

## **Financial Sustainability of Nonprofit Organizations Covering Multiple Goals of the Food Justice Mission: The Case of New Roots, Inc.**

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## **Abstract**

Using semistructured interviews, financial records, and secondary information, this study evaluated the financial sustainability of New Roots, Inc., a nonprofit organization aiming to address the food justice mission, as defined in this study. The results presented in this study show achievements and challenges of New Roots, Inc. in managing activities that fulfill its mission. With an exception in 2018, the organization addressed food justice mission goals and remained financially healthy from 2014 to 2019. Revenue volatility and human capital requirements are identified as challenges that could put at risk the long-term financial viability of New Roots, Inc.

**Keywords:** financial sustainability, food justice, nonprofit organizations

## Introduction

Food justice concerns fairness and equity in the food economy. In the last two decades, the number of studies on food justice has soared. There are many ways of defining what constitutes food justice and what a “just food” economy looks like (Tanaka, 2020). Foci of food justice work can include sustainability, food security, land access, gender equity, racial justice, fair trade, and fair labor, to name a few (e.g., see Allen, 2004; Jaffee, 2007; Alkon and Agyeman, 2011; Alkon, 2012; Holmes, 2013). In the context of local food systems, and for the purpose of this study, we defined food justice as sharing risks and benefits among participants of a given food system, with an emphasis on rectifying historical inequalities and structural exclusions (Gottlieb and Joshi, 2010). In order to empirically observe how the mission of food justice is translated into actual business activities, we operationalized food justice work as pursuing the food justice mission through three goals, including: (i) facilitating low-income food-insecure households’ access to healthy foods (*food access*), (ii) connecting small and medium-sized, limited-resource farms to markets (*market access*), and (iii) supporting community engagement that promotes and supports sustainable food systems and healthy eating (*community engagement*).

Food justice organizations’ performance has not been evaluated nationally in the United States. Research associated with food justice organizations has been comprised mainly of case studies of specific organizations (Hislop, 2015). Nonetheless, there have been extensive analyses of organizations that address at least one of the goals of the food justice mission, such as food hubs and organizations and businesses from the community food services sector (Wallace Center, 2018; Roth, 2019; Bielaczyc et al., 2020).

Food hubs are defined as businesses and organizations that aggregate, distribute, and market food products mainly from local and regional producers, aiming to strengthen the ability of these producers to reach wholesale, retail, and institutional markets (Barham et al., 2012). Although food hubs’ main mission usually focuses on the supply side, according to the 2019 National Food Hub Survey, about 50% of food hubs have a social mission that they fulfill by selling farm products to lower-income communities or operating in lower-income areas (Bielaczyc et al., 2020). Results from this survey also suggest that food hubs are actively engaging the communities they serve in their decision-making processes (Bielaczyc et al., 2020).

Community food services organizations focus on the collection, preparation, and delivery of food to low-income and vulnerable populations. Food banks, meal delivery programs, and fixed and mobile soup kitchens are included in this category. Although these organizations indirectly address the food justice component related to food access among low-income food-insecure households, they do not necessarily focus on their access to *healthy* fresh foods, specifically farm fresh produce. There are about 5,500 organizations in the United States included in this sector, with a large percentage of these organizations incorporated as nonprofit operators (Roth, 2019).

Finally, there are organizations with a broad mission addressing the three goals of the food justice mission, as defined above, such as New Roots Inc. New Roots Inc. is a nonprofit organization that was founded on the idea that fresh food is a basic human right, like water and air (New Roots Inc.,

2021). The signature initiative from New Roots Inc. is the Fresh Stop Markets (FSM). The FSM are “pop-up” farm-fresh food markets set up at local churches, community centers, and businesses (e.g., B corps, public benefit corporations) every two weeks from June to November in fresh-food insecure neighborhoods. The term “pop-up” simply means that the markets appear or are set up every two weeks at a specific location in a neighborhood. In FSM, the food is paid for by consumers in advance to New Roots Inc.; these consumers are referred to as “shareholders.” This payment-in-advance scheme reduces farmers’ level of marketing risk relative to alternative market outlets such as farmers’ markets. Further, people from a fresh-food insecure community pay on a sliding scale, with higher-income residents (from in or out of the community) paying higher prices to ensure that all families can access the same quantity and quality of farm-fresh produce.

An important element of New Roots Inc. that makes this organization unique and the focus of this study, is the community-organizing approach, where communities define the need for FSM, and New Roots Inc. supports leadership development among those communities that help create and sustain FSM. As suggested by Hyden (2017), the FSM model is unique in that it allows the communities to define their problems and needs in terms of food justice, as the communities themselves are the ones that contact New Roots Inc. as they see the need for a FSM in their neighborhood (Figure 1). Additionally, New Roots Inc. uses and invests in the human and social capital of the communities it serves, as it relies on volunteers that belong to the same communities it serves and provides food justice classes and FSM training to leaders interested in bringing this initiative to their communities. New Roots Inc. also provides seed funding to launch new FSM. Figure 1 shows the steps to set up a FSM in a neighborhood as described above.

In this study, we analyzed New Roots Inc. as a case study of an organization pursuing the food justice mission through the three goals defined above (i.e., *food access*, *market access*, and *community engagement*) and compared it to food hubs and community food services organizations. We specifically focused on the factors that put at risk the financial sustainability of organizations focusing on the three goals mentioned above, such as New Roots Inc. We used semistructured interviews, New Roots Inc.’s financial statements, and secondary information from other food sectors addressing the food justice mission to achieve the proposed objective of this study.



Source: New Roots Inc website (<https://newroots.org/>).

**Figure 1.** Infographic Explaining How Fresh Stop Markets are Created and Run with Farmer Liaisons

## **Data and Methods**

We conducted two interviews with the executive director of New Roots Inc., in April and October 2019. The April interview, which lasted about one hour, was conducted by telephone following a semistructured questionnaire designed to understand how New Roots Inc. operationalizes the food justice goals defined in this study. In October, we met personally for about two hours and discussed New Roots Inc.'s history and business model, opportunities and barriers the organizations have faced in the last few years, and the organizations' vision for the future.

