

Food Insecurity on College and University Campuses: A Context and Rationale for Solutions

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FOOD INSECURITY, EVEN FOR SHORT TIME PERIODS, IS associated with detrimental physiological and psychological impacts on college students. Compared with students who are food secure, students who are food insecure have been associated with having poor dietary quality, poor physical activity habits, and greater odds for obesity.¹⁻⁴ Food insecurity in college students has also been associated with poor mental health, depression, anxiety, and stress.⁵⁻⁸ Students who are food insecure may have difficulty concentrating in class and, as a result, have a lower grade point average and overall poorer academic performance.^{5,7,9,10}

The college experience is enhanced for all in a healthy food environment when students can focus on academics without embarrassment, social stigma, or drawing on resources of friends when they run out of money for food. Efforts to eliminate food insecurity on college campuses are worth pursuing through collective action by college administrators, credentialed nutrition and dietetics practitioners, and policy makers. Institutions of higher education will more successfully foster excellence and achievement when all students have access to the food they need. However, efforts have been stymied by challenges describing the prevalence of food insecurity, differing college student experiences and backgrounds, and several solutions attempting to ameliorate the problem with limited sustained effectiveness.

The purpose of this commentary was to explore and contextualize the problem and solutions to food insecurity on college campuses, including gaps in understanding the magnitude, severity, and persistence, and how current efforts have been insufficient to meaningfully address food insecurity among college students. Thoughts on how

federal assistance programs can be better leveraged and recommendations for a targeted focus of future efforts and research to improve campus food insecurity are also offered.

DIFFICULTY DEFINING THE PROBLEM

Food insecurity in college students can be evaluated in several ways, including magnitude or prevalence, severity, and persistence.¹¹ Comparisons with other groups may also help to contextualize the problem. The prevalence of food insecurity among college students has been reported previously in several reviews of the literature, with estimates ranging from 10% to 75% and average prevalence rates of 33% to 51%.¹²⁻¹⁴ The extraordinarily high rates of food insecurity among college students that have been reported in some of these studies are disconnected to estimates within a larger scope of food insecurity among at-risk subpopulations within the United States with a known high risk of food insecurity and for whom other measures of poverty and manifestations of disparities coalesce, such as American Indians and people with disabilities.¹⁵⁻²⁰ These variations in food insecurity prevalence are likely due to the small, nonrepresentative nature of many college student samples.¹²⁻¹⁴ Few studies¹² have used random or representative sampling strategies due to the burden of data collection with large college student populations. Nonresponse is another pervasive problem, at <15% in most studies¹²⁻¹⁴; it is unclear whether students who are food insecure respond to surveys more or less frequently than their peers who are food secure.²¹

In addition, the questionnaires used to determine prevalence of food insecurity vary widely from study to study, putting their respective prevalence estimates on unequal scales.^{4,22,23} One of the most frequently used measures is the US Department of Agriculture Adult Food Security Survey Module, which is also included as part of the US Census survey used to provide national-level estimates. Research suggests that this survey may not perform well in college populations due to documented issues with the ability of the survey to accurately capture financial food resources and experiences that are unique to college students.^{11,21,24} Most college students are single and newly independent of their guardians' or caregivers' households. Yet, financial independence may vary widely among students,²⁵ challenging the line of query to classify food security using the Food Security Survey Module. Respondents are asked about having enough food in the

context of resources, but may find it difficult to answer questions about the resources they have or that they may or may not have access to through their families. Furthermore, their access or lack of access to the resources of their families may be unique to the college experience and not linked with future need or food insecurity. Despite this, using the Food Security Survey Module may still be the most appropriate measure of food security status, as it entails the benefit of comparability with national rates of food insecurity among the general and similarly aged population. For example, Gundersen¹⁶ found food insecurity rates among 18- to 30-year-old noncollege students were almost double those of similarly aged college students. These findings highlight that although food insecurity is a problem among college students, more widespread food insecurity may exist among the noncollege population for this age group. As such, these other groups should not be neglected when considering policies for people in this age group.

Data on severity is often less available compared with prevalence. The prevalence of college students with very low food security, the level of most restriction where the amount of food is not adequate, ranges from 5% to 59%, but not all studies provide this breakdown to food security level or range.^{13,14} These high rates are unlikely to represent a general group of college students. In addition, information on the persistence of food insecurity among college students and the link of food insecurity to future food insecurity and outcomes is even less available. As mentioned previously, college students are faced with independence with varying degrees of resource support from their families. Students from families with less access to resources may have a higher likelihood of lifelong consequences when faced with food insecurity during college compared with those with more family resources.²⁵ The opportunity for advancement through education continues to be challenging for those from low-resource backgrounds.

