



# Policy Blueprint to Modernize and Expand Apprenticeship Nationwide

AT A GLANCE:

In this brief, JFF offers a comprehensive set of federal policy recommendations that will modernize and scale apprenticeships, meeting the demands of today's economy.

#### AUTHORS:

**Taylor Maag**, Director, Policy & Advocacy

Vanessa Bennett, Director, Center for Apprenticeship & Work-Based Learning **Susannah Rodrigue**, Senior Manager, Policy & Advocacy

# Contents

Introduction
Apprenticeship in the United States
Policy Solutions to Advance High-Quality Apprenticeship in the United States
Conclusion 23
Endnotes 24

# About Jobs for the Future

Jobs for the Future (JFF) transforms U.S. education and workforce systems to drive economic success for people, businesses, and communities. <u>www.jff.org</u>

# **Introduct**ion

The U.S. labor market is at a crossroads. Despite unemployment holding steady <u>at a low 4.2%</u>, many sectors and their employers face a persistent struggle to fill positions.<sup>1</sup> This challenge is driven by several interconnected <u>factors</u>: an aging population, lagging labor force participation, and a widening gap between our education/training system and labor market demand that leaves many workers unprepared for good jobs.<sup>2</sup>

The situation is further complicated by the rapid pace of technological change and the rise of generative artificial intelligence (AI), which are reshaping industries and intensifying the mismatch between workers' skills and employers' needs. And jobs in infrastructure, energy, and semiconductor sectors are projected to create approximately <u>2.9 million jobs</u> annually, if federal support continues.<sup>3</sup> The pressing question remains: who will fill these roles?

Despite <u>declining public trust in</u> and rising costs of higher education, postsecondary credentials remain essential for securing good jobs.<sup>4</sup> By 2031, <u>72% of</u> jobs will require education beyond high school, and while a bachelor's degree isn't always necessary, <u>middle-skill pathways</u> --such as associate's degrees,



certificates, and certifications—will be key to economic security.<sup>5</sup> The United States must find ways to expand access to these needed postsecondary options to equip current and future workers with the skills necessary to succeed in our rapidly evolving economy.

# One powerful solution lies in a time-tested workforce development model: apprenticeship.

This earn-and-learn approach combines paid on-the-job training with classroom instruction, culminating in an industry-recognized credential. For workers, apprenticeships offer a flexible, paid pathway to family-sustaining careers. Data collected from the Registered Apprenticeship (RA) system shows that workers who complete these programs earn an average annual salary of \$84,000 (higher than the national average of \$66,000) and lifetime earnings of \$300,000 greater than their nonapprentice counterparts.<sup>6</sup>

The benefits for employers are equally compelling. <u>Apprenticeships enhance</u> recruitment, increase worker retention, foster knowledge transfer from experienced employees, and significantly improve retention—<u>94%</u> of apprentices retain employment after completing their apprenticeship program. For every \$100 businesses invest in apprenticeship programs, they see an average return of <u>\$144</u> through increased productivity, reduced costs, and frontline innovation.

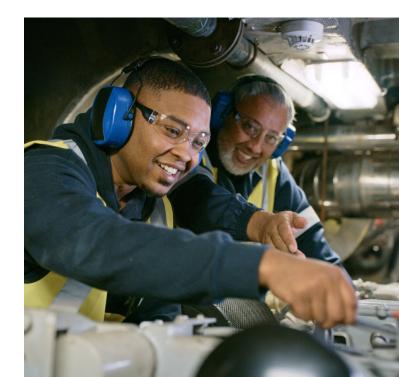


Apprenticeship is also what voters want—JFF's national polling <u>found</u> that 84% of registered voters across the political spectrum support policies to expand apprenticeship programs. The strong labor market outcomes of apprenticeship have drawn the attention of federal and state policymakers, leading to the first federal appropriation in 2016 and ongoing efforts to modernize and expand the system to serve more career seekers and meet industry demand for skilled talent. Over the past decade, the Department of Labor (DOL) highlights significant progress, including a doubling of active apprentices since 2014 and a dramatic expansion of apprenticeships in states, with nine states now serving more than 20,000 apprentices

compared to just one (California) in 2015. With very modest federal investment, federal apprenticeship programs provide more and longerterm training than all other DOL programs combined, including programs through the Workforce Innovation and **Opportunity Act (WIOA).** Yet even with this progress, apprenticeship in America has not reached the scale of other nations. In the United States, there are 678,014 active apprentices, making up roughly .3% of the labor force. Countries like the UK and Australia, however, have eight times more apprentices per capita. This lag is a result of the U.S. apprenticeship system being underfunded-with a federal investment of only \$285 million, or .005% of government spending -- and underutilized due to a lack of effective

incentives and bureaucratic processes that leave many employers and workers locked out of opportunity.

To meet the demands of today's labor market and ensure there are No Dead Ends for learners and workers, the United States must continue and accelerate efforts to modernize and expand its apprenticeship system and increase access to high-quality apprenticeship opportunities. This effort requires a national dialogue that can lead to bold national policies that increase program scale, engage and empower employers as active partners, and build pathways for young people and communities. This policy brief elevates the history of these programs in the United States and outlines JFF's recommendations to rebuild this system to prepare U.S. workers for the future of work.



# **Apprent**iceship in **the Uni**ted States

Apprenticeship has long been a part of the U.S. labor market, yet it remains less widespread than in other advanced economies. The modern RA program was formally established with the passage of the National Apprenticeship Act in 1937, and over the decades, the system has evolved through a combination of regulatory and nonregulatory guidance issued by the U.S. Department of Labor (DOL). For much of the 20th century, apprenticeship remained largely concentrated in the construction industry, limiting its broader adoption across other sectors.