In addition, between January 12 and 15, 2020, we conducted semistructured interviews with farmers who are currently selling or have sold farm products through FSM. In particular, we conducted two interviews with farmers working with New Roots Inc. providing farm products for their FSM, and three interviews with farmers who used to sell products for FSM but were no longer working with New Roots Inc. at the time of the interview. We specifically asked farmers about the advantages and disadvantages of selling products through FSM, benefits and challenges from selling products through FSM, about how FSM compare in terms of prices and labor needs to other market outlets they sell products to, and about the factors that make FSM a successful and sustainable business model from the consumers' and the farmers' perspectives. Analyzing information elicited from farmers selling or who have sold products through FSM is important because a key element of assessing the financial sustainability of this market model is the ability to retain producers and cover operating expenses while paying fair prices to farmers. Additionally, we collected information from farmers to have a perspective of New Roots Inc.'s financial sustainability different than the one obtained from the executive director of New Roots Inc. and the one portrayed by the financial records.

To better understand the financial sustainability of New Roots Inc., we also collected and analyzed the 990 forms from this organization for the years between 2014 and 2019. These forms, which were provided to the authors by New Roots Inc., are filed by nonprofit organizations with the Internal Revenue Service and contain income statements and balance sheet information, among other data. We used this information to evaluate major sources of revenue and revenue variability, cost structure, and financial viability.

Finally, we used secondary information from food hubs and organizations and businesses from the community food services sector that helps understand the financial sustainability of these sectors and factors influencing that sustainability compared to New Roots Inc.

## Analysis and Discussion

In this section, we discuss challenges and opportunities related to New Roots Inc. financial sustainability and compare elements of financial sustainability among food hubs, the community food services sector, and New Roots Inc.<sup>1</sup>

Additionally, we describe farmers' perceptions about the FSM model, the main program supported by New Roots Inc., including benefits and challenges related to selling farm products through FSM, long-term sustainability and replicability of the model, and the implications of these perceptions for New Roots Inc.

### *New Roots Inc.*

New Roots Inc. was formed by five residents of West Louisville, Kentucky, a USDA-designated food desert,<sup>2</sup> in May of 2009 with the support of some members of the West Chestnut Street Baptist Church and the Concerned Association of Russell Resident, a neighborhood association aiming to address the long-term sustainability of the Russel Neighborhood in Louisville, Kentucky. Three of the initial founders self-identified as African Americans. Karyn Moskowitz, who identifies herself as ethnically Jewish, is currently the executive director of New Roots Inc. All founders had roots in community organizing. New Roots Inc. officially became a 501(c)3 nonprofit organization at the end of 2010.

While working as a community organizer for the Community Farm Alliance (CFA) in Louisville, Kentucky, and before she became part of New Roots Inc., Karyn Moskowitz had the opportunity to meet with staff and volunteers of a Cleveland, Ohio, initiative called City Fresh. City Fresh<sup>3</sup> is a program offering preordered fresh food boxes (e.g., a share is a box of produce that could feed a family of two to five people, depending on the share size) at discounted prices for limited-income families located in food deserts. Share pick-up locations (Fresh Stops) are set up at institutions within the communities served by City Fresh (e.g., churches, schools). Karyn Moskowitz brought the idea back to her community and received the support of other community members, including the leaders of community churches. The City Fresh model was slightly modified to fit the needs and resources available in the Louisville area. New Roots Inc. set up FSM only in areas identified as food deserts by the U.S. Department of Agriculture. Additionally, no large investments were made to handle the logistics of food distribution. Finally, New Roots Inc. decided to invest in the human and social capital of the communities being served by the FSM through leadership development and education.

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<sup>1</sup> Financial sustainability for a nonprofit is defined as its ability or flexibility to maintain or expand services within the organization while developing resilience to occasional economic shocks in the short-term (Sontag-Padilla, Staplefoote, and Gonzalez-Morganti, 2012).

<sup>2</sup> USDA defines food deserts as low-income census tracts (i.e., county subdivision containing between 1,000 and 4,000 people) with a large percentage of the population (i.e., 500 and/or 33% of the tract population) having low access to supermarkets and large grocery stores (i.e., living more than 1 mile from a supermarket or large grocery store in urban areas) (Dutko, Ver Ploeg, and Farrigan, 2012).

<sup>3</sup> <https://cityfresh.org/>

As of the end of 2019, New Roots Inc. had two program services or operational segments: Fresh Stop Markets (FSM) and leadership development, skills-building, and food education (LFE). FSM is the main program supported by New Roots Inc. The LFE operation segment has been critical in supporting community leadership that promotes and supports sustainable food systems and healthy eating. New Roots Inc. identifies leadership qualities in the FSM shareholders and helps them strengthen those qualities by allowing them to participate as volunteers in the FSM and giving them the opportunity to eventually become New Roots Inc. board members or paid FSM managers. Furthermore, New Roots Inc. promotes professional development for the leaders by supporting their participation in professional conferences. An example of how New Roots Inc. has supported leadership development is the creation of a food justice workshop for Latinx communities for middle schoolers and parents created by one of the FSM leaders.

FSM are “pop-up” markets set up in fresh-food-insecure neighborhoods. FSM are set up every two weeks at a designated location (e.g., church, community center, business). Previous literature has determined food-insecure neighborhoods by utilizing zip codes (Kaiser, Dionne, and Carr, 2019). For example, Kaiser, Dionne, and Carr (2019) determined food-insecure neighborhoods as a set of zip codes with statistically significant higher rates of food-insecure households when compared to other zip codes within a city. They measured food security using the Six-Item Food Security Scale developed by the National Center for Health Statistics (USDA ERS, 2012). In contrast, New Roots Inc. defines fresh-food-insecure neighborhoods as those areas within a city identified as food deserts or areas where households are facing limited resources<sup>4</sup> or have limited access to healthy and affordable food (Hyden, 2017). New Roots Inc. has expanded the definition of food deserts to include shareholders that might live close to a grocery store and/or a farmers’ market but might not be able to afford fresh foods due to high prices compared to processed or fast-food prices. The demographic composition of the areas where FSM are set up is represented by an average of 35% of African Americans, with an average age of 45 years old, and 75% of individuals that fall at or below 185% of the U.S. poverty guidelines.<sup>5</sup>

