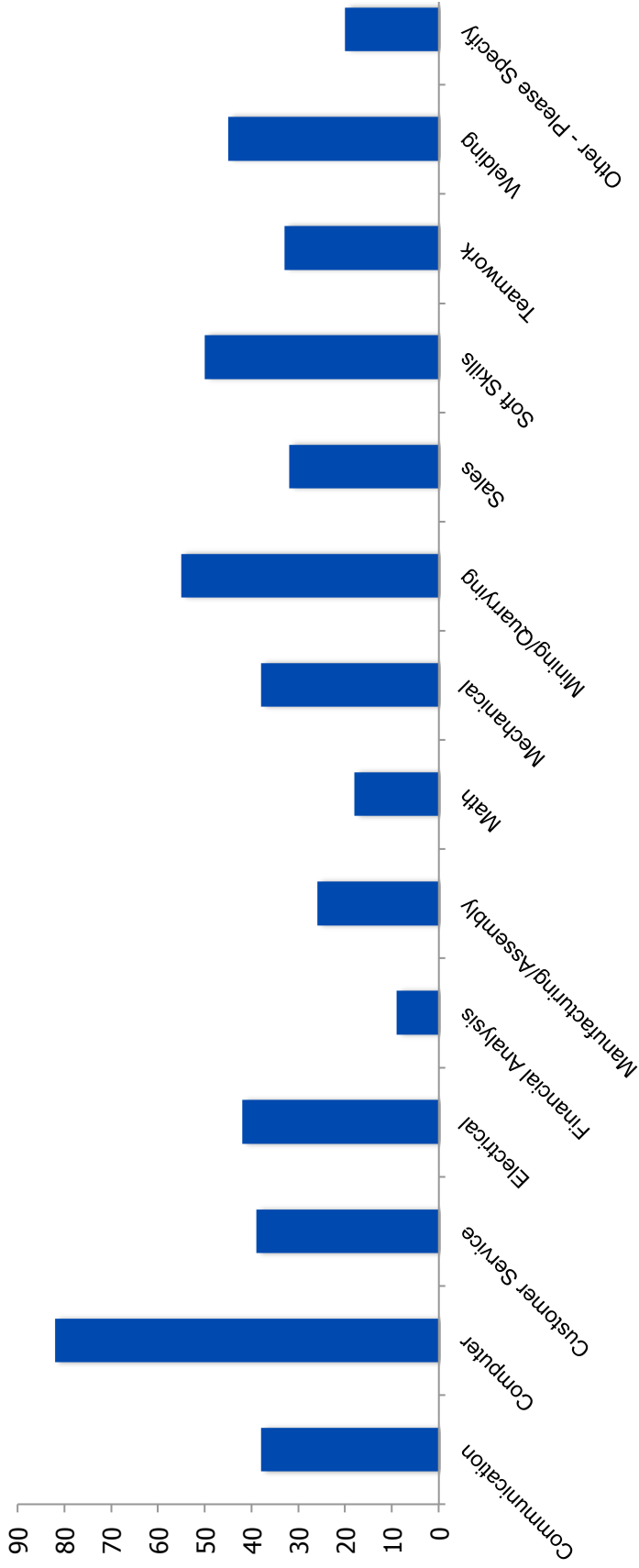
Graduates that stay on to work for the college

**WHAT LEVEL OF EDUCATION IS REQUIRED FOR THE MAJORITY OF POSITIONS AT YOUR FACILITY?**





**WHICH TRAINING AREAS DO YOU BELIEVE ARE BEING ADEQUATELY ADDRESSED IN THE EAST KENTUCKY REGION? (PLEASE MARK ALL THAT APPLY.)**



**WHICH TRAINING AREAS DO YOU BELIEVE ARE BEING ADEQUATELY ADDRESSED IN THE EAST KENTUCKY REGION? (PLEASE MARK ALL THAT APPLY.)**

Other - Please Specify	Count
None	7
Not sure	3



STAKEHOLDER **INPUT**

WHICH TRAINING AREAS DO YOU BELIEVE ARE BEING ADEQUATELY ADDRESSED IN THE EAST KENTUCKY REGION? (PLEASE MARK ALL THAT APPLY.)	
Other - Please Specify	Count
Education	1
Clinical	1
Commitment to work, desire to work	1
I am only aware of basic skills, GED level, being addressed and possibly computer skills.	1
I don't know if these are being offered in this area	1
I don't think any are as in the past 38 years in Boyd Co all I have seen is a mass exit of jobs and our local and state elected officials not concerned with replacing the lost jobs in the Rail Road, steel, coal or Oil industries that have left or are greatly diminished in our area and it is quite a sad thing to have watched happen	1
Need lots more training	1
Religion	1

ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	
Certificate or Trade Programs	COUNT
CDL Training School or Vocational Training for truck drivers.	1
Certified production technician	1
Certified Production Technician from the Manufacturing Skill Standards Council	1
Commercial and Industrial Electric construction and repairs.	1
I feel that short-term training programs such as CDL, CNA, etc. Programs would be beneficial to Eastern Kentucky.	1





STAKEHOLDER **INPUT**

ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	COUNT
More skilled maintenance training	1
More technical skills such as PLC	1
Most of old industries are gone bring in modern ones first then can train for it	1
Plumbing	1
Qualified HVACR programs. Great Facility, poor instructors. Poor students apply.	1
Trades: Electrician, Plumber, HVAC Tech, and general construction	1
Truck Drivers with CDL Tool & Die Makers, Quality Manager/Inspectors	1
<b>Customer Service and Sales</b>	
Customer relations. Communication skills. Finance, marketing and business skills	1
Customer service	1
Customer service, the details	1
Customer service. Work environment etiquette	1
How to treat customers. How to think about business processes as an owner.	1
More hands on training, customer service, public relations, and marketing.	1
Sales and Customer service	1
Sales and Logistics	1
Sales and technical like math, engineering and technical skills	1
Sales skills and ability	1
Sales training is currently being completed online or by leaving the area.	1
Sales. Management, Leadership and basic life skills such as money management	1



STAKEHOLDER **INPUT**

ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	COUNT
Sales, soft skills, customer service	1
<b>Entrepreneurship</b>	
Entrepreneurship. Training- non traditional students. Computers Communications	1
How to start your own business.	1
How to start, grow and expand your own business	1
Spirit to succeed, entrepreneurship	1
<b>Healthcare</b>	
Certified Nurse Assistant training and certification	1
Clinical areas - including RN programs, Lab programs	1
Kentucky medication aides	1
Medical coding; registered nurse	1
Paramedic	1
<b>IT</b>	
1. "blue collar" computer technology 2. Soft skills 3. Customer service	1
Access data base and excel spreadsheet, adobe acrobat, and computer software.	1
Computer programming	1
Computer programming, grammar	1
Computer programs such as word, excel and outlook. Cust. Svc. And phone skills.	1
Creativity, digital media	1
High tech computer trainings	1



STAKEHOLDER **INPUT**

ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	COUNT
IT	1
PHP, Java software development, Database design and management.	1
Technical skill Microsoft suite skills Punctuality	1
Technology and media services. Not computer programming, but user-design.	1
Technology...including social media public relations.	1
<b>Technical skills</b>	
Advanced manufacturing techniques, manufacturing maintenance	2
Industrial Mechanics for the manufacturing environment	1
Technical training	1
Tool & die maker apprenticeship manufacturing quality manager/inspector	1
Vocational	1
<b>Work Ethic and Soft Skills</b>	
Adults need to know how to dress and behave in an interview.	1
Business & professional communication skills Common computer software programs	1
Common sense.	1
Communication skills and importance of Customer Service	1
Communication skills are becoming obsolete with young people.	1
Communication! These folks can't talk, they can type and text and that is all.	1
Basic skills, problem solving, common sense & work ethic.	1
Basic interviewing skills. How to dress, how to prepare, questions to ask etc.	1



STAKEHOLDER **INPUT**

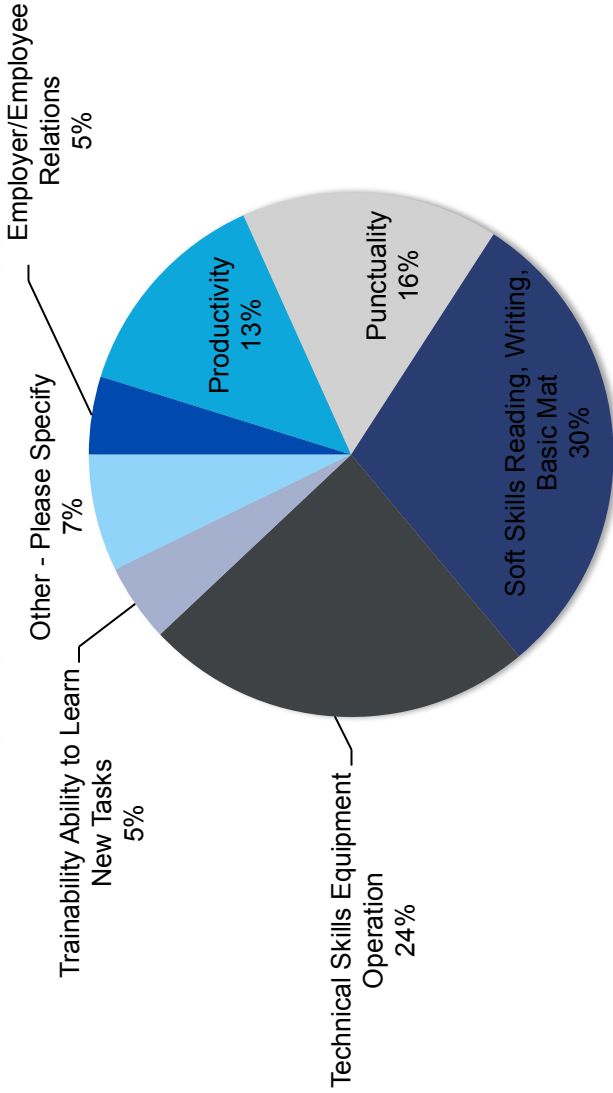
ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	COUNT
Completing resumes, applications, how to give a good interview!	1
More on filling out applications	1
Responsibility, Accountability, understanding work environment	1
Soft skills, communication skills teamwork	1
Soft Skills and communication skills especially in the workforce.	1
Soft Skills are horrible	1
Soft Skills, work ethic	1
Soft skills; customer service; manufacturing	1
Soft skills; welding; CNC machining; machining; showing up for work	1
Social skills. Grammar. Interviewing skills.	1
Study skills parenting	1
Team work	1
Work ethic	1
Yes, soft skills	1
Work ethic, communication (written and verbal) and basic problem solving.	1
Work ethics MS Office Written Communication Cognitive skills Personal ethics	1
<b>Other</b>	
All of the above.	2
Accounting basics and financial management.	1
Broadcasting journalism	1



STAKEHOLDER **INPUT**

ARE THERE ANY SPECIFIC TYPES OF TRAINING PROGRAMS YOU WOULD LIKE TO SEE PROVIDED IN THE EAST KENTUCKY REGION THAT ARE NOT NOW BEING ADEQUATELY ADDRESSED?	COUNT
Critical thinking	1

**WHAT IS THE MOST COMMON DEFICIENCY YOU FIND IN NEW HIRES?**





STAKEHOLDER **INPUT**

**WHAT IS THE MOST COMMON DEFICIENCY YOU FIND IN NEW HIRES?**

Other - Please Specify

Assertiveness

Compassion

Dedication or work ethic

Desire to succeed

For our industry it is that some don't have a work ethic and ready to advise people on their financial matters.

General work habits

People skills

Persistent effort to work on a consistent basis, a passion for the purpose of making the future better

Self motivation, the desire to improve or accept change

They are not motivated and do not take pride in their work.

We have not experienced any of these issues.

