

A photograph of three people in a factory setting. A woman with curly hair and safety glasses is on the left, a man with safety glasses is in the center, and a man is on the right. They are all smiling and looking at each other. In the background, a white car is on an assembly line with its hood open.

Strengthening America's Workforce: The Path to 4 Million Apprenticeships

TAYLOR MAAG
PROGRESSIVE POLICY INSTITUTE

MAY 2023

 @ppi |  @progressivepolicyinstitute |  /progressive-policy-institute



INTRODUCTION

Apprenticeship is engrained in America's history — three of our Founding Fathers started their careers as apprentices. George Washington, for example, apprenticed as a land surveyor. Yet even with this 250-year runway, apprenticeships have not taken off in the United States as they have in other advanced nations.

In 2021, our country had 593,000 registered apprenticeships, mostly in traditional sectors such as building trades and heavy industry. As a share of their labor force, Great Britain, Australia, and Germany have roughly 10 times more opportunities. It is puzzling that the U.S. hasn't followed its peers in scaling up apprenticeship, a training model that is also a job, allowing people to work and earn while they are learning the critical skills necessary for good jobs and careers. It's an especially relevant model now, when most U.S. jobs require at least some postsecondary education and training,¹ and when employers, even in our tight labor market, report a serious shortage of skilled workers in their fields.²

While many progressives have seized on the panacea of "college for all," the reality is that 62% of American adults have no bachelor's degree, and that number rises to 72% for Black adults and 79% for Hispanic adults.³ Additionally, The college earnings premium appears to be declining for the first time in decades, with 40% of recent college graduates working in jobs that do not require a bachelor's degree.⁴ Soaring college tuition costs, low completion rates, and heavy debt burdens are further pushing the American

public to rethink the value proposition of a four-year degree.

Recent data proves this changing mindset. A fall 2021 survey of 1,000 high school students found that the likelihood of attending a four-year college dropped by nearly 20% in less than a year.⁵ In the spring of 2022, there were 662,000 fewer students enrolled in undergraduate programs than the previous spring, constituting a drop of 4.7%.⁶ And a report from the fall of 2022 elevated survey responses from more than 1,500 Gen Z youth and 600 employers, finding that 81% of employers think they should look at skills rather than degrees when hiring and 72% of employers stating they don't see a degree as a reliable indicator of job preparedness.⁷

It's clear that America needs alternatives to a four-year degree that are affordable, trusted by employers, and help people learn the technical and digital skills that today's jobs require. Our nation's oldest pathway — apprenticeship — is a viable solution.

While apprenticeship pre-dated our nation, it wasn't until 1937 that the U.S. passed the National Apprenticeship Act (NAA). This law established the Registered Apprenticeship Program (RAP) as it exists today. To meet the requirements of a registered apprenticeship, the U.S. Department of Labor (DOL), or a federally recognized state apprenticeship agency vets apprenticeships for quality and rigor. The work training curriculum must align with industry standards and enable apprentices to earn a portable, nationally recognized credential. Depending on the industry, Registered Apprenticeship can last

from one to six years and typically includes 2,000 hours of on-the-job training and 144 hours of technical instruction. While originally developed for the skilled trades, these opportunities have been expanded into new and in-demand industries like health care, technology, and advanced manufacturing.

Even though the legislation is nearly a century old, registered apprenticeships continue to have an impact on economic security. Individuals who complete an apprenticeship earn an average annual salary of \$77,000 compared to an average national salary of \$55,000.⁸ Those who complete an apprenticeship program also earn an average of \$300,000 more than those who don't over the course of their career.⁹

In addition to helping workers find good jobs and careers, these programs offer an array of benefits to employers. Apprenticeships help businesses boost recruitment; increase the diversity of their workforce; improve retention (94% of apprentices stay with their company after the apprenticeship wrap);¹⁰ preserve institutional knowledge; and leverage skilled, experienced workers close to retirement to serve as mentors and instructors. For roughly every dollar spent on apprenticeship, employers get an average of \$1.47 back in increased productivity, reduced waste of time and cost, and greater front-line innovation.¹¹

Apprenticeship is a model employers can trust, helping to ensure talent is prepared for in-demand opportunities while also providing a quality postsecondary path for young Americans who are questioning the traditional four-year degree. It also is highly attractive to adult learners, who are older and have

increased barriers to accessing and completing skill development opportunities due to child care or the need to keep working.¹² Apprenticeships are the original work-education model, allowing adult learners to learn the skills they need without sacrificing a wage and providing education that is applied – ensuring learning connects immediately to the workforce.

