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*Embedding Youth
Apprenticeship in High
School Pathways Will Help
Deliver on its Promise*



Executive Summary

In recent years, youth apprenticeship has emerged as one of the fastest-growing strategies for connecting education and work for young adults. States and districts across the country are increasingly recognizing the value of providing high school students with structured, paid, and industry-aligned work experiences that bridge the gap between classroom learning and the skills needed for success in postsecondary education and the workforce. This growth is driven by both economic necessity and educational innovation. Employers are facing unprecedented talent shortages, particularly in technical and middle-skill fields, while students and families are seeking more affordable, direct-to-career pathways that also keep postsecondary education a viable option. Youth apprenticeships—programs that combine high school coursework, related technical instruction, and paid on-the-job experience for high school students—offer a compelling solution.

At the federal level, this movement aligns closely with the U.S. Department of Labor’s Registered Apprenticeship (RA) system, which has long been recognized for its effectiveness in producing highly-skilled workers. Some youth apprenticeship programs are federally registered on their own. More often, though, youth apprenticeships provide students early career exposure, job placement, advanced standing in full apprenticeships, and/or enrollment in postsecondary education after graduation. This reflects a growing commitment to preparing students for both postsecondary education and workforce opportunities. When intentionally situated within high school pathways, youth apprenticeships create a seamless, contextualized continuum from high school to postsecondary credentials, transferable college credit, and employment, helping employers build pipelines and students build futures.

However, in many districts and states, there remains a disconnect between youth apprenticeships and high school pathways. Too often, youth apprenticeship opportunities operate outside of pathway offerings and even the formal Career and Technical Education (CTE) structure, leading to missed opportunities for meaningful alignment to support students’ career aspirations. This separation means students may experience duplication of learning, lack of credit articulation, or uncertainty about how their work-based learning connects to the skills and credentials defined within their program. In addition, there is [no nationally agreed-upon definition](#) of youth apprenticeship, and states vary widely in their standards and measures of quality. The [Partnership to Advance Youth Apprenticeship](#) (PAYA) identifies four core elements of quality youth apprenticeship—paid on-the-job learning, related classroom instruction, ongoing assessment, and earning postsecondary credits and portable credentials—but these are not universally adopted or integrated with student experiences, which can create considerable variation in experiences across states, districts, schools, and classrooms.

To successfully prepare learners for high-value workforce opportunities and postsecondary education and training, youth apprenticeships should be intentionally woven into high school pathways and positioned wherever they create the most powerful learning opportunity for students.

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Youth apprenticeships function as a versatile component of a career pathway, whether they serve as an early entry point to spark occupational interest, run parallel to coursework to reinforce concepts, or act as an advanced capstone that synthesizes prior learning. By placing students in authentic workplace settings, these programs empower them to apply and deepen technical competencies and durable skills that significantly accelerate both their industry expertise and postsecondary readiness. Incorporating youth apprenticeship within pathways in these ways helps classroom learning and on-the-job training reinforce one another, allowing students to graduate with a diploma, a meaningful step toward a postsecondary credential or Registered Apprenticeship, and readiness for postsecondary education and training.

Achieving this vision to intentionally incorporate youth apprenticeship into pathways requires prioritizing and executing, at minimum, four primary strategies:

- **Establishing strong, cross-sector partnerships and governance structures** to enable joint decision-making between K-12, postsecondary, and industry leaders to align on intended outcomes, co-design curriculum, share accountability for student impact, and ensure what's taught in classrooms directly mirrors what employers seek and apprentices need to be successful in an occupational field. Governance and funding responsibilities must not be fragmented across agencies, creating silos that further hinder this collaboration and comprehensive program design;
- **Designing programs with multiple entry and exit points** that let students accelerate, pause, or pivot within their pathway without penalty so they can stack credentials and experiences toward both immediate employment and future credentials and degrees, actively dismantling tracking by making every pathway lead to a range of high-value opportunities, ultimately leading to high-value employment and/or continued education and training;
- **Establishing statewide policies and accountability measures** that remove interagency siloes and incentivize districts and providers to meaningfully embed youth apprenticeship into high school pathways; and
- **Investing in high-use resources** such as technical design assistance, standardized toolkits, and targeted professional development to build the readiness of districts and schools to support quality implementation that can be scaled.

[Education Strategy Group](#) (ESG) and PAYA believe in the combined power of pathways and youth apprenticeship. The local and regional programs highlighted in this report within South Carolina, California, and Washington, as well as statewide examples in Wisconsin, South Dakota, and Kentucky, serve as shining examples of strong integration work underway from which others can learn. However, more must be done across the field, from state policy to local implementation, to make these priorities and practices widespread to ensure that students graduate high school even further ahead by making youth apprenticeships feel less isolated and more intentionally integrated into their broader education-to-workforce journey.

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Introduction

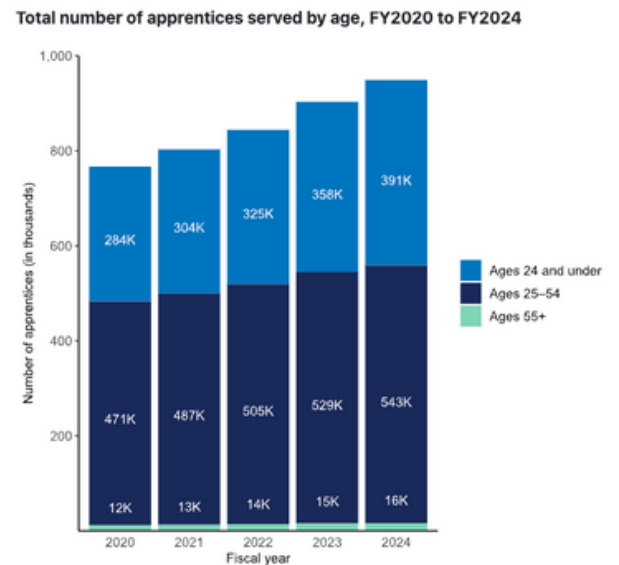
The expansion of registered apprenticeship programs in the United States has been a significant focus in recent years, driven by the need to address workforce shortages, provide alternative pathways to careers, and enhance skills-based training. There are notable increases in both the number of youth participating in these apprenticeships and the diversity of industries involved, including the expansion to sectors like education and finance.

