



Coronavirus icon by dDara from the Noun Project

## NERCRD Covid-19 Data Report 21-01

### **Pennsylvania Food Insecurity Reached New High at the End of 2020**

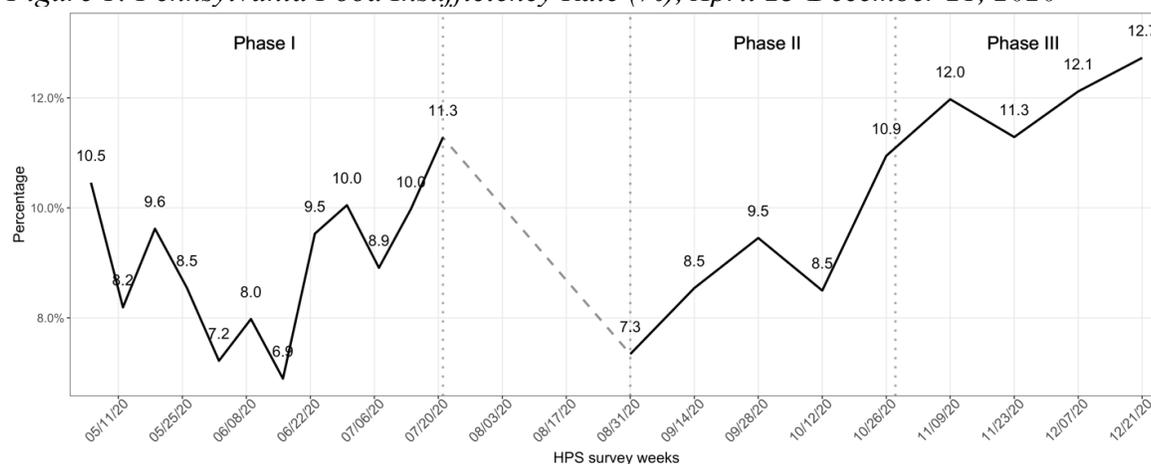
Stephan J. Goetz; Zheng Tian; Claudia Schmidt; Yuxuan Pan  
NERCRD, Penn State University; February 12, 2021

**Abstract:** The share of Pennsylvania households in which hunger is a problem has increased to the highest rate since the data were first collected at the onset of the Covid-19 pandemic. According to the U.S. Census Household Pulse Survey, the share of *adults in households where there was either sometimes or often not enough to eat in the last seven days* reached a new high of 12.7% on December 19, 2020, just slightly below the national rate on that day (12.9%).<sup>1</sup> In this Report we also show how families have adapted to this crisis by accessing free food and how households with different incomes have been affected by rising food insecurity.

### **The Problem of Rising Food Insecurity in Pennsylvania**

At varying times since the onset of the pandemic, the public media have reported long lines in front of food banks in many states, including in Pennsylvania where the problem, according to one report has “exploded”.<sup>2</sup> These reports are directly confirmed by data from the U.S. Census Household Pulse Survey (HPS), which is an experimental survey that seeks to document how the COVID-19 pandemic impacts people’s lives in the United States. The survey began with Phase 1 on April 23, 2020 and is currently in Phase 3, which began October 28, 2020<sup>3</sup>. This rate of household Food Insecurity (FI) has varied in Pennsylvania over the course of the pandemic, after reaching a low of 6.9% in June (Figure 1), about two months after the first CARES Act stimulus payments were released. The state’s rate of food insecurity tends to be lower than the nation’s overall, except during certain weeks of the survey.

*Figure 1: Pennsylvania Food Insecurity Rate (%), April 23-December 21, 2020*



Source: HPS Public Use File, extraction and calculations by authors.

<sup>1</sup> In all cases, percentages or shares are calculated with respect to households responding, not all households surveyed.

<sup>2</sup> <https://www.usnews.com/news/best-states/pennsylvania/articles/2021-01-02/many-in-line-at-food-bank-never-thought-theyd-be-there>; <https://www.washingtonpost.com/nation/interactive/2021/covid-hunger-crisis/>; <https://triblive.com/local/pittsburgh-allegheeny/hundreds-of-cars-line-up-for-help-from-pittsburgh-food-bank/>; <https://pittsburgh.cbslocal.com/2020/04/06/duquesne-food-bank-giveaway/>

<sup>3</sup> Household Pulse Survey Data Tables: <https://www.census.gov/programs-surveys/household-pulse-survey/data.html>. See appendix for questions that were used in this data synthesis.

