

# After COVID-19: Building a More Coherent and Effective Workforce Development System in the United States

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Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers—based on credible evidence and experience, not ideology or doctrine—to introduce new and effective policy options into the national debate.

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This policy proposal is a proposal from the author(s). As emphasized in The Hamilton Project's original strategy paper, the Project was designed in part to provide a forum for leading thinkers across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The author(s) are invited to express their own ideas in policy proposal, whether or not the Project's staff or advisory council agrees with the specific proposals. This policy proposal is offered in that spirit.

BROOKINGS

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# Abstract

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Workforce development in the United States today is spread across higher education institutions (primarily public two-year and for-profit colleges), labor market institutions, and workplaces, with public funding from a range of sources. But outcomes for students and workers are weaker than they could be, especially among disadvantaged students and displaced workers; funding for workforce development programs is insufficient and not always effective. I propose the following changes: (1) Implement reforms and additional funding in the Higher Education Act of 1965 (HEA) for postsecondary occupational training for disadvantaged students. (2) Add modest taxes on worker displacement along with new funding for retraining. (3) Create a permanent version of the Trade Adjustment Assistance Community College and Career Training (TAACCCT) grants to fund partnerships among community colleges, workforce institutions, and states. Together, these actions would improve credential attainment and employment outcomes among the disadvantaged and employees at the risk of being displaced.

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# Introduction

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## Workforce Development in the United States

Since definitions of workforce development can vary across policymakers and practitioners, I begin here with my own definition.

I define “workforce development” in the United States as all postsecondary education and training, plus other programs and services, like career counseling, job search assistance, wraparound supports, and others that have as their primary focus preparing workers for well-paying jobs and careers. In my view, these policies and practices should mostly focus on students and workers without bachelor’s degrees; those are the workers whose earnings and employment have deteriorated the most in recent decades. Although career and technical education (CTE) programs in secondary schools, and career education at even earlier grades, can also help prepare students for careers, my primary focus here is on postsecondary education and services.

### WHY IS WORKFORCE DEVELOPMENT IMPORTANT IN THE UNITED STATES?

Workforce development policies, programs, and practices are critical to any effort to improve economic productivity, income mobility, and equity among American workers.

Productivity growth in the United States has mostly stagnated in the past five decades, except for the decade growth from the mid-1990s to the mid-2000s that is associated with the digital revolution. All else equal, rising productivity is associated with rising family incomes and workers’ earnings—though perhaps to a lesser extent in recent years than was true historically. And most economists believe that workers’ skills and education are key components of productivity growth (see, e.g., Baily 2015; Stansbury and Summers 2017).<sup>1</sup>

Labor market inequality in the United States has also grown dramatically in the past four decades. Nowhere is this more evident than in the huge increase in earnings gaps between workers with bachelor’s degrees or higher and those with less

education. The earnings gap between these groups roughly doubled between 1980 and 2000 and has remained very high since that time.

Individuals who obtain a bachelor’s or higher degree tend to do quite well in the U.S. labor market over their careers. This is true despite some early struggles they have with paying down student debt and obtaining their first well-paying jobs, especially if they enter the job market during a recession, such as the one the country is in now. Even though the real earnings of young college graduates have not grown much since 2000, the earnings of non-college-educated workers have stagnated over the past four decades, and have even declined among some groups, like non-college-educated men.

What has driven the growing divide between those with college degrees and those without who are increasingly being left behind? While many factors have contributed to stagnating earnings and rising inequality, there is no question that many workers without a bachelor’s degree in the United States have too few of the skills and credentials that employers seek and reward in the labor market.<sup>2</sup>

Research suggests that well-paying jobs for workers who have a high school diploma or less have mostly disappeared. To obtain well-paying jobs that are generally in high demand—in fields like health care, advanced manufacturing, information technology, transportation, logistics, and many parts of the service sector—workers need at least some postsecondary education and training, and a range of skills, both general and occupation specific, that employers demand in such work.<sup>3</sup> But too few Americans without a bachelor’s degree have such skills, especially in the most disadvantaged populations. As a result, employers have some difficulty filling jobs, and ultimately create fewer jobs or more frequently outsource or offshore existing jobs.<sup>4</sup> To be clear: where skill deficits exist, they primarily reflect low opportunity and limited access among disadvantaged populations—especially low-income groups and people of color—to high-quality education and training options, rather than their own innate skill deficiencies or behavioral problems (Goger and Jackson 2020). And some credentials that employers seek and reward reflect poor



information, in some cases leading employers to rely too heavily on postsecondary credentials as signals of workers' skills (Blair et al. 2020).<sup>5</sup>

If anything, the COVID-19 pandemic has exacerbated these problems recently, and they will likely continue to deteriorate in the coming decades. For one thing, the COVID-19 pandemic has reduced employment the most among low-income workers, female workers, and workers of color. Indeed, our partial labor market recovery from the economic shutdown in the spring of 2020 has already been the most unequal in U.S. history, with the more-educated professional and managerial workers rapidly regaining their jobs or never losing them in the first place, while less-educated and minority workers are out of work more often and remain out of work longer (Hershbein and Holzer 2021).

Increasingly, workers who were furloughed or laid off in the spring of 2020 have joined the ranks of the permanently displaced, after their employers either shut their doors or reorganized the workplace to put greater emphasis on remote work and online commerce and service delivery. Permanently displaced workers suffer much more than other laid-off workers, and often take years to regain employment, which is usually at much lower wages than before. The pandemic therefore has created the need to provide more workforce training to workers who are permanently displaced, as well as to others like low-wage essential workers who were never laid off and who could benefit from skills training.<sup>6</sup>

Furthermore, automation and globalization over the coming decades will continue to generate more worker displacement as well as more difficulties for non-college-educated workers. Indeed, although artificial intelligence might threaten the jobs and earnings even of college-educated workers, those workers' ability to adjust by gaining new skills and new employment will likely be much greater than workers with less education. Absent concerted attention and action, the gulfs between the well-educated and others will continue to widen. Thus, it seems clear that workers without four-year degrees should be the focus of any efforts aimed at improving opportunity and equity in economic outcomes in the United States.

To deal with these problems, the United States needs a much stronger and more inclusive workforce development system. Such a system should serve a range of students and workers in need of skill enhancement—including youths and adults, those currently employed and not, with a heavy focus on the disadvantaged and displaced, or those at risk of becoming displaced - though it should not be limited to these groups. And we need a workforce development system that is responsive to the ongoing forces of automation and globalization that will continue to develop the skills that employers seek for their well-paying jobs.

## THE U.S. WORKFORCE DEVELOPMENT SYSTEM: COMPONENTS AND FUNDING

Economic (human capital) theory generally posits that, if it is in the interests of workers to invest in their skills and thereby raise their earnings, they will choose to do so. Similarly, employers will invest in training their workers if they can benefit from doing so, though the extent to which they will pay for such training (as opposed to having their workers pay for it through lower earnings), depends on how certain they are that they—and not other employers—will benefit from the investment.<sup>7</sup>

Of course, labor markets can generate too little education or training for two broad reasons: (1) market failures that generate less than the socially optimal investments, and (2) inequities that generate too little education or training among the disadvantaged or the displaced.

The market failures affecting workers include too little information about cost-effective education and training and their public goods nature, and the presence of liquidity constraints that are driven by capital market problems that limit those workers' ability to borrow. Employers might also have too little of such information and could be facing their own liquidity constraints, especially among small or medium-sized firms. Fixed start-up costs for training, and employers' inability to coordinate with other employers in addressing those costs, also contribute to problems. And inequities across workers can have great impacts on the provision of higher education or workforce training. Disadvantaged (including low-income) students or workers not only might have too few resources and too little information, but, due to the limited educational opportunities they have faced, might also be weak on a range of cognitive and noncognitive skills that would otherwise enable them to successfully complete their training and realize returns.<sup>8</sup> Employers might hesitate to invest in them as well, for instance if they fear that the low skills of the workers will render the training ineffective or that high turnover among low-skilled workers will limit the employers' ability to accrue any returns.<sup>9</sup> Discriminatory judgments by employers on trainability can certainly contribute to skills and earnings gaps that widen over time.

Displaced workers suffer a different kind of inequity: their permanent job loss wipes out all of their firm-specific seniority and skills, as well as their occupation- or industry-specific training if they cannot find similar jobs to the job they have lost. As noted, permanent job loss imposes great costs on workers and their families. The severing of one employment relationship means that a new one must be generated, complete with other forms of reskilling. In addition, we often see permanent earnings loss among those who find new jobs, labor market withdrawal among those who do not, and poor health and mortality rise for the latter (Davis and Von

Wachter 2011; Lachowska, Max, and Woodbury 2020). These outcomes, in turn, generate broader social costs, both fiscally and at the community, state, or federal levels—costs that employers generally do not internalize (i.e., consider) when making their automation decisions.

Given the private nature of most education and training decisions, as well as the need for public funding and other policy levers to address market failures and inequities, the U.S. higher education and workforce investment system provides three primary options to students and workers for making such investments, with varying amounts of public funding:

- Certificate programs, both for-credit or noncredit; and occupational associate's degrees in public community or technical colleges, or in private for-profit colleges.<sup>10</sup>
- Workforce services and training vouchers known as Individual Training Accounts (ITAs) that individuals can get at American Job Centers (formerly known as One-Stops). Those vouchers can be used for training by locally approved providers.
- On-the-job training or work-based learning opportunities, including apprenticeships, provided by employers.

There are also many sources of public funding to support these options at the federal, state, and local levels that provide resources directly to (1) individual students or workers, (2) higher education institutions or job centers, and (3) employers. This funding no doubt raises investments in worker education and training.

For instance, public colleges and universities receive direct support from state subsidies; those institutions tend to reduce overall tuition prices they charge to all students, regardless of income. Lower-income college students, and the institutions serving them to a lesser extent, also receive direct funding from the federal HEA, especially Title IV programs, which include Pell grants, federal loans, and funds for work-study. Indeed, the federal government spends about \$75 billion per year on higher education, while state subsidies to public institutions provide even more support (Pew Trusts 2019). As a result of both kinds of funding, more than 6 million U.S. students are enrolled in sub-bachelor's programs at any time, most of them in two-year public institutions (Baum, Holzer, and Luetmer 2020).

The ITAs for individual workers and the public job centers are funded at much lower levels by the Workforce Innovation and Opportunity Act (WIOA; 2014), with funds disbursed by state and local workforce boards made up primarily of major local employers and some local officials, including community college representatives.<sup>11</sup> They also distribute money from a number of federal funding streams within WIOA for particular categories of students or workers, such as disadvantaged

adults, displaced workers, and out-of-school youths, among other groups.<sup>12</sup>

Small amounts of funding or services for training can also be obtained from federal programs by disadvantaged workers. These supports include Temporary Assistance to Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP, or food stamps) (U.S. Government Accountability Office [GAO] 2019). Those workers that have been displaced by imports have access to additional funds through the Trade Adjustment Assistance (TAA) program that provides training and temporary income support beyond the unemployment insurance (UI) benefits for which they also qualify. And on-the-job training is primarily funded by employers and workers, though there are pockets of state and federal support for employers who also provide on-the-job training or other work-based learning like apprenticeships.<sup>13</sup>

In addition to the formula-funded programs described above, the federal government sometimes provides one-time competitive grants to states, regions, or public institutions. These grants are designed to incentivize these entities to build institutional capacity that will provide high-quality education and training; the grants are also designed to provide workforce services, since labor markets evolve and the skill sets demanded by employers also change.

For instance, one-time Trade Adjustment Assistance and Community College and Career Training (TAACCCT) grants worth \$2 billion were awarded and implemented in four rounds in the Obama administration's first term. The grants were designed to improve the capacity of community colleges to train adult workers by improving the functioning of workforce services and responsiveness to employer and industry labor demand in regional labor markets.

The TAACCCT grants were at least partly designed to help colleges build more effective regional workforce infrastructure. The expectation was that community colleges receiving grants would work more effectively with local workforce boards and related institutions like the job centers, in response to regional labor demand shifts.

