Building Programs & Systems to Last:

A CASE STUDY OF MAINE’S REGISTERED APPRENTICESHIP EXPANSION EFFORT

OCTOBER 2023

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About the State Apprenticeship Expansion Case Studies

The apprenticeship expansion case studies document the growth, successful implementation, and key expansion strategies from two states, Idaho and Maine, offering scalable strategies and promising practices.

The case study reports on Idaho and Maine, along with executive summaries of those reports, are available on the Apprenticeship Promising Practices: Expanding Registered Apprenticeship Systems page.
Introduction

Since the fall of 2016, Maine has achieved a threefold increase in the number of Registered Apprenticeship Programs (RAPs) in the State and grown the number of apprentices participating in those programs by 434 percent. This growth has been supported by $6.8 million in U.S. Department of Labor (USDOL) grants as well as American Rescue Plan Act (ARPA) funds allocated by the State of Maine.

This case study chronicles Maine’s experience, focusing on three strategies that helped the State adapt apprenticeship to the needs of new companies and industries and engage students and workers from underrepresented communities in apprenticeship opportunities.

Background

To strengthen the role of states as key drivers of Registered Apprenticeship expansion, the USDOL’s Office of Apprenticeship (OA) has awarded over $438 million in grants to states and U.S. territories since 2016. States are investing these resources in quality programs and raising the profile of apprenticeship as a talent solution within their education and workforce development systems. They are also building the partnerships and infrastructure necessary to diversify, scale, and sustain a modern Registered Apprenticeship system in the United States.

Although state strategies, approaches, and outcomes vary, states that have achieved significant expansion of their Registered Apprenticeship system over the last seven years have done so by focusing on their efforts in five key areas:

- State leadership and policy
- Outreach and business engagement
- Capacity to develop, register, and support programs
- Diverse apprentice pipelines
- Alignment with career pathways and post-secondary education
The elements encourage the development of effective programs and robust systems that are integrated in the broader workforce, education, and economic development landscape. States attentive to these elements have realized success in their efforts to deliver value for apprentices, employers, and communities alike. Case studies provide an opportunity to illustrate these elements in practice and in the context of states’ own apprenticeship expansion goals.

This case study illustrates key elements in practice and in the context of Maine’s apprenticeship expansion goals. Early on, Maine prioritized the first three elements—state leadership and policy, outreach and business engagement, and system capacity—in its effort to position apprenticeship as an effective response to the State’s talent development and workforce needs. Diversifying apprenticeship pathways and aligning with post-secondary education were among Maine’s early goals, but these required engaged apprenticeship partners and champions to advance.

Collaborative Leadership in Action

Collaborative leadership—the ability to simultaneously share power and inspire action—is a common thread in successful apprenticeship expansion efforts. The leadership team of Maine Apprenticeship has embraced strategies and practices that have allowed them to forge a high-performing coalition in pursuit of apprenticeship system change. Throughout this report, we call out several characteristics that Maine Apprenticeship leaders exhibited to make those traits tangible for other workforce leaders who may wish to adopt them.
Apprenticeship in Maine

Apprenticeship in Maine pre-dates the State’s founding in 1820 and remains a preferred approach to learning and skill development in select trades. Today, the combination of classroom instruction and hands-on training built into the apprenticeship model is also suited to a wider range of industries and occupations—from healthcare to aquaculture—and is in demand among Maine students and workers. Since USDOL first made significant investments in state apprenticeship expansion in 2016, Maine has expanded apprenticeship offerings, boosted participation in RAPs, and increased diversity within the apprenticeship system.

Lead Agency and Structure. The Maine Department of Labor (MDOL) is recognized as a State Apprenticeship Agency by OA and may act on behalf of the federal USDOL to register and oversee RAPs in the State.

Key Implementing Partners. Maine Apprenticeship, the brand identity adopted by the statewide program, has relied on key partners in its program expansion and improvement efforts. Its partners include the public workforce programs and agencies supported by the Workforce Innovation and Opportunity Act, the Center for Workforce Research and Information, the Division of Vocational Rehabilitation (VR), the Maine Community College System, and intermediary partners serving key industries and target populations.