We haven't found a deficiency

Work ethic

Work ethic



**INDICATE YOUR LEVEL OF SATISFACTION WITH THE FOLLOWING WORKFORCE TRAINING PROVIDERS:**

	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Very Dissatisfied	Unaware
Alice Lloyd College	12.7%	13.3%	18.7%	0.7%	54.7%
Ashland Community & Technical College	2.6%	16.8%	22.6%	1.3%	56.8%
Big Sandy Community & Technical College	7.7%	31.6%	22.6%	1.3%	36.8%
Eastern Kentucky University	19.6%	34.8%	19%	0.6%	25.9%
Hazard Community & Technical College	9%	20.6%	20%	1.3%	49%
KCTCS Workforce Solutions	14.2%	26.5%	22.8%	2.5%	34%
Morehead State University	20.5%	30.4%	20.5%	0.6%	28%
Southeast Kentucky Community & Technical College	11.4%	25.3%	21.5%	0.6%	41.1%
Union College	5.9%	18.4%	21.1%	0.7%	53.9%
University of Pikeville	10.1%	25%	21.6%	2.7%	40.5%



STAKEHOLDER **INPUT**

<b>COMPANY NAME</b>
Mill Creek Software, LLC
Schooley Mitchell of Louisa
ALLSTATE JOHNSON INSURANCE & FINANCIAL SERVICES INC
Appalachian Regional Healthcare, Inc.
BB&T
Big Sandy Superstore
Bit Source
Blue Raven, LLC
Bowling Green Area Chamber of Commerce
Bowling Green Chamber of Commerce
Breathitt County Conservation District
CTA Acoustics, Inc
Century 21 American Way Realty
Century 21 Unlimited Realty
Chad Shannon State Farm
City of Paintsville
City of Prestonsburg
Cooley Medical
Cumberland Gap Tunnel





STAKEHOLDER **INPUT**

**COMPANY NAME**

Cumberland Valley Electric
EKEC
ERG
East KY Physical Therapy
East Ky Electrical
Eastern Kentucky Expo Center
Eastern Kentucky Federal Credit Union
Eastern Telephone & Technologies
Economy Drug Co., Inc.
First Christian Church
Floyd County Health Department
Food City
Gateway Community Action
Great Lakes Minerals, LLC
Greenup County Health Department
HEALTHCARE NATIONAL MARKETING, INC.
HR Block
Harlan County Public Library
Harlan Dental Clinic, PSC
House Oil Company
Hutch Automotive



STAKEHOLDER **INPUT**

**COMPANY NAME**

J & M Monitoring, Inc.
Jackson Wholesale Company
Jackson/Breathitt Chamber
Jigsaw Enterprises
Johnson County Extension
Justice & stamper Insurance
KY FARM BUREAU INSURANCE
KY Office for the Blind
Kellogg
Kentucky Mountain Bible College
Kentucky Power Company
Kickin' Ash
Letcher Manor
Maverick Insurance Group
Middlesboro ARH
Morehead Wood Products
Mountain Broadcasting Service, Inc.
Neat Companies
Phoenix Products, Inc.
Pine Mountain Settlement School
Premier PT&OT



STAKEHOLDER **INPUT**

**COMPANY NAME**

Ramona Salyer State Farm Insurance Agency
Rebecca Caudill Public Library
Riverview Health Care Center
SCR
SPORTSWORLD, INC.
SRG Global Inc.
Save A Lot, Saver Group
Signature Healthcare
Slone Refrigeration Co Inc.
Smithfield Packaged Meats Div
Southern Hospitality
Stg Global
Sterling Ventures, LLC
St Vincent Mission Inc.
Teleworks USA
Trans-Star Ambulance Service
Transamerica
VanArk, Inc.
Walmart
WoodmenLife
cumberland river behavioral health



STAKEHOLDER **INPUT**

**COMPANY NAME**

Floyd County housing Authority

ikorcc

Jackson IGA



**DATA  
SOURCES**

Data Sources. The following data sources were utilized to develop an overall picture of the workforce in East Kentucky:

BSA collected and analyzed quantitative data from the proprietary data sources of Economic Modeling Specialist, Inc. (EMSI) and Esri Business Analyst. In addition, a variety of other sources, including the U.S. Census Bureau, U.S. Bureau

of Labor Statistics, the Kentucky Department of Education, the Kentucky Council on Post -Secondary Education, and Sperling's Best Places.

Additional secondary research was also conducted, along with significant stakeholder input, to fully analyze trends related to the East Kentucky workforce.





END NOTES

END NOTES

- 1 [http://ashland.kctcs.edu/en/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://ashland.kctcs.edu/en/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 2 [http://www.bigandy.kctcs.edu/en/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://www.bigandy.kctcs.edu/en/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 3 [http://bluegrass.kctcs.edu/en/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://bluegrass.kctcs.edu/en/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 4 [http://hazard.kctcs.edu/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://hazard.kctcs.edu/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 5 [http://maysville.kctcs.edu/en/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://maysville.kctcs.edu/en/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 6 [http://southeast.kctcs.edu/en/Costs\\_and\\_Financial\\_Aid/Tuition\\_and\\_Fees.aspx](http://southeast.kctcs.edu/en/Costs_and_Financial_Aid/Tuition_and_Fees.aspx)
- 7 [http://ashland.kctcs.edu/Academics/Programs\\_of\\_Study.aspx](http://ashland.kctcs.edu/Academics/Programs_of_Study.aspx)
- 8 [http://bluegrass.kctcs.edu/Academics/Programs\\_of\\_Study.aspx](http://bluegrass.kctcs.edu/Academics/Programs_of_Study.aspx)
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# Aerospace Assessment and Marketing Strategies

Prepared for the Ashland Alliance  
Ashland Kentucky

by  
Common sense Economic Development  
&  
Tucson/Atlantic Consulting

## Data Sources and Analysis

All proprietary and statistical data was provided by Economic Modeling Specialists International (EMSI), under contract with the University of Southern Mississippi. Additional information was collected by personal interviews by the authors or provided by local sources. All the statistics are the most current, collected in 2015. Where practical, maps and charts have been used to simplify data interpretation and trends. Some Airport data was secured using personal interviews with Airport Authority members and FAA documents.

Authors: Tucson Roberts & Robert Ingram; Formatted by Angie Collins



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## Introduction and Executive Summary

The Ashland area, including Boyd and Greenup Counties, has suffered substantial employment losses that include the Ashland Oil Company, mining support services, steel and transportation reductions. This assessment examined the community's suitability and potential for attracting a new industry, aerospace, into the area. The aerospace industry will bring many benefits to the area including high wages, technical skills and new opportunities. Aerospace is also Kentucky's fastest growing industry, leading jobs creator, and today, accounts for over one-fourth of the State's total exports. The consultants conducted a multi-faceted approach to examine and evaluate the potential for attracting and sustaining aerospace industries to the Ashland area. We first interviewed community leadership, industry managers, airport operators, workforce and education providers as well as economic developers to gather their viewpoints and assess abilities and challenges.



**60- industries employ 15,000 in Kentucky, shown: GE Engine facility**

Secondly, we conducted a statistical analysis that focused on workforce, skills and industry present in the greater region within 100-miles centered around Ashland. We similarly examined the six contiguous counties surrounding Boyd and Greenup. For this task, we used proprietary data provided by Economic Modeling Specialists International (EMSI) provided by the University of Southern Mississippi. EMSI is one of the world's leading and most trusted sources of specialized information related to workforce, demographics, industry trends and regional analysis. Other sources of information included the websites of various regional aerospace and education-related organizations, as well as information released by the Kentucky Cabinet for Economic Development.

After evaluating the community information and statistical research evidence, we then listed the local and regional assets necessary to support the aerospace industries, as well as the liabilities that must be overcome to successfully recruit and sustain the various industries within the aerospace sector.



Next, Ashland and the greater 100-mile region's advantages are assessed and compared to other national aerospace clusters. The result, is a ranked list of aerospace cluster metro-areas that are measured in order of competitiveness with the *Greater Ashland Region*. The leading aerospace companies within each cluster are also itemized and serve as recruiting targets for the marketing strategy. We then offer a summary marketing strategy

in order to successfully recruit aerospace industry into the area. Our proprietary strategy engages "best practices" that have proven successful to attract national, as well as, international aerospace businesses. The marketing strategy is designed to create recruiting

leverage by creating partnerships with multiple economic development and industry allies with similar interests.

Finally, we are pleased to award an **AEROready™ Certificate** that ensures aerospace prospects that the Ashland area possesses the infrastructure, training, workforce skills and community team-commitment necessary to attract and support an aerospace industry. The **AEROready™ Certification** should be used in tandem with the marketing and recruiting effort. It will prove advantageous for the Ashland Alliance and its marketing partners to include it on websites, brochures, publications, media presentations and discussions with industry prospects. We also look forward and offer to provide continuing guidance to Ashland's economic development leadership efforts. We believe if this assessment and marketing strategy is employed, aerospace will become an essential and expanding component of the regional economy of the City of Ashland, Boyd and Greenup Counties.

## Aerospace Assessment and Marketing Strategies

### Scope of work

This Aerospace Assessment is designed to identify resources required by the aerospace industry, offer insight to community leadership and guidance concerning whether to target and recruit aerospace industries and their considerable economic benefits. It is also designed to provide a critical overview of a timeframe, rough cost estimate and actions for recruiting aerospace businesses. We will begin with a brief examination of advantages of the aerospace industry, including its impact and contributions to Kentucky's economy. Secondly, The Ashland Airport's resources are assessed for their ability to attract and retain new aviation businesses and activities into the area. A statistical data analysis follows that identifies labor force migration patterns, the skills and workforce necessary to support aerospace within a 100-mile radius of Ashland. We'll then identify the key existing aerospace industries within that same 100-mile radius to determine the aerospace industry base of the wider-region as well as Boyd, Greenup and the six-contiguous counties that include Scioto in Ohio, Wayne and Lawrence in West Virginia and Lewis, Carter and Lawrence in Kentucky. Then, the strengths and weaknesses of the area to support the aerospace industry will be examined. If all of the resources are present to successfully attract aerospace industries, we will award an **AEROready™ Certificate**. This Certificate will assure prospective industries that Boyd and Greenup Counties possess the resources to support aerospace industry. Finally, we will offer a marketing strategy to guide the recruitment process to effectively attract aerospace business into the area.

For the sake of clarity, **AVIATION** refers to aircraft that operate within the atmosphere. On the other hand, **AEROSPACE** is the all-encompassing term that refers to both aviation activities and space flight. We'll primarily use the term aerospace in this assessment and marketing plan unless referring to specific aviation skills or industries.

### Economic advantages of aerospace



The aerospace aviation business is unlike any other. Its labor is generally higher paid than most manufacturing businesses. For example, the mean average weekly wage for production workers in Boyd and Greenup County is \$18.88. Contrast that to the \$39.45 average hourly pay for maintenance, overhaul and repair (MRO) jobs in Kentucky. Since their wages are higher, aviation industries have a higher economic impact in the communities where they are present. As one might expect, the larger the salary the greater the contribution to the local economy. Aerospace jobs are generally high-skill, high-wage and high-demand jobs that require technical training. Therefore, they make a prime target for communities and their industrial recruiting efforts. Furthermore, the overall aerospace industry requires a wide range of 74-basic skills to operate (Appendix A). Some of these skills are common to other industry sectors, but individuals generally command higher salaries when employed by aerospace companies. Historically, Ashland's oil, steel, transportation and mining support industry has employed skilled workers who shared many of the skills transferrable to the aerospace industry. However, in recent years, in the wake of business closures and cutbacks this workforce has begun to migrate out of the region. This opens the opportunity for the community to consider aerospace as an alternative and replacement industry sector.

### Economic impact of aerospace

The Kentucky Cabinet for Economic Development reported "aerospace exports have increased by an unprecedented 145.1 percent since 2010. Aerospace exports totaled \$8.7 billion in 2015 and are currently on track to exceed \$10 billion in 2016. In 2015, Kentucky ranked as the third largest aerospace exporter only behind the states of Washington and California. Remarkably, during the first six months of 2016, Kentucky ranked second only to Washington as an exporter of aerospace products". "Aerospace products and services alone are now Kentucky's leading export, comprising one-fourth of the state's total exports."



