

**HUNGRY HENS: AN EXPLORATION OF FOOD INSECURITY AMONG
UNDERGRADUATE STUDENTS AT THE UNIVERSITY OF DELAWARE**

by

Chelsea Cohen

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Urban Affairs and Public Policy

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Chelsea Cohen

Approved:

Sarah K Bruch, Ph.D.
Professor in charge of thesis on behalf of the Advisory Committee

Approved:

Gregory Dobler, Ph.D.
Department Chair of the program for a Master of Arts in Urban Affairs
and Public Policy

Approved:

Joseph Trainor, Ph.D.
Interim Dean of the Biden School of Public Policy and Public
Administration

Approved:

Louis F. Rossi, Ph.D.
Vice Provost for Graduate and Professional Education and
Dean of the Graduate College

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ABSTRACT

A #RealCollege Survey from 2018 suggests that 1 in 4 University of Delaware (UD) students have experienced food insecurity in the last 30 days. While this data provides important information about the prevalence of the issue, understanding how food insecurity manifests among college students requires a deeper, qualitative study. The purpose of this study is to draw on quantitative data about food insecurity at UD and to provide new qualitative data on the food insecurity experience for undergraduate students at UD. Survey data and semi-structured in-depth interviews with 30 students and five staff members examined two questions: (1) What are the barriers to food security among undergraduate students at the University of Delaware, and (2) What impacts the utilization of food security resources at UD? Analysis of the interview reveals that at least 67% of the study sample can be considered food insecure according to the USDA definition, but only 45% self-identified as such in the pre-interview screener survey, and even fewer identified as food insecure during interviews. Barriers to personal food security and perceived contributing factors to food insecurity were closely linked to finances, quality of food, stigma, and dietary or cultural restrictions and preferences. Student and staff suggestions called for efforts to destigmatize talking about needing help and receiving assistance, increasing marketing efforts of resources on campus, improving the quality of food on campus, and addressing policies that inadvertently make food more inaccessible on campus. These findings can be used to focus future conversations about food insecurity on areas where there is a misalignment in understanding the lived experience of food insecurity and future efforts on areas where staff and students agree that change could push the university into becoming a space where all Blue Hens are food secure

Chapter 1

INTRODUCTION

This paper explores the following research questions: (1) What are the barriers to food security among undergraduate students at the University of Delaware, and (2) What impacts the utilization of food security resources at UD? To answer these questions, semi-structured interviews were conducted with undergraduate students to gain insight into their experiences with food on campus. This study contributes to the growing scholarship around basic needs insecurity among college students and can be used to advocate for more resources and awareness for Blue Hens facing food insecurity.

This study focuses on undergraduate students because their experiences with food insecurity are unique, as many of them live on or near the Newark campus, which has several food vendors. Examining the experiences of undergraduate students around food insecurity allows the university to determine if (1) there is something systematically pushing some students into food insecurity, (2) there are not enough resources to pull students out of food insecurity at this campus, or (3) a combination of both. This insight is pivotal in understanding the types of resources and interventions needed on campus.

Staff student-facing members are also included in this study to share their understanding of the way food insecurity manifests on UD's campus. The goal of including staff perspectives is to find areas where there may be overlap between the staff understanding and the student experience. These overlaps may point to

intervention points that would be supported by both undergraduate students and staff members on campus. Further, areas where there is a misalignment also provide focus points for staff members who work in basic needs to focus their attention on. Solutions that do not reflect the experiences of students may fall short of solving the problem, and in some cases, can make situations worse. Therefore, it is key that staff are provided with a better picture of how students experience and cope with food insecurity on campus.

Chapter 2

LITERATURE REVIEW

Food security (FS), as defined by the United States Department of Agriculture (USDA), refers to the “access by all people at all times to enough food for an active, healthy life” (Food Security in the U.S. | Economic Research Service, n.d.). Thus, food insecurity (FI) is a term used to acknowledge one’s experience facing barriers to access, at any given time, “enough food for an active, healthy life”. The USDA defines food insecurity as the “limited or uncertain availability of nutritionally adequate and safe foods, or the ability to acquire such foods in a socially acceptable manner”. Similar to homelessness, there is no singular qualification of what it means to be food insecure, though in 2006 the USDA developed a scale to measure how food secure, and thereby how food insecure, a person, household, and by extension, the nation, may be (Food Security in the U.S. - Definitions of Food Security | Economic Research Service, n.d.). This scale incorporates access to food, the quality of the food, and feelings about both access and quality.

Food Insecurity in Higher Education

Higher education is a unique case study for food insecurity because geographical location is a key factor in predicting food insecurity (Leonard et. al, 2018), and students attending college or university are typically documented as dependents of their parents’ household, despite not living there for roughly eight months of the year. While attending college, food insecurity can be a difficult concept to fathom because many universities are equipped with at least one dining hall or food court of sorts (SAGEscholars 2024). Studies on the prevalence of food insecurity among college students vary based on their date, the type of study, and the data

available at the time. One study reported that about 35% of college students experience food insecurity, significantly higher than the national household average of 11.1% (Regan, 2020). Broton & Goldrick-Rab (2016) found that across 7 states, roughly half of the surveyed community college students were food insecure. More broadly, Peterson and Freidus (2020) posit that depending on the study, food insecurity can be prevalent in anywhere from 9% to 60% of the student population. Reflecting the disparities seen nationwide, different subpopulations of college students experience differing levels of food insecurity. According to the 2020 #RealCollege Survey, the nation's longest-running annual assessment of basic needs insecurity among college students, Black, Latinx, Indigenous, LGBTQ+, and disabled students are all at higher risk of food insecurity. While the #RealCollegeSurvey has made substantial headway in driving collegiate basic needs to the forefront of college campus discussions, the data is far from a full picture. In 2020, the National Center for Education Statistics (NCES) included inquiries into collegiate basic needs insecurity in their National Postsecondary Student Aid Study (NPSAS). While this is a newer study, the more comprehensive results confirm much of the Hope Center's claims, that college students are experiencing food insecurity at higher rates than the general population, noting that about 23% of undergrads are experiencing food insecurity (Alonso, 2023).

Food insecurity can be experienced in the short term or the long term. Oftentimes, short-term food insecurity is a result of a natural disaster, a sudden job loss, an injury, or another personal or geographic disaster (Heysek 2024). This temporary state of food insecurity often has a clearer cause and solution than long-term food insecurity may, and is categorized by a sudden, sometimes new, need for

assistance. There is also seasonal food insecurity, which is slightly different than temporary food insecurity in that there is a more predictable nature.

Barriers to Food Security Among College Students

Food security is shaped by a complex network of other housing security, financial stability, and social factors. It is important to recognize that many of the barriers to food security that adults face, students can also face. Students with lower familial contributions to their studies are often required to pay several large bills over the academic year by virtue of their student status. Adults who are not enrolled in higher education, while still faced with payments, have different financial landscapes than students (Weaver et. al, 2019).

The most salient barrier noted in the literature on food (in)security for college students who live on or near campus is the cost. The Wisconsin Hope Center 2017 survey includes a quote from the co-chair of the Food Access and Security Committee for the University of California (UC) system-wide Global Food Initiative. The quote reads, “Because the cost of living is increasing and the cost of a university education is increasing, students are facing basic needs security challenges at higher levels and in ways we haven’t expected” (Goldrick-Rab et al., 2017). Broton & Goldrick-Rab (2016) found that even with financial aid, many low-income students face significant unmet financial needs, totaling a usual addition of \$8,000+ annually for community colleges and \$12,000+ for public universities. Students who are Pell Grant eligible, first generation, come from low-income families, or are of a marginalized background, are more likely to be in positions of food insecurity before going to college due to the structural circumstances discussed previously (Cinnamon et.al, 2021). If universities and colleges are equipped with dining halls and/or food courts, and dining fees are

included in tuition, the question becomes, how are students remaining or becoming food insecure? Literature on food insecurity in higher education points to three general barriers to food security among college students: financial insecurity that puts students in a position of low food security, a lack of knowledge of resources that keeps students food insecure, and stigma and feelings of shame that prevent students from taking measures to become more food secure.

Financial Insecurity

Federal financial aid, like the FAFSA or the Pell Grant, provides millions of students with much-needed support to fund their higher education. Additionally, many universities offer need-based and merit-based scholarships to students to further assist with their time in college. These scholarships, in addition to the Pell Grant, are the preferred forms of aid because they do not require students to pay anything back post-grad. For international students specifically, scholarships are the only form of aid they qualify for, leaving them with higher costs without aid. The rising costs of tuition may be proportionately matched by financial aid students receive, but the rising costs of off-campus housing, transportation, healthcare, and food itself are hidden costs of education that are not always accurately addressed by scholarship funds (Goldrick-Rab et al., 2017). One study shows that institutions get to do their own calculation for hidden or additional costs of attendance, creating a lot of variability in the cost of attendance process, with almost half of all colleges providing living-cost allowances at least 20% above or below estimated living expenses. (Kelchen 2016). This means that when calculating needs-based aid, the amount rewarded may not be entirely reflective of the cost to attend in a given year. Studies show that even students who work part-time jobs while attending school full-time struggle to cover basic living costs,

especially in urban areas where the cost of living is higher (Goldrick-Rab et al. 2017, Tannock & Flocks 2003). In fact, there is a positive correlation between rates of food insecurity and hours working while in college (Goldrick-Rab et al. 2017). Financial aid packages rarely account for these rising non-tuition expenses, meaning students are left underfunded even when they receive maximum grants or loans. This misalignment between actual costs and available aid forces students to adopt coping strategies such as skipping meals, purchasing cheaper, less nutritious food, or relying on credit cards and payday loans to cover necessities (Henry 2017). Without systemic changes to address the broader affordability crisis in higher education, food insecurity will likely remain a widespread and persistent challenge for college students.

Lack of Awareness of Resources

Most universities are equipped with at least one resource that can be used to combat food insecurity among the student body. Studies show that many students are unaware of campus resources aimed at intervening with food insecurity. In a 2019 study of 481 respondents, over 56% of students reported not knowing about resources such as food pantries and meal swipe programs (Peterson & Freidus). In some studies, awareness of resources includes confusion around eligibility requirements and service processes as well, so lack of knowledge could be higher than data indicates (Landy et al, 2024).

At the federal level, several services are also available to prevent or intervene in food insecurity for the most vulnerable. Eligibility policies vary by state, and criteria often exclude many who are still suffering and, in some cases, keep people in a vulnerable position rather than boosting them toward more economic success (Tanner 2022). A few of the most prominent services provided to Americans facing food

insecurity by the USDA include the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Children, and Infants (WIC), the National School Lunch (NSLP), and the School Breakfast Program (SBP). NSLP “provides nutritionally balanced, low-cost or free lunches to children each school day” while SBP similarly “provides reimbursement to states to operate nonprofit breakfast programs in schools and residential childcare institutions”. SNAP “provides food to low-income families to supplement their grocery budget so they can afford the nutritious food essential to health and well-being” while WIC “provides free healthy foods, breastfeeding support, nutrition education and referrals to other services” (USDA, March 2025). The United States Government Accountability Office (GAO) found that “almost 2 million at-risk students who were potentially eligible for SNAP did not report receiving benefits in 2016” (GAO “Food Insecurity” 2018). Many students who are food insecure are eligible for SNAP and WIC programs, but they are not always aware of the resources that are available or the way national eligibility criteria change when the applicant is a student (Regan 2020, Phillips et al. 2018).

Stigma and Shame

Students who are aware of the resources around them to promote food security may not use them due to fear of being shamed and stigmatized. One researcher from the University of Delaware’s Food Stigma Lab identified two levels of stigma, structural and individual stigma. Structural stigma is demonstrated through policies that exacerbate the difficulty of getting assistance and can add an additional burden onto people who are already experiencing hardship. Individual stigma is most easily understood as “target stigma”, the actual experience of individuals who are

stigmatized. Enacted stigma is when people are actively shamed or treated unfairly. People experiencing food insecurity most often experience anticipated stigma, the *fear* that someone will enact stigma. Internalized stigma can also impact students who feel as though they are less than for using resources (Oluwadero, 2025). Another report noted that food insecurity is often intertwined with other stigmatized identities, such as marginalized racial or ethnic groups, immigration status, and being unhoused (Halverson et. al, 2025).

Henry (2020) writes that she found students who are food insecure are stereotyped as lazy, poor, or less motivated. Food insecure students may internalize stereotypes like these, causing them to feel embarrassed and have low self-esteem, hindering their willingness to utilize services (Williams and Mickelson, 2008; Stuber and Schlesinger, 2006). Entangled within the internal shame of not being able to provide for themselves, students often cite not feeling food insecure enough to take resources away from people who “need it more” (Henry 2017, Peterson et al. 2022). In this study, students similarly reported feeling selfish for using resources for unspecified students who are seen as “worse off”. Some groups of students are more susceptible to feeling shame or stigma as a result of needing or utilizing services. Much of the inequitable stigmatization is a result of racialized and gendered tropes such as notions of the “welfare queen” painting women of color, notably Black women, as abusers of public assistance (Wilcox et al. 2021).

Additional Barriers

While most individual school studies reveal the barriers mentioned above, more cumulative reviews of literature point to additional barriers as well. These barriers include dietary restrictions, student schedules, and pre-existing food

insecurity. Dietary restrictions and preferences like being vegetarian, Halal, Kosher, and allergies to foods like tree nuts, seafood, and eggs. While there is not extensive research on the relationship between food insecurity and dietary restrictions among college students, there are studies that discuss the difficulty of obtaining food as a student with a dietary restriction in college. One study of Canadian universities found that students with gluten intolerance or avoidance would accidentally consume gluten due to mislabeled food and cross-contamination. Students with medical reactions to gluten (celiac disease) noted that the lack of variety, higher prices, and limited availability of gluten-free food posed barriers to accessing gluten-free food (Mistry et. al, 2022). Substantial barriers like these have the potential to disproportionately affect food insecurity prevalence among students. One article shared students' perspectives that having a dietary restriction can sometimes objectively limit food access because there are simply fewer options available (Weaver et. al, 2019) Concerns about access for those with dietary restrictions can also be extended to campus resources for food security, like pantries (Wang et. al, 2022).

Student schedules can pose a barrier when students have limited free time to spend cooking, shopping for, and eating food (Wang et. al, 2022). In one instance, students provided with a campus meal voucher debit card explained how work, extracurriculars, and class schedules dictated when, where, and how often students actually used their resources (Brnton et. al, 2022). For students who may live off campus or commute, the time spent preparing meals and the space needed to do so come with time as well. Not having the time after work or before class can severely limit the quantity and quality of food students access for the rest of the day (Peterson & Freidus, 2020). Travel time was also described as a deterrent to accessing fresh

produce and grocery stores for students who rely on public transportation or may live farther away due to housing prices nearer to campus.

Food insecurity is associated with a lower intake of fruits, vegetables, and generally healthier items (Martinez, 2019). Students with pre-existing food insecurity may continue to exhibit these behaviors even after increased access to food (Nackers & Appelhans, 2013). One study proposed that students use unhealthy coping strategies regarding food to cope with food insecurity, such as eating frozen meals, snacks, and instant or microwavable meals (Mei et al., 2021). Taken together, these studies suggest that simply increasing access to food in abundance when moving to college may not relieve a student from their existing food insecurity, posing continued barriers to higher levels of food security.

There are a number of various barriers that can impact a student's food security and resource usage. These barriers can be individual in nature (i.e., stigma or schedules), relational (i.e., worries about the needs of others), organizational (i.e., operating hours of resources, food quality, or marketing efforts), communal (i.e., access to public transportation), or policy related (i.e., SNAP policies), with some barriers being intertwined with others and some being more prevalent among certain groups of students (Landry et. al, 2024).

Consequences of Food Insecurity Among College Students

College students run many of the same risks as the adult population does when it comes to food insecurity, as well as additional risks relating to financial literacy, generation status, and work-study eligibility (Loofbourrow & Scherr, 2023). Regan (2020) writes that FI is linked to lower GPAs, decreased class attendance, and higher dropout rates, and students facing food insecurity report higher levels of stress,

anxiety, and depression. Many FI students also experience poor physical health due to unhealthy eating habits. A study at the University of Massachusetts Boston campus found that students with severe food insecurity were 15 times more likely to fail courses, 6 times more likely to withdraw or not register for courses, and 87.5% reported food insecurity affected their class performance (Silva et. al, 2015). Broton & Goldrick-Rab (2016) similarly found that students struggling with food insecurity are 22% less likely to earn high GPAs. One study concluded that FI students considered dropping out of college due to debt at rates over three times greater than their FS counterparts. Similarly, FI students were over three times as likely to neglect their academic studies compared to FS students (Phillips et al. 2018). For those who have already suffered from systematic exclusion from educational institutions, Black people and women, for instance, there remain systemic barriers to the completion of their education as is (Johnson, 2020). Thus, the academic shortcomings that can result from food insecurity that marginalized students experience may not be treated with the same leniency as White students or men might receive (Stallman 2015).

When students lack consistent access to nutritious food, they often rely on cheap, calorie-dense, and nutrient-poor options, leading to poor dietary quality and nutritional deficiencies (Bruening et al., 2017). The National Institute of Health found that in addition to food insecure children's risk of inadequate nutrient intake, anemia, asthma, and other poor physical health outcomes, they tended "to have increased levels of aggression, anxiety, depression and suicidal ideation, as well as hyperactivity and inattention" (Hatsu et al. 2022). Chronic undernutrition can lead to fatigue, dizziness, headaches, and other symptoms that directly impact students' ability to function academically and socially (Henry, 2017). Long-term food insecurity has also

been associated with higher rates of chronic diseases, such as diabetes, hypertension, and obesity, as students' diets become more reliant on processed and unhealthy foods (Bruening et al., 2017). In one study, food insecurity was associated with an increase in depression and anxiety and a decrease in hope (Raskind et al. 2018). More generally, students who are food insecure tend to report poorer health than their food secure counterparts (Willis 2021). The repercussions of acute and chronic food insecurity vary, but much of the literature points to physical and academic downturns as a result of limited access to a consistently adequate, healthy, and nutritious diet.

Facilitating Factors of Food Security

While much of the literature around food insecurity focuses on measuring its prevalence or identifying barriers, it is equally important to focus on measures that facilitate food security among college students as well. The Global Food Security Cluster Handbook identified four pillars to food security, and thus four lenses to intervene and promote food security. The first pillar is food availability; in the sphere of higher education, this can be thought of as the availability of food via grocery stores, farmer's markets, and other marketplaces, as well as the dining partner on the campus that provides food to students. One of the identified ways to improve this pillar is to promote food production via agriculture, a practice that a number of colleges and universities have begun developing. The second pillar is food access: the ability to "regularly acquire adequate amounts of appropriate and desired food for a nutritious diet" both in terms of capital, but also without physical, geographic or social barriers. The third pillar is food utilization, tackling whether people can turn the food they have access to into something that can provide nutrition to their body. This pillar considers the storage capacities, preparation knowledge, eating and feeding habits, and

diverse diets of people, and is highly relevant to students who bring their eating habits to college with them and are often limited in their storage, refrigeration, and heating capabilities. Some examples to improve this pillar that are relevant to college students include nutrition classes and promoting gardens. The last pillar is stability, referring to the consistency and reliability of the previous three pillars. The biggest suggestion to improve this pillar is to monitor and assess the needs of the population. For higher education, this likely involves taking measures to institutionally acknowledge and measure food insecurity and its prevalence year to year (“The 4 Pillars of Food Security”, 2023).

There are a number of aspects that students identify as useful in promoting food security among their peers on campus. On a cultural level, a number of students call on the broader institution to “normalize” conversations about food insecurity and the sharing of resources (Peterson et. al, 2022). Additionally, students who may be more reluctant to seek institutional assistance may be more likely to turn to friends and family, thus, many students name marketing as a key tool to ensure the information about resources gets to those who may not need it for themselves but for others. In many studies of campuses with active pantries, these resources that provide direct food or monetary assistance to students are regarded as important resources that directly intervene with immediate need (Shisler et. al, 2022). Further, resources that offer direct food access should consider the schedules of students using them and ensure that, where possible, the transportability and functionality of the food matches students’ needs (Brnton et. al, 2022).

Policies & Processes Facilitating Food Security

On a federal policy level, expanding SNAP eligibility to criteria included during the pandemic, such as work-study eligibility rather than participation and an expected family contribution (EFC) of \$0, would mean an additional one million college students are eligible for SNAP, according to the GAO, the Government Accountability Office (Lewis 2024). The GAO posits that 2 out of 5 food-insecure college students may be eligible for SNAP benefits, but over half of these students do not report receiving this form of aid (GAO 2024). Aware of this discrepancy, many universities advocate for more clarity and assistance with registration for SNAP.

On a more institutional level, a study from North Carolina University suggests policies that use administrative records to proactively identify students who may need resources during their time at university, attempting to avoid underutilization due to stigma. Broton & Goldrick-Rab (2016) outline key responses by institutions such as adjusting tuition payment deadlines, creating short-term loan programs, partnering with food banks, offering free tax preparation services, and working with organizations like Single Stop and the Center for Working Families. At Bunker Hill Community College in Massachusetts, the university piloted a meal voucher program that functioned like a debit card for students selected into the program (Broton et al., 2022). Regan (2020) calls for more education to be available to students on how to apply for federal services, as she found that while many universities have implemented food pantries and other assistance programs to mitigate food insecurity, many students remain unaware of or ineligible for government assistance such as SNAP.

Institutional Interventions for Food Insecurity Among College Students

There is a lot of variability in how institutions address food insecurity among their student populations. In addition to the previously noted interventions, one study found that components that increase usage of resources include online ordering systems, convenient locations, fresh produce and protein options, and a welcoming and positive culture of access (Idehai et. al, 2024). Additionally, students call for measures to destigmatize using resources like seeing their peers as employees, having a more “grocery”-like appearance, and more accessible hours (Peterson et. al, 2022).

There are roughly 40 colleges and universities that the University of Delaware uses as comparator institutions. For the purposes of this paper ten comparator institutions are highlighted: Iowa State University, Ohio State University, Pennsylvania State University, Purdue University, Indiana, Rutgers University - New Brunswick, New Jersey, University of Arizona, University of California – Davis, University of Florida, University of Missouri – Columbia, and University of Wisconsin – Madison. These institutions have varying policies and interventions aimed at preventing food insecurity among college students, including campus pantries, satellite or mobile food vendors, meal assistance programs, basic needs centers & support systems, and direct monetary aid.

Campus Pantries

All ten universities have at least one pantry on their campus grounds. Rates of food insecurity among undergraduate students range from 12% at the University of Wisconsin - Madison (UW, The Open Seat Food Pantry, n.d.) to 43% of students at the University of California - Davis (UC Davis, Student Basic Needs Survey, 2022). While all pantries are available for students to use with some means of identification,

seven of these universities' websites (70%) state they also provide food and supplies to staff and faculty. The majority of these universities have shoppers register with the pantry through a university platform or PantrySoft and have students visit a physical location to shop in person during open hours or through scheduled shopping or pick-up appointments. Variability exists around visitation policies, with some universities such as Penn State placing no limits on the number of times a shopper can visit the pantry (FAQ | The Lion's Pantry, n.d) and others like the University of Arizona (U Arizona) only allowing shoppers once a week (How It Works | Campus Pantry, n.d.). The University of Missouri was a unique outlier of the ten schools as their system allows shoppers to receive non-perishable or shelf-stable items once a month and perishable items once a week (How to Use Tiger Pantry, University of Missouri, 2025). At least four of the universities' websites indicate there are limits on the number of items that students can receive, with at least two universities allotting visitors a point-based budget and allowing them to "purchase" items with their points. All of the pantry sites document a heavy reliance on donations, with some in partnership with local food banks or pantries, others receiving monetary donations from university grants and foundations, and in the case of Ohio State, partnerships between the College of Education & Human Ecology and a Scholars Program (ACES Food Pantry | College of Education and Human Ecology, n.d.).

Satellite or Mobile Food Vendors

Satellite or mobile vendors include secondary locations for physical pantries, typically offering more limited services, pop-up kiosks and stands for fresh groceries, and mobile pantries and food trucks. At least six of the universities explicitly indicate the presence of satellite or mobile food pantries through their websites. Iowa State and

UW, for instance, both have at least one other physical location where students can access a food pantry from a more convenient location (Basic Needs Support - Student Health and Wellness, n.d.; The Open Seat, n.d.). U Arizona has a pop-up “Take What You Need Leave What You Can” box for students to donate and take food and supplies in different locations on campus (Pop-Up Pantry | Campus Pantry, n.d.). Additionally, the university has a sustainability project where students can refill two large jars and two spice containers with any dry goods or spices available in the pantry (Bulk Foods | Campus Pantry, n.d.). Both services are aimed at reducing waste, increasing sustainability, and improving accessibility. UC Davis offers a mobile food pantry to tackle the accessibility of their main location, as many other universities do (Tellez, 2023). In addition, UC Davis offers a “pay what you can” food truck and two free and fresh produce stands, one of which is known as Fruit & Veggie Up, in partnership with the UC Davis Student Farm and another in partnership with a food bank (Yolo Food Bank, 2022; Holland, 2024). UW has a student organization of a food recovery network, but rather than relocate the food outside of the community, the Madison chapter hosts buffet-style meals twice a week throughout the semester (Food Recovery Network - Madison Chapter - Wisconsin Involvement Network (WIN), n.d.). UW also has a Food Shed designed to collect produce from research farms, grocery stores, and student farms to provide access to healthy and fresh produce to the campus community (UW Campus Food Shed – Goldman Lab, n.d.).

Meal Assistance Programs

Meal assistance programs include aid with access to meal swipes and dining plans, as well as access to pre-packaged meals. The University of Missouri provides students without a meal plan with up to 3 emergency dining meals in a single semester

(How to Receive Dining Hall Meals, University of Missouri, 2025). There are also emergency food packs at a number of locations on the campus that are available for students suffering from an immediate need for food assistance (Emergency Food Packs, University of Missouri, 2025). Rutgers University - New Brunswick offers need-based meal scholarships that award meal plans to Rutgers students in the Fall and Spring semesters (Meal Swipe Assistance | Off-Campus Living & Community Initiatives - Division of Student Affairs | Rutgers University-New Brunswick, n.d.). Iowa State has a “Give a Swipe” program that allows students to donate a limited number of meal swipes anonymously to other students who may be struggling with food insecurity (Basic Needs Support - Student Health and Wellness, n.d.).

Basic Needs Centers & Support Systems

Half of the listed universities have explicit systems built to reach and support students with basic needs insecurity. Rutgers and UC Davis both have Basic Needs Centers, physical spaces where services and resources are co-located, and there are staff trained to manage these services and interact with students in need (Basic Needs Center | Off-Campus Living & Community Initiatives - Division of Student Affairs | Rutgers University-New Brunswick, n.d.; Aggie Compass Basic Needs Center, n.d.). Rutgers also has a semesterly Basic Needs Newsletter that defines basic needs insecurity, provides on and off-campus resources, and connects outside community and country-level news to the student body (Rutgers Student Affairs, Fall 2024). The University of Missouri has a Basic Needs Coordinator, a trained staff member on their Care Team who specializes in aiding students who are experiencing basic needs insecurity and bringing awareness of resources to the broader campus community (Care Team, University of Missouri, 2025). Purdue University and Penn State both

offer free nutrition and dietitian appointments where students can learn how to develop and/or maintain nutritious eating habits on a limited budget using the resources around them (Nutrition Counseling | Purdue University, n.d.; Nutrition Clinic | Penn State Student Affairs, n.d.). Referral forms were also a common practice among the universities that offer these support systems and spaces. These referral forms allow students experiencing food insecurity to have the resources brought to them anonymously, helping remove the emotional and stigmatizing hurdle that often comes with asking for help.

