



# Models of Youth Registered Apprenticeship Expansion

## Evidence from the Youth Apprenticeship Readiness Grants

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**In June 2020, the US Department of Labor (DOL) awarded \$42,296,247 in Youth Apprenticeship Readiness Grants (YARG) to 14 grantees to develop or expand registered youth apprenticeships.<sup>1</sup> Grant funds can be spent on activities to support apprentices ages 16 to 24 participating in registered apprenticeship programs in high-demand industries, including manufacturing, health care, information technology, and cybersecurity.<sup>2</sup>**

Registered apprenticeship programs are registered with DOL Employment and Training Administration's Office of Apprenticeship or with a DOL-approved state apprenticeship agency (SAA) and meet federal and state standards. As a part of the registration process, these agencies approve programs' apprenticeship standards: detailed plans for at least 2,000 hours of on-the-job learning (OJL) and a recommended minimum of 144 hours of related technical instruction (RTI) that result in an industry recognized credential for the apprentice. DOL or an SAA may periodically inspect programs to ensure they follow apprenticeship standards and all health, safety, and equal employment opportunity regulations.

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<sup>1</sup> US Department of Labor, "Youth Apprenticeship Readiness Grant," accessed December 1, 2021, <https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/youth-apprenticeship-readiness-grant>.

<sup>2</sup> See Department of Labor, "Notice of Availability of Funds and Funding Opportunity Announcement for Youth Apprenticeship Readiness Grant Program, FOA-ETA-20-06," Employment and Training Administration, May 2020, <https://www.dol.gov/sites/dolgov/files/ETA/grants/pdfs/FOA-ETA-20-06.pdf>.

For YARG, youth registered apprenticeship programs are for those ages 16 to 24. All youth apprenticeship programs supported by the YARG program are registered with the Office of Apprenticeship or an SAA and therefore result in an industry-recognized credential for apprenticeship completers. For the purposes of the YARG program, a youth apprentice is defined as a registered apprentice between the ages of 16 and 24. Some youth apprentices supported by the YARG program are registered in apprenticeship programs with adults rather than in registered apprenticeship programs that exclusively serve youth.

Registered apprenticeship programs are flexible training programs involving multiple partners and are designed and overseen by program sponsors. Sponsors may be employers or nonemployer entities. Although sponsors are required to provide a minimum of 2,000 hours of supervised OJL and 144 hours of RTI, the design and content of that training, the partners who deliver the training, and additional supportive services are determined by the sponsor, with approval of the registering agency. Registered apprenticeship partners can include employers, labor unions, community colleges, high schools, community-based organizations, and industry associations. The flexibility of registered apprenticeship ensures that youth registered apprenticeship programs can be organized and expanded using many different models.

## Youth Registered Apprenticeship Models

This brief develops a typology of five different models of youth apprenticeship expansion used by the YARG grantees across their registered apprenticeship programs. The typology is based on information collected from the YARG grantee applications, follow-up clarification calls with grantees, and the grantees' quarterly narrative reports to the DOL. The models are not proscriptive templates for individual registered apprenticeship program standards. Instead, they describe different strategies for organizing partners, training, and services to expand youth apprenticeship. The five models are as follows:

1. **Secondary school-based registered apprenticeship model.** Registered apprenticeship programs are sponsored by or organized around secondary schools, including secondary career and technical education programs that provide career-specific academic and technical instruction.
2. **Postsecondary school-based registered apprenticeship model.** Registered apprenticeship programs are sponsored by or organized around colleges or universities.
3. **Intermediary model.** An organization called an intermediary supports registered apprenticeship programs by assisting in program design, coordinating partners, providing program supports, and in some cases, sponsoring a registered apprenticeship program.
4. **Regionally coordinated registered apprenticeship model.** An organization or group of organizations are charged with expanding registered apprenticeship and coordinating partners in a specific region.

5. **Youth-supporting mixed-age registered apprenticeship model.** Registered apprenticeship programs that normally register adults are supported to be more inclusive of youth apprentices.

The five models do not encompass an exhaustive typology of the YARG grantees' activities in expanding youth apprenticeship, nor are the models mutually exclusive. An individual YARG grantee might implement several of these models as a part of its grant activities, depending on its partners and the needs of the registered apprenticeship programs it supports. For example, a regionally coordinated apprenticeship model and a program supported by an intermediary are not mutually exclusive because regional youth apprenticeship expansion efforts can be organized around a single strong intermediary organization. Similarly, a youth-supporting mixed-age apprenticeship program and the postsecondary school-based model are not mutually exclusive because adult apprenticeship programs can be sponsored by and based at a postsecondary institution.

Every youth registered apprenticeship program is unique in structure and how it serves participants, but our analysis of the YARG grantees suggests three primary program features are important for understanding the apprenticeship expansion models implemented by the grantees:

- **Youth populations that grant projects and registered apprenticeship programs serve,** particularly whether youth are younger (ages 16 to 18) or older (ages 19 to 24), whether they are in school or out of school at the time they are registered, and from a population traditionally underserved or underrepresented in the apprenticeship system, such as women, racial and ethnic minorities, and people with disabilities.
- **Registered apprenticeship program sponsor and the role of the grantee.** A program sponsor is responsible for operating registered apprenticeship programs. Employers often serve as program sponsors, but schools and colleges, intermediary organizations, joint labor-management organizations, and YARG grantees can also serve as sponsors.
- **Educational partner and its role in the grant project.** All YARG grantees must have an educational partner to provide RTI—off-the-job classroom-based training—for the youth registered apprentices. Some educational partners only provide RTI, while others serve larger coordinating roles for registered apprenticeship programs.

## Purpose and Organization of this Brief

This brief begins with a description of the above three program features and their importance to the design and operation of a youth registered apprenticeship program. We then discuss each of the five youth apprenticeship expansion models and how selected YARG grantees have implemented those models. For many YARG grantees, supportive services and pre-apprenticeships are important components of their registered apprenticeship expansion models. Supportive services include financial, in-kind, or other assistance that provides apprentices with basic needs and helps them overcome barriers to program completion. Pre-apprenticeships are unregistered skills-training

programs that prepare youth to begin a registered apprenticeship program. We explain these supportive services after reviewing the five models and conclude with lessons for the future.

