

PAR Recycle Works: Improving Lives & the Environment

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Abstract

With over two million individuals incarcerated, the United States locks up more people per capita than any other nation in the world. The majority of these individuals are disproportionately from Black and Brown communities. In Philadelphia, 62.2% of individuals will be reincarcerated within three years of their release. How can we reverse this trend and ensure that life outside of prison does not lead to incarceration? Philadelphia's People Advancing Reintegration (PAR) Recycle Works serves as a case study. PAR's recidivism rate is a mere 5%, a striking contrast to the national rate of 68%. Since 2016, PAR has committed to operating a sustainable business that reflects the company's values of social justice and environmental responsibility. PAR collects electronics or e-waste such as computers, printers, televisions, monitors, wires, batteries, and other electronic devices. PAR provides transitional employment to people returning from prison by training employees to collect, sort, and deconstruct e-waste. Employees also receive education in digital and financial literacy, conflict management, and mental health strategies. PAR also trains its employees about recycling e-waste. To date, PAR has diverted over one million pounds of e-waste from landfills. PAR has worked with over 200 supply partners who have donated e-waste or participated in community e-waste drives. From employees to the local community to the environment, PAR's mission and its impact are felt around the city.

Introduction

How can formerly incarcerated individuals acquire job skills, increase their odds of successfully re-entering society, and help the environment? A scalable non-profit organization, [PAR Recycle Works](#) in North Philadelphia, does just that. PAR provides transitional employment to people returning from prison. This non-profit collects electronic waste such as computers, printers, televisions, monitors, wires, batteries, and other obsolete or damaged devices. PAR trains its employees to collect, sort, and deconstruct the e-waste and to destroy data. The deconstructed materials are sold "downstream" to a vendor who "upcycles" the material.

Facing Insurmountable Difficulties

The decrease in recidivism rates and the value of diverted and recycled electronic waste show PAR's impact. Individuals exiting American prisons face insurmountable difficulties. As these

citizens reenter society and rebuild their lives, they face restrictions in the job market and difficulty obtaining safe and affordable housing.

More than half the people leaving prison remain unemployed. According to the US Department of Justice, over 68% of returning individuals nationwide will be reincarcerated within three years of release. The Brookings Institute's "Prison Policy Initiative" notes: "Formerly incarcerated people are unemployed at a rate of 27% higher than the total U.S. unemployment rate during any historical period" (Couloute and Kopf, 2018).

PAR's Recidivism Rate Compared to its Geographic Region

The abbreviation "PAR" in PAR Recycle Works stands for "People Advancing Reintegration." The hard data on recidivism in PAR's geographic area shows that PAR is succeeding in its mission. According to Pennsylvania's Department of Corrections Recidivism Report 2022, 62.2% of Philadelphians who are released from prison are reincarcerated within three years. PAR serves as a case study for reversing this trend. Employees at PAR—which operates from a warehouse in North Philadelphia—experienced a recidivism rate of a mere 5%.

PAR's Secret Sauce

The key to PAR's success is simple: employment, coaching, and meaningful work. PAR's origins began with private and philanthropic funding. Founder George Limbach recalls, "We were inspired by a story on National Public Radio which featured RecycleForce, an electronics recycling non-profit in Indianapolis that provides training for citizens re-entering the job market. And we thought, let's try this in Philadelphia."

PAR General Manager Maurice Q. Jones describes the broad job, and life readiness training for his employees: "PAR employees receive education in digital and financial literacy, conflict management, inventory management, and we provide coaching and mental health strategies during their time here." Jones continues, "We also hope to build a sense of personal accountability and dedication among our staff. These important and transferable skills help PAR employees secure steady jobs after their time with us. Our folk go on to obtain employment in a myriad of places: Philadelphia Water Department, Uhaul, Crust Bakery, to name a few." He adds: "The environmental mission also plays a positive role." PAR's model works: PAR has provided job placement for 65% of its employees. Over 110 individuals have participated in PAR's program since its inception.

