

412 Food Rescue: How a Pittsburgh-Based Nonprofit is Designing Products and Programs that Change Behavior around Food Waste

AN INTERVIEW WITH

Leah Lizarondo, Founder of 412 Food Rescue

412 Food Rescue is a nonprofit organization in Pittsburgh that was founded as a direct response to the disconnect between food waste, hunger and environmental sustainability. They run a variety of programs all focused on the mission of preventing perfectly good food from entering the waste stream. Amy Ahearn, Associate Director, Acumen, and Alexandria Coari, Capital and Innovation Director, ReFED, connected with Leah Lizarondo, founder of 412 Food Rescue, to figure out how they have developed a portfolio of initiatives to combat food waste.



This interview was produced as part of [The ReFED Nonprofit Food Recovery Accelerator](#).

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AMY AHEARN: *Can you start by describing how 412 Food Rescue came about? What motivated you to start this organization?*

LEAH LIZARONDO: We founded 412 Food Rescue in 2015 as a response to the emerging issue of food waste. We honed in on one segment of the supply chain—the retail sector—and learned how difficult it was to recover that food. It's not as simple as dispatching a truck to travel around and pick up food every day. That's just not cost effective. Instead we started with the problems faced by retailers and then figured out how to make it logistically possible to prevent the food from entering the waste stream.

AMY: *You have a fascinating portfolio of initiatives including Food Rescue Hero, Ugly CSA, and Hidden Harvest. What are these different programs? How did you begin to add these offerings as you went along?*

LEAH: At the core of our model, we knew that the individual and the community needed to be engaged in the solution. This was important to us for two reasons. First,



our volunteers support the transportation of food. Second, in the process of transporting food, there is a powerful opportunity to raise awareness about food waste.

Our approach was inspired by my background in marketing, where I learned that it's difficult to communicate about climate change because people don't

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experience it directly. Similarly, when we say that 40% of food goes to waste, people have no idea what that means. By letting people see the food every single day, you educate in the most powerful way. Not only are the volunteers transporting the food, but they start to change people's behavior and perceptions, too.

This was our theory: if we have a constituency that is educated about food waste, then we can start to change their food-related behaviors. That's how our other offerings came about. For example, we said, "Let's start a community supported agriculture program (CSA) for previously

unsellable produce and see if there's a market." The Ugly CSA program has now been running for three years. This was our biggest year yet and we've become the third-largest CSA in Pittsburgh.

Ugly CSA also allowed us to start working at another stage of the supply chain: the farm level. We knew that we didn't want to ask local farmers to make donations because these smallholder farms are really investing resources into growing this food. We wanted them to realize profits from their investments. Ugly CSA is a social enterprise model that allows farmers to make a profit from their previously unsellable food.



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Hidden Harvest came about as another way for us to engage the food system. In the food rescue model, the process of transporting the food is solitary. People were asking us about how they could volunteer as a group. That inspired the gleaning program, where volunteers collect fruits that would otherwise go to waste from public and privately-owned trees and gardens. Then we partner with local businesses to create products from the inedible fruits, like whiskey and cider.

Together, these programs are scaling awareness of food waste in the city. They generate more volunteer drivers and more downloads of the Food Rescue Hero app. They all work together.



AMY: *What does your overall funding model look like? Are some of these programs being used to cross-subsidize others? Are they all revenue-generating?*

LEAH: Hidden Harvest is a way for us to generate corporate revenue. Ugly CSA is a self-sustaining social enterprise. We are licensing our recovery technology service, Food Rescue Hero, and that is at an early

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stage in terms of a shared cost model with our nonprofit partners. We are shifting toward a tiered fee-for-service model for our food donors as well.

AMY: Have you explored tax donation incentive-based business models where donors might share a percentage of the tax incentive with the nonprofit that's doing recovery? What lessons have you learned from that?

LEAH: We work closely with Giant Eagle, a grocery chain that is headquartered in Pittsburgh. We've explored different revenue

models with them. We're also piloting with another national chain. As we've been working to extract the revenue from tax deductions, one of the things we've learned is that many (although not all) of the grocery chains we work with maximize their tax deductions already. For these companies, even if they were to receive additional tax deductions, it would not impact their P&L [revenues, expenses, and profits and losses] significantly. Because of that, although the premise of the tax donation incentive model is great, every chain is different and may need different incentives.

AMY: What lessons have you learned about developing products and services that people are willing to pay for?

Leah: It's all about raising awareness and demand. You should think about your brand's positioning and competitors. For example, there are companies like Misfits Market and there are the regular CSAs. The way we position against Misfits Market is that we work with local, small farms, while they source from bigger



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farmers. We position against regular CSAs by emphasizing that our fruits and vegetables are “ugly food,” which would otherwise not be sold. So if you buy from us, you’re doing something good for the world.

