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LIVING ON RAMEN: FOOD INSECURITY AMONG COLLEGE STUDENTS AND THE
LION'S PANTRY AT PENN STATE UNIVERSITY PARK

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ABSTRACT

Despite popular rhetoric about college students being broke and eating ramen noodles for dinner every night, food insecure college students remain an invisible community. Because of the high costs of college, assumptions about the financial status of students are made that make food insecurity seem improbable, yet on a national level food insecurity among college students occurs at a higher rate than the general population. The increasing high cost of college and increasing rates of student loan debt point to possible reasons food insecurity is becoming more prevalent. As higher education institutions act as caring agencies which provide housing and meal plans for students, it is critical that they invest resources into understanding and addressing the issue of food insecurity on campus. The focus of this thesis is on the Lion's Pantry food bank for food insecure students at Penn State University Park. A survey was conducted in order to better understand who utilizes the pantry's services, as well as their motivations and perceptions about the services. Based on survey findings, academic literature, informational meetings, and other evidence which helped build context, a case description for the Lion's Pantry was written. Several major challenges for students in accessing and affording food were found, and the circumstances of the food system at Penn State is explored. College students experience food insecurity differently than households and families because of the unique circumstances of their situation as students. This unique experience leads to several challenges conceptualizing, measuring, and researching food insecurity, as well as trouble reaching students who may need help. It is part of the reason why this community remains invisible, leading to stigma and silence around the issue. This work concludes with a discussion of possible recommendations which aim to help the Lion's Pantry and the university to better serve students facing food insecurity. Penn

State University Park acts a case study which might yield useful information for other college food assistance programs and resources.

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Chapter 1

Introduction

Penn State University Park is one of the most expensive public state universities in the Big 10 conference, and in the United States (Fernandez, 2019). Because of the underlying assumption that all students who attend Penn State can meet the cost of tuition, this often creates the illusion that impoverished or low-income students don't exist at Penn State, making them a fairly "invisible community." Yet, a wide array of financial situations exists among students, including those accumulating large amounts of debt, those receiving financial aid which may cover the cost of tuition or fall short, those who may receive significant financial support from a parental unit, and other such situations. At Penn State University Park in 2014, the average student debt at graduation was higher than the national average by 27% at \$36,995, according to Melissa Kunes, senior director of the Penn State Office of Student Aid (Fowler, 2015). Because of the diversity of financial circumstances, high cost of attendance and large size of the university, the resources and programs designed to support students may not be meeting hidden or obvious student need.

A major need among low-income or financially burdened students which goes under-recognized and under-researched is food insecurity. Food insecurity is an issue for households nationally, and this does not exclude the students at Penn State University Park. While there have been several student-driven studies on student hunger, the prevalence and exact rate of food insecurity at Penn State remains unseen because of the lack of substantive empirical analysis on

the subject. While this project assumes that Penn State University Park students face food insecurity, based on national figures and research done at other similar universities, there is very little known about the picture of hunger at Penn State. The lack of university-funded or -organized research on the subject could be because the more popular assumption is that Penn State students are able to afford tuition, therefore they must not struggle financially otherwise, making those actually facing food insecurity a fairly invisible community.

Food insecurity is defined by The United States Department of Agriculture (USDA, 2000) as “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.” According to the USDA’s Current Population Survey Food Security Supplement, 11.8% of American households were food insecure at some time during 2017, meaning that 40 million people lived in food insecure households. Food insecurity can range from high to low, with the main defining characteristic being that “food intake of household members is reduced and their normal eating patterns are disrupted because the household lacks money and other resources for food” (USDA, 2020). For college students, food insecurity may be more difficult to measure and define. Students face additional barriers to self-qualification for food assistance resources, such as inability to define themselves as food insecure, fear of social stigma, a busy schedule or lack of knowledge on resources. While the USDA definitions of food insecurity that most colleges utilize capture a significant portion of food insecurity at the university level, students, faculty, and community members may have a unique and more nuanced, in-depth understanding of what it means to be food insecure (Nikolaus, Ellison, Nickols-Richardson, 2019). For example, one would naturally consider food insecurity to be the opposite or absence of food security. Yet, levels of food access, availability, or utilization and nutritional challenges with food exist more

on a spectrum rather than in a black and white duality. This could lead to inadequate emergency food services and an unmet need of student hunger due to measurement obstacles or misunderstandings (Nikolaus, Ellison, Nickols-Richardson, 2019).

Because food security can be an ambiguous term uniquely experienced by different demographics, identifying the prevalence of food insecurity among college students can be a challenge, for both researchers and students themselves. Rates of food insecurity among college students are higher than the general population by most accounts, though exact measurements can vary greatly by institution and by study (Nikolaus, Ellison, & Nickols-Richardson, 2019). Some studies have found rates of food insecurity among college students between 20 and 50%, much higher than the U.S. national average of 11.8% (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). For the entire US population, 85% of SNAP-eligible individuals are enrolled (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). In 2018, the US Government Accountability Office (GAO) reported that 7.3 million college students qualified for Supplemental Nutritional Assistance (SNAP Program), but only 2.26 million, or 31%, were actually enrolled (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). This discrepancy in qualification verses enrollment rates between university students and the general population demonstrates that students may not be equipped to identify when they are facing food insecurity and qualify for resources. The discrepancy also signals that there are specific and unique barriers exist for college-aged individuals facing financial struggles or lack of access to nutritious foods.

More research is being done which suggests that college students experience food insecurity at greater rates than the general population (Nikolaus, Ellison, & Nickols-Richardson, 2019). For college-aged students, facing a lack of access or availability to healthy and affordable

foods can be a particularly insidious problem, as it can impact many other facets of life. For example, food insecurity among college students been linked to negative physical and mental health outcomes such as “decreased nutrient intake, increased mental health problems and depression, diabetes, obesity, hypertension, poor sleep, and lower self-rated health. In addition, food insecurity, hunger, or food insufficiency has been associated with lower academic achievement, behavioral and attention problems, and adverse psychosocial development among school-aged and teenage students” (Payne-Sturges, 2018). Students face the high costs of tuition in addition to other costs of living, and may sacrifice healthy, complete meals to meet tuition payments or to purchase supplies such as textbooks. However, skipping meals or opting for cheaper and less nutritious alternatives over a period of time can indicate food insecurity. And as demonstrated, this will impact the ability of the student to do well in class, to read the textbook, or to maintain a healthy lifestyle, creating a terrible cycle that is difficult to overcome (Gao et. Al., 2005; Gundersen & Ziliak, 2015; Jyoti et. Al., 2005; Payne-Sturges, 2018).

Food insecurity also has significant implications on academic performance, as lack of proper nutrition can lead to impacts on concentration and productivity (Gao et. Al., 2005). For a student in college, these challenges may lead to a lower grade point average, struggles creating social ties, and even lower self-esteem or job placement (Payne-Sturges, 2018). Because food insecurity can be due to financial constraints, students facing a lack of funds may also struggle to secure necessary things such as permanent housing, reliable transportation, and course materials like textbooks (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). Beyond academic impact, food insecurity has been shown to contribute to nutrient inadequacies that could lead to increased risks of “obesity, anxiety, depression, and suicide” (Gao et. Al., 2015). Additionally, some studies have argued that food insecurity is significantly correlated with a risk of obesity

particularly among racial and ethnic minorities (Myers et al. 2017). Students who face compounding inequalities such as these face significantly greater challenges in obtaining a college degree, whether it be from the social or health impacts that stem from financial hardship.

Considerably higher rates of food insecurity are found among college students than the general population in multiple studies (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). There are multiple explanations for this discrepancy, such as the increased cost of tuition, greater financial challenges, and a wider demographic of college students than ever before (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). There is a significant incentive for universities to invest in the research and support of low-income students facing food insecurity because of its influence on student wellbeing, performance, and graduation rates. As one study points out, universities that invest time, effort, and funds into food insecurity resources among their students may have more leverage at the state and federal levels to advocate for issues of university affordability and student financial aid (Payne-Sturges, 2018). This project will explore the issue of food insecurity among college-age students at Penn State University Park in order to inform and strengthen university support services aimed at addressing hunger.

Food Insecurity at Penn State

To address the need of students to have a reliable and free food source, Penn State University Park opened the Lion's Pantry food pantry for students in 2014. Food insecurity is assumed to exist at Penn State, although the university itself has never invested in a study that would accurately measure the percentage of students facing this challenge. In the press release

which announced the ribbon-cutting for the Lion's Pantry, several national assessments and an assessment from the University of Oregon were cited to indicate that food insecurity must exist at Penn State (Lloyd, 2014). Student advocacy and efforts led to the creation of the pantry, and it has grown in funding and size since its inception in 2014.

The Lion's Pantry is student-run, located on the edge of campus behind the intramural sports fields. Only Penn State students with Penn State IDs can access the pantry's services. Online orders and various pick-up locations throughout the University Park campus are available for the convenience of students living all over State College. These pop-up 'Cub Pantries' are locations where students can pick-up an online order of bagged goods. Their mission, as defined on their website, is "to address and mitigate student hunger at Penn State University Park campus" (The Lion's Pantry). It is a university-affiliated student group, which is supported by funding through Penn State Student Affairs. Volunteers at the pantry are mostly students, and there is a partnered student club which aims to support the Pantry's operation. The Pantry also receives support from the Sustainability Institute, Housing and Food Services, and Project Cahir at Penn State University park.

The Lion's Pantry faces significant challenges in addressing the complex issue of food insecurity. While providing in-kind food donations to students who need food, food banks only treat the symptoms of food insecurity, and neglect the underlying conditions that created the issue. The resources of a food bank could be useful to someone who is only facing a temporary period of crisis or burden, and requires assistance to meet a temporary food shortage and recover from the emergency time period. If a lack of food or funds is part of someone's long-term circumstances, though, the food bank will not treat the underlying obstacles and the user may

continue returning. This threatens the sustainability and long-term viability of the food pantry to help provide food to a growing number of clientele, if they are not receiving some other type of assistance to overcome the underlying obstacle impacting their ability to obtain food.

The Lion's Pantry also must deal with the unique demographic of college-age students. In the course of doing this research, several questions about how students socially and behaviorally deal with a lack of money and food have emerged. Students face distinct social and cultural challenges, such as perceived or real stigma associated with accessing food assistance resources like the pantry (Henry, 2019). For some students, this may be their first time living independently and managing their own funds, making financial management a new skill (Henry, 2019). For other students, it may be particularly difficult to self-identify as someone who is 'food insecure' at all, because of the stigmas associated, or because of a misunderstanding of what that really means (Nikolaus, Ellison, Nickols-Richardson, 2019). A lack of education around affordable healthy diets and the measurements of food insecurity contributes to students not understanding they are facing a real challenge and might qualify for assistance. Students may view their behavior, like skipping meals or substituting low-cost low-nutrition replacements, as normalized (Nikolaus, Ellison, Nickols-Richardson, 2019). The very well-known and popular narratives of "broke college students" being attracted to "any free meals they can find" and "living off of ramen" perpetuate the idea that it is normal to not have enough funds to eat a healthy and nutritious diet.

The Pantry also faces operational challenges, and makes important decisions which could impact the delivery of the food to students. For example, the hours of operation, the physical location of the pantry, the advertisement language, the types of food products offered, and the

types of volunteers staffing the pantry can all impact service delivery and usage. For any social service, it is critical to know and understand the needs of the target population in order to make any of these decisions about how the pantry operates. For an established program, it is necessary to evaluate and check-in on how the services are being received, to understand what the target population wants, and if their needs are being met in the best way. This project will address the particular issue of trying to understand who the pantry users are and what they think about the program's services, in order to inform recommendations to improve the pantry's services.

Research Objectives

An account of the pantry users' demographics, motivations, and perceptions of services provided can inform an assessment of how well the Pantry is addressing the needs of food insecure students. Additionally, this information, found through a survey of Lion's Pantry users, can be utilized to formulate program recommendations to improve the services. These suggestions will seek to contribute to a more sustainable and equitable food system at Penn State by aiming to improve the delivery of food aid resources to students based on potential challenges illuminated by the survey results. College-aged students are a particularly important group to consider in research on food assistance programs, as they are harder to reach and experience food insecurity at rates higher than the general population (Freudenberg, Goldrick-Rab, & Poppendieck, 2019). They face additional barriers to self-qualification for food assistance resources, such as inability to define themselves as food insecure, fear of social stigma, a busy schedule or lack of knowledge on resources.

The research objectives of this study are to:

1. Understand the Lion's Pantry users' demographics, motivations, and perceptions of the services provided.
2. Understand how these responses reflect the capacity of the Lion's Pantry to address the needs of food insecure students.
3. Formulate recommendations to inform the Lion's Pantry on how they can better serve their demographic of students, using Penn State University Park as a case study for college food assistance programs.

Objective #1-3 will be examined through a survey of the Lion's Pantry users. Objective #2 and #3 will be further informed conversations with key stakeholders involved in the Lion's Pantry and a review of documentary evidence and academic literature on the subject of food insecurity and assistance resources among college-age students.

This paper is organized into chapters, starting with an exploration of the issue of food insecurity among college students in academic literature, and the contextual circumstances of the Lion's Pantry and food systems at Penn State University Park. The next section will be a research design and methods chapter. Following the methods, the next chapter will explore the research findings and their implications, followed by an exploration of possible recommendations based on the project. Implications drawn from this case study of Penn State University Park's food pantry have the potential to illuminate larger themes regarding college-aged food insecurity and the programs which seek to assist students at other large, public universities. The last chapter is a conclusion of the research project.