E-Waste: A Global Environmental Concern with Local Impacts

PAR has focused its job training and revenue production on a growing and critical industry. Until recently, humans have enjoyed the fruits of the technology revolution with no discernible environmental cost. Global climate change impacts and environmental degradation have changed that dynamic. We now must consider the global and local impacts of life-enhancing technology.

In the US, e-waste represents only 2% of trash in landfills but accounts for 70% of toxic waste. In 2019, approximately 53.6 million metric tons (Mt) of e-waste (excluding photovoltaic panels) was generated. It is estimated that e-waste will exceed 74 million Mt in 2030 as electronics play a larger role in business, schools, and daily life. E-waste is increasing at an alarming rate of almost 2 million Mt per year (Forti et al., 2020).

In September 2015, the United Nations adopted an ambitious 2030 Agenda for Sustainable Development. The Agenda includes 17 Sustainable Development Goals (SDGs) for ending poverty, protecting the planet, and ensuring prosperity. The world will have to address e-waste to achieve two of the SDGs. Goal 11 seeks to “[m]ake cities and human settlements inclusive, safe, resilient, and sustainable.” And Goal 12 aspires to “[e]nsure sustainable consumption and production patterns.”

PAR is advancing in Philadelphia in both of these Sustainable Development Goals. PAR collects e-waste from over 200 area organizations. It has organized over 60 community e-waste drives over the last two years. And it has provided over 110 individuals with transitional employment, job training, and counseling. Finally, since its inception in 2016, PAR has diverted over *1 million pounds of e-waste* from landfills.

Environmental Impacts of E-Waste

PAR’s diversion and recycling of e-waste has had a meaningful impact on the environment. Electronic circuits and products are composed of many mined minerals. Cell phones, for example, contain precious metals like gold, silver, copper, platinum, and palladium. The extraction of natural resources requires copious amounts of energy, the vast majority generated by fossil fuels. The mining process also generates run-off of toxic by-products that threaten watersheds, natural habitats, and human health. And the adverse environmental impacts of electronic gadgets are not just limited to mining. Electronic waste contains high acids, heavy metals, and other toxic chemicals. As mentioned earlier, these metals comprise an outsized proportion of our world’s toxic waste stream.

A New Economy

For the past 100 years, the industry has adopted a “cradle-to-grave” product cycle. Natural resources have been harvested, refined, used, and then incinerated or discarded in landfills. By diverting and recycling e-waste, PAR keeps scrap and precious metals in the supply chain and out of landfills and incinerators. Recycling minerals, scraps, and materials convert linear manufacturing and consumption into a sustainable “circular economy.” The environmental benefits are significant. According to General Manager Jones, “There is more gold in one ton of motherboards being recycled than there is in 80 tons of gold ore extracted from the Earth.”

Meeting Environmental Regulations

As PAR grows, it must keep up with environmental regulations. PAR is currently working with consultants to help them achieve status as a certified Responsible Recycling Version 3 ([R2v3](#)) facility. [Sustainable Electronics Recycling International](#) (SERI) is the housing body for the R2 Standard. R2v3 is a binding standard that holds recycling facilities accountable for addressing environmental impacts and ensuring occupational safety, device security, and ethical operations, among other requirements. R2v3 certification helps foster a more sustainable supply chain for vendors and supports a closed-loop process to eliminate waste. According to PAR's President, George Limbach, "The R2v3 standard represents the highest bar for electronic recycling facilities to demonstrate their professionalism and prowess. For PAR, achieving certification to the R2v3 standard is the next step in expanding our already burgeoning social enterprise."

Making a Difference: One Person, One Device at a Time

PAR serves its employees, the local community, and the environment. Jones sums it best: "9000 people come home from prison each year. Diverting valuable material from landfills allows PAR to help many people successfully re-integrate. Through training and assistance, all are rewarded by the value they can now see in themselves, their futures, and their role in improving their environment. We work together to create a pool of trained, untapped talent for employers. This way, PAR helps the environment, sustainably reduces recidivism and violence, and creates a pathway to positive progress for those left out for so long."

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