

Report

Understanding the Impacts of the COVID-19 Pandemic on California's Emergency Food System

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Executive summary

The COVID-19 pandemic created an unprecedented spike in demand for food assistance as well as numerous logistical challenges for food banks attempting to address the elevated need. Our study interviewed 30 individuals from 24 hunger relief organizations in California to document their challenges, opportunities, and adaptive strategies during the pandemic, in the hopes that their experiences may provide insights for those seeking to understand the state of the emergency food system and identify approaches for building greater resilience.

Common challenges

- Compared to pre-pandemic levels, most food banks reported **servicing double or triple the number of people** during the pandemic. Widespread job losses led many people to seek help from food banks for the first time, especially people in the tourism or service industries that were hit the hardest by the state's stay-at-home order.
- Food banks around the country suffered **significant drops in volunteers** at the beginning of the pandemic, just as demand for food bank services surged.
- Food banks experienced multiple **supply chain disruptions**: grocery donations declined as retailers struggled to restock shelves, bulk donations from restaurants and institutions were difficult to sort and distribute, and food banks that attempted to purchase food often found themselves competing for limited supply or facing long delivery delays.
- Many food banks **lacked the infrastructure or staff** to sort, store, and distribute the sudden increases in food.
- Maintaining **safe conditions for staff and clients** was another significant challenge.
- Many respondents expressed concerns about **staff and volunteers burning out** because of the unsustainable pace of the pandemic response.

Adaptive strategies

- Many food banks engaged in **direct distribution** to households for the first time during the pandemic. Drive-thru distributions were a common strategy to serve large volumes of people with limited physical contact.
- The sheer volume of food being distributed by food banks during the pandemic often necessitated **expanding operational capacity**, including warehouse space, refrigerated storage, truck fleets, new programs, and IT infrastructure.
- Many food banks took advantage of **staffing assistance** from the California National Guard or other local organizations.
- Supply chain dynamics during the pandemic forced many food banks to **establish or increase food purchasing** programs.
- Many respondents credited their success at responding to the pandemic to an organizational culture of **flexibility, collaboration** with other food banks and partner agencies, and **lessons learned from previous disasters**.

Government policy responses

- Government support was critical for food banks to rapidly scale up their operations to serve the unprecedented need.
- The USDA Farmers to Families Food Box Program was an important source of food for many food banks, though respondents also voiced criticism about its uneven geographic coverage and implementation.

- The California state government responded to the pandemic's impacts on food insecurity with several types of support, including staffing assistance (through the National Guard), food (through a state-funded emergency food box), and funding for capacity building.
- Many food banks established or strengthened relationships with county governments during the pandemic.

Food loss and waste

- Many food banks reported short-term increases in food loss at the beginning of the pandemic, when local restaurants and distributors offloaded inventories of perishable food after stay-at-home orders were implemented.
- However, most food banks experienced normal or reduced levels of food loss after the initial glut of donations.
- Pre-boxed food distributions (such as the USDA Farmers to Families Food Box program) may have shifted food waste to other parts of the supply chain.

Silver linings

- Heightened media visibility enabled food banks to build wider networks of support and address the stigma surrounding food assistance.
- The pandemic also offered a rare opportunity to advance broader strategic visions around the role of food banks in the community and other interrelated social issues, such as federal anti-hunger policies, community food systems, and racial justice.

Introduction

The goal of this research was to capture the experiences and perspectives of food banks in California during the COVID-19 pandemic. Food banks received substantial media attention in the early months of the pandemic when images of long lines at food distribution sites become symbolic of the pandemic's economic fallout (Alonso and Cullinane 2020; Kulish 2020; Luhby 2020; Rector 2020; Said 2020). Our study interviewed food banks after nearly a year of responding to the pandemic to document their challenges, opportunities, and adaptive strategies, in the hopes that their experiences may provide insights for those seeking to understand the state of the emergency food system and improve community resilience.

The emergency food system in California is a complex network of public and nonprofit organizations. Food banks play an important role as regional hubs that source and distribute food to partner agencies within a specific geographic area. Partner agencies include food pantries, soup kitchens, faith-related and other nonprofit organizations that distribute food directly to people who need it. Prior to the pandemic, many California food banks had never engaged in household food distribution; however, the circumstances of the pandemic forced many of these food banks to begin direct distribution for the first time. Food banks typically source food from a variety of sources, including donations from grocery stores, manufacturers, distributors, growers, and private households; government programs (such as The Emergency Food Assistance Program [TEFAP]); and in California, through the California Association of Food Banks Farm to Family Program. As described later in the report, food purchases typically represented a small share of the total food volume prior to the pandemic, but they increased dramatically during the pandemic to address the unprecedented need.

Our research was organized by the following research questions:

1. What were the main challenges and opportunities for food banks in responding to the COVID-19 pandemic?
2. What strategies did food banks find most successful in adapting to the pandemic?
3. What lessons do respondents draw from their experiences in regard to making the emergency food system more resilient against future disruptions?

Drawing on interviews with food bank representatives and their network partners, this report documents what has been happening during the pandemic. By documenting respondents' views in their own words, we hope to elevate their perspectives in the policy discourse and highlight the diversity and complexity of their experiences.

Data and method

Between January and April 2021, we interviewed 30 individuals from 24 hunger relief organizations in California. Most respondents worked at food banks ($n = 24$), and the remaining individuals worked in food pantries or agencies, food distribution, or government services. The respondents were recruited through the authors' professional networks and a directory of food banks in California. A "snowball" sampling strategy was used to recruit additional participants through the recommendations of our interviewees.

The hunger relief organizations in our sample collectively serve 28 of the 58 counties in California. Most of the organizations serve the residents of a single county, but several have service areas spanning multiple counties. The service areas in the sample are geographically diverse, covering regions in northern and southern California, coastal and inland communities, and urban and rural areas. The scale of operations in our sample varied widely; the smallest organizations in remote regions served less than 1,000 people per month (pre-pandemic), whereas the largest organizations in major metropolitan areas served over 300,000 people per month. In terms of the volume of food distributed, the organizations in our sample reported distributing between 1-82 million pounds of food per year

prior to the pandemic. In the pages that follow, we describe how these numbers doubled or tripled for most organizations during the pandemic.

The size of the organizations in our sample also varied widely. The smallest organizations had just a handful of paid staff and 10-20 agency partners that help distribute food in the community. The largest organizations had 100-200 paid staff and over 300 agency partners. Most, if not all, of the organizations relied heavily on volunteers to collect, sort, package, and distribute food prior to the pandemic. Many organizations maintained a smaller set of regular volunteers (often retired or senior members of the community), supplemented by one-off engagements with larger volunteer groups from local businesses or civic organizations. As the report will discuss in greater detail, many food banks experienced dramatic losses of volunteers during the pandemic and had to rethink staffing strategies to maintain operations.

All interviews were conducted over Zoom and generally lasted between 45-60 minutes. Interviews were professionally transcribed, then the transcripts were sent to respondents for corrections and clarifications. This study was approved by the university institutional review board, and all participants provided verbal consent to participate in the study.

The revised transcripts were analyzed in Dedoose, a qualitative data analysis software program. First, we read through the transcripts to develop an initial coding scheme based on emergent themes. Then, we applied the coding scheme to the interview transcripts and analyzed the excerpts by theme. The following sections share key findings from the interviews about common challenges and adaptive strategies in responding to the pandemic, government supports, priorities for future resilience planning, and unanticipated wins. We also describe how the pandemic impacted food loss and waste at California food banks. The report concludes by considering longer-term impacts of the COVID-19 pandemic on food bank operations.

Common challenges

The first wave of the pandemic caused massive disruptions to the emergency food system: demand for food doubled or tripled in most regions, many food banks lost volunteers and sources of food, and uncertainty abounded around how to distribute food safely during a global pandemic. After a couple months of acute crisis response, most respondents reported that food bank operations began to stabilize, yet they still faced some persistent challenges around food sourcing, operational capacity, and staff burnout.

At the time of the interviews, in January to April 2021, many respondents felt reasonably confident in their near-term ability to address community food insecurity, yet they reported substantial uncertainty about future demand and the availability of resources to meet it. Many worried that as the pandemic draws to a close in the United States, food banks might lose access to the resources that had enabled them to launch an expansive pandemic response in 2020-2021, which would threaten their ability to address the heightened food insecurity that is expected to linger long after the virus is mitigated.

Unprecedented need

The COVID-19 pandemic exacerbated the challenge of food insecurity in California. Almost three million Californians lost their jobs in March and April 2020, raising the state's unemployment rate to a record high of 15.5 percent since the California Employment Development Department (EDD) began tracking data in 1976 (California Employment Development Department 2020). This spike surpassed the previous record high of 12.3 percent during the height of the Great Recession in 2010. Many newly unemployed Californians struggled to meet basic needs,

including food, which created an unprecedented need for food assistance programs. Around 265,000 Californians applied for CalFresh food benefits (“food stamps”) in April 2020, more than double the number who applied in the previous April (Rector 2020). Food banks also witnessed a remarkable surge in demand.

Compared to pre-pandemic levels, most of the food banks in the study sample reported serving double or triple the number of people during the pandemic. Widespread job losses led many people to seek help from food banks for the first time, especially people in the tourism or service industries that were hit the hardest by the state's stay-at-home order. For example, one food bank in a community that depends on tourism shared this experience:

“We went from [serving] 90,000 people on average every month to 190,000 people within six weeks. It was severe. I still get – I’m starting to cry now. I think about the amount of pain that so many people went through as family household units. Especially in the Hispanic population, where all of them would either be a combination within that household of the ag industry, the tourism industry, or the restaurant industry, they all lost their jobs at the same time.... And the recovery time for our community was much slower than the other ones because we didn’t have any industries that they could work from home with.”

Another food bank said:

“We noticed that our clients changed. Clients that were utilizing our services were ones that we had never seen before. Here’s a perfect example: in my family, all of us are essential workers except for one of us. And just to see the struggle that my sister had to go through, because she’s a lash stylist.... When they closed her down, luckily her husband was able to provide for their family. But had she been single, or a single mom, what would have been her options? And that’s what we were seeing a lot in the food line.”

Among the food banks who had stockpiled large quantities of food prior to the pandemic, most reported distributing between 2-3 times the volume of food that they had previously distributed. However, some food banks lacked adequate food reserves to serve the growing need. Combined with reduced food donations and widespread supply chain disruptions that delayed the delivery of purchased food (described in greater detail below), some food banks experienced food shortages in the first few months of the pandemic and were forced to ration food assistance:

“We were in a Zoom meeting with all of the food banks in the state – oh, gosh, it was probably back in May, and it was really sad. Some of them were down to five cases of beans and, you know, a couple cases of corn, and that’s all they had.”

“We were rationing food in March, April, and May because our food supply wasn’t keeping up with the amount of people that were coming. I think at one point were handing out 50 percent less to each family so at least everybody has something, right? I mean, that’s the role of a regional food bank.”

Many respondents noted that the demand for food rose and fell alongside local economic conditions. When government unemployment checks were distributed, the number of clients decreased. Similarly, some food banks reported that their clientele shrank when local businesses began to open up, then declined when local infection rates rebounded and businesses had to close again:

“The demand kind of goes with how opened or closed we are. In the summer, when California was a little bit more opened up, we could see a little bit more of a relief. But then around the holidays, when we closed down because of our ICU capacity, we went way back up.”

“As unemployment [benefits] increased, our lines would decrease. It was the inverse effect, which was great. But then they'd ebb and flow like this. We know that when these \$300 extra benefits expire, our lines will spike back up again. But it's never dropped to what it was pre-pandemic levels, at all.”