Governance of the U.S. apprenticeship system has posed challenges to national expansion. While the DOL provides overall oversight, administration is split between the federal government and State Apprenticeship Agencies (SAAs), which <u>operate in states</u> that have chosen to manage their own programs. Although both entities register and support apprenticeship programs, <u>SAAs</u> may impose additional requirements and use distinct data and reporting systems. This fragmentation creates barriers for employers and stakeholders, who may struggle to understand why a program registered in one state does not meet the requirements of another.

These barriers can be compounded by the fact that while all recognized apprenticeship programs share a common structure—combining hands-on work experience with classroom instruction and culminating in a nationally recognized credential—there is no formal mechanism in the United States for setting industry-wide standards for specific occupations. Instead, occupational guidelines are often shaped by the first organization to propose a new apprenticeship rather than through a broad, consensus-based approach that includes employers, labor, and education stakeholders. This lack of standardization can limit the scalability and consistency of apprenticeship programs across industries.

### A Tale of Two Apprenticeships: <u>Trane Technologies HVAC Registered</u> <u>Apprenticeship</u> and <u>The IBM New Collar Apprenticeship</u>

Apprenticeship is a powerful tool for employers, offering structured, hands-on training to build a skilled workforce. Traditionally, time-based programs have been the standard, <u>requiring at least</u> 2,000 hours of on-the-job training and 144 hours of instruction per year. However, competency-based and hybrid models are gaining traction. Competency-based programs allow apprentices to progress at their own pace by demonstrating skill mastery, making them ideal for fast-evolving industries like IT. Hybrid models blend time and competency-based elements, offering flexibility while maintaining industry standards.

Trane Technologies' HVAC apprenticeship follows a time-based model, training 160 apprentices across 29 states over four years. Apprentices receive structured onthe-job training, remote and in-person learning, and progressive wage increases as they develop industry-aligned skills. The time-based approach ensures apprentices meet strict trade standards, master complex technical competencies, and gain exposure to a variety of equipment and work environments. Comprehensive benefits, including health insurance, tuition reimbursement, and a 401(k) match, support retention and career advancement, allowing Trane to develop a strong, sustainable workforce.

IBM launched its competency-based apprenticeship in 2017 to close the tech skills gap, offering 37 programs in fields like data science, cybersecurity, and technical support. Lasting 12 months to three years, the program allows participants to advance based on skill mastery rather than a set timeline. Designed for individuals without a four-year degree, it blends hands-on training with supplemental education and provides transferable college credits, helping graduates continue their education while preparing for in-demand IT careers. Since the start of the IBM Apprenticeship Program, <u>90% of all program graduates</u> have started full-time careers at IBM.

Over the last decade, leaders across the political spectrum have committed to expanding and revitalizing this system. Each of the three most recent U.S. presidents prioritized and increased investment in apprenticeships. On Capitol Hill, many members of Congress have collaborated across the aisle to support the growth of these programs, with initiatives like the House Apprenticeship Caucuses and a growing body of bipartisan legislation. This attention and investment have yielded important successes, including:

- An <u>88%</u> increase in the number of apprentices in the United States since 2015.
- More than <u>\$500 million</u> in grants invested in state and community partners, intermediaries, and employers to support apprenticeship creation and expansion since 2016.
- Significant growth in "nontraditional" industries over the last five years, most notably in the financial services, agriculture, energy, and technology sectors, where apprentice participation has grown by <u>359%</u>, <u>56%</u>, <u>43%</u>, and <u>29%</u>, respectively.

Despite this growth of apprenticeship over the last decade, the impact of this model is still not widely felt by employers and workers across industries and occupations. With apprentices making up only .3% of the U.S. workforce, these investments have not been able to overcome the limitations of a system that has not been significantly updated in nearly a century. In the absence of congressional action, the DOL has taken some steps to update the system via agency rules, guidance, and regulations, but this piecemeal approach cannot effectively tackle the systemic issues impeding scale. Moving forward, a broader national dialogue and, ultimately, executive and congressional action are required to effectively move apprenticeship forward. In the following section, JFF outlines the primary policy barriers to expanding apprenticeship in the United States.

#### **Funding Imbalance**

In Fiscal Year 2024, the government spent <u>\$184.35 billion</u> on higher education via the Office of Federal Student Aid and Office of Postsecondary Education alone, while the Department of Labor's apprenticeship budget for FY24 was only \$285 million. This funding gap reflects a longstanding emphasis on traditional degree

programs despite growing recognition that apprenticeships offer a highquality, work-based alternative. While large-scale increases in apprenticeship funding may be difficult given current political dynamics, there are opportunities to enhance resources, better integrate apprenticeships into existing education and workforce systems, and offer incentives to private sector investment to support growth. Given the strong economic outcomes associated with apprenticeships for both individuals and employers, expanding these programs represents a highly efficient use of federal dollars, maximizing returns on workforce development investments.

## Program Sustainability and Partnerships

Creating and sustaining high-quality apprenticeship programs poses significant challenges for many employers, particularly small and midsized businesses. In addition to demanding substantial resources, apprenticeships are difficult to develop and require time, training expertise, and organizational capacity-resources that many employers feel they lack. Without external support to help employers establish and manage apprenticeship initiatives, scaling such programs nationally remains a formidable task. While traditional apprenticeship industries like the building trades have

built strong infrastructure to facilitate employer participation, most other sectors lack comparable coordination and administrative mechanisms.

These challenges are not confined to the private sector. The <u>fragmented nature</u> of the U.S. education and workforce training systems limits the ability of school districts and postsecondary institutions to integrate apprenticeship opportunities into existing educational pathways. Streamlined federal policies and regulations that improve the user experience—both for apprentices and for employers—are essential to enable wider use of the strategy.