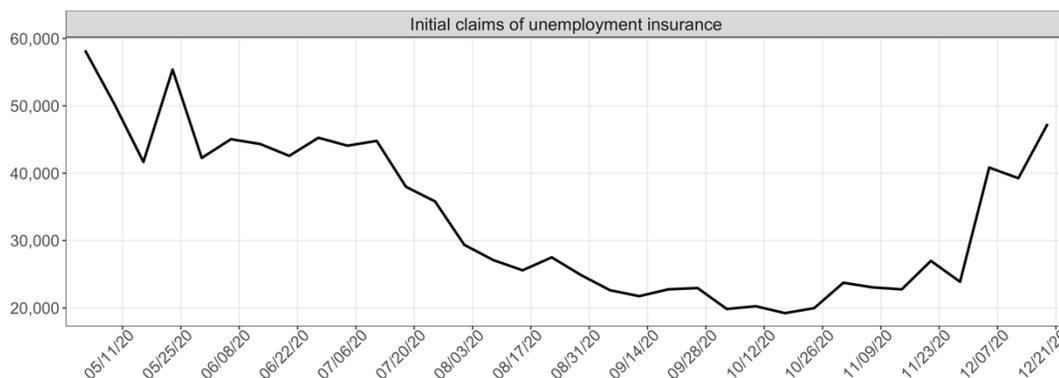
## Causes of Rising Food Insecurity

To a large extent, the rise in hunger nationally as well as in Pennsylvania is caused by job losses associated with the lockdowns implemented to stem the spread of the Corona virus. First-time filings of unemployment insurance claims in the state shot up to about 375,000 in March 2020; they then tapered off during the summer, only to rise again towards the end of the year 2020, when household food insufficiency rates also started to climb again (Figure 2). Pennsylvania’s official unemployment rate peaked at 16.1% in April 2020 and has since fallen to under 7% in November 2020 (US Bureau of Labor Statistics; the most recent available at this time).

### Covid Timeline Pennsylvania 2020

March 23: non-essential businesses closed  
 April 1: stay at home order  
 April 15: Start of Stimulus payment  
 May 8: Select businesses re-opened  
 June 5: Stay at home order ended and select businesses re-opened  
 July 3: Select businesses closed in selected counties  
 Dec 12: Select businesses closed statewide

Figure 2: Initial Claims for Unemployment Insurance, PA



Source: US Department of Labor (Not seasonally adjusted)

## How Households have Coped

On average, 7.4% of all households surveyed in the HPS also received free food in the previous week, over this period, with the value ranging from 5.2% to 11.1%. The PA rate was more variable than the U.S. rate over the last year, which averaged 8.5% over this period. Among the different sources of free food, free meals aimed at children were the most important source (at 37.7%), followed by Food Pantries or Food banks (31.9%). Home-delivered meal services, shelters, or soup kitchens made up the smallest share of responses (Table 1).

Before the pandemic, children from low-income families qualified for school lunch at reduced rates or for free when the family’s income was at or below 130% of the poverty level.<sup>4</sup> With federal aid, school lunches are provided at no cost for all families for the 2020/21 school year.<sup>5</sup>

<sup>4</sup> <https://www.education.pa.gov/Teachers%20-%20Administrators/Food-Nutrition/programs/Pages/National-School-Lunch-Program.aspx>

<sup>5</sup> <https://www.usda.gov/media/press-releases/2020/10/09/trump-administration-extends-free-meals-kids-entire-school-year>