Interviewees agreed that the economic recovery from the pandemic would lag behind the public health response; most interviewees anticipated that it would be several years, at minimum, before local demand for food assistance dropped to pre-pandemic levels. Many pointed to the long economic recovery following the Great Recession as precedent: Population-level analyses reveal that it took ten years for unemployment rates to return to pre-recession levels (Cunningham 2018). Many interviewees remembered that heightened demand at the food bank became the “new normal” after the recession:

“It took 10 years for the Great Recession to get to pre-Great Recession levels. We just got there in 2018. And then 2019, 2020, and the pandemic hit. And this could be even worse because of the increase in inequality from COVID and how disproportionately it's hit the service sector and low-income communities of color.”

Others pointed to the long recovery from devastating wildfires in predicting a long post-pandemic recovery:

“We know just based on our prior experience working with these populations that food insecurity lingers way longer than when a disaster ends, and people forget all about it. People are still mobbing the food banks. And Camp Fire is a good example -- the Camp Fire was 2017, and the food banks that were supporting those communities are still inundated.”

Several interviewees worried that demand for food bank services may yet increase once pandemic-related moratoria on evictions and utility shut-offs are lifted. Many families who are barely making ends meet may require food assistance once they are required to pay back missed rent and utility payments:

“All these people who got extensions on their utility bills and rent – it's still due unless they can waive them. I think we've kind of just kicked the can down the street on an economic level. We're still going to see that, and that's going to be long after the media vans leave.”

Many interviewees also worried that as vaccinations rolled out and communities clamored to resume normal activities, needy Americans would be forgotten. Food banks relied on community support to serve hungry populations during the pandemic, and many feared that support would diminish as the pandemic receded from wealthier people's memories:

“Depending on who you talk to, the devastation from this is going to be five years to a decade. But if everybody just says, “Whew, got that over with. I'm vaccinated, we're done, we're good go,” ... We are going to be feeding people who have been smashed by this for the next five to ten years, and I think it's probably ten.” (

“We're still going to be feeding many more people. Everyone's got their vaccine. Somebody said something like, “The vaccine doesn't cure hunger.” I love that. It's very true 'cause that will continue to be there. We've got to think about we're going to remain sustainable feeding all these extra people.”

Declining volunteers

Food banks around the country suffered significant drops in volunteers at the beginning of the pandemic, just as demand for food bank services surged. Most, if not all, of the organizations in our sample relied heavily on volunteers prior to the pandemic, so the drop in volunteers created a substantial strain on their operations. The main reason for the drop was that many food bank volunteers were retired, or older, and public health authorities advised older individuals to self-isolate due to their heightened risk for COVID-19 infection and hospitalization. In a survey conducted by the California Governor's Office of Emergency Services, hunger relief organizations in California reported an average weekly shortage of more than 1,100 staff and volunteers in March and April 2020 (De Faria 2021). The loss of volunteers put a substantial strain on food banks:

"Every aspect of our operation literally changed overnight. The first thing that we saw was that all volunteers stopped. We're largely a volunteer-run organization. Where we excel is volunteer groups. You know, we were very good at welcoming groups of 25, 50, 75, 100, 200 people who volunteered, you know, working side by side, music blaring, having this great experience. And you know, employers shut down. Churches shut down. Schools shut down. All those places where groups of volunteers would come [from] stopped. And you couldn't have people working side by side anyway. So here we've got what turned out to be more food over time coming in, and we didn't have the labor to process it, because all of our volunteers just stopped overnight. Like dead."

"The biggest impact at that point was oh, everybody needs to stay home, especially if you're a senior. All my volunteers are seniors. So the biggest impact was going from 100 volunteers to 15 almost overnight. And gradually a few of them have been coming back to work now [in March 2021], and I've got a few more that are coming back now that we're in the red zone and not purple anymore."

Many food banks addressed their volunteer shortages by replacing them with members of the National Guard, whom Governor Newsom deployed in March 2020 to assist with food distribution in California. (See "[Addressing staffing shortages](#).") Some food banks also succeeded in recruiting younger, working-age individuals to volunteer. However, several respondents noted that this volunteer population tended to be less reliable than their previous volunteer base because they had other demands on their time:

"We have recruited a whole new population of volunteers. It's been challenging. It's only been probably since about January [2021], maybe a little bit longer, that we've had volunteers that are coming on a regular basis. When you get this new population of volunteers that aren't working, but they're kind of working from home, they're not committed like our other volunteers who would always show up every Wednesday.... It's like, you have to hope that you'll have enough volunteers every day because we have them sign up, but their schedules are all really different.... It's very random. It makes it a little bit more challenging to ensure that we have enough coverage."

Although most food banks continued to rely on volunteers to varying degrees during the pandemic, a few food banks chose to suspend or eliminate their volunteer programs. One food bank explained that this choice "harden[ed] our defense" against COVID-19 outbreaks:

"We shut down our volunteer experience. It's still shut down. Most food banks you talk to have volunteers or have had volunteers all the way through the crisis. Since mid-March [2020], we've had no volunteers. And we don't see any volunteers coming back until August or September [2021]."

Interviewer: "Why is that?"

Respondent: "To harden our defense. Because a food bank cannot fail. And most food banks I've talked to had COVID outbreaks. You know, they've had people on quarantine. They've had those issues. We have had them, too. About six team members were diagnosed with COVID, but they were all external."

Another food bank that shut down their volunteer program found that they preferred to operate with a smaller, paid staff who had more technical skills:

"We are no longer the food bank that we used to be, which is why we also don't require volunteers. Because everybody in our building is also forklift certified. Everyone in the operations team on the floor now knows how to work a forklift. Pre-COVID, that wasn't the case. We've cross-trained positions to do multiple things because we've needed to have resiliency within our food bank."

Supply chain disruptions

Nearly every point in the U.S. food supply chain experienced a massive disruption at the beginning of the COVID-19 pandemic. As restaurants and schools rapidly shut down, many growers lost customers and faced substantial financial losses and mountains of food waste (Yaffe-Bellany and Corkery 2020; Royte 2020). Grocery retailers struggled to keep up with the surge in consumer demand for toilet paper, bottled water, and shelf-stable food, and photographs of bare grocery shelves circulated widely in the media (Knoll 2020).

Food banks also experienced multiple supply chain disruptions. First, grocery donations to food banks declined in the early months of the pandemic as retailers struggled to restock shelves, just as record levels of unemployment created an unprecedented need for food assistance in the U.S. (Charles 2020; Said 2020; Raghavendran and McCarthy 2020):

"The grocery stores didn't have nearly as much as they had early on because people were buying everything because they were freaked out, so they didn't have any extra stuff to give us. Like I said, bread, there was no bread anywhere. I thought we were going to have to start baking it. I just didn't know what we were going to do because there was just no bread."

"We started to use those funds to buy locally, but the problem was that the supply chain wasn't fast enough for the demand.... Just like we saw the empty shelves at the stores, our food bank shelves were starting to look very empty."

Food wasn't the only product in short supply. Food banks also struggled to source diapers and plastic bags for food distribution:

"Obviously, the supply chain in the beginning had a tremendous stress on it. We're also the diaper bank, and we couldn't get diapers for three or four months. That was really stressful, too."

"Our biggest problem was bags because we couldn't take donated bags. A lot of people would donate their paper or plastic bags, but we couldn't use those. The stores were having problems getting bags. And because we were buying bags from the stores, and so we were having to go all over the place trying to find bags to pack. Which we've stockpiled now. But you know, that was a big problem that we didn't think we would have. We had plenty of food but no bags to put the food in."

Second, many food banks found it difficult to handle bulk donations from restaurants and institutions. In March and April 2020, some food banks received large donations of perishable food items from restaurants and institutions that

needed to offload product before shutting down – but this gift also created a new set of challenges; institutions usually donated bulk food items that were difficult for food banks to sort, store, and distribute, especially since many food banks lacked sufficient volunteers for these tasks once stay-at-home orders were implemented:

“Food banks don't want to distribute what we call bulk product. Number one, I don't want to give a family of four a 20-pound roast. Like, they may not have a refrigerator that can hold it, they may not have a place to cook it. And we want to offer some dignity to these opportunities, you know. Let's share what we have, but not inundate folks.”

“We've gotten things that are totally unusable by us. Particularly one that comes to mind -- we were donated full slaughtered lambs. Just, like, carcasses. And we can't do anything with that, but now it's our burden to get rid of it.”

Finally, after the short-term surge in bulk donations, many food banks experienced longer-term challenges with sourcing food. Grocery donations continued to lag for several months, and food banks that attempted to purchase food often found themselves competing with retailers and each other for limited supply, or facing long delivery delays:

“In the first like six months of COVID, it was bonkers. We had orders that we put bids out that just never got to us, or things that we bought that never got shipped, or got shipped three months late, or you know, this item just isn't available at all, so you can't have this food, sorry — so a lot of that that we had to adapt to as well, on our purchasing end of things.”

“We were getting a lot of money to provide shelf-stable products, but I couldn't find it anywhere. My finds were anywhere from six to eight weeks, one was twelve weeks, the canned vegetables, especially domestic canned vegetables. We were three or four months out, so you just kind of had this shock and awe, where you're just like, wow, this is something I can do because I have the money. But I can't do it because I don't have the access. Usually, it's the other way around -- we have the access, but we don't have the funds.”

“Then people were saying, “Well, I'm ordering tuna,” and they're saying, “You're going to get it in four months.” We need it right now. Everybody was ordering food. All the food banks were ordering. Prices actually even started to go up, and so people were ordering more to be able to get it. We started hoarding – not hoarding, but ordering more than we needed knowing that it was taking so long to be able to get that food. And then where do you put it and how do you get it out?”

Limited operational capacity

Once food banks managed the challenge of sourcing additional food, they faced the additional challenge of sorting, storing, and distributing volumes of food that far exceeded their previous experience. Many food banks lacked the infrastructure or staff to handle the sudden increase in food. Later, the report will describe how some food banks resolved this challenge by expanding their facilities or partnering with external stakeholders to provide logistical support. However, some food banks lacked the resources to resolve these challenges, and all food banks reported that operational capacity was a troublesome constraint on their pandemic response.

An interviewee from the California Department of Social Services described how operational challenges were widespread among California food banks:

"Imagine you're like a food bank who's been in business for many years, and you expect to see a certain level throughout the year that you're serving. That's what your storage is based on, that's what your staffing is based on, all of it, your freezer space. Because you're expecting to serve 100,000 people this year. When that number, instead of 100,000 went to 600,000 or 700,000, you aren't sized for that. And so, it's one thing for me to get a windfall at the state level, like, great news, I just got a ton of food, I'm going to send it your way. Their freezer can't hold it, their fridge can't hold it, their racking system can't hold it, they don't have the staff to push this out into the community, so there was a real downstream capacity issue that we're still dealing with today. That hasn't gone away. Food banks can't pivot on a moment's notice to get more storage space."

Several food banks described how the challenge of storing and distributing food far exceeded the challenge of procuring enough food for their communities:

"In a great way, the biggest problem is there's more food. And that's a good problem! There's more food, but the challenge to that is getting it to the people that need it in a safe and healthy way."

"[The greatest challenge is] probably the infrastructure, in that we needed more trucks. We needed more space. And it's very hard to convince a board that meets every other month that we needed to invest in this, 'cause how long is it going to last? So that probably was the hardest, in that we didn't know either."

"As much as our demand went up, our incoming food also went up. That wasn't as hard. The hard part was having the storage space for it because I have a very small freezer, and I had to rent a 53-foot semi-trailer for a refrigerator in order to keep all the food because we were getting the produce boxes with the dairy and stuff. That all had to be refrigerated. And then we were getting all this meat that was frozen.... Having enough food to feed everybody has been amazing, and once we figured out how to juggle where we were going to put it, we're doing much better now."