In addition to public funding, federal and state governments use both taxes and regulation to generate more efficient and more equitable education and training. For instance, taxes and subsidies are used not only to fund the public investments described above, but also to change employer incentives regarding whether to lay off workers, either temporarily or permanently. Also, employers who generate large numbers of layoffs are now required to pay somewhat higher taxes, through experience rating, to fund the UI payments to their displaced workers.



Regulations can also be used in a variety of ways to ensure that public funding is spent as effectively and equitably as possible. For instance, the federal government has at times issued gainful employment regulations to ensure strong employment outcomes among students in occupational programs at higher education institutions, especially at for-profit colleges. Accreditation rules for higher education and rules regarding when a program is for credit have the same broad goals.

## EVIDENCE ON VALUE OF CREDENTIALS AND COST-EFFECTIVENESS OF PUBLIC FUNDING

Given the options that are available to workers, students, and employers for occupational training and workforce services, what does the evidence show about labor market returns to such investments, and the cost-effectiveness of publicly funded training?

Many, though not all, of the higher education credentials have strong labor market value, including for-credit and, to a lesser extent, noncredit certificates—though the variance in market rewards is very high. For instance, associate’s degrees generally provide higher payoffs than certificates, and not all certificates provide returns, especially if they are short-term and take less than a year to complete (see Baum, Holzer, and Luetmer 2020). But certificates can sometimes have more labor market value than terminal associate’s degrees in the liberal arts (Backes, Holzer, and Velez 2015).

Associate’s degrees provide a mix of general and occupation-specific education, and can also lead to bachelor’s degrees in the future, whereas certificates mostly provide occupation-specific education. For younger students, degrees often make the most sense, if they can master the academic work, to prepare for careers in which they might change occupations and industries with some frequency. For adults with shorter horizons and time constraints, who are seeking very specific training, certificates can be more appealing.<sup>14</sup>

The cost-effectiveness of Title IV expenditures on Pell grants and other forms of financial assistance, especially among those in sub-bachelor’s programs, depends on the extent to which they lead to higher college enrollments among low-income recipients, their completion rates, the fields in which they choose to study, and labor market rewards to these fields. A complete treatment of these issues is beyond the scope of this paper, and some limitations in both the magnitudes of these expenditures and their effects are described more fully below.

Still, a few broad generalizations are warranted. First, Pell grants appear to be cost-effective at raising low-income student credential attainment; federal loans can have the same effect, though default rates among low-income borrowers with low-wage jobs can be high.<sup>15</sup> Second, federal or state expenditures on higher education, in the form of reduced tuition

or support services provided for disadvantaged students, are generally cost-effective as well—and even more cost-effective than free tuition for the broad population of students.

Specific support programs, like Accelerated Study in Associate Programs (ASAP) and Stay the Course, have been particularly cost-effective in improving credential completion rates at community colleges when those programs are rigorously evaluated (Dawson, Kearney, and Sullivan 2020; Evans et al. 2020). ASAP provides a comprehensive set of support services to full-time, lower-income students who need academic remediation before they enter associate’s degree programs, and Stay the Course provides intensive case management to disadvantaged students.

Regarding the cost-effectiveness of other forms of training, the track record of WIOA-financed training is somewhat more mixed, though there is at least some evidence of cost-effective impacts on earnings here as well. Some studies, though not others, find that training for disadvantaged adults through ITAs is cost-effective, but WIOA training for displaced workers appears to be less effective (Andersson et al. 2013; Fortson, Rotz, and Burkander 2017; Heinrich et al. 2011).

But sector-based training for high-demand and well-paying jobs has proven to be especially cost-effective when rigorously evaluated. Sector-based training is where an intermediary organization with strong knowledge of a specific industry brings together training providers, often community or technical colleges, with employers or industry associations, and provides needed supports and services to disadvantaged students. The best programs evaluated to date include the following:

- Project QUEST is a San Antonio-based program that trains workers for jobs in health care, information technology, and manufacturing.
- Per Scholas is a program originally based in New York City that trains workers for information technology jobs.
- The Wisconsin Regional Training Partnership is a Milwaukee-based program with a primary emphasis on the construction trades and manufacturing.
- Jewish Vocational Service, with a strong focus on health care.<sup>16</sup>

A somewhat different approach, one that can be based on specific sectors, is the career pathway. This model for disadvantaged workers allows them to start with any needed skill remediation and take one small step at a time, earning certificates that can stack over the months or years to degrees; some of these models have proven to be cost-effective, too.<sup>17</sup> And training provided on the job, and especially through

apprenticeship and other work-based learning, also appears to be quite cost-effective.<sup>18</sup>

Finally, evaluation evidence on the impacts of the TAACCCT grants generally indicates positive impacts on credential attainment and somewhat less-positive impacts on employment. These findings might not be too surprising, given that

many of the grants were implemented during the weak labor markets following the Great Recession (Eyster et al. 2020; McCarthy et al. 2020). And more-qualitative evidence suggests that important programmatic capacity at community colleges, and policy infrastructure more broadly—such as the partnerships between colleges, employers, and intermediaries—also grew among grant recipients.

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# The Challenges

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## Workforce Development Challenges in the United States

Despite the availability of some cost-effective programs and services to improve student outcomes, and despite the public expenditures cited above, postsecondary student outcomes in the United States are fairly weak. For instance, despite the very high rewards for doing so, Americans who obtain a bachelor's degree or higher account for just over a third of the U.S. population. More broadly, only about half of Americans gain postsecondary, or industry-recognized, credentials. Credential attainment is even lower among low-income students and workers; workers' ability to achieve a middle-class standard of living without a credential is very limited (Holzer and Baum 2017).

Our higher education and especially our sub-bachelor's workforce system are thus generating disappointing results in the aggregate, and are contributing to the enormous levels of inequality and low upward mobility we observe among poorer Americans. Among displaced workers we generally observe downward mobility, since too few receive effective services or supports to help them regain employment, with or without gaining new skills. These outcomes no doubt contribute to weak productivity growth in the United States.

Why are higher education attainment and subsequent earnings outcomes so limited, especially among disadvantaged students and/or displaced workers? And what can we do to improve those earnings outcomes?

While most high school graduates enroll in postsecondary education or training at some point in their lives, completion rates are low in certificate and especially associate's degree programs—at about 60 percent and 39 percent, respectively, after six years, and considerably less in shorter periods (Baum, Holzer, and Luetmer 2020).<sup>19</sup> Also, too many students obtain certificates or even terminal liberal arts associate's degrees, neither of which has much labor market value (Backes, Holzer, and Velez; Baum, Holzer, and Luetmer 2020).

In the absence of better academic and career guidance, students often meander aimlessly and inefficiently across programs (Bailey, Jaggars, and Jenkins 2015; Holzer and Xu 2019). In addition, debt burdens and loan default rates are rising. While there is much public misunderstanding on the college debt issue, default rates among those with even modest loans can be high, especially among those who fail to complete their programs of study (Baum and Looney 2020).

Some of the weak outcomes for disadvantaged students can be traced to their own personal or family characteristics, and their lack of opportunity to develop better skills and social capital. They might also be unable to attend college and training programs full time, for instance if they need to work to support a family. Among displaced workers, those who are older and/or those with no postsecondary education tend to experience the worst labor market outcomes and are the least likely to obtain training for new skills.

The relatively weaker institutions, as measured by average student achievement, that both groups frequently attend contribute somewhat to these worse outcomes as well (Bound et al. 2010; Holzer and Baum 2017). The access of low-income students to stronger institutions is limited not only by their academic preparation, but also by the lack of information about and contacts with better schools, and a variety of other disadvantages that higher-income students have when applying to elite or flagship programs.

Additionally, and partly contributing to some of the factors described above, the weak outcomes we observe among the disadvantaged and displaced can be at least partially traced to the following characteristics of the U.S. workforce system:

- Too little public assistance is available for students who enroll in workforce programs.
- The institutions that provide these programs and workforce services also receive too little funding, while too few incentives encourage them to invest their limited resources in workforce programs, and to do so cost-effectively.

- Employers provide too little work-based learning in general, and too little retraining when their workers face displacement by automation.
- There is fragmentation between higher education and workforce institutions, along with other factors that limit the ability of the workforce system to respond effectively to regional labor demand forces.

To begin, public funding for workforce development outside of higher education is very limited relative to the size of our economy, and has been declining for decades. For instance, current funding for WIOA is vastly lower, in real terms, than it was for its predecessor program, which was funded through the Comprehensive Employment and Training Act, a program that peaked in 1980; relative to the size of the labor force and economy overall, funding is even lower today.<sup>20</sup> Combining all sources of federal support for workforce development apart from direct public expenditures on higher education, we spend under 0.1 percent of GDP, a vastly smaller amount than that spent by most European Union countries on active labor market policy (Brown and Freund 2019).<sup>21</sup> No doubt some of the zero-to-modest estimated impacts of ITAs on worker outcomes are due to their very limited value, usually about \$2,000.

While public funding broadly for higher education—both from the HEA and from state subsidies—is much more generous than it is for the workforce services funded by WIOA, here we also find limitations. State funding for higher education institutions overall has been declining in recent years, and funding for two-year community colleges on a full-time equivalent (FTE) student basis lags well behind what four-year institutions receive. This is unfortunate, since community colleges often serve the most disadvantaged segment of American students, those with a great need for supports and services in addition to classroom education. When greater support for services is provided, student outcomes improve (Avery et al. 2019).<sup>22</sup>

And it is at community colleges where most students obtain workforce development, and many of the skills that employers seek, in a range of certificate and occupational associate's degree programs. Thus, at community colleges that are facing declining state subsidies, college administrators must either raise tuition rates or reduce important supports and services. Both of these actions, but especially the latter, can reduce credential attainment by disadvantaged students.

Workforce students in certificate programs are also short-changed in other ways. For instance, students are eligible for Pell grants and other Title IV assistance under the HEA only if they enroll in for-credit programs at accredited institutions that meet minimum hours and credit requirements. Because of this requirement, students in very short-term or noncredit

certificate programs are left without assistance, while others likely choose for-credit and/or longer programs for which they might not be academically prepared or that take too long to finish (Baum, Holzer, and Luetmer 2020).<sup>23</sup> Most students attaining short-term certificates do not attempt to stack them into higher degrees (Bailey and Belfield 2017), perhaps because of the financial or time costs involved.

Community colleges therefore struggle with whether to designate these programs as for-credit or noncredit. They sometimes designate programs as for-credit to enable students to receive Title IV aid, but doing so entails time costs and raises bureaucratic barriers (such as the need to undergo curriculum review by faculty and administrators) that slow down the oversight process, denying them the quick responsiveness to employer needs that noncredit programs provide.

The generally low funding available to two-year colleges also limits their ability to invest in the programs with the strongest labor market returns. Sometimes faculty and equipment costs are high, and restrict the ability of colleges to expand teaching capacity in high-return fields like nursing.<sup>24</sup> And the financial incentives facing institutions are mostly not aligned with labor market need (Holzer and Baum 2017).<sup>25</sup>

To strengthen performance incentives at public higher education institutions, most states now use some version of performance-based or outcomes-based funding in allocating their subsidies to these institutions (Boggs 2018). The fractions of total funding allocated in this manner vary a great deal across states, and the performance measures they use vary as well. But successful workforce programs get little reward, and most states use credits or credentials attained by students as their primary outcome measures, and fairly few use subsequent employment outcomes to incentivize more labor market focus.

To date, researchers find few, modest effects of any such incentives on performance, although few efforts have been rigorously evaluated to date. Critics worry that such performance incentives could potentially lead colleges to practice cream skimming in their admissions to strengthen their measured outcomes, or to raise their credential completion numbers by steering students away from associate's degrees toward certificates (Dougherty et al. 2016).

In the for-profit sector where many students—especially adult students—seek certificates, tuition costs are very high and labor market outcomes are weaker afterwards than they are for credentials earned in public colleges (Deming et al. 2016; Cellini and Turner 2018). Student defaults are particularly high in this sector, and the Trump administration eliminated meaningful accountability through gainful employment regulations (Baum and Holzer 2019; Cellini et al. 2017).