Chapter 2 Food Insecurity Among College Students

Introduction

Chapter 2 explores food insecurity among college students in the United States by reviewing academic literature, archived news pieces, informational meeting notes, and relevant documents in order to fully understand the situation at Penn State University Park. This section begins with a review of the existing literature on food insecurity among college students, potential causes of food insecurity, and the impacts that a lack of food has on student life. Then, the chapter discusses some of the research challenges of measuring food insecurity among college students. Much of these challenges arise from the unique ways that college students experience and conceptualize food insecurity challenges, and this is explored in the socio-behavioral and cultural influences section. Lastly, the chapter outlines existing food system structures at Penn State University Park. This includes the Dining Services and the emergency assistance services available to students. There is a discussion of which solutions the university has been working on, and an overview of the informational meetings that were held to learn more about the university's programs. Academic articles about food insecure students found at other large, public universities can help to illuminate the ways that the Lion's Pantry serves the needs of students at University Park. In this chapter, the academic articles, meeting notes and archived news pieces are explored in order to better understand the Lion's Pantry's user demographics, motivations, and perceptions of the services provided, with an assumption that food insecure students are their primary clients. The chapter ends with a conclusion of the main ideas found in the literature and secondary documents. This discussion informs the following

Chapter 3, Methodology and Methods, as well as the recommendations formulated to help the Lion's Pantry better serve food insecure students.

Food Insecurity Among College Students

Overview

Food insecurity is a problem for households across the United States. In 2019, 10.5% of households were food insecure at least some time during the year, while 4.1% of households experienced very low food security, according to the USDA (USDA, 2020). While food insecurity prevalence has been decreasing since a spike in 2008 during the Great Recession, this still suggests that 5.3 million American households experience very low food security (USDA, 2020). The impact of the novel coronavirus (COVID-19) has threatened to drastically increase rates of food insecurity as a result of increased unemployment. An analysis of data at the national, state, and county levels by Feeding America found that as a result of the coronavirus and resulting economic turmoil, the number of people experiencing food insecurity is projected to increase by 13.3 million people (Feeding America, 2020). This problem is widespread and impacts all populations and demographics in the United States, including college-age students.

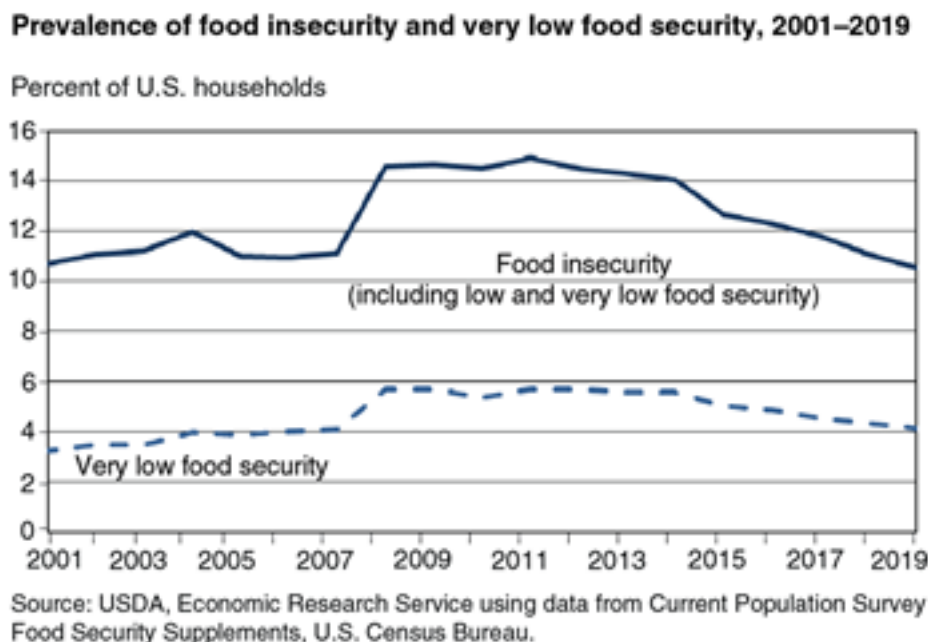


Figure 1. USDA, 2001-2019

Literature on food insecurity and its impacts on children and adults is well established, but there is limited research on college students and their experiences of the problem. According to Feeding America, one in ten adults they serve are college students (Henry, 2019; Feeding America, 2018). College students make up 40% of all 18-24 year-olds in the United States according to the National Center for Education Statistics. Exact rates of food insecurity among college students nationally is unknown, but several studies suggest the rates in different regions and at different universities range between 14 and 59 percent (Mirabatur et. Al., 2016). The largest nationwide assessment of needs among college students found that 41% of students at four-year colleges experienced food insecurity in the past 30 days (Goldrick-Rab, 2019). Nearly half of all students report not being able to afford balanced meals (Henry, 2019; Freudenberg, Goldrick-Rab, & Poppendieck, 2019). Despite the variance in food insecurity rates found among college students, it is clear that students are experiencing food insecurity at higher rates than the general population in the United States (Henry, 2019).

Causes of Food Insecurity among College Students

Factors causing food insecurity among college students are multidimensional and multifaceted. Food insecurity can be a result of new circumstances found in college, or a result of situational factors from before a student enters university. One study found that students who previously experienced food insecurity before entering college were five times more likely to experience food insecurity in college than their peers (Wooten et. Al., 2018). Additionally, race and ethnicity have been found to predict food insecurity in college students (Chaparro, et. Al. 2013). While research on the causes and tipping points of food insecurity in households in the United States is substantial, more research on what leads to food insecurity among college students is needed (Henry, 2017).

Financial stress, from low-income status or the high cost of the college experience, can lead to problems with affording food. When students receive financial support from their family, they are less likely to experience food insecurity. Students with loans to pay for the costs of college, on the other hand, are more likely to be food insecure (Wooten et. Al., 2018; Morris et. Al., 2016; Payne-Sturges et. Al., 2018). This means that a student's food security status relates closely to the financial support they receive or don't receive from family or from financial aid. Because of the diverse, complex, and often changing financial arrangements of students and families to pay for the costs of college, it is difficult to determine which students are in need (Hoyt, 2016). In addition, many university students are leaving home and experiencing financial independence for the first time, meaning that money management can be a new challenge. 68% of students experiencing food insecurity work at least a part-time job to cope with a lack of income (Goldrick-Rab, 2019). Yet, many jobs available to college students are low- or minimum-wage, with limited hours and schedules that are not compatible with the changing

course enrollment of students each semester (Henry, 2019). Working part-time whilst being a full-time student can lead to further academic and social challenges for students. Food insecure students often struggle to keep these jobs, because they are juggling many responsibilities, and often for the first time (Allen, 2019).

Living situation may also influence the prevalence of food insecurity among college students. Many universities group together the cost of room and board into one bill, which can overwhelm students financially (Mirabitor et. Al., 2016). Students who lived off-campus, lived on-campus, or lived with roommates were more likely to have lower food security than were those who lived with a parent (Chaparro et. Al., 2009; Gallegos & Ramsey, 2014; Hughes et. Al., 2011). Additionally, housing location and access to transportation can influence food availability, or the opportunity to get a job to pay for food. Access to a car has been linked with a higher likelihood of food insecurity and a decreased daily nutritional intake (Mirabitor et. Al., 2016). Students without personal transportation may not be able to get to work reliably, or are forced to rely on public transportation services which vary in quality. Housing that is not in walking distance to any grocery stores has been shown to encourage eating at more conveniently located fast food restaurants (Henry, 2019). One student reported that during the transition out of the dorms, and out of the structure of on-campus living, access to food became more of an indicator of income level (Evans, 2016). Because of these obstacles, students are forced to make difficult decisions about whether to use their time working, studying, or traveling, and some sphere of life often suffers (Dhillon et Al., 2019). This existing research demonstrates that access to transportation and housing location, quality, and stability can contribute to food insecurity (Dhillon et. Al., 2019).

Penn State University Park requires first-year students to live on campus and to purchase a meal plan. Any student who lives on campus at Penn State University Park must purchase a meal plan, however, meal plan status does not ensure food security. Dining halls have limited hours, limited food offerings, and limited dining dollars. Low-income and financially struggling students tend to select lower cost meal plans with less dining dollars, and could be forced to skip meals (Bruening et. Al., 2016). One national survey in 2016 found that 43% of students with a university meal plan were food insecure (Dubick et. Al., 2016; Henry, 2019). Students with dietary restrictions and allergies may face additional challenges finding meals that suit their nutritional needs and personal preferences. The inflexibility of meal plans and dining halls could contribute to food access issues for students living on campus, despite the requirement to participate in the meal plan.

For students of racial and ethnic minority status, there is a higher likelihood to be food insecure than white students, in addition to other structural inequalities and discriminations that minority groups face in university life (Payne-Sturges et. Al., 2018). The term ‘compounding inequalities,’ related to Cumulative Disadvantage Theory, refers to the idea that when an individual or group experiences multiple factors or variables that put them at risk, risks might be able to exacerbate one another, increasing overall inequality. This theoretical framework emphasizes how “early...disadvantage is critical to how cohorts become differentiated over time” (Ferraro, 2003). Individuals or groups experiencing compounding inequalities are often not given sufficient consideration for the multiple intersecting obstacles and barriers they face to leading healthy, successful lives. Colleges often struggle to recognize that students bring their socioeconomic and income status with them to school, either physically in the form of finances, or in the form of compounding inequalities that do not go away once a student is enrolled on

campus. It may be difficult to capture or recognize compounding influences in traditional programs attempting to mitigate food insecurity, as well. Understanding the intersectionality of food insecurity, the potential risk factors, and who is more likely to experience it can help to better address the issue.

Impact of food insecurity on college students

Food insecurity among adults is linked to many negative health outcomes. Challenges with food affordability are tied to poor dietary choices and habits related to cheaper and more easily accessible fast food options. These choices lead to low nutrition diets which consist of lower fruit, vegetable, and fiber consumption, leading to a higher likelihood of chronic and infectious disease (Henry, 2019). Students facing a lack of food report feeling a lack of energy, being physically tired, poor mental health, and toxic stress (Henry, 2019). These symptoms of food insecurity “have been linked to chronic diseases such as cardiovascular diseases, cancers, asthma, and autoimmune disease” (Henry, 2019, pp. 64; Greene, 2018, p. 3). Food insecurity is even considered by the American Diabetic Association as a risk factor for diabetes because of its relationship with consuming energy-dense and nutrient-poor foods leading to obesity (Henry, 2019). The relationship between food insecurity and obesity is higher among Latino minority communities, contributing to the compounding inequalities mentioned earlier (Feeding America, 2020).

Even the non-chronic health impacts of food insecurity on student life can be insidious and harmful, creating long-term effects. Food insecure students were more likely to report their overall health as “fair, poor, or very poor” and reported lower energy levels compared with food secure students (Payne-Sturges et. Al., 2018). Lower energy levels can contribute to poor academic performance, less involvement in extracurricular activities, and less capacity to

improve financial situation. In addition, food insecure students report more frequent symptoms of depression, and more frequent disruptions to academic performance due to these depressive symptoms (Payne-Sturges et. Al., 2018). As discussed later in the chapter, college students experiencing food insecurity and depression face a unique set of barriers to accessing services due to social stigma. As these students struggle to access available services, their situation remains the same or worsens, contributing to a decreased mental state, further contributing to feelings of stigma that prevent students from utilizing services. In this way, the insidious cycles of food insecurity continue.

Students are more likely to use unconventional coping habits to deal with their limited food challenges. The general food insecure population reports strategies like “cooking at home, stretching food, substituting cheaper ingredients, reduced meal size, reduced meal frequencies, eating expired or nearly expired food, and cooking in bulk” (Henry, 2019). Yet, college students tend to utilize these, as well as more unique coping strategies available to them. Students may consider “income-related solutions” such as “working more hours, finding multiple jobs, strategically paying bills at various deadlines, and selling possessions (including plasma),” or applying to more loans, grants, and scholarships (Henry, 2019, pp. 34; Lee et. Al, 2018). Other “food-related coping strategies” have to do with eating processed, cheaper food alternatives and eating less healthy meals to achieve the feelings of fullness while still saving money (Henry, 2019). In interviews, students at the University of North Texas report sacrificing nutritional needs in order to feel full with cheap food that is nutrient-poor (Henry, 2019). These coping strategies lead to more mental stress and decrease student health and wellbeing overall.

The financial demands of university life require students to purchase textbooks, course materials, expend money on social events, and meet the high cost of tuition. In essence, students

are responsible for the cost of living for one adult individual, plus tuition, but without a full-time job or full-time income to afford this or cover benefits. Students are forced to make decisions between food and non-food demands, decreasing their quality of life overall. This impacts a student's ability to concentrate on academic priorities, like doing well in class, reading the textbook, or maintaining a healthy balanced lifestyle (Gao et. Al., 2005; Gundersen & Ziliak, 2015; Jyoti et. Al., 2005; Payne-Sturges, 2018). Research on this topic finds that challenges securing food are related to lower grade point averages, lower self-esteem, and lower job placement after university. This is an ironic outcome of food insecurity, because one of the main purposes of paying for a university degree is to obtain employment after graduation (Payne-Sturges, 2018; Gao et. Al., 2005). As discussed later in this chapter, students face uniquely difficult and imperceptible decisions about which costs to sacrifice because of the motivational circumstances they feel in trying to obtain a university degree.