*Table 1: Sources of Free Food received by Pennsylvania Households*

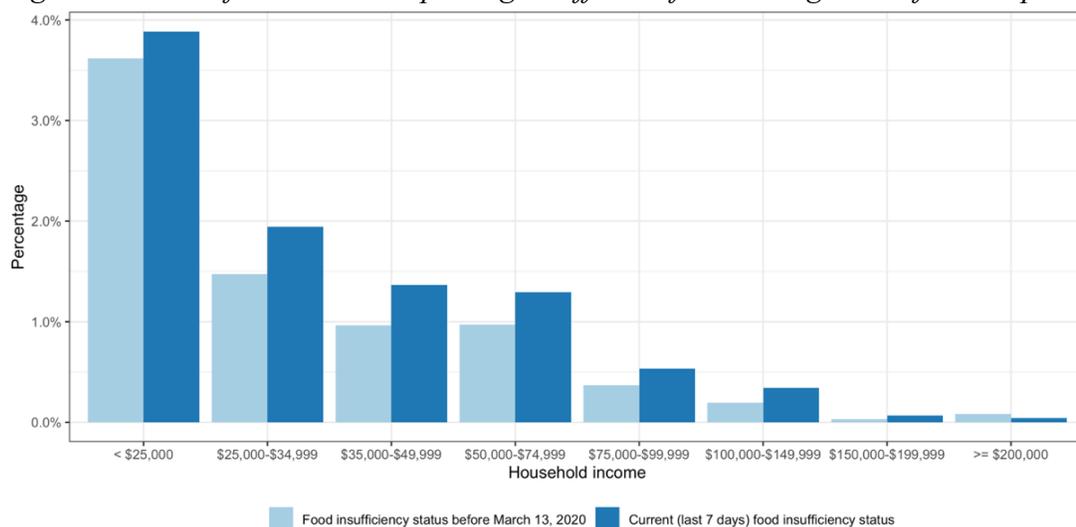
Rate of PA Households that received free Food rate (avg.)	7.4
Free meals through the school or other programs aimed at children	37.7
Food pantry or food bank	31.9
Family, friends, or neighbors	23.9
Other community programs	22.5
Church, synagogue, temple, mosque, or other religious organization	19.9
Home-delivered meal service like Meals on Wheels	3.6
Shelter or soup kitchen	3.3

Source: HPS Public Use File, extraction and calculations by authors.

### How Families with Different Incomes are Affected

Figure 3 compares the percentage of people who reported their food insufficiency status before and after the pandemic by income class in Pennsylvania, respectively. First of all, food insufficiency status across all income classes, except for the highest class in PA, worsened after the pandemic. Second, although the lowest income class has the highest food insufficiency rate, the increase in food insufficiency over the course of the pandemic in the middle-income class is noticeable.

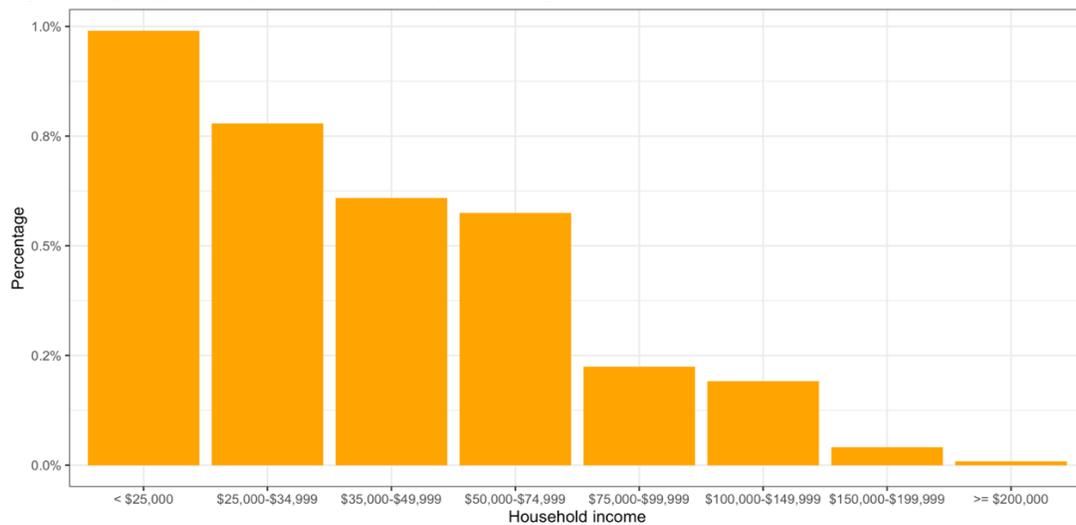
*Figure 3. Share of households reporting insufficient food during and before the pandemic*



Source: HPS Public Use File, extraction and calculations by authors. Each bar represents the averaged value over 19 weeks of the Household Pulse Survey at the national level.