Growth. In 2016, Maine had 55 programs supporting 381 apprentices. Of those apprentices, 16 individuals completed their apprenticeship programs during the year. Today, Maine has a total of 271 programs supporting 3,102 apprentices. Maine has more than 400 employers participating in apprenticeship, either as registered sponsors (140) or by operating programs and hiring apprentices for which another organization serves as the sponsor (267).

Funding. Maine has received a total of $19.4 million from federal funding sources, further detailed in Exhibit 1.
Exhibit 1. Funding Sources

<table>
<thead>
<tr>
<th>Key Grants/Funding</th>
<th>Agency</th>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>USDOL State Apprenticeship Expansion grant (Apprenticeship State Expansion)</td>
<td>MDOL</td>
<td>2019</td>
<td>$752,812</td>
</tr>
<tr>
<td>USDOL Building State Capacity to Expand Apprenticeship through Innovation grant (State Apprenticeship Expansion 2020)</td>
<td>MDOL</td>
<td>2020</td>
<td>$450,000</td>
</tr>
<tr>
<td>USDOL State Apprenticeship Expansion, Equity, and Innovation grant</td>
<td>MDOL</td>
<td>2021</td>
<td>$5,594,187</td>
</tr>
<tr>
<td>American Rescue Plan Act funding (ARPA)</td>
<td>MDOL</td>
<td>2022</td>
<td>$12,300,000</td>
</tr>
<tr>
<td>Maine General Fund (annual appropriation)</td>
<td>MDOL</td>
<td>2022</td>
<td>$400,000</td>
</tr>
<tr>
<td>USDOL State Apprenticeship Expansion Formula grant (SAEF)</td>
<td>MDOL</td>
<td>2023</td>
<td>$334,938</td>
</tr>
</tbody>
</table>

MAINE’S APPRENTICESHIP EXPANSION SUCCESS FACTORS

Maine apprenticeship leaders emphasize that growth has been—and continues to be—a journey. Leaders recognized that they were learning while building a new system for their State that would expand programs, increase access, and boost the profile of apprenticeship in Maine communities. At the same time, leaders who were there near the beginning pointed to three key factors in explaining the State’s success.

- **Establishing a vision.** Even in the absence of early grant resources, Maine apprenticeship leaders had a clear idea of how apprenticeship could address the State’s education, workforce, and economic and community development priorities.

- **Building state structure and capacity for growth.** Maine’s apprenticeship leaders knew that simply doing more would not support the kind of growth they needed. With this knowledge, they created a structure, partnerships, and processes that could scale.

- **Creating an Industry Intermediary strategy.** Maine apprenticeship leaders knew there were opportunities to grow apprenticeship in traditional industries, like the construction trades, and in industries new to apprenticeship, such as healthcare. They also understood there was much to be gained by enlisting industry directly in expansion efforts and in a cross-industry collaborative learning process. These insights informed the State’s strategy for engaging select Industry Intermediary partners.
Establishing a Vision: An Agile, Forward-Looking Apprenticeship System

Maine Apprenticeship is guided by a clear vision:

A known and respected Registered Apprenticeship system that provides earn-and-learn opportunities for people of all backgrounds—through career exploration, certified pre-apprenticeship programs, and recognized credentials—and a solution to employers’ immediate and long-term talent needs.

This vision provides context for the common apprenticeship goals for states: growing the number of apprenticeship and pre-apprenticeship programs; increasing the number of underrepresented workers in RAPs; and developing an integrated, sustainable, and effective statewide Registered Apprenticeship system.

This vision was not developed overnight. Instead, it is the product of a deliberate process of engaging leaders, partners and champions and a willingness to think expansively. This process has allowed Maine’s apprenticeship system to evolve from a small, traditional program to one that attracts significant federal and state investment. The State’s apprenticeship system is also emerging as a vital part of Maine’s workforce and economic development strategy.

Engaged leaders and partners. After several years of increasing federal investment in sector-based apprenticeship programs and national intermediary organizations, MDOL apprenticeship leaders were attentive to the renewed interest in apprenticeship among select industries, educational organizations, and communities in the State—and to entirely new programs in healthcare, manufacturing, and other sectors across the country. The current State Director of Apprenticeship & Strategic Partnerships (State Director) regularly attended education, economic development, and workforce convenings to share and gather information about apprenticeship and training needs apprenticeship might address. A broader vision for apprenticeship emerged after a 2019 visit to Germany. The delegation of Maine’s state and industry leaders saw firsthand how young people in the German apprenticeship system become skilled professionals in their industries of choice, supported by schools, government-industry partnerships, and world-class mentors in the workplace.

