THE SCHOOL DISTRICT OF PHILADELPHIA

Issue Brief: Health & Nutrition

Household Food Insecurity in the School District of Philadelphia: An Analysis of District-Wide Survey Results, 2021-22

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Summary

The School District of Philadelphia District-Wide Survey for parents and guardians includes the USDA Six-Item Short Form questions that evaluate household food insecurity. The rate of food insecurity among responding SDP households in 2021-22 was 20%.

The 2021-22 District-Wide Survey for students included a question derived from the Centers for Disease Control and Prevention's Youth Risk Behavior Survey that asks about student hunger. Twenty-seven percent of student respondents indicated that they had gone hungry in the previous 30 days due to a lack of food at home "sometimes," "most of the time," or "always."

In 2021-22, the District-Wide Survey for principals asked whether food insecurity was a challenge to student learning. Forty percent of responding principals identified food insecurity as a "great" or "moderate" challenge.

Food insecurity directly impacts physical health and is associated with adverse developmental, behavioral, and social-emotional outcomes. Moreover, it can contribute to achievement gaps between low- and high-income children.[1]

State and local data for 2021-22 are not yet available from other sources.[2, 3] Therefore, results from the School District of Philadelphia's (SDP) 2021-22 District-Wide Survey (DWS)[4] are the most up-to-date local data source for understanding the extent to which Philadelphia families experience food insecurity, and how that may challenge student wellbeing and success in school.

The purpose of this brief is to describe the prevalence of food insecurity among SDP households that responded to the DWS in 2021-22 and to examine the differences in food insecurity rates across different student demographic groups and schools. This brief

[1] Brochier, Annelise, Arvin Garg, and Alon Peltz. "Clinical and Public Policy Interventions to Address Food Insecurity Among Children." *Pediatrics*, 34, no 1. (2022): 2-7.

[2] For more information about 2020 food insecurity rates, see: https://map.feedingamerica.org/county/2020/overall/pennsylvania/county/philadelphia

[3] For more information on food insecurity trends in the U.S. and Pennsylvania, see: https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/interactive-charts-and-highlights/

[4] Starting in spring 2022-23, the District-Wide Survey will be called the Philly School Experience Survey. For more information, see: https://www.philasd.org/research/programsservices/district-wide-surveys/

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follows food insecurity briefs for the 2019-20 and 2020-21 school years,[5] and provides year-over-year comparisons of food insecurity rates from DWS results from 2019-20 to 2021-22. Throughout this brief, we follow the standard definition of food insecurity published by the USDA:

Food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.[6]

Existing data sources to estimate food insecurity

SDP has four data sources that provide information related to food insecurity in the District. First, SDP collects data on a student's Community Eligibility Provision status, or CEP status.[7] CEP status is a measure of economic disadvantage that is based on whether or not students qualify for government assistance programs. This indicator does not directly address the issue of food insecurity or food access. Households with incomes above the federal poverty level can still be food insecure.[8] Additionally, the District metric for economic disadvantage is based on participation in means-tested federal assistance programs, and not all households that qualify for such programs actually participate.

A second source for information about food insecurity comes from school principal and assistant principal District-Wide Survey responses (Table 1). Both principals and assistant principals are asked the extent to which they agree that food insecurity is a challenge to student learning at their school. The responses to this question also do not measure food insecurity directly, but rather provide useful information about whether or not principals and assistant principals perceive food insecurity as a school-level challenge to learning. The principal and assistant principal response rate for 2021-22 was 75%.

Table 1. 2021-22 Principal/Assistant Principal District-Wide Survey questions about student food insecurity

Question Lead-In	Question Text	Response Options
To what extent do you consider each of the following factors a challenge to student learning in your school?	Student food insecurity	• Not a challenge • A slight challenge • A moderate challenge • A great challenge

[5] For the 2019-20 Food Insecurity Brief, see: https://www.philasd.org/research/2021/09/03/household-food-insecurity-in-the-school-district-of-philadelphia-an-analysis-of-district-wide-survey-results-2019-20/. For the 2020-21 Food Insecurity Brief, see: https://www.philasd.org/research/2022/04/29/household-food-insecurity-in-the-school-district-of-philadelphia-an-analysis-of-district-wide-survey-results-2020-21/

[6] For more information about how the USDA evaluates food insecurity, see: https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement.aspx

[7] The Community Eligibility Provision (CEP) allows schools and school districts with high rates of poverty to offer breakfast and lunch at no cost to all students. For more information, see: https://www.fns.usda.gov/nslp/community-eligibility-provision-resource-center

[8] Council on Community Pediatrics, & Committee on Nutrition. "Promoting Food Security for All Children." *Pediatrics*, *136*, no. 5 (2015): e1431-e1438.

A third source of information on food insecurity is the student District-Wide Survey, given to students in 3rd through 12th grades (Table 2). The student DWS includes one question that asks how often students have gone hungry over the previous 30 days due to a lack of food at home.

Table 2. 2021-22 Student District-Wide Survey question about food insecurity

Question Lead-In	Question Text	Response Options
N/A	During the past 30 days, how often did you go hungry because there was not enough food in your home?	• Never • Rarely • Sometimes • Most of the time • Always

The fourth source of information on food insecurity is the Parent/Guardian District-Wide Survey (DWS), which includes the USDA Six-Item Short Form questions for measuring household food insecurity (Table 3). This validated measurement tool asks respondents a series of questions about their ability to afford enough food and whether members of their households skipped meals. Note that two of the six USDA items were combined into a single question on the DWS to reduce the length of the survey.

Table 3. 2021-22 Parent/Guardian District-Wide Survey questions about household food insecurity

Question Lead-In	Question Text	Response Options
In the past 12 months, how often were the following statements true about your household?	The food that I/we bought just didn't last and I/we didn't have money to get more.	• Never • Sometimes • Often • Don't know/ Prefer not to answer
In the past 12 months, how often were the following statements true about your household?	I/we couldn't afford to eat balanced meals.	• Never • Sometimes • Often • Don't know/ Prefer not to answer
In the past 12 months…	did you ever eat less than you felt you should because there wasn't enough money for food?	• Yes • No • Don't know/ Prefer not to answer
In the past 12 months…	were you ever hungry but didn't eat because there wasn't enough money for food?	• Yes • No • Don't know/ Prefer not to answer

Question Lead-In	Question Text	Response Options
N/A	In the past 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?	• No • Yes, only 1 or 2 months • Yes, some months but not every month • Yes, almost every month • Don't know/ Prefer not to answer

The responses to the questions shown in Table 2 were scored according to USDA guidance. The following response options were coded as affirmative (or yes):

- "often,"
- "sometimes,"
- "yes,"
- "almost every month," and
- "some months but not every month."

