INTRODUCTION

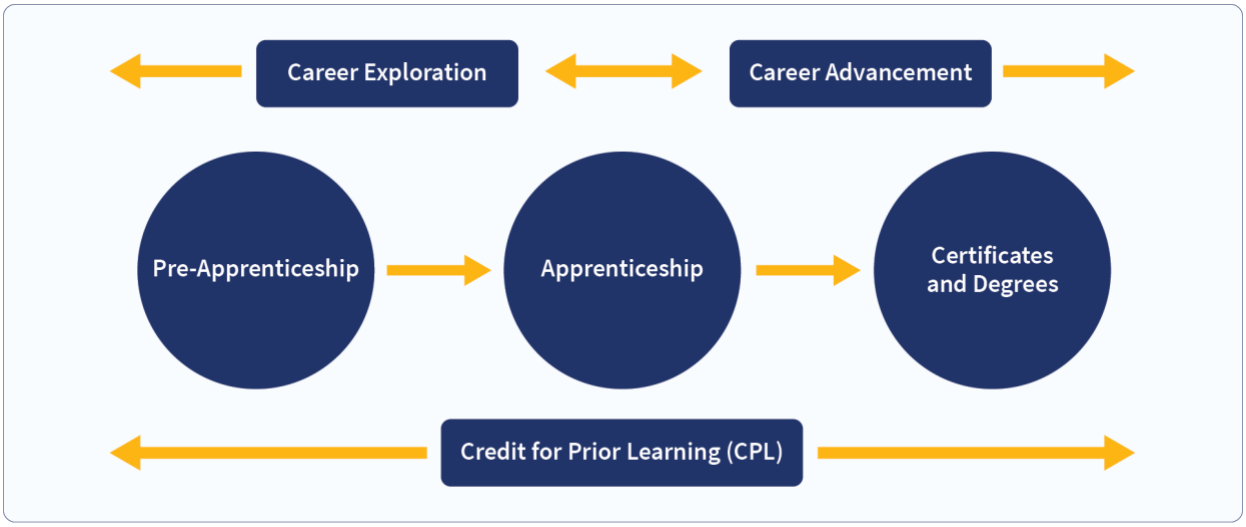
California's education systems are working to expand accessible pathways that help learners explore careers, gain skills and credentials, and advance into family-sustaining employment. Registered apprenticeship is a proven strategy for achieving these outcomes by combining paid on-the-job learning with classroom instruction, allowing participants to earn wages while progressing toward industry-recognized credentials, certificates, and degrees.

Local Educational Agencies (LEAs), including community colleges, K-12 school institutions, and adult schools, play important and complementary roles in developing apprenticeship pathways, including providing career exploration, pre-apprenticeship programs, Registered Apprenticeship Programs (RAPs), awarding Credit for Prior Learning (CPL) for apprenticeship-related experience, and aligning apprenticeship pathways with postsecondary certificates and degrees. While LEAs may not be positioned to provide every component of a pathway, partnerships among educational institutions, apprenticeship sponsors, employers, labor organizations, workforce boards, and community-based organizations can leverage complementary resources, expertise, and relationships to build and strengthen apprenticeship pathways across a region while creating seamless transitions for students.

This guidance document focuses on the education-centered components of an apprenticeship pathway, how they connect, the roles LEAs can play in supporting learner progression, and state resources that can support the development and implementation of pathways. It also includes recommendations and examples for incorporating promising practices at different stages of the pathway and identifying partners that can strengthen connections between stages. By building on existing programs and leveraging regional partnerships, LEAs can help learners navigate pathways that connect education, apprenticeships, postsecondary credentials, and career advancement.

BUILDING A CONNECTED APPRENTICESHIP PATHWAY

A well-designed apprenticeship pathway provides multiple entry and exit points while creating opportunities for learners to progress through education, skill development, and employment. Apprenticeship pathways are most effective when learners can move seamlessly between career exploration, pre-apprenticeship programs, apprenticeship opportunities, and postsecondary credential and degree attainment. Rather than viewing these components as separate programs, LEAs can work with regional partners to create connected pathways that support learners at different stages of their career and education journeys.



A connected pathway benefits students, employers, and educational institutions by creating greater alignment across education, training, and employment systems. For students, stronger connections between pathway stages reduce barriers to advancement, clarify next steps, and create opportunities to earn college credit and credentials while employed. For employers, coordinated pathways strengthen talent pipelines and improve access to workers prepared with both foundational and occupational skills. For LEAs, connected pathways create opportunities to align existing programs and support student success, retention, and completion.

