2021 National Food Hub Survey Report

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Executive Summary

Executive Summary

The COVID-19 pandemic had a major impact on food hubs.

More than half of respondents affirmed that their business model changed in 2020, and a majority expected the change to be long-term. Furthermore, the portion of hubs reporting that their business model was primarily direct-to-consumer nearly doubled compared to 2019. In short, the trend toward more sales to institutional markets seen in the previous survey fell sharply in 2020.

"Food hub" is not a universally recognized term.

Only half of organizations responding to the survey said they consistently refer to themselves as a "food hub," and respondents gave a range of reasons for avoiding the term. Respondents shared 16 different labels they use for their organizations. This diversity in terminology indicates that a comprehensive understanding of this sector requires flexibility and an emphasis on organizational roles and activities rather than specific labels.

Food hubs are supporting social betterment.

On average, food hub organizations are engaging in 18 different activities related to supporting producers, community members, and the environment. In other words, they are more than businesses that center locally sourced food; they are critical players in the local food ecosystem.

Food hub networks have a large footprint.

The majority of organizations that responded indicated participating in a food hub network, and these networks appear to be supporting a wide range of activities. Notably, three-quarters of the organizations participating in a network had collaborated to apply for grant funding or capital through a network, an activity which requires a high degree of trust and cooperation. The organizations participating in a food hub network were also more likely to engage in hub-to-hub transactions.

Food hubs' profitability increased, but so did reliance on grants.

In 2020, 91% of organizations reported breaking even or better compared to approximately two-thirds reporting this in 2019 and 2017. Although demand and revenue increased in 2020, the majority of food hubs also saw their operating expenses increase significantly, resulting in a mixed picture of profitability. It is likely that the increased proportion of non-sales revenue from federal government funding, individual donations, foundation grants, and state government funding, which has been more widely available in the pandemic, has resulted in many food hubs maintaining a positive financial outlook in 2020.

Employee wages vary widely, and benefits are inconsistent.

The minimum and maximum hourly wages and salaries for employees and managers varied widely. There was a particularly wide range in organizations' top wages, where the highest maximum hourly wage for both managers and employees was five or six times higher than the lowest maximum hourly wage. Sick leave and personal leave were the most commonly offered benefits, but only about half of organizations indicated offering these benefits to all employees.

Introduction

The National Food Hub Survey is a longitudinal research project conducted biennially since 2012. The 2021 National Food Hub Survey was conducted by the MSU CRFS in collaboration with the University of Michigan Program Evaluation Group and the Wallace Center at Winrock International.

This report summarizes the findings of the 2021 National Food Hub Survey, which examined food hubs' activities, business growth, viability, social mission, and market outlook during the 2020 calendar year. The survey methodology can be found in the Appendix.

BACKGROUND

5TH BIENNIAL SURVEY

The 2021 National Food Hub Survey is the fifth biennial survey in this longitudinal research project, providing nearly 10 years of data for comparison. This report provides a snapshot of food hub operations from January 1, 2020 to December 31, 2020, a year marked by great social and political upheaval, racial reckoning, and economic disruption in the United States and globally.

The first year of the COVID-19 pandemic impacted food hubs and their suppliers and customers is a variety of ways. Many food hubs found themselves on the front lines of the public health emergency, providing essential services to their community and customers, while also supporting farmers and producers (Fradkhales & Lincoln, 2021; Thilmany et al, 2021). New funding opportunities and federal COVID-19-related programs helped some hubs expand their services and sales in 2020 (Saul, Newman, and Dearien, 2021). Respondents to the 2021 survey reported that the pandemic also helped catalyze the formation of new hubs, while leading others to suspend operations or close permanently.

These changes brought about by the COVID-19 pandemic represent a major shift in the food hub landscape and created challenges and opportunities for this survey. This report aims to describe significant changes to the food hub sector in 2020 and how food hubs adapted to shifting markets and supply chains. The report will also explore whether changes were temporary or may prove to be more long lasting. Although the data from this survey is now more than two years old, many of the lessons and observations will continue to resonate given lasting challenges brought on by the COVID-19 pandemic.

EXPANDING PARTICIPATION

Among the key goals of 2021 National Food Hub Survey was to expand participation, particularly among small, new, or BIPOC-owned and operated organizations. Previous surveys relied on an email dissemination strategy that utilized a list of approximately 400 current food hubs compiled from several contact lists and the United States Department of Agriculture (USDA) Agricultural Marketing Service (AMS) Food Hub Directory. Upon review, this list was found to be outdated and contained many invalid emails and closed organizations, an issue exacerbated by high staff turnover and closures due to the COVID-19 pandemic.

To address this challenge, the 2021 National Food Hub Survey was distributed via a general email invitation to multiple contact lists, listservs, and networks. A referral option was added to the survey to allow respondents to invite other food hubs in their networks or regions. The survey was open from November 29, 2021, to March 9, 2022. The final dataset included 107 responses, including 78 complete responses and 29 partial responses. This is similar to the number of responses received in the 2013 and 2019 surveys but lower than the number received in 2015 and 2017.

In 2021, a referral option was added to the survey to allow respondents to invite other food hubs in their networks or regions.

The number of partial survey responses received as well as comments from a handful of respondents indicate that survey fatigue and staff capacity remain significant barriers to participation in the survey. Nonetheless, the composition of responding food hubs suggests that the changes in distribution method and promotion language yielded a comparable sample to previous surveys, with a slightly higher proportion of first-time respondents.

Taken as a whole, changes to the 2021 Survey were unsuccessful in significantly expanding participation. We suspect that major structural changes would be necessary in future surveys to overcome the barriers to participation for food hubs operators.

FOOD HUB TERMINOLOGY

Another issue the 2021 National Food Hub Survey sought to address was the use and appropriateness of the term "food hub." A series of new questions was added to the survey to capture respondents' use of this term (See Section 1: Organization Terminology). The 2021 National Food Hub Survey also adopted new language in the promotion and survey itself, inviting "anyone who aggregates and distributes regional food products" to participate in the survey.

This is a significant change from the 2019 Survey, which asked respondents whether they fit the formal definition of a food hub before allowing them to complete the survey. We believe these changes reflect the diverse and evolving food hub sector and help us better describe the wide range of businesses and organizations that are actively aggregating and distributing regional food products in the United States.

Operational Characteristics

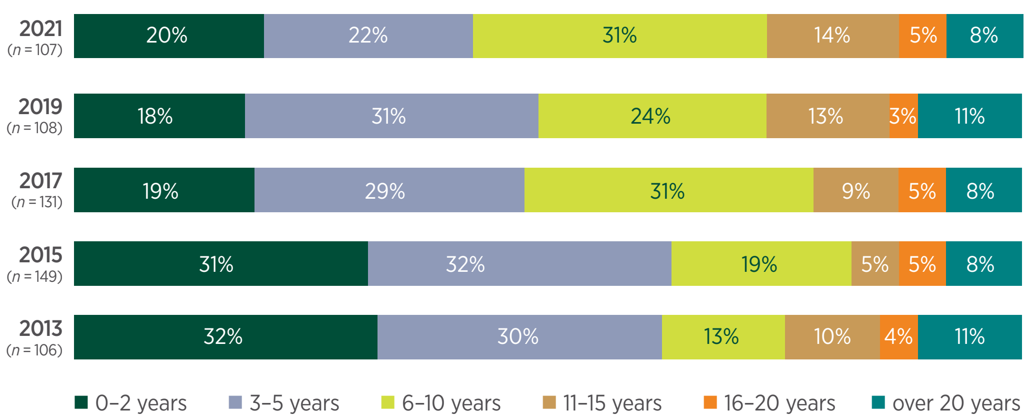
Operational Characteristics

YEARS IN OPERATION

On average, responding organizations were in operation for approximately 10 years, with a range of 0–130 years. *Figure 1* shows the portion of organizations across categories of length of time in operation for each of the five survey years. This distribution has been consistent, particularly across the three most recent surveys, indicating that organizations are continuing to enter the food hub sector at a steady rate.

Organizations in the food hub sector refer to themselves in many ways. Throughout the report, we use the terms "organizations," "food hub organizations," "food hubs," and "hubs" interchangeably.

Figure 1. **Percentage of Organizations by Years in Operation**



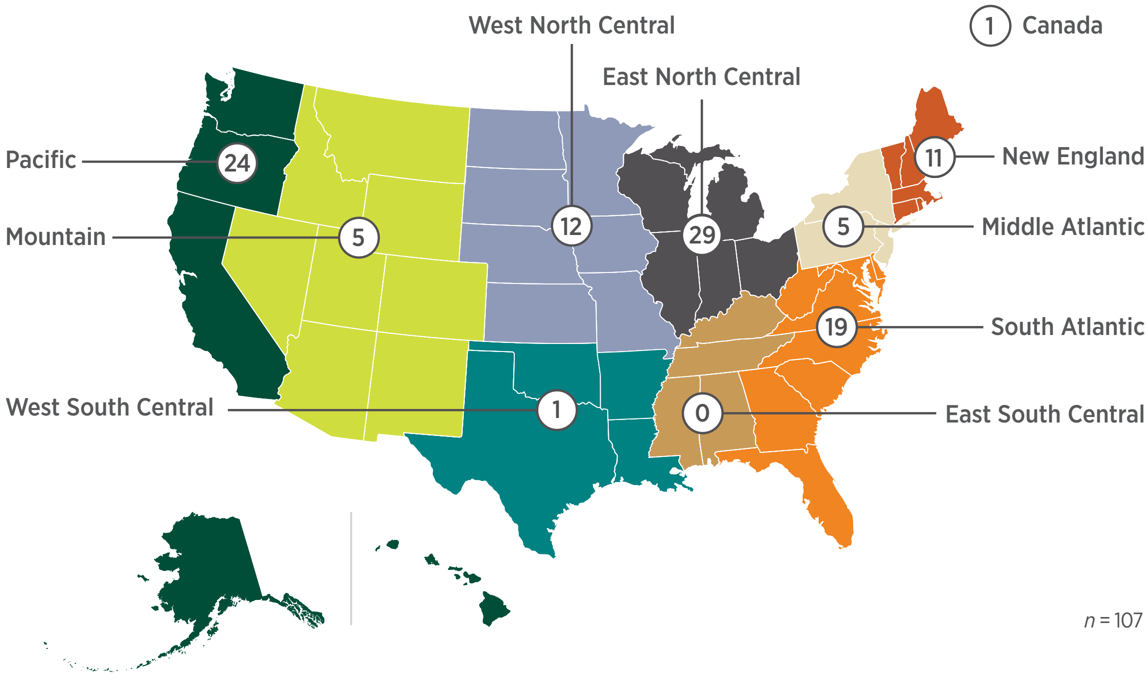
20%

OF RESPONDING FOOD HUBS 0-2 YEARS OLD HAS REMAINED STABLE SINCE 2017

GEOGRAPHIC LOCATION

Geographically, the East North Central, South Atlantic, and Pacific regions of the United States were most strongly represented in the survey *(Figure 2).* The West South Central, Mountain, and Middle Atlantic regions had noticeably fewer respondents than in the 2019 survey. There were no respondents in the East South Central region. Promotion of the 2021 National Food Hub Survey through food hub network coordinators may have contributed to the strong concentrations of respondents in Michigan, North Carolina, and Iowa, all states with robust food hub networks.

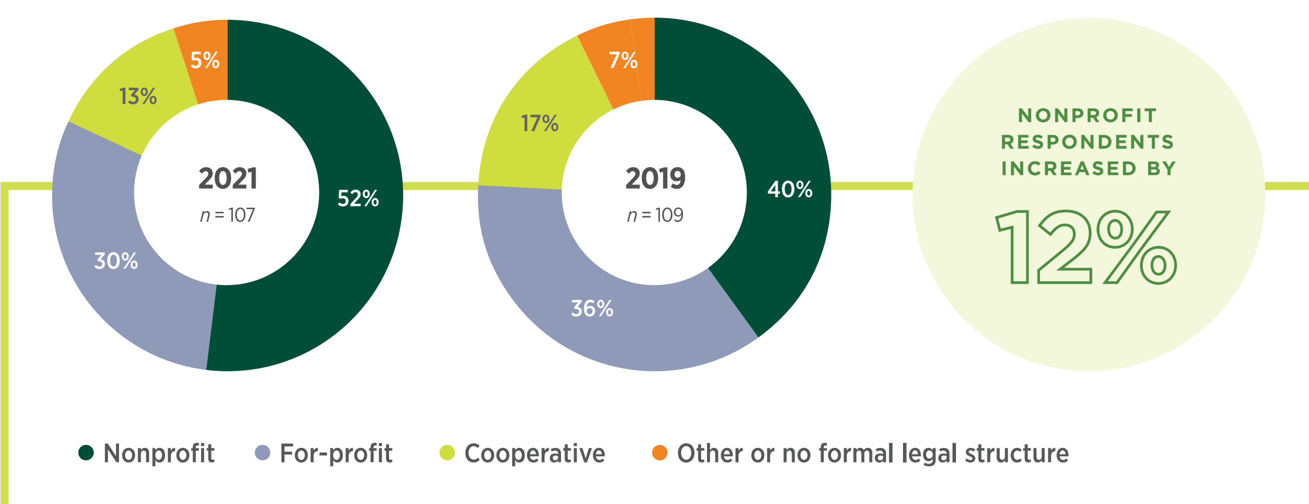
Figure 2. **Number of Organizations by Region**



LEGAL STATUS AND BUSINESS MODEL

With regards to legal status, a larger portion of organizations were nonprofits in 2021 (52%) than in 2019 (40%) *(Figure 3)*. For-profit organizations included LLCs, L3Cs, and S, C, and B Corps. The cooperative organizations included producer, producer-consumer, and publicly owned.

Figure 3. **Percentage of Organizations by Legal Status**

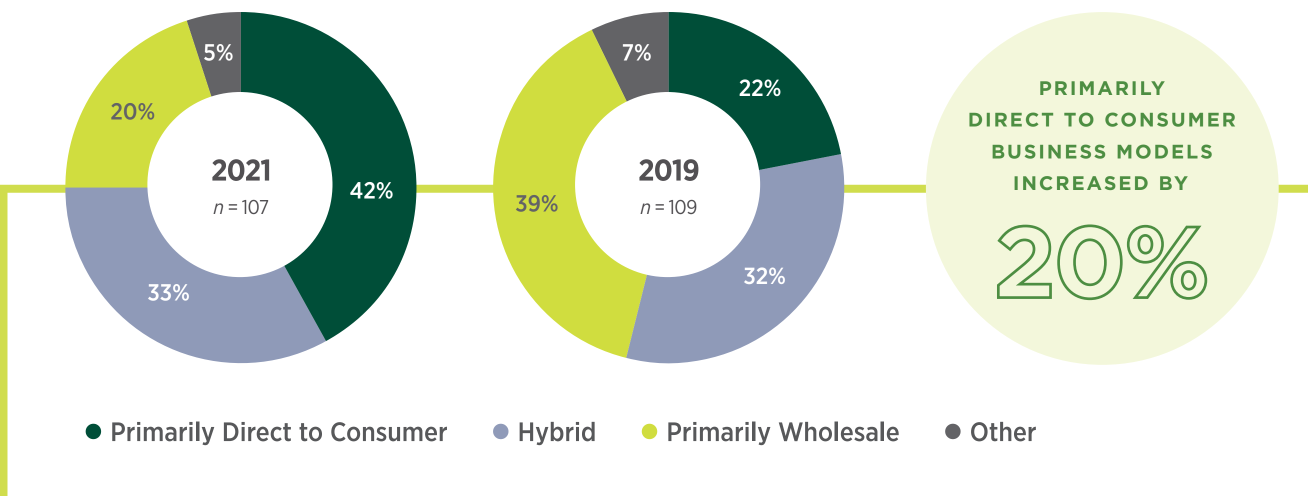


In terms of business model, the 2021 National Food Hub Survey showed that notably more organizations (75%) were at least partially direct-to-consumer than in 2019 (54%) *(Figure 4)*. On the flip side, the portion of organizations whose business model was primarily wholesale distribution dropped to 20% in 2021 from 39% in 2019. This shift may reflect the impacts of the COVID-19 pandemic on many wholesale customers as well as the growth of direct-to-consumer sales and food box programs in 2020. This represents a sharp departure from 2019 trends, when wholesale models seemed to be increasing and the market outlook for institutional sales was optimistic (Bielaczyc et al, 2020).

"Food box" refers to a type of direct-to-consumer program that provides a variety of foods prepackaged in a container, usually a cardboard box.

The popularity of food box programs grew in 2020 in part due to federal food-assistance programs like the Farms to Families Food Box program.

Figure 4. **Percentage of Organizations by Business Model**



OPERATION SCALE

Previous National Food Hub Surveys have not sought to distinguish between operations of different scales. In this report we created six scale categories based on total annual revenue to more fully portray the diversity of operation sizes and understand differences or similarities between them. *Table 1* defines these scale points and offers an example from an organization within that scale. Using these categories, the largest number of organizations were medium or medium-large *(Figure 5)*.[1]

Figure 5. **Number of Organizations by Scale as defined by Total Annual Revenue**

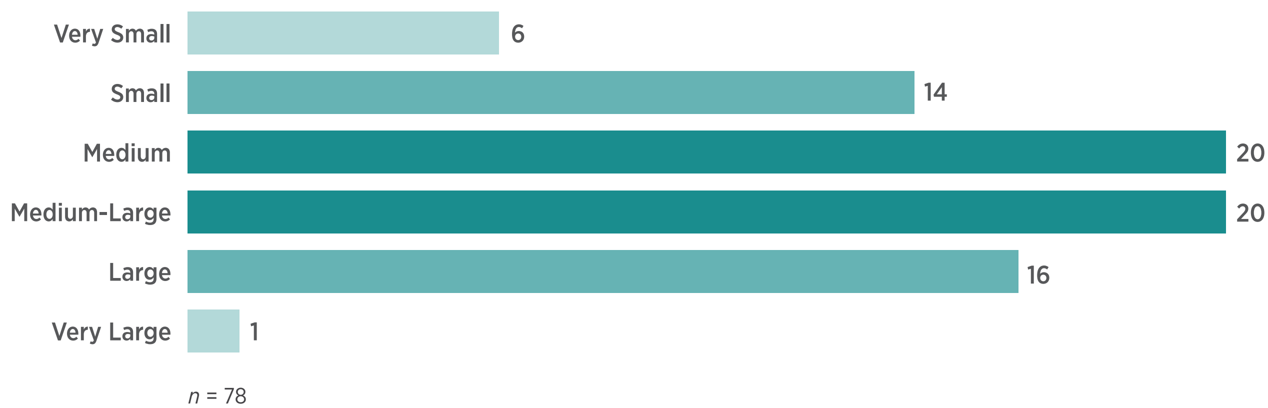


Table 1. **Food Hub Scales**

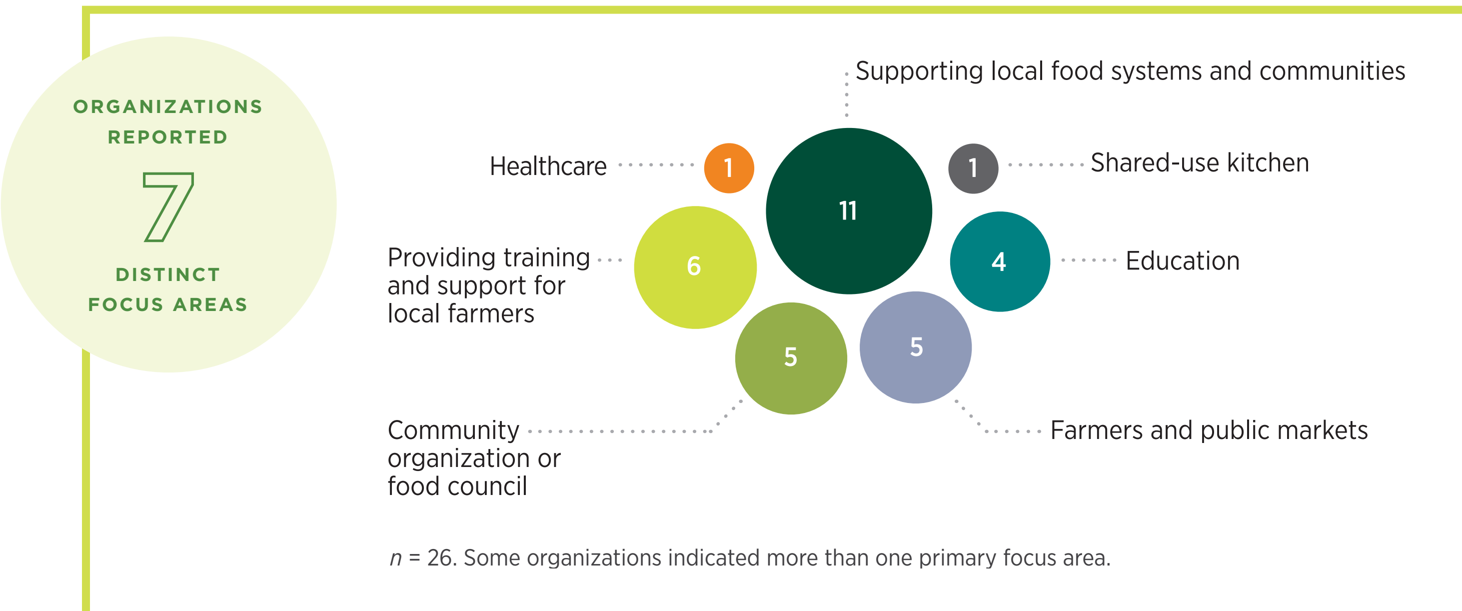
Scale Category	Total Revenue	Example
Very small	Under $20,000	"We are developing into a non-profit. We have been a sole proprietorship for the last 18 months."
Small	$20,000–$100,000	"[organization] started delivering October 15, 2020. In 2021, just one woman, a car and two 150 quart coolers did over $80K delivering to a handful of restaurants."
Medium	$100,001–$250,000	"Our hub is for wholesale accounts, and many customers [before the pandemic] were restaurants."
Medium-Large	$250,001–$1,000,000	"We do essentially four things: 1. We are an every day farmer's market 2. We have a cafe 3. We are a food hub for restaurants and local businesses as well as consumers 4. We operate a CSA. We have some food hub orientated operations in addition to our retail consignment model."
Large	$1,000,001–$10,000,000	"We have a food hub component of our business that services cafe and grocery, other businesses and other food hubs."
Very Large	Over $10,000,000	"We are a produce distributor. While we qualify under the USDA's definition of a food hub, we identify more closely as a distributor because of the size and scale of our operations and logistics."