The five models for expanding youth registered apprenticeship pose varying lessons and challenges for grantees and other organizations using similar models to expand youth registered apprenticeship. Secondary school-based youth registered apprenticeship expansion introduces the challenge of aligning registered apprenticeship requirements with the high school curriculum and calendar. Postsecondary school-based youth registered apprenticeship expansion efforts are more familiar but still require adequate recruitment sources and employer partnerships. In some cases, YARG grantees meet these challenges by implementing an intermediary model or a regional coordinator model. Each of these models presents its own organizational challenges, but in all models, apprentices need appropriate access and supports to enter and succeed in registered apprenticeships.

This brief draws on information collected from YARG grant agreements, quarterly narrative reports,<sup>3</sup> and clarifying phone calls with the grantees, all of which reflect the plans and early experiences of the YARG grantees. Experiences may change as grantees learn about the needs of their youth registered apprentices and their employer partners. This brief is the first of three special topic briefs produced for the YARG Evaluation. Subsequent special topic briefs and a final evaluation report will provide an updated picture of grantees' activities and experiences based on an original survey and staff interviews.

## Youth Apprenticeship Readiness Grants: Registered Apprentice Populations Served, Grantee Roles, and Training Providers

YARG grantees differ in the types of youth populations they expect to serve, the role the grantees expect to play in the registered apprenticeship programs supported by the grant, and the types of RTI providers partnering with the registered apprenticeship programs.

These project features are reported by grantees based on their initial plans and experiences. Only some project features were fixed in the grant agreements with DOL. Grantees identified a target total number of youth apprentices but were not required to, and typically did not, commit to a particular target for how many youth apprentices would be ages 16 to 18 or out of school. Later grant project experiences will be documented in the YARG Evaluation final report, but even the initial plans, project designs, and experiences documented here are useful for identifying the variety of potential youth apprenticeship expansion models.

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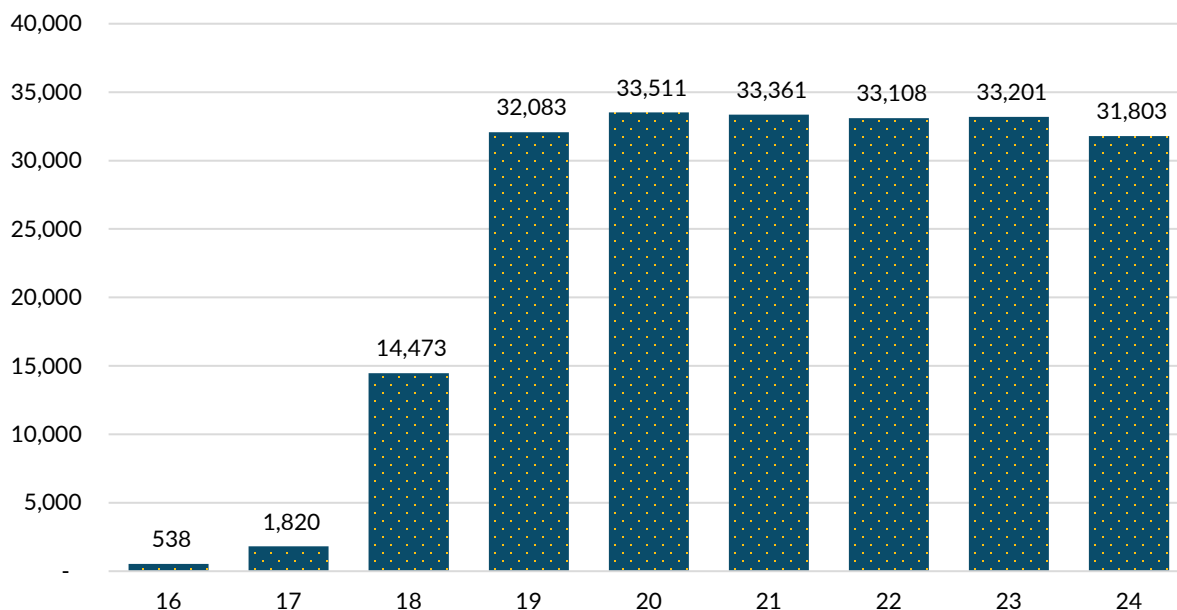
<sup>3</sup> Grantees submit quarterly narrative reports to DOL that describe their major activities and progress toward their targets. Narrative reports of grant activities provide important implementation information on the YARG grants in the interim between evaluation data collections.

## Populations Served by Youth Registered Apprenticeship Programs

For YARG projects, youth apprentices are defined as registered apprentices between the ages of 16 and 24. Using this definition, a substantial share of registered apprentices in the US were “youth apprentices” at some point during their apprenticeship. Kuehn and colleagues (2022) estimate that over the past 25 years, between 34 and 40 percent of all apprentices were youth apprentices, depending on the year.

Although youth apprentices constitute a substantial share of all registered apprentices, relatively few of those youth apprentices were ages 16 to 18 at the time of their registration (figure 1). In 2021, in the 42 states and programs reporting detailed apprenticeship data to the federal government, only 538 apprentices were age 16 when they registered, and only 1,820 were age 17. Many more apprentices were age 18 at the time of registration (14,473), possibly registering after completing high school. However, even 18-year-old registrants were much less common than youth apprentices ages 19 to 24 at registration. Only 7.9 percent of all youth apprentices (ages 16 to 24 at registration) were age 18 or younger at registration.

**FIGURE 1**  
**Active Youth Apprentices (Ages 16 to 24) by Age, 2021**



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**Source:** Authors’ calculation from Registered Apprenticeship Partners Information Data System (RAPIDS) data, which is publicly available at DOL, “Registered Apprenticeship National Results Fiscal Year 2021 10/01/2020 to 9/30/2021,” accessed July 11, 2022, <https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2021>.

**Notes:** Apprentices are restricted to those in nationally registered programs or in programs registered in the 42 states that either report data directly to the RAPIDS database or to separately to DOL.

The youth populations served by YARG grantees and the types of intermediary organizations that grantees partner with influence the youth apprenticeship expansion models implemented for the grant project. For example, grantees and registered apprenticeship programs that work with minors (usually defined as individuals under age 18) may need to establish strong relationships with high schools or maintain a higher level of communication with apprentices' parents or guardians than grantees and registered apprenticeship programs that serve older youth. Younger youth apprentices enrolled in high school at the time of registration may also need support for dual enrollment in postsecondary RTI that is not required for older youth apprentices who have already completed high school.