Shareholders of FSM sign up for the entire 22-week season and pay one week in advance to receive about nine varieties of produce (1 share), including certified organic vegetables and some fruit. Although each shareholder receives the same amount of food, they pay a different price based on household income, with prices set at \$6, \$12, \$25, or \$40 per share. Only shareholders who have ordered shares in advance are able to pick up shares at the FSM. In 2019, the largest percentage of shares were sold at \$12 per share. On average, 70% of shares, which represent about 540 shares of the total 770 shares sold in 2019, were sold either at \$6 or \$12. These shares were purchased by 540 families (feeding about 1,400 individuals) who were considered facing limited resources. About 26% of shares (i.e., 200 shares) were sold at the \$25 price level, and only 4% (i.e., 30 shares) were sold at the food justice share price of \$40. New Roots Inc. called the \$40 per share product

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<sup>4</sup> New Roots Inc. defines households facing limited resources based on USDA income requirements for participation in the WIC program (between 100% and 185% of the federal poverty income guidelines) (USDA Food and Nutrition Service, 2021).

<sup>5</sup> <https://aspe.hhs.gov/poverty-guidelines>



the “food justice share,” because households choosing this product pay a higher amount to subsidize the value of shares for those households facing limited resources.

FSM are run by shareholders who volunteer their time. New Roots Inc. allows communities to run their markets to empower them in meeting their fresh-food needs. With a few exceptions (i.e., residents from the pediatric residency program from the University of Louisville), New Roots Inc. does not encourage volunteers from outside of the community or outside of their shareholder base to participate in FSM.

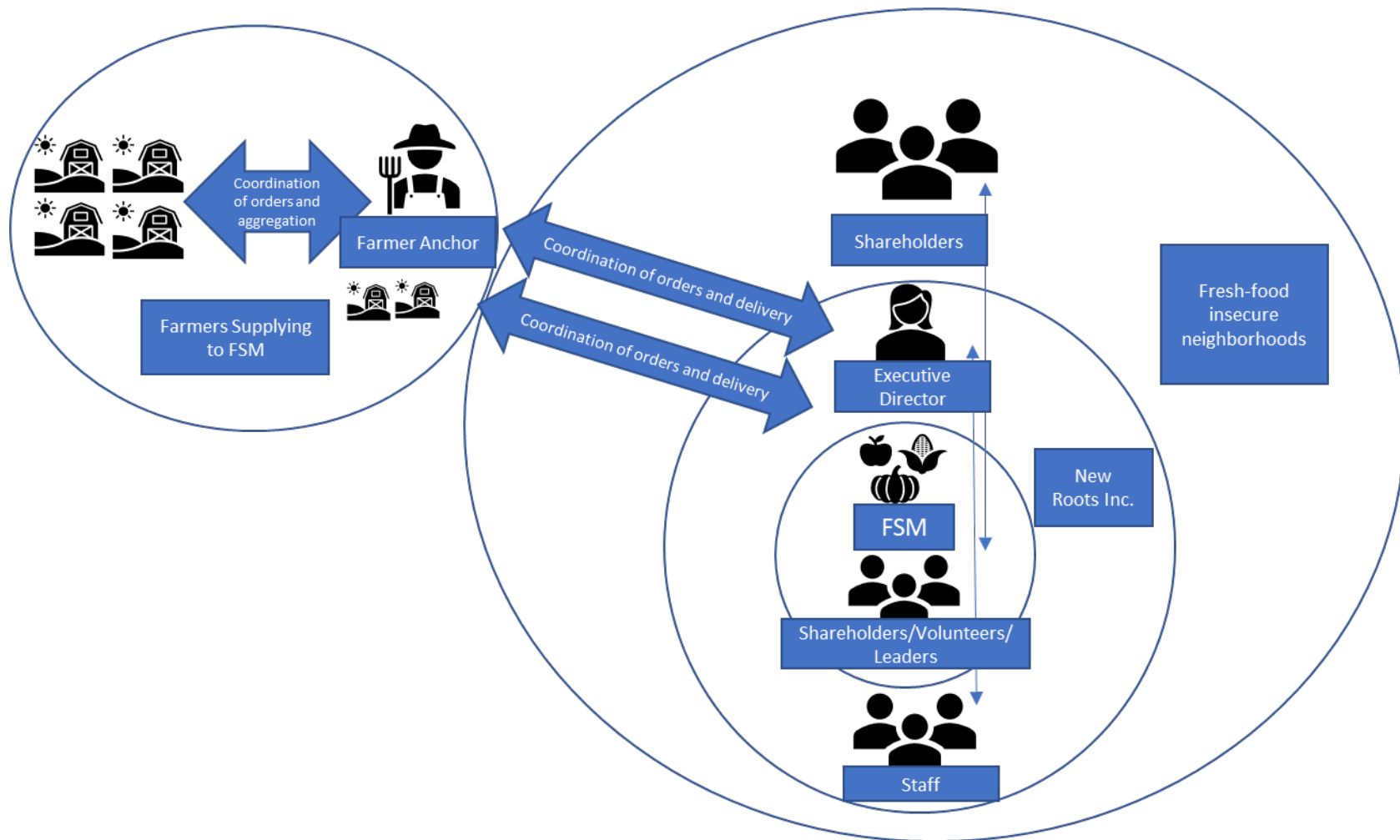
Although the FSM model differs from the traditional community-supported agriculture (CSA) model, where members share production risk with farmers and shareholders pay for shares before each growing season, the FSM model is similar to CSA-like models that better accommodate multifarm scale economies with payment flexibility where shareholders do not have to pay for all shares before the growing season (Woods, Ernst, and Tropp, 2017). Interest has grown among farms or organizations running CSA-like models to access a broader base of customers, including lower-income shareholders, but the interest has not necessarily translated into a critical mass of CSA-like models targeting low-income consumers (Woods, Ernst, and Tropp, 2017). In contrast to New Roots Inc., those who are running CSA-like models targeting residents of low-income neighborhoods, like Farmer Dave’s Northeast Organic Farming Alliance located in Boston, Massachusetts, tend to focus on delivering products to families located in these neighborhoods with the support of local organizations without necessarily engaging the individuals they serve in the planning and logistics of running these kinds of market models (Woods, Ernst, and Tropp, 2017). Furthermore, as stated above, unlike CSA-like models, the need for FSM is not imposed by an organization or farmers themselves; rather, community members are the ones identifying the need for FSM in their community.

