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Policy and economic factors that affect food security

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TAKEAWAYS

Policies that increase access to SNAP are related to reduced risk of food insecurity, particularly among economically vulnerable households.

More widely available school breakfast may help offset food insecurity.

Policies outside of food assistance—including length of unemployment insurance availability, generosity of EITC and potentially higher minimum wages —are linked to food security.

A higher unemployment rate is strongly linked to food insecurity.

Strengthening the safety net—including both food assistance and broader programs and policies that stabilize and raise incomes for low- and moderate-income households—could help protect the well-being of vulnerable families during Covid-19 response and recovery.

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Even prior to the Covid-19 pandemic, food insecurity—the lack of consistent access to enough food for an active, healthy life—was an issue for many U.S. households. In 2019, 10.5 percent of households were food insecure at least some time during the year, including 13.6 percent of households with children.[1] While food is clearly an essential need, it is also one of the first places households may cut expenses in the event of an economic setback. For example, following the Great Recession—when unemployment reached a high of 10 percent—food insecurity reached almost 15 percent, and had only recently returned to pre-recession levels (see text box). Since the onset of the Covid-19 pandemic, when unemployment rates exceeded 14 percent, rates of food insecurity in the United States have risen to unprecedented levels, particularly among families with children. As of the end of April 2020, an estimated 22.8 percent of households were food insecure, including 34.5 percent of households with children.[2] And food insufficiency, a more stringent measure of food hardship, tripled between 2019 and July 2020.[3]

The research described in this article, examining the period surrounding the Great Recession, looks at the relationship between policy and economic factors and food insecurity among households with children.[4] Specifically, we look at state differences in: accessibility of the Supplemental Nutrition Assistance Program (SNAP, previously called the Food Stamp Program); School Breakfast Program availability; maximum unemployment insurance duration; state Earned Income Tax Credit (EITC) generosity; the prevailing minimum wage; and state economic attributes such as the unemployment rate and the proportion of the population with a college degree. We find substantial evidence that state policy and economic factors play a role in food security, and our findings reinforce the importance of a robust safety net in cushioning hardships triggered by the pandemic and its associated economic fallout. Our research questions include:

- How is food insecurity related to policies that affect access to the federal food safety net?
- How is food insecurity related to policies that affect household income—unemployment insurance, the EITC, and the minimum wage?
- How is food insecurity related to state economic characteristics such as the availability of jobs and levels of educational attainment in the community?

The Great Recession officially began in December 2007 and ended in June 2009, though the economic effects were felt well beyond that time. The unemployment rate increased from 5 percent to 9.5 percent over that period, then peaked at 10 percent in October 2009. The poverty rate also rose, particularly for groups that were already at a higher risk of falling below the poverty line. The 2009 American Recovery and Reinvestment Act (ARRA) provided some economic relief, allocating federal funds to preserve existing jobs and create new ones, and to expand unemployment insurance and other safety net programs, including SNAP. ARRA increased SNAP benefits by a set amount for each household size. For example, the maximum monthly SNAP benefit for a family of four rose by 13.6 percent, or about $80 per month.

Factors related to food insecurity

The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life.[5] Using a set of 18 indicators that identify food-access problems or limitations, the USDA further defines four levels of food security:

- **Full food security** means no lack of food access;
- **Marginal food security** means one or two reported indications of a lack of food access, typically anxiety over food sufficiency or shortage of food in the home;
- **Low food security** means three to seven reports of reduced quality, variety, or desirability of diet; and
- **Very low food security** means reports of multiple indications of disrupted eating patterns and reduced food intake.

Households are classified as food insecure if they exhibit low or very low food security. Early research on food insecurity documented the role of low income in combination with other factors such as household structure, employment, education, race and ethnicity, and health and disability.[6] In seeking to understand why seemingly similar children and households differ in their food security outcomes, researchers have considered factors such as maternal health, mental health, parenting practices, financial behaviors, social supports, and substance abuse.[7] This work, however, only provides limited insight into understanding differences in food security between places and over time.

Other work has examined how aspects of the economic and policy environments are related to food security outcomes. Economic factors such as higher unemployment rates and lower median wages are both predictive of food insecurity.[8] State and local economic factors such as higher prevailing rents and energy costs are also associated with a greater risk of food insecurity, although this evidence is from prior to the Great Recession.[9]

While much work has been done on the effects of SNAP participation on those receiving it, relatively little research has examined the effects of specific SNAP policy attributes on food insecurity.

