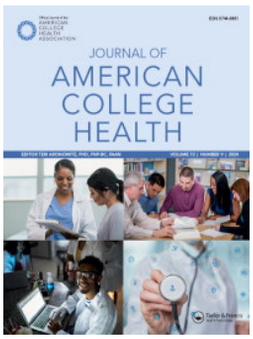

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RESEARCH ARTICLE

Food insecurity among college students: Administrators' perspective

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ABSTRACT

Objective: An estimated 21% to 58.8% of U.S. college student populations experience food insecurity (FI)—that is, limited or uncertain access to adequate food. Ameliorating this FI requires the involvement of college administrations. This study seeks to explore campus administrators' understanding of—and support for—students who experience FI. **Participants**: Thirty administrators at a university on the West Coast participated in semi-structured interviews. **Methods**: All interviews were transcribed verbatim. The transcripts were analyzed using the grounded theory approach. **Results**: Though participants understood the concept of FI, the majority underestimated the scope of the problem and didn't believe it had been treated as a priority. They identified competing resources and concerns, along with other factors like low awareness, as barriers to addressing FI. **Conclusion**: Although administrators were aware of the existence of FI on their campus, this study's results allude to the importance of providing further necessary FI education for administrators.

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Food insecurity; campus administrator; qualitative; grounded theory; college students

Introduction

Contrary to the common perception of college students as socioeconomically privileged, emerging evidence suggests that this population experiences food insecurity (FI)—an economic and social condition of limited or uncertain access to adequate food—at an alarming rate.[1–3] Specifically, a systematic review of journal articles focusing on FI among college students reported an average FI prevalence rate of 43.5%, with the rate ranging from 21% to 58.8% depending on the studies.[1] The wide range of FI rates across different studies may stem from differences in study samples, response biases, measurement inconsistences, various reference periods (i.e., past 30 days or 12 months, or semester), survey modalities (i.e., online, paper-and-pencil), and other factors.[2,4,5] With the efforts and advocation from various researchers for a more nationally representative data,[3,6] the 2019-20 National Postsecondary Student Aid Study (NPSAS:20) surveyed students about food insecurity (FI) for its first iteration.[7] Based on the data from NPSAS:20, the Hope Center reported that more than 3.9 million (34.5%) undergraduates experience various levels of food insecurity (22.6% for low or very low FI, and 11.9% for marginal FI).[7] This food insecurity rate among college students is much higher than the rate (12.8%) of the general population reported by the U.S. Department of Agriculture.[8] FI exposes those affected to a host of academic issues (lower GPA, higher drop out rate, etc) and physiological harms (e.g., higher risk for anxiety, depression, obesity, risky behaviors, lack of social connections, etc).[9]

Multiple social, environmental, and individual factors contribute to current rates of FI among college students.[9–11] However, financial instability has been identified as the main driving force. In fact, nearly a third of college students live in poverty—an increase of 21% compared to 20 years ago.[12] Nontraditional students constitute two-thirds of the college student population, referring to those students who juggle multiple responsibilities and face various personal challenges related to economic instability (e.g., being financially independent from parents, having one or more dependents, or enrolling in college part-time due to their need for full-time employment).[13] Additionally, the financial challenges faced by students are tied to the larger economy. Expensive living costs and rising tuition fees constrain students' fundamental life choices.[10] Unlike tuition that students *must* pay, money for food—or a lack thereof—does not necessarily compromise their continuous attendance at college, which can result in such students experiencing FI. In short, with the present influx of college students who are financially unstable, the prevalence of FI on campuses across the country is exacerbated.[7,11]

Clearly, financial stability is inseparable from one's socioeconomic status (SES). At the same time, SES is closely connected to race. As such, students with family financial struggles as well as those who receive financial aid—both of whom constitute a large portion of the student population that experiences FI—are often students with historically marginalized racial identities.[11,14,15] Though people of color overall are more likely to experience food insecurity, there is

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inconsistency in terms of which specific racial group experiences the highest rate of FI. Some studies have reported higher rates among Hispanic students, while others identified Black students as experiencing greater FI.[7,11] Aside from race, researchers have also suggested other FI risk factors, such as type of institution (private vs public), enrollment status (full-time vs. part-time), living arrangements (on-campus vs. off-campus), gender, disability status, being first-generation students, and financial dependence.[7,16,17] Some researchers have further linked FI with students' lack of preparedness for living on their own, citing inadequate budgeting knowledge, limited cooking skills, and a lack of other resources and information.[18–20]

Although multiple factors have been explored in the hope of identifying possible solutions for FI among college students, studies have typically focused on examining factors shaped by the larger system (e.g., SES, financial stability) and factors that are out of students' control (e.g. ethnicity & race).[7,21] However, the localized experiences of students at specific colleges or universities should not be neglected. After all, academic institutions are shaped by administrators; given their high-level responsibility for facilitating smooth daily operations to provide students with the best possible educational experience,[22] administrators are, to a large extent, agents who direct the attention of various college constituents to selected agendas or issues of concern. In fact, Miller et al[23] noted that FI deserves increased attention from institutional administrators, especially those who work at schools with a large number of low-income, first-generation, and nontraditional students.