Today, Kentucky hosts some of the nation's finest aerospace industries that include: parts manufacturing, aircraft assembly, maintenance, testing, maintenance overhaul & repair (MRO) and research & development (R&D). Primary employers in the state include: *Belcan Corporation, Messier-Bugatti, Skillcraft, Lockheed Martin, GE Aviation, Safran, Meggitt, Raytheon and Phoenix Products*. Additionally, Kentucky industries are suppliers to *Boeing and Airbus*, two of the world's largest



commercial assemblers. There can be little doubt that the aerospace industry is a critical component of Kentucky's economy. In 2014, the region including Ohio and Northern Kentucky was designated as the lead aerospace region for a U.S. Department of Commerce program designed to promote and improve manufacturing communities. The *Southwestern Ohio Aerospace Region Manufacturing Community* or "SOAR" includes the Interstate 75-corridor from Dayton to Cincinnati, as well as Carroll, Gallatin, Boone, Kenton, Campbell, Bracken, Pendleton, Grant and Owen counties in Northern Kentucky. The growth of the Kentucky aerospace industry has been truly extraordinary. Since the *Greater Ashland Region* has been prosperous with the steel, mining, oil, and natural gas industry, the aerospace sector was not seen as a priority. Hence, the industry has but a small presence in and around Ashland. Yet, the greater region possesses many of the resources essential to support it. These assets include existing buildings, skilled personnel with transferrable skills, established technical training programs and the infrastructure and facilities to support the labor force and their families.

### The Ashland Regional Airport



Although every aerospace industry does not require an airport location, they are essential for fixed wing and for rotor wing operations that require or prefer a runway, navigation aids, fuel, or other airport services.



Because of these services, maintenance, repair and overhaul (MRO) operations generally operate more efficiently at airports. Therefore, we can consider airports as a necessary component for a community's **AEROREADY™ Certification**. Without a first-class airport, one lessens the probability of a successful marketing and recruitment effort. The airport opened in 1953 as Ashland-Boyd County Airport and featured a 5,000-foot runway with a 3,000-foot clearance.

Located six nautical miles northwest of the central business district of Ashland and on the southern bank of the Ohio River, the airport was once used extensively by the oil products manufacturing company, Ashland Inc., before the company's corporate headquarters was relocated. Today, the facility is publicly owned and managed by the Ashland Regional Airport Board and covers an area of 170 acres at an elevation of 546 feet. It supports a single asphalt paved runway designated 10/28 which measures 5,602 by 100 feet and offers the following services:

- FAA Identifier: DWU, (KDWU)
- White-Green Beacon
- Lights: PAPI 10&28, runway lights
- Fuel: 100LL, Jet A
- Weight Bearing Capacity, Single-51, Double-65, Double tandem-105

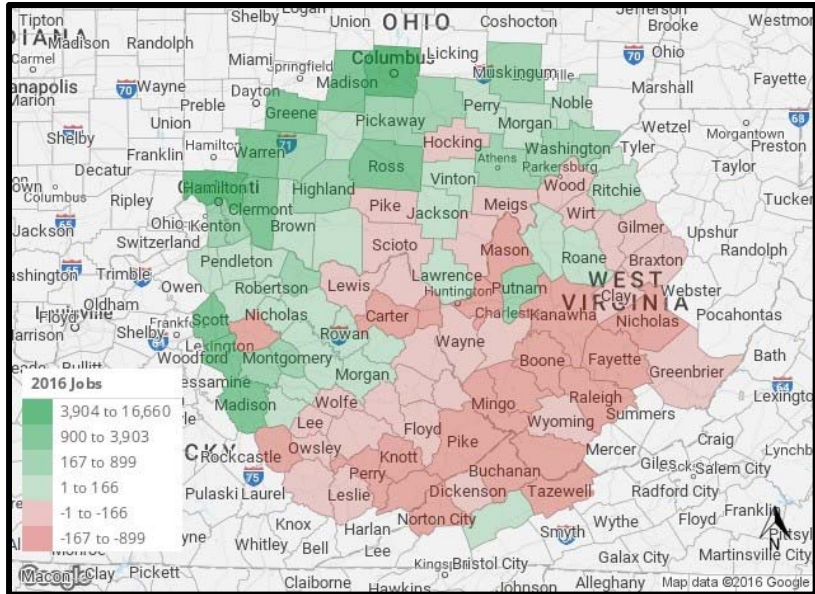
- Instrument approach, RNAV (GPS) RW 10&28
- City of Ashland Fire protection
- Corporate and T hangars available
- Flight training
- Aircraft Maintenance
- Courtesy car & pilots lounge
- Average operations 132 per week. Four percent Military, 89 percent general aviation and 7 percent air taxi.



The airport facility is well-maintained, offers a wide range of services and is an efficiently managed facility. However, it does have a few challenges. Since the airport's beginning in 1953, residential developments have gradually encroached from U.S. Highway 23. Consequently, today, the airport does not offer adequate industrial land to support a new aviation manufacturing or maintenance, repair and overhaul (MRO) industry. However, there is a 50,000+ square foot combined hangar and office facility (The former Ashland Oil company site) rented from the Airport Authority and occupied by a non-aviation business that could be a prospect for future aviation development. In addition, several parcels adjoining airport property, but without taxiway direct access, could likely be acquired. Also, access to the airport is from U.S. Highway 23 and is indirect, poorly marked with signage and obviously needs re-routing.

### **Aerospace employment and skills**

Seventy-four skill sets (See Appendix A) are wide-ranging, and recognized as essential to the comprehensive aerospace industry. These skills include aerospace engineers, business operations specialist, welders, IT specialist, production workers, avionic technicians, logistics specialist, drafting, machinist, etc. These comprise the primary skills necessary to conduct aircraft, missile, spacecraft design, assembly, parts



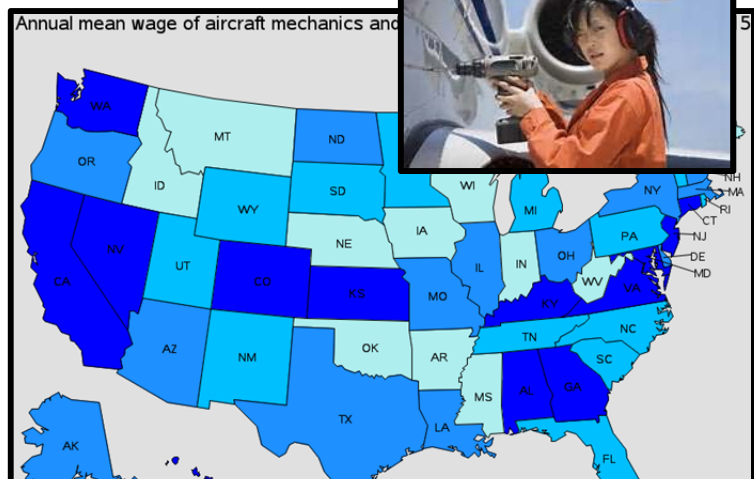
**Map 1. General aerospace skill job migration from SE to NW**

manufacture, research& development and testing. Map 1 above illustrates skill migration in the 100-mile region around Ashland KY. It is apparent with the loss of jobs in the mining, steel, oil, natural gas, transportation and service industry, there has been a stark and massive migration of these key jobs skills from southeast Kentucky to the northwest. Map 1 clearly displays the magnitude and geographic characteristics of this skills migration. Between 2010 and 2016, 1,222-skilled individuals have relocated from the SE to the NW, essentially relocating to other regions and depleting some of southeastern Kentucky's most skilled workers.

Fortunately, many relevant technical courses are currently being taught at Ashland Community Technical College (ACTC) and they will need only slight modification to accommodate the requirements of an aerospace industry. These include: information technology (IT), electrical, welding, industrial maintenance, drafting, computerized manufacturing and technical aviation maintenance. However, if job opportunities are not available in the immediate area, these skilled workers will also be tempted to find employment elsewhere.

**Maintenance, repair and overhaul (MRO); Airframe and power plant (A&P) technicians**

The aviation industry is critically dependent on skilled labor. The Federal Aviation Administration (FAA) certifies and requires a permanent record for each part that is installed on, or removed from an aircraft. Similarly, an airframe or power plant (A&P) mechanic must certify that the part has been properly installed on each aircraft. Since safety is vital when flying, both labor



**Map 2. Top paying states for states Aircraft Mechanics and Service Technicians (49-3011)**

and parts tend to be more exacting and expensive. Specifications for both parts and installation are meticulous. This tends to concentrate expensive, specialized labor availability around industry clusters. It also often requires proximity to an FAA certified maintenance school. It is fortunate that the nearest FAA certified school is located in Kentucky at Somerset Community College about a two-and-one-half hour drive from Ashland. It's also possible in Kentucky to initiate A&P training through the Ashland Community and Technical College (ACTC) in coordination with the local high schools using dual-enrollment training. When the Ashland Alliance is successful in their recruitment efforts this training will be an essential component to sustain aviation skills.

Kentucky is currently the top paying state for aircraft mechanics and service technicians (Map 2 above) these skills are required to support maintenance, repair and overhaul (MRO) operations. These workers are heavily concentrated in the counties around Louisville, Kentucky and Cincinnati Ohio. These workers diagnose, adjust, repair, maintain or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. This also includes helicopter and aircraft engine specialists. A high percentage of these workers hold FAA certification and as airframe and power plant (A&P) mechanics. The top five states and their number of job and wages are listed in the table below:

State	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
<u>Kentucky</u>	1,780	0.97	1.08	\$39.45	\$82,050
<u>New Jersey</u>	1,720	0.44	0.49	\$35.76	\$74,380
<u>Washington</u>	4,550	1.53	1.70	\$33.75	\$70,200
<u>Maryland</u>	2,350	0.91	1.01	\$32.84	\$68,310
<u>Colorado</u>	1,760	0.72	0.80	\$31.39	\$65,280

**Workforce and skills migration in Boyd and Greenup counties**

As Map 3 (page 10) clearly illustrates, the **11 core aviation job skills** gain/loss from 2010-2016 required to support the aerospace industry are currently present in the *Greater Ashland Region* and generally increasing to the northwest toward Columbus, Cincinnati OH, east toward Charleston WV and west as one approaches Lexington KY.

