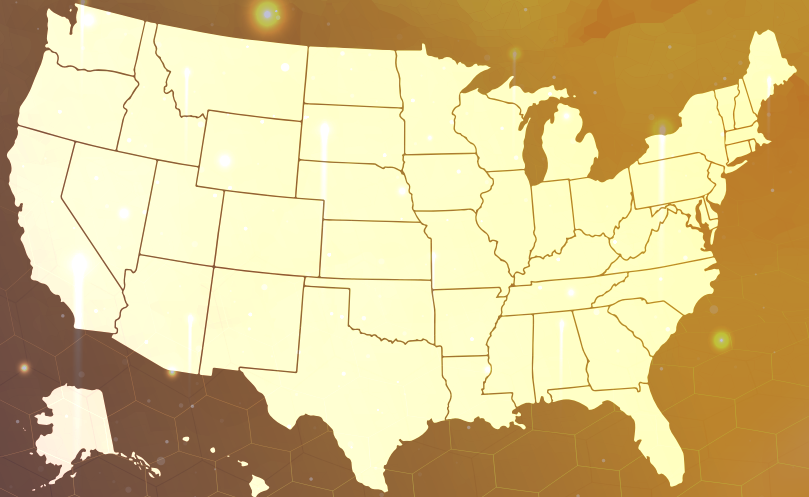




State Investments in Registered Apprenticeship-Aligned CTE: **Innovations and Trends**

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In today's dynamic labor market, aligning Career and Technical Education (CTE) with Registered Apprenticeship (RA) offers states a high-impact strategy to strengthen talent pipelines, close skill gaps, increase industry alignment, and expand student access to high-quality career pathways.

When intentionally connected, CTE strategies and RA-aligned CTE strategies can provide learners with seamless pathways from the classroom to high-demand jobs while delivering a reliable talent pipeline for employers and supporting regional economic growth.

CTE delivers academic and technical instruction aligned to industry needs, while RA offers a time-tested earn-and-learn model combining paid, mentored work experience with classroom training and a portable, nationally recognized credential. Together, they create powerful, stackable pathways that support upward mobility for learners.

The benefits of aligning RA and CTE are clear:

 **Maximized public investment** through streamlined use of education and workforce funding

 **Expanded access** to work-based learning opportunities

 **Stronger employer engagement** across high-need sectors

 **Improved employment and earnings outcomes** for learners

At the federal level, aligning RA and CTE strategies gained momentum through the April 2025 Executive Order on Preparing Americans for High-Paying Skilled Jobs of the Future that underscores the importance of scaling RA and set a goal of reaching one million active apprentices from the current level of approximately 680,000 apprentices.

Most recently, in July 2025, the U.S. Departments of Education and Labor announced [a new federal partnership through an Interagency Agreement](#) to advance coordination between education and workforce systems. This partnership aims to reduce duplication, align outcomes, and ensure that federal investments yield measurable results for students, workers, and employers. Together, these federal actions reflect a strong commitment to expanding RA as a core strategy for workforce development while emphasizing the need for aligning apprenticeship, education, and workforce systems.

States are leading the charge in operationalizing this vision and increasingly integrating RA and CTE to expand access to work-based learning, address skill gaps, and build robust career pathways. Over the past decade, this alignment has accelerated through state legislation, budget investments, and strategic partnerships.

By highlighting state-level innovative practices and identifying emerging trends, this report aims to inform federal and state policymakers, education leaders, and workforce stakeholders, with the goal of accelerating the development and scaling of RA-focused CTE, including youth apprenticeship¹ and pre-apprenticeship² initiatives that are sustainable and responsive to labor market needs.