Collaborative Leadership in Action

Adopting a wide-angle point of view
For Maine’s industry and apprenticeship leaders, the German model revealed new possibilities for modernizing, integrating, and expanding the State’s own apprenticeship system.
**Openness to new approaches.** During the trip, these leaders learned how sustained, high-value business engagement through industry partnerships could support robust talent development strategies rooted in apprenticeship. They began to see the link between apprenticeship and innovation—as new technologies change workforce needs, apprenticeship provides an opportunity to grow new jobs and training in tandem. This accelerates the evolution of leading-edge firms and industries. Back at home, these leaders explored national apprenticeship expansion efforts and those in neighboring states. They realized embracing apprenticeship as a talent development strategy across sectors could change the life trajectories of Maine students and workers, boost opportunities for colleges, and offer industry a formal role in education through the Ph.D. level and workforce development. Maine leaders began to see apprenticeship as a solution to the State’s most significant economic and workforce challenges.

At the same time, Maine is a rural state with an historically small apprenticeship office—with a budget of $200,000 in 2018. MDOL, as the lead apprenticeship agency, realized the need for an accelerated, systems-aware, partnership-centered approach to apprenticeship program development and expansion. Agency leaders also knew that grants would be central to the expansion strategy.

**Collaborative, proactive fundraising.** The State needed additional resources to expand programming and found value in the proposal development process. Fundraising requires aligning partners around a shared concept and vision. Maine’s efforts to craft grant proposals or secure other public funding to support apprenticeship fostered collaboration, aided in strategy development, and accelerated learning even when funds were not awarded.

When funds were awarded (or applications for participation were accepted), they provided opportunities for collaborative learning and helped establish a foundation of knowledge and network of partners that would help attract larger grants.

> “It’s not about one apprenticeship grant. Building better, more expansive pathways to good jobs is a cumulative effort.”
> 
> Joan Dolan
> Director of Apprenticeship & Strategic Partnerships, MDOL
MAINE’S GUIDING PRINCIPLES

Maine’s collaborative approach and willingness to think expansively resulted in the development of a set of guiding principles that provide a roadmap for the many partners engaged in the State’s expansion work:

- **Aligned, accessible, and easy-to-navigate system** including transparent entry and success requirements with common quality standards; a continuum of learning with multiple on- and off-ramps; presence of strong intermediary organizations; and apprenticeship programs that are embedded in the State’s adult education, K–12, career and technical education (CTE), and Maine Community College systems.

- **Clear connection to quality jobs and credentials** including culmination in industry-recognized credentials and skills development through mentored, work-based learning.

- **Participation of underrepresented populations** through targeted outreach and the provision of academic and career exploration, wraparound supports, translation and accommodation, and other needed services.

- **Inclusive, safe, supportive, and fair workplaces** including training for sponsors on creating inclusive workplaces and fair compensation and robust labor protections.

- **Sustainable system accountable to outcomes** including equity standards and outcomes; clear systems and defined metrics to measure progress; and policies, practices, and structures to sustain the apprenticeship system.
Building State Capacity & Systems Infrastructure

Maine recognizes that successful expansion requires a focus on the system itself, as well as working to ensure that the system is integrated, sustainable, and effective.

EARLY EXPANSION EFFORTS

Early on, MDOL adopted a broad approach to expansion rooted in engagement. Senior leaders with long tenures in the agency who had not learned about apprenticeship until late in their careers launched informal informational campaigns with colleagues and partners. Agency leadership called this “seed planting” and described it as an effort to “engage everywhere, learn everything, and share with everyone.” The approach employed the following key strategies.

Engaging diverse partners. MDOL leaders advocated for apprenticeship—during a wide range of meetings, conferences, strategy sessions, and planning processes, and in community gatherings after hours. Prior to the pandemic, the State Director traveled at least two days each week asking questions and provoking discussions that helped educators; workforce professionals; industry leaders; and parents, students, and workers learn about apprenticeship—generating momentum for the State’s new apprenticeship approach.