Depending on their areas of supervision, administrators may or may not work directly with students. Without that direct contact, administrators might not have a full understanding of students' experiences on campus. Some administrators' detachment from students—especially from those who experience food insecurity—may detract from their ability to contribute meaningfully to devising possible solutions to reducing FI occurrences. To the best of our knowledge, there is no published study on FI that examines campus administrators' perspectives. Therefore, the current study was designed to fill that void by exploring school administrators' comprehension of FI among college students.

Methods

Participants

This qualitative study was conducted in 2019 at a public university campus in the Pacific Northwest, with approval from the institution's Institutional Review Board (IRB). All the administrators ($n = 59$) listed in the university's Organizational Structure Chart were invited to participate in the semi-structured interviews. Thirty administrators agreed and completed the interview, representing various roles such as deans of colleges, a provost, vice provosts, a president, and multiple directors across different offices. Participants' employment history at the university ranged from 17 months to 32 years, and the majority of participants were male (male = 19, female = 11).

Data collection & analysis

The participants agreed to be audio-recorded for 30- to 45-minute semi-structured interviews regarding food insecurity on campus (without compensation). They were asked to answer questions like "what does the term food insecurity mean to you", "please describe what you know about student food insecurity on campus", "what do you think of school administrators' awareness of student food insecurity on campus", and etc. The corresponding 30 interviews were transcribed verbatim. Thematic content analysis of the interview data was guided by the grounded theory approach, which permits data reduction of the complexity of participants' accounts by identifying patterns (i.e., themes) that are suitable for descriptive studies.[24] The grounded theory method is appropriate for use in this study exploring the participants' own meanings in understanding and experiencing a lived phenomenon.[25,26]

To analyze the data, the researchers first individually reviewed the transcriptions in their entirety at multiple points in time to familiarize themselves with the participants' responses. They then met to discuss their observations of the data and explore any emerging issues or questions. Next, the researchers coded the participants' responses line by line using the research question—specifically regarding administrators' understanding of student FI on their campus—to guide the inductive identification of main concepts.[24,26] Each researcher independently reexamined each code in every interview and then compared them with other codes from the remaining interviews to create several broader categories (i.e., themes). Finally, after the researchers recalibrated their understanding of mutually agreed-upon codes and themes by comparing their reflective notes taken during their individual data coding, they derived the main themes that characterized participants' understanding of food insecurity on their college campus.

Each researcher's multiple rounds of inductive coding performed at different points in time addressed the issue of intercoder reliability.[27] Moreover, the researchers met to discuss their coding, recalibrated their understanding of the data, and negated their personal assumptions and biases through their comparisons and discussions. Thus, credibility, dependability, and confirmability were sought to establish the trustworthiness of the study.[28,29] For example, the use of researcher triangulation—involving the researchers cross-checking their interpretations of the data—helped to establish credibility by ensuring that the study's findings were drawn definitively from the participants' narratives. The study's confirmability and dependability were enhanced by using direct quotes from the participants to clarify the findings and by including explanations to illustrate the logic of the conclusions drawn. When relevant, the researchers provided thick descriptions detailing the context of the study, facilitating the ability of readers to judge the appropriateness of applying the findings to their own situations and thus allowing for the study's potential transferability.

Results

Below, this paper delves into the main themes that were uncovered in the study indicating the administrators'

awareness and understanding of food insecurity challenges faced by students on their campus. Four main themes were identified with subthemes further elaborating the knowledge and attitudes of participating administrators.

Understanding the concept of food insecurity

The following definition of FI, consistent with the majority of participants, illustrates their understanding of uncertainties faced by students who experience food insecurity as going beyond meeting "caloric needs" (Participant 26)—that is, food insecurity is an issue related to accessibility, or lack thereof, to a sufficient quantity of affordable, nutritious food.[30]

> Food insecurity to me means that students at any given moment are at risk for not having their nutritional needs met in order to do the activity that they're doing. And access can be limited either to an opportunity to get that food, whether physically or an opportunity financially to get that food. (Participant 3)

