

WORKFORCE READINESS

YOUTH APPRENTICESHIPS IN ACTION: FIVE STATE PERSPECTIVES

Lowell Matthews, Jr.
Senior Policy Advisor, ExcelinEd



INTRODUCTION

The Case for Youth Apprenticeship Opportunities— The Workforce Imperative

We are living in challenging times. COVID-19 and its variants, supply chain disruptions and spiraling inflation have become our “Lions and tigers and bears, oh my!”¹ Yet, our employers are resilient. In the face of these challenges, half of surveyed U.S. employers (6,000) planned to have job openings in the 3rd quarter of 2022.²

Unfortunately, there is a global talent shortage.

Employers are experiencing difficulties in hiring. According to the latest ManpowerGroup Employment Outlook Survey, talent shortages are at a 16-year high.³ This year, 75 percent of employers globally reported difficulty in filling roles, a 6 percent increase over 2021.⁴ In the U.S., technology skills are in the most demand, with 31 percent of employers reporting difficulty in hiring, followed by soft skills at 28 percent.⁵ To compound the hiring problems, the U.S. has a quitting problem, too. In March 2022, a record 4.5 million people quit their jobs.⁶



75% of employers globally reported difficulty in filling roles.⁴



In the U.S., technology skills are in the most demand.⁵



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To face these challenges, employers need a human resources strategy that ensures individuals have the hard and soft skills employers need—while also retaining those employees. Enter youth apprenticeships.

Employers can benefit from youth apprenticeships in many ways:

- **Potential lower-attrition rate**—Apprentices tend to stay with an employer.⁷
- **Employee test drive**—Employers get a 3-year window into a future employee to determine team fit and future success, which includes an opportunity to train without having to unlearn bad work habits.
- **Fill open positions**—Youth apprentices fill open positions, typically at lower wages than an off-the-street hire although with potentially a higher up-front investment to supervise and train.



What are Youth Apprenticeships?

Although the U.S. Department of Labor has issued some guidance on youth apprenticeships, “youth apprenticeship” has no federal definition, leaving states to fill in the blanks. The Partnership to Advance Youth Apprenticeship (PAYA), a project to support states and cities to expand access to high-quality, apprenticeship opportunities for high school youth, defines a youth apprenticeship as a structured, work-based learning program designed to start when apprentices are in high school. These programs are built on partnerships that include employers, high schools and postsecondary education.

PAYA describes a high-quality, youth apprenticeship as comprised of four main components:

- Formal instruction—relevant, classroom-based instruction.
- Skills Assessment—ongoing assessment against established skills and competency standards.
- Industry-recognized credentials and postsecondary credit—culmination in a portable, industry-recognized credential and postsecondary credit.
- Paid experience—paid, on-the-job learning under the supervision of a skilled, employee mentor.

THE CASE FOR YOUTH APPRENTICESHIP OPPORTUNITIES— THE STUDENT/YOUTH IMPERATIVE

While the needs of our employers for skilled workers are readily acknowledged, our youth also win when they engage in work-based learning experiences like youth apprenticeships.

Students can benefit from youth apprenticeships in many ways:

- **Tuition-free postsecondary education and training**—Youth apprenticeships can make college more affordable and provide another way for students to get postsecondary training beyond the traditional 4-year degree path.
- **Wages**—As employees, students are paid while they work in a youth apprenticeship.
- **Portable industry-recognized credentials**—Students can earn industry-recognized credentials that may be stackable to additional credentials tied to higher-wage occupations. These credentials may be recognized beyond industries and borders.
- **Career-focused training**—Youth apprenticeships give students an opportunity to experience work-based learning and learn the skills⁸ that matter to employers.
- **Social networks/employer relationships**—Since hiring can often be tied to “who you know,” youth apprenticeships can help students build relationships with employers and professional networks more broadly, which is particularly important for low-income students.
- **Front of the line hiring**—Following program completion, many employers hire youth apprentices into full-time occupations.
- **Multiple on-ramps/off-ramps to college and career**—Youth apprenticeships put the student in charge of deciding to pursue employment or college, with multiple opportunities to move in and out of both.



Too often, the pendulum has swung with regard to workforce preparedness (short-term credentials, 2-year degrees, 4-year degrees, etc.). The reality is our economy needs all of these solutions, including apprenticeships with work-based learning components that are stackable to other credentials for the necessity of lifelong learning.”

– Commissioner Chris Lowery,
Commission for Higher Education

PAYA has also identified five defining principles for high-quality youth apprenticeships:



- **Career-oriented**—a combination of valuable work experiences with academic learning aligned with careers that offer family-sustaining wages and opportunities for advancement.
- **Equitable**—a strategy to increase access to postsecondary and industry-recognized credentials, employer networks, paid work experience and targeted, student support services to ensure equitable representation and success across industries.
- **Portable**—student learning that is documented and recognized within the higher education system as college credit and by industry, in the form of industry certifications or a journeyman’s license, translatable across borders and silos.
- **Adaptable**—student learning recognized and valued across industries or sectors, rather than for a single employer.
- **Accountable**—student and employer outcomes that are monitored and measured using transparent metrics of quality to support improvement and identify best practices.
- **Paid experience**—paid, on-the-job learning under the supervision of a skilled, employee mentor.

While adult apprenticeships are more common and understood as a proven education and workforce model to address employer hiring needs, youth apprenticeships are quietly becoming a means of connecting students in high school with employers and careers. In essence, youth apprenticeships combine work-based learning with classroom instruction, providing students with another pathway to college, valuable work experience and wages.

In summary, a high-quality, youth apprenticeship will help a student gain valuable work experiences, college credit and industry-valued credentials recognized across employers and colleges for in-demand careers linked with middle- to high-level wages.

Important caveat!



Important caveat! Much of the research on apprenticeships is focused on adult-registered apprenticeships. More study is needed on youth apprenticeship outcomes, particularly in nontraditional apprenticeship fields in the U.S., to support the learned experiences from employers and students in youth apprenticeship programs.

Although the largest registered, apprenticeship programs are in the skilled trades⁹, youth apprenticeships exist and are being built for industry sectors such as:



Healthcare



Finance



Information
Technology



Advanced
Manufacturing



Others

METHODOLOGY

To evaluate the policy needs to best support youth apprenticeships and how states address these needs in practice, ExcelinEd interviewed youth apprenticeship coordinators at the state, intermediary and local level. Some states and coordinators were identified by experts in the youth apprenticeship field, and others were selected based on recommendations in the states. Due to COVID-19, the interviews were conducted virtually and restricted to one hour or less, as these coordinators are heavily engaged in overseeing or operating youth apprenticeship sites. The coordinator narratives are largely their words, edited for length and clarity.