Monetary Assistance Directed Toward Food

While all the universities have at least one fund aimed at helping students experiencing sudden crisis, including “sudden” food insecurity, and all states offer some form of Supplemental Nutrition Assistance Program (SNAP) benefits, students must meet various eligibility criteria in order to access these resources. Unfortunately, food insecurity among college students that is more chronic than sudden may not qualify for crisis funding or benefit from it in the long term. Penn State and Rutgers both have pages mentioning locations where students can use EBT cards to access food, but Rutgers also mentions the “SNAP Gap” which they define as the gap students fall into when they don’t “qualify for SNAP assistance but...burdens on...families and individuals, [increase] their levels of food insecurity” or their benefits run out before the end of the month and students are left with limited resources until the next cycle (Penn State Broadens Support for SNAP-Eligible Students at University Park | Penn State University, n.d.; Supplemental Nutrition Assistance Program (SNAP) | Off-Campus Living & Community Initiatives - Division of Student Affairs | Rutgers University-New Brunswick, n.d.). To intervene with the

SNAP Gap, Rutgers provides resources to students whose benefits run out before the cycle ends and provides nutritional foods for those who do not qualify for SNAP. UC Davis acts similarly with an entire website dedicated to the California SNAP system, CalFresh. AggieFresh, a program piloted through June 2025, is essentially a UC Davis SNAP program. Students who do not qualify for CalFresh can apply for AggieFresh and receive a credit card for food purchases up to \$292 a month, the same limit as CalFresh. Students participating in AggieFresh are enrolled in a required Canvas course that ensures AggieFresh recipients are well-equipped to succeed professionally, academically, and personally during and beyond college (Tellez, 2023).

Chapter 3

A CLOSER LOOK AT THE UNIVERSITY OF DELAWARE

The University of Delaware (UD) is a state-assisted, privately governed land-grant, sea-grant, and space-grant university situated in northern Delaware (About UD | University of Delaware, n.d.). One of the oldest US universities founded in 1743, UD was the first university to open a study abroad program in 1923, is in the top 3% of university research institutions, and over 94% of 2023 graduates are pursuing further education or working (Facts & Figures | University of Delaware, n.d.). Based on 2023 Facts & Figures, during the 2023-2204 academic year, 19,071 undergraduate students were enrolled in courses at UD. According to the UD Official Enrollment Extract, for the 2022-2023 academic year, the full-time student body was identified as 69.3% White, 5.9% Black or African American, 9.6% Hispanic or Latino, 5.6% Asian, 0.1% American Indian or Alaska Native, 3.7% of students are international and 5.8% of students identified as other (Native Hawaiian or other Pacific Islander, two or more races, or unknown) with 59.4% of students identifying as female and 40.6% male (UD Facts & Figures 2023-2023). There was no data regarding LGBTQ+ student identities.

The average yearly cost of attendance at UD is \$36,446 for in-state students and \$61,036 for out-of-state students (Financing Your Degree | University of Delaware, n.d.). All students living on campus are required to have a meal plan and are automatically enrolled into the 14 Weekly meal plan, allowing them to dine at any of the 3 dining halls on campus, shop at any of the POD markets, or grab a bite at any of campus-operated cafes and restaurants (Students Living On Campus - University of Delaware, n.d.). This meal plan costs \$3,323.00 for the semester. The cheapest meal plan at UD for a student living on campus is \$3,323.00 for either the 14 Weekly (14

meals per week or 210 meals, 200 points with a 10% discount when used, and 5 guest meals) or the 175 Block (175 meals or 10 per week, 500 points with a 10% discount when used, and 5 guest meals). The most expensive on-campus meal plan costs \$3,712.00 for unlimited meals, 330 points with a 10% discount, 5 guest meals, and one additional meal exchange. Students living in residence halls all have access to one kitchen in their dorm equipped with a refrigerator, microwave, stove, and oven, but cooking utensils, pots, pans, and the like are not guaranteed to be available or in good condition. Students living in the UD Courtyard Apartments are housed in apartment-style buildings with a kitchen equipped with a refrigerator, stove, microwave, dishwasher, and oven, but are not provided with any cookware (Explore Our Halls | Residence Life & Housing | University of Delaware, n.d.).

Students living off-campus, including the Courtyard Apartments, have the option to purchase more limited and less expensive meal plans (Students Living Off Campus - University of Delaware, n.d.). The cheapest meal plan is 150 All Points which loads 150 points onto a student ONEcard that can be used to purchase food from dining locations with a 10% discount. The most expensive meal plan for off-campus students is \$1,865.00 for the 125 Block Plan offering 125 meals or 8 each week, 400 points with a 10% discount when used, 5 guest meals, and 2 meal exchange opportunities. Students also have the option to purchase an Off Campus Meal Plan (OCMP), not affiliated with UD Dining. OCMP operates as a debit card loaded with any amount of money that students can use at various off-campus locations. With no discount, the OCMP can end up the same or more expensive than a UD off-campus dining plan (“University of Delaware,” n.d.).

Food Insecurity at the University of Delaware

In 2018, the Temple University Hope Center for College, Community, and Justice completed a #RealCollege Survey on the prevalence of basic needs insecurity in the UD community. The Hope Center uses the USDA's definition of food insecurity as "the limited or uncertain availability of nutritionally adequate and safe food, or the ability to acquire such food in a socially acceptable manner". Using the USDA's 18-question measure of food insecurity, the Hope Center found that nearly 1 in 4 UD students (Blue Hens) experienced food insecurity in the 30 days preceding the survey. The survey notes specifically that 23% of survey respondents, 1,741 students at UD, worry about running out of food before having money to buy more, and 26% cannot afford to eat balanced meals. Though rates of food insecurity among UD students are lower than those of other four-year institutions, the survey concluded that 39% of respondents were experiencing some form of basic needs insecurity, including food insecurity, homelessness, and housing insecurity, in the last year.

As indicated by Regan (2020), marginalization increases the likelihood and severity of food insecurity. The 2018 Hope Lab found similar results at UD when examining gender identity, sexual orientation, and racial and ethnic backgrounds. Whereas 40% of transgender respondents experienced food insecurity, only 26% and 22% of male and female respondents, respectively, have experienced food insecurity. Similarly, 21% of straight or heterosexual respondents were identified as food insecure, while 37%, 31%, and 30% of gay or lesbian, bisexual, and others experienced food insecurity, respectively. Regarding race, the most food-secure groups were White or Caucasian students and students identifying as "Other Asian or Asian American" with only 20% of students experiencing food insecurity. Comparatively, the highest proportion of food insecurity is found among African

American or Black respondents (42%), Middle Eastern or North African or Arab or Arab American (31%, not a racial/ethnic category measured at UD), and Pacific Islander or Native Hawaiian respondents (30%). Forty-one percent of students who received the Pell Grant, a proxy for low-income students, were found to experience food insecurity compared to only 19% of those who are not Pell-eligible. This ratio is similar to the 16% of students with no disability or medical condition who are food insecure, compared to students with varying disabilities who experience food insecurity at rates ranging from 25% (chronic illness, and other) to 54% (Autistic Spectrum Disorder). Lastly, 29% of respondents who were employed were food insecure, compared to 20% who were not employed but looking for work, and 12% who were neither employed nor seeking employment. When looking at the utilization of existing supports, the survey found that only 5% of food-insecure respondents received SNAP benefits, and all food-secure respondents accessed benefits but at lower rates than their food-insecure peers.

Blue Hen Services for Food Security

There are a limited number of resources available to intervene directly with food insecurity on UD's campus. These services, include a Swipe Out Hunger meal swipe donation program, a new Food & Supply Pantry for undergraduate and graduate students, and the acceptance of SNAP benefits at the Harrington POD Market, a convenience-style shopping center on the first-year residence campus (Food and Supplies | Blue Hen Essentials | Student Support | University of Delaware, n.d.). There are a few other financial aid applications open to students who are facing temporary and sudden crises, such as the Student Crisis Fund (Financial Crisis | Blue Hen Essentials | Student Support | University of Delaware, n.d.). These programs, services,

and more are all housed under the Department of Student Advocacy & Support under the Division of Student Life, and are also known as Blue Hen Essentials. In addition to these UD-administered services, there are several additional community services that students can take advantage of (Blue Hen Essentials, n.d.). The Food Bank of Delaware serves the campus community through its Mobile Food Pantry and its on-site pantry in the Newark area. The Blue Hen Bounty is a campus-area pantry available for and managed by UD students in partnership with UD's Episcopal Campus Ministry. Similarly, the First Presbyterian Church of Newark, in partnership with the Food Bank of Delaware, has a pantry open to the campus community, specifically international graduate students, on the second and fourth Monday and Friday of every month (Food For Success – First Presbyterian Church Newark, n.d.).

Swipe Out Hunger

The Swipe Out Hunger Program at UD is a part of the larger national network of colleges and universities that are working to eradicate hunger among college students (DeDomenico, 2023). In the Fall and Spring semesters, UD Dining holds swipe drives where students can donate two guest meals from two of the available meal plan options. These meal swipes can then be added to students' ID cards regardless of their meal plan status. Personal communications with a staff member in Student Advocacy & Support disclosed more details regarding the Swipe Drives at UD and the process for donating and receiving swipes. Across two days in the Fall and Spring, students can only donate up to two guest swipes at drives set up at the three dining halls on campus. To receive swipes from the program, students must be currently enrolled in classes and facing the highest levels of food insecurity: "they do not have the means to access food either on campus or off". There are an estimated 30

to 40 recipients each semester, most of whom are graduate students, and they are usually provided with information about community food resources in addition to 20 meal swipes loaded onto their ONEcard. While donations can vary, the Spring semester tends to do better than the Fall semester, with the Spring 2024 reaching a new high of 1,000 donated swipes in the two collection days.

Food & Supply Pantry

The UD Food & Supply Pantry is a new service that launched in the Summer of 2023 (personal communication, January 2025). This online ordering platform allows undergraduate and graduate student shoppers to request items from the pantry and pick up their shopping bags later that week (Food and Supplies, UD, n.d.). The categories of items students can select from include breakfast items, canned fruits & vegetables, beans, canned proteins, starches and carbohydrates, instant noodles, ramen, and soups, snacks, miscellaneous ingredients, drinks, menstrual products, and varying supply items such as laundry items and paper products (Food & Supply Pantry Intake Qualtrics Experience Management, 2025). Under the umbrella of the Food & Supply Pantry, there is also a Soap Bar that provides free hand soap, dish soap, and laundry detergent to students and a Mobile Food Pantry that occurs on campus once a month in partnership with the Food Bank of Delaware (Center for Intercultural Engagement | Division of Student Life | University of Delaware, n.d.). Since 2023, the Food & Supply Pantry has served over 400 Blue Hens and completed over 2,000 orders, and the Soap Bar has provided 16 gallons worth of Tide laundry detergent, 11.25 gallons of Member's Mark hand soap, and 11 gallons of Dawn dish soap (personal communication, January 2025).

Preliminary Insights

The UD Food & Supply Pantry (FSP), being the first of its kind on UD's campus, has a number of assessment metrics that have been used to petition for additional funding and support, and to further demonstrate the prevalence of basic needs insecurity at UD. The following information about student experiences with food insecurity on campus has been derived from a series of anonymous analyses only public to Student Diversity & Inclusion (SDI) staff. The piloting of the FSP began in the Summer of 2023 and coincided with the opening of a brand new space, the Center for Intercultural Engagement, where the FSP is located.

Near the end of the Fall 2023 semester, the first semester the FSP was open to the student body, SDI conducted a focus group with users of the pantry to gain a sense of student experiences with the service. Four major themes were identified through the small focus groups: (1) that the quality of items was not only appropriate and useful but affirming, (2) word of mouth was the key way students found out about the pantry, (3) what or who the pantry was for was unclear for many students, but became clearer with personal engagement, and (4) food insecurity is prevalent at UD and the FSP does and could potentially disrupt it. Generally, the feedback on the FSP itself was very positive. As for Theme 4, students identified a number of barriers to food security on campus, including a lack of affordable on-campus food, high costs at the P.O.D.s, and inaccessible supermarkets. For students who had meal plans, accessibility and aversions to the dining hall were key barriers in utilization, and for those without meal plans, balancing time, energy, knowledge, and costs impacted students' ability to meet their food security needs.

A SWOT analysis (strengths, weaknesses, opportunities, threats) of the FSP after its first semester found that a strength and a weakness logistically was the

location of the pantry in the Perkins Student Center. For some students, Perkins was an ideal location for order pick-ups; for others, especially those off-campus or on the outer edges of campus, such as those in North Campus residence halls, Perkins was not an ideal location in regard to transportation back to students' homes. Two notable weaknesses in the FSP impact were the inability to meet the demand of students interested in utilizing the pantry and student shoppers who didn't necessarily have the tools or knowledge to create nutritional meals with their selected groceries.

In January of 2024, a memo was produced, evaluating student responses to a feedback survey after the soft-opening of the pantry in the Fall of 2023. This survey revealed that the average user believes the FSP meets their needs extremely well, is extremely likely to recommend the pantry to a friend, and most users had no problems with the items received. For all qualitative questions asked about satisfaction with an aspect of the pantry experience (ordering times, the ordering form, pick-up, etc.), 100% of the respondents indicated satisfaction with pantry operations. The most common challenge reported by students, mirroring the focus group discussion, was limited access to tools to cook or prepare food (can opener, tupperware, spatula, pan, etc.) and a limited knowledge of what to make with selected items.

At the end of the 2023-2024 academic year, the SDI FSP team produced another SWOT analysis of its operations. Between the Fall and Spring semesters, inventory processes changed. Initially, inventory was sourced through UD's dining partner, Aramark, but this quickly became unsustainable. In the Spring semester, the FSP began outsourcing items from Amazon and Sam's Club, increasing the variety of items, saving around 30% of the budget, and improving consistency. During the first year of operations, the Mini Market and Mobile Food Pantry events, FSP related

programs, saw an increase in the number of students who attended events as the year progressed. By the second semester of operations, the pantry team was meeting capacity every week, despite implementing bi-weekly ordering cycles to improve reach. The Soap Bar service began in the Spring semester as well and began to take off in the Summer of 2024.

During the 2024-2025 academic year, there was a greater desire to collect more information on the need for services for food security, so questions to estimate prevalence were embedded at the end of the ordering form to gauge student needs. Approximately 60% of pantry survey respondents were experiencing food insecurity measured by the USDA metric of food security. Additionally, most respondents reported being able to buy additional food, focus more on school, and pay other bills, because of their utilization of the Food & Supply Pantry. In regard to demographics, the majority of users were graduate students, international students, women, and people of color. From year 1 to year 2, more students became aware of the Center of Intercultural Engagement, and as a result, the Food & Supply Services. As well, despite doubling the weekly capacity and adding measures to even out the graduate and undergraduate ratio, there is still a significantly higher demand for the service than the team is equipped to handle. Unfortunately, the Mini Market, an in-person pantry shopping experience, only occurred once in the Fall due to limited staff capacity in the department, and Mobile Food Pantry events moved to every other month as a result of the Food Bank of Delaware's reservation policies. Inventory needs continue to fluctuate, and vendors are now primarily Amazon and in-person shopping at Costco due to quality, service issues, and inconsistencies with Sam's Club.

Partnerships with various registered student organizations and Student Life departments have increased visibility and donations significantly. In the Fall of 2024 semester, over \$600 in donations were received, and two organizations scheduled volunteer opportunities to assist with bag packing and learn about the FSP mission and food insecurity on campus. The biggest challenge in the Fall 2024 semester was accessibility, with the Qualtrics ordering form as the main pain point, consistently allowing students who could not be served to complete their orders and receive cancellations or interrupting students' ordering mid-form due to capacity. In the long term, there are hopes to create a partnership with the Food Bank of Delaware as the initial vendor and outsource supplemental items as needed as well as utilizing the common PantrySoft software utilized by many other universities.

Existing Barriers to Food Security at UD

There is limited information at UD regarding what pushes undergraduate students into or keeps students food insecure. Some existing data from surveys conducted by the Food & Supply Pantry have found barriers to food security at UD to be related to transportation, costs, access, and cooking competency (Food & Supply Pantry, personal communication). The focus group where this research study was piloted uncovered similar sentiments among students who shared that the poor quality of dormitory kitchens, high costs of groceries on and around campus, unreliable transportation on campus, and the quality of food on campus all impact their ability to have high food security. More longitudinal data will need to be gathered to gauge how these issues ebb and flow over time in relation to rates of food insecurity.

Chapter 4

RESEARCH DESIGN

This is a qualitative study aimed at garnering insight into the undergraduate food experience at the University of Delaware. Through survey data and semi-structured interviews, two research questions were answered: (1) What are the barriers to food security among undergraduate students at the University of Delaware, and (2) What impacts the utilization of food security resources at UD? The Institutional Review Board (IRB) deemed the research exempt from review, therefore, consent was verbal and followed an Interview Protocol, all of which is included in Appendix A, B and C. Interviews were conducted via Zoom and in-person, transcribed using a secure artificial intelligence transcriber, Otter AI, and coded using Excel. Students were provided a \$25 gift card to Food Lion, a grocery store near campus, for their participation. These gift cards were paid for by the department of Student Diversity & Inclusion.

Study Population

The study population was undergraduate students over 18 at the University of Delaware who were enrolled in classes as of the Spring of 2025. There was no gender, racial, ethnic, or other restriction criteria for participating in this study. Food insecurity was not a prerequisite for inclusion in the study.

Sampling and Participant Recruitment

Any undergraduate student who encountered the recruitment flier was offered the opportunity to participate in this study. Student outreach was conducted via email, GroupMe messages, LinkedIn posts, social media posts, and fliers that were put up in

the Center for Intercultural Engagement, a space in one of the campus student centers. Emails were sent directly to students who have utilized the Food & Supply Pantry, and the email addresses of organizations and services that are tailored to students who may be more likely to experience food insecurity. These resources range from student organizations, research programs, residence hall workers, and academic departments. Staff and faculty received individualized emails requesting their participation in the study. There were no eligibility criteria for staff or faculty; they were identified specifically due to their proximity to a department of the campus that does or could intervene with food security in some way.

All students who wanted to participate in the study demonstrated their interest by completing an eligibility survey accessible via QR code or shortened hyperlink provided via email or fliers. The eligibility survey is intended to confirm if the interested student is over 18, a current undergraduate student at UD enrolled in classes, and to determine if the student may be food insecure. In addition to these criteria, the eligibility survey also asked if students have a meal plan and if they live on campus. A total of 44 undergraduate students completed the eligibility screener, and 30 were selected for interviews. All eligible students received a number, 1 through 44, and a random order of these numbers was generated using a website. Using the randomly generated order, the first 30 students were selected. After one week, if students had not indicated they wished to proceed with the study, the next participant who matched 2 criteria (year and housing, for example) was offered their position. This continued until all thirty interview slots were taken. Interviews were conducted in May in person and via Zoom. In addition to students, a total of 5 staff members were interviewed via Zoom for this study, including one registered dietitian. All interviews

were audio recorded and transcribed using Otter AI, an artificial intelligence program that securely stores transcriptions of interviews.

Positionality Statement

As an undergraduate alumna and current graduate student in Urban Affairs and Public Policy, my relationship to this research is both deeply personal and professionally grounded. I have experienced food insecurity firsthand during my time in college and utilized resources to combat food insecurity at UD. This lived experience continues to inform my understanding of the challenges students face in navigating basic needs while pursuing higher education. This research reflects realities I have felt intimately and continue to hear about throughout the interview process.

Through my graduate assistantship, I manage the day-to-day operations of the UD Food & Supply Pantry, a role that places me in direct contact with students who rely on resources to meet their nutritional needs. In this capacity, I observe the complexities of student food insecurity on a daily basis, including the sentiments of stigma, inconsistent access, and institutional limitations. The duality of researcher and practitioner situates me uniquely as I am entrenched in the systems I am studying and a part of my population of interest, while also working actively to improve the institution at large.

I acknowledge that my professional and personal positionality influences the questions I ask, the way I interpret data, and the aspects of student narratives that resonate most with me. I approach this research through an interpretivist lens, grounded in a belief that knowledge is co-constructed and that students' experiences are shaped by their intersecting identities and our structural conditions. My goal is to amplify student voices with nuance, empathy, and accountability, while also

remaining critically reflective of how my own background, privilege, and proximity to power shape this work.

By integrating personal insight with institutional awareness, I aim to contribute to a more realistic and action-oriented understanding of food insecurity in higher education. By continuously reflecting on my assumptions, choices, and potential biases, I aim to produce research that is both empirically grounded and meaningfully representative of students' lived experiences.

Interview Approach

Pulling from a qualitative interpretivist approach to interviewing, student experiences with food and their own understandings of (barriers to) food insecurity guide the conversation. For the purposes of this study, it is crucial to allow the students' interpretations and understandings to determine where the conversation goes in order to see their experiences from their perspectives and understand how and why they identify areas for improvement. Seeing and hearing, in real time, how students name their experiences, derive meaning from their experiences, and internalize or reject societal conceptualizations of their experiences is a vulnerable and insightful experience that allows a deeper look into the mind of an undergraduate student at UD.

Guided by literature written by Gerson & Damaske (2021) and Lareau (2021) on conducting interviews, the interview approach is designed to elicit in-depth narratives rather than simple and superficial yes or no responses. The semi-structured format of the conversation relies on open-ended questions for consistency across interviews, balanced with flexibility to follow the students' unique perspectives on their experiences with food. This approach reflects an interpretivist commitment to understanding how individuals make meaning in their own social contexts. Pulling

directly from the literature, there is a strong emphasis on active listening and open-ended questions with intentional and specific follow-ups and prompts to further demonstrate interest and incentivize more descriptive responses. Improvisational skills are necessary because no interviews will run the same, but all interviews should intentionally, though not forcefully, develop trust, feel collaborative, and establish empathy, with a goal to dig deep and pull out the “big ideas” from students. Through this approach, the study aims to uncover the complex social, emotional, and structural dimensions of food insecurity among college students. The specific protocol for interviewing students, including researcher insight and questions, is included in Appendix B.

For interviews with staff, the approach is very similar. As opposed to students, there is less emphasis on the perceptions of staff but on their knowledge of what the policies, resources, and student experiences are. It is possible that many people I speak to may have never thought about food insecurity interventions or the role they play in perpetuating or intervening in food insecurity. Further, it is also possible that the interviewees are highly aware of their contribution to promoting or reducing food insecurity and may have many critiques they keep inside, so it is key to ensure that staff feel comfortable and as though they are the experts throughout the conversation. The interview protocol for staff can be found in Appendix C.

Interview Protocol Development and Design

The interview questions used in the student protocol were piloted with a focus group with the Social Justice Peer Educators, a group of paid interns in the department of Student Diversity & Inclusion who are trained to facilitate workshops surrounding social justice on campus. The AI software, Otter AI, used to transcribe interviews in

this study was piloted in this focus group as well. The eight students present answered most of the questions chosen for interviews, provided feedback on questions' wording and flow, and offered insight into the types of responses that may be received during formal interviews. Answers from the interviews were used to influence the first-round coding later used to analyze the formal interviews with students and staff. Interviews are conducted using a semi-structured, open-ended interview protocols that are organized into three sections, each focusing on one of the project's primary areas of inquiry: student experiences with food insecurity & resources, barriers to food security and the utilization of resources, and suggestions for improving food security on campus.

The interview process is guided by four principles explained in the introduction to the protocol. The first guiding principle is to create a space to learn about the experiences and understandings of the interviewee, and the role of the interviewer is to help create a space for an interaction that can solicit this. The second guiding principle is to facilitate a conversation. The interview is meant to be a conversation and not overly scripted. The interview questions and prompts are to be used to guide the conversation, but the way the questions and prompts are asked and the topics that are followed up on may vary based on how the respondent engages with the questions. The third guiding principle is to approach with flexibility, emphasizing the variable nature of asking students to reflect on their experiences with food at UD, and staff to reflect on their effectiveness in supporting students. The fourth and final guiding principle is for student interviews. The focus is shared vulnerability, taking a human-centered approach to interacting with the student interviewee as a whole person who is knowledgeable and willing to share their knowledge and experiences.

The first section begins with a “tour” or warm-up question, so as to allow the student time to acclimate to the interviewing process. Each section concludes with an opportunity for the student to add anything else that we didn’t discuss before transitioning to the next topic. The open-ended questions allow for there to be consistency across the interviews that will vary in relevance and interest based on the students themselves. Follow-up questions and prompts are also available as needed to gather specific insight about pre-determined related factors. This approach allows for a more inductive process in which students identify factors most salient for them, followed by a more deductive approach if necessary, where specific questions are asked about related factors pre-determined by the literature.

Analysis Approach

In analyzing and coding the data, a combination of in vivo and descriptive coding techniques was used. Where possible, in vivo coding was used to center the students’ voice in the research; however, when students describe the same sentiment in different ways repeatedly, more descriptive coding techniques were used. Conceptual codes were both inductive and a comparative approach, analyzing all the data together, was employed to narrow down and/or reimagine the final index (Gerson and Demaske 2021, Saldana 2015). The initial codebook was developed deductively, referring to existing themes found in literature. The final codebook prioritizes the student voice and reflects the language and themes offered by UD students.

The first cycle of coding and analysis occurred after each interview. The main themes that were repeated were notated, and after each set of fifteen interviews, the codebook was re-evaluated to determine the best categorization and operationalization of the main themes. In observing patterns and differences among the interviews, new

codes were added, and some were taken away or combined with others. Once all thirty interviews had been completed, the revised codebook was “finalized,” and transcripts were reread, looking for lines that correspond to existing codes as they are operationally defined. Through this process, the goal was to ensure the codes fit the data, as opposed to fitting the data to the codes. Rereading the transcripts highlighted any patterns that were left uncoded, and any patterns in these experiences or perspectives were added to the final iteration of the codebook.

Codes were sorted based on sections, questions asked, and similarities to demonstrate overall themes that fell within the categories of interest in this study. After data entry was completed, an analysis was done to see how student experiences and understanding of the coded concepts were similar or different from staff, and how they may be working in tandem or against one another to promote food security or perpetuate food insecurity. Establishing connections between the codes, categories, and what existing data at UD indicates together provides a clear picture of what may be causing food insecurity among undergraduate students at UD and potential areas to intervene.

Chapter 5

RESULTS

Analytical Sample for Interviews

A total of 44 students completed the eligibility screener for this study, 30 of whom were selected for interviews. Respondent data for both the screener sample and interview sample is outlined in Table 1 below. All respondents in both samples were over 18 and enrolled in classes at the University of Delaware at the time of data collection. Nearly half of both groups reported having experienced food insecurity at some point while at UD (45% of the screener sample and 46% of those interviewed). Comparing the screener sample to the interview sample, data collected regarding the year and housing style of the students shows 14% of interested students were first years, 14% were sophomores or second years, 39% were juniors or third years, 32% were seniors or fourth years, and 2% identified as a fifth-year undergraduate student. The sample ultimately consisted of 17% first years, 13% sophomores, 40% juniors, 20% seniors, and 3% fifth years. Just under sixty percent of the screened participants lived on campus, and 27% lived off campus. Of the sample interviewed, 60% lived on campus and 40% lived off campus.

