

KENTUCKY'S NORKFORCE PROGRESS & CHALLENGES



JANUARY 2018

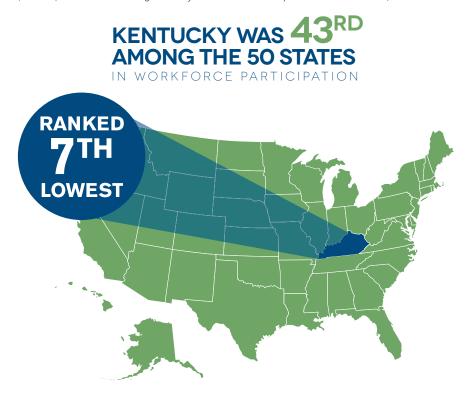


PROGRESS & CHALLENGES Introduction

Kentucky has reason to be optimistic on the economic front with the beginning of a new year. Continued expansion in an improving economy is forecast for the months ahead. The state's unemployment rate is declining, and records are being broken in the number of business investments in job-creating facilities.

But one critical problem persists for many Kentucky employers: they cannot find qualified workers for the jobs they have available today, and they have serious concerns about filling the jobs they plan to create in the future.

The problem isn't limited to one region or sector. The 2017 Bridging the Talent Gap Project found 84% of employers who are hiring reported having difficulty finding qualified candidates. (Kentucky Society for Human Resource Management, The Graduate! Network Bridging The Talent Gap Project. 2017. The Talent Alignment Survey. Some questions in the Talent Alignment Survey are from the Society for Human Resource Management's (SHRM's) 'Local Skills Shortages' survey and were used with permission from SHRM.)



Forbes's 2017 Best **States for Business** ranks Kentucky 48th in the nation for Labor Supply. The measure is based on high school and college attainment, net migration for the past five years, projected population growth for the upcoming five years and the percentage of the workforce that is unionized. Kentucky's overall ranking was 35th. **Additional factors affecting** the overall ranking included business costs, regulatory environment, economic climate, growth prospects and quality of life.

Kentucky has one of the nation's lowest workforce participation rates. At 59.2%, as of October 2017, **Kentucky was 43rd among the 50 states.** This marked an improvement from the state's 57.6% rate at the end of 2016 (47th in the nation), but it reflected the persistent challenge facing employers. The state would need to add more than 120,000 people to its workforce to reach the national average of 62.7%.

A number of factors affect the workforce participation rate. The following chart, developed for the Kentucky Chamber of Commerce in May 2017, provides an overview. (*The workforce participation rate percentages reflect the U.S. Bureau of Labor Statistics data from October 2017.*)

Factors Affecting Workforce Participation in Kentucky

| | Kentucky | U.S. Average |
|--|------------------------------------|----------------|
| Workforce Participation Rate | 59.2 % | 62.7% |
| Unemployed | 99,907 (5.0%) | 4.8% |
| Underemployed* | 9.7% | 9.6% |
| Incarcerated (Incarceration Rate) | 35,295 (474 per 100K) | 471 per 100K |
| Disabled (% of population age 18-64 receiving Social Security disability/SSI) | 300,000+ (8.1%) | 4.7% |
| Drug & Alcohol Abuse: Inmates on Drug Charges | 4,616 (20%) | N/A |
| Alcohol Addiction Alcohol Abuse | 102,000 (3.06%) 197,000 (5.95%) | 3.18% 6.51% |
| Overdose Death Rate | 29.9 per 100K | 16.3 per 100K |
| High School Diploma or Higher | 84.2% | 86.7% |
| Bachelor's Degree or Higher | 22.3% | 29.8% |
| High School Graduation Rate | 86% | 81% |
| Percent of population with income below the poverty level | 18.5% | 13.5% |
| Health Ranking | 45 th | N/A |

*Underemployed is a broader measure of labor underutilization and includes the unemployed (actively seeking work in the past four weeks), discouraged workers (those not in the labor force who looked for a job in the past 12 months), and individuals employed less than 35 hours per week who want to work full time.

Sources: Bureau of Labor Statistics, Social Security Administration, Substance Abuse and Mental Health Services Administration, Kentucky Office of Drug Control, Centers for Disease Control, Census Bureau, National Center for Education Statistics, America's Health Rankings 2016

Meanwhile, employment is increasing in almost all sectors, according to the U.S. Bureau of Labor Statistics, and the state added 28,600 jobs between October 2016 and October 2017, a 1.5% increase.

Closing the gap between the number of qualified workers and the number of jobs employers have available is a priority need that must be addressed to ensure the state's growth and prosperity as well as the quality of life of its citizens.

This report takes a look at the progress that has been made and the challenges that persist within Kentucky's **workforce landscape.** It is the Kentucky Chamber's second report focused on workforce issues. The first, published in 2015, identified challenges ranging from a lack of employer engagement to service delivery to insufficient coordination among service providers. It also made several recommendations addressing those and other employer concerns about workforce quality, program governance and spending.

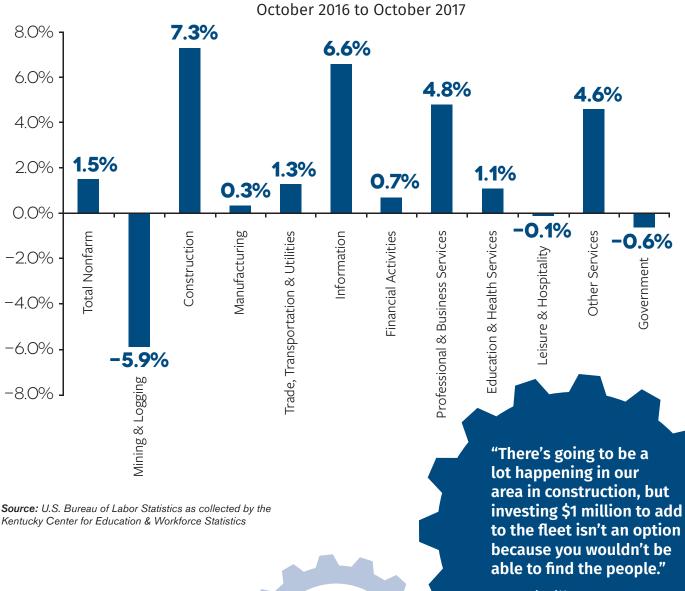
The full 2015 report is available at: kychamber.com.

SUPPLY SOURCE STATES AND STREET STREE



Employment increased during the past year in most sectors of Kentucky's economy. As illustrated in the following chart, the **fastest-growing areas of employment were construction, information, professional and business services and other services.** Those with the largest employment declines were mining and logging, government, and leisure and hospitality.