Maintaining safe conditions for staff and clients

Respondents consistently noted that maintaining safe conditions for staff and clients was a significant challenge over the course of the pandemic. In the first few weeks, food banks had to figure out how to operate amidst widespread uncertainty about the best practices for reducing transmission of COVID-19. Much of the advice circling through the media and official public health messaging focused on disinfecting surfaces and maintaining physical distancing; only later did the importance of wearing masks and improving ventilation become apparent. The uncertainty about how best to protect the health of workers and clients weighed heavily on respondents:

"I know there were definitely a lot of questions about what's our new normal -- are we going to have to limit staff interaction with our nonprofit partners and the outside world? How are we going to deal with incoming food donations? I got a lot of food banks calling me, asking, 'how are you guys handling your food donations? Because we're scared that it's going to be, you know, the surfaces of the boxed food is going to be contaminated with COVID, so there were a million questions like that."

"At the beginning, we were just flying by the seat of our pants trying to figure everything out. You know, we had to figure out what social distancing meant in our warehouse and at our sites. We had to source things that we hadn't sourced before or at least hadn't sourced in the quantities that we had like gloves, hand sanitizer, masks. We had to navigate this new world very quickly."

Food banks rapidly shifted operational practices to reduce the transmission of COVID-19. They asked administrative staff to work from home, reduced the number of workers in warehouses, increased the distance between warehouse workers, distributed personal protective equipment (PPE) to employees, and changed distribution practices to reduce contact among clients. All food banks in the interview sample established drive-thru distributions to ensure contactless food delivery, which is described in greater detail in a later section. (See "[Drive-thru distributions](#).") Below, respondents share other practices they implemented to protect public health:

"So we have rotating teams – two of them. I'm on a rotating group. So this is my in-week. Next week I'll be at home. And it's been like that for a long time. We have one team that's always here and that's the operations team and the drivers although the drivers don't come into the building. They stay outside the building. And we have one team that's been a home team for a year. They have not come in this food bank for a year. So four independent operating teams. We were providing free COVID tests to staff and family of staff every week for months here at our facility."

"We just jumped by the seat of our pants and decided the safest thing to do is close the lobby so there's no contact and go out to the cars. I don't know how we're going to – maybe we'll wear motorcycle helmets with face shields. I don't know what we're going to do, but we have to figure this out."

"We had to redo our assembly area too because it was created to accommodate, you know, hundreds and accommodate it for people working side by side. So now we need to spread things, build six feet into each work station; you know, now it was a maximum of 40 people, not a maximum of 150 or 200 people."

"We were fortunate enough that a small private school across the street allowed us to use their parking lot, and we rented large events tents, 50 foot by 100 foot tents, and we were able to set up offsite because we had to maintain the safety of the staff here."

Unfortunately, implementing the new safety precautions sometimes required food banks to cut valued programs or practices. Many interviewees lamented losing the ability to connect to clients on a personal level and offer words of encouragement or support. (See "[Drive-thru distributions](#)" for more detail about how interviewees assess the benefits and costs of contactless food delivery.) One food bank had to cut a program that provided free showers to homeless people because their facilities are too small to maintain physical distancing when both the showers and the food bank are operational:

"We have showers in our facility for people that don't have access to showers. We can't open the showers. We haven't had them open for over a year. That's been heartbreaking for us. We're all vaccinated now, so we're trying to figure out a way to maybe close the food bank one day a week and open the showers because we can't do both. Because the showers are in the hall that the food comes down. Our building is very small and there's just no way to distance anything. We're trying to figure out how to make that work because it's important."

For several food banks, securing personal protective equipment (PPE) for workers became a core challenge. Masks and gloves were in short supply in the early months of the pandemic, and interviewees spent significant time and energy trying to source them. Some food banks had better luck sourcing PPE and shared surplus supplies with other food banks or community members:

"We did give out a lot of PPEs [to the community] because nobody else was giving them out. In our county, we ran out, and we gave out about 10,000 masks. And the governor's office, which I got them through, said we could order more and then they said, well, we can't get any more."

“We were buying face masks directly from China, putting them on airplanes 100,000 units at a time, bringing them into our food bank and shipping them out to [other food banks] because they didn’t have PPE. We had all the PPE stuff covered – masks, sanitizers. And, you know, it was a scramble. Don’t get me wrong.”

Some food banks managed to avoid any employee infections, but others had to manage small outbreaks of COVID-19 among staff or volunteers. Fortunately, the outbreaks were limited to a subset of staff, and none of the food banks in this sample had to shut down during the outbreaks. Nevertheless, it was challenging for food banks to manage operations with a reduced staff:

“A couple people tested positive in the food bank but weren’t symptomatic. We had employees who lost family members, which was tragic in and of itself. We were pretty fortunate overall. You know, there was an exposure at one point where about eight people, you know, had to go home for two weeks. And they were key personnel – you know, our warehouse manager, supervisor, food manager. So it was challenging, you know, to keep the food bank operational. But they weren’t incapacitated. They weren’t ill. Just exposed. So we were able to have twice-a-day calls with those people who were absent who could tell me what to do, that they would normally do if they were here. So I couldn’t do – I wasn’t one of the people exposed, so I couldn’t be as efficient as they could be in their jobs. But at least I could, you know, I and others could help keep the place running in their absence.”

“We only had two employees come down with COVID, which is amazing out of 36. I know a lot of other food banks had problems, but I think we were fortunate because we were very, very – we sent people home at the drop of a hat. Just go. We’ll figure it out and you stay home. We paid for the expensive COVID tests where it was \$150 to get [results in] 24 hours. But I think that helped us in the sense of being as conservative as we were in ensuring our safety.”

Overworked staff and volunteers

Many respondents expressed concerns about staff and volunteers burning out because of the unsustainable pace of the pandemic response. Respondents were proud that their teams had risen to the occasion to serve a two- or threefold need despite numerous operational challenges, yet the pandemic had persisted longer than many had expected. Several people used the analogy of a race to describe their staffing concerns: the pandemic response was a marathon, yet staff and volunteers were sprinting. Many wondered what would happen when staff and volunteers ran out of steam:

“My volunteers are just amazing. But I think they’re getting worn out. ‘Cause they’re everywhere. They’ve been working – I mean usually they’re at one or two distributions a month. But now they’re coming and packing bags, and then they’re handing them out. And I worry about them. My biggest worry is the volunteers getting overworked or getting tired because if they go down, my food bank comes to a standstill or a really slow crawl. Our volunteers are very important to us, and we try to tell them that every day.”

“I should also say that, under the pandemic, not only have we tripled our services in the pandemic, but because of all the safety protocols it’s much harder to collect and distribute each pound. So not only have we tripled the pounds that we’re collecting and distributing, it’s something like four times harder. It’s just this crazy amount of work that everybody’s having to do, and super time-consuming. It’s been crazy time for 10 months or so, and everybody’s pretty exhausted.”

“At some point, it needs to slow down or we’re going to kill people. You know, we’re just going to burn them out because we are not at a sustainable pace right now. It’s a marathon. But we are all sprinting.”

"I'd say it's still very busy, and folks are still in sprint mode. We like to say it's a marathon, not a sprint. But we're still kind of sprinting. I don't want to sound as if I'm just complaining about how hard it's been, but it has been challenging because there's just so much need and we're trying our best to meet all of those as best we can. And we are by no means unique in that. I think every food bank is telling the same thing."

Adaptive strategies

Respondents noted that almost every aspect of food bank operations changed to adapt to the challenges of the COVID-19 pandemic: food banks adopted new strategies for food sourcing, food distribution, staffing, communication, and day-to-day operations to meet the monumental demand for food despite substantial logistical constraints. The following sections describe the material resources, organizational strategies, and interpersonal connections that supported the food banks' pandemic response.

Changing distribution methods

The COVID-19 pandemic forced food banks to rapidly change their distribution methods. Many regional food banks had never engaged in direct distribution before the pandemic; previously, local agency partners had handled food distributions, but the sharp increase in demand for food coupled with a shrinking volunteer pool and the closure of some agencies during the pandemic meant that food banks had to adopt a more direct role in food distribution. Safety concerns also necessitated a shift toward distribution models that minimized contact among food bank staff and clients. As one interviewee explained:

"You know, the ultimate model in the past probably was an agency that did case management. You know, they sit down at a desk with somebody. They did an interview, found out a lot about that family, developed some longer-term relationship, took them to a food pantry where they could participate in the choice model and pick the items that they wanted. That was not the preferred delivery model during COVID, right? The preferred delivery model was to have the least amount of personal contact. The most tangible example of that these big drive-thru distributions. Stay in your car, leave your window rolled up, pop your trunk, volunteers will throw food in the back of your car, and off you go."

As this interviewee mentioned, drive-thru distributions became the distribution model of choice for most food banks during the pandemic. The next section explains the challenges that respondents encountered as they established drive-thru distributions and their conflicting views about the advantages and disadvantages of this model. The following section describes other types of distribution models that food banks adopted during the pandemic.

Drive-thru distributions

Establishing drive-thru distributions at food banks required large parking lots to accommodate long lines of cars and sometimes staff or volunteers to direct the flow of traffic. Warehouse operations had to shift away from "client choice" distributions to produce standardized boxes of food. Client intake processes also changed; many food banks had conducted individual client interviews prior to the pandemic, and they switched to either a simple form that clients could fill out in their cars, or a list of names on a clipboard that a volunteer could check off as clients picked up their food. As two respondents explained:

"[Drive-thru distributions] require a tremendous amount of change compared to our farmer's market style distributions. You know, you need to make a new menu for what goes into these boxes. You need to purchase enough boxes to do this. Make sure that they fit in our volunteer room and in our warehouse, we needed to create build lines, train staff on how to both manage and participate in those."

"Most, if not all, food banks went from a pickup to a drive-thru. That also required larger spaces, areas where traffic would not be a problem, and we went from, you know, them signing this sheet to our volunteers taking down their information or every household. That was also a learning curve for all of our volunteers and our staff to, you know, meet the guidelines that the state tells us and to make sure that the flow of traffic continues, and the families get their food and that everybody gets their breaks. And so it was a huge undertaking."

Interviewees universally appreciated that the drive-thru model enabled them to distribute large volumes of food quickly and with minimal contact during a public health crisis. For example, one interviewee said, "The pre-boxing has really helped us to keep things safe and distanced while also enabling us to serve people very quickly since we've doubled our client count during the pandemic." However, some interviewees expressed disappointment that drive-thru distributions eliminated "client choice" and prevented staff from offering emotional support to clients:

"We had to close our lobby, we had to close down everything that had that close contact, which to us it's essential because it gives us an opportunity not just to give people food, but to talk to them and see what's going on in their lives. It matters to people. It really matters to people when you do that. All of that went away.... It's no more a matter of choosing, you know, saying, "I don't like milk. I'd rather have almond milk." ... You just get what we have. And we hate that because it's so impersonal."

"So that has really, really shifted the way we've had to do things because it's so much more empowering and respectful to have clients pick out their own food."

Another disadvantage of the drive-through model was that it can be inaccessible to people who do not own vehicles, especially during a time when public transit routes had declined. Some food banks addressed this issue by maintaining a few walk-up distribution sites, allowing people to pick up boxes for friends or neighbors who might be less mobile, and enrolling people in home delivery programs.

Although some interviewees anticipated returning to earlier distribution models after the pandemic, others wanted to keep using drive-thru distributions because they saw benefits for both staff and volunteers. Pre-boxing food reduced the workload for staff on distribution days, and drive-thru distributions enabled clients to skip long lines in the waiting room:

"I'm going to try to keep the drive-thrus because it's easier on my volunteers. It seems to be easier for the people, and even if we have to hand them the clipboard so they can sign their own name when we get back to normal, it'll still be ok and it'll still be more efficient than making them stand in line for an hour just to get up to the table to sign their name and then go stand in another line so they can pack their bag. They can do it all at once in the drive-thru. Several other food banks have said the same. They've all gone to drive-thrus, and they're going to all try to keep as many of them that way as possible."