Universities have moral and financial motivations to research and address food insecurity on their campuses, because of its influence on so many facets of student life. Because of the health and academic consequences of food insecurity, colleges would be investing in the wellbeing of their students and their academic reputation by addressing these issues. Universities have a vested interest and commitment to the health, wellbeing, and professional development of their students. Important academic outcomes like GPA, student retention, and on-time graduation have all been linked to a prevalence of food insecurity or other low-income student challenges (Payne-Sturges, 2018). These indicators should influence university administrators because they are related to the primary function of universities, which is to educate and provide training for employment (Payne-Sturges, 2018). Universities that invest time, effort, and funds into food insecurity may have more leverage at the state and federal levels to receive more funding

(Payne-Sturges, 2018). Colleges that show considerable effort in advancing programs that address food insecurity may have more power to advocate for issues of university affordability and student financial aid (Payne-Sturges, 2018). Penn State advertises its investments and successes with the Lion's Pantry on its development and fundraising website.

Researching Food Insecurity

The United States Department of Agriculture (USDA) defines food security at the household level as “enough food to live a healthy life at all times” (USDA, 2020). Several other generally accepted definitions of food security find there are three main pillars: availability, access, and utilization. Availability refers to the physical existence of food, and relates to the availability of local grocery stores at the household level. Access refers to having the resources to obtain a sufficient amount of nutritious food. Utilization has to do with the knowledge possessed by households on how to store, prepare, and cook different foods. For college students, availability, access, and utilization can all present challenges to having enough food to live a healthy life at all time.

Radimer et. Al. finds four main components of the experience of food insecurity; quantity, quality, psychological acceptability, and social acceptability (Radimer et. Al., 1990). Quantity has to do with not having enough volume and calories of food, while quality has to do with issues of food safety, variety, and nutritional value (Radimer et. Al., 1990). Psychological and social acceptability refer to the personal anxiety and social stigma experienced by food insecure households, respectively (Nikolaus, Ellison, & Nickols-Richardson, 2019). These frameworks, which outline the various dimensions of food insecurity, were used by the USDA to

create their own measurement tools, and can help to understand how the issue is multi-faceted and requires multi-dimensional solutions. Food insecurity can be a chronic, long-term condition, or a transitory condition experienced only for a short period of time (Food and Agriculture Organization, 2008). Because food insecurity can be difficult to define, it is also difficult to measure (Abbade, 2017). Figuring out the best way to measure food insecurity for different populations is important for determining how to design programming and policies aimed at serving those in need (Abbade, 2017).

Traditional definitions of food insecurity are being challenged to include more focus on the rights “related to producing, provisioning, and consuming food” (Meek & Tarlau, 2015). The food sovereignty movement, with origins in the Global South where subsistence agriculture is more common, pays specific attention to the ways that institutions and social structures like political and economic systems influence food production (Meek & Tarlau, 2015). The food sovereignty perspective considers power, scale, and history that determines agricultural production and consumption (Meek & Tarlau, 2015). Because this rights-based movement calls for more democratic definitions of food security, it offers a new paradigm from which to consider issues of food and food systems. The traditional terminology “food (in)security” implies that in the natural state one is dependent, rather than in charge of, their food system, and are susceptible to food insecurity at any time. Food justice refers to the idea that communities should be empowered to define their own agricultural and food policies, their models of production, and their food consumption patterns (Meek & Tarlau, 2016). Authors Agarwal, 2014; Meek & Tarlau, 2016; and Di Masso & Zografos, 2015 explore definitions of food sovereignty as a political movement which seeks to transform agri-food relations as a means of social change. This project utilizes the term food insecurity because it is the more common and easily

understood terminology used in most previous research on the topic in the United States.

However, the language and definitions that shape how food security is conceptualized warrants further thought and discussion.

Food security can be experienced at different severity levels, which the USDA labels from high, marginal, low, to very low. The USDA utilizes this continuum in their Food Security Survey Modules (FSSMs) which are available publicly online and used to measure food security rates in the United States and in most U.S. research on the subject (Wooten et. Al., 2018). The FSSMs, and therefore this security continuum, has traditionally been used to measure food security among college students. While the FSSMs are repeatedly tested among various local and regional populations for validity, any time that human experiences are limited to survey responses, it is possible that important narrative and lived experiences are not captured. These lived experiences may be more complicated or nuanced, and are difficult to measure through a consistent survey. This is certainly true for college students, who experience food insecurity in distinct ways from the general population.

Food insecurity describes the economic and social characteristics that could lead to or contribute to the physiological state of hunger. According to the USDA, the “very low food insecurity” category described in Table 1 is most associated with experiences of hunger (USDA, 2000; Henry, 2019). The Committee on National Statistics (CNSTAT) was asked by the USDA to review the FSSMs and their measures of food security. The CNSTAT panel reported that the word hunger “should refer to a potential consequence of food insecurity that, because of prolonged, involuntary lack of food, results in discomfort, illness, weakness, or pain that goes beyond the usual uneasy sensation...to measure hunger in this sense would require collecting more detailed and extensive information on the physiological experiences of individual

household members than could be accomplished effectively in the Current Population Survey (CPS)” (Nord, 2012). The CNSTAT panel recommended a national assessment of hunger on the individual level would be appropriate. At the university level, psychometric research on the prevalence of hunger among students has not been explicitly addressed by the literature. For that reason, this project focuses on food insecurity rather than hunger, with an understanding of the relationship between very low food insecurity and the consequential physiological state of hunger.

Table 1. USDA Food Insecurity Categories (USDA, 2018; Henry, 2019)

Food secure	High Food Security	Households had no problems, or anxiety about consistently accessing adequate food.
	Marginal food security	Households had problems at times, or anxiety about, accessing adequate
Food insecure	Low food Security	Households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted.
	Very low food security	At times during the year, eating patterns of one or more household members were disrupted, and food intake and food intake reduced because the household members lacked money and other resources for food.

The FSSMs exist in different lengths and are adaptable by each researcher who decides to utilize them. To indicate each level of food security, the threshold that the USDA sets out when

answering the FSSM is useful in that it helps programs put households into categories for receiving food aid and other social services. Yet, grouping diverse experiences with food access into categories ignores responses that indicate some anxiety or difficulty accessing food or having food available (Coleman-Jensen, 2010). ‘Food insecure’ is defined by the USDA as answering affirmatively to three or more food security questions describing a household’s ability to acquire enough food (Coleman-Jensen, 2010; USDA, 2000). Respondents who answer one or two questions affirmatively are considered food secure, and this raises questions about whether or not their experiences should be considered as full food security. For example, marginally insecure households have been found to be more similar to low security households than to high security households (Coleman-Jensen, 2010). This study found that marginally secure households vary greatly from highly secure households, and can experience the same food anxiety and overall lower quality of life as food insecure households (Coleman-Jensen, 2010). These households may require aid and do not qualify because of their category or security status. There are concerns about the validity of the FSSMs among college students because rates of food insecurity found “vary dramatically across institutions” (Nikolaus, Ellison, & Nickols-Richardson, 2019).

The major difference between the rate of household food insecurity among college-age students and the general population raises questions about the reliability of the FSSMs across these different populations (Morris et. Al., 2016). The FSSMs have been tested on various demographics and subpopulations for their efficacy in identifying the prevalence of food insecurity. However, more research on college-age students specifically and how they respond and relate to the FSSMs is needed. Assessment of the psychometric properties of the FSSMs among college students has not been fully evaluated, and more research in validating this

assessment tool is needed (Payne-Sturges, 2018). As the next section discusses, students' lived experiences provide a more complete picture of food insecurity. The narrative stories and descriptions of food insecurity by students illuminates the unique socio-behavioral and cultural influences that college students experience in relation to this topic (Nikolaus, Ellison, & Nickols-Richardson, 2019). In the next section, a study that analyzes the FSSMs through comparison to the lived experiences of students will be presented. This evidence demonstrates that students face unique cultural and socio-behavioral factors of food insecurity that cause them to experience the phenomenon differently, and to answer the FSSMs differently as well.

Socio-behavioral and Cultural Influences on Food Insecurity among College Students

There is evidence that students conceptualize food insecurity differently than the general public because of the unique stereotypes and living circumstances of the average university student in the United States. In interviews with students at the University of Texas, they describe food insecurity as constant searching, worrying, and wondering about food (Henry, 2017). Other students in the same study reported that spending money at restaurants on meals and alcohol is perceived as normal, while others states that eating "cheap food" and "struggling to get by" is perceived as normal (Henry, 2017). One group of food insecure students rationalized their insecurity as normal, despite the level of severity experienced (Nikolaus, Ellison, Nickols-Richardson, 2019). Many felt shame that they could not afford to eat healthy or balanced meals up to the level of perceived cultural standards (Nikolaus, Ellison, Nickols-Richardson, 2019). These differences in what the normal eating and spending habits are suggest that college students have varying conceptualizations of what qualifies as truly "food insecure" (Henry, 2017).

One reason for this unique conceptualization of food insecurity may be that many students are in a transitional period, going from living in a household with their family, to living more independently. College students, particularly in their first-year, are more likely than the general population to experience stress and loneliness (Wei, Russell, & Zakalik, 2005). This time of transition can be difficult for students, even without financial struggle, as a majority of freshman college students report experiencing some level of depression (Wolf, Scurria, & Webster, 1998). These students experiencing loneliness have been found to struggle with social skills and developing close personal relationships (Wolf, Scurria, & Webster, 1998). For a student who is facing the additional social stigma of food insecurity, this ostracization may be further exemplified (Henry, 2017; Wolf, Scurria, & Webster, 1998). Food insecure students who need resources that also struggle to form close personal relationships may have a harder time reaching out or seeking help. When food insecure students did talk about receiving support from personal relationships, it was frequently informal and without disclosing any hardships or status as food insecure (Nikolaus, Ellison, Nickols-Richardson, 2019).

The stereotype of the ‘broke’ and ‘starving’ college student is well-known, and may also have an impact on how students conceptualize hunger (Henry, 2017). An assumption that it is the norm for students to struggle to afford food contributes to students not recognizing when they need help or qualify for services (Hoyt, 2015). Students who do not see their situation as “bad enough” may believe that free resources or aid is intended for others. Students interviewed report thinking that food aid services are for others who presumably “have it worse than them” (Henry, 2017). In another study, food insecure students felt their hunger did not qualify as “real hunger” and discounted their situation (Nikolaus, Ellison, Nickols-Richardson, 2019). This was often in reference to the idea that “real hunger” is only felt by people experiencing homelessness or

families struggling to feed their children (Nikolaus, Ellison, Nickols-Richardson, 2019). In addition, there is an assumption that because students chose to go to school and can afford tuition, they should be able to provide for themselves (Henry, 2017). In reality, students are less likely to have emergency financial resources, and because of this any emergency shocks can lead to increased insecurity (Gaines, et. Al., 2014). Emphasizing the difference between a limited food budget and a nonexistent food budget may help students to understand when their need warrants the food aid resources available on campus. Greater awareness and visibility of the presence of food insecurity on campus could also serve to reduce stigma by making it more clear what food insecurity actually is (Hoyt, 2015; Henry, 2017).

Table 3 Key interpretation issues on the 10-item Adult Food Security Survey Module in cognitive interviews with college students

Questionnaire item / phrase(s)	Interpretation issues	Example interview quote(s)
"Money for more" or another monetary clause in each item	<ul style="list-style-type: none"> - Monetary aspect of question overlooked by students - Variable interpretations based on heterogeneous financial support sources (e.g., employment, savings, meal plan) - Dining hall meal plans used as sole reference and other support sources ignored 	<p><i>"It's not that it's too expensive, no. It's fine. I probably should have looked at it better. Yeah, I think I can afford all that with the foods I need."</i> (21 years old, male, food insecure)</p> <p><i>"I work for [a recreation centre]. It's like an okay check. So, I literally call it my food money. I got that job for food, because it's hard to force yourself to eat in the dining hall."</i> (19 years old, female, food insecure)</p> <p><i>"Like my meal plan and if I had any cash, like cash on me"</i> (19 years old, female, food insecure)</p> <p><i>"I'm just going to think of the dining hall because that's the, the easiest way to look at it. You know for [campus convenience stores] or uh, you know, somewhere I can buy food for myself, there's a lot of different, you know, variables related to that, so we'll just forget about that"</i> (18 years old, male, food secure)</p>
"Balanced meals" in HH4	<ul style="list-style-type: none"> - Confusion between being able to afford healthy food and actual dietary patterns - Non-financial reasons for not eating "balanced meals" given 	<p><i>"So I guess cost really wasn't a driving factor for me starting to eat less balanced meals or anything. It just kind of happened."</i> (20 years old, male, food insecure)</p> <p><i>"I don't want to go out to like buy all these ingredients. And it's like such a hassle. So I think that's why I can't afford to eat balanced meals"</i> (18 years old, female, food insecure).</p>
"Eat less than should" in AD2 and "cut size of meals" in AD1	<ul style="list-style-type: none"> - Items considered repetitive to students - Buffet-style of university dining halls made responses more complex 	<p><i>"Um, yes because the last one was a yes and it was pretty easy since it was such a similar question. I felt like this question just reinstates the last question"</i> (18 years old, female, food insecure).</p> <p><i>"I did eat less because I wasn't eating the regular two meals per day. So one meal a day. So I would end up eating a lot more just cause I was afraid like ... I wasn't sure of the next time I would be able to eat, which is why I tend to overeat at the dining hall"</i> (18 years old, female, food insecure)</p>
"Hunger but didn't eat" in AD3	<ul style="list-style-type: none"> - Various interpretations of "real hunger" and whether experiences of students counted as hungry 	<p><i>"Hungry is kind of like a broad definition you know, like I was not like starving, but I mean I'm hungry right now, and I skipped lunch. (Soft laugh) But, it's not like painful hungry or like horrible hungry. It's fine"</i> (18 years old, male, food insecure).</p>
"Lost weight" in AD4	<ul style="list-style-type: none"> - Students did not monitor and were not aware of their weight 	<p><i>"Uh, I think I put "no". And I should have put "don't know" cuz I don't know if I've lost weight. I've only been to the doctor once at the beginning of the school year and I don't have a scale."</i> (19 years old, female, food insecure)</p>

Figure 2. Key Interpretation issues on the FSSMs among College Students (Nikolaus, Ellison, Nickols-Richardson, 2019)

Further evidence demonstrates how students experience and think about food differently. A psychometric evaluation and analysis of the FSSMs found that there were inconsistencies between the response patterns of college students on the FSSMs and in interviews about their lived experience (Nikolaus, Ellison, Nickols-Richardson, 2019). For example, while the FSSMs focus on mainly financial and 'money' indicators, students thought of resources that were more than just money (Nikolaus, Ellison, Nickols-Richardson, 2019). This included resources such as their meal plan, parental or family support, wages, free food at organization events, food and

support from friends, or scholarships (Nikolaus, Ellison, Nickols-Richardson, 2019). The variety of resources that come to mind for a student when answering the FSSMs demonstrates how the unique life circumstances and situational context of a student differs from the general public. When the FSSMs asked about resource constraints, students explained that there were multiple factors influencing their ability to access food, and it was difficult to distinguish between factors. Non-financial factors, such as busy class schedules and extracurricular activities, also impacted their dietary choices, and confused their answering of the FSSMs (Nikolaus, Ellison, Nickols-Richardson, 2019). Not only does this research support the need for new measuring tools for food insecurity among college student populations, it also explains how the experience of food insecurity for a college student is unique because of the contextual circumstances of attending university.

