



Youth Apprenticeship in Action

Principles in Practice

AT A GLANCE

This brief is intended to serve new and emerging youth apprenticeship programs by providing guidance and visualizations on how the core components of youth apprenticeship fit together and an understanding of how striving for quality in youth apprenticeship with a collective set of principles promotes program success for both students and employers.

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About JFF's Center for Apprenticeship & Work-Based Learning

JFF is a national nonprofit that drives transformation in the American workforce and education systems. For nearly 40 years, JFF has led the way in designing innovative and scalable solutions that create access to economic advancement for all, including apprenticeship and work-based learning. These programs are proven methods for connecting people to good careers while providing employers with skilled workers. The center consolidates JFF's broad skills and expertise on these approaches into a unique offering. We partner with employers, government, educators, industry associations, and others to build and scale effective, high-quality programs. Visit www.jff.org/center.

About PAYA

The Partnership to Advance Youth Apprenticeship (PAYA) is a multiyear collaborative initiative that supports the success of efforts in states and cities to expand access to high-quality apprenticeship opportunities for high school-age youth. PAYA is an initiative of New America's Center on Education & Labor and its PreK-12 Education program.

Introduction

Youth apprenticeships are a very specific type of work-based learning strategy designed for high school students. Youth programs can be Registered Apprenticeship Programs (RAPs) with all the requirements of adult programs. They have many of the characteristics of [traditional apprenticeships](#) but leverage the time and structure of high school as part of the pathway to a high-quality career and connection to postsecondary education. Much like traditional apprenticeships, high-quality [youth apprenticeships incorporate critical components](#):

- Paid and structured on-the-job learning under the supervision of skilled employee mentors through an employment relationship (i.e., students are hired as apprentices);
- Related technical or classroom-based instruction;
- Ongoing assessment against established skill and competency standards;
- A portable, industry-recognized credential and postsecondary credit upon completion.

Youth apprenticeship is also an important strategy for building a more inclusive economy by creating affordable, reliable, and equitable pathways from high school to good jobs and college degrees.

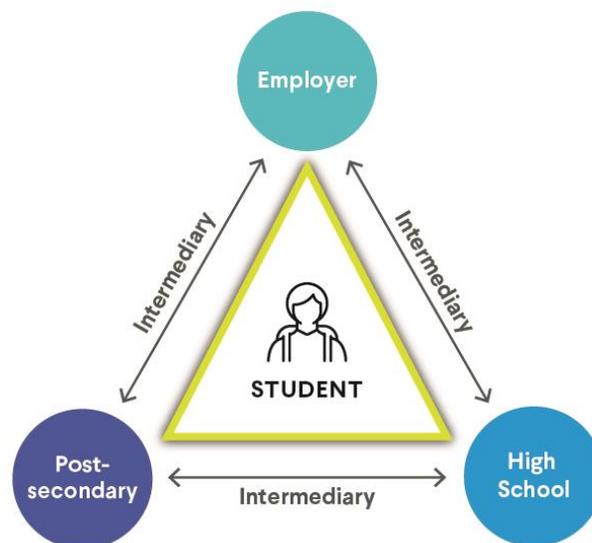
Unlike an internship, which is often a short-term opportunity to learn about a field in a broader sense, a [youth apprenticeship](#) is an industry-driven education and career-training program based on recognized industry standards. Youth apprenticeships are also paid, and classroom training is connected to the apprenticeship's on-the-job training. Often, "youth" is used to refer to apprentices who have not yet turned 18 and are still high school students.

Youth apprenticeship is not intended to simply get students into jobs. It is a postsecondary strategy intended to teach a wide range of knowledge and skills specific to an industry and to help young people earn valuable credentials they can use to move into successful careers. Additionally, youth apprenticeships can serve as a pipeline of skilled young workers that can help meet employers' need for new, diverse, and young talent.

Partnerships

Youth apprenticeships are surrounded by an ecosystem that includes employers, local school districts, high schools, providers of postsecondary education (usually a community college), and an organization or set of organizations (i.e., an intermediary) that coordinates activities and interfaces with all partners.

High schools create the enabling environment for students to participate in youth apprenticeships. They have to give formal permission, in partnership with parents, for students to participate in any postsecondary instruction or on-the-job learning during normal school hours. They play a role in providing coursework that is used as part of related technical instruction and recruiting and preparing students for youth apprenticeship programs, all while helping students meet graduation requirements.



Postsecondary institutions deliver related instruction that complements what apprentices learn on the job while making sure that their training isn't too narrow for a single employer. This means that the postsecondary partner can customize learning enough to meet the needs of industry while ensuring that learning is adaptable in the broader labor market and can be built on over time.

Employers work with education partners to identify skill requirements, build training plans, and deliver on-the-job training. Youth apprenticeship differs from other work-based learning experiences or career and technical education (CTE) programs of study in that the employer plays two roles: it offers a paid work experience through a hiring contract that employs a young person in its hospital, machine floor, or lab; and it is directly responsible for helping to define, deliver, and document the learning that takes place. Through these activities, employers anchor youth apprenticeship programs.

The intermediary coordinates the activity of key partners to support employers and the success of apprentices. They are often considered as the “glue” that holds the partnership together. Intermediaries must be prepared to address the needs of multiple constituencies. They can be housed in one or multiple organizations, such as chambers of commerce, community colleges, nonprofit organizations, and school districts. Intermediaries are the backbone organizations that are indispensable for helping to set up and run programs.