In terms of food assistance policy, while much work has been done on the effects of SNAP participation on those receiving it, relatively little research has examined the effects of specific SNAP policy attributes on food insecurity.[10] A notable exception is research that found the SNAP benefit increase that was part of the American Recovery and Reinvestment Act in 2009 was associated with a decline in food insecurity, while the subsequent phasing out and termination of those benefits by 2013 was associated with an increase in food insecurity.[11] Several studies have looked at access to and participation in school meal programs, generally suggesting a beneficial association with food security.[12] Research exploring the link between non-food safety net programs and food security is much more limited, and includes a recent study linking Affordable Care Act Medicaid expansions to reductions in food insecurity.[13] With few exceptions, the literature on safety net programs and food insecurity has considered programs individually rather than as part of a broader set. An exception is a recent study that found that a higher combined value of benefits available through a package of means-tested income and food assistance programs was associated with a reduction in food insecurity risk among single-parent households.[14]

Food insecurity and the broader policy and economic context

Our study adds to the literature by focusing on a broad set of policies including food assistance programs as well as nonfood programs that are an important part of the employment-linked safety net, while also assessing differences by household sociodemographic characteristics. Our time period covers more than a decade, from 2002 through 2014, and includes both the Great Recession and its aftermath. We focus specifically on households with children, both because they are more likely to experience food insecurity than households without children, and because they are subject to different policies than families without children. Because our study spans a period of substantial economic upheaval, and considers a range of policies and programs, it provides insight into how food insecurity may be affected during the pandemic, and the way existing safety net programs could help to cushion food hardships.

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Data and methods

We look at the extent to which households' risk of food insecurity varies by state-level differences in the federal food safety net, policies that affect household income, economic characteristics, and household sociodemographic characteristics. In addition to assessing these risks for our sample of households with children, we look at a subgroup of more economically vulnerable households, for whom the policies we examine are most relevant. Our analyses measure the association between each characteristic and food security, while holding other characteristics constant; our models also control for permanent state characteristics and for time trends that affect all states similarly. Because the economic and policy conditions change within states over the period of the study, we are able to differentiate the role of these factors from the role of unchanging state attributes.

We use data from the Current Population Survey's Food Security Supplement for the years 2002 through 2014, to which we add data on state-year economic and policy characteristics collected from a variety of sources. The survey was administered in December during each of the survey years included here. We limit our primary sample to the 190,554 households with minor children.

We use both annual and 30-day food security measures. The annual measure references the past year, and the 30-day measure references the 30 days preceding the December survey date. The measures indicate whether households were food insecure at any time during the reference period. Thus, all households that were food insecure during the past 30 days were also food insecure during the past year.

Variations in federal food safety net policies

Federal food and nutrition assistance programs address food insecurity by providing in-kind benefits, such as SNAP, that can be used to purchase food; or by providing food directly, such as school meals. Programs vary in important ways among states and over time, leading to substantial differences in program access.

SNAP has a nationwide gross income eligibility threshold of 130 percent of the poverty line, a requirement that net income (defined as income after subtracting certain allowable expenses) falls below the poverty line, and an asset test, whereby assets that could potentially be used to purchase food—such as funds in a bank account—must fall below certain limits. Alternatively, states may opt to use broad-based categorical eligibility—a policy that makes households eligible for SNAP if they meet less stringent state-specific eligibility criteria. This policy can raise the qualifying gross income threshold to up to twice the poverty line and raise or eliminate asset tests, although net income after allowable expenses must still be below the poverty line. States also have a number of options to limit non-income eligibility constraints and to increase the ease of applying for and maintaining enrollment in SNAP for income-eligible households.[15] In this article, we report on two measures of SNAP accessibility:

- state use of broad-based categorical eligibility; and
- a composite measure of SNAP accessibility based on 5 policy options that reduce barriers for those who meet income eligibility criteria, all of which have been found in past research to increase participation.