Change In Kentucky Employment by Economic Sector

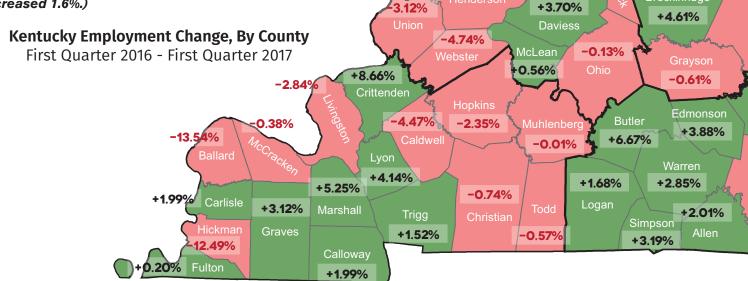


— Louisville Area Trucking Executive

AS EMPLOYMENT RISES There is Trouble Filling Positions

Even as employment increases, employers are frustrated by their inability to find the right people for the right jobs. The Bridging the Talent Gap Project, as noted earlier, found 84% of employers reported having trouble filling positions. The reasons for this are reflected in the chart on page 7 (*respondents were asked to select all reasons that applied*).

The change in employment levels in Kentucky's counties was mixed, as the following map and table show. (Kentucky's statewide average was a 1.1% increase while the national average increased 1.6%.)



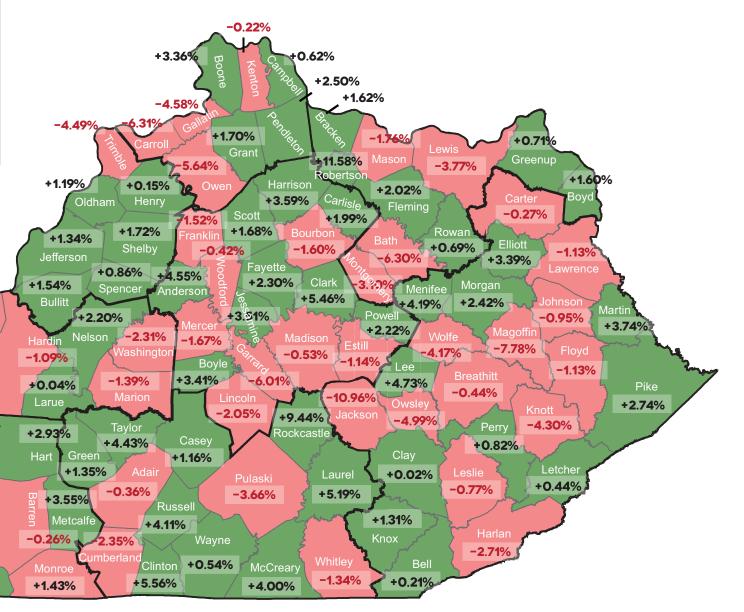
1.98%

Breckinridge

COUNTIES

The list below in each column is in order as follows: **County** — First Quarter 2016 Employment — First Quarter 2017 Employment — **% Change**

| Adair | 4,501 | 4,485 | -0.36% I | Campbell | 29,604 | 29,789 | 0.62% | Gallatin | 2,509 | 2,394 | -4.58 % |
|------------|-------------------|--------|----------|------------|----------------|---------|--------|-----------|---------|---------|----------------|
| Allen | 4,418 | 4,507 | 2.01% | Carlisle | 1,003 | 1,023 | 1.99% | Garrard | 2,330 | 2,190 | -6.01 % |
| Anderson | 4,547 | 4,754 | 4.55% | Carroll | 6,866 | 6,433 | -6.31% | Grant | 4,895 | 4,978 | 1.70 % |
| Ballard | 1,861 | 1,609 | -13.54% | Carter | 5,638 | 5,623 | -0.27% | Graves | 10,792 | 11,129 | 3.12% |
| Barren | 17,057 | 17,012 | -0.26% | Casey | 3,890 | 3,935 | 1.16% | Grayson | 7,846 | 7,798 | -0.61 % |
| Bath | 1,983 | 1,858 | -6.30% | Christian | 31,041 | 30,812 | -0.74% | Green | 1,699 | 1,722 | 1.35% |
| Bell | 8,411 | 8,429 | 0.21% | Clark | 14,123 | 14,894 | 5.46% | Greenup | 7,873 | 7,929 | 0.71% |
| Boone | 82,255 | 85,017 | 3.36% | Clay | 4,189 | 4,190 | 0.02% | Hancock | 4,151 | 4,062 | -2.14% |
| Bourbon | 6,626 | 6,520 | -1.60% | Clinton | 3,527 | 3,723 | 5.56% | Hardin | 48,084 | 47,562 | -1.09% |
| Boyd | 24,095 | 24,481 | 1.60% | Crittenden | 1,941 | 2,109 | 8.66% | Harlan | 6,042 | 5,878 | -2.71 % |
| Boyle | 13,526 | 13,987 | 3.41% | Cumberlan | d 1,700 | 1,660 | -2.35% | Harrison | 4,768 | 4,939 | 3.59% |
| Bracken | 1,354 | 1,376 | 1.62% | Daviess | 44,758 | 46,416 | 3.70% | Hart | 5,112 | 5,262 | 2.93 % |
| Breathitt | 3,164 | 3,178 | 0.44% | Edmonson | 1,470 | 1,527 | 3.88% | Henderson | 19,854 | 19,460 | -1.98% |
| Breckenrid | l ge 3,319 | 3,472 | 4.61% | Elliott | 943 | 975 | 3.39% | Henry | 2,680 | 2,684 | 0.15% |
| Bullitt | 23,747 | 24,113 | 1.54% | Estill | 2,460 | 2,432 | -1.14% | Hickman | 1,081 | 946 | -12.49% |
| Butler | 2,954 | 3,151 | 6.67% | Fayette | 187,638 | 191,963 | 2.30% | Hopkins | 18,187 | 17,759 | -2.35% |
| Caldwell | 4,320 | 4,127 | -4.47% | Fleming | 2,920 | 2,979 | 2.02% | Jackson | 1,779 | 1,584 | -10.96% |
| Calloway | 16,564 | 16,339 | -1.36% | Floyd | 10,864 | 10,741 | -1.13% | Jefferson | 453,998 | 460,094 | 1.34 % |
| | | | | Franklin | 31,028 | 30,556 | -1.52% | Jessamine | 16,501 | 17,080 | 3.51% |
| _ | | | | Fulton | 2 016 | 2 0 2 0 | 0.20% | lohnson | 5 2 3 7 | 5 1 8 7 | -0 95% |

