



Apprenticeship and the Justice System

Adapting a Proven Training Model to Serve People in Prison

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Among the most well-researched consequences of incarceration are those on the labor market outcomes of formerly incarcerated persons. Poor labor market outcomes for justice-involved people also contribute to the recidivism cycle. Some prisons have implemented in-house education and training programs with the intent of providing people in prison with skills they can use on the job, both during their incarceration and after their release. Unfortunately, many of these programs have long waiting lists or are poor quality and are therefore inadequately positioned to serve people in prison. Apprenticeship has received increased attention in recent years as a high-quality training model. Apprenticeships combine paid work with structured on-the-job training (OJT) and classroom-based related technical instruction (RTI). A small but growing number of prisons offer apprenticeships as an education and training option, providing people in prison with a meaningful training experience that is potentially valuable after release.

This research brief provides an overview of how registered apprenticeship programs operate in federal and state correctional institutions, including the considerable barriers to adequately serving the needs of people in prison.¹ We begin by reviewing the institutional context of prison-based apprenticeship programs, including background on education and training in these settings. We then discuss the current state of prison apprenticeship programs using a combination of administrative data on registered apprentices and information collected from interviews with program staff. These program staff were interviewed in the context of a broader research effort on science and engineering apprenticeships funded by the National Science Foundation. Science and engineering apprenticeship programs offered in prisons include engineering technician, computer programmer, and horticulturalist programs.² Although the interviews focused on science and engineering apprenticeships, this brief considers a broader range of prison apprenticeship occupations using federal administrative data as well.

We found that the differences between apprenticeship programs inside and outside of prisons stem largely from the unique limitations of operating an educational program in prison. OJT opportunities, for example, are especially constrained in prisons by the physical limitations of the prison walls. Unless there are arrangements for work release, apprentices in prison can only perform limited jobs that can be carried out in the facility (often jobs for the prison facility itself). Another limitation is that the prison is typically the apprentice's employer in prison programs, which prevents apprentices from continuing their work after release. Completion is often hampered in prison apprenticeships because individuals are frequently transferred to prisons that do not provide apprenticeships.

Our findings suggest that prisons can improve their apprenticeship offerings by expanding apprenticeable occupations, raising wages, reducing disruptive transfers, ensuring apprenticeships in prison are relevant to the labor market, and engaging employers after reentry.

Background

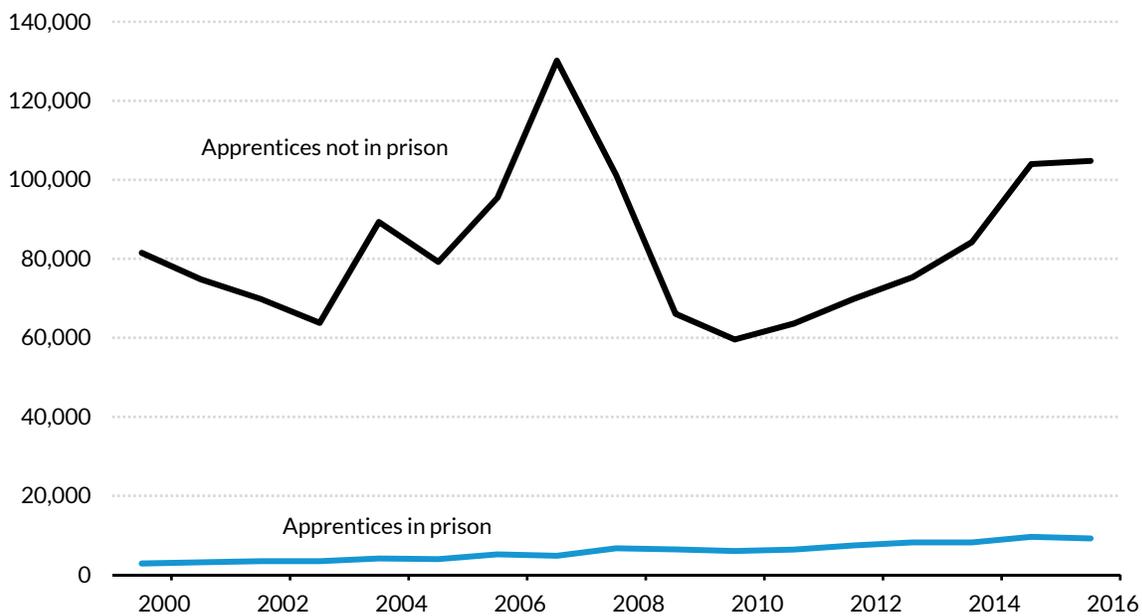
Postrelease employment is a key factor in reducing recidivism for people who were formerly incarcerated. Visher, Debus, and Yahner (2011) find not only a link between unemployment and increased recidivism, but that higher wages of returning workers were associated with lower recidivism compared to individuals with lower wages. But the barriers to securing employment following time in prison—collateral consequences of being incarcerated—are considerable. Pager and Western (2009) find that a criminal record comes with a 50 percent reduction in callbacks and job offers. One strategy for improving the reentry experience is to provide formerly incarcerated people with education and training that is valued in the labor market. However, people in prison have less access to these opportunities than people outside of prison, further limiting employment opportunities upon release.