Behaviors indicative of coping with food insecurity were collected through the screener as well. The most commonly reported behaviors among both the screener and interview samples were attending events just for food (75% and 80% respectively), reducing the quality of food (57% and 63% respectively), and skipping meals (52% and 50% respectively). Awareness of campus food resources varied. The most well-known resources on campus of those listed are the UD Food & Supply Pantry, run by Student Diversity & Inclusion (55% screener; 57% interview), and the Food Bank of

Delaware (55% screener, 53% interview). Familiarity with Blue Hen Bounty and the Food for Success was markedly lower across both groups.

Table 1 Eligibility Screener Data

Variable	Screener Sample	Interview Sample
First year	14%	17%
Sophomore or second year	14%	13%
Junior or third year	39%	40%
Senior or fourth year	32%	20%
Fifth year or above	2%	3%
On-Campus	59%	60%
Off-Campus	27%	40%
Student is 18+	100%	100%
Student was enrolled in classes as of Spring 2025	100%	100%
Student has experienced food insecurity at some point while at UD	45%	46%
Student reduced the quality of food consumed due to constraints	57%	63%
Student reduced the quantity of food consumed in a single setting due to constraints	43%	47%
Student skipped meals due to constraints	52%	50%
Student reduced time spent in classes or on homework to work more hours	37%	30%
Student worked in order to afford groceries	43%	43%
Student worried about where their next meal would come from	20%	17%
Student attended campus events just for the food	75%	80%
Other	23%	3%

Table 1 Continued

Student did none of the listed behaviors	14%	10%
Student is familiar with the UD Food & Supply Pantry	55%	57%
Student is familiar with the Mobile Food Pantry	34%	37%
Student is familiar with the Mini Market	34%	40%
Student is familiar with Blue Hen Bounty	7%	7%
Student is familiar with Food for Success	9%	13%
Student is familiar with the Food Bank of Delaware	55%	53%
Student is familiar with Swipe Out Hunger	36%	37%
Student is familiar with the Student Crisis Fund	20%	27%

The data reflect a consistent experience of food insecurity among both screener and interview samples, with nearly half of the participants in both samples reporting food insecurity during their time at UD. Behavioral indicators such as skipping meals, reducing food quantity or quality, and working more to afford food suggest that over half of these students may be actively coping with constraints, however, fewer respondents reported food insecurity outright, indicating possible gaps in student self-identification with the term.

A notable finding is the widespread participation in campus events "just for the food," reported by 75–80% of students. This suggests food-related events may serve as an informal but valuable resource, especially for students facing food insecurity who may be unaware of or reluctant to use more explicit resources on or around campus.

Familiarity with on and off-campus resources was mixed. While over half the students were familiar with the newer UD campus pantry and the Food Bank of Delaware, fewer knew about the related Mini Market and Mobile Food Pantry events organized by both resources. This may be an indicator of a more limited understanding of the resources on and around campus than students may initially suspect. Furthermore, low familiarity with the more long-standing and established institutional support tools like the Student Crisis Fund or Swipe Out indicates a need for better outreach and visibility among these services.

These findings suggest that while some students are aware of and hopefully using available resources, many remain either unaware of institutional supports and off-campus supports that can supplement their access to food and supplies.

Demographics of Interviewees

Thirty undergraduate students were selected for interviews; the demographic information collected is included in Table 2. The majority of interviewees were White (53%) and were women (73%), and 43% of interviewees identified as part of the LGBTQ+ community. Four interviewees were international students (13%), and an additional 50% of students were out-of-state. The remaining interviewees were in-state students, one of whom was a commuter. Of those interviewed, 80% were employed, with most working on campus and at least 7% reporting more than one job, and an additional 3% DoorDash-ing in the area.

Table 2 Demographic Data on Interviewed Students

Variable	Percentage of Interviewees
Student is White or Caucasian, or European American	53%
Student is Asian or Asian American	27%
Student is Latinx/Latine or Hispanic	10%
Student is African American or Black	7%
Student is biracial	3%
Student identifies as a woman	73%
Student identifies as a man	20%
Student identifies as genderqueer, nonbinary, or gender non-conforming	7%
Student identifies as a member of the LGBTQ+ community	43%
Student is an international student	13%
Student is in-state (from DE)	33%
Student is out of state	63%
Student lives in a residence hall on campus	50%
Student lives off-campus	47%
Student lives in the Courtyard Apartments	3%
Student has a full meal plan with points and meal swipes	67%
Student has a partial meal plan with points only	10%
Student does not have a meal plan	20%
Student has the external Off Campus Meal Plan	3%
Student works on campus	60%
Student works off campus	10%
Student isn't working	20%
Student works both on and off campus	10%

Experiences with Food Insecurity & Resources

The first section of interview questions inquired about students' understandings and experiences with or observations of food insecurity on campus. As

a part of this inquiry, students were also asked about their familiarity and usage of resources on or around campus for food insecurity. After four questions to build rapport with interviewees, students were asked about whether they identified as food insecure, and their responses were later compared to their responses on the screener. Further, each interviewee was shown the USDA's continuum of food security and asked to indicate which statements they agreed with, this was used as another metric to determine if the student may be experiencing food insecurity. Finally, the behavior the students reported on the screener and during their interviews was also used to provide an overall statement of whether the student should be considered food insecure.

Over three-quarters of respondents agreed that their eating patterns were disrupted and food intake was reduced because of money or other resources (such as transportation or time). The USDA identifies students in this category as having very low food security. Under half of respondents agreed that they reduced the quality, variety, and desirability of their diet, at some time while at UD, but the quantity of food intake and eating patterns were not substantially disrupted, an indicator of low food security. Similarly, over 40% of respondents reported no problems with or anxiety about consistently accessing adequate food, an indicator of high food security, but this was not a mutually exclusive answer for all respondents. Only 27% of students were indicated to have marginal food security, agreeing that they have had problems with and/or anxiety about accessing adequate food, but the quality, variety, and quantity of food intake were not substantially reduced. Over half of the interviewed students report worrying about paying bills not related to school (i.e., rent, car payments, pet supplies, etc.) in the last thirty days, with 17% of these students worrying about these bills often. Seventy percent of students have worried about what they are going to eat

in the last thirty days, and over a third of these students worry about this often. More than half of respondents worry about affording groceries in the last thirty days, 30% of whom worry about this often. Sixty-three percent of students also report worrying about school-related bills (i.e., tuition, winter classes, tutoring sessions, etc.), with 20% of students always worrying about this. Lastly, 13% of respondents worried about where they were going to sleep at night in the last thirty days.

While 46% of interviewed students reported being food insecure through the screener, only 37% of students reported being food insecure during interviews. Further, looking holistically at responses to later questions and behavioral reports on the screener, it is estimated that at least 67% of respondents could be considered food insecure. In some cases, this mismatch is likely due to uncertainty about the parameters of food insecurity paired with an aversion to identifying as “in need” due to social stigma, despite describing behaviors and barriers that fall within the definition of food insecurity. Though a number of students opted not to identify as food insecure during interviews, this is not to say they identify as food secure. Alternative phrases like “food conscious” and “food stable” came up when students explained that they weren’t food insecure, but they weren’t living a food lifestyle they loved either. Quotes like the one below demonstrate a disconnect between what students perceive food insecurity to look or feel like and how it actually manifests for college students.

“...for me, someone who's like, food secure, but food maybe anxious. I think that my needs are met by these services. I think that it's accessible. And I think that, you know, if I was in a position where I needed more support, it would be simple enough to find it, but I it doesn't feel right for me to speak on behalf of a food insecure population at UD, because I wouldn't categorize myself there.” – A sophomore at UD

When provided the definition of food insecurity, 53% of students noted that the “socially acceptable” component stands out to them as an aspect they hadn’t thought of before. Over a third of students also identified “nutritionally adequate” and over a quarter of students identified “safe foods”, considering these important ways to nuance what it means to have access to food. Thirty-three percent of students identified access to food that meets one’s dietary needs as a missing component of how food insecurity can manifest. The quotes below demonstrate some of the insights students shared as they thought aloud about the language used to define food insecurity at the federal level compared to their understandings and lived experiences.

“I love the ‘in a socially acceptable’ like manner, that’s so interesting, because I think, yeah, there is a lot of judgment. Like, if people are getting stuff, but maybe it’s from, like, food that’s discarded already, and, like, maybe that’s how they’re accessing it. Or, you know, for folks who are maybe getting money through means that aren’t as like legal or that are more frowned upon, I think that that’s, I just love that addition, because I think that includes a lot more people” -A senior at UD

“Just when I think about socially acceptable, and the nervousness I had trying to, like, put my portions [of dining hall leftovers] under the table in my container, definitely not socially acceptable. Like, what’s normal is just you go and you eat, and whatever you don’t eat there, you just have to leave. But I was like, ‘No, I’m not, I’m not doing that’ because I saw it as an opportunity...I’ll definitely go to other places where [packing a tupperware is] not encouraged, or might even be discouraged, to try to get more out of the situation” – A senior at UD

Fifty-three percent of respondents reported that their access to healthy and nutritious food that meets their needs worsened since coming to UD, as compared to when they are at home. Of the third of students who said their access improved, 46% of them reported being food insecure. In articulating aspects of their access that worsened and thinking about contributing factors of food insecurity, 57% of students identified limited financial resources, 40% of students named the food available on

and around campus, just under a third mentioned the price of items on and off campus, and over a fourth noted the lack of access to a reliable means of transportation.

“...definitely worse. Um, just, I don't have a car on campus, so having access to, like, go grocery shopping and stuff, like that is really difficult...Like, I'll go grocery shopping maybe once a month. I'll have lettuce and produce and stuff the first week, and then, like, the next three weeks, they don't really have anything. I'm also a vegetarian, and part of why I don't have a meal plan is because the vegetarian options on campus are really, really bad. So my first semester, like, freshman year, I had a meal plan, and I would go to the dining hall and be like, 'great, I can have rice and roasted carrots.' So now that I'm, like, in an apartment and have a kitchen, I'm able to, like, cook more, but [I eat] definitely a lot of like freezer foods, and not like fresh produce or nutritious food” – A “food secure” sophomore at UD

“...if you have to pick between tuition and getting enough food, you know, you don't want to be...full and have no prospects, so you pick hungry, and you know, have more opportunities.” – A “food insecure” sophomore at UD

The two quotes above underscore the decisions that students make based on their priorities. For the first student, the meal plans weren't meeting their needs, but they don't necessarily prioritize fresh produce or nutritious food, even living off campus, because they don't have a car. For the second student, sacrifices are made that will impact the individual as a whole for the perceived benefit of potentially having successful avenues.

Concerning resources, the most well-known resource was the UD Food & Supply Pantry (60%), but half of the respondents indicated they were unfamiliar with any (other) resource on or near campus. No interviewed students had heard of Food for Success, the international student pantry launched in November of 2024, and only 7% of respondents were able to share accurate information about Swipe Out Hunger, the Student Crisis Fund, and SNAP acceptance at the Harrington Pod. Ten percent of

respondents and 20% of respondents could share accurate information about Blue Hen Bounty and the Food Bank of Delaware, respectively. A third of the respondents also mentioned other resources for students, including familial and friend support systems, free dinners at churches near campus, career center grants for unpaid internships, and meal plan accommodations with Student Health. Only 17% of respondents had used one of the aforementioned resources before, and of those, 7% and 3% of users mentioned issues with the frequency of use and the longevity of the items they received, respectively.

The quote below demonstrates the informal reliance on FS friends and stable family or other support systems among FI students.

“So then [my food insecure friends and I] would do some kind of trade, like they would get me something, a little something with points, while I, like, paid for their meal...the focus wasn't on whether it was a fair trade, but more so that they we both could get the[off-campus] meal, and they didn't have to worry about paying for it, and they did also didn't have to feel like they owed me anything.”- Eliza, a food secure junior at UD

The most commonly reported impact of food insecurity was on students' energy levels, with 53% of students naming this impact. Two students specifically referenced Maslow's Hierarchy of Needs, and three students referred to the phrase “food is fuel,” such as the student quoted below.

“Food is fuel, like, you're not if you're not eating an adequate meal, like all the time, you're going to be so tired.” – A sophomore at UD

Thirty-seven percent of students talked about the negative impact on grades, with a third of all respondents specifically talking about difficulty focusing. Thirty percent of respondents discussed varying personal or general health implications of not accessing

consistent meals or consistently nutritious meals. The two quotes below emphasize the physical and emotional toll that food insecurity can take on students.

“When I started substituting those healthy meals with like, meals from like Denny's, or like fried and or cooked meals from fast food and stuff like that, it kind of made me feel like lethargic for the rest of the day, where, if I had it for lunch, then for the rest of the day, I just would not want to do anything if that makes sense...and then, like, feeling myself in my body, like, just like looking at myself in the mirror and stuff like that, gets more mentally taxing because, like, I don't like the way I look, you know what I mean...one small mistake in a diet can affect you so much in so many ways. It's kind of crazy.” – A senior international student

“Yeah, food is such an overarching thing. It's not some a problem like a water bill that can be turned off. You know, like you don't have electricity for a day, whatever, if you don't eat...you just die, right? And it's such, like, my gosh, I'm also one of those people. I get angry. I get like, migraines. If I don't eat, it's like, you know, it's just so, like, uncomfortable, and you can't work for stuff. It is, I think, simply impossible... just like the hunger in and of itself, but also worrying about, if you don't have storage for food, where you're going to pick up your next meal, you know, what's it going to be? You know, do you even have the capacity to think about nutrition at that point? You know, it's just so hard, and it's one of those things that has to be on your mind. 24/7. Are you making enough time to stop for groceries? You know, do you study for this test, or do you cook and meal prep for the rest of the week?” -A senior at UD

In regard to social life, two camps developed: those who think food insecurity may push someone food insecure to be more social, and those who think being food insecure may push someone to be less social. Half of the respondents discussed that being food insecure may cause students to actively avoid events they may be interested in in favor of using their meal swipe, because they don't have the energy, or because they feel shame about not being able to financially participate should they choose to go. In a similar light, 47% of respondents talked about students being left out of events where the costs of food may be high, causing them to be more isolated

on campus. A popular theme, demonstrated below, was a reference to Main Street being a place where many students will go to engage in formal and informal social activities. The following quote underscores how the proximity to Main Street may perpetuate isolation.

“I mean, I know for me, it really does suck when my friends want to, like, go out to dinner and everywhere on Main Street, it's like \$20 minimum what you want to get, if we're, like, eating at a sit down place. So I definitely think it can affect people's ability to go to things and join things, if they have to decline, if they like, just can't afford to go out.” – A junior at UD

On the other hand, 30% of respondents indicated that food insecurity may increase engagement and involvement as students may actively seek out and attend events where they will be provided with free food. The student perspectives highlighted below reflect both of these camps.

“It's kind of sad that I, like, really, like, you know, go to events because I'm like, Okay, I'm gonna get free food, which is kind of sad, right? Because, like, I'm a social person, and I want to be doing these events. I want to be able to connect with people. But like, it's all like, clouded because, like, Oh, I'm hungry, or, like, I didn't eat all day. Like, I'm hungry, like, or I don't have enough meal plans.” – An international senior at UD

“If I don't feel good, and there's a social event, like, I'm not gonna want to go to that social event if I'm like, hungry, tired and all like, it's gonna inhibit me from, like, going out to do stuff, which happened a lot of times, like, I would hear about stuff, but like, I just was like, dang, I don't feel like, good. Like, those are types of things I want to go to if I feel good. Like, I'm like, in a good mood, but you know, you're not in a good mood, so it inhibits you from going” – Poochie, a junior at UD

Table 3 summarizes the percentage of students who indicated reported the aforementioned responses below.

Table 3 Student Experiences with Food Insecurity & Resources

Variable	Percentage of Students
Student identifies as food insecure	37%
Student can be considered food insecure	67%
Student reported that their access to healthy and nutritious food that meets their needs worsened since coming to UD	53%
Student reported that their access to healthy and nutritious food that meets their needs improved since coming to UD	33%
Student agrees with USDA indicator of low food security	77%
Student agrees with USDA indicator of marginal food security	47%
Student agrees with USDA indicator of moderate food security	27%
Student agrees with USDA indicator of high food security	44%
Student worried about paying bills not related to school in the last 30 days	67%
Student <i>always</i> worried about paying bills not related to school in the last 30 days	17%
Student worried about they are going to eat in the last 30 days	70%
Student <i>always</i> worried about what they are going to eat in the last 30 days	33%
Student worried about affording groceries in the last 30 days	57%
Student <i>always</i> worried about affording groceries in the last 30 days	30%
Student worried about paying school related bills in the last 30 days	63%
Student <i>always</i> worried about paying school related bills	20%
Student worried about where they are going to sleep at night in the last 30 days	13%

Table 3 Continued

“Socially acceptable manner” stands out to students in the USDA definition of food insecurity	53%
“Nutritionally adequate” stands out to students in the USDA definition of food insecurity	33%
“Socially acceptable manner” stands out to students in the USDA definition of food insecurity	27%
Student mentioned that access to food aligning with dietary needs is missing from the USDA definition	33%
Student was familiar with the UD Food & Supply Pantry	60%
Student was familiar with the Food Bank of Delaware	20%
Student was familiar with Bue Hen Bounty	10%
Student was familiar with Swipe Out Hunger	7%
Student was familiar the Student Crisis Fund	7%
Student was familiar with the SNAP program at Harrington	7%
Student was familiar with Food for Success	0%
Student has used one of the resources mentioned	17%
User experienced issues regarding the frequency of use of services	7%
User experienced issues in how long the items received from a service	3%
Student named another resource for students facing food insecurity	33%
Student identifies limited financial resources as a contributing factor to food insecurity among college students	57%
Student identifies the food available on and around campus as a key factor	40%

Table 3 Continued

Student identifies the price of items on and off campus as a key factor	30%
Student identifies a lack of access to a reliable means of transportation as a key factor	27%
Student discusses the impact of food insecurity on one's energy levels	53%
Student discusses the impact of food insecurity on one's grades	37%
Student discusses the impact of food insecurity on one's focus	33%
Student discusses the impact of food insecurity on one's health	30%
Student suggests food insecurity would cause students to disengage	50%
Student suggests food insecurity would isolate students from social life on campus	47%
Student suggest food insecurity would increase a student's engagement on campus	30%

The number of students who were surprised by “socially acceptable”, “nutritionally adequate,” and “safe foods” being key components to the USDA’s definition illustrates the limited working understanding of food insecurity on UD’s campus. The featured quote below provides insight into how students separate themselves from the label of food insecure, and simultaneously, food secure. This could indicate an understanding of the spectrum, but is more reflective of a discomfort with what labeling oneself as “food insecure” could signify.

“I think I am not [food insecure], and I spend all of my time bordering that line because you know how much my groceries are going to cost is going to be a constant thought in my head. There's no purchase that I make without thinking about, like, you know, the other money that I have to spend and that that usually does look like groceries on a weekly

basis. So, like, I picked up a job DoorDash-ing in the area just to, like, take the edge off and have an extra 30 bucks for groceries in a week. So I don't, I don't think that that counts as food insecure, because I have a lot of food in the fridge, fortunately, but I am consistently aware of it"
– A junior at UD

Some respondents used language like “go hungry” or “starving” colloquially, further supporting that the mutually exclusive continuum of food insecure, to hungry, to starving is more of a grey area for students as opposed to clearly defined and separate experiences. It will be difficult to get an accurate count of food insecurity moving forward, should clearly defined parameters not be provided to students. However, as noted in the quote below, sometimes clearly defined parameters exclude students who are experiencing food insecurity and would benefit from resources. Incorporating multiple measures of food insecurity allowed for a more in-depth and nuanced understanding of how students were coping with limitations in their lives that aligned with the behaviors of someone experiencing food insecurity. It is also worth noting that only two students discussed food insecurity as something that can be temporary, as opposed to chronic.

The top quote is an example of the colloquial usage of “starving” by a student. The following two quotes describe students' struggles to resonate with the label of food insecure after reading the definition provided by the USDA.

“So I like, starve myself until then, like, I can't go [to the dining hall] before four or I'm gonna get hungry later in the night, and I'm gonna, like, regret that” – A senior international student at UD

“I feel like, you know, at the end of the day, like these definitions will be missing, like a lot, because I feel like a lot of our experiences are different, and a lot of our experience, like our experience, our results are shared, but like, a lot of our process, or like, what we go through is very different. I feel like, not like just a few words, cannot, like, you know, like, yeah, shine light on that, right.”-An international fifth-year

“I’d say [I’m food insecure], but not consistently. I mean, obviously, everything's like a scale. You know, I wouldn't say I'm at either end of super secure, super insecure, but it's definitely inconsistent. Definitely. It's a daily thing, you know, like, what am I gonna eat? How am I gonna eat?” – A commuting sophomore at UD

An important aspect of food insecurity in higher education that is missing from the literature is determining if students are coming to college food insecure or becoming food insecure while at college. To attempt to answer this question for UD, students were asked to compare their access at UD to their access at home, with more than half indicating their access worsened. Of the third of students who indicated their access increased, almost half of these students reported being food insecure. This suggests that students who are coming to UD with pre-existing food insecurity may see an improvement, but simultaneously, students coming to UD with pre-existing food security may be more likely to see their access to healthy and nutritious meals worsen. Despite the perception of UD as being home to wealthy students, the majority of respondents shared that money or other resources directly disrupted their eating patterns, and they often worry about paying bills and getting food to eat. These worries shed light on the reality that many students are one family emergency, parking ticket, or a bad sickness away from being, even temporarily, food insecure

The food available on campus being an identified contributing factor to food insecurity suggests that, constraints aside, students may consume more food on campus if it were different. Several students discussed their own or observed experiences of friends with dietary restrictions, often referencing how poor the quality of the food is. For students searching for on-campus Halal or Kosher food, the timing and locations are inequitable compared to the food available that is neither Halal nor Kosher. For students searching for more cultural foods, there is a delicate balance,

demonstrated by the quote below, of a student wanting to have a taste of home without the dish being made inauthentically.

“...I've never seen like an Argentinian dish [at the dining hall]. I'm not gonna ask for [dish from their country], that's too niche. But come on, Argentina is pretty big. But also, I actually don't want [the dining hall] to do it, because the Puerto Rican plate [they currently make] don't hit it. I be putting salt and pepper on that because it doesn't taste like anything.” – A UD senior

Students identifying financial resources as a key contributing factor may open avenues to proactively intervene with food insecurity by identifying students entering the campus from low-income families, with Pell Grant eligibility, or with Work Study.

Students recognized that food insecurity has a strong impact on students' lives, and while some were only inferring, most students described behaviors that align with the literature. A number of students, including food-insecure students, reflected on how they feel when they are hungry and projected how they would feel if they were more chronically hungry onto an imaginary food-insecure student, another indicator that students try to separate themselves from the label. Socially, students were torn thinking about the impacts of food insecurity, but many mentioned the school culture of grabbing lunch or coffee on Main Street as a tension point internally. Even for those who could be described as food secure, spending endless money on Main Street, especially if they have a dining plan or groceries at home, seemed like a waste. While some folks believe food insecurity may push you to be social in an effort to attend events with free food, some food-insecure students talk about the opposite: avoiding events because of low energy or in favor of using a meal swipe at the dining hall.

Finally, the knowledge of resources indicates an even larger, more pressing gap on campus: for those who are food insecure or who toe the line, resources remain

invisible. The UD Food & Supply Pantry, being the most well-known resource, comes in large part due to efforts in the last year to increase visibility. However, it is well understood that the pantry has a limited capacity of 40 students each week, half of which is reserved for graduate students. Thus, it is important that other resources that can be used in place of, or to supplement the pantry are promoted as well. Swipe Out Hunger and the Student Crisis Fund, being more established on campus, offer different forms of assistance that a student facing food insecurity may be interested in receiving as well, while the various food banks supply the same resource: food. Additionally, students mentioning support systems like friends and families being resources further demonstrates the need for information on resources to be disseminated to all students and their families, not only the ones who may be assumed to need it.

Overall, the findings from section one sound two alarms. Firstly, the conceptualization of food insecurity does not include all the students who may demonstrate coping strategies aligned with the label. If students do not feel, or actively resist, labels like food insecurity, the prevalence of the issue dwindles, potentially decreasing the perceived need for resources for students. Further, a resistance to identifying as food insecure may leave resources underutilized, which can suggest inefficiencies that cause services to scale down. While students may be hesitant to identify as food insecure, they are more likely to resonate with unlabeled actions that are seen as more universal, like worrying about bills or skipping meals. These behavioral components are integral to determining where on the security spectrum students are actively falling. Understanding that labels like “food insecure” may come across as too harsh for some students can be useful in regard to the marketing of services and resources for students. However, it is important to speak truth to power

by normalizing the prevalence of needing assistance, and not the behaviors themselves, as the goal is not for students to see food insecurity as the default the expectation of a college student. The second notable conclusion is that students appear to be coming to UD and becoming less food secure, suggesting institutional barriers are greatly impacting students regardless of their financial and food systems at home. While it is worth recognizing that students who are food insecure at home find more security at UD, this should almost be expected given the way the on-campus experience at UD is structured. There may be students who are food insecure at home and remain food insecure on campus due to the eating patterns they have developed. Considerable effort should be dedicated to better understanding the eating habits and relationships food insecure students may have when entering higher education, and how these habits can be unlearned to help the proportion of food insecure students who don't see an improvement in security when coming to campus.

Barriers to Food Security & Utilization of Resources

The second section of interviews examined what students perceived to be the biggest barriers to food security on campus, as well as factors that impact the use of the resources on and near campus. Just over half of respondents reported they do *not* feel that UD adequately supports students who are facing food security, and the majority had not heard anyone on campus talking about food insecurity or resources before our meeting. Over half of all respondents named key barriers to meeting their food needs and wants as limited financial means, limited access to transportation, and the quality of food available on campus. Students also reflected on their living arrangements and how they may impact their access to food, with kitchen access being a key factor. As the conversation segued to resource use, students discussed how

limited awareness of resources and stigma may impact them or their peers from using what is available to assist them. To explain the limited knowledge of resources, many students pointed to the marketing of resources, with smaller percentages of students talking about student behaviors around reading emails. talking about being in need, and the perception of privilege at UD.

Over half of the interviewed students felt that UD does not adequately support students. Many of those who felt UD does adequately support students admit that more can be done, citing that their lack of knowledge on most resources we discussed is an indicator of room for improvement. The three quotes below showcase three student perspectives on what support can, should, and does look like at UD.