The sum of affirmative responses to these questions constitutes the household's raw score. A raw score of 2-4 indicates "low food security" and a raw score of 5-6 indicates "very low food security." For reporting purposes, the two categories "low food security" and "very low food security" in combination are referred to as "food insecure."[9]

For the third consecutive year, questions regarding food insecurity were included on both the SDP Parent/Guardian and Principal/Assistant Principal District-Wide Surveys, allowing for year-over-year trends to be analyzed.

[9] Information on scoring The U.S. Household Food Security Module: Six-Item Short Form can be found here: https://www.ers.usda.gov/media/8282/short2012.pdf

Limitations

In 2021-22, the response rate for the Parent/Guardian District-Wide Survey for District families was 15%.[10] Due to the limitations of the survey response rate, there are data quality concerns about representativeness and selection bias. All parents/guardians of students enrolled in District schools were provided with information about how to take the survey, but chose whether or not to participate. Therefore, responses may not provide a reliable estimate for the District as a whole or for individual schools. In particular, households of Black/African American students, Hispanic/Latinx students, male students and students in grades 7 to 8 and 10 to 12 have historically been underrepresented among survey respondents.[11] As described in this brief, these underrepresented groups reported food insecurity at rates higher than the average for the District as a whole. This suggests that our survey sample is likely to underestimate the extent of food insecurity in the District.

Another challenge in determining representativeness of DWS responses is that SDP classifies economically disadvantaged status by whether or not a household qualifies for certain types of government assistance (such as SNAP, TANF, and Medicaid). However, not all households that could be considered economically disadvantaged qualify for government assistance. As a result, it is not possible to determine if DWS responses are representative of the socioeconomic distribution that exists among households of District students.

Findings

Parent/guardian responses to the food insecurity questions included on the 2021-22 District-Wide Survey suggest that food insecurity is a major concern for student households. The rate of food insecurity among responding households was 20%, higher than most recently available city, state, and national averages (Figure 1). Certain groups of student households had even higher rates, including Hispanic/Latinx and Black/African American households, households with students in high school grades, households with a student receiving special education services, households with a student learning English, and economically disadvantaged households. The same patterns were also found in results from 2019-2020 and 2020-2021.

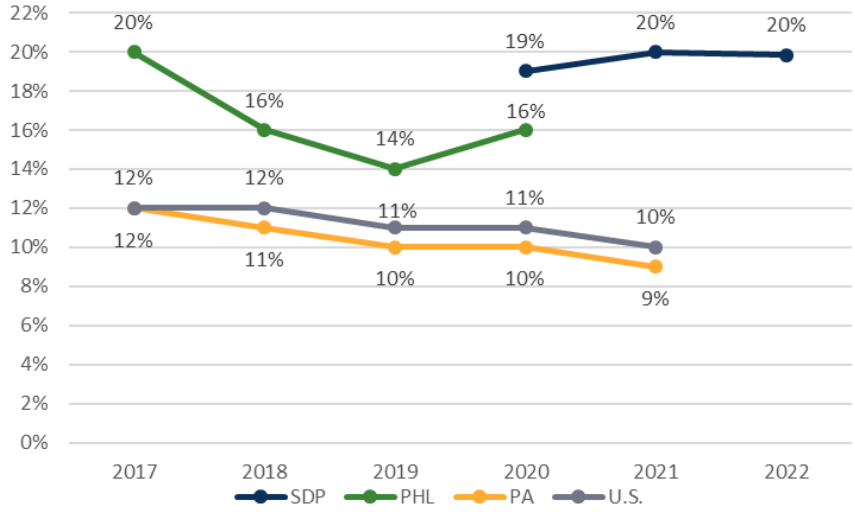
[10] This response rate (15%) represents only District households. Households with students enrolled in non-District schools, such as charter schools, also participated in the District-Wide Survey but are not included in this analysis. Due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise. For information on the impact of Covid-19 on food insecurity see: https://www.feedingamerica.org/research/coronavirus-hunger-research

[11] For more information about the representativeness of the Parent/Guardian District-Wide Survey, please refer to the Office of Research and Evaluation's published brief on this topic: https://www.philasd.org/research/2021/10/12/representativeness-of-the-2019-20-district-wide-student-and-parent-guardian-survey-results-2/

SDP households reported greater food insecurity than city, state, and national averages.

In 2021-22, one in five households (20%) that responded to the District-Wide Survey were considered food insecure based on USDA guidance for interpreting DWS responses. This is consistent with the food insecurity rate for 2020-21, and is higher than the most recently available data for the city, state, and national averages (16% in Philadelphia in 2020, 9% in PA in 2021, and 10% in the U.S. in 2021) (Figure 19).[12, 13]

Figure 1. Estimated 2017-2022 rates of food insecurity for the School District of Philadelphia (SDP), Philadelphia (PHL), Pennsylvania (PA), and the United States (U.S.)



Note: SDP data is based on Parent/Guardian District-Wide Survey results from 2019-20 (N=14,163), 2020-21 (N=12,670) and 2021-22 (N=13,517). Philadelphia food insecurity rates data for 2017-2019 from Feeding America is available at: https://map.feedingamerica.org/. PA and U.S. food insecurity rate data for 2017-2021 from USDA ERS is available at: https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/#map. This graph is an updated version of Figure 13 in SDP's 2020-21 Food Insecurity Brief, published in 2022.

[12] Philadelphia 2017-2020 data is sourced from Feeding America. *Map the Meal Gap*. (2020): https://map.feedingamerica.org/

[13] PA and U.S. 2017-2021 data is sourced from USDA ERS Current Population Survey Food Security Supplements, U.S. Census Bureau: https://www.ers.usda.gov/data-products/food-security-in-the-united-states/

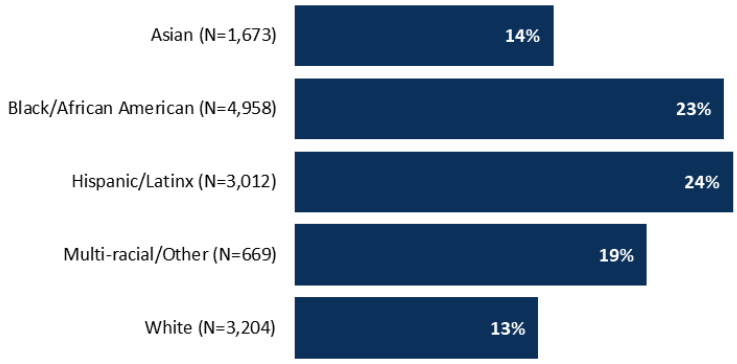
Household food insecurity rates varied by student demographics.

Household food insecurity rates varied by the characteristics of the students living in the household. Household food insecurity rates varied by race and ethnicity, grade level, economic disadvantage, English Learner status, and IEP status, which is explained in more depth in the sections below.

Households with Hispanic/Latinx and Black/African American students reported higher rates of food insecurity than other households.

The rate of food insecurity among District households varied widely by students' racial and ethnic identity. Households with Hispanic/Latinx students that responded to the DWS reported the highest rates of food insecurity, at 24%, followed by households with Black/African American students, at 23% (Figure 2). The lowest rates were reported by households with White students, at 13%, and households with Asian students, at 14%.