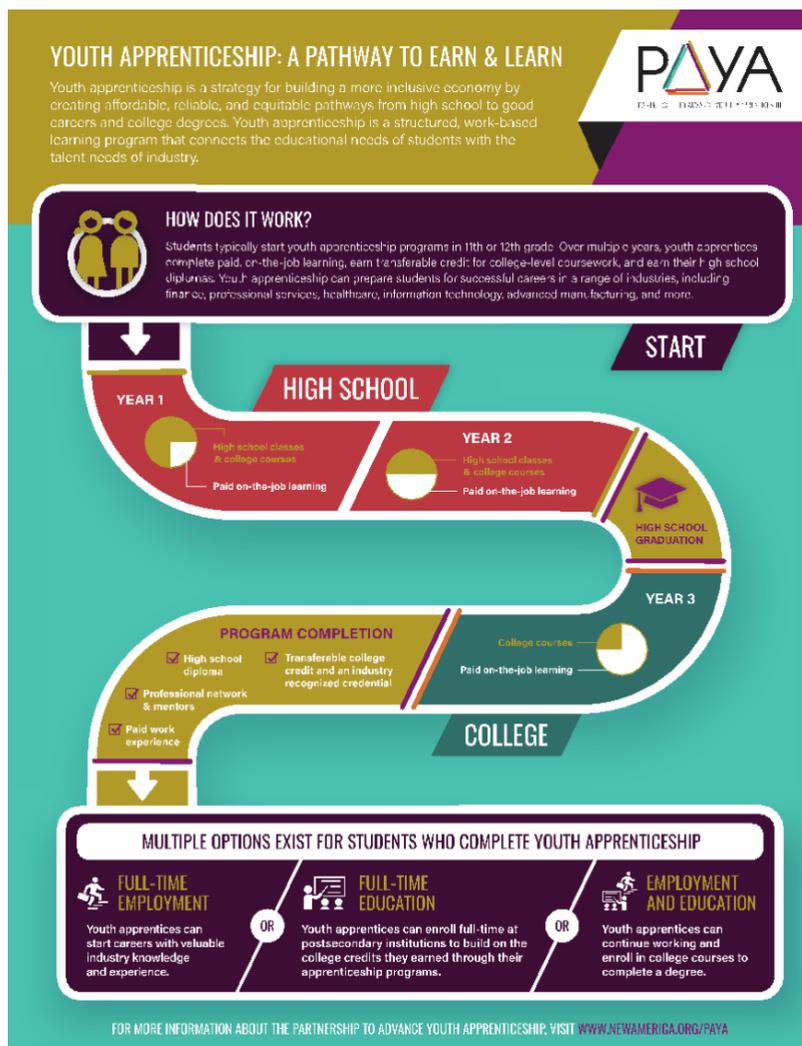
Visualizing the Pathway

Youth apprenticeship is a proven strategy for connecting the learning needs of students and the talent needs of industry. However, it can often be difficult to explain succinctly how

apprenticeship “works”—especially to students, families, educators, and employers who are unfamiliar with this model.

In 2019, PAYA created an infographic that illustrates the PAYA model—the components and sequence of a youth apprenticeship program that also includes many of the options that are available to young people at the conclusion of the program.

As illustrated in the infographic above, apprentices typically start youth apprenticeships in 11th or 12th grade. In some cases, the related technical instruction is directly connected to existing CTE courses that a student is taking. Often, these courses are awarded dual credit for both high school and college. In other cases, students take courses through a participating postsecondary institution, where they directly receive college credit. Over the course of multiple years, youth apprentices complete paid, on-the-job learning under the mentorship of a skilled employee, earn transferable credit for college-level coursework, and earn their high school diplomas.



About the Youth Apprenticeship Mapping Project¹

The purpose of this mapping project is to offer perspectives from the field on building youth apprenticeship programs that respond to both employer and student needs. Anchored in core components that are part of all apprenticeship programs and a collective set of guiding quality principles that have been agreed to by the Partnership to Advance Youth Apprenticeship (PAYA), the information shared through this project should help inform future research and investigation as well as anchor program design in communities around the country.

Program Pathway Snapshots

Youth apprenticeships are an important part of building more equitable postsecondary opportunities for students and a long-term talent solution for employers. The information represented in this section shows a representation of the basic building blocks for each youth apprenticeship program: foundations, the hiring process, related technical instruction, on-the-job learning, assessments, and credits earned. Each of these programs is part of an embedded and growing ecosystem that intentionally connects students and employers using the core PAYA principles for quality youth apprenticeships, which are explained in the next section in greater detail.

Core Components

To understand how the core components of youth apprenticeship fit together to serve both a student's and an employer's needs, the snapshots below provide guidance and visualizations on how the core components of youth apprenticeship “fit” together.

High-quality youth apprenticeships have four components that distinguish them from other work-based learning opportunities.

- Students have **structured and paid on-the-job learning** under the supervision of skilled employee mentors through an employment relationship. In this relationship, students are hired as employees of a company through apprentice agreements.
- Students receive **related classroom-based and/or technical instruction**. This instruction can be provided by a community college or technical school partner, or part of a CTE program or even an after-school program. This instruction is aligned to the on-the-job training apprentices are receiving through their workplace experiences.
- Students receive ongoing **assessments** against skill and competency standards that have been agreed upon between the employer and the education provider.
- Upon completion, students earn a portable, industry-recognized **credential** and, where feasible, **postsecondary credit**.

Aerospace Joint Apprenticeship Committee

The **Aerospace Joint Apprenticeship Committee** (AJAC) was launched in 2008 through state investments as an intermediary organization designed to upskill the aerospace and advanced manufacturing workforce in Washington through Registered Apprenticeship. Primarily working with smaller supply chain companies across the state, AJAC developed and implemented 10 high-growth and in-demand [apprenticeship occupations](#). In 2016-2017, companies began to demonstrate real interest in tapping into a younger talent pool, and with the support of Governor Jay Inslee and the Washington Department of Labor and Industries, AJAC received a federal state apprenticeship expansion grant to pilot a youth apprenticeship program. Their advisory committee, which includes employers from around the state, endorsed two Registered Youth Apprenticeship programs.

In 2017, they began to pilot the first program with two initial secondary schools, leveraging dual-credit arrangements already in place. Currently, AJAC partners with 14 different school districts and operates two Registered Youth Apprenticeship programs. These programs (production technician and automation technician) require 2,000 hours of instructional training and are designed for high school juniors and seniors to develop career-ready skills in the aerospace and advanced manufacturing industries. These programs combine college-level classroom instruction and paid on-the-job training at an AJAC employer. Completion of this program leads to a high school diploma, a journey-level card, and a short-term college certification.