Engaging in collaborative, proactive investments. Each proposal process offered the opportunity to collaborate with partners to identify needs and opportunities and align around a common vision of apprenticeship. It also invested partners in future proposal efforts and encouraged them to seek resources elsewhere using the same or similar concepts. When funding was awarded—later in the expansion process than in many states—partners understood that they were working to grow apprenticeship as a system and practice over time.

Collaborative Leadership in Action

Cultivating apprenticeship champions

Building networks of apprenticeship champions takes persistence—MDOL leaders note that it may take five conversations about apprenticeship before it “clicks” for different partners, and that peer reinforcement is helpful.
Learning through pilots and informal partnerships. MDOL was successful in generating interest in apprenticeship from across the State—in traditional and nontraditional sectors and among youth- and adult-serving educational institutions and nonprofit organizations. An early unfunded initiative included more than a dozen partners—including higher education, organized labor, and Maine VR—who supported each other in learning, planning, and launching apprenticeship and pre-apprenticeship efforts in a coordinated way. MDOL staff used these activities to learn about policies, program models, and practices that aligned with Maine’s vision prior to receiving major grants that would support their implementation.

Participating in technical assistance (TA) and professional learning opportunities available to workforce development professionals and partners. Maine apprenticeship staff joined USDOL OA TA activities, participated in knowledge-sharing events organized by neighboring states, and supported apprenticeship “sandboxes”—like the Apprenticeship Expansion and Modernization Fund (AEMF) effort to extend Registered Apprenticeship to youth from underserved communities. Because staff encouraged partners to join TA activities, MDOL was able to create a visible presence within the community of state-level apprenticeship professionals and cultivate informal networks among educator, employer, and community-based partners and peer organizations from other states.

Sector-Specific TA Resources Leveraged by Maine

- AEMF coaching and TA initiative to expand apprenticeship opportunities to youth from underserved communities, supported by USDOL, operated by JFF: https://info.jff.org/promising-approaches-for-opportunity-youth
- Healthcare Career Advancement Program webinars and resources including the Toolkit for High Road Apprenticeships in the Healthcare Industry: https://www.hcapinc.org/registered-apprenticeship-toolkit
- Safal Partners’ Cybersecurity and Tech Apprenticeship TA (supported by USDOL): https://cyber.safalpartners.com

Securing and leveraging strategic investments. Ultimately, MDOL won federal expansion grants in 2019, 2020, and 2021. Maine leveraged these to secure $12 million in combined state and federal ARPA funds—deployed through the Maine Jobs and Recovery Plan—dedicated to expanding apprenticeship and quality pre-apprenticeship throughout the State the following year. Additionally, $400,000 from the state General Fund was appropriated in 2022 as an annual allocation—a first for Maine and a powerful symbol of enduring legislative support.
INVESTING IN GROWTH

In alignment with Maine’s 10-year economic development strategy—subtitled “A Focus on Talent and Innovation”—these federal grant resources target apprenticeship growth in eight of the State’s high-priority sectors:

- **Primary sectors**: Healthcare, education, hospitality, and construction/renewables
- **Additional sectors**: Technology, manufacturing, public sector, aquaculture

The initial grants supported program expansion and a rise in the number of apprentices enrolled in Maine’s RAPs. More recent grants have provided apprenticeship leaders with resources to strengthen their internal teams, invest in apprenticeship leadership and governance, procure system-level tools, and create professional outreach materials and strategies for implementation.

EXPANDING THE STATE APPRENTICESHIP TEAM

Historically, MDOL’s apprenticeship team was composed of the State Director—who also managed other programs—and limited administrative support. Expansion enabled MDOL to hire three new apprenticeship training representatives, who are also certified business engagement specialists. The Director was assigned to apprenticeship full-time in 2021. MDOL now employs eight staff members, with most assigned to specific industry sectors.

Today, in addition to its apprenticeship outreach, program development, registration, and program support functions, Maine’s apprenticeship team supports:

- A website that includes a complete list of RAPs and sponsors, information about starting an apprenticeship, and informational videos;
- Monthly interagency group convenings to build connections between education, college, industry, and agency partners; and
- A community of practice (CoP) for grant-funded intermediary partners and sponsors to learn from one another.