1 Some analyses later in the report use condensed scale categories: small (under $100,000), medium ($100,001–$1,000,000), and large (over $1,000,000).

ORGANIZATION FOCUS AND DESCRIPTION

The 2021 National Food Hub Survey included new questions to understand the main operational focus of the organizations responding. In response to a close-ended question, most organizations (75%) affirmed that the focus of their organization was local aggregation and distribution. Among those who responded "no" to this question, descriptions of their main area of focus included supporting local food systems and supporting local farmers.

Figure 6. **Focus Areas of Organizations Indicating Aggregation Not a Primary Focus**



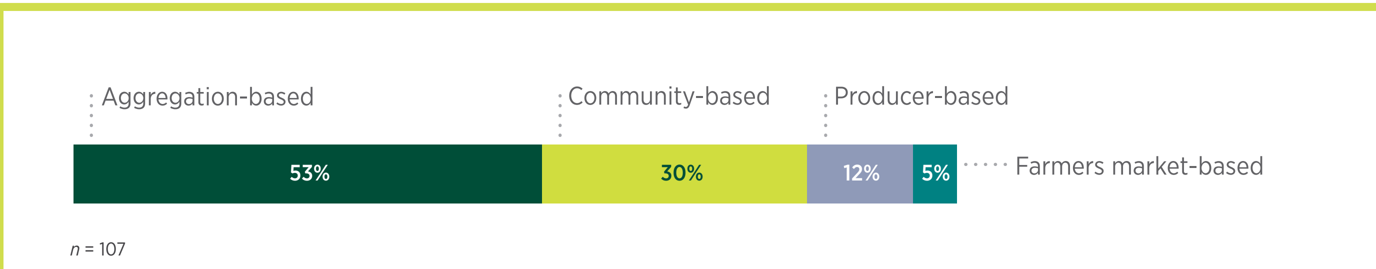
FOOD HUB TYPOLOGY

Expanding further from organizations' focus areas, we classified organizations into four types based on their mission, structure, and core functions. To do this, we used responses to organizational focus, organizational activities, descriptions of business models, changes to the business model during the pandemic, and any other open-ended comments in the survey. This typology, along with examples, is shown in Table 2. As with organization scale, these organization types allow us to more easily see the diversity of food hub operations. Although these classification types often overlap in the real world, they provide a framework for a more nuanced understanding of the many different food hub models. Using this typology, more than half (53%) of respondents were identified as aggregation-based organizations, as shown in *Figure 7*.

Table 2. **Food Hub Typology**

Operation Type	Description	Example
Aggregation-based	Organizations whose primary focus is aggregation and distribution	"We are a food aggregator. During the pandemic, we started 2 programs. We delivered our products directly to consumers and we partnered with a local farmers market to deliver produce boxes. Both were short term and have ended."
Community-based	Nonprofit organizations focused on social betterment that include food hubs among a range of other programs	"We call ourselves a community based organization (CBO). [Hub name] is a program of the organization, which focuses on many other issue areas beyond food distribution including healthy equity, environmental justice, and language access."
Producer-based	Producers or producer cooperatives that have formed food hubs to expand market access	"We are a farm. We only grow and sell locally grown meats from farms around us."
Farmers market–based	Organizations whose primary focus is retail farmers markets	"We are a farmers market that is incorporated in a food hub aspect."

Figure 7. **Percentage Organizations by Category**



ORGANIZATION TERMINOLOGY

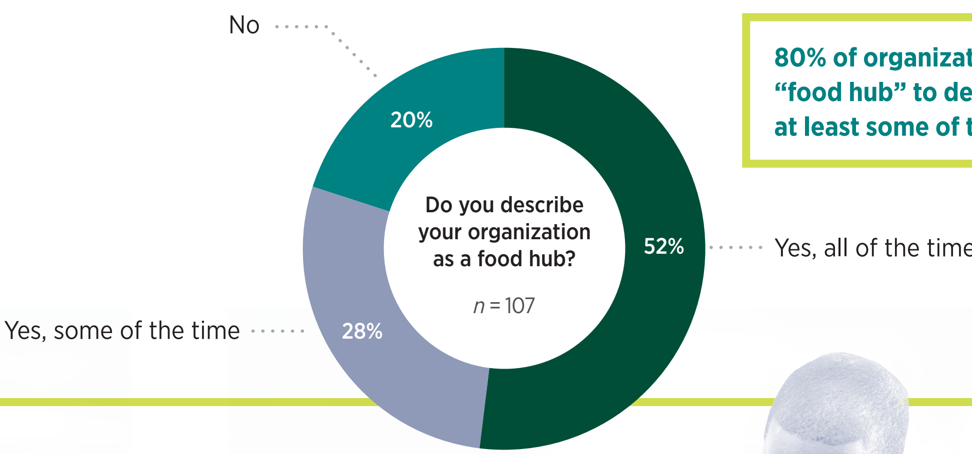
In previous National Food Hub Survey reports and much of the academic literature, food hubs are often defined, using the USDA AMS working definition as "businesses or organizations that actively manage the aggregation, distribution, and marketing of source-identified food products, primarily from local and regional producers, to strengthen their ability to satisfy wholesale, retail, and institutional demand" (Barham et al., 2012, p. 4). This definition, however, does not capture the full range of operational models nor the diverse motivations for this work. Additionally, in many spaces the term "food hub" is strongly associated with predominantly White institutions (like MSU) and is thought to obscure the model's true origins among Black-owned growers' cooperatives that have operated for many decades in the southern United States (Cooper, 2018).

In recognition of this complexity, the 2021 National Food Hub Survey asked, for the first time, the extent to which organizations use the term "food hub" and associated reasons. The findings show that many organizations are operating in a food hub role but are not consistently identifying themselves with this term. This means that funders, network coordinators, value-chain specialists, and others who exclusively use the term "food hub" for organizations in this sector may inadvertently be limiting the scope of their programs. Focusing on the roles and activities of organizations is likely to be more informative and more inclusive than focusing on the terms or labels used.

In many spaces the term "food hub" is strongly associated with predominantly White institutions.

In this survey, most (80%) organizations used the term "food hub" to describe their organization at least some of the time (*Figure 8*). Among the respondents who said they do not use "food hub," the most frequent explanations related to the term not fitting their business model, having a broader or different focus, or a lack of organizational or consumer familiarity with the term. These themes and selected examples are illustrated in *Figure 9*.

Figure 8. **Percentage of Organizations Who Use the Term "Food Hub"**



80% of organizations used the term "food hub" to describe their organization at least some of the time.

Figure 9. **Themes Among Reasons for Not Using the Term "Food Hub"**

n = 52

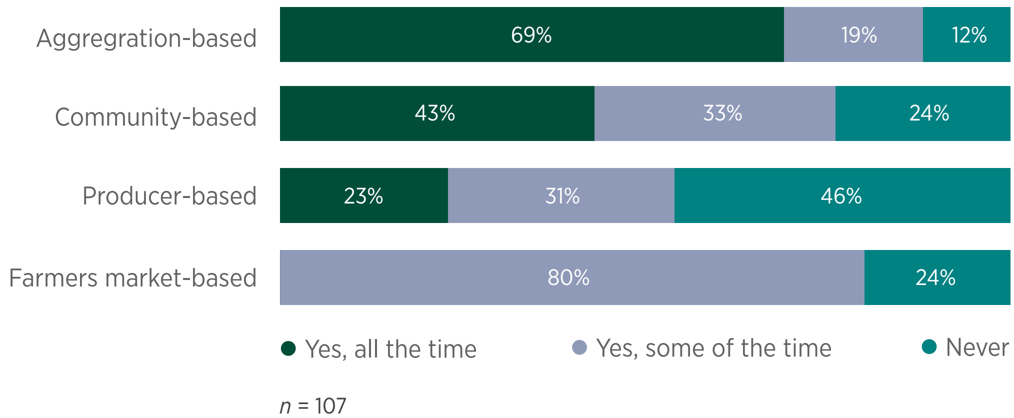
The use of the term "food hub" varied by organization type, focus, and business model.

The organizations most likely to use "food hub" all of the time were those categorized as aggregation-based (69%) *(Figure 10)*, those whose focus was locally based aggregation and distribution (57%), and those whose business model was a hybrid of wholesale and direct-to-consumer (70%).

Figure 10. **Percentage of Use of the Term “Food Hub” by Organization Type**

69%

OF AGGREGATION-BASED ORGANIZATIONS USED THE TERM “FOOD HUB” ALL THE TIME



Respondents shared a wide range of other terms they use to describe their organizations, as illustrated in *Figure 11*. Collectively, these findings show that many of the organizations operating in the food hub sector have a narrow conception of the term “food hub,” with many respondents avoiding it because of their range of activities or their perceived alignment/misalignment with the conceptual model. At a minimum, these findings reinforce the decision to broaden the language used in the 2021 survey promotion. More significantly, the findings underscore the need for funders, policymakers, and technical assistance providers to use more inclusive language and promote a broader, more diverse picture of a “food hub” to reach a wider range of eligible organizations with intended resources.

Figure 11. **Top Terms Used by Organizations**

2+

PEOPLE MENTIONED THESE TERMS TO DESCRIBE THEIR ORGANIZATION

n = 98

Note: Font size is proportional to the number of mentions, e.g. the smallest words represent 2 mentions and the largest word represents 12 mentions.

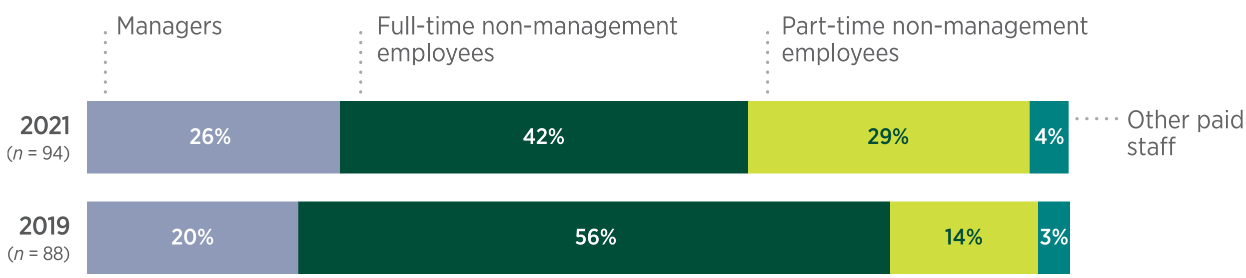
EMPLOYEES

Food hubs reported a range of 1 to 110 paid employees. On average, hubs had 12 paid employees, which is smaller than in any previous survey (range of 15–17). The decrease in the average number of employees is especially interesting because more than half of responding hubs (56%) reported adding positions in 2020, with an average of 3.7 additional positions. Reasons for adding positions included increased demand, the need to manage a new online marketplace, the need for delivery drivers, and the availability of grant funding.

On average, hubs had 12 paid employees, which is smaller than in any previous survey.

Among the 14 hubs that reported eliminating positions in 2020 (average decrease of 3.6 positions), reasons included laying people off during the pandemic and consolidating part-time positions into full-time positions. Across the whole sample, however, the percentage of full-time employees decreased compared to 2019, as seen in *Figure 12*. The portion of managers, other paid staff, and, most notably, part-time employees, increased.

Figure 12. **Percentage of Employees by Type**



FROM 2019 TO 2021, THE PORTION OF PART-TIME EMPLOYEES DOUBLED.

In 2021, 94 hubs reported 1,165 paid employees.

In 2019, 88 hubs reported 1,464 paid employees.[2]

Looking at the representation of people of color[3] and of women across employees, as well as board members and shareholders,[4] reveals that both people of color and women were most strongly represented among part-time employees, as seen in *Figures 13 and 14*. Across all categories of paid employees, just over half (56%) were women and just under a quarter (22%) were people of color.

2 In the interest of reducing survey questions, the 2021 survey neglected to ask organizations about seasonal employees and volunteers. The 2019 report noted that 39 hubs reported unpaid interns, apprentices, and volunteers, accounting for about 35% of the total reported labor force. In retrospect, this may have resulted in the 2021 survey missing a significant portion of the food hub workforce, particularly given the importance of volunteerism during the early pandemic.

3 The survey defines “people of color” as “non-White” individuals.

Figure 13. **Representation of People of Color Among Employees, Boards, and Shareholders**

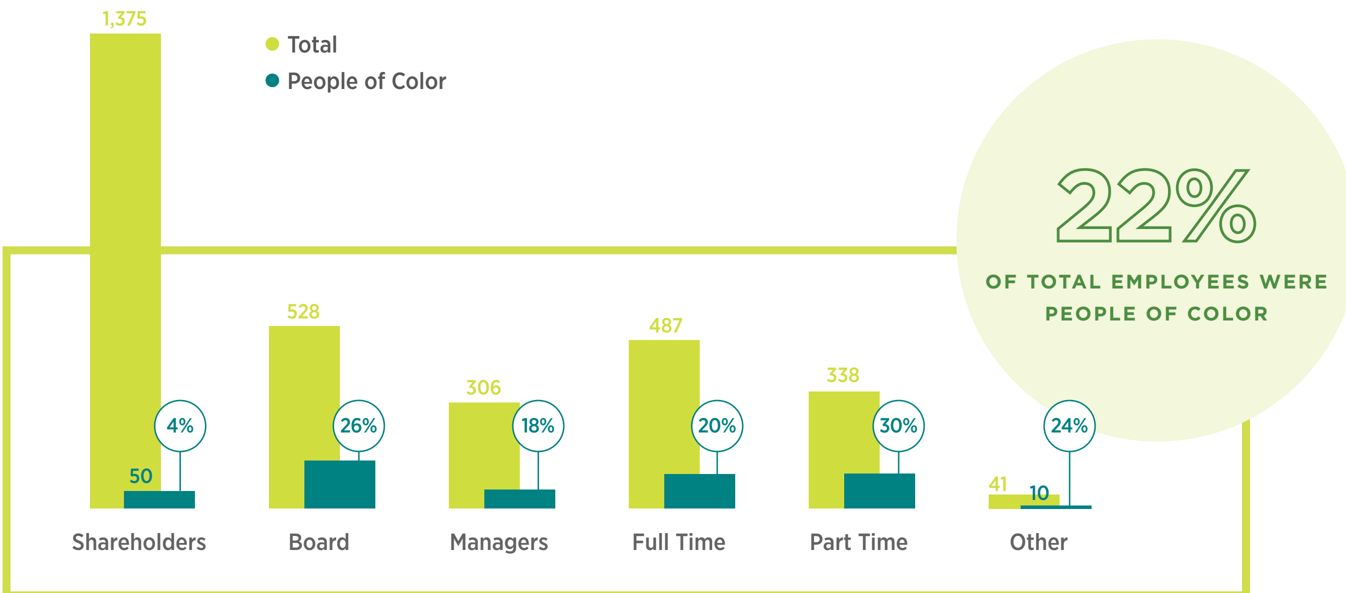
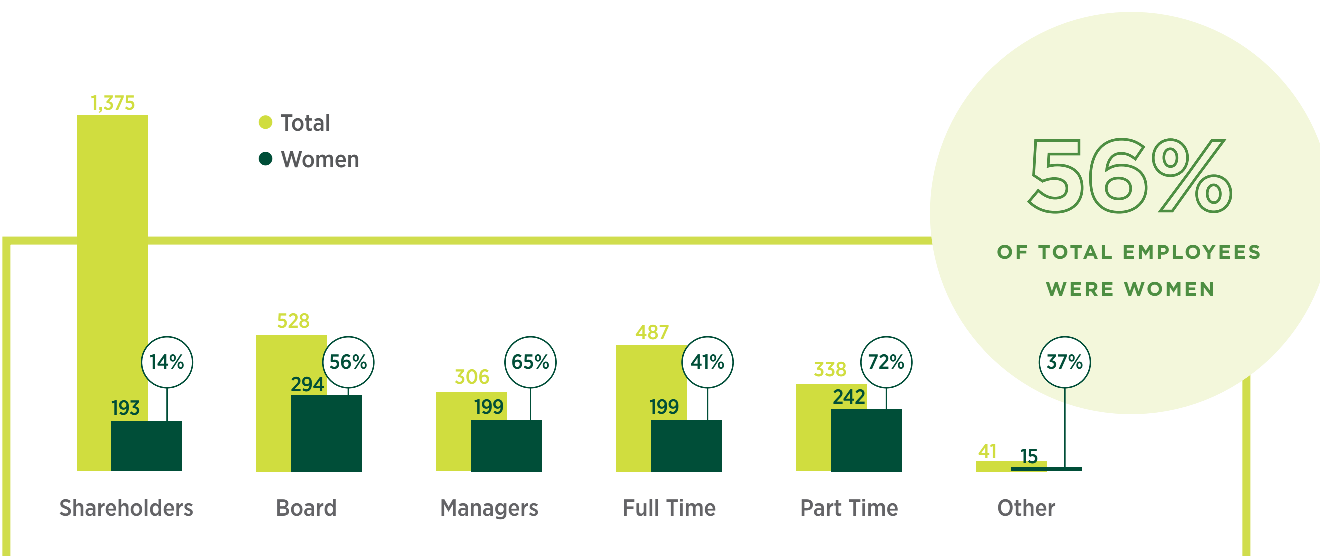


Figure 14. **Representation of Women Among Employees, Boards, and Shareholders**



4 The survey asked respondents to report the number of owners or shareholders without any definition of these terms. Forty-eight different organizations reported having at least one owner/shareholder, with responses ranging from one to 850. Some organizations likely included community-supported agriculture shareholders in their response to this item.

EMPLOYEE WAGES AND BENEFITS

For the first time, the 2021 National Food Hub Survey included questions about employee wages and benefits. Respondents reported the minimum and maximum hourly wages and salaries, as applicable, for employees and managers in their organization. *Figure 15* shows there was a wide range in hourly wages across all categories. There was a particularly wide range in organizations' top wages, where the highest maximum hourly wage for managers and employees was five or six times higher than the lowest maximum hourly wage. Salaries were similarly widely dispersed (*Figure 16*). Some of this dispersion may be attributable to inaccurate numbers or to wages reported for seasonal or part-time positions.

