“RUNNING ON EMPTY:” STUDENTS’ EXPERIENCES OF FOOD INSECURITY AT THE UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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Food insecurity is a significant concern at U.S. colleges and universities, with far-reaching consequences for student health, well-being, and academic performance. At the University of California, 44 percent of UC undergraduates and 23 percent of graduate students report experiencing food insecurity (University of California, UCOP, 2017), and at UCSC an estimated 48 percent of undergraduate and 31 percent of graduate students are food insecure (Ryan et al., 2018a, 2018b).

Although understanding and awareness of food insecurity in higher education has grown tremendously over the past decade, much remains to be known about students’ lived experiences of food insecurity. To gain a deeper understanding of these issues, focus groups were held with 91 food insecure students (77 undergraduate and 14 graduate students). Our goals were fourfold: (1) to amplify UCSC students’ lived experiences of food insecurity; (2) to identify barriers to food security and strategies used to obtain food; (3) to illuminate consequences of food insecurity; and (4) to develop recommendations for strengthening campus food security programs and basic needs services.

Our findings underscore the everyday realities of food insecurity at UCSC and show the heavy toll that it takes on undergraduate and graduate students. Three core themes emerged in our analysis:

- **Multilevel intersecting barriers contribute to students’ food insecurity, including stigma and discrimination, structural barriers (i.e., difficulties accessing CalFresh, high food costs, and limited transportation and storage), family responsibilities and cultural exclusion, and limited awareness of campus resources.**

- **Food insecure students draw on multiple strategies to secure food and meet their basic needs, notably visiting pantries (and sometimes building their schedules around them), dumpster-diving, working extra hours, and taking out additional student loans or applying for credit cards to pay for groceries.**

- **Negative consequences of food insecurity are experienced across multiple domains, affecting health, psychosocial well-being, and academic performance.**

Based on our findings and student recommendations, we offer a comprehensive set of recommendations for reducing student food insecurity and advancing strong, inclusive basic needs resources at UCSC.
In 2018, approximately 11.1 percent or 14.3 million households were food insecure (Coleman-Jensen, et al., 2019). Food insecurity is characterized by reduced or inconsistent access to sufficiently nutritious and safe foods in ways deemed socially acceptable and is associated with a diet that is low in quality and variety, disrupted eating patterns, reduced food intake, and hunger (Coleman-Jensen, et al., 2019; U.S. Department of Agriculture, USDA, n.d., para. 3). Elevated rates of food insecurity are found among households with children, households headed by single parents, households of color, and low-income households (Coleman-Jensen, et al., 2019).

High rates of food insecurity are also documented among U.S. college and university students (Goldrick-Rab et al., 2017; Laterman, 2019). In a survey of nearly 86,000 students from 123 U.S. colleges, more than half of respondents from two-year institutions and 44 percent of those from four-year colleges were unable to afford balanced meals (Goldrick-Rab et al., 2019). Similarly, an analysis of data from more than 30,000 two- and 4-year college students found that approximately half were food insecure (Broton & Goldrick-Rab, 2018). These findings are complemented by Nazmi and colleagues' (2018) systematic review of studies examining food insecurity in higher education. Across their sample, approximately half of respondents were food insecure.
As is the case with colleges and universities across the U.S., food insecurity is a significant concern in the University of California (UC) system. A 2015 survey of 8,932 UC undergraduate and graduate students found that 19 percent experienced “very low” (i.e., disrupted eating pattern, reduced food intake) and 23 percent experienced “low” (i.e., reduced quality, variety or desirability of the diet) food insecurity (Martinez et al., 2016). In a follow-up systemwide analysis, 44 percent of UC undergraduate and 23 percent of graduate students reported experiencing food insecurity (University of California, UCOP, 2017). At UCSC, 48 percent of undergraduate and 31 percent of graduate students were food insecure in 2016 (Ryan et al., 2018a; Ryan et al., 2018b). On campuses across the U.S., as well as on our campus, students from marginalized backgrounds experience higher rates of food insecurity, including students of color, low-income students, first-generation college students, LGBTQ+ students, and students who were formerly in the foster care system (Goldrick-Rab et al., 2019; Ryan et al., 2018b; UCOP, 2017).

The negative consequences of food insecurity are far-reaching, negatively affecting student health, psychosocial well-being, academic performance, and retention (U.S. Government Accountability Office, GAO, 2018). For example, food insecurity is associated with increased rates of hypertension, diabetes, stress, and depression (e.g., Arenas et al., 2019, Freudenberg et al., 2011; Haskett, Majumder, Kotter-Grühn, & Majunder, 2020; Khosla, 2020; Martinez et al., 2016, 2018). Up to 80 percent of food insecure students report negative academic outcomes (Silva et al., 2017). Fatigue, difficulty concentrating, and susceptibility to illness – all consequences of food insecurity – undermine academic performance (Martinez et al., 2020). Moreover, food insecure students often face multiple basic needs challenges, notably housing precarity (Broton & Goldrick-Rab, 2017; Martínez et al., 2020). When forced to choose between the two, housing is often prioritized over nutritional needs.
Awareness of food insecurity across U.S. college and university campuses has grown considerably over the past decade. Much of this knowledge is based on survey research. Collectively, this scholarship is essential to gauging the prevalence of food insecurity, identifying groups at heightened risk, and mapping correlates and consequences of food insecurity. Less scholarship focuses on students’ lived experiences of food insecurity (Stebleton et al., 2020) and much remains to be known about how these challenges are navigated on a daily basis. To gain a deeper understanding of these issues, focus groups were conducted with food insecure UCSC graduate and undergraduate students. Our goals were fourfold:

- **to amplify students’ lived experiences of food insecurity at UCSC**
- **to identify barriers to food security and strategies used to secure food**
- **to illuminate consequences of food insecurity**
- **to develop recommendations for strengthening campus food security programs and basic needs services.**
Participants

Ninety-one students (77 undergraduate and 14 graduate students) participated in focus groups about their experiences of food insecurity. Participants were recruited via campus flyers, listservs, and tabling at basic needs events. To be eligible for the study, potential participants had to answer at least one of the following three questions affirmatively: (1) Do you have limited access to nutritious food?; (2) Do you cut portions or skip meals?; and (3) Do you run out of food and not have money to buy more? Respondents who answered "yes" to any of these questions were directed to a secure online survey that allowed them to select a focus group composed of demographically similar students (e.g., students of color, transfer students).

Participants ranged in age from 18 to 48 years old ($M = 23$) and were racially and ethnically diverse. Fifty-one percent of our sample were Equal Opportunity Program (EOP) participants, 53 percent were first-generation college students, and 87 percent reported receiving financial aid. Forty percent of respondents were receiving CalFresh benefits, California’s Supplemental Nutrition Assistance Program (SNAP). Demographic information about participants is provided in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Participant Demographics</th>
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<tbody>
<tr>
<td><strong>Participants</strong></td>
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<tr>
<td>Frosh</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>Junior</td>
</tr>
<tr>
<td>Senior</td>
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<tr>
<td>5th Year</td>
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<td>Graduate</td>
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<tr>
<td>Male</td>
</tr>
<tr>
<td>Nonbinary</td>
</tr>
<tr>
<td>Transgender</td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
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<tr>
<td>Hispanic/Latinx</td>
</tr>
<tr>
<td>European American</td>
</tr>
<tr>
<td>Asian American/Pacific Islander</td>
</tr>
<tr>
<td>African American/Black</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td><strong>Social Class</strong></td>
</tr>
<tr>
<td>Low income</td>
</tr>
<tr>
<td>Working class</td>
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<td>Middle class</td>
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Focus Groups

