

Research Brief: Health and Nutrition

Implementation of School-Based Food Backpack Programs in Philadelphia, 2019-20

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Key Findings

During the 2019-20 school year, Philabundance and Eat Right Philly supported "Backpack Programs" in 14 SDP schools. As part of this effort, students were sent home from school with a bag of food in order to augment their household food supply. ORE conducted a small study of the implementation of backpack programs at two of these schools and found:

- Assigning a staff member with a flexible schedule to organize students to support distribution of the backpacks made the process more efficient.
- The program met a need for increased food security, but participants felt more food was needed.
- Overall, parents/guardians were satisfied with the program and indicated it helped them eat fresh fruits and vegetables and exposed them to new foods and cooking skills.
- Over 90% of parent/guardian survey respondents agreed that it made them feel more supported by and connected to the school.

Why this topic?

Food insecurity is a pressing issue in the School District of Philadelphia (SDP). On the 2018-19 District-Wide Survey, 13% of SDP parents and guardians reported that they worried about having enough food for their families within the last 30 days. However, food insecurity is generally under-reported.¹ Moreover, low parent/guardian DWS response rates and the sensitive nature of the survey question on food insecurity make it difficult to accurately capture the true food insecurity of SDP families.² This may mean that a higher percentage of SDP parents and guardians have experienced food insecurity than DWS results indicate.3 In 2018, Philadelphia had a food insecurity rate of 16.3%.4

¹ Feeding America, "Map the Meal Gap 2019: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2017 (2019) <u>https://www.feedingamerica.org/sites/default/files/2019-05/2017-map-the-meal-gap-full.pdf</u>.

² In 2018-19, 22% of SDP parents and guardians responded to the DWS. For more information on the DWS see: <u>https://www.philasd.org/research/wp-content/uploads/sites/90/2019/10/DWS-2018-19-Results-Overview-District-Only-Slide-Deck-September-2019.pdf</u>.

³ For more information on food insecurity in The School District of Philadelphia see

https://www.philasd.org/research/2020/02/04/district-wide-survey-results-food-insecurity-in-the-school-district-of-philadelphia/.

⁴For more information on food insecurity rates in Philadelphia County 2016-2018 see: <u>https://map.feedingamerica.org/county/2018/overall/pennsylvania/county/philadelphia.</u>

"Backpack Programs" in SDP

In 2019-20, in collaboration with Philabundance, ERP supported school backpack programs in 14 SDP schools. Philabundance is the largest local hunger relief organization in the region. Its work includes providing food pantries and food distributions to schools. ERP does not subcontract with Philabundance; ERP designates an ERP staff member at each school who helps initiate the program. After the program is started, schools coordinate program delivery and distribution on their own. The Philabundance backpack program provides all students at participating schools with an approximately five-pound bag of four meal kits, such as rice and pasta-based meals, which prepare six servings each, and a one-pound bag of produce, such as apples. The bag is intended to be brought home

Eat Right Philly

Eat Right Philly (ERP) provides nutrition programming in SDP schools, including programming to increase food access. ERP is a federally funded program through USDA SNAP-Ed.¹ It is composed of seven community partners, coordinated by the District, who each implement nutrition programming at assigned schools.¹ Each ERP partner works to establish food access programming in their assigned SDP schools such as backpack programs, free or reduced cost produce stands, free produce distributions, and food pantries.

with the student in their backpack and families are able to opt out of the program.

In general, backpack programs are designed to augment the household food supply and may have additional benefits. In several studies surveying parents, students, and/or staff who participate in backpack programs, participants report positive associations with academic performance and attendance.^{5, 6, 7, 8} Other potential positive consequences of backpack programs include opportunities for family and student engagement with school.⁹ However, there is a need for

⁵ Nancy Cotunga and Sarah Forbes, "A Backpack Program Provides Help for Weekend Child Hunger," *Journal of Hunger & Environmental Nutrition* 2, no. 4 (2008): 39.