“I don't think so. I think that they can see like, especially when we're paying tuition stuff. I think they can see what students like, expected family contribution is, and...they help them with tuition and stuff, but...those people are having a hard time paying for things in general, yeah. And then in theory, like, [the University higher ups] are not the ones, like, saying much. It's like people like you graduate students or like RAS that are like, the ones that are advocating for these kids, but not like, not like big people that should be showing that they care about these [students], if that makes sense. Which probably makes it harder on the student end...” -A UD sophomore

“Um, well, I mean, like, yes and no, I think that those sound like really great resources, but since I've only ever heard of like one and a half of those, I feel like it isn't supporting students fully...I'm like, surprised that I've never heard of, like, most of those, like, even the food swipe one, even though I was like, familiar with it, I didn't actually know what it was doing, like, how people access it. So I think UD could do a better job in that way, like informing people.”-A UD senior

“...I feel like it's easy for people to get lost in the system and, like for UD to just kind of neglect them, because like, UD doesn't like, it's you guys who are working with the actual programs doing it.” -A UD junior

Only 43% of students had heard about food insecurity from a staff member or faculty before, with most hearing about food insecurity as a concept within their major (i.e., criminal justice, food sustainability, and health behavior science) or from direct connections to Student Diversity & Inclusion staff who operate the campus pantry. One student, a food-insecure man at UD, shared that they had heard about food security from a philosophy professor who stated that “no UD student experiences [it].”

When thinking explicitly about barriers to meeting their food needs and wants, many students echoed similar sentiments from earlier in the interview, that limited financial resources (61%) or transportation access (50%), or quality of food pose barriers to their daily access. Quality was operationalized differently for different students. Half of the students talked about the freshness of food and produce found at the dining hall, Perkins, and Trabant (food court locations), and the POD markets on campus. The following quotes reflect two student interactions with foods they felt were unsafe to consume.

“I also have a feeling that, after I came here, many of the foods, like vegetables or fruits, in catering at events, I don't think they wash them. I think they just [take them] out of the bag. And I'm a pretty high standard person about the cleanness of food, and sometimes I just feel maybe it's not that safe food to eat, but still, there's no other choices.” – An international junior at UD

“I got like the thing called, like, the Best Friend Box in the POD, in the Nest. It is, like, apples, peanut butter, and grapes. You open it up, [and it's] covered, like a gray slime. Something went wrong, something happened there. I don't trust food from the POD ever again, not worth it and, like, you don't get your money back...At least the grocery store can be like, hey, there's a level of quality that you have to meet, right? And no one at school actually takes accountability for the quality of food that PODs”. -Locke, a UD senior

Fifty-four percent of students talked about the healthiness of the food available to them, with many citing how prevalent fried food was on campus, especially at night, and how expensive the nearest grocery store with fresh produce is. The following quotes further qualify the desire for healthier foods in place of the myriad of fried food vendors on campus.

“If I was to critique anything, I think that there should be healthier food in CR and Perkins, [in] Perkins...you have, like, the quesadilla place, and then you have, like, Denny's, not healthy, right? I get sick from, like, fried food, not fun. And most of what is served in CR like, they just have, like, multiple fried chicken sections...When I'm near Trabant and I have the time to do the 15 minute walk there, 15 minute walk back, you know, I get, like, my salad from Greens To Go. That's perfect. I wish there were more options like that around campus...And the PODs! There's, like, only candy and gum there.” – Locke, a UD senior

“I don't want to, like, be like...dining hall hours are [too] limited, because they were worse, right? And they're much better now...but a lot of times the late night options is all fried food, and I want to throw up at 11 o'clock because it's just oily food. And it's like, sometimes, like, I have labs until like, eight or nine, I have no option but to hit that like, late night [meal time]. So it's really hard, like, just because, like, I want to be able to eat something healthy, but you don't get that in a way” – A fifth year international UD student

Another 54% of students talked about the taste of the food, some of whom talked about the cultural significance of having food made with certain spices and flavors. Fewer students mentioned the prices of food off-campus (25%), either in grocery stores or at restaurants on Main Street, the prices of on-campus food (21%), the distance to a supermarket (21%), and policies around catering and leftovers (17%). The following two quotes, from one international and one out-of-state student, represent the lived experiences of students who find cultural nourishment lacking in foods across campus.

“... my body’s used to eating, like my home food, so like the flavor and the spices that we use back home, and when I came back over here, like, especially freshman year, it was very bland and, like, just salt and pepper sort of stuff. Which I mean, like, now I’ll be fine with it, because my body’s more used to it, but initially it was a lot more difficult, because [my body] just didn’t want me to eat the food. Like, I just started to, be like... ‘Oh, I’m not feeling hungry anymore’ and that also, unfortunately, made me substitute those healthy meals that I can get from CR to meals from like Denny’s that’s fried... I found that little more flavorful, probably because of the oil and the bread, but it was way more flavorful than just having overcooked chicken with just like salt and pepper in it, so the flavor was just missing.” – An international senior at UD

“Comparing it to home, my mom, she’s a Latina woman, so she cooks a lot of spices, and she’s a good cook to me, and she cooks a lot of chicken and a lot of steak, and a lot of meat. And we just eat a lot of protein and grain when I’m home, where I don’t eat any of that when I’m in school.” – A first-year student at UD

“...[new policies] said no more, like, outside food when you have 20 or more guests [at an event], as a part of the new RSO policies. Which is really hard, right? Because if you have to get catering, I mean, yeah, they do a good job, but, like, they’re so expensive for like, let’s say 50 people. And when you want, like, shine [a light on your] culture... it’s so hard because half your budget is blown through. And obviously people don’t want to do that anymore, because it’s, like, expensive. And when you want to run the events throughout the year, and you don’t get any additional budget, it’s really hard, and obviously limiting” -A UD senior, president of a student organization

The quote above underscores how potentially well-meaning policies can inadvertently harm students and organizations looking to provide a piece of home for themselves and their peers.

Living arrangements varied for respondents, with most of those living on campus residing in traditional-style residential dorms with communal bathrooms and one kitchen for the building. A few students lived in suite-style dorms on North Campus, jack-and-jill styled rooms with privately shared bathrooms and one kitchen

for the entire building. One student actively lived in the Courtyard Apartments, apartment-style buildings considered on-campus housing with private bedrooms, bathrooms, and full kitchens for each space; a few students were planning to live there in the future. Having access to a kitchen that a student could “comfortably use” was impactful for a lot of students. Of those who live in dorms, kitchen access was an underwhelming experience, if not a negative one. Forty-three percent of students talked about their proximity to a dining hall as an important factor in whether or not their living situation facilitated food security. The quotes below reflect a number of experiences of students based on their access to kitchens.

“The issue with Gilbert's kitchen specifically...it's like foul in there. They gave us our garbage cans back because people just trashed it so badly that they were like, just gave it back. And then also, people were stealing the trash can from the laundry room and taking it into the kitchen, so then there was lint all over the floor. So they gave us our trash can back....Not blaming this on facilities at all. It is not their responsibility to clean the kitchen. However, apparently, students don't know how to be adults and clean up after themselves. So the kitchen is foul and disgusting. It has a stench. It has a stench, and you can smell it from down the hall, and so I just choose to avoid it as much as I can...because it's like, it's not that I don't have access to, like, I have access to the kitchen. It's just gross.” – Pumpkin, a first-year at UD

“I'm not saying like, ‘Oh, I clean it out once a week’, I'm saying, like, every two or three months, there's, like, stuff, stuff rotting in there. The milk is turning cheese type vibe, which also deters students from using the fridge. Most people just, like leave stuff there, and then it's not getting cleaned out.” A senior resident assistant

“I know people used to bake there, but then fire alarms started going off, and people started getting mad. So they were like, if you're going to bake something, you got to be a good baker, if not...Like, RAs were like, you can't keep [doing this] because everyone would go get out of the building and it'd be like, ‘oh, sorry, I burnt some cookies’” – A first-year at UD

“I feel like having a meal plan, I ate pretty healthy. Um, because they serve, like, real meals, like real food. You know, now that I'm cooking my own food, I think I'm much less healthy, much more like processed, quick stuff.” – A UD junior

Grocery stores, areas where students can get fresh produce, were another area of contention, with 29% of students discussing their home's proximity to a grocery store. Storage space, including pantries, refrigerators, and freezers, also came up in 21% of interviews. In under 20% of interviews, students talked about the requirement to have a dining plan when living on campus, with 80% of these students noting this as a positive. While nearly seventy percent of students discussed the convenience of being close to a food vendor (restaurants, food court, or a dining hall), not all students were conveniently located near preferred food vendors. Under a third of respondents talked about their commute to the nearest or most preferred food vendor on campus because of where they lived or had class. The two quotes below highlight difficulties students face in getting to or fully utilizing the “food path” on campus due to their schedules or unreliable transportation.

“My first and second years, I didn't have time to, like, stop into a dining hall or, like, eat lunch in between classes. I had 15 minutes to get from point A to point B, and then 20 minutes to drive down to practice, right?” – A junior student athlete

“...even if there were, like, busses to get [to the North Campus dining hall], like just walking there takes a long time, and it's also whether you're able to walk that distance and back, and whether you feel safe waiting alone at night for the bus, especially like during the winter, when it gets darker. And like, would your friends really want to go with you every day to Pencader so you're able to access [Halal] food, or will you be waiting by yourself?” – A senior resident assistant (RA) at UD

Nearly half of the students discussed at least one time where their schedule conflicted with the main meal time at the dining hall, opening up broader conversations about how student free time paired with dining hall hours.

As the conversation focused on resources again, 69% of respondents named a student's limited awareness of the resources around them as a key barrier preventing students from using the services available. Similarly, 65% of students discussed the social stigma of asking for help, using resources, or talking about being food insecure as an additional barrier. Twenty-seven percent of respondents discussed students feeling as though those resources “aren’t for them” either through eligibility criteria or in terms of the type of support they were looking for (food that meets their cultural needs, for example). The three quotes below demonstrate how stigma can be internalized by students, impacting how they utilize resources, if at all.

“And I told [my roommates] about the resources, like, especially the Soap Bar, because, like, we hate buying laundry detergent. And I was like, ‘guys, like, we could do this!’ and then they were like, the first thing they said was like, ‘Oh well, we don't want to take that from someone else’. And I was like, ‘Okay, I get it, and I feel the exact same way, but I feel like this is I feel like it's for us. I feel like we could use it.’ And I feel like that kind of question compounds everything else...It's like if you don't resonate with being, with being in need of it, you're not going to use”-A junior at UD

“I would say just kind of like the stigma around it, and even like, for my case...something like SNAP benefits and stuff, I never thought, like, ‘oh, I would be someone to qualify for it’. So, like, or, you know, I would like, coming into this, I'm like, oh, like, food insecurity is not how I would describe myself. So that's not something I need to look into. But knowing like, oh, that there's something that is available for people in my situation, kind of thing. And same with, like, the food banks and stuff, where it's just like, Okay, I don't need to be like, ‘going hungry’ to still use these resources and, like, better, better my nutrition.” -A junior at UD

“I think, like, even when I have used the [campus] food pantry in the past, like, I walk up the stairs super quickly, and like, I walk even faster out with the bag. Like, I don't want people to think that, like, I can't support myself. And like, that's been a huge thing too, is, you know, I am too proud, I guess, to ask my parents for help, and while I have that support, if I were to be in a very desperate situation like, I don't want to

have to resort to that. So I think for college students, it probably could be really hard to, you know, go out and be in public and be needing help and assistance so publicly” – A junior UD pantry shopper

Lastly, 14% of students noted the time needed to visit the resources and/or the time it takes to receive assistance.

To further explain the largest named barrier, lack of knowledge, students were asked to identify reasons students may be in the dark. Half of the respondents indicated that the marketing of resources was ineffective, with a quarter of all interviewed students suggesting that students aren't reading emails or signage where these resources are promoted. Another 25% of students suggested that when these resources are shared, students may not feel that the information is relevant and thus forget or ignore the information. One-fifth of students talked about the perception of UD and its students being privileged and financially well-off as a barrier, as it prevents students from wanting to talk about resources or be perceived as less than for needing them. A smaller percentage of students (15%) discuss difficulty accessing physical locations of resources or electronic information, with an additional 5% explicitly stating that resource websites are difficult to navigate. The following two quotes are examples of ways students alluded to the perception of UD as a place brimming with privileged students. The final quote reflects the duality of student experiences with emails: getting so many students don't read them thoroughly, while being the students' main source of information.

“I don't even know how to describe it, but I just feel like, like, this school just like appears so, like, prestigious and like, everyone has everything.”-A UD sophomore

“I think there's still a lot of stereotyping... you know you're a college student, you live off of ramen, but at the same time, it's not something people like to talk about very seriously.” – A fifth-year UD student

“Sometimes I'll read my like, UD emails that everybody gets. Sometimes I'll just throw them straight into the trash. I think for a lot of people, I don't know if these resources have actually been advertised in emails, but for me, that's like, the only way I would know of something” – A UD junior

Table 4 below outlines the percentage of students who identified specific barriers impacting food security and the knowledge and usage of resources on and around campus to support food security.

Table 4 Student Identified Barriers to Food Security and Utilization of Resources

Concept	Percentage of Students
Student does not feel that UD adequately supports students facing food insecurity	52%
Student has heard leadership talking about food insecurity or campus resources	43%
Student identified limited financial resources as a barrier to meeting food needs and wants	61%
Student identified dietary restrictions for health or cultural reasons as a barrier to meeting food needs and wants	43%
Student identified a lack of access to a reliable means of transportation as a barrier to meeting food needs and wants	50%
Student identified the freshness of food and produce as a barrier to meeting food needs and wants	50%
Student identified the healthiness of available food as a barrier to meeting food needs and wants	54%
Student identified the taste of available food as a barrier to meeting food needs and wants	54%
Student identified the prices of food off campus as a barrier to meeting food needs and wants	25%

Table 4 Continued

Student identified the time available to eat as a barrier to meeting food needs and wants	21%
Student identified the prices of food on campus as a barrier to meeting food needs and wants	21%
Student identified the distance to a supermarket as a barrier to meeting food needs and wants	21%
Student identified policies around catering and leftovers as a barrier to meeting food needs and wants	18%
Student discusses reliable access to a kitchen	86%
Student discusses proximity to a dining hall	43%
Student discusses proximity to a supermarket	29%
Student discusses storage space	21%
Student discusses the requirement to have a meal plan when living on campus	18%
Student discusses the convenience of living near a food vendor	68%
Student discusses the hours dining halls are open	44%
Student discusses the commute to other food vendors on campus	32%
Student identified limited awareness as a barrier to resource use	69%
Student identified stigma as a barrier to resource use	65%
Student identified self-exclusion as a barrier to resource use	27%
Student identified time as a barrier to resource use	14%
Student identified marketing as a barrier to resource awareness	50%
Student discusses word of mouth as a barrier to resource awareness	25%

Table 4 Continued

Student identified relevance as a barrier to resource awareness	25%
Student identified reading habits as a barrier to resource awareness	25%
Student identified the perception of privilege as a barrier to resource awareness	20%
Student identified accessibility as a barrier to resource awareness	15%
Student identified complex websites as a barrier to resource awareness	5%

Students' ability to identify barriers to food insecurity provides insight into the daily challenges students face when acquiring food. There is a clear disconnect between University messaging and the student experience of food insecurity. The number one cited reason for students not feeling that UD supports food insecure students was a lack of awareness among the student body of resources. This reality, combined with the majority of students not hearing about food insecurity, even as a concept, suggests more formal institutional messaging is needed in academic and social spheres. Although it was only one student, the anecdote of a professor reporting that no UD student experiences food insecurity reflects the erasure of struggle among UD students and the harmful misconceptions that contribute to the stigmatization of seeking help. The gaps in how food insecurity as a whole is discussed and resources are shared point to institutional fragmentation in that the services are not integrated into the student experience in a way that is accessible or impactful for students. As noted earlier, cultural and dietary restrictions and preferences impact students tremendously, as does the freshness and nutritional value of food available. These insights go beyond critiquing the availability of food, but rather provide insights about

the expected quality of food students anticipate when attending UD. The quote below emphasizes the significance of access to cultural food items to students experiencing food insecurity.

“If you're stressed or you're tired, you just want, like, a pick-me-up, a taste of home is so much more impactful than like, a cup of ramen or a cup of Kraft Mac and Cheese, just like one meal, right? Like, that's okay if I don't eat like, three meals a day, if I eat like one, like a comfort meal...” – An international senior at UD

Meal times in the dining halls emerged as a barrier to accessing food for many students who cited busy class schedules or extracurricular activities as preventing students from having the time to take full advantage of buffet-style dining halls. Further, some students, due to proximity, end up spending more points than meal swipes in an effort to get a more “on the go” meal that better meets their mobile lifestyle. For commuters and students who live off campus, storage space for their meals and snacks also restricts the quality and quantity of food they are able to travel with, as demonstrated by the quote below.

“So I pretty much always bring food from home... my backpack on Tuesday...I have to, like, perfectly, like Tetris it. My yoga mat that goes like, in the middle sticks out the top. I look ridiculous. I have my lunch box in, like, inverted the long ways on the side...lunch is either like an actual lunch, or like just a whole bunch of different snacks or small things that I can justify as my meal throughout the day...it's a little bit annoying, because I have to, like, find a million containers and carry it with me, um, all day...” – A senior student living off-campus

Students identifying stigma as a barrier to resource use reiterates concerns previously mentioned about students wanting to separate themselves from being seen as ‘in need’. In this section, we see students being afraid to be seen accepting help or internalizing assistance as a sign of weakness, forcing themselves to suffer in silence.

The privileged perception of a UD student, combined with institutional silence on the matter, further exacerbates the impact stigma has on students in need.

When leadership fail to telegraph to students that there are resources on campus for them to use, students are left with the impression that the university isn't supportive of their needs. Combined with personal limitations like financial, dietary, and transportation constraints, institutional barriers such as price, quality, and geographic availability compound a student's difficulties in nourishing themselves. Understanding how the coping mechanisms and worries articulated in the survey and the previous section are grounded in these obstacles demonstrates the complexities and pervasiveness of food insecurity, specifically among undergraduate students. While seemingly unrelated, lines can be drawn between behaviors like taking 18 credits and binge eating when students are coping with food insecurity. In short, there are a large number of barriers that impede more widespread food security on campus. Fortunately, this can mean there are a large number of potential intervention points as well to slowly chip away at the prevalence of food insecurity at UD.

Suggestions for Improving Food Security on Campus

The last section of the interviews had the fewest questions and focused on what students believed might increase awareness of resources, improve food security on campus, and if they had used resources before, how they think resources may be improved. Responses for improving awareness of resources varied tremendously, with students reflecting on new ways to incorporate signage, the involvement of other organizations and departments, and developing new ways to systematically deliver information about resources to students. In reflecting on ways to support food security efforts on campus to prevent food insecurity, students expanded upon their original

recommendations, considering efforts to make costs on campus more efficient, amending policies that work against food security, and increasing access to high-quality food across campus. For those who used resources before, the suggestions provided by students included healthier options, better marketing, and expanding eligibility.

Twenty-eight students were asked about suggestions to improve awareness of resources, and similar to when students identified barriers, the most common response was improved marketing through signage and emailed newsletters (36%). A quarter of respondents more vaguely suggested improved marketing, and 21% of all those asked this question suggested marketing specifically through social media. Just under one-third of respondents suggested having a module or orientation about resources similar to, or during, New Student Orientation for all first years. Similarly, 25% of respondents suggested that resources about food insecurity are disseminated during the First Year Seminar (FYS) class required for all students, with one student specifically stating that it should be included in the curriculum beyond UNIV101 and for all specialized FYS courses, too. The two student quotes below reflect student perspectives on how to address limited resource awareness.

“...a lot of people talk about doing stuff in freshman orientation. Engineers don't take that freshman orientation, we have our own. And I think all the things that people mentioned in the real ones, should be mentioned in ours too. We heard like nothing about the university. [While UNIV101 students] got, like, a bucket list, we needed to make gears out of wood, like laser cutting...We didn't have to go to any events. And honestly, I think the other one would have been more useful for me. Engineers need to learn how to get outside.” – Locke, a UD senior

“I feel like putting them in, like, maybe, like, flyers or something in the actual dining halls that students are already likely going to would be helpful. Or, like, putting them around, like very like in Trabant and like

Perkins and like places like that that are already, like, heavily populated with a lot of students would be helpful. And also posting it on [social media], because I don't even think I've seen it once a semester on any of our social medias.” – A UD junior

A quarter of respondents suggested using Residence Life & Housing staff, like Resident Assistants and Resident Hall Coordinators, to disseminate information about food insecurity and resources to students in their halls to ensure students are consistently hearing about services during their time living on campus. In a similar vein, 4% of students suggested information about services should be provided from professors via their syllabus, and another 4% reported it would be helpful to have a designated person to connect them with resources. Over twenty percent of respondents suggest normalizing conversations about food insecurity would go a long way on campus, and 14% of respondents specifically suggested public demonstrations of these resources through tabling or on-campus events, beyond dining halls, to showcase what is available to students. The three student perspectives below reflect ways to enhance existing structures to better intervene with food insecurity among students.

“I think [these resources] should just be given. I feel like during that first week. RAs can say, like, ‘Hey, here's some resources if you need them’, not [after] a student comes to you saying they have food insecurity, then you give them those resources. Saying, here's these- from the top of the school year- here are the resources you can reach out to. Because a lot of students are insecure about their situations. And had I not been friends with [an RA in my building], I probably wouldn't have gone to them and talked about my issues with food. And so I feel like a big thing is encouraging RAs and encouraging university staff to just make this, like, not a big deal.” – Pumpkin, a first year UD student

“I feel like there should be someone who is like a campus life advisor, like, purely for campus life...for a lot of people, that's the RAs, but you know, that varies. You know, some always care more. Some just are there, just to be there, you know. But if you have like a designated person that was like, for campus life, I think that'd be helpful. It would have been helpful [for me].” – Poochie, a junior at UD

“I think a lot of the stuff is on main campus, which is too bad. I also know, like I was looking through the email this week, and a lot of the like freebie fun, like food stuff is already in the dining halls, which I don't have access to because I don't have a meal plan, which is too bad...Maybe just like, making it more like, in the forefront, like, I love when Trabant has free food stuff, because I can, like, actually go to that. But like, that's kind of like the only stuff I would have access to, like the Trabant and Perkins stuff”- A UD junior

Twenty-seven students were asked how to improve food security on campus, before students get food insecure, and nearly three-quarters of respondents indicated that increasing access through decreased prices, longer meal times at dining halls, healthier food options, and easier connections with resources and the like would greatly support food security efforts. Similar to the previous question, 22% of students suggested increased marketing of resources to prevent students who may toe the line from fully becoming food insecure. Under twenty percent of respondents suggested increasing volunteer opportunities on campus to increase awareness. These volunteer opportunities include student organizations that hold philanthropic events and departments that deal with topics related to food insecurity. Quoted below are two student explanations for their recommendations for improving the efficiency of meal plans and increasing the visibility of resources.

“A bigger percentage off or just, like, having lower prices for students having meal plans that aren't like this many swipes a week, but just having or being able to get...15 swipes, 20 swipes...having something like that, so it's not like a full like, you're on a full fledged meal plan, but having like, less expensive options for someone like me who's, like, living off campus, but I'm still a full time student, so I'm spending a lot of time on campus, and have access to, like campus at any hour” – A UD junior

“I love the idea of food drives and like helping support the already existing, like food pantries and banks that help support students so that they can keep doing awesome work...the Student Athlete Advisory Committee does food drives throughout the year. So if, like, we could

get more involved with working with different food pantries, not just the one that we're connected to, and making sure that, like, everybody has those resources, because a student may know about the [on campus pantry], and if we're only helping the one that they don't know about, then that student isn't getting help from us, right?" – A junior student athlete

Some students went straight to the source and suggested improvements in food availability on campus. Twenty-two percent of respondents suggest improving access to affordable and nutritious food on South Campus, where only two students were aware of the Whitney Kitchen on the athletic campus. Nineteen percent of students also suggested increased availability of higher-quality food that meets the dietary needs of students with restrictions like vegans, vegetarians, Halal, and Kosher food. Eleven percent of respondents also suggested expanding the meal exchange menus to include more options.

On a policy level, 14% of respondents suggested expanding donation policies for Swipe Out Hunger to accept more swipes, meal swipes, and/or more dining plans to donate from. Similarly, 14% of respondents suggest amending policies and practices to promote the consumption of leftovers and decrease food waste around campus through more lenient policies on to-go boxes at dining halls, the availability of takeout boxes at larger events with food, and updated policies around catering requirements for registered student organizations. A smaller percentage of respondents (3.6%) each reported that newsletters for food-based programs, FYS instructors including resources in the curriculum, improved transportation that promotes travel to and from resources, and having academic advisors build eating habits into student schedules would be impactful as well. The quotes below highlight stark areas where food insecurity thrives. The first student draws a jarring comparison about the prevalence of food in the only area of campus where food is grown. The second

student highlighted the disconnect between efforts to reduce food waste and policies preventing students from taking leftovers.

“I’ve always made jokes too about being an Ag student, and we’re, like, really the only campus that is producing food, and our only food we have access to is an ice cream place. Like, there’s no dining hall, there’s no pod. We have a singular vending machine that looks like it’s 25 years old, and that’s it.” – A senior agricultural sciences student

“I think we should...let people take leftovers if they want. Like I want, I’d want to, I guess, know the science or the data or the math or the reasoning behind, like, the amount of food waste that is left over at the end of the day, and whether letting students take tupperware and eat at the dining hall, like actually increased it, or like somehow detrimentally affected the amount of food waste...there’s no way we’re absolutely clearing up the dining hall every day, right? So there should be extra food. So, where does that food go? And why can’t students just come in with, like, leftover containers and take it? Like, even when you attend a UD catered event, it’s highly discouraged to take leftovers, even though that food is already made, and they, like, proclaim that it’s free food. It’s only free food for the time you’re there” -Eliza, a junior at UD

The two quotes below reflect the smaller disconnect between the assumed impact of academic advisors and transportation services and the reality of the services’ impacts.

“Helping people access [resources], like not just telling them about it, but like, if someone lives, like at the Waverly, like way far away, and like they’re having an issue with [food insecurity], either like helping them get on a bus here, or like those, like vans that pick up kids all the time, like something like that, to just take away that barrier of like, oh, I can’t even get [to the services].” – A sophomore at UD

“...as a freshman, they made my schedule for me, right? I didn’t really know I could, like, make a stink about it. So I had four back-to-back classes...and it was COVID, so I had my mask on, so I couldn’t eat during class either. So I was always, like, eating at weird times, and, like, starving. So anyway, it’s a little bit different now, but I think kind of, like, at least for freshmen, like, like, [advisors] helping them advocate, like, take that time to, like, help them be able to access food.” – A UD senior

The students who were well-versed in or had used resources on campus were asked ways to improve them, and half of the respondents suggested the health of the food provided should increase, with one student specifically talking about protein and fiber content. A quarter of respondents once more suggested better marketing, and 17% repeated that Swipe Out Hunger should expand donation guidelines. The quotes below emphasize changes to existing resources that would better resonate with users. The following Table 5 summarizes the percentages of students who suggested specific recommendations summarized in this section.