Table 2. Participant Demographics (continued)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
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<tbody>
<tr>
<td>Participants</td>
<td>91</td>
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<tr>
<td>Transfer Status</td>
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<tr>
<td>Transfer student</td>
<td>15</td>
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<tr>
<td>Non-transfer student</td>
<td>76</td>
<td>84%</td>
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<tr>
<td>Equal Opportunity Program</td>
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<tr>
<td>EOP student</td>
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<td>51%</td>
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<tr>
<td>Non-EOP student</td>
<td>45</td>
<td>50%</td>
</tr>
<tr>
<td>First-Generation Status</td>
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<td></td>
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<tr>
<td>First-generation student</td>
<td>48</td>
<td>53%</td>
</tr>
<tr>
<td>Non-first-generation student</td>
<td>43</td>
<td>47%</td>
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<tr>
<td>CalFresh</td>
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<tr>
<td>Receiving CalFresh</td>
<td>36</td>
<td>40%</td>
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<tr>
<td>Not receiving CalFresh</td>
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<td>60%</td>
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<tr>
<td>Financial Aid</td>
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<td></td>
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<tr>
<td>Receiving financial aid</td>
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<td>87%</td>
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<td>Not receiving financial aid</td>
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<td>13%</td>
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<td>Paid Work</td>
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<tr>
<td>Employed for pay</td>
<td>68</td>
<td>75%</td>
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<tr>
<td>Not employed</td>
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<td>25%</td>
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<tr>
<td>Housing</td>
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<tr>
<td>Living on-campus</td>
<td>40</td>
<td>44%</td>
</tr>
<tr>
<td>Living off-campus</td>
<td>51</td>
<td>56%</td>
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*Note: Percentages may not total 100 due to rounding.

A total of 21 focus groups were conducted, with separate groups held for undergraduate and graduate student participants. A pair of graduate and undergraduate researchers co-facilitated undergraduate focus groups, and graduate focus groups were facilitated by graduate researchers. Our research team was trained in focus group facilitation and had personal experience using campus basic needs resources. All focus groups were conducted in a private room on campus and were completed in approximately 90 minutes. Focus groups were organized by self-disclosed participant identities (i.e., Pell Grant awardees, graduate student status, gender identity, racial and ethnic identity, sexual orientation, transfer student status, on- or off-campus housing, and student campus worker groups). Students who chose not to attend an identity-grouped session or who did not share one of these identities were assigned to an “open” session.

Prior to each focus group, respondents gave their consent to participate and completed a brief demographic questionnaire. To maintain confidentiality, participants chose a pseudonym for use during the focus group and were asked to avoid using their real names or the names of friends or housemates. Participants were encouraged to share as much or as little about their experiences as they felt comfortable with. They were also reminded that they could stop participating at any time and that their responses would not affect their access to resources or services.
Participants were asked a series of questions about their experiences of food insecurity, the impact of food insecurity on well-being and academic performance, use of nutritional assistance resources (e.g., food pantries, CalFresh), experiences of stigma, and recommendations for reducing food insecurity and strengthening campus basic needs resources. All focus groups were audio-recorded and transcribed by a team of trained research assistants.

All respondents received $50 for their participation and were provided with a list of relevant campus and community resources.

**Analysis**

After a preliminary review of a subset of transcripts, we developed a coding framework to analyze experiences of food insecurity and its consequences, strategies for securing food, barriers to access, and recommendations for reducing campus food insecurity. Both inductive and deductive coding strategies were used to identify core themes. Each transcript was coded by two trained members of our undergraduate research team using Dedoose, a qualitative analysis software program. We resolved any discrepancies between coders. Thematic analysis (Braun & Clarke, 2006) was used to organize codes into overarching themes and subthemes.
In sharing their experiences, participants discussed multiple intersecting barriers to food security. Four primary categories of barriers to accessing nutritious food were identified: (a) stigma and discrimination; (b) structural barriers (i.e., difficulties accessing CalFresh, high food costs, and limited transportation and storage); (c) family responsibilities and cultural exclusion; and (d) limited awareness of campus resources. We discuss each of these areas in more detail.

In the United States, public assistance programs and their participants are highly stigmatized (Bullock & Reppond, 2018; Williams, 2009). Food assistance programs, particularly SNAP, are stereotyped as discouraging work and rife with fraud (Bullock et al., 2019). Given the pervasiveness of these stereotypes, it comes as little surprise that feelings of shame, guilt, and embarrassment are common among food insecure college students (Fernandez et al., 2019). This was the case for our respondents as well. Stigmatization and experiences of discrimination were particularly pervasive when accessing food pantries and when using CalFresh at grocery stores, whereas UCSC’s Cowell Coffee Shop: For the Peoples, a non transactional café, was consistently identified as a “safe” zone.

1. Multilevel, Intersecting Barriers Contribute to Food Insecurity

In sharing their experiences, participants discussed multiple intersecting barriers to food security. Four primary categories of barriers to accessing nutritious food were identified: (a) stigma and discrimination; (b) structural barriers (i.e., difficulties accessing CalFresh, high food costs, and limited transportation and storage); (c) family responsibilities and cultural exclusion; and (d) limited awareness of campus resources. We discuss each of these areas in more detail.

(a) Stigma and Discrimination

In the United States, public assistance programs and their participants are highly stigmatized (Bullock & Reppond, 2018; Williams, 2009). Food assistance programs, particularly SNAP, are stereotyped as discouraging work and rife with fraud (Bullock et al., 2019). Given the pervasiveness of these stereotypes, it comes as little surprise that feelings of shame, guilt, and embarrassment are common among food insecure college students (Fernandez et al., 2019). This was the case for our respondents as well. Stigmatization and experiences of discrimination were particularly pervasive when accessing food pantries and when using CalFresh at grocery stores, whereas UCSC’s Cowell Coffee Shop: For the Peoples, a non transactional café, was consistently identified as a “safe” zone.
Food Pantries. Concerns about being negatively judged by peers and community members resonated across all focus groups, especially when accessing basic needs services. Charlie, a Filipino undergraduate, likened the stigma associated with food insecurity to homelessness, observing that both groups are stereotyped as failures because they are unable to provide for themselves. The stigma associated with food insecurity runs so deep that even participants who worked with campus food pantries could not escape these concerns. Sophia, an undergraduate student worker at a campus food pantry who also used its services, explained, “I came in [to the pantry to shop] and I had...to interact with a coworker...I didn’t really take anything. I didn’t want them to know.” As a result, Sophia did not obtain the food she needed.

The stigma experienced when accessing campus resources contributed to a complex array of emotions. As Eduardo, a Latinx undergraduate student, explained:

It’s embarrassing to go and get free food. It’s hard to describe why...but I think it’s because...[my peers] can afford better alternatives...I have always kept it to myself...how I go about getting food. This is actually my first time talking about it.

Across focus groups, informants described similar feelings of judgment and embarrassment, which in turn, made communicating about basic needs difficult.

Concerns about being negatively evaluated extended to off-campus food pantries. Although running into an acquaintance or another student at a community food pantry was unlikely, these sites were regarded as unfriendly to college students. Anticipated generational differences, tense “town-gown” relations, and stigma associated with services interacted to prevent respondents from visiting off-campus pantries and stoked fears of being “looked down on.”

Among graduate students, the stigma associated with food assistance was amplified by fear of being perceived as “unprofessional.” Rosa, an Asian American graduate student, described the dissonance she felt between her enrollment in a highly respected doctoral program and being food insecure:

Even if I did [know about campus resources], I wouldn’t be totally sure about it...I don’t know about being put up for judgement...It’s especially hard as a grad student. You are doing this really prestigious thing...I can’t tell you how many times I hear from friends and family, ‘That’s so amazing, you’re doing your PhD!...You’re going to have such a great life and you’re going to end up making all this money...I am struggling. I am a barista at Starbucks!’ I’m like, ‘At least you’re feeding yourself.’...I have to go to this food pantry and ask for help...You see yourself in a certain way. My PhD is in a STEM field as well which is notorious for these expectations about you...It’s rough all around.
As a result, graduate student respondents were reluctant to discuss the challenges they faced with faculty advisors or to use campus services because they feared being seen by undergraduate students enrolled in one of their sections.