The options included in the composite measure, all of which have been found in past research to increase participation, include: (1) the waiving of vehicle restrictions on at least one car; (2) the share of employed recipients with certification periods longer than three months (meaning benefits are approved for a longer period at a time); (3) simplified reporting requirements for households with earnings; (4) the waiving of rules banning SNAP receipt among legal immigrant adults who meet all other criteria, and (5) the absence of biometric testing of applicants. We combined these policies into a single index because our analyses showed that they each had similar associations to food insecurity. The value of this measure ranges from 0 to 1 depending on how many of the policies are in effect, where 1 indicates that all five policies are in effect. States differ in whether and in what timeframe they implemented each of these policies over the period of the study. School meal programs include the National School Lunch Program and the School Breakfast Program. Across states and localities, the breakfast program is less consistently available than the lunch program. There is not enough variation in the availability of school lunch to assess its relationship to food security. In this article, we report on one measure of school meal availability:

- The ratio of schools participating in the School Breakfast Program to those participating in the National School Lunch Program.

Variations in non-food policies that affect household income

We focus on three policies affecting household income that vary across states and over time, and that are relevant to economically vulnerable employed and unemployed households.

The EITC subsidizes earnings and increases net income for working households with children earning up to roughly twice the poverty line, depending on household composition. The federal government offers a credit, and many states offer a credit as well. The state credit, when provided, is expressed as a percentage of the federal credit. While the federal credit has been stable over the period of this study, state credits have varied across states and within states over time.

Unemployment insurance temporarily replaces part of the wages of eligible individuals who have lost their jobs and is governed by both state and federal policy. States set their own rules about the amount of work history required for eligibility and, to some degree, about the duration of benefits. The maximum duration of benefits is normally 26 weeks, but is

subject to temporary increases based on state economic conditions as well as occasional time-limited legislation extending the potential benefit duration further. Such an extension happened during the 2002–2004 period when maximum duration reached 72 weeks in some states, as well as during the Great Recession when it reached an unprecedented 99 weeks in some states.[16] The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 extended unemployment insurance duration to a maximum of 39 weeks for most beneficiaries, in addition to providing a shorter-term increase in the benefit amount.

The minimum wage is governed by both federal and state policy, where the higher of the two prevails. Over the time span of this study, the federal minimum wage increased from $5.15 to $7.25 per hour. Thirty-three states had minimum wages that exceeded the federal minimum for at least one year, with the highest being $9.50 per hour in 2014.

Our models use three measures to capture variation in these policies:

- the average maximum benefit duration for unemployment insurance in a state during the year (measured in 10-week increments, such that a one-unit increase in the measure corresponds to 10 additional weeks of available unemployment insurance);[17]
- the State EITC rate as a percentage of the federal credit (zero for states without an EITC); and
- the higher of the federal and state minimum wage rates at the end of the year.

Variation in economic characteristics

Relevant economic characteristics include the availability and quality of jobs and the cost of living. The unemployment rate, an indicator of job availability, varied dramatically over the 13 years of this study, with substantial variation across states before, during, and after the Great Recession. Job quality also varied over place and time, as did prevailing wage rates. States differed in cost of living, with stark differences in housing costs across states and over time, which may have affected households' ability to meet food needs. In this article, we report on two economic characteristics:

- the average monthly unemployment rate, and
- the share of the population with a bachelor's degree (to measure the effects of living in a state with higher educational attainment, as distinct from the effect of one's own education level).[18]

Variation in sociodemographic characteristics

We consider several sociodemographic characteristics, including highest level of education in the household, race and ethnicity, disability, citizenship, home ownership, and household structure. We do not consider or control for the role of household income because our focus is on policy, economic, and household characteristics that, collectively, may influence both economic wellbeing and food security.[19] This approach provides a clearer picture of the role of non-income factors, because the estimates encompass effects on income that in turn lead to differences in food security.