PART 1:

KEY INTERVIEW FINDINGS AND POLICY RECOMMENDATIONS

What can States do to Support or Expand Youth Apprenticeship Opportunities?



While the benefits of connecting youth and employers through youth apprenticeships are large, the youth apprenticeship strategy is often underused. States can help by adopting policies that enable and support youth apprenticeship opportunities. While this report is not an exhaustive list of state policies that could support youth apprenticeships, the interviews revealed five key findings and policy recommendations to support youth apprentices.

FINDING #1

There is a lack of awareness of youth apprenticeships.

Students, parents, schools and employers are often unaware of youth apprenticeships—what they are, how they work and their multiple benefits—especially in nontraditional apprenticeship fields.

- **Many employers still do not view youth apprenticeships as a human resources strategy due to concerns with:**
 - Capacity to supervise or mentor youth apprentices, especially in an economic environment where demand for skilled labor exceeds current supply.
 - Cost to train youth apprentices.
 - Barriers (or perceptions of barriers) in employing youth apprentices, such as youth labor laws, workers' compensation coverage and the regulatory environment. These often discourage investigation or investment into youth apprenticeships.
- **Students, parents, teachers and school administrators may lack knowledge or misunderstand what youth apprenticeships are, such as:**
 - Students and parents may fear to choose a youth apprenticeship because they may perceive that they are giving up on a traditional college pathway to a 4-year degree.
 - Students and parents may not know that youth apprenticeships have expanded beyond the skilled trades, or they may possess an outdated perception of industry sectors, such as an Industrial Revolution view of advanced manufacturing.
- **Teachers and school administrators may lack knowledge or misunderstand what youth apprenticeships are or lack the relationships or connections to employers to build youth apprenticeship partnerships.**



POLICY RECOMMENDATION # 1

Raise the awareness of youth apprenticeships.

- **States can address the concerns of employers in offering youth apprenticeships in a variety of ways:**
 - Create a task force or survey employers on perceived barriers to youth apprenticeships. To accurately address the concerns of employers, the state needs to know what employers perceive as challenges to offering youth apprenticeships.
 - Consider using targeted marketing strategies to market youth apprenticeships to employers along with the state resources that are available to assist employers in developing their youth apprenticeship programs. These resources will help raise awareness of youth apprenticeships but also help employers navigate requirements to offer these opportunities. Interviewed employers indicated that it was hard to start a youth apprenticeship without supportive resources.
 - Review state-specific student/youth labor laws for consistency in application between permissible actions in a K-12 setting versus a work-based learning opportunity. Interviewed intermediaries indicated employer confusion or concerns that employers couldn't hire youth apprentices for positions requiring potentially hazardous labor, such as using a band saw.
 - Evaluate state liability as well as workers' compensation costs to the employer for employing a youth apprenticeship or other work-based learning student. States like Indiana have recently enacted legislation to mitigate the potential cost to employers for workers' compensation insurance for youth apprenticeships.¹⁰
 - Investigate incentives to employers for hiring youth apprentices to reduce employer costs and help with employer capacity to offer and sustain youth apprenticeship opportunities. North Carolina recently allocated \$12 million in funding that can be used for onboarding, mentoring and other training costs for youth apprentices, including marketing to promote youth apprenticeship programs.¹¹
- **States can address the awareness gap for students, parents, teachers and school administrators by using a targeted, marketing strategy through digital, print or other communications that does the following:**
 - Informs these individuals of the value of youth apprenticeship programs in terms of employment, college-credit, industry-recognized credentials and work-based training.
 - Emphasizes the on-ramp/off-ramp nature of youth apprenticeships in which the student decides the pathway to college and career success, whether that is direct employment following completion of the youth apprenticeship, a bridge to an adult registered apprenticeship or further college enrollment.
 - Focuses on the college affordability of youth apprenticeship programs that often allow students to earn college credit without any cost to the student.
 - Shows the value of social networks that youth apprenticeships offer through relationships with potential employers.
 - Embeds youth apprenticeships into the college and career navigation services offered at schools.

FINDING #2

State infrastructure, especially technical assistance, is critical to starting and sustaining youth apprenticeship programs.

Almost every interview indicated that the state's role in providing technical support was instrumental in getting employers and other stakeholders engaged in offering youth apprenticeships and keeping them engaged. The interviews revealed that the location of the state office for administrative purposes isn't critical. In some states, leadership comes from a workforce development agency (Wisconsin), an education department (Kentucky), a community college system (North Carolina) or a statewide intermediary (Colorado). However, the state's leadership role should be elevated and possess the necessary connections from the state to intermediaries to employers to enable youth apprenticeships to start and grow.

State technical assistance is critical to the following:

- Making employers comfortable with undertaking a youth apprenticeship program by helping them navigate administrative requirements, evaluate student apprentices and understand labor laws involving youth apprentices.
- Helping schools connect with intermediaries or employers to build the relationships required for partnerships to develop a youth apprenticeship program.
- Providing a communications platform for greater awareness of youth apprenticeship opportunities and the benefits of these programs.



POLICY RECOMMENDATION #2

State policymakers can build the state infrastructure to support employers and state/regional/local youth apprenticeship coordinators.

The state may want to consider a team-based approach to supporting youth apprenticeships rather than one coordinator for the whole state, although the interviews revealed exceptionally talented people serving in this role. Additionally, the state can ensure consistent funding for the youth apprenticeship team, rather than having the team spend most of their time grant-chasing to support the technical assistance to employers.

State infrastructure support could include the following:

- **Define youth apprenticeships and provide clear guidance on the expectations of these opportunities**—The state needs to be clear on what youth apprenticeships are and the expectations of the student outcomes to help protect the quality of these opportunities. Wisconsin is a leader here.¹²
- **Provide technical assistance to employers**—The state can direct its state-level apprenticeship coordinators to develop resources for employers. These would include an outline of the youth apprenticeship process, the benefits of youth apprenticeships to employers, a summary of the laws governing youth apprenticeships, availability of intermediaries at

the state or regional level and other technical assistance to help employers start, evaluate and grow these opportunities. Again, Wisconsin was recognized in the interviews by maintaining a robust set of resources to help employers navigate youth apprenticeships, from starting new programs to evaluating success and bridging to adult-registered apprenticeships.¹³

- **Market youth apprenticeships**—The state can consider using targeted, marketing strategies to market youth apprenticeships to potential intermediaries and employers. This would include promoting the state resources that are available to assist these entities in developing youth apprenticeship programs.
- **Connect employers with education providers**—Using the employer engagement strategies above, the state can assist state, local or regional youth apprenticeship coordinators to connect with employers and build relationships to grow and sustain youth apprenticeship opportunities. Kentucky’s Department of Education, for instance, was lauded in the interviews for meeting and recruiting potential employers for youth apprenticeships, from direct requests from schools, meeting with local chambers of commerce or leveraging existing youth apprenticeship employers to recruit by word of mouth.