Figure 2. Estimated rates of food insecurity for the School District of Philadelphia by race/ethnicity

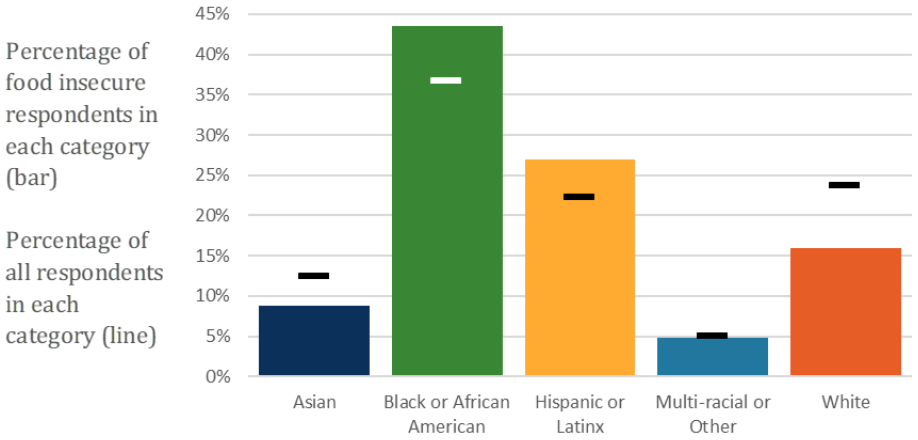


Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
Note: The category "Multi-racial/Other" includes "American Indian/Alaska Native" and "Native Hawaiian/ Pacific Islander."

Black/African American and Hispanic/Latinx student households were overrepresented among the food insecure population compared to their shares of the population of survey respondents as a whole (Figure 3). Black/African American student households made up 37% of all responding households, but 43% of food insecure households. Hispanic/Latinx student households made up 22% of all households, but 27% of food insecure households.

Asian and White student households were underrepresented among the food insecure population compared to their shares of all responding households. Asian student households made up 12% of all respondents, but only 9% of food insecure households. White student households made up 24% of all respondents, but only 16% of food insecure respondents. Multi-racial/Other racial/ethnic groups made up 5% of all respondents and the same share of food insecure respondents.

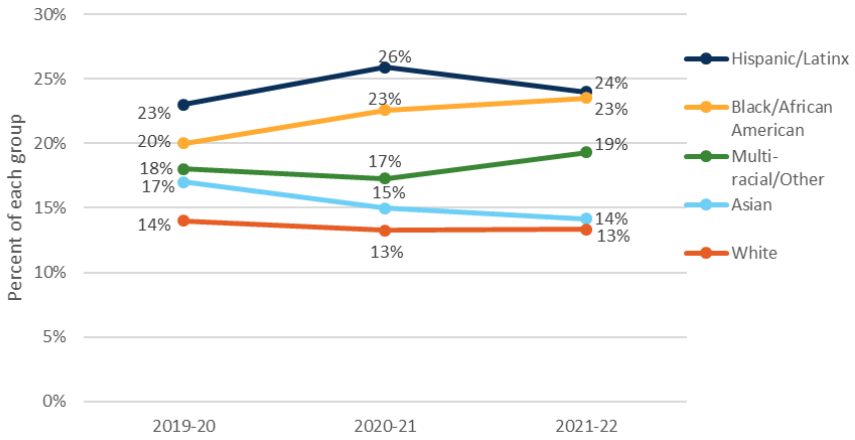
Figure 3. Disproportionality of food insecurity status by race/ethnicity



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
Note: The category "Multi-Racial/Other" includes "American Indian or Alaska Native" and "Native Hawaiian or other Pacific Islander."
How to read this graph: The vertical bars show the percentage of *food insecure respondents* who belonged to each group. The horizontal lines show the percentage of *all respondents* who belonged to each group. Calculating the difference between the vertical bars and horizontal lines shows the disproportionality in food insecurity for each group.

From 2019-20 to 2021-22, food insecurity rates for Hispanic/Latinx student households remained consistently higher than rates for other groups, ranging from 17% to 19%, while rates for White student households were consistently lower than for other groups, ranging from 13% to 14% (Figure 4). Food insecurity rates for Hispanic/Latinx, Multi-racial/Other, and White student households stayed relatively steady, while rates for Black/African American student households rose from 20% to 23% and rates for Asian student households fell from 17% to 14%.

Figure 4. Food insecurity trends for the School District of Philadelphia by race/ethnicity



Sources: 2019-20 (N = 14,163), 2020-21 (N = 12,670) and 2021-22 (N = 13,516) Parent/Guardian District-Wide Survey respondent-level data files.
Note: The category "Multi-racial/Other" includes "American Indian or Alaska Native" and "Native Hawaiian or other Pacific Islander." Also, due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise.
How to read this graph: Each line represents the percentage of its respective group that could be considered to be food insecure based on their responses to the DWS from the 2019-20 school year through the 2021-22 school year. For example, the top (navy blue) line shows the trend for Hispanic/Latinx student households who responded to the survey. Of those households, 23% could be considered food insecure in 2019-20, 26% in 2020-21 and 24% in 2021-22.

Households with students in high school reported higher rates of food insecurity than households with students in lower grades.

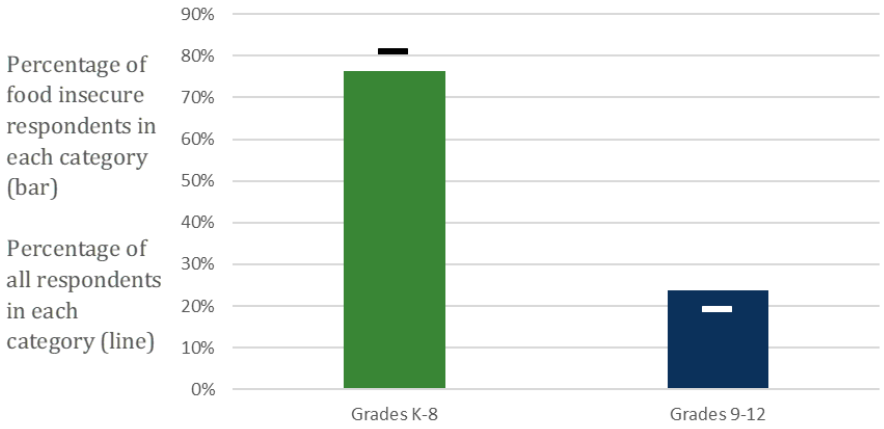
The rate of food insecurity for households with students enrolled in high school grades (9-12), at 25%, was higher than the rate for households with students enrolled in lower grades (K-8), at 19% (Figure 5).[14]

Figure 5. Estimated rates of food insecurity for the School District of Philadelphia by grade band, 2021-22

Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).