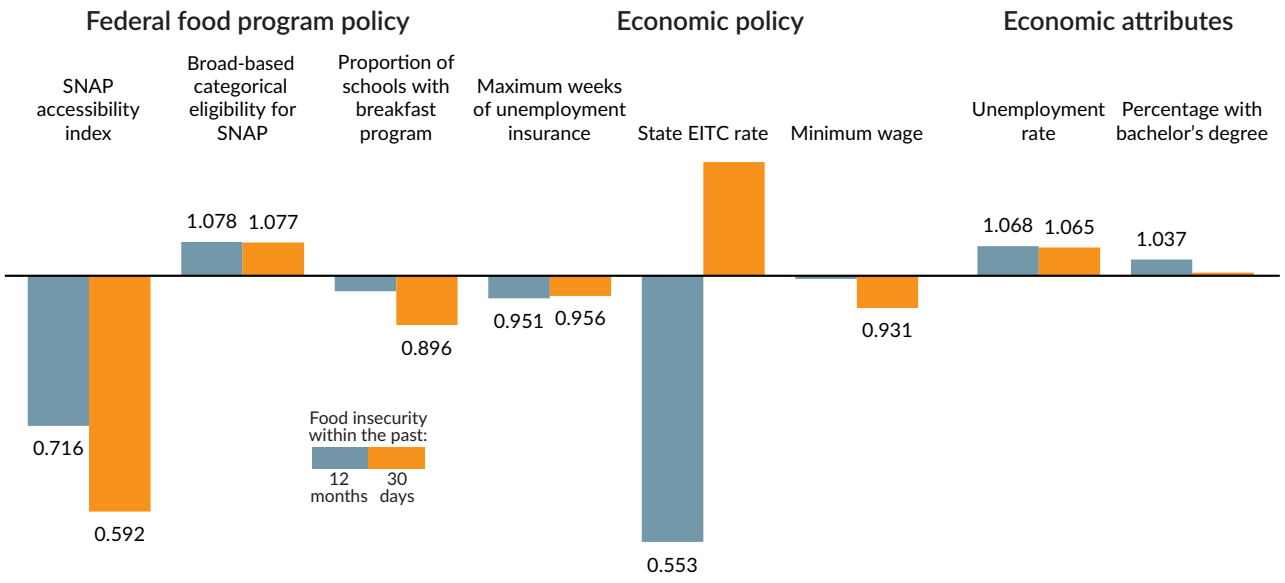
Food security among households with children

For each policy or economic context variable, we calculate odds ratios for food insecurity using both annual and 30-day measures of food security.[20] These odds ratios are based on models that also control for the state, the year, and household characteristics. The odds ratios represent the odds that a household will experience food insecurity given a particular policy or economic status, compared to the odds of experiencing food insecurity in the absence of that policy or economic status.[21]

Full sample

Figure 1 shows selected odds ratios of having low or very low food security using annual and 30-day measures.[22] We hypothesize that more generous food and economic policies would be associated with decreased odds of food insecurity, while higher unemployment rates and a higher share of households with a college degree (perhaps indicating a higher cost of living) would be associated with increased odds of food insecurity.[23] Bars that are above the line indicate increased odds of food insecurity, while bars that are below the line indicate decreased odds of food insecurity. For example, an odds ratio of 1.05 (above the line) would mean that each unit increase in the given variable is associated with a 5 percent increase in the odds of food insecurity, while an odds ratio of 0.95 (below the line) would imply a 5 percent decrease in the odds of food insecurity. Odds ratios are shown only for statistically significant results; thus, bars without a number indicate an association that is not statistically significant.

Figure 1. Some food assistance policies, more weeks of available unemployment insurance, and a higher state EITC rate are associated with decreases in food insecurity, while higher state unemployment rates, a larger share of people with a bachelor's degree, and, counterintuitively, the use of broad-based categorical eligibility for SNAP are associated with increases in food insecurity.



Notes: Figure shows odds ratios, indicating the likelihood of experiencing low or very low food security relative to high or marginal food security with each policy or characteristic, compared to a one-unit change in that policy or characteristic. Odds ratios are shown only where the ratio is statistically significant at p<.05. Schools with a breakfast program is shown as a proportion of those with a lunch program, counted in tens. Maximum weeks of unemployment insurance is counted in tens. State EITC rate represents the state credit as a percentage of the federal EITC credit. The SNAP index indicates the proportion of the five component policies that are in effect (waiving vehicle restrictions on at least one car, approving benefits for more than three months at a time, simplifying reporting requirements for households with earnings, waiving rules banning SNAP receipt among legal immigrant adults who meet all other criteria, and the absence of biometric testing of applicants).