To ensure more American workers and businesses benefit from these opportunities and keep pace with other partner nations, our country must dramatically scale up apprenticeship and create roughly 10 times more, reaching the end goal of 4 million apprentices in this country. To get to this number, it is not only a matter of boosting public investment, but also requires a new policy architecture in which public, nonprofit, and private intermediaries play a catalytic role in training and placing apprenticeships in companies.

CHALLENGES TO SCALE

It's clear that apprenticeship, the gold standard of work-based learning programs, is incredibly beneficial for workers and employers alike. So why hasn't the U.S. done more to expand these opportunities? And why have our apprenticeship programs failed to keep pace with the dramatic changes our economy has undergone since 1937?

America faces a few challenges that make it difficult to implement wide-sweeping reform. One is the historic imbalance between college and career education. In the 1920s, labor and business leaders pushed federal policymakers to take a role in funding workforce development and vocational high schools.

While there was a strong economic need for these efforts, the federally supported career courses were not successful. In a piece published by the Brookings Institute, author Greg Ferenstein states that these efforts were unsuccessful due to American families rejecting any alternative track that would limit their children from attempting a four-year degree at an elite institution.¹³ Ferenstein also notes that modern attempts to bring back vocational education have tended to fail for the same reasons they did in the early 20th century. This perception and misunderstanding of career-oriented learning as being “second tier” has continued to influence public opinion and policy today. It is a factor as to why young people and adults alike don't seek out and enter into opportunities like apprenticeship and why policymakers historically didn't understand its value.¹⁴

As a result, policies remain strongly biased in favor of subsidies to Americans who go to college, specifically those that acquire a 4-year degree. Pre-pandemic, the federal government spent roughly \$149 billion on higher education versus \$58 billion for workforce-related education and training.¹⁵ Since the latter figure also includes Pell Grants and veterans' programs, the U.S. only spent about \$16 billion, spread across 17 separate federal programs that provide workforce-focused education, employment, and training assistance – including apprenticeship.¹⁶ This past fiscal year, apprenticeship funding did increase with the Department of Labor's (DOL) Office of Apprenticeship receiving \$235 million – growing their budget by roughly \$200 million since 2015.¹⁷ Overall, the increased funding has expanded the infrastructure for apprenticeship, but has not been enough to

stimulate the scale witnessed in countries with similar market-oriented labor markets. For example, while active apprenticeships from 2014 to 2021 in the U.S. increased,¹⁸ U.K. apprenticeships jumped five times more. The British government invests the equivalent of billions of dollars to support these efforts.¹⁹

An additional challenge is creating rigorous apprenticeships isn't easy. In addition to money, a high-quality apprenticeship takes extensive time and training skills – which few employers believe they have. Research shows that without outside efforts to sell employers on apprenticeship and help them organize programs, there's little hope of achieving scale.²⁰ And while there have been increased resources through DOL grants for these efforts, the share of apprentices in the labor force is stuck at today's low level, just 0.3% of all workers, demonstrating that current grantees are not effectively expanding these opportunities.

And lastly, politics. In recent decades across political party, apprenticeship has been a priority for Democrats and Republicans alike. Presidents Barack Obama, Donald Trump, and Joe Biden all vowed to increase investment for these opportunities – which they did. On Capitol Hill, members of Congress have worked across the aisle to champion this issue, whether it is through co-creating and chairing House and Senate Apprenticeship Caucuses or introducing bipartisan legislation like the American Apprenticeship Act.²¹ Amidst the general support for apprenticeship expansion, federal efforts have not gone far enough to push for transformative change and slight hiccups remain in passing the necessary widespread reform.

During the Trump presidency, in addition to registered apprenticeships, the administration passed an executive order, which introduced a new model, Industry Recognized Apprenticeship Programs (IRAPs).²² These programs did not require the review and approval of federal or state apprenticeship offices – allowing for programs to operate without aligning to the historic standards. This was in response to industry asking for more flexibility to ensure rapid ramp-up of programs, but it resulted in driving Democrats and Republicans apart on an issue that for so long was not controversial. It is why last Congress policymakers were unsuccessful in passing a reauthorization of the National Apprenticeship Act²³ – fighting over the inclusion of RAPs versus IRAPs. Since taking office, President Biden has rescinded the Trump Administration's executive order – ending IRAPs. And while the regulatory disagreement between registered apprenticeship and IRAPs created political conflict, policymakers have not abandoned efforts to make our public apprenticeship system more flexible and responsive to changing labor market demands.