Aside from "…whether you get enough to eat, whether you have opportunity and means to get enough food," as Participant 27 stated, administrators emphasized a lack of access to the "foods students want." This emphasis suggests the idea that the degree of food insecurity experienced by a student varies according to the student's personal preferences and choices. Thus, the subjective experiences of students, along with varying degrees of accessibility and uncertainty, renders food insecurity "a problem," as Participant 30 characterized. Additionally, a few participants also connected the "problem" with larger systemic issues, such as the food supply chain, as explained by one respondent:

> You go into a grocery store, prepackaged everything is there and yet the insecurity, or whatever [you] call it, the fragility of that is all reliant on food that's possibly grown and processed miles and miles away. So the inability for that student to actually put their hands on the real food creates a dependency on transportation and logistics and money and fuel and all of the things to be able to keep us with food. So insecurity to me is that fragility between the development of the product itself, the availability of that food, and the consumer that needs it. (Participant 19)

Participants perceived that with many students facing an increased disconnection to food systems and distribution networks, those students who experience food insecurity have no choice but to suffer from hunger. Indeed, the word "hunger" dominated the administrators' first reaction to the phrase "food insecurity" during their interviews. This physiological response, however, was seen by many respondents as a result of, but not to be treated the same as, more extreme levels of insecurity. For instance, Participant 9 explained:

> I think that hunger is a part of food insecurity. [long pause] I see them slightly different in that a person can have food insecurity, but not be hungry all the time. They can be wondering how they're going to pay for their food costs, and access food, but not necessarily be hungry in the moment.

Awareness of student food insecurity

While most of the participants articulated their general knowledge and understanding of the definition of food insecurity as an issue in society at large, they showed a limited awareness of it in terms of how it pertained to college students. Participant 30 illustrated this clearly: "No. Your email to me was the first I had kind of heard [of] some of the issues." Even so, most participants did assume that FI existed, at least to some degree, among students. As Participant 3 noted, "I know virtually nothing about what experientially is happening. I [only] know the concept of it."

When asked about the percentage of students who may be experiencing FI on campus, administrators, while able to quote specific numbers, were not able to justify or cite evidence for their responses. Not surprisingly, most participants (27 out of 30 or 90%) underestimated the estimated prevalence of student FI that was reported from the institutional survey at the same university. Similar to other administrators when attempting to estimate the prevalence of FI on campus, Participant 24 said, "I have not seen any statistics, so, I don't – so, this is truly a wild guess." Interviewees were able to illuminate a variety of reasons driving the lack of knowledge of the issue on campus, with the most common one being the often invisible nature of FI.

Invisibility of student food insecurity

The frequent invisibility of food insecurity informed the administrators' assumption of FI as a hidden issue on campus; as Participant 11 explained, "Food insecurity we're aware of, but I think it's kind of – it's almost hidden, you know, it's not obvious, it's not in our faces." For many participants, this invisibility was tied to their limited engagement with students in their daily professional lives. As Participant 18 summarized, "My direct contact [with students] on an ongoing basis is really low." Administrators' understanding of student demographics, as well as their observations of students' lifestyles, was also a driver of their perceptions of a lack of FI among students. Participant 25 noted, "I'm making assumptions about students who are at the university and the funding that pays for their tuition. So if they have that, then the vast majority would not be in those situations of food insecurity." In addition, Participant 29 elucidated:

> You see students walking around with Starbucks coffee cups and eating Kind bars and they're not eating the – I don't know what I would think of as typically really cheap food, right? They're not just walking around with packs of ramen. I just don't know what, like a bulk apple juice or something. You just don't see that at all on campus if you're walking around.

Participant 16 noted that they felt the low awareness of FI was universal among administrators and staff at the university:

> I would also wager to guess that if I were to ask five colleagues walking down the hall right now, they would probably all be in the same boat as me. And just, I have not been – it comes down to a lot. Personally, I just have not seen – I haven't heard much talk about it.

Additionally, many respondents noted that the stigma surrounding food insecurity likely drove students to hide their struggles with food insecurity, which in turn fed into

its invisibility. Participant 31 stated, "Students—many students, I should say—are very reluctant to go public about it or to seek help in an open way that they are struggling with food insecurity." Some administrators even mentioned that the culture on campus perpetuated this stigma. Participant 24 recognized that issue: "I would say that the campus culture is – we still stigmatize it. We still, I think, probably, while there's goodwill, we also don't like to look at it."

Because of FI's typical invisibility, the vast majority of the participants did not believe it had been a priority for the university administrators to focus on, as Participant 22 shared: "I would say it hasn't been. Because I didn't even know that – yeah. I wouldn't say that it was – it would be set as a priority. It's not in any of the documents."

Drivers of food insecurity

Socioeconomic & demographic status

The socioeconomic status of incoming students was a primary concern for most participants in their discussion about students who experience food insecurity. Some delved into the connection between lower socioeconomic status and greater risk of food insecurity.