Some employer partners and program sponsors differentiate between youth apprentices who are younger (16 to 18 years old) and older (19 to 24 years old) and are more reluctant to hire younger apprentices. One YARG grantee, the Oklahoma Department of Commerce, reported that their employer partners worry about the liability and insurance implications of employing minors. Insurance liability is a common concern in youth apprenticeships outside the YARG program; almost 85 percent of Georgia Youth Apprenticeship Program coordinators reported in a survey that employer concerns about liability were a major obstacle to recruiting employers, even though insurance costs associated with employing 16- to 18-year-olds were not prohibitively high (Lerman, Kuehn, and Shakesprere 2019).

YARG grantees also vary in whether they serve in-school youth, out-of-school youth, or both. Out-of-school youth may need to be recruited from different sources than in-school youth, including community-based organizations, American Job Centers, or advertising in the community. Recruitment may require different outreach strategies than in-school youth. Out-of-school youth may also have greater availability for work on the job site. If out-of-school youth come from more vulnerable backgrounds than in-school youth (e.g., if they come from families with lower incomes), they may need additional supportive services, such as transportation, child care, or assistance applying to apprenticeship opportunities.

The populations that the 14 YARG grantees plan to serve are summarized in table 1. These summaries reflect YARG grant agreements, quarterly reports, and the expectations of program staff reported in clarification calls, based on their experiences between the announcement of grants in June 2020 and September 2021. Unless a YARG grantee's grant agreement restricts them to serving a particular type of youth apprentice, the grantees do not have exact targets for the number of younger or older youth apprentices that they register. For this reason, table 1 describes the general focus of the grant project and the major or primary sources of recruitment.

YARG grantees recruit apprentices from different age groups. Seven grantees expect both younger and older youth to be a major source of recruitment. YARG grantees support multiple registered apprenticeship programs, so apprentices in different age groups can be registered in the same program or separated into different programs. Three grantees (CareerWise Colorado, Idaho Workforce Development Council, and Nevada System of Higher Education Board of Regents) expect to primarily serve younger youth, with little or no recruitment of older youth.

In addition to identifying a target age for their apprentices, grantees determine whether they will focus on in-school youth, out-of-school youth, or both. Often, out-of-school youth served by grantees are from underserved populations or face barriers to making a smooth transition to the workforce. A grantee's decisions about what types of youth will be targeted by the grant is relevant to both their recruitment strategies and the partners they work with for recruitment activities.

One approach to recruiting out-of-school youth in target populations is to partner with an organization already engaged with the underserved population. Alamo Community College District is partnered with two such organizations, one that focuses on helping first-generation students (college students who are the first generation to attend) succeed in college and one that focuses on helping youth aging out of foster care. These partnerships are the main recruitment sources for Alamo's out-of-school youth. AMIkids serves justice-involved youth and builds on an existing partnership with the Florida Department of Juvenile Justice. The Oklahoma Department of Commerce is working closely with the Oklahoma Department of Rehabilitation Services, the Oklahoma Department of Human Services, and Oklahoma Juvenile Affairs to focus on providing apprenticeship opportunities to youth with disabilities and justice-involved youth. As a part of this strategy, the Oklahoma Department of Commerce is creating a referral system between agencies to help streamline apprentice recruitment.

TABLE 1

## Youth Apprenticeship Readiness Grant Planned Target Populations, by Grantee

YARG program	Planned recruitment of youth, 16 to 18	Planned recruitment of youth, 19 to 24	Planned recruitment of out-of-school youth
<b>AMIkids Inc.</b>	Major source of recruitment	Major source of recruitment	Focus is on youth out of school at recruitment
<b>Alamo Community College District</b>	Not planned	Primary source of recruitment	Most apprentices are in school at recruitment, but some will be out of school
<b>Alaska Works Partnership Inc.</b>	Not planned	Primary source of recruitment	Focus is on youth out of school at recruitment
<b>CareerWise Colorado</b>	Primary source of recruitment	Only in the third year of the program	All apprentices are in school at recruitment
<b>Delaware Department of Education</b>	Major source of recruitment	Major source of recruitment	Most apprentices are currently older and out of school, but more will be in school in the future
<b>Easter Seals TriState LLC</b>	Major source of recruitment	Major source of recruitment	Most older youth participants will be out of school
<b>Idaho Workforce Development Council</b>	Primary source of recruitment	Some recruitment	Most apprentices are in school at recruitment, but some will be out of school
<b>Michigan Department of Labor and Economic Opportunity</b>	Major source of recruitment	Major source of recruitment	Mix of out-of-school and in-school youth
<b>National Restaurant Association Educational Foundation</b>	Major source of recruitment	Major source of recruitment	All apprentices are in school at recruitment
<b>Nevada System of Higher Education Board of Regents</b>	Primary source of recruitment	Some recruitment	Most apprentices are in school at recruitment, but some will be out of school
<b>Northwest Florida State College</b>	Some recruitment	Primary source of recruitment	Focus is on youth out of school at recruitment
<b>Oklahoma Department of Commerce</b>	Some recruitment	Primary source of recruitment	Focus is on youth out of school at recruitment
<b>South Carolina State Board for Technical and Comprehensive Education</b>	Major source of recruitment	Major source of recruitment	All apprentices are in school at recruitment
<b>The WorkPlace</b>	Major source of recruitment	Major source of recruitment	Most apprentices are in school at recruitment, but some will be out of school

**Source:** Youth Apprenticeship Readiness Grant (YARG) agreements, reports to the evaluation team, and quarterly narrative reports submitted to the US Department of Labor.

**Notes:** Target populations served were estimated in September 2021. The table summarizes subjective descriptions of grantees' programs and expectations for program operation. "Primary source of recruitment" means the grantee expects the large majority of apprentices to be recruited from the identified population. "Major source of recruitment" means the grantee expects many apprentices, and possibly a majority, to be recruited from the identified population, but a substantial number may be recruited from other populations as well. Because grantee assessments are both approximate and subjective, no strict percentage is available to differentiate a "primary source of recruitment" from a "major source of recruitment."