**Grocery Shopping with CalFresh.** Social science research documents pervasive discrimination against SNAP recipients when using their benefits (Gaines-Turner et al., 2019). Although the move from “food stamps” to electronic benefits cards (i.e., EBT) has made benefit use less overt, SNAP and other forms of food assistance remain highly stigmatized (Bullock & Reppond, 2018; Gaines-Turner et al., 2019). This was the case for our respondents, especially participants of color, who overwhelmingly reported experiencing discrimination when purchasing groceries with CalFresh. Consistent with previous research (Bullock et al., 2019; Lott, 2002; Gaines et al., 2019; Seccombe, 2015), participants described having cashiers ask them how many children they had, being accused of attempting to steal food, and being insulted (e.g. “Wow, of course you would have EBT”).

Reflecting racist, classist, and sexist stereotypes about public assistance (Bullock, 2013; Hancock, 2004), CalFresh recipients of color consistently described being subjected to surveillance and devaluation (e.g., being watched while shopping). As one respondent stated, “**There are a lot of stereotypes about Latinos...Sometimes I do feel that I'm being stared at**” (Salvador, Latinx, undergraduate). The predominantly White demographics of Santa Cruz’s major supermarkets further deepened the sense of being unwelcome. Irma, a Latinx undergraduate, described the reluctance she felt when using CalFresh and the bias she experienced:

> ‘Do I have to tell them that I have it [CalFresh]?’ You’re scared that they’re going to judge you...If you go off campus, or even on campus, there are a lot of people that don't look like you and you're like, ‘Oh, they're going to think all of these things...Oh you’re poor.’ The way that they look at you...I don't really go to [national specialty supermarket]...but when I did go, I felt so uncomfortable because there are just so many White people...Even now, in [another national chain], they'll be scanning the stuff...and I'll see who's behind me because then they're going to be judging you. They're going to be looking. That is a huge stigma.
Similarly, Claudia and Abby, Latinx and African American undergraduates, described experiencing stigmatization and discrimination:

I'm Brown. It's a huge misconception that...the majority of Brown people receive assistance. They call Black women the ‘welfare queen’...It's a huge stigma - not even stigma, it's racism...When you go to [national supermarket]...I feel like that's when you feel the most conscious because you see a bunch of White people around you.”

I put the EBT card in and she [the cashier] was like, ‘Oh, are you going to need bags?’ I was like, ‘We get free bags with EBT.’ Out of nowhere her demeanor just completely changed and she was like, ‘Those bags aren’t free!’...She just started giving me attitude and I was like, ‘I know.’ She was like, ‘The taxpayers pay for that.’ I was like, ‘I know. I pay taxes too because I have work study and we still get taxed’...Her demeanor was just so rude.

Tatiana, a Latinx undergraduate, shared that racist, anti-immigrant bias made campus feel unsafe and that seeking basic needs assistance felt threatening:

I hear certain words about different groups like “illegal,” which is very demonizing and dehumanizing...There have been a lot of incidences of hate crimes at [one of the colleges], and whenever there are hate crimes, they are [directed at] people of color...I saw one [symbol of White supremacy] at [UCSC college] parking lot last quarter...that made me feel unsafe...It makes me feel even more unsafe coming to staff...I only have a list of two people or professors I know I can trust and go to for these things.

The stigma associated with food assistance extends beyond public and professional interactions to personal and family relationships. Some respondents faced backlash from parents and family members who endorsed negative stereotypes about public assistance. Parents who do not seek assistance despite their eligibility created further obstacles to accessing basic needs resources. Recounting her parents’ belief that “If you use a government program, you’re not capable,” Nadia, a Latinx undergraduate stated:

I've even spoken with my parents recently who were really trying to guilt trip me for using a government program. I'm financially independent but they look down on it like, ‘Oh, well, we pay taxes so we're paying for that program you're using. How dare you!’
Enzo, a Latinx undergraduate, similarly described his mother’s sentiments regarding public assistance, however, her concerns were also interwoven with fears of deportation and the criminalization of her son:

I was born outside of the United States. I’m not undocumented because my mom worked through the system and was able to get residency for me and for her...I get CalFresh, but my mom has always stigmatized it. If you’re getting CalFresh, it’s bad or something because you’re just ‘mooching’ off the government...And she always puts it in my head, especially...with the president we have now, that somehow if I get in trouble, they’ll look into that. Because I am a naturalized citizen, they’ll try to use that somehow if I get in any type of trouble as a way to remove that or try to, like, criminalize me more if I’m using food stamps.

The Trump administration's attacks on immigrants and public assistance benefits has heightened these concerns, with low-income families terminating their SNAP and other benefits despite significant need (Hellerstein, 2019).

“Stigma-Free” Zones. Importantly, one campus site, UCSC’s Cowell Coffee Shop: For the Peoples, was consistently identified as a welcoming, “safe(r)” space for food insecure students. Opening in Fall 2018, the non-transactional café, which is managed and run by student workers, provides free beverages, snacks, and meals as well as a space for students to socialize and study. With so few spaces that allow students to “hang out” without making a purchase, the café has become a lifeline for low-income students. Commenting on the café’s welcoming, inclusive atmosphere, Jonah, a European American undergraduate, and Alejandra, a Latinx undergraduate, observed:

The addition of the Cowell Coffee Shop has been the coolest thing. Not only do I love it but literally all my friends love it. It is so freaking epic. It doesn’t feel stigmatizing in that space which is great. I think the way that it’s set up...is really advantageous...People are super welcoming.

The Cowell Coffee Shop’s a resource that I recently learned of, and it’s really great because you can both focus and study and have food available to you. It just helps you have more peace of mind...it’s really a space to feel safe and fed.
Although less commonly mentioned, the Dean of Students food pantry was also identified by respondents as a relatively “accepting” site. Even so, internalized stigma and feelings of shame are hard to “break.” Irma’s experiences exemplify this challenge. Although she had grown more comfortable shopping at one of the campus pantries, Irma continued to struggle with the stigma associated with food assistance, sharing that, “If I take more than two meals or something, I’ll even catch myself being like ‘Oh my gosh, I’m being savage.’” This self-judgment is unsurprising given long-standing stereotypes about food assistance and pervasive surveillance of recipients.

(b) Structural Barriers
Numerous structural barriers prevent low-income individuals and families from meeting basic nutritional needs and accessing food and nutrition programs. This was also the case for the students who shared their experiences with us. Three structural barriers consistently contributed to food insecurity: difficulties accessing CalFresh, high food costs, and limited transportation and storage.

Difficulties Accessing CalFresh Benefits. Beyond stigma, numerous systemic obstacles bar access to public assistance programs, with the application process itself being one of the first “walls” applicants must scale. Welfare rights advocates and scholars have long asserted that the process is arduous by design and intended to discourage and humiliate applicants (Bullock, 2013; Piven & Cloward, 1993; Schneider & Ingram, 1997). At the federal and state levels, SNAP is governed by strict eligibility criteria. As a means-tested program, CalFresh eligibility is contingent on individual and/or family income falling below specified thresholds. Among initial first steps, applicants must provide documentation of their income and identity to prove eligibility. This can be difficult for students who may not have these records. SNAP also has restrictive eligibility requirements regarding U.S. citizenship that make it very difficult for immigrants to access SNAP benefits (see Legal Services of Northern California, 2020). It is estimated that a staggering 57 percent of U.S. college and university students who are at risk of food insecurity and eligible for SNAP benefits do not receive this assistance (GAO, 2018).
Among both undergraduate and graduate student participants, difficulty accessing CalFresh benefits was a common barrier to food security. Commonly cited obstacles included confusion regarding ineligibility, lack of time to navigate county requirements, missed phone interviews due to class or work, county workers who did not call during appointed times, and lost paperwork. Unfortunately, even after many hours spent calling the county, collecting forms and documents, and missing classes or work to go through the interview process, the majority of participants we spoke with were ultimately denied benefits. Not surprisingly, these respondents described the application process as “frustrating,” “stressful,” and “deflating.” Although Santa Cruz County has adopted an app to make applying for CalFresh easier, and UCSC’s CalFresh Ambassadors (a peer support program) work with student applicants to navigate the process, our findings make clear that significant barriers remain.