> But higher education is expensive, and especially first-generation students, students of color, students who come from poor families – not all students of color obviously come from poor families. There's a spectrum there. But overall, our students of color on average have lower family incomes, and available options, and assets. They're disproportionately hit by hunger. (Participant 9)

Participants consistently mentioned first-generation students or students whose parents did not complete a four-year college degree as the main factors contributing to FI. Racial variables were also discussed as correlating to a higher risk of food insecurity. Participant 24 noted that they believed that "white students have less or have less food insecurity than African-American [pause] Black students, Native American, Latino, Hispanic, also have…higher food insecurity."

In addition, some participants linked BIPOC, Black, Indigenous and Other People of Color, status to a lack of support networks, which eventually restricted their access to resources—such as food. Participant 24 noted, "When I say networks, I also mean – also would say cultural networks, so if a student is – does not have the – [pause] – I know that particularly students of color, if they don't feel like – if they don't have the connections with other students of color, they feel more isolated." This isolation may make BIPOC students even more reticent to come forward and seek help when facing food insecurity. Participant 21 echoed this concern:

> Could be that as a first-generation student or a student of color in a predominantly white community…or as a trans-identified student…who may be reluctant to know if there are social services that are going to be available for them here. I think those can be perceived barriers as well. They may be actual barriers…where they're not sure that they're going to be – that their identity is going to be understood by the support – by the social service support providers.

Lack of skills

Many participants expressed concerns regarding students' lack of knowledge about basic life skills and suggested that the dearth of such knowledge was a contributing factor in those students experiencing food insecurity:

> There sometimes is a lack of understanding about how to budget. How to understand how to – even cook. And work with food in some way. I think there's a transition point for a lot of students of not always knowing how to care for themselves around [food]. You know, how to shop, how to cook, how to think about that a little differently. That's a basic life skill. That sometimes isn't there. (Participant 18)

> I always go back to economic factors, you know? And so, I mean, that's the – you know, another one is education, too, an education piece. I know some students just, first-year students, come in away from home living by themselves – sometimes [they] don't know how to manage it well. Manage money, manage groceries, manage how to prepare food, how to manage food, how to make food last longer, how to stretch your dollar when it comes to spending on food or how to prepare [it]. (Participant 15)

> Well, like if you know how to cook beans and rice, you can live on a reasonable food budget. But a lot of people no longer have that expertise, and so, you know, buy meals that – and then if they used their fund, if they used the money they have for food on preparing foods, they would have – they might be able to make it through the month. But the student culture is to buy food that's prepared, then it doesn't go as far. (Participant 4)

Participant 13 went further and emphasized the importance of financial skills: "It's all about money. I mean, everything about this is having enough money to get your college degree. But everybody can if they figure it out. They don't have to graduate in four years. It could take six, seven years, that's okay." Interestingly, these responses came from many of the same administrators who pointed out that socioeconomic factors were a demographic driver of food insecurity.

Barriers to addressing student food insecurity

When the participants were asked about barriers for university administrators to address student FI, almost all of them pointed to resource issues. In many cases, the lack of resources discussed by participants extended beyond the monetary to include a wide range of barriers.

> Well, so resources can include money, right, but also personnel and time and knowledge of the scope of the problem and understanding of the best practices and, you know, sort of the research-based models. And I think all of those are barriers and they're all sort of resource barriers. But it's not just that we don't have enough money, it's that we – right now, the way we're structured, this issue becomes an addition to existing responsibilities. So it's a thing that we add on to lots of different peoples' jobs, and sometimes those plates are really full already. So it's the – another barrier is the capacity to implement a systemic response and to move that through the institution in a way that everybody understands what their role in that process is. And that's time and thinking and buy-in and commitment and money and – so those are all, I think, barriers, and some attitudinal barriers too, maybe. I mean I don't – I would wish that that wasn't true, but there may be people who don't think that this is as much of a problem as I know it to be. There may be people who feel that that's the responsibility of the individual person and not the institution to address that. (Participant 6)

As Participant 24 stated, "The challenge is resources. It always comes down to resources. Where do you – where do you find resources to support this?" The other recurrent theme regarding barriers centered around competing priorities, as described by Participant 23:

> I think it's the classic problem of a million competing priorities. Cause one person's gonna come to you and say this is the most important issue. The next person's gonna come to you and say this is the most important issue. The next person, you know. So pretty soon you have a line of people who [claim] their issue, it's the most important issue.

In addition, participants acknowledged the common lack of awareness of food insecurity as an obvious barrier to addressing it. Participant 21 explained:

> I honestly think on this particular issue it's a matter of, you know, maybe people don't recognize that it is more widespread than it is, people think that maybe it's an isolated half a dozen folks who are hungry or whatnot… I think one of the key barriers really is a lack of awareness of how big the issue is.