With the support of partners, the MDOL apprenticeship team has also embraced new administrative practices and tools to improve program administration and make data management simpler for program partners—including employers and apprentices.

**Collaborative Leadership in Action**

*Cultivate openness and collaboration*

MDOL promotes a culture of transparency—sharing information, data, and tools—and looks for ways to leverage work (and share costs) so everyone can move forward faster.
STRENGTHENING LEADERSHIP AND GOVERNANCE

<table>
<thead>
<tr>
<th>Maine’s Key Administrative and Data Tools for Apprenticeship</th>
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<tr>
<td><strong>RAPIDS.</strong> MDOL made streamlining program administration and improving data systems a priority. In 2018, the agency had embraced the Registered Apprenticeship Partners Information Data System (RAPIDS), replacing its paper records system. Grant resources helped staff learn to use the new system and enhanced the State’s ability to use apprenticeship data to improve programs.</td>
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<tr>
<td><strong>Maine JobLink.</strong> In 2019, MDOL staff began entering apprenticeships into Maine JobLink—the State’s job matching and labor market information system—to increase access to apprenticeship opportunities. This gave apprenticeships—jobs—more visibility and promised to support better data analysis and program improvement efforts over time.</td>
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<tr>
<td><strong>O*NET.</strong> Also in 2019, MDOL adopted USDOL’s O*NET Code Connector to better align apprenticeship occupations and work process schedules and make them easier to develop.</td>
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<tr>
<td><strong>WorkHands.</strong> In 2019, through collaboration with the Maine Department of Economic and Community Development, Maine purchased a group license for WorkHands, a platform for onboarding and managing apprenticeship programs, to better serve intermediary sponsors and small employers who could benefit from using the tool to track classroom learning, on-the-job training, and competencies achieved through their apprenticeship programs. Maine was the first state to take this approach. One in four apprenticeship sponsors now use the tool.</td>
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For Maine, expanding apprenticeship also required cultivating a leadership group that could guide strategy and accelerate growth. Apprenticeship staff partnered with the Maine Apprenticeship Council, leveraging their energy and content expertise to recruit new members and inform a broader state expansion strategy. MDOL implemented several strategic and administrative changes.

**A focused expansion agenda.** Established in 1941 and supported initially by the Bureau of Labor Standards, the council had evolved into a small state advisory body within MDOL that struggled to achieve a quorum. Longtime workforce agency professionals had never heard of it and were unaware that Maine operated an apprenticeship program. A new expansion agenda that appealed to a more diverse group of apprenticeship champions helped the council raise its profile and engage in more consequential work. Today, it provides a forum for reviewing apprenticeship policy, forging strategic partnerships, and anchoring apprenticeship strategy within the State.
Recruiting apprenticeship champions.
As MDOL secured grant funds and launched new programs, it began recruiting apprenticeship champions to serve on the Apprenticeship Council. The apprenticeship champions include employer, education, and union apprenticeship advocates who can make a case for workforce diversity and speak to peers interested in bringing work-based learning into the modern era.

Strategic industry and partner representation. Current council members represent strategic growth sectors, such as healthcare and construction, and key educational institutions from across the State, including the Maine Community College System and Maine’s CTE system for high school students. Increasingly, non-members with an interest in growing apprenticeship also attend council meetings. One member described them as “standing room only whether on Zoom or in person.”

Stronger administrative support for council business. The council meets quarterly for sessions focused on advancing the State’s expansion goals, supported by MDOL staff. Staff and council members communicate weekly by email to share information about strategy, outreach, and programming.

BUILDING KNOWLEDGE AND CAPACITY
In addition to hiring staff and strengthening governance, MDOL continued to build knowledge and capacity within the agency and across partner programs by encouraging learning and communication in different ways.