Kiana’s (an American Indian undergraduate) experience illuminates the competing demands of balancing work, class, and application requirements:

> Trying to get on the phone with them [CalFresh]...is so difficult...I was on the phone for over two hours...on hold while they were trying to process my paperwork. Even though I qualified and I turned all the paperwork in, it just took so long...Who has time to be on the phone for two hours? It’s really difficult and stressful to deal with their process and their wait times...I’m in class from 9:00-5:00; those are their hours.

Jenna, a European American graduate student, also experienced significant challenges applying for CalFresh. Despite her seeming eligibility and conscientious completion of the process, her application was denied:

> I was told that grad students were eligible to apply...I had to take part of the day off because you have to be available from X to X for a phone call. It’s not an appointment. So, I did that. I had the phone call. It sounded positive. I got the packet in the mail, signed it, filled out all the paperwork, sent it off, and literally never heard back from them, not even an acknowledgement that I had been denied which was really difficult...I think it’s something very marginal, like grad students aren’t technically eligible because we make like a hundred dollars too much a month but I don’t think that CalFresh is considering the cost of living here in Santa Cruz.

This experience is far from unique. Despite earning low wages as teaching assistants and researchers, CalFresh denials are common among UCSC graduate students. Although advocates have worked with Santa Cruz County to clarify graduate student wages, this issue has yet to be satisfactorily resolved. As a consequence, this valuable resource is not reaching food insecure graduate students.
CalFresh denials were also common among immigrant respondents. Charlie, an Asian American undergraduate explained:

I’ve been trying to get access to CalFresh for a couple of years now. I’ve talked to people at Slug Support...The CalFresh system doesn’t want to provide benefits to non-citizens...It’s been really hard and unfortunate because I know it’s not just me. It’s a pretty big population of people who can’t get access to CalFresh...It’s really problematic.

Other focus group participants, knowing their applications would be denied, never applied. As Tatiana queried, “I’m undocumented and don’t qualify for CalFresh...How am I going to get help?” Without CalFresh benefits, students were left with limited resources to meet their basic needs.

**High Food Costs.** For low-income students, the lack of affordable, nutritious food for purchase on campus and in Santa Cruz, more broadly, is a major obstacle to food security. The high cost of food on campus was widely criticized by respondents.* For example, Min, an Asian American undergraduate, observed, “When I’m on campus, I would love to go to Iveta or Terra Fresca but a sandwich costs like $8.50 or $8.30 and a Cup of Noodles at the Bay Tree Express costs like $1.99.” Comparing UCSC to a food desert, Alyssa, a European American respondent, noted:

Between Porter and the [McHenry] Library...there’s nothing...At the library, the prices of that café are insane, but the same company has a café at Porter that has very reasonable prices. How is that okay? Because there’s a captive audience at the library? And they know people are going to be there all day.

High prices on campus extended from food to health-related items:

Banana Joe’s sells some groceries but it’s so expensive. Even if you need medicine...I wanted to get some Halls [cough drops] because I had a sore throat. It’s like $3.00 for a bag, but it’s like $4.29 for a little roll of five here. Everything is doubled in price here...There’s no reason for them to be as expensive as they are. They should just sell it for normal prices (James, a European American undergraduate).

To manage high food costs, respondents purchased less expensive, less nutritious food despite preferring healthier options. If not, they risked “blowing” their budgets and running out of money for food:

Sometimes you have to sacrifice what you know could be multiple meals later for a meal at one of the cafés on campus because that’s just where you are...I have to eat right now, I have class, I’ll just be sitting there like drooling, unable to think. This is a college campus, we’re starving students. Why is it like that? Why is it so expensive? (Chris, Asian American undergraduate)

*All prices are student reported and were not verified by our research team.
Access to affordable food is a significant problem across Santa Cruz County. With an average cost of $3.89 per meal in 2017, food expenses in Santa Cruz County are higher than in 98 percent of all counties in the U.S. (Amaral & Bullock, 2019; Gundersen et al., 2019). As a result, UCSC students struggle to afford nutritious food. As Jonah explained:

Even [national supermarket] is so expensive...And you’re like, ‘that’s the chain?’...I was taught to go to the chain grocery store to get the most accessibly priced food and sometimes it's cheaper to go to [specialty national supermarket] and that doesn’t make any sense.

For many students, purchasing fast food was often the most cost-effective choice:

It's either going to [supermarket] or getting a meal at [fast food chain] for $5.00 that you and your roommate can split. So, it's $2.50 each rather than...a small salad at [supermarket] or [another supermarket] that could run you at least $6.00... That $4.50 or $3.50 makes a big difference! (Marie, Latinx undergraduate)

Unfortunately, the easiest, least expensive options were rarely the most nutritious.

**Limited Transportation and Storage.** For many respondents, limited transportation further intensified food insecurity. Although multiple supermarkets are located within several miles of campus, they are difficult to access without a car. The steep campus terrain makes walking or biking challenging, and buses can be unreliable, crowded, and difficult to navigate with grocery bags. For these reasons, students described getting to and from campus, to supermarkets, and off-campus food pantries as requiring time, planning, and patience. One graduate student described the inaccessibility of local grocery stores and limited transportation options as “a whole other demon to try to mount,” exemplifying the stress students experience when navigating grocery store options. Rebecca, a European American undergraduate, was relatively advantaged because she owned a car, but nevertheless, she faced many of the same transportation challenges that other respondents expressed:

I don’t always drive [to school] because it’s really expensive to park. Sometimes I take the bus, but where I live...it doesn’t come very frequently... twice on the hour. In the summer, it’s only once an hour. So, it’s even worse and that takes a lot of planning, and if the bus doesn’t show up then you’re waiting 30-40 minutes for the next one...I tend to do the food pantries if I can and then I usually go to [national specialty supermarket] to supplement.
The time spent planning and traveling to secure food was “exhausting.” Students without cars described the challenges of accessing transportation with limited funds. When Salvador walked over an hour to get groceries at night because of reduced bus hours, he described the situation as “bad” and “impossible.” However, taking the bus created other difficulties, notably only being able to carry a restricted amount of groceries. Phillip, a European American undergraduate, explained, “You can only buy a certain amount of groceries...because you have to carry those bags back to the bus...I can only buy one or two bags of groceries at a time and then I have keep going back super often...” Limited transportation means that students must frequently find a way to get to the store to restock their food supply.

Transportation barriers intersect with limited options for storing food on campus. When spending long days on campus, bringing snacks and meals from home is more cost-effective than purchasing food on site. As one respondent observed, “You’re kind of just stuck there all day, and as a result these places on campus feel like they can charge you a bunch of money.” Unfortunately, lack of access to refrigerators and microwaves discourages bringing meals to campus. These obstacles are exacerbated by the rugged campus terrain:

[We] went to a CalFresh event and got a bunch of produce but I also had my backpack, my regular tote with all my stuff that I have for the entire day, and then I had this other huge bag of groceries. I literally carried that around for another six hours, and I'm walking up to Science Hill, walking to work, then walking back down. I walked up Merrill Hill with two tote bags filled with containers of food. It’s draining. I’m only so big. And if you don’t eat, then all of that little baby energy that you have gets sucked up walking around with bags of food that you need to cook. (Emma, Latinx undergraduate)
Lack of storage also affected pantry users. For the best selection, students want to arrive at campus pantries early but may then be unable to store perishable items while they attend class or work on-campus. Kate, a European American graduate student, illuminated this predicament:

> I’m thinking too about the strategy. When you’re going to these places and you have to go somewhere immediately afterward where you have to think ‘ok, is there a fridge nearby that I can store it in? Is there a freezer?’ The planning ahead that you have to do when you go to these places...and you’re not necessarily going home or if your home is a van or a tent, how do you store it?