Education and training programs exist in prisons to equip individuals returning from prison with knowledge, skills, and abilities that help them overcome the barriers to securing a job. Many of these are focused on building basic skill levels of participants. The 2014 Program for the International Assessment of Adult Competencies Survey of Incarcerated Adults found that 21 percent of those surveyed received a high school diploma or GED while in prison. About one-third of the individuals surveyed (7 percent) received a college or trade certificate while in prison (Rampey et al. 2016). Vocational training in prisons is relatively common in the United States; the 2005 Census of State and Federal Correctional Facilities reports that of the 85 percent of facilities offering formal educational programs, at least one-half provide vocational training (Stephan 2008). Evidence suggests these programs work to reduce some of the obstacles to employment after reentry. In a broad review of the literature, Davis and colleagues (2013) find a 43 percent reduction in the odds of recidivism as a result of participation in correctional education programs. Their study also links these programs to increased odds of obtaining postrelease employment. Saylor and Gaes (1997) uncover similar results in one of the few studies specifically considering the impact of apprenticeship programs on outcomes for people in prisons.³ Work programs without a substantial training component are also common; more than one-half of all people in prison in 2005 held work assignments, many of which had no associated training.

The lack of established funding streams for in-prison education is one challenge to expanding apprenticeships. The Violent Crime Control and Law Enforcement Act of 1994 prohibited justice-involved people from receiving Pell grants while incarcerated. The Obama administration took steps in 2015 to undo this restriction by piloting a program that allows Pell grants for some incarcerated individuals. Because this policy change was accomplished through executive action on a small scale, it remains vulnerable to change, or even a complete rollback.⁴

The demand for education and training in prisons often exceeds the available programming. This means that some justice-involved people simply don't get to pursue the opportunities that they desire and that are required to be successful upon reentry. The 2014 Program for the International Assessment of Adult Competencies Survey of Incarcerated Adults found only 42 percent of incarcerated people completed formal education in prison, while over 70 percent desired something of the sort (Rampey et al. 2016). Figure 1 shows that despite these challenges, the number of people in prison beginning an apprenticeship in the 33 states where the federal government collects detailed data has more than tripled between 2000 (2,864 new apprentices) and 2016 (9,223 new apprentices). While the number and scale of in-prison apprenticeships remains significantly smaller than that of other formal vocational programs, their recent growth underscores the importance of understanding best practices.

FIGURE 1
Trends in the Registration of Apprentices in Prison



Source: Registered Apprenticeship Partners Information Data System (RAPIDS).

Note: Tracks registered apprenticeships from 2000 to 2016 among states included in the Registered Apprenticeship Partners Information Data System (RAPIDS). Apprentices in prison are identified in RAPIDS by an “inmate” indicator, although this indicator is missing for a large share of apprentices. Additional apprentices are classified as apprentices in prison if they are paid below the minimum wage and if their sponsor is identified as being in the public administration industry (the industrial classification for correctional facilities).