Since 2020, the number of learners below the age of 24 (“youth”) participating in a registered apprenticeship program has increased by over 37%, reaching a total of nearly 400,000 apprentices. Additionally, while the construction sector saw the largest increase in the number of these youth apprentices, other ‘non-traditional’ industries for apprenticeships, such as teaching and healthcare, saw increases as well. Such increases are likely to continue growing following the U.S. Department of Labor’s recent [\\$84 million investment](#) in grants to expand registered apprenticeships.

Despite the significant growth of people younger than 24 entering and completing registered apprenticeship programs, it is important to remember that these “RAPs” have traditionally been designed for individuals after completing high school or outside of the high school experience. [Youth Apprenticeships](#), on the other hand,

are specifically designed for high school learners and typically function as a partnership between schools, postsecondary institutions, and employers (and often intermediary partners) to not only develop students’ readiness for full-time employment in high-wage, high-demand jobs but also support planning and preparation for their broader educational and career goals. Because of the notable differences in the goals and methods of these two programs, youth apprenticeship providers cannot simply replicate RAPs; they must make intentional modifications to effectively implement youth apprenticeships in high schools.

Moreover, adults who complete a RAP earn an average starting salary of \$80,000 and, on average, \$300,000 more over their lifetime when compared with peers who do not complete such a program. Additionally, roughly 90% of registered apprentices retain employment following completion of their program. If youth apprenticeship providers are able to replicate the benefits of RAPs and combine them with the unique needs of high school students, youth apprenticeship programming has the potential to be a highly successful vehicle for driving economic mobility among young people. **One of the most effective ways of reaching this ambitious goal is to situate youth apprenticeship contextually within students’ high school pathways.** By doing so, youth apprenticeships become as available and easily accessible for students across the country as enrolling in a pathway course sequence offered by their high school.



Note: The “total served” population includes both active apprentices and apprentices who exited a program in a given fiscal year. Fiscal years begin in October and end in September.
Source: analysis of data from the Registered Apprenticeship Partners Information Database System (RAPIDS, FY2020–FY2024)

Chart sourced from: [US Department of Labor Employment and Training Administration \(Nov. 2024\)](#)

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As the field has begun to thoughtfully address the design of youth apprenticeship, national initiatives like New America's [Partnership to Advance Youth Apprenticeship](#) (PAYA) have helped to clarify what high-quality programs should accomplish. These programs have driven much of the growth seen in the field over the past 5–7 years by designing youth apprenticeship programs in high school that create structured, paid “earn-and-learn” opportunities that intentionally integrate academic instruction, real work experience, and postsecondary preparation. PAYA-supported programs aim to give students a head start on college and career by allowing them to earn wages, build professional skills, earn early postsecondary credit with little or no cost, and attain industry-recognized credentials before graduating high school. PAYA also emphasizes that high-quality youth apprenticeship serves both learners and employers; students gain clear, supported pathways into family-sustaining careers and opportunities for continued education and training, while employers develop a more diverse, homegrown talent pipeline in sectors such as IT, healthcare, manufacturing, finance, and education.

Since PAYA's launch in 2018, youth apprenticeship has shifted from isolated pilots to a rapidly expanding national movement. Its network has grown to dozens of state and regional partners, providing grants, technical assistance, and a shared quality framework that has accelerated replication and scale. Today, 30 states and the District of Columbia have established definitions for youth apprenticeship. PAYA-supported programs have seen substantial increases in the number of participating employers and students, as well as strong outcomes, such as higher representation of Black and female apprentices compared to the broader Registered Apprenticeship system, and completion rates among youth that exceed national averages. This period has also seen growing state policy attention, increased federal investment, and broader public recognition that youth apprenticeship can serve as a strategy for connecting high school students to postsecondary education and high-value workforce opportunities.

PAYA identifies four core elements of a high-quality youth apprenticeship: paid on-the-job learning, related classroom instruction, ongoing assessment, and a portable credential. While these elements have impactfully influenced the design of youth apprenticeship programs during this period of rapid growth and expansion, they are not yet universally adopted across all states. Even when designed with these criteria in mind, youth apprenticeships are often offered as standalone experiences, separate and distinct from a student's chosen high school pathway. *As a result, youth apprenticeship often operates as a disconnected program, which can inadvertently reinforce outdated perceptions that position career preparation and college readiness as separate paths rather than the integrated, complementary approaches the field is working to advance.*

Youth apprenticeship, intentionally and strategically embedded within pathways, provides a compelling solution to the challenge of system bifurcation. These programs deliver a high-impact combination of robust advising, early college credit, and industry-recognized credentials within a student's chosen occupational field. By anchoring these elements in authentic workplace experiences, the model creates a seamless bridge between secondary education, postsecondary training, and the workforce. Ultimately, this alignment provides students and families with a debt-free pathway that secures both academic success and long-term career outcomes.