As a result, essentials that needed refrigeration were often left behind. Jackson, an African American undergraduate, explained, “...I try to go to the pantry at the end of the day that way I can grab my things, get to the car, and go home. But sometimes that doesn’t work out, so what I’ll try to do is make sure I don’t get anything like eggs.” Students leaving behind needed items from the pantry because they had nowhere to store them for the school or workday was a common predicament, furthering their food insecurity.

(c) Family Responsibilities and Cultural Exclusion

**Family Responsibilities.** In sharp contrast to conceptualizations of college students as middle class and financially supported by their parents, a growing number of undergraduates are from low-income families and have limited financial assistance from their parents (Fry & Cilluffo, 2019). Some respondents described juggling multiple jobs, not only to provide for themselves but also to help their families make ends meet. Sending “leftover” funds from his scholarship and internship to his parents, one participant explained, “They don’t ask, ‘Oh hey, can I have your money?’ I know that they’re also struggling.” Sending money home, however, meant less money for food and other basic needs. When students could not send money home, they sacrificed their CalFresh and other benefits so their families back home would not go hungry. As Sophia explained:

> My family uses my allotment of the CalFresh. I come from a family of six children...The allotment of the $192 is not enough. I do not know what the number is, but 192 times four is not enough to feed everyone in the family, so I made the decision when I went to college that I was not going to apply for CalFresh myself so they could still get my allotment of it.
Across focus groups, low-income and first-generation students described assisting parents and siblings in meeting their basic needs and struggling to secure adequate food for themselves.

Students who are parents also face considerable precarity. In the U.S., 22 percent of undergraduate students are parents (Cruse et al., 2019). At UCSC, 0.9 percent of undergraduate and 11 percent of graduate students care for a child (UCOP, 2019). Financial responsibilities associated with parenting heighten vulnerability to both poverty and food insecurity (Bullock, 2013). Natalija, an undergraduate, described the sacrifices she makes as a student parent with two children at home and one attending college:

I not only have two children at home, but I also have a son in college...He said 'Mom, I haven’t eaten for three days.' I thought ‘What? Why haven't you said anything?’...He’s got a week left of school and he’s in that boat...How can I not send my son money? So, yes, there are times when we’re totally without.”

Across the UC-system, student parents face challenges meeting their family’s basic needs. Compared to their non-parenting peers, undergraduates living with children are more likely to be homeless (e.g., 11 percent of parenting UC undergraduates report experiencing homelessness compared to 4 percent of non-parenting undergraduates) and food insecure (e.g., 61 percent of parenting UC undergraduate students were food insecure versus 46 percent of non-parenting undergraduates; UCOP, 2019). As Natalija makes clear, parenting students use their limited funds to care for their children even if their own needs go unmet.

Lack of Culturally Relevant Food. Respondents of color described difficulties finding culturally-relevant ingredients in Santa Cruz. Racially and ethnically diverse students discussed wanting to cook culturally-relevant, comforting meals but were unable to find the ingredients they needed locally. Having ingredients shipped was not an affordable option. As Erika, a Latinx undergraduate student, observed:

I grew up in Southern California and our markets are really different from here. [National supermarket] has an ethnic food section which is one aisle...I don’t find everything [in Santa Cruz]. I know how to cook meals back home...I’ve just been having a really hard time finding things that I know how to cook, that I like, and that are inexpensive because there’s just like one section where I’m supposed to find everything that I would find in an entire market back home.

The lack of diverse food options left respondents’ feeling excluded and unwelcome. It also discouraged respondents' from preparing affordable meals from home versus spending more money to dine out.
(d) Limited Awareness of Campus and Community Resources

Through our discussions with respondents, we learned a great deal about experiences with and awareness of campus and community basic needs resources. While some participants had accessed campus and community resources, most had not and were unfamiliar with available services. We focus here on awareness of campus basic needs resources.

Across focus groups, many participants expressed limited awareness of campus basic needs resources, notably food pantries, Slug Support, and Cowell Coffee Shop: For the Peoples. When asked about their awareness and use of these services, these participants responded with surprise, frustration, and confusion. Although students living on campus might be expected to have greater familiarity with services, this was not the case. For example, Esme, a Latinx undergraduate who lived on campus and had a 5-day meal plan, often skipped meals because she lacked sufficient food. She had only recently learned of these resources, sharing, “I didn’t know food pantries were accessible on campus. I didn’t know that was a thing until I was in another organization and they told me that was a possibility.”

For many respondents, moving off campus was associated with increased financial hardship. Noemi’s (a Latinx undergraduate student) experiences were common among our participants and illustrate the detrimental consequences of limited familiarity with basic needs resources:

Once I started to live off campus, that was when things started to get really rough for me...I would have to plan accordingly every month. How much am I going to pay for rent?...I didn’t have enough money for my books, my food, water...This resulted in getting food stamps, and without the food stamps...I would go hungry...If I would have known about those food pantries on campus, if I would have known about these extra resources...I would have had an easier time looking for food and not going hungry often.

Lack of sufficient advertising was widely identified as the root of this problem. Unfortunately, limited awareness contributed to the misperception of pantries as “exclusive,” with access contingent on “needing to know the correct people.”
Among undergraduate respondents, campus dining halls were an especially complex site. Although food provision is central to the mission of dining halls, participants made clear that they are not well equipped to respond to student food insecurity. This was a source of confusion and frustration for respondents who tried to meet basic needs via dining services and expected greater support. For example, hungry students often asked dining hall staff for an additional serving of food; all participants who used this strategy said it was unsuccessful. Relatedly, others asked dining hall staff to take food home with them food that was already in, or on its way to, the garbage. Cecilia, a Latinx undergraduate who worked in one of the dining halls shared, “At closing shifts, we would see all of the food that they [dining hall staff] would throw into compost...I’m like, ‘Can I have [that]?’ ‘—NO. Absolutely not!’...I work there...I was serving this a minute ago.” This experience left Cecilia feeling angry and humiliated, “It makes me feel like I’m doing something wrong when I’m just trying to eat. It makes me feel like I’m the crazy one to be asking for food that they’re throwing away.”

With direct requests largely unsuccessful, some respondents tried to stay fed by taking “extra” food from the dining halls. This strategy was particularly common among participants with limited food plans. Karina, an Asian American undergraduate, described trying to ensure that both she and her roommate had enough to eat:

When I was a freshman, my roommate only had a 5-day plan so I would try really hard on Fridays to get food for her...I had a bunch [of food] in my backpack...A worker started to walk toward me so I ran. I was so nervous. I shouldn’t have to do this when I’m just trying to help my friend eat.

This interaction took a heavy toll on Karina’s wellbeing, “It was really stressful. I actually had an anxiety attack after that...and didn’t really do it as much which was hard because we didn’t have food for the weekends. Because I was stressed out, I wouldn’t do it and I wouldn’t eat.” Other respondents tried to sneak into dining halls only to be “caught” and asked to leave or were escorted out by campus police. These highly visible incidents deepened the stigma of food insecurity. Collectively, these responses not only intensified stigma, they also reflect and reinforce the broader criminalization of food insecurity and poverty (Bullock et al., 2019; Gustafson, 2009).
Although incurring debt was described as one of the least desirable strategies for affording food, it was often the only viable strategy. Teresa, a Mexican undergraduate, described her constant cost-benefit analysis of food expenses:

I’m in debt and pulling out my loans. I’m like, ‘If I stay under this amount of money then I can save this amount to pay back that loan and I’m not incurring interest on that one.’ Because that one is taking out interest while I’m in school, if I don’t get this, then I can save that much.

Cutting back on food expenses was the typical outcome, with respondents trapped by their limited options. As Noemi explained, “A lot of what I’m spending right now is borrowed from my parents or borrowed from federal loans...I’m not making the money currently to pay for what I’m eating which is kind of stressful.”

It bears noting that some of the strategies employed by undergraduates were less tenable for graduate students. Several graduate respondents described “sneaking” into dining halls, dumpster-diving, or stealing food, however, these behaviors were viewed as “unprofessional” and at odds with being a doctoral student. Natanael, a Latinx graduate student, explained:

Before becoming a graduate student, I used to be able to dumpster-dive and be able to steal, but as a graduate student you have to have this sort of professionalism, so...it’s not the same. I can’t do it in the same manner...so that’s kind of made it trickier.