In addition, both funding and institutional support for employer-provided, work-based learning in the United States are inadequate. Unlike in many parts of Europe, where well-organized and well-funded apprenticeship programs linked to key economic sectors are available in the secondary school system, support for such practices in the United States is minimal. Employer take-up of apprenticeships is low, at least partly because it is daunting for small and medium-sized employers to fund and scale these programs.

Historically, trade unions in construction and manufacturing ran training programs across employers on an industry-wide basis, but the dramatic decline in private sector American unionism since the mid-1950s has caused the number of union-run apprenticeship programs to decline.<sup>26</sup>

And despite many efforts to improve it, employer participation more broadly in workforce preparation programs is more limited than it should be; the best sector-based programs with strong track records are small and lack adequate scale. Training provided on the job is highly skewed in the United States toward professional and managerial employees (Lerman, McKernan, and Riegg 2004). There are some good reasons for this focus, although, as noted above, market failures and inequities exacerbate the problems.

As concerns about potential worker displacement from the COVID-19 pandemic and ongoing automation continue to grow, the willingness of employers to train or retrain workers without bachelor's degrees requires more attention in workforce policy proposals. Without any meaningful voice in the workplace, workers usually have no input into employer automation decisions, and employers can choose to pay no heed to the huge costs imposed on workers and communities when automation displaces those workers (Casey 2020; Kochan and Kimball 2019). Employers who have chosen to invest in the skills of their workers and to pay higher compensation for higher productivity, called high-road employers (Osterman 2017; Ton 2014), are not rewarded for the public good aspect of the investment in their workers. As a result, there is insufficient incentive to change practices among employers that choose the low road (i.e., low compensation and low training). If anything, the prevalence of low-road employment is growing (Katz and Krueger 2019; Stansbury and Summers 2020; Weil 2019).

Regarding taxes, the experience rating of UI taxes to discourage employer layoffs is too limited to greatly affect such behavior, especially regarding permanent layoffs.<sup>27</sup> In addition, the fact that UI benefits are paid to laid-off workers makes firms less reluctant to impose layoffs. And Acemoglu, Manera, and Restrepo (2020) argue that our current tax system rewards automation in place of worker training, even when the productivity benefits of automation are modest.

In addition, displaced workers whose incomes are too high for them to qualify for Pell grants, and who are reluctant to take out federal loans, might not have the liquid assets needed to finance retraining at colleges, or they might lack access in other ways, such as lacking sufficient information about college offerings and labor market demand.

Finally, it is questionable whether there is a meaningful workforce system in the United States, given the fragmentation that exists between the silos of higher education institutions and workforce agencies. As an example, community college students have access to little career guidance; there are more than 2,500 job centers in the United States, but few community college students ever set foot in one.<sup>28</sup> Responsiveness of the system to labor demand shifts is sluggish at best, with workforce board membership not always representing the most dynamic sectors of regional economies or the real decision-makers at community colleges. It is not unusual for multiple boards serving different municipalities to exist within large metropolitan regional labor markets.

In short, although a wide range of high-quality options exist for postsecondary education and training in the United States, major reforms are needed to improve worker outcomes and to ensure that all Americans in need of workforce services in the coming years will be able to obtain them.



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# The Proposals

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Proposals to build a stronger and more coherent workforce system in the United States must explicitly address the shortcomings of the current system that I note above, and especially the weak outcomes we observe among disadvantaged and displaced workers. Specifically, proposals must provide more resources to students and workers, more resources to public institutions for training and supports, and stronger incentives to ensure that the resources are being spent well. Proposals must encourage both more employers to participate in sector-based programs, and stronger incentives for them to provide work-based learning or retraining when they automate. And proposals need to build more-coherent workforce systems in regional labor markets, with better responsiveness to evolving labor demand and less fragmentation between its higher education and labor market programs.

In order to accomplish these goals, I propose the following:

1. Reforms and additional funding in the HEA to encourage expansion of high-quality workforce programs, especially at public two-year colleges.
2. Funding and incentives for employers to provide more work-based learning and retraining instead of implementing worker displacement, with more resources and options for workers as well.
3. To reduce fragmentation and strengthen workforce policy in regional labor markets through a permanent version of TAACCCT grants distributed to partnerships between community colleges, workforce agencies, and/or states.

Reforms and new funding in the HEA, especially in Title IV programs, would primarily, though not exclusively, strengthen our ability to help disadvantaged students and workers gain new credentials with labor market value. Funding and new incentives for employers and workers regarding displacement will mostly help displaced workers, or those at risk of becoming displaced. Reducing fragmentation in regional markets will improve the functioning of the entire system, and will benefit employers who have difficulty finding and retaining appropriately skilled workers (especially when labor markets are tight) as well as all categories of students and

workers seeking effective workforce services to advance their careers.

## 1. REFORMING AND FUNDING THE HEA

The first question that might be asked about reforms and additional funding in the HEA to encourage more workforce training is this: Why the HEA and not WIOA? The answer is simple. As Willie Sutton is said to have replied when asked why he robbed banks, “That’s where the money is.”

Given the nonstop downward trajectory in WIOA funding over the past four decades, it seems unlikely that this program will ever become a major vehicle for new investment in workforce development. In contrast, HEA funding levels have grown over the past decade, and are now much more substantial, as noted above. Given the strong evidence of labor market rewards for higher education credentials in general, and to occupational credentials (whether associate’s degrees or certificates) in particular, the HEA seems like a logical source of additional funding for workforce training.

I believe the new reforms and additional funding in the HEA should take the following forms:

1. Expanding eligibility of students for Pell grants in shorter for-credit certificate programs.
2. Formula funding to expand support services and institutional teaching capacity for high-quality and high-return certificate programs, both for-credit and noncredit, where capacity is currently restricted due to high cost.
3. Formula funding for states to expand access to apprenticeships and other forms of work-based learning programs, where participants also earn a higher education credential.
4. Establishing new gainful employment regulations to maintain accountability for occupational programs, especially in for-profit schools.
5. Competitive awards for states to explore and evaluate outcomes-based funding models where rewards put somewhat greater weight on post-college employment



outcomes, especially for disadvantaged students, and without cream skimming.

### *Expanding Pell Grant Eligibility*

I propose that we allow students in shorter-term, for-credit certificate programs that require at least 150 hours of study to be eligible for Pell grant funding.<sup>29</sup> Though shorter-term certificates generally earn lower returns than longer ones, some certificates, especially those in technical areas, can lead to very lucrative jobs. They also have lower costs—and we have no indication that the current minimum for Pell grant eligibility (600 hours) is associated with any stronger returns (Baum, Holzer, and Luetmer 2020). I am much more reluctant to extend such eligibility to noncredit programs and especially to nonaccredited institutions, where our evidence on labor market value is somewhat weaker and almost nonexistent, respectively.

And I believe that Pell grant eligibility for short programs makes better sense, in my opinion, than relying on federal loan eligibility for this group, which already suffers from high default rates in certificate programs.<sup>30</sup> But, to make sure that the expansion of certificate programs does not lead students to substitute short-term training for degree-seeking programs when the latter are achievable for them, certificates should be embedded in career pathways and should be stackable to associate's degrees, as much as possible.

### *Using Institutional Funding for Training and Support Services*

I propose new formula funding to community colleges to expand teaching capacity in high-return occupations and industries, especially where there is consistent evidence of high teaching costs and capacity constraints, and/or strong and ongoing unmet labor demand and value, such as nursing jobs and technician jobs in health care. Funding for important support services would be allowable as well.

Such funding could be used by community colleges to lower or even eliminate tuition costs in both for-credit and non-credit programs. Though the labor market returns to non-credit certificates are lower, on average, than for-credit certificates, many have positive value net of costs (Baum, Holzer, and Luetmer 2020). In such cases, institutional funding for low-income adults in short-term training sometimes makes more sense than simply expanding Title IV eligibility on the student side, as I propose to do above in for-credit programs.<sup>31</sup>

But most of these new funds—at least 80 percent—should be allocated to longer-term certificate or associate's degree programs, for which we have strong evidence of cost-effectiveness. And, given the strong evidence of success in sector-based training programs, the HEA should insist that major elements of this model be part of any expenditures of these

funds. This includes elements such as the participation of intermediaries and representatives of regional industry in designing curricula, and supports for students engaged in these programs.

In particular, the HEA should require that community colleges replicate major elements of the most successful programs including Project QUEST and Per Scholas—at least in the for-credit certificate and associate's degree programs.<sup>32</sup> Careful oversight of these expenditures by officials in federal or state departments of education would be needed to ensure that these conditions are being met by each college receiving such funds.

But it should be noted that replicating high-quality programs like those above does not occur quickly or automatically. Technical assistance from successful and knowledgeable actors, like the intermediaries themselves or other advisers, is critical.<sup>33</sup> It takes both time and resources to build the partnerships, along with curricula and supports, that are key to the success of those programs. Expenditures of institutional funds on such program infrastructure should be allowable, at least during the first few years of new funding receipt, though such resources should also be available elsewhere, as I argue below regarding TAACCCT grants.

As with expanding Pell grant eligibility, additional funding for short-term certificates in high-return occupations and industries should be limited to programs that embed those credits in career pathways and that are stackable to degrees, so that expanding certificate programs does not lead students to substitute short-term training for degree-seeking programs when the degrees are achievable for them. Alternatively, in order to gain such federal funding, colleges would need to provide evidence of strong returns to longer-term certificates in the labor market without further stacking.

Community colleges should also be free to spend the newly available HEA funds on critical support services for students in workforce programs, like academic and career guidance or navigation that is based in part on high-quality and up-to-date labor market information, tutoring and coaching, transportation, and child care. As I noted above, increasing funding for such services tends to improve completion rates. These services help workers overcome the many obstacles that they usually face when obtaining new credentials or careers as adults (Kinder and Lenhart 2019). Indeed, when spending new funding on support services, institutions should also be required to replicate elements of the most successful support programs, like ASAP and Stay the Course, whenever possible.

### *Funding Apprenticeships and Work-Based Learning Linked to Higher Education*

Funds for apprenticeship and other modes of work-based learning would be allocated to states, rather than to higher

education institutions, since states already have a range of programs to encourage apprenticeships (Lerman 2018). For funds dispersed through the HEA, the on-the-job learning components of the funded apprenticeship would have to be combined with the attainment of a higher education credential at an accredited institution.

Such apprenticeship programs already exist in large numbers (Lerman 2009). For trainees, the higher education credential likely generates more skills gained in such training that are portable, if/when the employee leaves that particular employer and/or occupation or industry, and especially if future labor demand shifts across sectors due to increased automation or other labor market forces. With this money, states could also fund internships under programs like Year Up—a rigorously evaluated and successful employment program for disadvantaged recent high school graduates—if they also provide opportunities for credential attainment among the youths who are employees.

### ***Reestablishing Gainful Employment Regulations for Occupational Programs***

A critical component of workforce policy is accountability for postsecondary occupational programs, in both public and private institutions, that has recently been known as “gainful employment” regulation. These rules were developed during the Obama administration to prevent institutions that receive Title IV funding (particularly those institutions that are private and for profit) from providing weak and ineffective, though very expensive, occupational training to students. They constituted another form of institutional accountability, beyond outcomes-based funding from states, in return for Title IV funding.

The Trump administration rescinded the gainful employment regulations on occupational programs in response to heavy lobbying by for-profit institutions. Given the much higher levels of debt and student defaults that for-profit schools generate, relative to public institutions, and the limited labor market value of their credentials, however, I propose implementing an updated version of gainful employment rules. The new rules should use both subsequent earnings and at least some successful debt repayment by students as measures of outcomes for which colleges, both private and public, can be held accountable.<sup>34</sup>

In its current form, the HEA calls for gainful employment regulations, but does not specify their form or content. To the extent possible, more detail on such regulations should be written into a reauthorized HEA, and should not be left to regulations that can be easily rescinded.

### ***Creating Competitive Awards to Implement and Evaluate Outcomes-Based Funding Tied to Employment***

Finally, a competitive funding stream for states to explore newer forms of outcomes-based funding, one that puts greater weight on employment as an outcome, could provide both funding and stronger incentives to higher education institutions to invest more in strong workforce programs. As Deming and Figlio (2016) have argued, such incentives, if they are simple and transparent, can lead to increased investment spending by institutions, and can target the most disadvantaged students.