"Even after the pandemic's over with, we're going to continue with the drive through just for the fact that the handicapped or seniors don't have to stand in line. They're used to it now. You know, they pop their trunk, we load them up, they're on their way. You don't have to get out of their car, you don't have to get out of the weather, the heat, cold. So yeah, we really like the drive-thru. I'm definitely going to keep that going."

Some interviewees challenged the idea that the “client choice” distribution model inherently offers more dignity to clients. As one respondent explained, drive-thru distributions can promote dignity by allowing clients to receive food quickly and anonymously:

“I’m not sure who came up with client choice. I mean, this idea that people could come into a food pantry and pick the food they want as opposed to being given this blind box. Somebody somewhere thinks that has more dignity, and I’m not arguing against it. I’m just saying someone determined that that was more dignified. And now we have driven-thru distributions, where people don’t have to stand in line for that dignified experience of client choice. Now they anonymously, for the most part – we know who they are, but they’re in a car – can go get a box of food that is good-quality food, it’s not everything they would’ve chosen, but they also don’t have to stand in line.... Did anybody ever ask anybody, like, what would be better for you, standing in line for client choice or if you can get in and out that much faster, which is better?”

Interviewer: *“Have you asked your clients what they prefer?”*

Respondent: *“People love it. Yeah, it’s great. They’re in their cars, it’s home away from home, right, they’re comfortable there. They’re listening to the radio, they’re talking, they have air-conditioning. They can pick up easily for other people as proxies. There’s no dignity in standing in line for food.”*

Other distribution models

Many food banks adopted other food distribution models in addition to the drive-thru distributions. Several food banks established mobile food pantries to reach isolated communities, such as in rural and remote areas and regions with large farmworker populations. Another popular distribution strategy involved home delivery programs to seniors, who had been advised by public health authorities to avoid leaving their homes due to their heightened risk for COVID-19 infection. Many food banks also partnered with local schools to distribute food to the families of school-age children:

“Something that’s new with pandemic is that we’re doing a lot of home delivery to seniors now, which we weren’t doing before. A lot of the older adults we’re serving are still cooking. If they’re not, we would refer them to Meals on Wheels programs.... And then we also run children nutrition programs, but with school being closed, a lot of that service has shifted to augmenting like grab-and-go meal distributions and getting more food out that way.”

“We have a breakfast bag program for kids which usually just runs during the summer, but actually that was one major shift that we saw during COVID.... We’ve been handing out breakfast bags for kids through various avenues all year long. We have a bag program also which is specifically for the homeless population.... The number of bags that went out this past year were much higher than in years past.”

Although food banks focus primarily on distributing material goods to needy families, including food, water, and diapers, some were able to distribute gift cards during the pandemic so that clients could purchase their own food at the grocery store. Often, this occurred when a food bank received a grant with a short spending deadline and the stipulation that it could only be used for purchasing food. Several respondents reported that the gift cards were very well-received by people in the community:

“We did give out \$180,000 worth of gift cards in the month of February through the CARES Act. 720 families received \$250 gift cards to local stores in their areas, which was nice. It was a stimulus for them and a stimulus [for the local economy] – it made a big impact. We got a lot of really nice thank-you cards,

especially from the seniors. It was quite the task just trying to keep it secret because we didn't want people that normally don't come to come and get it and then have our normal people need it."

"At the end of October, we got one really big grant. But we had to spend this money by the end of November, and we could only buy food or food-only gift cards. I bought \$295,000 worth of gift cards because there's nowhere I would have had to be able to put that much food. I would have had to get more storage units. And so, we bought \$100 gift cards at local grocery stores like Safeway and WinCo and the Grocery Outlet. And we handed those out during our commodity distribution, which allowed people to go get the things that we weren't able to give them, but it also alleviated us from having to store food.... That was amazing to be able to do that. Because we gave them out in November, right around the holidays, and I also purchased turkeys with part of that money. So they got turkeys for Thanksgiving. They got gift cards. And hopefully it carried them through part of December."

Another food bank used grant funding to purchase vouchers for fresh produce from a local CSA (Community Supported Agriculture) farm, which clients could pick up or have delivered to their homes. This strategy allowed the food bank to increase clients' access to fresh fruits and vegetables, reduce the volume of produce being processed at the food bank, and "spend money locally" to support growers in the region.

Expanding operational capacity

The sheer volume of food being distributed by food banks during the pandemic often necessitated expanding warehouse space, refrigerated storage, and/or truck fleets. Many food banks lacked the operational capacity to store and distribute a two- or three-fold increase in food, and they had to cobble together new resources to handle the volume. Thankfully, food banks were largely able to cover the associated costs with community donations or government grants (e.g., funding from the CARES Act):

"We also increased our storage -- we were getting a lot more food, so we needed a lot more storage, so we were able to get an offsite warehouse facility down the road in order to store some donations, and we also rented a cold storage unit in anticipation of incoming donations and purchases. It was a lot."

"When the CARES funds came in, we kind of took advantage and repaired some of our equipment that was actually not working. We were able to fix three of our freezers and update our walk-in cooler, and we're waiting for the delivery of a container freezer, one of those huge, like, shipping containers."

Some food banks also seized the opportunity to build new program offerings. Several interviewees described opening new distribution sites in harder-to-reach areas. For example, a few food banks in the Central Valley established or expanded programs to reach farmworker families, providing them with food, vouchers, masks, and hand sanitizer. Another food bank established a farm in their parking lot, allowing them to grow and distribute 25,000 heads of romaine lettuce a year. One food bank built an app to enable potential clients to easily find food distribution sites in the county. A different food bank built a "super pantry" program by distributing capacity grants to agency partners who could serve the growing need:

"We gave out over \$2 million worth of capacity grants for agencies or local nonprofit partners... We identified some of our top performing nonprofit organizations that identified that yes, we can be open more days a week, and for longer hours each day, in order to serve that influx of need in the community. We provided them with those capacity dollars, so that way they could purchase whatever they needed -- whether that be a freezer or a cooler for cold storage, whether that was staffing. Whatever they needed to reach that."

Several food banks discussed the benefits they realized by updating IT infrastructure or data collection processes during the pandemic. For example, a few interviewees adopted new IT platforms to track donations, food distributions, and/or food orders, which enabled them to track their activities more precisely and forecast future needs:

“A lot of the things like our inventory system were shaky at best before the pandemic really started to crack and break. And that was good, kind of. I mean, it would have been better if it was fixed before the pandemic, but it really did help us identify those things that we needed to invest time in, because they were key to our operations.... We literally transitioned three of our primary IT platforms during that same time. So our donor relations platform changed, our inventory management system changed, and our entire IT backbone changed from a Good Suites to a Microsoft 365 account, all during the pandemic, because those things were so shaky that investing and fixing them was worth that extra effort.”

Addressing staffing shortages

In response to widespread volunteer shortages at food banks around California, Governor Newsom deployed the California National Guard in March 2020 to assist food banks with food distribution (Office of Governor Gavin Newsom 2020). Many food banks took advantage of staffing assistance from the National Guard, claiming that it saved them from shutting down operations during a critically short-staffed period. At the time of the interviews, around one year after the Guard's deployment, several food banks continued to rely on the National Guard to manage daily operations. Many respondents expressed gratitude for the support:

“The Guard has been a godsend. We wouldn't have been able to stay open. We didn't have anybody to drag the trucks through the routes in the morning. We didn't have people to go out to the cars. The Guard has definitely been our greatest resource. It's been amazing.”

“I believe we still have National Guard coming in regularly [in February 2021]. And what's so nice is they have different skills. They can get on a forklift, they can help us move product, you know, they're trained in different... all the Guardsmen are trained in different ways, so it's been hugely helpful for our two warehouses.”

“We were very lucky. I advocated early on – we were one of the first food banks to receive the National Guard. We received 30 full-time National Guards. Because our –All of our volunteers are pretty much 65 and older, because we're in a retirement community, so we lost like everyone.”

However, a few food banks refused to use help from the National Guard because staff or clients worried about the impact of having a militarized presence at the food bank. For example, in communities with large populations of undocumented immigrants, food banks worried that military personnel would frighten potential clients and prevent them from accessing food:

“We were going through this whole election process nationwide, and we kind of felt that bringing people in uniform to the county was going to create more of a stressful situation. And then to add to that, many of the recipients of the food are both here legally and illegally, because they're ag workers. We didn't want that to be a reason for children not to receive food, because the parents might be fearful; there's people in uniform, I don't know who they are.... I don't know if I'm going to be taken away. I don't know if they're there to help. And so we kind of respectfully said, no thank you.”

Some food banks succeeded in securing staffing assistance in other ways. For example, one food bank took on county disaster service workers whose jobs were paused during the pandemic. Another food bank was able to use staff from the local Head Start preschool program:

“A lot of the staff from Head Start were still being paid, and so the director for Head Start said, well, part of our mission is to help the community, so instead of helping in the classroom we're going to send you guys to assist in the food distribution.”

“We hired 120 laid-off restaurant employees and put them to work in our distribution center. We paid them \$15 an hour and gave them a box of food every week when they went home. We put them to work for five months until they could get unemployment and get back to work.”

Increasing food purchasing

Supply chain dynamics during the pandemic forced many food banks to establish or increase food purchasing programs. Many food banks had purchased no food, or very little food, prior to the pandemic, but they shifted to food purchasing in order to meet the massive surge in demand. For example, the following food bank rapidly raised funds to support a new purchasing program when food donations dried up:

“For 10, 14 days, we were flooded with fresh fruit and vegetables. You know, that was food that was intended for schools that were closed, for hotels that were closed, for theme parks that were closed But by April 1, everything stopped. There was no donated food coming in. It was clear that we were going to have to find food elsewhere and do what normally we don't enjoy doing, and that's purchasing food. That's a really expensive way to feed a community. So we were still on front page news each day, so we started saying to the TV reporters that were here frequently that we had increased needs in the community, traditional sources of donated food were gone, we need to purchase food, we need lots and lots of money. And over time raised about four million dollars in private funding, and another four million dollars in public funding from our county board of supervisors and a little bit from the state. And we went out and bought eight million dollars worth of food. Not all at once. You know, but over the course of the year.”

Many other food banks also reported dramatic increases in food purchasing during the pandemic:

“Just to give context, in a given year we generally spend about a million dollars [on food], so we went from one million to over ten and counting, so definitely a lot of stuff had to be done to get food out to those folks that were needing it.”

“A year ago, I would have said everything [food] comes directly from our service area. I have some fantastic donors here. Now that COVID hit, I'm going to say it's roughly the opposite, so a lot of it is stuff that I have to purchase, to bring in because it's shelf-stable items. We're seeing the need for more shelf-stable items, especially after the run on the grocery stores back in March and the supply chain having a hard time keeping up.”

“Before 2020, when we wrote the fiscal '20 budget, we had \$980,000 on the line to buy food with. By the time we finish 2021, we'll have spent \$7.2 million on food.”

Making dramatic shifts in food sourcing during a crisis carried some challenges. Food banks with little experience in food purchasing had to quickly learn how to monitor inventory, forecast need, and develop relationships with

vendors. Meanwhile, disruptions in the food supply chain meant that some food purchases arrived late, or not at all. (See "[Supply chain disruptions](#).") For example, one food bank explained the challenges they experienced in developing a purchasing program:

"I think my greatest challenge has been managing a purchased product program. We had one before, but it was very minimal, and when we had like two palettes left I could literally just order. And within three or four days, it would show up on our dock, so it kind of managed itself. And now it's like we're going over these numbers every day, we're looking at timelines, we're looking at needs. So something that was way in the periphery, that maybe like once a month you would be like, "oh yeah, I should probably do work on that" is now an every day, at least twice a day we're running inventory to see where we're at. What orders are coming in? What got canceled? Just things that we've never in ten years -- that wasn't what I had to do... That's been by far our biggest challenge."