Source: J. Bartfeld and F. Men, "Food Insecurity among Households with Children: The Role of the State Economic and Policy Context," *Social Service Review* 91, No.4 (December 2017): 691–732, Tables 2 and 3.

Federal food program variables

In general, our results show that more generous SNAP policies are correlated with increases in food security. The odds ratio for the composite 5-policy SNAP index implies that implementing all five of the component SNAP policies is associated with a 28.4 percent decline in the odds of annual food insecurity relative to not implementing any of the policies. Evidence that reducing access barriers for income-eligible households is linked to decreases in food insecurity adds to findings from past work that has tied more generous benefit amounts to improvements in food security. Unlike the policies in the SNAP index, the use of broad-based categorical eligibility is, counterintuitively, associated with higher odds of food insecurity. Broad-based categorical eligibility, which encompasses a range of

state-specific increases in gross income or asset limits, expanded rapidly across states during the height of the Great Recession, particularly in states with higher unemployment rates, as evidence of rising food insecurity became a concern.[24] To the extent state economic trends impacted decisions to enact broad-based categorical eligibility, the policy may be correlated with higher pre-existing risk of food insecurity.

We also find evidence that more widely available school breakfast may help offset household food insecurity. The share of schools offering breakfast is statistically significantly associated with lower odds of 30-day food insecurity, but not annual food insecurity. The annual measures of breakfast availability and food insecurity include parts of two school years and thus may include periods of differing school breakfast availability. As a result, the 30-day measure may be better able to capture these effects. In additional analyses, we found that the beneficial association between school breakfast availability and food security was limited to children in households with no more than a high school education, and we know from other research that these are the households in which children are more likely to eat school meals.[25]

All three of the non-food assistance policies that we considered—maximum available weeks of unemployment insurance, state EITC rates, and the minimum wage—are associated with favorable differences in food security.

Economic policy variables

We find evidence that all three of the non-food assistance policies that we considered—maximum available weeks of unemployment insurance, state EITC rates, and the minimum wage—are associated with favorable differences in food security. The maximum number of weeks of available unemployment insurance is significantly associated with a decrease in the odds of food insecurity of 4 to 5 percent for each 10-week increment. This relationship is consistent with prior evidence that income volatility and job loss predict food insecurity.[26] This finding is also consistent with recent evidence that individuals who use up their unemployment benefits experience sharp drops in income and spikes in poverty.[27] Other work has also shown effects of extended unemployment benefits on outcomes beyond employment, income, and poverty. For example, Hsu, Matsa, and Meler found that extended unemployment benefits prevented an estimate 1.4 million housing foreclosures during the Great Recession.[28]

A higher state EITC is associated with reduced odds of food insecurity; the odds ratio implies that a state credit that was equal in size to the federal credit would correspond to a 45 percent reduction in the odds of food insecurity using the annual measure. Among the 27 states that had a credit in place at some point over the analysis period, the size of that credit ranged from 3.5 to 50 percent of the federal credit. Using the monthly rather than the annual measure, there is no statistically significant association. Evidence that the generosity of states' EITC matters for food security adds to existing evidence that the value of a combined set of benefits including EITC reduces the risk of food insecurity.[29] While we could not look directly at the effects of the federal EITC with the current study design, it seems reasonable that the federal credit for households with children would have effects similar to those of the state credit. There is an extensive body of research that finds the EITC to be beneficial in many areas including levels of unsecured debt, test scores, birth weight, and poverty.[30] Research on how households use the EITC may help explain

how it supports food security, since recipients report using their refunds for food, and also deferring other bills in anticipation of receiving refund checks.[31] This suggests that the EITC may help households to spread spending on more urgent consumption needs throughout the year. It is less clear, however, why EITC effects are only evident for the annual and not the 30-day measure.

A $1 increase in the hourly minimum wage is statistically significantly associated with a nearly 7 percent decrease in the odds of food insecurity when using the 30-day measure; we find no statistically significant association using the annual measure. This pattern suggests that higher minimum wages may reduce the frequency of food insecurity, so that it is less likely to be experienced in any particular 30-day period. Because of the midyear timing of some minimum wage increases, the 30-day measure also may be better able to detect the effects of minimum wage changes than the annual measure.