## Program Sponsorship and Grantee Role in Youth Apprenticeship Readiness Grants

Registered apprenticeship program sponsors are organizations responsible for organizing and delivering registered apprenticeship programs. Many registered apprenticeship programs are sponsored by employers, but other organizations can also sponsor programs, including organizations awarded federal grants (e.g., YARG grantees), nonprofit organizations, or community colleges. Every YARG grantee supports many registered apprenticeship programs, so the sponsoring organization may vary across registered apprenticeship programs for a particular grantee, and most grantees are flexible about using the program sponsor employer partners prefer. The typical sponsor of a YARG grantee's registered apprenticeship programs and the role of the grantee in the registered apprenticeship program is summarized in table 2.

TABLE 2

Youth Apprenticeship Readiness Grant Program Sponsors and Grantee Roles, by Grantee

YARG Program	Sponsor of registered apprenticeship programs	Role of grantee in registered apprenticeship program
<b>AMikids Inc.</b>	Programs are sponsored by Associated Builders and Contractors members	Manages the pre-apprenticeship programs and assists in registering programs
<b>Alamo Community College District</b>	Palo Alto College sponsors group apprenticeship programs, and some employers will also sponsor	Recruits apprentices and provides case management; Palo Alto College, a college in the district, provides related technical instruction
<b>Alaska Works Partnership Inc.</b>	Both grantee and employers will sponsor; employer sponsors include Native Corporations	Manages recruitment, provides RTI, and coordinates application for WIOA youth services
<b>CareerWise Colorado</b>	Both grantee and employers will sponsor	Operates as an intermediary, either sponsoring programs or helping other sponsors develop and register
<b>Delaware Department of Education</b>	Employers will sponsor most program, and some RTI providers may sponsor	Coordinates program registration and provides and pays for pre-apprenticeship training in technical schools
<b>Easter Seals TriState LLC</b>	Programs are sponsored by Allied Construction Industries trade association members	Operates as an intermediary and helps to develop program standards and provides case management and pre-apprenticeship training
<b>Idaho Workforce Development Council</b>	Employers will be the primary program sponsors, but some RTI providers may sponsor	Coordinates partners, including employers, RTI providers, and an intermediary organization
<b>Michigan Department of Labor and Economic Opportunity</b>	A mix of employers, joint labor-management organizations, and intermediaries will sponsor	Coordinates Regional Implementation Consortia (RIC) to recruit students and support programs

YARG Program	Sponsor of registered apprenticeship programs	Role of grantee in registered apprenticeship program
<b>National Restaurant Association Educational Foundation (NRAEF)</b>	Employers sponsor the registered apprenticeship programs	Operates two pre-apprenticeship programs and supports employers in registering their programs
<b>Nevada System of Higher Education Board of Regents</b>	Grantee is sponsoring most programs, but some large employers will also sponsor	Coordinates partners, sponsors programs, and screens applicants for pre-apprenticeship
<b>Northwest Florida State College</b>	Grantee plans to sponsor all apprentices	Serves as the sponsor, RTI provider, and recruiter for all apprentices supported by the grant
<b>Oklahoma Department of Commerce</b>	Employers, industry associations, and RTI providers will sponsor the registered apprenticeship programs	Serves as an intermediary that helps with recruitment and referrals and coordinates workforce board partners
<b>South Carolina State Board for Technical and Comprehensive Education</b>	Employers will sponsor the registered apprenticeship programs	Serves as an intermediary that helps to register programs and coordinate with partners, including Regional Youth Apprenticeship Councils (RYAC)
<b>The WorkPlace</b>	Employers will sponsor the registered apprenticeship programs	Coordinates apprenticeship partners and helps with recruitment and support services

**Source:** Youth Apprenticeship Readiness Grant (YARG) reports to the evaluation team and quarterly narrative reports submitted to the US Department of Labor.

**Notes:** Target populations served were estimated in September 2021. RTI = related technical instruction; WIOA = Workforce Innovation and Opportunity Act.

All YARG grantees except Northwest Florida State College reported that at least some of their programs will be sponsored by an employer. Northwest Florida State College is the only grantee that plans to sponsor all of its programs, although other grantees expect to sponsor some of their programs. When grantees or other intermediaries sponsor apprenticeship programs, it can reduce the employers' burden of developing and coordinating a registered apprenticeship program. One grantee, the Michigan Department of Labor and Economic Opportunity, mentioned that joint labor-management organizations would sponsor programs, and several grantees suggested that employer associations would be sponsors.<sup>4</sup>

All grantees reported that their own grantee organization will coordinate and manage diverse partners supporting the grant. Some grantees also indicated that they would provide RTI themselves

<sup>4</sup> Joint labor-management organizations are common sponsorship organizations in the registered apprenticeship system. They are organizations with a labor union and equal representation for employers that jointly sponsor apprenticeship programs. Although only Michigan Department of Labor and Economic Opportunity named joint labor-management organizations as sponsors, other grantees might also support its programs during the grant period.

(Alamo Community College District, Alaska Works Partnership Inc., and Northwest Florida State College). CareerWise Colorado, Easter Seals TriState LLC, and South Carolina all highlighted that they would help sponsors develop new apprenticeship standards and assist in registering them.

## **The Education Partner’s Role in the Youth Registered Apprenticeship Program**

YARG grantees must identify an education partner, which can include either secondary or postsecondary institutions. Education partners provide RTI for all grantees, except in the cases in which RTI is provided by employers, joint labor-management committees, or other organizations. When the grantee is an educational institution, such as the Alamo Community College District or Northwest Florida State College, the grantee itself provides most RTI training.

Education partners can also be registered apprenticeship program sponsors. In some cases, CareerWise Colorado’s high school partners are sponsors for occupations in which the school district itself is an employer, such as an auto mechanic registered apprenticeship program that works on vehicle fleets for the school district.

Although high schools sometimes provide RTI for youth apprentices, they more commonly recruit by operating a pre-apprenticeship feeder program or by directing students to registered apprenticeship in other ways. For example, the Oklahoma Department of Commerce partners with high schools across the state on its YARG project to recruit graduates to registered apprenticeship programs. Beginning in the 2019–2020 academic year, all freshmen in Oklahoma are required to create an individual career and academic plan, which includes work-based learning opportunities, such as apprenticeship, internships, and job shadowing.<sup>5</sup> The Oklahoma Department of Commerce is working with its high school partners to encourage students to incorporate registered apprenticeships into their plans.