Apprenticeship in Prisons: Experiences and Trends

The best source of data on experiences and trends of apprenticeship programs in prison is the Registered Apprenticeship Partners Information Data System (RAPIDS), the federal administrative data on registered apprentices. RAPIDS includes individual characteristics and apprenticeship program characteristics for all registered apprentices in the 33 states that use the data system. These states represent about three-fourths of the total population of the United States, so a large share of total apprentices are covered by the RAPIDS data used in this research brief.⁵

The number of people in prison who register as apprentices in these states has grown steadily over the last decade and a half, from just over 2,800 registering in 2000 to over 9,200 in 2016 (figure 1), which is only a small share of all registered apprentices. Apprentices in prison did not experience the same volatility in registrations during the Great Recession that reduced registration in apprenticeship programs outside of prison, particularly in building trades. Although the number of apprentices in the justice system make up only a small portion of all people in prison, steady growth of apprenticeships in prisons and their proven effectiveness justifies increased research on this training model.

Table 1 shows the differing characteristics of registered apprentices in and out of prison between 2000 and 2016. Apprentices in prison are more likely to be black and less likely to be white or Hispanic than apprentices who are not in prison, reflecting long-standing disparities in every stage of the criminal justice system. Although prison populations are predominantly male, 12.5 percent of apprentices in prison are female compared to 6.4 percent of those outside of prison. This is due to the large number of registered apprentices in the male-dominated building trades outside of prison. Apprentices in prison are about as likely to be veterans as apprentices outside of prison.

Apprentices in prison differ significantly from their counterparts outside of prison in age and educational attainment. The average age of apprentices in prison is almost 37, about a decade older than the typical apprentice not in prison. Apprentices in the United States are older, on average, than those in Europe and other English-speaking countries. This difference is even more significant for American apprentices who are incarcerated. Apprentices in prison are more likely to hold a GED rather than a high school diploma compared to those not in prison, although the combined share of apprentices holding either a GED or a diploma is comparable between the two groups (about 80 percent).

Apprentices in prisons also differ from those outside of prison in their program experiences and wages. Programs in prison are shorter than apprenticeship programs outside of prison (an average of 1.7 years compared to 3.1 years). This may reflect the different types of apprenticeable occupations accessible to people in prison. For example, the longer apprenticeships offered in the building trades are generally unavailable to people in prison. Our interview subjects indicated that apprenticeships are often interrupted by transfers to other facilities. Shorter duration apprenticeships help to accommodate the risk of transfer by ensuring that the apprentice can complete the program before being transferred. Despite the issue of transfers, apprentices in prison have somewhat higher completion rates than those outside of prison (38 percent compared to 33.1 percent). This may be

attributable to the shorter length of apprenticeships in prison and the fact that prisoners have fewer programmatic options than apprentices outside of prison.

TABLE 1

Characteristics of Apprentices in Prison Registered 2000–2016, Selected States

	Apprentices in prisons	Apprentices not in prisons
Race or ethnicity		
White	51.8%	63.5%
Black	33.9%	10.3%
Hispanic	7.8%	17.4%
Native American	1.5%	1.4%
Asian	0.6%	1.3%
Hawaiian or Pacific Islander	0.4%	1.0%
Unknown race or ethnicity	4.0%	5.2%
Gender		
Male	87.5%	92.2%
Female	12.5%	6.4%
Unknown gender	0.0%	1.3%
Veteran	9.2%	9.3%
Average age at registration (years)	36.9	28.9
Standard deviation of age at registration (years)	9.8	8.9
Educational attainment		
Less than 8th grade	1.2%	0.9%
9th to 12th grade, no diploma	7.1%	9.5%
GED	45.9%	9.8%
High school diploma	36.2%	70.1%
Post-secondary or technical training	7.9%	5.5%
Educational attainment unknown	1.7%	4.1%
Apprenticeship characteristics and outcomes		
Average apprenticeship program length (years)	1.7	3.1
Average starting wages (2017 dollars)	0.57	16.27
Average exit wages (2017 dollars)	1.42	17.46
Completion rate	38.0%	33.1%

Source: Registered Apprenticeship Partners Information Data System (RAPIDS).