FINDING #3

State financial support is an important driver for starting, growing and sustaining modern youth apprenticeship opportunities.

The interviews revealed that youth apprenticeship programs rely on state financial support to build and expand these opportunities for youth.

The state support comes mainly in two forms:

- Providing funding to colleges for dual credit opportunities where students can take, tuition free, their related technical instruction for the youth apprenticeship program. This is important for encouraging students and parents to participate in youth apprenticeship opportunities (to avoid fear of losing college opportunity and college affordability), retaining youth apprentices as they become full-time employees and for upskilling those employees for career advancement.
- Providing funding to intermediaries to pay for tuition assistance, youth apprenticeship equipment (laptops, uniforms, etc.), and other training opportunities. Direct funding to employers as an incentive for hiring youth apprenticeships would also be helpful but is rarer.



POLICY RECOMMENDATION #3

The state can take steps to ensure sufficient funding support to youth apprenticeship programs.

The support can include:

- **Dual/concurrent enrollment funding**—The state can make dual/concurrent enrollment free to qualifying students to ensure that they have access to the related technical instruction at the college level. Tuition-free enrollment not only promotes equitable access to youth apprenticeships but it also helps recruit parents and students who may be afraid that they are forgoing college or losing a college benefit.

North Carolina's Career and College Promise (CCP) is a good example of a state providing dual/concurrent enrollment to youth apprenticeships. The program provides tuition-free dual enrollment for NC high-school students.¹⁴ The program includes a youth apprenticeship waiver that allows students up to 120 days after high school graduation to claim eligibility under the NC CCP for dual credit funding if they register before leaving high school. As the interviews, revealed, this waiver is a highly effective equalizer for youth apprenticeship programs to attract students.

- **Employment incidentals**—The state can consider assisting education providers with work-based incidentals, such as uniforms, laptops, equipment or other related training opportunities that will enable all students to pursue youth apprenticeship opportunities. North Carolina is a good example here, with a recent \$12 million grant that can be used for onboarding, mentoring and other training costs for youth apprentices, including marketing youth apprenticeship programs.¹⁵
- **Employer incentives**—The state can consider performance-based incentives for employers who hire youth apprentices. This can help employers recover some of the costs of training these students and serve as an incentive to draw more employers into offering youth apprenticeships, especially smaller employers.
- **Intermediary incentives**—State or regional intermediaries often serve as a backbone of youth apprenticeship programs, connecting K-12, colleges and employers. Incentives could help create or foster more of these consortia to grow and sustain youth apprenticeship opportunities, particularly in fields not traditionally associated in the U.S. with apprenticeship programs. These incentives could include much of the criteria in the employer incentives but also add in other factors, such as incentivizing additional industries to become youth apprenticeship partners. Wisconsin, with its \$1,100 per apprentice grant to local intermediaries, is a leader here.¹⁶

FINDING #4

Secondary and postsecondary education systems are still slow to recognize the core competencies and skills learned in on-the-job training; related technical instruction is not often transferable between 2-year and 4-year institutions.

The interviews revealed barriers to recognizing and accepting work-based learning experiences for college credit, which could limit the appeal of youth apprenticeship programs to students and parents. For example, the journeymen's card, which may be a culminating credential in some apprenticeship programs, is often not recognized for college credit.



POLICY RECOMMENDATION #4

The state can consider requiring postsecondary institutions to recognize work-based learning and on-the-job training experiences for certificate programs stackable to degrees. Additionally, youth apprenticeship programs may need to evolve beyond the journeymen's card into specific college credit and transferable credentials recognized by colleges and industry.

This could be accomplished by:

- Requiring the higher education commission or similar governing body for postsecondary education to develop crosswalks for recognition of these work experiences and report to the legislature recommendations for implementation and approval. Additionally, these systems or institutions would be required to identify the stackable opportunities available through youth apprenticeships and report on student outcomes (e.g., how many students earned college credit for the work experiences, how much credit was recognized, how many youth apprenticeship students actually stacked those credentials into higher-level degrees?).
- The interviews revealed an innovative partnership between CareerWise Colorado and Metropolitan State University (MSU) of Denver, where MSU is recognizing 6 credits for on-the-job training toward a 16-credit Business Pathway Certificate. The certificate is in turn stackable toward an MSU business degree. This approach could help youth apprenticeships deliver on the promise of multiple on-ramps/off-ramps for student success in college and career.
- Strengthening articulation systems to ensure that related technical instruction in a youth apprenticeship can transfer from 2-year institutions to 4-year institutions, wherever possible.
- Reviewing youth apprenticeship programs in concert with industry and postsecondary education to identify opportunities for youth apprentices to earn college credit and credentials of value that are recognized by colleges and industry alike.



FINDING # 5

Transportation availability and costs are significant barriers to equitable access for students to reach the job site for a youth apprenticeship opportunity.

Multiple interviews indicated that transportation is a barrier for disadvantaged students in urban areas and for rural students. Intermediaries must raise funds from philanthropy to cover the costs or rely on employer-specific strategies, such as expanding youth apprenticeship opportunities to multiple facilities. These options, while potentially effective, may not be sustainable strategies in the long term.



POLICY RECOMMENDATION # 5

The state can consider a grant allocation to support intermediaries and employers in providing reliable transportation to youth apprentices, especially for low-income students.