Student behavior in accessing food may also differ from that of the general population. “Free food” events are frequent on campus and can provide a unique opportunity to access food while avoiding stigma. Students facing food insecurity have also reported accessing food through “fast food restaurants, gas stations near campus, and stealing” (Henry, 2017). Sharing ID Cards to access friends’ meal plans is another method of accessing food while avoiding stigma, as well as sneaking around dining halls to access dining plan meals (Henry, 2017). In the February 2021 episode of President Barron’s monthly talk show *Digging Deeper*, where he explores topics that involve the Penn State community, Barron interviewed Anna Barone, Director of Student Care and Advocacy, and Spencer Wallace, the Lion’s Pantry President. Barone explained that students at Penn State report a lack of education and awareness about budgeting money, they don’t feel like they have time to shop or cook, and they resort to securing food by convenience which can be more expensive. Wallace noted that finals week is normally their busiest time of high demand

because the stress of grades, budgeting, and meal-plans running out, along with other end-of-semester worries all come to a head at once. Both Wallace and Barone support the same idea that because of the situational context and unique factors of students' lives in university, food insecurity is an acute problem for college students experienced differently.

Food insecure students fall into an administrative gap at the governmental and university level. FAFSA, the major student loans program in the United States, requires the tax returns of one parent and other information to determine the student's "estimated family contribution." If there are any familial disputes or miscommunications, students who qualify miss out on federal grants and loan opportunities (Henry, 2017). Shame and stigma may prevent students from seeking help in filling out complicated and oftentimes confusing forms, as well (Henry, 2017). At the university level, the assumption that because students can afford tuition they can afford to eat makes food insecurity a hidden problem not adequately addressed by university social services (Henry, 2017). As discussed, students also struggle to recognize when they qualify for food aid resources or additional aid, and how to find and apply for aid (Henry, 2017). Because of these issues applying for resources they may qualify for, and the aforementioned misunderstandings about if they qualify for aid at all, students miss out on possible food aid resources.

Issues of stigma and shame are prevalent among students experiencing food insecurity, as it is not frequently talked about (Henry, 2017; Evans [2016](#); Hoyt [2015](#)). Students interviewed at the University of North Texas reported feeling awkwardness at not being able to afford restaurant meals with friends, contributing to "emotional burden and negative self-worth." Many students in the same study reported that being a "broke college student struggling to get by" is perceived as normal (Henry, 2017). Several students reported that this stereotype contributed to

receiving less financial help from parents (Henry, 2017). Students may not seek help because they feel embarrassment, or because they assume that their problems are not that serious or are the norm (Hoyt, 2015). The confusion about what a 'normal' food situation is for students contributes to more feelings of shame. To avoid awkward conversations, to preserve dignity, and to prevent embarrassment, both food secure and insecure students avoid bringing up the topic of hunger (Henry, 2017). The overall avoidance of the topic of food insecurity reinforces the silence around the issue and further stigmatizes those experiencing it (Henry, 2017). Food insecurity solutions should be discreet, protect student confidentiality, and work to alleviate stigma associated with food insecurity by raising awareness on campus (Henry, 2017).

Food Insecurity at Penn State

All Penn State University Park first-year students are required to live in on-campus and purchase a meal plan, meaning that each year around 14,000 students purchase one. There are three meal plan levels, ranging from \$1,816 to \$2,448. Students are able to adjust their meal plan up to a certain point in the semester. At the end of each academic year, unused dining dollars are returned to Housing and Food Services and become unavailable to the student. Penn State University Park has five dining halls on campus, with one major dining hall adjacent to each major student living area and within walking distance.

The Level 1 meal plan affords a student 9 meals per week according to the Residential Dining website. The Level 2 meal plan allows for 13 meals a week, and Level 3 allows for 16 meals a week. If a student were to desire three meals a day each week, they would need more

than the highest available meal plan. Additional funds are able to be added to the meal plan throughout the semester.

LEVEL OPTIONS

Spring 2021 Meal Plan Rates

Level	Dining Dollars	Base Cost	Total Cost
1	\$655	\$1,161	\$1,816
2	\$1,004	\$1,161	\$2,165
3	\$1,287	\$1,161	\$2,448

Figure 3. Penn State Meal Plan Rates Spring 2021 (Penn State Residential Dining Services)

The Penn State University Park meal plan costs more than the predicted costs of food for individual men and women in the United States, per month. The USDA releases a report each month which shows the cost of a nutritious diet at four different price levels, assuming all food is prepared at home. The average male in the United States between the ages of 19 and 50 years old and following a moderate-cost food plan would spend \$313.20 in the month of December in 2020 (USDA, 2020). Over the course of a semester, or three and a half months, the average adult male's food costs would be approximately \$1,100, assuming the cost of food in the United States does not dramatically change. If the average adult male were to follow the highest cost food plan, they would spend \$1,342 over the course of a semester. This is just over half of the highest Penn State meal plan. The same holds true for the average women in the United States of the same age, using the USDA monthly cost of food plan for December 2020 and assuming a semester is three and a half months long.

It is important to consider that the calculation of the USDA's food plan does not include the opportunity cost of the time it takes to prepare meals, which may include finding recipes or learning new cooking techniques. It also does not consider the availability of cooking equipment or the cost of purchasing new cooking devices. Meal plan holders at Penn State do not have to prepare food, cook, or learn any recipes or techniques themselves, as this is a service provided by Residential Dining Services. The cost of a meal plan at Penn State may include the labor cost of planning meals and preparing or cooking foods. In addition, eating in the dining halls allows students to feel more a part of a large university community, and is often noted as part of the college experience. While purchasing the meal plan is an investment in a food service infrastructure, an individual without a meal plan may still face these non-financial resource constraints of time, knowledge, equipment, and materials needed for cooking and consuming food. The comparison between the average individual predicted food costs and the Penn State meal plan is made to demonstrate that both costs are considerably high for an individual facing resource constraints to afford.

One program that demonstrates the university's commitment to a sustainable food system is the Student Farm at Penn State. The Farm is part of the Sustainable Food Systems Program, which aims to create engagement opportunities around sustainable food and agricultural systems (Student Farm, 2021). Through the Sustainability Institute, several full-time staff are employed who advise both the Student Farm Club and the Lion's Pantry Club (Sustainability Institute, 2021). There are also several paid-internship opportunities through the Student Farm and the Sustainability Institute focused on food systems, demonstrating a certain level of investment and interest in providing a sustainable food system for students.

Several smaller scale and student-initiated research projects on food insecurity at Penn State have attempted to determine the severity of the issue in recent years. A research project organized by UNESCO Youth As Researchers found that out of a sample of 165 Penn State students, between 45 and 60 percent of students surveyed had experienced some form of food insecurity while on campus (Kiver et. Al., 2018).

The largest and most recent survey about food insecurity at Penn State was carried out by Project Cahir, and supported by Student Affairs. Project Cahir is an organization of students which aims to eradicate hunger and poverty on campus. Their survey, which was sent to 7,000 students, found a response rate of 10.55%, or 791 students (Project Cahir, 2019). The top three barriers “that made it difficult for students to get the food that they wanted” found were “a lack of time to prepare food (80.9%), lack of times to shop for food (71.2%), and cost of food (50.9%)” (Project Cahir, 2019). In line with other studies of college students facing food insecurity, 15.5% of Penn State students reported having difficulty concentrating on their studies because of hunger and not enough money for food (Project Cahir, 2019). 13.1% of students reported being forced to decide between paying for meals and paying for school loans, tuition, and other educational expenses (Project Cahir, 2019). This data reaffirms the existing research on food insecurity at the university level, both the causes of a lack of desired food and the impacts on academic performance. While this survey suggests the reality of food insecurity among Penn State students, one limitation is that these responses represent approximately 0.01% of all Penn State University Park graduate and undergraduate students.

At least 80% of students reported through the Project Cahir survey that they “have not received” or “have not received but would like to receive” various information from Penn State

regarding services/programs (Project Cahir, 2019). This may indicate an opportunity for further advertisement of available services and resource sharing among students.

Food Aid Resources

Besides the Lion's Pantry, there are several State College community food assistance services available to students. Abba Javva Coffeehouse, located downtown only a few minutes from campus and sponsored by St. Paul's United Methodist Church & the Wesley Foundation, provides free meals, snacks, and drinks to students, as well as a place to study. Abba Javva's services are directed at students and provide food free of cost to all students who enter regardless of need. It is accepted at Abba Javva that both students who financially require food aid and students who may not are allowed to utilize their services. By doing this, Abba Javva uniquely mitigates potential social stigma around accessing food aid assistance, since in their coffeeshop 'free' is the only option and is the behavioral norm.

The Food Bank of the State College area is located within a ten-minute drive off-campus and offers its services to students. Their emphasis is on serving the entire Centre County community, and in order to utilize their services you must be referred by an approved social services agency listed on their website (State College Food Bank, 2020). In addition to receiving a referral, you must also fall within a certain income bracket. Clients who are proven eligible are able to receive 12 distributions of food in a 12-month period (State College Food Bank, 2020). Students without reliable transportation may not be able to drive to a location where they could receive a referral, or access this pantry off-campus. Student schedules, which often follow semester breaks, may also differ from the monthly schedule offered by the State College Food Bank.

Presidential Task Force on Housing and Food Insecurity

In February of 2020, President Barron announced a Student Food and Housing Security Task Force as part of his efforts to improve the university's Access and Affordability initiatives (Mansell, 2020). Presidential Task Forces are normally implemented with specific goals and missions in mind, which culminate in a final report being presented to the university community and senior leadership for action and funding. They differ from Presidential Commissions, which are standing committees that work on issues over time that are viewed as longer-standing challenges. This Task Force was asked to "evaluate challenges, identify existing initiatives that already are in place, identify gaps, and develop innovative approaches" related to housing and food insecurity (Mansell, 2020). The Task Force included several student leaders and many members of senior administration across the campuses, involved in realms ranging from Donor Relations to Student Life to Local Government and Community Relations (Mansell, 2020). Several subcommittees were created by the co-chairs of the group, with one focusing specifically on issues of food security and the Lion's Pantry.

Their final report includes a summary of existing efforts across the Commonwealths, recommendations to improve services, and additional considerations to be explored (University Task Force on Food and Housing Security, 2020). One major initiative began in April of 2020, when the Lion's Pantry at University Park began partnering with Housing and Food Services (HFS) Purchasing department to enable bulk purchasing power. This has helped to keep their shelves stocked, and is funded through monetary donations and the Class Gift of 2017 the Lion's Pantry received. Because of remote learning and the coronavirus pandemic, in-kind donation rates have lowered, and HFS's support has helped to fill these gaps. Communication between the HFS Purchasing department and the Lion's Pantry staff and volunteers has helped to determine a

timeline for when certain products need to be reordered and if there is space to store excess stock (University Task Force on Food and Housing Security, 2020).

In a follow-up informational meeting with Anna Sostarecz, a member of the Lion's Pantry subcommittee, she expressed that while the report was presented in June of 2020, no response has been given as of February of 2021. This may be because of the completely novel COVID-19 pandemic and new challenges that came with it. In March of 2021, the task force released their report in a Penn State News press release, noting that the report had been shared with the President's Council and is awaiting response.

In April of 2020, the University announced that it had experienced losses of hundreds of millions of dollars due to the impacts of the COVID-19 pandemic. One article cited the potential losses in tuition revenue from enrollment declines to be around \$160 million (Schackner, 2020). To deal with these losses, Penn State rolled out a plan to "cut program budgets, furlough 2,000 employees at half pay," and charge each university unit head to identify ways to cut 3% of budget expenses (Schackner, 2020). President Barron also vowed to return 10% of his monthly salary in an effort of solidarity with the Penn State employee community. These financial challenges for the university itself have taken attention away from other expensive social programs and initiatives, as administrators focus on COVID-19 testing, keeping campus open, and keep as many people employed as possible.