Farmers selling produce to FSM are considered small- and medium-sized local farmers. Currently, FSM procure products from nine farms, and three of them provide more than 50% of the products purchased by New Roots Inc. Before 2018, FSM procured products from more than 50 farms (Hyden, 2017). New Roots, Inc. tries to purchase produce from small farms producing fruits and vegetables using organic practices that can guarantee a consistent supply of products to meet the shareholder needs. The three farms currently providing more than 50 percent of FSM products have between 2 and 22 acres in vegetable production and diversify their operations with cattle, sheep, chicken, and pork production. Before 2018, New Roots Inc. used to purchase products from a larger proportion of smaller vegetable farms (less than one acre), but the logistics associated with coordinating purchases in this model demanded staff time that, as we will explain later in this paper, was not available any longer after 2018 due to the financial challenges New Roots Inc. faced in 2018. In 2019, farm sales through FSM represented about \$142,238. Between 2014 and 2019, farm sales to New Roots Inc. increased by about 500%, from \$23,248 to \$142,238.

Before 2017, farmer liaisons coordinated the procurement of farmer-fresh products for FSM. Farmer liaisons were FSM shareholders who volunteered to communicate with farmers regarding produce needs for markets, shareholder preferences, and purchase orders (Hyden, 2017). The communication between farmers and farmer liaisons became chaotic as multiple individuals

(farmer liaisons) were communicating with farmers and placing orders last minute, as they did not fully understand farmers' ability or lack of fulfilling orders last minute. In 2018, New Roots Inc. tried to address communication problems by creating an uber farmer liaison position. The uber farmer liaison was a paid position that coordinated the procurement of farmer-fresh products for FSM with farmers and farmer liaisons. The uber farmer liaison specifically communicated with farmers to assess produce supply for each week and created a spreadsheet with this information. This individual shared supply information with farmer liaisons from each FSM. The farmer liaison selected the products they needed for the specific FSM based on shareholder preferences and communicated those preferences to the uber farmer liaison and not the farmers. The uber farmer liaison was responsible for placing orders with farmers and managing orders and invoices. Shareholders (i.e., individuals paying in advance for food shares) and farmers met every year in January to discuss what vegetables and fruits communities wanted to purchase and what producers could grow. Based on previous years' information, staff from New Roots Inc. projected the number of shares to be provided for a specific year. Similarly, based on historical price trends, New Roots Inc. negotiated with farmers product prices based on a share cost goal established by New Roots Inc. For example, in 2019, the share cost was set at \$19 per share.

At harvest time, farmers transported the produce to the FSM location. Alternatively, farmer-liaisons tried to accommodate farmers' needs by picking up farm products from farmers when needed. Given the financial challenges experienced by New Roots Inc. that we will explain later in this section, the FSM model was slightly modified to reduce the required staff coordinating FSM. In 2019, New Roots Inc. decided to eliminate the uber farmer liaison and farmer liaison positions and created a non-paid farmer leader or "farmer-anchor" position. The executive director of New Roots, Inc. took over some of the uber farmer liaison and farmer liaisons' responsibilities. A farmer anchor, a farmer selling produce through FSM, coordinated the aggregation of food from various farms and delivered products to FSM. The farmer-anchor communicated with only one staff member at New Roots Inc. (the executive director) to coordinate purchase orders and product delivery. Those farmers providing more than 50% of the produce for FSM communicate with the farmer anchor, but other farms providing specific products in smaller quantities (e.g., fruits) communicate directly with the executive director of New Roots Inc. to coordinate orders and deliveries. This new model has worked well given that New Roots Inc. reduced the number of farms they procure farm-fresh products from to adjust to the financial challenges experienced in 2018. Figure 2 summarizes some of the logistics related to FSM with the model adopted after 2018. The arrows mainly represent communication channels among all individuals involved with the FSM supply chain. We used a Stacked Venn diagram to represent overlapping relationships among New Roots Inc. staff, shareholders, volunteers, and leaders. Additionally, we used this kind of diagram to show how the idea of FSM comes from within the fresh-food insecure neighborhood it serves and that the food justice needs defined by these communities are the ones driving the need for FSM. Also, this diagram reflects the fact that New Roots Inc. is embedded within the communities it serves and depends on the community members to support the FSM program.



**Figure 2.** Stylized FSM Supply Chain after 2018 with an Emphasis on Communication Flows

A large percentage of New Roots Inc.'s total revenue was received from grants and similar contributions. For example, in 2019, New Roots Inc. received a total of \$170,240 in contributions (72% of the 2019 total revenue) from various government organizations and foundations, including the Norton Foundation, Presbyterian Hunger Program, Lift a Life Foundation, Southern Sustainable Agricultural Research and Education (through the University of Kentucky), the Gendler Grapevine Project, Brown-Forman, and the Louisville Metro Government. Table 1 provides selected items of New Roots Inc.'s income statements and balance sheets from 2014 to 2019. Grants and similar contributions have represented more than 90% of New Roots Inc.'s total revenue since 2014.

**Table 1.** New Roots Inc.'s Selected Income Statement and Balance Sheet Items (\$)

	2019	2018	2017	2016	2015	2014
Total revenue	235,516	169,033	379,576	289,485	219,700	212,731
Contributions, grants, and similar	226,120	162,160	378,970	293,302	223,656	175,411
Program service (consulting, training)	705	10,050	1,965	2,176	100	4,868
Net income (loss) from sales of inventories (FSM)	8,079	-3,177	-1,359	-5,993	-4,056	32,452
Expenses <sup>1</sup>	201,665	339,567	320,958	234,924	209,114	122,680
Net Income (loss)	33,851	-170,534	58,618	54,561	10,586	90,051
Cash plus savings and temporary investments	110,239	70,529	192,503	181,148	160,849	122,576
Pledges and grants receivable			44,582			
Net land, buildings, and equipment	15,139	20,794	24,048	19,356	3,507	2,243
Total liabilities	3,489	3,285	2,561	550	30,770	2,469
Unrestricted net assets in fund balance	120,593	81,372	214,489	185,486	133,586	123,000
Restricted net assets in fund balance	1,296	6,666	44,083	14,468		

Source: Assembled by authors using information in New Roots Inc.'s 990 forms, provided by the organization.