**11 core aviation job skills:**

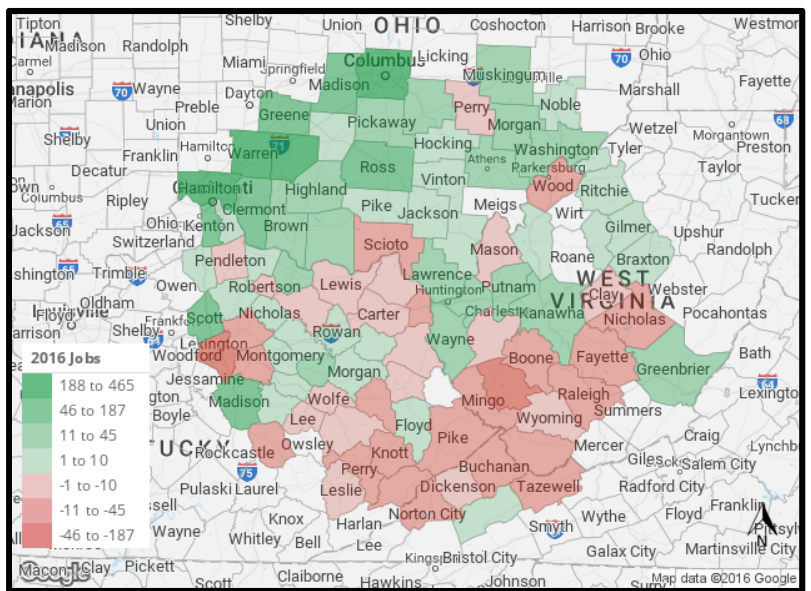
- Aerospace engineers



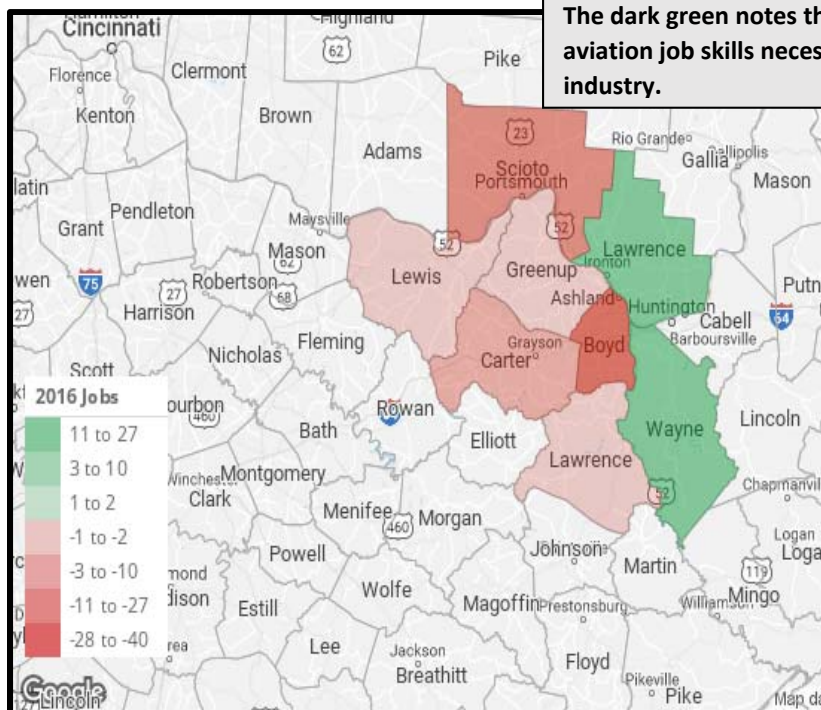
- Aerospace Engineering and Operations Technicians
- Avionics Technicians
- Aircraft Mechanics and Service Technicians
- Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
- Structural Metal Fabricators and Fitters
- Fiberglass Laminators and Fabricators
- Computer-Controlled Machine Tool Operators, Metal and Plastic
- Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
- Welders, Cutters, Solderers, and Brazers
- Welding, Soldering, and Brazing Machine Setters, Operators and Tenders

Currently there are 18,856 individuals with these 11-skill groups within the 100-mile radius of Ashland, an 11-percent increase of 772 from the 2010 total of 16,984. Their average hourly wage is \$24.27.

Note Map 4 (below) shows the density job gains/loss of **11 core aviation job skills** in the immediate area of Boyd, Greenup and the six surrounding counties. These aviation skills are growing to the east in Lawrence and Wayne Counties, WV. Generally, aerospace employees will commute a maximum 50-100 miles to their place of employment. Consequently, there appears to be an adequate supply of



**Map 3 above illustrates the density of employment gains/loss within 100-miles of Ashland Kentucky 2010-2016. The dark green notes the accumulation of the 11 core aviation job skills necessary to support the general aviation industry.**



aerospace skills present to initially support an aerospace industry provided that local training is established to match business needs and maintain the industry. It is notable that many of the above skill sets share common

skill sets that are common in the mining, steel, oil and natural gas industries and are thus transferable to the aerospace industry.

Both Wayne and Lawrence Counties have experienced substantial increases in aviation employment over the past six-years at 28 and 18 percent respectively; Boyd, Greenup and Scioto have experienced considerable declines at -24, -23 and -7 percent respectively. Overall, the area has experienced a slight decline of 29 total aviation jobs since 2010. Nonetheless, there are currently 459 individuals with core aviation skills within the eight-county region within easy driving distance. This represents a critical skill resource that will ensure a prospective industry that an initial workforce is likely present in the immediate area and could be recruited.

**Map 4 Gains/loss, Boyd and Greenup and the 6-contiguous counties and 11- core aviation job skills.**

are currently 459 individuals with core aviation skills within the eight-county region within easy driving distance. This represents a critical skill resource that will ensure a prospective industry that an initial workforce is likely present in the immediate area and could be recruited.

The chart below shows the actual number of 11 core aviation job skills present in the Boyd, Greenup and surrounding county area and their gains/loss.

County	County Name	2010 Jobs	2016 Jobs	2010 - 2016 Change	2010 - 2016 % Change	2016 Location Quotient	COL Adjusted Avg. Hourly Earnings
39087	Lawrence County, OH	130	153	23	18%	1.63	\$20.04
54099	Wayne County, WV	76	97	21	28%	1.55	\$19.43
21089	Greenup County, KY	27	25	-2	-7%	0.42	\$16.88
39145	Scioto County, OH	71	55	-16	-23%	0.32	\$23.56
21019	Boyd County, KY	169	129	-40	-24%	0.76	\$20.07
21043	Carter County, KY	15	<10	Insf. Data	Insf. Data	0.23	\$17.30
21135	Lewis County, KY	<10	<10	Insf. Data	Insf. Data	0.43	Insf. Data

**Regional aerospace industry trends 100 miles from Ashland**

The following 6-industries are fundamental components that drive the aerospace sector. They offer an excellent measure of how the *Greater Ashland Region* fares within the balance of state, surrounding states and nation. Most of the jobs created by these companies are highly desirable, career-building, high-pay, high-demand and highly-skilled. Consequently, a high

percentage of these industry jobs require advanced technical training or a college education and a long-term commitment from local workforce trainers and educators. These core industries frequently attract other aerospace businesses to support them and they include:

- Aircraft Manufacturing

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- Aircraft Engine and Engine Parts Manufacturing

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- Other Aircraft Parts and Auxiliary Equipment Manufacturing

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- Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing

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- Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing

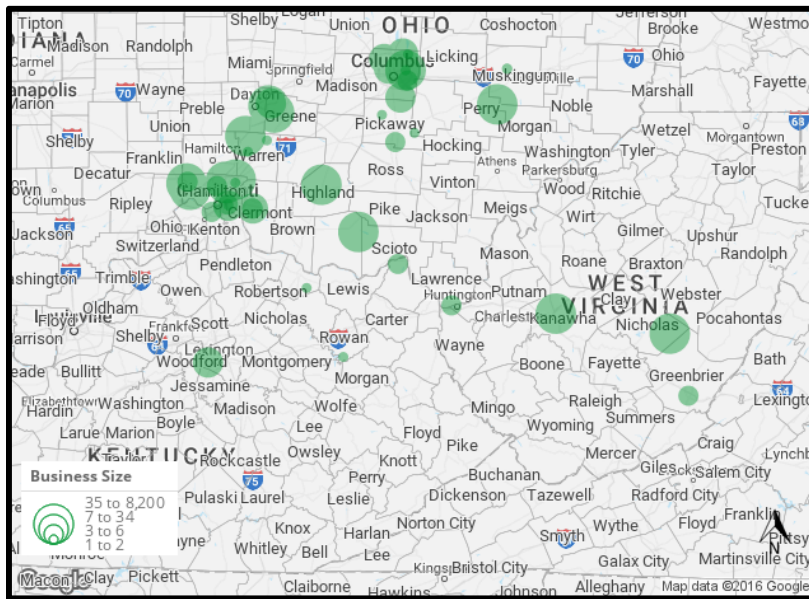
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- Other Support Activities for Air Transportation

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Map 5 (below) shows the location of aerospace industries within the *Greater Ashland Region*, corresponding to the aerospace workforce skill migration from the previous section. The following chart summarizes the jobs created by the 6-industry sectors during the years 2010-2016. Together, these 149

**Map 5 shows the relative location of core aerospace industries within the region**



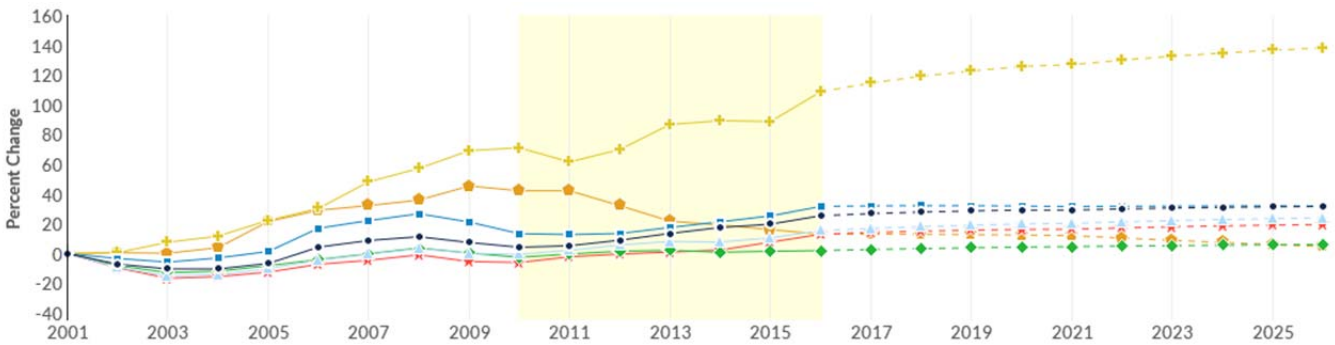
separate businesses created 14,531 total jobs with average earnings of \$123,465. Note how strong aerospace growth is in this region compared to the national average. This remarkable employment increase is an indication that the workforce, wages, business environment, and supplier network are all favorable in this region. The regional trends section compares job performance data with National, the *Greater Ashland*

*Region*, the three combined states of Kentucky, Ohio and West Virginia, and the same 3-individual three states. Only West Virginia lost jobs. Overall this is a very positive trends for the region.

### Industry Summary for 6-Industry sectors 2010-2016

14,531 Jobs (2016) 38% above National average	20.3% % Change (2010-2016) Nation: 4.6%	\$123,465 Avg. Earnings Per Job (2016) Nation: \$106,328
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#### Regional trends



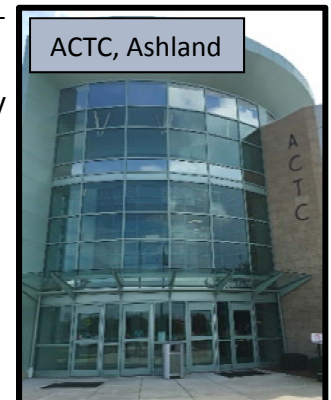
	Region	2010 Jobs	2016 Jobs	Change	% Change
●	Region	12,075	14,531	2,456	20.3%
●	3-States	30,437	35,315	4,878	16.0%
●	Nation	518,187	542,201	24,014	4.6%
●	Kentucky	3,992	4,873	881	22.1%
●	Ohio	18,175	21,847	3,672	20.2%
●	West Virginia	3,145	2,500	-645	-20.5%

#### Top five of 149 regional businesses in the region include:

- GE Aviation-Aircraft Parts and Auxiliary Equipment Manufacturing
- CTL Aerospace Inc.-Other Aircraft Parts
- GKN Aerospace Engine Products-Aircraft Engine and Engine Parts
- Magellan Aerospace-Aircraft Manufacturing
- Meggitt Troy Inc.- Aircraft Parts

## Ashland's aerospace strengths and assets

- Adequate industrial parks, existing and speculative buildings and utilities to support aerospace manufacturing and research & development operations at Eastpark, Wurtland, Siloam and the former Ashland Oil Headquarters Complex.
- The Morehead Space Science Center, a first- class aerospace research center located in Morehead, Kentucky. The program is nationally recognized, and specializes in micro-satellites.
- American Electric Power is a multi-state, respected and supportive economic development ally.
- 171 miles away from Ashland, Somerset Community College offers a comprehensive FAA approved airframe and power plant (A&P) aviation maintenance program. Elements of the program can be imported to Ashland Community Technical Center (ACTC) and local high schools. Similar FAA accredited schools are also found in Hillsborough, Columbus and Cincinnati, Ohio.
- An expanding and diverse aerospace industry sector in the State of Kentucky that serves all sectors of the aerospace industry. Aerospace as an industry is currently the largest exporter in the state and is on track to generate \$10B; over one-fourth of the state's total exports in 2016.
- The ACTC is a well-managed education and training facility currently offering technical training support to the aerospace industry. Additionally, ACTC has cooperative agreement with East Kentucky University to offer a Bachelors' degree in aviation.
- Pro-business local leadership throughout the region and available financial resources, sites and buildings required to recruit and accommodate many sectors of the aerospace industry.
- State-wide aerospace business executives who are familiar with the advantages of locating and expanding in Kentucky that can be used as resources and references for potential aerospace industry prospects.
- Potential aerospace marketing partners that include: Huntington Tri-State Airport in nearby West Virginia offers commercial air service, has available industrial land and is a willing and potential partner in aerospace recruitment; adjacent Scioto County Ohio; and the 9-county One East Kentucky Region.
- The Kentucky Cabinet for Economic Development, through its Department for Business Development has designated the aerospace industry as a high priority target. It is a well- funded, experienced and knowledgeable ally that should be engaged in any aerospace recruitment effort.