KEY COMPONENTS OF A CONNECTED APPRENTICESHIP PATHWAY

Career Exploration

Career exploration helps learners understand occupations, industries, and education pathways before making major education and career decisions. Through activities such as career awareness events, industry speakers, workplace tours, work-based learning experiences, Career Technical Education (CTE), and dual enrollment opportunities, learners can connect their interests, skills, and goals to potential careers and better understand the various pathways available to them.

LEAs play a critical role in exposing learners to RAPs as postsecondary education and workforce options. K-12 institutions, adult schools, and community colleges can support career exploration through career advising, outreach activities, work-based learning opportunities, and partnerships with other educational institutions, apprenticeship intermediaries, employers, and industry organizations. These efforts help learners understand apprenticeship opportunities, explore career pathways aligned with their interests and goals, and identify the education, skills, and experiences needed to pursue them. In this way, career exploration serves as the foundation for transitioning into pre-apprenticeship and other career-preparation programs.

Registered Pre-Apprenticeship Programs (RAPs)

Registered Pre-apprenticeship Programs build on the general career exploration courses to more specifically prepare learners for success in RAPs. Pre-apprenticeship programs help participants develop the academic, technical, and workforce skills needed to succeed in specific RAPs, while gaining exposure to certain occupations and industries. Registered Pre-apprenticeship Programs create clear entry points into RAPs and provide participants with a competitive advantage.

LEAs can serve as program sponsors or partners for Registered Pre-apprenticeship Programs, which are often aligned with CTE programs, workforce preparation activities, noncredit instruction, and adult education. LEAs and their partners can structure pre-apprenticeship programs to meet the needs of students and the RAPs with which they align, while leveraging funding sources such as the California Adult Education Program (CAEP) and the California Apprenticeship Initiative (CAI).

Credit-Bearing RAPs

RAPs combine paid On-the-Job Training (OJT) with structured classroom learning through Related and Supplemental Instruction (RSI), allowing apprentices to earn wages while developing occupational competencies needed for success in their chosen pathway. When apprenticeship instruction is aligned with community college coursework, apprentices can earn college credit for postsecondary certificates and degrees. This alignment of education and employment serves as the gold standard of workforce development and student success programs, allowing students the option of pursuing their education while earning wages that are structured to increase as they meet competency milestones.

LEAs can serve as RAP sponsors or partner with employers, intermediaries, or other organizations to provide or coordinate RSI, align instruction with RAP standards and occupational competencies, engage and connect employer partners, connect to pre-apprenticeship programs, and establish connections between apprenticeship-specific curricula and coursework and larger associate and baccalaureate degree pathways.

Credit for Prior Learning (CPL)

Credit for Prior Learning (CPL) provides a mechanism for colleges to recognize college-level knowledge and skills acquired outside of the traditional classroom, including experiences gained through RAP participation, work-based learning, military service, industry training, and professional experience. Apprentices gain competencies through their OJT and RSI. Alignment of their RAP with CPL allows them to earn academic credit that contributes to their progress toward a certificate or degree.

By reducing duplication of learning, CPL can shorten the time required to earn certificates and degrees, lower educational costs, create more efficient educational pathways, and support student retention and completion. CPL also strengthens alignment between apprenticeship pathways and higher education by formally connecting workplace learning to academic achievement. Rather than requiring apprentices to repeat content they have already mastered, CPL allows them to build upon their existing knowledge and continue progressing toward additional educational and career goals.

LEAs and their partners can support CPL processes by clearly documenting competencies, RSI, work-based learning, and other evidence of learning in their apprenticeship pathway program curricula. LEAs can use resources such as Mapping Articulated Pathways (MAP) to identify and document connections between apprenticeship learning, college coursework, and CPL opportunities. Community colleges should establish CPL policies and processes to evaluate documented apprenticeship pathway learnings and determine how they align with college course outcomes to establish standard credit articulation.

Associate and Baccalaureate Degree Programs

While all RAPs lead to an industry-recognized credential for apprentices who complete them, the additional alignment of RAPs to associate and baccalaureate degrees provides even greater opportunity for career advancement and economic mobility for apprentices, especially as there is a growing number of opportunities to earn a baccalaureate degree within the California Community College system. Degree-aligned RAPs directly support student access to and success in postsecondary degrees, allowing apprentices to make significant progress toward their degree through their credit-bearing RAP or CPL, while earning progressive wages. Clear connections between apprenticeship and degree programs allow learners to continue building educational credentials as they progress in their careers, supporting continued education, career advancement, and access to higher-wage opportunities beyond the completion of the RAP.