The uncertain prevalence, severity, and persistence, and lack of longitudinal trends of food insecurity among college students have made addressing this problem difficult.¹¹ The National Center for Education Statistics plans to gather surveillance data on college food insecurity in the coming years, and this may help provide a national statistic to clarify the true magnitude and severity of the problem, although it neglects examining the more vulnerable group of noncollege students of similar ages.²⁶ National tracking of college food security will inform plans for interventions through programs or policies, but studies on the link between persistence of food insecurity and longitudinal impacts are needed. Until a comprehensive assessment of college food insecurity and its links to future outcomes is conducted, inferences on the prevalence of college food insecurity should be drawn carefully, given the limitations.

A CHANGING COLLEGE STUDENT DEMOGRAPHIC EXPERIENCES EXISTING ASSUMPTIONS WITH FEWER RESOURCES

Access to higher education in the younger adult years sets the stage for greater earning potential over a lifetime and a decreased risk of poverty.²⁷ Despite rising college tuition²⁸ and need-based financial aid with dwindling

purchasing power (eg, Pell grants),²⁹ there are more than 16 million undergraduate college students in the United States.³⁰ In recent years, the college student population has become increasingly diverse, with growing numbers of nontraditional, low-income, and first-generation students.^{31,32} There have also been significant racial and ethnic demographic shifts in the census of students. Students who identify with a race or ethnicity other than White are currently estimated to make up nearly 45% of all enrolled students, an increase of more than 15% in the past 20 years.³³ Unfortunately, students who identify as Black, Hispanic, or Latino; older students; students who are caregivers; lower-income and financially independent students; and first-generation students, who account for a greater share in the total percentage of college students, are all disproportionately at greater odds of being food insecure.^{13,34-38} These highlighted groups are consistent with at-risk groups within the general population.³⁹ As these groups may be disproportionately impacted, campuses serving large groups of minority students (eg, minority-serving institutions and Historically Black Colleges and Universities), historically underrepresented students, or students from untraditional backgrounds may need to allocate additional resources toward food insecurity mitigation efforts.

Students may not prioritize health over expense when making dietary selections, as many may have a general lack of awareness of nutrition, the importance of nutrition for current and future health, and available food resources on campus.^{40,41} Some students may come from disadvantaged backgrounds and may be more familiar with bouts of food insecurity.³⁷ Based on their lived experiences, some students may have knowledge of how to locate, access, and navigate food assistance programs. However, students who are newly food insecure may be unfamiliar and unaware of the aid available and how to enroll in these programs. Some college and universities have hired dedicated staff or assigned existing staff to lead campus initiatives; aid students in finding assistance; or streamline, centralize, or coordinate delivery of on-campus services.⁴² Yet, even when students are aware of available resources, additional barriers, such as restrictive policies or requirements, unstaffed programs, or inability to access programs due to inconvenient hours of operation, may prevent use.^{43,44} Other students may struggle to accept food assistance or use various campus- or community-based programs because they want to avoid being stigmatized.^{43,45}

A MIXED BAG OF SOLUTIONS WITH VARYING EFFECTIVENESS

A variety of innovative campus solutions have emerged to address the needs of college students. Among the most common solutions are on-campus food pantries for their ease in starting, inexpensive nature, and high visibility.⁴³ Although, pantries vary in scope and size from campus to campus, universities with limited resources can partner with local food banks that are able to provide greater purchasing power and processes for food distribution.⁴⁶ Despite their widespread use, there is limited research on their reach and efficacy in reducing food insecurity.⁴⁷

Another solution is nutrition interventions or education focused on food literacy.⁴⁸ A qualitative study of students in the University of California system found that students desire practical food literacy skills training.⁴⁹ Similarly, students who are food insecure have reported having fewer skills related to food procurement and preparation compared with their counterparts who are food secure, which may be addressed through education.⁵⁰⁻⁵² There is some mixed research to suggest that a college course using a teaching kitchen to teach basic nutrition concepts and cooking skills enhances food security considerably.^{53,54} However, in a study by Moore and colleagues,⁵⁵ low food security was still prevalent among college students, despite high nutrition literacy. There is a need for further evaluation to determine the effect of a nutrition and food literacy program on different subgroups. Other solutions include meal sharing or voucher programs, cash assistance for emergency expenses, food scholarships, or campus garden programs.^{42,56,57} All of these campus responses to the hunger crisis can be good interim solutions to increase access to food for students. But many of these initiatives, especially in isolation, are not a fully effective and efficacious solution for food insecurity among the college population.⁵⁸

Beyond campus resources, students may be eligible for food assistance programs. The largest component of the social safety net against food insecurity in the United States is the Supplemental Nutrition Assistance Program (SNAP).⁵⁹ SNAP recipients are up to 30% less likely to be food insecure than people who are eligible but do not receive these benefits.⁶⁰ However, despite the size and success of SNAP, there has been a long-standing SNAP eligibility restriction for full-time college students, known as the “college SNAP rule,” which requires that postsecondary students enrolled at least half-time meet all of the standard SNAP eligibility rules, as well as meeting one of several additional qualifications.⁶¹ This policy was created under the assumption that most students are supported financially by their parents, enter college directly from high school, and have no income or dependents.⁶² However, as we described, modern-day college students enter college with a variety of untraditional backgrounds and have vastly different levels of financial support or income. Decreased reliance on parental financial support is especially common for first-generation students and students of color.⁶³