⁶ Barbara H Fiese et al., "School-Based Weekend Feeding Program: A Comparison Group Design Documents Selection Efficacy and Appreciable Effects on School Attendance," *Journal of Hunger & Environmental Nutrition* 15, no. 2 (2020): 220.

⁷ Idamarie Laquatra, Brandon Vick, and Amanda Poole, "Assessing the Nutrition and Family Usage of a Backpack Food Program," *Journal of Hunger & Environmental Nutrition* 14, no. 6 (2019): 810.

⁸ Yana V. Rodgers and Marika Milewska, "Food Assistance Through the School System: Evaluation of the Food for Kids program," *Journal of Children and Poverty* 13, no. 1 (2007): 75-95.

⁹ Maryah S. Fram and Edward A. Frongillo, "Backpack Programs and the Crisis Narrative of Child Hunger - A Critical Review of the Rationale, Targeting, and Potential Benefits and Harms of an Expanding but Untested Model of Practice," *American Society for Nutrition* 9, no. 1 (2018): 1.

research on how to best support backpack programs in urban settings. Research is also needed on stakeholders' experiences with backpack programs, including unintended consequences of receiving food and how the food is used. Previous backpack programs have been critiqued for perpetuating stigma around needing food assistance, assuming that parents are unable to provide for their children, and resulting in wasted food.^{10, 11, 12}

The Office of Research and Evaluation (ORE) conducted a study during the 2019-20 school year to inform how Eat Right Philly can support and expand food access programming across the District. This report details findings from this study related to school backpack programs. It answers the following research questions:

1. What factors contribute to the feasibility of backpack programs implemented in schools?

Why "Backpack Programs"?

- In this program, food bags are sent home with all students at participating schools once per month and are intended to be brought home with students in their backpacks.
- The food bags include four meal kits, such as rice and pasta-based meals, which prepare six servings each. One pound of produce is also included.
- Food security is a pressing issue in SDP and backpack programs augment household food supply.
- In general, backpack programs may also have positive effects on academics and attendance.
- 2. What is the parent/guardian experience with the school backpack program?

Methods

This report uses interview, observation, and survey data collected during the 2019-20 school year. There were two parts to the data collection process. The first, focused on program implementation, involved observations of backpack program delivery and distribution at schools, along with interviews with school staff. There are two school sites which this report draws data from to study implementation, referred to as the primary and secondary site; the secondary site was chosen to confirm the findings drawn from the first site. The second part of the data collection process, focused on parent/guardian experiences with the program, involved surveys and interviews with parents/guardians from the primary site.

 ¹⁰ Carmen Byker Shanks and Samantha Harden, "A Reach, Effectiveness, Adoption, Implementation, Maintenance Evaluation of Weekend Backpack Food Assistance Programs," *American Journal of Health Promotion* 30, no. 7 (2016): 511.
¹¹ Maryah S. Fram and Edward A. Frongillo, "Backpack Programs and the Crisis Narrative of Child Hunger - A Critical Review of the Rationale, Targeting, and Potential Benefits and Harms of an Expanding but Untested Model of Practice," *American Society for Nutrition* 9, no. 1 (2018): 1.

¹² Barbara H Fiese et al., "School-Based Weekend Feeding Program: A Comparison Group Design Documents Selection Efficacy and Appreciable Effects on School Attendance," *Journal of Hunger & Environmental Nutrition* 15, no. 2 (2020): 220.

Focus	Sources	School site
Program implementation	2 observations of backpack program	Primary and
	implementation	secondary
	3 interviews with key school staff	Primary and
		secondary
Parent/guardian experiences with	43 parent/guardian surveys	Primary
the program	7 parent/guardian interviews	Primary

Table 1. Summary of data collected at two school sites (primary and secondary) for this study

ORE primarily collected data from one school site, referred to as the primary site, identified as part of a larger research project.¹³ The primary site for this study was chosen by comparing the list of 14 schools participating in the backpack program to a list of all SDP schools receiving food access programming. This school served just under 500 students grades K-8 during the 2019-20 school year, and on the 2018-19 District-Wide Survey, just over one quarter of parents and guardians at the school reported that they worried about having enough food for their families within the last 30 days, which is higher than the rate for parents and guardians across SDP (13%).¹⁴