Finally, educational partners can be a source of employer contacts. Community and technical colleges with strong occupational skills-training programs often have a network of employer partners that may be interested in apprenticeship. Technical colleges help lead regional apprenticeship coordination for the South Carolina State Board for Technical and Comprehensive Education’s grant because of their ties with local employers. Some high schools also have strong employer relations. The Delaware Department of Education noted that its three technical high school district partners would be an important source of employer contacts for the grant.

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<sup>5</sup> For details on work-based learning in the Oklahoma secondary education system, see Oklahoma State Department of Education, “Trauma Summit,” last updated on May 4, 2022, [https://sde.ok.gov/sites/default/files/documents/files/EngageOK%20Session%20-%20Internships%20-%20Education%20Beyond%20the%20Classroom%20-%201%20%28Work%20Based%20Learning%20Info%20Brief-Benefits%20of%20Internships\\_0.pdf](https://sde.ok.gov/sites/default/files/documents/files/EngageOK%20Session%20-%20Internships%20-%20Education%20Beyond%20the%20Classroom%20-%201%20%28Work%20Based%20Learning%20Info%20Brief-Benefits%20of%20Internships_0.pdf).

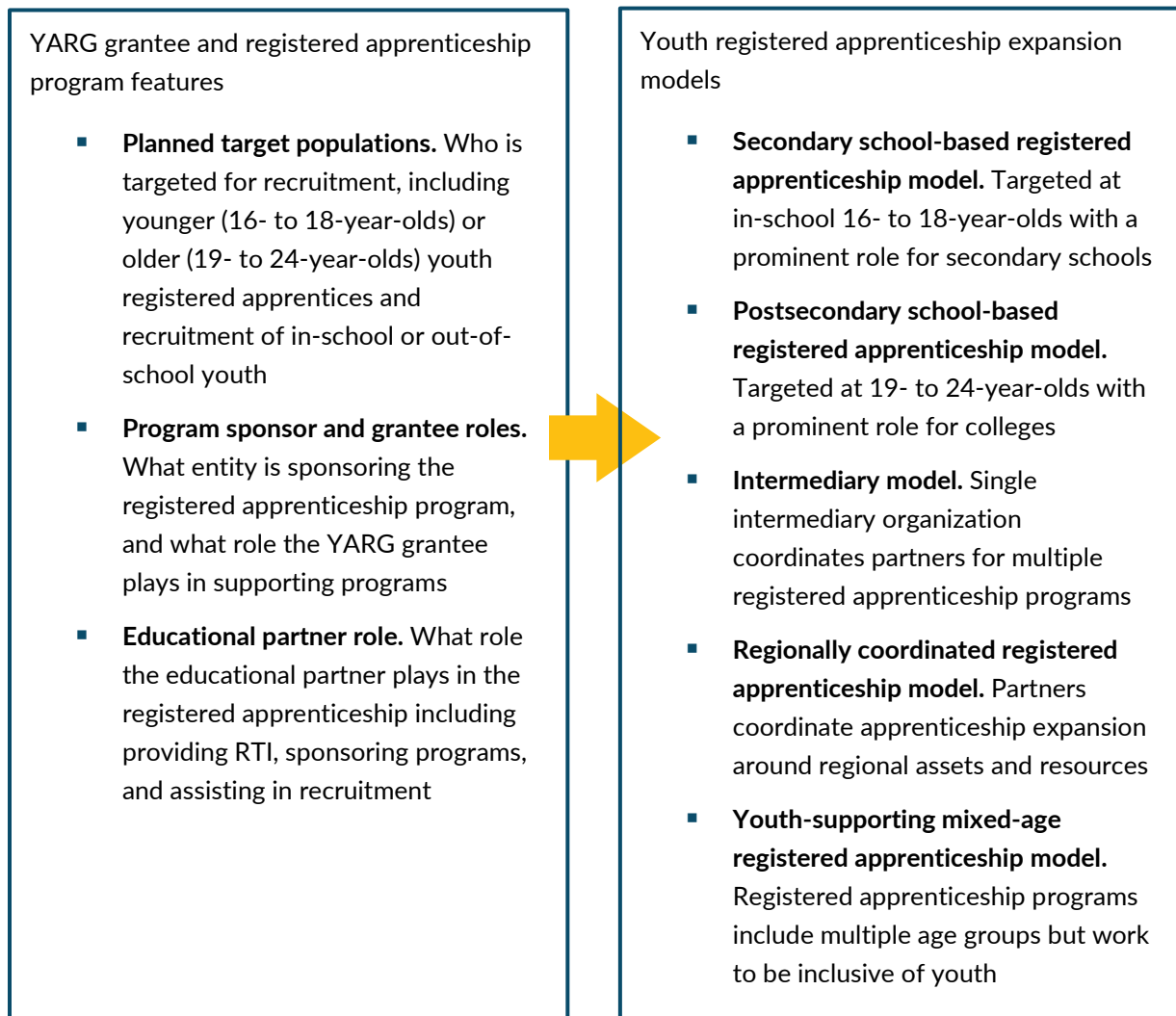
## Youth Apprenticeship Expansion Models

Younger youth apprentices are uncommon in the US (figure 1) in part because of the difficulties around coordinating high school districts, employers, and other apprenticeship partners. The five youth apprenticeship expansion models discussed here provide a framework for registered apprenticeship programs and intermediaries to think about organizing their expansion efforts. Each model is typically associated with different requirements, barriers, and key partners, and certain models may be more appropriate in some situations than others.

Registered apprenticeship programs include many different components, and how these components are organized is relatively flexible. Programs bring together multiple partners and possible roles for those partners, making it difficult to identify a model that fully characterizes the 14 YARG grantees. The five models described in this brief are presented as a way of organizing the key program features and strategies used by YARG grantees into a coherent typology (exhibit 4). These five models do not exclusively or exhaustively describe the apprenticeship activities of the YARG grantees. However, grantees support many types of apprentices and registered apprenticeship programs that fit into many of the models described here, and some youth registered apprenticeship programs may not even be well characterized by this typology.

FIGURE 2

### YARG Program Features and Expansion Models



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Notes: YARG = Youth Apprenticeship Readiness Grant; RTI = related technical instruction.

### Secondary School–Based Registered Apprenticeship Model

Secondary schools are a natural starting point for expanding youth registered apprenticeship, particularly for 16- to 18-year-olds who, as a group, are underrepresented in the registered apprenticeship system (figure 1). Under a secondary school–based model of apprenticeship expansion, youth apprentices begin their registered apprenticeship program in high school, either in their junior or senior year. High schools and career and technical education centers help deliver RTI in a secondary school–based model and may even serve as sponsors or coordinators for the registered apprenticeship program.

