

Kentucky is one of the 10 states selected to participate in New Skills for Youth (NSFY), an initiative enhancing state efforts to increase the number of kids across the country who are prepared for success in both college and career. NSFY is a \$75 million, five-year initiative developed by JPMorgan Chase & Co. in collaboration with the Council of Chief State School Officers, Advance CTE and Education Strategy Group.

In Phase One of the initiative, the Kentucky NSFY team began harnessing the commonwealth's existing resources — including an extensive work-based learning program and one of the nation's strongest longitudinal data systems — to advance career readiness.¹ Through NSFY, Kentucky is working to ensure that all students have access to the high-quality career pathways they need to meet the economic demands of the commonwealth.

Phase Two of the NSFY initiative began in January 2017. This snapshot profiles Kentucky's progress in the first year of Phase Two, including:

- **Implementing regional career academies:** The Kentucky NSFY team is working to convert area technology centers (ATCs) into regional career academies (RCAs) that take a comprehensive approach to integrating academic and technical instruction.
- **Improving cross-sector use of labor market data:** Kentucky is establishing updated standards for data collection and analysis, making comprehensive labor market information easier to gather and understand.
- **Strengthening Career Technical Education (CTE) teacher induction and support:** Kentucky is providing training and support for teachers, with a special focus on improving education quality and teacher retention in the CTE field.

Foundations for Career Pathways in Kentucky

Kentucky's wide geographic and economic diversity has posed challenges for promoting universal career readiness. As some regions struggle to find new sources of employment amidst the decline of industries like coal production, the commonwealth is working to identify skills gaps and priority industries.

By the time NSFY launched in 2016, Kentucky had already been restructuring its career and college readiness system for a number of years. The commonwealth was among the first to include career readiness indicators in its statewide accountability system and has a long tradition of supporting quality CTE pathways. The Tech Ready Apprentices for Careers in Kentucky (TRACK) model, for

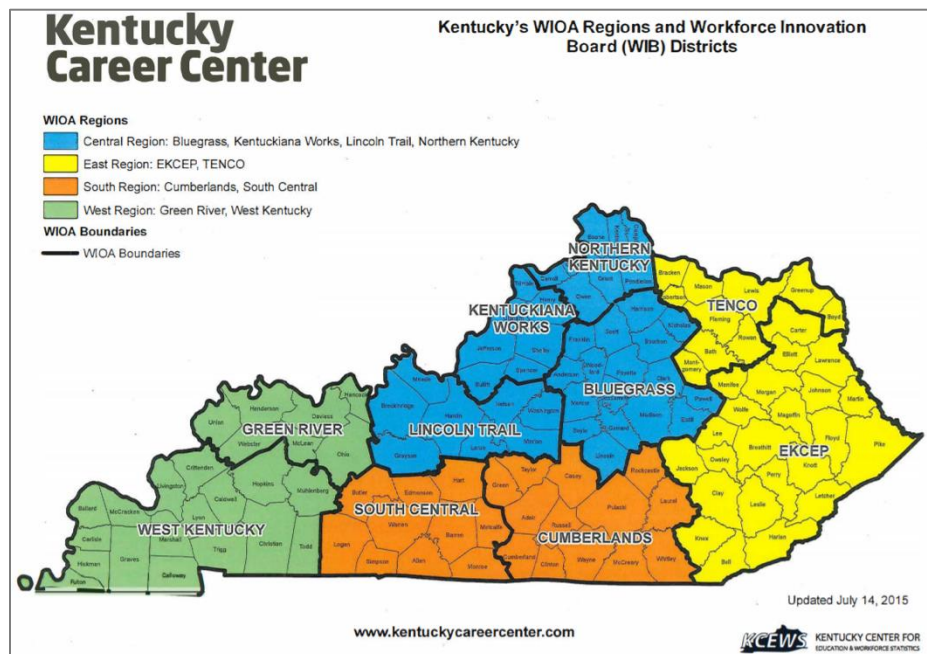
example, begins in high school and allows students to earn industry-recognized credentials while gaining paid, on-the-job experience.²

In Kentucky, the NSFY team is aiming to increase student access to technical learning and postsecondary career pathways by scaling proven models that focus on work-based learning and embed employer-validated industry credentials. Improving the collection and use of labor market information (LMI) will help to ensure that students are able to pursue opportunities that will put them at an advantage in their regional job markets.