ORE also collected data from a secondary site in order to confirm conclusions about program implementation. This school site was also identified as part of the larger research project referred to above. This school also served just under 500 students grades K-8, but was located in a different neighborhood and had a different ERP partner than the primary site. The principals of both schools were contacted by email and agreed to participate in the study. The principals both recommended the staff member in charge of implementing the program, referred to as the program "champion," to contact about observations and interviews, both of whom also agreed to participate in the study. SNAP-Ed defines a champion as a person who provides "sustained and often charismatic leadership that successfully advocates for, creates appeal of, or improves access to nutrition and physical activity in various organizations or environmental settings."¹⁵

Data Collection on Program Implementation

ORE conducted one observation of backpack delivery and distribution at the primary site to identify factors that contributed to the feasibility of backpack programs implemented in schools. In addition, ORE conducted interviews about food access program implementation with one school administrator and the program champion. Finally, to confirm or disconfirm conclusions about program implementation, we conducted one observation including informal interviews with the program champion at the secondary site.

¹³ This larger research project examined four food access models across SDP: the Philabundance backpack program, a free produce distribution program, and two reduced cost produce stands. In this larger research project, schools were selected to allow for a variation in school location, ERP partner, and food access models among the school sites in the larger SDP food access research project.

 ¹⁴ 26.9% of parents/guardians in grades K-8 at this school responded to the 2018-19 District-Wide Survey.
¹⁵ UNC Center for Health Promotion and Disease Prevention, "SNAP-Ed Toolkit Obesity Prevention Interventions and Evaluation Framework, STS6: Champions" last modified April 12, 2020,

https://snapedtoolkit.org/framework/components/st6/

Data Collection on Parent/Guardian Experiences

ORE administered parent/guardian surveys to understand parent/guardian experiences with the school backpack program. Parent/guardian surveys were administered at the primary site. They included questions about program satisfaction. They also included questions designed to ascertain the food security status of participating families. ORE used the Six-Item Short form of the U.S. Household Food Security Module and the related Six-Item Food Security Scale to determine the food security of parents/guardians who took the survey.¹⁶

ORE administered surveys to parents/guardians of students in grades K-3 (188 students), who made up approximately 40% of the school's enrollment (465 students). Although the school serves grades K-8, survey administration was limited to grades K-3 because school administration was concerned that some middle-grades students would throw the surveys in the school yard during dismissal. Surveys were sent home with K-3 students to be given to their parent/guardian and returned to their teacher. ORE received 43 returned surveys, resulting in a response rate of approximately 23%. The surveys included a place for parents/guardians to indicate if they were interested in participating in a phone interview about the backpack program at their school. Each parent/guardian who indicated interest was contacted twice by email and/or phone. Seven parents/guardians participated in phone interviews, which were recorded and transcribed.

Limitations

These data have several limitations. First, data on program implementation and feasibility are limited by the fact that this is a single case study of one school (the primary site) and only one staff member at this school implemented the program. However, ORE conducted one observation of backpack program implementation at a second site to confirm or disconfirm any findings. Second, data on parent/guardian experiences with the program are limited by the fact that the surveys are only representative of parents/guardians with students in grades K-3. Third, they are limited by the low survey response rate (approximately 23%). Survey results could be biased towards parents/guardians with younger students and those who were able and inclined to respond.

Key Findings

The findings of this study are organized by research question, each of which focuses on a different aspect of program implementation and pulls from different data sources, as discussed above. First, this report presents findings focusing on program feasibility based on observations of program implementation and interviews with school staff. Second, this report presents findings on parent/guardian experiences with the program, such as their satisfaction and other program outcomes, which are based on survey and interview data.

¹⁶ The U.S. Household Food Security Module: Six-Item Short Form can be found here: <u>https://www.ers.usda.gov/media/8282/short2012.pdf</u>.

What factors contribute to the feasibility of backpack programs implemented in schools?

Assigning a staff member with a flexible schedule to organize students to support distribution of the backpacks made the process more efficient.