- The greater Ashland community supports a quality of life that will enhance aerospace management including, retail shopping, medical facilities, quality K-12 schools, first class residential areas and access to nearby higher education institutions.

### **Ashland's aerospace weaknesses and liabilities**

- Little local history or direct experience with aerospace industries or technology and maintenance, repair and overhaul (MRO) skills.
- Although well-managed with good aviation services, the Ashland Airport has insufficient available land to support a substantial MRO operation. Poor signage and the current access road from U.S. Highway 23 are inadequate and do not complement the airport operations. The facility also lacks a large or expandable aircraft hangar facility or speculative building with taxi-way access to attract an aircraft service business.
- No ongoing post-secondary airframe and power plant (A&P) training established in Boyd or Greenup Counties.
- Absence of an aerospace marketing strategy to successfully recruit new aerospace industry that identifies regional partners committed to participate in the process.

### **Greater Ashland Region's competitive advantage**

Target regions around the United States maintain aerospace clusters that offer the best recruitment opportunities given their high payroll, business location loss and high cost of labor compared to 100-mile radius centered around Ashland KY. High labor cost and business out-migration signals that businesses are dissatisfied with the region and are leaving to find better locations. The high cost of doing business may indicate an industry that is more likely to relocate to the *Greater Ashland Region*, where labor and other business costs are lower.



Within nine clusters, the industries shown in the competitive analysis are the largest aviation manufacturers within their respective regional clusters. Note that many of these companies are located in multiple areas of the United States depending on military, logistics, suppliers or labor considerations. Often, companies with several locations tend to be excellent prospects and are comfortable expanding new locations. The 9-national micro-aerospace clusters are ranked by the most likely to match the resources of the *Greater Ashland Region* and listed below. Within each cluster identified is a list of primary industries that are potential recruiting targets. Although the Los Angeles-Long Beach-Anaheim California area is ranked as the # 1 recruiting target, it is significant to note that two states bordering Kentucky; #7-Missouri & Illinois, both support strong metropolitan aerospace clusters and are fair game for recruiting prospects. Nearby North Carolina #6 is also a desirable target. Ohio which is not included on the prospect list also supports a strong aerospace industry centered around Dayton, Columbus and Cincinnati and presents a non-ranked target. The geographic proximity of these nearby

clusters offer an additional geographic advantage to Ashland and the wider 100-mile region surrounding it.

### 1. Los Angeles-Long Beach-Anaheim, CA

<b>353</b>	<b>\$126,686</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
This region lost 11 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

#### Top Infogroup Businesses

Business	Business Size
Boeing Co.	Large (250+)
Aerojet Rocketdyne	Large (250+)
Robinson Helicopter Co.	Large (250+)
Rockwell Collins Inc.	Large (250+)
Rockwell Collins Inc.	Large (250+)
Zodiac Aerospace	Large (250+)
Boeing Co	Large (250+)
Ducommun Aero Structures	Large (250+)
Designed Metal Connections	Large (250+)
Avibank Mfg. Inc.	Large (250+)

### 2. Dallas-Fort Worth-Arlington, TX

<b>105</b>	<b>\$135,468</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
This region lost 10 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

#### Top Infogroup Businesses

Business	Business Size
Lockheed Martin M&FC	Large (250+)

Raytheon Network Centric Sysys.	Large (250+)
Pratt & Whitney	Large (250+)
Airbus Helicopters	Large (250+)
Northrop Grumman Aerospace	Large (250+)
Turbomeca USA	Medium (50-249)
Accurus Aerospace Corp	Medium (50-249)
HMDunn Aero Systems Inc.	Medium (50-249)
UTC Aerospace Systems	Medium (50-249)
Boeing Co	Medium (50-249)

### 3. San Jose-Sunnyvale-Santa Clara, CA

<b>9</b>	<b>\$189,749</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
This region lost 6 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

#### Top Infogroup Businesses

Business	Business Size
Seagull Solutions Inc.	Small (0-49)
Hobson Mfrs.	Small (0-49)
Redwood Space Controls	Small (0-49)
ACK Technologies Inc.	Small (0-49)

### 4. Bridgeport-Stamford-Norwalk, CT

<b>18</b>	<b>\$148,018</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
This region lost 6 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

#### Top Infogroup Businesses

Business	Business Size
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Sikorsky Aircraft Corp.	Large (250+)
UTC Aerospace Systems	Large (250+)
B/E Aerospace	Medium (50-249)
Rotair Industries Inc.	Small (0-49)
Mcmellon Bros Inc.	Small (0-49)
Glyne Manufacturing Co.	Small (0-49)
United Technologies Corp	Small (0-49)
United Hydroforming Inc.	Small (0-49)
Coastal Aviation Industries	Small (0-49)

## 5. Oklahoma City, OK

<b>17</b>	<b>\$134,828</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
<b>This region lost 3 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.</b>	<b>This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.</b>

### Top Infogroup Businesses

<b>Business</b>	<b>Business Size</b>
Tinker Air Force Base	Large (250+)
Boeing Co	Large (250+)
Pratt & Whitney Military Eng.	Small (0-49)
Rockwell Collins Inc.	Small (0-49)
Radial Engines Ltd	Small (0-49)
Zivko Aeronautics Inc.	Small (0-49)
Dusters & Sprayers Supply Inc.	Small (0-49)
Global Radial Aircraft Engines	Small (0-49)
Arrowprop Co Inc.	Small (0-49)
D & B Aircraft Engines	Small (0-49)

## 6. Charlotte-Concord-Gastonia, NC-SC

**12**

**Payrolled Business Locations (2015)**

This region lost 2 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.

**\$135,115**

**Avg. Earnings Per Job (2016)**

This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

### Top Infogroup Businesses

Business	Business Size
UTC Aerospace Systems	Medium (50-249)
UTC Aerospace Systems	Medium (50-249)
Equipment & Supply Inc.	Small (0-49)
Curtiss-wright Controls Inc.	Small (0-49)
Rockwell Collins Inc.	Small (0-49)
Bermuda High Corp	Small (0-49)
Dymond USA	Small (0-49)
Bermuda High Soaring	Small (0-49)
Charlotte UAV	Small (0-49)
UTC Aerospace Systems	Small (0-49)

## 7. St. Louis, MO-IL

**29**

**Payrolled Business Locations (2015)**

This region lost 2 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.

**\$144,250**

**Avg. Earnings Per Job (2016)**

This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

### Top Infogroup Businesses

Business	Business Size
Boeing Co.	Large (250+)
Heizer Aerospace	Medium (50-249)
Patriot Machine Inc.	Medium (50-249)

Kemco Aerospace Mfg.	Medium (50-249)
Hm Dunn Aero Systems	Medium (50-249)
Valent Aerostructures	Medium (50-249)
DRS Sustainment Systems Inc.	Medium (50-249)
Aim Tech Group	Small (0-49)
Valent Aerostructures	Small (0-49)
Tech Manufacturing Co	Small (0-49)

## 8. Houston-The Woodlands-Sugar Land, TX

<b>14</b>	<b>\$155,281</b>
<b>Payrolled Business Locations (2015)</b>	<b>Avg. Earnings Per Job (2016)</b>
This region lost 1 payrolled business location in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.	This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.

### Top Infogroup Businesses

Business	Business Size
Rockwell Collins Flight Info	Large (250+)
Center-advanced Space Studies	Medium (50-249)
B/E Aerospace	Medium (50-249)
Textool Co. Inc.	Small (0-49)
Boeing Co	Small (0-49)
Boeing Co	Small (0-49)
Boeing Co	Small (0-49)
Boeing Co	Small (0-49)
UTC Aerospace Systems	Small (0-49)
Citizens for Space Exploration	Small (0-49)

## 9. Yuba City, CA

<p><b>3</b></p> <p><b>Payrolled Business Locations (2015)</b></p> <p>This region gained 0 payrolled business locations in the industry from 2010-2015. Low payrolled business location growth signals that businesses are willing to relocate.</p>	<p><b>\$145,188</b></p> <p><b>Avg. Earnings Per Job (2016)</b></p> <p>This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.</p>
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### Top Infogroup Businesses

Business	Business Size
UTC Aerospace Systems	Medium (50-249)

### Marketing strategies for aerospace recruitment

It is estimated that aerospace marketing will require a *dedicated minimum annual budget of \$30,000 for expenses and two-three years to successfully recruit an aerospace industry to the Greater Ashland Area*. Although there are no primary aerospace industries in Boyd and Greenup Counties, the area is not without advantages. The key aviation industries located in the "100-mile aerospace region" surrounding Ashland offer an excellent "point-of-beginning" for recruiting, industry intelligence and leads. Fortunately, skilled transferrable labor also exists throughout the region. The **competitive advantage section** above also indicates that three of the prominent ranked aerospace clusters are located in nearby North Carolina, Missouri and Illinois. This is advantageous, since, it is much easier and inexpensive to recruit industry when they are relatively nearby and have some familiarity with the *Greater Ashland Region* and its resources.

Within the aerospace industry sector, many aerospace parts manufacturers, service providers, test services and research and development firms do not require an airport location. Therefore, the most probable location for an initial aviation industry is at one of the three-industrial parks, most notably, Eastpark adjoining ACTC or at the vacant former Ashland Oil Office Complex.

While Ashland operates an excellent airport for general aviation and corporate aircraft, it is not a likely candidate for a substantial aerospace maintenance, repair and overhaul (MRO) industry until it acquires land or buildings with taxiway access. The former Ashland Oil Airport Offices and Hangar Facility at the airport offer an excellent potential for an MRO business if they are vacated by their current non-aviation resident.

It is important to begin the process and show success. Potential supporters of the marketing effort are, the Ashland Alliance, The Kentucky Cabinet for Economic Development, through its Department for Business Development, city and county governments, American Electric Power, utility providers and workforce and training partners. The nearby FAA certified airframe and power plant (A&P) school, Somerset Community College located in Somerset Kentucky, should embrace recruiting support for a new aerospace industry as potential career options for

their graduates. Once an industry is successfully recruited, consider a satellite FAA A&P operation at ACTC and an aviation training program at the local high schools. Although not necessary to begin aviation recruiting, an A&P dual enrollment program at one of the high schools would be a logical first step toward maintaining an aviation workforce within the region once one is located in the area. It is also reassuring for a prospective MRO industry to know that A&P training will be available to sustain operations. The feasibility of such training should be discussed before a marketing campaign is begun. The following marketing outline serves as a guide to aerospace recruiting. It should be designed to reflect the Ashland Alliance's financial and personnel commitments to recruit aerospace industries. Initial steps include:

1. **Establish a strong committed local alliance** within the two-county Asheville Alliance area to include funding partners, workforce training and academic institutions, cities, counties, FIVECO, legislative, business and utility supporters. Explain the objectives and benefits for aerospace recruitment and establish a three-year financial commitment. Develop a three-year comprehensive plan for aerospace recruitment based on the resources allocated and committed partners. Broaden the alliance to adjacent and neighboring counties, utilities and state development organizations and organizations that will complement the overall effort. If feasible, create a functional, super-regional organization as outlined in step 2-below.
2. **Establish a strong, committed regional aerospace/aviation alliance.** There is presently a very exceptional and compelling opportunity to form a super-regional cooperative marketing and recruiting alliance that includes *Scioto County Ohio, The Huntington Tri- State Regional Airport, the nine-county One East Kentucky Region and the Greater Ashland Alliance*. Each of these regions have experienced declining oil, mining, transportation, support industries; have similar workforce skills and share a cultural history. Such a partnership could potentially embrace the three states of Kentucky, Ohio, West Virginia and their considerable marketing competences. American Electric Power (AEP) is also present in each of the three regions with extensive economic development resources and experience and is a natural ally. Supporting regional institutions include the Morehead Space Science Center, East Kentucky University, Somerset College, Shawnee State, University of Pikeville and the region-wide community colleges.
3. **Create a brief formal marketing/recruitment summary strategy document** that will tie together the elements in this assessment into a sequenced, coordinated, comprehensive and funded plan of work for the region. This document will be useful for identifying responsibilities, clarity, guidance in explaining plans to partners, and preparing grant applications.
4. **Advise The Kentucky Cabinet for Economic Development and workforce training partners** of Ashland Alliance's intention to market and recruit aviation businesses and request assistance.
5. **Invite The Kentucky Cabinet's Department for Business Development, Somerset Community College, aerospace consultants, American Electric Power Co., economic development officials and other recruiting partners to spend a day in the region learning about your aerospace assets** and meeting with key partners. Entertain them like you would a prospect. Provide them with an aerial view of the

regional airports, industrial buildings and primary cities, preferably from an aircraft. Ask them to help you generate prospects.