Administrators also recognized multiple operational challenges that could be seen as barriers to addressing student food insecurity. One such challenge was finding physical space for FI-related assistance programs; as Participant 28 shared, "Certainly infrastructure is an issue. So, what would be the infrastructure impacts of a program like this on campus where space is such an issue, right?" Another barrier was identified by Participant 16: "How do you know who gets help and [who doesn't]?" Participant 29 addressed the challenge of defining "success" as related to addressing student FI:

> What does success look like? Say we have food: mac and cheese. So if I was food insecure and I went to the, say, the food pantry and I wanted mac and cheese…is it there? Is it not there? If it's not there, does that mean we failed or is it like – no. There's healthier options and I need to use that… So measuring what does success look like…from the efficacy side, where it's let's make this change happen.

Participants touched on the barriers caused by decentralization and a lack of coordinated efforts, like Participant 8: "I do worry sometimes that the university likes to decentralize so much. So we often end up with lots of pop-up initiatives that are similar to each other, but not well coordinated."

Finally, discussions about student FI also seemed to spark a philosophical debate over whether a higher-education institution has a moral responsibility to address the issue—or not:

> I think there is tension and dilemma with administration and with faculty that asks a question, and has a hard time answering [it]: "What are my obligations to this student beyond giving them the education that they paid for, which is our mission, and which me – not me personally, but me as a faculty member/administrator, is capable of doing?" I think there is some real tension, in where does the role start and stop for education that flows into nurturing, that flows into social welfare, that flows into counseling, that flows into mental health, and all this kind of thing. I think that is a real tension, not just at our university, but [at] every university. (Participant 30)

Discussion

The first study about food insecurity among college students, which was published in 2009, exposed the issue with the hope of it receiving greater attention.[31] However, some researchers pointed out that the overall level of awareness remained low: "Notably, this crisis profoundly impacts college students, a population whose food insecurity issues are largely under-recognized, under-examined, and under-addressed."[32] The current study, unfortunately, supported that statement. Specifically, out of 30 participants, 27 underestimated the previously reported FI prevalence rate on their campus. While administrators may not be expected to know national trends of FI, it is noteworthy that they did not know their own University's reported data. In addition, a couple of the participants heard about FI among college students for the first time because of this study. Considering their job as campus administrators, their low awareness of student FI seems in urgent need of addressing, as they are the people who set policy, determine budget, and serve students. Efforts like the Student Basic Needs Survey, a state wide initiation organized by Washington Student Achievement Council, are essential; the results can help school administrators and other policymakers to appreciate the scale of the problem.

A statewide or nationwide assessment of food insecurity (FI) among college students could offer comparable FI rates across different universities by mitigating certain measurement issues, such as variations in instruments and survey modalities. However, concerns about the validity of FI measurement persist, as highlighted by some researchers [33,34] Specifically, researchers questioned the psychometric performance of the widely used USDA Food Security Survey Module (FSSM) survey among college students as they may interpret and respond to FSSM items differently than the general population.[33,34] In recognition of these validity issues associated with the FSSM, some researchers have attempted to address them by introducing a preamble to enhance measurement accuracy, although initial results have not been promising.[35] The urgency of addressing concerns about FI measurement accuracy is heightened, as hesitation to address FI among students could potentially result from these issues.[33]

In addition to the challenges associated with FI measurement, it's crucial to remember that awareness alone might not trigger change. As some researchers pointed out, competing interests and priorities can cause complications.[36] Additionally, the simple fact of these food-insecure individuals being college students presents its own problem: people tend to view attending college as a privilege, which makes those students' needs less compelling compared to other vulnerable groups' needs or politically charged issues.

Although the administrators lacked an understanding of the rates and experiences of food insecurity among college students, they were able to list the major contributing factors related to FI—including socioeconomic status, living arrangements (on or off campus), invisibility, and racial identity—which were in line with the literature.[16,37] In addition, some participants linked students' lack of competency in

managing basic life skills like budgeting, finding resources, and cooking with their experience with FI. Even though such an association is in line with some studies as well as educational proposals (i.e., teaching students how to budget money, locate resources, and cook inexpensive meals) suggested by students in another study, it should be taken with caution.[18–20] One study reported the low percentage of food-insecure students who utilize available supports, such as SNAP or on-campus food pantries.[37] However, the study didn't confirm or approve an association between those students and their ability to locate and utilize existing resources. Another study reported the challenges associated with cooking on campus, such as a lack of transportation, time, and availability of grocery stores.[38] Last, some researchers have noted that more people are transitioning into adulthood lacking sufficient daily life skills such as those mentioned above.[39,40] This may explain why college students expressed a desire for practical training in areas like finances and food preparation.[15,39] With all the evidence presented, it is reasonable to hypothesize that many college students lack these daily life skills to some extent. Given that presumption, it's also safe to assume that vulnerable students—who are less likely to have had the same access as privileged students to life skill resources, support, and education—are more likely to become the victims of food insecurity. For future research, it may be worth a closer examination into the association between students' basic life skills and their experiences of FI. More specifically, it might be interesting to explore the differences between students who experience FI and those who don't to see if a lack of basic life skills is universal among college students.