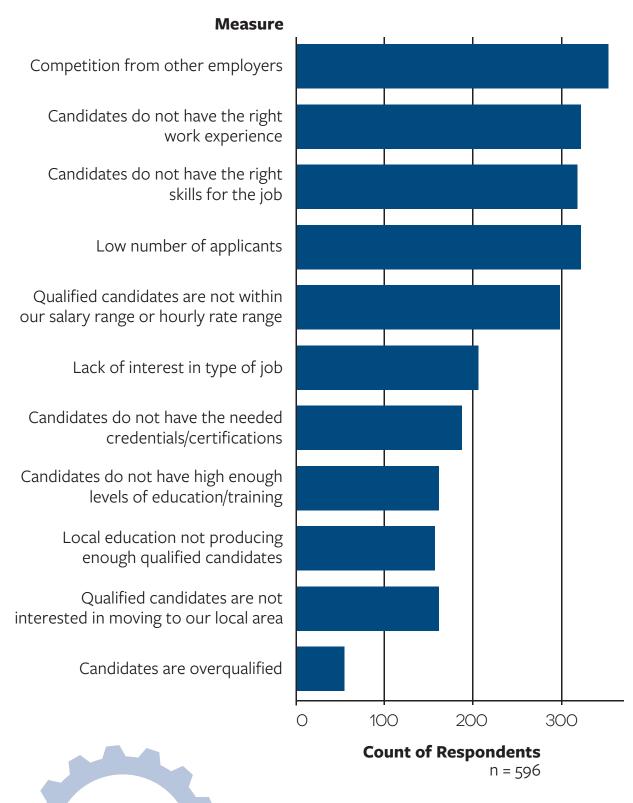


Source: County Employment and Wages in Kentucky—First Quarter 2016 and First Quarter 2017, Bureau of Labor Statistics as collected by the Kentucky Center for Education & Workforce Statistics

COUNTIES

| K - | W | | | | | | | | | | |
|------------|-----------------|--------|----------------|-----------|-----------------|--------|----------------|------------|----------------|--------|----------------|
| Kenton | 64,743 | 64,598 | -0.22% | Martin | 2,484 | 2,577 | 3.74% | Rockcastle | 3,402 | 3,723 | 9.44 % |
| Knott | 2,370 | 2,268 | -4.30% | Mason | 8,659 | 8,507 | -1.76% | Rowan | 10,364 | 10,435 | 0.69 % |
| Knox | 7,621 | 7,721 | 1.31% | Meade | 4,247 | 4,162 | -2.00 % | Russell | 5,450 | 5,674 | 4.11% |
| Larue | 2,583 | 2,584 | 0.04% | Menifee | 860 | 896 | 4.19 % | Scott | 25,571 | 26,001 | 1.68% |
| Laurel | 25,977 | 27,324 | 5.19% | Mercer | 6,426 | 6,319 | -1.67 % | Shelby | 15,899 | 16,172 | 1.72 % |
| Lawrence | 3,180 | 3,144 | -1.13% | Metcalfe | 1,829 | 1,894 | 3.55% | Simpson | 8,621 | 8,896 | 3.19 % |
| Lee | 1,459 | 1,528 | 4.73% | Monroe | 3,156 | 3,201 | 1.43% | Spencer | 1,850 | 1,866 | 0.86 % |
| Leslie | 1,683 | 1,670 | -0.77% | Montgome | ery 10,957 | 10,617 | -3.10 % | Taylor | 11,558 | 12,070 | 4.43 % |
| Letcher | 4,328 | 4,347 | 0.44% | Morgan | 2,810 | 2,878 | 2.42 % | Todd | 2,290 | 2,277 | -0.57 % |
| Lewis | 1,987 | 1,912 | -3.77% | Muhlenbe | rg 9,020 | 9,019 | -0.01 % | Trigg | 2,959 | 3,004 | 1.52 % |
| Lincoln | 4,298 | 4,210 | -2.05 % | Nelson | 15,194 | 15,529 | 2.20 % | Trimble | 1,091 | 1,042 | -4.49 % |
| Livingston | 2,535 | 2,463 | -2.84% | Ohio | 7,487 | 7,477 | -0.13 % | Union | 5,091 | 4,932 | -3.12 % |
| Logan | 8,351 | 8,491 | 1.68% | Oldham | 15,424 | 15,608 | 1.19 % | Warren | 62,068 | 63,836 | 2.85 % |
| Lyon | 2,269 | 2,363 | 4.14% | Owen | 1,737 | 1,639 | -5.64 % | Washingto | n 3,470 | 3,390 | -2.31% |
| McCracke | n 39,478 | 39,329 | -0.38% | Owsley | 682 | 648 | -4.99 % | Wayne | 5,399 | 5,428 | 0.54 % |
| McCreary | 2,627 | 2,732 | 4.00 % | Pendleton | 2,280 | 2,337 | 2.50 % | Webster | 3,189 | 3,038 | -4.74% |
| McLean | 2,124 | 2,136 | 0.56% | Perry | 11,344 | 11,437 | 0.82 % | Whitley | 11,609 | 11,454 | -1.34% |
| Madison | 33,584 | 33,406 | -0.53% | Pike | 20,239 | 20,793 | 2.74 % | Wolfe | 1,271 | 1,218 | -4.17% |
| Magoffin | 1,749 | 1,613 | -7.78% | Powell | 2,526 | 2,582 | 2.22% | Woodford | 9,111 | 9,073 | -0.42 % |
| Marion | 8,574 | 8,455 | -1.39% | Pulaski | 25,495 | 24,562 | -3.66 % | | | | |
| Marshall | 11,041 | 11,621 | 5.25% | Robertson | 285 | 318 | 11.58% | • | | | |

Main reasons organizations have difficulty hiring qualified candidates for full-time positions



Source: Bridging the Talent Gap Project, 2017

"When compared to the rest of the country, more Kentucky companies say they are having trouble hiring the right skills or experience."

— Dan Ash, Research Director, The Graduate Network

The challenge is essentially across the board when it comes to hiring for most jobs. As the table to the right from the Bridging the Talent Gap Project indicates, **employers reported that it was very or somewhat difficult to fill jobs in most categories.**

> "As recently as three years ago, we would post a registered nurse position and get 20 applications for it, but right now we have positions that we have posted and re-posted and had no applicants.

— Lexington Hospital Executive

Additional key findings from the project: • 46% of employers said better qualified job candidates would encourage them to increase hiring (second only to improved market conditions at 59.4%).

• **81% of employers** projected moderate to high growth for their organizations in the next three to five years.

"Our clients report that they could grow much faster if they had the workforce that they need."