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More specifically, a truly integrated approach to youth apprenticeship offers a range of benefits, including:

1. **Creating stronger alignment between classroom and career:** When youth apprenticeships are connected to a high school pathway, academic learning becomes more relevant and engaging. Students can apply concepts, like those from math or technology courses, directly to real-world tasks, reinforcing instruction while increasing motivation through clear connections between school and work.
2. **Expanding career exposure and exploration:** Integrating youth apprenticeships into pathways allows students to explore career interests in real-world settings, helping them make informed decisions about their future. These experiences support students in identifying potential postsecondary pathways — whether college, technical training, or direct entry into the workforce — without locking them into a single trajectory.
3. **Accelerating postsecondary and workforce readiness:** When youth apprenticeships are embedded within high school pathways, students can earn high school credit, tuition-free college credit, hours toward a RAP, and even industry-recognized credentials, all before high school graduation. This comprehensive approach positions students ahead, ready to enter postsecondary education and the workforce with real experience and valuable credentials.
4. **Increasing opportunity and access:** Embedding youth apprenticeships within high school pathways, rather than offering them as separate, add-on experiences, can reduce barriers like tuition costs, after-school scheduling conflicts, and transportation challenges. When thoughtfully designed, these programs can be part of larger high school redesign efforts that allow students to earn academic credit and complete on-the-job training during the school day, expanding access to those who might otherwise be excluded.

But achieving this goal of integrating youth apprenticeship within pathways is not easy for a number of reasons. First and foremost, pathways and youth apprenticeships have mostly been developed as separate efforts. Many districts have spent years building pathways and CTE programs of study that feel complete, so adding youth apprenticeship may feel like a disruption rather than an enhancement, especially when staffing and curriculum are already locked in. Second, schools lack the incentive to change their model and may need both a compelling reason and relevant resources and training to make adjustments. Those resources and training opportunities have to focus on helping schools that have strong pathways understand how to recruit employers, negotiate training agreements, supervise workplace learning, and ensure youth apprenticeships meet quality expectations. Finally, practitioners with strong pathways in place seek assurance that youth apprenticeships will not become the default for students deemed "not college-ready," replicating old vocational education mistakes. They want to prioritize programs that expand, not limit, students' futures.

Each of these barriers can be overcome, especially by learning from several shining examples of strong pathway-youth apprenticeship integration work already underway across the country.

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This report elevates several programs that are making progress in preparing youth to enter the workforce while also highlighting ways the field can continue to push to make even our strongest programs stronger.

Each of the programs highlighted offer a blend of [PAYA's principles](#), with the most common being paid on-the-job training, related technical instruction (RTI), and the opportunity to earn credit toward high school graduation, a postsecondary degree, and industry credential (or a combination of the three). Programs tend to start in 11th or 12th grade and last for one to two years, providing students the opportunity to gain anywhere from 450 to 2,000 hours of on-the-job training experience, depending on the program. The programs also span the continuum of governance structures from federally-registered programs, to state-sponsored programs across multiple career clusters, to regionally-run opportunities managed by technical college networks, to privately sponsored programs tied to a specific industry or employer.. There are benefits to each approach, from expanding students' access and reach to intensive, specialized training, both with potential to have a positive impact on students.

The **Partnership to Advance Youth Apprenticeship (PAYA)**, a multi-year initiative from New America that supports states and cities looking to expand access to high-quality apprenticeship experiences for high school-aged youth. As part of the initiative's work, PAYA has developed five [Defining Principles for High-Quality Youth Apprenticeship](#), a key step in the space given the lack of nationally agreed upon definition to date:

- **Career-oriented:** Learning is structured around knowledge, skills, and competencies that lead to careers with family-supporting wages
- **Equitable:** learning is accessible to every student, with targeted supports for those adversely impacted by long-standing inequities in our education system and labor market
- **Portable:** Learning leads to postsecondary credentials and transferable college credit that expands options for students
- **Adaptable:** Learning is designed collaboratively to be recognized and valued across an industry or sector
- **Accountable:** Student, employer, and program outcomes are monitored using transparent metrics to support improvement

For more information about PAYA, please visit their [website](#).

Building Toward Integration: Youth Apprenticeship Examples from Across the Country

The programs described throughout this section reflect promising efforts to move beyond disconnected, add-on youth apprenticeship experiences and toward more integrated models that align with students' educational and career pathways and culminate in meaningful credit and/or credential attainment. Collectively, at minimum, four priority strategies have helped them make this progress:

- **Establishing strong, cross-sector partnerships and governance structures** to enable joint decision-making between K-12, postsecondary, and industry leaders to align on intended outcomes, co-design curriculum, share accountability for student impact, and ensure what's taught in classrooms directly mirrors what employers seek and apprentices need to be successful in an occupational field. Governance and funding responsibilities must not be fragmented across agencies, creating silos that further hinder this collaboration and comprehensive program design;
- **Designing programs with multiple entry and exit points** that let students accelerate, pause, or pivot within their pathway without penalty so they can stack credentials and experiences toward both immediate employment and future credentials and degrees, actively dismantling tracking by making every pathway lead to a range of high-value opportunities, ultimately leading to high-value employment and/or continued education and training;
- **Establishing statewide policies, incentives, and accountability measures** that remove interagency siloes and incentivize districts and providers to meaningfully embed youth apprenticeship into high school pathways; and
- **Investing in high-use resources** such as technical design assistance, standardized toolkits, and targeted professional development to build the readiness of districts and schools to support quality implementation that can be scaled.