Many food banks expressed uncertainty about the future of food sourcing, especially given the uncertainty about how long the surge in demand for food would persist. Several interviewees predicted that food purchasing would continue to be a core part of their sourcing strategy for the foreseeable future:

"We really didn't purchase a lot of food pre-pandemic. We had specific programs we purchased for. But that was not the bulk of what we did. And now a huge portion of my role is food procurement because of our experiences in this last year. So it's -- it's not just reshaping how we did things in 2020, but I think it's going to shape how we do things going forward."

Despite the costs and logistical challenges associated with purchasing food, several food banks saw clear advantages to purchasing food over relying on food donations. For example, purchasing food allowed food banks to ensure consistency in their offerings, which was impossible when they relied more heavily on donations:

"Our focus moved away from donated to purchased only because we could do more uniform boxes. Donated items, I can't really do uniform boxes with, so that's been by far our biggest change is just how we're providing services to our clientele."

Purchasing food also gave food banks greater control over their nutrition standards. For example, the following food bank appreciated how food purchasing allowed them to enter the "planned nutrition game":

"Our plan is to buy a truckload of eggs every week, a truckload of tortillas once a month, two truckloads of fresh chicken monthly, two trailer loads of fresh produce weekly, and two trailer loads of nutritious shelf-stable food weekly. When we do that, we are now in the planned nutrition game, not the situational nutrition game, which is where the entire network and industry lives. We accept things we never should. We actually have tighter standards than Feeding America now. They have 31 categories. We've removed 11. We will not report 11 of those categories because we don't see them as nutritious."

Not all food banks were similarly enthusiastic about food purchasing, however. Aside from the costs, some food banks mourned the loss of personal connections or community-building that was fostered in donation programs:

"Purchase programs are a lot like going to the grocery store. You know you're going to be buying specific things. You're kind of adding it up in your head, like budget-wise how much it's going to be, then you ring it up and go. You talk to the cashier, but you don't have really strong relations because you have somebody behind you who is needing to go, too. Whereas with donated product, you're building those relationships. You have the one-on-one contact all the time, I'm learning stuff about their business to see how I can help

them reduce waste. And they're seeing my area and seeing how they can help us. So we're trying to build this house together as opposed to just kind of being a cog, for lack of a better word."

Interviewer: "What do you feel like you lose when you're a cog?"

Respondent: "The face to face, the getting to know... like don't get me wrong, we have conversations with our brokers and stuff like that. But in all honesty, I'm paying them for the product, and I need to get the product in. Whereas with a donor, I am wanting to make sure they know how much their donations are appreciated, how it's really impacting the community, and just reminding them of what we do. I don't need to do that with a broker, because they're going to take my money and run whether I have a sob story or not."

Maintaining flexibility

Many respondents credited their success at responding to the needs of their community during the pandemic to an organizational culture of flexibility. Food banks were confronted with multiple, cascading challenges during the pandemic – including volunteer shortages, declining food donations, unprecedented demand for food, supply chain disruptions, limited operational capacity, and occupational safety risks – and responding to these challenges required organizations to quickly adapt their operational practices. Several respondents noted that the flexibility that was so key to their pandemic response required a staff who were open to innovation and a board of directors who trusted food bank leaders to make sound decisions:

"I think one thing is being flexible and nimble, has been really, I think, served us well. Even though we're a pretty large organization – usually the bigger you get, the less flexible and nimble you are. I think our team did a really good job of not being so wedded to, "Well, that's just the way we do it and we really can't change" and the like."

"I am pretty amazed and proud of my management team, and my staff, the way they have responded to the pandemic. One of the organizational values that we prize is nimble and another one is resourceful, and that has certainly proven to be the case."

"The ability to problem-solve and think quickly on my feet gives you the chance to figure out different things.... The ability to pivot and have a very flexible team. Well, we made them very flexible. We talked to them several times, saying, "We need your help, and things are going to move around." And we understand it's difficult and stressful — and last year, because we had a really good year financially, we gave away bonuses, which we'd never done in 40 years, so we kind of thanked them."

"I'm going to say this with humility. We thrived. We were tracking what was happening in Italy and in Spain and in France, and as soon as that first case landed in Seattle, it was a full-court press.... I remember I talked to our CFO and our COO, and I said you're going to think I'm absolutely crazy, but I think – and this was before we started buying masks from China. So we searched the internet right away and we found 10,000 masks in New York. New York – which by the way, as you know, ran out very fast. I went to our CFO and I said this could be the dumbest thing I ever do, but I've got to go with my gut.... We need to buy these masks. And both the CFO and the COO – she's been here 32 years. Our COO has been here 27 years, so they're experts. I'm still cutting my teeth. And they said ok, we understand. Let's do it. And from that moment forward, we started running with our emergency plan."

Several respondents noted that a nimble approach to disaster response sometimes required making staffing changes. Some food bank employees who were accustomed to the “good old days” and who failed to adapt well to the changes ended up leaving the organization (either voluntarily or not):

“The team has changed — there’s been some turnover, because the good old days that they remember three or four years ago are not here anymore. It’s changed, and we told them it’s going to continue changing as we continue growing and we continue adapting to what’s going on. So we understand that it might not be for you anymore, and we won’t take it personally. Some of them left on their own; a couple we kind of pushed along, unfortunately, because it was just not working out. And that happens sometimes. You have to have the right people on the ship to take the ship to the right location.”

“I think one thing that is really huge is 75 percent of the organization is in a different position now or is new to the organization as when the pandemic started. So 75 percent, either movement or turnover in the organization. And so while the organization may have been coasting -- and certainly there were some people that were comfortable at that pace -- those folks are no longer here. And the team that is here, this amazing leadership team and the people that report to them and the layer below them, not only do they really, really believe in our mission, but they are driven by our mission.... There isn't anybody left here on our small team that isn't also sprinting. And we would not have been able to say that even six months ago or four months ago.”

Organizational flexibility was also enabled by frequent communication among food bank staff. Many respondents noted that their staffs met regularly, especially during the early days of the pandemic, to share information and make collective decisions. Many of these meetings were in person, though many also occurred over video or phone as administrative staff transitioned to working from home:

“We started meeting every single day with our management team because it changed every single day, and we were worried about keep[ing] our employees safe, keeping our volunteers safe. It was a daily meeting. I think in the beginning, we may have even met twice a day.... It’s so funny how that’s just normal now to us, to be in a room with all of us with masks on and six feet apart. We continued that meeting, but we’re once a week now. Honestly, that was the only reason we were able to be so flexible -- because we had everybody in the room. If we were saying we wanted to do something, someone didn’t have to go ask someone else. We literally shut down for the hour to be able to have these conversations of okay, what do we do tomorrow?”

Collaboration and communication

Prior to the pandemic, food banks in California had systems in place to provide mutual aid during disasters: if one food bank was overwhelmed or shut down during a disaster, neighboring food banks would step up to offer food and resources. This system worked well during previous disasters, for example the recent surge in wildfires, but it failed to prepare food banks for disasters that affect the entire state at once. As the following respondent explains, food banks were unable to draw on these mutual support systems during the COVID-19 pandemic because every community was affected:

“I should mention that there are mutual support agreements, where if a food bank went down because there was an earthquake, civil unrest ... if that food bank can't remain fully operational, you have food banks in the area, and they surround them with support. They offer staffing, food, transportation, whatever help is needed to uplift that operation. What was different about this is that every food bank in the country was experiencing the same thing simultaneously. So you had food banks in LA, Riverside, San Diego, they couldn't do

anything to help us... The prior plan is you have mutual support. But that plan doesn't work if everybody is experiencing the same thing at the same time. And so, we were really left to our own devices because the only thing that existed on paper was this mutual support disaster plan, which didn't take into consideration an event where everybody would be impacted equally."

Despite their inability to share material resources during the pandemic, food banks nevertheless found ways to support each other through information sharing and emotional support:

"When the pandemic hit and we were all in this situation, it was, okay, I need to help you, but how do I help myself at the same time? And it was like, this is what we can do: We cannot share food, because we all have to kind of hoard it, for lack of a better word, to make sure that our clients' needs are met. However, we can share information – Hey, this is where I'm getting bags from; hey, I'm going to be ordering mesh bags. If I order 1.6 million mesh bags, I get a discount on it, and who wants to buy them with me? So constantly trying to come up with better, brighter ideas, for how we can collaborate. Do they all work out? No, but it's okay. Nobody has been burdened by it. But we're all in that process together, so you have like this really Kumbaya when we're all chitchatting, and we'll Zoom occasionally. There are like eight or nine of us from all over the country and we'll pop on, and cry for about five minutes. And then come up with better ideas on how to make the world better."

Respondents frequently shared information and support with fellow food bankers via phone calls, email, and video conference calls. Food bank leaders made personal calls to professional contacts and made frequent use of electronic mailing lists comprised of members of Feeding America or the California Association of Food Banks. Respondents also described at least two ad hoc groups of food bank leaders (one in northern California, another in southern California) who met weekly during the pandemic:

"You know, [another food bank CEO] did a great job of gathering us. It was weekly, then biweekly, now monthly. And there were six or seven food banks on the phone all the time kind of sharing where are you, what are your challenges, what are you working on?"

"We put together a group of food bank CEOs, and we started to meet once a week.... We were all dealing with the exact same thing. And it didn't make any sense for us to try to figure out what does this mean? What do we do? So we were sharing stuff right and left. We didn't wait for Feeding America or CAFB or any big organization to put it down to us. We just went straight to our colleagues. And I think that was single handedly the best way for us to get through it all together. Oh, well, you have a travel policy? Ok, send it to me. And then we would send it everybody. I feel bad for people who weren't part of this group. There was – I don't know – eight of us or so and we still meet once every other week now. ... That strategy of communication on a grassroots level saved us – a think a lot of us."

Respondents also noted that they scaled up communication and collaboration with their partner agencies (who distribute the food within their region) during the pandemic:

"And the people, the relationship piece, is really key, because similar to our healthcare system there is no national system. Right? I mean, you're really seeing that fragmentation. You're seeing that state versus local, or state versus federal thing play out pretty heavily. Coalition work is super important, and just, honestly, even today, just playing the telephone game. Checking in with how people are doing out in the community. Hearing from our member agencies because these are autonomous organizations. It could be a church, it could be a soup kitchen. It's a lot of people. And gathering their experience is incredibly important. Again, I don't think our lawmakers or the public realized truly what the charitable food system looked like until the pandemic, when they realized, oh, wait a minute, seniors can't be running these programs anymore."

They need to protect themselves. Oh, wait a minute. Food banks rely on – our food bank, for example, relies on 2,000 volunteers a month to push millions of pounds of food. Well, that doesn't work anymore. I think everybody is just kind of waking up to a very grassroots system.”

“So everybody's helping. We're all helping each other share. One of the agencies called the other day and said “Hey, we just got a big shipment of green beans. Do you need any?” Well so we took them because we had a distribution the next day. And so, we've all been kind of partnering together and sharing our resources. And when one of us has too much of something, we'll call the other ones and say, “Hey, I've got this. Do you need it?” And so, it's been working out and we've been able to feed a lot of people with a lot of food.”

Collaboration with community organizations outside of the emergency food system also enabled food banks to adapt to the demands of the pandemic response. Several interviewees described how they established or strengthened relationships with local organizations that could provide necessary information, labor, or other resources. For example:

“We're not experts in everything. But working with the local partner agencies that are experts in their fields – so for example, we're not police officers, but we have to maintain control, and so it is working with the cities and saying, hey, could you provide some assistance with, you know, a community relations officer to come to our distributions? Or could you send a patrol officer to just patrol the area while we're here? You know, we can't reach the church congregations, but we can reach out to the pastors and say, hey, we either need volunteers, we need your location, or we have this food, can you assist in distributing? It's really working with your local partners.... I can't tell you how many local agencies, while they were closed down, reached out to me and said, what can we do to help? Or can we participate at your food distribution so that we can share what we're currently doing?”