Active participation in TA. MDOL has continued to participate in a wide range of TA activities offered through grant-based TA providers, USDOL’s Registered Apprenticeship TA Centers of Excellence, and others (e.g., member organizations or philanthropic initiatives). MDOL finds TA useful: staff can curate and share information rather than having to start from scratch, find examples of new ideas in practice elsewhere that can inform local efforts, and direct partners to resources they can review independently. Along with specific assistance, the scale of resources, webinars, convenings, and other TA activities reinforces the broader, large-scale change effort across the apprenticeship system statewide. MDOL understands that scaling apprenticeship requires growing new apprenticeship leaders, champions, and knowledge brokers. TA helps them accomplish this efficiently.

Maine Apprenticeship Council
Maine’s Apprenticeship Council is advisory, not regulatory, as in some states. Its 12 seats include 4 union members, 4 employers (in construction trades, healthcare, and manufacturing), and 4 public program representatives. There are also seats for commissioners from the Department of Education and the Department of Economic and Community Development, a member of the State Workforce Board, a member representing community colleges, and select members appointed by commissioners.
Regular structured (and documented) cross-agency apprenticeship convenings. Weekly apprenticeship team meetings help align vision and strategy across the agency and among partners including VR at the Bureau of Rehabilitation Services and the Maine Community College System. Participants typically represent different programs and levels of authority. Experienced staff members assume lead roles in priority areas—such as engaging employers in the State’s key sectors—with newer staff in supporting roles. Meeting assignments, decisions, and outcomes, as well as corresponding processes and workflow refinements, are documented and maintained online for everyone to access, use, and adapt.

Communications, branding, and storytelling. To extend the State’s own capacity, cultivate champions outside the agency, and make apprenticeship more accessible to new audiences, MDOL contracted with a marketing firm to develop a logo and create materials—such as “leave-behinds,” radio spots, and key messages—with the goal of normalizing Registered Apprenticeship as a talent development strategy across the State. A website “refresh” and additional materials are under development.

Additionally, having learned the importance of developing an outreach strategy during the implementation of a previous USDOL National Health Emergency Grant, MDOL worked with the firm to prioritize target audiences and develop a list of key conferences and convenings to attend, important organizations to meet, and compelling content to share.

“We promote at every opportunity, and then we follow up, because we don’t want anyone else to spend 17 years in workforce development never having heard of apprenticeship.”

Joan Dolan
Director of Apprenticeship & Strategic Partnerships, MDOL

Exhibit 2. Maine Apprenticeship Marketing Examples
Select NBC News Center Maine Video Spots

- MDOL encourages more women to pursue construction careers: https://www.youtube.com/watch?v=GThMXBRr2E0
- Maine apprenticeship programs connect students to careers in aquaculture: https://www.youtube.com/watch?v=tZO8cc-W-70

Maine Public Radio

Launching an Apprenticeship Intermediary Strategy

During previous efforts to expand apprenticeship, Maine had established successful programs in target industries. However, when grant-funded programs ended (once funding ceased), most of the partnerships and operational knowledge that made them work disappeared. Learning from this experience, the State’s new approach is rooted in creating ecosystems. The ecosystems consist of partnerships with large employers and industry and community-based intermediaries, each with their own contexts, networks, and reasons for advancing apprenticeship.

New intermediary partnerships. Maine has invested in 14 intermediary partners representing key industry sectors and focusing on specific underrepresented groups. The intermediaries function less as “contractors delivering services” and more as “partners in learning and growth.” By taking a lead role in sector-wide apprenticeship expansion, these intermediaries can design apprenticeship programs that solve key workforce problems in a particular context. They also become invested in the model and in program and process improvement.

Maine piloted a similar approach with early apprenticeship grant funding in 2019 and 2020. In 2022, the State expanded the apprenticeship model to new sectors and added certified pre-apprenticeship program expansion as a goal for 9 of the 14 intermediary partners.

Direct TA support. MDOL provides TA to intermediary partners and sponsors directly and through monthly CoP convenings that encourages the sharing of lessons, approaches, and effective practices.