Amid the sudden switch to remote learning, the Lion's Pantry saw an increase in clients, serving around 80 people per week, with some weeks reaching 100 students (Pelella, 2020). Because of the lack of student volunteers during remote learning, various Penn State faculty and staff were needed to fill roles staffing the Pantry. Walk-in hours changed several times during this period, but pre-ordered bags remained available throughout (Pelella, 2020). In Fall 2020, the

number of clients remained higher than normal, at about 60 students per week (Pelella, 2020). The higher rates of student usage suggest that the pandemic has negatively impacted students' financial situation and has created more need for services.

Informational Meetings

In order to better understand the context of food insecurity at Penn State University Park, several informational meetings were held with key stakeholders and those who help run the Lion's Pantry. The information from these meetings created a clearer picture of how the pantry operates and what its major challenges are. Several major themes were found from the informational meetings, including the need for more qualitative research on this topic. In meeting with Andrea Dowhower, Associate Vice President of Student Affairs and co-chair of the Food and Housing Insecurity Task Force, she expressed the need for a recording of student stories, narratives, and experiences with food insecurity. Much of the research done on food insecurity at Penn State has been minimal in terms of sample, and has focused on surveying methods. Dowhower felt that students' personal stories and lived experiences need to be highlighted in order to better understand the nuances of their situation. Anna Sostarecz, the Sustainability Coordinator for Enterprise Services at Penn State, echoed the sentiment that more research is needed on this topic in order to tailor services to fit the student population.

Another challenge highlighted by the informational meetings is the student-run aspect of the Lion's Pantry. When students themselves organize pantry efforts, they could be contributing to feelings of stigma and embarrassment for clients who want to visit the physical location discreetly and without seeing their peers. There is also an impact on the stability of new initiatives and programs because of the transitory nature of students at universities.

Approximately every four years there is an all new executive leadership team, contributing to a

loss of institutional and leadership knowledge. Spencer Wallace, the student President of the Lion's Pantry, noted on these advantages and disadvantages of student-run social programs. While they provide an opportunity for service learning, they may also contribute to issues of continuity and stability, social stigma, or quality of services provided. Leslie Pillen, Associate Director of Farm and Food Systems at Penn State, relayed that she felt there needs to be more research on the structure and design of a program that performs "students serving students." These meetings illuminated information for the creation of recommendations which will ensure that new ideas, formed in conjunction with this project's survey findings, are relevant and useful.

Conclusion

This chapter explored food insecurity among college students, including its potential causes and impacts. It also examined the challenges in measuring and researching food insecurity among college students, as a population with distinct life circumstances. Then, the socio-behavioral and cultural context which influences students' ability to access services was explored. Finally, an overview of the food systems at Penn State was given, including what resources are available to students, and how reasonable it is for students to access these services. It was found that the Lion's Pantry is the most practical and easy service for students at Penn State University Park to access, when compared to other available food assistance resources in the area. This is because of particular exclusion criteria that other programs have in order to access their services. This conclusion points to the criticality of ensuring the Lion's Pantry reaches students in need of services, as it is one of the only programs available and the program best fit to do so.

Several major challenges in reaching food insecure students with services were found. First, the financial burdens students face cause them to make tough decisions between necessities, which oftentimes means sacrificing food-related costs. Second, the idea of food insecurity is difficult to measure and define, especially among college students who experience it differently from the general population, making research on this topic multi-dimensional and in need of refinement. This also means that some students fail to recognize that they even qualify for resources by having different conceptualizations of what it means to be food insecure. In addition, students face social stigma in accessing resources, and this may be in part because of the way the Lion's Pantry is designed. Lastly, more research at Penn State University Park specifically is needed to better understand what students actually experience relating to food services on campus.

These documents, press releases, news articles, and pieces of academic literature were reviewed in order to better understand what food insecurity means for college students, and how the Lion's Pantry can better address this problem. The following Chapter 3 will explicate the methodological considerations and explain the research methods used for this project.

Chapter 3

Methodology and Methods

Introduction

The main purpose of this study is to better understand who uses the Lion's Pantry and what they think in order to provide strategies that would strengthen the Lion's Pantry's services. This information could illuminate larger truths about college-age food insecurity at other similar universities. As noted at the end of chapter two, the objectives of this research are to

1. understand the Lion's Pantry user demographics, motivations, and perceptions of the services provided,
2. to understand how these responses reflect the capacity of the Lion's Pantry to address the needs of food insecure students,
3. and to formulate recommendations to inform the Lion's Pantry on how they can better serve their demographic of students, using Penn State University as a case study for college food assistance programs.

To address the first two objectives, a survey of Lion's Pantry users was conducted, using Penn State University Park as a case study. The survey was designed to ask questions which addressed the demographics of users, their perceptions of the services, and their level of food insecurity. The responses of this survey are analyzed to address the third research objective. All findings and research informed the creation of recommendations for the food pantry, as well as ideas for further research.

This research, at the University Park campus of Penn State, can act as a case study which may inform future research on college-age food insecure populations and the ways to best serve them. Penn State University Park is a large public institution with 46,000 undergraduate students coming from all over the state and nation (Penn State Undergraduate Admissions, 2021). The context and circumstances of food insecure students at Penn State can serve as an example to other similar colleges. To examine the research objectives in the context of the case study, a literature and document review and a survey are used. Informational meetings helped to more broadly illuminate the context of the case.

The approach to this research distinguishes between the methods used to explore the objectives, and the philosophy behind those chosen methods. Decisions about methods “are often based on values and assumptions which influence the study, and as such need to be fully interrogated in order to clarify the research decisions which are made” (Clough & Nutbrown, 2012). The methods, or the components and tools of the project utilized to examine the research questions, were chosen specifically because of particular aspirations and limitations of the research. Given the desire for the project to yield useful and practical findings which would inform action, this study prioritizes the practical knowledge and lived experience of the pantry users and those who organize and work with the service. In this chapter, the methodology first grounds the decisions regarding methods used to conduct this research. Following is an outline of the methods, including why a case study was selected, how context was built, and how the survey was administered. Then, a plan of analysis is described. Finally, the strengths and limitations of the research design are explained, followed by a conclusion of the chapter.

Methodology

In *Social Science That Matters*, Bent Flyvberg states that social science research that effectively hones in on its strengths will be “(1) producing reflexive analyses of values and interests and of how values and interests affect different groups in society, and (2) making sure that such analyses are fed into the process of public deliberation and decision making, in order to guaran that legitimate parties to this process, i.e., citizens and stakeholders, receive due diligence in the process” (Flyvberg, 2006 p. 2). This research project attempts to do this by asking questions about a particular group in society, and trying to better understand their thoughts and attitudes about a certain social program which aims to help them. The research questions and objectives were designed to make sure that findings and responses would be useful for the larger ongoing conversation as to how to better serve college-age food insecure students. The findings and the analysis leading to recommendations for the Pantry aim to contribute to an ongoing deliberation between Penn State students, those who organize and administer services, those who fund services, and other relevant stakeholders to the food system at University Park. Several stakeholders were consulted in order to design the research with a better understanding of contextual factors that exist, so findings would be practically useful. Understanding that your research findings are aimed at providing useful context to inform actual practice is critical, so that research can inform the development and progress of social and economic services in society (Flyvberg, 2006).

This research was designed with the goal of asking questions that would yield practically useful results. In this consideration of how research goes about formulating and asking questions, it is important to “effectively deal with deliberation, judgment, and praxis” rather than emulating

more technical or mathematical methodology (Flyvberg, 2006 p. 3). In other words, in social science it is important to be driven by contributing to the public deliberation of a problem rather than a certain methodological test. It is also important to consider the critical analysis of findings in a way that challenges forms of inequality and discrimination, and exposes hidden power relations that may exist (Davey & Liefoghe, 2004). Critical research “directs attention to the way common sense measures of success...are used to deflect attention from the human cost of organizational activities” (Davey & Liefoghe, 2004, pp. 201). In the context of a food pantry, this would mean examining invisible communities of students who services don’t reach, or the inequalities that prevent certain groups from accessing services. Critical research challenges assumptions that are normally taken for granted in other research approaches, and seeks to examine power relations more seriously. Certain assumptions of critical research apply to this case study, for example, that certain groups are privileged, and that oppression has many intersecting facets, for example, class, race, and sex (Davey & Liefoghe, 2004, pp. 201). Particularly pertinent to the phenomenon of food insecurity among college students is the understanding that oppressed groups often accept their position as natural and/or inevitable (Davey & Liefoghe, 2004, pp. 201). Being aware of these methodological assumptions allows for a clearer picture of the situation of the Lion’s Pantry in serving food insecure students at Penn State.

While in this project, there are important methodological questions and unique challenges in accessing the college-age student population, these have only emerged as a result of trying to address a social problem. As Flyvberg points out, phrenetic social science will “attempt to develop their answers, however incomplete, to the questions. Such answers would be input to ongoing dialogue about the problems, possibilities, and risks we face, and about how things may

be done differently” (Flyvberg, 2006 p. 3). The basic research questions faced here have to do with who uses the pantry, why they access this service, what they think about this service, and what can be done to improve this service based on the first three questions. This information is presented in order to contribute to the conversation about food assistance programs for college-age student at large, and how university assistance programs may be able to do things differently.

Methods

Introduction

This section provides an overview of the tools utilized to address the research objectives. First, informational meetings were held with key stakeholders. This was done in order to identify contextual factors about the case, such as the details on how the pantry operates, the logistical flow of clientele, the research needs of the university surrounding food insecurity, and other such factors that informed research design and findings. Next, there is an explanation of why the Penn State University Park Lion’s Pantry was selected as a case study, and who this might serve. Then, an overview of the survey approach and administration plan is provided, including adaptations that were made in order to yield a higher response rate. Finally, the survey instrument design is outlined and mapped to the research objectives.

Building Context

An important aspect of the research process was understanding how students experience food insecurity, what research has been done, and the larger structure of the food system of Penn State students at University Park. A literature review, which examined food insecurity among college students and their unique experience of it, was conducted to create context and

understanding of the unique situation. Documentary evidence and archival documents, such as press releases from Penn State News, documents from past Task Forces, and other Pantry records were analyzed and referenced to lay out the situation that exists at Penn State. These methods provide context and lay the foundation for further research that better understands what has been done at Penn State University Park in the food insecurity realm.

Part of building and understanding the context of food systems at Penn State included several informational meetings with key stakeholders involved in the food systems infrastructure of our food pantry, our food services, and our Student Affairs. These meetings provided context for forming a background of information to the project. They also helped to specify the research objectives, questions, and survey instrument, to best suit the information that was needed to help improve the food resources that Penn State offers, and to help the Lion's Pantry improve their services.

The first step was to better understand how this research could benefit the Penn State University Park community, while fitting in with other ongoing projects and research. At the time of the start of this project in February 2021, Penn State senior leadership announced the creation of a Task Force to address food and housing insecurity. University President Eric Barron tasked the group with “evaluating challenges, identifying existing initiatives that already are in place, identifying gaps, and developing innovative approaches” to food *and* housing insecurity at Penn State (Penn State News, 2020). The task force was set to release a report of their findings in Spring 2020, however due to the coronavirus epidemic, the group's work may have hit the backburner. While several subcommittees of the task force submitted their recommendations in June 2020, no communications or updates on any action has been relayed since August 2020. The subcommittee of the task force which focused on the Lion's Pantry

submitted several recommendations in June 2020, but there has been no response from senior leadership or any other university entity on any of their suggestions as of January 2021.

To better understand the mission of the task force, and how this project's research could benefit the group's findings, I met with Andrea Dowhower, Associate Vice President of Student Affairs at Penn State. She was set to serve as the co-chair of the Food and Housing Insecurity Task Force. We discussed how multi-stakeholder engagement and collaboration is a critical strategy in addressing complex student poverty issues, like housing and food insecurity. She also expressed that a major gap in Penn State's understanding of student food insecurity is hearing student stories and narratives about their experiences with food insecurity. This was useful information in identifying major research gaps, and how this community of food insecure students may be misunderstood or misrepresented.

Another stakeholder I briefly consulted for this project was Leslie Pillen, the Associate Director of Farm and Food Systems at Penn State. When I asked about potential roadblocks or ideas for future research, she expressed her concerns about the benefits and tradeoffs of students themselves leading food assistance programs on campus. This was a research angle which I suggested to Andrea Dowhower, co-chair of the Food and Housing Insecurity Task Force. These ideas carried into the formation of the research questions and objectives. Particularly, the limitations of a student-run program and performing peer to peer research became two of the challenges of this project.

Spencer Wallace, the 2020 student President of the Lion's Pantry, was a major stakeholder in the research process. We met several times via Zoom during the creation of the research questions and survey instrument. His expertise and experience leading the executive board of the Pantry allowed him to share what gaps there were in the Pantry's knowledge. We

discussed potential questions the Pantry had about users, potential areas of improvement for the Pantry, and some research limitations. He reviewed and approved the survey questions before it was administered to ensure the questions suited the needs of the Lion's Pantry, and would be useful to them in making program improvements. Wallace also helped to coordinate the paper slips used to advertise the story, and shared the link to the online survey several times via email to Lion's Pantry users.

Finally, I consulted Anna Sostarecz, the Sustainability Coordinator for Enterprise Services at Penn State. As a founding member of the Lion's Pantry, and the original student who created the Pantry's bag request form, Sostarecz had a wealth of experience and knowledge in running the program. Sostarecz reviewed the survey instrument and questions, and provided her perspective as a previous student in this realm, and now as a food services employee working with students, to the project.