Economic attributes

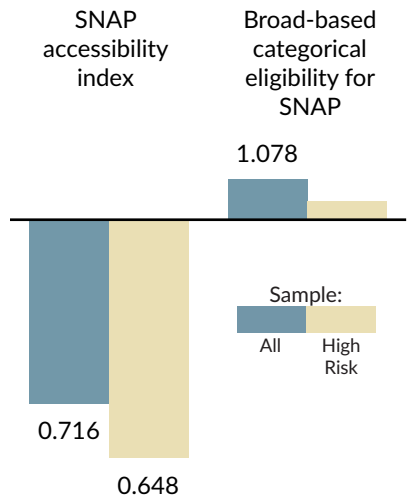
Both a higher unemployment rate and higher educational attainment in a state are associated with higher odds of food insecurity. Each percentage point increase in the unemployment rate is associated with a statistically significant increase in the odds of food insecurity of around 7 percent. Each percentage point increase in the share of people with a bachelor's degree is associated with about 4 percent higher odds of food insecurity using the annual measure; there is no significant association with the 30-day measure. When we look at results by level of educational attainment (results not shown), we find that living in an area with a higher share of people with a bachelor's degree is only associated with increased food insecurity for those who do not, themselves, have any post high school education. It may be that the different cost and opportunity structures in areas characterized by higher education levels put those with less education at a disadvantage.

Our models also indicate that several sociodemographic characteristics are strongly linked to food insecurity (not shown). Food insecurity is much more common among black and Hispanic households as compared to white households; among renters as compared to homeowners; among single-parent households as compared to married parents; and among households with a disabled adult or a non-citizen. It is less common among households with some college, and particularly those with a college degree, as compared to those with high school education or less. These patterns are consistent with past research.

Households at a greater risk of food insecurity

We looked at results separately for an at-risk sample of households—those below 300 percent of the federal poverty line, or roughly half of the full sample. Food insecurity is much more common below this threshold than above it, which may make it easier to detect economic and policy effects. And, because SNAP and the EITC are not relevant for households outside this income range, any true associations with food insecurity should be evident in this subsample. Almost all of the economic and policy variables that were significantly linked to food insecurity in the full sample had a similar association in the at-risk sample; the only difference is in regard to SNAP policies, illustrated in Figure 2. While the SNAP composite index is still strongly associated

Figure 2. The SNAP accessibility index is strongly associated with lower food insecurity for both the full and at-risk sample; however, the counterintuitive positive association of broad-based categorical eligibility with a higher risk of food insecurity is not evident in the at-risk sample.



Notes: Figure shows odds ratios, indicating the likelihood of experiencing low or very low food security relative to high or marginal food security with each policy or characteristic, compared to a one-unit change in that policy or characteristic. Odds ratios are shown only where the ratio is statistically significant at p<.05. The SNAP index indicates the proportion of the five component policies that are in effect (waiving vehicle restrictions on at least one car, approving benefits for more than three months at a time, simplifying reporting requirements for households with earnings, waiving rules banning SNAP receipt among legal immigrant adults who meet all other criteria, and the absence of biometric testing of applicants).

Source: J. Bartfeld and F. Men, "Food Insecurity among Households with Children: The Role of the State Economic and Policy Context," *Social Service Review* 91, No.4 (December 2017): 691–732, Tables 3 and 4.

with lower food insecurity, the counterintuitive positive association of broad-based categorical eligibility with a higher risk of food insecurity is no longer substantively or statistically significant. It appears the association of broad-based categorical eligibility to food insecurity that was seen in the full sample may be spurious, because we expect any true effect should also be evident in this at-risk sample.

Predicted probabilities of food insecurity

To illustrate the importance of economic and policy factors, we predict what annual food insecurity rates would be with and without selected policies, and with different unemployment rates. This helps us to understand how change in each of the dimensions is expected to translate into change in the overall extent of food insecurity, if all other characteristics remain unchanged. We do these simulations for the full sample (all households with children during 2002–2014) and for the at-risk sample (those below 300 percent of the poverty line).

Table 1 shows that the predicted annual food insecurity rate drops for both the full and at-risk samples when we simulate: (1) a one percentage point drop in the unemployment rate; (2) an increase of 10 weeks in maximum unemployment insurance benefit duration; (3) the addition of a state EITC credit; and (4) the implementation of access-enhancing SNAP policies.