Select Intermediary Organizations Helping Maine Expand and Diversify Programs

- Gorham School District (Gorham, Maine)—the first K–12 education partner to commit to Registered Apprenticeship for young people—is building programs in healthcare, early childhood education, and transportation and will serve as an intermediary sponsor for three other school districts building similar programs.
- Maine AFL-CIO, in partnership with International Brotherhood of Electrical Workers (IBEW) 1253, New England Laborers’ Training Academy, Maine State Building and Construction Trades Council, and Regional School Unit (RSU) 19, will develop three new pre-apprenticeship programs providing multi-craft core curricula for the skilled trades.
- MaineHealth will develop pre-apprenticeship tracks for phlebotomy and certified nursing and medical assistants and expand outreach and enrollment in existing apprenticeship programs.
This extends MDOL’s capacity and shifts system expertise and responsibility to organizations that are not solely reliant on MDOL funding. The idea is to build employers’ investment in the apprenticeship model while improving the processes that support it so that scale can be achieved and sustained without discretionary, time-limited grant funding.

**Innovation through collaboration.** Additionally, these CoP convenings provide a forum for system-level innovation. One example is credit award and transfer—ensuring that academic credit can be awarded to apprentices for relevant skills learned on the job or in technical training and transferred from one academic institution or system to another. While credit award and transfer cannot be implemented at a program level, CoP participants have been able to arrange for this type of academic credit in specific cases and situations where it is appropriate and beneficial. Credit award and transfer practices are at the heart of the inclusive, dual education system that first sparked the imagination of Maine’s business and education leaders in Germany in 2019. These practices are also a priority for Maine’s apprenticeship leaders in 2023.

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**Spotlight on Maine’s Key Strategies for Increasing Diversity, Equity, Inclusion and Accessibility (DEIA)**

Maine recognizes the value of designing an apprenticeship system that ensures access and promotes a diverse, inclusive pipeline of talent to meet their workforce and economic needs. There are key strategies in place to advance these shared goals across apprenticeship system partners.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
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<tbody>
<tr>
<td>Adopt a strategic goal that commits apprenticeship to DEIA.</td>
<td>Maine Apprenticeship’s goals include both expanding the number of programs in priority communities and increasing the number of underrepresented workers in programs.</td>
</tr>
<tr>
<td>Engage intermediaries that successfully serve underrepresented groups.</td>
<td>Lewiston Adult Education/Lewiston Public Schools is a contracted intermediary partner working on pre-apprenticeship and apprenticeship in the healthcare and construction sectors serving young people and low-income adults.</td>
</tr>
<tr>
<td>Establish formal partnerships with agencies serving underrepresented groups.</td>
<td>MDOL maintains a partnership with the Bureau of Rehabilitation Services’ VR to support an apprenticeship navigator role within VR’s statewide service team.</td>
</tr>
<tr>
<td>Require DEIA training for apprenticeship partners, sponsors, and intermediaries.</td>
<td>MDOL requires all grant-funded sponsors to participate in Windmills disability inclusion training and offers an online course (open to anyone) on DEIA awareness for apprenticeship in partnership with the Maine Community College System.</td>
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</tbody>
</table>
Focus on the Future

MDOL has worked hard to develop and support a considered expansion strategy but has also remained flexible. MDOL has demonstrated a willingness to pivot when barriers arise and to be open to new opportunities.

The agency has learned that sustaining apprenticeship means building systems and structures that outlast short-term funding cycles. That is one reason the agency has established relationships with partner-agency decision-makers from VR, the Department of Economic and Community Development, CTE programs, and secondary and post-secondary school districts, as well as leaders from state legislator, labor unions, and industry intermediaries who are advancing Maine’s next-generation workforce strategy—the heart of which is Registered Apprenticeship.

It also means investing in culture. MDOL is eager to better support ceremonies and recognition practices in apprenticeship. MDOL has also commissioned a survey to better understand public knowledge and perceptions of apprenticeship to inform this effort and to craft new messaging and outreach materials. In doing so, MDOL expects to increase the effectiveness of its efforts to expand and scale apprenticeship.

“The challenge is how to grow in the most effective way. We want it to be transformational.”

Joan Dolan
Director of Apprenticeship & Strategic Partnerships, MDOL
Maine's Registered Apprenticeship strategy includes a focus on apprenticeship as a talent development approach for industries starting to emerge in the state. Efforts related to two emerging industries - Aquaculture and Renewable Energy - are described in this appendix.