LEAs play a central role in aligning apprenticeship pathways with degree programs. Community colleges can develop credit-bearing OJT and RSI, convert existing noncredit RAP courses into credit-bearing courses, establish articulation agreements with other LEAs, identify opportunities to apply CPL, and develop clear transfer pathways that show learners how apprenticeship learning can contribute to a credential. K–12 institutions and adult schools can help learners understand postsecondary options and connect them to community college degree pathways.

MODELS FROM THE FIELD

Oakland Unified School District (OUSD) and Berkeley City College (BCC) Early Childhood Education (ECE) Pathway

The Oaktown Leaders Youth Apprenticeship (OTL) pathway was developed by OUSD, BCC, and Early Care & Education Pathways to Success (ECEPTS) and introduces high school students to ECE careers. Through dual enrollment, students take college coursework that counts toward both high school and college credit. BCC serves as the RSI provider, providing coursework selected to support Child Development Permit requirements and connect to future ECE degree pathways.

The apprenticeship pathway progression includes:

- **Career Exploration:** Early childhood education career awareness, dual enrollment, and paid work-based learning experiences while enrolled in high school (12 college credits).
- **Pre-Apprenticeship:** Early Care & Education Associate Teacher (TIER I)
    - 6-12 semester units
    - BCC School Readiness Certificate
    - 200-400 hours of paid on-the-job training
    - Eligibility for Child Development Assistant and Associate Teacher Permits
- **Registered Apprenticeship:** ECE TEACHER APPRENTICESHIP (TIER II)
    - 2,000 hours of paid on-the-job training
    - Eligibility for Child Development Teacher Permit
- **Bachelor's degree Attainment:** ECE MASTER TEACHER APPRENTICESHIP (TIER III)
    - 60 semester units toward a Berkeley City College Associate Degree for Transfer (AA-T)
    - 120 semester units to attain a Bachelor's Degree
    - Additional hours of paid OJT
    - Eligibility for Child Development Master Teacher and Site Supervisor Permit
    - Preparation to enter the Teacher Credential Program

Rather than creating an entirely new system, OUSD and BCC built on existing dual-enrollment, career pathway, and work-based learning infrastructure, which allowed the partners to connect existing programs and create clearer transitions between high school, apprenticeships, postsecondary education, and employment. What this model exemplifies is the power of introducing career exploration and pathway preparation in high school to help learners see apprenticeship as part of a longer yet viable educational and career journey. Strong connections among K–12, community college, and apprenticeship partners can make those transitions more visible and accessible.

Cerritos College Field Ironworkers Apprenticeship-to-Degree Pathway

Cerritos College, in partnership with Ironworkers Local 416 (Reinforcing) and Local 433 (Structural), has developed the Field Ironworkers Apprenticeship-to-Degree pathway that connects a pre-apprenticeship program to a RAP to an associate's degree and soon a baccalaureate degree and demonstrates how apprenticeship can be fully integrated into stackable credential and degree pathways.

The pathway progression includes:

- **Pre-Apprenticeship Program:** Noncredit Welding Pre-Apprenticeship
    - 188 Instructional Hours
    - Certificate of Completion
- **Registered Apprenticeship:** Ironworkers Local 416 or Local 433
    - Paid on-the-job training and related instruction
- **CPL:**
    - Up to 38 units at Cerritos College
- **Degree Attainment:**
    - Associate of Science in Apprenticeship Field Ironworkers (Cerritos College)
    - Bachelor of Science in Field Ironworker Supervision (Cerritos College)

The pathway has demonstrated significant scale and long-term impact. Between 2018 and 2025, more than 12,000 apprentices completed the RAP. The Associate of Science in Field Ironworkers, approved in 2018, and the Bachelor of Science in Field Ironworker Supervision, approved in 2026, provide opportunities for apprentices to continue their education while working in their profession.

The degree pathway has helped strengthen connections between industry training partners and higher education, increased institutional awareness of the needs and barriers faced by working adult students, provided a positive impact on the broader community with the increase in apprentices pursuing higher education for their families, and increased equity by breaking down barriers for women. This example highlights how long-term collaboration among community colleges and industry partners can create stackable pathways that support learner progression from industry preparation to apprenticeship, degree attainment, and leadership development.