Building Toward Integration: Youth Apprenticeship Examples from Across the Country

Tech Ready Apprentices for Careers in Kentucky (TRACK)

Launched in 2013 as a pilot with just three employers and seven apprentices, Tech Ready Apprentices for Careers in Kentucky ([TRACK](#)) has grown into one of the most robust state-run youth apprenticeship programs in the country. As of 2025, more than 1,500 youth apprentices have either completed or are currently enrolled in the program, supported by over 200 employer partners. TRACK is the product of a strong partnership between the [Kentucky Department of Education's Office of Career and Technical Education](#) and the [Kentucky Career Center's Office of Industry and Apprenticeship Services](#), Kentucky's federally registered State Apprenticeship Agency (SAA).

TRACK is intentionally situated within students' high school career pathways. The full TRACK pathway consists of a minimum of three CTE courses, but often four, two of which are taken prior to placement, with remaining courses completed concurrently. To be eligible for apprenticeship placement, students must complete the first two CTE courses within that sequence. This requirement serves two critical purposes: (1) it ensures students have foundational exposure to the industry before committing to an apprenticeship, and (2) it equips them with the necessary knowledge to begin on-the-job training with confidence and competence, putting them ahead of individuals whose first engagement with the content occurs during the traditional concurrent related technical instruction (RTI).

All courses within a TRACK sequence are tailored in collaboration with employer partners. These courses not only prepare students for the workplace, but also count as credit for prior learning toward RTI in an adult registered apprenticeship program. Students can earn up to 2,500 hours of on-the-job experience, which can be applied toward a full apprenticeship program after high school.

At the end of the TRACK experience, employers assess whether students have successfully met program expectations and are eligible to transition into a full-time apprenticeship. Kentucky's longitudinal data system, [KYSTATS](#), enables the commonwealth to track student outcomes with precision, and the results are impressive. Roughly 80% of TRACK participants transition into full, adult registered apprenticeship programs after high school graduation. For students, the program is virtually cost-free, and the return on investment is substantial. Among the class of 2017, TRACK graduates who earned an industry certificate and enrolled in a registered apprenticeship program have a 100% employment rate seven years post-graduation with a median wage of \$74,748, nearly \$30,000 higher than the state's median wage for all occupations.*

TRACK's success has inspired innovation in non-traditional sectors. Kentucky is now piloting youth apprenticeships in education, aiming to strengthen the teacher pipeline. This six-year program begins in 9th grade and allows students to earn postsecondary credit toward an associate

*Data source: Occupational Employment and Wage Statistics (OEWS), Kentucky Center for Statistics (KYSTATS); Presentation by the Office of Career and Technical Education at the Southern Regional Education Board Conference, July 2025

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degree while still in high school. Upon graduation, students are positioned to earn their teaching credential two years earlier than through traditional pathways. Districts are partnering with local institutions of higher education to provide credit, and upcoming legislation is under consideration to make the program cost-free for students. To further their reach in all apprenticeship programs, Kentucky is also exploring ways to expand access to rural districts through virtual instruction and training.

Kentucky has also leveraged funding and accountability mechanisms to drive the prioritization of its youth apprenticeship strategy and ensure that students are incentivized to participate. TRACK participation is now eligible for Kentucky's Educational Excellence Scholarship ([KEES](#)), Kentucky's commonwealth-funded lottery scholarship that provides funding to cover postsecondary education and training, which was previously limited to students enrolled in traditional or technical colleges. In addition, youth apprenticeship outcomes are now included in district accountability measures required by the state's system, and industry-recognized credentials earned through TRACK can count toward career readiness indicators. Under Kentucky's new CTE performance incentive funding model, a TRACK youth apprentice could potentially meet all [four postsecondary readiness indicators](#). These efforts incentivize TRACK participation at multiple levels, from students to school staff to district leadership, and is made even stronger by the intentional integration of the program into a student's pathway.

While TRACK is not without its challenges, including limited flexibility to transfer between apprenticeship areas and the need to expand access in rural regions, it remains a compelling example of a youth apprenticeship program that thoughtfully connects high school pathways to structured, paid, and credentialed work-based learning. Its eligibility requirements help ensure that students are both interested and prepared, and its strong outcomes reflect the value of intentional, student-centered design.

Tech Ready Apprenticeships For Careers in Kentucky (TRACK)

Strategies that have Driven Effective Integration

- TRACK represents an example of inter-state-agency partnerships between Kentucky's Department of K12 education and Career Center Office of Industry and Apprenticeship Service, emphasizing the importance of breaking down siloes within state government allowing for joint management of workforce preparation efforts.
- The intentional embedding of TRACK within CTE programs of study reinforces the connection between classroom and career, allowing students to earn valuable work experience and postsecondary credit while expanding access to apprenticeship programming.
- The expansion of Kentucky's lottery-funded scholarship to include TRACK participation offset costs associated with student participation in youth apprenticeship, increasing the likelihood of participation and completion.
- Kentucky's inclusion of TRACK student outcomes in district and state accountability frameworks as a measure of Postsecondary Readiness provides incentive and motivation for change across the Commonwealth.

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Local Apprenticeship Uniting a Network of Colleges and High Schools (LAUNCH) Apprenticeship Network, Southern California

California faces one of the nation's largest income disparity gaps, making equitable access to high-quality career pathways a pressing priority. Apprenticeship is increasingly recognized as a powerful strategy to address this challenge, offering structured, paid, and industry-aligned opportunities for both youth and adult learners. The [Local Apprenticeship Uniting a Network of Colleges and High Schools](#) (LAUNCH) Apprenticeship Network, established in 2018 by the Inland Empire Desert Region College Consortium, is at the forefront of this work, serving as a regional intermediary that bridges K12, community colleges, and workforce sectors. Note that while LAUNCH now includes youth apprenticeship programming, it wasn't originally designed exclusively for youth.