How States are Advancing RA-CTE Alignment

States are adopting a wide range of investments to support the integration of RA and CTE. This report draws on data collected from [AdvanceCTE's State Policy Tracker](#), [Apprenticeship.gov](#), and information gathered from state government websites to provide a comprehensive overview. State investments are categorized into four core areas:



Funding and Learner Supports



Employer Engagement and System Capacity



Credentialing and Program Alignment



Data and Accountability

Since 2024

at least six states enacted
explicit RA-aligned CTE policies:

Colorado
Louisiana
Maryland
Pennsylvania
Utah
West Virginia

¹ Per U.S. Department of Labor, youth apprenticeship is a program for high school students that combines academic and technical classroom instruction with work experience through a Registered Apprenticeship program.

² Pre-apprenticeship is a program or set of strategies designed to prepare individuals to enter and succeed in Registered Apprenticeship program. U.S. Department of Labor, Employment and Training Administration. Training and Employment Notice No. 13-12: Defining a Quality Pre-Apprenticeship Program and Related Tools and Resources. January 2013.



Funding and Learner Supports

States are investing directly in programs, institutions, and individuals to expand access to RA-aligned CTE pathways. These investments include appropriations for new or expanded apprenticeship and pre-apprenticeship programs, scholarships, stipends, and wraparound supports³ that reduce financial barriers for learners. Notable examples include:

- **California** (2022, SB 191): The state announced \$15.4 million in available funding to expand access to pre-apprenticeship and apprenticeship programs for young people ages 16-24 through the second round of the California Opportunity Youth Apprenticeship (COYA) grant in 2025.
- **Illinois** (2022, SB 1693): Expanded the Illinois Works Pre-Apprenticeship Program Fund that supports CTE-aligned pre-apprenticeship training in the construction trades to \$18 million in 2025; provides stipends for youth formerly in foster care and tax credits up to \$3,500 per apprentice.
- **Kentucky** (2019, HB 61): Allows students in RA programs to use Kentucky Educational Excellence Scholarships for tuition and training.
- **Maryland** (2025): The Registered Apprenticeship Investments for a Stronger Economy (RAISE) Act sets aside \$5 million in funding for the EARN Maryland Program to support apprenticeship and workforce training programs.
- **North Carolina** (2025): Expanded the Short-Term Workforce Development Grant for up to \$750 per course for training expenses to include registered apprentices who are actively participating in an RA program and are enrolled in workforce continuing education courses as part of their related instruction.
- **Pennsylvania** (2024): Through a 2024 executive order, the governor announced \$3.9 million in direct funding for CTE-based high school pre-apprenticeship programs, along with broader increases in CTE in apprenticeships.
- **Utah** (2024, HB 22): Expanded eligibility for the Transform certificate to include youth apprentices with scholarship support.



At least

38 states

offer some form of tax credit or tuition assistance to support RA programs.

Source: [apprenticeship.gov](https://www.apprenticeship.gov)

³Wraparound supports refer to a range of non-training resources or services designed to reduce practical, financial, and social barriers that might impede participation and successful completion of programs and may include, but are not limited to transportation support, childcare or dependent care, housing assistance, and needs-based stipends.



Employer Engagement and System Capacity

Employer participation is one of the five key components for RA programs. Some states are driving employer engagement by providing access to tax credits, wage subsidies, and program development grants, while others are building capacity through intermediaries and initiatives that connect employers to schools and training providers. Notable examples are:

- **Colorado** (2024, HB 1439): Provides up to \$12,600 per apprentice in refundable tax credits and launched a \$2 million Scale-Up Grant Program to help employers launch or expand RA programs.
- **Maryland** (2022): For the first five eligible apprentices claimed, businesses may receive \$3,000 per registered apprentice and \$1,000 per youth apprentice. Businesses may receive \$1,000 per eligible registered apprentice for all others claimed in excess of the first five.
- **New Jersey** (2019): The Growing Apprenticeship in Nontraditional Sectors (GAINS) grant program offers funding to reimburse employers up to 50 percent of new apprentices' wages for a maximum of \$12,000 per apprentice over 52 workweeks.
- **South Carolina** (2024, SB 557): Increased tax credits for employers hiring apprentices through U.S. Department of Labor RA programs.
- **Utah** (2023, HB 555): Established an apprenticeship intermediary role to connect learners, employers, and education providers.