There are limited exceptions to eligibility requirements for SNAP and those students who are eligible face significant challenges and barriers to getting this much-needed assistance.⁶⁴ A Government Accountability Office report estimated nearly 2 million students would have met the eligibility criteria to receive SNAP benefits but did not participate in the program.⁶⁴ Navigating the daunting and confusing application process often deters students from applying.^{56,65} State SNAP agencies and college officials have recommended that the US Department of Agriculture Food and Nutrition Service should provide more accessible and easier to understand information regarding college student eligibility requirements for SNAP benefits.⁶⁴ Once students are enrolled to receive SNAP benefits, they may be subject to stringent work requirements or may only be eligible for 3 months of benefits out of every 36 months.⁶⁶ Removing the work requirement from SNAP and streamlining its application process could

make it easier for students to have money available to purchase foods.

NEW EFFORTS FOR LARGER-SCALE POLICY INTERVENTION

Legislation and policies focused on reducing barriers to participation and stigma, and more generous benefits and eligibility rules, may serve as an effective approach to alleviating food insecurity for college students.⁶⁷ A recent perspective article found that during the 2019-2020 legislative session, 17 bills were introduced that focused on the college food insecurity crisis.⁶⁸ Key mechanisms from these bills were focused on small-scale grant programs or related grant eligibility changes, required food insecurity reporting, cross-agency data sharing to identify students eligible for food assistance, SNAP eligibility information dissemination and outreach, and SNAP eligibility expansion. Although there is growing legislative enthusiasm, all of the bills examined by Laska and colleagues⁶⁸ were in early stages and still in their respective committees. At the end of 2020, in response to the COVID-19 pandemic, the Consolidated Appropriations Act⁶⁹ was signed into law and included a provision that temporarily expanded SNAP eligibility to include students enrolled at least half-time at an institution of higher education and who are eligible to participate in work study during the regular school year, without the requirement that they participate. The temporary exemptions will remain in effect until 30 days after the COVID-19 public health emergency is lifted. However, there is hope from advocates that these exemptions are found to be efficacious at alleviating food insecurity and will become a permanent fixture rather than a temporary measure.⁶²

Beyond federal efforts, there are also emerging state legislative initiatives to address food insecurity. A policy analysis by Laska and colleagues⁷⁰ found that a small number of states have introduced and passed legislation focusing on college food insecurity. The authors found 15 unique laws, bills, or resolutions. Unlike the federal level, there have been several bills focused on college food insecurity that have been enacted into law. California leads state policy efforts, having enacted 4 laws to date. By and large most state-level policies have addressed SNAP or have adopted hunger-free campus policies. Colleges are designated as a “hunger-free campus” when they meet requirements including providing a food pantry, a meal donation program, or a dedicated staff to disseminate food assistance information. Although these designation programs have no enforcement mechanisms to ensure that the requirements for designation continue to be met, early evaluation research suggests that these programs can be effective for improving food security status.⁷¹ Similar to the federal level, there is growing state-level legislative attention and enthusiasm; however, 37 states had no relevant legislation.⁷⁰ This leaves a lot of room for improvement and advocacy, as states have the capacity to develop and implement more comprehensive approaches that go beyond federal food assistance programs.

RECOMMENDATIONS FOR PRACTITIONERS AND RESEARCHERS

Although there are conflicting and likely overestimated rates of food insecurity among college students, continued

evaluation of the efficacy of current campus solutions and barriers that students who are food insecure face in accessing local or campus food programs or receiving federal food assistance should remain an area of focus for researchers.⁷² College students on campus live in resource-rich environments to support learning where the institutional reach is pervasive. Addressing food insecurity within this population may entail fewer barriers and support a cost benefit to the success of the respective universities. College represents an opportunity for future income potential that should be fostered, especially among underrepresented groups facing historic economic disparities. Furthermore, food insecurity and educational barriers for those within the larger group of college-aged US adults should be examined and addressed. Programs and policies aiming to address food insecurity among college students should not only evaluate the provision of sufficient calories or quantities of food, but also focus on nutrition education and security and consistent access, availability, and affordability of foods and beverages that promote well-being and prevention of chronic diseases. The following are seen as top needs to address:

1. Standardized national evaluation of food security across all types of college campuses with random sampling allowing for adequate representation of all student populations, especially populations that are often underrepresented in surveys.
2. Rigorous evaluation of current programs, interventions, and policies used by college campuses to improve food security.
3. Federal and state policy changes, especially focused on eligibility requirements for SNAP, to support food security among students, and evaluation of the effects of these changes.

Addressing food insecurity requires a nuanced, integrated, and collaborative approach that leverages a wide range of solutions. Effective solutions will be those that are flexible to accommodate the variety of different types of higher education institutions (eg, community colleges vs 4-year colleges), as well as the unique student populations on each of the campuses (eg, minority-serving institutions and Historically Black Colleges and Universities), and furthermore, the groups for whom college access is still not possible.

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