The survey questions were created collaboratively, in conjunction with several stakeholders who had experience working with and running the Pantry's services. These stakeholders understand, better than me, what information would be the most useful to their potential improvements. Each research question and objective were also informed by these stakeholders, so that the data found by this project could be beneficial in practice to several parties.

Case Study

The Penn State University Park Lion's Pantry serves as a case study because the college and the food bank are similar to what exists at other large universities. Out of the convenience of the researcher living and working in this realm at University Park, and out of the interest of the researcher in these questions, a case study was most suitable to the limitations and motivations of

this project. The implications and findings of this project are intended be helpful to other universities or people interested in conducting similar research, in learning about food systems at another school, or trying to better understand college student food insecurity and related support services.

According to Robert Yin, author of *Case Study Research: Design and Methods*, “the more your questions seek to explain some contemporary circumstance (e.g. “how” or why” some social phenomenon works,) the more that case study research will be relevant” (Yin, 2009, p. 4). This study aims to understand how and why students access and utilize the Lion’s Pantry food pantry, as well as to better understand the unique context of being a college student who is motivated to access the pantry’s services by some lack of food or financial burden. While hunger is the individual-level physiological state that results from food insecurity at the household level, this study focuses on the social phenomenon of food insecurity and the “how” and “why” of seeking support services for nutritional assistance (USDA, 2020; Yin, 2009). It is assumed that this phenomenon is experienced by students at every university in the United States, because no state or community in the U.S. has reached a level of complete food security. Therefore, findings from this case study can suggest themes present at other university’s with similar characteristics.

Yin also believes a case study is more relevant “especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009, p. 15). The phenomenon being examined in this research is food insecurity among college aged students, and the context is students using the Lion’s Pantry food pantry. It is difficult to distinguish between causal factors and their impacts, especially because defining food insecurity for this age group looks different than the traditional measurements. Because of this, a case study which utilizes various methods to establish a case description is useful in trying to understand how this phenomenon operates.

Survey Approach and Administration

The primary method of a survey was chosen because there is a need to document and understand who is utilizing the pantry and why, as well as understand their attitude about the services. Interviews and observation were not available modes of inquiry due to confidentiality rules and the privacy of the pantry users. In order to still capture the lived experiences of pantry users, several open-ended questions were included and emphasized in the survey instrument. It was also thought that a survey would be less of a burden on pantry users' time and energy than an interview process. Additionally, because of these research constraints, and the timeline available to the researcher, a survey best suited the restraints of this project.

Key stakeholders expressed an explicit interest in seeing results of a potential survey, which also motivated the decision to use this method. The Lion's Pantry has not done an in-depth needs assessment to better understand who utilizes the pantry and what they think about the services provided in recent years, giving more exigence to the need for a survey. Surveys can serve as tools to gather baseline understandings of a population, and to inspire future research based on findings. This study utilized an online survey instrument through Penn State Qualtrics to collect data. The survey was advertised on a quarter-sheet of paper with a link and QR code leading to the survey. It was hypothesized that Lion's Pantry users would have suggestions about the pantry's food offerings, the hours of operation, and potential non-food items they would like to see carried at the pantry.

Students utilizing the Lion's Pantry services through their existing online bag request form must provide a baseline level of demographic information such as their status as a student, residence on or off campus, and method of transportation. However, the existing form does not adequately determine important aspects and demographics of their user-base. The form also does

not inquire about the student's satisfaction with services, their perception of the pantry, or their attitudes and ideas about how the pantry operates. The bag request form is kept relatively short in order to make the experience as easy as possible for students to access. This survey, which was implemented for a time period of several weeks, attempts to gain this information without further taxing student users with a long survey each time they try to request services.

The 'test' survey and the final survey were both created using Penn State's subscription to the online surveying tool, Qualtrics. Qualtrics has special tools which allow their surveys to be displayed conveniently on both mobile devices and computer browsers, which is important for the convenience of the respondents. An online web-based survey tool was chosen specifically so that responding to the survey would be easy for students. With Qualtrics, respondents would not have to remember to return a paper version of their survey back to the main Pantry building location, as they may have never visited this location at all and had picked up a bag at a Cub Pantry. Additionally, this makes the data compilation and analysis stages of the project more convenient because of the built-in analysis tools included in Qualtrics.

Students were recruited through the bags they received filled with food. The survey was advertised on a small quarter-sheet piece of paper which was placed inside of all of the Lion's Pantry bags throughout the period of November 6th to December 15th, 2020. These slips of paper briefly described the survey, listed a shortened link to the survey, and a QR code leading to the survey. Volunteers of the Pantry were informed about the slips, and they added them to bags, along with other paper slips advertising the changing winter break hours of the Pantry. These bags can be picked up at several Cub Pantry locations throughout University Park campus, Abba Javva Coffeehouse off-campus, the main Lion's Pantry location, or delivered to their place of residence by a Lion's Pantry student volunteer.

Subjects were those who used the Penn State University Park Lion's Pantry in the Fall semester of 2020 during the time period while the survey was advertised. There was no screening process, because only eligible participants who use the pantry were being invited to participate in the survey. By virtue of visiting the pantry, a student was eligible to be a participant. Any individuals who were under the age of 18 and not students of Penn State University utilizing the Lion's Pantry resources were not able to participate in the survey. It was assumed based on past research efforts and experiences that Lion's Pantry users were open to completing surveys and providing feedback, so poor response rate wasn't a predicted problem in the opinions of Lion's Pantry organizers and volunteers.

Special consideration was given to the way this survey was administered because of the assumption that food insecure students face a number of challenges that make their time and resources more limited than the average student. As outlined in Chapter 2, food insecure students are more likely to have at least a part-time job, experience transportation challenges, and face mental and physical health struggles than food secure students (Dhillon et Al., 2019). Because of these challenges, it was necessary to be sensitive to what additional burden the research methods put on participants already experiencing life stressors. The length of the survey, the online method of administration, and the survey advertisements were designed to be easy and convenient for respondents. The language of the survey introduction, consent page, and questions were also considered so as not to be offensive, upsetting, or otherwise triggering to participants. Many of the questions were adapted from the USDA's Food Security Survey Modules, which have been tested across many communities nationally, and are accepted as appropriate in research on this subject. These unique considerations for the population were

informed by the literature on survey assessment of food insecure college-students and the socio-behavioral context of students outlined in Chapter 2.

Administration of the survey began on November 6th, 2020, when the first round of 80 paper slips was dropped off at the Lion's Pantry. These paper slips were a quarter-sheet big and read: "Please fill out this short online survey to help us better serve you! Responses and feedback are anonymous & will be used to improve our services. We want your input!" No survey deadline was mentioned. Six respondents accessed the survey from November 6th to November 20th.

Lion's Pantry User Survey

Please fill out this short online survey to help us better serve you! Responses and feedback are anonymous & will be used to improve our services. We want your input!



LINK TO ONLINE SURVEY:

<https://tinyurl.com/lionpantrysurvey>



We Are... Here to Serve YOU!

Figure 4. Survey Slip #1

On November 20th, 2020, new language was created for the paper slips, to create a sense of urgency and to encourage more responses. The second round of slips added, "Deadline to complete survey: December 15th." Five respondents accessed the survey between November 20th and December 11th.

On December 11th, 2020, a final change was made to the paper slips handed out to Lion's Pantry users via the bags. The final slips replaced the previous deadline notice with,

“LAST CHANCE: PLEASE COMPLETE BY DECEMBER 15th.” They also read slightly different than the first two, saying, “We want your feedback and suggestions as to how to improve the Lion’s Pantry’s services! Please consider taking this anonymous survey!” After this change, one additional respondent accessed the survey.

LAST CHANCE

We want your feedback and suggestions as
to how to improve the Lion’s Pantry’s services!
Please consider taking this anonymous survey!



LINK TO ONLINE SURVEY:
<https://tinyurl.com/lionpantrysurvey>

**PLEASE COMPLETE
BY DECEMBER 15TH.**

Figure 5. Survey Slip #3

Twelve different people in total accessed the survey, although some responses are blank or incomplete. Because the study is completely voluntary by subjects, the exact response rate of students is unknown. There was no procedure or methods in place that would allow for the number of bags handed out to be counted. There was also no explicit incentive for fulfilling the survey, which may have impacted sample size.

Survey Instrument

The ‘test’ survey and the final survey were both created using Penn State’s subscription to the online surveying tool, Qualtrics. Qualtrics has special tools which allow their surveys to be displayed conveniently on both mobile devices and computer browsers, which is important for the convenience for the respondents. An online web-based survey tool was chosen specifically so

that responding to the survey would be easy for students. With Qualtrics, respondents would not have to remember to return a paper version of their survey back to the main Pantry building location, as they may have never visited this location at all and had picked up a bag at a Cub Pantry.

The final survey instrument contained 16 questions, with 5 short-answer questions and 11 multiple choice answer questions. The survey takes about five to ten minutes to fully complete. All of the survey questions can be found in the appendix of this paper.

After the survey was drafted, the instrument was tested on a convenience sample of Penn State students (n=6) to measure completion time, and to check for possible mistakes or errors. The test sample included peers, key stakeholders, and random participants willing to provide feedback on the clarity and ease of completion. In testing the survey, several adjustments to length and content were made based on suggestions from the sample of participants. Question language in several of the questions was modified to ensure clarity, and to ensure that the survey was as easy and quick for respondents as possible.

All of the questions were written to address the three main research objectives. The first seven questions revolved around demographic information such as gender, age, year in university, race or ethnicity, primary residence status, and meal plan status. Question #8 asked about causes or factors that might influence food insecurity levels among students. Questions #9-11 focused on the student's experience utilizing the Lion's Panty services. The twelfth question addressed the frequency at which students are experiencing food insecurity indicators. Questions #13-15 allowed the respondents to further report on their experiences with the Pantry and elaborate on their suggestions for how to improve the Pantry's services. The final open-ended

question #16 asked respondents if and how the coronavirus epidemic has impacted their need for food assistance.

Questions #8 and #12 were informed by the USDA's Adult Food Security Survey Module, a tool that is published online in order to assist local governments or researchers in conducting surveys on food insecurity levels that is uniform across studies (USDA, 2020). It is also helpful because these questions have been tested methodologically for accuracy in several adult populations around the country and can be easily replicated and compared across time points, populations, and locations. Several food insecurity indicators from this module were utilized in the survey questions.

Table 2. Survey Question Mapping to Research Objectives

Objective	Survey Question
(#1a) Understand the Lion's Pantry users' demographics.	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q9, Q10
(#1b) Understand the Lion's Pantry users' motivations.	Q8, Q10, Q12, Q13, Q16
(#1c) Understand the Lion's Pantry users' perceptions of services provided.	Q11, Q12(e), Q13, Q14, Q15
(#2) Understand the Lion's Pantry's capacity to address the needs of food insecure students.	Q11, Q12(e, d), Q13, Q14
(#3) Formulate recommendations to inform the Lion's Pantry on how they can better serve their demographic of students.	Q11, Q12, Q13, Q14, Q15, Q16

Analysis

For this research, the value-rational approach outlined by Flyvberg seeks to use reflexive analysis to understand the values and interests of Lion's Pantry users, and how these perceptions impact their use of the pantry (Flyvberg, 2006). This approach informed recommendations focused on the praxis, or the practice of how the pantry operates and serves students.

Yin contends that there are three general strategies for analyzing case study research; relying on theoretical propositions, thinking about rival explanations, and developing a case description" (Yin, 2003, pp.115-120). The literature review portion of this project informed the theoretical foundations of the methodology and of the context of college-age student food insecurity, while also exploring plausible research challenges and counterarguments. The findings of this project are a function of the survey results, the conversations with key stakeholders, the broader literature review, and the archival document research which all contributed to the analysis and creation of a case description. The findings and conclusions from the research design process and administration of the survey were also analyzed to contribute to a description of the case and to inform future research suggestions.

In order to understand past research methodology on college-age student food insecurity, socio-behavioral factors that influence service delivery to this population, and to generate appropriate research objectives, a literature review was conducted. Evidence from prior research on the Lion's Pantry was utilized in conjunction with survey results to inform a case description of Penn State University Park's food pantry. This secondary data helps to inform the theoretical foundations and the contextual factors that were analyzed to create the case description.

Consulting the stakeholders a final time to ensure that the case description and other findings from the research accurately reflect their thoughts and attitudes “can be a valuable part of the analysis and can enhance validity” (Hartley, 2004, p. 330). Several final meetings were held to present the findings and recommendations to those stakeholders who administer and organize the Lion’s Pantry services in order to ensure the findings are presented in a helpful and useful manner. Ways to share the findings of this research and implied recommendations with users of the pantry are explored, as well.

Strengths and Limitations of Approach

It is important to point out several limitations and challenges to the research design. A major strength of this research design is the methodology that informed the questions, objectives, and analysis. The research objectives are structured to focus on the strengths of praxeic social science; to determine who gains and who loses, if these developments are desirable, particularly, if there is anything we should do about it (Flyvberg, 2006, p. 3). Additional strengths of this project come from its intent to focus on the lived experiences and knowledge of food insecure students. This is informed by an understanding that the knowledge of those experiencing a phenomenon are best equipped to inform solutions. Exploring the strengths and weaknesses of the Lion’s Pantry, and determining what we should do to improve the service based on these findings, is a central objective of this research. By consulting key stakeholders in the research process, practicality and usefulness of the research was ensured. The project was designed so that the results would be most useful to the population being surveyed, and to those that attempt to serve them through the pantry, which is a major strength.