Note: Completion rates follow the US Department of Labor definition, which requires that apprentices complete within a year of the expected end date of their program. The completion rate and the average exit wage exclude apprentices that are still registered. Apprentices in prison are identified in RAPIDS by an “inmate” indicator, although this indicator is missing for a large share of apprentices. Additional apprentices are classified as apprentices in prison if they are paid below the minimum wage and if their sponsor is identified as being in the public administration industry (the industrial classification for correctional facilities).

Perhaps the starkest distinction between apprentices in prison and those not in prison is that apprentices in prison earn much lower starting and exit wages. The average starting wage for apprentices in prison is \$0.57, with many apprentices earning no wages at all. Exit wages show some improvement, with an average of \$1.42. These extraordinarily low wages in prison have recently been highlighted in Zessoules and Ajilore’s (2018) analysis of racial, gender, and regional disparities in

apprentice experience and outcomes. They show that a large share of black apprentices (24.9 percent) are in prison and that apprentices in prison are concentrated in the Midwest.

A key component of the apprenticeship model compared to other modes of skill building is that apprentices are full-fledged employees that are paid while they learn on the job. Individuals who work while incarcerated are no exception, and they must be productive employees in order to register as an apprentice with the US Department of Labor. However, people in prison have historically been excluded from federal labor standards (including wage and hour regulations) by the Thirteenth Amendment to the Constitution (box 1), which explicitly allows for forced labor as a punishment for a crime.

BOX 1

The Thirteenth Amendment to the United States Constitution

Section 1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2. Congress shall have power to enforce this article by appropriate legislation.

Note: Ratified December 6, 1865.

The purpose of the Thirteenth Amendment was to abolish slavery following the Civil War, but slave labor in prison is allowed as the sole exception to the general prohibition. In the United States, people in prison, including apprentices, can be forced to work for low or no wages. Although participation in apprenticeship programs is voluntary, compensation levels are extraordinarily low. The ability of prisons to pay apprentices low or no wages presents obvious constraints on meaningful work-based learning in prison. Personal pride and self-sufficiency are important aspects of the productive, paid work of registered apprenticeship, but in prison these goals are undercut by low wages.

Apprentices in prison work in different occupations from those not in prison. The top 10 occupations in both settings are reported in table 2. Occupations in prison are heavily concentrated in o facilities management, including maids and housekeeping cleaners, cooks, office machine repairers, and landscaping and groundskeeping workers. These occupations are apprenticeable outside of prison, but they are not the occupations that most registered apprentices enter.

Occupations in prison are concentrated in facilities management because the prison itself typically serves as the employer, restricting apprentices to work that can be performed at the prison facility. Private businesses occasionally offer apprenticeships for people in prison through contracts with prison facilities, but this arrangement is less common (McGrew and Hanks 2017). None of the program staff we interviewed were associated with programs that used private businesses as employers for apprentices in prison.

TABLE 2

Occupations of Apprentices in Prison and Outside of Prison*Registered 2000–2016, selected states*

	SOC code	Number	%
Apprentices in Prison Registered between 2000 and 2016			
<i>Occupation</i>			
Maids and Housekeeping Cleaners	37-2012.00	14,001	14.1%
Cooks, Institution and Cafeteria	35-2012.00	8,369	8.4%
Animal Trainers	39-2011.00	5,989	6.0%
Computer, Automated Teller, and Office Machine Repairers	49-2011.03	4,354	4.4%
Landscaping and Groundskeeping Workers	37-3011.00	3,816	3.8%
Electricians	47-2111.00	3,743	3.8%
Administrative Services Managers	11-3011.00	3,369	3.4%
Multiple Machine Tool Setters, Operators, and Tenders	51-4081.01	2,939	3.0%
Production, Planning, and Expediting Clerks	43-5061.00	2,810	2.8%
Maintenance and Repair Workers, General	49-9042.00	2,775	2.8%
Other		47,226	47.5%
Total Apprentices (2000-2016)		99,391	100.0%
Apprentices not in Prison Registered between 2000 and 2016			
<i>Occupation</i>			
Electricians	47-2111.00	273,030	19.3%
Construction Carpenters	47-2031.01	141,845	10.0%
Plumbers	47-2152.02	85,153	6.0%
Heavy and Tractor-Trailer Truck Drivers	53-3032.01	73,162	5.2%
Pipe Fitters and Steamfitters	47-2152.01	71,249	5.0%
Construction Laborers	47-2061.00	64,286	4.6%
Structural Iron and Steel Workers	47-2221.00	49,637	3.5%
Sheet Metal Workers	47-2211.00	44,752	3.2%
Roofers	47-2181.00	40,518	2.9%
Electrical Power-Line Installers and Repairers	49-9051.00	39,382	2.8%
Other		529,771	37.5%
Total Apprentices (2000-2016)		1,412,785	100.0%