Managing the Program

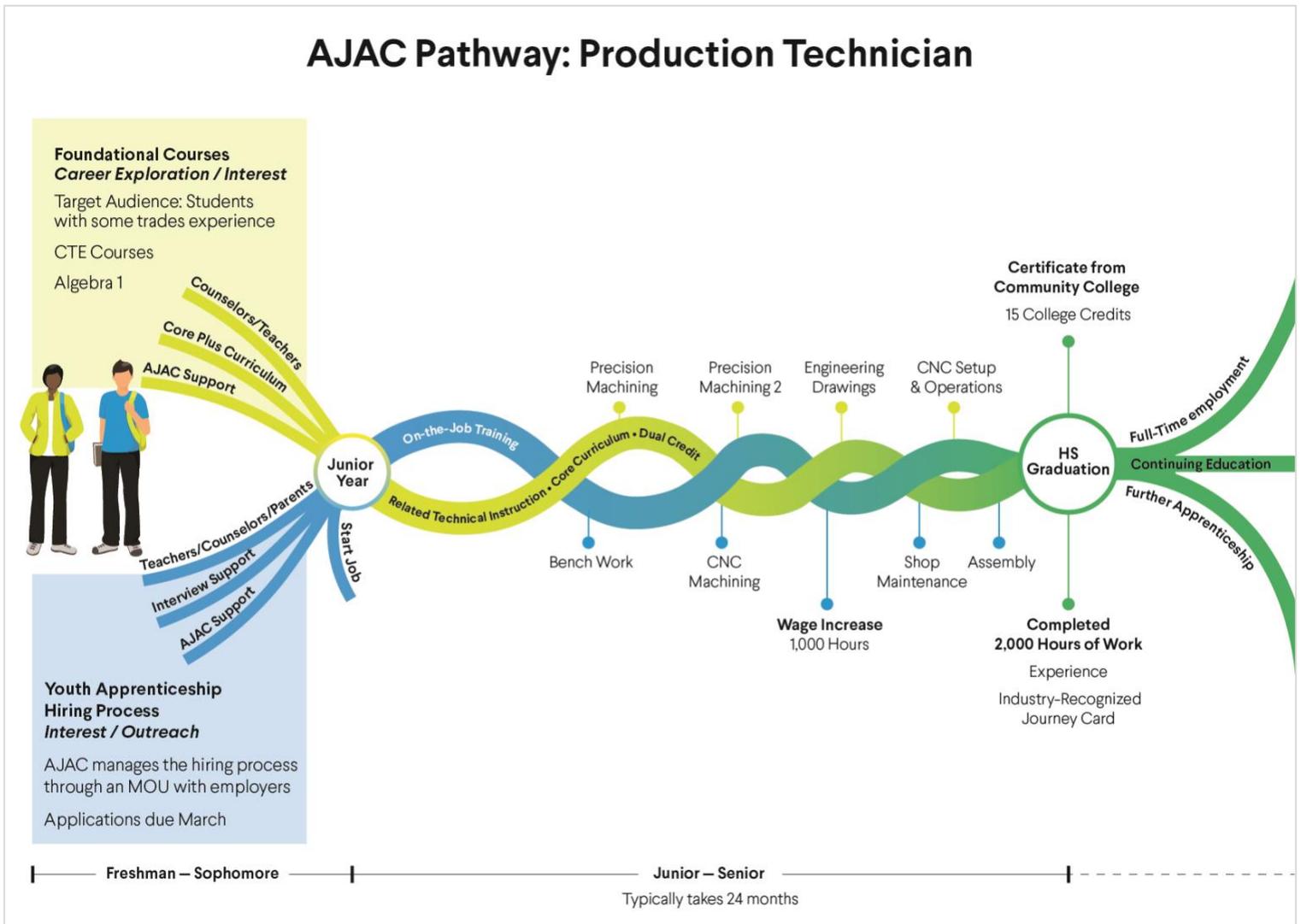
AJAC staff members work closely with individual school districts to establish a memorandum of understanding (MOU), which outlines what each partner will do in relation to the youth apprenticeship. AJAC works with school personnel and creates all of the documentation, branding, and contracts. It also provides all of the funding, fundraising, and curricula (instructor training). School districts work with instructors and make arrangements to ensure that students receive related technical instruction in school or after school. Approximately one-half of school districts participating do not have the CTE resources to host courses during the school day.

Once the MOU is signed, AJAC works with counselors on outreach. Employers contact applicants for follow-up interviews. Over the summer, students are enrolled in safety boot camps and classes in shop-floor basics and are eligible to work full time. In the fall semester, students begin their related technical instruction, either during or after school and on weekends.

AJAC does not ask employers to cover the costs of tuition. Rather, it uses a combination of local, state, and federal dollars to offset the costs of the program. Employers do pay the wages of mentors and apprentices. As an intermediary, AJAC does not ask any program partners to cover its staff members' salaries but has sought support from local and national funders.

AJAC in Action

The following graphic shows a representation of the type of journey AJAC students may experience and the foundations and supports they receive along the way.



Charleston Regional Youth Apprenticeship

The **Charleston Regional Youth Apprenticeship** (CRYA) is a two-year program that was initially driven by employer demand. In 2014, Trident Technical College was approached by an employer who was interested in youth apprenticeship. The Community College worked with the employer to bring others together as a sector partnership to develop a youth apprenticeship in industrial mechanics, to ensure sustainability of the program over time. This ambitious group of employers pushed for a program start in four months and hired 13 initial apprentices. This challenge from employers has grown to 18 pathways in nine industry sectors, with 180 registered companies. Through 2020, the program has had 351 youth apprentices, with approximately 70 new hires for the 2021-22 school year as of August 2021. There were 119 apprentices for the 2019-20 school year.