The suggestion that the responsibility for experiencing FI lies with students—implied by some of the study's participants—may be viewed as victim blaming, which can put administrators in a disadvantageous position, as students may view them as opponents instead of advocates or supporters. In addition, shifting the focus from addressing the overarching issue of food insecurity to merely changing student behavior can unwittingly reinforce the stigma that students experiencing FI face.[21] This increased perception of stigma can serve as another barrier, as mentioned previously, that students face when attempting to access support services.

It is not surprising that participants cited competing resources and priorities as one of the most significant barriers to addressing food insecurity among students. As researchers have reported, continuing cuts in state funding since the Great Recession of 2008 have led to the vulnerable financial status of regional public universities.[41] With additional challenges associated with the Covid-19 pandemic—including reduced revenue from housing and dining and changing demographics in the U.S.—universities are facing even more economic strain.[41,42] To withstand such financial challenges, some researchers recommend that universities with decreasing public funding add the economic mission of raising and diversifying funds to their universities' core missions.[43] In addition, many researchers have looked into ways of operating universities that are more financially efficient in terms of management.[44] These strategies may provide a direction for solving the resource issue; however, they also lead to a philosophical discussion about higher-learning institutions' responsibilities and roles within society, just as some participants noted in their interviews. Clearly, there is no perfect answer to resolve the issue of competing—and depleting—resources. It is important to remember that each university is unique and needs to find its own approach to fulfilling its role as a social institution while operating with a business mindset.

Operational challenges mentioned by the participants—such as defining what situations constitute FI among students and identifying aid program recipients—are legitimate, as other researchers have reported similar issues.[36,37] That said, many organizations and universities are working together to explore different strategies to end student food insecurity. For example, The Hope Center for College, Community, and Justice at Temple University has been leading efforts to provide applied scientific research, technical assistance, and educational training services to colleges and universities to alleviate student FI.[45] Through its coordinated efforts, 85 organizations released a public letter to the federal government in 2022 asking for bold actions to eliminate systemic barriers to food security among college students.[46] Some of the actions are focused on obtaining direct financial support for students, some are centered around expanding SNAP and simplifying its application process, and others pertain to using FAFSA data sharing to identify eligible students. Optimistically, this letter coincided with the release of the National Strategy on Hunger, Nutrition, and Health from the Biden-Harris Administration, which set a goal of ending hunger in America by 2030.[47] This heightened attention and affirmed commitment is a promising indicator of a more supportive environment for higher-education administrators to both identify and redress food insecurity among college students.

While the findings of this study offer valuable insights into food insecurity (FI) among college students, several limitations warrant consideration. First, the researchers' experience, knowledge, value and beliefs may bring subjectivity into the interpretation of the data. To address this issue, the researchers adopted the practice of having 3 coders and conducting multiple rounds of codes and themes cross-checking, comparison, and group discussions during the data analysis process. Moreover, the fact that only about half of the administrators from this institution agreed to participate introduces potential self-selection bias. Third, the presence of the researcher during interviews could influence participants' responses, potentially leading to social desirability bias in their answers. To minimize such effects, researchers assured participants of the confidentiality of their identity and emphasized the absence of right or wrong answers.

Ethical approval statement

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Western Washington University's Institutional Review Board (Project identification # EX19-061).

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of the United States of America and received approval from the Institutional Review Board of Western Washington University.