“I wish I could donate more [swipes]. I checked the other day, I think I literally have like, 106 swipes left. What am I supposed to go to the dining hall 100 times in the next three weeks? Hello? It's not happening.” – Pumpkin, a first year at UD

“More proteins. I'd say more things with fiber. That's like the [academic] side of me being like fiber keeps you fuller, for the food insecure population better to get things that are, you know...Easier things to make...if you don't have the best access to, like, a kitchen, or the kitchen that you have access to isn't something that you're comfortable, like being in, like, I don't know, like[offering] microwaveables.” – A UD junior

Table 5 Student Suggestions for Improving Campus Food Security

Concept	Percentage of Students
Student suggests increased campus signage would increase awareness of resources	36%
Student suggests marketing through newsletters would increase awareness of resources	36%
Student suggests module presentations would increase awareness of resources	32%
Student suggests connecting with Res Life would increase awareness of resources	25%

Table 5 Continued

Student suggests incorporation in FYS would increase awareness of resources	25%
Student suggests that more marketing would increase awareness of resources	25%
Student suggests media marketing would increase awareness of resources	21%
Student suggests normalization would increase awareness of resources	21%
Student suggests public demonstrations would increase awareness of resources	14%
Student suggests a dedicated individual for assistance would increase awareness of resources	4%
Student suggests inclusion in faculty syllabi would increase awareness of resources	4%
Student recommends increasing access to improve food security on campus	74%
Student recommends increasing marketing to improve food security on campus	22%
Student recommends improving food availability on South Campus to improve food security on campus	22%
Student recommends increasing volunteer opportunities to improve food security on campus	19%
Student recommends increasing the availability of higher-quality food for those with dietary restrictions to improve food security on campus	19%
Student recommends expanding donation policies for Swipe Out Hunger to improve food security on campus	14%
Student recommends amending policies and practices to improve food security on campus	14%
Student recommends expanding meal exchange menus to improve food security on campus	11%

Table 5 Continued

Student recommends creating a new food-based newsletter to improve food security on campus	4%
Student recommends incorporating food habits into conversations with academic advisors to improve food security on campus	4%
Student recommends incorporating resources into FYS to improve food security on campus	4%
Student recommends improving transportation on campus to improve food security on campus	4%
Student suggests healthier options would improve food insecurity resources	50%
Student suggests increasing marketing would improve food insecurity resources	25%
Student suggests expanding Swipe Out Hunger would improve food insecurity resources	17%

When thinking about potential interventions and improvements, an attempt was made to distinguish between improving resources for those who are already food insecure and increasing the facilitation of food security on campus to prevent students from becoming food insecure. For many students, suggestions overlapped as ways to both prevent food insecurity and improve the accessibility of resources. In some ways, this is suggestive of clearer starting places for intervention moving forward. Many students, such as the junior quoted below, instinctively deemed some changes as improbable and were hesitant to suggest certain ideas. This points to an internalized hierarchy in which some students feel the barriers they face are an inevitable part of being in college, though this does not have to be the case.

“They’re not gonna lower the meal plan prices, so we just cut that out. Um, I don't want to say like having catered events, but like hell... having, like a tupperware giveaway, but just like having things that like, kind of take their own food security in their own hands...sure, f— it more UD catered events, just like out and open to the public, well advertised...Like things that aren't necessarily can only contained in the dining halls...because if one of the issues is we can't make it to the dining halls, you're going to have things for us at the place where we can't go.” -A junior at UD

A repeated notion was the need for the consistent sharing of resources to students, recognizing that students get inundated with so much information that, like coats of paint, any information needs to be repeated to students in order to stick. Students' suggestions to begin the dissemination of resources during tours, at New Student Orientation, and in FYS courses indicate a recognition that students should know of these resources from the moment they get on campus. The recommendations for using Resident Life & Housing staff and faculty point to an understanding of certain positions on campus as staples in students' lives, with RAs and professors being key individuals. All in all, these suggestions from students underscore the ability to make resource dissemination more efficient by utilizing existing positions that are touchpoints with students. A slightly different take from some students is to create positions, or publicize existing individuals, who specialize in connecting students with resources that they may need. Following conversations about stigma, a number of students suggested normalization and increasing the public presence of resources, indicating that visibility and active conversations about food insecurity would not only destigmatize asking for assistance but also increase student involvement in supporting the services and increase usage.

When thinking specifically about increasing food security, students looked again at the most salient source, improving the food on campus, and decreasing the

price of meal plans and food on campus. The dissatisfaction, specifically with prices, further displays a gap in student expectations of the quantity and quality of food they'd receive for the money they spend on it. Extending main meal time hours at the dining hall also addresses students' dilemmas between food and their studies or extracurricular activities. Related to this is the suggestion to add food vendors on South Campus, split up by the STAR campus, where many STEM students have long labs, the athletic campus with the undiscovered Whitney Kitchen dining hall, and the agricultural sciences' farms. Furthermore, students talked about improving the quality and availability of nutritionally dense food for students with varying dietary needs, as noted in the quote below. This repeated theme of a cultural and dietary mismatch underscores the importance of serving food that is culturally relevant and affirming, especially on a campus that prides itself on its diversity.

“Okay, one more frustrating thing I have to lay down there is, like, when it come to like options, like, like, you know, not dining options, but like, you know, campus, like, Perkins' restaurants and stuff. Oh, my God, why is the only vegetarian option a Caesar salad? What is that? What is that about? I'm sorry that's not something that can sustain me. Like lettuce and breadcrumbs is not gonna, I'm sorry that's just so unfair. I'm like, what you're telling me, you have 10 different options there for meal exchange, and you have not one substantial [vegetarian] meal option there, right? And it's really frustrating...am I supposed to, like, fend for myself here...there's not many, like, accessible grocery stores around or, like, the difficulty of transportation makes that even much more like stressful...when it's, like, harsher weathers and like things, it's so hard. And obviously you don't want to keep walking all day, so you try to, like, fill your bag and come back. That's so hard. Oh my God, my back was gonna give out because it's so hard. And I was like, I cannot do this again. So I stopped, like, relying on [grocery stores to supplement dining halls] and I said, I'm just gonna stock up on ramen” – A UD senior

A few students took directly to policy, questioning the need to maintain policies against taking leftovers at events or the dining hall after dining in, with one

students sharing they'd be "interested to know what the justification is" for not allowing students to dine in and take to-go boxes, especially for those who cannot guarantee they will have time later to visit. Further, one student also discussed struggles as a registered student organization president who feels limited by policies requiring UD Catering to be used for some events due to the price. The student, who identifies as food insecure, shares the difficulty trying to increase attendance and engagement but not having the budget to consistently afford UD Catering, especially when so much goes to waste. Lastly, a number of students expressed interest in providing leftover meal swipes and extra guest swipes to students in need, confused by the donation limitations. These solutions point to a different approach to promoting food security, rethinking policies and practices around food on campus to be more costs and student-friendly.

Staff Interviews

Five full-time staff members from the campus were interviewed for this study. Four interviewees were staff members of varying levels in Student Life, and one interviewee was a registered dietitian in Student Health on campus. The purpose of interviewing staff is to identify areas of overlap in understanding of food insecurity between students and staff, and to identify areas of disconnect, where staff have a different understanding about the needs and experiences of students.

Experiences with Food Insecure Students & Resources

All staff members interviewed are student-facing in some capacity, in that they interact with students, some of whom are food insecure, as a part of their role. All staff members talked about how food insecurity "isn't a monolith", noting the way it

manifests differently for different students. All respondents also believe that rates of food insecurity are likely higher than the 2018 data from the #RealCollegeSurvey suggests, with a quarter of respondents indicating that prevalence is higher for students of color at UD, “putting us above the national average”. Consistency (40%), quality (40%), and how healthy (20%) or filling (20%) food is are key components of how staff members operationalized food insecurity. Further, 20% of staff mentioned concepts like knowing how to shop or cook, trying to maximize food access on campus, and sacrificing nutrition and food for other things, as ways food insecurity can manifest among Blue Hens. Below is a staff member’s perspective on how food insecurity looks compared to how it is often envisioned.

“My perception of what it is like on campus, it's not always like, consistent, if that makes sense. So in other words, I don't think it's like [students] can never get food. It can be that [a student] can get food for a certain portion of the week, but then it's inaccessible for another portion of the week, or [a student] can get food for a certain portion of the month...So it's not always like our picture of like, let's say, somebody who's homeless and is always begging for food...that’s not really what a UD’s food insecurity is necessarily like. – Division of Student Life staff

In thinking about the impact of being food insecure, 80% of staff indicated that there will be both negative impacts on physical health and a shift toward disengagement among students. Sixty percent of staff referenced the development or worsening of eating disorders as a result of food insecurity as well. Beyond physical harms, 60% of staff indicate emotional dysregulation, and 40% of staff indicate negative mental health implications from food insecurity. Similar to student responses, 20% of staff each mentioned impairments in students' sleep, focus, and overall health. The two quotes below emphasize the deep impacts of food insecurity on students.

“[It] is a holistic net negative when you are food insecure.” – Division of Student Life staff

“[Food insecurity] really can permeate the entire experience, because you just can't, if you're not having your basic needs met, you can't build the experience you need to build on a college campus that you want.” – Division of Student Life staff

How services are marketed to students varies slightly depending on the resource, with 60% of staff mentioning students' word of mouth or emailed newsletters, 40% indicating students find out through indirectly affiliated departments or organizations, and 20% of staff receiving referred students. A fourth of the interviewees also indicated they market resources both during events and through the Blue Hen Family Hub newsletter to families. Staff members were also aware of resources beyond the ones they are affiliated with. All staff knew of both the UD Food & Supply Pantry and Swipe Out Hunger. Forty percent of staff were familiar with Blue Hen Bounty and nutrition counseling services. A fifth of all staff expressed they were familiar with the Student Crisis Fund, Food for Success, the SNAP program in Harrington, or another resource like the Dean of Students or other Blue Hen Essential services, like the loaner laptop program. The quotes below showcase how staff on campus reflect on the utilization of (their) resources on campus. A summary of staff responses is outlined in Table 6 below

“I touch base with different individuals in different staff departments in particular, and they usually know what students are struggling, and in what ways. And because those students already feel comfortable with those individuals in those departments, I can usually make...stronger connections with those students, utilizing those staff members and departments as liaisons.” – Division of Student Life staff

“...one student said, trying to get in [the campus pantry] system and get through it was like, harder than getting Taylor Swift tickets. And that has always sat with me and sat with, I think, [with] leadership of like, no, it shouldn't be that hard to get the resources. So we have to think

about how [to] scale that up, scale up the work [being done]. And I don't think when [the pantry process started], we knew just how, quite, how pronounced the need would be, and [everyone's] been trying to adapt as fast as possible.”– Division of Student Life staff

“...using myself as an example...people don't really know that you have, we have nutritionists in Student Health. I'm like, even though my schedule is pretty busy, I'm a well-kept secret.” – A Registered Dietitian in Student Health

Table 6 Staff Experiences with Food Insecure Students & Resources

Concept	Percentage of Staff Reporting
Food insecurity varies from student to student	100%
Some students only experience food insecurity in times of crisis or for a short time	40%
Food insecurity involves the consistency that a student has to food	40%
Food insecurity should consider the quality of the food students are accessing	40%
Food insecurity looks like students struggling to maximize their access to food on campus	20%
Food security looks like having access to healthy foods	20%
Food security looks like having access to filling foods	20%
Food insecurity can include not knowing how to shop for food	20%
Food insecurity can include not knowing how to cook or prepare meals	20%
Food insecurity looks like students sacrificing their nutrition and food for other things	20%
Food insecurity is likely more prevalent on campus than the data suggests	100%
Food insecurity is more prevalent among certain groups	25%

Table 6 Continued

Food insecurity negatively impacts one's physical health	80%
Food insecurity can cause students to become disengaged	80%
Eating disorders arise out of food insecurity	60%
Food insecurity can negatively affect one's emotions or emotional regulation	60%
Food insecurity can have negative mental health implications on students	40%
Food insecurity impacts a student's ability to focus	40%
Food insecurity impacts a student's sleep	20%
Food insecurity can cause additional or compound existing health issues	20%
Food insecurity can damage a student's relationship to food long-term	20%
Word of mouth is a key way students find out about resources	60%
Emails and newsletters are key ways students find out about resources	60%
Students are typically referred to resources	20%
Students find out information about resources through liaisons or partners	40%
Resources are marketed during events	20%
Resources are marketing to family newsletters via the Blue Hen Family Hub	20%
Staff reports they are familiar with Swipe Out Hunger	100%
Staff reports they are familiar with the UD Food & Supply Pantry	100%
Staff reports they are familiar with Blue Hen Bounty	40%
Staff reports they are familiar with the Student Crisis Fund	20%
Staff reports they are familiar with Food for Success	20%

Table 6 Continued

Staff reports they are familiar with the SNAP program in Harrington	20%
Staff report they are familiar with nutrition services in Student Health	40%
Staff reports an additional resource for students	20%

Staff appear in agreement about core aspects of food insecurity among Blue Hens: it’s different for everyone, it is likely not the “stereotypical” image of food insecurity, is therefore likely higher than current data suggests, and the UD Food & Supply Pantry is a key resource for students. The following quote emphasizes how the existing self-report data reflects the trends in this study’s data: students are uncomfortable with the label of food insecure.

“To self-label [as food insecure], you have to know the, know the definition, understand all of the nuances of what it is like. What does that definition look like in practice for different people? You have to have relinquished or released yourself from the stigma of whatever that label means, and you will have to be secure in your identification with that label...they don't automatically happen with the other one, right? They are exclusive. And so I think that there are many people who don't know the definitions, or who know it and don't necessarily identify as it, because they have an idea of what food insecurity looks like, and it's not been or they feel it's not them, even if it is.” – Division of Student Life staff

The reduced levels of familiarity with other external resources on the Newark campus suggest that staff primarily recommend on-campus services to students. While staff noted many of the same impacts that students identified, considerable time was dedicated to the long-term effects of food insecurity on a student’s relationship with food, further represented by the following quote:

“People and their relationship to food is different. Sometimes they will eat copious amounts of food. They will eat whatever is in front of them

because they don't know what they're going to eat next. There are some people who will wait to eat until they're in an environment where they feel safe, where they feel like nobody will take food from them, where they feel like nobody will talk about how they're eating, or they feel like nobody will talk about what they look like eating, right...So that still affects food insecurity, your like, body dysmorphia, disordered eating. Eating disorders are all affected and affect people's relationship with food and their relationship with food insecurity.” –Division of Student Life staff

Barriers to Food Security & Utilization of Resources

Staff members were asked to identify barriers that prevent students from being food secure and barriers that prevent students from using resources on campus. One-third of interviewees felt that UD adequately supports food insecure students, similar to the proportion found among students. In contrast to the student experience, 100% of staff members heard other leadership around them talking about food insecurity and resources on campus, mainly the UD Food & Supply Pantry. The two quotes below underscore the impact the delayed implementation of a pantry has had on the effectiveness and inefficiency of the food security resources on campus, recognizing that progress has happened, but the race is far from over.

“[The UD] Food Pantry came online, I would say probably roughly, like five to seven years after a lot of campuses that I saw made that move and that investment. So my point is, like, just slightly behind the times there...We already know the food pantry needs to move. It needs to get bigger, you know, so in that way adequate, I would say [UD is] probably not [adequately supporting students]...I find that we don't do a good job, you know, supporting students in learning about this...There's a big difference between, let's say, getting a cup of ramen to make it through to the next day, and getting food that's nutritious and balanced and appropriate for whatever one's physical needs are, right?.. I don't know if we're there. I think we work on getting food in people's hands, but I don't, I don't know how much [focusing on the nutritional, dietary, and or cultural component of food] is, you know, really active part of what [the University] does.” -Division of Student Life staff

“No, I don't think so. I think, I think we're trying to adapt, but we can't necessarily make up for the long stretch of time in which we weren't asking these questions. So we are playing catch up...I also do appreciate the efforts that the institution is making...[the pantry is] getting the support, and there are people that are really committed to this work, and want to sensitize to this work and inform the Board of Trustees, but we're just, we're just behind, and it's time to catch up...So are we doing enough? No. Are we doing better than we were six or seven years ago? Absolutely. Do we need to continue to develop? Yes, for sure.” Division of Student Life staff

As interviewees were asked to identify barriers to food security, all named limited financial resources as a key barrier. Mirroring conversations with students, three-quarters of staff identified limited knowledge about what to do with food, stigma, and dietary and cultural needs as barriers to food security. Fifty percent of staff each mentioned access to kitchens and the distance to dining halls as additional barriers that work against students' food security. A number of additional barriers were named by one of four staff members asked this question (25%). These barriers include perceptions of privilege at UD, time for eating a meal, meal plan options, taste of food available, distance to supermarkets, limited access to reliable means of transportation, limited free time in students' schedules, accessibility, and little opportunities to incorporate student voices in the food experience on campus. The two staff members quoted below emphasize how the avoidance of talking about food insecurity harms progress and the support of students.

“I think one of the things that we see here, that we have consistently kind of come up against...it's anecdotal, but I feel like more people are moving away from...this narrative that UD students are privileged, or UD students come from money. That isn't the case for every UD student, and we do have students that are really dealing with food and home insecurity and things like that. So that narrative sometimes persists, and that's where I think some people really struggle to even talk about it as a problem on our campus.” Division of Student Life Staff

“I think the problem is also, like these conversations, like the conversation that we are having right now, a lot of people aren't comfortable having, and so when [students] see people being uncomfortable, then they feel like they should be uncomfortable, right?” – Division of Student Life staff

When staff reflected on barriers to resource usage, similar themes were mentioned. All staff mentioned capacity constraints as a barrier for students. Under seventy percent of staff identified the campus culture, referring to the practices and cultures around community and supporting one another. Similar to the proportion of students, 60% of staff identified limited awareness of resources as a barrier to student usage. Forty percent of staff repeated stigma as a barrier, and a quarter identified resource locations as constraints to usage maximization. Lastly, one-fifth of staff members mentioned concerns about quality as a barrier for students.

“I also know that there are students who don't feel comfortable going into a church [for Blue Hen Bounty] or going what feels like off campus. Particularly, talking about, like, international students and stuff like that. I also know that some students with disabilities, it's hard for them to get there because it's seen as so far away, and it is.” – Division of Student Life staff

“[The UD Food & Supply Pantry] exists in Perkins, right? That is not an accessible space for everybody. [Can there be] pop-up events...I also think about, you know, [SDI has] done some stuff with the Clothing Coop on our campuses in Georgetown, Dover, and in Wilmington. But are there more things that we can do to look at that population? That is a very unique population, all commuter based. A lot of them are working. It is very different. And are we, how are we connecting them to these things? – Division of Student Life staff

“I think we leave some of our resources too much up to [a student] being fortunate enough or lucky enough to run into the right person.” - Division of Student Life staff

The three quotes above demonstrate how the staff members reflect on the processes for getting aid from the student perspective and how there may be challenges that

aren't avoided by the simple presence of a resource. Table 7 summarizes staff-identified barriers that impact food insecurity prevalence and resource usage and awareness.

Table 7 Staff Identified Barriers to Food Security & Utilization of Resources

Concept	Percentage of Staff Reporting
Staff believes UD is adequately supporting food insecure students	33%
Staff has heard leadership talking about food insecurity and/or resources on campus	100%
Staff identify limited knowledge of what to do with food as a barrier to food security	75%
Staff identify limited financial resources as a barrier to food security	100%
Staff identify stigma as a barrier to food security	75%
Staff identify dietary and cultural needs and preferences as a barrier to food security	75%
Staff identify kitchen access as a barrier to food security	50%
Staff identify the distance to a dining hall as a barrier to food security	50%
Staff identify perceptions of privilege as a barrier to food security	25%
Staff identify time for eating a meal as a barrier to food security	25%
Staff identify meal plans as a barrier to food security	25%
Staff identify taste as a barrier to food security	25%
Staff identify distance to supermarkets as a barrier to food security	25%
Staff identify limited access to reliable means of transportation as a barrier to food security	25%

Table 7 Continued

Staff identify student free time as a barrier to food security	25%
Staff identify storage constraints as a barrier to food security	25%
Staff identify accessibility as a barrier to food security	25%
Staff identify limited student voice as a barrier to food security	25%
Capacity constraints prevent students from using resources	100%
Limited student awareness prevents students from using resources	60%
Campus culture prevents students from using resources	67%
Stigma prevents students from using resources	40%
The locations of resources prevent students from using them	25%
Concerns about the quality of food prevent students from using resources	20%

One third of both staff and students were confident in UD’s ability to support food-insecure students, but all staff had heard leadership discussing resources, whereas only 43% of students could confidently say they had heard of resources, including students with direct connections to those resources. This suggests that while staff are discussing food insecurity and resources amongst themselves, they are not telegraphing this information to students, at least in a way that resonates with students. It is also worth noting that many students who had heard leadership discussing the matter referred to professors discussing the topic in relation to course material. As the quote below articulates, dissemination of resources among faculty is not as centralized

as it appears to be among staff, a potential additional barrier for students with fewer social ties to campus.

“To be honest, like, we need to have a better understanding of how deeply we've like penetrated the academic side of the house in terms of knowing about these resources. Like, how many faculty and staff know about it, and if they did disseminate that information to their students, which we would want, can [the services] actually meet that need?” –
Division of Student Life staff

The fact that staff primarily recommend one or two resources to students is made more intriguing by the number one barrier identified by all staff being capacity. This begs the question: would resources be less overextended if other resources were being tapped as often as the Food & Supply Pantry or even Swipe Out Hunger?

As with students, stigma was identified as a key barrier impacting both how resources are shared and thus awareness is increased, but also the utilization of resources themselves. Notably, while the quality of food was a key aspect staff members used to operationalize food (in)security, it was not identified as a barrier beyond dietary and cultural concerns or student taste preferences, putting the issue more on students than on the university. The quote below reiterates the significant impact of cultural food preferences going beyond simple likes and dislikes, but greatly affecting the perceived availability of food for students, mirroring student experiences included in this study.

“...you've moved here from Lebanon, you're used to eating this rice, but the rice you bought is not like that rice. Or you go to the dining hall [and students ask] what is the seasoning they put on the vegetables? Working through this, [we ask], what do you eat at home? What are you willing to eat? You know? What are the options here? Can we cross over? I have handouts that I give [students] on local, depending on their finances, food stores that may have food that they're used to...you normally need basmati rice at home, and this is Jasmine rice, and that's not going to taste the same...this meat tastes like this...yes,

ham is pork, and you don't eat pork, so don't get the ham and all of that...why is why is there bread in every meal? Why do [Americans] eat so many sandwiches? Why is there sugar in everything? Why does your yogurt taste sweet? I don't want to eat. I've lost 10 pounds! And that's a pretty normal week for me.” – Registered Dietitian in Student Health

Suggestions for Improving Food Security on Campus

Four staff members were asked for suggestions to increase awareness of resources on campus. All four interviews recommended improved marketing, with an additional quarter noting “consistent” messaging is required, and half suggesting partnerships with Res Life. One staff member provided each of the following suggestions as well: improved campus culture around community and support, incorporating resources in New Student Orientation, connecting with student leadership organizations, and marketing specifically to families.

“At least from a residential perspective, we know who's here over breaks. It's not, I mean, it's not a, not a mystery. We have a captive audience. So, you know, how do we, I don't know. I don't even know if we market or what we market to them. But how do we do that? Often, [campus] services are closed during breaks, not always, but, but often...This is where data can be helpful, understanding, where are we seeing the intersection of population and food insecurity, and how do we use that data, then, to inform, you know, [the] marketing or resource proliferation.” – Division of Student Life staff

The quote above highlights how existing data can be better utilized to serve the needs of students, but has historically been underutilized, if used at all. Staff were also asked to reflect on ways to improve food security on campus, before students become food insecure. While there was no number one recommendation, over half of the staff suggested increasing access (80%), collecting data on the student experience (80%), normalizing conversations about food insecurity (60%), and empowering students to advocate for themselves (50%). Forty percent of staff talked about intrinsic work that

can be done by staff and faculty to arm themselves with knowledge to provide to students. A fifth of all staff suggested teaching students the basics of providing for themselves, increasing the utilization of nutritionists, utilizing the campus farm on South Campus, connecting with donors, and addressing meal plan costs and offerings as additional ways to support food security efforts on campus. The following suggestions from staff reflect a variety of potential avenues for future proactive measures to promote food security. These interventions reflect the multitude of ways that the institution can begin promoting food security in the coming years.

“I always tell [students] when I give talks to classes...these are the resources we have, take them!. It's very expensive to see a dietitian if you don't have a disease state. It's expensive in the outside world...you have unlimited visits! I mean, why not take advantage and find out resources that we have on campus...I have students I'll see, you know, once a semester, but, but probably the bulk of my students are follow-up regular students, and they're charged a Wellbeing fee, so take advantage of it.” – Registered Dietitian in Student Health

“It's at least worth a conversation. Like we have a farm. We have a whole, whole big a— farm down the road...they're producing food, and they're producing things. Like, what? What's the opportunity there? What's the partnership? What does that look like? You know, for like, produce, giveaway...I think that's a great opportunity to think about what we can do to leverage that as a partnership to look at food security on campus.” -Division of Student Life staff

“Are we really using the best practices to get rid of that food waste? Are there ways to give people access to things that we have? And how do we better collaborate with Aramark, our food service provider, on that?” – Division of Student Life staff

“If you put out food randomly, just on a day in your department, and you realize how many of your students are like, 'Thank goodness there's food here, because I was so hungry'... That's an important piece of data, of qualitative data, that we as administrators and staff members need to be able to acknowledge and hold...that's really, really important: showing students that they can ask for food, that they can be hungry in

a space and say it, and that they can need things in front of people. I think that's something that we have to show students that that is possible.” – Division of Student Life staff

“I think for administrators and staff and for faculty as the authority around students, we need to do a better job of advocating for the allocation of resources that goes into free education for students around addressing food insecurity at the individual level, we need to advocate for better food options...for better food options in programs and programming. We need to create programs that are robust and that are teaching students these skills that are not just curricular.” – Division of Student Life staff

Two staff members were asked about ways to improve the resources for food insecurity on campus. Repeating the theme of marketing, increased infographics and messaging were brought up by one interviewee (50%). In response to capacity issues, one staff member suggested finding ways to increase the quantity of students a resource can serve (50%). Both respondents suggested larger, systemic changes like re-imagining Swipe Out Hunger (50%) and restructuring dining halls (50%). The first quote reflects in-depth critiques about the Swipe Out Hunger, mirroring concerns that students echoed as well. The latter three quotes reflect more large-scale interventions that suggest completely rethinking what food access looks like on campus. Table 8 reflects the suggestions provided by staff members outlined in this section.