#### **Balancing Flexibility and Quality**

Federal policymakers are well advised to address structural issues at the core of the current system to foster the expansion of apprenticeship to new industries and more employers.

For instance, the original statute from 1937 does little to support the development and updating of occupational frameworks via public-private partnerships, which facilitate employer adoption by setting industry-wide expectations for the skills and competencies apprentices are expected to learn, how they will be assessed, and the most appropriate modality for that learning (that is, in a classroom versus on the job). Further, while the registration process has helped maintain program quality, it is also seen as overly burdensome for employers . Efforts like <u>Industry-</u> <u>Recognized Apprenticeship Programs</u> (IRAPs) attempted to address some of these challenges but ultimately fell short of addressing complex policy barriers while introducing additional standards that added further complexity rather than streamlining the process.

# Finding Consensus on Modernizing Apprenticeship

Lastly, while there is broad agreement on the need to expand apprenticeships, consensus on how to do so remains elusive, leading to legislative gridlock and one-sided regulatory reforms. Since the early 1990s, efforts to unify stakeholders around a shared vision have stalled amid tensions between employers and labor, national and state authority, and innovation versus consistency. This lack of consensus highlights the need for pragmatic and bold policies that can solve these challenges while advancing a modern, industry-responsive, and unified apprenticeship system.

## Instead, an overhaul of the system needs to maintain rigorous quality standards while allowing enough flexibility to meet the dynamic needs of employers and workers.

At Jobs for the Future (JFF), we believe our nation needs a unified national apprenticeship system that builds on the strengths of existing models while addressing persistent challenges. A modernized system could be far more responsive to industry needs, accessible to more people, and agile enough to adapt to a rapidly changing economy. By reimagining apprenticeship as a cornerstone of talent development aligned to postsecondary education, the United States can equip its workforce to meet the demands of today's economy and the opportunities of tomorrow.



# **Lessons From Overseas**

As a share of their labor force, Great Britain, Germany, and Australia have roughly eight to 10 times more apprentices than the United States. They offer examples of how peer nations have tackled some of the biggest systemic challenges: engaging employers, embedding apprenticeship into educational pathways, and using intermediaries to drive scale.

#### The UK–Engaging Employers

The UK Apprenticeship Levy, introduced in 2017, requires large employers to contribute 0.5% of their annual pay bill toward apprenticeship funding, encouraging less public and greater private investment in workforce development. While only 2% of businesses pay the levy, it funds nearly 650 apprenticeship programs, including degree apprenticeships, benefiting both large and small employers and expanding training opportunities. The Apprenticeship Levy has increased employer investment in skills across the UK and has prompted employers who had not previously considered hiring apprentices to do so-a behavioral shift that has expanded training opportunities and helped reposition apprenticeships as a viable learning pathway.

## Germany–Sustaining Public and Private Partnerships

Germany's "<u>dual system</u>" integrates classroom learning with employerbased training, creating a strong partnership between government, businesses, chambers of commerce, and labor unions. This shared approach ensures training aligns with labor market needs while distributing costs and accountability, with the private sector covering approximately 75% of expenses. Notably, <u>about half</u> of all Germans ages 18-24 are apprentices, reflecting the program's deep roots in secondary education and early career development.

#### Australia-The Power of Intermediaries

Australia's apprenticeship system uses the Apprentice Connect Australia Providers, a national service that helps employers and apprentices navigate training programs and funding. By creating a national intermediary that bridges the gaps between stakeholders and offers administrative support, this model has significantly expanded apprenticeship participation, with enrollment increasing by 21.6% from 2021 to 2022.

# **Policy** Solutions to Advance **High**-Quality Apprenticeship **in the United States**

The United States needs bold policy solutions to scale high-quality apprenticeships in existing and new and emerging industries. JFF has prepared a comprehensive set of federal policy recommendations that support strong labor market outcomes and improve U.S. competitiveness by offering incentives to employers to develop, participate in, and sustain programs and broaden the reach of apprenticeship pathways.

To create a more unified, modern, and agile national apprenticeship system, JFF urges federal policymakers to take the following actions and enact the following changes.

- Reimagine apprenticeship funding for scalable growth
- Strengthen incentives for employer participation
- Streamline apprenticeship registration and expand program flexibility
- Establish a national framework for youth apprenticeship (YA)
- Expand and strengthen pathways into apprenticeship
- Position intermediaries as the facilitators of apprenticeship

- Strengthen career navigation and support services
- Enhance quality data
- Create a pilot program to test innovative ideas and practices
- Mitigate the "cliff effect" by disregarding income earned during apprenticeship training from meanstested public assistance programs
- Strengthen governance and clarify roles in the national apprenticeship system

The following outlines additional details about these recommended actions and changes.

**Reimagine apprenticeship funding** for scalable growth. JFF urges policymakers to both increase investment and rethink how funding is allocated. While federal apprenticeship funding has seen incremental increases-rising to \$285 million for the Department of Labor's Office of Apprenticeship in FY24-this remains far below what's needed to drive significant expansion. To scale high-quality apprenticeships, especially in critical industries like Manufacturing and AI, federal funding must be substantially increased to provide incentives for employer participation, expand access for individuals, and better integrate apprenticeship into existing education and workforce systems. For context, data from the American Apprenticeship Initiative suggests that startup costs average around \$5,170 per apprentice. Doubling the number of apprentices in the United States to approximately 1.2 million would require an estimated \$3.1 billion in startup costs alone-far exceeding current funding levels.