**AQUACULTURE**

The [Maine Aquaculture Association](https://www.mainaquaculture.org) (MAA) and [Gulf of Maine Research Institute](https://www.gomri.org) launched the first statewide aquaculture RAP in the United States in 2022, with partners [Educate Maine](https://www.educatemaine.org), [MDOL](https://www.maine.gov/mdol/), and [Southern Maine Community College](https://www.smcc.edu), and with support from the [United States Department of Agriculture’s National Institute of Food and Agriculture](https://www.usda.gov). The effort is a response to a [GMRI report](https://www.gomri.org/research/renewable-energy) that documented over 200 existing and emerging aquaculture farms and a tripling of the sector’s economic impact since 2007. The same study estimated that 1,000 people would work in the sector by 2030 but found few programs that could train them and little awareness of career opportunities in the industry.

Inspired by existing programs in Scotland, Norway, and Portugal, Maine's effort has helped to structure and standardize new occupations to be piloted in six host farms in 2023 and has attracted the attention of other states interested in aquaculture and the National Oceanic and Atmospheric Administration.

“The aquaculture industry is the Wild West. We’re using Registered Apprenticeship to standardize job requirements and train people! We looked at college offerings, but they just didn’t have what was needed. So we are building our own solution.”

Christian Brayden
MAA Registered Apprenticeship Project Manager

**RENEWABLE ENERGY**

[ReVision Energy](https://www.revisionenergy.com) aims to advance a just clean energy transition. As an employee-owned certified B Corporation launched in 2018, ReVision embraced Registered Apprenticeship because it advances the company's mission to offer equitable access to renewable energy careers and reinforces a culture of learning and mentorship consistent with the company's vision and [flagship justice, equity, diversity, and inclusion effort](https://www.revisionenergy.com/careers). Registered Apprenticeship provides a practical solution to an industry-wide need for sector-specific renewable energy training in ReVision's priority...
lines of business (solar, batteries, electric vehicle charging, and heat pumps) and for next-generation industry career paths in fast-growing companies.

Registered Apprenticeship structures skills and talent needs, making it easier for companies like ReVision to procure, create, and improve their training offerings as well as their internal professional development and advancement strategies.

Leveraging established standards developed by the Interstate Renewable Energy Council and the North American Board of Certified Energy Practitioners® (NABCEP®), ReVision has established five new Registered Apprenticeships leading to apprenticeship certificates and academic credit:

<table>
<thead>
<tr>
<th>Program</th>
<th>Type</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>ReVision Energy Electrical</td>
<td>Four-year, journey worker electrician</td>
<td>• Program approved</td>
</tr>
<tr>
<td>Apprenticeship Program</td>
<td>license</td>
<td>• Launched 2019</td>
</tr>
<tr>
<td>Manager Apprenticeships</td>
<td>Competency-based</td>
<td>• Program approved</td>
</tr>
<tr>
<td>Technical Sales Specialist</td>
<td>Competency-based, NABCEP certification</td>
<td>• Plans to launch 2023</td>
</tr>
<tr>
<td>Customer Service Representative</td>
<td>Competency-based</td>
<td>• Program approved</td>
</tr>
<tr>
<td>Photovoltaic Design Specialist</td>
<td>Two-year, NABCEP certification</td>
<td>• Plans to launch 2023</td>
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At the time of this writing, 81 Mainers had participated in the first 2 apprenticeship programs to launch; 8 had completed programs. For ReVision, apprenticeship is still novel—the company manages inquiries about it daily. But ReVision aims to grow and scale these efforts until the program emphasis fades, and apprenticeship becomes simply “the way things are done” in the sector.

MDOL’s partnership with ReVision is an example of how apprenticeship can be used to build a talent pipeline and advance key priorities like achieving the State’s clean energy goals.

“People do not come into the sector with B.A.s in solar or renewable energy. We have to train the workforce—not just for us but for the whole industry. Registered Apprenticeship embeds skills and a culture of development. It’s a transformative way to do training.”

Vaughan Woodruff
ReVision Energy Training Center Director
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Prepared by AIR for the Office of Apprenticeship, U.S. Department of Labor. This project has been funded, either wholly or in part, with Federal funds from the U.S. Department of Labor under Contract Number 1605C2-21-A-0008 TA for OA State Grants. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement of same by the U.S. Government.