Five Key Components of Registered Apprenticeship

- 1 Industry Led:** Programs are industry-vetted and approved to ensure alignment with industry standards and that apprentices are trained for highly-skilled, high-demand occupations.
- 2 Paid Job:** Registered Apprenticeships are jobs! Apprentices earn progressive wages as their skills and productivity increase.
- 3 Structured On-the-Job Learning:** Programs provide structured on-the-job training to prepare for a successful career, which includes instruction from an experienced mentor.
- 4 Supplemental Education:** Apprentices are provided supplemental classroom education based on the employers' unique training needs to ensure quality and success.
- 5 Credentials:** Apprentices earn a portable, nationally recognized credential within their industry.



Credentialing and Alignment

States are aligning CTE curriculum with RA standards and expanding pathways that allow apprentices to earn secondary and postsecondary credentials. Policies focus on articulation agreements, credit recognition, and the development of portable, industry-recognized credentials. Below is a sample of recent state investments in this area:

- **Colorado** (2024, SB 104): Mandates alignment between high school CTE programs and RA standards in key industries like infrastructure and healthcare.
- **Connecticut** (2019, SB 607): Requires the Connecticut Department of Labor and the Connecticut Board of Regents for Higher Education to jointly establish non-traditional pathways to earning a bachelor's degree through apprenticeships.
- **Maryland** (2018): Expanded the Apprenticeship Maryland Program statewide after successful pilots, integrating RA into high school pathways. The state has a goal that 45% of graduating high school seniors in the 2030-2031 school year complete an apprenticeship program or graduate with an industry-recognized credential.
- **Louisiana** (2024 SCR 20): Directs state education and workforce agencies to develop youth apprenticeship and work-based learning programs in high schools.
- **Rhode Island** (2023, SB 178): Requires public higher education institutions to offer pathways to bachelor's degrees through RA credit.
- **Virginia** (2017, HB 1592): Requires community colleges to award academic credit for completion of RA credentials.
- **West Virginia** (2024, HB 5435 and 5162): Established the Skilled Trades Apprenticeship Nontraditional Degree (STAND) program for apprentices and journey workers to earn associate degrees in applied science; established the Youth Apprenticeship Program allowing any public, private, or homeschool learner in the 11th or 12th grade the opportunity to enroll in apprenticeship programs and have the work count toward a high school diploma.



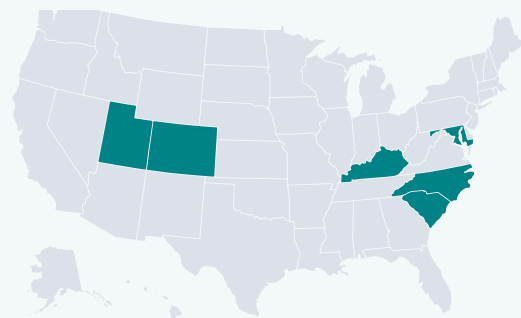
Data and Accountability

States are investing in data infrastructure to improve state data systems, enable outcome tracking, and strengthen cross-agency data integration. These efforts support performance measurement, transparency, and continuous improvement of RA-aligned CTE programs. Notable examples include:

- **Arkansas** (2021, HB 1700): Requires annual reporting on RA, CTE, and credential completion rates, including salary outcomes.
- **Colorado** (2024, HB 1439): Requires the state's Department of Labor and Employment to report on RA outcomes to the legislature.
- **Florida** (2023, SB 240): Mandates public dashboards and interagency coordination to track and expand work-based learning.
- **Kentucky** (2013): The Tech Ready Apprentices for Careers in Kentucky (TRACK) youth apprenticeship program uses Kentucky STATS, Infinite Campus, and technical education databases to align secondary, postsecondary, and apprenticeship data.
- **Texas** (2023, HB 4451): The Texas Workforce Commission is required to produce annual reports on all state apprenticeship programs, integrating apprenticeship data into workforce and education accountability.