Learning from previous disasters

Several interviewees reported that they drew on lessons learned from previous experiences with disaster response during the pandemic. Wildfires have devastated many California communities in recent years, and several food banks reported that their experiences distributing shelf-stable foods to wildfire victims helped prepare them to operate larger-scale food box distributions during the pandemic. For example:

“When the pandemic hit... We've already had disasters, we've already had fires. We've had lots of fires. We've very experienced at this. We already have what everybody had called drive-thru distributions. So, cars line up like they're going to a rock concert, or whatever -- they line up and they get brought through one-by-one, pop their trunk, open their doors, volunteers put their food in, they go to the next station. We were already doing that. So when COVID hit, there was no disruption in terms of process or how to process cars because you had to do the same thing with fires because just the sheer volume of people on the run, evacuating, fleeing.”

Another respondent reported that their food bank's response to the 2019 federal government shutdown turned out to be a “test run” for their pandemic response because they had to rapidly mobilize resources to assist federal workers who suddenly lost their paychecks:

“We actually got a test run at the end of 2019, when we had that partial federal government shutdown. We were servicing five federal agencies in our county. And that's when I got my first true role in our incident command system. All of a sudden, we had to rapidly assemble because all these people were missing

paychecks. From the Coast Guard to the IRS. And it was like OK, get together, who do we need to talk to? So 2019 was like the trial run of what does it mean for us to boost the net. And I thought that was a lot of coordination. That was just the warmup.”

Previous experiences with natural disasters also enabled the state of California to quickly establish a boxed food program during the pandemic. (See [“California’s emergency response.”](#)) The state’s first experience distributing state-funded food boxes through food banks was in 2015, when California established the temporary Drought Food Assistance Program (DFAP); the program distributed state-funded food boxes to food banks in California counties that experienced high levels of unemployment due to the drought. A couple years later, as the DFAP program ended, the state was able to distribute leftover DFAP food boxes to communities that were hit by the wildfires. When the COVID-19 pandemic hit in 2020, state agencies were able to rapidly scale up the food box operations to ship state-funded food boxes to every county in California:

“It’s an interesting sense of scale on how quickly, at the state level, our state food bank support changed almost overnight from this little, tiny drought boxes, fire boxes, this little tiny bit of support to then at the state level, to something that is fairly large scale: 75 million dollars worth of food boxes. We’re still distributing those today.”

Government policy responses

In responding to the overlapping challenges of the COVID-19 pandemic, California food banks received financial and material support from all levels of government. Respondents noted that government support was critical for rapidly scaling up their operations to serve the unprecedented need in their communities. However, respondents also explained how the government response at federal, state, and local levels varied. The following sections review respondents’ mixed experiences with the USDA Farmers to Families Food Box Program, the California state emergency food box program, and county-level efforts to mitigate food insecurity.

USDA Farmers to Families Food Box Program: A mixed blessing

In response to agricultural supply chain disruptions and rising food insecurity, in April 2020 the U.S. Department of Agriculture (USDA) established a \$19 billion program called the Coronavirus Food Assistance Program (CFAP). The new program was partially funded by the Coronavirus Aid, Relief, and Economic Security (CARES) Act and Families First Coronavirus Response Act (FFCRA), which were passed by Congress in March 2020. The majority of CFAP funding (\$16 billion) was allocated toward direct support of food producers who were financially burdened by the pandemic. The remaining \$3 billion was used to launch the new Farmers to Family Food Box Program, which purchased and distributed food boxes to nonprofit organizations serving needy Americans. The goal of the program was to support American food producers while addressing rising food insecurity.

The Farmers to Families Food Box Program was operational from April 2020 to May 2021, during which over 174 million food boxes containing fresh produce, meat, and dairy products were distributed (USDA Agricultural Marketing Service 2021). The program required that contractors submit plans for purchasing food, assembling the boxes, and delivering the boxes to nonprofit organizations such as food banks and other organizations serving low-income Americans. The food box program underwent several changes over its five rounds of contracts, as USDA implemented suggestions drawn from stakeholder feedback between rounds. For example, later rounds of the program included a larger preference for lowest-cost bidders, focus on delivery to federal Opportunity Zones, and exclusive support for combination boxes of produce, meat, and dairy over separate boxes containing only one or two types of food products (USDA Agricultural Marketing Service 2021).

Responses to the federal food box program have been polarized; the program earns widespread praise for its rapid response to a national hunger crisis, yet many have also voiced criticism about its implementation (Broad Leib, Ardura, and Beckmann 2021). Below we describe the perspectives of California food banks on the benefits and challenges of the Farmers to Families program.

Benefits: Speed, safety, and reduced need for labor

The program was universally praised for its speedy response, even by respondents who were otherwise critical of its implementation:

“They contracted awards on a Friday, and seven days later I had semi loads of beautiful produce packaged into boxes unloading from our dock. There's no way I could have done that. I couldn't have sourced the food. I couldn't have gotten the boxes to put the food into. I couldn't have gotten the labor to put in those boxes. I couldn't have arranged the transportation. There's no way in the world I could have one that in a month, least of all a week. But in a week, they delivered.”

Although the boxes were not available to every food bank in our sample, or were available only during specific rounds of the program, several food banks who consistently received the boxes reported that the volume of food they received was substantial. For example, the following recipients calculated that one-quarter to one-half of the food they distributed during the pandemic was sourced from the Farmers to Families program:

“When we look at the last months, I would say that that's probably at least a quarter of our volume has been through that program. And again, that program didn't even exist a year ago. A brand-new program with really desirable food. It started with kits of produce, like mixed produce in a box, dairy, and meat and now it's heavily moved to what they call “combination boxes,” which has all those items in it. These are very popular food boxes for the ultimate recipients, families and others.”

“Even though the supply went up and down a little bit, we got a lot of that food [from Farmers to Families]. About half of the food that we distributed during COVID -- 63 million pounds -- was these USDA Farmers to Families boxes.”

Respondents were generally happy with the quality of the food in the boxes, and they were grateful that the boxes came pre-assembled, so staff weren't needed to sort food and assemble boxes. The program also worked well with the contactless distribution systems that were meant to minimize the spread of COVID:

“Now because of the COVID, we're getting market quality pre-bagged stuff, so we don't have to sort, which has been nice for us and nice for our clients. The amount of food has been amazing. We've been getting anything from lamb chops to whole chickens, taco meat, fish sticks, just really good quality food, which has been nice. And I hope it continues after the pandemic's over.... They're pretty amazing boxes.”

“We received a few rounds of [the USDA food boxes]. And that's really helpful, because the food is already packaged up as opposed to us having to buy wholesale and then package it ourselves. And it's also safe. Because with the pandemic, you want everything to be very contactless, not farmer's market style.”

One food bank explained that the federal boxes enabled them to distribute more fresh produce than they had ever distributed before:

“Right now, during COVID we've distributed a lot of fresh produce. Before that, we were not distributing a lot of fresh produce. And the reason is that with TFAP [The Emergency Food Assistance Program], you don't get fresh produce. The only time we were getting fresh produce is through a program called Donate Don't Dump. And basically, it was produce that was donated by growers.... Post-COVID, when the federal government said you're going to create these boxes and we're going to pay for them, and then we at the food banks were receiving those. So right now, we distribute a lot.”

Early rounds of the program awarded contracts to community organizations and supported small- and medium-sized growers, which enabled some creative innovation around local food system partnerships. For example, the Bay Area nonprofit Fresh Approach coordinated with eight regional organizations to distribute over 50,000 boxes of local, organic produce during the first few rounds of the program (Olove and Hamdi 2021). As one organizer said, “It was amazing! It supported over 50 farms and invested more than a million and a half dollars into those farms.” However, in later rounds the USDA decided to stop supporting produce-only boxes and exclusively support “combination boxes.” It also began awarding contracts to lowest-price bidders, and small-scale organizations could not compete with larger distributors like Sysco. Thus, contractors like Fresh Approach were shut out of the program, which largely shifted toward large corporations (Bitker 2020; Broad Leib, Ardura, and Beckmann 2021).

Challenges: Inequitable coverage, logistical complications, and disruptions to donor relationships

One major critique of the Farmers to Families Program was its inequitable geographic coverage. Unlike other USDA programs that serve all U.S. counties, the food box program allowed contractors to work with any nonprofit organizations in their service area and did not require universal coverage. As a result, some areas received no food from the program or received it sporadically over the five contract rounds. For example, an evaluative report from the Harvard Law School Food Law and Policy Clinic (FLPC) found that over 1,000 U.S. counties received no food boxes in May and June 2020, and the first round of contracts excluded the states of Alaska and Maine (Broad Leib, Ardura, and Beckmann 2021). Interviewees in California also complained about how difficult it was for rural areas to access food from the program:

“I think the primary criticism of the program has been, as opposed to other USDA program where the food is distributed in a formula way where it goes formula to states and to counties -- so in a very fair way, based on some objective criteria -- USDA just said get the food out, so that led to very uneven results across the country. As you can imagine, it's hard to get food to Alaska, so they got very little food, unfortunately, but even within a state like California, it's harder to get food out to rural areas.”

“We know specifically with the Farmers to Families program, that it was rural banks who were often shut out because of the requirement for direct ship. A lot of vendors said if you can't take the whole truckload, you know, we're not coming to you.”

“[The distributors] didn't want to have anything to do with our little requests, and unless you can take our 53-foot truck once a week or whatever that was – no, we'll just find another place for it. So we ended up getting zero. And it would go to L.A. because they can take all these big trucks. In the end, they were trying to make it better and it just made it worse. So we just kind of gave up. We were like, ok, we'll just do without them.”

Respondents also expressed frustration that the availability of food boxes shifted between contract rounds, often with little notice or explanation:

“We participated in the Farmers to Families food box program wherever possible. In round 1, we participated, in round 2 and round 3. I think in round 4 or 3, I can't remember now, we didn't get anything.”

“There was only ever something like six weeks worth of supply ever approved at any one time, so we're sitting there going, “You know, the minute that you instituted a shelter in place order, you created this huge shock to the entire socio-economic system, and that's going to take us years to work our way through that. We don't need six weeks supply; we need a commitment for two years or more.”

“We were receiving a fair amount of those boxes. I was asking for numbers today, and my colleague said in a monthly basis we're getting a range from 660,000 to 900,000 pounds of these food boxes, so it definitely helped us a lot. We just entered phase five of this program, and we learned a couple weeks ago that we're not getting a single pound of those food boxes. There's definitely some pressure on us now to purchase a lot more produce, especially, because we were getting a lot of the produce kit boxes.... So now we just have to figure that out. We'll have to make it work somehow.”

Several respondents pointed out that the USDA contracts often went to organizations that had little experience with food distribution. Meanwhile, the program did not provide financial support for food banks to store or distribute the donated food.

“We saw a lot of players come into the game that had no clue what they were doing, and it cost a lot of grief with regards to getting food out to the people that really need it. It was a frustrating time. A very, very frustrating time. And we've been vocal about it because it should not have happened that way.”

“The money for the program is being funneled into that box of food, so food banks are not seeing the resources to have storage for this ginormous increase in food that's accessible. So how do we keep it safe and healthy and how do we continue to get it out to people in a safe and healthy way?”