Two factors emerged from observation and interview data as essential to the feasibility of the program. First, **designating one staff member as a program champion to coordinate receiving and distributing the backpacks contributed to feasibility**. At the primary school site for this research study, administrators arranged the champion's schedule so they did not have any student-related responsibilities the morning that the backpacks were delivered. The champion held a reading prep position, which enabled them to be away from classes for part of the morning to coordinate distribution. When asked what supports and resources were available to help them with the program, the champion said "not really any. Just me, myself, and I." Other staff were not available to assist due to student responsibilities. Program logistics were described as "stressful," and in addition to needing designated implementation time, the champion needed to be flexible about aspects of coordinating delivery and distribution, such as varying drop-off times and school schedule changes on delivery days.

At the secondary school site for this research study, the champion was responsible for their first period class during scheduled delivery and distribution. Delivery took place first thing in the morning while students were completing morning routine activities such as unpacking belongings, eating breakfast in the classroom, listening to announcements, and starting instruction. The champion at the secondary site was a veteran teacher of over 30 years. They had classroom procedures in place that allowed students to take responsibility over components of the morning routine and facilitated their ability to assist with the program. Still, logistics were a challenge. While this champion made it work due to their dedication to the program and strong classroom management, it would be more feasible in most schools to relieve the champion of student responsibilities during scheduled delivery and distribution.

The second factor contributing to feasibility was that **student involvement made distribution more efficient**. Backpack distribution is too unwieldy to be completed by one person. At the primary site, the champion coordinated a group of eighthgrade students to assist with backpack distribution. These were students the champion had previously taught, and assisting was an incentive for meeting behavioral and academic goals. Due to the size and number of boxes filled with bags of food, backpack program delivery required multiple people to lift and move the boxes into the school building. Philabundance dropped off 54 large boxes filled with nine bags each containing four meal kits. In addition, they dropped off accompanying bags of produce.

Image 2. Fifty-four boxes filled with nine meal kits stacked in the school lobby.



During ORE's observation, Philabundance dropped off 17 boxes filled with one-pound bags of persimmons. As students unpacked the boxes, the champion directed them to load rolling carts each with the correct number of boxes and/or individual food bags and produce bags to be delivered to each classroom. As this school was several floors high, the elevator was required to deliver the bags to all classrooms. In this case, school staff were unable to help due to student responsibilities and having older students help made the program feasible.

While older students were able to help with distribution, the program was best received by younger students who are more enthusiastic about the program.

Interview and observation data show that while food provided in the bag was perceived as ageappropriate for grades K-8 and met a need at the school, the program was best received by younger students. At the primary site, the program champion viewed the food in the bag as something students would try: "It's age appropriate. It's juice boxes, or macaroni and cheese, or something funlooking, so it entices them a little bit." Both the school champion and school administrator expressed that a challenge to the backpack program at this school was that some middle grades students (grades 6, 7, and 8) threw the contents of the backpack onto the ground during dismissal. During ORE's observation, an additional staff member saw the produce and commented that they would be "all over the school yard today." To address this issue, the school now gives only the bags of meal kits, such as rice and pasta, to the middle grades and re-distributes the bags of produce by leaving them in the office and lobby of the school for parents/guardians. In addition, the school counselor taught lessons in middle-grade classrooms to highlight the benefits of the provided produce and how it can be used. An administrator said that the school is encouraging students to say no to items they do not want instead of "taking it and throwing it." While not all students may want to take the produce items home, parent/guardian surveys and interviews show that families appreciate the produce.

In contrast, the champion found that the younger grades were more enthusiastic about the backpacks: "I think the younger grades really enjoy trying the different foods that are in the backpack." Data from parent/guardian surveys and interviews (also from the primary site) confirm that the food in the backpack was seen as age appropriate, but that students did throw food during dismissal. Thus, the program was a good fit for the K-8 schools we observed where middle-grades students could help with distribution, but younger students were eager to try and bring home the backpack foods.