Under the youth apprenticeship model, rising juniors, rising seniors, and graduating seniors are eligible to participate. Students work through a rigorous application process in the year preceding the apprenticeship. Under the “learn and earn” model, students must be hired by one of the participating employers, which make all hiring decisions. Students commit to two years in this program; however, because it is a competency-based Registered Apprenticeship Program, there is flexibility: apprentices who excel can complete the program sooner, and others may take additional time.

Managing the Program

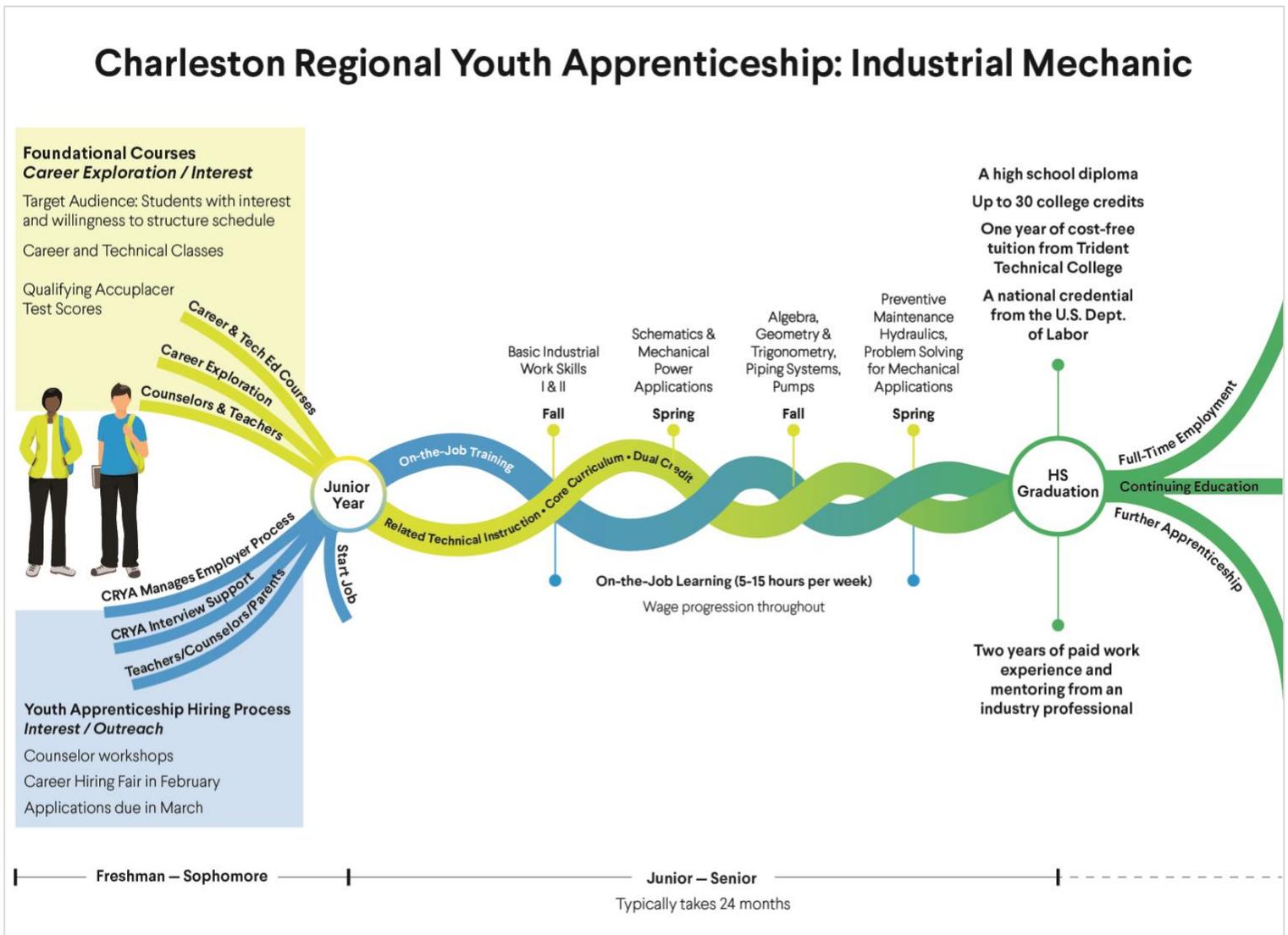
CRYA ensures that program design is driven by employer needs and demand and is organized by the intermediary. That intermediary, Trident Technical College’s Community Partnerships, which includes both the Division of Apprenticeship and Employer Partnerships and the Division of School and Community Initiatives, helps employers figure out exactly what they need and want. It offers ongoing support to employers through consultation; supports the design and implementation of necessary program paperwork, including the development of an MOU; and works with the college to shift or change the curriculum to meet employer needs.

Trident Technical College works with local employers to identify their hiring needs. It begins by working within the college to align curricula to meet those needs. Once employers are committed, the Division of School and Community Initiatives begins secondary school engagement. Student- and parent-facing marketing materials are created that highlight new and existing opportunities and company partners. Informational sessions are delivered in both English and Spanish when possible. School counselors are involved in the process, through specific outreach efforts and counselor days on Trident’s campus. Where feasible, secondary CTE and core academic courses are leveraged as part of the course pathway. Where specific courses are not offered in high school, Trident Technical College provides the related technical instruction.

CRYA does not ask employers to cover the costs of tuition. Employers do, however, pay the wages of mentors and apprentices. As an intermediary, CRYA does not ask any program partners to cover its staff members' salaries but has sought support from local and national funders.

CRYA in Action

The following graphic shows a representation of the type of journey CRYA students may experience and the foundations and supports they receive along the way.



Early Care and Education Pathways to Success

Early Care and Education Pathways to Success (ECEPTS) grew out of a collaboration with the Service Employees International Union Early Educator Training Center to address specific challenges in the early care and education sector (e.g., increasing quality of care, creating accessible career pathways, and linking professional requirements to living wages. Registered Apprenticeship, and eventually Registered Youth Apprenticeship, was a way to address these challenges.