— Louisville Banker

Ease or difficulty filling jobs by category

| | Very difficult | | |
|-----------------|--------------------|---|--|
| | Somewhat difficult | | |
| Engineers | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| | Somewhat difficult | T | |
| Hourly Laborers | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| High Skill | Somewhat difficult | | |
| Medical | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Managers & | Somewhat difficult | | |
| Executives | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Production | Somewhat difficult | | |
| Operators | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Sales Reps | Somewhat difficult | | |
| Sales keps | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Accounting & | Somewhat difficult | | |
| Finance | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Drivers | Somewhat difficult | | |
| Diricis | Somewhat easy | | |
| | Very easy | | |
| Customer | Very difficult | | |
| Service | Somewhat difficult | | |
| Representatives | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| HR | Somewhat difficult | | |
| Professionals | Somewhat easy | | |
| | Very easy | | |
| | Very difficult | | |
| Administrative | Somewhat difficult | | |
| Support | Somewhat easy | T | |
| | Very easy | | |

Source: Bridging the Talent Gap Project, 2017

The anticipated five-year demand and average wage for occupations across all Kentucky employment sectors.

| General Occupation | Growth | 5 Year Demand | Current Employment | Average Wage |
|--|-------------------|------------------|-----------------------|-----------------|
| Architecture and Engineering | Growing | 6,148 | 35,094 | \$75,008 |
| Arts, Design, Entertainment, Sports, and Media | Growing | 5,029 | 30,224 | \$45,053 |
| Building and Grounds Cleaning and Maintenance | Growing | 10,615 | 67,668 | \$25,167 |
| Business and Financial Operations | Growing | 14,073 | 87,144 | \$62,521 |
| Community and Social Service | Fast Growing | 7,640 | 39,295 | \$41,605 |
| Computer and Mathematical | Very Fast Growing | 6,522 | 38,889 | \$69,522 |
| Construction and Extraction | Fast Growing | 14,070 | 93,583 | \$43,396 |
| Education, Training, and Library | Fast Growing | 21,354 | 115,593 | \$50,765 |
| Farming, Fishing, and Forestry | Growing | 4,010 | 24,159 | \$30,292 |
| Food Preparation and Serving Related | Growing | 37,708 | 184,793 | \$21,222 |
| Healthcare Practitioners and Technical | Very Fast Growing | 33,555 | 148,035 | \$73,560 |
| Healthcare Support | Very Fast Growing | 15,246 | 57,362 | \$29,043 |
| Installation, Maintenance, and Repair | Fast Growing | 18,532 | 104,227 | \$44,473 |
| Legal | Growing | 2,119 | 15,339 | \$77,715 |
| Life, Physical, and Social Science | Fast Growing | 4,116 | 19,131 | \$55,759 |
| Management | Growing | 24,314 | 142,350 | \$89,401 |
| Office and Administrative Support | Growing | 47,399 | 318,890 | \$33,286 |
| Personal Care and Service | Fast Growing | 14,943 | 79,688 | \$24,276 |
| Production | Growing | 32,989 | 206,386 | \$36,347 |
| Protective Service | Growing | 7,518 | 44,018 | \$38,396 |
| Sales and Related | Growing | 36,508 | 208,633 | \$33,545 |
| Transportation and Material Moving | Growing | 38,152 | 208,418 | \$39,271 |

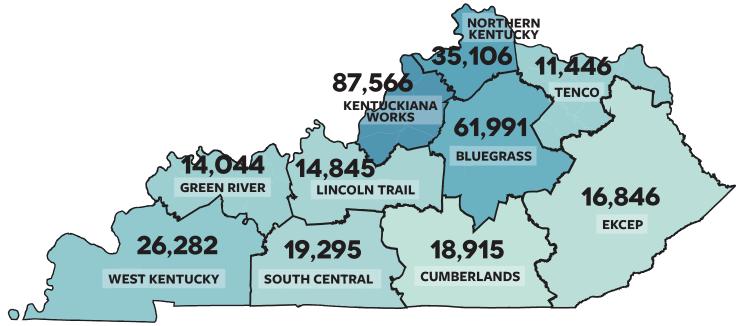
Source: Kentucky Center for Education & Workforce Statistics, 2017



The expected growth recorded in the Bridging the Talent Gap Project is also reflected in the 2017 Future Skills Report of the Kentucky Center for Education & Workforce Statistics, or KCEWS.

The Future Skills Report's projected five-year demand anticipates that **Kentucky will add 408,807 jobs statewide by 2021**. *The following illustration shows projected demand by local workforce area.*





Source: Kentucky Center for Education & Workforce Statistics, 2017

THE IMPORTANCE OF IMMIGRANTS TO KENTUCKY And Its Workforce



Kentucky's workforce and economy have been strengthened by immigrants who are working, creating jobs and paying taxes in the Commonwealth. Research by the New American Economy shows that the nearly 152,000 immigrant residents in the state held \$2.7 billion in spending power in 2016. The \$969 million in taxes they pay annually includes \$333.3 million paid to state and local governments.

More than 10,600 Kentucky immigrants are entrepreneurs, employing more than 35,000 Kentuckians in the companies they have created.

As many as 5,459 individuals within Kentucky's immigrant community are Deferred Action for Childhood Arrivals, or DACAeligible. The majority (90.5%) of the DACA-eligible population who are at least 16 years old are employed, earning almost \$70.4 million a year. That translates into \$10 million in taxes paid annually, \$6.1 million of which goes to state and local governments.

AN ESSENTIAL SKILL REQUIREMENT

The Ability to Communicate



In Kentucky research on Postsecondary Education & the Workforce, the National Center for Higher Education Management Systems identified the top skills requested by employers for a wide range of occupations. Specialized skills, understandably, varied depending on the occupation, but one foundational skill appeared in almost all categories: the ability to communicate.

From the National Soft **Skills Association: Research** conducted by Harvard University, the Carnegie Foundation and Stanford **Research Center has all** concluded that 85 percent of job success comes from having well-developed soft skills and people skills, and only 15 percent of jobs success comes from technical skills and knowledge (hard skills). It is interesting to note that these statistics were taken from the work done by Charles **Rigborg Mann in his "A Study of Engineering Education," in 1918.** That's right, 1918! Almost 100 years have passed since Mann published his extensive research on the need for soft skills education in schools and workplaces, yet little has changed. This is why the National Soft Skills Association has been created.

— Lane Report, May 2016

Communication is widely considered one of the essential skills — characteristics that reflect an individual's abilities relating to working in a group, taking responsibility for his or her actions, completing a task and other personal-management traits.

The Kentucky Chamber's 2015 workforce report noted the importance of improving such skills within the workplace:

"Kentucky employers consistently express concerns – and frustrations – about the challenges they face in finding employees who understand the importance of showing up for work, communicating well with others, taking personal responsibility for their actions, managing their time effectively and similar traits."

Those concerns and frustrations continue today, although efforts are underway to address the problem. Those efforts are detailed later in this report.



COLLEGE STUDENTS, GRADS & OTHERS REFLECT:

Are They Satisfied with Their Education Choices?