School staff were motivated to meet the logistical challenges of the program when they perceived the program as addressing a need in the school community

The program champion and an administrator at the primary site identified a need for an increased food supply at the school, and the school administrator stated that the students and community liked and appreciated the program. The champion said that by sharing food, the program showed the school cares about families' well-being: "[the neighborhood is] low-income, unfortunately. I think a lot of the parents look to the school as a safe place...If we're showing them something or sharing something with them, it must mean something." In addition to meeting a need for increased

food supply, the school administrator and champion felt the backpack program helped expose students to new foods: "I think it's giving them an opportunity to try things that they normally wouldn't venture out to try." While the logistics of backpack program delivery and distribution of the backpacks throughout the school were described as "stressful" and "insane" by school staff, they were motivated to continue with the program because it met a need in the school community. As an administrator explained, "I think what makes it worthwhile is when we do get those students and community members who come out and say 'thank you.'" School staff were more motivated to overcome the logistical challenges that come with the program because they saw its benefits. The school champion even suggested increasing the frequency or quantity of food provided: "I wish at times there was another delivery for them... a lot of our kids, especially towards the end of the month, do have hunger issues." The champion felt that while the backpack program addresses a need at the school, even more supplemental food was required to fill the need.

At the secondary site the champion asked for backpack program frequency to be decreased because families were receiving too much of the same food. The champion explained that "it's the same thing every time" and families were ending up with multiples of the same food in their cupboard. On the other hand, the champion also coordinated a free produce distribution through the same hunger relief organization and, while they decreased the frequency of the backpack, they increased the amount of produce being delivered and distributed to parents each week. This speaks to the fact that while any and all supplemental food might be needed and appreciated, as discussed below, variety should be considered.

What is the parent/guardian experience with the backpack program?

Approximately 8 percent of responding parents/guardians had very low food security and 21.6% had low food security (Figure 1).

Figure 1. The percentage of parent/guardian survey respondents who indicated "very low," "low," and "high" or "marginal" food security as determined by the Six-Item Short form of the U.S. Household Food Security Module and the Six-Item Food Security Scale (N=37)



Source: ORE School District of Philadelphia Food Access Program Survey (2019-20)

Note: The United States Department of Agriculture defines low food security as: "households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted" and very low food security as: "at times during the year, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food."¹⁷

Survey responses show that the backpack program addressed a need, yet more was needed to assist with families' food security and stability. Survey respondents indicated that the bag of food was shared with their whole family, and that more food was needed. Approximately 88% of respondents indicated that the bag of food was "sometimes" or "often" shared with their family. Approximately 77% of parents/guardians who responded to the survey felt the backpack "sometimes" helped meet their *child's* dietary needs (as opposed to "often") (Figure 2). Only two respondents said that it "never" met their child's dietary needs, and those were from households with high food security that may not have needed help. This suggests that children could benefit from greater dietary support, either in terms of the frequency, quantity, or variety of foods provided.

¹⁷ For more information on how the United States Department of Agriculture measures food security, see <u>https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement.aspx</u>.

Figure 2. The percentage of parents/guardians who responded "often," "sometimes," or "never" to statements about the food sent home with the backpack program



Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "often," "sometimes," or "never" to prompts about the backpack program. For example, about 88% of respondents said that the bag of food is shared with my whole family "often" (blue portion of first bar) or "sometimes" (yellow portion of first bar). The majority (74.4%) of respondents agreed that they wanted the bag sent home more often, which suggests that participants could benefit from a higher frequency of distribution and that frequency could be one area where the program could expand (Figure 3). As discussed above, this shows that while not all students may want to take the produce items home, and some may throw them during dismissal, survey responses show that parents/guardians feel the backpack is meeting a need.

Figure 3. The percentage of parent/guardian survey respondents who "strongly agree," "agree," or "disagree" with statements about the frequency of the backpack program



Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "strongly agree," "agree," or "disagree" to a prompt about the backpack program. No parents/guardians responded "strongly disagree" to this statement. For example, 74.4% of respondents strongly agreed or agreed that they wish their child got a bag of food more often (blue and yellow portions of the bar).