6. **Interview and develop a personal network of aerospace industry managers and key supervisors** within the 100-mile region and workers in the area. *This is a critical first step before marketing outside the greater region.*
7. **Meet with the United States Air Force (USAF) contracting office in Wright Patterson Air Force Base** and determine what new defense contracts are pending and when existing contracts will be rebid or renewed.
8. **Create a trifold brochure and a dedicated aerospace web site or web page** to your existing site that highlights the workforce training, the Ashland Alliance organization, local workforce training facilities, Somerset Community College A&P School, The Morehead Space Science Center, regional technical training and academic educational institutions, transportation access, regional aerospace industries and future development and infrastructure plans.
9. **Distribute aerospace-related information** on airports to training institutions, workforce partners, city and county and FIVECO websites.
10. **Compose a list of Airbus' and Boeing's worldwide suppliers** and make contact with as many as possible at marketing events, especially those in neighboring states.
11. **Attend the following trade shows and marketing events:**
  - Domestic:
    - Heli Expo- Focused on the helicopter industry both military and commercial. (February, various nation-wide locations);
    - NBAA- The National Business Aviation Association Show- specializes in commercial aviation. (October, various nation-wide locations);
    - MRO- This trade show concentrates on the Maintenance, Repair & Overhaul (MRO) of Aircraft. (April, various nation-wide locations);
    - Quad A- Primarily United Army military aircraft. (April, Nashville TN).
  - International:
    - Paris Air Show-Civilian and military aircraft and is also the world's largest airshow. Held in the odd years i.e. 2017, 2019, etc. (June, Le Bourget Airport, near Paris France);
    - Farnborough Air Show, held at Farnborough Airfield near London. This event is held on the even years alternating with the Paris Air Show. (June, Farnborough Airport, near London, England);
    - Singapore Air Show, held on the even years, four months prior to the Farnborough Air Show. (February, Singapore).
12. **Utilize the AEROready™ Certification** as a marketing resource on websites, documents, etc., and in discussions with prospects.

## Appendix A

### 74-essential industry-wide aerospace occupations

#### Code Description

11-1021 General and Operations Managers  
11-3021 Computer and Information Systems Managers  
11-3051 Industrial Production Managers  
11-9041 Architectural and Engineering Managers  
13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products  
13-1081 Logisticians  
13-1199 Business Operations Specialists, All Other  
15-1121 Computer Systems Analysts  
15-1131 Computer Programmers  
15-1132 Software Developers, Applications  
15-1133 Software Developers, Systems Software  
15-1142 Network and Computer Systems Administrators  
17-2011 Aerospace Engineers  
17-2061 Computer Hardware Engineers  
17-2071 Electrical Engineers  
17-2072 Electronics Engineers, Except Computer  
17-2111 Health and Safety Engineers, Except Mining Safety Engineers and Inspectors  
17-2112 Industrial Engineers  
17-2131 Materials Engineers  
17-2141 Mechanical Engineers  
17-2199 Engineers, All Other  
17-3013 Mechanical Drafters  
17-3021 Aerospace Engineering and Operations Technicians  
17-3023 Electrical and Electronics Engineering Technicians  
17-3026 Industrial Engineering Technicians  
17-3027 Mechanical Engineering Technicians  
17-3029 Engineering Technicians, Except Drafters, All Other  
43-5061 Production, Planning, and Expediting Clerks  
43-5071 Shipping, Receiving, and Traffic Clerks  
47-2111 Electricians  
49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers  
49-2091 Avionics Technicians  
49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment  
49-3011 Aircraft Mechanics and Service Technicians  
49-9041 Industrial Machinery Mechanics  
49-9071 Maintenance and Repair Workers, General  
49-9099 Installation, Maintenance, and Repair Workers, All Other  
51-1011 First-Line Supervisors of Production and Operating Workers  
51-2011 Aircraft Structure, Surfaces, Rigging, and Systems Assemblers  
51-2022 Electrical and Electronic Equipment Assemblers

51-2023 Electromechanical Equipment Assemblers  
51-2031 Engine and Other Machine Assemblers  
51-2041 Structural Metal Fabricators and Fitters  
51-2091 Fiberglass Laminators and Fabricators  
51-2092 Team Assemblers  
51-2099 Assemblers and Fabricators, All Other  
51-4011 Computer-Controlled Machine Tool Operators, Metal and Plastic  
51-4012 Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic  
51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic  
51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic  
51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic  
51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic  
51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic  
51-4041 Machinists  
51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic  
51-4111 Tool and Die Makers  
51-4121 Welders, Cutters, Solderers, and Brazers  
51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders  
51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic  
51-4192 Layout Workers, Metal and Plastic  
51-4193 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic  
51-4199 Metal Workers and Plastic Workers, All Other  
51-9022 Grinding and Polishing Workers, Hand  
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers  
51-9121 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders  
51-9122 Painters, Transportation Equipment  
51-9191 Adhesive Bonding Machine Operators and Tenders  
51-9198 Helpers--Production Workers  
51-9199 Production Workers, All Other  
53-2021 Air Traffic Controllers  
53-3032 Heavy and Tractor-Trailer Truck Drivers  
53-6051 Transportation Inspectors  
53-7051 Industrial Truck and Tractor Operators  
53-7062 Laborers and Freight, Stock, and Material Movers, Hand



**Appendix B**  
AEROready™ Community Certification



The Consulting Team of Common Sense Economic Development and Tucson Atlantic Consulting has surveyed and examined the Ashland area, and its potential to target, recruit and support aerospace-related business and industry. Fourteen essential qualities in aerospace site location searches were evaluated, and many secondary aviation-support criteria were assessed to determine the potential for aerospace corporations to operate successfully in the two county region. In summary, ten of the fourteen qualities as are follows:

1. Airport(s) with at least 10-acres of available land for economic development, supporting navigation aids for corporate aircraft and a minimum 5,000-foot runway;
2. Availability of local training of technical skills required by aerospace companies;
3. An FAA-certified airframe and power plant (A&P) training facility located within a reasonable proximity;
4. Available industrial land and building(s) or hangar(s) suitable for aviation development;
5. An available skilled workforce and workforce training suitable for aviation employment;
6. Adequate infrastructure to support the aviation industry;
7. Aviation-support service business and industry;
8. A community pro-business environment;
9. Proximity to university based aerospace programs and research;
10. Quality of Life assets in the region which are essential to attracting executive talent.

It is our opinion that the area possesses the resources needed to attract and sustain aerospace industry, including those that require airport support services and infrastructure, as well as those that simply need high-quality sites or buildings.

The regional public and private leadership have shown a strong commitment to grow their market area and we are pleased to endorse their aerospace recruiting efforts by certifying the Ashland area as an AEROready™ Community, signifying its ability to successfully support the critical needs of the aerospace industry. This certification authorizes the *Ashland Alliance* and its aerospace partners to utilize the AEROready™ Community logo in its marketing efforts and to publicize its AEROready™ Community status as needed to recruit aerospace-related business and industry.

**Robert Ingram**

Robert Ingram

**Tucson Roberts**

Tucson Roberts



Tucson@Atlantic Consulting

# Aerospace Assessment and Marketing Strategies



PREPARED FOR: THE ASHLAND ALLIANCE  
BY  
COMMON SENSE ECONOMIC DEVELOPMENT & TUCSON ATLANTIC CONSULTING

## Economic impact of aerospace

- The Kentucky Cabinet for Economic Development reported “**aerospace exports have increased by an unprecedented 145.1 percent since 2010.**”
- Aerospace exports totaled \$8.7 billion in 2015 and are **currently on track to exceed \$10 billion in 2016.** In 2015, Kentucky ranked as the third largest aerospace exporter only behind Washington and California. **Remarkably, during the first six months of 2016, Kentucky ranked second only to Washington as an exporter of aerospace products”.** “
- Aerospace products and services alone are now Kentucky’s leading export, comprising **one-fourth of the state’s total exports.**
- Kentucky’s aerospace industries do business with worldwide aerospace companies and supply **Boeing, Airbus, Lockheed** and many more.
- Not only is aerospace growing, it is growing and **pays its employees substantially more than traditional manufacturing industries.** Thus, it’s a very desirable target for the greater East Kentucky’s economy.

## Economic advantages of aerospace

- The average wage for production workers in Boyd & Greenup Counties is **\$18.88** or weekly salary **\$755.20**.
- The average wage for aerospace skilled jobs in Kentucky is **39.45** or a weekly salary of **\$1,578**.
- Aerospace jobs are generally high-skill, high-wage and high-demand jobs that require technical training;
- And, they make a prime target for communities and their industrial recruiting efforts.

## Economic impact of aerospace

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- Aerospace exports totaled **\$8.7 billion in 2015** and are currently **on track to exceed \$10 billion in 2016**.
- In 2015, Kentucky ranked as the **third largest aerospace exporter** only behind Washington and California. Remarkably, during the **first six months of 2016, Kentucky ranked second only to Washington** as an exporter of aerospace products”.
- **“Aerospace products and services alone are now Kentucky’s leading export, comprising one-fourth of the state’s total exports.”**

# Aerospace Industries

- The **Southwestern Ohio Aerospace Region Manufacturing Community** or “**SOAR**” includes the Interstate 75-corridor from Dayton to Cincinnati, as well as **Carroll, Gallatin, Boone, Kenton, Campbell, Bracken, Pendleton, Grant and Owen Counties in Northern Kentucky**. The growth of the Kentucky aerospace industry has been truly extraordinary.
- Primary Kentucky aerospace companies include: **Belcan Corporation, Messier-Bugatti, Skillcraft, Lockheed Martin, GE Aviation, Safran, Meggitt, Raytheon and Phoenix Products**. Additionally, Kentucky industries are suppliers to **Boeing and Airbus**, two of the world’s largest commercial assemblers.



# Ashland Regional Airport

- FAA Identifier: DWU, (KDWU)
- White-Green Beacon
- Lights: PAPI 10&28, runway lights
- Fuel: 100LL, Jet A
- Weight Bearing Capacity, Single-51, Double-65, Double tandem-105
- Instrument approach, RNAV (GPS) RW 10&28
- City of Ashland Fire protection
- Corporate and T hangars available
- Flight training
- Aircraft maintenance
- Courtesy car & pilots lounge
- Average operations 132 per week. Four percent military, 89 percent general aviation and 7 percent air taxi.