But such funding must not be used to support funding rules that encourage cream skimming. Using the employment outcomes of disadvantaged groups as performance criteria would help along these lines, though institutions might still cream skim within these groups. But, as Cielinski (2019) argues, outcomes-based funding could potentially be used to pursue an equity agenda of helping students of color and/or low-income students, as well as the institutions they attend. And, as a condition of receiving the award, the states should be required to implement rigorous evaluation to indicate that the programs did, indeed, advance equity and help disadvantaged students.

## **2. DISCOURAGING WORKER DISPLACEMENT AND ENCOURAGING EFFECTIVE WORK-BASED LEARNING AND RETRAINING**

As we slowly recover from the COVID-19 pandemic that is leaving many closed or reorganized businesses in its wake, each month we will continue to see workers permanently displaced from their jobs. And automation and globalization will generate many additional displacements in the coming years and decades.

Given the large personal and social costs of displacement, the choices that workers make when facing the risks or reality of such permanent layoffs—and the obstacles they face in gaining new skills—will matter a great deal. And the choices employers make regarding how to implement automation and which workers to retrain, and how much to retrain them, will be important as well.

In light of these concerns and this evidence, how can we best address the ongoing and rising risks and reality of worker displacement? I suggest the following:

1. A modest federal displacement tax on employers, with funds used to subsidize employer retraining;
2. Federal encouragement of lifelong learning accounts for workers at the state level, with progressive matching of funds for low-wage workers; and

3. Strengthening federal early warning provisions and services that large employers must provide workers before large-scale layoffs occur.

### *Displacement Taxes and Retraining Subsidies*

Given the huge costs associated with permanent displacement that employers do not internalize, and with the prospects of gradually rising displacements due to automation, I propose a new tax on employers who permanently displace workers (e.g., workers with at least three years of job tenure with the firm), and to use the revenues generated from that tax to subsidize worker retraining. Indeed, such a tax would not be a dramatically different approach to how tax policy now affects employer decisions on how to use capital and labor, and would instead be a modest reform consistent with existing policies, like experience-rating in UI taxes.<sup>35</sup>

Any new taxes on worker displacement would then serve two roles: (1) to change the incentives that currently may favor worker displacement, and (2) to generate revenue to fund subsidies for retraining workers whenever new automation is implemented or workplaces restructured in a way that causes incumbent workers to be permanently laid off. But layoffs caused by plant or firm closures without automation or restructuring (e.g., due to diminishing product demand or high costs) would not be subject to any such tax.

Just to be clear, my goal is twofold: (1) a modest tax on worker displacement that might reduce the incidence of displacement when firms automate, and (2) the funding of ameliorative training. I do not advocate for a robot tax (i.e., a broader automation tax); my goal is simply to minimize the amount of labor displacement associated with implementation of automation. Since robots and other forms of automation will likely have positive effects on U.S. productivity, which has stagnated for past two decades, it is not fruitful to discourage it, and I propose only to reduce its human costs. And, to reduce the latter without unnecessarily or substantially discouraging the former, any tax would need to be modest.

Furthermore, there would no doubt be great political opposition from the business community to any such new taxes. Since the tax code already subsidizes new automation—primarily through up-front depreciation bonuses rather than over the course of a machine’s useful life (Acemoglu, Manera, and Restrepo 2020)—one way to effectively implement the modest tax I propose would be to limit such favorable treatment of depreciation whenever automation results in workers being displaced, rather than levy an entirely new tax on employers. The exact impacts of a new tax on displacement are not known at this point, so some piloting and evaluation of these efforts makes sense before we implement such policy broadly.

On the expenditure side, I propose a federal subsidy to firms for retraining nonmanagerial and nonprofessional employees and those without bachelor’s degrees. Firms would receive such subsidies for retaining and training incumbent workers when they are automating their workplaces or otherwise restructuring, including times when they are closing some establishments and opening or growing others to which workers can be transferred.<sup>36</sup>

The evidence suggests that subsidizing firms to provide training can be effective. We now have more evidence on the effectiveness of publicly funded but employer-provided on-the-job training in general (Hollenbeck 2008; Holzer et al. 1993; Negroita and Goger 2020). Though not experimental, that evidence suggests that subsidies for on-the-job training can directly raise earnings or worker productivity, and hopefully will also raise earnings indirectly.

Relatedly, when displaced workers attend community college, there is at least some evidence of positive impacts, especially when older workers self-select on the basis of whether they are likely to be able to handle the classroom material (Jacobson, Lalonde, and Sullivan 2005).

In addition, although not the kinds of training the firms would be expected to provide, job search assistance, along with other kinds of guidance for displaced workers, has been cost-effective at reducing unemployment and improving earnings (Kletzer 1998), though both the costs and the benefits of this approach are modest.

Thus, there are some bright spots in the research evidence on assisting displaced workers, despite the very mixed record in general of retraining them (especially using WIOA funds), and on subsidizing incumbent worker training. As with the displacement tax, the exact impacts of new subsidies for retraining are not known at this point, so funding some initial piloting and evaluation of these efforts at the state level makes sense.

Should the subsidies for training be targeted primarily to high-road or unionized employers, or those providing workers with voice, as some progressives argue (Naidu and Sojourner 2020)? While I understand the appeal of such arguments, I would not implement these subsidies in such a fashion. If the subsidies are, indeed, effective at reducing layoffs and generating more retraining, such targeting could generate relatively more layoffs for lower-wage workers. I consider the potential role of these taxes and subsidies in encouraging more high-road employment practices below.

### *Lifelong Learnings Accounts*

On the worker side, lifelong learning accounts can be developed in which a small amount of workers’ earnings in each payroll period is deposited into an account, much as



employers now do with 401(k) plans. Workers can draw on these accounts at any time to fund education and training activities (Fitzpayne and Pollack 2018). To date, two states, Maine and Washington, have implemented such accounts.

An advantage of lifelong learning accounts over other training for workers that are actually or potentially displaced is that these funds can be used for career advancement anytime, even when a worker does not face displacement or is not disadvantaged. To increase their reach, states might consider enrolling workers in these accounts as the default option, from which workers can choose to withdraw.

And, since the accumulated funding in such accounts for low-wage or low-experience workers will necessarily be modest, I propose federal matching, or even injections of funds without match requirements, to enhance their magnitudes and make them more progressive. Such an approach would be similar to proposals recently by the Markle Foundation (2020) for opportunity accounts for low-wage workers.

To improve the effectiveness of any training funded by lifelong accounts, workers would need strong guidance from either American Job Centers or college career counselors and navigators. In addition, improving worker access to training could dramatically improve if online learning and job training were further developed. The track record of such learning to date is limited, though much more progress in this area could be made over the next years. Indeed, once the COVID-19 pandemic is behind us, reliance on online instruction at all higher education institutions will likely be accelerated, and lifelong learning accounts will be more useful in helping working adults access training.

### *Strengthening Early Warning Requirements and Services*

The federal government makes one other effort to prepare workers for impending layoffs, and perhaps even to avert them: The Worker Adjustment and Retraining Notification Act (WARN) requires employers with 100 or more employees to warn workers of impending business closures and mass layoffs of 50 or more employees at least 60 days in advance of when the layoffs will occur. When triggered, this notification should spur state rapid-response activities to preemptively help workers gain access to UI or other workforce services. Layoff aversion activities funded by WIOA at the state level are also permitted or even encouraged. We have some limited evidence of the effectiveness of these activities to date, though the enforcement of WARN mandates on employers is very limited.<sup>37</sup>

I propose strengthening the current WARN system by improving enforcement activities against employers who violate its provisions; those enforcement activities are currently very limited. Indeed, federal and state departments of labor could be funded to better monitor employer activities when such

layoffs occur, and to ensure sanctions against those who do not meet statutory requirements under WARN. We could also lower the employer size and layoff thresholds that trigger the activation of WARN requirements. Encouraging states to engage in best practices on rapid-response activities triggered by an announced mass layoff might also help.

### **3. REDUCING FRAGMENTATION AND STRENGTHENING WORKFORCE POLICY IN REGIONAL LABOR MARKETS: PERMANENT TAACCCT GRANTS**

The positive evaluations of TAACCCT grants described above suggest a number of activities and attributes that likely generated positive impacts. Employers were actively engaged in the design and delivery of training, while community colleges engaged in serious curriculum review to identify areas for expanding teaching capacity. Prior learning assessments of workers' skills were emphasized in an effort to streamline the training needed. Importantly, career guidance was provided at both the colleges and the job centers, and the extent to which credentials could be stacked toward a degree was expanded. Partnerships among community colleges, local workforce boards, and industry expanded, especially in high-demand fields. Several of these practices contribute to the building of regional workforce infrastructure and to lowering the effects of system fragmentation described above.

I propose that we design a more permanent version of TAACCCT grants to reduce fragmentation and improve alignment with the labor market in workforce policy around the country more broadly, which would encourage those grants to provide more of the effective activities and services described above. These grants would focus on building regional policy infrastructure and expanding the components of TAACCCT grants outlined here that seem to be associated with success—particularly the partnerships needed for successful training efforts.

Should such grants remain competitive or become formula funded? I propose a combination of both approaches: some modest formula funding for building regional infrastructure for all, and competitive grants for additional funding for particularly strong proposals, including proposals from previous TAACCCT grant recipients. The benefits of competitive funding are that they incentivize strong and innovative proposals and performance. Because long-term changes at the regional level are difficult to implement without any certainty of new resources, however, I propose some formula funding as well.

These permanent grants should also differ from the Obama TAACCCT grants in one other way: the states themselves should be major partners in the planning and implementation of these grants. States can better ensure that the new training provided by colleges is indeed well aligned with employer needs and their labor demand, especially as those demands

evolve. They can also ensure that other parts of the K–12 system, including career and technical education in high schools are well aligned with the college workforce programs.

Finally, states could help ensure better coordination between local job centers and community college career guidance services,<sup>38</sup> and more broadly ensure that the departments of education and of labor in their states are working together to as great an extent as possible in meeting worker and employer needs.<sup>39</sup> States also control the administrative data for state public higher education institutions as well as the UI quarterly earnings data needed for workforce development to be well aligned with labor demand. Accordingly, their policies are also critical for making sure that such data are available to students, career counselors at colleges and job centers, and college administrators more broadly as they develop curriculum.<sup>40</sup>

## Expected Benefits and Costs of the Proposal

How much would the package of workforce development programs that I propose cost, and what expected benefits would be generated?

Regarding the first issue, I propose the following new annual expenditures:

- Reforming and Funding the HEA: \$7 billion
- Taxes and Subsidies for Worker Displacement: \$2 billion (on net)
- Permanent TAACCCT Grants: \$1 billion
- Total: \$10 billion

By far the largest new expenditures I propose are for new funding in the HEA, and within that category the largest expenditure is for funding institutions to expand training and support services in high-return fields.

The extension of Pell grant eligibility to shorter-term for-credit programs of study will not cost a great deal for two reasons: the numbers of individuals enrolling in these short-term certificate programs will be relatively small, and their monetary costs are limited. For instance, there are approximately 100,000 individuals enrolled in these programs (Baum, Holzer, and Luetmer 2020) every year. Allowing for even a doubling of these enrollments in response to Pell grant eligibility, and assuming each individual would receive \$5,000 in Pell grants every year, would generate \$1 billion in new expenditures. Capping the generosity of Pell grants for these less-costly programs, as Senators Kaine and Portman have

proposed in their bill on extending Pell grants to short-term certificate programs, would reduce costs to below that level.<sup>41</sup>

For institutional aid to fund new training and support services, I propose a net new annual expenditure of \$5 billion. Of course, since such new teaching and support would require new institutional capacity that takes time to build, I propose that this be implemented gradually, with \$1 billion of new funding for each year over five years.