As postsecondary education becomes more critical to ensuring workplace success, emerging research is providing greater insights into the thinking and attitudes of adults about the decisions they have made about their educations and the careers that have followed. "While there is much data currently collected about postsecondary education, there has not yet been a comprehensive look at student and graduate experiences and how those experiences shaped their lives," according to the June 2017 report, "On Second Thought: U.S. Adults Reflect on Their

Education Decisions," from Strada Education Network and Gallup.

The Strada-Gallup Education Consumer Survey is a daily survey of approximately 350 adults in the United States, with more than 122,500 interviews conducted annually. As a result of the initiative to gather and share the perspectives of education consumers at all attainment levels, "postsecondary leaders, policymakers, employers and other consumers will be able to better understand the critical decisions and nuances that shape the many complex issues facing postsecondary education today."

The "On Second Thought" report was based on interviews conducted nationally with 89,492 adults between June 29, 2016, and March 26, 2017. Among the key findings:

• More than half of Americans (51%) would change at least one of their education decisions if they had to do it over again: 36% would choose a different major, 28% would choose a different institution and 12% would pursue a different degree.

Among Kentuckians, 13% would choose a different institution, 27% would change their level of education and 37% would change their major. Kentuckians' responses also differed from national norms in several other areas:

- Only 73% of Kentuckians believe they received a "high quality" education less than the national average of 77%.
- Only 62% of Kentuckians would recommend their educational paths to others like them less than the national average of 65%.
- Only 66% of Kentuckians believe their education was worth the cost less than the national average of 69%.
- Only 41% of Kentuckians feel they need more education to advance in their careers less than the national average of 47%.



The survey also found, among respondents across the nation, that:

- Those with some college but no degree are the most likely to say they would change at least one of these three education decisions.
- Individuals who complete a vocational, trade or technical program are more positive about their education decisions than are individuals with an associate or bachelor's degree.

• Given the opportunity to make changes, adults are most likely to select a different major.

A September 2017 report from the Education Consumer Pulse focused on sources of advice for students' college studies. Key findings of the **"Major Influence: Where Students Get Valued Advice on What to Study in College" report included:**

• Most people receive advice about their major from informal social network sources like family members and friends.

• While informal work-based sources of advice were rated most helpful, they were the least-often used.

• Formal sources of advice (high school and college counselors and the media) were rated the least helpful.

MAKING PROGRESS WITH WORKFORCE STRATEGIES, PROGRAMS

Leaders in both the private and public sectors are increasingly focused on developing targeted programs and strategies to address Kentucky's workforce challenges. Some of these are created in partnership; others are more specifically employer-led efforts or government initiatives.

Following is an overview of several developments that are moving Kentucky ahead in the workforce arena.

THE KENTUCKY CHAMBER WORKFORCE CENTER

Launched in January 2017, the Kentucky Chamber Workforce Center is the centerpiece of the efforts that grew out of the Chamber's initial report on the state's workforce challenges.



A 12-member advisory board comprising representatives of Kentucky's employment sectors and geographic regions guides the Center's work, which is **focused on five strategic initiatives:**



Kentucky Chamber WORKFORCE CENTER

BUSINESS LEADERSHIP

Serving as the voice of business as employers work with the public sector to align education, workforce initiatives and economic development in the creation of policies and delivery of services.

INDUSTRY COLLABORATIVES

Giving employers a way to work together, define the skills they need and measure the results of workforce efforts. This includes creating a talent pipeline that ensures that the right talent is available for the right jobs.

NETWORK DEVELOPMENT

Enhancing employer effectiveness through shared information and peer-to-peer communications to ensure consistency and collaboration of efforts statewide.

MEASURING PROGRESS

Monitoring the performance of education and workforce providers using data that is designed to help workforce-training providers improve their programs and provide reliable results.

ESSENTIAL SKILLS

Working with employers and providers on initiatives to help strengthen essential skills in the workplace.



Much remains to be done to achieve the state's goals for workforce quality — and quality of life.

Since its establishment, the Workforce Center has partnered with employers, state and local chamber of commerce staff members, public officials and others to advance its efforts under the strategic initiatives. Here is a closer look at some of the work now in progress.

Business Leadership

Center and Chamber executives continue to amplify the business voice at the public policy level through consultations with economic development and education and workforce leaders and membership on state boards and commissions, including the Kentucky Workforce Innovation Board Steering Committee.

Engaging more employers and gaining a detailed understanding of their workforce needs were the focus of presentations to 50 business associations and interviews with dozens of individual employers. More than 100 meetings with educators, workforce trainers and partners were designed to ensure employers' needs are communicated effectively as workforce services are delivered.

A Workforce Think Tank, co-hosted with the Kentucky Chamber of Commerce Executives, brought more than 50 local chamber leaders, postsecondary education representatives and local Workforce Innovation Board members together to discuss shared challenges and best practices in workforce development.

The Chamber hosted a five-state roundtable on the opioid crisis and the workforce. The event brought leaders from the business, health care and treatment communities together with public sector officials to discuss the impact of opioid addiction on economic development. Joining the Kentucky Chamber in the roundtable were chambers of commerce from Indiana, Ohio, Tennessee and West Virginia. The business leaders subsequently signed a joint letter to state and federal policymakers with recommendations on how best to address the opioid crisis.

Industry Collaboratives

Through the Workforce Center, Kentucky was chosen by the U.S. Chamber of Commerce as one of three states to be the first to deploy a statewide Talent Pipeline Management (TPM) system.

TPM is an innovative approach to improving workforce training that brings employers together in industry-specific collaboratives to jointly identify their training needs, communicate those needs to training providers (such as community and technical colleges), monitor the results, and implement measures to ensure continuous improvement.

Three pilot TPM programs are underway or in the planning stages: manufacturing in the Hopkinsville area, health care in the Louisville area and construction in the Lexington area.

TPM also offers significant potential for the Workforce Center's **Measuring Progress** initiative as employers quantify the results of workforce training programs, communicate those results, and collaborate with training providers on ways to make any needed improvements.

Network Development

The Workforce Center Network was launched in November 2017, with an inaugural online newsletter being sent to more than 5,000 business leaders, human resource professionals, educators, advocates and workforce training providers.

The network is the first of its kind in Kentucky, providing a statewide conversation for employers, practitioners and individuals who are involved in the workforce arena. It will serve as a resource to communicate best practices, shared challenges and solutions at the state and local levels.