From 2015 to 2019, three Registered Apprenticeship Programs were created for various sectors of the early care and education workforce, leading to over 200 program completers by June 2019. Since becoming an independent organization in 2019, ECEPTS has broadened their focus to include building a strategy for youth apprenticeship in three pilot school districts. As well, ECEPTS has expanded their apprenticeship work with adults to include sponsoring four Registered Apprenticeships and serving as a sector intermediary to 12 apprenticeship partnerships across 10 California counties.

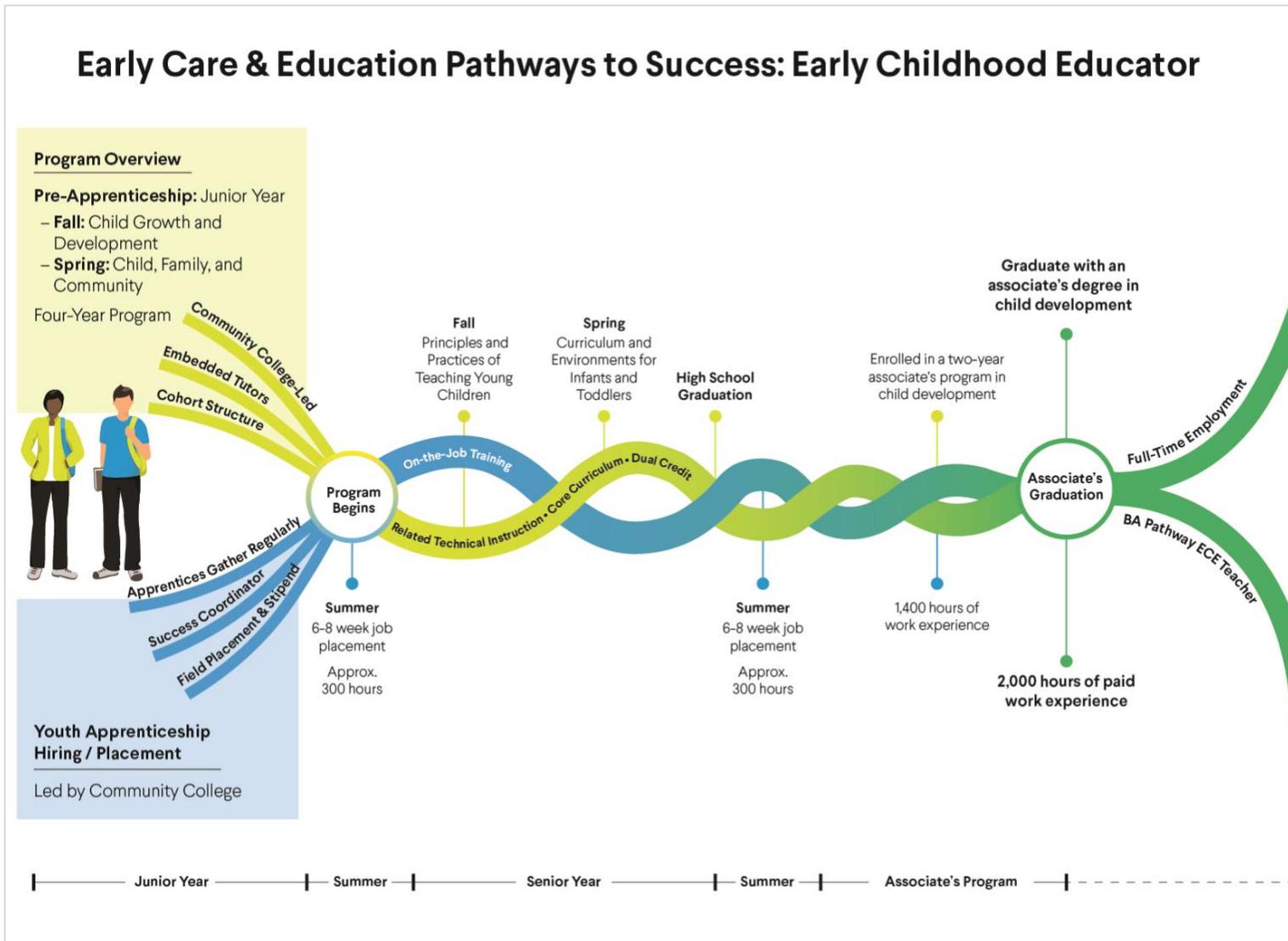
Managing the Program

ECEPTS created its Registered Apprenticeship and Youth Apprenticeship Programs to directly address systemic inequities, focusing primarily on delivering more equitable education and labor market outcomes, and working almost solely in low-income communities, coordinating with employers to grow apprenticeship opportunities with community-based organizations and city/county departments of child and family services.

All ECEPTS programs are cohort models that encourage peer learning and support. Students take courses together and meet regularly to develop on-the-job skills and competencies. Tutors are embedded in the delivery of related supplemental instruction (e.g., college coursework) and each apprentice is assigned to a success coordinator who monitors and supports their academic and on-the-job experiences.

ECEPTS in Action

The following graphic shows a representation of a type of journey that ECEPTS students may experience and the foundations and supports they receive along the way.



Partnerships and Principles in Practice

Quality Principles

High-quality youth apprenticeship is a concrete, shared goal that can move cross-silo dialogue at the community level into joint action. To ground these partners in the development of high-quality youth apprenticeships, PAYA's national partners developed a set of [guiding principles](#) that are structured to be both practical and aspirational, along with a [self-assessment tool](#) to help communities leverage their best assets to support the programs that make the most difference for families and students.

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 longstanding inequities in our education system and labor market.

Portable: Learning leads to postsecondary credentials and transferable college credit that expand 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.

Learning Is Career-Oriented

Youth apprenticeship offers a pathway into career opportunities for young people. For programs to accomplish this, the learning that occurs as part of related technical instruction should be directly connected to the learning that students receive on the job. Career-oriented learning is at the cornerstone of youth apprenticeship programs. Youth apprenticeship is a unique pathway to a career for young people, because it requires the direct investment of employers to inform the instruction that students receive. Instruction should be directly connected to the skills, competencies, and knowledge that students need in order to perform and advance in their apprenticeships.