In order to maximize the impact of these new expenditures, I propose that, to the greatest extent possible, colleges be required to replicate programs like Project QUEST in new training, or like ASAP or Stay the Course in support services; these programs have all had large estimated impacts on credential completions or earnings. These programs were also somewhat costly expenditures: approximately \$10,000 per student in Project QUEST, \$9,000–\$14,000 in ASAP, and \$4,300 in Stay the Course.<sup>42</sup>

To assess potential benefits of a new \$5 billion expenditures on programs similar to these three, we assume that each of the first two would now cost \$10,000 per student while the third would cost \$5,000. Then, to consider an example, allocating \$2 billion to each of the first two programs and \$1 billion to the third would generate new training or support services for 200,000 FTE students in each category, or 600,000 students in all.<sup>43</sup> And, if per capita expenses are now lower, 700,000–800,000 students would likely be so served. Per capita expenses would be lower because ASAP and Stay the Course were only for students enrolled in associate’s degree programs, and now they can also be applied to certificate students.

This investment would meet a substantial portion of the unmet need among noncompleting students in sub-bachelor’s programs for greater services and supports each year. Based on data from the Institute for Educational Statistics, about 4 million FTE students, or about 6 million students in total, enroll in sub-bachelor’s programs at degree-granting institutions, with fewer than half ever finishing a credential. About 40 percent of these noncompleters, or about 1 million students, are disadvantaged. Some displaced workers who enroll for new postsecondary training might also be eligible for such training and/or services. Thus, a large fraction of low-income students who are noncompleters could potentially get these services or training each year once the program is fully implemented.<sup>44</sup>

What is the expected value of this investment? If program quality is maintained when fully scaled, the evaluation evidence predicts that at least another 84,000 certificates or associate’s degrees would be awarded each year, and likely more, which would constitute a major increase in postsecondary attainment each year.<sup>45</sup> Expected earnings gains for participating students would be substantial as well, and certainly would

be enough to justify the expenditures in question.<sup>46</sup> And, if job matching activities could be improved so that noncompleters who had mastered certain skills were given more consideration by employers (Blair et al. 2020), the returns to these investments in the form of higher earnings could be higher still.

For the remainder of the new HEA proposals, an extra \$1 billion for apprenticeship programs, and just a small amount for evaluating outcomes-based funding approaches, could generate major increases in the numbers of registered apprentices in the United States, which currently number about 600,000.<sup>47</sup> This proposal would also add to the numbers of new higher education credentials awarded per year.

Regarding the new taxes on displacement and subsidies for on-the-job training, I envision a program that is mostly self-funded, with revenues generated by the former paying for the subsidies in question; those revenues and the expenditures funded by them are not included in the \$10 billion of estimated costs above. Depending on how much revenue the new tax would generate, and the extent to which it induces retraining rather than displacements, the amount of funds available for retraining subsidies is hard to gauge, though some simple calculations suggest the numbers could be substantial.

At least before the COVID-19 pandemic started, and defining displaced workers as we did above, about 1 million workers were displaced annually (Farber 2015). A \$1,000 tax on each displaced worker would generate \$1 billion, minus any reductions in the displacement rate that the tax would cause. This, in turn, would raise funds for about \$1,000 of training, on average, per displaced worker, with many workers getting little or zero training, especially if the worker is an older displaced worker), and others substantially more.

The additional \$2 billion in this area would then be allocated for subsidies to lifelong learning accounts among low-wage workers, and perhaps also to enhanced WARN services to the displaced.<sup>48</sup> Finally, an additional \$1 billion for permanent TAACCCT grants could fund modest formula expenditures for each of about 1,000 public two-year institutions, and more-substantial aid for a smaller number through a competitive grant process.<sup>49</sup>

I envision a strong set of program evaluations during each year of the rollout of the formula-funded program for community colleges to monitor implementation and estimate impacts on completion and eventual earnings. We should anticipate that such a large program will take some time to implement correctly, and therefore not expect that impacts in randomized controlled trials evaluations would immediately be large (Elliott 2019; Haskins and Margolis 2014).

Implementation evaluations would indicate the extent to which community colleges try to replicate the most important aspects of the model programs, or if and why they need to adapt to local circumstances by deviating from the original model (Balu 2017).<sup>50</sup> But, absent strong reasons for such deviation, program administrators should be empowered to reduce or even eliminate federal funding to specific institutions and states for these programs, if and when those institutions or states ignore the key features of the original models. And funding for impact evaluations of employment outcomes over time would also be critical in order to gauge the success of the new expenditures in improving employment outcomes.

Notably, my proposed \$10 billion new expenditure is quite modest, relative to others that have been proposed recently. For instance, Goolsbee, Hubbard, and Ganz (2019) proposed new expenditures of \$22 billion on community college training, along the lines of what I have proposed; in their proposal, though, all of the new funding would be reallocated from existing public expenditures. Since I am more concerned about the capacity of existing institutions to absorb such funding levels successfully—among other issues—my funding proposal is comparatively much more modest.<sup>51</sup>



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# Questions and Concerns

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One hard set of questions involves who should pay for these funding increases and how they should pay. Besides new federal funding, the major options include (1) new revenues from state governments, (2) reallocations away from existing federal or state programs, (3) students/workers paying for themselves, and/or (4) employers paying for on-the-job training or sector-based and customized programs at community colleges.<sup>52</sup>

I believe new federal funding should be the largest source of the resources by far that I seek, since reallocations from other sources could raise financial burdens on some entities that are already feeling fiscal pressures, like states, community colleges, or WIOA-funded activities; could discourage some activities that are already fairly productive, like other degree programs at community colleges; and could generate political struggles over who should pay the most—all of which will limit the benefits of my workforce proposals described above.

Still, some payments could be drawn from these other sources if needed. To the extent that both employers and workers will benefit from these investments as long as workers do not quickly leave the firms that help train them, it seems reasonable that each should bear some of the tuition costs of the QUEST-like programs that would be expanded. Of course, the expectation of workers' financial contributions to these investments should fall as their family incomes or wealth decline. The case for employer investment should depend on the employers' size and liquid resources as well as the extent to which the training is general or specific to their firm or industry, especially locally. Larger firms should pay more tuition costs in the expanded training programs discussed above as well as when creating apprenticeships; their contributions should rise as training becomes more specific to them or to their industries.

Some reallocations away from any current federal or state programs could also be justifiable; some of the sources of such funds might include workforce or higher education programs that are currently less effective, within WIOA or the HEA and beyond. An example of such programs might be the currently less-effective displaced worker programs in WIOA (Anderson et al. 2013).

One other way to limit costs would be to make the new funding available only to public institutions, rather than to for-profit colleges. Given the track record of for-profit institutions—especially the huge tuition costs, high default rates, and limited labor market value of the certificates and degrees they generate—such a limitation is very defensible. On the other hand, given the political clout of the for-profit educational industry, it might be unrealistic to exclude them, and doing so could jeopardize political traction for the entire project.

Although I propose that the key components of new federal workforce policy be those outlined above, a few other important issues merit some consideration. These include funding for WIOA, TAA and wage insurance for the displaced, broader support for high-road employers, and a one-time injection of new workforce funds in response to the COVID-19 pandemic.

As noted above, the fact that federal funding for WIOA programs and services has been declining for most of the past four decades, and the fact that impact evaluations of those services have had mixed results, leads me to put greater emphasis on the HEA as the primary legislative vehicle for workforce policy changes.

But there remains an important role for WIOA to play. Local workforce boards are often critical partners with community colleges and employers, in trying to ensure that training is aligned with regional labor market demand. WIOA adult funding streams are very modest, but provide at least some support for workers who do not qualify for Pell grants and especially those enrolled in short-term or noncredit programs; and WIOA youth funding is primarily targeted to those who are out of school and therefore ineligible for HEA support. Young people who are disconnected from both school and work (known as opportunity youths) who might not yet be ready, academically or otherwise, for even noncredit community college programs are often ineligible for other sources of funding. Maintaining or even expanding WIOA support for them through the youth funding stream or through Job Corps and Youth Build remains critically important (Edelman and Holzer 2013; Heinrich and Holzer 2011).

In addition, the funding for job centers is also critical and should be expanded, in light of the very modest funding they now receive and in light of evidence that the services they provide are cost-effective.<sup>53</sup> If anything, more effort should be made to coordinate activity between these centers and local community colleges, including more collocation of centers on college campuses.

Current WIOA expenditures on adult basic education also remain important, and might be useful as the first steps in career pathways for low-skilled adults that would subsequently lead to community college training. In all of these cases, existing WIOA expenditures must remain robust and focus on high-quality services, given their focus on youths or adults who have few other options.

Accordingly, since WIOA is up for reauthorization in 2021, it should be maintained or even strengthened as a complement to my proposals.

Two additional points regarding worker displacement merit more discussion here. First, should the federal government improve TAA, and perhaps extend it to other displacements other than those generated by imports? Second, what can we do to help displaced workers who will not benefit greatly from retraining, like the older and/or less-educated workers?

A full treatment of these topics is beyond the scope of this paper, but a few comments are in order. Relatively few workers are served by TAA each year, since it applies only to workers displaced by imports, and workers must apply for and complete a detailed certification process through the federal Department of Labor before they can access the benefits of the program.<sup>54</sup> In addition, training for workers displaced by imports through the TAA program has also had somewhat mixed effects, even after the most recent round of reforms.<sup>55</sup>

Of course, there is little economic rationale for limiting the income support and services provided to only those displaced workers whose displacements are caused by imports. Historically, the program was created for political reasons, to cushion the blow of international trade on workers and thereby to limit their opposition to it.

Accordingly, some analysts argue for TAA benefits to be extended to all displaced workers, including those who have been replaced by automation and other forms of workplace reorganization or closure. But extending TAA protections and services to all displaced workers could potentially be very expensive.

In the absence of stronger evidence of lasting positive impacts, I would not favor an extension at this time although, if the evidence improves, we could perhaps consider how to do so. Since TAA is also up for reauthorization in 2021, however,

it is important to maintain both its funding levels and the evaluations of its impact.

Since not all displaced workers benefit from retraining, there should be alternatives for those who are deemed poor retraining prospects. As economists have often argued, the best such alternative would likely be wage insurance. Such insurance would compensate workers who accept new jobs after displacement that pay less than their former jobs. In theory, it is similar to the Earned Income Tax Credit, which encourages low-income workers to accept low-wage jobs—except that here the payments are tied to displacement and wage loss rather than to low wage levels.

To date, the United States has funded wage insurance only for older and import-displaced workers.<sup>56</sup> Such insurance should be implemented more broadly, though again we need cost estimates in advance of such broader implementation decisions.

Earlier, I referred to firms that choose to implement high-road or good-job human resource policies, as a way to compete on the basis of productivity and performance rather than on low labor costs. Elsewhere I have argued that creation of high-road jobs by employers is something of a public good, since employers might be equally well served by high- and low-wage models but do not internalize the benefits of high-road jobs to workers, their families, and their communities. Accordingly, the private market will generate too little such employment, and an argument can be made for some public funding for high-road employers.

A full discussion of how to implement such support is also beyond the scope of this paper. I merely point out that some of my proposals above—especially incentives to reduce displacement by employers and to encourage them to provide training or other work-based learning opportunities—could also be part of a broader effort to reward and assist high-road job creation by employers (Holzer 2019). Indeed, though I think that displacement taxes and retraining subsidies should apply to all employers, the subsidies could perhaps be larger when they are part of an effort to assist and incentivize high-road employment more broadly, which might also include additional rewards for compensation items like profit sharing (Blasi et al. 2010) and technical assistance for how to generate strong worker performance in good jobs.

Finally, the need for more retraining in response to the COVID-19 pandemic has generated proposals for major one-time injections of funding into WIOA or our higher education institutions, since both workers and these institutions have been badly hurt by the pandemic.<sup>57</sup> This idea clearly has merit, independent of long-term proposals for reform in this area, due to the dramatic rise in long-term unemployment and permanent worker displacements that the pandemic is creating.

I would support a mixed one-time funding injection in light of the pandemic, with some funding going directly to weakened higher education institutions to help them generate more capacity in stronger workforce programs, while perhaps some other funding goes to students and workers through WIOA and/or a temporary increase in Title IV funds.

