Reducing Recidivism through Innovation: Bringing Opportunities to Incarcerated Persons and Prison-Tech Startups

Emily Ryan

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Summary

The Biden-Harris Administration should create a program that incentivizes unique prison-tech innovations by providing resources to help startups working in this space, specifically those that create solutions for individuals during and after their period of incarceration and beyond. The program would be structured as a partnership among several key government agencies, federal and state prison systems, and the private sector. For participating startups, the program would foster technical innovation, provide de-risking measures, connect viable product-market solutions, and establish equity-free funding opportunities. For individuals serving state and federal sentences, the program would improve rehabilitative efforts while in the corrections system, create potential job opportunities, and reduce recidivism rates. For the broader social good, the program would spur economic growth, create stronger communities, and contribute to more equitable outcomes.

Challenge and Opportunity

The United States has the highest number of incarcerated individuals worldwide: the U.S. prison population numbers nearly 1.9 million. Recidivism rates are equally astonishing. Of the over 600,000 individuals released from state and federal prisons each year, more than two-thirds are rearrested within three years of release. Half of those rearrested are subsequently reincarcerated.

The cost of recidivism is extraordinarily high. Recidivism costs taxpayers at least $366 million per year, with a single recidivism incident estimated to impose as much as $150,000 in taxpayer burden. Recidivism also has massive social costs. Continuous reincarceration harms communities, breaks families, and contributes to generational systemic poverty. To break this cycle, we as a nation need to rethink how we approach incarceration and assign more importance to reintegration efforts.

A major contributor to the recidivism cycle is prioritization of punitive measures over rehabilitative ones in U.S. prison systems. Such punitive measures can isolate inmates from friends, family, and even children for years or decades. Moreover, instead of providing access to educational tools that could set them up for meaningful work once released, prisons often shunt incarcerated individuals into low-level menial tasks that pay mere pennies per day. Incarcerated individuals often lack the skills needed to navigate life on the outside as a result. They are left without financial means or dependable job prospects. They are saddled with broken relationships and a lack of coping mechanisms. Coupled with the stigma of being labeled ex-offenders, they are often forced into unproductive behaviors and familiar but societally unacceptable actions. And inevitably, many fall into the same patterns and reoffend.

It is also worth considering the economic benefits our nation is failing to capture from formerly incarcerated individuals. According to the U.S. Chamber of Commerce, an

estimated $78–87 billion in GDP annually is lost due to exclusion of formerly incarcerated job seekers from the workforce simply because of their ex-offender status, exclusion based on these individuals being "unskilled and unemployed" as a result of poor training and job opportunities while in prison.

We can do better. Research shows that when incarcerated individuals are given access to tools that allow them to connect to people and resources who can help them, those individuals are better equipped to reenter society. Such tools include regular video and voice calls plus texts and emails with friends and loved ones. They include the ability to participate in physical, mental, and spiritual programs and community-led activities, including programs and activities offered through digital services. And importantly, they include access to online educational programs and learning platforms administered through hardware designed to make learning easier, more robust, and aligned with modern approaches to digital upskilling.

Indeed, there is a growing market for hardware, software, and other digital innovations designed to work within U.S. carceral systems. Startups focused on the prison-tech space have the knowledge and will to replace archaic, ineffective approaches to rehabilitation with more meaningful products and services. Unfortunately, prison-tech startups also face challenges not encountered by startups in other tech subsectors.

First, many prison-tech startups are creating products and solutions that are extremely targeted towards smaller markets. For these players, finding customers means aligning with state and federal prison systems — something that is unfamiliar to a budding tech company.

Second, prison-tech startups, like all startups, often struggle to find funding. But while other startups can woo private funders with promises of equity, board seats, and concrete financial returns, success for these startups often includes bettering lives and fostering meaningful experiences, measures that cannot be quantified through revenue alone. Many investment firms have little interest in funding such "tech for social good" enterprises.