The survey method itself incurs a number of strengths and limitations. While surveys can reach a large audience, and provide the opportunity for some quantitative and qualitative measurement, surveys are often limited by the answer choices provided. While this survey instrument did contain a number of open-ended questions, others only offered a provided list of response options. For these multiple-choice questions, no insights can be made about why a respondent answered in a certain way and cannot capture stories or narrative accounts of experiences.

It is also important to note that, while this case study may provide useful information for other university food pantries or for future research, case studies are not scientifically generalizable. Case study findings can be generalized to “theoretical propositions” about a population or about a situation, however the results of this single case are not true for the entire population, or all similar populations (Yin, 2009). Given that this research was only conducted at Penn State University Park, the results cannot be said to be generalizable to all universities.

There were some operational limitations to the project. Due to the nature of the project, several research methods were off-limits to protect the identity of students using the Lion’s Pantry. Key informant interviews and/or contact through mail or email addresses were not allowable to the researcher, as a peer and to protect the privacy of respondents. Were these parameters to be overcome, or were the researcher not a student themselves, these research methods may have provided a more robust analysis of the attitudes and experiences of pantry users. Interviews may have been able to provide a more narrative account of the perceptions and experiences of participants.

Additionally, because the pantry is student run, and lacked sufficient infrastructure to count how many pantry users were notified of the survey, response rate cannot be accurately

calculated. There was no opportunity to follow-up with, remind, or track possible participants in the survey for confidentiality reasons. Given that the response number to this survey was relatively low, findings cannot be said to reflect all Lion's Pantry users or food insecure students at Penn State. However, the findings from several respondents can still prove useful in creating recommendations for strengthening the Pantry's services.

College-age students present several challenges as a research population. The manner in which they respond to and answer survey requests may be different than the rest of the population. This was considered in the language and writing of the survey instrument, however there it is still important to remember that students conceptualize poverty and identify food insecurity differently and uniquely to other demographics, such as parents of a household. For example, the USDA Food Security Survey Modules used to inform the survey questionnaire have not been tested for appropriateness for college student populations, and some studies find that the modules are not precise for assessing the most at-risk students (Nikolaus, Ellison, Nickols-Richardson, 2019). This is not so much a limitation, but an important bias to remember when analyzing findings, as traditionally research on food insecurity fails to acknowledge this angle.

The nature of the sample presents some limitations to the findings. Because the sample was only students who already access the pantry, there is no way to determine the demographic of students who need assistance but are unable to or who choose to not access the pantry's services. This prevents an understanding of those whose barriers to accessing the pantry were so great that they were unable to answer the survey in the first place. It is possible that food insecure students who do not use the pantry differ in some important way from those food

insecure students who do use the pantry. This limitation may be addressed in future surveys with more resources and bandwidth than the current project.

Conclusion

To meet the research objectives of this study various methods were documented, which all helped to gain insight and understanding into the situation of food insecurity and the Lion's Pantry. The research was designed so that this single case study at Penn State University Park is illuminated by the survey findings, literature and document review, and informational meetings held with stakeholders to achieve the research objectives.

The next chapter, which is a case description of the Lion's Pantry at University Park, was informed by the various methods, and directly responds to the research objectives of understanding who uses the Pantry, why, and how this information reflects the Lion's Pantry's efficacy. The case description also involves unexpected findings about research limitations and how this could inform future inquiry. Based on these findings, recommendations are formed to strengthen and assist the Pantry in serving students better.

Chapter 4

The Lion's Pantry at Penn State University Park

The Lion's Pantry at Penn State University Park

In November 2014, two students, Jake Ruddy and Alex Mendoca, with support from “the College of Agricultural Sciences; the Sustainability Institute; Housing, Food Service and Residence Life; the Hotel, Restaurant and Institutional Management program; Project Cahir; the State College Food Bank; and various student organizations” helped to found and open the Lion's Pantry (The Lion's Pantry, 2021). Food insecurity was accepted as a reality among students and was known amongst the student community at the time (The Lion's Pantry, 2021). Additionally, conversations and action around food insecurity taking place at other universities, like Temple University in Philadelphia, inspired Penn State to follow suit (The Lion's Pantry, 2021).

All University Park graduate and undergraduate students with an active Student ID+ card are able to access the pantry and its services. Students are able to ‘shop’ in-person at the main pantry location by selecting which ever items they may need during the pantry's hours of operation. In addition, the pantry offers an online order form for a pre-bagged variety of foods and supplies, which can be picked up at any pantry location or delivered directly to students (The Lion's Pantry, 2021). Updated hours of operation are posted on the pantry's social media channels and on their website.

The main Pantry building is located near the edge of campus service buildings, past East Halls and the Katz law Building. It is in between Lion's Surplus and the Blue Band Building. The facility is accessible by the Campus Shuttle, driving, or walking, however the main pantry

location is a fifteen-minute walk from the closest student housing. Cub Pantries, or small pantry locations where pre-ordered bags are able to be picked up, can be found in the Pasquerilla Spiritual Center, Abba Javva Coffeehouse downtown, and in the Center for Sexual and Gender Diversity. These locations are open during campus building open hours (The Lion's Pantry, 2021).

On the pantry's website, they list several resources for students who may be struggling financially. These resources include food assistance programs, like Abba Javva Coffeehouse, Project Cahir, the State College Food Bank, and a link to the Penn State Student Care and Advocacy department (The Lion's Pantry, 2021). The Penn State Career Services Professional Attire Closet, which provides free business clothes to students, is also listed.

In 2017, The Daily Collegian reported that 10 to 20 students visited the Pantry during their four open hours each week (Lee, 2017). The pantry reported a spike in clients during the holiday season in 2018, with 30 to 40 students coming each week, not including those who visit a Cub Pantry secondary location (Winter, 2018). Students who utilize the Cub Pantries are not recorded, as there are no staff or volunteers manning those locations. During the sudden remote-learning period of Spring 2020, the pantry received record numbers of visitors, sometimes serving as many as 100 students per week (Pelella, 2020). During the Fall 2020 semester, the pantry maintained high numbers of clientele, with around 60 students visiting each week (Pelella, 2020).

The Lion's Pantry is a program run by the university and supported by several full-time faculty and staff advisors. This is distinguished from the Lion's Pantry registered student organization, which acts as a club of student pantry ambassadors who organize events, volunteer at the pantry, and ensure that operations continue. The club meets every few weeks to discuss

and plan upcoming engagement opportunities, and to explore ways to further help students in need.

When the pantry was first founded, it received logistical and/or financial support from “the College of Agricultural Sciences; the Sustainability Institute; Housing, Food Service and Residence Life; the Hotel, Restaurant and Institutional Management program; Project Cahir; the State College Food Bank; and various student organizations” (The Lion’s Pantry, 2021). The Penn State 2017 Class Gift endowment created a permanent and annual source of funding to support the Lion’s Pantry. Barnes & Noble, the manager of the Penn State Bookstore, promised to match every donation made to the 2017 Class Gift, further contributing to their financial security (Hallet, 2017). An original 200 applications for the Class Gift were narrowed down to three proposals, which seniors in the class of 2017 were able to vote for their desired winner online (Waldhier, 2016). As the winning proposal, The Lion’s Pantry will benefit from the perpetuity of the endowment each year, creating a permanent and secure funding stream for the service.

Anyone wishing to donate financial resources to the Lion’s Pantry is able to do so through the online Giving to Penn State development portal. Some donors have also given gift cards to local grocery stores, which allows volunteers and organizers to adjust to diminishing supplies. For in-kind food and supply donations, there is an online Amazon.com Wish List where items are able to be directly shipped to the pantry. Additionally, any in-kind donations can be dropped off during the pantry’s open hours. The “Pantry Needs” website page is regularly updated each semester with a list of items they could use more of, as well as a list of items they have too many of.

The Lion's Pantry serves non-perishable and shelf-stable food items, with some household items available depending on donations. Rice, canned chicken, chickpeas, black beans, canned carrots, cereal, pasta, and shelf-stable snacks are some examples of food available at the pantry. They also carry and ask for personal care items such as shampoo or toothpaste, and cleaning products such as detergent, wipes, and dish soap (The Lion's Pantry, 2021). According to past Lion's Pantry President Sayre Bradley, university risk management and a lack of refrigeration options are two major obstacles to serving more fresh foods and produce (Jackson, 2019).

At certain times during the year, the Pantry receives interest from student volunteers from other organizations, who need service hours as a requirement or are interested in hosting a one-time volunteer group. For example, in 2019, the Martin Luther King Jr. Day of Service Committee partnered with the Lion's Pantry to bring volunteers to organize and stock pantry shelves (Mansell, 2019). At other times, the pantry relies on Lion's Pantry Club members to stock shelves and work during open hours. The Lion's Pantry's hours during semester breaks, like Thanksgiving, Winter, and Summer break, is dependent on the amount of student volunteers available during those periods. During some breaks, the pantry is not open at all.

During some time periods, the Pantry has to turn away an abundance of volunteers, while during others there is not enough support (Krugel, 2019). The need for continued student involvement from year to year means the pantry is reliant on each new student population which enters Penn State. The leadership and knowledge transition of the executive team that takes place each year is a concern for the stability of services. If the club is not able to fill positions or find dedicated volunteers, more stress is placed on the faculty advisors and

the services offered become at risk (Cruden, 2018). The more student involvement in the club, the more robust the pantry's programming becomes.

Serving as an organizer and volunteer of the pantry can provide significant leadership development opportunities, as well as increase awareness about the diversity of financial circumstances present on campus. Current Lion's Pantry President Spencer Wallace notes in an interview with Penn State News;

“Last year, one of our customers broke down crying because she could barely afford to eat at all during the school year,” he said. “Basically, the Lion's Pantry was the only way she was staying afloat. I think that hit home pretty hard to highlight what we do and how we serve students” (Hallman, 2020).

Similarly, other Lion's Pantry volunteers positively reflect on their experience organizing services. Sayre Bradley, past Lion's Pantry President, shared in an interview that “it's inspiring to witness firsthand how the Penn State community has come together to support those facing scary and uncertain times” (Penn State News, 2020). Several leaders of the pantry cite previous experiences with food insecurity during childhood or during their time at Penn State inspiring them to get involved in the food realm of service work (The Lion's Pantry, 2021). In this way, the pantry's mission of ‘students serving students’ can provide meaningful and formative experiences for student volunteers.

Partnerships and Initiatives

The Lion's Pantry has benefitted from working with other student organizations and entities on campus to increase their outreach and capacity. Partnerships and awareness programs

have helped to raise recognition of the pantry's existence on campus among students. In 2017, "student-run organizations such as the Dominican Student Association, Association of Residence Hall Students, the University Park Undergraduate Association, The Interfraternity Council and others came together to create a food drive for Penn State Lion's Pantry" (Avila, 2017). The Pantry has also partnered with other student organizations like Lion's Against Hunger, and the Sustainability Institute, to host documentary screenings on the topic of sustainable food systems (The Lion's Pantry, 2021). There have even been some successful partnerships with football players to raise canned good donations (Lee, 2017).

The Lion's Pantry has ventured into programming in recent years by organizing several awareness events to engage more students in their mission. Their biggest engagement event, "Canstruction," combines art, innovation, and building with hunger relief (The Lion's Pantry, 2021). Student groups from across campus are invited to build large sculptures from donated canned foods and display their art in the HUB-Robeson center, a building on campus heavy with foot-traffic. The structures help raise awareness, start conversations, and involve other students in the issue of food insecurity on campus. All cans utilized in the structures are donated to the Lion's Pantry after the event, so that no materials are wasted (Cataldo, 2019).

Lion's Pantry volunteers and club members have experimented with new initiatives intended to better serve clients. In 2017, the pantry implemented the "One, two, three bags" program, which provided bags with three recipes and the corresponding ingredients (Lee, 2017). They have also created final exam care packages filled with supplies intended to support students during an extra stressful and busy time of the semester (Lee, 2017). In 2018, the pantry partnered with Abba Javva Coffeehouse and the Central Pennsylvania Food Bank to create "Break Boxes"

of non-perishable food items for students who remained in the area during University scheduled breaks, when many services had limited or no open hours.

In order to further increase awareness of their services, the Lion's Pantry has held Open Houses and hosted noteworthy guests. During Open Houses, relevant faculty, administrators, and staff are invited into the pantry to explore the physical pantry location (Jackson, 2019).

Administrators and staff that work in the realms of student life and emergency services are able to experience the pantry firsthand, and more clearly understand the programs they are supporting.

The Pantry has received recognition from local and state government officials as well. In 2019, Pennsylvania First Lady Frances Wolf visited the Lion's Pantry to talk with students and staff about the linkages between college student hunger and the minimum wage (WJAC, 2019). The Pennsylvania Department of Human Services Secretary, Teresa Miller, also visited the Pantry in 2019 (Jackson, 2019). Miller recognized the invisibility of student hunger, saying, "I think a lot of people just assume that college hunger and food insecurities are not really a thing...I bet there are a lot of people out there who really don't know that on every college campus there are people that are struggling to feed their families, to feed themselves" (Jackson, 2019). Both Miller and Frances discussed how the Lion's Pantry could serve as a model for other Pennsylvanian universities, and how the need of students could further be addressed.

COVID-19 Pandemic Impacts

When the University transitioned to remote-learning suddenly in March 2020, students were asked to remain at home and avoid travelling back to campus housing. During that time, students were not allowed on campus, including for extracurricular purposes. Penn State faculty and staff were recruited to volunteer at the pantry during the closure, to "fill the vacated roles of

student volunteers” (Pelella, 2020). Over the summer, a member of AmeriCorps assigned to Penn State’s food systems support was able to fill-in for the regular student volunteers (Pelella, 2020).