However, increasing investment alone is not enough. Policymakers must also reform the distribution of apprenticeship funding to ensure efficiency and long-term sustainability. This includes direct incentives to

POLICY SOLUTIONS TO ADVANCE HIGH-QUALITY APPRENTICESHIP IN THE UNITED STATES

employers, such as tax credits; using existing funding sources such as WIOA, the Strengthening Career and Technical Education for the 21st Century Act (Perkins V), and Higher Education Act Title IV (Pell Grants) to better support apprenticeships; and establishing a more robust, formula-based funding model that creates a more structured approach to apprenticeship funding. This would provide stability and predictability for apprenticeship partners (that is, employers, community colleges) to commit to and carry out long-term talent pipeline strategies while also ensuring resources go toward apprenticeship sponsors that deliver strong outcomes (that is, pay for performance).



Strengthen incentives for employer participation. To increase employer engagement in apprenticeships, policymakers must provide meaningful financial and capacity-building incentives. A financial incentive at the federal level, such as a tax credit, would increase employer adoption of the model as well as streamline the patchwork of state-based incentives. making participation easier for corporations with a footprint in multiple states. Policymakers should also invest in intermediaries and sector partnerships that help employers design and implement programs, creating collective talent strategies at regional and state levels. Finally, updating platforms like Apprenticeship.gov and Workforce GPS will make tools, resources, and guidance more accessible, transforming these sites into centralized hubs for apprenticeship program development. Together, these actions will reduce burdens on employers and foster wider participation.

**Tax credits** can be an impactful way to encourage employer participation in apprenticeship. Here are two states leading the way.

## **South Carolina**

Since 2007, South Carolina has offered a \$1,000 tax credit per year for up to four years to employers who hire apprentices. The state has seen a tenfold increase in Registered Apprenticeship programs and an eightfold increase in apprentices, with over 53,000 to date. In 2024, South Carolina enhanced the credit by increasing the amount to \$4,000 and adding a retention incentive, whereby employers can claim an additional \$1,000 annually for each apprentice who remains an employee upon completion (up to \$3,000).

## Colorado

Colorado recently introduced an apprenticeship tax credit to support small businesses, offering up to \$6,300 for the first six months of employment and \$1,050 per month thereafter, up to \$12,600 per apprentice per year. Employers must have an RA program in good standing and employ fewer than 50 people. reduce bureaucratic barriers while maintaining the integrity of the model. Currently, the registration process is cumbersome, especially for small and midsized employers who lack the resources to navigate complex requirements. In 2023, a third of employers reported that the registration process created barriers to starting their own programs. By updating these processes, we can expand apprenticeship opportunities, attract more employers, and create a system that supports a broader range of industries and skill-building approaches. To address this, JFF recommends two key changes: Simplify the registration process. Streamline program registration to make it easier for employers to get involved, establishing clear, efficient timelines for both state and national registration. This will

Streamline apprenticeship

registration and expand program

flexibility. In addition to incentives

that help offset apprenticeship

costs, policymakers need to

reduce unnecessary delays and help employers get programs up and running faster.

- » Expand the use of multiemployer and national programs. As part of registration reform, JFF suggests promoting national reciprocity of programs across state lines and encouraging the use of multiemployer models. These models allow for a single administrative entity to manage the program, which can add new employers through a simple employer acceptance agreement (versus an entirely new registration). Similarly, national programs allow a one-time registration with the DOL to apply across state lines, enabling sponsors to avoid registering multiple times.
- » Support flexible, nontraditional models. Right now, the nation's apprenticeship system is largely time-based, which does not suit the needs of emerging industries or modern apprenticeship structures. JFF advocates for changes to make it easier to register competency-based and hybrid models, where apprentices can advance by mastering skills at their own pace rather than by adhering to rigid seat time requirements.

- **Establish a national framework** for youth apprenticeship (YA). YA programs offer students a path to complete high school, earn postsecondary credentials, and gain paid work experience under the guidance of skilled mentors. These programs produce strong labor market outcomes-in 2020, youth apprentices earned an average exit wage of \$31 per hour, nearly \$19 more than the median hourly wage for U.S. youth. However, the current YA landscape is fragmented, with inconsistent data, limited employer awareness and participation, and weak integration into the broader education system. To create a more cohesive and effective education-to-career pipeline, federal policymakers should:
  - Codify a national definition of youth apprenticeship that supports flexible, career-oriented learning, ensures access to portable, industry-recognized credentials, and fosters collaboration across education and workforce systems. This definition would then apply across relevant legislation, facilitating the use of Perkins V and WIOA funding to support YA while also encouraging YA in state planning processes . A national definition must explicitly include both in- and

POLICY SOLUTIONS TO ADVANCE HIGH-QUALITY APPRENTICESHIP IN THE UNITED STATES

out-of-school youth (ages 16 to 24). In addition to a definition, DOL should also clarify federal regulations by issuing guidance on child labor laws, OSHA safety standards, and <u>liability concerns</u> to reduce barriers to employer participation.

Allocate targeted funding to scale successful YA models. Recent bipartisan efforts to reauthorize WIOA proposed taking a step in this direction by codifying the Youth <u>Apprenticeship Readiness</u> <u>Grant program</u>, which allocates H-1B visa funds to advance YA programs.



### Youth Apprenticeship

JFF's analysis of U.S. DOL's Registered Apprenticeship Partners Information Data System (RAPIDS) found that, between 2010 and 2020, the number of young people (ages 16 to 24) participating in apprenticeship increased by 113%. But programs look different across the country. Here are a few examples of successes and promising practices in states and regions across the country:

**Charleston Regional Youth Apprenticeships (CRYA):** Trident Technical College launched CRYA in 2014 with an industrial mechanics program that engaged 13 apprentices. As of 2021, it had expanded to over 18 pathways across nine sectors, engaging more than 180 employers and more than 350 apprentices. This demonstrates a more than 2,000% increase in participating apprentices. The program offers students paid apprenticeships, college credit, industry credentials, and flexible completion timelines based on competency.