Data from parent/guardian interviews and open-ended survey responses confirm that the backpack program was needed and that participants could benefit from more food. One survey respondent wrote: "there was a time I was low on food and my son came home with the bag of food and all I could do was thank God! This program is a blessing thank you!" During an interview, one parent/guardian shared that the food bags were particularly needed towards the end of the month: "It is good to have because if you run out of food near the end of the month, you still have that, you see what I'm saying? You still have that to make a meal with." While parents/guardians felt the food was "helpful," some felt it was not enough. Three parents/guardians said in interviews and open-ended survey responses that they had to make the food "stretch" to meet the needs of their family.

The majority of participants were satisfied with the structure of the program.

Approximately 90% of parents/guardians who responded to the survey were satisfied with the program and agreed that, overall, the program was convenient. The majority of respondents (76.8%) agreed that their child liked bringing home the bag of food (Figure 4). Responses to interview and open-ended survey questions described the foods provided as "healthy" and "helpful." For example, one parent/guardian said:

It's beneficial in teaching your family how to eat better, how to eat more healthier, and for those who really need it – which is a lot of people – it's convenient for kids to have something to eat when they come home.

This participant found the program to be a convenient way to increase food supply and a tool for healthier eating. Another reason the program was found to be convenient is that participation was school-wide. One interview participant highlighted the fact that the program was open to everyone at the school: "I like the fact that it is open to everybody. It doesn't matter first what you make or you have to fill out how much you made living in the household or whatever." Providing the program to the whole school eliminated barriers to participation, making it more convenient and perhaps, reducing any stigma that could come with participation. Still, survey responses indicate more could be done to increase student buy-in as almost one quarter of parents/guardians disagreed or strongly disagreed that their child liked getting the bag of food (Figure 4).





Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "strongly agree," "agree," "disagree" or "strongly disagree" to prompts about the backpack program. For example, about 90% of respondents strongly agreed or agreed that they were happy with the program (dark blue and light blue sections of first bar) and that the program is easy to use (dark blue and light blue sections of second bar).

Overall, participants were satisfied with the foods in the bag.

Approximately 88% of participants agreed that the foods provided were of good quality and 84% of participants agreed that the foods provided were of good variety. Still, just under 25% *disagreed* or *strongly disagreed* that their culture was represented in the types of food sent home in the bag (Figure 5). Interview and open-ended survey responses often focused on increasing the amount of fruit and/or vegetables in the bag. For example, an interview participant stated, "they could add more food like bananas and grapes, stuff like that. More healthier foods instead of just noodles and rice." While the program included one pound of produce, such as a one-pound bag of apples or persimmons, participants wanted more variety, which could help the foods better represent many cultures and meet the dietary needs of students. As discussed above, the majority (76.7%) of participants felt the food only "sometimes" met their child's dietary needs.

Figure 5. The percentage of parent/guardian survey respondents who "strongly agree," "agree," "disagree," or "strongly disagree" with statements about the food sent home by the backpack program



Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "strongly agree," "disagree," or "strongly disagree" to prompts about the backpack program. For example, 23.1% of respondents said that their culture was represented in the types of food sent home in the bag (dark blue section of fourth bar).

Parents/guardians were less satisfied with the communication about the program.

While approximately 56% of parent/guardians who completed the survey agreed or strongly agreed that they were aware of the program before their child got a bag of food to bring home, approximately 44% of parents/guardians who responded to the survey were not aware before their child got a bag of food to bring home. Yet, the majority of participants felt the program was advertised well (Figure 6). While the program could work to improve advertisement overall, it may be beneficial to focus on communicating with parents/guardians right before distribution to remind them that the backpack should be coming home with their student. Qualitative data from interviews and open-ended survey responses confirm these conclusions. One survey respondent asked for more information on when their child would be bringing the bag home. Also, during an interview one parent/guardian suggested "more advertisements of when it is coming. For instance, if it is coming Thursday, then a flier saying, 'Hey this Thursday look for it.' Because I think even though I get it all the parents may not get it. They may not know to look for it in the child's bag." Eat Right Philly could support the school by increasing awareness of the program and distribution schedule at the school and providing reminders to parents/guardians.





Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "strongly agree," "agree," "disagree," or "strongly disagree" to prompts about the backpack program. For example, about 44% of respondents disagreed or strongly disagreed that they were aware of the program before their child got a bag of food (yellow and red sections of first bar).

The majority of parents/guardians report they have never thrown away food from the bag.

While the majority of survey respondents (68.3%) indicated that they "never" throw away food, 24.4% indicated that they "sometimes" and 7.3% indicated that they "often" throw away food. More respondents indicated that they had "sometimes" or "often" thrown away damaged food from the bag (61.0%) compared to respondents who said they had thrown away food they did not like (42.8%) or food that spoiled before they could use it (39.1%) (Figure 7). Responses from open ended survey questions and interviews show that parents/guardians tried to avoid wasting food. When asked what parts of the program they like, a survey respondent wrote that the food "comes in handy," but when they don't use it, they give it to someone in need. During an interview, one parent/guardian explained that if their children do not eat the food, they eat it themselves, because they do not like throwing food away. As discussed above, food waste does occur when middle-grades students throw backpack contents during dismissal. Another parent/guardian confirmed that this was a source of food waste. When asked the open-ended survey question, "what are the positives and negatives of the program for you and your family?" they wrote, "I see a lot of food on the floor close to the school like some children thrown away or they do not need it and I don't like that."





■ Never ■ Sometimes ■ Often

Source: ORE School District of Philadelphia Food Access Program Survey (2019-20) **How to read this figure:** This figure shows the percentage of parents/guardians who responded "never," "sometimes," or "often" to prompts about the backpack program. For this question, a response of "never" is a positive response, so the color (blue) is similar to the other positive responses for previous questions. A response of "often" is a negative response, so the color (red) is similar to other negative responses for previous questions. For example, about 60% of respondents said that their family has "never" thrown away food from the bag (blue section of first bar). About 17% of respondents said their family has "often" thrown away damaged food from the bag (red section of fourth bar).

Parents/guardians indicated that the program helped them eat fresh fruits and vegetables and exposed them to new foods and cooking skills.

Just over 80% of survey respondents agreed that the backpack program helped them eat more fruits and vegetables. Data from interviews and open-ended survey responses show that parents/guardians are happy that the program provides fruits and vegetables. Moreover, the program exposed participants to new fruits and vegetables and made them want to buy fruits and vegetables more often than usual. One interview participant stated, "I know the first two times when we were introduced to it, there was food in the bag, like apples, and different types of fruit that I never even heard of – something new for us to try, so it was a good experience." The program helped participants eat more fruits and vegetables and exposed them to new kinds of fruits and vegetables.

Interviews and open-ended survey responses also reveal that the program provided participants with exposure to new foods in general, not just fruits and vegetables. One survey respondent wrote that a positive aspect of the program was that a lot of the food in the bag was food they usually eat and "the other food opens us up to foods we may have never tried before." One interview participant explained "it opens myself up to a variety of food...I probably would have never tried chicken in a can with rice. But by me trying it through the food program it is actually OK and it is actually fulfilling. It definitely opens up my variety of trying stuff that I may not have tried or may not have been able to buy." This participant felt that by eating the foods provided in the bag they are getting a chance to try new foods they otherwise would not have bought.

In addition to exposure to new foods, interview and open-ended survey responses show that the backpack program helps participants learn new ways to prepare meals and provides alternative healthy choices for meals and snacks in their homes. One survey respondent wrote that a benefit of the program is that their son can always have something healthy to eat, and another wrote that a benefit is "learning a new way to cook for me and my family." An interview respondent said, "When I read the ingredients; the grain, the fiber and stuff that's in the food that you wouldn't normally look for, or that you wouldn't normally cook for your kids because you grew up with this fry food, and things of that nature. It's a teaching experience as well." Moreover, ERP supported participants trying new foods and ways of cooking by providing recipes that involve the backpack foods. On top of augmenting family food supply, the backpack program helped participants eat more fruits and vegetables, exposed them to new foods and ways of cooking, and provided healthy choices.