LAUNCH's primary goal is to create a single, streamlined user experience for businesses and learners, making apprenticeship accessible and scalable, and its role as an intermediary is central to that impact. By serving as a registered regional apprenticeship sponsor through the [California Division of Apprenticeship Standards](#) (DAS), LAUNCH streamlines the process for businesses, educators, and learners. This centralized hub reduces administrative burdens, accelerates program development, and ensures that new and existing apprenticeship programs can be initiated quickly and reliably. LAUNCH's ability to convene stakeholders, K12 districts, community colleges, workforce boards, and employers creates a collaborative environment where programs are designed to meet both regional workforce needs and student aspirations.

This intermediary function is not just operationally efficient; it is strategically essential. In a landscape where siloed efforts often lead to fragmented experiences for students, LAUNCH's intermediary role positions it uniquely to bring all necessary stakeholders to the table, ensuring that youth apprenticeship is not just an add-on experience but a fully integrated, essential component of a student's larger educational journey. This is critical: when apprenticeship is intentionally embedded within high school pathways, students benefit from robust advising, early college credit, and employer engagement, rather than experiencing apprenticeship as a disconnected or external program. Such integration is essential for equity, as it ensures that all students, not just those with access to specialized programs, can participate in high-quality experiences.

Within LAUNCH, supervised on-the-job training is provided by participating businesses, while RTI aligned with each student's pathway is delivered by LAUNCH partner community colleges and/or CTE courses offered by partner high school districts. On-the-job apprenticeship hours are tracked and certified by DAS, with both RTI courses and work hours accumulating credit toward a registered apprenticeship credential.

LAUNCH's expansion into high school is timely and necessary. By leveraging its proven intermediary model, LAUNCH can help set a new standard for youth apprenticeship, one that blends rigorous academic preparation with industry-relevant experience and positions students for success in both college and career.

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Local Apprenticeship Uniting a Network of Colleges and High Schools (LAUNCH) Apprenticeship Network

Strategies that have Driven Effective Integration

- LAUNCH's role as a dedicated regional intermediary facilitates the cultivation of cross-institutional partnerships, ensuring that K-12 districts, community colleges, and industry leaders remain strictly aligned in both vision and strategy.
- The delivery of Related Technical Instruction (RTI) through integrated high school CTE and dual enrollment pathways anchors classroom learning to industry-vetted standards, allowing students to earn postsecondary credit that directly mirrors employer requirements.
- The provision of strategic training planning and talent pipeline support by the LAUNCH program team incentivizes employer participation, lowering the barrier to entry for businesses looking to create or expand regional apprenticeship opportunities.

Charleston Regional Youth Apprenticeship

The [Charleston Regional Youth Apprenticeship](#) (CRYA) Program, coordinated by Trident Technical College (TTC) as an intermediary, is a strong example of how regional collaboration can drive meaningful youth apprenticeship opportunities integrated with quality pathways. Launched in 2014 with just six employers and 13 apprentices in industrial mechanics, the program was born out of necessity: when Boeing arrived in Charleston, several aeronautical-adjacent industries began losing workers to the aerospace giant. A group of employers, including Bosch, a long-time TTC partner, came together with TTC to design a shared apprenticeship model that would benefit the entire sector rather than compete for talent.

Today, the program has grown to include 225 active youth apprentices in the 2024-25 school year, 180 employer partners, and 21 career pathways (though not all are active each year). The program requires a two-year commitment, and entry is based on proof of college readiness (determined through qualifying ACCUPLACER test scores, ACT, SAT, etc.) and review of high school transcripts, GPA, and final scores in English and/or math courses. Upon successful completion of the program, students will have earned their high school diploma, approximately 30 college credits through dual enrollment with TTC, and two years of paid employment with a relevant industry partner. This structure exemplifies how a well-designed youth apprenticeship can accelerate students' progress toward postsecondary credentials while still in high school, significantly reducing financial barriers and positioning them for success in college, career, or continued apprenticeship.

The CRYA program is designed to integrate youth apprenticeship into a student's broader educational journey, creating a bridge between secondary, postsecondary, and workforce systems. While the level of direct curriculum alignment varies by sector, the model's strength is best demonstrated in the [Engineering and Engineering Technician](#) pathways, where opportunities are built in intentional coordination with Project Lead The Way (PLTW). In these instances, high school

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coursework isn't just a prerequisite; it is a thoughtfully sequenced foundation that articulates directly into the youth apprenticeship's technical instruction.

In other pathways, the program relies on the active involvement of the K-12 ecosystem to prevent apprenticeships from becoming isolated "stand-alone" experiences. High school CTE teachers and career advisors have the opportunity to serve as the primary conduits for the program, leveraging their relationships with students to identify those whose classroom performance signals readiness for a professional "earn-and-learn" environment. Furthermore, district leaders play a vital role by negotiating the dual enrollment and articulation agreements with Trident Technical College that make these transitions possible. By establishing these district-level connections, leadership ensures that students can enter their youth apprenticeships supported by a framework that recognizes their foundational technical knowledge and facilitates a smoother progression into the workforce.

Charleston's model demonstrates the value of cross-institutional partnerships, bringing together K12, postsecondary, and industry stakeholders to create a scalable, impactful youth apprenticeship system. Continued investment in pathway alignment will be key to sustaining and growing this success.