States are beginning to engage secondary school systems but are moving slowly. Sattar and colleagues (2021) found that relatively few state apprenticeship directors (7 of the 34 interviewed for the study) reported that they had partnered with a secondary school system to expand apprenticeship. Some states that partnered with secondary school systems only used high schools as a recruitment source for apprentices rather than as a major partner or sponsor of the registered apprenticeship program itself. Rice and colleagues (2016) cited insufficient funding and limited opportunities for the relevant agencies to meet and collaborate on youth apprenticeship as important barriers to engaging the secondary school system into registered apprenticeship. Rosenberg and Dunn (2021) found in a survey of states that a higher share of states who received a State Apprenticeship Expansion grant from the US Department of Labor reported high schools as a major partner than states who did not (61.8 percent compared to 35.3 percent). Two states that implement a secondary school-based model with at least some of their registered apprenticeship programs are Delaware and Idaho:

- **The Delaware Department of Education**, which serves both younger and older apprentices, expects about 60 percent of its youth apprentices to be registered while enrolled in one of the state's three regional technical high school districts. The technical high schools provide both pre-apprenticeship training and RTI for most apprentices recruited in school. Most high school apprentices go through pre-apprenticeship training before their apprenticeship. Grant staff note that the regional technical high schools have strong existing relationships with employers, which support the transition from school to the registered apprenticeship program.
- **The Idaho Workforce Development Council** describes its youth apprenticeship model as a "school to registered apprenticeship" approach, citing the fact that half of Idaho high school graduates do not go on to postsecondary education or training. The Idaho grant program works with high school career advisors and career and technical education instructors to recruit youth in high school into registered apprenticeship programs. In some cases, the high schools provide RTI for the registered apprenticeship program, but when this is not possible, the high school and the grantee coordinate with community colleges or other training providers for the RTI.

Other YARG grantees who partner with high schools include CareerWise Colorado, National Restaurant Association Educational Foundation (NRAEF), the Nevada System of Higher Education, the South Carolina State Board for Technical and Comprehensive Education, and the WorkPlace. Of those grantees, only CareerWise Colorado and South Carolina plan for a substantial share of their youth apprentices to be enrolled in high school during the apprenticeship. Youth apprentices in CareerWise Colorado programs are enrolled in high school for the first two years of their apprenticeship (during their junior and senior year), while in South Carolina they are enrolled in high school for the first year of their apprenticeship (during their senior year). In both cases, youth apprentices complete their RTI with a local community or technical college. Finding time for OJL during the school year can be difficult for high school students. The grant director for CareerWise Colorado noted that students are "at the whim of school schedules," so that time spent on job sites sometimes has to wait for summer

breaks. YARG grantees are experimenting with different solutions to these challenges, and potentially promising solutions will be reviewed in subsequent research briefs and reports for the evaluation.

High schools are less directly integrated into the registered apprenticeship programs of NRAEF, Nevada, and the WorkPlace, which primarily engage high schools as sites for pre-apprenticeship training or as recruitment sources. Pre-apprentices in NRAEF's ProStart program are enrolled in high school and register as apprentices after completion. High schools provide apprenticeship-readiness programs<sup>6</sup> for the Nevada System of Higher Education's grant but are not involved in delivering the apprenticeship. The Nevada grant director remarked that she "would love to have registered apprenticeship for high school students, but we're not there yet." The WorkPlace recruits heavily from high schools, but the RTI for the program is delivered either directly by The WorkPlace or a community college partner.

### **Postsecondary School–Based Registered Apprenticeship Model**

Postsecondary schools, particularly community colleges, have traditionally been more active than high schools in apprenticeship training (Beer 2018; de Alva and Schneider 2018; Lerman, Eyster, and Chambers 2009). Unlike most high schools, community colleges support departments' curricula specializing in occupational skills training appropriate for RTI in a registered apprenticeship program. They also typically have stronger ties than high schools with local employers that can facilitate new program registration and apprenticeship expansion.

- The **Nevada System of Higher Education** is partnering with employers and community colleges to create 16 new registered programs and expand two existing programs. The grantee expects that RTI will be provided by colleges in most cases, although employers may also provide RTI if they need to provide instruction in equipment the school does not possess. Community colleges will provide apprenticeship-readiness training (e.g., pre-apprenticeship) for applicants that require it.
- **Alamo Community College District** is targeting youth in the Alamo Promise program, a last-dollar college scholarship program, to encourage students from local high schools to register in apprenticeship programs. The grantee is working with 25 high schools for this recruitment effort. RTI will be provided by Palo Alto College, one of the six colleges in the Alamo Community College District. College departments, such as the college's advocacy center, will coordinate supportive services for apprentices.

Community colleges serve a critical role in other YARG projects as well, including in South Carolina, where colleges manage regional apprenticeship expansion work, and at CareerWise Colorado, where apprentices receive RTI from community colleges after their senior year in high school.

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<sup>6</sup> Nevada's apprenticeship-readiness programs are pre-apprenticeship programs but were renamed to apprenticeship-readiness programs to avoid confusion with their union partners' pre-apprenticeship programs.

## Intermediary Model

The **intermediary model** is a common approach to registered apprenticeship program design that relies on a single organization, the intermediary, to coordinate the work of apprenticeship partners, manage program registration, and in some cases, sponsor registered apprenticeship programs (Lerman and Kuehn 2021; Smith 2019). Intermediaries can be particularly valuable in the context of youth registered apprenticeship programs because younger registered apprentices may require coordination between secondary school systems, parents, youth-serving organizations, and supportive services providers that may not be involved with adult registered apprenticeship programs (Kuehn 2021).

All YARG grantees are charged with registering new or expanding existing youth registered apprenticeship programs, so all YARG grantees fulfill at least some classic intermediary functions when they distribute grant funding and services to employers and other partners. However, some YARG programs have developed a more expansive intermediary role by taking on key administrative, program design, and sponsorship responsibilities.