Households with students in older grades (9-12) were overrepresented among food insecure respondents, at 24%, compared to their share of all respondents, at 19% (Figure 4). Households with students in younger grades (K-8) were underrepresented among food insecure households (76%) compared to their share of all households (81%).

Figure 6. Disproportionality of food insecurity status by grade band

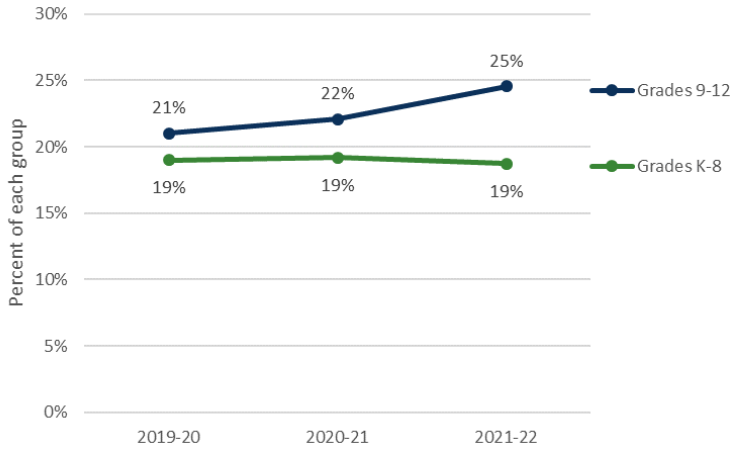


Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The vertical bars show the percentage of *food insecure respondents* who belonged to each group. The horizontal lines show the percentage of *all respondents* who belonged to each group. Calculating the difference between the vertical bars and horizontal lines shows the disproportionality in food insecurity for each group.

[14] The DWS instructs parents and guardians to complete one survey response for each school attended by at least one of their students. Thus, if a household has a K-8 student and a 9-12 student attending separate schools, and the parent/guardian completed a survey for each student's school, that household would be represented in both grade bands.

While food insecurity rates stayed relatively steady at about 19% for households of students in grades K-8 between 2019-20 and 2020-21, the rate for households of students in grades 9-12 steadily rose, from 21% in 2019-20 to 25% in 2021-22 (Figure 7).

Figure 7. Food insecurity trends for the School District of Philadelphia by grade band, 2019-20 to 2021-22

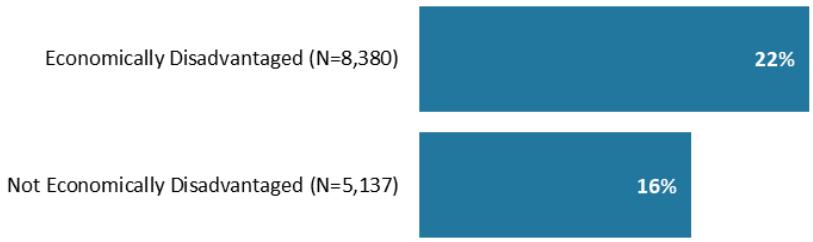


Sources: 2019-20 (N = 14,163), 2020-21 (N = 12,670) and 2021-22 (N = 13,516) Parent/Guardian District-Wide Survey respondent-level data files.
Note: Due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise.
How to read this graph: Each line represents the percentage of its respective group that could be considered to be food insecure based on their responses to the DWS from the 2019-20 school year through the 2021-22 school year. For example, the top (navy blue) line shows the trend for grades 9-12 student households who responded to the survey. Of those households, 21% could be considered food insecure in 2019-20, 22% in 2020-21 and 25% in 2021-22.

Economically disadvantaged households reported higher rates of food insecurity than non-economically disadvantaged households.

The School District of Philadelphia categorizes students as economically disadvantaged if their household is eligible for income-tested federal assistance programs such as SNAP, TANF, and Medicaid. At 22%, the rate of food insecurity among households classified as economically disadvantaged was higher than the rate for non-economically disadvantaged households, at 16% (Figure 8). Note that not all families that could be considered economically disadvantaged are eligible for government assistance programs.

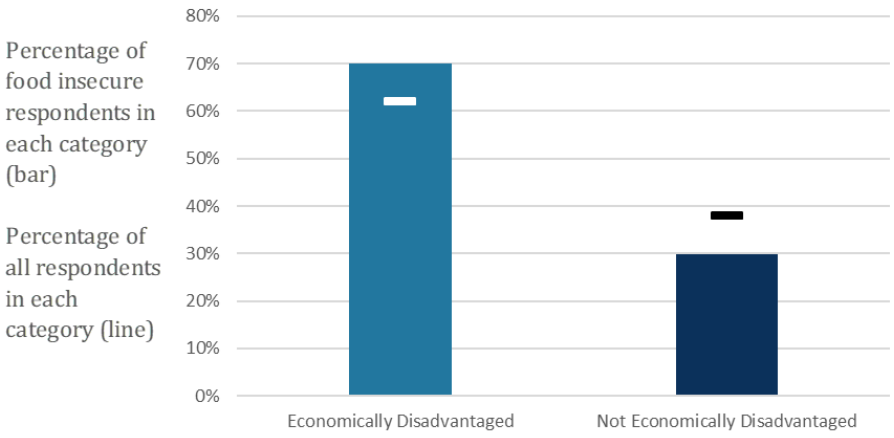
Figure 8. Estimated rates of food insecurity for the School District of Philadelphia by economic disadvantage status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,517).

When we looked only at respondents who can be considered food insecure based on their responses, we found that economically disadvantaged student households were overrepresented among food insecure respondents, at 70%, compared to their share of all respondents, at 62% (Figure 9). Non-economically disadvantaged households were underrepresented among food insecure respondents, at 30%, compared to their share of all respondents, at 38%.

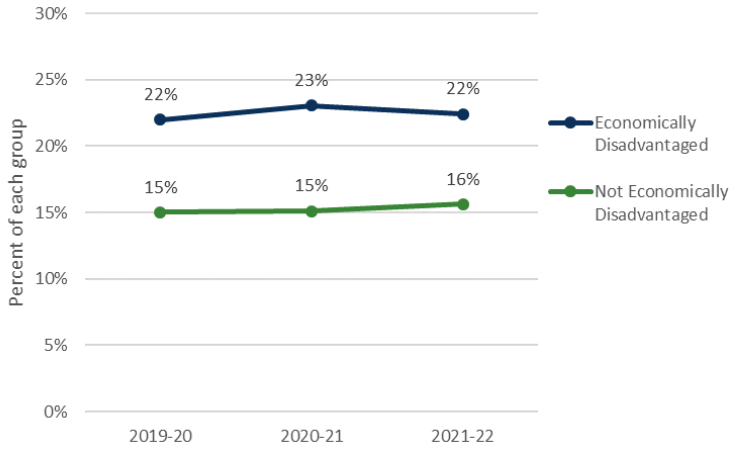
Figure 9. Disproportionality of food insecurity status by economic disadvantage status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,517).
How to read this graph: The vertical bars show the percentage of *food insecure respondents* who belonged to each group. The horizontal lines show the percentage of *all respondents* who belonged to each group. Calculating the difference between the vertical bars and horizontal lines shows the disproportionality in food insecurity for each group.