Figure 15. **Hourly Wages for Organization Employees and Managers**

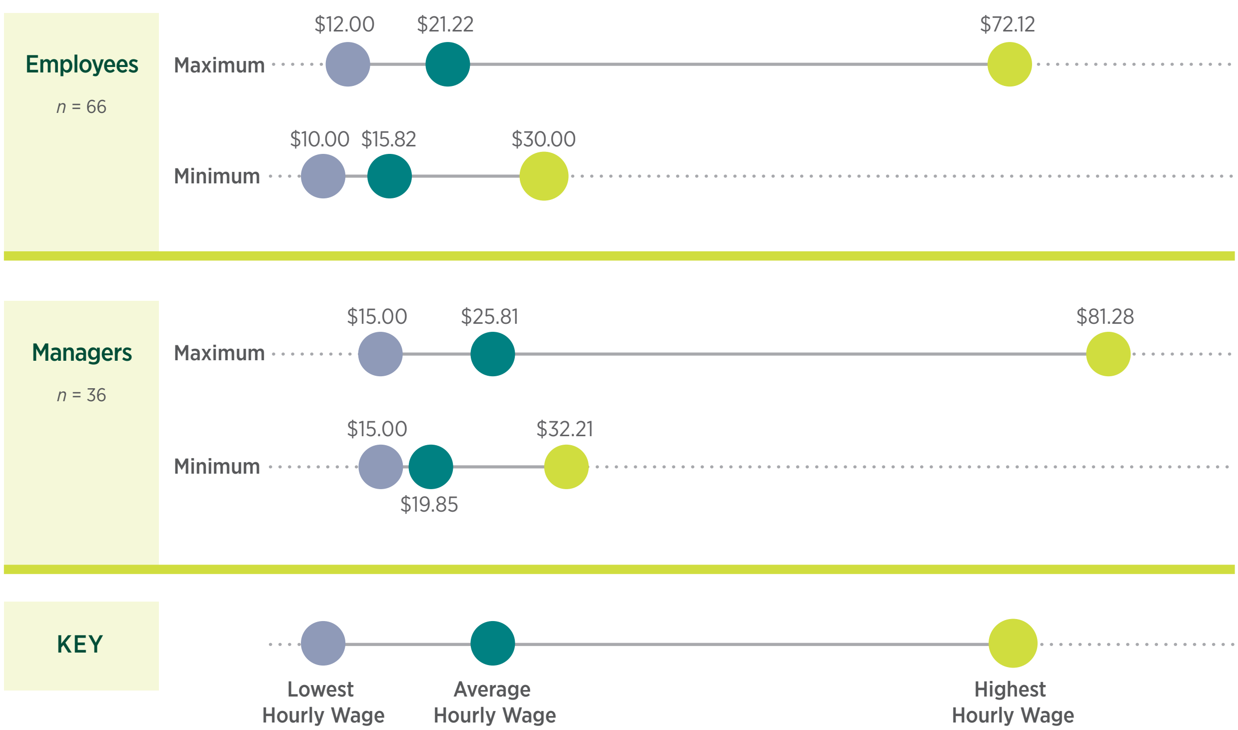


Figure 16. **Salaries for Organization Managers and Employees**

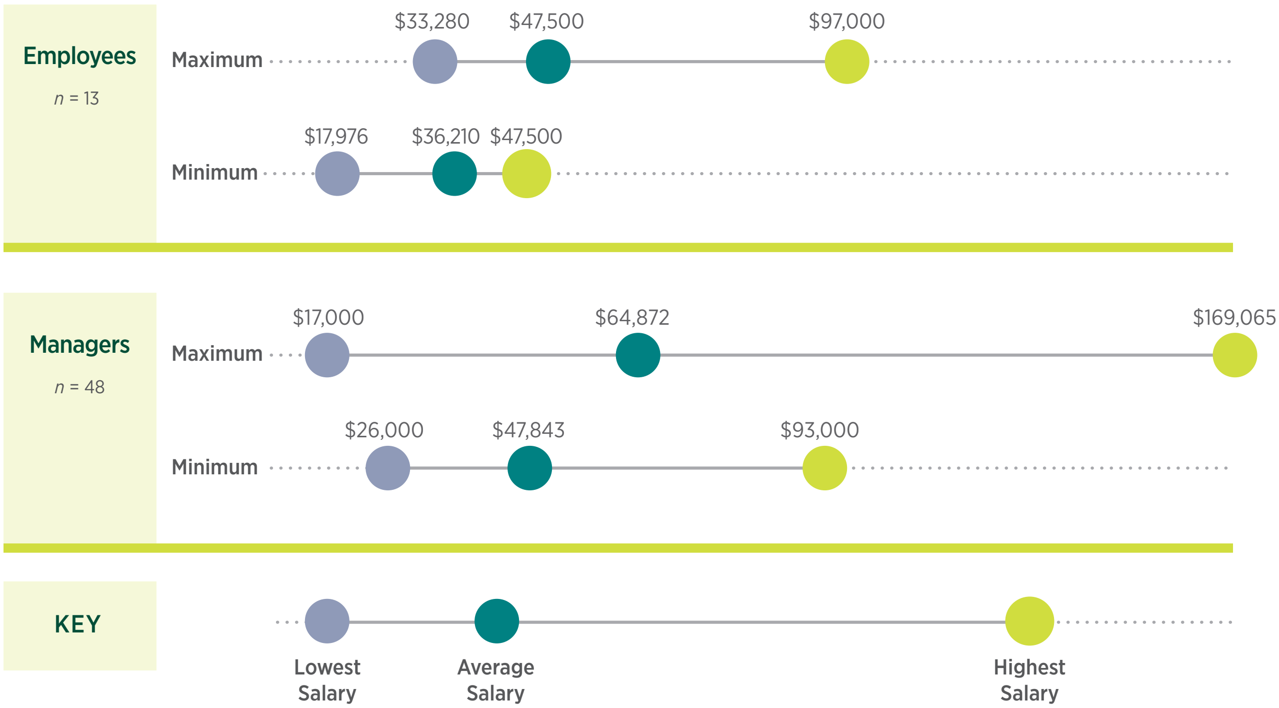
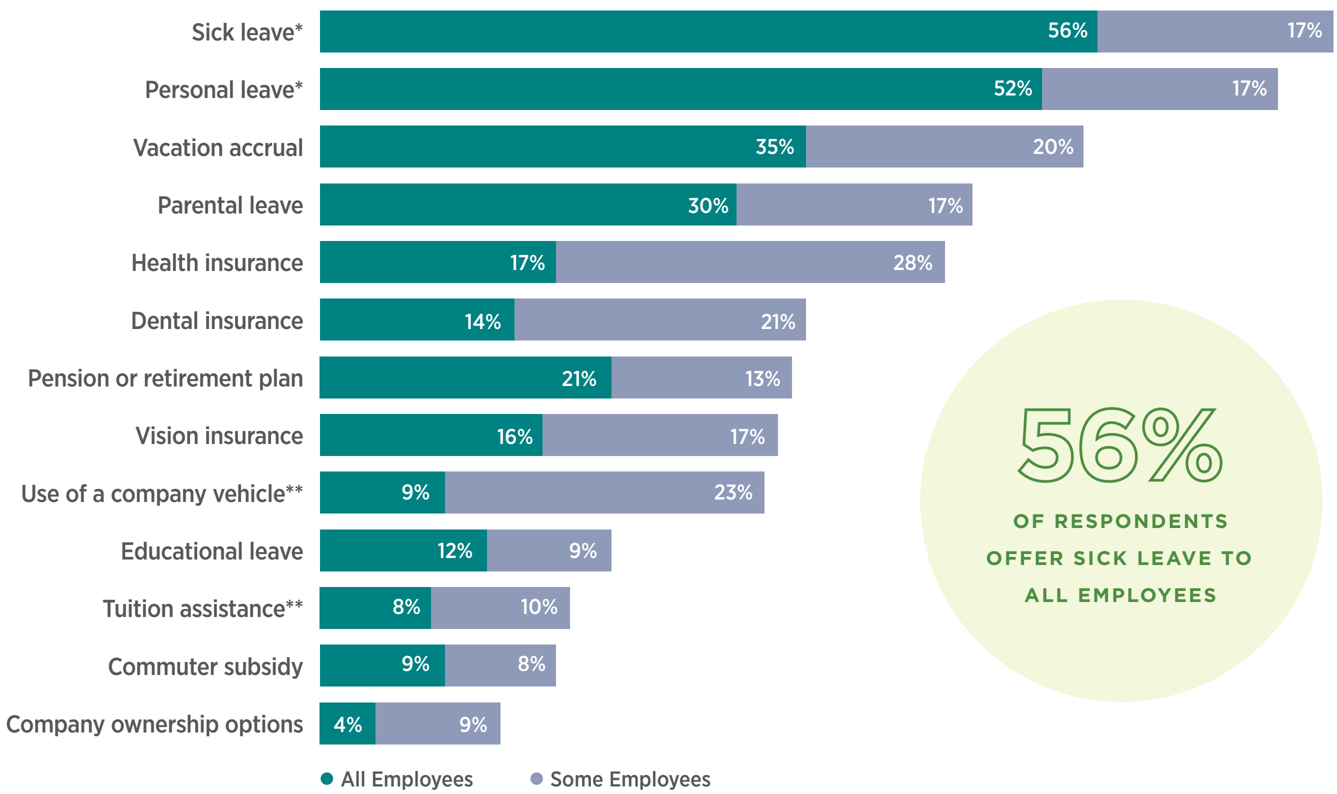


Figure 17 shows that **sick leave, personal leave, and vacation accrual are the most-offered benefits. However, only about half of hubs indicated offering sick and personal leave to all employees.** Some of this could be explained by the large number of part-time employees, which comprised 29% of responding organizations' employees. On the other hand, almost a third of respondents (30%) reported their organizations did not offer any benefits to any employees. Less than half of hubs offered health, dental, and vision insurance to employees, and only about one-fifth offered these benefits to all employees. Other benefits that respondents wrote in were discounts on products, flexible hours, professional development opportunities, and a health insurance stipend.

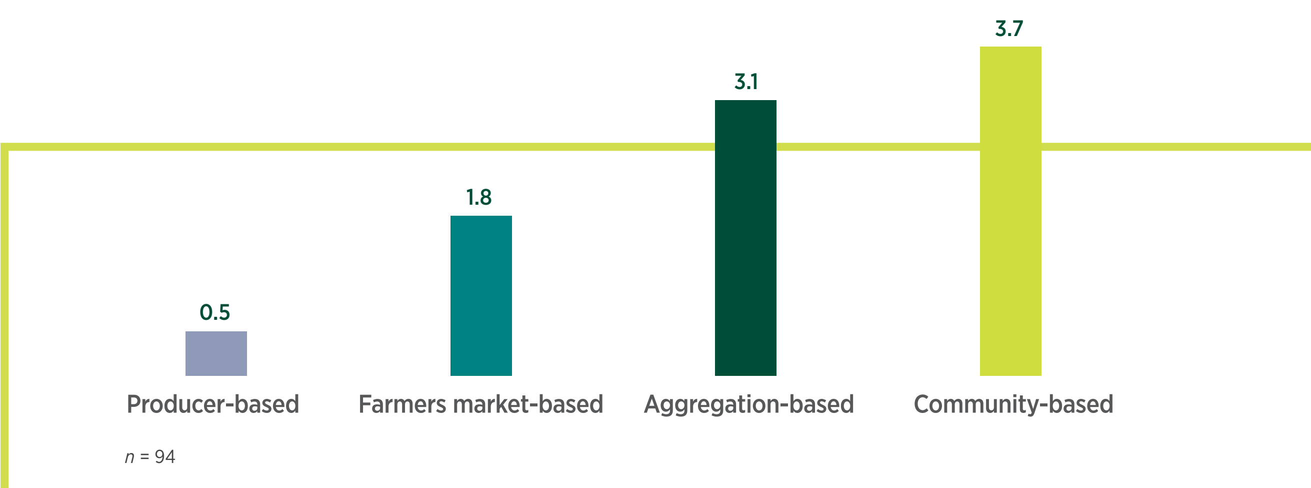
Figure 17. **Percentage of Organizations Offering Employee Benefit**



n = 92 unless otherwise noted
**n* = 93
***n* = 91

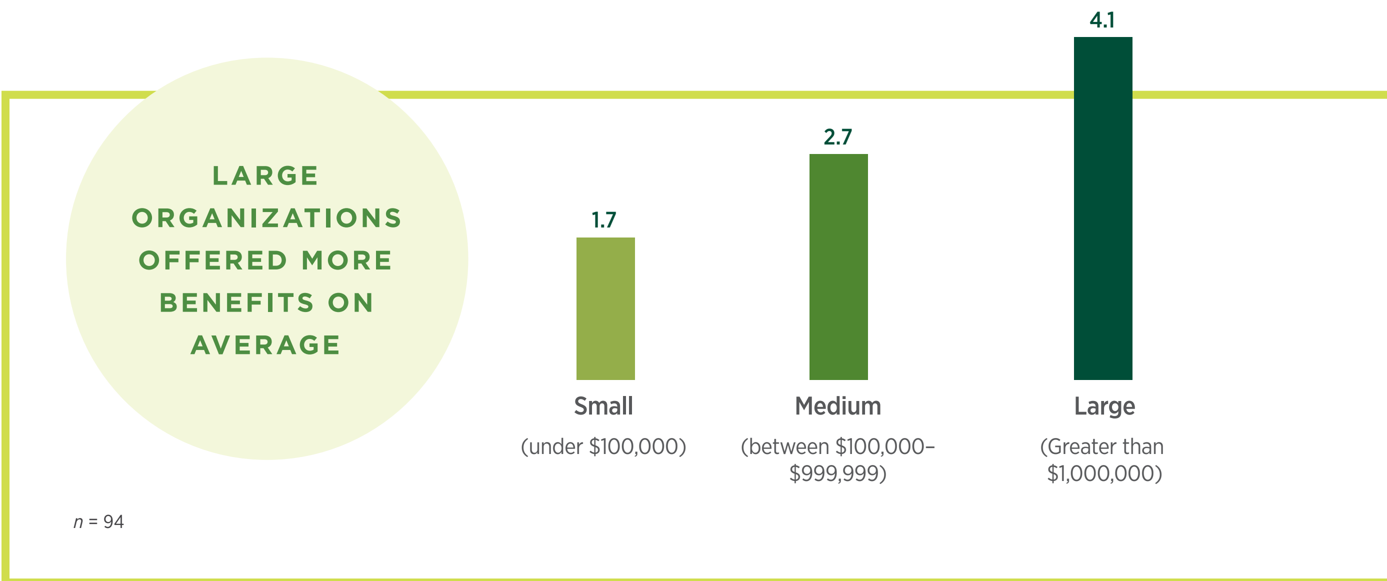
The number of benefits offered to all employees varied by the type and scale of the food hub. On average, larger organizations and community-based operations offered the greatest number of benefits, as shown in *Figures 18 and 19*.

Figure 18. **Average Number of Benefits Offered to All Employees Based on Operation Type**



n = 94

Figure 19. **Average Number of Benefits Offered to All Employees Based on Operation Scale**



HIRING AND RETENTION CHALLENGES

The 2021 National Food Hub Survey also asked about hiring and retention challenges for the first time. Respondents were asked to select up to three responses from a list of items. The inability to offer competitive wages stood out as the most frequently selected challenge *(Figure 20)*. No one reported criminal records, immigration status, or lack of required education as significant challenges. Although the inability to offer competitive wages was fairly similar across scales, comparing by organization type shows that this challenge was most prevalent at community-based organizations *(Figure 21)*.

Figure 20. **Percentage of Organizations Reporting Hiring and Retention Challenges**

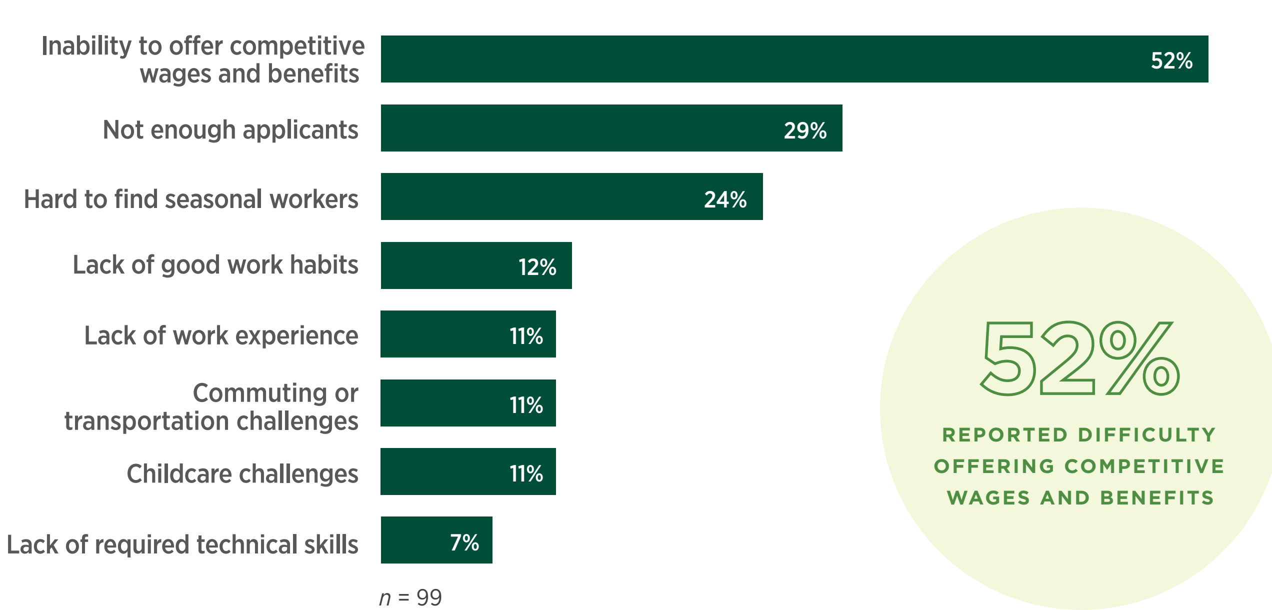


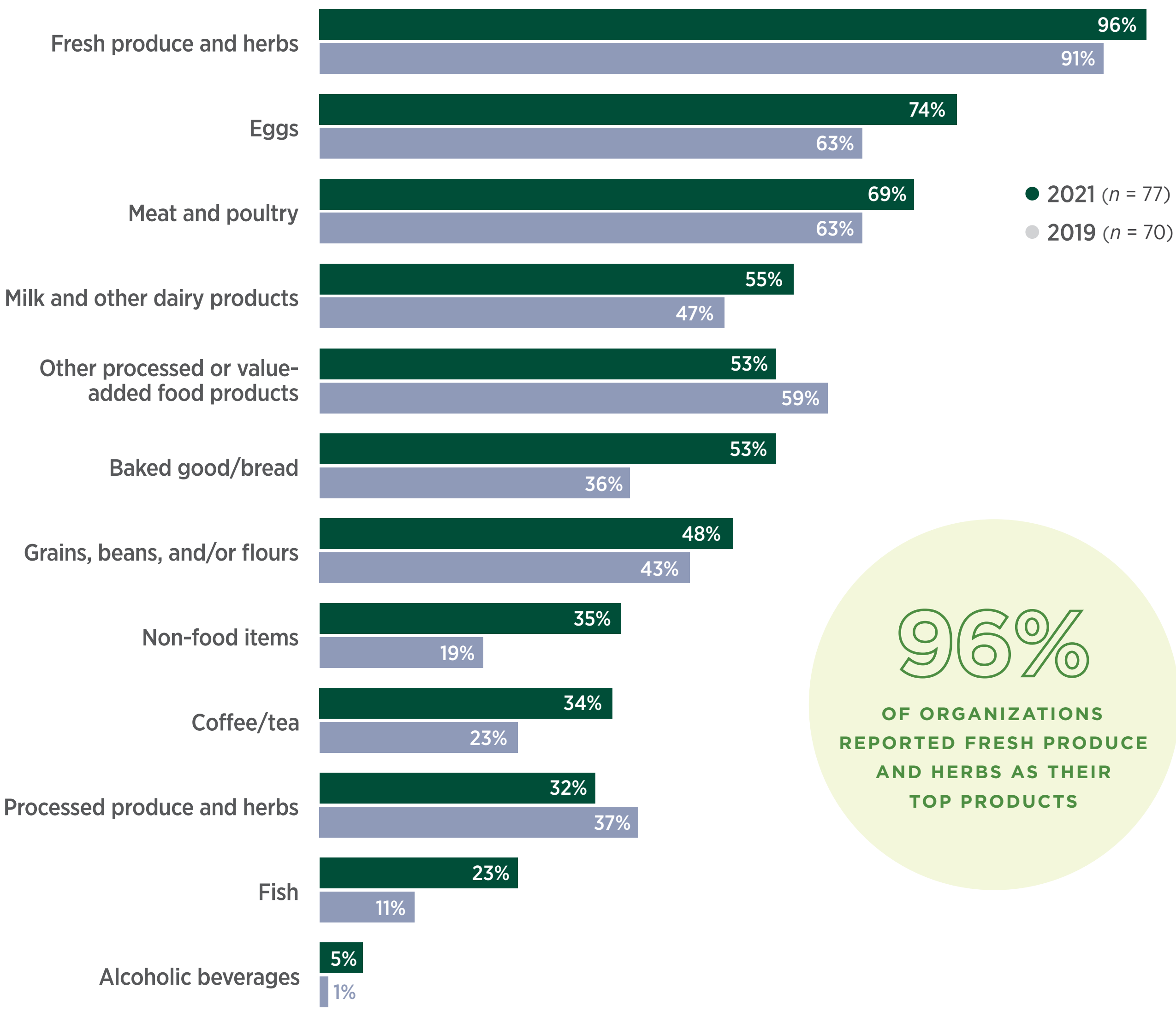
Figure 21. **Percentage of Organizations Reporting Inability to Offer Competitive Wages by Type**

n = 99

TYPES OF PRODUCTS SOLD

In 2021, food hubs carried an average of six product categories (range of one to 14), compared to an average of fi e categories in 2019. *Figure 22* shows that the portion of hubs carrying each product category was similar in 2021 and 2019. Fresh produce and herbs remained the most common category. In 2021, proportionally more hubs reported carrying eggs, baked goods, non-food items, coffee/tea, and fish.