Source: Authors' calculations from the Registered Apprenticeship Partners Information Data System (RAPIDS), 2000–2016.

Notes: SOC Code = Standard Occupational Classification Code. Apprentices in prison are identified in RAPIDS by an “inmate” indicator, although this indicator is missing for a large share of apprentices. Additional apprentices are classified as apprentices in prison if they are paid below the minimum wage and if their sponsor is identified as being in the public administration industry (the industrial classification for correctional facilities).

Outside of prison, apprenticeships are concentrated in several traditional apprenticeable occupations, most notably electricians, carpenters, and plumbers. Of these traditional trades, only electricians are included in the top 10 occupations for apprentices in prison (3.8 percent of apprentices in prison are electricians compared to 19.3 percent of those not in prison). Apprenticeship expansion efforts have focused on growing nontraditional and high-growth occupations. This transition has been a struggle for programs outside of prison, which are learning how to adapt a training model traditionally used in the building trades to other fields. The prison setting poses even greater obstacles to targeting high-growth occupations due to the limited job options within the facility. Less exposure to training

opportunities in high-growth fields means that people in prison will be less equipped to take advantage of emerging labor market trends upon release.

Expansion of apprenticeship in prisons could be built on the foundation of jobs that are necessary for maintaining the prison facility itself. In addition to electricians, prison facilities require plumbers and heating and air conditioning technicians. Many federal prisons work with UNICOR, a government-owned corporation formed in the 1930s to employ people in federal prison. UNICOR provides people in prison with work experience (often with higher wages) as well as goods and services to many executive agencies, such as the US military (James 2013). Depending on the good or service being produced, UNICOR jobs for people in federal prisons may be apprenticeable. Finally, many correctional facilities already offer vocational education in various trades including electricians, plumbing, horticulture, welding, heating, ventilation, and masonry. Structuring these vocational education programs as apprenticeships may be low-hanging fruit for prisons. The greatest obstacle to adapting existing vocational programs to the apprenticeship model is ensuring that apprentices would have the opportunity to work productively in the facility and meet OJT requirements.

The Sponsor and RTI Provider's Perspective

We interviewed two sponsors of prison apprenticeship programs and one RTI provider working with a prison as part of a broader set of interviews for National Science Foundation-funded research on science and engineering apprenticeships. A sponsor is an entity that operates an apprenticeship program. Sponsors can be the employer, but this is not always the case. An RTI provider is any number of training institutions (including the sponsors themselves) that provide the classroom instruction for the program. Although our interviews focused on the sponsors' science and engineering apprenticeship programs, we also asked them about other programs that they offered. The interviews were semistructured, meaning we used a standard interview protocol, but many of the questions were open-ended, resulting in interviews that varied in content.⁶

One of the prison's apprenticeships lasted as long as three years and offered both time-based, which mark progress by logging RTI and OJT hours, and hybrid programs (which require that individuals log hours and demonstrate mastery of competencies). The second prison offered a one-year, time-based program. Neither sponsor expressed interest in moving to a purely competency-based model, in contrast with growing interest outside of prison in making the transition to more competency-based apprenticeships.

Both programs required that individuals first hold the job that they want to apprentice in prior to registering. The sponsors indicated that there was a high demand for limited slots, so restricting apprenticeship to those already performing well on the job was one way to manage demand. One program required individuals to hold the position for at least six months and have a GED before enrolling. That prison offered education programs that included GED services for those who entered prison without a high school credential. The other program had no educational requirements but allowed only one person to register for every foreman on the job. This sponsor used to open two

apprenticeship positions for every foreman but due to state ratio requirements shifted to a 1:1 ratio. Ratio requirements limit the supply of slots, resulting in foremen picking what the sponsor characterized as “the top applicant.”