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References

1. Nazmi A, Martinez S, Byrd A, et al. A systematic review of food insecurity among US students in higher education. *J Hunger Environ Nutr.* 2019;14(5):725–740. doi:10.1080/19320248.2018.1484316.
2. Nikolaus CJ, An R, Ellison B, Nickols-Richardson SM. Food insecurity among college students in the United States: a scoping review. *Adv Nutr*. 2019;11(2):327–348. Published online October 23, nmz111. doi:10.1093/advances/nmz111.
3. Wolfson JA, Insolera N, Laska MN, Leung CW. High prevalence of food insecurity and related disparities among US college and university students from 2015–2019. *J Nutr Educ Behav*. 2024;56(1):27–34. doi:10.1016/j.jneb.2023.10.013.
4. Venable V, Edwards M, Jackson JA. Survey recruitment bias and estimates of college student food insecurity. *J Hunger Environ Nutr.* Published online November 13, 2023:1–14. doi:10.1080/19320248.2023.2276689.
5. Nikolaus CJ, Ellison B, Nickols-Richardson SM. Food insecurity among college students differs by questionnaire modality: an exploratory study. *Am J Health Behav*. 2020;44(1):82–89. doi:10.5993/AJHB.44.1.9.
6. Gundersen C, Hake M, Dewey A, Engelhard E. Food insecurity during COVID -19. *Appl Econ Perspect Policy*. 2021;43(1):153–161. doi:10.1002/aepp.13100.
7. New Federal Data Confirm that College Students Face Significant—and Unacceptable—Basic Needs Insecurity. The Hope Center. https://hope.temple.edu/npsas. Accessed March 25, 2024.
8. USDA ERS - Key Statistics & Graphics. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/. Accessed March 25, 2024.
9. Loofbourrow BM, Scherr RE. Food insecurity in higher education: A contemporary review of impacts and explorations of solutions. *Int J Environ Res Public Health*. 2023;20(10):5884. doi:10.3390/ijerph20105884.
10. Freudenberg N, Goldrick-Rab S, Poppendieck J. College students and SNAP: the new face of food insecurity in the United States. *Am J Public Health*. 2019;109(12):1652–1658. doi:10.2105/AJPH.2019.305332.
11. Martinez SM, Webb K, Frongillo EA, Ritchie LD. Food insecurity in California's public university system: What are the risk factors? *J Hunger Environ Nutr.* 2018;13(1):1–18. doi:10.1080/19320248.2017.1374901.
12. Fry R, Cilluffo A. A rising share of undergraduates are from poor families, especially at less selective colleges. *Pew Research Center's Social & Demographic Trends Project*. Published May 22, 2019. https://www.pewresearch.org/social-trends/2019/05/22/a-rising-share-of-undergraduates-are-from-poor-families-especially-at-less-selective-colleges/. Accessed November 17, 2022.
13. US Government Accountability Office. Food insecurity: better information could help eligible college students access federal food assistance benefits. https://www.gao.gov/assets/700/696254.pdf. Accessed August 19, 2019.
14. El Zein A, Shelnutt KP, Colby S, et al. Prevalence and correlates of food insecurity among U.S. college students: a multi-institutional study. *BMC Public Health*. 2019;19(1):660. doi:10.1186/s12889-019-6943-6.
15. Adamovic E, Newton P, House V. Food insecurity on a college campus: Prevalence, determinants, and solutions. *J Am Coll Health*. 2020;70(1):58–64. doi:10.1080/07448481.2020.1725019.
16. Riddle ES, Niles MT, Nickerson A. Prevalence and factors associated with food insecurity across an entire campus population. Dalby AR, ed. *PLoS One*. 2020;15(8):e0237637. doi:10.1371/journal.pone.0237637.
17. Celik ÖM, Ozyildirim C, Karacil Ermumcu MS. Evaluation of food insecurity and its association with food consumption and some variables among college students. *J Health Popul Nutr*. 2023;42(1):90. doi:10.1186/s41043-023-00436-9.
18. Cuy Castellanos D, Holcomb J. Examining skill, stress, and time in food procurement and preparation in food insecure university students. *J Nutr Educ Behav.* 2020;52(7):S31. doi:10.1016/j.jneb.2020.04.079.
19. Gaines A, Robb CA, Knol LL, Sickler S. Examining the role of financial factors, resources and skills in predicting food security status among college students: food security and resource adequacy. *Int J Consumer Stud*. 2014;38(4):374–384. doi:10.1111/ijcs.12110.
20. Klobodu SS, Paiva M, Rodriguez J, Calderon S, Chrisman M. Perceived drivers of food insecurity and coping strategies of DACA-eligible college students–an exploratory study. *J Hunger Environ Nutr.* 2021;16(5):664–683. doi:10.1080/19320248.2021.1894299.
21. Peterson N, Freidus A, Tereshenko D. Why college students don't access resources for food insecurity: stigma and perceptions of need. *Annals of Anthropol Pract*. 2022;46(2):140–154. doi:10.1111/napa.12190.
22. What does a higher education administrator do. https://www.berklee.edu/careers/roles/higher-education-administrator#:~:text=What%20does%20a%20Higher%20Education,budgets%2C%20facilities%2C%20and%20more. Accessed August 29, 2022.
23. Miller M, Middendorf G, Wood S, Lutter S. Food insecurity and assistance on campus: a survey of the student body. *Online J Rural Res Policy*. 2019;14(2):1–25. doi:10.4148/1936-0487.1097.
24. Glaser B, Strauss A. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New Brunswich: Aldine Publishing; 1967.
25. Green J, Thorogood N. *Qualitative Methods for Health Research*. 4th ed. Thousand Oaks, CA: Sage; 2018.
26. Lindlof T, Taylor B. *Qualitative Communication Research Methods*. 4th ed. Thousand Oaks, CA: Sage; 2019.
27. Bernard H, Bernard HR. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Lanham, MD: AltaMira Press; 2011.
28. Lincoln Y, Guba E. *Naturalistic Inquiry*. Newbury Park, CA: Sage; 1985.
29. Schwandt TA, Lincoln YS, Guba EG. Judging interpretations: But is it rigorous? trustworthiness and authenticity in naturalistic evaluation. *New Drctns Evaluation*. 2007;2007(114):11–25. doi:10.1002/ev.223.
30. United State Department of Agriculuture. USDA ERS - Definitions of Food Security. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/. Accessed November 17, 2022.
31. Pia Chaparro M, Zaghloul SS, Holck P, Dobbs J. Food insecurity prevalence among college students at the University of Hawai'i at Mānoa. *Public Health Nutr*. 2009;12(11):2097–2103. doi:10.1017/S1368980009990735.
32. McCoy M, Martinelli S, Reddy S, et al. Food insecurity on college campuses: the invisible epidemic. *Health Affairs Forefront*. Published online January 31, 2022. doi:10.1377/forefront.20220127.264905.
33. Ellison B, Bruening M, Hruschka DJ, et al. Viewpoint: food insecurity among college students: a case for consistent and comparable measurement. *Food Policy*. 2021;101:102031. doi:10.1016/j.foodpol.2021.102031.
34. Ames AJ, Barnett TM. Psychometric validation of the 10-item USDA food security scale for use with college students. *J Appl Meas*. 2019;20(3):228–242.
35. Ellison B, Nguyen CJ, Rabbitt MP, French B, Bruening M. Adapting the USDA food security survey module for use with