## Ashland Airport (Cont.)



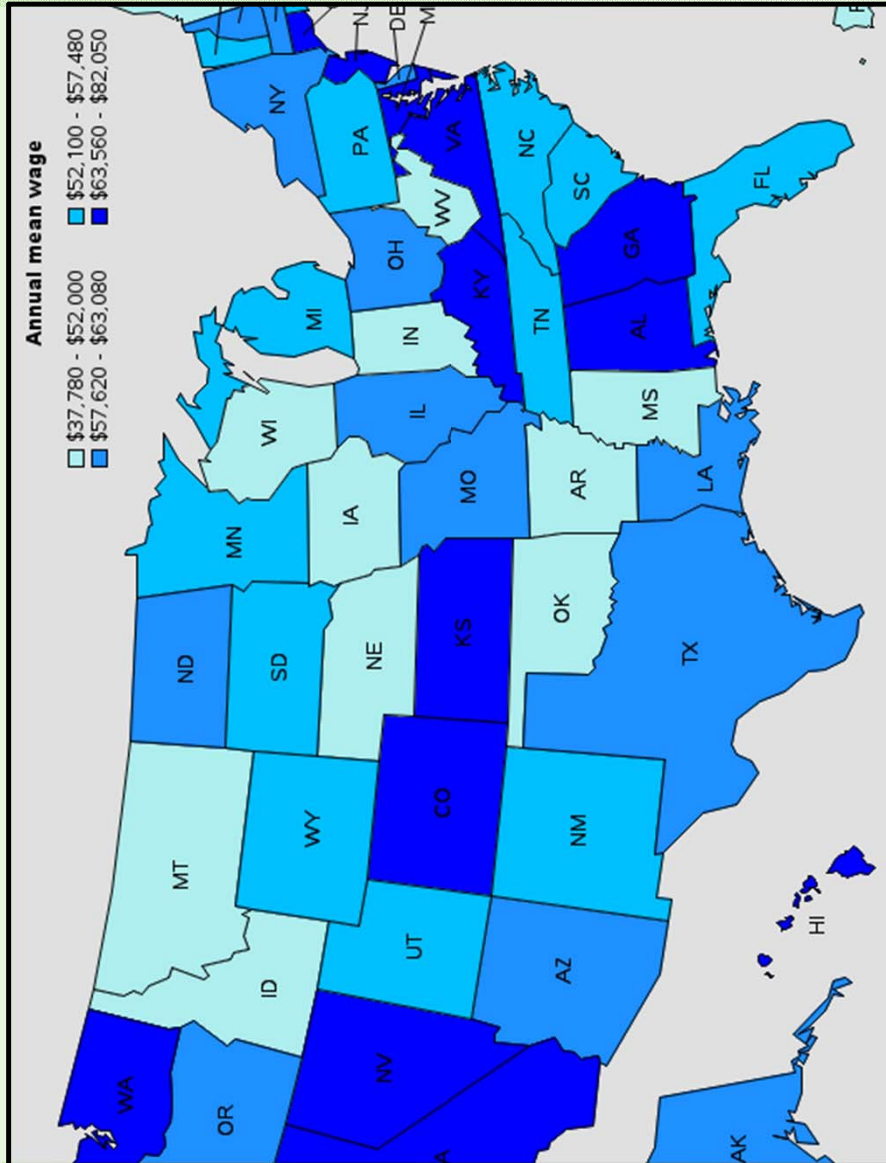
- The airport facility is well-maintained, offers a wide range of services and is efficiently managed facility.
- Since the airport's beginning in 1953, residential developments have gradually encroached from U.S. Highway 23.
- **The airport does not currently offer adequate industrial land to support a new aviation manufacturing or MRO industry.**
- However, there is a 50,000+ square foot combined hangar and office facility (The former Ashland Oil company site) rented from the Airport Authority and occupied by a non-aviation business that could be a prospect for future aviation development. In addition, several parcels adjoining airport property, but without taxiway direct access, could likely be acquired.
- **Access to the airport is from U.S. Highway 23 and is indirect, poorly marked with signage and needs re-routing.**





# Maintenance, Repair and Overhaul (A&P) technicians

- Kentucky is currently the **top paying state for Aircraft Mechanics and Service Technicians** these skills are required to support maintenance, repair and overhaul operations.
- These workers are heavily concentrated along I-75 in the counties around Louisville, KY and Cincinnati OH.

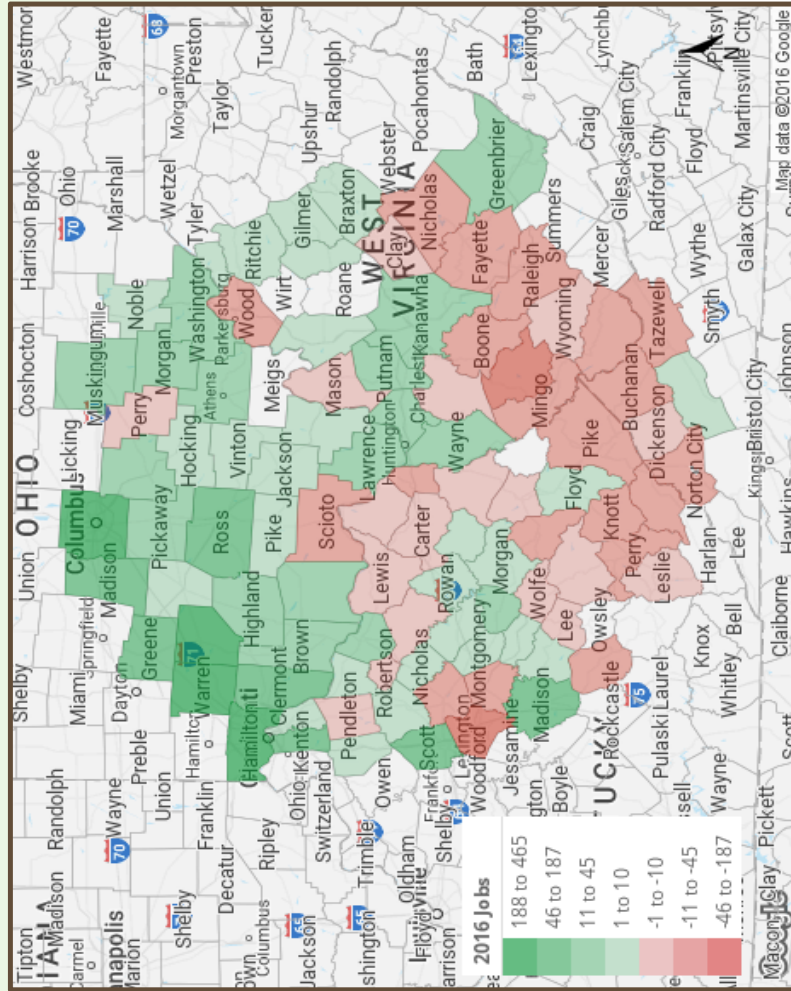


# MRO Wages in top-five states

State	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
<a href="#">Kentucky</a>	1,780	0.97	1.08	\$39.45	\$82,050
<a href="#">New Jersey</a>	1,720	0.44	0.49	\$35.76	\$74,380
<a href="#">Washington</a>	4,550	1.53	1.70	\$33.75	\$70,200
<a href="#">Maryland</a>	2,350	0.91	1.01	\$32.84	\$68,310
<a href="#">Colorado</a>	1,760	0.72	0.80	\$31.39	\$65,280

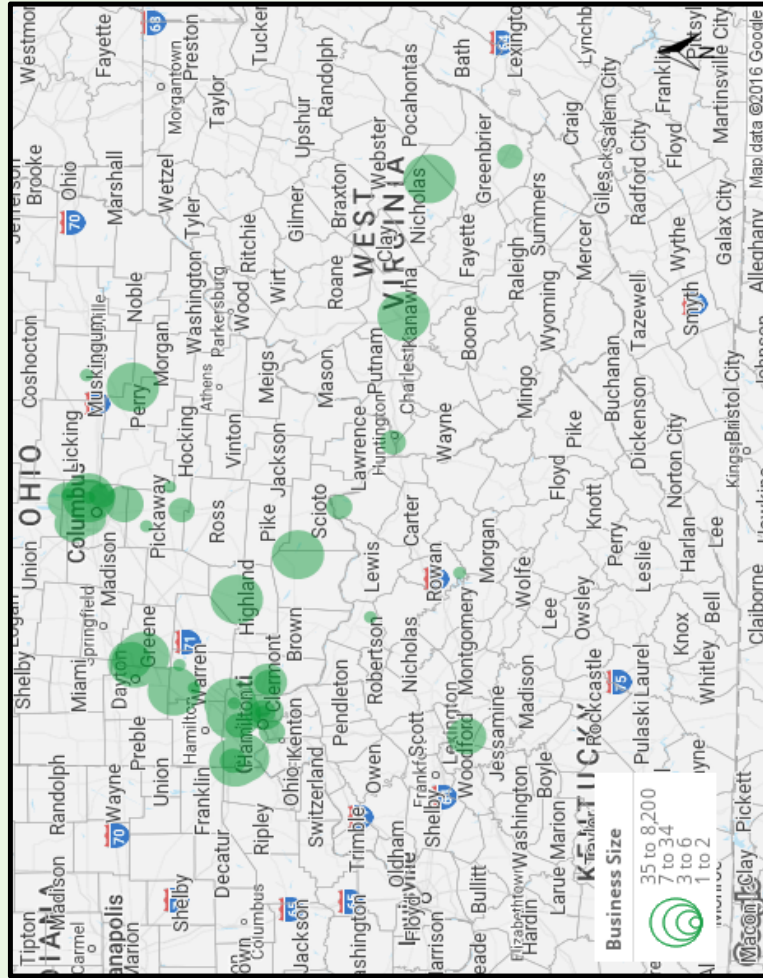
- These workers diagnose, adjust, repair, maintain or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems and also includes helicopter and aircraft engine specialists.
- Most hold FAA certification and as airframe and power plant (A&P) mechanics.

# 11 Core aviation job skills



- Aerospace engineers
- Aerospace Engineering and Operations Technicians
- Avionics Technicians
- Aircraft Mechanics and Service Technicians
- Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
- Structural Metal Fabricators and Fitters
- Fiberglass Laminators and Fabricators
- Computer-Controlled Machine Tool Operators, Metal and Plastic
- Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
- Welders, Cutters, Solderers, and Brazers
- Welding, Soldering, and Brazing Machine Setters, Operators and Tenders

# The location of aerospace industries within the Ashland region

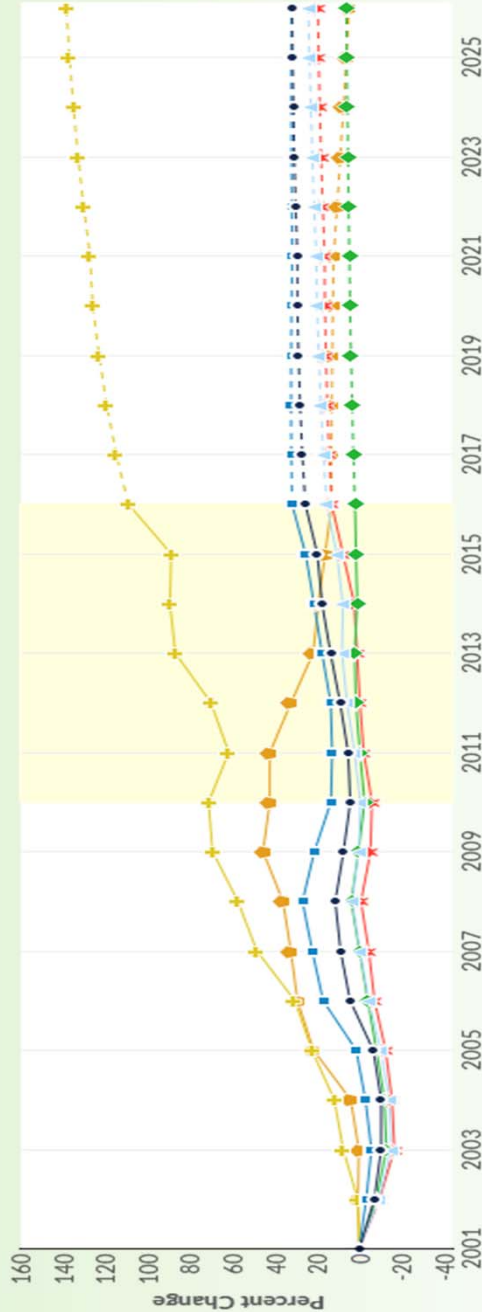


Map shows the following Industries :

- Aircraft Manufacturing
- Aircraft Engine and Engine Parts Manufacturing
- Other Aircraft Parts and Auxiliary Equipment Manufacturing
- Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
- Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
- Other Support Activities for Air Transportation
- Together, these 149 separate businesses created **14,531 total jobs with an average earnings of \$123,465. A 20.3 percent increase since 2010**

## Regional Trends (100-miles from Ashland)

- Regional Trends compares job performance data with National, the Ashland region, the three combined states of Kentucky, Ohio and West Virginia, and the same 3-individual three states.
- Only West Virginia lost jobs. Overall this is a very positive trends for the region.