<sup>1</sup>Dissagregated expenses by category can be found at <https://bit.ly/3ISEZJm>.

As shown in Table 2, which presents New Roots Inc.'s financial ratios, about 19% of those contributions were related to government grants during 2014–2019. The majority of contributions were related to foundation donations. Table 2 also shows that a large percentage of expenses was related to employees' salaries and benefits, which could be explained by the high level of coordinating activities required in food justice-related organizations. About 67% of total expenses were related to salaries, other compensations, and employee benefits from 2014 to 2019. During the same period, New Roots Inc. employed on average 6.5 employees. In 2014, New Roots, Inc. had only two employees, while between 2015 and 2018, the organization employed between seven and nine employees, with this number dropping to five in 2019 due to a financial problem faced by New Roots Inc. in 2018. Aside from employees covering various activities related to coordinating the FSM and other functions related to leadership development, skills-building, and food education, New Roots Inc. depended heavily on volunteers to run their programs. New Roots Inc.'s average reported number of volunteers between 2014 and 2019 was 233.

The FSM program covered the full costs of goods sold related to farmer products' purchases in 2014 and 2019. In other words, the average price per share was at least equal to the average price paid to farmers. However, this was not the case between 2015 and 2018, as shown in line "cost of goods sold to sales revenue" in Table 2. The median value of the cost-to-sale ratios during 2014–2019 is 1.02, indicating that New Roots Inc. works around breakeven, defined as sale revenue minus cost of sales. This means that the combined share price paid by both low- and high-income shareholders is completely passed on to farmers, achieving the organization's mission to pay producers fair prices. However, New Roots Inc. has the challenge of covering its operating expenses from other sources of revenue in order to be financially sustainable.

Between 2014 and 2017, New Roots Inc. reported an average net income of \$53,454 (Table 1). However, total revenues variability was highly sensitive to two sources of cash inflows—grants and foundation donations—and less sensitive to revenues from shares or produce sales. Grants and donations varied from year to year depending on changes in federal and state government budgets, and foundations' budgets and missions. This source of variability caused New Roots Inc.'s \$170,534 loss in 2018 (Table 1), the only year the organization reported negative profit from 2014 to 2019, and a relevant event as the focus of analysis in this case study.

A critical event occurred in 2018 when New Roots Inc. did not receive anticipated funding from a foundation associated with a for-profit U.S. health insurance company and reported a net loss in the 2018 fiscal year. This foundation (labeled as contributor #8 in Table 3) had been New Roots Inc.'s main contributor from 2014 to 2017, with its contribution representing around one-third of New Roots Inc.'s total contribution. Given New Roots Inc.'s revenue growth (Table 1) and expected continuation of funding by contributor #8 given historical trends (Table 3), the organization decided to build capacity by expanding the number of FSM in 2016 from three to six. To support this expansion, New Roots Inc. hired additional staff, purchased other resources to run the markets (e.g., tents, tables), and trained their staff.

In 2018, the foundation (contributor #8) changed its focus away from food justice to focus on other determinants of people's health, including financial literacy and post-secondary education, and decided to fund alternative initiatives, ending funding for New Roots Inc. after four years of contributions. Thus, New Roots Inc. lost the contributor that represented the highest source of revenues for the organization. Although volunteers supported some of the organization's expanded operations, at this point, New Roots Inc. depended heavily on paid labor to run the organization and the increased number of FSM.

As a result of the 2018 funding problem, in 2019, New Roots Inc. revisited its business model. The organization reduced staff to run their FSM as explained above, increased reliance on volunteers to run FSM, added a software (FARMINGO) to receive recurring shareholder payments and improve operational efficiency, reduced the number of FSM by consolidating existing markets to guarantee a minimum of 70 shareholders per market, and reduced the number of farmers they worked with to source fresh food for FSM, as explained above. These two last changes allowed New Roots Inc. to reduce the number of staff members necessary to coordinate FSM.

**Table 2.** Selected Financial Ratios of New Roots Inc.

	<b>Median</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Government grants to total contributions	0.19	0.31	0.34	0.06	0.06	0.24	0.14
Salaries and related to total expenses	0.67	0.60	0.68	0.61	0.66	0.67	0.71
Cost of goods sold (COGS) to sales revenue	1.02	0.95	1.02	1.01	1.08	1.05	0.42
Operating expenses (excluding COGS) to total revenue	0.76	0.79	1.81	0.76	0.75	0.77	0.46
Total expenses to total revenue	0.85	0.86	2.01	0.85	0.81	0.95	0.58
Net income (loss) to total revenue	0.15	0.14	-1.01	0.15	0.19	0.05	0.42
Year-to-year revenue growth	0.31	0.39	-0.55	0.31	0.32	0.03	NA
Year-to-year expenses growth	0.12	-0.41	0.06	0.37	0.12	0.70	NA
Net income (loss) to total assets	0.25	0.27	-1.87	0.22	0.27	0.06	0.72
Cash plus savings to total assets	0.89	0.88	0.77	0.74	0.90	0.98	0.98
Total revenue to total assets	1.57	1.88	1.85	1.45	1.44	1.34	1.70
Liabilities to assets	0.02	0.03	0.04	0.01	0.00	0.19	0.02
Debt to assets	0.00	0.00	0.00	0.00	0.00	0.07	0.00

Source: Estimated by authors using financial data in New Roots Inc.'s 990 forms, provided by the organization.

**Table 3.** Main Entities Contributing with Gifts, Grants, and Similar Revenue to New Roots Inc. (share relative to total contributions)

<b>ID</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
1	41%	34%	7%	6%	11%	4%
2	21%	0%	3%	4%	3%	7%
3	12%	0%	0%	0%	0%	0%
4	9%	0%	3%	4%	0%	0%
5	9%	0%	5%	0%	0%	0%
6	6%	6%	3%	4%	5%	0%
7	3%	9%	5%	9%	14%	20%
8	0%	0%	31%	36%	22%	27%
9	0%	6%	3%	4%	5%	13%
10	0%	28%	14%	15%	11%	0%
11	0%	0%	5%	5%	0%	0%
12	0%	0%	3%	0%	0%	0%
13	0%	0%	19%	0%	0%	0%
14	0%	0%	0%	9%	8%	0%
15	0%	11%	0%	2%	0%	0%
16	0%	0%	0%	4%	0%	0%
17	0%	0%	0%	0%	3%	12%
18	0%	0%	0%	0%	6%	4%
19	0%	0%	0%	0%	8%	0%
20	0%	0%	0%	0%	3%	0%
21	0%	0%	0%	0%	0%	7%
22	0%	6%	0%	0%	0%	0%
23	0%	0%	0%	0%	0%	7%

Source: Estimated by authors using information in New Roots Inc.’s 990 forms (Schedule B), provided by the organization. ID is an identifier to disguise the contributor’s name.