Working collaboratively with employers, **AJAC** has developed and identified basic on-the-job training competencies for each of the youth apprenticeships as well as specific apprenticeship

classes for school districts to use for the [Production Technician](#) (Youth) and [Automation Technician](#) (Youth) apprenticeship programs. The schedule of tasks is designed as a guide. The apprentice is instructed and trained in all operations and methods customarily used on the various machines. Each company adheres to the schedule as closely as facilities will allow, so that apprentices have a well-rounded experience and practice on all equipment and processes relevant to the business.

The target population is students in their junior or senior year of high school, who receive one or two years of foundational education from the CTE program. Core Plus is a two-year, written curriculum for high school industrial arts instructors and serves as the foundational course of study for youth apprenticeships, with a framework for aerospace, maritime, and construction. It provides a two-year, written curriculum for high school industrial arts instructors that teaches foundational skills such as safety and tool use. This curriculum also includes a mechanism for building student awareness of apprenticeship options.

Employers should work alongside educators to develop, sequence, and assess student learning to ensure that the experience students have in their youth apprenticeship better prepares them for the future. Career-oriented learning should also serve the needs of employers, and program design should be directly anchored in local employer hiring needs.

CRYA ensures that program design is driven by employer needs and demand and is organized by the intermediary. That intermediary, Trident Technical College, helps employers figure out exactly what they need and want.² It offers ongoing support to employers through consultation; supports the design and implementation of necessary program paperwork, including the development of a memorandum of understanding (MOU); and works with the college to shift or change the curriculum to meet employer needs. Employers are engaged because the intermediary is helping to solve a talent-shortage problem and reducing the risk of participation.

Related technical instruction: Where feasible, students take advantage of dual-credit opportunities and participate in CTE and courses in high school. When specific courses are not offered in high school, Trident Technical College provides the related technical instruction. For example, for the industrial mechanic apprenticeship, related technical instruction is provided by Trident.

Learning Is Accessible to All Students

If a youth apprenticeship is designed well, it can help to address local equity challenges and advance equity outcomes by increasing access to postsecondary options. This requires that youth apprenticeships recognize and are designed to mitigate existing structural inequalities in

local education and workforce systems. This includes how students are recruited, what kind of supports students receive to be successful apprentices, and how connections with employers are managed.

ECEPTS focuses on equity outcomes as their first priority. Working predominantly in low-income communities to address issues of job quality and wage competitiveness, ECEPTS has approached learning using a cohort model, to encourage peer learning and support. Students take courses together and are regularly brought together for related supplemental instruction, which includes foundational and employability skills training. Tutors are embedded in the program, and each apprentice is assigned to a success coordinator who monitors student performance. These measures are intended to support students holistically and ensure that measures can be taken quickly should students need additional support.

One strategy AJAC is using to diversify participating youth apprentices is to develop inclusive marketing materials and provide platforms for apprentices from traditionally underrepresented backgrounds to represent AJAC at conferences and other public events. Another strategy is to leverage partnerships with urban and rural school districts and community-based organizations who work with youth of color, opportunity youth, and justice-involved youth.

Equity considerations are relevant in all areas of program design and deeply impact program outcomes, which include both equitable representation and success across all industries involved in the program. Ultimately, participation in a program should also lead to improved education and employment outcomes. Often, inequitable access to high-quality CTE programs creates barriers to participation in youth apprenticeship programs, which can be addressed through program design considerations, and flexibility on the part of partners.

The 14 school districts that participate in **AJAC's** programs work with instructors and make arrangements to ensure that students receive related technical instruction in school or after school. Approximately one-half of school districts participating do not have the CTE resources to host courses during the school day. As a result, AJAC has worked closely with schools to create different scheduling scenarios that address issues of access to CTE resources:

- **Scenario 1:** Related technical instruction is embedded into the school day at a skill center or high school. Students are in class on Mondays in the morning in a block format and then work mornings, Tuesday through Friday, with a participating employer. Often, the four hours of related instruction are embedded throughout the week in courses.
- **Scenario 2:** Without a qualified technical instructor, related technical instruction occurs as an after-school program one day per week in partnership with a local college and AJAC staff members. AJAC works across partners to create an MOU between the partners.

Students then are required to participate in on-the-job training in the evening and on weekends.

- **Scenario 3:** AJAC works with community-based organizations, local school districts, and local workforce boards to support students who are not in school or work. Related technical instruction is coordinated between AJAC, a community-based organization, and the local community college, and on-the-job learning is coordinated on a case-by-case basis.

Counselors and parents are also included in program execution and play an important part in ensuring equitable access to opportunities.

Through **CRYA**, Trident Technical College works with local employers to identify their hiring needs. Through this needs assessment, the intermediary works within the college to align curricula to address employer input. Once employers are committed, the Division of School and Community Initiatives begins secondary school engagement. Student- and parent-facing marketing materials are created that highlight new and existing opportunities and company partners. Informational sessions are delivered in both English and Spanish when possible, and ASL interpreters have been provided to deliver content for hearing-impaired attendees. In addition, a two-day counselor workshop is offered that includes both employers and college faculty who have worked in industry.

As a result of the passage and renewal of South Carolina's 2005 [Education and Economic Development Act](#), now called Personal Pathways to Success, each high school has an embedded career development facilitator and requires that each secondary student have an Individual Graduation Plan (IGP), starting in the eighth grade. In the Charleston area, youth apprenticeship is intentionally woven into the IGP. Finally, once an MOU is signed between partners, **CRYA** works with counselors on outreach, which includes "parent night" events, classroom engagement, and hosting a CRYA Information Session in February, which draws over 1,000 attendees. CRYA begins to receive applications immediately thereafter; once applications have been assessed and are complete, they are sent to employers so that the interview and hiring process can begin. Employers begin interviewing at their discretion once applications are received, which is an ongoing process. Once the student is hired, they attend intensive one-on-one onboarding and information sessions.