Over 90% of survey respondents agreed that the program made them feel more connected to and supported by the school.

This study presented an unexpected, yet important, finding for the school backpack program. Just over 92% of respondents agreed that the program made them feel more connected to the school. Just over 92% of participants also agreed the program made them feel supported by the school. Interview and open-ended survey responses support these findings. When asked what parts of the program they like, four respondents brought up that the program shows caring on the part of the school. One survey respondent wrote: "there are people who care if my kids eat healthy" and another wrote "I like when the kids come home with fruits and vegetables. It's showing the kids and the parents you all care about their health." While the program may only be a supplemental means of providing food assistance and a small step toward increasing food security, they may be an effective means of fostering connection between parents/guardians and the schools their children attend.

Conclusions

Food insecurity is a pressing issue in the School District of Philadelphia. School backpack programs are one way to augment families' food supply by sending students home with a bag of meal kits and produce. However, observations and interviews with school staff demonstrate that backpack

program delivery and distribution can be logistically challenging. Several factors contributed to the feasibility of program implementation. First, having an assigned staff member with a flexible schedule who is able to organize students to support distribution of the bags of food to classrooms contributed to feasibility. Second, interviews reveal that school staff perceive the program as meeting a need in the school community, which motivates them to meet the logistical challenges of the program. Third, observations and interviews show that while older students were able to help with distributing the food bags to classrooms, the program was best received by younger students who are more enthusiastic about the program; thus the program was a good fit for the K-8 school we observed where middle-grades students could help with distribution, but younger kids were eager to try the backpack foods and bring them home with them.

Data from 43 parent/guardian surveys and six parent/guardian interviews show the backpack program partially met a need for increased food supply among school families. Still, more food is needed. The majority of the survey respondents wanted the program to occur more frequently. Parent/guardian survey and interview participants were overwhelmingly satisfied with the program. They found it convenient and were largely satisfied with the foods provided in the bag. However, they wanted more communication about when the program would occur and expressed a need for more variety, particularly produce, in the food provided.

Moreover, parent/guardian survey and interview data reveal that the program does more than augment the food supply of the school community. Parents/guardians indicated that the program helps them eat more fruits and vegetables and exposes them to new foods and cooking skills. The program also fostered a sense of community at the school, helping parents/guardians feel supported, connected to the school, and that the school cares about its families.

Recommendations

Implementing the following recommendations may contribute to the feasibility of backpack programs implemented in schools and improve the parent/guardian experience with school backpack programs:

- Assign a staff member with a flexible schedule to oversee the backpack program. The backpack program is most feasible at schools able to have a staff member who has the flexibility during delivery to coordinate distribution.
- Have multiple volunteers help with backpack program delivery and distribution. Because of the number of boxes that need unloading and unpacking and the number of bags that need to be delivered to classrooms, having multiple volunteers, such as students, parents, or other helpers contributes to feasibility.
- If using student volunteers, target schools with older students. However, it is also important to consider that younger students might receive the program better than middle-grades students, being more enthusiastic to bring the foods home.

- Identify schools where there is the greatest need for increased food security. The program is most feasible at schools where the staff feel there is a need among school families for increased food supply, increasing motivation to coordinate the program. The logistics of program delivery and distribution are complicated and time consuming.
- Increase program frequency. Parents/guardians also suggested increasing the amount of food provided. While the program meets a need, data suggests that more food is needed.
- Increase awareness about the program and when food bags will be distributed. Eat Right Philly could support the school through providing communication materials.
- Communicate the food items that will be provided in the backpack to help families plan groceries and meals in advance.
- Increase the variety and amount of produce provided with the bag of food. While participants described the food as helpful and healthy, they wanted more produce.
- Foster and build on the sense of caring and community built by the program. Connecting with the SDP Office of Family and Community Engagement could help coordinate and increase awareness of the backpack program. When working to expand backpack programming, let schools know that food access programming can help parents feel more supported by and connected to the school community.