Third, prison-tech startups invest substantial time and money into including equality, accessibility and safety in their offerings. As such, access to this type of beneficial technology should not be limited to only carceral institutions with larger budgets to purchase them. At the same time, too many existing goods and services purport to serve incarcerated individuals equally and justly but are actually designed to maximize revenue generation. For example, systems like TRULINCS and JPay are pay-per-use services (for communication, money transfer, and other purposes) provided at extraordinarily high costs to incarcerated individuals and their networks on the outside — often at costs so high that the critical opportunities for connection they provide are simply unaffordable for those who need them most. Prison-tech products and services must be designed and used in ways that do not exploit, harm, or

otherwise jeopardize the health and safety of incarcerated individuals and their families nor unduly burden individuals and their families with exorbitant costs per use.

Plan of Action

The Biden-Harris Administration should launch a cross-agency initiative to support prison-tech startups. The initiative would offer federal grants to fund private companies and nongovernmental organizations (NGOs) providing beneficial prison-tech goods and services: e.g., carceral learning platforms and tools that can prepare incarcerated individuals to reenter society. The initiative should also provide incentives for prison-tech startups to hire formerly incarcerated individuals. Such incentives will create self-sustaining ecosystems that provide meaningful, long-term employment to former inmates, drive bottom-line success for prison-tech startups, and better communities in which startups are based.

Relevant agencies

Key agencies to include in initiative design, management, and administration include the following:

- Given its close ties to the current administration and track record of policy and initiative management, the **White House Office of Science and Technology Policy (OSTP)** would be well-suited to administer the initiative. OSTP helps lead science and technology (S&T) efforts as they relate to budget alignment and policy implementation across the federal government. OSTP also works with the White House Office of Management and Budget (OMB) to ensure that S&T efforts are being actively measured and evaluated. Finally, OSTP has experience working with state and local governments as well as with the private sector. For this initiative, OSTP would be specifically tasked with:

  - Coordination across partner agencies.

  - Collecting and reporting data evaluating initiative effectiveness.

  - Outreach, including hosting business roundtables and other events to encourage private-sector and state participation.

  - Crafting guidance for participating states and startups, including participation requirements, sample frameworks, and best practices.

  - General program management, oversight, and monitoring.

- Grant-funding agencies such as the **National Science Foundation (NSF)** and the **Department of Education (ED)**. Both NSF and ED have previously provided seed funding for several carceral initiatives. As recently as 2020, NSF supported

a Small Business Innovation Research (SBIR) grant aimed at providing digital learning for incarcerated individuals. NSF also has the technical background and expertise needed to support tech development in a specific area, experience coupling S&T with social science and welfare issues, and a large research and development (R&D) budget that could be tapped for this initiative. ED has conducted research into effective reentry practices — most recently in 2015 through its Promoting Reentry Success Through Continuity of Educational Opportunities (PRSCEO) study. Experience and insight from studies like this position ED to serve as a high-level partner to NSF in both advising on and co-creating learning materials, particularly materials that help incarcerated individuals earn their GEDs and acquire in-demand skills that will increase post-release employment opportunities.

- The **Small Business Administration (SBA)** helps NSF and ED implement the SBIR program by reviewing agency progress and assisting with grants and solicitation announcements. Grant solicitations for this initiative could be issued through SBIR. In addition, the SBA's 7(j) Management and Technical Assistance Program helps small businesses win local, state, and federal contracts. The 7(j) Program guides small businesses through the complexities of government-contracting guidelines. This program could be leveraged to support new businesses in winning federal support for their prison-tech products and services.

- The **Department of Labor (DOL)**, through its Work Opportunity Tax Credit (WOTC) and Federal Bonding Program, can provide later-stage financial incentives for prison-tech startups. The 2014 Workforce Innovation and Opportunity Act (WIOA) also set DOL up well to support formerly incarcerated job seekers by helping with resume writing, interview skills, job placement, and ongoing skill development post-release.

- The **Department of Justice (DOJ)** should be involved in setting guidelines relating to how prison-tech services handle inmate privacy, accessibility, and other issues related to civil rights. DOJ's Civil Rights Team (CRT), in particular, can ensure that products and services funded through this initiative do not exploit vulnerable prison populations. DOJ is also well suited to provide input on current trends and needs within the American prison ecosystem. DOJ should closely advise OSTP on initiative management and should assist in shaping calls for grant proposals.