From 2019-20 to 2021-22, food insecurity rates were consistently higher for economically disadvantaged student households (between 22% and 23%) than for non-economically disadvantaged student households (between 15% and 16%) (Figure 10).

Figure 10. Food insecurity trends for the School District of Philadelphia by economic disadvantage status



Sources: 2019-20 (N = 14,163), 2020-21 (N = 12,670) and 2021-22 (N = 13,517) Parent/Guardian District-Wide Survey respondent-level data files.
Note: Due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise.
How to read this graph: Each line represents the percentage of its respective group that could be considered to be food insecure based on their responses to the DWS from the 2019-20 school year through the 2021-22 school year. For example, the top (navy blue) line shows the trend for economically disadvantaged student households who responded to the survey. Of those households, 22% could be considered food insecure in 2019-20, 23% in 2020-21 and 22% in 2021-22.

Households with students learning English reported higher food insecurity rates than other households.

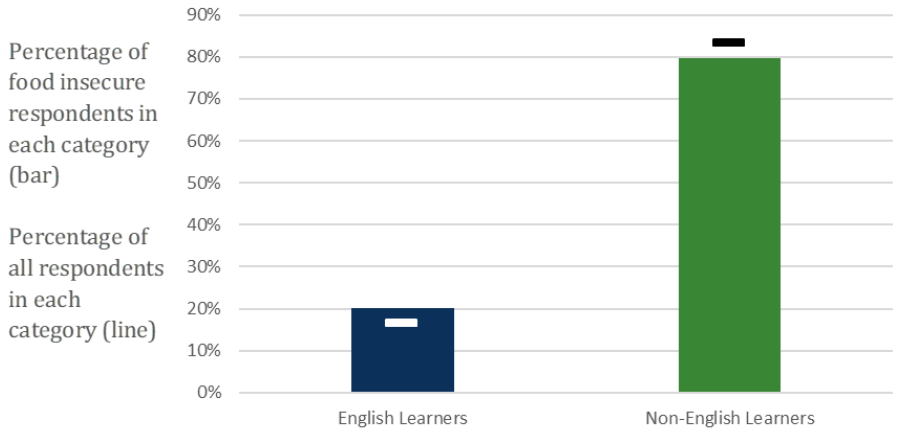
Households with students learning English had higher food insecurity rates, at 24%, than households whose students were not English Learners, at 19% (Figure 11).

Figure 11. Estimated rates of food insecurity for the School District of Philadelphia, by English Learner status

Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).

When we looked only at respondents who can be considered food insecure based on their responses, we found that households with students learning English were slightly overrepresented among food insecure respondents, at 20%, compared to their share of all respondents, at 17% (Figure 12). Households without English Learners were underrepresented among food insecure respondents, at 80%, compared to their share of all respondents, at 83%.

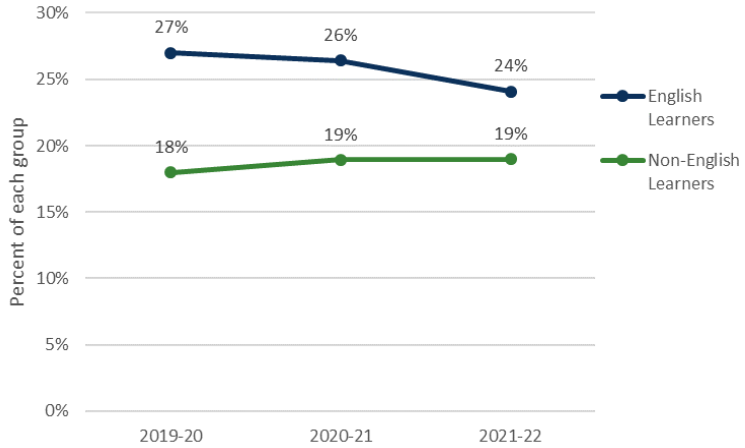
Figure 12. Disproportionality of food insecurity status by English Learner status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The vertical bars show the percentage of *food insecure respondents* who belonged to each group. The horizontal lines show the percentage of *all respondents* who belonged to each group. Calculating the difference between the vertical bars and horizontal lines shows the disproportionality in food insecurity for each group.

Although food insecurity rates were consistently higher for households of English Learner students than for other student households from 2019-20 to 2021-22, the rate for English Learner student households fell from 27% to 24%, while the rate for other households rose slightly, from 18% to 19% (Figure 13).

Figure 13. Food insecurity trends for the School District of Philadelphia by English Learner status, 2019-20 to 2021-22



Sources: 2019-20 (N = 14,163), 2020-21 (N = 12,670) and 2021-22 (N = 13,516) Parent/Guardian District-Wide Survey respondent-level data files.
Note: Due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise.
How to read this graph: Each line represents the percentage of its respective group that could be considered to be food insecure based on their responses to the DWS from the 2019-20 school year through the 2021-22 school year. For example, the top (navy blue) line shows the trend for English Learner student households who responded to the survey. Of those households, 27% could be considered food insecure in 2019-20, 26% in 2020-21 and 24% in 2021-22.

Households of students who received special education services reported higher rates of food insecurity than other student households.

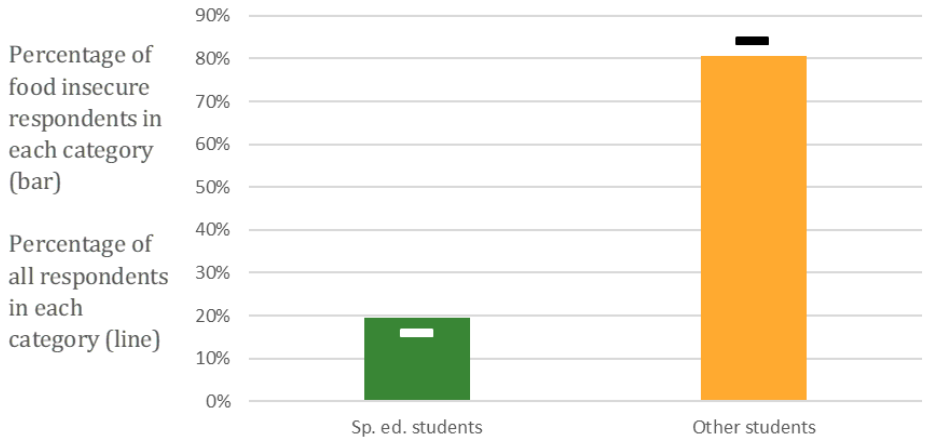
Households with a student receiving special education services (also referred to as students with individualized education plans, or IEPs), reported experiencing food insecurity at higher rates (24%) than households of students who did not receive special education services (19%) (Figure 14).