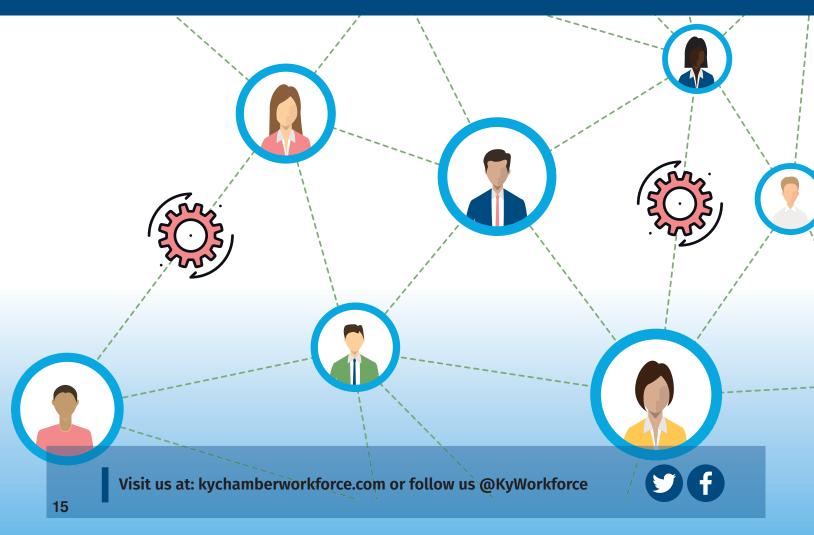
Essential Skills

Critical to workplace success, essential skills have been identified by employers as including reliability, adaptability, diligence, initiative, working well with others, the ability to apply knowledge and remaining drug free.

The Kentucky Chamber's public affairs team is on point for this work for the state's business community. A key development was the incorporation of essential skills into the state's system for measuring school performance. Although not yet at the level the business community would prefer, this was an important step in the right direction because it means more schools and students will become aware of what performance is expected in the workplace.

The Chamber is also pushing for legislation that will strengthen essential skills programs and outcomes in Kentucky schools. As proposed, the legislation would give employers a lead role in determining what students should learn from essential skills programs.

BE PART OF THE SOLUTION: Join the Workforce Network



Help Strengthen Kentucky's Workforce START THE CONVERSATION.

THE BUSINESS-EDUCATION ROUNDTABLE Establishing an Action Plan



A private-public partnership has brought advocates and leaders from the manufacturing, health care, finance and logistics sectors together with those from public education, workforce and economic development agencies to develop a long-range growth agenda for Kentucky.

The Roundtable, convened by the Kentucky Chamber, is establishing priorities and action plans to accelerate the state's progress in education at all levels and to broaden the availability of a high-quality workforce. The

Roundtable's report is expected in the spring of 2018.

TRACKING THE MONEY Showing the Breakdown



A frequent source of frustration for employers and others in the private sector is figuring out exactly how much public workforce funding is available and where it is being spent.

The Cabinet for Economic Development created an asset map showing **the distribution of \$1.2 billion** *(state and federal funds)* in workforce development investments in 2015. At the state agency level, the breakdown was as follows:

- Cabinet for Economic Development: \$8.6 million
- Cabinet for Health and Family Services: \$260.6 million
- Council on Postsecondary Education: \$30.2 million
- Education and Workforce Development Cabinet: \$160.5 million
- Kentucky Community & Technical College System: \$628.7 million
- Kentucky Department of Education: \$83.9 million
- Labor Cabinet: \$5.3 million

The cabinet also took a closer look at spending at the program level. *The illustration on pages 19 & 20, reflecting 2015 spending, provides the details.*

As the Kentucky Chamber's 2015 report pointed out, workforce training is a big-ticket undertaking in the state. The Economic Development Cabinet's work to track the funding is a significant and positive step toward greater transparency and accountability. But there is a continuing need to determine whether:

- There is alignment between resources and employment needs.
- There are documented results of programs and, if so, what those results are.
- The funds are being used to advance the state's overall workforce quality goals.

Workforce training is a big-ticket undertaking in Kentucky.



Kentucky's 10 workforce investment areas are governed by local boards (which receive federal and state funding through the Education & Workforce Development Cabinet). Area development districts (ADDs) manage many of the local boards; the arrangement is more successful in some communities than in others, and in some cases, challenges persist related to governance and accountability.

Legislation enacted by the 2017 General Assembly requires, among other things, that the state's 15 ADDs follow federal and state procurement statutes and regulations. The new law also requires a review of all the districts within the next four years to determine if their policies and internal controls are adequate. Further examinations would follow if necessary.

The Kentucky Community & Technical College System

While the Kentucky Community and Technical College System provides education services in addition to workforce training, there is a general understanding that the system's overall efforts focus on producing an educated workforce.

The following table from KCTCS includes spending information for more recent fiscal years than the illustration on pages 19 and 20. The table reflects a decline in funding for KCTCS TRAINS, the state-appropriated line item for customized workforce training delivered directly to business and industry. The table also shows that the source of funding has shifted significantly in recent years from state and federal resources to tuition and student fees.

Kentucky Community and Technical College System (KCTCS) Revenue Sources for All Educational and Operating Activities

| | | 2015-16 ¹ | 2016-17 ² | 2017-18 (Budget) ³ |
|------|-------------------------------------|----------------------|----------------------|-------------------------------|
| | Revenue Fund Source | | | |
| * | KCTCS TRAINS | \$ 4,979,000 | \$ 4,426,300 | \$ 4,382,000 |
| ** | General Funds (State Appropriation) | 185,183,300 | 177,178,700 | 175,406,900 |
| *** | Federal Funds | 191,571,200 | 181,392,400 | 182,751,000 |
| **** | Restricted Agency Funds | 221,044,700 | 203,789,400 | 268,666,500 |
| | | | | |
| | Total Operating Expenses | \$ 598,975,000 | \$ 570,590,000 | \$ 631,206,400 |

FY 2016, FY 2017 and FY 2018

Source: KCTCS

*KCTCS TRAINS: State funding dedicated to support workforce training, career pathway, and business and industry training projects.

**General Funds (State Appropriation): Unrestricted state funding that support KCTCS educational and operating activity (Instruction, Public Service, Libraries, Academic Support, Student Services, Institutional Support, Operations and Maintenance, and Student Financial Aid). NOTE: Within this funding is operating expenditures for dedicated public service units such as Fire Commission, Kentucky Board of Emergency Medical Services, Adult Agriculture, and the Kentucky Coal Academy.

*** Federal Funds: Federal funding that supports grants/contracts. Predominately student financial aid, i.e., Pell Grants, Supplemental Education Opportunity Grants (SEOG), and College Work Study.

**** Restricted Agency Funds: Includes tuition and fees, sales and service revenue, investment income, and private funds that support KCTCS educational and operating activities (Instruction, Public Service, Libraries, Academic Support, Student Services, Institutional Support, Operations and Maintenance, and Student Financial Aid), including life safety and security activities, smaller capital equipment purchases, and deferred maintenance projects not separately budgeted within KCTCS's Capital Budget. Revenue generated by various units support operating expenditures of the units, i.e., Kentucky Board of Emergency Medical Services.