Program structure

As explained above, the proposed initiative comprises two pillars. The first pillar focuses on federal grant funding to help prison-tech startups launch. The second pillar focuses on later-stage financial incentives and market support that help prison-tech

startups scale and achieve long-term financial sustainability, and that encourage prison-tech startups to provide good jobs to previously incarcerated individuals.

<u>Pillar 1: Federal grant funding</u>

Making federal grant funding (i.e., non-equity funding) available will encourage innovative startups to explore needed prison-tech solutions while minimizing risk associated with investing in such a specific market segment. The best option for funding the grant portion of the initiative is a combined approach that makes use of multiple existing federal funding vehicles.

The primary vehicle would be the **Small Business Innovation Research (SBIR)** program. Under SBIR, companies are generally awarded up to $150,000 for a Phase I (P1) grant that runs for up to six months. Companies who successfully complete P1 and show favorable outcomes and market opportunities can become eligible for Phase II (P2) funding, which has a cap of $1 million for a two-year period of performance. This staggered approach requires companies to measure and demonstrate positive outcomes in order to be eligible for follow-on investments. We propose creating a specific prison-tech topic code for SBIR, which would allow NSF and ED to use this program to allocate prison-tech startup grants. Though SBIR funding generally does not go beyond P2, the federal government could consider adding Phase III (P3) funding opportunities for particularly promising prison-tech startups. In P3, companies would be eligible for awards of $5–10 million to scale up products and services to meet the needs of prisons nationwide. A summary of proposed SBIR award numbers and funding levels for this initiative is proposed below.

Award numbers *		
Phase	*Period of performance*	*Max. awards disbursed per cycle*
1	6 months - 1 year	10
2	2 years	5
3	Est. 3 years	2
Estimated funding levels (first five years)		
Year	*Funding per phase*	*Total funding*
1	P1: $1,500,000	$1,500,000
2	P1: $1,500,000 P2: $2,500,000	$4,000,000
3	P1: $1,500,000 P2: $2,500,000	$4,000,000
4	P1: $1,500,000 P2: $2,500,000 P3: $5,000,000	$9,000,000
5	P1: $1,500,000 P2: $2,500,000 P3: $5,000,000	$9,000,000

(*) Based on per annum investment at 100% for PI, 50% for PII and 33% for PIII, with an average of 7.5M award per PIII recipient

Additionally, the [Digital Equity Act](#) — part of the recently passed bipartisan infrastructure bill—includes a total of $2.75 billion over five years to provide digital training and skill-development opportunities to low-income and disadvantaged populations, which includes those formerly incarcerated. Through this act (and specifically through its "Spurring Targeted Action through Competitive Grants" arm) the National Telecommunications and Information Administration (NTIA) will create an annual $125 million competitive grant program to support digital-inclusion projects undertaken by individual groups, coalitions, and/or communities of interest. The Biden-Harris administration should explore options for including the NTIA grants in the prison-tech startup initiative.

Pillar 2: Later-stage financial incentives and market support

The goal of this pillar is to support prison-tech startups through the crucial period in between business launch and long-term fiscal sustainability — the period [when many startups fail](#). Providing funding, markets and overall business support during this crucial time period ensures continuity of offering for the institution as well as ensuring small business thrives.

The SBA and DOL should partner to provide continued financial incentives — e.g., extended tax credits and bonding programs — for prison-tech startups, particularly startups that hire previously incarcerated individuals. As part of this pillar, the DOL's WOTC should be doubled to $19,600 per individual per year for employees making at least $65,000 per year.[1] DOL's Federal Bonding program should also be extended to cover the first 12 months or more of employment. Finally, the Biden-Harris administration should explore opportunities for retention bonuses or additional tax credits that encourage prison-tech startups to retain formerly incarcerated individuals beyond the first 12 months of employment.