Since the characteristics of workers displaced by the pandemic differ somewhat from those who have been or will be displaced over time due to automation—with the former more concentrated among low-wage retail and service workers—the proposals outlined above for disadvantaged workers might be particularly useful for the recently displaced. On the other hand, since one effect of the pandemic has been to accelerate the shift away from brick-and-mortar shopping and dining out, and toward online activities, even the effects of

the pandemic on displacement will involve automation, making it more similar to displacement for higher-wage workers. And, given the presumed rise in demand for online tasks among workers, the need to train more workers in digital skills (Burning Glass Technologies 2019) will also grow.

Finally, as noted earlier, the COVID-19 pandemic will likely have permanent effects on how community colleges and other higher education institutions deliver training—with a greater reliance on online provision than before. The extent to which the proposals outlined above are effective in such an environment adds one more source of uncertainty about their cost-effectiveness. Thus, close monitoring of how online education is implemented, and evaluation of its impacts for all workers, including those that are disadvantaged and/or displaced, are critical to the success of my proposals.

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# Conclusion

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Workforce development in the United States could play a key role in raising U.S. productivity and income growth, reducing rampant inequality, and improving upward mobility for the nation's poor and working classes.

Currently, our workforce development efforts—either privately or publicly funded—have both strengths and weaknesses. On the plus side, students and workers have a vast range of opportunities to pursue postsecondary training and to receive support services in several thousand of the nation's higher education institutions, with the help of job centers and on-the-job training. Public funding already comes from a wide variety of sources, including federal expenditures in the HEA, WIOA, and several other antipoverty programs, while states heavily subsidize public colleges and universities. Many, though not all, credentials—including certificates—have labor market value. The evaluation evidence also shows that many college expenditures on support services and training are cost-effective.

But the system's weaknesses are also widely known. Too little funding occurs for short-term or noncredit training programs, even when they have labor market value; within higher education vastly more funds are allocated to general education programs such as liberal arts. Both the ability and the incentives for colleges and universities to pay more for building capacity in workforce programs are weak. Employers tend to be disengaged from public workforce efforts and contribute too little to work-based learning or on-the-job training for nonprofessional and nonmanagerial employees. And the system is fragmented and siloed, with too little coordination among its higher education and workforce components, to take one example.

I have proposed a set of actions that I believe would strengthen this system and help different groups of workers, including those who are disadvantaged or who have been displaced from jobs, as well as those who simply want to advance their careers. The primary components of my proposal are the following:

1. Reforms and greater funding in the HEA to strengthen workforce programs;

2. New funding and incentives, through taxes on displacement, for employers to retrain workers rather than displacing them, and for the workers themselves to invest in retraining; and

3. A new and permanent version of the TAACCCT programs of the first Obama administration, rewarding community colleges and states for building regional workforce capacity and reducing system fragmentation.

The levels of new investments in workforce development should not be too modest if we want to generate significant returns for U.S. workers. I have suggested new investments of \$10 billion a year. I believe it is best if all or most of this new funding is provided by the federal government. But funding could also come from a variety of other sources, including states, especially through matching requirements from the federal programs; the firms and workers themselves; and reallocations from existing federal and state programs that now appear less effective.

An additional funding source for retraining potentially displaced workers might be a displacement tax on employers, perhaps implemented through the reduction of accelerated depreciation tax allowances when new automation displaces workers. On the other hand, this tax loss should not be so large that it might discourage automation more broadly.

Since we do not yet know the extent to which many of these proposals would be cost-effective at scale, rigorous evaluation would be critical to any such effort. Adjustments in the parameters of the various proposals would be appropriate, to the extent that some components of the policy changes do not work very well.

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# Author and Acknowledgments

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## Author

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# Endnotes

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1. For evidence on how education affects productivity growth see Krueger and Lindahl (2001) and Gordon (2014).
2. For summaries of the research on the cause of rising inequality see Groshen and Holzer (2019). For the most recent evidence suggesting that an increase in higher education attainment will reduce inequality in the United States, see Hershbein, Kearney, and Pardue (2020).
3. For an analysis of the rising education requirements on middle-wage jobs, see Holzer (2015).
4. For evidence on employer tendencies to turn workers into contractors or to outsource employees' employment functions to other companies, see Katz and Krueger (2019) and Weil (2019). For broader evidence on how declining worker power lowers earnings, see Stansbury and Summers (2020).
5. For instance, lack of access among people of color to good schools and jobs can reflect their segregation into low-income neighborhoods or cities, while good schools and jobs are concentrated in or near high-income areas (Chetty et al. 2014). Lack of information or social networks as well as employer discrimination can limit worker access to well-paying jobs with training opportunities. As more workers gain credentials, employers might also increase their credential requirements to preserve the quality signals that such credentials imply, which could result in credential inflation that preserves earnings inequality.
6. I distinguish workforce services here from other job-creating activities, such as subsidized employment or tax credits for new hiring that might be used to raise labor demand and employment without leading to new skills for workers.
7. Labor economists distinguish between general training, which is broadly portable and for which workers themselves usually pay; and specific training, for which employers are more willing to pay.
8. Achievement gaps between low-income and/or minority students and others illustrate lower reading or math abilities that could limit trainability of less-educated workers. Noncognitive skill gaps have also been illustrated; these include factors such as motivation or perseverance. Also, employers might consider workers with substance abuse or depression as less trainable or less worthy of investments.
9. Wage rigidities, from minimum wages and other sources, might also prevent employers from reducing wages to pay for general training among low-wage workers.
10. Certificates are also available at private nonprofit institutions, but these tend to focus more on students who already have a four-year degree.
11. WIOA's predecessors include the Comprehensive Employment and Training Act, the Job Training Partnership Act, and the Workforce Investment Act. Public expenditures on WIOA today total about \$7 billion annually.
12. Besides a modest funding stream for out-of-school youth (less than \$1 billion), WIOA also funds the Job Corps and YouthBuild programs.
13. The federal government supports state efforts to expand on-the-job training through American Apprenticeship Grants and National Dislocated Worker grants. Section 127 of the Internal Revenue Service code also allows workers to deduct expenditures on education and training from their federal taxes. Several states have funded on-the-job (or incumbent worker) training over the years; one of the longest-lasting and largest efforts is the State of California's Employment Training Panel.
14. Deming (2019) has argued that bachelor's degrees in the liberal arts often have greater value over the long run than technical or occupational degrees, though his study might not effectively control for the fact that liberal arts students at elite colleges and universities likely have a range of high personal skills that also bolster their earnings. There is also no evidence to date that liberal arts are more heavily rewarded over time than are technical or other occupational sub-bachelor's credentials.
15. See Marx and Turner (2019) for evidence on the cost-effectiveness of Pell grants.
16. For the latest evidence on the impacts of high-quality sector-based training, see Roder and Elliott (2019) and Schaberg and Greenberg (2020), who focus on Project QUEST and WorkAdvance (of which Per Scholas is an example), respectively. Also, see Katz et al. (2020) for a discussion of why these programs seem to be relatively cost-effective, in terms of post-training participants' earnings.
17. The Pathways for Advancing Careers and Education programs have been rigorously evaluated with funding from the US Department of Health and Human Services; several of those programs show significant impacts on educational attainment and/or earnings of disadvantaged workers. Another such effort with positive impacts is the Accelerating Opportunity initiative in a number of states (Eyster et al. 2018).
18. For evidence on how on-the-job training generally and apprenticeships in particular raise wages, see Barron Berger, and Black (1997) and Reed, Liu, and Kleinman (2012), respectively. Year Up, a program that pays for internships for disadvantaged high school graduates with local employers, has also generated impressive earnings gains for these youths (Fein 2016), demonstrating the potential value of partnerships between private for-profit employers and nonprofit intermediaries.
19. The 39 percent completion rate for associate's degree students includes transfer students, those who change postsecondary institutions sometimes before degree completion, and those who earn a bachelor's degree, as well as students who earn a terminal associate's degree.
20. Expenditures peaked in 1980, when we spent approximately \$18 billion on the Comprehensive Employment and Training Act, which in today's dollars would equal about \$50 billion—and the labor force has grown by half since then. As noted above, GAO (2019) estimates that the federal government now spends about \$14 billion annually on workforce programs in all agencies and programs.
21. In Europe the term "active labor market policy" refers to the set of programs that train workers and help them find jobs, which is roughly the same as "workforce development services" refers to in the United States.
22. For evidence on the declining levels of public subsidies for state colleges and universities, see Bound et al. (2019). For evidence on the extent to which community colleges are underfunded and financially constrained, see the Century Foundation (2019).
23. Eligibility for Pell grants is limited to for-credit certificate programs requiring at least 600 hours, and federal loans in Title IV are limited to those requiring 300 hours.
24. Capacity constraints exist within specific departments because, for political reasons, most programs of study at community colleges are not allowed to set their own tuition prices, which otherwise would rise with higher costs or higher demand (Fethke and Policano 2012). Another fear is that, if programs within colleges were freed to do so, the high-demand fields might become too expensive for low-income students, though some recent evidence from Texas, which allowed within-college variation in tuition levels, shows that potential negative impacts on low-income students can be offset in a variety of ways (Andrews and Stange 2019).
25. In general, state funding for colleges and universities are little affected by student outcomes, especially students' employment after they leave school.
26. The Department of Labor reports there are only about 600,000 registered apprentices in the United States today, and union apprenticeship programs in construction account for just a small fraction of these (<https://www.dol.gov/agencies/eta/apprenticeship/about/statistics>).
27. The effects of experience rating of UI taxes on firm layoff behavior is limited by the fact that it is incomplete, with both floors and ceilings on the extent