Revisiting New Roots Inc.'s business model proved to be financially sound for the organization. As shown in Table 3, most financial ratios improved in 2019, reaching again levels observed from 2014 to 2017. As results in Table 3 show, with the exception of 2018, New Roots Inc. has been a financially healthy organization given its relatively high return on assets, revenue growth rates, and high levels of cash, among other financial metrics.

The analysis in this section reveals several aspects of the business model and financial performance of New Roots Inc. from 2014 to 2019. The organization: (i) provided affordable healthy fresh food to households facing limited resources by implementing a sliding scale price policy encouraging higher-income residents to contribute to those households facing limited resources, (ii) passed on prices paid by shareholders to small- and medium-scale farmers, thus achieving the organization's mission to connect farmers to markets that pay them fair prices, and (iii) supported community leadership that promotes and supports sustainable food systems and healthy eating. With an exception in 2018, the organization addressed the three goals of the food justice mission, as defined in this study, and remained financially healthy. However, as shown precisely during 2018, fulfilling all food justice goals and remaining financially healthy presented some challenges.

The organization relied on soft money coming from contributions, gifts, and grants to cover all its fixed and variable expenses not related to the cost of goods sold. Those contributions highly varied from year to year, as shown in Table 3. To cover this risk, New Roots Inc. followed a financially conservative approach by saving relatively high amounts of cash over time, which allowed the organization to face its 2018 financial difficulty. Additionally, New Roots Inc. depended on a high number of volunteers that support its activities and on the willingness of groups to organize FSM. This required high human capital within the organization (i.e., strong leadership) and outside of the organization (i.e., grassroots organizations' willingness to collaborate). Finally, New Roots, Inc. relied on active and persuasive leadership to maintain funding from contributors.

Moving forward, by the end of 2019, the executive director of New Roots Inc. believed that diversifying the organization's revenues might contribute to long-term financial viability. Specifically, she wanted to explore New Roots Inc.'s ability to generate income from its LFE segment, and to access corporate donations sponsorships to support FSM operations. She specifically was evaluating the ability to offer leadership and community organization consulting services. New Roots Inc. would also like to explore the possibility of merging with other nonprofit organizations to run the programs more efficiently and at a lower cost.

### *Differences and Similarities between New Roots Inc. and Food Hubs*

As stated in the introduction section, food hubs aggregate, distribute, and market food products from local and regional producers (Barham et al., 2012). Although New Roots Inc. aggregates food on a limited basis (e.g., they have a donated walk-in cooler they use when needed), and therefore does not require significant investment related to infrastructure to aggregate food, it does focus on distributing and marketing farm fresh produce to households facing limited resources. New Roots Inc. also tries to source products from small- and medium-scale local and regional producers. Therefore, there are similarities between food hubs and organizations pursuing multiple goals



related to the food justice mission, such as New Roots Inc. (Table 4). There are some food hubs that have a social mission that they fulfill by selling farm products to lower-income communities or having businesses in lower-income areas (Bielaczyc et al., 2020). Similar to New Roots Inc., food hubs are actively engaging the communities they serve in their decision-making processes (Bielaczyc et al., 2020). Nonetheless, as stated above, New Roots Inc. is different from food hubs in the way it fulfills its social mission. Instead of simply providing access to farm products to low-income families, New Roots Inc. allows the communities to define their problems and needs in terms of food justice, and uses and invests in the human and social capital of the communities it serves (Table 4).

The majority of food hubs focus mainly on increasing human health by providing access to fresh, healthy foods and increasing market access for small- and medium-scale producers. A study on Michigan food hubs suggests that there is a small percentage of food hubs committed to addressing equitable food access, one of the main missions of New Roots Inc. (Hoey, Fink Shapiro, and Bielaczyc, 2018). This study suggests that those food hubs committed to increasing healthy food access to low-income households are newer food hubs, are highly dependent on external funding, and are more likely to have a nonprofit status, just like New Roots Inc. Results from this study also suggest that factors that prevent food hubs from focusing on equitable food access are operational constraints and financial viability (Hoey, Fink Shapiro, and Bielaczyc, 2018).

Similar to New Roots Inc., most food hubs are mission-driven businesses and therefore tend to trade off or sacrifice profits to fulfill their social goals related to paying fair prices to farmers and facilitating low-income communities' access to healthy foods (Wallace Center, 2018). A food hub benchmark study conducted by the Wallace Center, which included information from 50 food hubs in the United States, suggests that those food hubs that perform better (e.g., top 25% of all food hubs ranked by net margin) are close to breaking even or generating a profit. This study advises that regardless of the tax status of food hub businesses, whether they are for-profit or nonprofit, food hubs need to generate a profit to guarantee the sustainability of the business model. As discussed in the previous section, New Roots Inc. has managed to maintain a financially healthy position while fulfilling its food justice mission

According to the 2019 National Food Hub Survey, about 40% of food hubs were nonprofit organizations, about 36% were for-profit organizations, and the rest were cooperatives or reported not having a formal legal structure. Since New Roots, Inc. is a nonprofit organization, it is important to highlight specific characteristics of those food hubs that are nonprofit organizations. In 2019, nonprofit food hubs generated on average a 7% net profit margin, defined as gross revenue divided by total expenses. In 2019, New Roots Inc.'s net profit margin was 15% (Table 4), which indicates that, in 2019, New Roots Inc. performed better than aggregated nonprofit food hubs in terms of profitability (Table 4).