Learning Is Portable

Participation in a youth apprenticeship program should expand rather than limit a young person's postsecondary opportunities, ideally with support from the employer. College credits should be portable—that is, applicable toward an associate's or bachelor's degree and transferable to other institutions.

California, Washington, and South Carolina all have official policies for college transfer courses that articulate community college courses to four-year public institutions.

- [Assist](#) is the official transfer and articulation system for California's public colleges and universities.
- [SC TRAC](#) is the official transfer and articulation center for South Carolina's public colleges and universities.
- Washington has an intercollege transfer and articulation agreement among Washington Public Colleges and Universities that has also been endorsed by the [State Board for Community and Technical Colleges](#) and adopted by the Higher Education Coordinating Board.

ECEPTS works directly with participating community colleges as the central driver of the work. Although ECEPTS acts as the youth apprenticeship sponsor and sector intermediary, it facilitates related technical instruction through participating community colleges. It has chosen this model because of the flexibility and nimbleness with which community colleges are able to address changing curriculum needs based on employer demand and their ability to serve multiple high schools and constituencies. Building on its previous success with a Head Start Apprenticeship program, ECEPTS is focused on bridging high school to college by building a four-year, associate's degree-driven apprenticeship. All students can earn at least 12 dual high school-college credits by the end of high school, and a Child Development Associate Teacher Permit through the California Commission on Teacher Credentialing.

CRYA ensures that program participants graduate at the end of a two-year high school-based apprenticeship with a high school diploma (if it was not already granted); two years of paid work experience and mentoring from an industry professional; one year of cost-free college credit, which culminates in an academic certificate from Trident Technical College that can be applied toward completion of an associate's degree; and a national credential from the U.S. Department of Labor. This credential is portable for individuals, as it is not tied to a specific employer, and it is nationally recognized as a way of certifying that the individual is fully competent for their career.

AJAC students graduate at the end of two years with 2,000 hours of paid training; a wage increase after 1,000 hours of training; an industry-recognized, journey-level card (for existing apprenticeships in manufacturing and production); 15 college credits; three apprentice-level courses; a national credential from the U.S. Department of Labor; and a short-term industry-based certification from the participating community college.

Learning Is Adaptable

The future of work is changing. Employers must collaborate to address their talent needs; it is the only way to truly address the changing nature of work at scale. Youth apprenticeship programs should be designed in this spirit: learning should be designed through a collaboration between employers and educators, collectively recognized by employers, and valued generally across the industry or sector involved.

AJAC and CRYA both have dedicated intermediary staff that serve multiple functions:

1. **Employer-facing:** Recruiting and supporting employers, managing employer/college relationships, and assisting in developing training plans.
2. **System-facing:** Ensuring funding and financial management, convening and serving as a liaison for local stakeholders, and collecting and analyzing data for continuous improvement.
3. **School-facing:** Marketing and providing outreach for programs, providing resources for counselor training, and coordinating with school personnel.
4. **Student and family-facing:** Recruiting and supporting apprentices and supervising the application process and training.

In both cases, the intermediary organizations work closely with employers to identify needs early and ensure that employers are part of the collaborative process.

CRYA helps employers figure out exactly what they need and want. It offers ongoing support to employers through consultation; supports the design and implementation of necessary program paperwork, including the development of an MOU; and works with the college to shift or change the curriculum to meet employer needs. This adjustment happens yearly and CRYA staff works closely with employers throughout the year to ensure that curriculum and training is adapted as needed.

To ensure sustainable employer participation, buy-in, and growth, once **AJAC** has worked closely with school districts to support the application process, employers contact individuals directly for follow-up interviews, and students are eligible to begin working right away. During

the summer, students are enrolled in safety boot camps and classes in shop-floor basics, and are eligible to work full time. In the fall semester, students begin their related technical instruction, either during or after school and on weekends.

Primarily working with smaller supply chain companies across the state, **AJAC** developed and implemented 10 high-growth and in-demand apprenticeship occupations. In 2016-2017, companies began to demonstrate real interest in tapping into a younger talent pool. Their advisory committee, which comprised employers from around the state, endorsed two 2,000-work-hour Registered Youth Apprenticeship programs. In 2017, they began to pilot the first program with two initial secondary schools, leveraging dual-credit arrangements already in place.

Programs Are Accountable for Outcomes to Support Improvement

Youth Apprenticeship programs exist within communities and require an ecosystem in order to support student and employer needs. The complex partnership requires management by an intermediary organization or set of organizations that work together to carry out intermediary functions. This organization(s) facilitates the program, holds each partner accountable, and balances interests to ensure the success of the program and the apprentices involved. To facilitate this, programs must commit to collecting, monitoring, and disaggregating data to better understand and evaluate program performance, identify inequities, and drive continuous improvement.

AJAC [tracks and uses data](#) to identify ways to diversify the aerospace industry. Since 2017, AJAC has enrolled over 225 youth apprentices with approximately 10 percent identifying as female and 35 percent as learners of color. To respond to these demographics, AJAC is working to leverage data to better understand the outcomes of youth apprentices and how to support youth apprentices through their apprenticeship and post-apprenticeship with career coaching, mentoring, and other supports. Using survey data during the COVID-19 pandemic-related school and employer shutdowns, AJAC found that many youth apprentices discovered benefits to online learning, such as reduced travel times, less cost for transportation and parking, increasing on-time attendance, increased flexibility to learn at their individual pace, reduced anxiety about test-taking, more opportunities for one-on-one meetings with instructors, and unlimited access to course materials.

CRYA also leveraged a technology solution to help employers collect data and contribute to program monitoring. To capture on-the-job-training hours, Trident Technical College used grant funding from PAYA to develop an app that it now owns but shares with employers to help them collect and organize on-the-job hours and evidence. Students use the app to collect and organize their hours: They can clock in and out, complete a daily self-assessment, and

demonstrate their new competencies through video recordings. The app is designed to match to the competencies that the employer identifies as most important, and is aligned directly to the work process schedule.