Some programs are better positioned to provide steady, meaningful OJT than others, depending on the consistency of work available. The occupational mix is constrained by jobs that can be performed on site. In one prison, OJT for a horticulture program is provided in an on-site greenhouse, where apprentices grow crops such as onions and melons. Electronics apprentices in the same institution worked with equipment that was on site as a part of their OJT program. Even when performed at the prison, OJT hours are dependent on the availability of work, which is not always consistent.

One sponsor we interviewed provided OJT opportunities for quality assurance apprentices by retrofitting a fleet of border patrol vehicles housed on site, which includes running various diagnostic tests. This institution also provides stationary engineering OJT on a facility powerhouse in the center of the compound. These apprentices help maintain the boilers and chillers, and when the power goes out, they assist with the backup electricity generator. The powerhouse, boilers, and chillers need to be run all the time, so there are no shortage of OJT opportunities. Nevertheless, not all apprenticeships in prison have this degree of regularity in work. Often the physical constraints of the prison walls limit the available OJT opportunities.

One sponsor noted that, “...on-the-job, I mean, it’s a hit or miss, you don’t know what each site’s gonna have for them.” The sponsor continued that in the HVAC apprenticeship “they have to work on refrigerators and stuff. Well, we don’t have refrigerators going out all the time, so it’s kind of hit or miss.” Though this challenge exists in apprenticeship programs outside of prisons (e.g., seasonal fluctuations in certain occupations), it is exacerbated by the limited needs of the prison facility itself.

Both sponsors offered RTI developed with input from the state Department of Labor and Department of Corrections. The RTI provider that we interviewed adapted the normal community college curriculum he teaches for the prison by applying insights gleaned from another prison apprenticeship program in the state. His program used simulation equipment in the prison and delivered the required 360 hours of RTI in three months at the beginning of the program. This ensured that apprentices received their RTI before being transferred or experiencing some other disruption.

One of the sponsors partners with instructors at a nearby community college. The instructors work as employees of the prison, since apprentices cannot be released to enroll in the college. Some instruction and mentorship is provided by apprentices who have already completed the program. The second sponsor we interviewed provides the RTI entirely in house. This prison aims to have trades committees provide input once or twice per year to keep the RTI relevant with changing industry needs (though they acknowledge they might not always get a review for each occupation). The RTI takes the form of self-paced progress through textbooks for each module in each occupation. Certain occupations (most notably stationary engineering) have advanced math requirements, including college-level calculus.

The sponsors identified challenges with program completion. One respondent said about one-half of their apprentices completed the program. He made clear that apprentices rarely dropped out “because the foreman fires them or something bad happens on the job.” Instead it was “usually circumstances beyond their control.” Apprentices were often transferred to other facilities, interrupting their participation in the program. If the new prison offered the same position, they could have continued the program, but it was not guaranteed. Other apprentices had their program interrupted for disciplinary reasons.

Both sponsors provide Department of Labor completion certificates to apprentices who complete their programs. Some certifications, such as those in the horticulture and electronics programs, are provided in partnership with a local community college. Those who complete these programs receive three hours of college credit and a transcript.

The collateral consequences of incarceration on labor market outcomes are considerable, even for apprentices who complete their program. Nevertheless, the sponsors we interviewed were certain that their apprentices could perform well after release. One sponsor said that the horticulturalist program was popular and that many of the apprentices go to work in marijuana greenhouses once they are released (this program is run in a state where marijuana is legalized). Other horticultural apprentices go into more traditional agricultural jobs. A popular program at one prison is woodshop, which includes carpentry and cabinetry. Heightened demand for carpenters in the local construction industry makes the program popular.

Overcoming the Obstacles to Successful Apprenticeships in Prisons

Prison introduces obstacles to apprenticeship training compared to programs outside of prison. Our analysis highlights several areas where policymakers and prison education and training staff can focus to adapt the apprenticeship model to better serve people in prison.