Charleston Regional Youth Apprenticeship (CRYA)

Strategies that have Driven Effective Integration

- The cultivation of cross-institutional partnerships between K-12 districts, TTC, and industry leaders facilitates a unified talent pipeline, ensuring students are simultaneously prepared for high-wage employment and continued educational advancement.
- The intentional integration of dual enrollment and early college credit within CRYA's programming allows students to earn up to 30 postsecondary credits alongside aligned on-the-job hours, positioning them for significantly accelerated career and academic progression compared to their peers.

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Youth Apprenticeship Wisconsin

Launched in 1991, the [Youth Apprenticeship \(YA\) Wisconsin](#) program stands as the [oldest and largest](#) ongoing youth apprenticeship initiative in the United States. Established through bipartisan leadership, the program is administered by the Wisconsin Department of Workforce Development (DWD) and delivered locally via a network of regional consortia—partnerships among school districts, employers, and workforce boards. This structure balances statewide consistency with local responsiveness, ensuring broad access and adaptability.

The program's longevity is reflected in its sustained growth and impact. In the 2024–2025 school year, YA Wisconsin reached [a record high](#) of 11,344 apprentices and approximately 7,500 participating employers, with more than 75% of public school districts enrolling students participating in YA. YA [offers training](#) across more than 80 occupational pathways within 13 career clusters, including health science, manufacturing, architecture and construction, and education and training.

YA is [intentionally designed](#) to blend rigorous academic and technical classroom instruction with mentored, paid on-the-job learning. Students typically work 10–15 hours per week, balancing employment with their high school schedule and related technical instruction. The program offers two levels:

- Level One (One-Year): Minimum 450 hours of on-the-job learning
- Level Two (Two-Year): Minimum 900 hours of on-the-job learning

Students earn high school credit for related technical instruction each year they participate. Alternatively, they may opt for dual enrollment, earning three college credits per year through related instruction. Graduates can receive Advanced Standing or Transcribed Credit at Wisconsin Technical Colleges, and in some cases, at four-year institutions. Transcribed Credit allows students to bypass equivalent college courses, accelerating postsecondary attainment.

YA Wisconsin offers a premier example of how comprehensive state-level infrastructure and support can sustain and scale a program over decades. Due to the centralized management of the program at the state level through DWD, the program's success is rooted in its ability to provide a high level of statewide consistency through a sophisticated [suite of standardized resources](#). This centralized support system has allowed the program to achieve such a wide-reaching impact. A key element of this infrastructure is the [library](#) of occupational Skills Checklists developed by the DWD. These checklists translate complex industry competencies into clear, manageable tasks that students must master on the jobsite. By making these standards publicly available, the state ensures that an apprentice in a rural manufacturing plant is being trained to the same rigorous industry expectations as one in a major urban center.

This technical clarity is matched by the [Youth Apprenticeship Operations Manual](#), a comprehensive guide that serves as the 'source of truth' for regional coordinators. By detailing everything from specific student eligibility and program registration to child labor law guidance and financial

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management, the manual effectively removes the administrative ‘guess work’ for local providers, allowing them to focus on high-value student and employer recruitment.

To effectively remove interagency silos and create a unified vision of success, Wisconsin leverages the Youth Online Data Application (YODA) [Student Participation Dashboard](#) as a central tool for systemic integration and statewide accountability. This interactive platform provides real-time visibility into enrollment and career cluster trends, acting as a critical bridge between the Department of Workforce Development and local school districts. Crucially, the dashboard incentivizes functional pathway alignment by enabling leaders to identify gaps between CTE enrollment and apprenticeship participation, ensuring that secondary coursework transitions seamlessly into applied work-based learning. Furthermore, this transparency facilitates the strategic allocation of resources and funding toward high-growth sectors, fostering a culture of performance benchmarking that transforms youth apprenticeship from an isolated pilot into a core, scalable component of the high school experience.

This visibility encourages school leadership to prioritize apprenticeship enrollment not just as an elective option, but as a key metric for graduation and career readiness. Furthermore, the dashboard ensures that policy interventions are data-driven; by identifying specific gaps in access or equity, state policymakers can target funding and support more effectively. Ultimately, YODA transforms apprenticeship data from a back-end reporting requirement into a high-stakes, public-facing indicator of a district’s commitment to preparing students for the modern workforce.

Wisconsin’s Youth Apprenticeship program offers a robust, evidence-based model for statewide youth apprenticeship, demonstrating the power of standardization, rigorous skill standards, and strong employer engagement. As the field continues to evolve, Wisconsin has the opportunity to build on its legacy by deepening integration with high school pathways, ensuring that youth apprenticeship is not just an entry point but a deep application of a student’s learning as part of their career-connected journey.

Youth Apprenticeship Wisconsin

Strategies that have Driven Effective Integration

- The strategic development and dissemination of a centralized, comprehensive suite of high-quality resources provides the foundational infrastructure for consistent statewide implementation, ensuring all students encounter uniform levels of rigor regardless of industry or geography. By standardizing administrative requirements and training plans, this centralized model reduces institutional friction and establishes the necessary groundwork to seamlessly integrate youth apprenticeship into regional CTE pathways.
- The implementation of the Youth Online Data Application (YODA) dashboard facilitates interagency transparency and systemic accountability, enabling districts to conduct real-time gap analyses between CTE enrollment and apprenticeship participation to ensure functional pathway alignment. Furthermore, this public-facing data drives the strategic allocation of resources and benchmarks performance, incentivizing providers to transition from isolated pilot programs to the meaningful, statewide integration of youth apprenticeship.