**CareerWise:** CareerWise, which first started in Colorado, connects industry, educators, and students to provide work-based learning through a Swiss-inspired apprenticeship model. Students split time between high school and paid training, earning industry credentials and college credit, with <u>64% of CareerWise apprentices</u> transitioning to postsecondary education, employment, or both. To date, the CareerWise model has expanded to Washington, DC; Elkhart County, Indiana; New York City; Greater Buffalo, New York; and the Upper Peninsula region in Michigan.

**Indiana:** Indiana is leading in youth apprenticeship by establishing a statewide definition and launching the <u>Career Scholarship Account</u> (CSA) program, which provides \$5,000 per student annually for career preparation. The state is also implementing a Swiss-inspired apprenticeship model, engaging <u>more than 100 leaders</u> to create three-year, paid workand-learn pathways for high school students. By this fall, the state expects to enroll at least new youth apprentices.

- **Expand and strengthen pathways** into apprenticeship. Beyond youth apprenticeship, the United States needs more structured pathways to bolster apprenticeship access and completion. Federal policymakers should expand pre-apprenticeship programs, work-based learning, and service-learning initiatives to reduce barriers and create clear entry points into sustainable careers, especially for people facing complex barriers to employment. Strengthening pathways into apprenticeship will expand talent pipelines for critical industries, ensuring more workers can develop the skills needed for high-quality careers. To get there, we recommend the following policy actions:
  - >> Use federal and state workforce programs to support preapprenticeship and workbased learning. Federal programs—including Perkins V, WIOA, Supplemental Nutrition Assistance Program Employment & Training (SNAP E&T), and Temporary Assistance for Needy Families (TANF)—should encourage these activities to provide essential work-based learning and career readiness experiences. Agencies should issue guidance allowing WIOA

## JFF's Pre-Apprenticeship Framework

In 2019, JFF developed a high-quality preapprenticeship framework, building on DOL guidance, to ensure greater access and alignment with industry needs. States like Missouri and Wisconsin have used this tool to certify or strengthen pre-apprenticeship programs, helping to scale and diversify the talent pool for RA programs.

Key components of the framework include:



Clear entry requirements for transparency and accessibility



Employer and industry engagement to align curricula with local needs



Certifications and credentials that support skill portability



Hands-on training and work-based learning for competency development



Academic, career, and wraparound support to ensure retention and completion



Support for transitions into highquality apprenticeships or other career pathways Title I, SNAP E&T, and TANF funds to support wages in preapprenticeship and work-based learning. Additionally, legislators should allocate new federal dollars to subsidize wages, particularly for disconnected youth and underrepresented workers, to expand access and help industries meet labor demands.

- » Align service programs with apprenticeship pathways. Federal policymakers should strengthen connections between service-learning programs (such as AmeriCorps) and apprenticeships by allowing training hours earned in servicebased work experiences to count toward apprenticeship requirements. Supporting structured mentorship, career exploration, and skills training within service programs will further prepare individuals for long-term careers.
- Position intermediaries as the facilitators of apprenticeship.
   To do any of the work referenced above, apprenticeship intermediary organizations are critical. These organizations are well-positioned to reduce friction in the ecosystem

by bridging gaps and reducing the administrative burden on employers. Intermediaries can support employers in navigating complex registration systems to launch new programs; coordinate with educators and training providers to develop and secure funding for industryaligned education; and complement the work of federal and state agencies by providing technical assistance, ensuring effective resource allocation, and clarifying apprenticeship policies and regulations for current and potential partners. JFF recommends targeting apprenticeship resources to highquality intermediary organizations that lead to strong outcomes, for example, Joint Apprenticeship Training Committees, community colleges, national nonprofits, community-based organizations, and industry associations.

 Strengthening career navigation and support services. Expanding access to apprenticeships requires both increased awareness and stronger support systems to help individuals enroll and succeed. Currently, career navigation tools lack a comprehensive view of available training pathways, particularly apprenticeships. Additionally, many individuals face barriers-such as financial constraints, childcare needs, and transportation-that make it difficult to complete these programs. To address these challenges, JFF recommends that policymakers encourage stronger collaboration among key apprenticeship stakeholders-including high schools, local workforce boards, community colleges, communitybased organizations, and employers-to better integrate apprenticeships into career advising and workforce services. This includes equipping career counselors and academic advisers with accurate apprenticeship information, improving coordination between existing education and workforce programs, and ensuring apprentices can connect to available support services such as childcare and transportation. Strengthening career exploration in K-12 education can also help students see apprenticeships as a viable postsecondary option early on. By enhancing career navigation and reducing barriers to participation, policymakers can help more individuals access and succeed in apprenticeship programs without requiring significant new investments.

Enhance data quality. The U.S. apprenticeship system is split between SAAs managing registration, oversight, and technical assistance and the federal government which oversees 27 states and territories. This bifurcation leads to inconsistent data collection and reporting, resulting in gaps in the U.S. DOL's RAPIDS. Employers and sponsors in SAA states often report the same data twice in different formats. creating inefficiencies. Legislators also lack a comprehensive national view of apprenticeship trends. Congress should transition to a centralized apprenticeship database by establishing national data collection and reporting requirements, modernizing RAPIDS to reduce reporting burdens, and investing in data quality improvements. Federal policy can use best practices from states like Michigan and U.S. DOL investments like the Registered Apprenticeship Center of Excellence. This transition will require dedicated funding and increased technical assistance capacity at the U.S. DOL.