- **Expand apprenticeable occupations available in prison.** Our interviews made it clear that when prisons serve as the employer, the available occupations and OJT opportunities are limited. One possible solution is to identify more work within the facilities that may be apprenticeable and think creatively about what occupations outside of prison could be adapted to programs in prison. While not a standard feature of most programs, prisons could allow individuals to pursue OJT experiences outside of prison through a work release program, as one of the sponsors we interviewed does.⁷
- **Raise wages for apprentices in prison.** The Thirteenth Amendment poses a particularly significant barrier for apprenticeships in prison, since it allows programs to limit meaningful, paid work. Low wages reduce completion rates and may make apprentices in prison feel that their time is not valued or that they do not need to take the apprenticeship seriously. One extraordinary option would be to amend the Constitution to disallow all slave labor, including the unpaid labor in prisons that is currently allowable under the Thirteenth Amendment.⁸

Another possible and more feasible solution would be for policymakers to raise prison wages and labor standards through state or federal legislation.

- **Reduce disruptive transfers.** Completion rates for apprentices in prison are reduced due to circumstances outside of their' control, such as being transferred to a facility that does not offer the same apprenticeship. Prisons could enact a policy that allows individuals enrolled in an apprenticeship to remain until the program is complete or deliberately pursue transfers to institutions that offer a comparable apprenticeship. This could be done by coordinating programs across prison facilities under a group sponsor arrangement. One respondent mentioned that their institution puts "management holds" on apprentices and prevents transfers that would disrupt apprentices' progress. However, they emphasized that this was not always successful. A systemwide or department-wide policy could generate more consistent success. These changes would have to be considered alongside the reasons for the transfers. In some cases, transfers are used to move individuals closer to their homes or from a higher-security prison to a lower-security prison. These transfers may ultimately be more valuable for the individual than remaining in the apprenticeship program.
- **Ensure apprenticeships in prison are responsive to the labor market.** One of the sponsors described soliciting input from trades committees annually so that RTI keeps pace with changing industry needs. These types of practices are vital to ensure that prisons offer high-quality programming that will be valued when apprentices are released. Keeping up with labor market trends helps to ensure that the skills learned while incarcerated are connected to real labor market demand in the economy, therefore making individuals returning from prison more attractive to employers.
- **Emphasize the employers' role.** Apprenticeships in prisons hold enormous potential for lessening the collateral consequences of incarceration on job prospects for individual apprentices. But the demand side of the labor market—the employer—cannot be ignored. Outside of prison, apprenticeship training is well-positioned to respond to employer needs because employers are in the driver's seat, designing and running the program. Apprenticeships in prison do not have this automatic link with outside employers because the prison is the employer. The hesitancy to hire individuals returning from prison is well documented and presents obstacles to the postrelease success of apprentices in prison. Investing in the skills of formerly incarcerated people is important, but employers must be encouraged to hire these individuals. Many states have provisions for providing certificates of qualification for employment (CQEs) to formerly incarcerated individuals who meet certain requirements and demonstrate good behavior. CQEs signal a justice-involved person's employability to an employer and may remove licensing restrictions or limit an employer's liability for negligent hiring practices (Leasure and Anderson 2016; Love, Gaines, and Osborne, 2018). CQEs can lead to almost three times as many job interviews for formerly incarcerated people compared to those without CQEs with the same qualifications (Leasure and Anderson 2016). Prisons cannot serve as the postrelease employer for the apprentice, but they could provide guidance on steps toward obtaining CQEs or similar certifications after release.