The SBA and DOL should also help craft a business-to-prison product-matching service. This service will (1) allow prison-tech startups to focus on building the right solutions without worrying about customer acquisition, and (2) give prison management confidence that the prison-tech products and services they are purchasing are credible and tested. As part of this service, the SBA and DOL should assist businesses with understanding institutional needs and with understanding how to navigate federal and state contracting processes. The SBA and DOL could also try to help prison-tech startups identify supplementary customer bases among institutions such as city and county jails, juvenile-detention facilities, and state-sponsored healthcare facilities and hospitals in an effort to provide additional market opportunities for participating startups beyond the prison system. This ensures

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[1] $65,000 represents the median income across all states [needed](#) to "live comfortably".

continued financial support for business and expanded product support through larger customer bases, something all startups need.

Frequently Asked Questions

1. Why should the federal government run a program designed largely for solutions serving state prison systems?

The federal government spends more than $81 billion a year on the U.S. carceral system. But it is estimated that incarceration imposes up to $182 billion in taxpayer burden when recidivism and other indirect costs are factored in. As such, the federal government has a responsibility to taxpayers to invest in programs that can reduce adverse incarceration outcomes. The initiative described herein would directly fund prison-tech startups offering products and services that will help achieve this goal once adopted by state as well as federal prison systems.

2. Why must the initiative involve so many agencies? Wouldn't it be more efficient to put a single agency involved?

Combining efforts across agencies is needed for this initiative to achieve meaningful and far-reaching impacts. Moreover, the prison-tech sector intersects with the missions and authorities of multiple federal agencies. The early-stage grants that will help prison-tech startups launch must be supported by funding that is only available to NSF and ED. These two agencies can also draw on past success with similar programs and current experience piloting prison tech through SBIR grants. The SBA is the best agency to assist prison-tech startups seeking federal funding in navigating the government funding and contracting systems. The DOL is the only agency that can offer the later-stage financial incentives needed to support prison-tech startups after launch but before achieving long-term fiscal sustainability. Tasking OSTP, guided by input from the DOJ, with managing the initiative will ensure coordination among these key federal players while also ensuring that goals and outcomes are aligned with administration priorities.

3. Why is now the time for a prison-tech startup initiative?

The prison-tech startup initiative described herein provides an elegant solution to a three-pronged problem facing our nation. First, the U.S. carceral system desperately needs modern technical approaches proven to reduce recidivism — approaches such as higher-touch communication methods, digital skill-development tools, and in-prison educational opportunities. Second, there are numerous companies interested in commercializing innovative products and services that can address social-technical issues plaguing the U.S. carceral system. Yet many of these companies are unwilling or unable to assume the financial risk involved with producing solutions targeted at such a specific market. Finally, our nation is spending more than ever on an antiquated carceral system that sets individuals up to reoffend. As the country with

the highest rate of incarceration in the world, the United States must get serious and creative about prison reform.

4. How do we know that prison-tech solutions will work to improve outcomes for incarcerated individuals?

Several countries have demonstrated the value of prison tech. Finland, France, and India have all created digital-training programs for inmates with the goal of reducing recidivism while meeting the growing demand for tech workers. The Last Mile (TLM) is a nongovernmental organization that has seen extraordinary success with its 12-month "digital bootcamp" offered to inmates in six states. TLM's bootcamp has had a 100% success rate in eliminating recidivism and providing stable, well-paying jobs to graduates who have re-entered society. Finally, research shows that providing digital services and training opportunities to incarcerated individuals improves outcomes and delivers significant societal returns on investment.

About the Author

Emily Ryan is a second year Presidential Innovation Fellow, detailed to the Department of Justice's Office of the Deputy Attorney General where she works on strategic initiatives that span across the agency. In her first year, she worked on the DOJ's Civil Rights Team, helping advance civil rights through technology by working on a wide range of projects including the Civil Rights Reporting Portal, the ADA redesign as well as assisting with several high-profile court cases covering Title IX and Title IV of the Civil Rights Act of 1964. She's also part of the Language Access working group, tasked with creating avenues for language equity across DOJ as outlined under EO 13985. She holds a BFA in Graphic Design, a master's degree in Criminal Law and is currently pursuing a second master's degree in Government, focusing on Social Justice. Prior to entering federal service, Emily worked in the private sector and led successful development, research and design teams spanning government consulting, technology startups and the cybersecurity space. She also volunteers with several local and national organizations, focusing on creating pathways out of homelessness and honoring those in the military who gave their lives for their country.

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