Figure 14. Estimated food insecurity rates for the School District of Philadelphia, by special education status

Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).

When we looked only at respondents who can be considered food insecure based on their responses, we found that households with a student with an IEP were slightly overrepresented among food insecure respondents, at 19%, compared to their share of all respondents, at 16% (Figure 15). Student households without any students with IEPs were slightly underrepresented among food insecure respondents, at 81%, compared to their share of all respondents, at 84%.

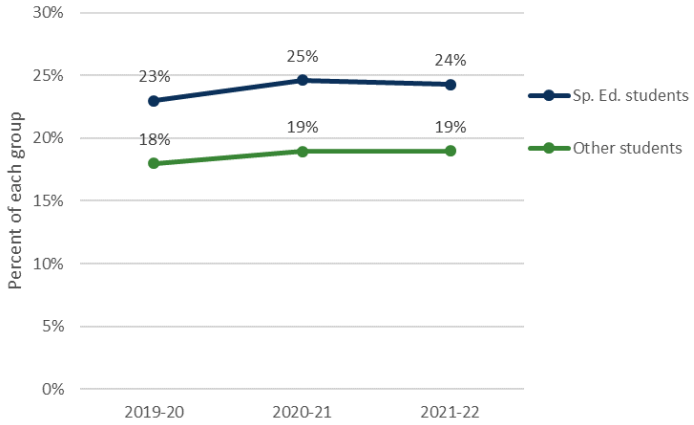
Figure 15. Disproportionality of food insecurity status by special education status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The vertical bars show the percentage of *food insecure respondents* who belonged to each group. The horizontal lines show the percentage of *all respondents* who belonged to each group. Calculating the difference between the vertical bars and horizontal lines shows the disproportionality in food insecurity for each group.

From 2019-20 to 2020-21, food insecurity rates rose slightly for all student households, with the rate for households of students receiving special education services consistently higher than the rate for other student households (Figure 16).

Figure 16. Food insecurity trends for the School District of Philadelphia by special education status



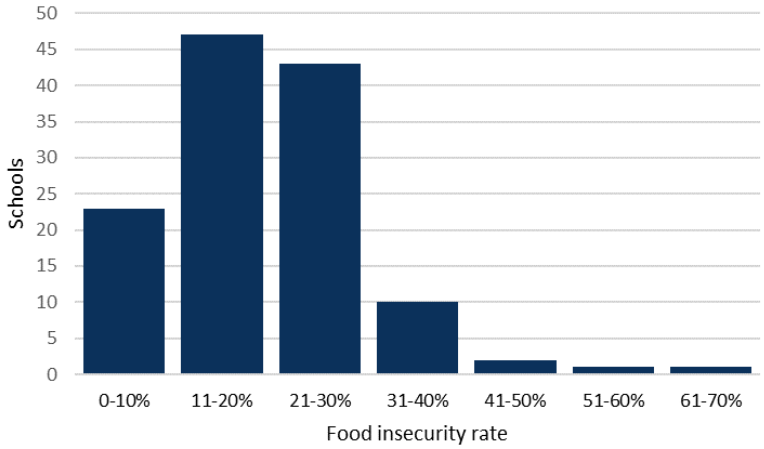
Sources: 2019-20 (N = 14,163), 2020-21 (N = 12,670) and 2021-22 (N = 13,516) Parent/Guardian District-Wide Survey respondent-level data files.
Note: The category "Multi-racial/Other" includes "American Indian or Alaska Native" and "Native Hawaiian or other Pacific Islander." Also, due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for those years may have been lower than what they would have been otherwise.
How to read this graph: Each line represents the percentage of its respective group that could be considered to be food insecure based on their responses to the DWS from the 2019-20 school year through the 2021-22 school year. For example, the top (navy blue) line shows the trend for households of students receiving special education services who responded to the survey. Of those households, 23% could be considered food insecure in 2019-20, 25% in 2020-21 and 24% in 2021-22.

Most SDP schools have student populations with household food insecurity rates between 11% and 30%.

The average rate of food insecurity across all District schools was 20%. However, the rates at specific schools varied widely. Although most schools had rates near the average, a smaller number of schools had either very high or very low rates (Figure 17). There were 23 schools with rates of 10% or lower and 14 schools with rates higher than 30%.[15]

[15] School-level District-Wide Survey information for 2021-22, including food insecurity responses, is available on the District's Open Data website: https://www.philasd.org/performance/programsservices/open-data/school-information/#district_wide_surveys. District-Wide Survey information for 2021-22 can also be viewed interactively here: https://www.philasd.org/research/programsservices/district-wide-surveys/

Figure 17. The distribution of the food insecurity rate across District schools with a high enough DWS response rate to be included

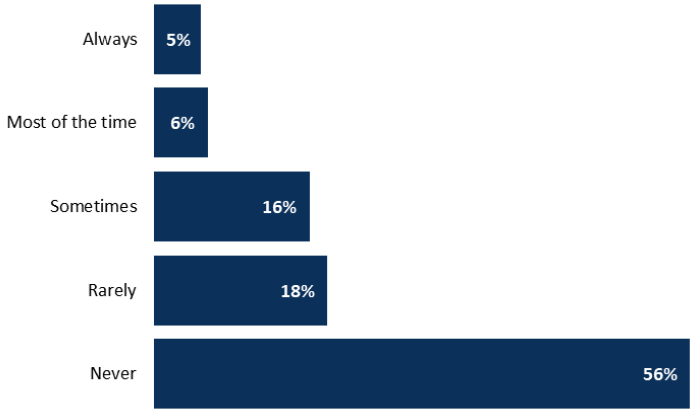


Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (response N = 13,696).
Note: Data was aggregated, or grouped, at the school level and reported only for schools that met the minimum response rate of 10% (school N = 127).

Twenty-seven percent of surveyed students reported going hungry in the previous 30 days due to a lack of food at home.

The 2021-22 student District-Wide Survey included a question asking students how often they had gone hungry during the previous 30 days because there was not enough food for them to eat at home. Twenty-seven percent of students who completed the survey answered "Sometimes," "Most of the time," or "Always" (Figure 18).

Figure 18. Student responses to the question, "During the past 30 days, how often did you go hungry because there was not enough food in your home?"