Advancing the Regional Career Academy Initiative

Improving student readiness for high-skill, high-demand jobs is a top priority for state leadership and has led to a restructuring of the commonwealth's CTE delivery system. Much of Kentucky's NSFY work is focused on transitioning shared-time ATCs into RCAs — full-time schools where students receive both academic and career instruction.

RCAs will be modeled after the iLEAD Academy, a five-district, regional learning center that integrates career and academic learning through a project-based approach with an engineering and technology



focus.³ The iLEAD Academy puts students on track to fill high-wage, high-demand careers with a rigorous approach that combines academic achievement with work-based learning. The model encourages and supports students to be college ready by the end of their second year. In their final two years at iLEAD, most students are enrolled full time at the Jefferson Community and Technical College.

iLEAD students can then graduate with a high school diploma, an associate degree from the technical college, and postsecondary credit that can articulate to a bachelor's degree at a four-year university.⁴

With iLEAD's waitlist and dual credit participation serving as a testament to its success and quality, Kentucky is now working to expand similar programs across the commonwealth. In January 2017, the Kentucky NSFY team issued a request for applications to identify local sites to implement the RCA model. Selected sites will receive funds to plan and develop new career pathways and transition ATCs to full-time regional academies. The grant guidelines required applicants to submit as cross-sector teams with nearby school districts, postsecondary institutions, industry leaders and community partners to ensure stakeholder buy-in and support.

Although the Kentucky Department of Education planned to issue up to six planning grants of \$115,000 to eligible cross-sector partnerships, the Kentucky NSFY team ultimately selected three sites for funding to develop RCAs. Those academies are set to open in August 2018. In early 2018, Kentucky opened up the application process again to identify additional sites and plans to double down on supports to help local applicants develop actionable plans for RCA implementation. By the end of the NSFY initiative, Kentucky aims to identify and award funding to 13 regional teams.

Kentucky's RCA model aims to give students more academic opportunities in their region and allow schools to specialize in certain academic or technical areas. Instead of requiring every school to offer every type of program, resources can be invested in strengthening existing programs.

Improving Cross-Sector Use of Labor Market Data

In recent years, Kentucky has increased its focus on the collection and use of LMI to inform its decisions about the development of CTE programs and other career and college pathways. LMI can help to justify funding for career pathways by identifying industry growth and regional skills gaps. Kentucky is now engaging policymakers and industry leaders from a range of sectors to bolster its LMI collection and reporting mechanisms.

Kentucky has one of the country's most comprehensive education data systems, which is administered by the Kentucky Center for Education and Workforce Statistics (KCEWS), an independent agency. The NSFY team has leveraged KCEWS' expertise to help inventory, evaluate and justify the development and continuation of high-quality career and college pathways. In August 2017, the Kentucky Legislature designated KCEWS as the primary data source governing LMI across the commonwealth, allowing KCEWS to standardize LMI terminology, indicators and data collection protocol across agencies.⁵

To validate LMI collection methods and establish the necessary indicators for tracking, the Kentucky Department of Education (KDE) has been working closely with industry partners. Prior to any information being made public, KDE engages the Kentucky Workforce Innovation Board (KWIB), the Cabinet for Economic Development, the Kentucky Chamber of Commerce and local workforce investment boards to gather input on LMI across the commonwealth. Therefore, any LMI shared with other stakeholders combines workforce data and local industry input.

This collaboration has helped KDE improve its understanding of industry needs through new data sources.⁶ In 2017, for example, KDE and the KWIB engaged the 10 regional workforce investment boards to map the most highly valued industry certifications to the commonwealth's existing career pathways using KCEWS data. In 2018, all certifications and career