“I think asking students instead of letting them know that at the end of the semester a certain percentage of their swipes are going to be given to their peers, I think it puts too much reliance on students understanding of and relationship to the importance of community to actually get the number of swipes needed that we could realistically supplement the needs of many of our students who are food insecure on campus...so the way that the swipe system is set up is at the end of the semester the swipes that are left over, that money goes to executives. It goes back to people in Aramark, not to all of the staff in Aramark. By that, I mean the cleaning crew, the folks who work Dunkin Donuts, the folks who work Flip Kitchen and Denny's, it goes to the people already making the most money....We should either tell students that a certain percentage of their swipes that are left over goes to students who are

food insecurity the next semester, so that way we know how many swipes we can distribute and or telling the students, allowing the students to give up a certain amount of swipes so that they can get their money back.” Division of Student Life Staff

“We should allow everyone to take three cooking classes throughout their time at UD to start...we should be utilizing Health Behavior and Nutrition students to go into dorms and to have cooking demonstrations for RAs and RA floors, like that should be part of their meetings.”
Division of Student Life Staff

“Restructuring is a big one. Restructuring some of the dining halls...I had a student with high blood pressure who really, generally, was near Perkins a lot. And what can you get to eat in Perkins that's low sodium? I think changing some things around, and possibly even being able to have some more flexibility with the dining plans.” -A Registered Dietitian in Student Health

“If we can build in food security as a value, and, and, come at it from that perspective, I think that could be helpful. I think being open on campus around like, like, what's [food insecurity]? Proactive messaging we can do if there are times in the year where we know that food insecurity goes up.” -Division of Student Life Staff

Table 8 Staff Suggestions for Improving Food Security on Campus

Concept	Percentage of Staff Reporting
Staff suggest improved marketing would increase awareness of resources	100%
Staff suggest incorporation to the First Year Experience or First Year Seminar would increase awareness of resources	50%
Staff suggest partnerships with Res Life marketing would increase awareness of resources	50%
Staff suggest improved campus culture would increase awareness of resources	25%
Staff suggest consistent is key increase awareness of resources	25%

Table 8 Continued

Staff suggest incorporation of resources into New Student Orientation would increase awareness of resources	25%
Staff suggest marketing to families would increase awareness of resources	25%
Staff suggests that increasing access would improve food security on campus	80%
Staff suggests collecting data on student experiences would improve food security on campus	80%
Staff suggests that efforts to normalize conversations about food insecurity would improve food security on campus	60%
Staff suggests that empowering students to advocate for themselves would improve food security on campus	50%
Staff suggests the practice of informing oneself with information as a contributor to food security on campus	40%
Staff suggest connecting with student leadership organizations would increase awareness of resources	25%
Staff suggests that teaching students the basics of providing for themselves access would improve food security on campus	20%
Staff suggests that increasing utilization of nutritionists would improve food security on campus	20%
Staff suggests that utilizing the campus farm would improve food security on campus	20%
Staff suggests that addressing food waste would improve food security on campus	20%
Staff suggests that addressing meal plan costs and offerings would improve food security on campus	20%
Staff suggests that connecting with donors would improve food security on campus	20%

Table 8 Continued

Staff suggests that increasing marketing would improve food insecurity resources on campus	50%
Staff suggests that restructuring university dining halls would improve food insecurity resources on campus	50%
Staff suggests that expanding Swipe Out Hunger donation policies would improve food insecurity resources on campus	50%
Staff suggests that increasing the quantity of students served by resources would improve food insecurity resources on campus	50%

Staff identified suggestions that mirrored student suggestions to increase awareness: NSO, FYS, and Res Life partnerships. These suggestions among staff represent a recognition of existing structures that could be further enhanced to support students. Since students suggested these exact avenues as well, it is clear these structures are impactful touchpoints for students and would therefore likely be good places to share resources with large audiences. While staff unanimously named limited financial resources as a barrier to food security, no suggestions to improve food security directly addressed the financial circumstances of food insecure students. Rather, staff built upon the student and staff recommendations of destigmatizing and normalizing conversations around food insecurity. When staff members talked about increasing access, most included pathways to increase such access, primarily through conversations with Aramark, the university dining partner. The quote below emphasizes how student and staff ideas about restructuring the way food is conceptualized on campus are not simply “a pipe dream” but something that can be feasible if “the right people are sensitized” to the concerns around food insecurity.

“If the right people are sensitized to the need. These are things you can negotiate into a contract, and other institutions have negotiated into their contracts. Of like, here's a part of what we would want if we're going to continue to use X company as our primary food provider. Because we're also in a very unique place as an institution in that all food is from Aramark, and they take on all the risk, in collaboration with the University, but they set the policies. And so, how do we better negotiate around our student needs?”-Division of Student Life staff

Swipe Out Hunger was discussed in a similar light with staff as it was with students. In addition to the larger-scale critiques mentioned earlier, two staff members had anecdotal experiences regarding the process of collecting swipes, which are outlined below:

“I think the last time I volunteered for. [Swipe Out Hunger] was, like a year and a half or two years ago. But like most ‘social services’, it needs more effort, and it's kind of like other duty is assigned in some ways for already busy teams. That's why a lot of [other universities] do have, like, a basic needs coordinator that this is what they think about; one or two, and this is what they think about all the time. Like, it's great to have a grad student, but it can be, you know, some places have a full time person and a grad working on food insecurity, and some of those institutions are smaller than ours...Because we didn't have any signage, and I'm just some random person asking you to donate meals, and they may or may not work, because you may or may not have guest swipes left over. I felt like I was just like, approaching students with, like, a multi-level marketing scheme. I'm like, “Hey! Give me your card! I'm gonna tap it and get these meals!” – Division of Student Life staff

“I had three students last week, or two weeks ago, whenever people were in the dining hall collecting swipes, I had three students who were upset, like, ‘I only have two swipes a day, like, why would you ask me that?’ And they were really upset. And I'm like, it's a fair point, I don't blame you for being upset, you would like to *take* donations...I don't know if there's a different way to do it, but I would question that.” – Registered Dietitian in Student Health

Overall, staff interviews shed significant light on areas where student experiences were misunderstood and interventions that would garner support from

students and staff. The next section dives deeper into the overlap and gaps between student and staff understandings, identified barriers, and solutions to move forward.

Chapter 6

DISCUSSION

This study sought to better understand the multifaceted experiences of food insecurity among undergraduate students at the University of Delaware, with a focus on understandings and experiences, perceived barriers, and proposed solutions from both students and staff. Findings from survey data and in-depth interviews reveal a gap between the existence of campus resources and students' knowledge and usage of them. While nearly 70% of participants experienced food insecurity, just over half identified with the term during interviews, and few students were familiar with resources, with even fewer having used them. These patterns suggest that food insecurity in higher education goes beyond resource availability.

Three significant themes appeared in analyzing data: the prevalence of food insecurity and contributing factors, the institution's current approach, and lastly, suggestions for improvement moving forward. The goal of this study is to attempt to systematically gather data about the experience of food insecurity on campus to provide staff and administrators with a better understanding of how food insecurity manifests on UD's campus. Overlaps and contrasts in how students and staff conceptualize each of these three sections will provide significant insight into how the university addresses food insecurity in the short and long term.

Prevalence & Contributing Factors

The previous data UD has from 2018 quantified food insecurity as 1 in 4 students. While the data and report were a significant first step in the right direction, the pandemic, understandably, put many data collection and service implementation processes on pause. The existing data was also limited in painting a picture of what

food insecurity “looks like” for undergraduate students. Conversations with students and staff suggest that the proportion of students experiencing food insecurity is likely higher than 1 in 4 students, as students are unaware they can be considered food insecure and, in some cases, actively resist this identification. For future attempts to measure food insecurity or promote resources, it is evident that intentional and inclusive language is needed to telegraph to students the relevance of the issue on the Newark campus.

While it was noted a handful of times that food insecurity is not necessarily constant, only two students and two staff members referenced the cyclical nature of higher education that creates “a predictive kind of trajectory” of food insecurity. This cyclical nature creates potentially identifiable times when food insecurity is likely to be higher. As demonstrated by the quotes below and earlier, it is safe to assume students living on campus are at a disadvantage and may experience seasonal food insecurity during fall, winter, and spring breaks when all dining options are closed. With this barrier being formally identified, the next question becomes, in what ways are we supporting these students? Are students informed about resources in the preceding week to ensure they have access over the break? Are resources intentionally open and active during breaks for students? How are on-campus students receiving messaging about the services they can use? As mentioned earlier, using existing data to identify students who are likely to be facing more food insecurity during campus breaks is plausible, so the next step becomes actualization.

“But like, breaks were, like, the problem, you know? Like, summer breaks, winter breaks, Thanksgiving. And [food insecurity] was always, like, a challenge [during the semester], but, like, during breaks is just really hard.” A senior RA

“I think more people [need to understand] the ebbs and flows of [food insecurity]. Just because you're food insecure for a month doesn't mean you're food insecure forever. Sometimes we just want to cover a gap. And I think that's the thing for a lot of students. Like, when this university is closed, or when they ,when the dining halls are reduced because we're on breaks and things like that, like it's okay to use resources you need that help to get over that gap.” -Division of Student Life staff

Referring back to the literature, it is known that the prevalence of food insecurity is higher among populations with marginalized identities across other institutions and at UD (Cinnamon et.al, 2021; Regan, 2020; and The Hope Center, 2019). The university does not specifically track LGBTQ+ identities in the student body; therefore, measures to understand food insecurity cannot fully grasp the scope to which these disparities may exist.

Seeing as the discussion of prevalence seems to be fairly consistent across interviews, the next concern is identifying contributing factors to the prevalence. Most students attempted to remove blame from the university in some ways when thinking about *contributing* factors to food insecurity, identifying a student's monetary resources, whether a student has a car on campus, and how much students seek out information, as examples. Simultaneously, students identified institutional barriers in reflecting on their *personal* experiences coping with the impact of food insecurity (regardless of whether they identified with the term). Staff were more likely to focus on the institutional barriers, while holding space for the fact that student financials factor in substantially. The personal barriers and identified contributing factors to food insecurity reflected existing literature: identifying student financials, stigma, and limited awareness of resources as primary factors.

At UD, most students' experiences with food insecurity surround the quality of food students have access to, with limitations around taste, freshness, and healthiness,

greatly reducing the quantity of food students perceive as having access to. A repeated theme is the implications of dietary or cultural restrictions on students' food availability. Objectively, access to food that is Halal or Kosher is inherently limited, with only one on-campus location for each dietary option. Vegetarian and gluten-free food is more readily available, with one station available in all dining halls during most mealtimes, but these dietary options are still 'less available' in terms of quantity than food that a student without dietary restrictions has access to. When food quality gets factored in, the availability of food shrinks dramatically from the student and staff perspective, as demonstrated by the quotes below.

“We have students who are vegetarian, and we've had this conversation before about how they don't feel like they can find options, because if you are vegetarian, you need things that are a bit heartier... You need more, just in sheer volume of fruits and vegetables and other things that fall under vegetarian food items to be able to eat.” – Division of Student Life staff

“So until I figured out, like, until I gave up [on being vegetarian for cultural reasons], it's like, I really barely ate. I only relied on, like, pizza, fries, all the unhealthy stuff. And I definitely felt like I didn't have enough options... Like, it's just so, like, uncomfortable.” – An on-campus senior at UD

“Even the times where we need to order vegan food from Aramark, like the options, we're trying to be as inclusive as possible, and then the options are not great, or, like the desserts, like fall apart, like it's not high-quality vegan food.” – Division of Student Life staff

How appetizing and hearty meals are for folks with dietary restrictions plays a big role in that perceived availability for students. If students are forced to give up on their restrictions or preferences, as indicated by the student quoted above, we must ask if we are truly “student-ready” as one staff member put it, questioning if the institution can adequately support the dietary needs of the diverse population UD prides itself in

cultivating. While anecdotal data and staff testimonies explicitly demonstrate a gap in availability for students with differing dietary needs, the perpetuation of this barrier comes in part from a lack of communication on how students can get support. Even when students identified the intuition as the perpetrator of their food access barriers, students were quick to say “but I’m a picky eater” or “it’s not the dining hall’s fault,” suggesting that the expectation is to struggle, at least a little, despite the copious amounts of money students pay to attend the university. The two quotes below provide further insight into how the student culture of accepting insufficiencies further perpetuates struggles.

“ In terms of like, a dietary restriction or a cultural food...we have this, like, mentality in the United States around 'charity' that you should be thankful for. what you get. Like, ‘what do you mean you're gluten free?’ – Division of Student Life staff

“I've been getting better, like, working my way around [having dietary restrictions], but sometimes there'll be days where, like, almost every single station [at the dining hall] has something that I cannot eat, and even the allergy station will still have stuff that I'm allergic to...And I recognize...like the University tries, and I recognize that my allergies are not that common, so I don't, like, put any blame on them, but it does make it hard sometimes, which is why I really appreciate the Food Pantry...” – A UD senior

While increasing the availability and quality of food that meets students' dietary needs likely won't happen overnight, more telling is how few students mentioned the accommodations that can be provided to students who find the dining hall doesn't meet their needs. Two services: accommodations through housing and accommodations with Aramark were mentioned as ways students may be able to get assistance meeting their needs without substantial changes being made to the University dining structure.

“I think also, like, I've been, like, personally wanting to, like, go to like, Laurel Hall and like, talk about, like, the different like resources they have for, like, getting a better meal plan for my diet. But I also know that, like, I'm pretty sure I have to have like forms and like proof of like diagnosis in order to get a special meal plan. So if there was some way that that could be more accessible, considering if you're food insecure, chances are you don't have the money to go to a doctor, right?” – A UD junior

“I've also seen, like, there's a positive impact [of living situations for students] too, like students with, like, allergies and really strict dietary needs. You know, their ability to be in the Courtyards, cook their own food, provide that environment for themselves is really beneficial too. And we've even seen first year students that we've helped through, like, the accommodation process and Disability Support Services gain access to those kinds of things as well.” – Division of Student Life Staff

Connecting students with housing and meal plan accommodations to ensure that students with dietary restrictions are meeting their food needs and wants is likely to be a short-term solution to this pressing concern of access on campus, though neither was outright stated as a suggestion.

Another notable contributing factor to food insecurity was related to the prices of items on and off campus. An interesting direct parallel appeared when reviewing interviews with students and staff, reflected in the quotes below.

“When you look at, you know, a lunch [on Main Street], I don't know, it's \$15, \$16 sometimes for not something that extravagant.” – Division of Student Life staff

“If you break down the RA meal plan, and the cost per meal, it's...\$15 or \$16 every time you go in there. And that's like, way more than I would ever spend normally. And what you get? Not at all worth that.” – A senior RA at UD

The reduced-price meal plan for RAs is unavailable on the meal plan website for comparison, but dining hall meal prices align with this student's assessment, with door prices listed as \$10.70 for breakfast, \$15.50 for brunch, \$15.05 for lunch, \$18.05 for

dinner, and \$15.05 for late night, totaling a minimum of \$25.75 and a maximum of \$33.55 for only two meals each day (UD Dining, 2025). While meal quality, pricewise, is subjective, the staff members' ironic cost assumption of a single, unextravagant meal on Main Street being very similar in price to the dining hall could suggest that the restaurant-quality meals for purchase on Main Street are similar to the quality and/or quantity students should expect at dining halls. Anecdotally speaking, several students testified that in terms of taste, freshness, overall quality, *and* portion size, this is not the case. All of which works in favor of one student's declaration that meal plans on campus are “a scam”.

Earlier, it was noted that literature points to time constraints, financial constraints, awareness limitations, and the impacts of stigma as barriers to food security. While awareness has more to do with the marketing approach and student habits, the other barriers are more closely related to the institutional preventative measures and the use of data.

Institutional Approach

How the university approaches food insecurity plays a pivotal role in how areas of the institution, such as the Division of Student Life, Residence Life & Housing, and Dining Services, broach the subject. There is no united front against food insecurity at UD, despite there being widespread support for the cause, identified by the absence of staff or students identifying Student Advocacy & Support or Blue Hen Essentials as resources for students. The disjointed approach to the issue further fragments resources from a student perspective, as it overcomplicates the process of getting assistance. Moreover, as cited numerous times, UD has a somewhat damaging reputation for recruiting wealthy, northeastern White students who have only known

privilege. While there are some studies of food insecurity at wealthier, predominantly White institutions (PWIs), much of the existing literature on food insecurity examines community colleges, smaller universities, schools with more diverse populations, or schools in existing food insecure environments, suggesting there is a gap in the research on PWIs with reputations like UD. While this data is still incredibly useful for creating a foundation of knowledge around food insecurity, some identified barriers or solutions would fall short of creating a full picture of what food insecurity looks like for students at a university like UD. For example, stigma was cited as a repeated concern for students at universities such as Texas Woman's University (TWU) and Bunker Hill Community College (BHCC) in Boston (Brito-Silva et al., 2022; Brnton et al., 2022). While students at the University of Delaware noted social stigma of using public assistance as well, there was also reference to the stigma of being perceived as in need by fellow students who are thought of as more privileged. Similarly, other universities did not typically report students citing cultural preferences and quality as contributing factors to food insecurity among students. There are multiple potential reasons for this difference in data, with one potential reason being the different student body. TWU's undergraduate student body is nearly 90% women and primarily Hispanic students, as the university is a Hispanic Serving Institution and a part of the Women's College Coalition (Texas Woman's University, 2024 & 2025). BHCC is located in an area of Massachusetts with higher levels of food insecurity, and the institution is a majority-minority university where over half of the students are women (Brnton et al., 2020). Given that marginalized students are more likely to experience food insecurity, the social stigma related to peer-perception that UD students reference may not be the same social stigma that students from TWU or

BHCC reference. Further, UD has a strong international presence, with over 100+ study abroad options and nearly 10% of the undergraduate population coming from outside the US (Institutional Research and Effectiveness, 2019). This strong international presence at a PWI may be contributing to the rise in cultural preferences and dietary restrictions (like Halal or vegetarian) as a barrier for students that was not reflected in much of the literature.

Overall, the reputation and student body of UD compound the multi-level struggles students face when experiencing food insecurity by forcing students to feel like they have to, or should, struggle in silence. While campus cultures are not monolithic, there is clearly a need to make service-based practices a more widespread custom among the student body. UDance is one of the largest yearly philanthropic events on campus, raising over a million dollars for children with cancer. UD Alternative Breaks offers students opportunities to get engaged in service over breaks every year. Each Spring, students are inundated with I Heart UD Day emails as the university prepares for its big day of giving. How can at-home philanthropy against food insecurity become as embedded as these existing traditions? Without a united front against food insecurity and an explicit dedication to nourishing students' physical selves as much as their minds and lives, shortcuts will prevail. Whether it's to preserve the bottom line, make life easier, or simply because no voice is there to suggest otherwise, these shortcuts regarding food on campus mean students will continue to skip meals, work 'till they drop, and live off of fried chicken and the occasional wrinkled apple.

Data Informed Suggestions for Change

Despite being the shortest section, the third section on suggestions for change provides the most insight into how students and staff would address the problems they've identified. In some instances, solutions did not exactly match identified barriers and contributing factors; this can be an indicator of how respondents prioritize or rank their identified problems in terms of importance, or their solutions in terms of feasibility. Solutions are not included in all the literature on food insecurity in higher education, as much of the data collection efforts are focused on getting a better sense of the prevalence of food insecurity among students. Suggestions presented by both students and staff can be generally grouped into three categories: "practical" fixes, cultural changes, and policy changes.

"Practical" Fixes

The "practical" fixes are suggested solutions that seem to directly intervene with food insecurity, but may have varying levels of difficulty with implementation. The majority of the solutions offered by students fall into this category, with recommendations like reduced costs, better quality food, and different food options. Earlier in this study, institutional interventions were broken down into 5 categories: campus pantries, satellite or mobile food vendors, meal assistance programs, basic needs centers & support systems, and direct monetary support. Many of the suggestions put forth by students and staff align with these categories. The purpose of reiterating these solutions is to further examine the practicality and feasibility of these recommendations alongside their anticipated effectiveness.

The first institutional intervention, a campus pantry, has already been integrated into the University, though it is still in its infancy. Students and staff

strongly suggested that increased marketing and increased visibility are key to elevating the UD Food & Supply Pantry and other UD services, like unlimited nutritionist appointments. Students and staff strongly suggested that increased marketing and increased visibility are key to elevating the campus pantry and other services like Swipe Out Hunger and nutritionists. Named marketing efforts include signage and tabling events in and outside of the dining halls, where an abundance of students, primed to think about food, will be able to see it. Though it was also noted that resources should not exclusively be marketed in dining halls, as many students cannot or have difficulty consistently accessing them. Additional marketing efforts included incorporating resources into the information provided to students during New Student Orientation before their first semester begins, and in the First Year Experience courses all new students take in some capacity. In regard to feasibility, these options involve additions to existing structures for disseminating information, therefore, implementation is dependent more on the interest of actualizing this change. Further, students and staff suggested disseminating resources through Resident Assistants and Resident Hall Coordinator newsletters. One more, this suggests that existing structures can be better enhanced to fit the changing needs of the student body. The quote below, from an RA, underscores the value of RAs and Res Life to the student body.

“RAs, we’re trained in like, making students realize their, like, self-efficacy and to, like, seek out resources on their own. I think it can be hard and challenging, because...food insecurity doesn't come by itself, or like, there are other insecurities that are happening at the same time.”
– Senior RA at UD

The last suggestion, insofar as marketing was to loop in more faculty to the mix, ensuring that students are being presented with resources in their social and academic spheres on campus. Regardless of the method of marketing utilized, increasing

visibility of resources requires increasing the capacity of the services themselves, which requires a monetary and human investment into these services. Finally, students and staff suggested improving the quality of food provided in the pantry and expanding the avenues for collecting groceries. The quote below highlights a dietitian's experience convincing students to try “nontraditional” items found in pantries.

“Food is expensive too. That's another conversation we have every day. Where's the cheapest place to get this, this, and this. I'm not telling you to be a vegetarian, yet, meat is really expensive. You know, how do you feel about beans? How do you feel about canned tuna? I used to have eggs on the [proteins] list, but now eggs are expensive too...I'll say they make this thing called canned chicken. They look at me like, What are you crazy?” - Registered Dietitian in Student Health

The last quote is an example of combining two institutional interventions: campus pantries and satellite or mobile food vendors. Through expanding the services the pantry offers (the online pantry system, the Soap Bar, Mini Markets, and Mobile Food Pantries with the Food Bank of Delaware) to include food zones, students with limited access to the Perkins Student Center will still be able to receive aid.

“Some students, they don't spend the bulk of their time near the Perkins Student Center. They're up by Trabant more, or they're on South Campus, or they're on North Campus. And so, I think, like, we need to think about getting food to people using things like food zones and like, emergency bags for folks that need it in the places that they're most likely to utilize.” -Division of Student Life staff

Building off the second campus intervention: satellite or mobile food vendors, the development of South Campus food vendors, specifically of fresh produce, was named as an untapped resource by both students and staff. One agricultural studies student shared her experience getting fresh produce and herbs from friends who have taken courses on the farm, and the Hydroponics Club has provided fresh vegetables to

Student Diversity & Inclusion for pop-up Mini Market event in November. The production of food on campus could serve as a passageway to teach students how to cultivate their own gardens, while increasing the impact of the agricultural department on UD's student body. A partnership with the agricultural department could mirror UC Davis' "Fruit & Veggie Up" stand mentioned earlier, but would likely still have geographic or capacity constraints.

The third intervention, meal assistance programs, manifested in conversations around the price of meal plans, the meal plan options, and dietary restrictions. Expanding the meal exchange options on campus to include heartier vegan and vegetarian options, increasing the quality of food overall on campus, and decreasing the prices of on-campus food will likely come at a cost to the university, trickling down into increased costs for meal plans. The opposite is also true, as reducing prices for meal plans may also result in a decrease in the quality of food available for students. Therefore, while these solutions appear to directly increase access for students who are food insecure, they may come at a loss to all students. Nevertheless, there are ways to recognize and address affordability as a concern among students. Universities like Rutgers, New Brunswick, for example, have a scholarship programs that award free or reduced meal plans to students. Further, the one student mentioned a "build your own" meal plan that allows for more flexibility, especially for students off campus in the Newark area. These 'sliding scale' solutions may be an opportunity to ensure that food-insecure students are getting their needs met, without disadvantaging food or financially secure students in the process. Taking it one step further, combining the suggestion to use institutional data, the university may be able to use factors like expected family contribution and residential status at UD to develop of

pool of students who would benefit from the resource, rather than having the opportunity open only for students who stumble upon it.

The fourth institutional intervention is the existence of a basic needs center and/or coordinator. While the university currently has a department, Student Advocacy and Support, dedicated to basic needs at UD, Blue Hen Essentials, the department seems to have fallen through the cracks due to the fragmented nature of the institutional approach to basic needs insecurity. No student named Student Advocacy and Support (SAS), or any SAS staff members, as a place they would refer a peer to (or go themselves) in search of resources. This further underscores the significant impact that a more united front on basic needs insecurity would have on the students' understanding of resources. Having a dedicated individual for all students to go to with questions regarding food access, as suggested by one student, would align with other institutional practices and is easily implemented if attention is poured into restructuring and increased visibility of staff members on campus.

The last two practical solutions don't necessarily fall into the categories of other institutional interventions, but are worth mentioning as they were key pieces in determining a student's access on campus. Living spaces and dorm kitchens were a large tension point, especially for those living in residence halls. Regulations around appliances in rooms and the sizing of mini-fridges and microwaves limit the amount and the types of food students can have in their rooms. In terms of kitchen access, supplies varied from dorm to dorm, but the consensus was that the spaces were not clean, safe, or comfortable enough for students as often as they might like. Further, shared and private living spaces in residence halls and staff or faculty offices are essentially the only places for students to store food they plan to eat during the day.

Therefore, off-campus students and students who commute are left lugging around tupperware all day, not eating, or eating more minimally than they would if they had reliable access to refrigeration and heating spaces. Lastly, for students who want to go to grocery stores to access fresh produce or grocery stores farther away to get cheaper prices, transportation is a requirement. The quote below reflects how access to a reliable transportation system to get to these stores impacts the quality of food students have available to them.

“I have a meal plan for this whole purpose that, like, I'm a very busy, so I don't have time to, like, cook and, like, go get groceries, and I don't have a car, so I, like, it's hard for me to stack up on groceries unless I'm, like, waiting for a friend to, like, get stuff like that. Which is why I feel like it's a little harder to get healthy foods on campus....I don't go to the dining hall that often, and they don't have, like, many fruit options, and I'm a huge fruit person as well, so it kind of like, not like, deters me from eating healthy food, but it's definitely more difficult to get healthier options.” – An off-campus senior at UD

While the university is actively working to improve the new bus system, and UD transportation that brings students from campus to and Aldi or Trader Joe's twenty minutes away is unlikely, more can be done to connect with students with the Delaware bus system, DART, which has stops all over campus. Further, keeping in theme with connecting dots across suggestions, *timely* access to resources for food insecurity should be considered during times when food insecurity is projected to be higher: during breaks when dining options and therefore bussing options are often limited or unavailable

All in all, these more practical suggestions have their pros and cons, but all serve the same purpose of increasing the food security of students on campus in different ways and with varying degrees of success. Regardless of the selected

intervention, consistently assessing and finding opportunities for students to provide feedback is going to be essential.

Culture

Cultural changes were a smaller percentage of suggestions from students and staff, emphasizing longer-term changes that come from messaging and changes to practices and customs. Most students stated variations of words like “normalize” and “destigmatize” when talking about shifting the culture around giving and needing assistance on campus. However, few students suggested ways beyond “talking about it more” to actually make strides toward normalizing these types of conversations. One student mentioned cooking classes offered by UD Dining, drawing a parallel to a suggestion put forth by a staff member earlier on:

“I think as students, and as an institution, we are not doing enough to structure our institution based on the needs of the students...by that, I mean all students, regardless of major, should have two to three classes per semester that are teaching them [the] skills [needed to provide for oneself].” – Division of Student Life staff

“[Students should start] asking questions to the adults around them, like, ‘hey, how would you store this’...or ‘what is the meal that you first learned how to make that you realized was an easy enough meal that you can then interchange things as you learned how to make them.’” – Division of Student Life staff

Intentionally weaving practices around self-sufficiency into the fibers of the student experience can prevent students from struggling to an even greater extent post-grad. Once students leave higher education, the food available to them and services near them will likely be less accessible, and expect more from them than the university's resources do. In line with this course of action, a few staff members mentioned activating the student voice on campus and empowering students to make changes.