Conclusion

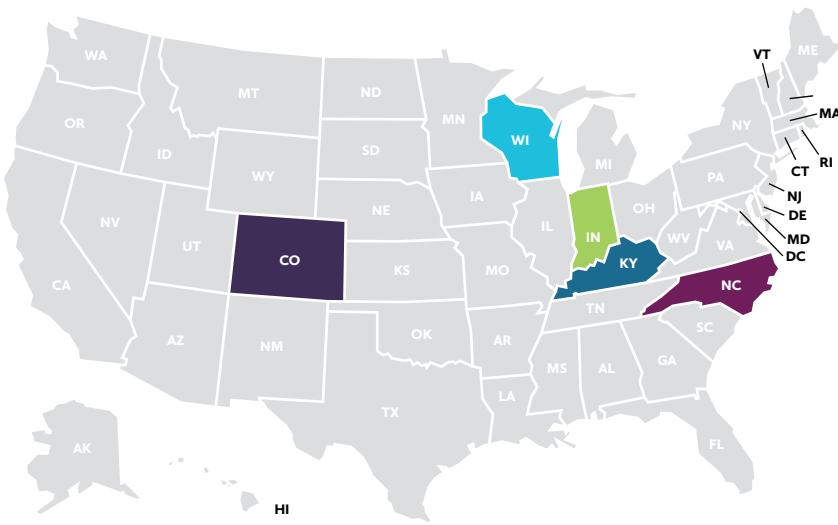
If states enact these policies, they may see more meaningful and numerous youth apprenticeship opportunities to help students and employers connect to deliver in-demand skills, earn higher-wages and fill open positions. Next, we focus on how these policies influence youth apprenticeship opportunities in several states through the experiences of practitioners on the ground.



PART 2:

YOUTH APPRENTICESHIP INTERVIEWS

Five State Perspectives from Across the Nation



Colorado	Careerwise Colorado
Indiana	Ascend Indiana
Kentucky	Henderson County Schools
	BIG I Kentucky
North Carolina	Machine Specialties, Inc., (Whitsett, NC)
	Surry Community College (Dobson, NC)
Wisconsin	GPS Education Partners (Waukesha, WI)
	Greenheck Group (Schofield, WI)

ExcelinEd explored with each interviewee the specific state policies that are supporting their apprenticeships as well as the policy challenges they currently face. Additional considerations and recommendations from the interviewees are included as well as facts about their programs (geographic location, number of participants, career sectors included).





Dobson, North Carolina

Intermediary

Main Location:

Surry and Yadkin Counties of North Carolina (rural)

Youth Apprentices:

+20 youth apprentices

Career Sector:

Multiple sectors, including advanced manufacturing, nursing and IT

Crystal Folger-Hawkes

Program Director

SURRY COMMUNITY COLLEGE

Several years ago, youth apprenticeships were transferred from the NC Dept. of Commerce to the state community college system. Since then, Surry Community College has built partnerships with more than 50 employers. Through its Surry-Yadkin Works partnership, it began its first youth apprentice program for registered nurses at Northern Regional Hospital with 13 apprentices. Students receive a stipend funded by the local county commission, half of which is for transportation reimbursement and the other half based on performance.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **State dual enrollment funding**—North Carolina’s Career and College Promise (CCP) program provides tuition-free dual enrollment for high school students.¹⁷ The program includes a youth apprenticeship waiver that allows students up to 120 days after high school graduation to claim eligibility under the NC CCP for dual credit funding if they register before leaving high school. This waiver is a great equalizer for youth apprenticeship programs to attract students.
- **Exception to youth employment laws**—In 2019, the North Carolina Legislature enacted legislation that allows students, such as youth apprentices, if they are 16-18 years old and under direct and close supervision of an experienced person, to work in jobs like welding, which may be considered hazardous occupations.¹⁸

What are the Key Policy Challenges?

- **High school student awareness**—Most high school students aren’t aware of youth apprenticeship opportunities. Surry Community College has been implementing a plan to expand career awareness. Activities include job shadowing and career exploration in middle school and field trips to businesses in high school, and they are working on a plan for elementary school. Employer videos are available on the school’s YouTube channel that explain the employers’ businesses and career opportunities. A state marketing campaign on the benefits of youth apprenticeships would be helpful here.
- **Missing youth apprenticeship buy-in from K-12**—Most K-12 teachers do not possess a clear understanding of youth apprenticeships. High school teachers generally don’t talk to each other about youth apprenticeships or work-based learning in general, which likely means they aren’t talking to students about youth apprenticeships either. Surry Community College is attempting to address the buy-in issue by meeting with educators.



The extension of the Career & College Promise to include youth apprenticeship students is a great equalizer for students considering youth apprenticeships as another pathway to college and career.”

– Crystal Folger-Hawkes, Program Director, Surry Community College

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Targeted Funding**—The North Carolina legislature recently allocated \$12 million in funding that can be used for equipment, signing bonuses, education assistance and training reimbursements for certain counties.¹⁹ The legislature may want to consider making these investments recurring to help youth apprenticeship intermediaries and employers more effectively plan youth apprenticeship opportunities for students. Without allocations such as these, decisions on offering youth apprenticeships are often made at the school district level based on cost alone.
- **Data**—Surry Community College collects several data points about its youth apprenticeship programs through a philanthropic grant, including apprentice outcome measures. These include continued employment with the apprenticeship employer, the number of college credits earned through the youth apprenticeship program, postsecondary credentials earned, wages of youth apprentices following exit from the program and college savings to the student. North Carolina may want to consider collecting this data statewide and using it to showcase the benefits of youth apprenticeship programs as part of its marketing campaign. Additionally, it would help the state to identify best practices that could be replicated.

Tammy Simmons

Vice President, Marketing and Culture
MACHINE SPECIALTIES, INC.



Whitsett, North Carolina

Employer

Main Location:

Guilford County, NC (suburban)

Youth Apprentices:

+80 youth apprentices

Career Sector:

Advanced manufacturing

Machine Specialties, Inc. (MSI) is a manufacturer of precision parts through contract machining and metal finishing for customers in aerospace, energy, medical, military and other industries. MSI has 240 employees and 80 youth apprentices. The company began its youth apprenticeship program about eight years ago. Youth apprentices work in several areas for the company, including machining, welding, logistics and IT, among others. MSI partners with the Guilford County Schools and others, while its postsecondary partners include Guilford Technical Community College.

MSI typically brings students into the youth apprenticeship program after they finish their high school work. Students are eligible for the youth apprenticeship program with MSI if they have good attendance and, at minimum, a 2.8 GPA (because of community college admissions requirements).