**Table 4.** Comparison between Food Hubs, Community Food Services Organizations, and New Roots Inc.

	<b>New Roots Inc.</b>	<b>Food Hubs<sup>1</sup></b>	<b>Community Food Services Organizations<sup>2</sup></b>
Functions covered by the organization	Distributes and markets food. Community organizing, leadership development, and food education.	Aggregate, distribute and market food.	Collects and distributes food, provides soup kitchens and on-site meals, food pantry and food bank services.
Sources of revenue	Foods sales, government grants, and similar contributions (e.g., foundation donations).	Food sales, federal/state/local government funding, foundation grants, donations, membership fees, in-kind support, income from other organization programs.	Funding and donations from public and private sectors.
Strategies to fulfill the food justice mission or food justice-related goals	Lets communities define their problems and needs in terms of food justice. Uses and invests in the human and social capital of the communities it serves to run programs. Uses a sliding-scale based on household income strategy to allow limited resource households access fresh foods.	Locate in low-income and low-food access areas, sell food to low-income businesses or customers, accept SNAP benefits.	Collect, prepare, and deliver food to persons at risk of hunger.
Profit margins	(2019) = 0.15	Average profit margin (2019) <sup>3</sup> = 0.07	Average profit margin (2019) = 0.07 <sup>4</sup>

<sup>1,2</sup>General characteristics based on the 2019 National Food Hub Survey and IBISWorld Industry Report. There might be specific cases of organizations similar to New Roots Inc. that are not captured by these information sources.

<sup>3</sup>The 2019 National Food Hub Survey report shows an average operating efficiency ratio for nonprofit food hubs (total expenses divided by gross revenue) of 0.93, which is equivalent to an average profit margin of  $1 - 0.93 = 0.07$ . It is unclear whether this estimate includes interest expenses in total expenses.

<sup>4</sup> <https://my.ibisworld.com/us/en/industry/62421/competitive-landscape>

Similar to New Roots Inc., those food hubs with a nonprofit designation are more likely to depend on grant funding. According to the 2019 National Food Hub Survey, more than half (62%) of those hubs that reported being highly dependent on grant funding had a nonprofit designation like New Roots Inc. About half (54%) of the food hubs represented in the 2019 survey perceived their dependence on grants would stay the same, while about 16% recognized their dependence on grant funding would increase over time (Bielaczyc et al., 2020). As stated above, New Roots Inc.'s executive director perceives that income diversification and the ability to generate income from the LFE segment might contribute to the financial sustainability of the organization. Therefore, in contrast to food hubs with a nonprofit designation, we can infer that New Roots Inc. is hoping to slightly decrease dependence on grant funding to guarantee long-term financial viability.

#### *Differences and Similarities between New Roots Inc. and Community Food Services Sector*

Similar to New Roots Inc., businesses in the community food services sector are not profit-driven and depend on funding from the public and private sectors (Table 4). An important source of revenue for this sector is government programs, specifically the USDA Food and Nutrition Service's programs. This source of revenue represents a more stable source of revenue compared to private donations, but private donations, specifically individual and corporate donations, represent a large percentage of this sector's donations (Roth, 2019).

Similar to New Roots Inc., operators in the community food services sector have experienced higher operating costs due to higher demand and expansion of their services. The expansion of operating costs is mainly due to expanded budgets for food purchases. Employment in this sector increased at an annualized rate of 2.8% between 2014 and 2019 to 47,218 employees, representing \$1.5 billion in wages, to meet the growing demand for food services. Similar to New Roots Inc., operators in this sector rely heavily on volunteers as a strategy to minimize costs while expanding services, with some small and local organizations being entirely operated by volunteers. As operators expand their services and increase their operating costs, profits fall. In general, this sector's profit margins are low to moderate, as most operators' expenses are close to the revenue they generate. In 2019, estimated profit margins for this sector were 7% (Le, 2020). New Roots Inc.'s profit margins are much higher than this sector's (Table 4). Most of the surplus revenue reported in this sector is related to restricted contributions that cannot be easily spent, which is not the case with New Roots Inc.'s balance sheet position (Table 1).

The long-term financial sustainability of these organizations is related to changes in consumers' disposable per-capita income, corporate profits, and federal funding (Le, 2020). It is expected that as consumer disposable income increases, private donations will increase. Additionally, it is expected that as corporate profits recover after the COVID-19 pandemic, corporate charitable contributions will increase and become a stable source of income for these organizations. Interestingly, New Roots Inc. foresees corporate donations as a potential source of income for its organization that could help stabilize revenue over time. But given the community food services sector outlook suggests this source of income is an important source of revenue for this sector, New Roots Inc. might be competing with this sector for corporate charitable contributions.

*Farmers' Perceptions about FSM and Implications for New Roots, Inc.*

We conducted personal interviews with five farmers, two selling products to FSM at the time of the interview and three who used to sell products through FSM but were no longer selling produce through FSM. The two farms currently selling produce through FSM reported they had between 15 and 22 acres in vegetable production. For these farms, sales to FSM represented between 8% and 20% of total gross sales. In contrast, the three farms no longer selling products through FSM reported having less than 4 acres in vegetable production. Although these farmers did not estimate the percentage of gross sales through FSM, information gathered through the interviews suggests FSM represented a small percentage of overall gross sales for these farms. Some of them reported selling to FSM surplus produce they were not able to sell through other market outlets such as CSA and farmers markets. The differences in farm size between farmers selling and farmers no longer selling through FSM reflect changes in the FSM business model. As stated above, New Roots Inc. reduced the number of farms they procure farm-fresh products from to adjust to financial challenges. Reducing the number of farms New Roots Inc. procures products from also resulted in procuring more products from larger and fewer farms that could provide products regularly. All farmers we interviewed for this analysis perceived many benefits associated with selling products through FSM, including (i) less labor-intensive market outlets compared to other outlets such as farmers markets and CSA; (ii) guaranteed and timely payment; (iii) lower marketing efforts compared to other market outlets; and (iv) ability to move larger volumes of product compared to other outlets. Below we present opinions from some of the farmers we interviewed regarding the benefits associated with FSM:

“We are going to be investing in advertising and Facebook advertising and stuff like that this year to build our CSA, and we did not have [to make] that investment with the FSM.”

“It is a guaranteed payment and a timely payment which is not consistent across other markets.”