Graduate respondents consistently voiced concerns about protecting their privacy (e.g., not being recognized when accessing services) and maintaining a professional image. These concerns were amplified by what was described as UCSC's “culture of silence” regarding graduate student basic needs. Although the GSC hosts pantry pop-ups for graduate students, other campus pantries and basic needs resources were overwhelmingly regarded as being for undergraduates. This perception was bolstered by the archetype of the “starving student paying their professional dues” which respondents saw as normalizing graduate student food insecurity. As Alejandro, a Latinx graduate student, explained:

It’s like this façade that you can make it because other people have made it and everyone’s struggling, so what’s the point in complaining?...The other side is complaining all the time and that’s not helpful because I need to survive. So, I’m just trying to find balance between holding space for people to complain about [food insecurity] and keep my complaint, my internal voice, to a minimum so I can actually make it.
Maintaining this “silence” required adopting strategies that would minimize detection, many of which were also highly time consuming. Among the most common was trying to coordinate research and teaching responsibilities to align with off-campus pantry hours. For Natanael, food bank hours conflicted with teaching, making it difficult to meet with students:

*I have had to tell students ‘I can’t meet with you’ or ‘I have to go because I have to get food’...The fact that I have to tell them that ‘I can’t meet with you because I need to get food’ is heartbreaking...Sometimes I try to do both and neither happens. I might miss the window or make it too late...It takes 4 to 5 hours of my week.*

Kate also tried to juggle teaching and pantry hours observing, “*It’s not necessarily appropriate to be like, ‘Oh I’m skipping class to go get some food’ but that was my experience.*”

Most graduate respondents did not discuss basic needs challenges with their faculty advisors and sought to conceal both their experiences and their strategies to make ends meet. This was especially challenging for respondents who were employed beyond their positions as teaching assistants and graduate student researchers. Working additional hours on campus requires approval of a student’s doctoral advisor, a requirement that can feel intrusive and paternalistic:

*One of the things that we do not have as grad students is a lot of agency. If I want to work on campus over the summer [my advisor] has to sign off. Like, [he] has to give me permission to pay rent?* (Jenna, European American graduate student)

Other graduate respondents worked multiple jobs, concealing off-campus “side” jobs from their advisors due to concerns that this labor would be perceived as reducing time for scholarship or conflict with requirements associated with fellowships, teaching assistantships, or graduate research positions. Despite holding multiple positions, Jenna still struggled to afford food and rent:

*Usually I teach 2 to 3 courses and I do an internship mentoring program...[This summer] I applied for an award...If I get it, I'll still have to babysit 10 hours a week. But if I don't get it, I might have to engage in some illegal activities to pay rent and have access to food...I also work an additional job that my advisor doesn’t know about...I do a lot of both paid and volunteer work...if he found out that I was doing this hourly wage position then I would be in trouble...even though I'm just trying to pay rent.*

Additional work helped with bills but came at a high cost. The inability to talk honestly with advisors about food insecurity and economic hardship coupled with long work hours left food insecure graduate students feeling unsupported and disconnected from their programs (Flaherty, 2018). Indeed, some graduate respondents reported knowing other food insecure students who had left their programs or considered leaving themselves.
The negative consequences of food insecurity across the lifespan are well documented (Arenas et al., 2019; FRAC, 2017; Ke & Ford-Jones, 2015; Myers, 2020). In addition to food insecurity’s effects on health and well-being (e.g., hypertension, heart disease, diabetes, psychological distress, depression), students also experience negative academic consequences (Freudenberg et al., 2011; Haskett, Majumder, Grühn, & Gutierrez, 2020; Khosla, 2020; Martinez et al., 2016, 2018; Maroto et al., 2015). Up to 80% of food insecure students report negative academic outcomes (Silva et al., 2017), and food secure students are more likely to have higher GPAs than their food insecure peers (Martinez et al., 2018). Consistent with this body of work, our respondents described numerous deleterious effects of food insecurity.

Psychological research documents the strained cognitive capacity and reduced mental bandwidth that arise from navigating life with insufficient time, money, and other essential resources (Shah, et al., 2015). These insufficiencies lead to a scarcity mindset, forcing people to make cognitive “trade-offs” (Shah et al., 2015). For food insecure students who are already juggling classes, extracurricular activities necessary for future career or school endeavors, and work, hunger and an insufficient food supply forces them to prioritize satiating hunger while putting their studies on the backburner. The cognitive load of processing financial concerns and unmet needs has the same impact on mental cognition as losing a full night’s sleep (Mani et al., 2013). Indeed, low-income, food insecure students face a multitude of consequences.

First, we describe the landscape of everyday “trade-offs” made by food insecure students. Next we turn to the two areas in which food insecurity are acutely felt – health and well-being and academic performance.
The Landscape of Everyday “Trade-Offs.” To stretch limited financial resources, people experiencing food insecurity are faced with difficult “trade-offs” that risk undermining health and well-being. This may mean foregoing food recommended for medically-appropriate diets (e.g., diabetes control), underusing or not following prescription guidelines (e.g., skipping doses, delaying refills), postponing or forgoing medical care, purchasing low-cost, energy dense food that is nutritionally inadequate, and making trade-offs between food and other basic needs (e.g., housing, utilities, transportation). Among our respondents, these harmful “trade-offs” were commonplace.

Given the high cost of housing in Santa Cruz County (Richards, 2019), rent often took priority over food, medical, and academic expenses. Respondents described their financial aid packages as covering little more than rent and as a result, financial struggles were constant. For Jodie, a European American undergraduate, prioritizing rent meant always being “behind” and cutting corners on food:

I’ll have $6,000 for rent but my rent for three months will be $6,400 so I’m constantly behind and juggling...in a hole...When I use Flexi Dollars [funds for campus meals], it’s just to have one meal in a cafeteria or something a week. That’s what I budget for the quarter...I have $100 - basically 10 meals that I can get...when I’m desperate.

Other participants skipped meals to afford textbooks and other course materials. As Xavier, a Latinx undergraduate stated, “Sometimes your academic needs come before feeding yourself.”

Ultimately, these experiences fueled resentment and perceptions of the university as indifferent to the multiple demands facing low-income students. Adriana’s (a Latinx undergraduate) remarks are illustrative of the frustrations voiced by many respondents:

[Friends are] minutes late to their parking spot and they have a ticket...Why don’t you [university administrators] understand that my class got out a little late?...They don’t take into account women’s products...I have a menstrual cycle. I have to buy those products. They don’t take into account that I’m a human being...They don’t take into account...food, water. How am I going to get all of those things?...Other people...have mental and physical disabilities. How are they going to pay for those expenses?... It’s overwhelming.
Similarly, Peyton, a European American undergraduate observed, “The cost of all the medicine...is not really taken into account... I get the UCShip grant which covers the doctor's visit but not the medicine they prescribe.”

**Effects on Health and Well-Being.** Respondents described experiencing food insecurity's negative physical and psychosocial effects. Consistent with previous research (FRAC, 2019), respondents stretched their food dollars by relying heavily on an inexpensive diet that was high in fat and carbohydrates but low in nutrients:

I eat fatty foods a lot more...If I didn’t pack lunch for school, I now go to the Express store and I’ll buy a bag of chips because that’s obviously the cheapest thing there...I definitely find myself eating foods that are high in fat and not as much protein because its realistically the cheapest option... Sometimes, if I don’t eat that much, I’m just honestly tired, I have no motivation—my body just feels tired throughout the whole day and it’s not a good feeling (Melody, Latinx undergraduate).