AMY: *If we turn to the technology side of things, there are lots of organizations interested in launching their own app for food recovery these days. What do you see as the pros and cons of that? Why did you decide to develop your own app?*

LEAH: When we started in 2015, we looked at all the available technologies and tried to see if any would work. We looked at the existing apps and there were only two that were possibilities for us. However, they didn’t offer push notifications, among other features. From my experience working with companies, the on-demand notification is as important as the app itself. We really needed that feature. Second, an app is one thing, but there needs to be a platform and database to enable metrics and analytics. Our scaling operations also presented many use-cases that were not covered by any existing apps.

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So that's why we developed our own. The other apps might work for a smaller organization, but if you're looking at scaling throughout a large city, for example, they're just not structured for that. In Pittsburgh alone, we have over 8,000 registered users. Even our app constantly needs to grow with us—we have an ever-growing product backlog.

AMY: *As you've licensed this technology to other nonprofits, what technology capabilities do they need to have on their side, if anything, to be able to integrate with you?*

LEAH: We found that the hardest part is marketing. Many nonprofits are not biased toward marketing—they just don't do it. But if you want to be able to mobilize thousands of people, you have to be a marketing organization. That's one of the areas where



IMAGE CREDIT: 412 FOOD RESCUE

we're looking at providing a service for other nonprofits. For example, this could be through white labeling of videos, or providing a playbook and coaching on social media strategy.

AMY: *When you approach partners like retailers and grocery stores, what do they need from a technology perspective to establish a partnership?*

LEAH: We work with about 500 food retailers in Pittsburgh. For the smaller ones, we don't try to integrate our technology. They have

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a web interface they can visit, but most rescues are arranged as a recurring weekly rescue. So they don't even need an interface to enter their available food. For some of our biggest retail partners, we have an API. They send their rescue data to us and we match that with the data in our system. That's how they get documentation of what they donated.

ALEXANDRIA COARI: *Have you partnered with delivery and logistics services like DoorDash? How have such partnerships helped the organization further its mission?*

LEAH: DoorDash has been really effective at helping us keep that 99% level of service. I found that where DoorDash has been most effective is in the downtown central business districts. When we have rescues downtown, especially for restaurants, it's harder for us to find a volunteer. Many people in downtown areas are at work 9-5 and parking is a challenge, so they don't have the ability to rescue food. So we've been using DoorDash for those rescues. And they're perfect, because the driver knows exactly how to navigate the restaurants and parking in downtown areas. That's the



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model we think we're going to see as we pilot in other cities, so we are actively working toward an API for DoorDash and other possible rideshare partners.

AMY: What are the biggest challenges you still see the food rescue sector facing across the country? And where do you think there might be opportunities for collaboration, either with other nonprofits or stakeholders?

LEAH: I think that it's important to raise awareness with individuals. The most impact comes from preventing food waste at the source. It's also very difficult to visualize food waste. We need to make it visceral for people.

Second, I believe our mission is a little different because our end goal is food security. We have been careful to understand not only the retail sector, but the distribution network. If food recovery organizations are going to focus on hunger, they have to understand how to distribute the food. Then, if we're successful in recovering food that was never in the system before—if we're opening the food faucet—then we have to figure out how it's going to get absorbed. The existing distribution network, which is essentially the food pantries, doesn't have enough capacity to absorb this food.

I like to share an analogy, which is that we used to have one fridge and we bought this much food. Now people are giving us 25% or even 40% more food, and we just don't have enough space in the fridge or people in the house to eat it all.

We have found that to be true in Pittsburgh, which is why we look for other distribution points. Housing is one of the biggest and most obvious ones. Every city has a housing authority or housing provider that works with populations in poverty.

So that's another service we provide to our nonprofit partners: we broker those relationships with housing authorities and we give them a process to change the way food is distributed in cities, so that it can actually go to people who need it. We also have methods to measure the impact of recovered food on food insecurity.

Addressing food insecurity is our main goal. Food recovery is a powerful tool toward that goal. I would say we are a food insecurity organization that works with recovered food, rather than a food recovery organization, period.

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IMAGE CREDIT: 412 FOOD RESCUE

AMY: *Where do you think you will evolve? Will you keep playing in all these areas? Or will you double down on a few?*

LEAH: Over the next few months, we will be finalizing how we are going to work with other nonprofits and cities. We're working on licensing our technology, process, impact evaluation and best practices. With the resources we have put into developing the

platform, it would be an enormous waste not to share them and see them spread. We are collaborating with Food Donation Connection to see how our platforms can work together and we are open to as many partnerships to scale each other's impact. The end goal is to end hunger in Pittsburgh and partner with other organizations and nonprofits across the country to enable them to do the same in their cities.