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **State dual enrollment funding**—North Carolina’s Career and College Promise (CCP) program provides tuition-free dual enrollment for high school students. The program includes a youth apprenticeship waiver that extends free tuition to students for up to 120 days after high school graduation if they register before leaving high school. Through its partnership with the local community college, a youth apprentice can exit the program with a fully paid, 2-year associate degree.
- **State infrastructure and technical assistance**—MSI credits Elizabeth Standafer, Ph.D., at ApprenticeshipNC for cutting through the red tape for youth apprenticeship programs. “[She] makes it easy as possible for employers...and once employers taste the Kool-Aid they are hooked.”
- **Recent state investment**—The North Carolina legislature recently allocated \$12 million in funding that can be used for onboarding, mentoring and other training costs for youth apprentices, including marketing youth apprenticeship programs. The funding is capped at \$2,000 per apprentice.

What are the Key Policy Challenges?

- **Career awareness by students and parents**—Students and parents aren’t aware of youth apprenticeship programs and their benefits. The state may want to consider weaving in information on career and technical education (CTE) pathways in earlier grades and increasing career exploration opportunities for students. MSI often goes to the school district to talk about youth apprenticeship opportunities, although COVID-19 has hindered those efforts. Additionally, some school districts don’t share contact information for high school graduates with youth apprenticeship programs like MSI. This creates trouble finding these students to make them aware of the opportunities. MSI is using jobs websites and social marketing to reach these students.



With a 92 percent retention rate for apprentices following graduation, it beats anything walking in the door as a hiring strategy for employers.”

– Tammy Simmons, Vice President, Marketing and Culture, Machine Specialties, Inc.



Henderson County Schools, Kentucky Intermediary

Main Location:

Henderson County, KY (suburban)

Youth Apprentices:

14 youth apprentices

Career Sector:

Advanced manufacturing, welding, construction and early childhood

Amanda Lacer, CTE Principal
Stephen Welch, CTE Career Coach
HENDERSON COUNTY SCHOOLS

Henderson County Schools partners with local businesses to offer youth pre-apprenticeship programs in advanced manufacturing, welding, construction and early childhood education. Henderson County is a border county, across the Ohio River from Evansville, Indiana. Students who complete a youth pre-apprenticeship program are recognized in the Kentucky's school accountability system as part of the postsecondary readiness indicator.

Four years ago, the Henderson County school district was approved by the state for a registered apprenticeship for childcare development specialists. Secondary students in the early childhood education pathway now can begin a youth apprenticeship through Tech Ready Apprentices for Careers in Kentucky (TRACK) while they are still enrolled in high school.²² Students work 20-plus hours a week during their senior year at one of Henderson County Schools' daycare facilities. This opportunity allows the school district to "grow your own" childcare providers. Since approved by the state, 4 of the 10 students enrolled in the youth apprenticeship remain employed by the school district after high school graduation and continue to work on completing the 4,000-hour apprenticeship requirement to become a journeyman childcare development specialist.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **Kentucky Educational Excellence Scholarship**—Kentucky's Educational Excellence Scholarship (KEES) is an important driver of youth apprenticeships in the state. The scholarship works on a collection basis, that is, students earn funds for the KEES scholarship by meeting certain GPA requirements per year or by earning qualifying scores on the ACT. Additionally, low-income students may earn a supplemental award for earning qualifying scores on Advanced Placement, International Baccalaureate or Cambridge AICE examinations. Previously, the scholarship was solely for tuition and fees at postsecondary institutions. The state modified the KEES scholarship to include youth apprenticeships. Funds can be used for equipment for youth apprentices, along with college costs for related technical instruction. The youth apprenticeship change helps with parents who are worried that their children would lose the KEES scholarship by enrolling in a youth apprenticeship.
- **State infrastructure and technical assistance**—Henderson County Schools credits Mary Taylor, Training and Development Specialist for the Kentucky Department of Education, for promoting youth pre-apprenticeship programs to school districts and to industry sectors across the state. Ms. Taylor is available to assist school staff in registering eligible high school students into TRACK. This partnership between the Kentucky Department of Education Office of Career and Technical Education and the Kentucky Office of Apprenticeship provides secondary students with career pathway opportunities into registered apprenticeship programs.

What are the Key Policy Challenges?

- **KEES Scholarship**—While the KEES scholarship is very important to help reduce youth apprenticeship costs and for recruiting students and parents, there are some logistical issues with the administration of the scholarship. KEES scholarship funds flow to the colleges for traditional postsecondary education enrollment. However, in the youth apprenticeship option, graduates must apply for reimbursement through the KEES scholarship, creating delays in reimbursement and tempering employer interest.

Additionally, many employers are not aware of or taking advantage of the KEES scholarship in offering youth apprenticeships. According to Henderson County Schools, more employers are likely to develop registered apprenticeships if the KEES scholarship could be sent to the educational provider up front, as is the case when a student enrolls in a college under the traditional use of a KEES scholarship.

Further, KEES scholarship funds can't be used out of state, which poses a problem for a border county like Henderson. For example, the construction union partner for the school district is in Indiana. Kentucky may want to consider a limited exception to the cross-state prohibitions on KEES scholarship to address its border counties.

- **Data**—Henderson County Schools could use more data from the state on the success of its youth apprenticeship completers, such as future wages. This data could help the school district to identify best practices in its offerings and serve as a marketing tool for students and parents.



Youth apprenticeships are an important strategy in addressing our local employers' needs. Our early childhood education youth apprenticeship program provides the assurance of a potential hire after completion."

– Amanda Lacer, CTE Principal,
Henderson County Schools

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Industry challenges**—The school district reports challenges for some post-graduate students wanting to increase their skill level because certain employers do not want to pay for additional training. These employers are seeking a beginning level employee and are not interested in paying for an increased skill set. The school district cited welding as an example.
- **General education requirements**—The school district reports that a majority of the skilled trade businesses would rather not pay for general education requirements at the state colleges. Apprenticeships give these companies the autonomy to control what knowledge content they are willing to invest in their employees.



Kentucky

Intermediary

Main Location:

Statewide Trade Association for Independent Insurance Agents

Youth Apprentices:

Previously, up to 6 youth apprentices. Currently, 1 youth apprentice enrolled and 1 completed youth apprentice

Career Sector:

Insurance

Tara Purvis, *President & CEO*
Cassie Young, *Workforce Development Director*
BIG I KENTUCKY

Big I Kentucky is a trade association for independent insurance agents in the state. Many independent insurance agents are nearing retirement or selling their agencies to national employers. BIG I Kentucky sees the youth apprenticeship model as a strategy for keeping agencies in the community instead of selling.