As a consequence, participants felt “tired,” “sluggish,” “exhausted,” and “mentally slow.” To suppress their appetites or distract from hunger pains, respondents took naps or slept late to skip meals, drank large amounts of water to “trick” their bodies into thinking they ate, and drank alcohol or smoked to numb hunger. Olivia, a European American undergraduate, described how she handled hunger during lectures:

Your hands are shaking because you're so hungry and your stomach is making noise and then having to get up and leave because you feel so uncomfortable. I see people next to me in the same situation, covering their stomachs and then saying ‘I'm so hungry’...Your body is making these noises and you know why...I go to the water fountain and I really hope this gets me through class with no more growling.

Sophia used sleep to quell hunger, “When I’m hungry, I get headaches...to combat that, I’ll take a nap. At times, this meant, “prioritizing sleeping over doing an essay.”

For participants with chronic health concerns such as diabetes, the risks associated with skipped meals and/or less nutritious food were particularly high:

I have Type 1 Diabetes and it is so stressful trying to get insulin and food because it's so expensive...It's all tethered so you can't just be like it's just food that I'm insecure about...I had a seizure in my apartment because of low blood sugar...I can't eat in the dining halls...They never have any gluten-free stuff...I can't have white rice for the fifth time in a row. I'll have to give myself so much insulin. So, I don't have white rice; I don't have any carbs and you can't live with no carbs (Jonah, European American undergraduate).
Jonah tried using campus pantries but was discouraged from doing so because they had a meal plan (“I feel so bad because I go to the pantry and they say ‘You can’t have this if you have a meal plan.’ And it’s like, ‘I’m going to pass out if I don’t eat something from this pantry.’”). For some students, food insecurity led to significant weight loss that was noticed by healthcare professionals. As Kammie, a European American undergraduate, described:

> It has affected my health...I had to talk to my doctor about losing weight. I stopped working out and I kept losing weight...I started to not feel well, and I lost a lot of my energy too. It is one of those things that is not easy to acknowledge. It has had an effect on my general health.

Menstruating respondents faced other challenges and were commonly forced to choose between food and menstrual products. Peyton prioritized “feminine products over food” but at times resorted to using toilet paper. She observed, “That’s not very sanitary but can get you through until you can get food or even medicine.” These “trade-offs” had consequences. As Peyton noted, “With less nutritious food, I did get sick a lot.”

Food insecurity’s effects were also felt psychologically. Food insecure students are more likely than their food secure peers to experience depression and anxiety (Ryan et al., 2018a) and this was the case for our respondents as well. The grind of constantly worrying about food and living expenses took a heavy toll on Selena, a Latinx undergraduate, “I deal with anxiety already...everything piling up, having to punch my time being here, academics, eating, having to pay other things...It’s stressful.” Similarly, Isabel and Julie, both Latinx undergraduates, observed:

> There is always a little bit of anxiety when I go out to eat. If it is not the best value meal, I know I could be making it for myself. I am always eating anxiously or feeling very anxious afterwards...first year I dropped a lot of weight which was not good for me. My rib cage was starting to poke out...It affected my sleep schedule. I got less sleep and I was awake more. I was also studying and eating less. It is never good for anyone.

> Due to food insecurity and just the stress of paying [for school related costs], I developed depression. Really, it's really, really intense right now [participant starts crying]. That's why you see me like this because I haven't eaten and this food, I was waiting for this money to buy food...I'm sorry, but it's really hard... I'm really blessed that I have the courage to come and speak but I have friends that have dropped out because they can’t handle it. They don’t eat. I was going to drop out, I was really close to it. I don't even qualify for CalFresh, so it's really stressful. I don't have support from my family.
Many respondents felt they had little or no support, and stated they were on the verge of dropping out from the stress of being hungry and food insecure. For others, even acknowledging their status as “food insecure” was anxiety provoking. As Kammie explained, ignoring the issue seemed like the only viable option:

> It is one of those things that I don’t really like to acknowledge as being a big anxiety because if I let it be a big anxiety, if I acknowledge it as a big anxiety, then it will be. And then it will turn into something that I think affects my mental health as much as it affects my physical health. So, I just try not to think about it.

**Academic performance.** Food insecurity compromised respondents’ ability to focus on course materials, concentrate during lectures, and perform their best on quizzes and exams. Describing food insecurity’s effects, Alejandra, a Latinx undergraduate, surmised, “It impacts your ability to focus and your ability to really dedicate time to your studies when you’re fighting these feelings of not feeling well.” Reflecting these concerns, many participants left classes because they were hungry, had headaches, and/or had bouts of dizziness from lack of food. Taylor and Jodie, both undergraduates, explained the challenges of trying to perform both physically and intellectually with limited access to nutritious foods:

> When you don’t have enough money to go buy more [healthy food] then you just are buying less nutritious stuff and then you feel really sluggish and gross. I’m a theater major and performance is a big aspect of my academics and so I don’t perform as well. I’ll get dizzy and I’ll have to sit out of a particular class.

> With the types of food that I eat, it’s like a quick fix with calories, but it’s not nutrition. So, there are often times where you’re doing some really intense intellectual work and I just feel dizzy and everything, it just feels surreal like I’m on a drug or something. Everything feels fuzzy but I’m just like, ‘Oh, it’s because I haven’t eaten since like nine or ten and I can’t eat until like six pm tonight.’ So, it’s just my blood sugar drops and things like that that are really hard on me.

Experiences such as these were consistently expressed across focus groups. Explaining how common these experiences are at UCSC, one respondent observed, “So many of us are used to it, being hungry all the time or going for hours and hours without eating... it’s one of those problems that is persistent.”
Graduate respondents experienced similar negative effects. Hunger and exhaustion impacted meetings, office hours, and concentration on teaching materials and grading. As Alyssa described, the effects of food insecurity were all encompassing:

> It's hard to answer the question because it affects everything. I mean, when you don't eat well, you can't think well. When you're stressed about where your next meal is going to come from, you can't concentrate on your work. Planning around having to be on campus late or teaching a late class...again, the anxiety around dealing with those things. And it takes so much energy to properly manage it and grad school takes all of the energy, so there's none left.

Many graduate respondents felt as if they were “always begging” for money but were uncomfortable discussing food insecurity with their advisors because they feared it would damage their professionalism. Graduate stipends were viewed as too low to meet basic needs, with one participant observing that they should be based on how much it costs to have a “functioning graduate student.” As Rosa stated, “That should be important to them (administrators) so that they have accurate and well-done research, but if I'm hungry and pipetting all day, I'm not sure you're getting your bang for your buck.” Both undergraduate and graduate participants felt that struggling to meet basic needs eroded the quality of their work.
Many participants left class early or skipped it entirely to visit campus pantries or work off campus for pay. Enzo, a Latinx undergraduate, put his coursework second and prioritized working to pay off the credit card that he used to buy groceries:

**Instead of focusing on the essay I have to write I’m going to work because I feel like I’ll take the C or the B...Then I know that that credit card debt won’t be carrying over. That just feels better to me, to know that I don’t have that debt just to get a high grade in the class...I’ll just tend to focus on my primary classes that will affect my major and the upper division electives, I’ll just take the C and that’ll be that.**

Navigating food needs with family pressure to excel academically resulted in additional challenges. For Eduardo and Carlos, both Latinx undergraduates, being caught between visiting pantries or attending class was a source internal conflict:

**Sometimes I feel like, especially during either midterm season or during finals, you literally have the option of being able to eat or going to that MSI session so you can actually understand what’s going to be on the midterm. Sometimes you don’t know which one to decide...For me personally, my parents are helping me, they pay tuition, so it goes into a whole, like, ‘Am I really going to let my parent’s money go to waste by getting a bad grade?’ I’m like, ‘I can eat later.’**

As a first-generation student, I definitely feel pressure from my family. Even though they say not to, but you know, I feel like I have to do it. And then skipping class or something, just like...I’m really skipping school to get a meal or something?