Notes

- ¹ Many correctional institutions also operate apprenticeship programs for guards. Our analysis of federal administrative data on apprentices indicates that very few correctional institutions with prison guard apprenticeship programs also operate apprenticeship programs for people in prisons. Guard apprenticeships are not considered here, although they could play an important role in criminal justice reform.
- ² See National Academy of Engineering (2017, 68–72) for more details on engineering technician apprenticeship programs in the United States, including a detailed discussion of programs operating in prisons.
- ³ Saylor and Gaes (1997) is one of the studies reviewed by Davis and colleagues (2013).
- ⁴ For the Violent Crime Control and Law Enforcement Act of 1994, see Pub. L. 103-322. For a history of the Act and the Obama administration’s pilot programs, see Lewis, Nicole. “The Uncertain Fate of College in Prison.” *The Marshall Project*, March 28, 2018, <https://www.themarshallproject.org/2018/03/28/the-uncertain-fate-of-college-in-prison>.
- ⁵ Included states are AK, AL, AR, AZ, CA, CO, FL, GA, IA, ID, IL, IN, KY, LA, MI, MO, MS, ND, NE, NH, NJ, NM, NV, OH, OK, PA, SC, SD, TN, TX, UT, WV, and WY. Population percentages are from the author’s calculations from Census Bureau data on 2017 populations.
- ⁶ Interview subjects were identified in the RAPIDS database. We first narrowed the RAPIDS database (the US Department of Labor’s administrative data on apprentices) to contain only STEM apprenticeship programs defined as SOC codes 15, 17, and 19. Interview requests were initially sent to the largest STEM apprenticeship programs, with subsequent invitations sent to smaller programs.
- ⁷ Work release programs provide individuals the opportunity for employment during imprisonment, allowing individuals to work during the day and return to the prison each evening. See for example the North Carolina Department of Public Safety program: “NC DPS: Work Release.” n.d. Accessed December 7, 2018. <https://www.ncdps.gov/adult-corrections/prisons/transition-services/work-release>. In 2005, 28% of correctional facilities had a work release program. <https://www.bjs.gov/content/pub/pdf/csfcf05.pdf>
- ⁸ See P.R. Lockhart for a more detailed discussion of a recent controversy over the implications of the Thirteenth Amendment for prisons and the history of the prison exception in the Thirteenth Amendment: <https://www.vox.com/identities/2018/10/1/17924594/kanye-west-13th-amendment-tweets-slavery-backlash>.

References

- Davis, Lois M, Robert Bozick, Jennifer L Steele, Jessica Saunders, and Jeremy NV Miles. 2013. *Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That Provide Education to Incarcerated Adults*. Santa Monica, CA: Rand Corporation.
- James, Nathan. 2013. *Federal Prison Industries: Overview and Legislative History*. Washington, DC: Congressional Research Service.
- Leasure, Peter., and Stevens Andersen, T. 2016. “The Effectiveness of Certificates of Relief as Collateral Consequence Relief Mechanisms: An Experimental Study.” *Yale Law and Policy Review* (Inter Alia, November 7).
- Love, Margaret, Josh Gaines, and Jenny Osborne. 2018. *Forgiving and Forgetting in American Justice: A 50-State Guide to Expungement and Restoration of Rights*. Collateral Consequences Resource Center.
- McGrew, Annie, and Angela Hanks. 2017. *The Case for Paid Apprenticeships Behind Bars*. Washington, DC: Center for American Progress.
- National Academy of Engineering. 2017. *Engineering Technology Education in the United States*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/23402>.
- Pager, Devah, and Bruce Western. 2009. *Investigating Prisoner Reentry: The Impact of Conviction Status on the Employment Prospects of Young Men*. Document 228584. Washington, DC: National Institute of Justice/NCJRS.

Rampey, Bobby D., Shelley Keiper, Leyla Mohadjer, Tom Krenzke, Jianzhu Li, Nina Thornton, and Jacquie Hogan. 2016. *Highlights from the US PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education, and Training* NCES 2016-040. Washington, DC: US Department of Education. National Center for Education Statistics.

Robinson, Gerard, and Elizabeth English. 2017. "The Second Chance Pell Pilot Program: A Historical Overview." Washington, DC: American Enterprise Institute.

Saylor, William, and Gerald Gaes. 1997. "Training Inmates through Industrial Work Participation and Vocational and Apprenticeship Instruction." *Corrections Management Quarterly* 1 (2): 32–43.

Stephan, James J. 2008. *Census of State and Federal Correctional Facilities, 2005*. Washington, DC: Bureau of Justice Statistics.

Visher, Christy, Debus-Sherrill, Sara, and Yahner, Jennifer. 2011. "Employment after prison: A longitudinal study of former prisoners." *Justice Quarterly* 28 (5): 698–718.

Zessoules, Daniella, and Olugbenga Ajilore. 2018. *Wage Gaps and Outcomes in Apprenticeship Programs: The Effects of Gender, Race, and Region*. Washington, DC: Center for American Progress.

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