Food banks varied in their capacity to distribute “combination boxes” of fresh produce, meat, and dairy. Food banks that could distribute the boxes immediately upon receipt generally appreciated the combination boxes, since pre-assembled boxes saved them time and effort. However, many food banks could not distribute the boxes immediately and therefore had to store them. This proved challenging because the entire box had to be refrigerated due to the perishable meat and dairy items, which meant that valuable cold storage space was occupied by the nonperishable items in the boxes. Some food banks solved this issue by separating the items in the food boxes and reassembling them at distribution time, which was an additional burden on food bank staff:

“We would never buy a box that includes milks, eggs, frozen meat, shelf stable food and fresh produce, but that was what we were getting through the federal program. All in one box that we had to break apart because all of those things needed different storage temperatures. But it was arriving as one thing, like delivering it to our warehouse automatically meant it was in somebody's home or apartment.”

“For food banks that have the capacity to take those boxes and immediately distribute them, it was great. We don't have the ability to do that because so much of what we do is so spread out throughout the county.”

Paradoxically, another issue with the food boxes was that they often contained too much food. The boxes could contain 30-40 pounds of food, which was difficult for some volunteers and clients to carry:

“We were finding that we were getting boxes of produce in the very beginning that were far too big for our clients to even carry to their car. You know, we were getting 40-pound boxes of produce. What 70-year-old single person is going to be able to carry that back to their car?”

“The other part that's not realistic is they are making them far too heavy. Most of our volunteers cannot hold 30-pound boxes for several hours a day.... It's a lot of food. If you were to spend three to four hours loading cars with 30-pound boxes in addition to everything else, that's crazy.”

The final major criticism shared by several respondents was the fact that the Farmers to Families Program disrupted some longstanding relationships with local growers. One respondent from a rural food bank explained how prior to the pandemic, the food bank received a lot of produce donations from growers in the region. However, after the Farmers to Families Program was launched, their agricultural partners began selling to the USDA contracted distributors rather than donating directly to the food bank, and unfortunately the food bank received only a small supply of USDA boxes:

“The other reason I don't like it is my donors in this area have found another market to send their product that they usually donated.... In August, September, October, November, December, January, I didn't get any boxes. In February, a company out in San Francisco reached out to me and they provided us three loads. We are currently getting three loads from them right now; however, if this program ends in March, we'll be cut off from that.”

A few respondents also described how the USDA program unintentionally threatened the viability of the CAFB Farm to Family Program (which buys and distributes surplus agricultural products to California food banks); some food banks received so many USDA boxes during the pandemic that they lacked capacity to take additional food from the CAFB program, and some respondents worried that they would permanently lose CAFB agricultural partners to other outlets if they failed to support them during the pandemic.

California's emergency response: Swift and substantial supports

The California state government responded to the pandemic's impacts on food insecurity with several types of support, including staffing assistance, food, and funding. In March 2020, Governor Newsom deployed the California National Guard to assist food banks experiencing staffing shortages amidst unprecedented demand. (See [“Addressing staffing shortages.”](#)) The state also released emergency funds to purchase food for needy Californians. The California Department of Social Services (CDSS) partnered with the California Association of Food Banks (CAFB) to procure food and distribute state-funded food boxes throughout California. The state-funded food boxes were initially funded with \$5 million from CDSS; as the pandemic wore on, the state scaled the program with additional appropriations of \$20 million and eventually \$75 million¹.

Logistical support from the California Association of Food Banks (CAFB) enabled the state to establish a food box program and deliver the first boxes in under two weeks. CAFB leveraged their experience operating the Farm to Family program (which delivers fresh and shelf-stable foods to California food banks) to help CDSS deliver emergency boxes of shelf-stable food around the state. Over one million emergency food boxes were distributed in the nine months following the state's shelter-in-place order (California Association of Food Banks 2021):

“[Farm to Family] was ready to go when this pandemic hit. We didn't have to staff up until we started taking on the shelf-stable food box program for the state. We did that overnight as well. Started in March of 2020, and in the first couple of days of doing that, we shipped 80,000 boxes of shelf-stable food to pretty much every reach of California.”

¹ Personal correspondence with CDSS.

"We were really grateful at the speed and the scale of the state's response. Within weeks, they were procuring state-funded food boxes that DSS had rolling around the state in partnership with CAFB.... Honestly, it's government at its finest. I mean certainly in the early days, the fact that they stood that up almost overnight, it was equitable, it had last mile cost coverage (which the federal program did not) -- you know, two dollars a box. It's not perfect. It's shelf stable foods. But again, that's what was not being donated from a retail perspective."

In addition to food and staffing support, the state also provided California food banks with funding to purchase food and expand operational capacity. (See ["Increasing food purchasing"](#) and ["Expanding operational capacity."](#)) However, one challenge was that the state was limited in its capacity to fund real estate transactions, and many food banks faced space constraints during the pandemic. As one state representative explained:

"Over the last couple years, the legislature has given us 25 million dollars for capacity grants to make grants to our food banks, with the idea that it could help them increase their capacity to serve. It's well intended, and we've pushed most of that money out to the food banks who've purchased trucks and solar and freezers and racking systems and pallet jacks and forklifts -- you name it; we have been funding all kinds of stuff. But what we can't fund is real property transactions, and in many cases that's the thing they need, a bigger space. If you're in the same little building that you've been in for 20 years and you're seeing a 500% increase in the number of people you're serving, you don't need me to send you another forklift of pallet jack, you need a bigger building.... That is something that I wish we could help with, but can't."

Local government agencies: Developing and strengthening some partnerships

Several food banks established relationships with their county governments during the pandemic. Prior to the pandemic, most of their ties to government had been with state and federal agencies, but they were able to forge new relationships with county agencies during the pandemic when counties began to invest in local disaster response. For example, several respondents noted that they received funding from county governments for the first time during the pandemic:

"Actually, for the first time ever -- this is a huge feat -- last year, for the first time, the county gave the food bank money. We've never gotten county funding. Ever. So that was amazing."

Interviewees believed that the county's support for the food bank during the pandemic reflected a new appreciation for the services provided by the food bank. Some noted that these shifting perceptions allowed the food bank to coordinate with local agencies more easily than had been possible before:

"Our county wasn't giving us dollars before, and I think that they are kind of realizing wow, you know, the food banks do a good job. They know what they're doing. I don't know what they thought we did, but wow, you guys distribute a lot of food. We're food distributors. That's what we do. We can take free food and we can stretch a dollar better than anybody. Better than any government agency, that's for sure. I think they're realizing that."

"I think it has changed the way we kind of see each other as agencies. I think one of the agencies said it -- we're on the same beach, playing with the same sand, and so we need to be able to share the toys. I think that that has really been the approach to dealing with this situation."

In at least one case, the county began to support the food bank during the pandemic because they wanted the food bank to cache food in case local grocery supply disruptions led to civil unrest:

“The county's primary concern was food riots because at the time, there was a run on the grocery stores and the shelves were bare, and they were concerned about civil unrest. So, they looked at the food bank not primarily to serve people in need, but as a place where a cache of food could be secured in case there was civil unrest. It ended up being a really good story because whereas we ended up losing just shy of 700,000 dollars worth of food in 2020, our contract with the county gave us purchase authority using county funds of 650,000 dollars. We were pushing food out the door to our agency partners as fast as possible.”

Some food banks already had relationships with local government agencies prior to the pandemic, yet they believed that these partnerships were strengthened as they collaborated more closely on the local pandemic response:

“Our county has a strong partnership with my food bank. We work hand in hand together and we always have. It doesn't happen that way a lot with counties, but in our county, we've been very lucky because through COVID, the relationships were great. I remember telling them, you have to see your regional food bank as the grocery store for those that are food insecure. We primarily serve communities of color. If you don't allow us to continue to work, because you don't see us as essential needs, then you will have inequitable food distribution throughout the community and you will be leaving people in communities of color behind who are going to be the most vulnerable through this space. They totally got it.”

“I don't think, as a county, the government and non-profits have ever worked so close and so well. Even now through the distribution of the vaccines, they're working with us and other non-profits to make sure that the vaccines are available in rural areas where a lot of these families live.”

Food loss and waste

News coverage at the beginning of the pandemic documented unprecedented levels of food waste in some parts of the supply chain, as restaurants and schools shut down and left growers with a sudden and unprecedented gap in market demand (Yaffe-Bellany and Corkery 2020; Frias and Hall 2020; Royte 2020). Our research team set out to determine whether food banks also experienced dramatic shifts in food loss and waste over the course of the pandemic.

Many food banks reported short-term increases in food loss at the beginning of the pandemic, when local restaurants and distributors offloaded their inventories of perishable food after stay-at-home orders were implemented. Many of these donations came in the form of bulk donations, which food banks have difficulty distributing even in the best of times – and very few food banks had adequate time or staff to handle bulk donations during the chaotic early weeks of the pandemic. Some food banks refused to accept these bulk donations, whereas others accepted them and dealt with increased food waste when they couldn't distribute all of it:

“We had probably 30 to 80 pallets of different types of leafy greens donated to us in March and April from these distributors. There's just no way that we can even distribute that in a timely fashion, and people aren't excited about lettuce anyways.... To get just pallets of shredded lettuce — and we're talking like the industrial-sized bags — just there's not much we could do with that. So that definitely caused some food loss. However, because it's organic material, it went to our [partner] hog farms.”

“You know, we struggled with that, but only for 10 days to a couple weeks, you know, when all that produce flooded in. It just came in faster than anybody could imagine in volumes that we couldn't imagine before we had the refrigeration to help handle it.”

“That’s been kind of tough. We’ve seen waste in that respect – they have those five-gallon boxes of milk, and people weren’t real keen on getting one of those. That was kind of a lot. A lot of times we just said, “We can’t take that.”

After the initial glut of donations, however, most food banks experienced normal or reduced levels of food loss. Food banks that struggled to source enough food to meet the demand reported low levels of food waste, since food never sat in warehouses long enough to spoil; scarcity was more common than waste for many of the food banks in the sample. Additionally, as many food banks began sourcing higher amounts of nonperishable food during the pandemic, the overall percentage of food loss declined:

“So other than those first couple weeks, I haven’t seen inflated food waste. If anything, it’s probably decreased because there’s just been less stuff available. And the stuff that we’re buying are non-perishable foods in boxes.”

“Another part of what can lead to waste at food banks is food probably sitting around too long.... So that part of loss and waste, at least for us, kind of disappeared because everything that was coming in, there was a demand for the product.”

“For fiscal year 2018-2019, we had a 5.7% loss of products — so that’s the amount of product that was received but not distributed, and then in fiscal year 2019-2020 we had a 4% loss, so we actually had a decrease in loss, which I surprised to see.... But I think a lot of it is due to receiving more of our federally funded program food. So those are going to be those non-perishable items that we don’t have to toss into our compost.”

“We’ve had so much help feeding the homeless population that I haven’t had any food loss, and it’s not that we’re giving them the bad stuff. It’s just that they’re taking everything we’re giving them.... We used to have between 500 and 750 pounds a month of food loss. And that was produce and stuff, and we would always give it to animal owners. We haven’t had enough to do that [during the pandemic]. We haven’t had to give any food to the animal people because everybody’s taking what we’ve got.”

Some food banks reported one-off increases in food loss when perishable food donations exceeded their refrigeration capacity, or when refrigeration systems broke down. However, most food banks claimed that food loss was minimal during the pandemic due to elevated demand and greater reliance on shelf-stable foods.

A couple respondents also noted that the pre-boxed food distributions (such as the USDA Farmers to Families Food Box program) shifted food waste from food banks to other parts of the supply chain. For example, the distributors who won contracts with the USDA to produce the federal food boxes undoubtedly absorbed some of the food losses that would have been absorbed by food banks if the perishable goods had been donated directly to the food banks for distribution. Additionally, respondents noted that consumers likely wasted some of the food items in the boxes, since they lacked the opportunity to deny food items that failed to meet their dietary restrictions or preferences, or they received more perishable food than they could eat in the time before it spoiled:

“We kind of actually outsourced waste to someone else.... So for the Farmers to Families Box program, someone at the producer level is doing that, right? So they have some waste, but we don’t see it, right, because they’re only delivering the finished good, which is of high quality.”