A NEW WAY FORWARD & POLICY RECOMMENDATIONS

To address these challenges, America needs bold policy solutions that create new infrastructure to scale apprenticeship. An innovative approach comes from Apprenticeships for America (AFA):²⁴ Mobilizing networks of intermediaries, including nonprofits, job placement and business service firms, industry associations, and unions to work with U.S. employers to create roughly one million new apprenticeships per year until reaching the

scale that is seen in comparable countries – getting our nation to roughly 4 million apprentices. AFA also calls for a pay-for-performance approach in which intermediaries – for example, nonprofits like CareerWise,²⁵ to for-profit apprenticeship service providers like Multiverse²⁶ – only receive funding when they succeed in hiring and placing apprenticeships at companies. To ensure funding is more predictable and consistent, a third key element of the AFA proposal is to shift from the lottery of federal grant programs to formula funding.

PPI encourages U.S. policymakers to adopt this novel approach toward scaling up U.S. apprenticeships. Specifically, we propose six key policy recommendations:

1. Create one million new apprenticeships a year. While federal funding for apprenticeship has increased, resources fall short of what is required to build a robust registered apprenticeship system. Apart from modest federal investment, several structural issues also limit the scope of the U.S. apprenticeship system. From outcomes data collected from grantees of the American Apprenticeship Initiative,²⁷ it costs \$4,000 per apprentice in a registered apprenticeship program. Using this rule of thumb, a program of one million new apprenticeships a year would cost \$4 billion. To fund this investment, PPI recommends redirecting higher education tax expenditures, which disproportionately benefit affluent individuals to support these efforts. PPI's budget blueprint for equitable growth also offers trillions of dollars in savings, all of which could fund this relatively modest amount.²⁸

2. Require funding ties to performance:

Pay-for-performance is a promising way to reward intermediaries for successful outcomes while also holding them accountable. This approach should be established to ensure funding goes to intermediaries, based on how many apprentices they stimulate employers to hire and train. This will ensure that federal investment creates the intended 1 million apprentices per year. Programs should also be evaluated for long-term individual outcomes including apprenticeship completion, credential attainment, and wage progression. While pay for performance models are not common for federal programs, states are starting to implement them across postsecondary programs. Models like Virginia's FastForward program ensures the training provider (community colleges) only receives state funding if the individual completes their training at the college. This program also requires the individual and the state to have skin in the game, contributing to tuition and cost of credential attainment. While focused on short-term programs, FastForward's pay-for-performance model has ensured sustainable investment from the state and strong outcomes for the individuals participating.²⁹

3. Shift from lottery-style grants to formula federal funding:

Our country can't build a robust apprenticeship system on grant programs alone. A new U.S. apprenticeship system should model higher education where federal funding doesn't merely pick winners through the lottery of grant programs, but that funds apprenticeship

through reliable, predictable formula funding. The application of formula funding reduces the need for detailed discussions, negotiations, and disruptions annually. Instead, it creates dependable funding streams based on a predetermined set of criteria, where indicators are clear and acceptable to all concerned. This funding structure would not only level the playing field between degree and apprenticeship programs in our postsecondary system but would also encourage consistency, so apprenticeship programs are sustained and can meet their growth potential.

4. Expand eligibility for intermediaries:

Intermediaries are crucial actors in standing up an apprenticeship program — convening necessary partners, handling processes, and even providing training. These actions incentivize industry participation removing barriers related to time and cost. Policymakers must understand the value of intermediaries and commit to supporting these organizations in this policy while also expanding the definition of intermediaries to include not only public organizations but also nonprofits and for-profit service providers, with eligibility being determined based on the intermediary's outcomes, not their organization's status.

5. Rethink the registration process and requirements:

While registered apprenticeship is the gold standard of skill development in our nation, the process can be bifurcated, complex, and slow. In addition, program requirements of a registered program related to the time and length of a program may be difficult for employers to grasp, creating a barrier to industry participation. While this proposal should maintain the registered apprenticeship framework, policymakers should continue to consider ways to update the registration process, as well as the program requirements, to ensure registered apprenticeships are more agile and responsive to changing needs of employers while still ensuring quality for participating apprentices.