Figure 22. **Percentage of Organizations Carrying Products by Category for 2021 and 2019**

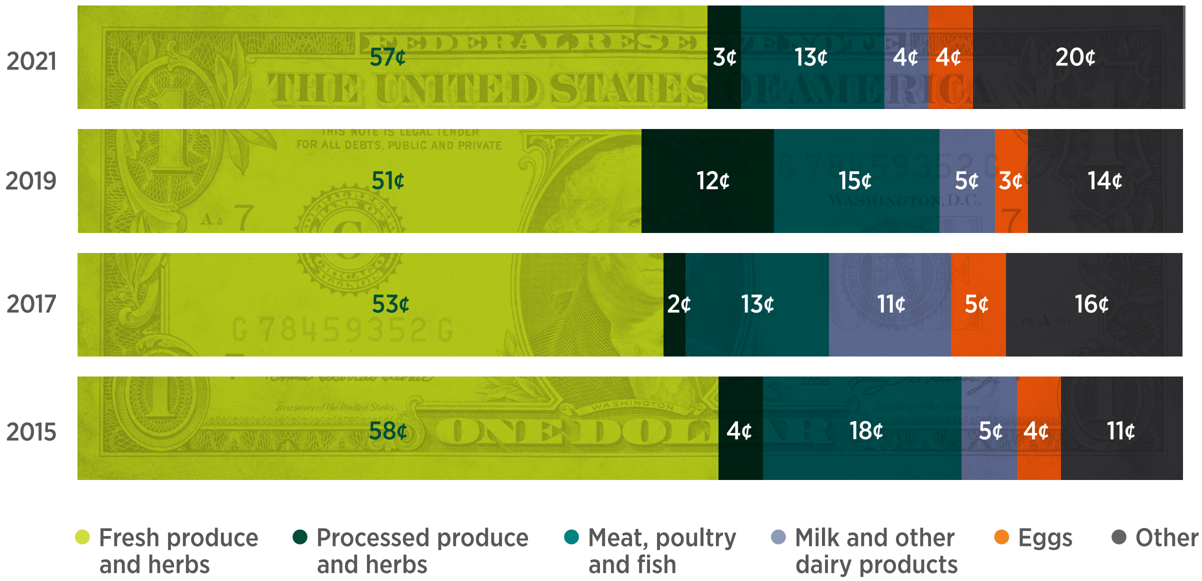


96%

OF ORGANIZATIONS REPORTED FRESH PRODUCE AND HERBS AS THEIR TOP PRODUCTS

Looking at product categories as a percentage of overall sales also shows that fresh produce and herbs continues to be the primary focus of most organizations *(Figure 23)*. At the same time, compared to 2019, a smaller portion of sales, on average, was in processed produce and herbs, and a greater portion of sales was in "other" products. Written responses for items classified as "other" included flowers, garden transplants, merchandise, honey, and nuts.

Figure 23. **Total Organization Sales as a Percentage of a Dollar by Product Category**



n = 77

HUB-TO-HUB TRANSACTIONS

The 2021 National Food Hub Survey included several new questions assessing food hub organizations' transactions with other hubs. In reporting their organization's activities, 40% of organizations said they engage in hub-to-hub transactions. When asked more specifically about these transactions, 21% of organizations said they sell to other food hubs, 27% said they buy from other food hubs, and 52% reported both buying from and selling to other hubs (*n* = 29). The organizations that sell to other food hubs reported selling to an average of three other hubs (range of one to ten). The organizations that buy from other hubs reported buying from an average of 2.5 other hubs (range of one to seven). More than half (53%) of the organizations participating in a state or regional food hub network said they coordinate hub-to-hub transactions through the network. In short, hub-to-hub transactions appear to be a significant and growing activity that has not been adequately captured in previous surveys.

Hub-to-hub transactions appear to be a significant and growing activity that has not been adequately captured in previous surveys.

PANDEMIC-RELATED CHANGES

When asked how the COVID-19 pandemic impacted the food hub activities of their organization, all but two respondents described changes. (One of these two launched the business during the pandemic.) Many respondents described an increase in demand and sales, the creation or expansion of emergency food relief programs, and an increase in retail sales due to expanding e-commerce, curbside services, and home delivery.

When asked to describe how, if at all, the supply or price of products sourced changed since the pandemic, most organizations (63%) said the price of products sourced increased. Some attributed this to packaging, meat processing costs, and labor shortages. Among the organizations who were not impacted by changes in the supply or the price of products sourced (25%), some attributed it to working closely with local producers.

EXPERIENCES DURING THE PANDEMIC

> We are seeing more supply chain shortages than ever before, particularly on packaging materials like certain size glass jars for honey and plastic containers for yogurt. Price increases there have come back on us. A significant portion of our vendors have increased pricing, more in processed foods than produce, although hydroponic inputs have increased so those prices to us have as well. We are currently rolling out a full product list price increase to our customers.

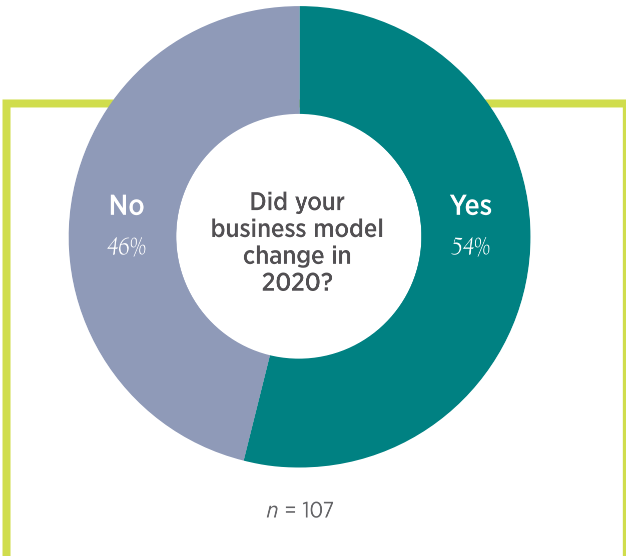
> Delivery is inconsistent and unpredictable at best. Labor shortages have influenced some of our larger producers and distributors. We've been working with more small scale [businesses] since they are often more reliable. We also experienced wildfires and drought since the pandemic, so are also being extremely limited with product because production is down.

> Not much has changed in cost. Our producers are local and haven't seen a major change in their basic cost of goods at this point.

Survey findings show that the impacts of the COVID-19 pandemic were substantial enough to push organizations toward lasting shifts in their business model. Just over half of organizations (54%) changed their business model in 2020 (*Figure 24*). Of those who did, 57% said that these changes were long-term (*Figure 25*). Some of the business-model changes included switching to more retail, using virtual or hybrid operations, creating or expanding home-delivery services, and offering free services to customers or food relief programs. These findings point to a dramatic change in the food hub sector due to the COVID-19 pandemic. In 2019, most hubs expected to enter or increase their share with a range of different institutional markets. The supply-chain disruptions associated with the COVID-19 pandemic, however, appear to have led to what many hubs now believe is a long-term shift away from these institutional markets.

The supply-chain disruptions associated with the COVID-19 pandemic appear to have led to a long-term shift away from institutional markets.

Figure 24. **Percentage of Organizations That Changed Business Models in 2020**



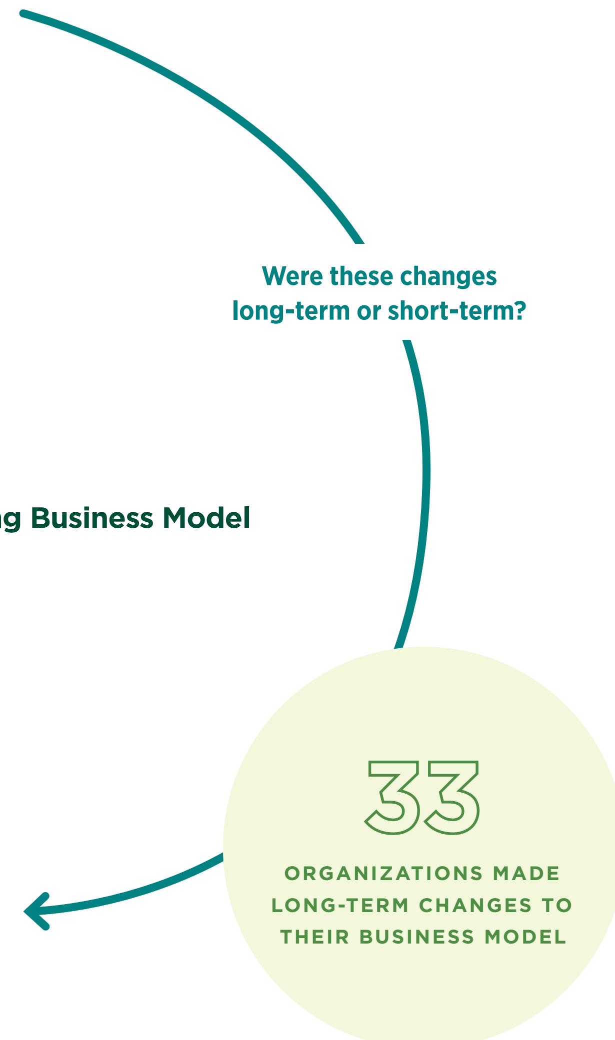
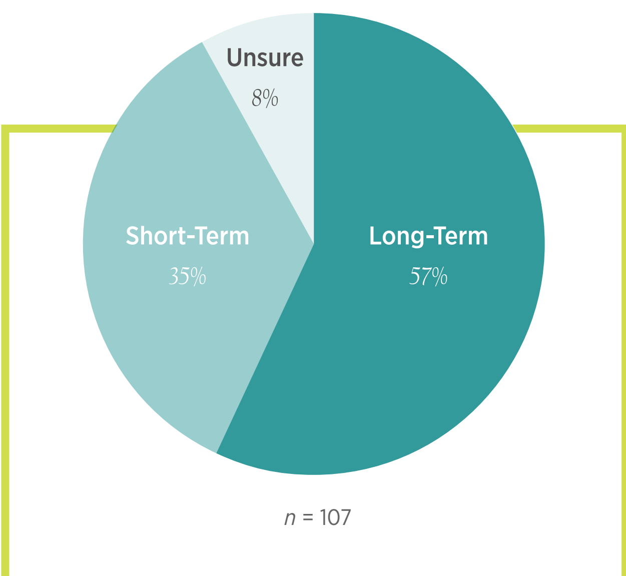


Figure 25. **Percentage of Organizations Indicating Business Model Changes Were Short-Term or Long-Term**



ORGANIZATIONAL ACTIVITIES

Figures 26–29 **show organizations' engagement in four different types of activities: operational, producer-support based, community-support based, and sustainability-based.** The figures show that food hubs are taking on many different activities that go far beyond product aggregation and distribution and are deeply engaged in supporting the ecosystem of local food supply chains in myriad ways. There were 13 different mission-driven activities (producer-support based, community-support based, and sustainability-based activities) that half or more of responding organizations said they engage in. On average, organizations reported engaging in 18 different mission-driven activities, with a range from 3 to 39. In short, these figures show that hubs are providing a wide array of social benefits, such as supporting women- and minority-owned producers, reinvesting in communities, and reducing food waste.

Figure 26. **Frequency of Participation in Operational Activities**

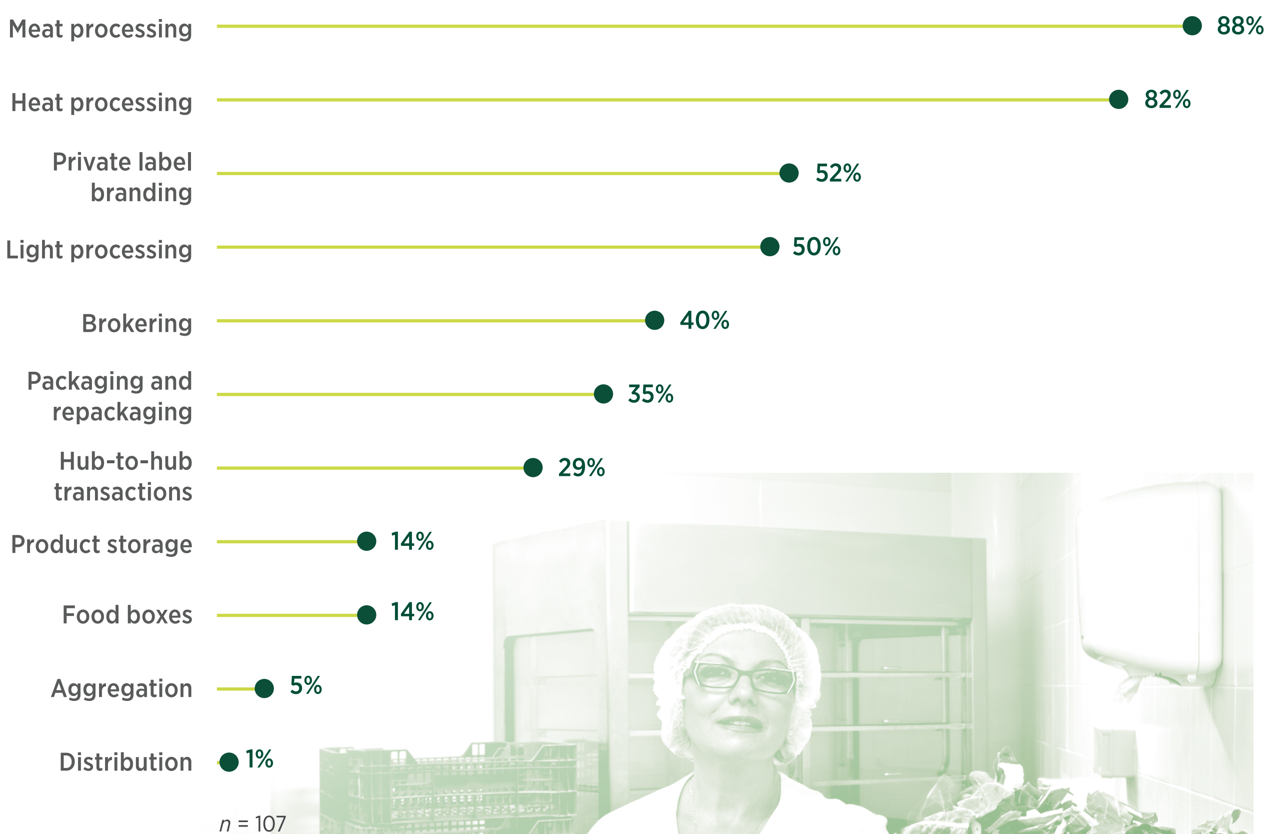
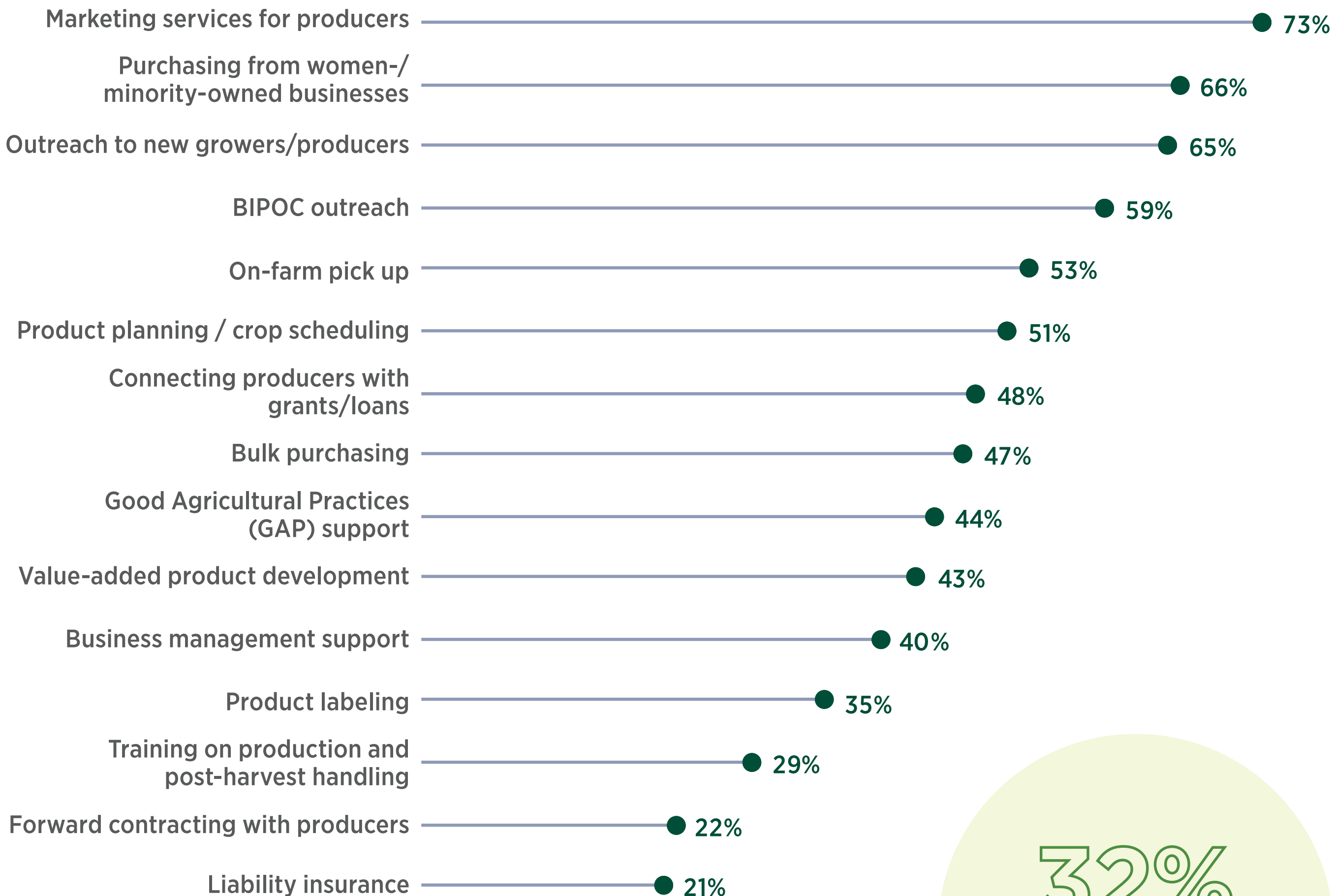


Figure 27. **Frequency of Participation in Producer-Support Activities**

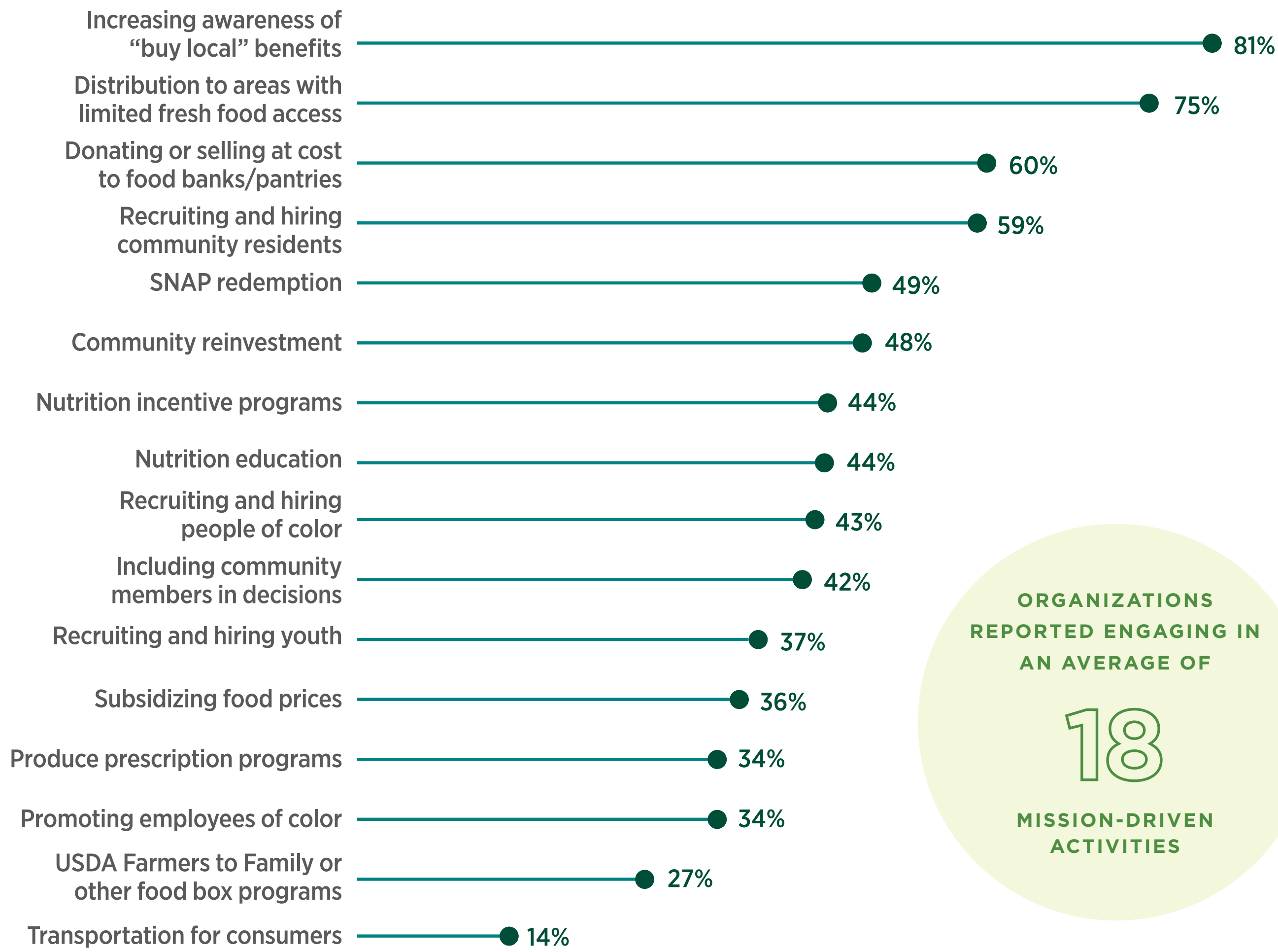


n = 107

32%

OF FOOD HUBS PRIORITIZE PURCHASING FROM BIPOC-OWNED BUSINESSES.