college students: Can we improve model fit? *Applied Eco Perspectives Pol*. Published online February 29, 2024.. doi:10.1002/aepp.13425.
36. Hagedorn-Hatfield RL, Hood LB, Hege A. A decade of college student hunger: What we know and where we need to go. *Front Public Health*. 2022;10:837724. doi:10.3389/fpubh.2022.837724.
37. Baker-Smith C, Coca V, Goldrick-Rab S, Looker E, Richardson B, Williams T. *Real college 2020: Five years of evidence on campus basic needs insecurity*. The Hope Center; 2020. https://hope4college.com/wp-content/uploads/2020/02/2019_RealCollege_Survey_Report.pdf. Accessed November 11, 2022
38. Kim Y, Murphy J, Craft K, Waters L, Gooden BI. "It's just a constant concern in the back of my mind": Lived experiences of college food insecurity. *J Am Coll Health*. 2022;72(3):980–987. doi:10.1080/07448481.2022.2064714.
39. Watson TD, Malan H, Glik D, Martinez SM. College students identify university support for basic needs and life skills as key ingredient in addressing food insecurity on campus: Food insecurity is a persistent stressor for some students; food literacy may help improve student well-being. *Calif Agr*. 2017;71(3):130–138. doi:10.3733/ca.2017a0023.
40. Houy G, Alexander K, Houy G, Alexander KL, Miller CL, Storms K. Adulting 101: Real skills for real life–A critical science-based course in the Texas Tech University Family and Consumer Sciences Education Program. *Delta Kappa Gamma Bulletin*. 2020;87(1):57–62.
41. McClure KR, Fryar AH. Vulnerable, fragile, and endangered? Financial rhetoric and reality at regional public universities. *New Drctns Hghr Edu*. 2020;2020(190):41–58. doi:10.1002/he.20366.
42. Archibald RB, Feldman DH. *The Road Ahead for America's Colleges and Universities*. Vol 1. New York, NY: Oxford University Press; 2017. doi:10.1093/acprof:oso/9780190251918.001.0001.
43. Sarpong J. A university that withstands financial uncertainties in complex times. *Pac-Asian Educ J*. 2022;33(1):119–133.
44. Balzer WK. *Lean Higher Education: Increasing the Value and Performance of University Processes*. 3rd ed. New York, NY: Routledge; 2020.
45. About The Hope Center. The hope center for college community and justice. https://hope.temple.edu/about-hope-center. Accessed December 4, 2022.
46. Coalition Letter to Biden Administration on College Food Insecurity. The Hope Center for College Community and Justice. https://hope.temple.edu/foodinsecurityletter. Accessed December 4, 2022.
47. https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf. Accessed December 5, 2022.