- to which taxes can be set in most states. Woodbury et al. (2004) estimate firm layoff responsiveness to changes in these tax rates and find only modest impacts on layoffs. And such experience rating is driven mostly by temporary rather than permanent layoffs, though the damage to workers and their families/communities is much greater from the latter than the former.
28. Those job centers are underfunded by WIOA, however.
  29. As one example, Senators Tim Kaine (D-VA) and Rob Portman (R-OH) have proposed the Jumpstart Our Businesses by Supporting Students Act to lower the hours and credit requirements for Pell grant eligibility along these lines. They would reduce the hours required for Pell grant eligibility from the current level of 600 to 150.
  30. Full-time college attendance is generally defined as 960 hours a year, which translates into 30 credits.
  31. Providing financial aid for low-income adults is more complicated than it is for young students (Baum and Scott-Clayton 2013), and low-income adults also have little information to help them choose from available programs of study, especially if they do not have access to or do not visit job centers. The growth of expensive short-term occupational programs in the for-profit sector with little apparent value reinforces this argument. Still, students' ability to choose their programs of study through Title IV funding remains important, too, and therefore creates the case for both supply-side and demand-side assistance for these programs.
  32. Currently, Project QUEST uses community colleges as training providers, but Per Scholas does not. To qualify for HEA funding, the latter would have to use higher education institutions as training providers.
  33. For instance, the National Fund for Workforce Solutions has helped localities and regions around the country build sector partnerships where none previously existed.
  34. See, for example, Matsudaira and Turner (2020), who argue that average annual earnings on all occupational programs should at least exceed median earnings of local high school graduates and GED holders, and that the vast majority of students should at least begin the process of loan repayment.
  35. Another option might be to strengthen the way experience rating affects the employer's UI taxes, with higher taxes for permanent layoffs than for temporary layoffs. But given a range of current issues and problems with financing and updating the UI system, I consider this a less sensible approach. It would also mean that the new funding generated could be used only to pay UI benefits rather than for new training.
  36. Of course, if the firm is fully closing, or a plant or establishment is closing and workers are not being retained through transfer, they would not be eligible for the subsidy.
  37. For a discussion of the impacts of WARN, see Ehrenberg and Jakubson (1993). Senator Sherrod Brown (D-OH) and Representative Tim Ryan (D-OH) have recently proposed to strengthen enforcement of WARN.
  38. More-effective services at job centers, well aligned with the training providers, could help make sure that employers better recognize the skills that workers already have, regardless of their credentials—or lack thereof for noncompleters—as noted by Blair et al. (2020). Including community-based organizations or other nonprofits in the alignment process might also make sense if states conclude there is a positive role for them to play in linking local residents with available training.
  39. For instance, the Labor and Education Alignment Program in Tennessee seeks to ensure that education and labor agencies in that state, including K–12 schools and community colleges, are well aligned with labor market demand trends and with each other.
  40. The Obama administration, and the Trump administration to some extent, distributed State Longitudinal Data Systems grants to states to improve their use of higher education administrative data, and Workforce Data Quality Initiative grants to states for improvements in their labor market data collection and use.
  41. Maximum Pell grants today are more than \$6,000 each. Kaine and Portman would limit them to \$3,000 for short certificate programs.
  42. The per capita cost of ASAP in New York was about \$14,000, but in Ohio the program replication has reduced costs to about \$9,000.
  43. Project QUEST and ASAP also require full-time student attendance. My proposal would not have that requirement, though per capita costs could be similar if students pursuing similar credentials part time require the same total time spent but would spread it out over more years.
  44. Of course, we cannot perfectly target these resources to those who would otherwise not complete college. No doubt some will go to those who would have completed credentials anyhow. On the other hand, some of the noncompleters are not seeking credentials at all, but merely taking a course or two, and they would not be eligible for these services.
  45. Given my estimates of about 200,000 new students served each year by each of the three programs, the estimated impacts of each program on credential attainment over time (in the range of 10–16 percentage points) and assuming we can maintain the quality of each program at scale, the new investments would generate 60,000 new associate's degrees and 24,000 certificates for FTE students, and many more for participating students overall, including part-time enrollees.
  46. The present discounted value of an associate's degree is estimated to be more than \$300,000 for a lifetime, relative to those with only a high school diploma. Certificates generate much less value, though the credentials gained in Project QUEST have more value than the typical certificate: QUEST credentials have about 20 percent more value relative to the control group, or two-thirds of the value of associate's degrees, and they show no decay over the nine years of the evaluation by Roder and Elliott (2019); in fact, if anything, the impacts grow. Applying the estimated impacts on credential attainment above to these lifetime values generates present values of \$20,000–\$30,000 in each case.
  47. The state of South Carolina pays employers \$1,000 in tax credit for each new apprenticeship created. An investment of \$1 billion would fund up to 600,000 apprenticeships at \$1,500 each, or create other possible models for states to follow, as long as the tax credits could be mostly targeted on those without apprenticeships now, rather than creating a large windfall for employers that are already participating.
  48. The \$2 billion of public money, for instance, could fund direct injections of \$200 per year for 10 million low-wage or low-income workers, which could generate another \$100–\$200 per year if the funds require a private or state match. Though these are not large sums, over time the balances would grow (if not spent each year), and could supplement Pell grants or loans provided under Title IV of the HEA as well as the federal dollars to institutions that would expand training programs such as Project QUEST, and that charge little or no tuition to low-income workers.
  49. Approximately \$2 billion of TAACCCT funds were allocated to 256 community colleges during the Obama administration, for an average of about \$8 million per institution. I propose an average of \$500,000 to each community college in the United States for career counseling and other such services, plus a much smaller number of more generous grants allocated competitively each year.
  50. Katz et al. (2020) and Dawson, Kearney, and Sullivan (2020) indicate which components of successful sector-based training or community college support programs are most important for attaining large impacts.
  51. The cost of the Goolsbee, Hubbard, and Ganz (2019) proposal is based on their calculation of an expected shortfall in higher education degree completion, relative to certain projections of what employers will demand. I have somewhat less confidence in such projections of education shortfalls.
  52. Philanthropic institutions can also play an important role in workforce activities. For instance, the National Fund for Workforce Services was created by several foundations and has helped build sector-based training programs around the country. But foundation resources are generally too small to scale these efforts.
  53. For evidence on the cost-effectiveness of job centers see Fortson, Rotz, and Burkander (2017). Only about \$700 million is available annually to fund more than 2,600 job centers, which generates about \$270,000 for each of those job centers.
  54. The federal government spends approximately \$700 million on TAA each year.
  55. For instance, Hyman (2018) shows large initial impacts of TAA training on earnings, totaling as much as \$50,000 per year, but those earnings fully fade out in 10 years or less. Earlier evaluations of TAA impacts have tended to be less positive. See D'Amico and Schochet (2012).
  56. Only workers over the age of 50 who have been displaced by trade can receive wage insurance of up to \$10,000 for two years under Alternative Trade Adjustment Assistance.
  57. See, for instance, the Relaunching America's Workforce Act (2020) proposal by House Democrats.

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# References

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- Acemoglu, Daron, Andrea Manera, and Pascual Restrepo. 2020. "Does the U.S. Tax Code Favor Automation?" Policy Brief, Brookings Institution, Washington, DC.
- Andersson, Fredrik, Harry J. Holzer, Julia I. Lane, David Rosenblum, and Jeffrey Smith. 2013. "Does Federally Funded Job Training Work? Nonexperimental Estimates of WIA Training Impacts Using Longitudinal Data on Workers and Firms." Working Paper 19446, National Bureau of Economic Research, Cambridge, MA.
- Andrews, Rodney J., and Kevin M. Stange. 2019. "Price Regulation, Price Discrimination, and Equality of Opportunity in Higher Education: Evidence from Texas." *American Economic Journal: Economic Policy* 11 (4): 31–65.
- Avery, Christopher, Jessica Howell, Matea Pender, and Bruce Sacerdote. 2019. "Policies and Payoffs to Addressing America's College Graduation Deficit." Policy Brief, Brookings Institution, Washington, DC.
- Backes, Benjamin, Harry J. Holzer, and Erin Dunlop Velez. 2015. "Is It Worth It? Postsecondary Education and the Labor Market Outcomes for the Disadvantaged." *IZA Journal of Labor Policy* 4 (1).
- Bailey, Thomas, and Clive R. Belfield. 2017. "Stackable Credentials: Do They Have Labor Market Value?" Working Paper, Community College Research Center, Teachers College, Columbia University, New York, NY.
- Bailey, Thomas, Shanna Smith Jaggars, and Davis Jenkins. 2015. *Redesigning America's Community Colleges*. Cambridge MA: Harvard University Press.
- Baily, Martin. 2015. "Slow Productivity Growth." National Economists Club, Washington, DC.
- Balu, Rekha. 2017. "Incorporating Program Model Adaptation into Implementation Research." Issue Focus, MDRC, New York, NY.
- Barron, John, Mark C. Berger, and Dan A. Black. 1997. *On-the-Job Training*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Baum, Sandy, and Harry Holzer. 2019. Letter to the Editor, *Chronicle of Higher Education*, July 3, 2019.
- Baum, Sandy, Harry Holzer, and Grace Luetmer. 2020. "Should the Federal Government Fund Short-Term Postsecondary Certificate Programs?" Urban Institute, Washington, DC.
- Baum, Sandy, and Adam Looney. 2020. "Who Owes the Most in Student Loans: New Data from the Fed." *Up Front* (blog), October 9, Brookings Institution, Washington, DC.
- Baum, Sandy, and Judith Scott-Clayton. 2013. "Redesigning the Pell Program for the 21st Century." The Hamilton Project, Brookings Institution, Washington, DC.
- Blair, Peter Q., Tomas G. Castagnino, Erica L. Groshen, Papia Debroy, Byron Auguste, Shad Ahmed, Fernando Garcia Diaz, and Cristian Bonavida. 2020. "Searching for STARS: Work Experience as a Job Market Signal for Workers without Bachelor's Degrees." Working Paper 26844, National Bureau of Economic Research, Cambridge, MA.
- Boggs, Bennett. 2018. "Outcomes-Based Funding as an Evolving State Appropriation Model." Paper 4, National Conference of State Legislatures, Washington, DC.
- Bound, John, Breno Braga, Gaurav Khanna, and Sarah Turner. 2019. "Public Universities: The Supply Side of Building a Skilled Workforce." In "Improving Employment and Earnings in 21st Century Labor Markets," edited by Erica Groshen and Harry Holzer. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (4).
- Bound, John, Michael Lovenheim, and Sarah Turner. 2010. "Why Have College Completion Rates Declined? An Analysis of Changing Student Preparation and Collegiate Resources." *American Economic Journal: Applied Economics* 2(3): 129–57.
- Brown, Chad, and Caroline Freund. 2019. "Active Labor Market Policies: Lessons from Other Countries for the United States." Peterson Institute for International Economics, Washington, DC.
- Burning Glass Technologies. 2019. *The New Foundational Skills of the Digital Economy*. Boston, MA: Burning Glass Technologies.
- Casey, Marcus. 2020. "Automation and Labor Market Institutions." *Up Front* (blog), Brookings Institution, Washington, DC.
- Cellini, Stephanie Riegg, Rajeev Darolia, and Lesley Turner. 2017. "The Government Is Sanctioning For-Profit Colleges. What Happens to the Students?" Brown Center Chalkboard, Brookings Institution, Washington, DC.
- Cellini, Stephanie, and Nicholas Turner. 2018. "Gainfully Employed? Assessing the Earnings of For-Profit College Students Using Administrative Data." Working Paper 22287, National Bureau of Economic Research, Cambridge, MA.
- Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." *Quarterly Journal of Economics* 129 (4): 1553–623.
- Cielinski, Anna. 2019. "How Outcomes-Based Funding Could Help Students of Color." Blog, May 8. Center for Law and Social Policy, Washington, DC.
- Century Foundation, The. 2019. *Restoring the American Dream: Providing Community Colleges with the Resources They Need*. New York, NY: The Century Foundation.