- **CareerWise Colorado** is a workforce intermediary that began its registered apprenticeship expansion efforts in Colorado but has expanded its work to Indiana, New York, and the DC metropolitan area. As an intermediary, CareerWise supports a standardized youth apprenticeship model across its educational and employer partners. CareerWise youth apprenticeships are three years long, typically with participants starting in their junior year of high school and finishing the program one year after completing high school. Apprentices and employers are linked through CareerWise’s “apprenticeship marketplace,” where apprentices maintain profiles that can be reviewed by employer providers of OJL.
- **Easter Seals TriState LLC** acts as an intermediary supporting their employer sponsors and RTI providers. As an intermediary, Easter Seals recruits and screens apprentices to ensure that they have adequate preparation to succeed in a registered apprenticeship program. They also review their registered apprenticeship program partners to ensure they are using common standards in their programs and to identify any deficiencies in program services that can be remedied with additional technical assistance.

Intermediary models are compatible with youth registered apprenticeship programs serving youth of any age or school enrollment status. For example, CareerWise Colorado typically recruits apprentices who are in their junior year of high school and therefore younger youth apprentices. Easter Seals, in contrast, recruits a mix of younger and older youth into their registered apprenticeship programs, and most of those apprentices are out of school when they are recruited.

In some cases, youth apprenticeship intermediaries support programs that are closely aligned with high schools, blending the secondary school-based youth apprenticeship model with the intermediary model. CareerWise Colorado serves as the intermediary for its registered apprenticeship programs, which partner with both high schools and colleges (Katz and Elliott 2020). The Idaho Workforce Development Council described its YARG project as similar to the approach of CareerWise Colorado.



## Regionally Coordinated Registered Apprenticeship Model

Many states use the **regional coordinator model** to support and expand registered apprenticeship programs in specific regions or cities. Unless a registered apprenticeship program has a substantial virtual element, employers, RTI providers, and partners responsible for recruiting and providing supportive services must be in close geographic proximity to each other. A single regional coordinator or multiple regional partners with a deep understanding of their local workforce system are therefore well positioned to promote and support registered apprenticeship programs as a regional workforce development strategy. Some regional coordinator models are built around local community colleges that work with employer partners and can provide RTI in a range of occupational fields. The regional coordinator model is closely associated with youth apprenticeship in South Carolina, where the Charleston Youth Apprenticeship Program has been operating since 2014 and is emulated across the state. The Charleston Youth Apprenticeship Program is led by Trident Technical College and provides two-year registered apprenticeships in many occupational fields (Kreamer and Zimmerman 2017).

The Michigan Department of Labor and Economic Opportunity and South Carolina State Board for Technical and Comprehensive Education are empowering regional coordinators to expand youth apprenticeship under the grant. In Michigan, these “regional implementation consortia” are employer led, while in South Carolina collaboration occurs through a joint effort led by the local technical colleges. In both cases, the regional coordinator model builds a critical mass of partner support and awareness of apprenticeship in the region.

- **Michigan Department of Labor and Economic Opportunity** operates the Michigan Youth Apprenticeship Readiness Network (also known as MiYARN) program through Regional Implementation Consortia (RIC) subgrantees. The RICs establish partnerships between schools and employers, distribute grant funds, and are employer led, although the local workforce agency will support them. Some of the RICs are expected to be sector focused if local employers are concentrated in a particular industry. The primary focus of the RICs’ work is to give secondary students the opportunity to experience registered apprenticeship, but the program will also serve a substantial number of out-of-school youth.
- The **South Carolina State Board for Technical and Comprehensive Education** is working to expand youth registered apprenticeship in the state through regional youth apprenticeship councils (RYACs). Each RYAC is a collaborative effort between local stakeholders to develop and implement an enrollment and recruitment strategy led by the local technical college. By the end of the first program year, RYACs associated with five technical colleges hosted their first meeting (Horry-Georgetown/Williamsburg Technical College, Midlands Technical College, Spartanburg Technical College, Tri-County Technical College, and Trident Technical College). RYAC members include college dual-enrollment staff, secondary school staff, and employers. The youth apprentices supported by South Carolina’s YARG project will typically be dual enrolled in high school and their local technical college at the beginning of their program, eventually enrolling full time at the college.

## Youth-Supporting Mixed-Age Apprenticeship Model

YARG projects are restricted to supporting youth apprentices ages 16 to 24, but those apprentices need not be registered with apprenticeship programs that exclusively serve youth. YARG youth apprentices can be registered with apprenticeship programs that predominantly serve adults. Some YARG grantees plan to expand the number of youth registered apprenticeships by supporting youth who register with **youth-supporting mixed-age registered apprenticeship** programs. Grantees using the youth-supporting mixed-age registered apprenticeship program model of apprenticeship expansion serve as a youth recruitment source for employers and support youth as they advance through registered apprenticeship programs that also serve adults.

Some grantees reported during clarification calls that they found it difficult to persuade employers in certain industries to engage with apprentices under age 18, so this model often focuses on older youth apprentices. Grantees supporting youth-supporting mixed-age registered apprenticeship programs frequently offer apprenticeship readiness activities or pre-apprenticeship training to reach younger youth or to ensure that older youth are adequately prepared for the apprenticeship. Two examples of YARG grantees that work to expand youth apprenticeship by supporting youth-supporting mixed-age registered apprenticeship programs are the Alaska Works Partnership and Northwest Florida State College.

- **The Alaska Works Partnership Inc.** grant program is focused on building youth pathways to adult registered apprenticeship programs in health care and highly seasonal construction and weatherization occupations. Although career and technical education and work-based learning are promoted to Alaskan students starting in middle school, Alaska Works Partnership expects its youth apprentices to be older, out-of-school youth. Grant staff report that out-of-school youth have an easier time accommodating work into their schedules than in-school youth. Youth apprentices will be introduced to apprenticeship opportunities through pre-apprenticeship programs partnered with employer-sponsored registered apprenticeship programs. Alaska Works Partnership is partnering with the state's American Job Centers and expects to support apprentices through the Workforce Innovation and Opportunity Act (also known as WIOA) youth program.
- **Northwest Florida State College** supports its employer partners in program registration and hiring youth apprentices. The college plans to sponsor most of its registered apprenticeship programs to reduce the registration burden on small employers who might only be able to support one or two apprentices and who might otherwise hire adults. YARG will fund RTI and other supports to encourage employer partners to hire youth apprentices. Northwest Florida State College primarily works with older youth because employer partners are often reluctant to hire youth who are still enrolled in high school.