A one percentage point drop in the unemployment rate (from 6.2 percent, the average state rate in our sample, to 5.2 percent) reduces the predicted food insecurity rate by about 5 percent in both samples. Increasing the maximum duration of unemployment insurance benefits from 26 weeks to 36 weeks reduces predicted food insecurity by about 2.5 percent in both samples.

To show the potential effect of the state EITC, we simulate food insecurity in the absence of a state credit, and with a credit that is 16.6 percent of the federal credit (the average size among states with a state credit during the time period of our study). In the at-risk sample, for whom the credit is most relevant, the predicted food insecurity rate falls by nearly 9 percent (2.7 percentage points), from 31.0 percent to 28.3 percent.

Finally, we show the potential effect of more accessible SNAP policies by comparing the predicted food insecurity rate when none of the access-enhancing policies are in place (that is, when states do not implement broad-based categorical eligibility or any of the five policies included in the SNAP index) with food insecurity when all of the six policies are implemented. In the at-risk sample, for whom SNAP policies are most relevant, the difference is large, with predicted food insecurity declining by nearly one-quarter, from 36.2 percent to 27.8 percent. These results demonstrate that there is considerable leverage for alleviating food insecurity among at-risk households by reducing barriers to getting and keeping SNAP. Collectively, these results illustrate that there are multiple policy levers for increasing food security, spanning both the food and income safety nets and targeting employed as well as unemployed parents, and that they are particularly germane to the families at greatest risk for food insecurity.

Table 1. The predicted food insecurity rate declines—among all families and among at-risk families—when the unemployment rate is lower, unemployment insurance or EITC policies are more generous, and SNAP is more accessible.

	Unemployment rate		Maximum weeks of unemployment insurance		State EITC rate		Access-enhancing SNAP policies in effect	
	6.2%	5.2%	26	36	0%	16.6%	None	All
Annual food security measure								
Full sample of households with children	17.9%	17.0%	19.7%	19.2%	18.9%	17.6%	20.9%	17.7%
Families at higher risk of food insecurity	29.3	27.9	32.1	31.3	31.0	28.3	36.2	27.8

Note: Families at higher risk of food insecurity are those with incomes below 300 percent of the poverty line. State EITC rate represents the state credit as a percentage of the federal EITC credit. Access-enhancing SNAP policies include broad-based categorical eligibility, waiving vehicle restrictions on at least one car, approving benefits for more than three months at a time, simplifying reporting requirements for households with earnings, waiving rules banning SNAP receipt among legal immigrant adults who meet all other criteria, and the absence of biometric testing of applicants.
Source: J. Bartfeld and F. Men, "Food Insecurity among Households with Children: The Role of the State Economic and Policy Context," *Social Service Review* 91, No.4 (December 2017): 691–732, Tables 3 and 4.

Policy implications for Covid-19 recovery

While this study precedes the Covid-19 pandemic, our findings shed light on the ways in which the pandemic threatens food security, as well as on the potential to cushion the impact through strengthening existing safety net programs.

Policy choices can help the food and nonfood safety net to better protect against food insecurity during Covid-19 response and recovery.

Our finding that the unemployment rate is a strong predictor of food insecurity is consistent with a robust body of past work, and is particularly relevant in light of the sharp spike in unemployment resulting from the Covid-19 crisis. This is compounded by children's loss of regular access to school meals due to school closures, which in many districts are continuing into the current school year.

In the face of these threats, our research suggests that policy choices can help the food and nonfood safety net to better protect against food insecurity during Covid-19 response and recovery. SNAP is the linchpin of the food security safety net. An important takeaway from our research is that removing non-income eligibility constraints and procedural hurdles can greatly strengthen the capacity of SNAP to reduce food insecurity among vulnerable households. This complements existing research that highlights the benefits to food security stemming from more generous benefit amounts. These findings seem particularly relevant in the Covid-19 context, in which economic fallout from the pandemic has created millions of new potentially SNAP-eligible households. The USDA approved short-term waivers in many states that streamlined the application and certification process during the initial months of the pandemic, although some of these have now ended; and most work requirements normally in effect for adults without dependents are temporarily waived. Continued efforts to minimize barriers to SNAP are critical to maximizing the reach and impact of the program.