Implications of COVID-19

The unprecedented economic situation that resulted from COVID-19-related shutdowns has put many apprenticeship and youth apprenticeship programs at risk. There is a real danger, based on evidence from the Great Recession of 2007-2009, that recovery from this new economic downturn will accelerate a deeply unequal economy that is [marked by](#) increases in student debt, widening wealth gaps, and large numbers of low-wage jobs that offer very little in the way of job security, benefits, or opportunities for career advancement. Additionally, traditional four-year college degrees remain the dominant occupational pathway in the United States, but a large majority of Americans lack a college degree, and pernicious racial disparities in college degree attainment persist. The consistently increasing costs of postsecondary education have also prevented many young people from enrolling in or completing college and have led to rising student debt.³

However, the past year has opened new opportunities for engaging with [new employers](#) and enabling young people as [digital natives](#) to positively shape workplaces. In response to an emerging “new normal,” youth apprenticeship is an important part of a suite of strategies that will lead toward an inclusive economic recovery—one that does a better job preparing young people for a changing economy and a changing world. Despite realities around hiring, changing employment environment, and a fluid job market that communities faced and continue to address, there is momentum for apprenticeship that could continue into a post-pandemic recovery.

The programs identified in this brief and the partnerships that support them can guide the way for ensuring that students have more diverse pathways for postsecondary success and employers have deeper connections to diverse talent pools.

Youth Apprenticeship Mapping Project: Future Directions and New Questions

The Youth Apprenticeship Mapping Project helps to illustrate both the core components of a youth apprenticeship and how programs are taking different routes to plan and implement them with fidelity to high standards for quality.

This project serves to offer perspectives from the field on building youth apprenticeship programs that respond to both employer and student needs. Some key elements that are drawn from this project should help inform future research and investigation as well as anchor program design in communities around the country. Recognizing the vast diversity of programs and the needs of the communities in which they exist, the key elements include:

1. Program design directly anchored in local employer hiring needs;
2. Program flexibility to meet the needs of students, employers, and schools;
3. Coordinated collaboration between K-12, postsecondary institutions, and employers;
4. An intermediary organization(s) prepared to meet the needs of multiple constituents and understand local policy opportunities and constraints; and
5. An emphasis on data collection/coordination to address continuous improvement and equity needs.

This project also serves as a vehicle to ask important questions about program design and implementation. Some sample questions that are important for practitioners to consider are drawn from this research and previously mentioned tools:

Career-oriented: Learning is structured around knowledge, skills, and competencies that lead to careers with family-supporting wages.

- How does your program work closely with employers and high schools to ensure that learning is consistently aligned with labor market needs?
- How are you leveraging existing career exploration and work-based learning programs to build new youth apprenticeships?

Equitable: Learning is accessible to every student, with targeted supports for those adversely impacted by longstanding inequities in our education system and labor market.

- How do students learn about the youth apprenticeship opportunity? How are they encouraged to participate? What mechanisms are in place to introduce students to the idea of youth apprenticeships and the careers/career pathways they open up?
- How are you working with employers to ensure equitable access to employment opportunities through youth apprenticeships?
- Have you been able to support participation for students who need additional support services?

Portable: Learning leads to postsecondary credentials and transferable college credit that expand options for students.

- How does the program align and leverage existing CTE pathways, programs of study, or other educational priorities and structures for youth apprenticeship?
- Does the program offer affordable dual credit and/or concurrent enrollment opportunities through collaborations between the high schools and postsecondary institutions in your partnership?
- Are there transfer arrangements in place with other postsecondary institutions?

Adaptable: Learning is designed collaboratively to be recognized and valued across an industry or sector.

- How are you addressing things like schedule and school attendance?
- How have you been able to work with employers to backwards map employer needs to secondary and postsecondary education (related technical instruction)?

Accountable: Student, employer, and program outcomes are monitored using transparent metrics to support improvement.

- Have you been able to work across partners to track participation and outcomes (for both students and employers) in youth apprenticeship?
- Have you been able to align apprenticeship accountability metrics with existing work-based learning metrics (or vice versa)?

Finally, as programs adapt to new realities of communities around the country, particularly as employers and schools grapple with changes and inequities that have occurred or been uncovered as a result of COVID-related impacts, a new series of directions for youth apprenticeship programs are emerging.

- Schools, employers, and partners are more clearly thinking about widening access to pre-apprenticeship opportunities to both identify and address gaps in the curriculum.
- Community College partners are establishing different supports for students based on entry exams (such as Accuplacer) in order to open the door for more students to participate in youth apprenticeship courses.
- Identifying new funding streams and working closely with employer partners to address transportation issues.
- Supporting employers to set and reach goals for representation and success through the establishment of close partnerships around collective diversity, equity, and inclusion goals.
- Providing more comprehensive supports for employers to mentor apprentices and plan on-the-job training scope and sequence.

Resources

[Apprenticeship Fact Sheet](#), U.S. Department of Labor

[What is Youth Apprenticeship? Definition and Guiding Principles for High-Quality Programs](#), New America

[Youth Apprenticeship Guide](#), Apprenticeship NC

[About the Partnership to Advance Youth Apprenticeship](#), PAYA

[Self-Assessment and Planning Tool for Youth Apprenticeship Programs](#), JFF

[Recovery is Not Enough: Revitalizing America's Promise During and After the Pandemic](#), JFF

[Using Data to Advance Youth Apprenticeship](#), Advance CTE

[Tested by Corona Virus, Youth Apprenticeship Proves Its Value](#), CareerWise Colorado

Endnotes

¹ PAYA is grateful to the Charleston Regional Youth Apprenticeship (CRYA), the Aerospace Joint Apprenticeship Committee (AJAC), and the Early Care and Education Pathways to Success (ECEPTS) for sharing their insights on how quality principles have manifested in their program design and implementation.

² The intermediary is Trident Technical College's Division of Community Partnerships, which includes both the Division of Apprenticeship and Employer Partnerships and the Division of School and Community Initiatives.

³ Annelies Goger, "Desegregating work and learning through 'earn-and-learn' models," *Brookings*, December 9, 2020, <https://www.brookings.edu/research/desegregating-work-and-learning/>.