## Pre-apprenticeship and Supportive Services

YARG grantees offer or plan to offer a suite of support services to their youth apprentices depending on partner capacity and apprentices' needs. Supportive services may be particularly important for apprentices who are out of school at recruitment or who are underserved by public systems in other ways. Six grantees indicated that their plan is to mostly or exclusively work with out-of-school youth, and five additional grantees indicated that they will serve some out-of-school youth even though most of their apprentices will be in school.

### Pre-apprenticeship Training

Apprenticeships are typically entry-level occupations, but not every apprentice is prepared to begin an apprenticeship. Successful apprentices need to perform professionally in a workplace and may need to have a baseline level of occupational skills. Pre-apprenticeship training provides short-term academic, occupational, or employment skills training to ensure that participants are equipped to enter a registered apprenticeship program. Pre-apprenticeship brings apprenticeship applicants up to a shared, baseline of skills standards and improves access to registered apprenticeship opportunities. In addition to building skills, employers value pre-apprenticeships as a reliable recruitment source (Gardiner et al. 2021).

Grantees supporting pre-apprenticeship programs and other apprenticeship readiness activities include Alamo Community College District, Alaska Works Partnership, AMIkids, Nevada System of Higher Education, NRAEF, and the WorkPlace. Some of these grantees are school-based pre-apprenticeship programs; others are operated by nonprofits and youth-serving organizations. Easter Seals and Alaska Works Partnership expect that pre-apprenticeship programs will feed their registered apprenticeship programs but are not developing pre-apprenticeships of their own.

Other trainings and services similar to pre-apprenticeship can introduce apprenticeship training. Alaska Works Partnership administers assessments in math and reading to place apprentices and identify additional training and supply needs. They also help participants write their apprenticeship applications and prepare for interviews. CareerWise Colorado operates a three-day bootcamp before the start of their apprenticeship that provides professional development and workplace skills. Although grantees do not consider these to be pre-apprenticeships, they serve a similar function in the program.

YARG grantees may develop additional pre-apprenticeships or trainings that are similar to pre-apprenticeship during the grant, which future evaluation reports will document. Although only four YARG grantees clearly identified pre-apprenticeship training as a program component in their grant applications, others have developed or partnered with pre-apprenticeship programs during their first year.

## Case Managers and Support Services

All YARG grantees provide supportive services supplied themselves or through partnerships with community organizations. However, some grantees organize and deliver these services using a case management approach to determine apprentices' needs and navigate them through support service delivery.

Easter Seals uses an apprenticeship coordinator to provide case management services. The apprenticeship coordinator is in continuous contact with program participants to determine their needs and help find services. Youth apprentices in AMIkids programs are also assisted by a case manager who helps connect them to supportive services, such as obtaining child care, transportation, housing, food, or valid identification, and managing public health systems. The WorkPlace operates what it calls a “concierge” model of case management in which they ensure that each apprentice gets all the additional support services needed as they complete their apprenticeship. The WorkPlace has addressed apprentices' transportation needs and distributed Chromebooks so that apprentices can participate in online learning.

Some apprentices need support obtaining equipment for their OJL. The Nevada System of Higher Education provides stethoscopes to its apprentices in health care training programs, while Easter Seals provides work boots and jackets for outdoor construction workers and work-compliant pants for painters.

## Partners Involved in Supportive Services

YARG partners are essential to supportive service delivery. In some cases, partners accept referrals of apprentices for specific services. For example, Northwest Florida State College identifies child care as an anticipated need for apprentices and works with a local child care center to provide on-campus child care both during normal business hours and after hours. In other cases, partners can provide more comprehensive assessment and support for apprentices' needs, much like case managers. Alamo Colleges offers services through a partnership with their college's advocacy center, including transportation, substance abuse and mental health assistance, day care, housing, food support, equipment, tools, uniforms, tutoring, or other educational supports. The advocacy center assesses apprentices' needs, provides or connects the apprentices with services, then bills the grantee for the cost of the support and services provided. The partnership with the advocacy center allows grantee staff to focus on recruitment and program development while ensuring that apprentices' needs are met.

The Michigan Department of Labor and Economic Opportunity is well positioned to serve apprentices with disabilities because their department also includes the Michigan Rehabilitative Services agency. One of the responsibilities of Michigan Rehabilitative Services is connecting clients to career services and technical training. The agency's experience connecting clients to training has ensured that they are familiar with the operation and priorities of training programs and understand the priorities of YARG project and the potential of apprenticeship for youth with disabilities.

## Lessons for the Future

The 14 YARG grantees help expand youth registered apprenticeship opportunities in the US, and their first year of grant activities have focused on preparing a model for youth apprenticeship expansion in their states and occupational sectors. Although registered apprenticeships must meet certain training standards, they are organizationally flexible, which gives YARG grantees an opportunity to implement different models for apprenticeship expansion. This brief develops a typology of five registered apprenticeship expansion models for engaging youth, informed by key program features, such as the ages and characteristics of youth apprentices, the role of the grantee and typical sponsor of registered apprenticeship programs, and the role of the grantee's educational partner. These models are not exhaustive of all possible approaches to youth apprenticeship expansion, and they are not mutually exclusive. Instead, they provide a framework for policymakers and practitioners to think about how to organize partners to expand youth registered apprenticeship.

Each of the five registered apprenticeship expansion models will face different challenges in the future. The YARG grantees report that **secondary school-based youth apprenticeship expansion** introduces the challenge of aligning the requirements of the apprenticeship with the high school curriculum and reassuring employers about the costs of insuring minors. **Postsecondary school-based youth apprenticeship expansion** efforts are more traditional in registered apprenticeship than secondary school-based programs, but grantees pursuing this strategy need to identify adequate recruitment sources for youth and establish employer partnerships. Many grantees meet these challenges by implementing an **intermediary model** or a **regional coordinator model**, in which one organization or entity takes on the responsibility of shepherding apprenticeship partners and designing and registering new programs. Finally, the **youth-supporting mixed-age registered apprenticeship model** takes advantage of the existing registered apprenticeship system that primarily serves adults by introducing partnerships, services, and resources to make these programs more accessible to youth. Each of these models presents its own organizational strengths and challenges, but in all five models, the focus is providing apprentices appropriate access and supports to enter and succeed in registered apprenticeships.

Future briefs and evaluation reports will describe YARG grantees' experiences with implementing these models and identify potential practices and strategies to support youth apprentices.

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