Figure 4 shows the percentage of people who did not have a food insufficiency problem before the pandemic but experienced food insufficiency during the pandemic. For example, in the lowest income class, the share of households experiencing food insufficiency was one percentage point higher than pre-pandemic; this represents a 25% increase in the share of households overall in the lowest income category (Figure 3). These percentage point changes become smaller with higher incomes, with the sharpest drop occurring between the \$74,999- and \$75,000-income class bracket cut-offs.

Figure 4: Share of households reporting insufficient food during the pandemic compared to the share reporting sufficient food access before the pandemic



Source: HPS Public Use File, extraction and calculations by authors. Each bar represents the averaged value over 19 weeks of the Household Pulse Survey at the national level. The percentage is calculated based on the weighted count of individuals who reported sometimes/often not having enough food in response to the question about food conditions in the last seven days, but reported sufficient food access prior to March 13.

## Conclusion

This data report shows an increasingly dire food insecurity situation for many households in Pennsylvania and beyond. Free food and meals that are provided through schools and other avenues targeted to children are a critical source, as are food pantries or food banks, according to the HPS. As the pandemic continues, the problem is likely to become even more severe as households draw down savings, having to choose between paying for housing or food, unless further relief funds are released from the federal government to mitigate these income gaps.

Among other research efforts in this area, NERCRD researchers are examining the roles community services such as food banks can play in reducing household food insufficiency. Our preliminary findings indicate that they do indeed have the beneficial effect of reducing hunger within households across the nation, controlling for other relevant factors that affect food insufficiency status.

*\*Special Data Note:* the above data are available upon request to interested individuals located in other states of the U.S. Northeast. Please contact [sgoetz@psu.edu](mailto:sgoetz@psu.edu) for further information.

## About this Series:

These issues briefs are designed to provide information quickly or stimulate discussion, and they have not undergone regular peer review. NERCRD receives core funds from the U.S. Department of Agriculture's National Institute of Food and Agriculture (award #2019-51150-29876) as well as from Hatch/Multi-State Appropriations under Project #PEN04633 and Accession #1014522, the Northeastern Regional Association of State Agricultural Experiment Station Directors, and the Pennsylvania State University, College of Agricultural Sciences. Any opinions are solely those of the authors.

## Appendix

Household Pulse Survey questions used in this data synthesis:

Q23: Getting enough food can also be a problem for some people. Which of these statements best describes the food eaten in your household before March 13, 2020? Select only one answer.

- Enough of the kinds of food (I/we) wanted to eat (1)
- Enough, but not always the kinds of food (I/we) wanted to eat (2)
- Sometimes not enough to eat (3)
- Often not enough to eat (4)

Q24: In the last 7 days, which of these statements best describes the food eaten in your household? Select only one answer. O

- Enough of the kinds of food (I/we) wanted to eat (1)
- Enough, but not always the kinds of food (I/we) wanted to eat (2)
- Sometimes not enough to eat (3)
- Often not enough to eat (4)

Q26: During the last 7 days, did you or anyone in your household get free groceries or a free meal? Select only one answer.

- Yes (1)
- No (2)

Q27 Where did you get free groceries or free meals? Select all that apply.

- Free meals through the school or other programs aimed at children (1)
- Food pantry or food bank (2)
- Home-delivered meal service like Meals on Wheels (3)
- Church, synagogue, temple, mosque or other religious organization (4)
- Shelter or soup kitchen (5)
- Other community program (6)
- Family, friends, or neighbors (7)

Source: 2020 COVID-19 Household Pulse Survey, Phase 2

[https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Phase\\_2\\_Questionnaire\\_11\\_2\\_20\\_Updated\\_English.pdf](https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Phase_2_Questionnaire_11_2_20_Updated_English.pdf)