Under the insurance youth apprenticeship model, youth apprentices gain more than 2,000 hours of on-the-job training. Students start part-time in high school and transition to full-time after high school. Students can complete their insurance licensure before completing the youth apprenticeship program. The intermediary pays for the training. Progressive wage increases are used as the student nears completion and for earning licensure or designations. There is an employer commitment for hiring. The youth apprenticeship program doesn't involve any postsecondary education.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **Kentucky Educational Excellence Scholarship**—Kentucky's Educational Excellence Scholarship (KEES)²⁴ is an important driver of youth apprenticeships in the state. Funds can be used for equipment for youth apprentices, along with college costs for related technical instruction. The youth apprenticeship change helps parents who are worried that their children would lose the KEES scholarship by enrolling in a youth apprenticeship. BIG I Kentucky helps employers and students with reimbursements for work-related costs, such as laptops, uniforms and other training costs.
- **State infrastructure and technical assistance**—BIG I Kentucky credits the Kentucky Department of Education for connecting with teachers across the state to build partnerships with the school districts.



When independent insurance agents try youth apprentices, they like it. This program knows no boundaries. It can propel our industry to new heights with more participation. With the rising costs of higher education combined with the labor crisis we are currently facing, this is a solution for all parties involved. It helps industry, the employer, the apprentice and the community.”

– Tara Purvis, President & CEO, BIG I Kentucky

What are the Key Policy Challenges?

- **Employer incentive**—Many employers are looking for turnkey employees who they can plug immediately into the workforce without significant training. These employers may not see youth apprenticeships as a hiring strategy. To encourage employers to embrace youth apprenticeships and also to mitigate the costs of existing youth apprenticeships for employers, the state may want to consider a performance-driven, employer incentive. Such an incentive could include a base amount for employing a youth apprentice, with additional amounts tied to program completion and hiring to a full-time position.
- **Awareness**—Many teachers and administrators are not aware of the value of youth apprenticeships. Prior to the pandemic, BIG I Kentucky regularly visited schools to raise awareness of the opportunities. With the help of the Kentucky Department of Education, the organization is now focused on connecting with educators to explain insurance careers and the positive potential of youth apprenticeships.



Andy Hepburn

Chief Innovation Partner
GPS EDUCATION PARTNERS



Waukesha, Wisconsin

Intermediary

Main Location:

Build partnerships in Wisconsin and other states (urban and rural)

Youth Apprentices:

~250 youth apprentice graduates per year

Career Sector:

Advanced manufacturing but expanding into other career sectors

GPS Education Partners (GPSEd) is a nonprofit organization that builds collaborative partnerships between education and employers for work-based learning, including youth apprenticeships. GPSEd has built youth apprentice partnerships in 37 school districts in Wisconsin with more than 80 employers. Each year, GPSEd has roughly 200 youth apprenticeship students enrolled and graduates about 100 high school students with a youth apprenticeship credential. Most of the youth apprentices are in advanced manufacturing, although GPSEd is expanding into other career sectors. GPSEd focuses on serving academically at-risk students.

GPSEd builds partnerships with employers, manages with the partner and then transitions to where the partner assumes more responsibilities.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **State grant funding**—Wisconsin provides a \$1,100 per-youth apprentice state grant to regional consortia to help cover youth apprentice tuition costs, equipment, uniforms and trainings.²⁵ This incentive helps support current youth apprenticeship opportunities, although it may be insufficient to help start additional youth apprenticeship programs.
- **State youth apprentice infrastructure**—GPSEd credits the state pathway approval process, which now incorporates youth apprenticeships, to help build youth apprenticeship programs. The state's approval process prevents a fragmented system in which scaling would be almost impossible. The state's technical assistance is also extremely helpful, with GPSEd acknowledging the state Department of Workforce Development (DWD) for their summaries of federal and state law on youth labor and age restrictions.²⁶ Per a comment during the interview, "An employer doesn't have to get a lawyer to figure it out."



I never sell youth apprenticeships as a plug-and-play strategy for employers, although it often is. It still is incumbent on the employer to make the youth apprenticeship experience so meaningful that the youth apprentice wants to stay."

— Andy Hepburn, Chief Innovation Partner, GPS Education Partners

What are the Key Policy Challenges?

- **Employer Perceptions**—Despite state technical assistance, one of the largest issues in scaling youth apprenticeships is employer perceptions over youth labor laws. A public review of federal and state laws for consistency would help. For example, a student may be able to operate a band saw in school but not on the employer's shop floor.

- **Equity**—Providing transportation services to the academically at-risk students whom GPSEd serves is a big challenge. The student is not always living or attending school near the employer. The state does not allow the youth apprenticeship incentive grants to be used for transportation services. Instead, GPSEd must attain philanthropy support to provide transportation reimbursements to students. This limits scaling potential for youth apprenticeship opportunities.
- **Recognition of youth apprenticeship experiences**—The state has created a crosswalk that bridges youth apprenticeships to adult apprenticeship programs or postsecondary credit. However, the journeymen’s card, a culminating credential for many apprenticeship programs, is not always recognized for postsecondary credit. This may limit the multiple on-ramps/ off-ramps to career and college appeal of youth apprenticeship programs that use the journeymen’s credential.

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Braiding of Funding**—Braiding funding means the weaving together of multiple funding streams-- including federal, state and philanthropic funding--to work in concert for a single goal. In youth apprenticeships, a program could use Perkins V and federal WIOA together to build a high-quality youth apprenticeship opportunity. This doesn’t happen in many places, according to GPSEd. For example, Perkins V is focused more on students in school while WIOA is more focused on out-of-school youth. Braiding of funding is needed to scale youth apprenticeship programs to their full potential.

Sarah Kolodziej, HR generalist
GREENHECK GROUP

**Dina Kilinski, Career Services & Youth
Apprenticeship Manager**

NORTHCENTRAL TECHNICAL COLLEGE



Schofield, Wisconsin

Employer | Intermediary

Main Location:

Rural

Youth Apprentices:

5 on averages

Career Sector:

Advanced manufacturing

The Greenheck Group produces a variety of ventilation products for commercial facilities to move air in, out and around a building. They have global facilities, while their headquarters are located in Schofield, Wisconsin. Greenheck has participated in a youth apprenticeship program since 2018. On average, they have 5 youth apprentices a year. These apprentices work in machining, assembly and shipping. Greenheck usually hires 1-2 youth apprentices from each cohort into full-time positions with the company.