Figure 28. **Frequency of Participation in Community-Support Activities**



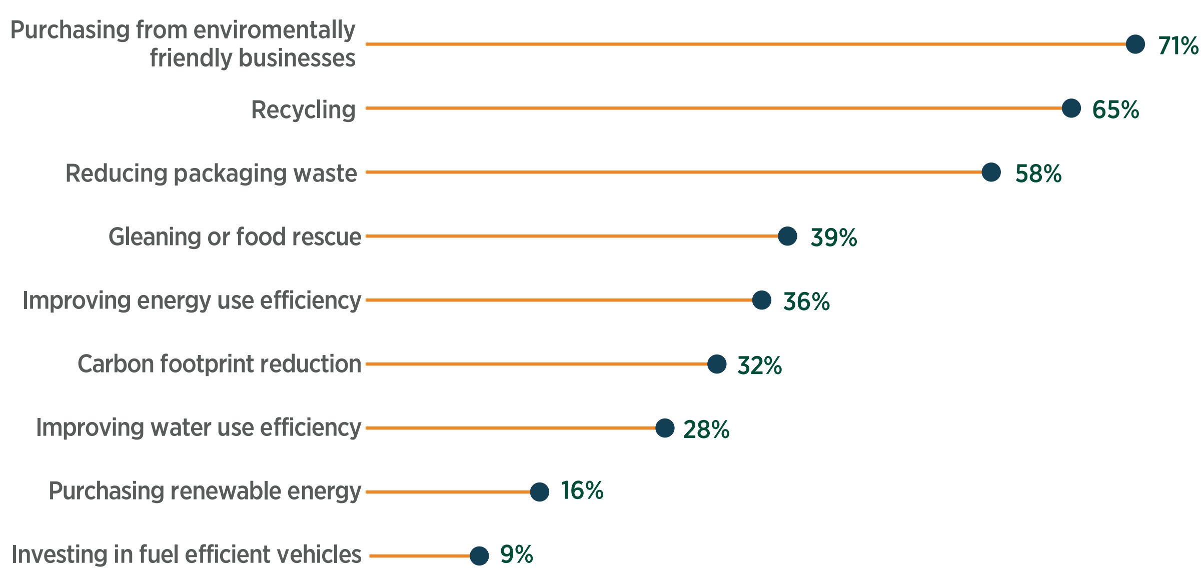
n = 106

ORGANIZATIONS REPORTED ENGAGING IN AN AVERAGE OF

18

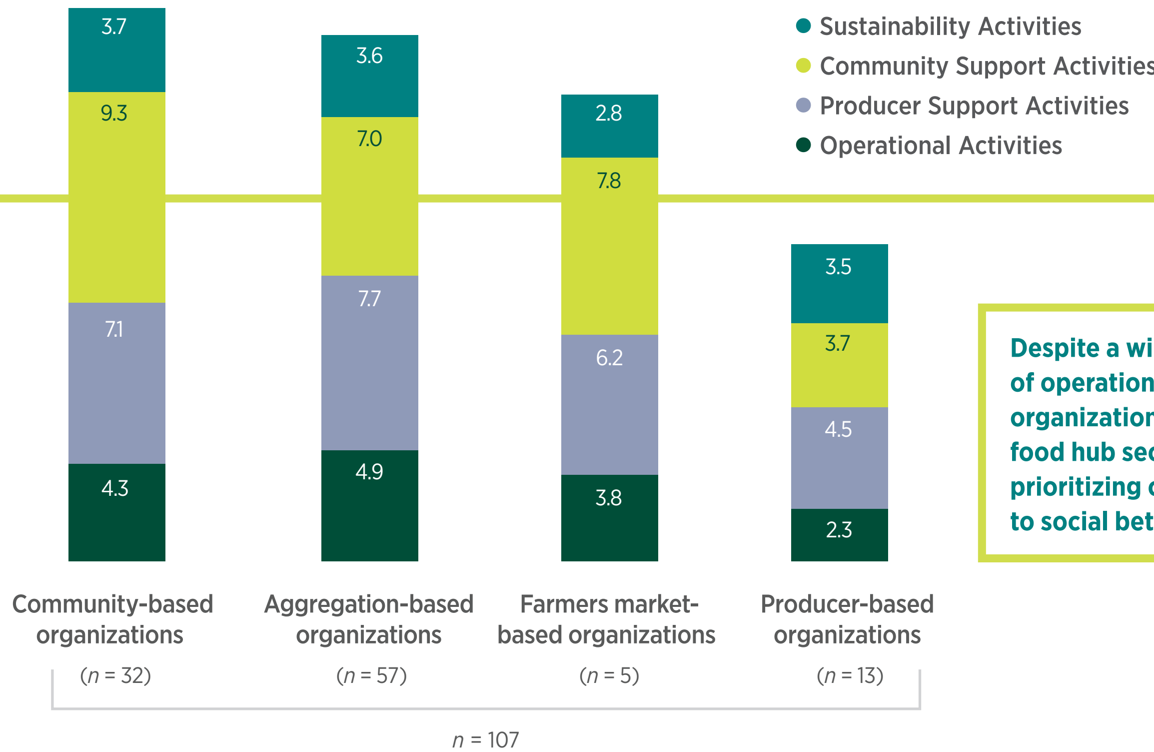
MISSION-DRIVEN ACTIVITIES

Figure 29. **Frequency of Participation in Sustainability Activities**



n = 101

Figure 30. **Average Number of Activities by Activity Type and Organization Type**

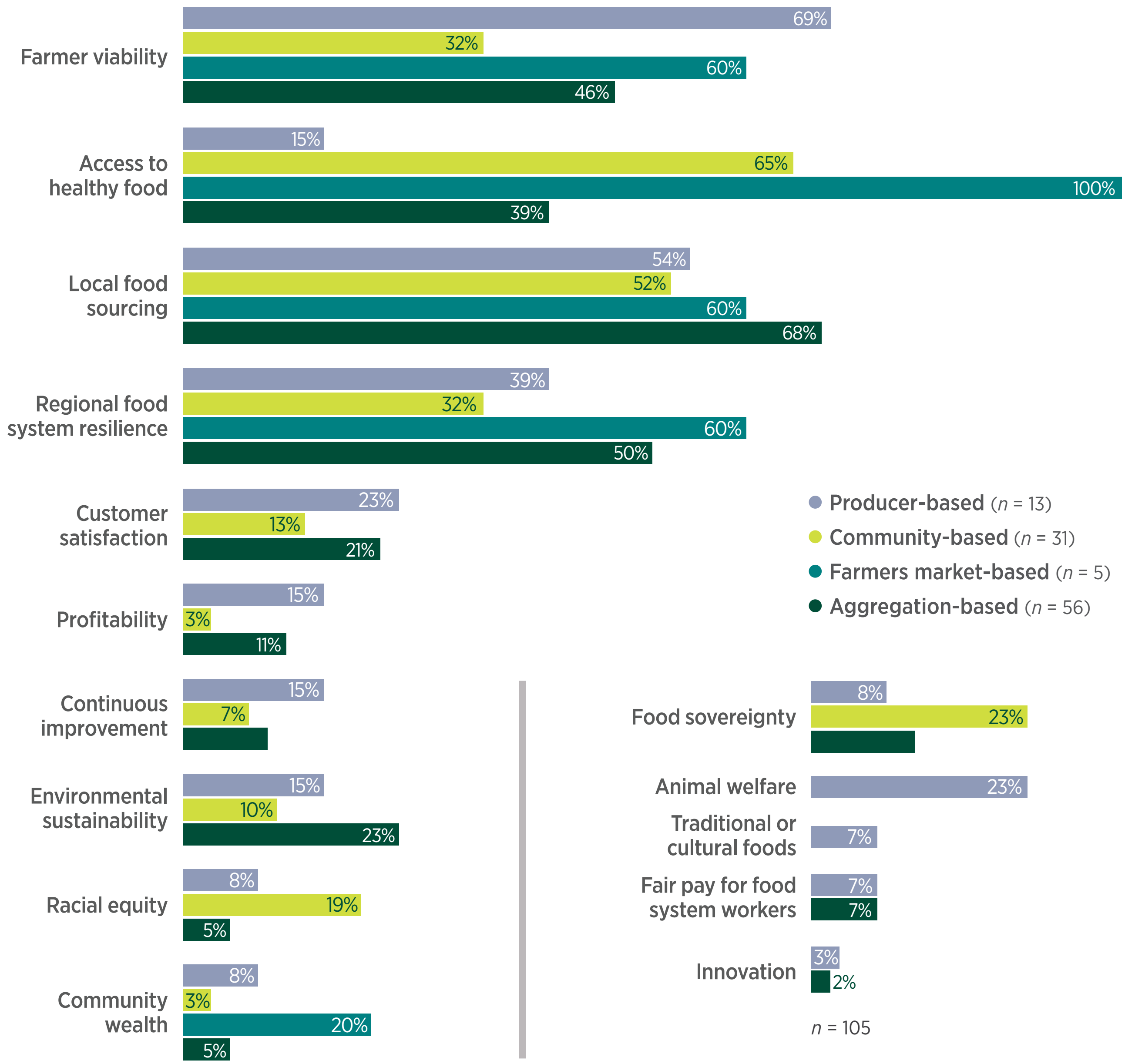


Despite a wide range of operational models, organizations in the food hub sector are prioritizing contributions to social betterment.

On average, community-based organizations engaged in the most activities related to community support and sustainability *(Figure 30)*. Aggregation-based organizations engaged in the most producer-support activities and operational activities. Producer-based organizations had the lowest average number of activities in three of the four categories, with sustainability being the exception. Across all four types of organizations, community-support and producer-support activities represented the greatest share of activities, indicating the centrality of mission-based activities regardless of the organizational focus. In other words, despite a wide range of operational models, organizations in the food hub sector are prioritizing contributions to social betterment.

ORGANIZATIONAL VALUES

Figure 31. **Percentage of Top Values by Organization Type**



Local food sourcing, farmer viability, and regional food system resilience were the top three values.

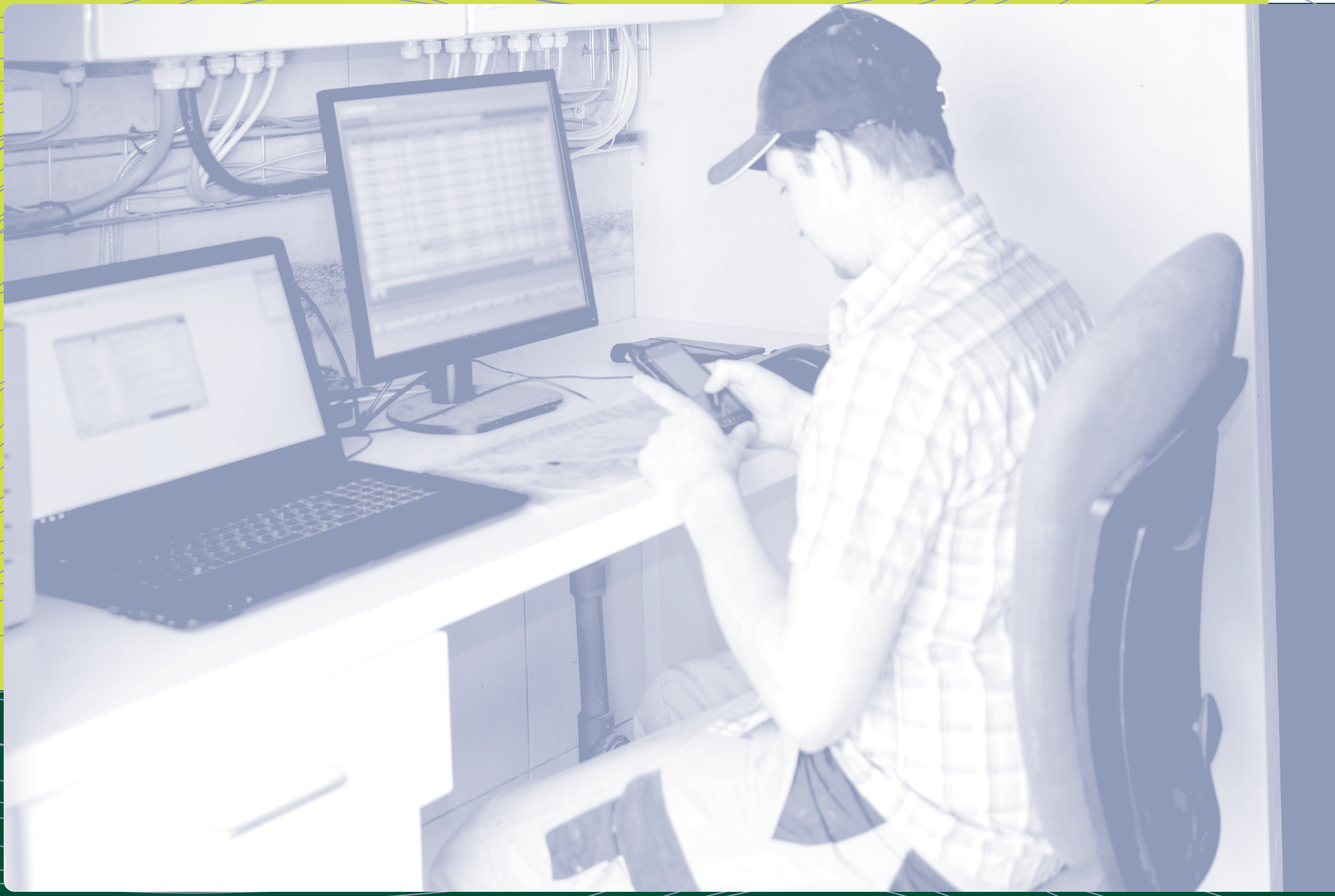
When asked to select their top three organizational values, local food sourcing, farmer viability, and regional food system resilience were the three values that rose to the top across all organization types, as shown in *Figure 31.* Access to healthy food was a top value for a third or more of three of the four organization types, including 100% of the farmers market–based organizations, except for the producer-based organizations.[5] There were also some differences between organization types within the less frequently selected values. Only producer-based organizations named animal welfare as a top value, and only community-based organizations named traditional or cultural foods as a top value. Only community-based and aggregation-based organizations identified fair pay for food system workers and innovation as top values.

One way that some organizations operationalize their values is through intentional sourcing practices.

One way that some organizations operationalize their values is through intentional sourcing practices. Just over half of respondents said that they track the percentage of the enterprises from which the organization purchases products that are owned or operated by women (59%) or by people of color (51%). Among the 58 organizations that reported percentages of purchases from women-owned businesses, the portion of sourcing ranged from 1% to 100%, with an average of 44%. Among the 45 organizations that reported percentages of purchases from businesses owned by people of color, the portion of sourcing ranged from 0.5% to 100%, with an average of 32%.

5 This specific question was new to the 2021 National Food Hub Survey, so direct comparisons with previous surveys are not possible. We do know that in 2017, 84% of organizations stated that increasing access to healthy or fresh food was related to their mission. This portion was lower than that of organizations stating other values were related to their missions, including 97% that said both increasing small/mid-sized farmers' and ranchers' access to markets and ensuring producers and suppliers receive a fair price were related to their missions.

Finances



Finances

GROSS REVENUE

In 2021, the 82 organizations providing financial information reported total gross revenue ranging from $3,400 to more than $49 million, with a median of $409,000. The maximum revenue in 2021 was lower than in any previous survey year, and the median revenue was lower than both 2019 and 2017, as shown in *Table 4*.

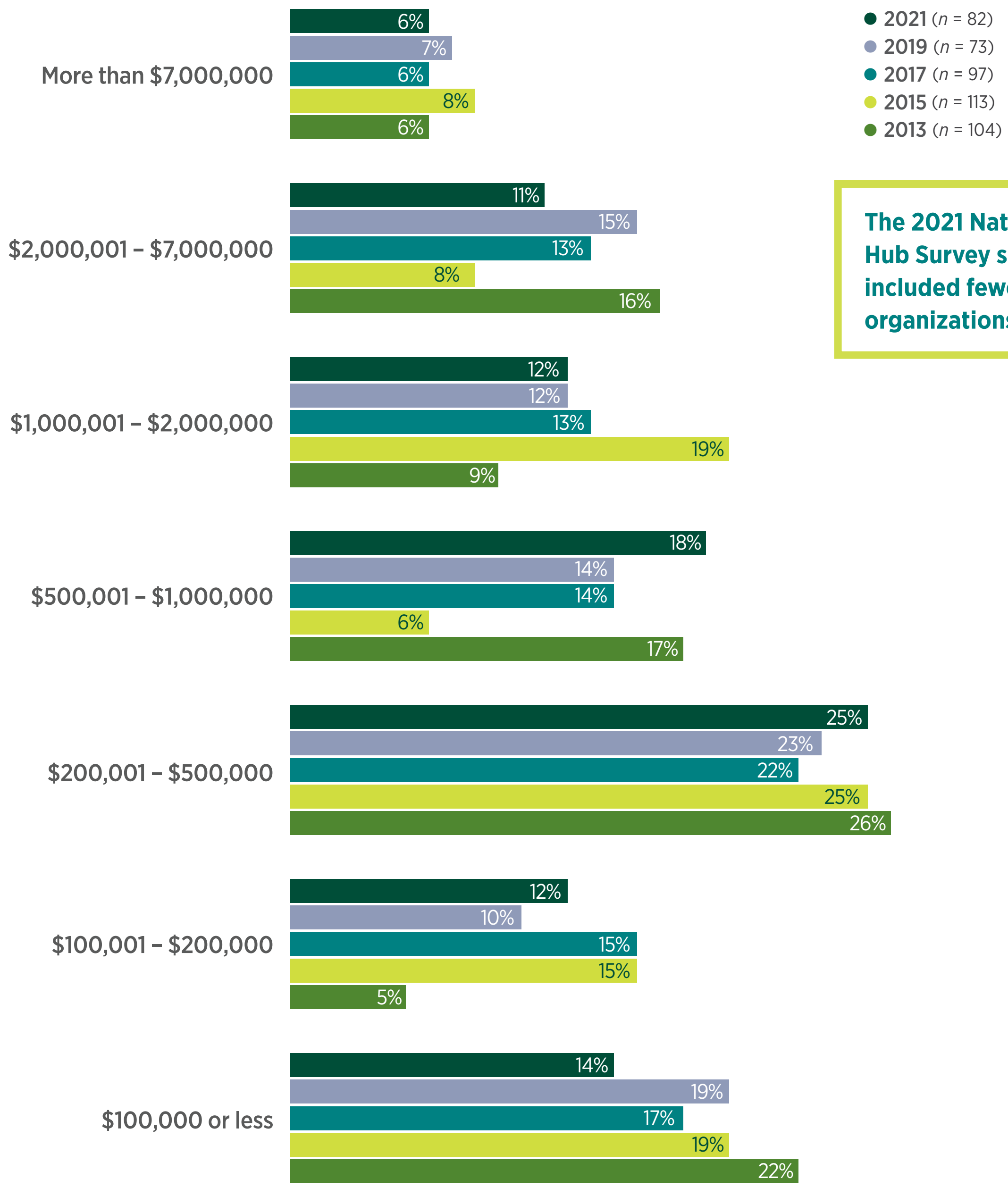
Table 4. **Gross Revenue by Survey Year**

Survey Year	Minimum	Median	Maximum
2021	$3,400	$409,500	$49,116,308
2019	($3,000)	$495,000	$100,000,000
2017	<$1,000	$489,000	$90,000,000
2015	$5,000	$351,000	$96,000,000

n = 82 in 2021, *n* = 73 in 2019, *n* = 98 in 2017, and *n* = 113 in 2015

The distribution of responses by gross revenue categories shows that in 2021 there were proportionally more organizations with gross revenue between $500,001 and $1,000,000 than in previous survey years, as seen in *Figure 32*. In 2021, there were also fewer organizations with gross revenue between $2 million and $7 million and under $100,000. In short, the 2021 National Food Hub Survey sample seemed to include fewer large-scale organizations and more small and mid-scale organizations, which likely explains the lower median revenue than previous survey years.

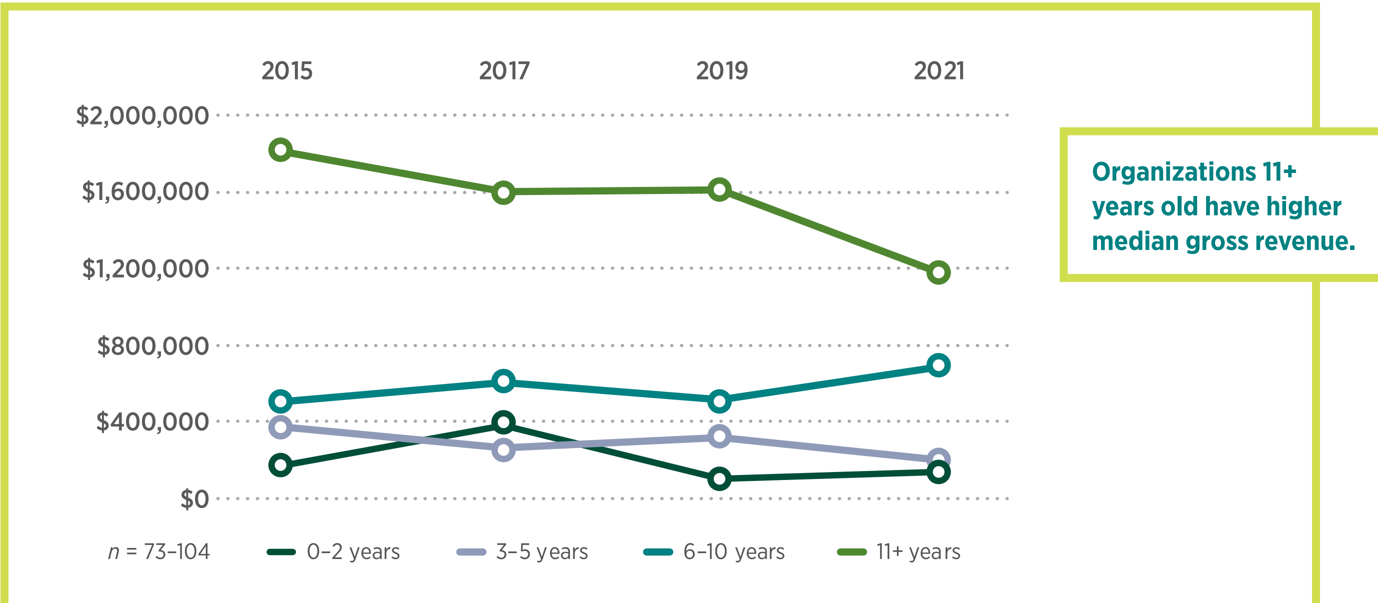
Figure 32. **Percentage of Organization Gross Revenue by Category by Survey Year**



The 2021 National Food Hub Survey sample included fewer large-scale organizations.