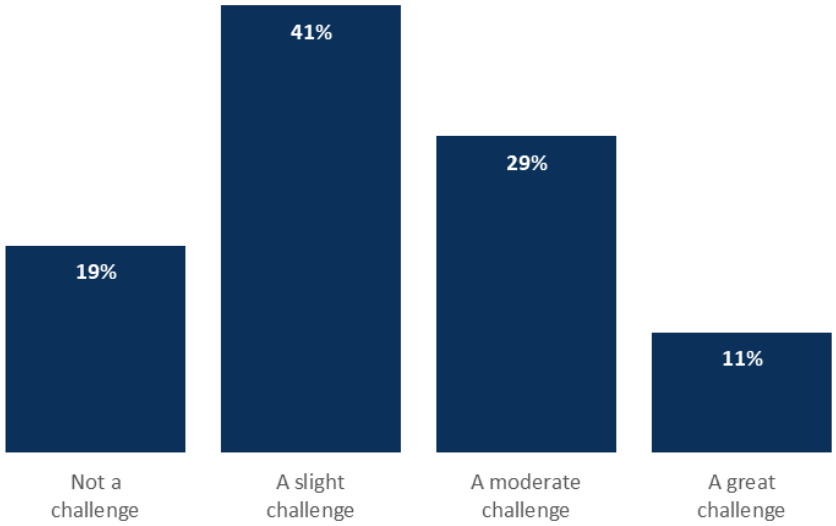


Source: 2021-22 Student District-Wide Survey respondent-level data file (N = 46,386).

Over 80% of responding principals and assistant principals cited food insecurity as a challenge to student learning at their schools, with more than 10% saying it is a great challenge.

The 2021-22 District-Wide Survey asked principals and assistant principals whether food insecurity was a challenge to student learning. Forty percent of respondents in District schools identified food insecurity as a "great" or "moderate" challenge (Figure 19). Only 19% of responding principals and assistant principals said that food insecurity was "not a challenge."

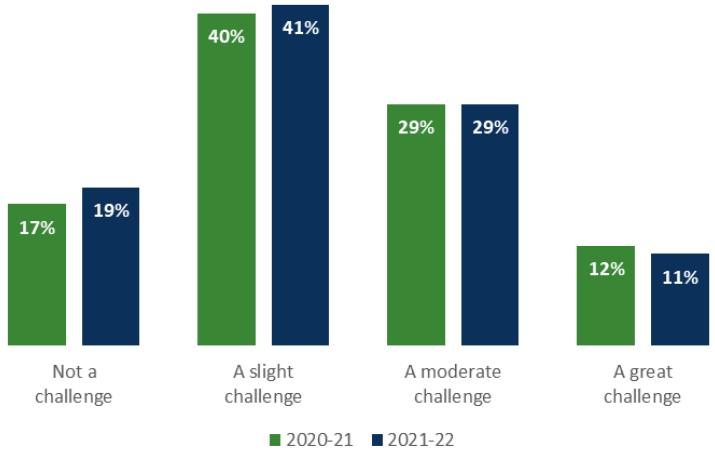
Figure 19. Principal and assistant principal responses to the question, "To what extent is student food insecurity a challenge to student learning at your school?"



Source: Qlik District-Wide Survey application, last accessed on January 25th, 2023 (N = 341).

The rate of principals and assistant principals responding that food insecurity is a great challenge to student learning at their schools remained relatively consistent, from 12% in 2020-21 to 11% in 2021-22 (Figure 20). The rate of those responding that it is not a challenge to student learning at their schools also remained relatively consistent, from 17% in 2020-21 to 19% in 2021-22.

Figure 20. Trends in principal and assistant principal responses to the question, "To what extent is student food insecurity a challenge to student learning at your school?"



Sources: Qlik District-Wide Survey application for 2020-21 (N = 178) and 2021-22 (N = 341).
Note: Due to the disruption caused by the Covid-19 pandemic starting in the 2019-20 school year, and the virtual and hybrid instruction that took place in the 2020-21 school year, response rates for that year may have been lower than what they would have been otherwise.

Conclusions

Food insecurity among student households continues to be a pressing issue in the School District of Philadelphia. From 2019-20 to 2021-22, SDP households who responded to the District-Wide Survey consistently reported greater food insecurity than the most recent city, state, and national averages. Household food insecurity rates based on survey responses also varied by the characteristics of the students living in the household and across District schools. On average, the household groups with the highest food insecurity rates were Hispanic/Latinx and Black/African American households, households with high school students, economically disadvantaged households, households with English Learner students, and households with students who received special education services.

The rate of food insecurity varied widely across schools. Fourteen schools had food insecurity rates greater than 30%. Additionally, 40% of responding District principals and assistant principals identified food insecurity as a "great" or "moderate" challenge to student learning.

Year-over-year results of the Parent/Guardian DWS suggest that student household food insecurity rose slightly from 19% in 2019-20 to 20% in 2020-21, where it stayed in 2021-22.

The School District of Philadelphia Board of Education's Goals and Guardrails plan calls for schools to be spaces with inclusive climates that provide students with access to robust social, emotional, and mental health supports.[16] Coordinated by Eat Right Philly (ERP), a partnership between the District and six other organizations funded by USDA SNAP-Ed, SDP and community partners work

[16] For more information on the School District of Philadelphia Goals and Guardrails plan see: https://www.philasd.org/era/goals-and-guardrails/

to target resources to schools where a large proportion of students are affected by barriers to food access. ERP also provides nutrition education, food access, and other types of programming in District schools.[17] These efforts contribute to students' physical, social, emotional, and mental health.

To directly address food insecurity for all SDP students, the Division of Food Services makes breakfast and lunch available each school day to all District students, at no cost, through the USDA's Community Eligibility Provision. Furthermore, many District schools have opted to serve breakfast after the start of school ("after-the-bell") so that students do not need to arrive early in order to participate.[18]

Still, food insecurity continues to be a pervasive challenge affecting SDP households. Any severity of food insecurity has been shown to have a negative effect on students' academic outcomes, behavioral health, and emotional wellbeing. Furthermore, the challenges that arise from food insecurity are disproportionality concentrated among the groups of SDP households identified in this brief. Continued efforts to address food insecurity are critical to addressing not only health inequities but also disparities in academic outcomes and related challenges.

Addressing food insecurity is a vital step in bolstering students' social, emotional, and mental health supports, and a vital step toward equitably meeting the academic indicators outlined by the SDP Board of Education to measure changes in students' math performance, reading performance, and college and career readiness. SDP and its partners should continue to mitigate the effect that food insecurity has on the well-being of our students, particularly Hispanic/Latinx and Black/African American students, high school students, students living in economically disadvantaged households, students learning English, and students who receive special education services, since these students' households are experiencing food insecurity at disproportionately high rates.