Youth apprentices complete their related technical instruction at one of the local school districts or Northcentral Technical College (NTC), which serves in an intermediary role on behalf of the Wisconsin Department of Workforce Development's Youth Apprenticeship Program. NTC facilitates the North Central Wisconsin School-to-Career Youth Apprenticeship Consortium. The consortium is in central Wisconsin and partners with 30 school districts and more than 200 employers by serving between 325 and 350 youth apprentices each year.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **State grant funding**—Wisconsin provides a \$1,100 per-youth apprentice state grant to regional consortia, like NTC, to help cover youth apprentice tuition costs, equipment, uniforms and trainings.²⁹
- **State youth apprentice infrastructure**—Greenheck credits the Wisconsin Department of Workforce Development (DWD) with technical assistance to help the youth apprenticeship program begin. This assistance continues with student learner guidelines to ensure state pathway alignment and also with completion reviews to help Greenheck understand youth apprentice outcomes, beyond hiring apprentices to full-time positions.

What are the Key Policy Challenges?

- **Student and Parent Perceptions**—Overcoming yesteryear perceptions of manufacturing is always a challenge, which Greenheck attempts to address by visiting schools and conducting factory tours. COVID-19 significantly reduced opportunities for outreach and youth apprenticeship engagement. Additionally, student interest may be focused on other career areas, such as welding, which Greenheck does not offer. Currently, Greenheck relies largely on word of mouth to get students interested. The state could help here with targeted marketing efforts to change perceptions, something the Wisconsin DWD is willing to do in a collaborative effort with the North Central Wisconsin School-to-Career Partnership, as needed and requested by their regional employers.



Youth apprenticeships are a rewarding experience and opportunity for students to learn valuable skills.”

– Sarah Kolodziej, HR generalist,
Greenheck Group

Sarah Kolodziej, *HR generalist, Greenheck Group*

Dina Kilinski, *Career Services & Youth Apprenticeship Manager, Northcentral Technical College Group*

- **Equity**—Northcentral Technical College (NTC) has been working on promoting the youth apprenticeship programs to traditionally underserved students. NTC’s youth apprenticeship program consortium has seen an uptick in students participating in nontraditional occupations, such as females in manufacturing. Additionally, Greenheck has previously positioned its youth apprentices in another facility closer to some of the surrounding school districts to assist with transportation to the work site.

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Integration of related industry credentials**—While Greenheck has been successful in hiring several of its youth apprentices into full-time positions, a portable industry-credential could assist others with additional employment or career advancement. NTC is continuing to evaluate the integration of related industry credentials into the youth apprenticeship program. One way this is being achieved is through the modernization of the youth apprenticeship program and the addition of a new career preparation requirement for youth apprentices that could be fulfilled through acquiring additional industry-recognized certifications. NTC’s youth apprenticeship program consortium works closely with industry partners to identify certifications of value to students.
- **Employer engagement incentive**—Northcentral Technical College believes that an employer incentive, such as for hiring youth apprentices or reimbursing on-the-job training costs, may entice other employers to engage in youth apprenticeships.



Stephanie Bothun
Vice President, Consulting
ASCEND INDIANA

Indiana

Statewide Intermediary

Main Location:

Primarily central Indiana

Youth Apprentices:

+60 youth apprentices

Career Sector:

Advanced manufacturing, business operations, information technology, healthcare and education

An initiative of the Central Indiana Corporate Partnership (CICP), Ascend Indiana is committed to making Indiana a place of economic opportunity for all. Ascend connects job seekers to good and promising career opportunities through an innovative job matching platform, the Ascend Network. Additionally, it catalyzes partnerships and provides consulting services to meet high-demand workforce needs through Ascend Services and conducts research through Ascend Insights to enable systems-level change that positively impacts individuals throughout the state.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **Next Level Jobs Program**—Under the program, Indiana provides training reimbursements for Indiana employers in high-demand fields such as advanced manufacturing, construction, healthcare, IT and logistics.³⁰ The program has been expanded to reimburse employers up to \$1,000 per student for certifications earned through work-based learning programs like youth apprenticeships.³¹
- **Dual Enrollment**—Indiana has very favorable dual enrollment policies that provide funding to postsecondary institutions to cover the cost of offering dual credit. This allows the state to keep the cost per credit very low, at \$25 per credit hour for courses on the priority list and free for students on free and reduced lunch.³²
- **Dual Credit Crosswalk**—The Indiana Commission for Higher Education has continued to champion the expansion of dual credit through documenting crosswalks of credits between high school and college coursework, including a crosswalk of CTE dual credit courses.³³ The crosswalk is used to determine which postsecondary courses are eligible for reimbursement. Ivy Tech, a community college, has been a critical partner in ensuring these crosswalks are generated and updated.
- **Employer barriers to engagement**—The state recently passed legislation that would help the state offset the cost to employers for workers' compensation insurance to cover youth apprentices. This effort could help spur additional employer engagement in youth apprenticeships.



Youth apprenticeships are gaining traction and momentum in Indiana due to tireless efforts from local partners and significant engagement from state leaders and policymakers. Under the Governor's Workforce Cabinet, state agencies, the State Chamber of Commerce and our House and Senate Education leaders, there is a path for the state to become a national leader not only on scaling youth apprenticeship, but also on designing a linked education and employer system."

– Stephanie Bothun, Ascend Indiana

▪ **Recent legislation:**

- **Expected postsecondary competencies**—The Indiana Legislature enacted legislation establishing an Indiana postsecondary prior-learning assessment clearinghouse to identify competencies expected for postsecondary credit. The legislation also enables practitioners to build experiences that will give students the opportunity to learn those competencies and secure credit.³⁵
- **Credit for experiential learning**—The state Legislature also enacted legislation directing the State Board of Education, Commission for Higher Education, Indiana Department of Education and State Educational Institutions to review and approve applications for students to obtain credit from non-school educational experiences.³⁶ This policy could enable youth apprenticeship to get credit for their learning.
- **Career/Youth Apprenticeship Awareness**—Lastly, the Legislature enacted legislation that works to increase students' awareness and understanding of career pathways that lead to high-wage, high-demand jobs aligned with employer needs that are critical to Indiana's economic vitality.³⁷ It requires the Indiana Department of Education to establish a career coaching pilot program for local K-12 school corporations. Career coaching is critical to ensure student have the exposure needed to choose a youth apprenticeship program by their sophomore year.

What are the Key Policy Challenges?