- Create a pilot program to test innovative ideas and practices. Like with any federal effort, JFF believes there should be constant evolution and reform to the system as the needs of individuals, businesses, and regional economies change. To ensure apprenticeship programs are evolving along with stakeholder needs, JFF proposes establishing a pilot program within DOL's Office of Apprenticeship that provides competitive grants for states and regional apprenticeship intermediaries/ providers to test new ways of delivery, new ways of recruiting and retention tools, and new uses of technology. Pilot programs could include remote delivery of training, development of data capacity and infrastructure, scaling to new and emerging industries currently underrepresented in the system, population-specific pilots, or regional or sector partnerships.
- Mitigate the "cliff effect" by disregarding income earned during apprenticeship training from means-tested public assistance programs. The structure of U.S. public assistance programs often discourages individuals from lowincome backgrounds from pursuing apprenticeships by triggering a

sudden loss of critical benefits-a "cliff effect" that can leave them worse off financially despite modest wage gains. For example, small increases in apprenticeship wages can abruptly disqualify recipients from SNAP, TANF, housing assistance, or Medicaid, sometimes even leading to eviction. This unintended consequence discourages participation in earn-and-learn programs and limits employers' ability to recruit new talent. To address this, Congress should pass legislation ensuring that earnings from apprenticeships and other public training programs do not count toward household income when determining eligibility for meanstested benefits. If statutory changes are not feasible, federal agencies should issue guidance allowing income disregards or waivers to prevent apprentices from facing sudden benefit loss.

 Strengthen governance and clarify roles in the national apprenticeship system. To ensure the realization of these recommendations and to build a more effective and scalable apprenticeship system, federal policy must define roles, reduce duplication, and support state-led innovation. The Department of Labor should provide policy direction, funding, oversight, and industry coordination while states lead implementation. Employers should drive training and define occupational requirements, with intermediaries across private, public, and nonprofit sectors—expanding and supporting apprenticeship pathways. Clear governance will create a more coordinated, efficient, and flexible system, strengthening workforce pipelines and broadening access to high-quality careers.



# **Conclusion**

Scaling high-quality apprenticeships is essential to meeting the demands of today's economy and keeping the United States globally competitive. By adopting bold federal policies that prioritize scale, quality, and employer leadership, policymakers can strengthen pathways to economic advancement while ensuring businesses have access to a skilled workforce.

JFF's recommendations—from modernizing funding structures to reducing administrative barriers and expanding employer participation—offer a road map for building consensus among federal leaders while also building a more unified, sustainable apprenticeship system. Addressing longstanding challenges like employer capacity, outdated regulations, and worker retention will make apprenticeships more accessible.

A modernized apprenticeship system, including youth and pre-apprenticeship pathways, can bridge the gap between education and employment, creating a more agile workforce. With the right reforms, the United States can lead in workforce innovation and ensure every worker has a pathway to success in the 21st-century economy.