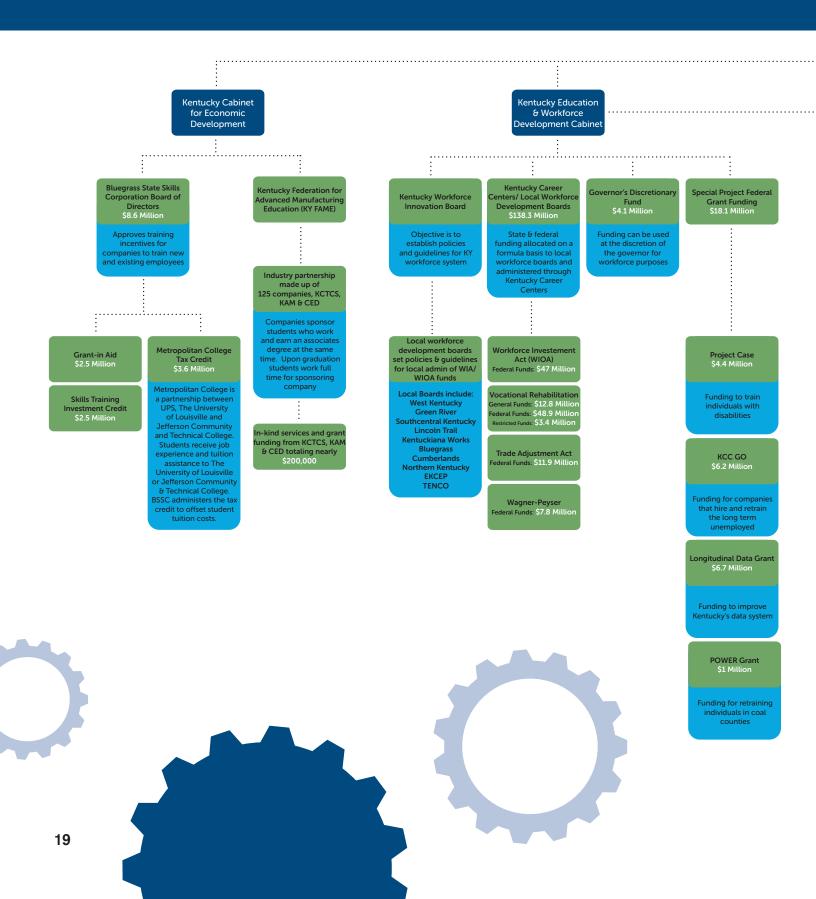
¹ Actuals reflective of audited financial statements operating expenses. Does not reflect 2% state budget reduction taken at the end of fiscal year 2015-16

² Actuals reflective of audited financial statements operating expenses. Does not reflect 2% reimbursement of reduction taken at the end of fiscal year 2015-16 and released in fiscal year 2016-17

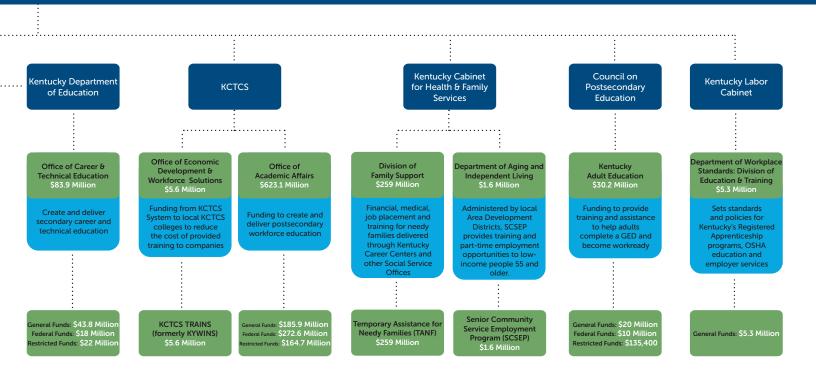
³ Projected current year budget (as of 1/3/18) reflective of 1 percent state appropriation reduction per executive order issued Decemeber 28,2017



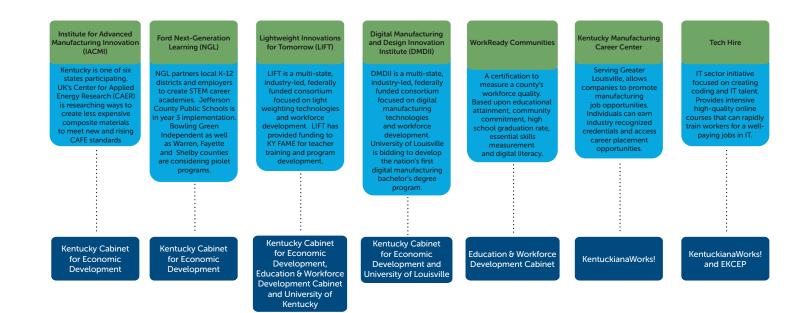
KENTUCKY WORKFORCE



RESOURCES – ^{\$}1.2 Billion



WORKFORCE INITIATIVES



KENTUCKY GOVERNMENT INITIATIVES

Building a Stronger Workforce



Building a stronger workforce is the goal of several initiatives launched or expanded in recent months by the Kentucky Education & Workforce Development Cabinet.

Work Ready Kentucky Scholarships help Kentuckians who have not yet earned an associate degree pay their education costs to receive an industry-recognized certificate or diploma in a high-demand sector. Scholarships were awarded for the first time for the fall 2017 semester, and more than 4,000 applicants sought support in

the five sectors as illustrated below.

(Funds are remaining to assist students in 2018 and possibly 2019, according to the cabinet.) The Work Ready Scholarships are part of the Help Wanted KY campaign that the cabinet has launched to provide information about employment opportunities in the five sectors.

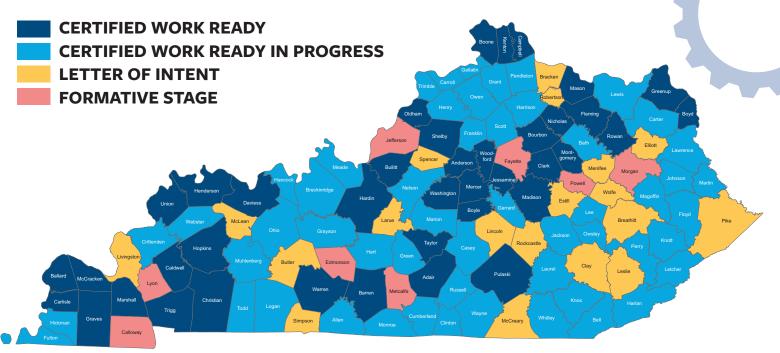


The Work Ready Skills Initiative made funding available for projects that expand career and technical education facilities and upgrade equipment in schools through partnerships between private industry and educational institutions. The awards were made in two rounds of competition in 2016 and 2017. Here is a breakdown of the awards provided by the cabinet:

The awards leverage at least \$146.2 million in matching funds for a total investment of just under a quarter of a billion dollars. \$98.9 million was awarded to 40 projects that are to provide training in high-demand sectors (health care, business/IT, advanced manufacturing, construction trades and transportation/logistics) to more than 47,000 Kentuckians a year.