- **Embedding Youth Apprenticeship in Curricular Models**—The Office of Career and Technical Education recognizes the value of youth apprenticeships and has worked closely with Ascend and many others to continue designing strategies to embed youth apprenticeships into programs of study. Embedding this model by developing program guidance could support the growth and scaling of these opportunities.
- **Transportation as an equity barrier**—The lack of transportation for low-income and rural students presents a massive problem in reaching these students and scaling youth apprenticeship opportunities. The state may want to consider investigating options to alleviate these costs for students, employers and education providers.
- **Employer perceptions**—Many employers do not yet see youth apprenticeships as a talent strategy, because immediate hiring needs are top of mind. Ascend Indiana in partnership with EmployIndy, the Indy Chamber, Conexus, TechPoint and the Indiana Chamber of Commerce has worked in coalitions and met with employers one-on-one to demonstrate the value of youth apprenticeships to employers. A state-level, marketing campaign would be helpful here. It could also serve to raise awareness of these opportunities for students and parents, an effort that has been hindered by reduced access to schools under COVID-19.
- **Student and parent perception continues to be a barrier in scaling this work**—Student and parent perceptions of youth apprenticeships remain a challenge for the expansion of youth apprenticeship programs. This challenge is more acute with the state's declining college-going rate, which was exacerbated by the pandemic.

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Earned tax credit for low-income youth apprentices**—The state has enacted an earned tax credit pilot for low-income high school students participating in work-based learning. This employer credit could potentially pay for half of the apprentice's wages. This investment is important and could expand or be repurposed to include offsetting the cost of transportation for low-income students to the job site, which is a significant barrier for these students to participate in youth apprenticeships.



Hollis Salway

Director of Development
CAREERWISE COLORADO



Colorado

Statewide Intermediary

Main Location:

Statewide

Youth Apprentices:

+400 youth apprentices

Career Sector:

Advanced manufacturing, business operations, education, financial services, healthcare, IT and more

CareerWise Colorado is a business-led nonprofit organization that supports youth apprenticeships statewide. Patterned after the Swiss apprenticeship model, CareerWise supports more than 125 employers, 70 schools and 11 postsecondary institutions in building 3-year youth apprenticeship opportunities. They support programs in diverse career sectors, including advanced manufacturing, financial services, health care, IT and more. More than 400 youth apprentices are currently enrolled in Colorado, with additional CareerWise efforts in Indiana and New York. CareerWise Colorado began through significant investments by philanthropy to expand youth apprenticeship opportunities in the state.

What are the Key State Policy Levers that Support Youth Apprenticeships?

- **State communications support**—When CareerWise Colorado began, Governor John Hickenlooper used his platform to advocate for youth apprenticeships. This was critical to get early buy-in from education partners and the business community. A governor is in a unique position to communicate the value of youth apprenticeships to the community.
- **Career Development Incentive Program³⁹**—The state provides financial incentives (\$1,000 per student) to schools for each high school student who earns a qualifying industry credential, completes a training program (such as a pre-apprenticeship in construction) or earns a qualifying score on an Advanced Placement Computer Science exam.

What are the Key Policy Challenges?

- **Youth apprenticeship definitions and guidelines**—Colorado has not defined “youth apprenticeship” at the state level. While that doesn’t affect CareerWise Colorado, it could have an impact on quality as new youth apprenticeship intermediaries and partnerships enter the field. A new State Apprenticeship Agency was created in 2021, but it isn’t officially up and running, as it is still hiring key staff.
- **Recognition of youth apprenticeship competencies and credit**—Systemically there hasn’t been much movement by higher education to recognize the core competencies and credit earned by youth apprentices, particularly for on-the-job experiences. However, progress is being made at the institutional level. CareerWise Colorado cites its partnership with Metropolitan State University (MSU) of Denver, where MSU is recognizing 6 credits for on-the-job training toward a 16-credit

“

It’s not always about state level policies, although that has helped. Sometimes youth apprentice partners just need buy-in at the institutional level to lead innovative changes that make these opportunities a reality.”

– Hollis Salway, Director of Development, CareerWise Colorado

Business Pathway Certificate. The certificate is in turn stackable toward an MSU business degree. This could help youth apprenticeships deliver on the promise of multiple on-ramps/off-ramps for student success in college and career.



- **Concurrent enrollment**—While the state funds several concurrent enrollment programs, CTE concurrent enrollment may not be consistently available to youth apprentices across the state.

Are there Additional Considerations to Examine to Support Youth Apprenticeships?

- **Performance funding**—The state may want to consider providing additional funding for youth apprenticeship success, such as program completion or full-time hiring by employers of an apprentice. A pay-for-success model would reward high-performing youth apprenticeship programs and provide the funds needed to scale these successful opportunities to reach more students.

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The youth apprenticeship program leaders who were interviewed care deeply about their students and workers' futures. They have strategically built strong relationships among state-level apprenticeship coordinators, regional intermediaries, colleges, K-12 schools and employers to offer youth apprenticeship opportunities that help students connect with careers and employers find new employees. ExcelsinEd would like to thank the individuals below for their support in this project. They are true leaders in providing quality, youth apprenticeships to our students, and without their assistance this project would not have been possible.



National

- **Taylor White**, National Director, Partnership to Advance Youth Apprenticeship and Senior Policy Advisor for K-12 Education and the Workforce, New America
- **Lul Tesfai**, Senior Policy Advisor, Center on Education & Labor, New America



North Carolina

- **Crystal Folger Hawkes**, Program Director, Surry Community College
- **Tammy Simmons**, Vice President, Marketing and Culture, Machine Specialties, Inc.
- **Elizabeth Standafer, Ph.D.**, Youth Apprenticeship Coordinator, ApprenticeshipNC



Kentucky

- **Tara Purvis**, President & CEO, BIG I Kentucky
- **Cassie Young**, Workforce Development Director, BIG I Kentucky
- **Amanda Lacer**, CTE Principal, Henderson County Schools
- **Stephen Welch**, CTE Career Coach, Henderson County Schools
- **Mary Taylor**, Industry Training and Development Specialist, Office of Career and Technical Education, Kentucky Department of Education



Wisconsin

- **Andy Hepburn**, Chief Innovation Officer, GPS Education Partners
- **Sarah, Kolodziej**, HR Generalist, Greenheck Group
- **Dina Kilinski**, Career Services & Youth Apprenticeship Manager, Northcentral Technical College
- **Wisconsin Youth Apprenticeship**, Department of Workforce Development



Indiana

- **Stephanie Bothun**, Vice President, Consulting, Ascend Indiana



Colorado

- **Hollis Salway**, Director of Development, CareerWise Colorado

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