“It’s not typical for us to have a lot of food waste. I do wonder what’s happening outside of my organization. I know I mentioned that these other organizations were taking on all this food. So what are those households doing? What would you do with 60 pounds of produce a week? I mean, honestly, I don’t know.... Whether

you could call it food waste, I'm not sure, but I would think that it would be more significant because people aren't choosing their own food. You know, if you're not making spaghetti or if you're not doing things like that, then there is food that you're going to get that you're not going to be excited about."

Silver linings

In describing their organization's response to the COVID-19 pandemic, respondents often reflected on unexpected opportunities to advance their longer-term vision. Two types of silver linings emerged: First, respondents expressed gratitude for the heightened media visibility during the pandemic that enabled them to build wider networks of support and address the stigma that often surrounds food assistance. Second, respondents noted that the pandemic represented a rare opportunity to advance broader strategic visions around food banking and other interrelated social issues.

Increasing media visibility and reducing stigma

Heightened media visibility was an unexpected opportunity for food banks during the pandemic. During the first six months of the pandemic, especially, national news outlets regularly featured stories about long lines at food banks and rising levels of food insecurity (Kulich 2020; Raghavendran and McCarthy 2020; Alonso and Cullinane 2020; Luhby 2020). Interviewees reported that this media attention helped raise the profile of the work they were doing in their communities. Local media outlets often reached out to highlight their work for regional audiences, and both national and regional coverage helped food banks reach new clients and donors:

"It has risen food banks as a whole, all of us up. I mean Channel 3 would never come out and talk to us otherwise, but that boost was huge for us. It brought in so much food, but also so many new donations. It was great for us because, like I said, we don't – we have a great donor base, but it's always the same people we're asking and asking. You feel bad after a while. You wonder when they're going to be our clients because we've taken all their resources. I think that, yeah, it's really opened people up to food banks and what food banks do."

"We were getting money through that NPR [story] from Boston, and we're still getting money. Every time it airs – it re-airs every once in a while – we'll get a check or a donation for four or five thousand. A lot of our locals see that's what we're doing and know the need and, you know, share."

"Yeah, COVID has given us a lot more name recognition. We're able to like get on the media more, so it's really helped our donations as far as that goes. And just kind of show that throughout the year people always give around holidays, or if something is, you know, especially Thanksgiving and Christmastime those are the biggest. But what COVID showed is that there is a need all year round, even more so in a pandemic year. It was a better way of us telling our story."

Several food banks talked about this pandemic offering a once-in-a-lifetime opportunity to reach large audiences. Many attempted to approach this opportunity strategically, using their platform to advocate for sustaining donations or increased volunteerism:

"We knew early on that this was going to be a long, long, long fight, and we knew that we were only going to be above the headlines in the newspaper and leading news on CNN for a finite amount of time.... And so while we were in the news, we did everything we possibly could to create sustaining donors. I would literally talk people out of making large donations and ask them to make a smaller one but sign up as a monthly

donor with us. So that over the course of the time, over the course of the year, they would donate far more, but it would be more sustainable for them and easier for us to be able to plan. And so our sustaining donor revenue went up almost a thousand percent.”

We've always said that our single biggest challenge is public awareness, it's convincing people that there are legitimate and real and deep needs in our county. But here was an occasion where it took very little convincing, right? And it was the broadcast media and the print media that helped tell that story. We needed to be open and receptive to that. We needed to be compelling storytellers and make sure that they were like throwing up that online volunteer registration, that we could adapt quickly enough to meet the moment – but I think were it not for the media, people wouldn't have perceived the need.”

Many also hoped that the increased media attention would normalize food assistance and reduce stigma among potential clients. Interviewees hoped that the images of many types of people receiving food assistance would help potential clients feel more welcome at the food bank:

“The media was extremely kind in being able to share what it was that we were doing. I think it really brought out a lot more people who may have been very intimidated about going to a pantry. Who knows what people think a pantry looks like, but I'm pretty sure there's ideas that it's homeless, mentally ill. That it's not something that they would ever do – like, “I'll go hungry before I ask for help.” But I think when they saw it on television, then they're like, oh, wait a minute, that person's actually in a running car and – is that a Mercedes there? This was affecting everybody, and those people look like me. I feel ok being able to go through. And I think it took away some of the stigma as well.”

“This is a weird to say in terms of successes, but I think that so many more people have experienced [hunger], have struggled through this for the first time, in a lot of cases, and I think and hope that it will change our perspective as a community and as a country, really, about what it means to need food. I think there's so much stigma attached to that, or there was prior to this pandemic. But I can't help but think that like people have a different view of that going forward. And that only helps our efforts in the community.”

Several interviewees worried that once the media coverage vanished, public perceptions of hunger and food assistance would become less compassionate. Still, interviewees hoped that any reductions in stigma would persist long after the pandemic:

“I do think that just the visuals of the long lines of the cars, you know, once they go inside, it's going to be a challenge. But I think it's made such an indelible impression that we are not going to go back as badly to hunger being as stigmatized and hidden.”

Advancing strategic visions

Another unexpected opportunity that arose with the pandemic was the opportunity for food banks to accelerate progress toward existing strategic visions. Although all food banks implemented strategies to address immediate needs during the pandemic, some also leveraged the heightened media visibility and availability of resources to align their operational practices with broader visions about the role of food banks in the community. As one respondent explained, “I don't want to waste a good crisis.”

For example, some food banks discussed how the pandemic allowed them to continue making systematic changes to their operations and organizational culture:

“When I say that we were increasing our capacity even prior to the pandemic, it wasn't just the facility. It was also our organizational capacity, it was our HR capacity, it was our cultural capacity -- it was training ourselves to adapt to embrace change and to be innovative and curious about what's preventing us from delivering more and better services. And so when the pandemic hit, we just kept doing that.”

“COVID was actually an accelerant for change. We had plans that would have taken us three to five years to implement that we got done within three to six months because the world was scrambling and people were highly receptive to change because it meant survival.”

Others described how the resources and visibility they received during the pandemic enabled them to address broader social issues, such as federal anti-hunger policies, community food systems, and racial justice. These respondents contextualized their work of providing temporary hunger relief within broader systems of social inequality and government assistance, and they identified the pandemic as an opportunity to make progress on multiple, overlapping social problems:

“I don't want to waste a good crisis. I want a universal school meals program. I want all college students to be able to access SNAP and not deal with these dumb rules anymore. I want an equitable tax code. I want full enfranchisement for voting.... I'm hopeful for the larger conversation, and hopefully action, around racial justice. Some of it is – you can be very performative, but I am seeing people trying to take concrete steps. So, for example, as we push the larger national conversation, again, we're looking at our own food procurement budget, and saying how do we make these dollars more holistic? Not just pushing food out the door, but really investing in communities of color, and that reparations, acknowledging the decades and centuries of harm.... I don't want to call the pandemic an opportunity, but ... if I can be a helper in one of the biggest moments in history, I don't take that lightly.”

“A lot of food banks are wanting to use their purchasing power, their procurement dollars, as well as their policy work to shift the food system conversations around supporting black, indigenous, people of color, women-owned farms. There's policy things from the Justice for Black Farmers Act and the Farm Worker Modernization Act, to just programmatic changes that food banks want to make in terms of using local procurement. We're advocating in the future of this [USDA] box program that they open it up to more small and medium-size farmers and allow for regional food system developments.”

“From the very beginning, our question was: How can whatever intervention we come up with now strengthen the food system long-term? What we saw in our work was a real opportunity to reimagine the hunger relief funding landscape, where we really shift the values and how we think of hunger relief. You know, our traditional understanding of hunger relief is the food bank model, where a dollar going to a food bank pretty much just stays at that food bank, because they pay cents on the dollar for food. Whereas a dollar in our [locally sourced food box] project, though it pays for fewer calories, it pays for higher quality, nutrient-dense calories, food with dignity, and simultaneously, it sends that dollar through the food system more effectively.”

Conclusion

The COVID-19 pandemic created an unprecedented spike in demand for food assistance as well as numerous logistical challenges for food banks attempting to address the elevated need. This study has documented the experiences and perspectives of California food banks during the pandemic, with the hope that findings will be useful for practitioners, policymakers, and researchers hoping to understand the impact of the pandemic on the state's emergency food system and plan for future disasters. This research puts the perspectives of food banks in the center of the story, while acknowledging that they represent only one of the many actors engaged in hunger relief work (including food pantries and soup kitchens, faith-related and other non-profit organizations, government agencies, and food producers and distributors). While additional research is necessary to assess the impact of the pandemic on the entire emergency food system, these findings reveal an important collection of challenges and opportunities that likely affected many organizations engaged in hunger relief during the pandemic.

Our research documents how the pandemic created many overlapping challenges for California food banks. As demand for food doubled or tripled in most communities, regional food banks often struggled to source adequate food supply; grocery donations declined in the early months of the pandemic as consumers stockpiled food, and food banks who were fortunate enough to have a budget for food purchases still found themselves competing with traditional retailers for a limited supply. These supply and demand challenges were complicated by additional issues with staffing shortages, limited operational capacity, occupational safety, and inter-agency coordination. As one respondent explained, "Every aspect of our operation literally changed overnight."

Food banks rapidly adapted to these challenges by implementing sweeping operational changes. Most food banks transitioned to drive-thru distributions to serve large numbers of people with minimal social contact. Warehouses adopted practices to minimize the spread of COVID-19, including masking and testing, smaller work crews, and greater physical distancing between employees. Food banks expanded their operational capacity to handle the large volumes of food, and they accepted staffing support from the California National Guard and local organizational partners to fill in the gaps left by senior volunteers who could not risk COVID exposure at the food bank. Although many food banks had relied primarily on food donations prior to the pandemic, most established a food purchasing program to meet the growing need. All these operational changes were enabled by substantial financial support from government agencies and private donors, plus significant coordination among food bank staff and partner organizations. Many respondents reported that the volume of food they distributed during the pandemic largely kept pace with the two- or threefold increase in demand. This success was only possible because of a broad civic coalition animated by a common purpose, bringing together the resources of food banks and other community-based organizations, government agencies, and private citizens.

It is impossible to predict how or when the COVID-19 pandemic will end, but food banks are confident that high rates of food insecurity will persist long after the public health crisis is managed. It took ten years after the Great Recession for unemployment rates to return to pre-recession levels (Cunningham 2018), and many predict that the economic recovery from the pandemic will take at least that long. Although food banks have been fortunate to receive substantial support in responding to the pandemic, many respondents worry that their support will dry up before the need abates. For food banks to continue to serve vulnerable populations over the next five to ten years, they will require sustained financial and logistical support from government, private organizations and community volunteers and donors.

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Appendix A. Interview questionnaire

Background

1. Personal background: Would you mind stating your name and title and explaining a little bit about your role at this organization?
2. Background on the organization:
 - a. How much food do you typically distribute in normal times?
 - b. Where does that food come from?
 - c. How do you distribute the food?
 - d. How much fresh produce do you typically distribute each year? Where does that produce come from?

Questions about the COVID-19 pandemic

3. Could you walk me through your experience of the pandemic: how it impacted you in the beginning -- when the pandemic first began -- and then whether those impacts changed over time?
4. What have been the greatest challenges in adapting?
5. We're interested in learning whether the pandemic has led to increases or decreases in food loss in California. Has your organization experienced any changes in the amount of food loss/waste since the beginning of the pandemic?
 - a. If yes: Could you give me an estimate of the total amount of food losses?
 - b. How does this compare to "normal" times?
 - c. What were the main drivers of this change?
 - d. Where does this food loss go?

Wrapping up

6. Thinking more broadly about the California food system, what kinds of changes do you think would be important to prioritize to make the food system more resilient against future disruptions?
7. Is there anything else you'd like to share with us?
8. Can you recommend anyone else that I should talk to about these issues?