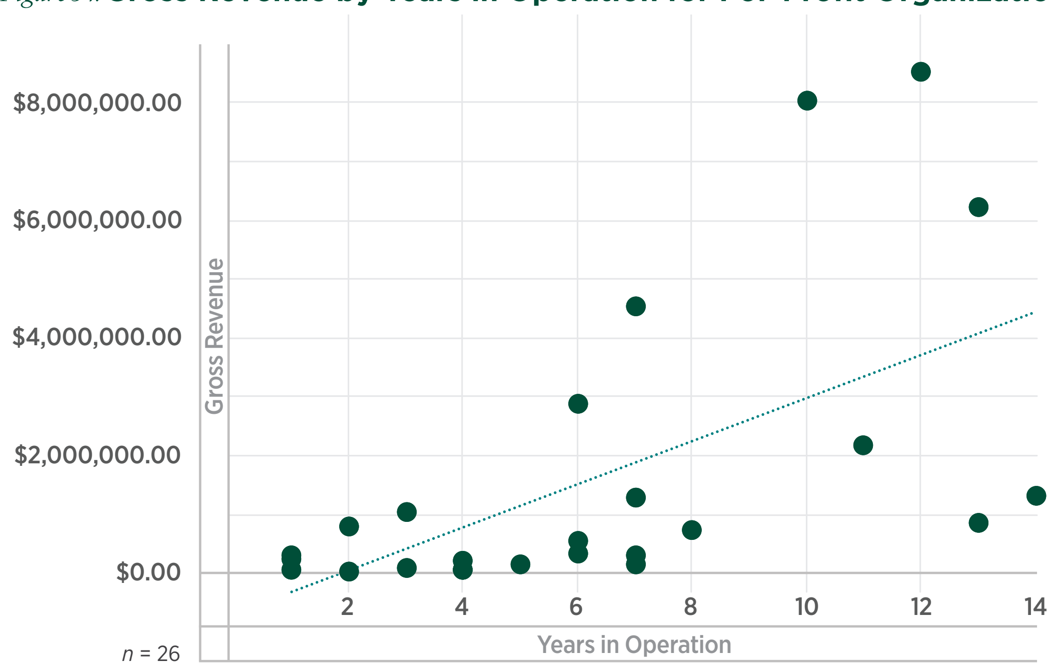
Consistent with other survey years, we found a wide range in gross revenue across all categories of hub age (total years in operation). *Figure 33* shows the variation in median gross revenue by survey year for each category of hub age. This figure indicates that although there is a high level of volatility for hubs between 0 and 5 years, food hubs more than 5 years and more than 11 years old are clearly differentiated from younger food hubs.

Figure 33. **Median Gross Revenue by Survey Year and by Organization Age (Years in Operation)**



Although there was no clear relationship between gross revenue and years in operation among nonprofit and cooperatively owned organizations, **there was a relationship between increased years of operation and increased gross revenue among the for-profit organizations**, as shown in *Figure 34*.[6] In other words, among for-profit organizations, there was an overall trend toward increased gross revenue with additional years of operation.

Figure 34. **Gross Revenue by Years in Operation for For-Profit Organizations**

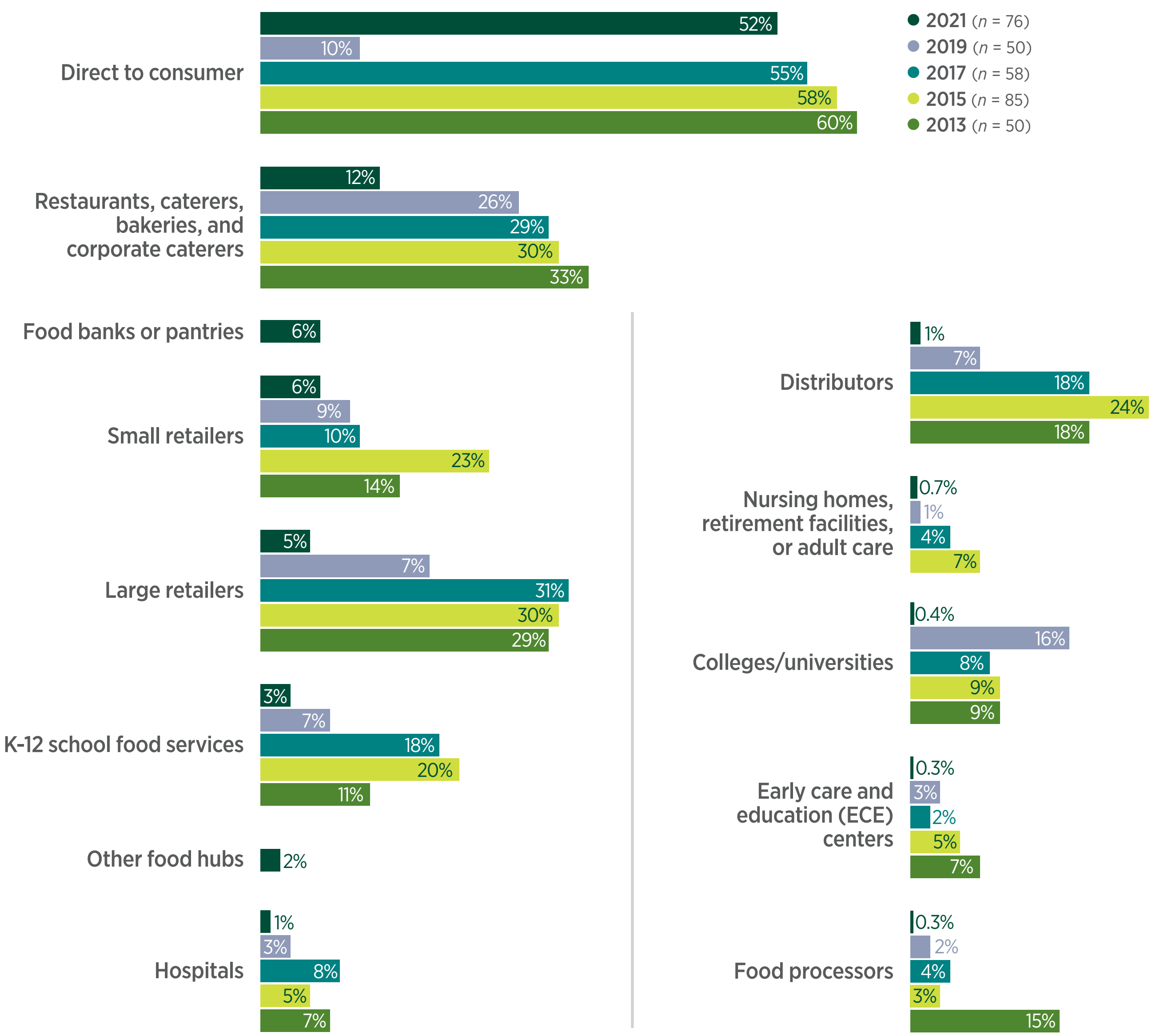


6 *Figure 34* excludes one outlier whose years in operation and gross revenue both far exceeded any others in the dataset.

SALES REVENUE

Looking at gross sales by customer category shows that organizations experienced dramatic changes in 2020. *Figure 35* shows the average percentage of total gross sales by customer type for the previous five surveys.[7] After dropping sharply in the 2019 survey, hubs' percentage of direct-to-consumer sales increased in 2020. On the flip side, 2019 hubs' sales to several institution types showed growth, and in 2020 the portion of sales to institutions dropped sharply, reflecting the closure of many institutions during the pandemic. The portion of hubs' sales to retailers (both large and small), to distributors, and to food processors also decreased in 2020. The 2021 National Food Hub Survey also asked, for the first time, about sales to food banks and to other food hubs, both of which saw a larger average portion of sales than many other customer types.

Figure 35. **Average Percentage of Total Gross Sales by Customer Type by Year**



7 The 2019 survey listed Pre-K and ECE as separate customer types whereas the 2013, 2015, and 2017 surveys only listed Pre-K. Reported sales to both Pre-K & ECE channel are included under ECE here.

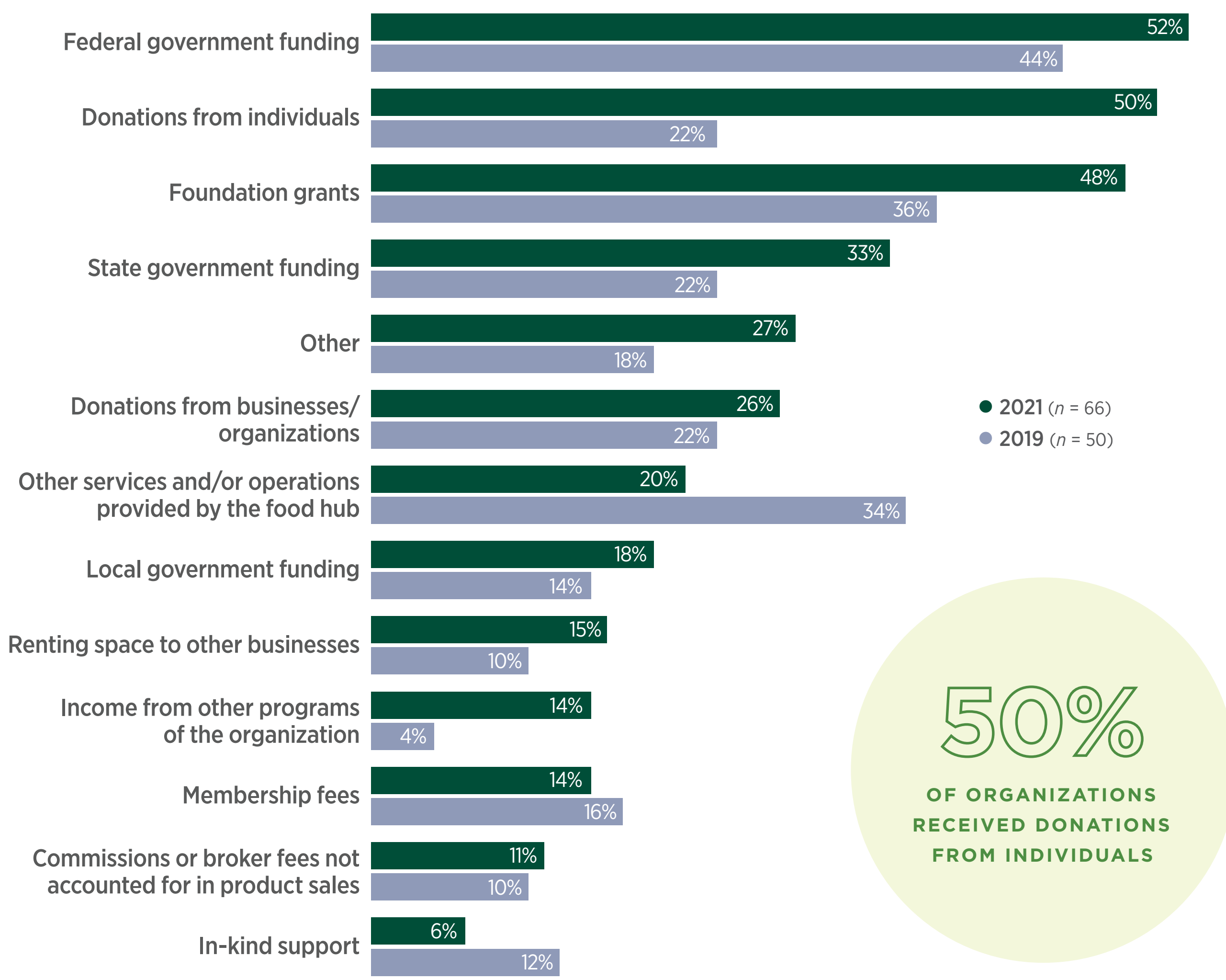
SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP) SALES

The number of organizations accepting SNAP benefits and the total amount of SNAP benefits redeemed increased between 2019 and 2021. In 2021, 28 hubs redeemed $399,702 in SNAP benefits, with an average of $14,275 (range of $87–$60,000). In 2019, 13 hubs redeemed $97,855 in SNAP benefits, with an average of $7,527 (range of $205–$40,000). This increase in SNAP redemption dollars also reflects the turn toward more direct-to-consumer markets in 2021.

NON-SALES REVENUE

Of the organizations that provided financial information, two-thirds reported at least one type of non-sales revenue. This represents a sharp increase from 2019, when only about half of responding hubs (46%) reported non-sales revenue. Differences from 2019 can also be seen in *Figure 36*, where in 2021 a greater portion of hubs reported non-sales revenue in most of the listed categories. Increases were most notable in donations from individuals, foundation grants, and state government funding.

Figure 36. **Percentage of Organizations Reporting Non-Sales Revenue by Source for 2021 and 2019**



Related to increases in non-sales revenue, food hub reliance on grants went up in 2021, with proportionally more hubs reporting a higher dependence on grants than in any previous survey, as shown in *Figure 37*. This may reflect the increased availability of state and federal funding during the COVID-19 pandemic. Looking at grant dependence by legal structure and years in operation, as seen in *Figures 38 and 39*, shows that the hubs operating for three or more years had the biggest increase in high dependence on grant funds between 2019 and 2021. Among the for-profit operations, proportionally fewer reported a high level of grant dependence in 2021 than in 2019. *Figure 40* also shows that grants were by far the dominant source of capital for food hub operations.

Figure 37. **Percentage of Dependence on Grant Funding by Organization**

IN 2021, FOOD HUBS INCREASED THEIR RELIANCE ON GRANTS BY

12%

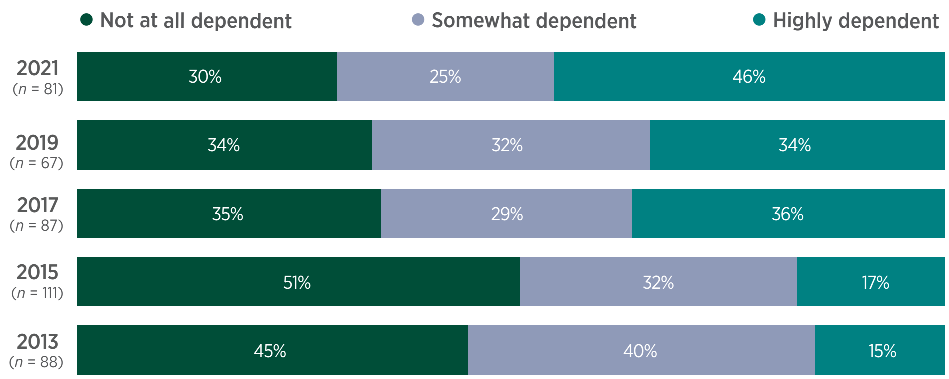


Figure 38. **Percentage of Dependence on Grant Funding by Legal Status**

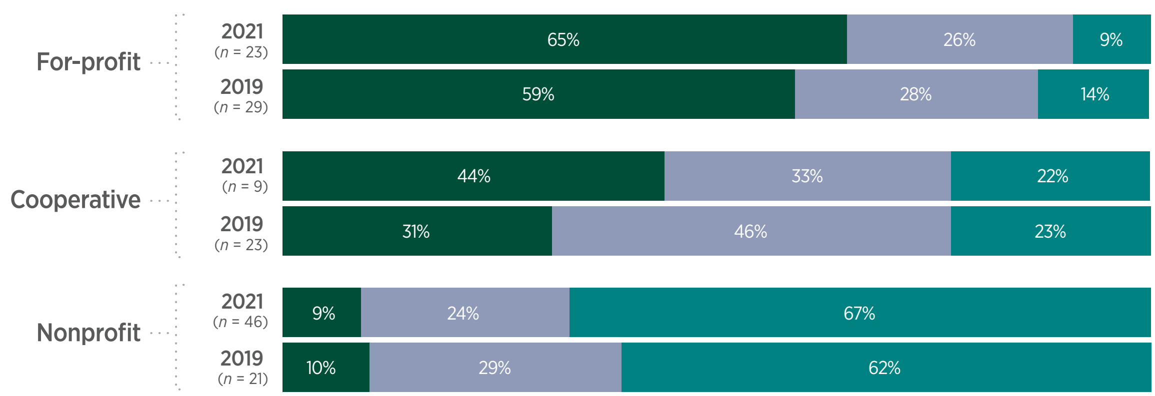


Figure 39. **Percentage of Dependence on Grant Funding by Years in Operation**

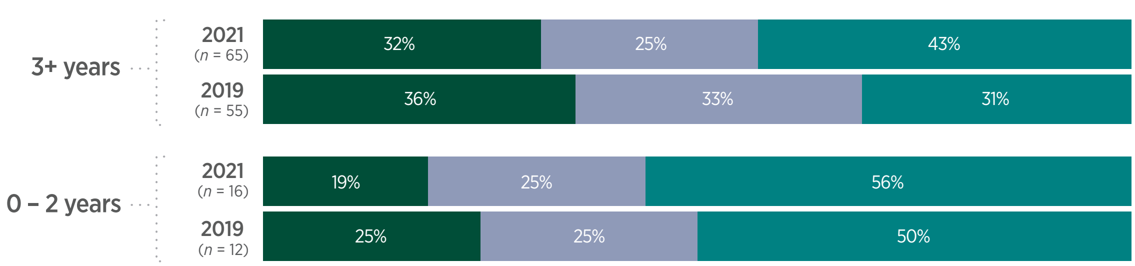
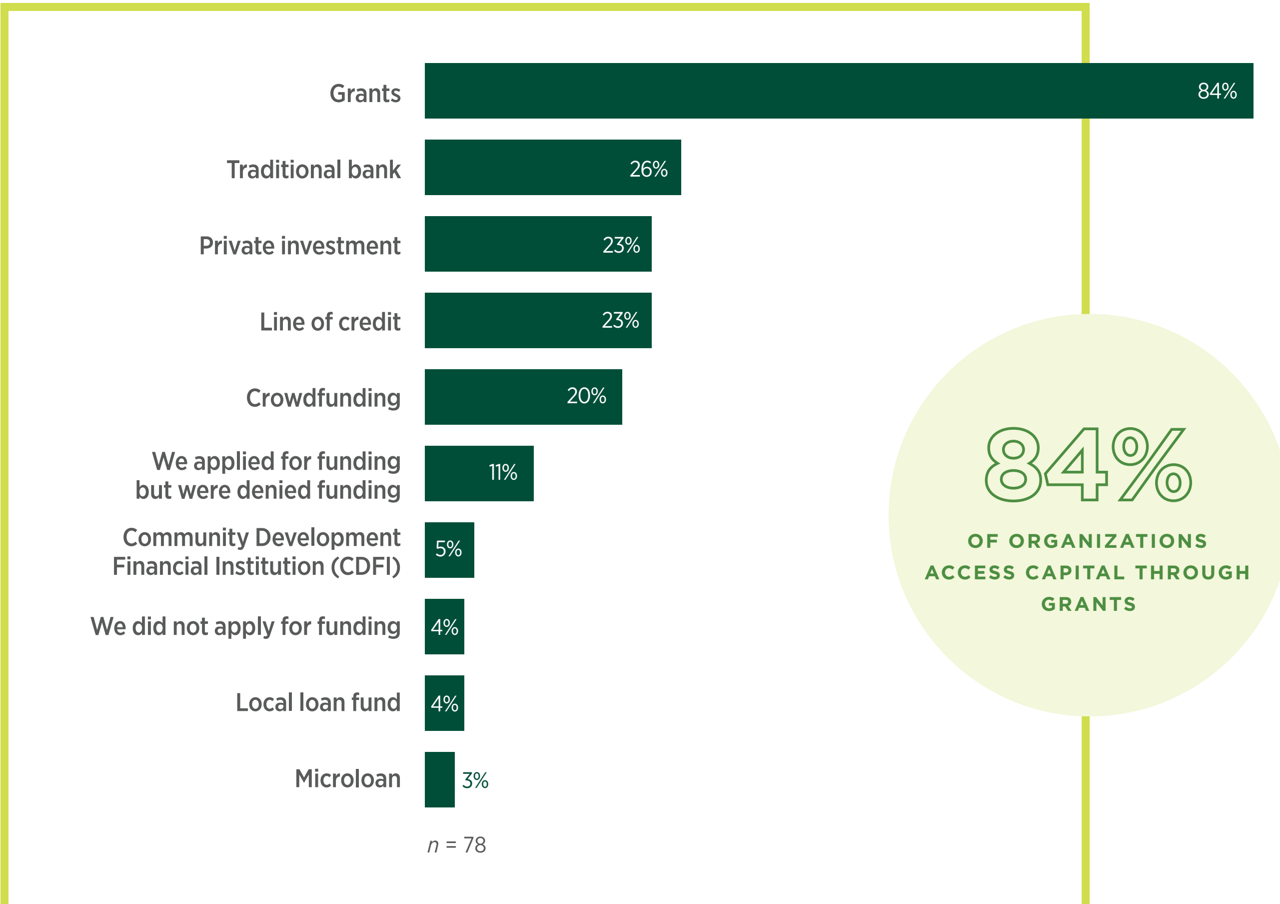


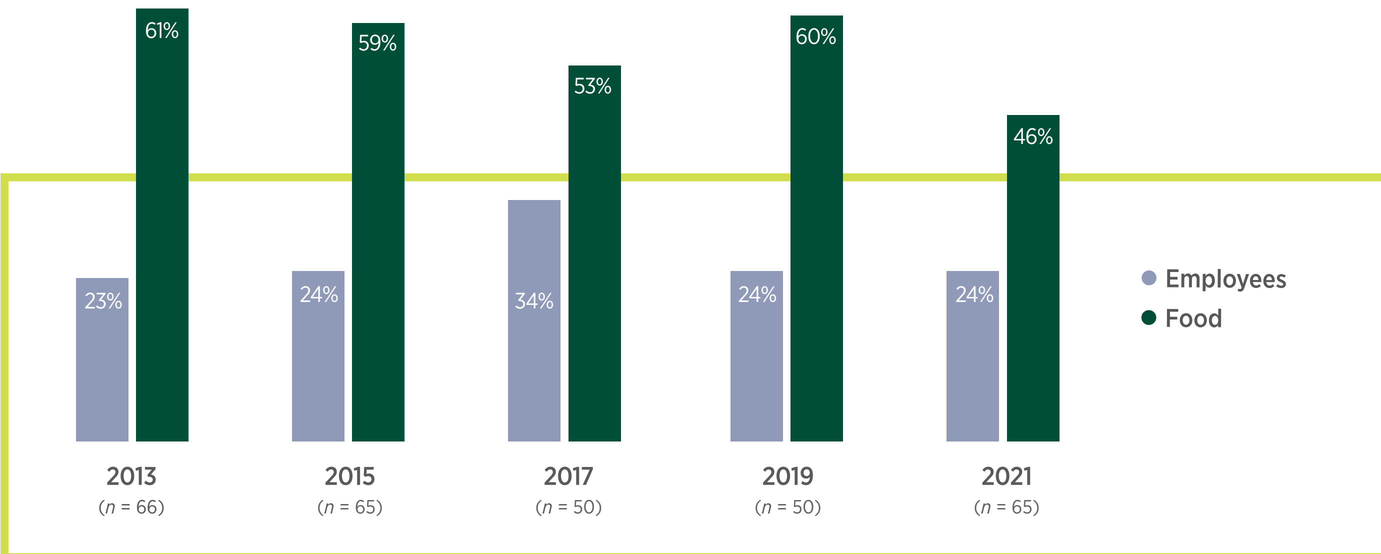
Figure 40. **Percentage of Organizations' Access to Sources of Capital**



OPERATING EXPENSES

As in previous survey years, product purchases and employee salaries and benefits were the two largest categories of expenses for food hub operations *(Figure 41)*. However, although the share of employee expenses remained consistent with previous survey years (with the exception of 2017), the share of expenses for food and product purchases was lower than in any previous survey year. This may reflect increases in other expenses, such as packaging and shipping, that many operations experienced during the COVID-19 pandemic.