Region	2010 Jobs	2g016 Jobs	Change	% Change
Region	12,075	14,531	2,456	20.3%
3-States	30,437	35,315	4,878	16.0%
Nation	518,187	542,201	24,014	4.6%
Kentucky	3,992	4,873	881	22.1%
Ohio	18,175	21,847	3,672	20.2%
West Virginia	3,145	2,500	-645	-20.5%

## Ashland's aerospace strengths and assets

- **Adequate industrial parks, existing and speculative buildings and utilities to support aerospace manufacturing and research & development** operations at Eastpark, Wurtland, Siloam and the former Ashland Oil Headquarters Complex.
- **The Morehead Space Science Center**, a first-class aerospace research center located in Morehead, Kentucky. The program nationally recognized, and specialize in micro-satellites.
- **American Electric Power** is a multi-state, respected and supportive economic development ally.
- **Somerset Community College**, offers a comprehensive FAA approved A&P aviation maintenance program. Elements of the program can be imported to ACTC and local high schools. Similar FAA accredited schools are also found in Hillsborough, Columbus and Cincinnati, Ohio.
- **An expanding and diverse aerospace industry sector in the State of Kentucky** that that serves all sectors of the aerospace industry. Aerospace as an industry is currently the largest exporter in the state and is on track to generate \$10B; over one-fourth of the state's total exports in 2016.

## Strengths and assets (cont.)

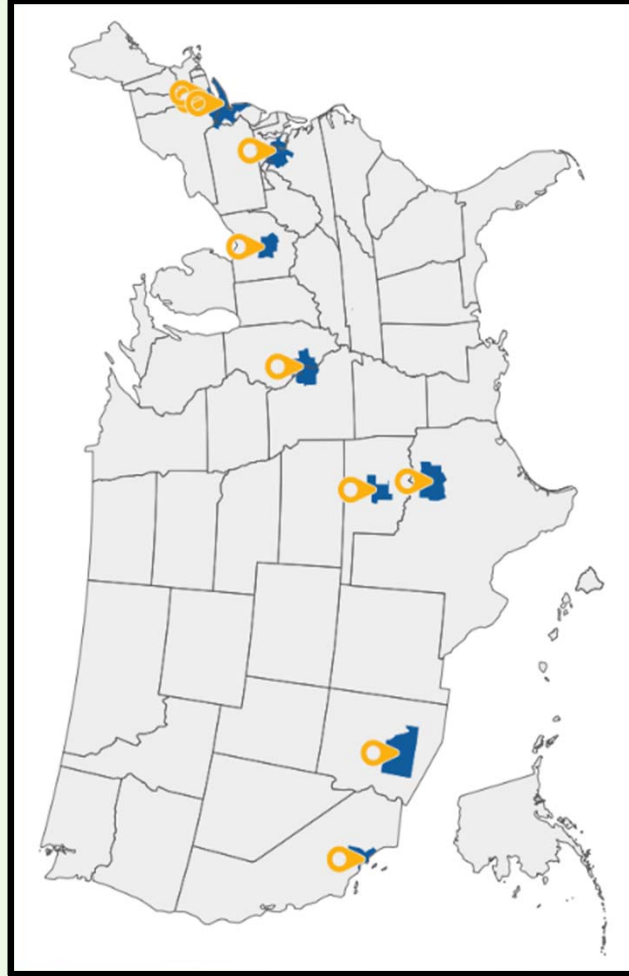
- **The Ashland Community Technical Center (ACTC)** is a well-managed education and training facility.
- **Pro-business local leadership throughout the region** and available financial resources, sites and buildings.
- **State-wide aerospace business executives** who are familiar with the advantages of locating and expanding in Kentucky
- **Potential aerospace marketing partners** that include: Huntington Tri-State Airport adjacent Scioto County Ohio and the 9-county One East Kentucky Region.
- **The Kentucky Cabinet for Economic Development**, through its Department for Business Development has designated the aerospace industry as a high-priority target.
- **The greater Ashland community supports a quality of life** that will support aerospace management including, retail shopping, medical facilities, quality K-12 schools, first class residential areas and access to nearby higher education institutions.



## Ashland's aerospace weaknesses and liabilities

- **Little local history or direct experience with aerospace industries or technology and MRO skills.**
- **Although well-managed, with good aviation services, the Ashland Airport currently offers insufficient available land to support a substantial maintenance, repair and overhaul (MRO) operation. Poor signage and the current access road from U.S. Highway 23 are inadequate and do not complement the airport operations. The facility also lacks a large or expandable aircraft hangar facility or speculative building with taxi-way access to attract an aircraft service business.**
- **There is no ongoing post-secondary Airframe and Power Plant (A&P) training established in Boyd or Greenup Counties.**
- **Absence of an aerospace marketing strategy to successfully recruit new aerospace industry that identifies regional partners committed to participate in the process.**

## Ashland's competitive advantage (100-mile radius centered around Ashland KY.)



- Target regions around the United States maintain aerospace clusters that offer the best recruitment opportunities.
- The high cost of doing business may indicate an industry that is more likely to relocate to the Ashland Region, where labor and other business costs are lower.
- high payroll, business location loss and high cost of labor & out-migration signals that businesses are dissatisfied with the region and are leaving to find better locations.

# Primary aerospace cluster targets ranked 1-10

<b>1. Los Angeles-Long Beach-Anaheim, CA</b>		
353	\$126,686	
Payrolled Business Locations (2015)	Avg. Earnings Per Job (2016)	
<p>This region lost 11 payrolled business locations in the industry from 2010-2015. High payrolled business location loss signals that businesses are willing to relocate.</p> <p>This region's industry earnings are above your region's industry earnings of \$125,796. Your region's cheaper average labor cost may make it easier to attract businesses.</p>		
<b>Top Infogroup Businesses</b>		
<b>Business</b>	<b>Business Size</b>	
Boeing Co.	Large (250+)	
Aerojet Rocketdyne	Large (250+)	
Robinson Helicopter Co.	Large (250+)	
Rockwell Collins Inc.	Large (250+)	
Rockwell Collins Inc.	Large (250+)	
Zodiac Aerospace	Large (250+)	
Boeing Co	Large (250+)	
Ducommun Aero Structures	Large (250+)	
Designed Metal Connections	Large (250+)	

## Primary aerospace cluster targets ranked 2-10

2. Dallas-Fort Worth-Arlington, TX
3. San Jose-Sunnyvale-Santa Clara, CA
4. Bridgeport-Stamford-Norwalk, CT
5. Oklahoma City, OK
6. Charlotte-Concord-Gastonia, NC-SC
7. St. Louis, MO-IL
8. Houston-The Woodlands-Sugar Land, TX
9. Yuba City, CA

## Marketing strategies for aerospace recruitment

1. **Establish a strong committed local alliance** within the two-county Ashville Alliance area to include funding partners, workforce training and academic institutions, cities, counties, FIVCO, legislative, business and utility supporters.
2. **Establish a strong, committed regional aerospace/aviation alliance.** There is presently a very exceptional and compelling opportunity to form a super-regional cooperative marketing and recruiting alliance that includes *Scioto County Ohio, The Huntington Tri-State Regional Airport, the nine-county One East Kentucky Region and the Ashland Alliance.*
3. **Create a brief formal marketing/recruitment summary strategy document.**
4. **Advise The Kentucky Cabinet for Economic Development and workforce training partners of Ashland Alliance's intention to market & recruit aviation businesses and request assistance.**

## Marketing strategies for aerospace recruitment (Cont.)

5. Invite The Kentucky Cabinet's Department for Business Development, Somerset Community College, aerospace consultants, American Electric Power Co., economic development officials and other recruiting partners to spend a day in the region learning about your aerospace assets.
6. Meet with the USAF contracting office in Wright Patterson AFB and determine what new defense contracts are pending when existing contracts will be re-bid or renewed.
7. Interview and develop a personal network of aerospace industry managers and key supervisors.
8. Create a tri-fold brochure and add a dedicated aerospace web site or web page to your existing site.

## Marketing strategies for aerospace recruitment (Cont.)

9. **Distribute aerospace related information** on airports to: training institutions, workforce partners, city and county and FIVECO websites.
10. **Compose a list of Airbus' and Boeing's worldwide suppliers** and make contact with as many as possible at marketing events; especially those in neighboring states.
11. **Attend the following trade shows and marketing events:**
  - National
  - **Heli Expo-** Focused on the helicopter industry both military and commercial. (February, various nation-wide locations)
  - **NBAA-** The National Business Aviation Association Show- specializes in commercial aviation. (October, various nation-wide locations)
  - **MRO-** This trade show concentrates on the Maintenance, Repair & Overhaul (MRO) of Aircraft. (April, various nation-wide locations)
  - **Quad A-** Primarily US Army military aircraft. (April, Nashville TN)

# Marketing strategies for aerospace recruitment (Cont.)

## International:

- **Paris Air Show**-Civilian and military aircraft is also the world's largest airshow. Held in the odd years i.e. 2017, 2019, etc. (June, Le Bourget Airport, near Paris France)
- **Farnborough Air Show**, held at Farnborough Airfield near London. This event is held on the even years alternating with the Paris Air Show. (June, Farnborough Airport, near London, England).
- **Singapore Air Show**, held on the even years, four months prior to the Farnborough Air Show. (February, Singapore)

**12. Utilize the AEROready Certification** as a marketing resource on websites, documents, etc. and in discussions with prospects.



# AEROREADY Certification



The consulting team of Common Sense Economic Development, LLC and Tucson/Atlantic Consulting has surveyed and examined the *One East Kentucky* region, and its potential to target, recruit and support aerospace-related business and industry. Fourteen essential qualities in aerospace site location searches were evaluated, and many secondary aviation support criteria were evaluated to determine the potential for aerospace corporations to operate successfully in the nine-county region.

These include, but are not limited to, the following:

1. Airport(s) with at least 10 acres of available land for economic development, supporting navigation aids for corporate aircraft and a minimum 5,000-foot runway;
2. Availability of local training of technical skills often needed by aerospace companies;
3. An FAA certified A&P (airframe and power plant) training facility located within the State;
4. Available industrial building(s) or hangar(s) suitable for aviation development;
5. An available skilled workforce suitable for aviation employment;
6. Adequate infrastructure to support the aviation industry;
7. Aviation support service business and industry;
8. A community pro-business environment;
9. Proximity to University- based aerospace programs and research;
10. Quality of Life assets in the region, which are essential to attracting executive talent.

It is our opinion that the area possesses the resources needed to attract and sustain aerospace- related companies, including those that require airport support services and infrastructure, as well as those that simply need high-quality sites or buildings.

The regional public and private leadership have shown a strong commitment to grow their market area and we are proud to endorse their aerospace recruiting efforts by certifying the *Ashland Kentucky* Region as an AEROREADY™ Region, signifying its ability to successfully support the critical needs of the aerospace industry. This certification authorizes the *Ashland Alliance* and its aerospace partners to utilize the AEROREADY™ Region logo in its marketing efforts and to publicize its AEROREADY™ Region status as needed to recruit aerospace related business and industry.

Robert Ingram

Robert Ingram

Common Sense Economic Development, LLC

Tucson Roberts

Tucson Roberts

Tucson/Atlantic Consulting

# The End

- **"I find that the harder I work, the more luck I seem to have." - Thomas Jefferson**
- **"Half this game is ninety percent mental." - Yogi Berra**
- **"I have not failed. I've just found 10,000 ways that won't work." Thomas Edison**
- **Whether you think that you can, or that you can't, you are usually right." - Henry Ford**
- **"Do, or do not. There is no 'try'." Yoda ('The Empire Strikes Back')**