State Spotlights: Practical Examples from the Field

This section highlights states that have demonstrated leadership in aligning RA with CTE. These states have implemented comprehensive strategies that span funding, policy alignment, employer engagement, and learner support. Their approaches offer valuable models for policymakers to consider for replication and scaling.



COLORADO

Colorado has emerged as a national leader in aligning RA and CTE through a series of coordinated legislative actions and investments. In 2023, the state established a State Apprenticeship Agency (SAA) to promote RA expansion. In 2024, Colorado launched a refundable tax credit of up to \$12,600 per apprentice and launched two \$2 million grant programs: one to help employers scale RA programs and another to provide capacity-building support to apprenticeship intermediaries such as workforce boards, community colleges, and nonprofit organizations. Complementing this investment, Senate Bill 104 (2024) mandates systematic alignment of high school CTE programs with RA standards in high-growth sectors, including infrastructure, healthcare, and advanced manufacturing. This enacted legislation ensures that CTE coursework and work-based learning experiences stack into state-recognized apprenticeship pathways, enhancing both rigor and mobility for students.

MARYLAND

Maryland has significantly advanced RA expansion through strategic investments and strong alignment with CTE. The Apprenticeship Maryland Program, launched in 2015 and expanded statewide in 2018, provides paid RA opportunities for high school students in Manufacturing and Science, Technology, Engineering, and Mathematics (STEM) occupations. In 2023, Senate Bill 104 established the Apprenticeship 2030 Commission to grow RA participation to 60,000 apprentices and reach the goal of having 45% of high school graduates complete a youth apprenticeship or attain an industry-recognized credential. State grants and employer tax credits support these efforts with implementation led by the Maryland Department of Labor and the State Department of Education.

In 2025, the state strengthened its efforts with the Registered Apprenticeship Investments for a Stronger Economy (RAISE) Act which created the Maryland Office of Registered Apprenticeship and introduced key investments, including a \$5 million employer reimbursement program and new grants for intermediaries. The law also restructured governance by consolidating youth apprenticeship oversight under statewide councils, standardizing mentorship ratios, streamlining licensure for completers, and creating an advisory board to guide implementation.



KENTUCKY

Kentucky has advanced RA-CTE integration by aligning scholarship programs and graduation requirements with work-based learning pathways. House Bill 61 (2019) amended the Kentucky Educational Excellence Scholarships program to allow registered apprentices to use funding for tuition and training, while the state's 2018 graduation requirements recognize apprenticeship completion as a valid diploma pathway. House Bill 206 (2017) created a dual credit scholarship program that includes RA-aligned coursework.

The state's Tech Ready Apprentices for Careers in Kentucky (TRACK) program, launched in 2013, connects high school CTE students to RA through a partnership between the Departments of Education and Labor. The program is underpinned by a robust and standardized data infrastructure that includes tools such as Infinite Campus, KY STATS, and in-house databases, enabling consistent tracking of youth apprenticeship participation and outcomes. Additionally, KY STATS provides a user-friendly report that helps employers and school districts align CTE programs with local workforce needs, further strengthening the connection between education and employment across Kentucky.



NORTH CAROLINA

North Carolina has strengthened the connection between RA and CTE by formally integrating apprenticeship pathways into its state CTE program inventory. Recent policy updates include the addition of pre-apprenticeship and apprenticeship course codes in high school CTE curricula for the 2024-25 school year. This allows students to earn academic credit for RA-related work-based learning, facilitating smoother transitions between secondary education, postsecondary training, and apprenticeship programs. The state has also funded regional industry partnerships that support employer engagement and program development in sectors such as advanced manufacturing and information technology.



SOUTH CAROLINA

South Carolina has taken significant steps to align CTE with RA programs, primarily through Apprenticeship Carolina, a division of the South Carolina Technical College System. High school students can participate in youth apprenticeship programs that integrate CTE coursework with paid, on-the-job training aligned with federally registered apprenticeship standards. These programs are developed in partnership with local employers, technical colleges, and school districts to ensure students earn industry-recognized credentials while completing high school and earning college credit in fields such as advanced manufacturing, healthcare, information technology, and the skilled trades.