- Davis, Steven, and Till Von Wachter. 2011. "Recessions and the Costs of Job Loss." *Brookings Papers on Economic Activity* (Fall).
- Dawson, Rachel, Melissa S. Kearney, and James X. Sullivan. 2020. "Comprehensive Approaches to Increasing Student Completion in Higher Education: A Survey of the Landscape." Working Paper 28046, National Bureau of Economic Research, Cambridge, MA.
- D'Amico, Ronald, and Peter Schochet. 2012. *The Evaluation of the Trade Adjustment Assistance Program: A Synthesis of Major Findings*. Princeton, NJ: Mathematica Policy Research.
- Deming, David. 2019. "In the Salary Race, Engineers Sprint but English Majors Endure." *New York Times*, October 1, 2019.
- Deming, David, and David Figlio. 2016. "Accountability in U.S. Education: Applying Lessons from the K–12 Experience to Higher Education." *Journal of Economic Perspectives* 30 (3): 33–56.
- Deming, David J., Noam Yuchtman, Amira Abulafi, Claudia Goldin, and Lawrence F. Katz. 2016. "The Value of Post-Secondary Education Credentials in the Labor Market: An Experimental Study." *American Economic Review* 106 (3): 778–806.
- Dougherty, Kevin, Sosanya M. Jones, Hana Lahr, Rebecca S. Natow, Lara Pheatt, and Vikash Reddy. 2016. *Performance Funding for Higher Education*. Baltimore, MD: Johns Hopkins University Press.
- Edelman, Peter, and Harry Holzer. 2013. "Connecting the Disconnected: Improving Educational and Employment Outcomes among Disadvantaged Youth." IZA Working Paper, IZA, Bonn, Germany.
- Ehrenberg, Ronald, and George Jakubson. 1993. "Why WARN? The Impact of Recent Plant Closing and Layoff Prenotification Legislation in the United States." Working Paper, ILR School, Cornell University, Ithaca, NY.
- Elliott, Mark. 2019. *Philanthropy, Outcomes and Impact*. New York, NY: Economic Mobility Corporation.
- Evans, William, Melissa S. Kearney, Brendan Perry, and James X. Sullivan. 2020. "Increasing Community College Completion Rates among Low-Income Students: Evidence from a Randomized Control Trial Evaluation of a Case Management Intervention." *Journal of Policy Analysis and Management* 39 (4): 930–65.
- Eyster, Lauren, Theresa Anderson, Robert I. Lerman, Daniel Kuehn, Burt Barnow, Maureen Conway, Ranita Jain, and Marcela Montes. 2018. "Findings from the Accelerating Opportunity Evaluation: Building the Evidence on Integrated Career Pathways." Urban Institute, Washington, DC.
- Eyster, Lauren, Amanda Briggs, Christin Durham, Carol Hafford, and Natalie Spievač. 2020. *Systems Change in Community Colleges: Lessons from a Synthesis of Round 3 TAACCT Third-Party Evaluations*. Washington, DC: Urban Institute.
- Farber, Henry 2015 "Job Loss in the Great Recession and its Aftermath." NBER Working Paper No. 21216.
- Fein, David. 2016. *Scaling Up to Bridge the Opportunity Divide for Low-Income Youth: The Case of Year Up*. OPRE Report 2016-55. Washington, DC: Office of Policy and Research Evaluation, Administration of Children and Families.
- Fethke, Gary, and Andrew Policano. 2012. *Public No More: A New Path to Excellence for America's Public Universities*. Stanford, CA: Stanford University Press.
- Fitzpayne, Alastair, and Ethan Pollack. 2018. "Lifelong Learning and Training Accounts: Helping Workers Adapt and Succeed in a Changing Economy." The Aspen Institute, Washington, DC.
- Fortson, Kenneth, Dana Rotz, and Paul Burkander. 2017. "Providing Public Workforce Services to Jobseekers: 30 Month Impact Findings on the WIA Adult and Dislocated Worker Programs." Mathematica Policy Research, Princeton, NJ.
- Goger, Annalies, and Luther Jackson. 2020. "The Labor Market Doesn't Have a Skills Gap—It Has an Opportunity Gap." *The Avenue* (blog), September 9, Brookings Institution, Washington, DC.
- Goolsbee, Austan, Glenn Hubbard, and Amy Ganz. 2019. "A Policy Agenda to Develop Human Capital for a Modern Economy." Aspen Institute, Washington, DC.
- Gordon, Robert J. 2014. "The Demise of U.S. Economic Growth: Re-statement, Rebuttal and Reflections." Working Paper 19895, National Bureau of Economic Research, Cambridge, MA.
- Groshen, Erica, and Harry Holzer, eds. 2019. "Improving Employment and Earnings in 21st Century Labor Markets: Introduction." In "Improving Employment and Earnings in 21st Century Labor Markets," edited by Erica Groshen and Harry Holzer. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (4).
- Haskins, Ronald, and Greg Margolis. 2014. *Show Me the Evidence: Obama's Fight for Rigor and Results*. Washington, DC: Brookings Institution.
- Heinrich, Carolyn, and Harry Holzer. 2011. "Improving Education and Employment among Disadvantaged Young Men." *Annals of the American Academy of Political and Social Sciences*.
- Heinrich, Carolyn, Peter R. Mueser, Kenneth R. Troske, Kyung-Seong Jeon, and Daver C. Kahvecioglu. 2011. "A Nonexperimental Evaluation of WIA Programs." In *The Workforce Investment Act: Implementation Experiences and Evaluation Findings*, edited by Douglas J. Besharov and Phoebe H. Cottingham, 371–404. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Hershbein, Brad, Melissa S. Kearney, and Luke W. Pardue. 2020. "College Attainment, Income Inequality and Economic Security: A Simulation Exercise." Working Paper 26747, National Bureau of Economic Research, Cambridge, MA.
- Hershbein, Brad and Harry Holzer. 2021. "The Covid-19 Pandemic's Evolving Impacts on the Labor Market: Who's Been Hurt and What We Should Do." Prepared for the conference on Uneven Outcomes in the Labor Market, Federal Reserve Bank, February 1.
- Higher Education Act of 1965 (HEA), Pub.L. 89-329, 79 Stat. (1965).
- Hollenbeck, Kevin. 2008. "Is There a Role for Public Support of Incumbent Worker On-the-Job Training?" W.E. Upjohn Institute for Employment Research, Kalamazoo, MI.
- Holzer, Harry. 2015. "Job Market Polarization and Worker Skills: A Tale of Two Middles." Policy Brief, Brookings Institution, Washington, DC.



2019. “Yes, Corporate Tax Cuts Can Raise Wages. Here’s How.” *Washington Post*, May 8, 2019.
- Holzer, Harry, and Sandy Baum. 2017. *Making College Work: Pathways to Success for Disadvantaged Students*. Washington, DC: Brookings Institution Press.
- Holzer, Harry J., Richard N. Block, Marcus Cheatham, and Jack H. Knott. 1993. “Are Training Subsidies for Firms Effective? The Michigan Experience.” *Industrial and Labor Relations Review* 46 (4): 625–36.
- Holzer, Harry, and Zeyu Xu. 2019. “Community College Pathways for Disadvantaged Students.” Working Paper, Center for the Analysis of Longitudinal Data in Education Research (CALDER), Washington, DC.
- Hyman, Benjamin. 2018. “Can Displaced Labor Be Retrained? Evidence from Quasi-Random Assignment to Trade Adjustment Assistance.” IZA Working Paper, IZA, Bonn, Germany.
- Jacobson, Louis, Robert J. Lalonde, and Daniel Sullivan. 2005. “The Impact of Community College Retraining on Older Displaced Workers: Should We Teach Old Dogs New Tricks?” *Industrial and Labor Relations Review* 58 (3): 398–415.
- Katz, Lawrence, Jonathan Roth, Richard Hendra, and Kelsey Schaberg. 2020. “Why Do Sectoral Employment Programs Work? Evidence from WorkAdvance.” Working Paper 28248, National Bureau of Economic Research, Cambridge, MA.
- Katz, Lawrence, and Alan Krueger. 2019. “Understanding Trends in Alternative Work Arrangements in the United States.” In “Improving Employment and Earnings in 21st Century Labor Markets,” edited by Erica Groshn and Harry Holzer. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (4).
- Kinder, Molly, and Amanda Lenhart. 2019. *Worker Voices: Technology and the Future of Workers*. Washington, DC: New America Foundation.
- Kletzer, Lori. 1998. “Job Displacement.” *Journal of Economic Perspectives*. 12 (1): 115–36.
- Kochan, Thomas, and William Kimball. 2019. “Unions, Worker Voice, and Management Practices: Implications for a High-Wage High-Productivity Economy.” In “Improving Employment and Earnings in 21st Century Labor Markets,” edited by Erica Groshn and Harry Holzer. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (4).
- Krueger, Alan, and Erica Lindahl. 2001. “Education for Growth: Why and for Whom.” *Journal of Economic Literature* 39 (4): 1101–36.
- Kruse, Douglas, Richard Freeman and Joseph Blasi eds. 2010. *Shared Capitalism*. Chicago: University of Chicago Press.
- Lachowska, Marta, Alexandre Mas, and Stephen A. Woodbury. 2020. “Sources of Displaced Workers’ Long-Term Earnings Loss.” *American Economic Review* 110 (10): 3231–66.
- Lerman, Robert. 2009. “Training Tomorrow’s Workforce: Community College and Apprenticeships as Collaborative Routes to Rewarding Careers.” Center for American Progress, Washington, DC.
- Lerman, Robert. 2018. “Building a Robust Apprenticeship System in the U.S.: Why and How?” LERA Meetings, Philadelphia, PA.
- Lerman, Robert, Signe-Mary McKernan, and Stephanie Riegg. 2004. “The Scope of Employer-Provided Training in the United States: Who, What, Where and How Much?” Urban Institute, Washington, DC.
- Markle Foundation. 2020. “An Opportunity Account to Help All Workers Identify and Pay for Effective Training.” Policy Brief, Markle Foundation, Denver, CO.
- Marx, Benjamin M., and Lesley J. Turner. 2019. “Student Loan Nudges: Experimental Evidence on Borrowing and Educational Attainment.” *American Economic Journal: Economic Policy* 11 (2): 108–41.
- Matsudaira, Jordan, and Lesley Turner. 2020. “Towards a Framework for Accountability in Higher Education.” Brookings Conference on Accountability in Higher Education, Brookings Institution, Washington, DC
- McCarthy, Mary Alice, Iris Palmer, Ivy Love, Sophie Nguyen, Debra Bragg, Elizabeth Meza, and Grant Blume. 2020. “Community Colleges as Engines of Opportunity.” New America Foundation, Washington, DC.
- Naidu, Suresh, and Aaron Sojourner. 2020. *Employer Power and Employee Skills: Understanding Workforce Training Programs in the Context of Labor Market Power*. New York, NY: Roosevelt Institute.
- Negoita, Marian, and Annelies Goger. 2020. “State-Level Policies To Incentivize Workplace Learning: Impacts Of California’s Incumbent Worker Training Program.” Report, Brookings Institution, Washington, DC.
- Osterman, Paul. 2017. “In Search of the High Road: Meaning and Evidence.” *Industrial and Labor Relations Review* 71 (1).
- Pew Trusts. 2019. “Two Decades of Change in Federal and State Higher Education Funding.” Issue Brief, Pew Trusts, Washington, DC.
- Reed, Deborah, Albert Yung-Hsu Liu, and Rebecca Kleinman. 2012. “An Effectiveness Estimate and Cost-Benefit Analysis of Registered Apprenticeship in 10 States.” Mathematica Policy Research, Princeton, NJ.
- Relaunching America’s Workforce Act. 2020. Introduced by Rep. Robert C. Scott May 1, 2020.
- Roder, Anne, and Mark Elliott. 2019. *Nine Year Gains: Project QUEST’s Ongoing Impact*. New York, NY: Economic Mobility Corporation.
- Schaberg, Kelsey, and David Greenberg. 2020. “The Long-Term Effects of a Sectorial Advancement Strategy: Costs, Benefits, and Impacts from the WorkAdvance Demonstration.” MDRC, New York, NY.
- Stansbury, Anna, and Lawrence Summers. 2017. “Productivity and Pay in the United States: Is the Link Broken?” Working Paper 24165, National Bureau of Economic Research, Cambridge, MA.
- Stansbury, Anna, and Lawrence Summers. 2020. “Declining Worker Power and American Economic Performance.” Policy Brief, Brookings Institution, Washington, DC.
- Ton, Zeynep. 2014. *The Good Jobs Strategy: How the Smartest Companies Invest in Employees to Lower Costs and Boost Profits*. Cambridge MA: MIT Press.

- U.S. Government Accountability Office (GAO). 2019. "Department of Labor Should Assess Efforts to Coordinate Services Across Programs." U.S. Government Accountability Office, Washington, DC.
- Weil, David. 2019. "Understanding the Present and Future of Work in the Fissured Workplace Context." In "Improving Employment and Earnings in 21st Century Labor Markets," edited by Erica Groshn and Harry Holzer. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (4).
- Woodbury, Stephen A., Jose Enrique Galson, Phillip Levine, and Michael Miller. 2004. "Layoffs and Experience Rating of the Unemployment Insurance Payroll Tax: Panel Data Analysis of Employers in Three States." ResearchGate.
- Workforce Innovation and Opportunity Act (WIOA) (Pub.L. 113-128) (2014).





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## Highlights

The COVID-19 pandemic has underscored the need to address the nation's stifled workforce development challenges including increasing public assistance options for workforce development programs, generating funding to increase the availability of high-quality on-the-job training and reskilling for dislocated workers, and developing a harmonized partnerships between colleges and local workforce development programs. Current cost-effective workforce training programs have not done enough to improve the employment outcomes of disadvantaged students and displaced workers, let alone help the growing number of Americans recover from the pandemic.

## The Proposals

In this proposal, Harry J. Holzer, Nonresident Senior Fellow at the Brookings Institution and Professor of Public Policy at Georgetown University, proposes three reforms to improve access to high-quality workforce training programs at higher education institutions and on the job:

- *Expand high-quality workforce training programs.* Students with financial disadvantages need access to a broader collection of high-quality workforce training programs to improve their employment outcomes. By reforming and increasing funding for the Higher Education Act, postsecondary institutions can provide occupational training for these students.
- *Generate more funding for displaced worker retraining through a modest tax.*
- *Create a permanent version of the Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program* to fund partnerships between community colleges, workforce institutions and states.

Under this proposal, workers with the greatest need for reskilling, the disadvantaged and displaced, will have access to more high-quality workforce training opportunities.

## Benefits

Existing cost-effective workforce training programs do not produce the necessary employment outcomes to aid disadvantaged students and dislocated workers, especially with the new challenges they face brought on by the pandemic. Under the proposal by Harry J. Holzer workers with the greatest need for training will have access to a range of occupational training through higher education institutions or on the job training; both aligning with the needs of the U.S. labor force. Together, these reforms will ensure that programs are well funded and improve the employment outcomes for workers in need.



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