# Endnotes

- 1. "The Employment Situation—February 2025," Bureau of Labor Statistics, U.S. Department of Labor, accessed March 26, 2025, <a href="https://www.bls.gov/news.release/pdf/empsit.pdf">https://www.bls.gov/news.release/pdf/empsit.pdf</a>
- 2. "America Works Data Center," U.S. Chamber of Commerce, accessed March 26, 2025, https://www.uschamber.com/workforce/ america-works-data-center.
- Jeannine LaPrad et al., Unprecedented Opportunity: Meeting the Workforce Demands of New Clean Energy, Manufacturing, and Infrastructure Investments (Washington, DC: National Skills Coalition and BlueGreen Alliance, June 2024), <u>https://nationalskillscoalition.org/wp-content/uploads/2024/02/DataBrief\_infrastructure\_NSC\_BGA\_final.pdf</u>
- 4. Jeffrey M. Jones, "U.S. Confidence in Higher Education Now Closely Divided," Gallup, July 8, 2024, <u>https://news.gallup.com/</u> poll/646880/confidence-higher-education-closely-divided.aspx.
- Anthony P. Carnevale et al., After Everything: Projections of Jobs, Education, and Training Requirements through 2031 (Washington, DC: Georgetown University Center on Education and the Workforce, 2023), <u>https://cew.georgetown.edu/cew-reports/projections2031</u>; Jeff Strohl, Artem Gulish, and Catherine Morris, The Future of Good Jobs: Projections Through 2031 (Washington, DC: Georgetown University Center on Education and the Workforce and JP Morgan, 2024), https://cew.georgetown.edu/wpcontent/uploads/cew-the\_future\_of\_good\_jobs-fr.pdf.
- 6. "Explore Apprenticeship," Apprenticeship.gov, accessed March 3, 2025, <u>https://www.apprenticeship.gov/employers/explore-apprenticeship</u>.
- Taylor Maag, Strengthening America's Workforce: The Path to 4 Million Apprenticeships (Washington, DC: Progressive Policy Institute, May 2023), <u>https://www.progressivepolicy.org/wp-content/uploads/2024/09/Strengthening-Americas-Workforce-Policy-Brief-FINAL.pdf;</u> "Benefits of Creating an Apprenticeship Program," National Apprenticeship, accessed March 3, 2025, <u>https://nationalapprenticeship.org/business-benefits</u>.
- Daniel Kuehn et al., Do Employers Earn Positive Returns to Investments in Apprenticeship? Evidence from Registered Programs under the American Apprenticeship Initiative. (Washington, DC: U.S. Department of Labor, October 2022), <u>https://www.dol.gov/sites/dolgov/files/OASP/evaluation/pdf/AAI/AAI\_ROI\_Final\_Report\_508\_9-2022.pdf</u>.
- "Survey Finds Voters Want Action on Policies to Promote Economic Opportunity Within First 100 Days of Next Administration," JFF, accessed March 27, 2025, <u>https://www.jff.org/survey-finds-voters-want-action-on-policies-to-promote-economic-opportunity-within-first-100-days-of-next-administration</u>.
- Alicia Harrington et al., Understanding the Capacity of State Apprenticeship Systems (Washington, DC: Urban Institute, May 2022), https://www.dol.gov/sites/dolgov/files/ETA/publications/ETAOP\_2023\_03\_Understanding\_the\_Capacity\_of\_State\_ Apprenticeship\_Systems.pdf.
- "Apprentices by State," Apprenticeship USA, accessed March 1, 2025, <u>https://www.apprenticeship.gov/data-and-statistics/apprentices-by-state-dashboard</u>; "America's Apprenticeship Gap in Two Charts," Third Way, accessed March 27, 2025, https://www.thirdway.org/memo/americas-apprenticeship-gap-in-two-charts.
- 12. "H.R.2882 Further Consolidated Appropriations Act, 2024," Congress.gov, accessed April 2, 2025, <u>https://www.congress.gov/bill/118th-congress/house-bill/2882/ext?s=5&r=1&q=%7B%22search%22%3A%22consolidated+appropriations+act%22%7D.</u>
- 13. "No Dead Ends," JFF, accessed March 27, 2025, https://info.jff.org/nodeadends.
- 14. "Apprenticeship System," ApprenticeshipUSA, accessed March 27, 2025, https://www.apprenticeship.gov/about-us/apprenticeship-system.
- "Advancing Apprenticeship: Opportunities For States And Business To Create And Expand Registered Apprenticeship Programs," National Governors Association, accessed March 27, 2025, https://www.nga.org/publications/advancing-apprenticeshipopportunities-for-states-and-business-to-create-and-expand-registered-apprenticeship-programs.
- 16. "Apprenticeship Program," Trane Technologies, accessed March 27, 2025, https://careers.tranetechnologies.com/global/en/ commercial-hvac-technician-apprenticeship-program; "The IBM Apprenticeship program: No Degree? No Problem!," IBM, accessed March 27, 2025, https://www.ibm.com/careers/blog/the-ibm-apprenticeship-program-no-degree-no-problem.
- 17. "How IBM Invests in Opportunities to Reach Maximum Equitable Impact," IBM, accessed March 27, 2025, https://www.ibm.com/ blog/how-ibm-invests-in-opportunities-to-reach-maximum-equitable-impact.
- 18. "Apprentices by State," https://www.apprenticeship.gov/data-and-statistics/apprentices-by-state-dashboard.
- Gina Wells and Meghan Wills, State Apprenticeship Expansion: By the Numbers (Arlington, Virginia: American Institutes for Research, February 2024), <u>https://www.air.org/sites/default/files/2024-03/24-24045-%2812300\_551\_100\_001%29-AIR%20State-Apprentice-Infograph\_v02FNL.pdf</u>
- "Financial Services," Apprenticeship.gov, accessed March 27, 2025, <u>https://www.apprenticeship.gov/apprenticeship-industries/financial-services;</u> "Agriculture," Apprenticeship.gov, accessed March 27, 2025, <u>https://www.apprenticeship.gov/apprenticeship-industries/agriculture;</u> "Energy," Apprenticeship.gov, accessed March 27, 2025, <u>https://www.apprenticeship.gov/apprenticeship-industries/energy;</u> "Technology," Apprenticeship.gov, accessed March 27, 2025, <u>https://www.apprenticeship.gov/apprenticeship-industries/energy;</u> "Technology," Apprenticeship.gov, accessed March 27, 2025, <u>https://www.apprenticeship.gov/apprenticeship-industries/technology</u>.
- 21. "Apprentices by State," accessed March 27, 2025, <u>https://www.apprenticeship.gov/data-and-statistics/apprentices-by-state-dashboard</u>.
- "Department of Education (ED)," USASpending.gov, accessed February 4, 2025, <u>https://www.usaspending.gov/agency/department-of-education?fy=2024;</u> "H.R.2882 Further Consolidated," <u>https://www.congress.gov/bill/118th-congress/house-bill/2882/</u> text?s=5&r=1&q=%7B%22search%22%3A%22consolidated+appropriations+act%22%7D.