Apprenticeship Carolina also works closely with the South Carolina Department of Education and the South Carolina Department of Employment and Workforce to embed apprenticeship promotion and support into state workforce plans and WIOA Title I services. The state uses the Palmetto Academic Training Hub (PATH), a shared public portal for job opportunities, enabling Title I program staff to refer participants to registered programs aligned with CTE pathways. This coordinated approach allows for effective tracking of program participation and performance across both workforce and education systems.



UTAH

Utah is building a comprehensive statewide ecosystem to expand youth RA program opportunities by aligning policy, education, and industry engagement. The state's efforts began in 2023 with HB 555, which established a dedicated apprenticeship intermediary role to connect learners, employers, and education providers to help bridge gaps across systems. In 2024, SB 122 authorized a statewide study to design a strategic framework for scaling youth RA with a focus on leveraging CTE, concurrent enrollment, and stackable credentials to create seamless career pathways. Additionally, in 2024, HB 22 expanded eligibility for the state's Transform certificate, a recognized credential supported by scholarships, to include youth apprentices, increasing access to valuable postsecondary credit and career mobility.

Cross-Cutting Themes

As states continue to expand and align RA and CTE, several cross-cutting themes have emerged. These themes reflect both the opportunities and challenges in building scalable and sustainable integrated RA and CTE systems.

Building CTE RA Capacity through Intermediaries

Effective RA expansion often hinges on strong partnerships between education systems, employers, and workforce intermediaries. States like Colorado, Maryland, and Utah have invested in apprenticeship intermediaries, organizations that connect employers with education providers, learners, and other key stakeholders in the apprenticeship ecosystem in order to streamline program development and scale participation. These intermediaries play a critical role in navigating regulatory requirements, coordinating training, and supporting employer engagement.

Credential Portability

A growing number of states are aligning RA programs with industry-recognized credentials and postsecondary credit systems. Colorado, for instance, mandates alignment between high school CTE programs and RA standards and supports the development of stackable credentials that articulate with college degrees. Rhode Island, Virginia, and West Virginia have also taken steps to ensure that RA participants can earn credit toward postsecondary degrees.

Integration of RA into Secondary Education

States are increasingly embedding RA and pre-apprenticeship experiences into high school curricula. Kentucky, Maryland, West Virginia, and Wisconsin have all adopted policies that allow students to earn graduation credit for RA participation.

Data-Driven Decision Making

Several states are investing in data systems and reporting requirements to track RA outcomes and inform policy. Arkansas mandates annual reporting on RA and CTE completion rates and salary outcomes, while Colorado requires the state's Department of Labor and Employment to report on the implementation and impact of its RA tax credit and grant programs.

Enhanced Funding and Incentives

Many states are offering financial incentives to support RA programs and align them with CTE. States such as Colorado, Maryland, South Carolina, and Illinois, amongst others, offer funding directly to employers, educational institutions, and apprentices to help offset costs of program development, operation, and expansion. A number of other states are utilizing existing state and federal funding to further enhance apprenticeship programs.

Conclusion

Aligning CTE and RA represents a powerful strategy states can adopt to prepare learners for in-demand careers critical to regional economic development and industry-competitive advantage. States across the country are making significant investments to align these systems through a variety of policy levers, ranging from direct funding and employer incentives to credential alignment and data infrastructure.

The variety of approaches reflects the flexibility and adaptability of RA as a workforce development tool. States like Colorado and Maryland are leading the way with comprehensive, multi-agency strategies, while others are piloting targeted initiatives to expand access and build capacity. Across the board, there is growing recognition that CTE and RA are not separate systems, but complementary components of a unified talent development pipeline.

As federal and state leaders look to the future, the examples and insights presented in this report offer a roadmap for continued progress. By building on proven models, fostering collaboration across sectors, and investing in systems that support both learners and employers, policymakers can ensure that RA-related CTE programs continue to grow in scale, quality, and impact.