Figure 41. **Percentage of Hubs' Two Largest Categories of Expenses by Survey Year**



OPERATING EFFICIENCY

An operating expense ratio (OER) is a way to measure the financial health of an organization. The measure is calculated by dividing total operating expenses by total gross revenue. If the OER is greater than 1.00, the organization's expenses are greater than its revenue. Conversely, if the OER is less than 1.00, the revenue is greater than expenses and the organization has a positive profit ma gin.

In 2021, both the mean and median OER were lower than in any other survey year, as shown in *Table 5*. Additionally, 67 of 74 hubs (91%) reported breaking even or better in the 2020 calendar year. This is a notably higher portion of hubs with a positive profit margin than in previous years. In both 2019 and 2017, approximately two-thirds of hubs reported breaking even or better. This increase in positive profit margin likely relates to the increases in non-sales revenue from a range of sources.

Table 5. **OER by Survey Year**

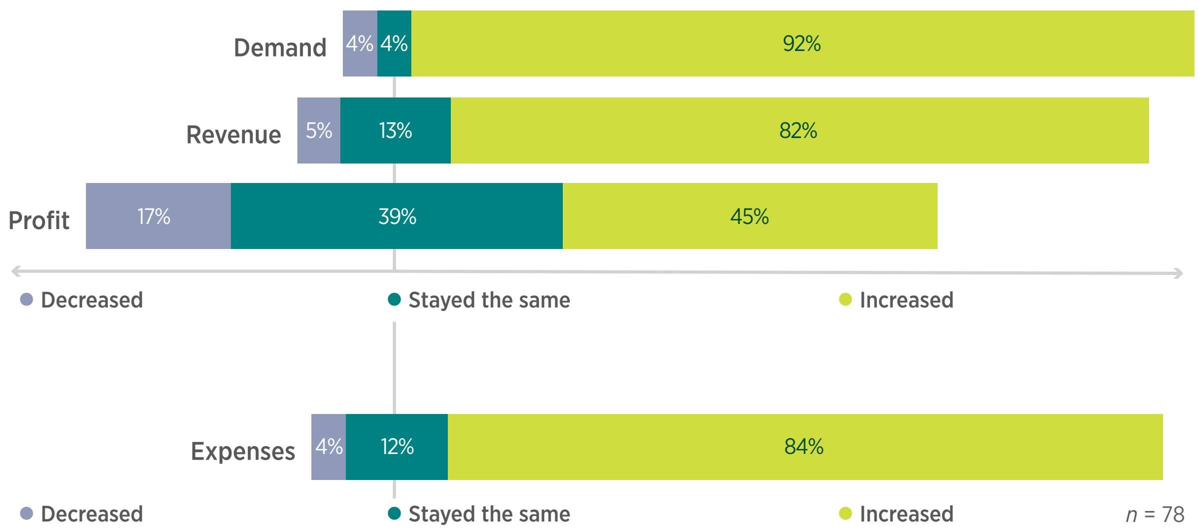
	2013	2015	2017	2019	2021
Mean	1.09	0.88	1.13	1.10	0.80
Median	1.00	0.94	0.97	0.96	0.87
Range	0.04–6.79	0.01–3.10	0.06–7.18	0.02–9.76	0.10–1.98

n = 77 in 2013, *n* = 86 in 2015, *n* = 78 in 2017, *n* = 59 in 2019, and *n* = 74 in 2021

Growth Opportunities, Challenges, and Barriers

The majority of food hub organizations saw increases in demand and revenue in the year 2020, as shown in *Figure 42*. However, the majority also saw increases in expenses, which helps explain why changes in profit were more evenly split between those that saw increases in profit and those that saw profits stay the same.

Figure 42. **Percentage of Perceived Changes in Financial Outlook in 2020**



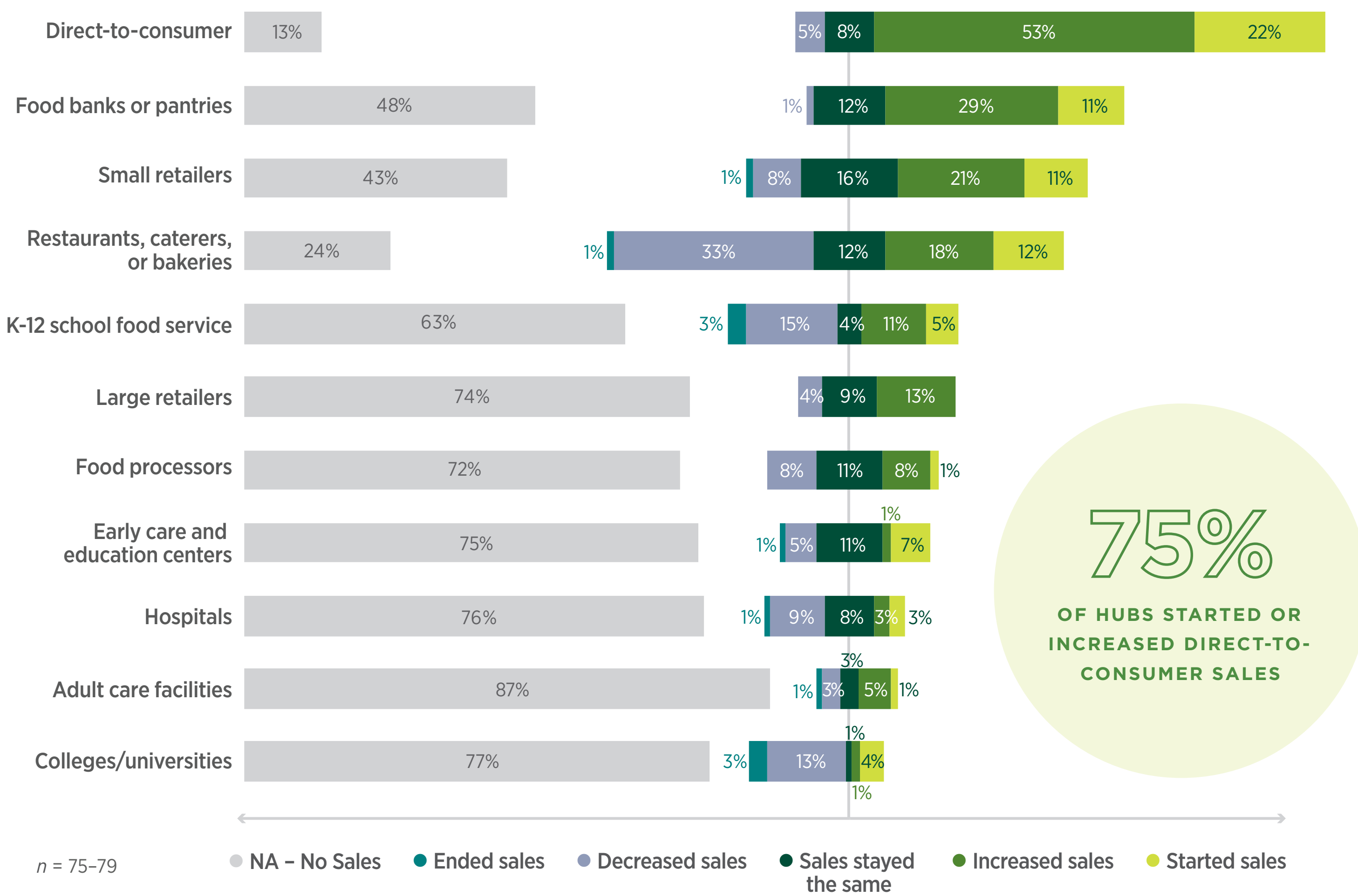
THE MAJORITY OF FOOD HUB ORGANIZATIONS SAW INCREASES IN DEMAND AND REVENUE IN THE YEAR 2020.

Figure 43 **reveals dramatic growth in direct-to-consumer sales in 2020, with 75% of hubs reporting that they either started or increased their sales to this channel.** We can see the influence of the COVID-19 pandemic on these changes when comparing these numbers to what hubs reported expecting in the 2019 survey. At that time, only 6% of responding hubs expected to enter the direct-to-consumer market.

In contrast to the increase in direct-to-consumer sales, sales to the category of restaurants, caterers, or bakeries had the sharpest decline, with a third of hubs reporting decreased sales to this channel. In 2019, the largest portion of hubs expected to increase their sales to this channel, reflecting pre-pandemic assumptions.

In contrast to the increase in direct-to-consumer sales, sales to the category of restaurants, caterers, or bakeries had the sharpest decline, with a third of hubs reporting decreased sales to this channel.

Figure 43. **Percentage of Changes in Sales by Market Channel in 2020**

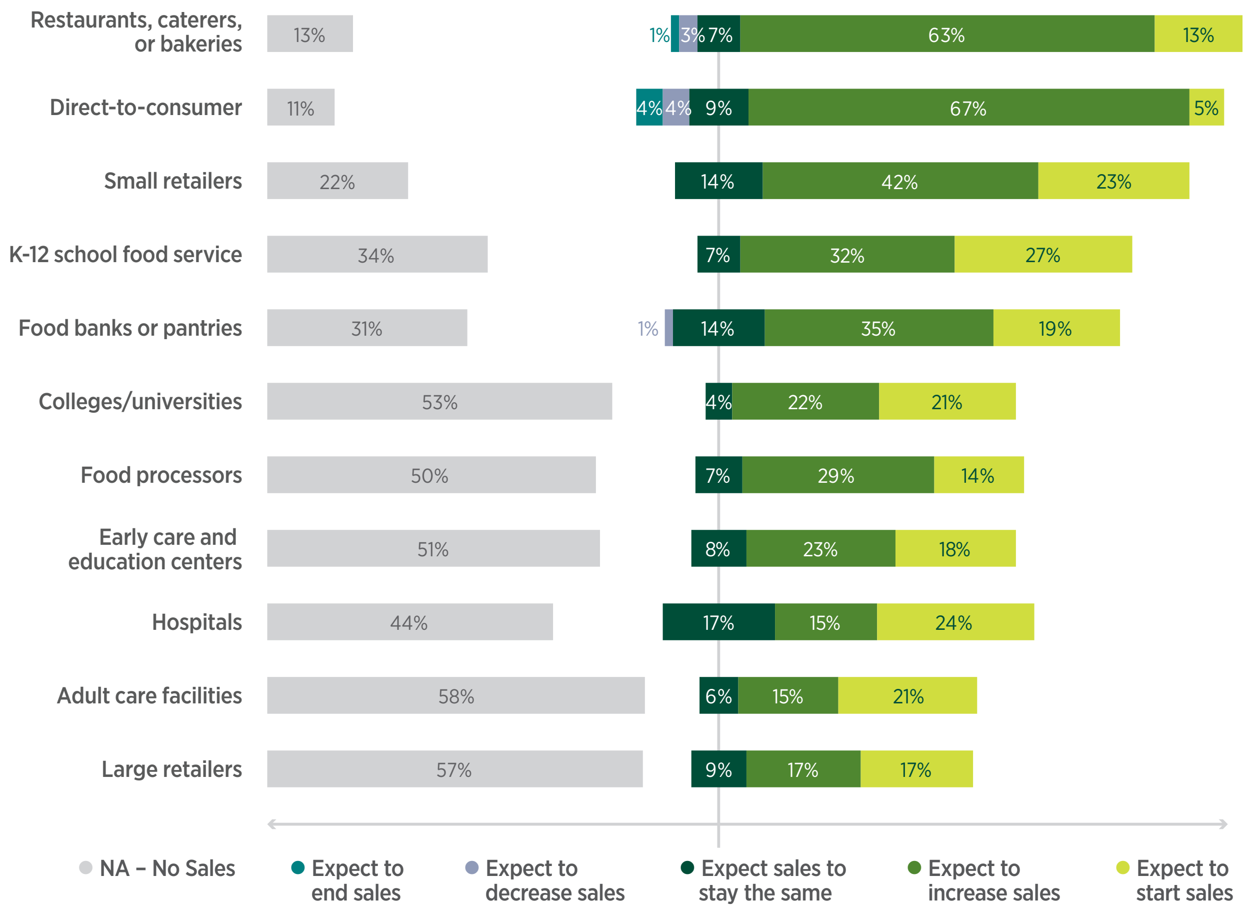


The 2021 National Food Hub Survey findings also indicate that many hubs expect sales to restaurants to bounce back. *Figure 44* shows that 76% of organizations expect their sales in this channel to start or increase in the following two years. Most hubs also expect continued growth in direct-to-consumer sales. This was the only channel, however, where a notable portion of hubs (8%) expected sales to end or decrease, indicating that some of the organizations that entered this market during the pandemic did so on a temporary basis.

76%

OF ORGANIZATIONS EXPECT RESTAURANT SALES TO START OR INCREASE IN THE NEXT TWO YEARS

Figure 44. **Percentage of Expected Changes in Sales by Market Channel in the Next Two Years**



n = 79–76

FOOD HUB PERSPECTIVE

“

Our produce box represented about 60% of our curbside sales during the pandemic. In 2021, that number is about 40%, with the remainder in sales from value add. We are also seeing a steady decline in our curbside program. Looking to push back into restaurant sales to maintain overall sales.

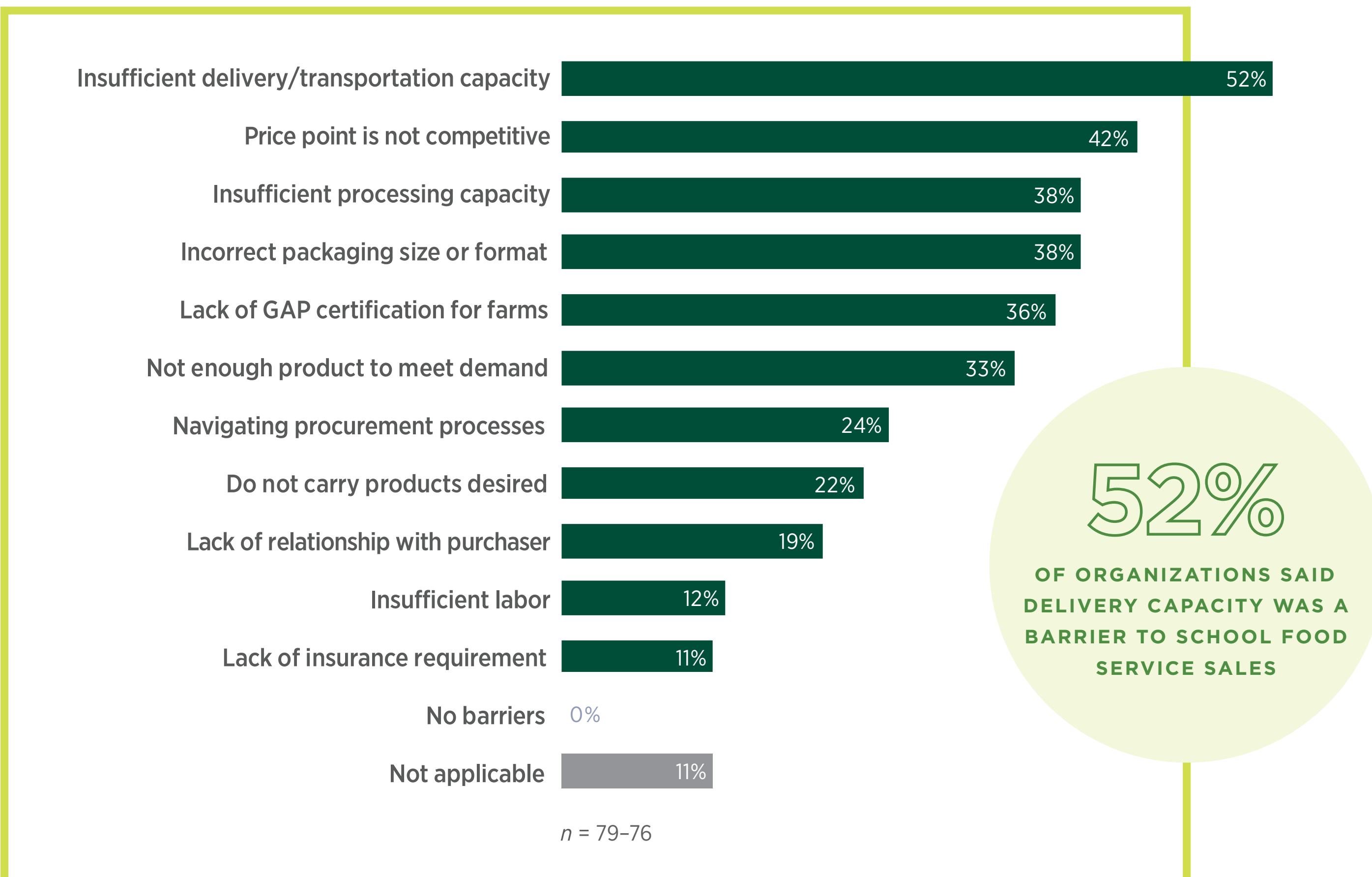
While food hubs' expectations were optimistic for the next two years, the level of optimism was generally lower than in 2019. In 2021, half of hubs (51%) expected to start or increase sales on average across all market channels. In 2019, two-thirds of hubs (65%) expected to start or increase sales on average across all market channels. The contrast was even sharper when comparing the outlook for institutional sales. In 2021, an average of 44% of hubs expected to start or increase sales to institutional markets whereas in 2019, an average of 62% of hubs expected to start or increase their sales to these channels.

SCHOOL FOOD SERVICE AND FOOD-ASSISTANCE MARKETS

The 2021 National Food Hub Survey included questions about barriers to initiating or expanding sales to K–12 school food service and food-assistance markets to understand how well-positioned food hub organizations were to capitalize on pandemic-era federal programs specifically targeting these markets. Data in the previous section *(Figure 44)* indicates that many responding food hubs believe sales to school food service and food-assistance markets will rebound from COVID-19 impacts more quickly than other institution types, which may be a reflection of these federal programs.