More Kentucky counties are gaining certification as **Work Ready Communities**, an initiative designed to measure a county's workforce quality. The process requires local officials, educators and employers to work together to meet specific benchmarks. The Kentucky Workforce Innovation Board recently strengthened the criteria for certification, which took effect at the beginning of 2018. Under the new criteria, counties have to meet benchmarks in 11 areas that include high school graduation rates, industry-recognized certificate holders, demonstrated community commitment, employer engagement and internet availability and speed.

Status of Counties in the Certification Process



Source: Kentucky Education & Workforce Cabinet

The Kentucky Workforce Innovation Board is responsible for advising the governor on workforce issues and for creating a plan to move the state forward in this critical area. The 42-member board, with a majority of members representing the private sector, is updating its strategic plan to incorporate the following strategic goals:

• Actively engage employers to drive Kentucky's workforce development system.

 Align and integrate P-14, adult education and postsecondary education to provide lifelong opportunities for Kentuckians that prepare them for the rapidly shifting realities of working the future.

 Increase Kentucky's workforce participation by creating opportunities, incenting workforce participation, and removing employment barriers for Kentuckians.

• Focus resources on the most effective initiatives and improve the return on our workforce investments, using data to constantly improve workforce development in Kentucky.

Several additional programs and developments from both private and public entities offer promise for workforce improvements. Among them:

• A new apprenticeship program, coordinated by the Kentucky Labor Cabinet, to provide training that will lead to nationally recognized certification for workers. For each year of the apprenticeship, which can last from one to five years, the apprentice will receive about 2,000 hours of on-the-job training and a minimum of 144 hours of related classroom instruction. Currently, there are 3,154 apprentices with 206 sponsors participating in a Registered Apprenticeship program across the state.

• The **Justice to Journeyman** pilot program, a collaboration of the state **Labor Cabinet** and **Justice and Public Safety Cabinet**, focuses on matching prison inmates and juvenile offenders with skilled jobs as they re-enter society.

 Classroom teachers will have an opportunity to directly connect in-school learning to the world of modern manufacturing through a pilot program developed by Lightweight Innovations for Tomorrow (LIFT) and the Kentucky Federation for Advanced Manufacturing Education (KY FAME). The program will provide externships for up to 135 teachers and instructors across the state, linking them with local manufacturers where they can learn how classroom course content is used in a manufacturing setting.

• More high school students are participating in dual credit courses. In the 2016-17 school year, 26,726 students enrolled in such courses — an increase from 17,732 the previous year; 73,338 dual credit courses were taken, up from 42,384 the previous year. Also in 2016, 142 individual industry certifications were available to high school students in career and technical education programs; 27,332 certifications were awarded (students could have received more than one credential).

The number of Kentucky employers who were issued Workforce Opportunity Tax Credits during fiscal year 2017 increased by 30% over the previous year. The Kentucky **Department of Workforce** Investment reported that the program potentially saved employers more than \$205 million in federal taxes. To receive a tax credit, employers must hire someone who meets the criteria of a target group that has faced significant barriers to employment while entering or re-entering the workforce. These groups include unemployed veterans or veterans with disabilities: recipients of public assistance; ex-felons; long-term unemployment insurance recipients and others.

"I think kids coming out of high school or from college don't necessarily see working in the manufacturing environment, whether it's in the factory, on floors, as an operator, or even as a supervisor, as a long-term career opportunity."

— Louisville Manufacturer

CONTINUING THE PROGRESS

Fueling Kentucky & Its Citizens



The programs and projects included in this report are just a sample of the efforts underway at the community and state levels to create the workforce that will fuel the continued progress of Kentucky and its citizens.

There is clear evidence that **momentum is building to address Kentucky's workforce challenges to ensure more positive results**, whether in the individual workplace, an employment sector, a community, or the state as a whole.

But it is equally clear that **much remains to be done** to achieve the state's goals for workforce quality – and quality of life. Conversations with employers, community leaders, local chamber of commerce executives, state policymakers and others have placed a particular emphasis on the following areas. This is not an exclusive list – local needs can and should guide local efforts – but it offers **recommendations on how to strengthen the many efforts now underway to advance Kentucky's workforce-improvement agenda**.

 Continue emphasis on improving essential skills through school and workplace initiatives.

• Incorporate a drug-free element into essential skills programs and work to strengthen Kentucky's treatment and rehabilitation efforts.

• Work with public partners to develop a single point of contact for state programs to give employers, local chamber representatives and economic development professionals more coordinated opportunities to access needed information and services and to provide information on workforce needs to training providers.

• Work with public partners to create a shared workbased learning system that is accessible to employers and produces measurable results.

 Initiate public-awareness efforts, with active employer involvement, to share information with students, parents and educators about available jobs and workplace requirements. Automation, technology, artificial intelligence, demographic changes and other factors are transforming both the workforce and the world of work. Ensuring that Kentucky is preparing for the jobs of the future as well as meeting immediate workforce needs will be the centerpiece of the Kentucky Chamber Workforce Center's efforts.

Coordinate with the Kentucky Workforce Innovation
Board, education policy leaders and institutions, local
workforce boards and other entities to limit duplication of efforts and improve collaboration in policy development.

• Through the Talent Pipeline Management Program or other efforts, work to facilitate the growth of the KY FAME model in other high-demand sectors.

• Develop and disseminate detailed information on the outcome of workforce programs (*return on the investment of the \$1.2 billion*).



PROGRESS & CHALLENGES *Conclusion*

There clearly are reasons to be optimistic about Kentucky's efforts to strengthen its workforce. The developments and initiatives detailed in this report, and others underway across the state, reflect the commitment of employers, training providers, community and state leaders, and others to enhance workforce quality and expand employment opportunities for citizens.

The business community, through the Kentucky Chamber Workforce Center and other venues, will continue its efforts to address the challenges reflected in this report and other needs in the workforce arena. But privateand public-sector partners are key to ensuring the continuous improvement that is vital to building and sustaining a high-quality workforce.

A pattern of partnership has been established at the state and local levels. That must now become the foundation of the way Kentucky conducts the business of workforce improvement to ensure the economic progress of individual Kentuckians, their communities and the state as a whole.

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Beth Davisson Executive Director, Workforce Center

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