Respondents recognized that off-campus work shortchanged time for their studies, which became yet another source of stress:

**I only work one job because I can’t work another one...My grades cannot afford it...Having one job, it’s already enough toll on me. It’s stressful...I only have a $100 in my account right now. How am I going to divide that for the whole month?...It’s really stressful (Selena, Latinx undergraduate).**

To account for this “lost” time and catch up academically, participants reported sleeping very little which, in turn, further compromised health and well-being.
RECOMMENDATIONS

At colleges and universities across the United States, food insecurity is increasingly recognized as a significant problem that campuses must address (Broton & Rab, 2017). Our findings bring the lived experiences of food-insecure students into sharper focus, underscoring the need for a basic needs master plan that ensures that all UCSC students are food secure and can meet other needs. Focus group participants experienced multiple, intersecting barriers to consistently accessing healthy, nutritious food including high housing and food costs, limited transportation to grocery stores, stigma and discrimination, and difficulty accessing CalFresh. Tackling these obstacles will help our campus reduce food insecurity, foster student health, well-being, and academic performance, and support greater inclusiveness.

Drawing on our findings and respondents' suggestions, we offer recommendations for reducing student food insecurity and advancing a strong, inclusive basic needs framework at UCSC. Our recommendations are comprehensive but not exhaustive. They are intended to be generative and spur further reflection, analysis, and action.

Provide Accurate, Comprehensive Estimates of UCSC’s Cost of Living Expenses

By all measures, Santa Cruz County is an extraordinarily high cost area, with housing and food expenses significantly exceeding most of the United States. Prospective students should have an accurate understanding of cost of living expenses when choosing to enroll at UCSC. The Financial Aid Office is crucial to providing students with this information. In addition to tuition, meal plans, and housing, realistic estimates of transportation, routine health supplies (e.g., cold medicine, menstrual products), and groceries should be provided. A calculator of graduate student expenses has been developed and should be made widely available.

Reduce Stigma and Discrimination

If receiving basic needs services remains highly stigmatized, advertising campaigns and other efforts to increase access are unlikely to succeed. The Cowell Coffee Shop: For the Peoples, peer support programs such as UCSC’s CalFresh and Housing Ambassadors, and basic needs advertisements showcasing students' positive experiences with these services are crucial to stigma reduction and should be supported. Further initiatives to reduce stigma and challenge racist and classist stereotypes are also needed. Students have a central role to play in designing effective interventions.
Reconsider Dining Hall Policies and Practices Related to “Stealing” Food

To ensure sufficient food during weekends, late nights, and other times when access to food was limited, many respondents took “extra” food from dining halls. Prohibitions against this practice, which are actively enforced, deepened the stigma associated with food insecurity. We appreciate the complexities of this issue and that dining halls cannot serve as food pantries but also believe that more humane, supportive practices need to be adopted. Toward this goal, we encourage discussion among student leadership groups (e.g., SUA), dining services, and campus basic needs stakeholders.

Ensure that Culturally and Medically Appropriate Food is Available at Pantries and Dining Halls

Fostering an inclusive environment is contingent on providing food in the dining-halls and pantries that reflects the cultural diversity, dietary preferences, and medical needs of UCSC’s students. Dining halls and pantries should promote channels (e.g., Dining Services’ electronic “comment card”) to strengthen communication of students’ preferences and needs and should regularly assess satisfaction. Cooking demonstrations such as Slugs in the Kitchen and recipe giveaways for preparing diverse, nutritious meals can support these goals and should be expanded. An affordable small campus grocery outlet would further diversify students’ food options.

Enhance Food Recovery and Distribution

Colleges and universities across the U.S., including UCSC, have launched efforts to reduce food waste and support recovery and distribution (see Sustainability, Social Responsibility, & Community Partnership, n.d.; Neale, 2019). Nevertheless, many food insecure respondents expressed concern about food being wasted that could potentially be recovered and distributed. Strict health code regulations govern food recovery, making food donation complex. We recommend full review of campus practices, with the dual goals of reducing waste and making UCSC a hunger-free campus.

Provide Accessible, Welcoming Space for Food Pantries, Food Storage, and Food Preparation

Providing accessible, welcoming campus space for food pantries, food storage, and food preparation will improve students’ access to nutritious food. To address respondents’ concerns about lack of on-campus areas to refrigerate and warm prepared meals and store perishable items when in class or at a campus job, we recommend creating accessible campus spaces for these purposes. Providing well-marked sites across campus to store, refrigerate, and microwave meals will make it easier for students to bring food to campus, avoid higher priced campus options, and obtain the supplies they need.

Increase Graduate Student Financial Packages

Limited financial resources and low support packages are drivers of food and housing precarity. Competitive funding packages are needed to recruit and retain outstanding graduate students and ensure that basic needs can be met in Santa Cruz County’s high cost environment. Robust funding is needed for professional development expenses (e.g., conference attendance).
Tailor Basic Needs Services to Meet Graduate Students’ Unique Circumstances

Graduate respondents avoided campus food pantries and other basic needs services due to the perception that these resources are primarily for undergraduates. Concerns about being perceived as less professional if seen seeking assistance also deters graduate students. Offering more services specific to graduate students, reserving designated pantry hours, and providing services in graduate-student specific spaces (e.g., graduate housing, GSC) may help assuage these concerns. GSC pantry pop-ups should be expanded, with items regularly restocked.

Offer Transportation to Local Grocery Stores

UCSC’s hilltop location is world-renowned but makes traveling to and from campus challenging. Students without cars typically take the bus or bike to local grocery stores, however, these modes of transportation for bringing groceries and other supplies to campus were not reliable nor sustainable. To help students access more affordable groceries and other services, we recommend establishing free and/or low-cost shuttles and partnering with car services such as Uber or Lyft to offer carpools.

Launch a Robust Campaign to Raise Awareness of Basic Needs Resources

Many participants were unaware or only had a limited awareness of campus food pantries, the Cowell Coffee Shop: For the Peoples, and Slug Support. Information about food insecurity on- and off-campus basic needs resources (e.g., locations and hours of operation of available services) should be included in orientation programs for frosh, transfer, international, and graduate students. Ongoing advertising campaigns are also needed (e.g., social media outreach, campus tabling and flyers).

Increase CalFresh Enrollment and Advocate for Expanded Eligibility

UCSC’s CalFresh Ambassadors assist students with their CalFresh applications and, in doing so, increase program accessibility and reduce stigma. CalFresh Ambassadors, as well as other peer-driven basic needs initiatives, should be supported. Sustained advocacy to expand CalFresh eligibility is also needed. Despite meeting income eligibility criteria, UCSC graduate students have long been denied assistance, and other groups, notably immigrants to the U.S., are largely ineligible. Ongoing outreach and advocacy are needed to broaden access to nutrition assistance programs.

Educate Faculty and Staff about Food Insecurity and Basic Needs

Our findings highlight the damaging effects of food insecurity and associated stressors on student well-being and academic performance. Staff and faculty need to understand the basic needs challenges students confront at UCSC and across the U.S. To encourage discussion of basic needs, we encourage faculty to include a basic needs statement on their syllabi. Staff and faculty have important roles to play in creating spaces for students to discuss their needs and directing students to resources. Faculty and staff also need to be familiar with campus and community basic needs resources.
Adopt a Basic Needs Master Plan

Food insecurity typically co-occurs alongside other basic needs challenges (e.g., access to housing, health care). Holistic approaches addressing students' multifaceted needs and streamlined services (e.g., one-stop access to food, housing, and mental health support) are needed (see UCOP, 2017; Martinez et. al., 2020).

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COVID-19 Statement

In this report, we share the pre-pandemic experiences of students who were struggling to meet their basic needs and document the need for strong, inclusive support systems. We are releasing our findings in the midst of the COVID-19 pandemic, a time of tremendous disruption and hardship for many students and their families. The pandemic is exposing deep-rooted inequalities and amplifying basic needs challenges. We believe our findings will be useful in addressing these needs.


Martinez, S., Esaryk, E., Moffat, L., & Ritchie, L. (2020). *Redefining student basic needs for higher education: A study to understand and map University of California student basic needs*. University of California Global Food Initiative. https://docs.google.com/forms/d/e/1FAIpQLScchq0xvC_wpLu6nEvBdIWh1VV0cOEvl3--DZnbyhjcWm24w/viewform


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