While Swipe Out Hunger will be examined more thoroughly in the following section, it is worth noting that the national organization began with activated students who aimed to make a difference. Additionally, several university chapters of Swipe Out Hunger are led by students rather than the staff model UD employs. Empowering students to share their voice allows students to inform the multitude of decisions that are made every year. In a similar light, formally and informally soliciting student perspectives was identified as a necessary way to shed light on the existing culture around food and assistance at UD. Formal measures like studies and surveys can provide larger-scale quantitative data, but a professor asking a classroom of students taking a 5pm to 8pm course if they are hungry also provides necessary and insightful data about the student experience and primes faculty to take a more active stance in their students' lives.

The last cultural solution offered suggested intentionally cultivating community and support from the top down. As noted in the institutional approach section, a top-down effort to unite the university to stand up against hunger among Blue Hens projects a message of community and unity in supporting one another. Promoting these practices for reasons beyond service hours, class requirements, or cultural nourishment points showcases to students that our dedication to supporting our fellow Blue Hens is unconditional. A key component of this is recognizing when student hardship is being ignored, or worse, exploited, as suggested by some of the policy changes recommended by students and staff.

Policy

The final category of policy suggestions is the least frequently mentioned, but has the potential to be more immediately implemented and have direct impacts on

students' lives. A few specific policies were mentioned by students, but the largest area of conversation was regarding policies around Swipe Out Hunger (SOH). This program, despite being more established on campus and being associated with a national organization, has been cited for its inefficiencies by numerous respondents. With only seven percent of students knowing what Swipe Out Hunger is and how it works, compared to the 37% who had heard of it but knew nothing about it, it is evident that marketing needs a substantial upgrade. Further, the swipe collection process has been perceived as very confusing, if not predatory at times. Staff and faculty allegedly receive little training or information about the program before volunteering, as noted by a staff member who volunteered in the past. This lack of context means that students' first experience with the program may be misleading. A quote from an interested student demonstrates this gap playing out.

“I had asked [the SOH volunteer collecting swipes], I said, ‘How do you, how do you get this?’ Like, these donations, where do they go?’ [and the volunteer said] ‘Well, we determine who needs them.’ And I was like, well, you know, I kind of need them, right?” A UD senior

Even though under a tenth of students were familiar with the organization, Swipe Drives had begun halfway through data collection. While some students had connected the drives on campus to the organization, many others didn't. Of those who knew the dining hall drive was SOH, only one student knew how to go about requesting the donated swipes.

Unfortunately, marketing isn't the only concern with SOH. After explaining the process to students, as articulated by a staff member in SAS, many students and one staff member were confused by the restrictions placed on the meal plans, the type of swipes, and the quantity of guest swipes accepted for donations. Moreover, meal plan policies currently do not allow meals to roll over at the end of the week or a

semester, meaning students will imply lose out on unused swipes since they cannot be donated. One explanation, cited earlier, relates to the benefits received by Aramark when students have leftover meal swipes. Connecting to the culture piece, should this turn out to be true, Aramark higher-ups at UD, who determine policies relating to donations for SOH, are intentionally creating barriers to food security for profit, an action that cannot align with a desire to make UD a more food secure environment. Prior to data collection, a staff member in SAS shared that Aramark had recently changed policies regarding staff donations of swipes, making that process obsolete for current Swipe Drives. The reason was not disclosed to the staff member, though they are hoping to regain that option again in the future. This piece of information suggests that changes around donation policies are possible, and students and staff should look into the abundance of resources that the national SOH organization provides for universities. While there was no consensus about how to collect swipes in a more student-friendly way, there was consensus among respondents who suggested policy changes that allow students to donate more. This Spring, 648 swipes were collected, bringing the total donation count to over 1,300 guest swipes according to the Vice President of Student Life. While an impressive number based on previous donation patterns, this count will only provide meals for about 65 students over the next academic year. If each student who donated would've had the ability, and elected, to donate 4 guest swipes instead of 2, the number of students who could benefit in the next academic year could be twice as large. It is also worth noting that SOH is not active during the winter and summer sessions on campus, where hours and food availability are reduced. Any further consideration to update and enhance SOH should also consider the sessions the service is available.

In addition to SOH, students and staff also echoed concerns about food waste and policies for leftovers and catering. Currently, it is difficult to find written policies regarding leftovers, but several students shared the understanding that dining in and taking a to-go box afterward is discouraged and often not allowed. This is also true of staffed catered events, where to-go boxes have also been strongly discouraged in public settings. Notably, monthly meetings with President Assanis, the university president, do include university to-go boxes, despite being staffed catered events, indicating there may be more wiggle room than policies suggest.

There is also a temporal component to the policies relating to dining hall leftovers as well, reflected in the quote below.

“Before COVID, you weren't allowed to take anything, period. And then during COVID, if you were here, then, if you remember, there were those brown bags, and you could take everything. So, people who were here then are like, well, what do you mean [there are] these reusable containers? Like, I used to take 12 peanut butters out, and now I can't do that.” -Registered Dietitian at Student Health

The reusable containers in question, blue plastic containers that can be “checked out” using QR code technology when students enter the dining hall, were a part of a 2023 initiative to reduce plastic waste. Whether the blue tupperware containers reduce plastic waste substantially remains to be seen, though it is likely curbing a good amount of plastic waste. Nevertheless, strict policies around using these containers may be contributing to larger amounts of *food* waste on campus as fewer students use up the dining hall food. As noted earlier, the Food Recovery Network has chapters on some college campuses, including the University of Wisconsin, where the reallocation of food from events turns into buffet-style dinners every week of the semester. In line with suggestions from students and staff, finding ways to repurpose foods that would

otherwise be discarded, especially among food insecure students, is a win-win for everyone.

While there are a number of policies that can be changed, there were also a number of policies and procedures that simply need to be better known, such as policies around accommodations. One student mentioned an important policy: SNAP as a form of aid for college students. The student eligibility criteria are not listed on the Blue Hen Essentials website, so many students are unaware that they are eligible. The quotes below reflect student confusion and desires regarding SNAP.

“Wow, yeah, I didn't even know [students are eligible]. So I've tried to apply for, like, food benefits, like, through the federal government, and I thought I couldn't because I'm a student” – UD Junior

“Only thing I would suggest is just seeing if [the university] could actually come and work with the Delaware SNAP team and make it easy for students to, like, get into the system” -UD junior

Increasing access to SNAP benefits for students provides additional relief for US students struggling to meet their basic needs. Exemptions like working 20 hours a week or doing work-study can help students keep their hard-earned money in their pockets, while SNAP ensures they still have access to food to fill their needs. In the current political climate, it is even more important to ensure that students get access to federal aid available before it gets taken away.

A Framework for Moving Forward

All of the above suggestions for practical, cultural, and policy changes stem directly from conversations with undergraduate students and staff from the University of Delaware. These suggestions are not only grounded in students' lived experiences at UD but also mirror much of the literature reviewed in Chapter 2. Students and staff

consistently referenced financial, time, transportation, and awareness constraints as major barriers to food security, reflecting study findings in Broton & Goldrick-Rab (2016), Henry (2017), Goldrick-Rab et al. (2017), and Peterson & Freidus (2019). The data-informed nature of these barriers, at UD and nationally, further strengthens the argument for interventions at these specific touchpoints.

While not all suggestions point toward formal policy changes or creations, practice-level changes offer a great deal of insight into what students would use if available or more well-known. Many of the practical and cultural changes emphasized by interviewees follow the facilitating factors noted in the literature on food insecurity nationally. Specifically, calls for normalization, more volunteer opportunities for students and organizations, and usage of existing agricultural opportunities on campus are direct parallels to findings in Peterson et. al (2022), Shisler et. al (2022), Bronton et. al (2022), and “The 4 Pillars of Food Security” (2023). Some suggestions also reflect the practices of UD’s comparator institutions as well, further illustrating the practicality of implementing these changes. Cultivating explicit partnerships with the agricultural department at UD and the South Campus farm would follow practices at UC Davis and U Wisconsin, Madison. Centralized basic needs centers and support staff are found at Rutgers, New Brunswick, and U Michigan. Consistent mobile pantries are found at UC Davis and Rutgers, and expanded meal swipe donations are available at Iowa State and U Missouri.

In some ways, the policy suggestions provided by students and staff reflect the unique UD landscape and indicate areas where UD may be struggling in ways undocumented nationally. Nonetheless, there were also a few policies that aligned with the literature. Regan (2020), Phillips et al. (2018), and the GAO (“Food

Insecurity”, 2018) suggest expanding SNAP eligibility and working with students through the application process to better support food security on campus. Policy recommendations around leftovers at the dining halls and catered events were not directly referenced in the literature cited, reflecting a unique compounding factor to more widely understood barriers to food security. around Swipe Out Hunger indicate a clear need to assess the effectiveness and efficiency of the service, as compared to the national organization's resources and the implementation of the program at other universities.

The following framework for conceptualizing future action is informed through both UD data and an abundance of literature on food insecurity nationally and at other institutions. For the University of Delaware, moving forward is a three-pronged path. These pathways are not exclusive but rather work in tandem with one another to intervene with food security, while allowing specialization for efficiency when possible. One path forward focuses specifically on negotiating policies for Swipe Out Hunger, leftovers, and UD Catering policies for RSOs with Aramark and other important stakeholders, ensuring policies are not inadvertently harming food security efforts. The second path forward emphasizes uniting food security efforts on campus and developing a more unified approach to marketing that relieves pressure on overextended services without inundating others. Key to this path is sharing marketing strategies and assessments of efficiency, developing shared goals, and creating unified language about the resources on and off campus, including ways to reach these services. The third path is the most student-facing, in that it focuses primarily on improving the food students have access to. This path emphasizes freshness, cultural needs, dietary restrictions and preferences, tastes, portion sizes, and the ratio to other

types of food on campus. When combined, this three-pronged approach addresses the complex nature of food insecurity at UD that will not be effectively curbed without an equally multi-layered intervention strategy. As noted earlier, student involvement and assessment remain an integral part of success in all pathways.

The Financial & Political Climate

The University of Delaware is currently in a period of budget mitigations, meaning new projects and initiatives are on pause, currently unfilled positions are remaining empty, and only work-study eligible students are being hired. International undergraduate students are not eligible for work-study and are therefore ineligible for many of the job opportunities on campus. This further increases their likelihood of experiencing food insecurity since they are also not eligible for federal aid. Moreover, during this time of funding cuts, staff cuts, reorganization, and general ambiguity around the upcoming academic years, it is important to recognize the many suggestions put forth in the literature, and by students and staff, that prioritize improving the existing services and resources with existing staff and implementation processes on campus. These solutions can be key ways to improve food insecurity in the short term, even with resource constraints, paving the way for more large-scale changes to be more easily implemented in a more stable future.

While food access is generally a campaign that garners a lot of support, the Trump administration has been cutting budgets and putting forth policy changes that can have significant implications on the food landscape of the country and raise food insecurity nationwide. At the University of Delaware, the main resource, the Food & Supply Pantry, is working to establish a relationship with the Food Bank of Delaware as their primary vendor of items, opening doors to providing fresh produce to students.

Currently, Student Diversity & Inclusion, the department overseeing the pantry, partners with the Food Bank of Delaware (FBD) roughly once every other month to host a Mobile Food Pantry event, where students and Newark community members can receive items from the FBD. Partnering with the FBD would not only increase the availability and reliability of items offered to students but would also greatly cut costs for services, potentially opening avenues for more developments around food insecurity. However, as a result of the \$1 billion cuts in federal funding to the USDA, the Food Bank of Delaware lost 19 truckloads of food, “valued at anywhere from \$1.1 million to \$1.15 million” and surmounting in a loss of nearly 1 million meals to feed adults, children, students, the elderly and the disabled in the First State (Thomas 2025, ABC News 2025). The significant reduction in federal funding and food is expected to have detrimental impacts on the Food Bank of Delaware and may trickle down into Blue Hen Bounty and the Food & Supply Pantry in the coming semesters, as visits to campus have already been limited in availability.

Conclusion

This study sought to answer the following research questions: (1) What are the barriers to food security among undergraduate students at the University of Delaware, and (2) What impacts the utilization of food security resources at UD? Findings from 30 undergraduate students and 5 staff members confirmed that food insecurity is prevalent on campus and likely higher than the existing data point of 1 in 4 students. Students' access to healthy and nutritious food typically worsens for students when they arrive on campus, and many students worry about paying bills, getting food, and affording groceries. The food landscape on campus exacerbates food insecurity, as the availability of fresh produce and food that meets varied dietary preferences and

restrictions appears inherently limited. Further, when the quality of food is questioned, the options that students find appetizing dwindle even further.

Knowing how pervasive food insecurity may be, informing students of the resources available to them becomes a crucial endeavor. The most well-known resource on campus is the UD Food & Supply Pantry, but several other resources on campus are available to students to use in place of or in addition to the food-based resources students can receive through the pantry. The limited awareness of resources is attributed to a number of reasons, but the main three are marketing effectiveness, willingness of students, and stigma. Awareness and stigma also play a significant role in the utilization of resources on campus. Taken all together, the success of the campus pantry overshadows the inefficiencies of other resources regarding their ability to reach students in need. Thus, a large area of improvement is increasing the marketing of resources to students. Recognizing that increased awareness may come with decreased service capacity, it is even more imperative that the university begins to tap other resources for student support moving forward. Future research should be done to gather information regarding food insecurity experiences from larger, more representative samples of the student body, and internal assessments should be prioritized to determine how effective existing services are at intervening with food insecurity for users. While off-campus services are more difficult to dictate, the University would benefit from a united front of food-insecure resources that share feedback, marketing strategies, and ideas.

Additional suggestions that are more practical in nature, like lowering prices for meal plans or items sold in markets on campus, or increasing the quality and quantity of healthy foods on campus, are popular solutions that require restructuring

relationships with Aramark and reimagining the food landscape at UD. In the meantime, cultural changes that emphasize normalizing conversations around struggle and putting more onus on authority figures in students' lives to proactively support students are key to building a campus culture that promotes food security. Similarly, policies regarding leftovers and Swipe Out Hunger should be examined in the coming year with recognition of the duplicitous nature of the campus's sustainability efforts when compared to the sustainable practices that are actively discouraged. Future focus groups should be held to allow students to provide feedback to UD Dining staff, and more transparency should be called for when policies that affect student lives so heavily are enforced.

Overall, these findings suggest that food insecurity will never fully disappear from UD's undergraduate student body, but there are a number of pathways available for the institution to make a substantial, measurable change in the student experience. While this study is limited by sample size constraints, demographically, the respondents represent a number of varying student backgrounds, all of whom still agree that more can be done. The evidence points to food insecurity being a symptom of institutional barriers that compound any existing constraints, making change about more than just increasing access, but increasing accessibility. By empowering students to share their lived experiences with us, we can give them a legacy to be proud of, while they give us the tools needed to ensure food security becomes a guarantee.

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Appendix A
IRB EXEMPTION LETTER



Institutional Review Board
210H Hullihen Hall
Newark, DE 19716
Phone: 302-831-2137
Fax: 302-831-2828

DATE: April 15, 2025

TO: Chelsea Cohen
FROM: University of Delaware IRB

STUDY TITLE: [2313975-1] Hungry Hens: An Exploration of Food
Insecurity Among Undergraduate Students at the University
of Delaware

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
EFFECTIVE DATE: April 15, 2025

REVIEW CATEGORY: Exemption category # 2(ii)

Thank you for your New Project submission to the University of Delaware Institutional Review Board (UD IRB). According to the pertinent regulations, the UD IRB has determined this project is EXEMPT from most federal policy requirements for the protection of human subjects. The privacy of subjects and the confidentiality of participants must be safeguarded as prescribed in the reviewed protocol form.

This exempt determination is valid for the research study as described by the documents in this submission. Proposed revisions to previously approved procedures and documents that may affect this exempt determination must be reviewed and approved by this office prior to initiation. The UD amendment form must be used to request the review of changes that may substantially change the study design or data collected.

Unanticipated problems and serious adverse events involving risk to participants must be reported to this office in a timely fashion according with the UD requirements for reportable events.

A copy of this correspondence will be kept on file by our office. If you have any questions, please contact the UD IRB Office at (302) 831-2137 or via email at hsrb-research@udel.edu. Please include the study title and reference number in all correspondence with this office.

INSTITUTIONAL REVIEW BOARD

www.udel.edu

Appendix B

INTERVIEW PROTOCOL FOR STUDENTS

Hungry Hens Project Student Interview Protocol

This protocol provides a comprehensive overview and guide for conducting in-depth, semi-structured interviews with undergraduate students at the University of Delaware.

Resources

Refer to the appendix of this document for the following resources:

- General Strategies & Prompts
- Prompts & Follow-Up Questions by Type
- Frequently Asked Questions (FAQs)

Interview Protocol Structure

The interview consists of the following parts:

- Part 1: Consent Process
- Part 2: Incentive Distribution
- Part 3: Interview Opening
- Part 4: Experiences with Food Insecurity & Resources
- Part 5: Barriers to Food Security and Utilization of Resources
- Part 6: Suggestions for Improving Food Security on Campus
- Part 7: Wrap-Up

The substantive section of the protocol (Parts 4-6) uses open-ended questions aligned to the central research aims with prompts that allow for greater insight and elaboration. These sections of the protocol begin with a “tour” or warm-up question, followed by a series of main questions asking about student experiences with food (in)security on campus. The follow-up questions will ask students to detail their experience, including their explanations and perceptions, frequencies of their experiences, feelings, and reactions, and their perceived consequences of their experiences.

General Approach and Guiding Principles

A couple of points about the general approach and guiding principles for the interviews.

1. Create a space: The purpose of the interview is to learn about the experiences and understandings of the interviewees, and the role of the interviewer is to help create a space for an interaction that can solicit this.
2. Facilitate a conversation: The interview is meant to be a conversation, and not meant to be overly scripted. The interview questions and prompts are to be used to guide the conversation, but the way the questions and prompts are asked and the topics that are followed up on may vary as there is much flexibility.
3. Approach with flexibility: It is expected that what is learned in each interview will vary to some degree, reflecting (1) what the interviewee wants to share; (2) the interactional dynamics between the interviewer and interviewee; and (3) the context in which the interview occurs. Expect each interview to vary in the focus and content to some degree as well as in terms of length. The interview is expected to take between 20 to 40 minutes. The time of the interview is an estimate for planning and scheduling purposes. The interview may go longer depending on how the conversation goes.
4. Focus on shared vulnerability: The interviewer is expected to connect with the interviewee, as opposed to simply imagining oneself as a detached recorder of information. This approach reflects taking a human-centered approach to interacting with the interviewee as a whole person who is knowledgeable and willing to share their knowledge and experiences.

Initial Greetings/Acknowledgment

It is expected that the interviewer and interviewee would greet each other and engage in some small talk prior to the beginning of the interview protocol. During the initial greetings/small talk time, the interviewer may want to inquire about the person's day. This type of question is both normative as a greeting, but also will allow the interviewer to gather insight into the current state of mind and mood of the interviewee, which is valuable for approaching the interview, and potentially also for noting in the interview debrief as an important context for understanding the interview.

If the interviewee shares that they are not doing well or that something serious has recently occurred, it is recommended that the interviewer inquire as to whether the interviewee is still willing, able, and interested in doing the interview or whether rescheduling for another time would be better.

Part 1: Consent Process

Obtaining informed consent is an important process. The process we are using includes a specific script to walk through and the completion of a documentation sheet.

At the end of the consent process is a request to record the interview and the distribution of the interview incentive.

The consent form should be sent via email in advance whenever possible.

Physical copies of the consent form will also be provided to those who select in-person interviews

We will (likely) receive permission from the University of Delaware Human Subjects Review Board (IRB) to obtain consent verbally, so no signature is required.

There is one version of the informed consent script for participants.

Informed Consent for Script for Potential Participants

INTRODUCTION

Thank you for taking the time to talk with me today.

I will share information with you about our research study. Then, you can decide if you would like to participate.

Did you receive the document “Hungry Hens Project Consent Form”?

- If so, good!
- If not, confirm your email address and we can email it to you.
 - Pause to send the document and wait for receipt.
- If in-person, hand a physical copy of the form.
- If on Zoom, use the “share screen” option to display.

REVIEWING THE DOCUMENT

Let’s go over the document together.

Please consider this information carefully before deciding whether to participate in this research. Your participation is completely voluntary and will not affect your ability to utilize any resources for food insecurity.

As we go through this form, please ask me to explain anything you do not understand. Your understanding is required for you to consent to participate in the study. If you decide to participate, I will record this information in our records.

- If they do not have the document, read the document out loud to them, pausing after each section to ask if they have any questions.
- If they have the document, instruct them to read the document and provide a few minutes for them to do that, then review some of the content to ensure comprehension.

CONSENTING PROCESS

In order for us to keep a record that you have agreed to participate, I would like to record your verbal agreement. Is that okay with you?

Are you interested in participating in this study?

- If not, thank you for your time and consideration. Have a great day!
- If so, I am going to confirm this decision by asking you a series of questions.

Audio Recording

In order for us to keep a record that you have agreed to participate, I would like to record your verbal agreement. Is that okay with you?

[Turn on recording device] Okay, the recorder is now on. This is Chelsea Cohen and I am here with respondent ID number [ID number here]. Today is [insert date] and it is [insert time].

The document we just reviewed together describes the research study and your rights as a participant. Can you confirm that you have received this document? If so, say yes.

Have you been given a chance to ask questions and have any questions you asked been answered? If so, say yes.

Do you know who to contact if you have more questions? If so, say yes.

Finally, do you agree to participate in the research study? If so, say yes.

Part 2: Incentive Distribution

Before beginning the interview, describe the process of receiving the \$25 Food Lion gift card for participating in the study.

Confirm the participant's email address and send the e-gift card via email OR provide a physical gift card to the recipient. Give the participant a moment to check that they have received the email if they are able.

Part 3: Interview Opening

Express gratitude: Thank you so much for agreeing to talk with me today. I am looking forward to hearing about your experiences and perspectives as an undergraduate student here at UD.

Reiterate purpose: In our conversation today, I want to get to know you and understand what your experiences with food look like as a current undergraduate student here.

Instill confidence: You're the expert here on your own experiences, I'm just here to learn a bit more from you about your time here at UD.

Reassurance: There are no wrong answers or responses to the questions and topics we will discuss today. There is no need to overthink or second-guess your responses, I'm only here to talk about your own experiences as you understand them. You may not have been interviewed before but I want to reassure you that while it can be a little awkward at first, I hope this ends up feeling like a conversation.

Demonstrate humility: I want to acknowledge that you are doing me a service by answering questions about your experiences. I want to hear about both positive and negative experiences but you are not required to share anything you are uncomfortable sharing.

Confidentiality reminder: I want to remind you that this process is confidential, your identity will be protected so no one will be able to connect what you tell me today to you; no one outside of my research team can access the interview recording or transcript.

Notetaking: I will be taking some notes to help me keep track of some of the things you say and the larger themes we bring up.

****Be mindful to balance eye contact and active listening with notetaking****

Part 4: Experiences with Food Insecurity & Resources

In this section, we are focused on learning about how undergraduate students at UD experience food insecurity and utilize the resources on and around campus aimed at intervening with food insecurity. We are particularly interested in learning about experiential aspects which can be positive or negative, mundane (normal, everyday) or exceptional (unusual, traumatic).

Some aspects to keep in mind when inquiring about student experiences surrounding food are: the types of experiences, how students survive these experiences, who is involved in these experiences, the perceived causes of these experiences, the perceived solutions to these experiences, and the duration of these experiences.

Food insecurity can be experienced in many different ways, including:

- Reducing the quality of food
- Reducing the quantity of food consumed in a single setting
- Skipping meals
- Reducing time spent in classes/on homework to work extra hours
- Working to be able to afford groceries
- Worrying about where your next meal is going to come from
- Attending free campus events just for the food

In this protocol, we inquire about student experiences with food by asking about their eating habits on campus, and we inquire about utilization of resources by asking if they are familiar with the resources that exist on or around campus. In some interviews, students may want or need prompting to think about their experiences with food with more nuance, so examples such as the ones above may be provided.

We are also interested in learning about how students have interacted specifically with the concept of food insecurity. In this protocol, we specifically ask students to reflect on when and where they get their food, where they have heard about food insecurity, if at all, and what resources they are familiar with, if any.

In this protocol, we ask about personal experiences as the focal point. However, second-hand or indirect experiences with food insecurity (i.e. those experienced by friends or family) can also be salient and impactful. If students describe these indirect experiences, inquire about them to some extent, but try to shift focus to their personal experiences and/or identify if they are focusing on these experiences because they don't think they have personally experienced food insecurity. If the students are hesitant to describe their personal experiences, move the initial focus to inquire about

the indirect experiences (of friends), or even more broadly, about the general experiences of other students.

Transition: Okay, let's get started! We are going to start talking about a regular day of the week for you.

Walk me through a typical day of the week for you.

Alternative questions/wording: What does your busiest day of the week look like?

Prompts: open but consider the opportunity for personal connection by mentioning a brief similarity of differences in days. Alternatively, ask a follow-up of your choosing to demonstrate interest and active listening.

When and where do you usually get your food for the day?

Alternative questions/wording: What do you usually have for lunch? Do you normally eat between those two classes?

Prompts: open, but if they mention anything relating to struggling to find time to eat or factors that impact their decisions about when, if, or what they eat, ask about this with 1-2 follow-up prompts of your choosing.

Transition: Now I'm going to ask you a couple of questions that are specifically about your eating habits...

Tip: If they are hesitant to describe their own personal experiences after a couple of attempts, switch to asking about their friends' experiences or general experiences of students at UD and then circle back to their personal experiences.

Did your access to healthy & nutritious food that meets your needs improve or worsen when you came to UD?

Alternative questions/wording: Do you think that it was easier to meet your health and nutrition goals since coming to UD?

Prompt for: experience, feelings, explanation, consequences, frequency

Before I give you the definition of food insecurity for this study, would you describe yourself as food insecure? Why or why not?

Prompt for: experience, feelings, explanation, consequences, frequency

Tip: if the student says yes, ask them to describe their experiences. If the student says no, ask them what they think sets them apart.

Transition: Okay, before I give you that definition, I am going to ask you four questions, for each one, please let me know if you agree or disagree with the statement.

- 1. Your eating patterns were disrupted and food intake was reduced because of money or other resources (such as transportation or time).***
- 2. You reduced the quality, variety, and desirability of your diet, but the quantity of food intake and eating patterns were not substantially disrupted.***
- 3. You have had problems with and/or anxiety about accessing adequate food, but the quality, variety, and quantity of food intake was not substantially reduced.***
- 4. You had no problems with or anxiety about consistently accessing adequate food.***

Transition: I am going to ask you another five questions. For each one, let me know the frequency you experience with never, sometimes, often, or always.

- 1. In the last 30 days, how often have you worried about paying bills not related to school (rent, car payments, medications, pet supplies, etc?)***
- 2. In the last 30 days, how often have you worried about what you are going to eat?***
- 3. In the last 30 days, how often have you worried about affording groceries?***
- 4. In the last 30 days, how often have you worried about paying school-related bills (tuition, winter classes, tutoring, etc.)***
- 5. In the last 30 days, how often have you worried about where you are going to sleep at night?***

Tip: If the student displays low food security, discuss what aspects of food security they may be missing.