Our results also confirm the importance of finding ways to continue feeding children who have lost access to school meals during the pandemic. One of the most significant policy responses to address food insecurity during the pandemic was the authorization of Pandemic EBT, which provided families whose children had lost access to free or reduced price school meals due to school closures with a debit card that could be used to purchase food, with benefits equivalent to the value of the lost school meals. Early research documented a strong beneficial impact on food security; the recently passed Continuing Resolution provides USDA with authority to extend the program, although implementation guidance has not been issued by the USDA at the time of this writing.[32] The USDA also provided waivers that granted states flexibility in administering meal programs during school closures, intended to maximize their potential reach. The USDA recently extended many of these waivers. Pandemic EBT and other flexibility-granting school meal waivers are important tools in the arsenal available to policymakers to minimize the fallout from lost meals during the pandemic.

The beneficial effect of extended unemployment insurance is particularly relevant to Covid-19 response and recovery efforts. The CARES Act provided federally funded extensions to the standard state unemployment insurance benefits, and also made unemployment insurance available to many people who lost their jobs for pandemic-related reasons but who do not qualify for unemployment under normal state rules. Our findings suggest that these policies are particularly valuable strategies for countering food insecurity. Indeed, early research during the pandemic confirms a link between receipt of unemployment insurance and declines in food hardships.[33] However, these benefits are only available through the end of 2020, unless extended by new legislation.[34] Extending the potential duration of unemployment insurance and ensuring that it remains broadly available to those whose work has been

impacted by the pandemic are important ways that policymakers could better leverage the capacity of the program to strengthen food security.

Our work also highlights the potential food security benefits of policies that increase incomes among employed households, including the EITC and higher minimum wages. Low-wage workers are most likely to be considered essential workers during the pandemic, and to lack safer work-at-home options. At the same time, job opportunities remain tenuous and low-wage jobs continue to lack robust sick leave protections. Maximizing earnings for those able to work, both through adequate wages and EITC-like supplements, is another critical piece of the food security safety net.

Finally, our study confirmed that there are substantial inequities in food security across different types of households that precede the pandemic. These patterns are particularly striking in the current context, because the households already most at risk for food insecurity are the same kinds of households that are most vulnerable to economic and health impacts from the pandemic. Black and Hispanic households are disproportionately impacted by both job loss and Covid-19, thus enhancing existing disparities. Renters are particularly vulnerable during the pandemic as they risk eviction, especially now that many temporary eviction moratoriums have ended or will be ending soon; when resources are insufficient, many may prioritize rent over food. Some people with work disabilities may be exceptionally susceptible to Covid-19 complications, and single parents may face extra challenges in maintaining employment in the face of school closures. In short, pre-existing disparities in food insecurity risk are likely to be heightened in the Covid-19 context. Strategies such as minimizing barriers to SNAP, providing alternatives to school-based meals, extending unemployment insurance protections, and supplementing earnings among low-wage workers can play an important role in tackling these disparities.■

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Sources & Methods

Type of analysis: Generalized ordinal logistic regression

Data source: The Current Population Survey's Food Security Supplements

Type of data: Survey

Unit of analysis: Households

Sample definition: Households with minor children

Time frame: 2002 through 2014

Limitations: Only a limited subset of policy and economic influences on food security are considered; there are potentially many more. The inclusion of two-way fixed effects to capture unmeasured state and time variation helps to control for unmeasured differences across place and time, but does not rule out policy influences that are correlated with those included here. While broad controls for economic climate are included, not controlling thoroughly for state-specific economic trends that may influence policy choices may underestimate potential benefits. There may also be interactions among the included policy and economic variables, which the models make no attempt to capture.

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[18]The full paper also includes two additional measures of economic context: median annual earnings, and the 25th rent percentile (to identify prevailing housing costs for economically vulnerable households).

[19]Our models also include state and year fixed effects.

[20]In our study, we report results separately for the three levels of food insecurity; marginal food security, low food security, and very low insecurity.

[21]The odds of food insecurity refers to the likelihood of food insecurity divided by the likelihood of food security; the odds ratios are comparisons of the odds under different economic or policy contexts.

[22]Because the current 30-day scale has only been included in the Current Population Survey's Food Security Supplements since 2005, we limit our analyses with that measure to the period of 2005 through 2014.

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