“Packing 350 shares worth of produce for FSM is less labor-intensive than packing 350 individual shares for CSA members because we are sending items wholesale packed to them, [for instance,] we are sending 200 bunches of kale and 200 bunches of radishes and 200 pounds of yellow squash, and [we] are just sending that to neighborhoods, and they [New Roots Inc.] are assembling that market box.”

“We sold to restaurants for a long time, we did [sell in] farmers markets, but none of those outlets for us ever generated the volume that FSM is generating, and so we have enjoyed being able to grow our business and grow our production to meet that demand.”

Another motivation or benefit some farmers perceived related to their participation in FSM is that of the food justice mission of FSM that allows farmers to sell products to households facing limited resources without compromising their farm business financial viability:

“FSM allow us to build food justice into our business plan.”

“FSM is making it affordable and accessible to people who maybe couldn't afford our CSA.”

Most of the farmers' opinions related to the challenges of selling farm products through FSM were related to communication problems, specifically, communication with the uber farmer liaison and farmer liaisons. As described above, prior to 2018, farmers were informed by the uber farmer liaison or farmer liaisons about the products that were needed to satisfy shareholder needs, and delivery times were set around FSM schedule and not farmer availability and logistics. This model posed some logistical challenges for farmers selling products to FSM because delivery times and days, as well as the distance to be traveled, imposed high transaction costs to farmers. Additionally, there were some communication problems related to multiple individuals (farmer liaisons) communicating from different FSM, with some of them not understanding farmer logistics and their ability to deliver products quickly. Two farmers who used to sell products for FSM said:

“Yeah, it started to get a little bit chaotic with the last-minute orders, and then it was too much for the coordinator to handle.”

“The communication could have been better.”

As explained above, the FSM model changed in 2018 to address New Roots Inc.'s financial challenges associated with losing one of their main sources of income. New Roots Inc. reduced the number of FSM and the number of individuals to run the FSM. The uber farmer liaison and farmer liaison positions were eliminated, the executive director of New Roots Inc. took over some of these positions' responsibilities, and a farmer anchor position (i.e., farmer selling produce to FSM and coordinating aggregation and delivery with other farmers) was created, improving communication between New Roots Inc. and farmers (see Figure 2). The FSM model has changed to pursue a better balance between shareholder and farmer needs. Some farmers perceived the previous model to be slightly “chaotic” as different individuals representing different FSM were communicating with farmers trying to fulfill shareholder needs:

“So each different market was communicating with all the different farms to try to order, and that was a bit chaotic, that was hard.”

The distribution model revisited by New Roots Inc. in 2019 tried to reconcile what the farmer was producing with the market's needs. Furthermore, this new model reduced transaction costs associated with participating in FSM by having one individual (e.g., farmer anchor or New Roots Inc.'s executive director) rather than multiple individuals (i.e., uber farmer liaison or farmer liaisons) communicating with farmers and coordinating the distribution of produce. The new model also considered the timing of growing cycles and the variability of products available due to weather risk. A farmer who used to sell farm products to FSM also perceived the new model as one that reduces transaction costs for both farmers and New Roots Inc., as after revising its business model the organization started to work with larger farms that still classify as small- and medium-sized farms and consistently supply larger volumes and achieve scale economies than the ones it used to work with. Additionally, this farmer believed that working with larger farmers might be the only way for New Roots Inc. to meet the needs of an increasing number of shareholders.

Regarding the sustainability of FSM, some farmers were concerned about the financial viability of the model. They perceived that it might be challenging to provide fair prices to farmers while covering overhead costs associated with running all operations associated with FSM:

“I feel very confident that we as a farm are getting compensated very fairly for the product that we are sending. But I am also seeing New Roots [Inc.] have to infuse a lot of their nonprofit capital into making the whole thing work.”

The long-term viability of New Roots Inc. is also a priority for farmers as it is this organization that provides them the opportunity to sell large volumes of products at a fair price:

“I think about all the other things beyond the check that comes to my farm, I feel very invested in the long-term viability. And there is economic viability because FSM is about 20% of our overall sales so [FSM’s long term viability] is very important.”

## **Closing**

The analysis presented in this study reveals New Roots Inc.’s ability to cover multiple goals of the food justice mission, as defined in this study, while remaining financially healthy. Nonetheless, this study also reveals some challenges associated with remaining financially healthy over time. Specifically, sources of revenue volatility and human capital requirements are some of those challenges that could put at risk the long-term financial viability of an organization trying to address multiple goals of the food justice missions such as New Roots Inc.

Similar to other organizations related to the food justice mission, such as community food-service organizations, New Roots Inc. depends heavily on donations and grants from the public and private sectors. Decreasing dependency on these sources of revenue is not feasible given the mission and nature of the organization. Like community food-service organizations, New Roots Inc. needs to evaluate periodically the mix between private and public funding that could help address revenue volatility.

Although New Roots Inc. foregrounds its mission of access to healthy food as a human right while providing access to markets to small- and medium-scale, limited resource farmers, operational constraints, and financial viability make it challenging for this organization to address various problems in the food system. The logistics necessary to purchase produce from some small limited-resource farms create additional needs in terms of personnel/staff, potentially putting at risk the financial viability of the organization. As Hoey, Fink Shapiro, and Bielaczyc (2018) note in their evaluation of Michigan food hubs, any organization trying to address food system problems needs to address financial viability before being able to address all problems in this system. For an organization to address multiple problems of the food system while remaining financially viable, it might need to partner with other organizations related to the food justice mission. For example, to support New Roots Inc.’s ability to work with more small farms with low sales and/or beginning minority farms, they would need to partner with organizations that can provide technical assistance to support product quality and consistency to meet New Roots Inc.’s needs. Although New Roots

Inc. works closely with farmers in planning, there are limitations regarding the support they can give to farmers requiring additional technical assistance.

Finally, high human capital needs (e.g., volunteers, leadership) associated with running an organization such as New Roots Inc. might not pose a problem in the short run or for the region where the organization is located. There might be a big pool of volunteers willing to help run activities related to FSM in this region. Additionally, organization leaders are not planning to retire anytime soon. Nonetheless, in the absence of strong leaders or a strong pool of volunteers, one might question the long-term sustainability and replicability of a business model that is highly dependent on specific human capital requirements that are likely to change over time and by location.

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