6. Encourage alignment and partnership across federal programs:

To ensure this new apprenticeship system is not siloed, there must be alignment with other related federal policies that oversee our K-12, higher education, and workforce systems. Apprenticeships are a critical component of robust career pathways, providing students, job seekers, and workers with a combination of related instruction and paid on-the-job training that enables participants to quickly develop their skills and apply and hone them in relevant work contexts. Full integration of these opportunities in federal, state, and local education and workforce systems will result in more comprehensive career pathways that benefit both businesses and workers. This alignment can also encourage apprentices to receive the support services needed to succeed in their apprenticeship, including case management and career counseling.

It is time today's policymakers take a page from our history books and, like our Founding Fathers, value apprenticeship. But rather than go back in time or maintain the status quo, federal leaders must build and scale a 21st century apprenticeship system. PPI encourages U.S. policymakers to adopt this novel approach and create one million new apprenticeships per year, until we achieve four million apprenticeships, a roughly 10-fold increase. This model is a smart way to grow a high-quality, evidence-based career path in our country – leveling the playing field between degree and non-degree workers while also ensuring strong returns on investment through outcomes-based funding and industry-driven partnerships.

With such an effort, the U.S. will follow other countries to scale apprenticeship and remain competitive through gains in workforce quality, and improved productivity. Simultaneously, these changes will be worthwhile for jobseekers and workers – increasing earnings, widening access to rewarding careers, increasing job satisfaction, and expanding the middle class. This is the kind of tangible hand-up American workers deserve and should expect from their government.

ABOUT THE AUTHOR

Taylor Maag is the Director of Workforce Development Policy at PPI. In this role, Taylor leads the New Skills for a New Economy Project, developing policy solutions that strengthen our nation's workforce, ensuring employers have the talent they need to remain competitive and people have the skills and critical supports necessary to succeed in today and tomorrow's economy.

References

- 1 Lawrence Lanahan, "More Workers without Degrees Are Landing Jobs. Will It Last?" The Washington Post, July 10, 2022, <https://www.washingtonpost.com/education/2022/07/08/jobs-no-college-degrees/>.
- 2 Stephanie Ferguson, "Understanding America's Labor Shortage," U.S. Chamber of Commerce, April 13, 2023, <https://www.uschamber.com/workforce/understanding-americas-labor-shortage>.
- 3 "Educational Attainment in the United States: 2021," U.S. Census Bureau, February 24, 2022, <https://www.census.gov/data/tables/2021/demo/educational-attainment/cps-detailed-tables.html>.
- 4 "Delivering on the Degree: College to Jobs Playbook," College to Jobs Playbook (Harvard Workforce Project), accessed April 2023, <https://college-to-jobs-initiative.netlify.app/college-to-jobs-executive-summary.pdf>.
- 5 "Less than Half of High Schoolers Want to Go to a Four-Year College, Survey Finds," ECMC Group, November 5, 2021, <https://www.ecmcgroup.org/news/group/less-than-half-of-high-schoolers-want-to-go-to-a-four-year-college-survey-finds>.
- 6 "Undergraduate Enrollment Falls 662,000 Students in Spring 2022 and 1.4 Million during the Pandemic," National Student Clearinghouse, March 20, 2023, <https://www.studentclearinghouse.org/undergraduate-enrollment-falls-662000-students-in-spring-2022-and-1-4-million-during-the-pandemic/>.
- 7 "Degrees of Risk: What Gen-Z and Employers Think About Education-to-Career Pathways... and How Those Views Are Changing," Expand Opportunities, accessed April 2023, https://expandopportunities.org/wp-content/uploads/2022/10/ASA_JFF_DC-Insiders_final.pdf.
- 8 "About Apprenticeship," Jobs for the Future (JFF), accessed 2023, <https://www.jff.org/what-we-do/impact-stories/center-for-apprenticeship-and-work-based-learning/about-apprenticeship/>.
- 9 "About Apprenticeship."
- 10 "About Apprenticeship."
- 11 Tom Perez, "The First-Ever White House Summit on American Apprenticeship," National Archives and Records Administration, July 14, 2014, <https://obamawhitehouse.archives.gov/blog/2014/07/14/first-ever-white-house-summit-american-apprenticeship-helping-american-workers-punch>.
- 12 "Today's Students," Higher Learning Advocates, March 29, 2023, <https://higherlearningadvocates.org/todays-students/>.
- 13 Greg Ferenstein, "How History Explains America's Struggle to Revive Apprenticeships," Brookings, March 9, 2022, <https://www.brookings.edu/blog/brown-center-chalkboard/2018/05/23/how-history-explains-americas-struggle-to-revive-apprenticeships/>.
- 14 Ferenstein, "How History Explains."
- 15 "America's Untapped Workforce: Federal Programs to Help Develop a Critical Talent Pipeline," America's Untapped Workforce Federal Funding, accessed April 2023, <https://jfforg-prod-new.s3.amazonaws.com/media/documents/BRF-DC-Untapped-Workforce-Federal-Programs-030719-FINAL.pdf>.
- 16 "America's Untapped Workforce."