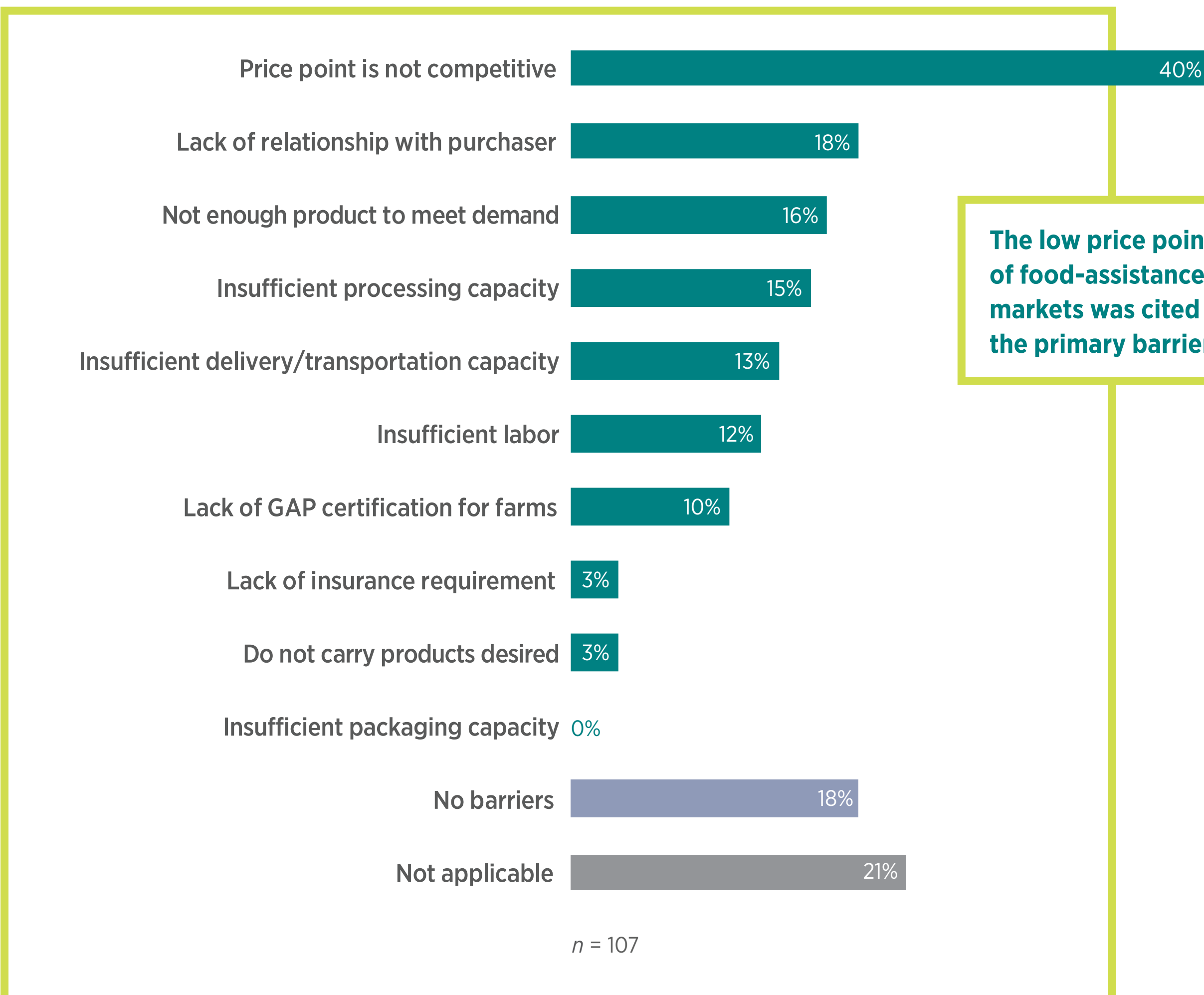
When asked about barriers to school food-service markets, more than half of responding hubs reported logistics and delivery capacity as the greatest barrier, followed by competitive price points and the need for specific product requirements in these markets (e.g., fresh-cut, individually packaged products).

Figure 45. **Barriers to Maintaining or Expanding Sales to School Food Service**



A new question in the 2021 National Food Hub Survey asked participants about the barriers to maintaining or expanding sales to food banks and pantries, which emerged as important markets in the first year of the COVID-19 pandemic. Federal programs such as the Farmers to Families Food Box program helped to create new connections between food hubs and food banks in 2020. Additional federal programs such as the Local Food Purchase Assistance Program, announced in 2021, are poised to further expand food hubs sales into food-assistance markets. Survey respondents indicated that the low price point of food-assistance markets was the primary barrier (40%) followed by lack of relationships with purchasers (18%) and not enough product volume to meet demand (16%) (*Figure 46*). It's notable that nearly 1 in 5 hubs reported no barriers to maintaining or expanding these sales.

Figure 46. **Barriers to Maintaining or Expanding Sales to Food Banks or Pantries**

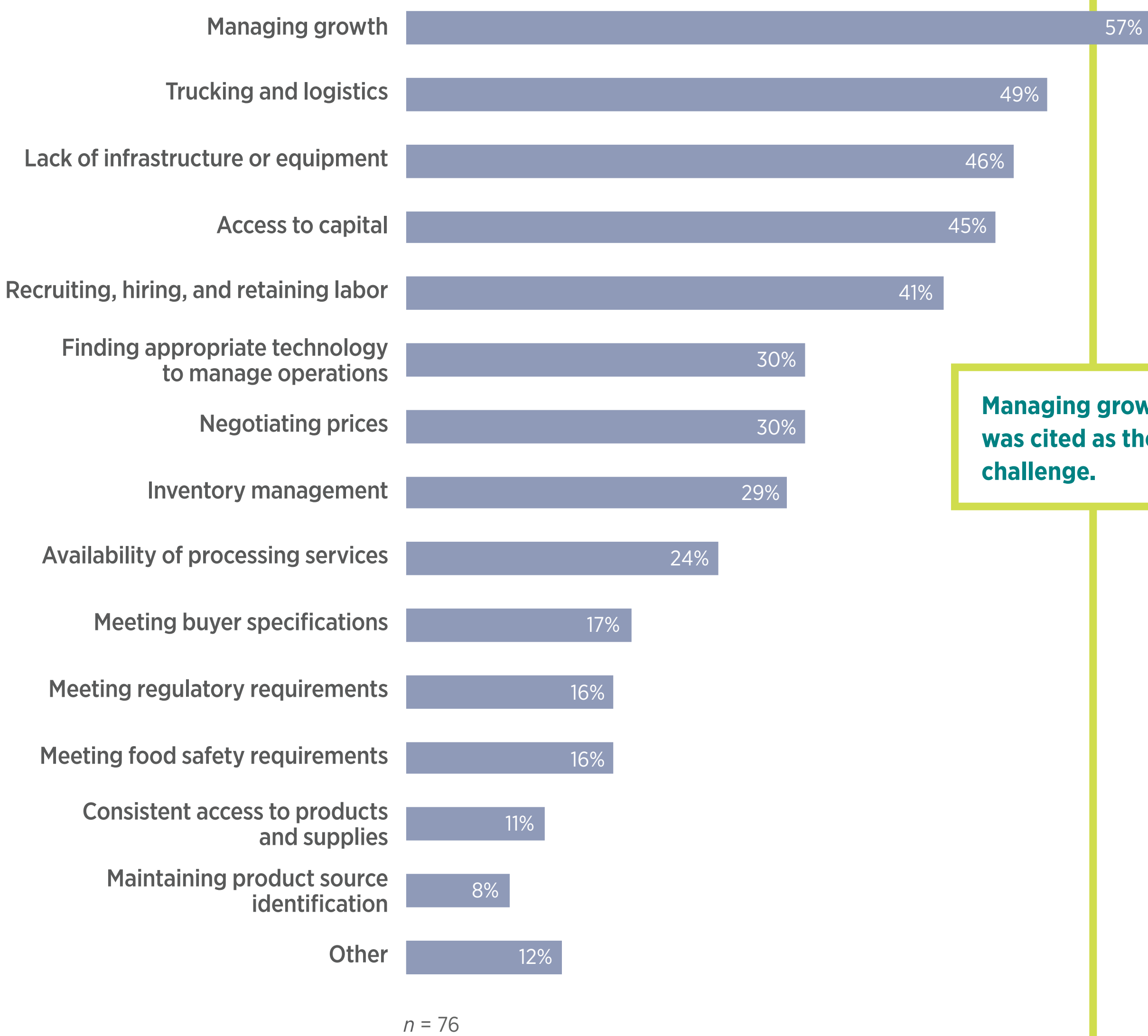


The low price point of food-assistance markets was cited as the primary barrier.

TOP CHALLENGES

The top challenge that hubs reported was managing growth, as shown in *Figure 47*.[8] This was followed by trucking and logistics; lack of infrastructure or equipment; access to capital; and recruiting, hiring, and retaining labor, all of which were selected as one of the top five challenges by upwards of 40% of respondents.

Figure 47. **Percentage of Hubs Selecting Challenge in Top 5**



Managing growth was cited as the top challenge.

8 “Balancing supply and demand” has consistently been identified as the top challenge for food hubs since the 2013 survey. In the 2021 survey, this phrase was left out because it is so broad and because it describes a core function of food hub operations. Instead, we added several items to understand hubs’ challenges more specifically.

FOOD HUB NETWORKS

For the first time, the 2021 National Food Hub Survey included two questions about participation in state or regional networks for food hubs and similar businesses.[9] The majority of respondents (75%) indicated that they participate in a food hub network, and only four organizations reported being aware of a network but not participating, as shown in *Figure 48*. However, because the survey was promoted through many state and regional networks, these findings may overrepresent organizations that belong to networks.

Based on responses, food hub networks appear to be supporting a wide range of activities. Among the organizations indicating that they participate in a network, approximately half or more reported engagement in all seven listed activities, as seen in *Figure 49*. Notably, **three-quarters of hubs had collaborated to apply for grant funding or capital through a network, an activity that requires a high degree of trust and cooperation**. In written responses, two organizations mentioned engaging in policy advocacy through their networks, including advocating for food hubs in state government budgets.

Figure 48. **Percentage of Organizations Participating in Networks**

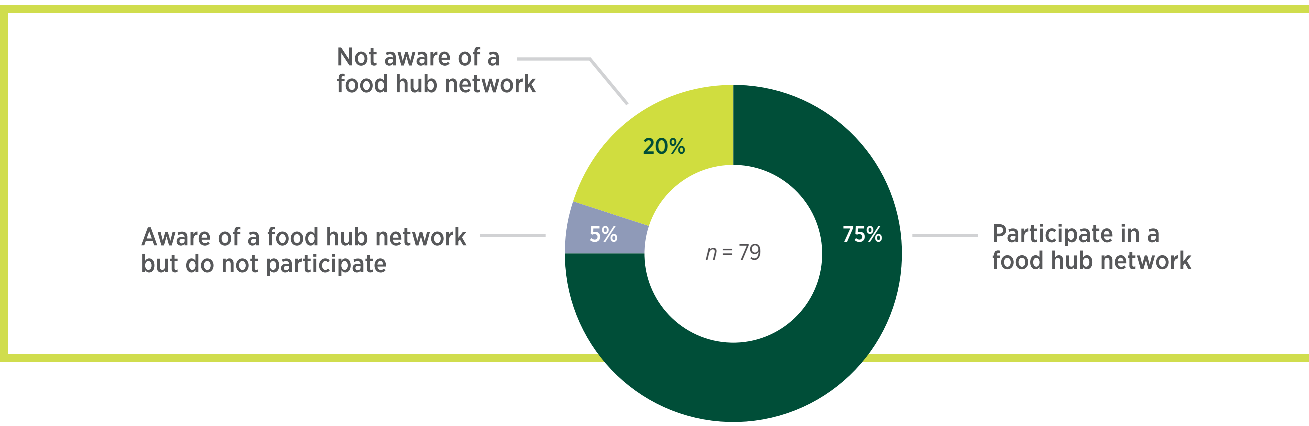
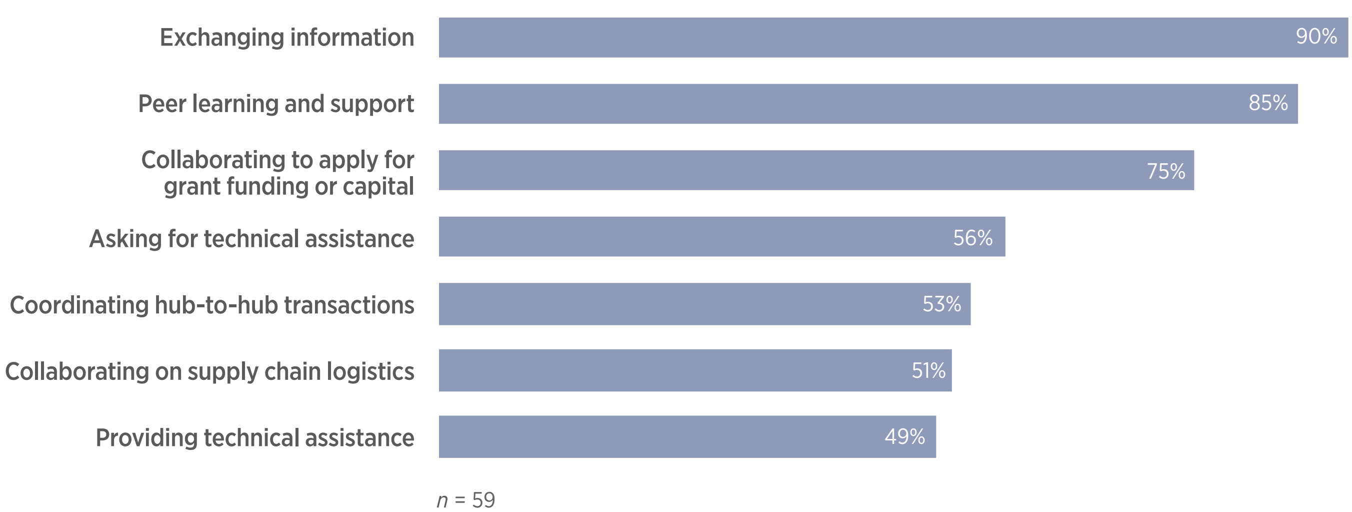


Figure 49. **Percentage of Organizations Engaging in Food Hub Network Activities**

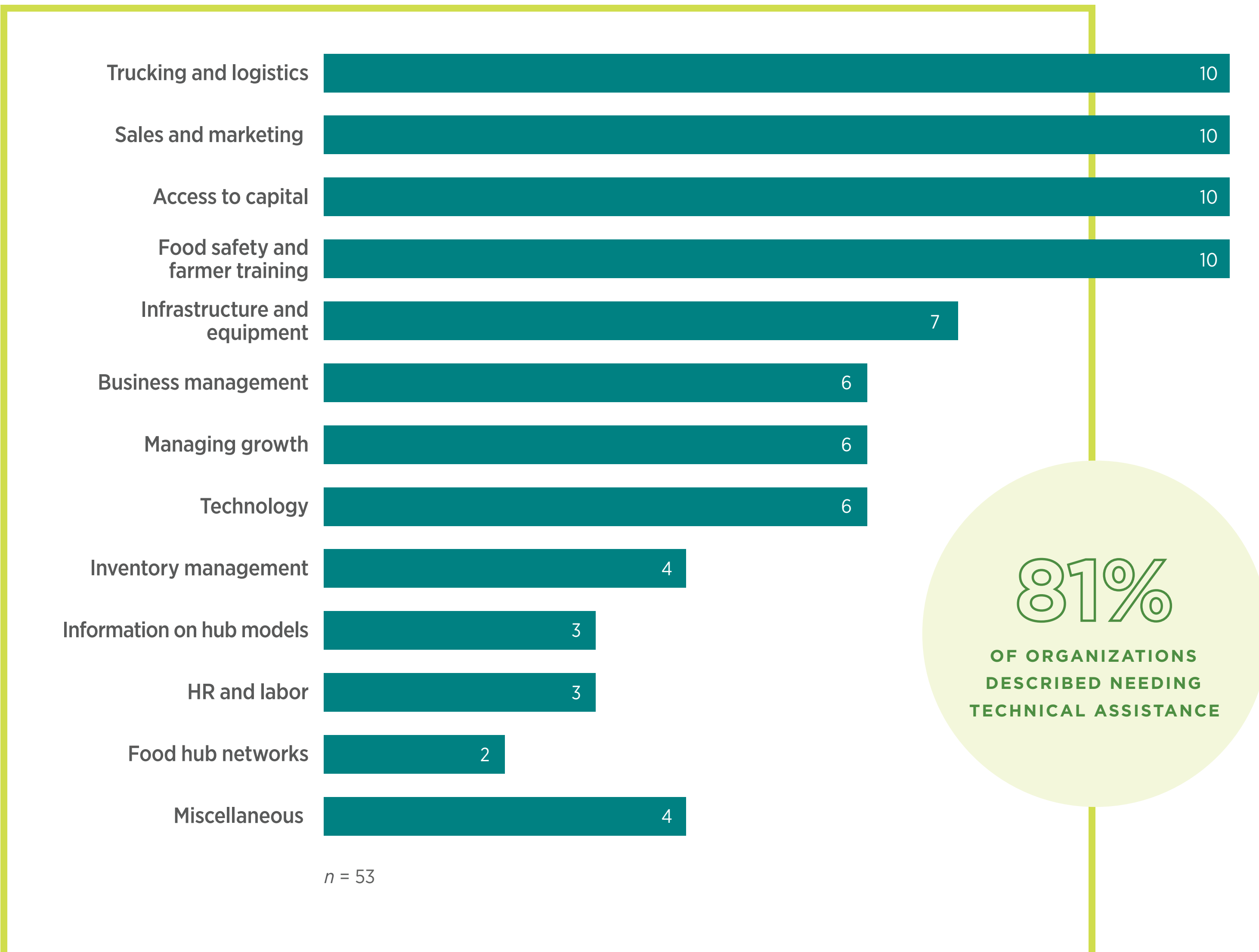


9 The 2015 and 2017 National Food Hub Surveys included a question about where hubs receive information. In both years, just under half of respondents reported formal communities of practice as an important source of information. It was not clear from the question wording, however, whether these were broader networks or communities of practice for food hubs specifically.

TECHNICAL ASSISTANCE NEEDS

When asked in an open-ended question what technical assistance hubs anticipated their organization needing in 2022, four topics rose to the top: trucking and logistics; sales and marketing; access to capital; and food safety and farmer training. *Figure 50* shows the number of times a technical assistance topic was mentioned. Altogether, 43 hubs described needing technical assistance of some kind, and nine said that no assistance was needed.

Figure 50. **Number of Times Technical Assistance was Mentioned by Food Hub Organizations**



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Appendix

METHODOLOGY

The 2021 National Food Hub Survey tool was prepared in Qualtrics by the University of Michigan Program Evaluation Group (UM PEG) using the 2019 survey as a template. After the survey was closed, data was downloaded as a Microsoft Excel file and UM PEG performed routine quality control checks, cleaning the data of any errors or omissions. CRFS provided UM PEG with data files containing 2019, 2017, 2015, and 2013 survey results for comparison across years. UM PEG then performed analyses of current and past data using SPSS and Microsoft Excel. The 2021 National Food Hub Survey report refers to results from all five survey years where available. Data from 2013 may not be included in all tables due to substantive changes in the survey questionnaire over time.

CHANGES TO THE 2021 SURVEY

Each iteration of the National Food Hub Survey goes through a review and update process to improve data collection and incorporate current trends and interests in the food hub sector. Development of the 2021 National Food Hub Survey questionnaire began in late 2020 with a review of the previous 2019 survey. Significant changes were made to the 2019 survey to increase and diversify participation in the survey and better understand the role that food hubs play in advancing racial equity in their communities.

To continue the efforts to bring a racial equity lens to this research, an advisory committee was formed to provide input and critical feedback on the 2021 survey instrument and inform data interpretation. The survey advisory committee was composed of seven food hub operators, academics, and nonprofit leaders from diverse geographic, racial, and ethnic backgrounds. This group met three times during the survey project: twice pre-survey and once post-survey. The survey team worked with one of the advisory committee members to design and co-facilitate the three sessions. The co-facilitation model was chosen to help elevate the voice of the advisory committee and allow the survey team to spend more time in “listening mode.” Finally, advisory committee members were given the opportunity to review, comment on, and edit a draft of this report before publication.

Notable changes to the 2021 National Food Hub Survey include streamlining the employment and financial sections of the survey.

Other notable changes to the 2021 National Food Hub Survey include streamlining the employment and financial sections of the survey. These changes reduced the estimated amount of time required to take the survey. The 2021 survey also added new sales channels to questions about market outlook, including food banks and pantries to reflect new food-assistance programs. Finally, the survey team adjusted the challenges section and added several new questions related to the impacts of the COVID-19 pandemic.

RESPONSES

After screening the 228 initiated responses, removing duplicates, responses less than 40% complete, and responses from organizations outside the survey scope (e.g., technology companies, nonprofits focused exclusively on education, and operations that were inactive in 2020) the final dataset included 107 responses, including 78 complete responses and 29 partial responses. This is similar to the number of responses received in the 2013 and 2019 surveys but lower than the number received in 2015 and 2017.

VISION

CRFS envisions a thriving economy, equity, and sustainability for Michigan, the country, and the planet through food systems rooted in local regions and centered on Good Food: food that is healthy, green, fair, and affordable.

MISSION

The mission of CRFS is to engage the people of Michigan, the United States, and the world in applied research, education, and outreach to develop regionally integrated, sustainable food systems.

ABOUT

CRFS joins in Michigan State University's pioneering legacy of applied research, education, and outreach by catalyzing collaboration and fostering innovation among the diverse range of people, processes, and places involved in regional food systems. Working in local, state, national, and global spheres, CRFS' projects span from farm to fork, including production, processing, distribution, policy, and access.

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