- 23. Robert I. Lerman, The State of Apprenticeship In the US: A Plan for Scale (Washington, DC: Apprenticeships for America, July 2022), https://dls.maryland.gov/pubs/prod/NoPblTabMtg/AppCmsn2023/State-of-Apprenticeships-in-the-United-States.pdf.
- 24. David Altstadt, No Dead Ends: A Policy Road Map for Ensuring Boundless Opportunities at School, at Work, and in Life (Boston, Massachusetts: JFF, June 2024), https://info.jff.org/hubfs/240701-NoDeadEnds-Report1-JA-FD-V3.pdf?\_ cord\_id=1b8b30bb-fa1e-4640-ac08-003a5f18b0f4&\_gl=1\*ydam4c\*\_gcl\_au\*NDE0ODgyNjA2LjE3MzY2OTkwMDg.\*\_ ga\*MTM5NTk10DM1My4xNzM2NTQzMjQx\*\_ga\_3YKPLRZBRG\*MTczNjY5OTAwNi4zLjEuMTczNjY5OTAwNy410S4wLjA.
- 25. Office of Apprenticeship, Industry-Recognized Apprenticeship Program Frequently Asked Questions (Washington, DC: Department of Labor, n.d.), https://www.apprenticeship.gov/sites/default/files/IRAP\_FAQ.pdf.
- 26. Taylor Maag, A New Way to Scale Apprenticeships in America (Washington, DC: Progressive Policy Institute, November 17, 2023), https://www.progressivepolicy.org/a-new-way-to-scale-apprenticeships-in-america.
- "Apprenticeships Policy in England," House of Commons Library, accessed March 27, 2025, <u>https://commonslibrary.parliament.uk/research-briefings/sn03052/#:~:text=On%206%20April%202017%20the%C2%A315%2C000%20per%20financial%20year;</u>
  "The Education Hub," Gov.uk, accessed April 2, 2025, https://educationhub.blog.gov.uk/2023/03/how-are-apprenticeships-funded-and-what-is-the-apprenticeship-levy.
- 28. "German Dual Apprenticeship System," Expatrio, accessed March 27, 2025, https://www.expatrio.com/about-germany/germandual-apprenticeship-system#:~:text=In%20Germany%2C%20school%20leavers%20have,its%20costs%20and%20financing%20 possibilities.
- 29. Embassy of the Federal Republic of Germany, The Skills Initiative (Washington, DC: Embassy of the Federal Republic of Germany, n.d.), <u>https://www.germany.info/resource/blob/2250634/8f3585a2a09fe81f5f0f3da86412cacc/skills-initiative-brochure-2019-data.pdf</u>.
- 30. "America's Apprenticeship Gap," https://www.thirdway.org/memo/americas-apprenticeship-gap-in-two-charts.
- 31. "Number of Apprentices and Trainees In-Training Continues to Grow," National Centre for Vocational Education Research, accessed March 27, 2025, <a href="https://www.ncver.edu.au/news-and-events/media-releases/number-of-apprentices-and-trainees-in-training-continues-to-grow">https://www.ncver.edu.au/news-and-events/media-releases/number-of-apprentices-and-trainees-in-training-continues-to-grow</a>.
- 32. "H.R.2882 Further Consolidated," <u>https://www.congress.gov/bill/118th-congress/house-bill/2882/</u> text?s=5&r=1&q=%7B%22search%22%3A%22consolidated+appropriations+act%22%7D.
- 33. "The American Apprenticeship Initiative (AAI) and AAI Evaluation: Background," Abt Associates, accessed March 27, 2025, <u>https://www.apprenticeship.gov/sites/default/files/aai-background-document-final\_0.pdf;</u> Robert Lerman et al., What Are the Costs of Generating Apprenticeships? Findings From the American Apprenticeship Initiative Evaluation (Washington, DC: Urban Institute and Rockville, Maryland: Abt Associates, September 2022), <u>https://www.dol.gov/sites/dolgov/files/OASP/evaluation/</u> pdf/AAI/AAI\_Brief-Costs-Grantees\_Final\_508\_9-2022.pdf.
- 34. "Tax Credits," South Carolina Department of Revenue, accessed March 3, 2025, https://dor.sc.gov/about/forms.
- 35. "By the Numbers," ApprenticeshipCarolina.com, accessed March 3, 2025, <u>https://www.apprenticeshipcarolina.com/by-the-numbers.html</u>.
- 36. "Apprenticeship Tax Credits," Apprenticeship Colorado, accessed March 3, 2025, <u>https://apprenticeship.colorado.gov/tax-credit</u>.
- Curran McSwigan, How to Improve the Registered Apprenticeship System (Washington, DC: Third Way, October 26, 2023), <u>https://www.thirdway.org/report/how-to-improve-the-registered-apprenticeship-system</u>.
   JFF analysis of the U.S. Department of Labor's Registered Apprenticeship Partners Information Database System (RAPIDS) data
- 38. JFF analysis of the U.S. Department of Labor's Registered Apprenticeship Partners Information Database System (RAPIDS) data on youth apprentices, ages 16 to 24, from 2010-2020. For this wage analysis, we included only those youth in a non-incarcerated apprenticeship program who completed their internship and had exit wages between \$7.25 and \$100 per hour. Wages were inflation adjusted. Myriam Sullivan et al., The Current State of Diversity and Equity in U.S. Apprenticeships For Young People (Boston, Massachusetts: JFF, n.d.), <u>https://info.jff.org/apprenticeshipdeia-youth-apprenticeship-rapids#Endnote8</u>.
- "Demystifying Youth Apprenticeship Labor Law & Liability Facts for Employers," JFF, accessed March 27, 2025, https://www.jff. org/wp-content/uploads/2024/08/240429-Labor-Law-Liability-Facts-for-Employers-AH-V3-1-1-1.pdf.
- 40. "U.S. Department of Labor Announces Over \$42 Million in Youth Apprenticeship Readiness Grant Awards to Increase Youth Participation in Registered Apprenticeships," U.S. Department of Labor, accessed March 27, 2025, https://www.dol.gov/ newsroom/releases/eta/eta20200630-1.
- 41. JFF analysis of federal Registered Apprenticeship data from the U.S. Department of Labor's Registered Apprenticeship Partners Information Database System (RAPIDS) from 2010-2020, collected in June 2021, Sullivan, The Current State, <u>https://info.jff.org/</u> <u>apprenticeshipdeia-youth-apprenticeship-rapids</u>.
- 42. "Youth Apprenticeship," JFF, accessed March 27, 2025, <u>https://www.jff.org/youth-apprenticeship/#:~:text=Through%20</u> 2020%2C%20it%20had%20had,to%20participate%20in%20CRYA%20programs
- 43. Joseph B. Fuller et al., The Options Multiplier: Decoding the CareerWise Youth Apprentice Journey (Boston, Massachusetts: The Project on Workforce, November 14, 2022), <u>https://www.pw.hks.harvard.edu/post/careerwise</u>.
- 44. "Indiana Career Scholarship Account," Indiana Treasurer of State, March 27, 2025, https://www.in.gov/tos/csa.
- 45. "Ascend Indiana Receives \$2.45 million in Grants to Advance Youth Apprenticeships Statewide," Indiana Treasurer of State, Central Indiana Corporate Partnership, March 27, 2025, https://www.cicpindiana.com/ascendindianaapprenticeshipgrants.
- 46. "Apprenticeship System," Apprenticeship USA, accessed April 2, 2025, https://www.apprenticeship.gov/about-us

apprenticeship-system



**Building a Future** 

BOSTON | WASHINGTON, DC | OAKLAND, CA