Santiago Canyon College and Foothill College Building Trades Apprenticeship Pathways

Foothill College, in collaboration with Garden Grove High School, Western States Carpenters, and Santiago Canyon College, has developed a building trades pathway that connects pre-apprenticeship programs, RAP, CPL, and degree attainment. The pathway demonstrates how multiple education and industry partners can work together to create a seamless progression from career preparation to workforce advancement and higher education.

Foothill College conducted a comprehensive crosswalk of its building trades apprenticeship programs to identify where apprenticeship learning aligned with college-level learning and degree requirements. This resulted in the development of building trades apprenticeship pathways that leverage CPL to connect apprenticeship learning to 24 units of general education credit and postsecondary credentials. The model currently supports apprentices in several building trades programs, including Sheet Metal Building Trades; Air Conditioning Mechanic; Test, Adjust, and Balancing (TAB) Technician; Air Conditioning and Refrigeration Technology; and Air Conditioning and Refrigeration Technology. To date, approximately 857 apprentices have benefited from these CPL opportunities, enabling them to make progress toward certificates and degrees while advancing in their careers.

The pathway connects:

- **Career Exploration and Pre-Apprenticeship:**
    - Garden Grove High School Skilled Trades CTE Carpentry Apprenticeship Preparation Program
- **Registered Apprenticeship:**
    - Drywall/Lather Apprenticeship with Western States Carpenters
- **CPL:**
    - Up to 26 units of college credit are awarded based on apprenticeship learning and demonstrated competencies
- **Degree Attainment:**
    - Associate of Science in Construction Management through Santiago Canyon College
    - Bachelor of Science in Building Trades Management through Foothill College

Foothill College has continued building on this alignment. In February 2026, the California Community Colleges Board of Governors approved Foothill College's Bachelor of Science in Building Trades Management. The degree provides another opportunity for registered apprentices and journeyworkers to build on their technical experience and pursue advancement into management, supervision, and leadership roles within the construction industry, while the model highlights how CPL can make apprenticeship learning more portable within higher education. By identifying and documenting connections between apprenticeship competencies and prior learning, institutions can reduce duplication and create more efficient routes from apprenticeship to degree attainment.

RECOMMENDATIONS FOR LEAS

As LEAs develop and strengthen apprenticeship pathways, the practices outlined below can support successful development and implementation. They are not intended to represent a prescribed sequence of steps; rather, LEAs can utilize these practices based on local priorities, existing partnerships, and regional workforce needs.

- **Start with Existing Resources**
  Identify programs, partnerships, and workforce priorities already in place within the region. Existing CTE pathways, adult education programs, noncredit offerings, and apprenticeship partnerships may provide a strong foundation for pathway development. In some cases, the individual components may already exist, and LEAs and other partners can focus on building the connection points to create the stackable pathway.
- **Focus on Transitions**
  Students are most successful when clear connections exist between pathway stages. Institutions should work to align communication, recruitment, advising, curriculum, and referral processes to support movement from exploration to pre-apprenticeship, apprenticeship, and postsecondary credential attainment.
- **Formalize Partnerships**
  Partnerships are often strengthened through formal agreements that clarify roles, responsibilities, and student transition processes. Collaboration among LEAs, intermediaries, employers, workforce boards, and community organizations can help fill gaps that no single institution can address independently. These formal partnerships will create clear, tangible connections between steps and programs, resulting in greater student support and success.
- **Align Education and Workforce Outcomes**
  Apprenticeship pathways should meet the needs of local industry and employer partners. Focusing on those outcomes is essential when developing a RAP. Aligning those workforce outcomes with a focus on educational attainment will allow for the creation of pathways that address both education and workforce outcomes to meet employer needs, support LEAs, and help students achieve their attainment, employment, and economic goals.

KEY RESOURCES TO SUPPORT PATHWAY DEVELOPMENT

California Department of Education (CDE) Career Technical Education Framework and College and Career Readiness resources support career awareness, Career Technical Education, work-based learning, career advising, and pathway development, all aligned with regional workforce needs.

CAEP supports workforce preparation, transition services, noncredit programming, English language acquisition, and regional pathway development that can serve as on-ramps to apprenticeship.

CAI provides funding and technical assistance to develop, expand, and scale apprenticeship and apprenticeship-related programs in both traditional and emerging industries.

MAP provides tools, resources, and promising practices to implement CPL and strengthen the alignment between apprenticeship learning and postsecondary credentials.

RSI Reimbursement Program supports community colleges in providing the instructional component of apprenticeship programs and expanding access to credit-bearing apprenticeship opportunities.