OPERATING/PRODUCTION

Higher-Skilled Occupations	Industrial Production Managers Average Annual Earnings: \$90,204 Five-Year Openings: 786 * Work Experience Required: 5 years or more On-the-Job Training: None Minimum Education Required: Bachelor's Degree
	Industrial Engineers Average Annual Earnings: \$81,221 Five-Year Openings: 1,140 * Work Experience Required: None On-the-Job Training: None Minimum Education Required: Bachelor's Degree
	First-Line Supervisors of Production & Operating Workers Average Annual Earnings: \$56,114 Five-Year Openings: 1,387 * Work Experience Required: Less than 5 years On-the-Job Training: None Minimum Education Required: High School Diploma/GED
Middle-Skilled Occupations	Machine Setters, Operators, & Tenders ** Average Annual Earnings: \$32,354 Five-Year Openings: 163 * Work Experience Required: None On-the-Job Training: Moderate-term Minimum Education Required: High School Diploma/GED
	Inspectors, Testers, Sorters, Samplers, & Weighers Average Annual Earnings: \$38,646 Five-Year Openings: 1,973 * Work Experience Required: None On-the-Job Training: Moderate-term Minimum Education Required: High School Diploma/GED

pathways will be aligned with workforce demands based on data provided by KCEWS.

KDE, with input from these partnering groups, then aligned occupations to career pathways. For example, the industry title of engineer — process/manufacturing was aligned with the following career pathways: electrical engineering, engineering and technology design, manufacturing engineering technology technician and robotics and automation. KDE further identified the aligned course sequences within each career pathway to demonstrate to both school leaders and employers how the available career pathways are aligned to labor market opportunities. Using LMI produced by KCEWS, KDE is in the process of phasing out or transforming all programs of study that were not aligned with high-demand, high-wage industries or support sectors.⁷ If districts still choose to operate these programs without modification, they will not receive certain incentive funding from the accountability system.

Providing CTE Teacher Induction and Support

As Kentucky moves to ramp up its career pathways and open new career-focused academies, the need for teacher support and development has become apparent. In recent years, Kentucky has struggled with high teacher turnover, particularly in low-income areas.⁸ A lack of support and professional development opportunities was found to contribute to low retention rates.

In 2017, Kentucky upgraded its New Teacher Institute program to provide more consistent supports with the hopes of increasing educator retention rates — especially in low-income and rural areas lacking professional development infrastructure for teachers. While new teacher induction previously consisted of a short bootcamp-style course to get teachers up to speed to enter the classroom, the new format consists of a comprehensive two-year program.⁹ The New Teacher Institute begins with a five-day course that covers a number of topics, including lesson planning, measuring student achievement, and working with students with special needs. Once they begin teaching, teachers continue participating in both face-to-face and online meetings, school-based mentorship initiatives, and regional supports from nearby faculty in the state university system.

Kentucky hopes that the Institute will make new CTE teachers — particularly those in remote areas — feel more supported as they enter the teaching field. The course also serves the added benefit of breaking down some barriers to entry into the CTE teaching field by equipping industry experts with the tools they need to teach courses without lengthy training requirements. It could also open up opportunities for trained teachers to branch into new areas related to high-skill, high-demand career pathways, thereby providing professional development opportunities for teachers and reducing turnover in the education system. Kentucky's goal is to retain 90 percent of teachers who enrolled in the New Teacher Institute in the 2017-18 school year.

Looking Ahead

As NSFY moves into the second year of Phase Two, Kentucky is pushing ahead with the implementation of strategies to advance high-quality career and college pathways for its students. The commonwealth is planning to award up to six new grants for the establishment of new RCAs in spring 2018, continuing to follow the steps that have been taken so far with ATC conversion.

The Kentucky Community and Technical College System is also conducting program alignment workshops to map secondary career pathways to postsecondary programs. The NSFY team hopes to have statewide career pathways in targeted sectors developed and published in year two. These

career pathways are expected to include more opportunities for dual credit and work-based learning through the expansion of the TRACK program.

¹ <https://careertech.org/resource/kentucky-phase-one-nsfy-snapshot>

² <https://careertech.org/resource/Kentucky-TRACK>

³ <http://www.ileadacademy.org>

⁴ <http://www.ileadacademy.org/about-us-1.html>

⁵ <http://www.lrc.ky.gov/recorddocuments/bill/17RS/SB1/bill.pdf>

⁶ <https://careertech.org/resource/putting-LMI-right-hands-guide>

⁷ https://education.ky.gov/CTE/ctepa/Documents/Pathway_Phaseout_Guidance.pdf

⁸ <http://www.ksba.org/TeacherRetention.aspx>

⁹ https://cte.careertech.org/sites/default/files/files/resources/CTE_Frontier_Teacher_Pipeline_2018.pdf