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Embedding Youth Apprenticeship in High School Pathways Will Help Deliver on its Promise

Career Ready South Dakota Capstone: Youth Apprenticeship Program

South Dakota's [Career Ready SD](#) initiative offers a comprehensive framework for capstone experiences that connect students' academic learning with real-world application. A partnership between the South Dakota Department of Education (SD-DOE) and the Department of Labor and Regulation, Career Ready SD is designed to bring high-quality work-based learning to students across the state through [five distinct capstone options](#), including Youth Apprenticeship.

The [Youth Apprenticeship Capstone](#) (YAC) stands out for its intentional design as a culminating experience. Students enrolled in the YAC course earn high school credit, may earn college credit depending on the program sponsor, and can transfer completed on-the-job hours toward an adult registered apprenticeship program after graduation. All YAC placements must be with approved RAP sponsors and allow students to gain experience through both classroom instruction and on-the-job training at a career site.

What makes South Dakota's model noteworthy is its [sequencing of coursework](#). The SD-DOE recommends that students complete a foundational pathway course, followed by a pathway-specific course, before engaging in the Youth Apprentice Capstone program. This structure ensures that students are prepared and informed before entering a work-based learning environment. This front-loaded approach contrasts with many other programs that rely on concurrent related technical instruction during the apprenticeship itself. This thoughtful approach positions youth apprenticeship as the final step in a student's high school career pathway, consolidating and applying prior learning in a meaningful, real-world context.

Career Ready SD also provides comprehensive resources to demystify the apprenticeship process for local districts. Rather than leaving schools to navigate federal requirements in isolation, the SD-DOE has developed a robust [Work-Based Learning \(WBL\) Resource Index](#) that streamlines the entire lifecycle of a program. Central to this effort are standardized [Youth Apprenticeship Frameworks](#) and [Standards](#). These documents provide the actual course descriptions and academic standards required to build a credit-bearing capstone, ensuring that the experience is recognized as a legitimate academic achievement rather than just an "after-school job." The state also provides [differentiated "Playbooks"](#)—one for educators and one for students—that serve as instructional guides to bridge the gap between classroom theory and on-the-job application. These resources, coupled with strategic guides on how to leverage local networks, allow even the smallest rural districts to build sustainable industry partnerships with confidence.

South Dakota's model demonstrates the primary benefits of integrated youth apprenticeships through a focus on readiness and student agency. By recommending that students complete at least two pathway-related courses before beginning their Youth Apprenticeship Capstone, the state ensures that work-based learning accelerates both postsecondary and workforce preparation. Furthermore, the requirement that all capstone experiences remain student-driven fosters deeper career exploration, allowing the program to reflect each apprentice's specific interests and goals.

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Career Ready South Dakota Capstone: Youth Apprenticeship Program

Strategies that have Driven Effective Integration

- The strategic integration of prerequisite pathway coursework into the Youth Apprenticeship Capstone (YAC) ensures that academic instruction and work-based learning are mutually reinforcing, solidifying a student's technical foundation before they enter the job site.
- The positioning of Youth Apprenticeship as a culminating capstone experience leverages the critical link between high school study and professional practice, equipping students with the specialized experience necessary for success in both postsecondary education and the modern workforce.
- The development and dissemination of a comprehensive suite of high-quality implementation resources builds statewide capacity for the YAC model, streamlining administrative and instructional requirements for districts to ensure high-fidelity program delivery.

AJAC: Advanced Manufacturing Apprenticeship

Washington's [AJAC](#) offers a highly structured youth apprenticeship model in advanced manufacturing in partnership with more than 70 employers across the state. Designed for high school juniors and seniors, AJAC's two youth apprenticeship programs - [Production Technicians](#) and [Automation Technicians](#) - are each 2,000-hour, fully-registered, programs that combine paid on-the-job training with college-level instruction.

AJAC has been able to achieve such reach across the state by acting as an intermediary and registered apprenticeship sponsor, specifically designed to bridge the gap between Washington's K-12 school systems and partnering community colleges and the talent needs of the advanced manufacturing industry. Rather than working in isolation, AJAC partners with regional skills centers and career and technical education hubs to deliver college-level classroom instruction, allowing school districts to leverage existing infrastructure while providing students with access to specialized, industry-validated equipment and curricula.

Students earn high school credit, 15 tuition-free college credits, and a nationally recognized journey-level certification, [positioning them well](#) to continue into an adult registered apprenticeship program, pursue a two-year or four-year postsecondary degree, and/or grow directly within the industry. Classes are held one to two days per week at partnering high schools or skills centers, and students work 10-20 hours per week during the school year, with full-time options available during breaks and summer. To participate in the program, students must meet minimum qualifications, including a 2.0 GPA, Algebra I completion, and teacher recommendation.

AJAC's model is strong in structure, outcomes, and postsecondary and industry alignment and operates as a launch pad, offering students a valuable headstart into postsecondary education and career.

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AJAC: Advanced Manufacturing Apprenticeship

Strategies that have Driven Effective Integration

- The centralized coordination of cross-sector partnerships by AJAC facilitates the expansion of youth apprenticeship across a diverse geography, allowing for increased student participation while maintaining rigorous administrative and curricular oversight to ensure high-quality instructional delivery and training.

By focusing on the four foundational strategies outlined above —strong, cross-sector partnerships and structures, flexibility, statewide policy and accountability measures, and high-quality resources—states and regions can build a youth apprenticeship system that is truly "connected by design." When these elements are in place, youth apprenticeship ceases to be a standalone program and instead becomes a powerful, integrated option that empowers students to reach their full potential in both education and the workforce.