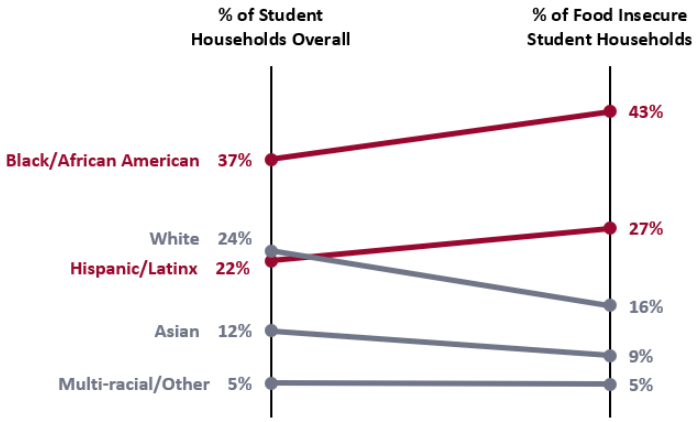
[17] For more information about SNAP-Ed, see the USDA website: https://nifa.usda.gov/program/supplemental-nutrition-education-program-education-snap-ed

[18] For more information on breakfast service models that maximize breakfast participation in SDP see: https://www.philasd.org/research/2022/10/21/key-determinants-to-school-breakfast-program-implementation-in-philadelphia-public-schools-implications-for-the-role-of-snap-ed/

Appendix

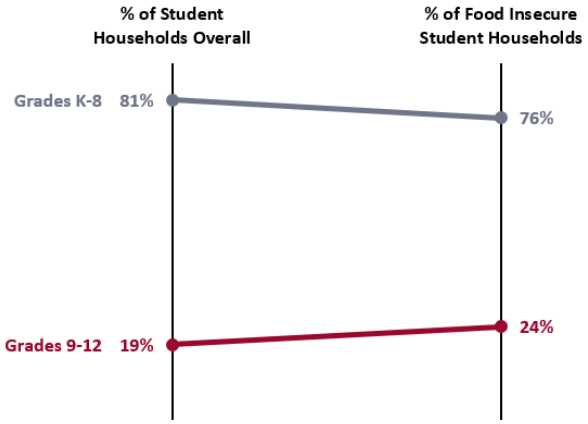
The following slope graphs present the same data that is found in figures 3, 6, 9, 12, and 15, and were created to emphasize the disproportionalities in food security rates between different groups of student households. Slope graphs look similar to line graphs, but are used to compare data from two different variables (like the graphs below), or data from the same variable at two different points in time.

Figure 3. Disproportionality of food insecurity status by race/ethnicity



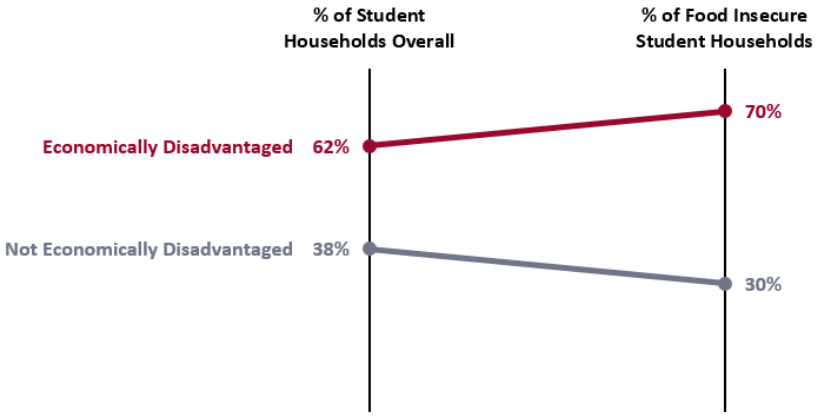
Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
Note: The category "Multi-Racial or Other" includes "American Indian or Alaska Native" and "Native Hawaiian or other Pacific Islander."
How to read this graph: The percentages on the left-hand side of the graph show each group's share of student households overall, and the percentages on the right-hand side show each group's share of food insecure student households. The difference between the two percentages shows which groups make up a disproportionately high or low percentage of food insecure student households. Groups labeled in red make up a disproportionately high percentage of food insecure student households.

Figure 6. Disproportionality of food insecurity status by grade band



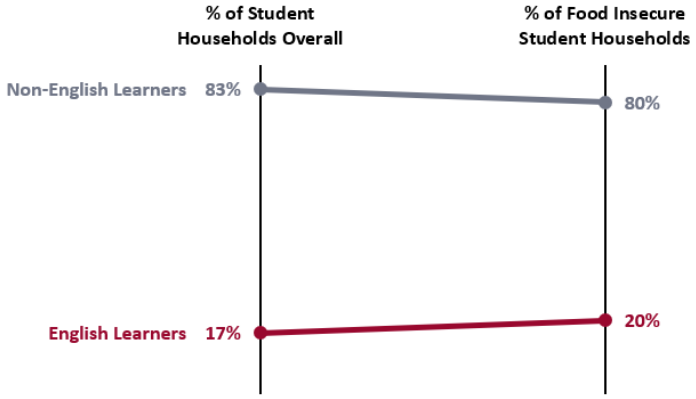
Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The percentages on the left-hand side of the graph show each group's share of student households overall, and the percentages on the right-hand side show each group's share of food insecure student households. The difference between the two percentages shows which groups make up a disproportionately high or low percentage of food insecure student households. Groups labeled in red make up a disproportionately high percentage of food insecure student households.

Figure 9. Disproportionality of food insecurity status by economic disadvantage status



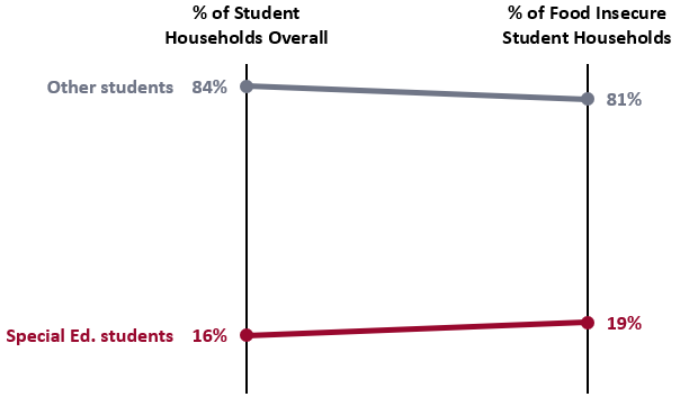
Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,517).
How to read this graph: The percentages on the left-hand side of the graph show each group's share of student households overall, and the percentages on the right-hand side show each group's share of food insecure student households. The difference between the two percentages shows which groups make up a disproportionately high or low percentage of food insecure student households. Groups labeled in red make up a disproportionately high percentage of food insecure student households.

Figure 12. Disproportionality of food insecurity status by English Learner status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The percentages on the left-hand side of the graph show each group's share of student households overall, and the percentages on the right-hand side show each group's share of food insecure student households. The difference between the two percentages shows which groups make up a disproportionately high or low percentage of food insecure student households. Groups labeled in red make up a disproportionately high percentage of food insecure student households.

Figure 15. Disproportionality of food insecurity status by special education status



Source: 2021-22 Parent/Guardian District-Wide Survey respondent-level data file (N = 13,516).
How to read this graph: The percentages on the left-hand side of the graph show each group's share of student households overall, and the percentages on the right-hand side show each group's share of food insecure student households. The difference between the two percentages shows which groups make up a disproportionately high or low percentage of food insecure student households. Groups labeled in red make up a disproportionately high percentage of food insecure student households.