Transition: Okay, now I'm going to read you the definition of food insecurity that we use in this study: "limited or uncertain availability of nutritionally adequate and safe foods, or the ability to acquire such foods in a socially acceptable manner"

Tip: If you are in person, provide a physical copy of the definition of food insecurity, and type the definition in the chatbox if the interview is conducted over Zoom.

Is there anything that stands out to you about this definition or that you think that is missing? How does your definition of food (in)security compare to your understanding of food (in)security?

Prompt for: experience, feelings, explanation, consequences, frequency

In your opinion, what are the biggest factors that contribute to food insecurity among college students?

Based on the definition of food insecurity, what percentage of UD students do you think fall into this category, and would you say you are included?

*If the interviewee claims they **have** experienced food insecurity, ask the following:*

How does food insecurity affect your daily life, including your studies, work, and physical or mental health?

How does food insecurity affect your social life or ability to participate in co-curricular activities like RSOs, attending events, etc?

*If the interviewee claims they have **not** experienced food insecurity, or they are uncomfortable sharing their personal experiences, ask the following:*

Do you know any students who have experienced food insecurity? How has it affected them?

How do you think food insecurity affects the daily lives of students experiencing food insecurity, including their studies, work, and health?

Do you think food insecurity affects students' social lives or ability to participate in co-curricular activities like RSOs, attending events, etc?

*If the interviewee **does** know students who have experienced food insecurity, ask the following:*

Have you noticed any patterns in who experienced food insecurity on campus? If so, what are they and why do you think they exist?

Transition: Okay, we are going to pivot to focusing on resources.

If you, someone you cared about, or your student was experiencing food insecurity on campus, where would you go/direct them to get aid?

What resources for food (in)security, if any, are you familiar with on campus?

Tip: If not brought up, prompt with examples of specific resources such as Swipe Out Hunger, the Food & Supply Pantry, Blue Hen Bounty, the Food Bank of Delaware, and SNAP benefits at Harrington C.

Have you interacted with any of these resources before, either by using them or by donating to them?

*If the interviewee **has** used the resources before, ask the following:*

What barriers have you encountered trying to access or support food assistance programs?

Is there anything else you would like to share or expand on before we move to the next section?

Part 5: Barriers to Food Security & Utilization of Resources

In this section, we are focused on learning how undergraduate students explain the development and perpetuation of food insecurity on campus.

As with the previous section, we inquire about personal experiences by asking about Interactions with food-related systems on campus and resources on campus. We do have particular aspects that we are interested in learning about as barriers, but we provide room for the students to identify these barriers themselves.

Though personal experiences are a focal point of this research, if students describe these indirect experiences, inquire about them to some extent, but try to move the focus to their personal experiences and/or identify if they are focusing on these because they don't see themselves as having experiences. If the interviewees are hesitant to describe personal experiences, move the initial focus to inquiring about the indirect experiences (of friends), or even more broadly, about general experiences of other students.

Transition: Okay, we're moving on to discussing barriers to food security & what impacts how students use or don't use the resources on and around campus.

Do you feel UD adequately supports students facing food insecurity? Why or why not?

Prompt for: experience, feelings, explanation, consequences, frequency

Tip: Support can look different ways, be mindful to have examples of what support can look like (i.e. funding resources, written important, conversations, etc.).

Have you ever heard someone in a professional leadership position (professor, administrator, staff, etc.) talk about the resources of food insecurity on and/or around campus?

Prompt for: experience, feelings, explanation, consequences, frequency

*If they **are** food insecure or have inconsistent food security, ask the following:*

What, if any, barriers consistently prevent you from eating meals that align with your dietary, nutritional, health, and cultural needs (locations, time, money, etc.)

Tip: Connect back to their experiences mentioned in the tour and introduction questions. As well, consistently, in this case, means three or more times a week.

How do financial burdens such as tuition or rent impact your ability to afford food?

Prompt for: experience, feelings, explanation, consequences, frequency

What role does your living situation play in your ability to meet your food needs and wants?

Prompt for: experience, feelings, explanation, consequences, frequency

What role does the location of food vendors (the PODS, dining halls, Trabant & Perkins, supermarkets, etc.) play in your ability to access quality food?

Prompt for: experience, feelings, explanation, consequences, frequency

What role does transportation play in the utilization of food resources around campus?

*If they have a **meal plan**, ask the following:*

How well does your meal plan allow you to meet your dietary, nutritional, and health needs?

Prompt for: experience, feelings, explanation, consequences, frequency

Tip: Inquire about the type of meal plan that the student has, their normal usage, and what impacts their ability to use it more specifically.

Transition: We're going to briefly discuss the barriers that you think impact how resources are used on campus.

What barriers, if any, exist that prevent the utilization of resources?

Prompt:

Why do you think students do not know about the food security resources on campus? What barriers, if any, exist that prevent the awareness of resources?

Prompt:

Tip: If the interviewee is familiar with some of the resources on campus, ask them how they may have found out about those resources, or why they do not know about the resources, and how they would be better reached.

Part 6: Suggestion for Improving Food Security on Campus

In this section we are going to discuss any suggestions the interviewee has to improve food security on campus. As with the previous section, we inquire about the different resources on campus and the positive and negative experiences students have with them. The hope is that this information can be used to provide tangible steps that UD can take to improve food security on campus.

Transition: Okay! We're going to move on to the final topic, suggested improvements.

How would you suggest increasing awareness of resources on campus?

What are ways you think we can improve food security on campus, as students, as administrators, and as faculty?

*If they have **used these resources**, ask the following:*

What are ways the resources to combat food insecurity can be improved?

Tip: Connect back to barriers experienced by the interviewee in Question 20.

What role should UD, government programs, and/or local communities play in reducing food insecurity?

Prompt: specific examples of improving

Part 7: Wrap-Up

In addition to the wrap-up of the interview with the respondent, see the process details, including the post-interview reflection, the organization of the consent documents and audio files, creation and review of the transcript, and the follow-up “thank you” communication with the respondent.

For pilot interviews:

Thank you so much for your participation so far.

The last thing that we would really appreciate is if you can provide us with feedback about the interview. Was there any part or specific question in the interview that you didn't really understand or found difficult to respond to?

Gratitude: Thank you for your time and for sharing so much about yourself with me. I really appreciated the opportunity to get to know you.

Interview Debrief: Acknowledge that some of the topics covered in the interview might have made them uncomfortable, and you appreciate them sharing potentially traumatic experiences; let them know they can share their thoughts with you before you part ways.

For later interviews:

Gratitude: Thank you for your time and for sharing so much about yourself with me. I really appreciated the opportunity to get to know you.

Interview Debrief: Acknowledge that some of the topics covered in the interview might have made them uncomfortable, and you appreciate them sharing potentially traumatic experiences; let them know they can share their thoughts with you before you part ways.

Confidentiality: Ask the interviewee to come up with their own pseudonym (a name we will use instead of their own to personalize the information), if they would like to. Note: not a nickname or something that is potentially identifiable.

Recruitment suggestions: Pending permission from IRB, ask them to share the information about the project with their social networks, and ask if they have suggestions for ways to reach/recruit other students, so we can at least learn what might work well.

Appendix

The following resources are included in the appendix:

- General Strategies and Prompts
- Prompts and Follow-Up Questions by Type
- Frequently Asked Questions (FAQs)

General Strategies and Prompts

This section describes a number of strategies and prompts for building a positive interviewing dynamic drawn from various qualitative and interview-specific guidebooks and articles (Orne and Bell 2015; Gerson and Damaske 2021; Lareau 2021; Jimenez and Orozco 2021).

Strategies for building positive dynamics

- Sharing something personal in the intro/interview opening
- Demonstrating active listening and empathy by providing reactions that demonstrate interest and recognition of what they have said, understanding or hearing of their story.
- Demonstrating understanding that what they are sharing is sensitive, potentially triggering and traumatic.

Prompts that demonstrate active listening and empathy and build a positive dynamic

- I understand
- That's interesting
- Anything you say is fine
- Thank you for sharing that

General prompts and strategies to encourage sharing

- What I hear you saying is...
- Tell me more about that.
- Can you say more about that?
- Can you tell me what you mean by that?
- When you say [...], what do you mean?
- Can you explain more what you mean by [...]?

Prompts that demonstrate humanity, care, and awareness of trauma

- Appreciate the generosity of the interviewee in their willingness to share their experiences/being open to talking about their lives with us
- Articulate that the goal is understanding their perspective, not our perspective of them

- Recognize the importance of us (as researchers) being thoughtful about how we represent the experiences that the students share, and that we will do our best to accurately represent their experiences in ways that are not objectifying or misrepresentations of their experiences
- Acknowledge that we are asking the interviewee to share about their lives, the challenging experiences and trauma shared, and that in talking about the experience, it can be triggering and traumatic
- Respond as a person first, interviewer second

Experiences with Food Insecurity & Resources

A core part of the interview protocol is asking about experiences with food insecurity and resources for food security. For those experiences, we have identified several aspects that we want to learn about and developed prompts for inquiring about them. These prompts will help us gain insight into the interviewee's experiences and understand their perspective.

In some cases, it will be necessary to use multiple prompts of the same kind (like "feelings" prompts in order to elicit a greater responsiveness.

The interview is meant to be conversational, not overly scripted, so it is fine to make up prompts that are not on the list below or to adlib or personalize the prompts to engender connection and understanding.

Narrative of the Experience

- Can you tell me about a recent experience or interaction you had that sticks out to you?
- Could you walk me through that experience?

Feelings/Affective Aspects

- How do you feel about that?
- How did that make you feel at the time?
- How do you feel about it now?
- Sounds like this experience made you mad, sad, frustrated, hurt... yes?
- Upon reflection sounds like you felt..., do you still feel this way now or do you feel differently?

Explanation or Evaluative Understanding

- At the time, what was going through your mind?
- Do you remember what you were thinking when you had that experience?

- When you think about it now, how do you explain what happened to you?
- Why do you think that it happened that way?
- What else was going on in your life when that happened?

Consequences

- What are some of the things that have changed as a result of this experience?
- Do you think about things differently? or act differently?
- What “lessons” have you learned from this experience?

Frequency or Typicality

- Would you describe that experience as normal/typical or unusual/not typical?
What about the experience is typical or not typical?
- Does that kind of thing happen often?

Frequently Asked Questions (FAQs)

As a reference for interviewers, this section includes suggested talking points for questions

concerns undergraduate students raise when learning about the project and/or specifically during the consenting process.

General Guidelines

As members of the research team, interviewers are trusted to provide responses whenever

possible. It is beneficial for the project and likely would make a potential participant feel more comfortable if an interviewer is able to answer the questions that are raised (e.g.

perceiving the interviewer as knowledgeable and competent).

If there are questions the interviewer is unable to answer, they should promptly inquire with the PI (Sarah)/ The goal is to provide immediate responses or when not possible, to provide quick turnaround with information for participants as a way to demonstrate the importance of their concern and our responsiveness.

Interviewers should feel comfortable in answering any questions or concerns using their own phrasing and in ways that reflect their own understanding and opinion.

Specific Questions and Suggested Talking Points

The following are questions we have received (or expect to receive); talking points are suggested, feel free to use your own phrasing (i.e. put responses in your own words).

What types of questions will I be asked in the interview?

We will ask you about your experiences with purchasing, cooking, accessing, storing, and eating food. We will also ask questions about your interactions with food-based resources on and around campus.

Appendix C

INTERVIEW PROTOCOL FOR STAFF

Hungry Hens Project Staff & Faculty Interview Protocol

This protocol provides a comprehensive overview and guide for conducting in-depth, semi-structured interviews with staff and faculty at the University of Delaware.

Resources

Refer to the appendix of this document for the following resources:

- General Strategies & Prompts
- Prompts & Follow-Up Questions by Type
- Frequently Asked Questions (FAQs)

Interview Protocol Structure

The interview consists of the following parts:

- Part 1: Consent Process
- Part 2: Interview Opening
- Part 3: Experiences with Food Insecure Students & Resources
- Part 4: Barriers to Food Security and Utilization of Resources
- Part 5: Suggestions for Improving Food Security on Campus
- Part 6: Wrap-Up

The substantive section of the protocol (Parts 3-5) uses open-ended questions aligned to the central research aims with prompts that allow for greater insight and elaboration. These sections of the protocol begin with a “tour” or warm-up question, followed by a series of main questions asking about student experiences with food (in)security on campus. The follow-up questions will ask staff to explain how they are equipped to support students who are facing food insecurity, including their capacity, their limitations, and their observations.

General Approach and Guiding Principles

A couple of points about the general approach and guiding principles for the interviews.

1. Create a space: The purpose of the interview is to learn about the experiences and understandings of the interviewees, and the role of the interviewer is to help create a space for an interaction that can solicit this.
2. Facilitate a conversation: The interview is meant to be a conversation, and not meant to be overly scripted. The interview questions and prompts are to be used to guide the conversation, but the way the questions and prompts are asked and the topics that are followed up on may vary as there is much flexibility.
3. Approach with flexibility: It is expected that what is learned in each interview will vary to some degree, reflecting (1) what the interviewee wants to share; (2) the interactional dynamics between the interviewer and interviewee; and (3) the context in which the interview occurs. Expect each interview to vary in the focus and content to some degree as well as in terms of length. The interview is expected to take between 20 to 40 minutes. The time of the interview is an estimate for planning and scheduling purposes. The interview may go longer depending on how the conversation goes.

Initial Greetings/Acknowledgment

It is expected that the interviewer and interviewee would greet each other and engage in some small talk prior to the beginning of the interview protocol. During the initial greetings/small talk time, the interviewer may want to inquire about the person's day. This type of question is both normative as a greeting, but also will allow the interviewer to gather insight into the current state of mind and mood of the interviewee, which is valuable for approaching the interview, and potentially also for noting in the interview debrief as an important context for understanding the interview.

If the interviewee shares that they are not doing well or that something serious has recently occurred, it is recommended that the interviewer inquire as to whether the interviewee is still willing, able, and interested in doing the interview or whether rescheduling for another time would be better.

Part 1: Consent Process

Obtaining informed consent is an important process. The process we are using includes a specific script to walk through and the completion of a documentation sheet.

At the end of the consent process is a request to record the interview and the distribution of the interview incentive.

The consent form should be sent via email in advance whenever possible.

Physical copies of the consent form will also be provided to those who select in-person interviews.

We will (likely) receive permission from the University of Delaware Human Subjects Review Board (IRB) to obtain consent verbally, so no signature is required.

There is one version of the informed consent script for participants. The scripts will be run through the reading level software and the language will be edited to make the scripts as accessible as possible. The scripts are estimated to be at approximately a 7th-grade reading level.

Informed Consent for Script for Potential Participants

INTRODUCTION

Thank you for taking the time to talk with me today.

I will share information with you about our research study. Then, you can decide if you would like to participate.

Did you receive the document “Hungry Hens Project Consent Form”?

- If so, good!
- If not, confirm your email address and we can email it to you.
 - Pause to send the document and wait for receipt
- If in-person, hand a physical copy of the form.
- If on Zoom, use the “share screen” option to display.

REVIEWING THE DOCUMENT

Let’s go over the document together.

Please consider this information carefully before deciding whether to participate in this research. Your participation is completely voluntary and will not affect your ability to utilize any resources for food insecurity.

As we go through this form, please ask me to explain anything you do not understand. Your understanding is required for you to consent to participate in the study. If you decide to participate, I will record this information in our records.

- If they do not have the document, read the document out loud to them, pausing after each section to ask if they have any questions.
- If they have the document, instruct them to read the document and provide a few minutes for them to do that, then review some of the content to ensure comprehension.

CONSENTING PROCESS

In order for us to keep a record that you have agreed to participate, I would like to record your verbal agreement. Is that okay with you?

Are you interested in participating in this study?

- If not, thank you for your time and consideration. Have a great day!
- If so, I am going to confirm this decision by asking you a series of questions.

Audio Recording

In order for us to keep a record that you have agreed to participate, I would like to record your verbal agreement. Is that okay with you?

[Turn on recording device] Okay, the recorder is now on. This is Chelsea Cohen and I am here with respondent ID number [ID number here]. Today is [insert date] and it is [insert time].

The document we just reviewed together describes the research study and your rights as a participant. Can you confirm that you have received this document? If so, say yes.

Have you been given a chance to ask questions and have any questions you asked been answered? If so, say yes.

Do you know who to contact if you have more questions? If so, say yes.

Finally, do you agree to participate in the research study? If so, say yes.

Part 2: Interview Opening

Express gratitude: Thank you so much for agreeing to talk with me today. I am looking forward to hearing about your experiences and perspectives as a staff member that will have some insight about the student experiences with food insecurity on our campus.

Reiterate purpose: In our conversation today, I want to get to know your understanding of food insecurity at UD and the resources that exist for undergraduate students to remain food secure or to be lifted out of food insecurity.

Instill confidence: You're the expert here on your own experiences, I'm just here to learn a bit more from you about your time here at UD.

Reassurance: There are no wrong answers or responses to the questions and topics we will discuss today. There is no need to overthink or second-guess your responses. You may not have been interviewed before, but I want to reassure you that while it can be a little awkward at first, I hope this ends up feeling like a conversation.

Demonstrate humility: I want to acknowledge that you are doing me a service by answering questions about your perspectives on food insecurity at UD. I want to hear about both positive and negative observations and interactions, but you are not required to share anything you are uncomfortable sharing.

Confidentiality reminder: I want to remind you that this process is confidential, your identity will be protected, so no one will be able to connect what you tell me today to you; no one outside of my research team can access the interview recording or transcript. So in the event that you have larger critiques about your department or the University, your identity would not be associated with this feedback.

Notetaking: I will be taking some notes to help me keep track of some of the things you say and the larger themes we bring up.

****Be mindful to balance eye contact and active listening with notetaking****

Part 3: Experiences with Food Insecurity & Resources

In this section, we are focused on learning about how staff and faculty understand and intervene with undergraduate students experiencing food insecurity. We are particularly interested in learning about experiential aspects which can be positive or negative, mundane (normal, everyday) or exceptional (unusual, traumatic).

Food insecurity can be experienced in many different ways, including:

- Reducing the quality of food
- Reducing the quantity of food consumed in a single setting
- Skipping meals
- Reducing time spent in classes/on homework to work extra hours
- Working to be able to afford groceries
- Worrying about where your next meal is going to come from
- Attending free campus events just for the food

In this protocol, we inquire about staff experiences with food insecurity as a concept and students who are food insecure by asking about their understanding of food insecurity at UD and inquiring about the usage of services that they work withing. I

Transition: Okay, let's get started! We are going to start talking about a regular day of the week for you.

Walk me through a typical day of the week for you.

Alternative questions/wording: What does your busiest day of the week look like?

Prompts: open but consider the opportunity for personal connection by mentioning a brief similarity or differences in days. Alternatively, ask a follow-up of your choosing to demonstrate interest and active listening.

What do you think food insecurity for our undergraduate Blue Hens looks like?

Alternative questions/wording: How does food insecurity present among college students?

To what extent do you think food insecurity is a prominent issue at UD?

Alternative questions/wording: How prevalent do you think food insecurity is at UD?

Prompt for: Is 1 in 4 students higher or lower than you'd expect?

What is your understanding of the impact of food insecurity on college students here?

Alternative questions/wording: How do you think students are impacted by food insecurity?

Prompts: Follow up with the educational, social, mental, and physiological impacts. Why are these the areas that students feel the most impacts?

How do you share information about food insecurity services with the student body?

Prompts: What goes into the decision making about what is shared and how it is shared?

What other services, if any, do you know of that intervene with food insecurity? What is your affiliation with these services, if at all?

Alternative questions/wording: Do you know of other resources for food-insecure students? Do you collaborate or work with these other resources in any capacity?

Prompts: Why or why not do you collaborate with these other resources? How do you collaborate with these resources, if at all?

How does your service intervene with food insecurity on campus?

Alternative questions/wording: What aspects of food insecurity does your service address?

How does your service get connected with students in need?

Alternative questions/wording: What are your top methods of communication with students? How do students get connected with your resources?

How is food insecurity talked about in your academic department?

Prompt: Where do these conversations happen? How do students perceive this information?

Are there any patterns in the students who utilize your services?

Alternative questions/wording: Are there some students who use your service more than others?

Prompts: Why might these patterns exist?

How often do you directly interact with students who experience food insecurity?

Alternative questions/wording: Are you a point of contact for students?

Is there a lot of collaboration or support of other similar resources within your service?

Prompts: Explanations

Part 4: Barriers to Food Security & Utilization of Resources

In this section, we are focused on learning how staff and faculty explain the development and perpetuation of food insecurity on campus.

As with the previous section, we inquire about personal experiences by asking about the interactions staff and faculty facilitate between students and resources or knowledge. We do have particular aspects that we are interested in learning about as barriers, but we provide room for the interviewees to identify these barriers themselves.

Transition: Okay, we're moving on to discussing barriers to food security & what impacts how students use or don't use the resources on and around campus.

Do you feel UD adequately supports students facing food insecurity? Why or why not?

Prompt for: experience, feelings, explanation, consequences, frequency

Tip: Support can look different ways, be mindful to have examples of what support can look like (i.e. funding resources, written important, conversations, etc.).

Do you hear people in other leadership positions talking about resources for students?

Prompt for: experience, feelings, explanation, consequences, frequency

What, if any, barriers do you believe exist that prevent students from consistently being secure in their ability to access food that aligns with their dietary, nutritional, health, and cultural needs?

Prompt for: locations, time, money, etc.

Alternative wording/questions: How do financial burdens such as tuition, rent, and transportation impact students' ability to afford food? What role do you think living situations play in your ability to meet students' food needs and wants? What role does the location of food vendors (the PODS, dining halls, Trabant & Perkins, supermarkets, etc.) play in students' ability to access quality food? What role does transportation play in the utilization of food resources around campus? How well do meal plans allow students to meet their dietary, nutritional, and health needs?

What barriers exist within your specific service that prevent the utilization of this resource?

Prompt for: why these barriers exist, and what has been done to mitigate them?

What are some of the broader issues you think may impact the utilization of resources on campus?

Alternative wording/questions: What barriers, if any, exist to prevent awareness of resources?

Part 5: Suggestion for Improving Food Security on Campus

In this section we are going to discuss any suggestions the interviewee has to improve food security on campus. As with the previous section, we inquire about the different resources on campus and the positive and negative experiences students have with them. The hope is that this information can be used to provide tangible steps that UD can take to improve food security on campus.

Transition: Okay! I want to pivot us to talking about some of the ways we can improve our food security at UD?

How would you suggest increasing awareness of resources on campus?

What are ways you think we can improve food security on campus, as students, as administrators, and as faculty?

What are ways the resources to combat food insecurity can be improved?

What role should UD, government programs, and/or local communities play in reducing food insecurity?

Prompt for: specific examples that can be instituted at UD

Part 6: Wrap-Up

In addition to the wrap-up of the interview with the respondent, see the interview logistics document and cheat sheet version for post-interview logistics and process details, including the post-interview reflection, the organization of the consent documents and

audio files, creation and review of the transcript, and the follow-up “thank you” communication with the respondent.

For pilot interviews:

Thank you so much for your participation so far.

The last thing that we would really appreciate is if you can provide us with feedback about the interview. Was there any part or specific question in the interview that you didn't really understand or found difficult to respond to?

Gratitude: Thank you for your time and for sharing so much about yourself with me. I really appreciated the opportunity to get to know you.

Interview Debrief: Acknowledge that some of the topics covered in the interview might have made them uncomfortable, and you appreciate them sharing potentially traumatic experiences; let them know they can share their thoughts with you before you part ways.

For later interviews:

Gratitude: Thank you for your time and for sharing so much about yourself with me. I really appreciated the opportunity to get to know you.

Interview Debrief: Acknowledge that some of the topics covered in the interview might have made them uncomfortable, and you appreciate them sharing potentially traumatic experiences; let them know they can share their thoughts with you before you part ways.

Confidentiality: Ask the interviewee to come up with their own pseudonym (a name we will use instead of their own to personalize the information), if they would like to. Note: not a nickname or something that is potentially identifiable.

Recruitment suggestions: Pending permission from IRB, ask them to share the information about the project with their social networks, and ask if they have suggestions for ways to reach/recruit other students, so we can at least learn what might work well.

Appendix

The following resources are included in the appendix:

- General Strategies and Prompts
- Prompts and Follow-Up Questions by Type
- Frequently Asked Questions (FAQs)

General Strategies and Prompts

This section describes a number of strategies and prompts for building a positive interviewing dynamic drawn from various qualitative and interview-specific guidebooks and articles (Orne and Bell 2015; Gerson and Damaske 2021; Lareau 2021; Jimenez and Orozco 2021).

Strategies for building positive dynamics

- Sharing something personal in the intro/interview opening
- Demonstrating active listening and empathy by providing reactions that demonstrate interest and recognition of what they have said, understanding or hearing of their story.
- Demonstrating understanding that what they are sharing is sensitive, potentially triggering and traumatic.

Prompts that demonstrate active listening and empathy and build a positive dynamic

- I understand
- That's interesting
- Anything you say is fine
- Thank you for sharing that

General prompts and strategies to encourage sharing

- What I hear you saying is...
- Tell me more about that.
- Can you say more about that?
- Can you tell me what you mean by that?
- When you say [...], what do you mean?
- Can you explain more what you mean by [...]?

Prompts that demonstrate humanity, care, and awareness of trauma

- Appreciate the generosity of the interviewee in their willingness to share their experiences/being open to talking about their lives with us

- Articulate that the goal is understanding their perspective, not our perspective of them
- Recognize the importance of us (as researchers) being thoughtful about how we represent the experiences that the students share, and that we will do our best to accurately represent their experiences in ways that are not objectifying or misrepresentations of their experiences
- Acknowledge that we are asking the interviewee to share about their lives, the challenging experiences and trauma shared, and that in talking about the experience, it can be triggering and traumatic
- Respond as a person first, interviewer second

Experiences with Food Insecurity & Resources

A core part of the interview protocol is asking about experiences with food insecurity and resources for food security. For those experiences, we have identified several aspects that we want to learn about and developed prompts for inquiring about them. These prompts will help us gain insight into the interviewee's experiences and understand their perspective.

In some cases, it will be necessary to use multiple prompts of the same kind (like "feelings" prompts in order to elicit a greater responsiveness.

The interview is meant to be conversational, not overly scripted, so it is fine to make up prompts that are not on the list below or to adlib or personalize the prompts to engender connection and understanding.

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- At the time, what was going through your mind?
- Do you remember what you were thinking when you had that experience?
- When you think about it now, how do you explain what happened to you?
- Why do you think that it happened that way?
- What else was going on in your life when that happened?

Consequences

- What are some of the things that have changed as a result of this experience?
- Do you think about things differently? or act differently?
- What “lessons” have you learned from this experience?

Frequency or Typicality

- Would you describe that experience as normal/typical or unusual/not typical?
What about the experience is typical or not typical?
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concerns undergraduate students raise when learning about the project and/or specifically during the consenting process.

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Specific Questions and Suggested Talking Points

The following are questions we have received (or expect to receive); talking points are suggested, feel free to use your own phrasing (i.e. put responses in your own words).

What types of questions will I be asked in the interview?

We will ask you about your experiences interacting with, serving, or talking more broadly about students who experience food insecurity at UD.,