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Conclusion

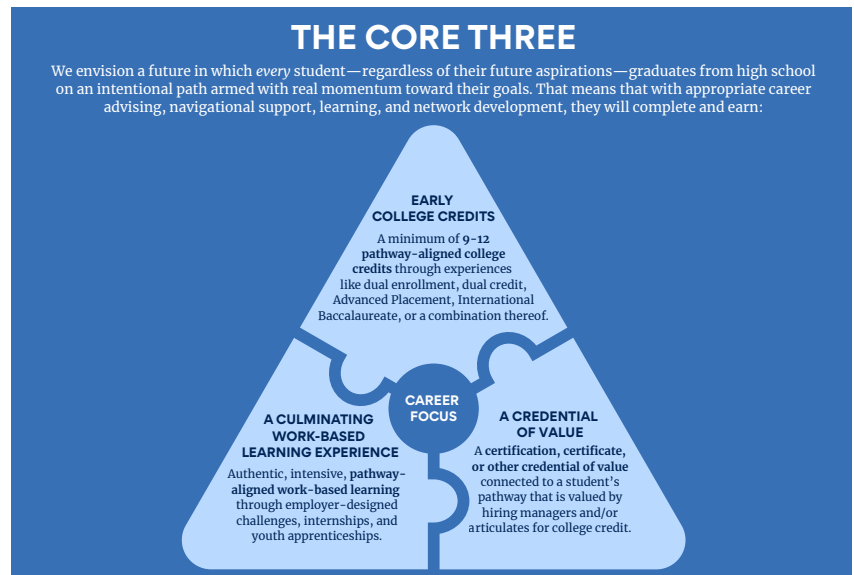
Despite significant progress and innovation across states, regions, and localities to advance the adoption and implementation of high-quality youth apprenticeship programming, these programs continue to remain disconnected from students' high school pathways. The question remains: why does this integration remain so elusive?

A key barrier appears to be the current governance and funding structures. Most youth apprenticeship programs highlighted in this report are the result of joint efforts between departments of education and departments of labor or workforce. However, these agencies also often operate in silos, with separate funding streams and distinct priorities. As a result, the responsibility for program design, implementation, leadership, and sustainability is fragmented. Career and technical education programs are often funded and governed by state and federal K-12 education agencies, while youth apprenticeship is often the purview of labor departments. This separation not only complicates coordination, it creates structural barriers that prevent programs from delivering the full benefits of integration.

When youth apprenticeship is disconnected from a student's academic pathway, it becomes difficult to achieve stronger alignment between classroom and career, expand meaningful career exploration, accelerate postsecondary and workforce readiness, increase opportunity and access, or develop a reliable talent pipeline. These are not just aspirational goals, they are tangible outcomes that require intentional design, shared ownership, and cross-agency collaboration.

This fragmentation is not just a bureaucratic challenge; it fundamentally shapes the student experience. When the agencies and funding streams responsible for youth apprenticeship and high school pathways are isolated from one another, it makes it difficult for programs to be fully integrated. As a result, even the strongest apprenticeship programs in the country often fall short of the ideal: a comprehensive, flexible, and authentic pathway, inclusive of youth apprenticeship, that aligns with students' interests and career goals, leads to high school and early postsecondary credit, and meaningful industry credentials.

Work-based learning opportunities, up to and including youth apprenticeships, should be aligned to a student's interests and career goals, integrated with their chosen high school pathway, and result in both academic and workforce credentials. As highlighted in ESG's Forging Futures report, an aligned work-based learning experience is one of the three core components of a high-quality pathway. When paired with early college credit and a credential of value, integrated youth apprenticeship can put students ahead on their journey toward economic mobility and stability.



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To move the field forward, stakeholders at every level must consider what changes are needed in their own contexts to facilitate the integration of youth apprenticeships and pathways. Which agencies, organizations, or leaders in your state or locality need to be at the table? What policy levers, such as funding flexibility, shared accountability, or cross-agency governance, are ripe for action? What incentives can be deployed to compel quality integration of pathways and youth apprenticeship? What resources, including technical support and professional development, will increase district and school readiness to enable and support such integration?

The path to fully integrated, high-quality youth apprenticeship will require intentional collaboration, shared vision, and a willingness to break down silos that have long separated education and workforce systems. By forging stronger connections between high school pathways and youth apprenticeship, we can ensure that every student has access to a comprehensive, meaningful, and future-ready education-to-career journey.

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Led by New America, the **Partnership to Advance Youth Apprenticeship (PAYA)** is a multi-year, multi-stakeholder initiative that aims to assist innovative organizations around the country in developing high-quality youth apprenticeship programs that serve students, employers and communities alike. PAYA is comprised of seven National Partner organizations: Advance CTE, CareerWise Colorado, Charleston Regional Youth Apprenticeship, Education Strategy Group, JFF, the National Alliance for Partnerships in Equity, and the National Governors Association. PAYA is supported by funding from the Annie E. Casey Foundation, Bill & Melinda Gates Foundation, Bloomberg Philanthropies, Carnegie Corporation of New York, JPMorgan Chase & Co., Siemens Foundation, Smidt Foundation, and the Walton Family Foundation. For more information, click [here](#).



Education Strategy Group (ESG) is a mission-driven, national consulting firm specializing in K-12, higher education and workforce solutions. ESG brings years of experience helping states and communities around the country devise and implement strategies to align education and workforce goals and implement strategies to meet those goals. ESG brings deep experience devising and implementing strategies to positively impact student success. For more information, click [here](#).