References

- 17 Ryan Craig, "If We're Serious about Apprenticeship, We Should Start Funding It," Forbes, <https://www.forbes.com/sites/ryanraig/2022/09/16/if-were-serious-about-apprenticeship-we-should-start-funding-it/?sh=49d663e62d77>.
- 18 John C. Downen, "Data Illustrates the Growing Popularity of Apprenticeships," Camoin Associates, July 11, 2022, <https://camoinassociates.com/resources/data-illustrates-the-growing-popularity-of-apprenticeships-in-the-us/#:~:text=The%20number%20of%20active%20apprentices%20has%20been%20on%20the%20rise,to%2096%2C915%20in%20FY%202021>.
- 19 "Our Goals," Apprenticeships for America, accessed April 2023, <https://www.apprenticeshipsforamerica.org/white-paper>.
- 20 Robert I. Lerman, "The State of Apprenticeship in the US: A Plan for Scale," Apprenticeships for America, July 2022, <https://static1.squarespace.com/static/61f1c7ff7041697cc1eff1bd/t/62d5b4981261b74803071036/1658172568403/planforscale.pdf>.
- 21 "Klobuchar, Collins Introduce Bipartisan Legislation to Expand Access to Apprenticeships," U.S. Senator Amy Klobuchar, January 26, 2023, <https://www.klobuchar.senate.gov/public/index.cfm/2023/1/klobuchar-collins-introduce-bipartisan-legislation-to-expand-access-to-apprenticeships>.
- 22 Robert Lerman and Daniel Keuhn, "Industry-Recognized Apprenticeship Programs Deserve a Chance to Thrive," Urban Institute, January 8, 2021, <https://www.urban.org/urban-wire/industry-recognized-apprenticeship-programs-deserve-chance-thrive>.
- 23 U.S. Congress, House, National Apprenticeship Act of 2021, HR 447, 117th Congress, <https://www.congress.gov/bill/117th-congress/house-bill/447>.
- 24 "Apprenticeships for America," Apprenticeships for America, accessed April 2023, <https://www.apprenticeshipsforamerica.org/>.
- 25 "CareerWise: Youth Apprenticeship for Students and Employers," CareerWise USA, May 18, 2022, <https://www.careerwiseusa.org/>.
- 26 "Multiverse US: Changing the Future of Work," Multiverse US, accessed April 2023, <https://www.multiverse.io/en-US>.
- 27 "American Apprenticeship Initiative," Office of Apprenticeship, accessed April 2023, <https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/american-apprenticeship-initiative>.
- 28 Ben Ritz and Brendan McDermott, "Funding America's Future: A Progressive Budget for Equitable Growth," Progressive Policy Institute, July 2019, <https://www.progressivepolicy.org/wp-content/uploads/2019/07/PPIBudgetBlueprint-2.pdf>.
- 29 "Program Details," Fast Forward, January 5, 2023, <https://fastforwardva.org/program-details/>.



The Progressive Policy Institute is a catalyst for policy innovation and political reform based in Washington, D.C. Its mission is to create radically pragmatic ideas for moving America beyond ideological and partisan deadlock.

Founded in 1989, PPI started as the intellectual home of the New Democrats and earned a reputation as President Bill Clinton’s “idea mill.” Many of its mold-breaking ideas have been translated into public policy and law and have influenced international efforts to modernize progressive politics.

Today, PPI is developing fresh proposals for stimulating U.S. economic innovation and growth; equipping all Americans with the skills and assets that social mobility in the knowledge economy requires; modernizing an overly bureaucratic and centralized public sector; and defending liberal democracy in a dangerous world.

© 2023
PROGRESSIVE POLICY INSTITUTE
ALL RIGHTS RESERVED.

PROGRESSIVE POLICY INSTITUTE
1156 15th Street NW
Ste 400
Washington, D.C. 20005

Tel 202.525.3926
Fax 202.525.3941

info@ppionline.org
progressivepolicy.org