During the remote-learning period, demand for the Lion’s Pantry increased and more clients began visiting each week. In an interview with Onward State, Lion’s Pantry Communications Coordinator Sarah Hohman said, “Following Penn State’s closure, we were serving around 80 students per week, and a couple of weeks, we saw over 100 students” (Pelella, 2020). The increase of students in need may be attributed to the massive spike in unemployment and economic turmoil due to the closures caused by the COVID-19 pandemic.

When campus re-opened in Fall 2020, some students were able to staff the pantry again, while following the university’s coronavirus guidelines and rules. To maintain safety and to prevent the spread of the coronavirus, the pantry “implemented several precautionary measures, including disinfecting shelves, doorknobs and counters frequently during open hours; providing gloves for clients and volunteers; and limiting the number of individuals in the pantry at one time to maintain social distancing practices” (Penn State News, 2020). Unlike past years, only student volunteers internal to the Lion’s Pantry organization, its director, and its managers are allowed to staff the pantry (Pelella, 2020).

In more recent developments, the Lion’s Pantry is set to undergo renovations during the Summer of 2021. These renovations should include adding refrigeration and freezers to the pantry, so that perishables like fresh produce are able to be stored. The addition of fresh produce, with the possibility of sourcing that produce from the Penn State University Park Student Farm, will allow clients to access more nutritious and healthy food options. The renovation will also change the back-end configuration of the pantry, so that large food donations and drop-offs can

be facilitated easier. While the pantry is closed for two to three weeks, they are seeking an alternative and temporary location.

Chapter 5

Findings and Discussion

Introduction

In this chapter, the survey findings will be examined, organized by the subject of each question. First, the demographic answers will be outlined, followed by the questions relating to food insecurity, then the questions relating to the Lion's Pantry's services, followed by questions about feelings of stigma, and concluded by questions relating to use of other food assistance services. Then, a brief overview of the major themes from the survey findings will be discussed. This discussion will weave in conclusions found from the literature and from the informational meetings that were a part of this thesis project. These themes led to the creation of the recommendations for the improvement of the food assistance resources available to students in need.

The survey had varying response rates to several questions. A total of 18 participants accessed the survey. The most responses to any single question was 13 participants, and for most questions, the same 13 participants responded. For some questions, several participants chose not to respond, and it is noted in the findings from each question how many participants answered. While the survey did not receive a high response rate, findings are still notable and can suggest implications about who uses the Lion's Pantry's services and how they are perceived. The survey instrument with all questions is located in the appendix of this thesis.

Demographics

Survey respondents were all college-aged students. Of the 18 students who accessed the survey, 13 students completed most of the questions. The thirteen students who answered the survey questions reported their ages, ranging from 19 to 34 years old. The average age of the thirteen respondents was 22 years old. The same thirteen respondents also reported their race or ethnicity. Seven of the thirteen respondents identified as Caucasian or white, while three of the thirteen participants identified as Black, African, or African American, and three of the thirteen respondents identified as Asian. All thirteen students reported their gender. Seven respondents were female, and six respondents were male. All thirteen students reported their student status, as well. Nine respondents reported being full-time, undergraduate students. Four participants reported being graduate students. Six respondents were seniors, two were juniors, and one was a sophomore. All participants in the survey reported living in off-campus housing. All of the respondents except for one reported not having a Penn State meal plan. In the following sections, only these thirteen respondents' data is analyzed. When for some questions, less than thirteen responded, it is noted. Demographic information is not included in any figures.

Food Security

Of the thirteen students, ten respondents answered a question about reasons why they do not always have enough to eat and their food situation over the past 6 months. Students were able to select multiple reasons for their food insecurity. Eight out of ten of these respondents reported that not having enough money for food was a reason they did not always have enough to eat over

the past 6 months. In addition, seven out of ten of these students reported that not having enough time for grocery shopping or cooking was a reason. Three out of these ten respondents indicated that having no or limited access to cooking appliances prevented them from having sufficient food. Not being able to get to a grocery store was another issue for three of the ten respondents. These were the most indicated reasons for not having enough to eat for the past 6 months for students who took the survey. The responses to this question are not represented in any of the figures below.

Another survey question asked if coronavirus had impacted respondents' food situation, and how. Four students out of thirteen responded to this question, with one student reporting that they "have a lack of funds to buy groceries and other items." Another student wrote that it is "harder to get reliable food due to the business closure or changing hours. Food quality in general decrease a lot and sometimes I am worrying I don't have enough budget for decent food of decent quality." One student responded by saying that the coronavirus had not impacted their situation. A final student reported "I lost my job. As a result, I pay for all of my expenses from savings."

Respondents also answered questions about their food security levels. As shown in Figure 6, seven out of eight students who responded to this question reported worrying "occasionally" or "frequently" that their food would run out before they got the money to buy more. Figure 7 demonstrates the reality of that worry, as seven out of eight participants who responded to this question reported that "occasionally" or "frequently" the food they bought wouldn't last, and they wouldn't have money to buy more.

I was worried whether my food would run out before I got money to buy more.

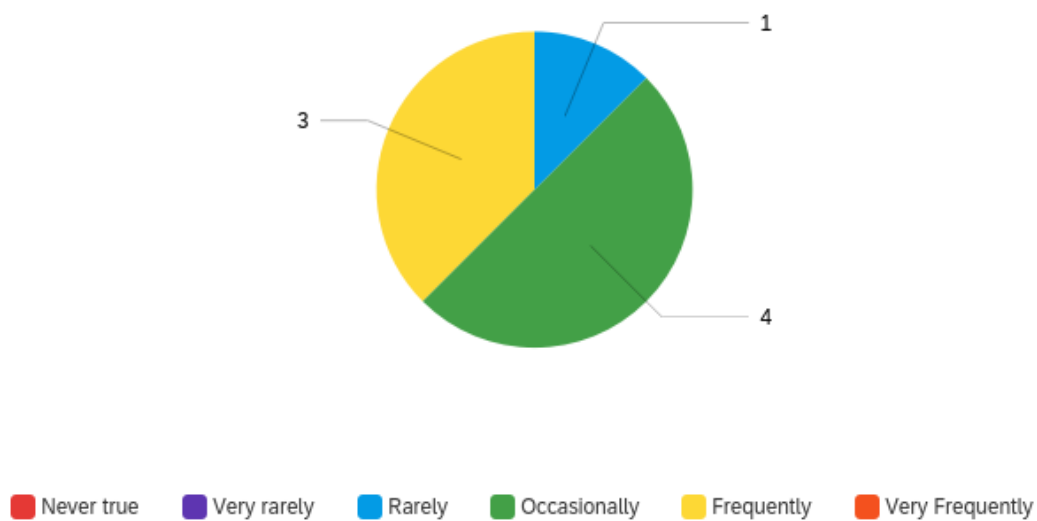


Figure 6. Question 12a: Worry about Money and Diminishing Food Supply

The food that I bought just didn't last, and I didn't have money to get more.

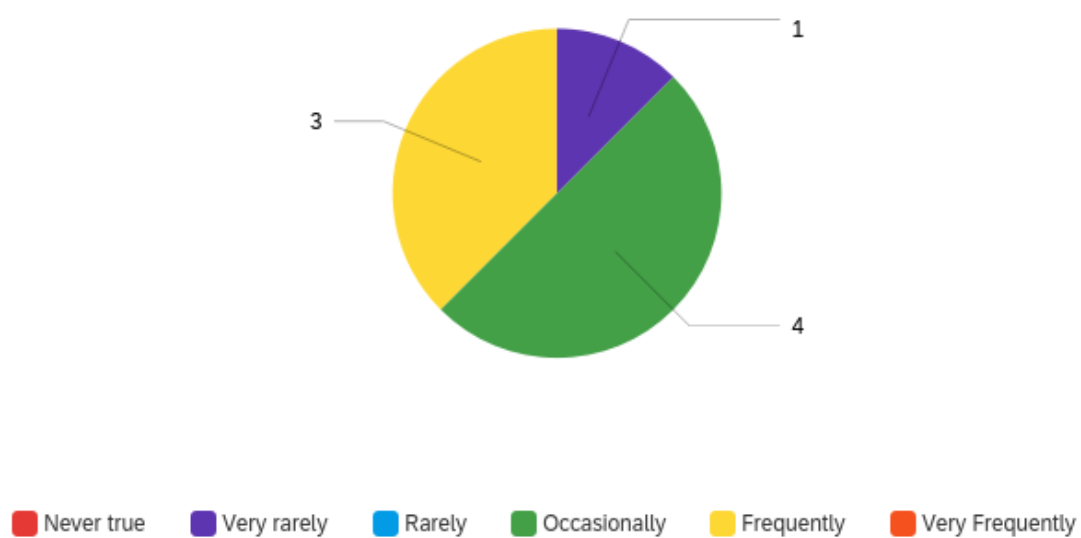


Figure 7. Question 12b: Money and Diminishing Food Supply

As discussed, part of food security is the ability to eat healthy and nutritional meals.

When asked if they could afford to eat balanced meals, six out of eight students who chose to respond to this question reported that “occasionally,” “frequently,” or “very frequently” they were unable to. This is represented below in Figure 8.

I couldn't afford to eat balanced meals.

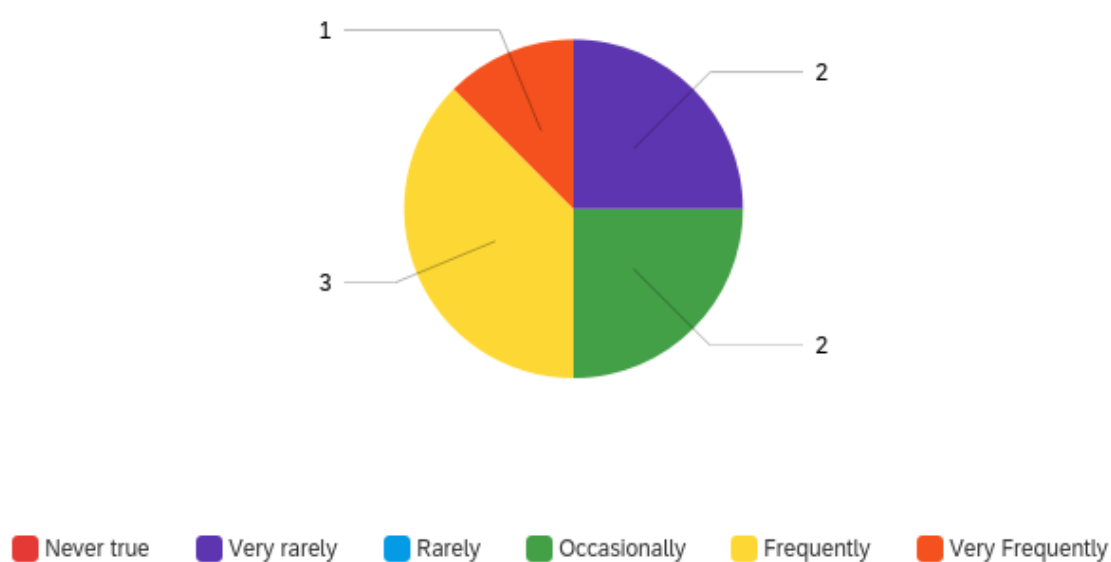


Figure 8. Question 12c: Balanced meals

Respondents were asked several questions about their familiarity with the Lion’s Pantry’s services and what they thought about them. Nine students answered a free-response question about how they first found out about the pantry’s services. Three students first heard about the pantry through a friend. Three students first heard about the pantry through Instagram. One student reported that a previous university they had attended had a similar program, and discovered the Lion’s Pantry by seeking a similar one at Penn State. Another student learned of the pantry through an article about the pre-bagged food request program. One student first heard about the Lion’s Pantry from Dubois Campus.

Students were asked a question about which of the Lion's Pantry's services they utilize, and were able to select multiple answers. Four respondents reported utilizing the Lion's Pantry's services by visiting during their open hours to "shop" for food. Four respondents indicated utilizing the pre-bagged pick-up at the Lion's Pantry. One student reported using the pre-bagged pick-up option available at Abba Javva Coffee House. Several of these students indicated using two of the aforementioned services but did not indicate how frequently.

When asked about barriers or challenges in accessing the Pantry's services, seven students provided responses. Three of these seven students reported having no barriers or challenges in accessing the pantry's services. Another three of these seven students reported that traveling to the pantry was a challenge, by explaining for example, "No money for bus, I live far away from campus," "Lion's Pantry itself is very far away," and "Don't have any transportation to get there and too far of a walking distance." One of the seven students reported that the "transition to pre-bagged items" was a barrier.

One question asked respondents if they had any suggestions or feedback on how the pantry's services could be improved. Only two students answered this question by reporting they had no feedback to give. The final question on the survey asked students if they had any other comments about the Lion's Pantry they would like to include. One student responded to this question by writing "The lion's pantry is honestly a blessing for every Penn state student! Y'all help students save a lot on groceries and y'all are very helpful! Thank you so very much."

Students were asked several questions in order to better understand their satisfaction and opinions about the Lion's Pantry's services. Figure 9 below depicts that a majority of respondents feel they receive high quality food from the pantry. A majority of students also feel

the pantry offers a variety of food options, as shown in Figure 10. For both of these questions, seven out of thirteen participants indicated their answers.

I receive high quality food from the Lion's Pantry.

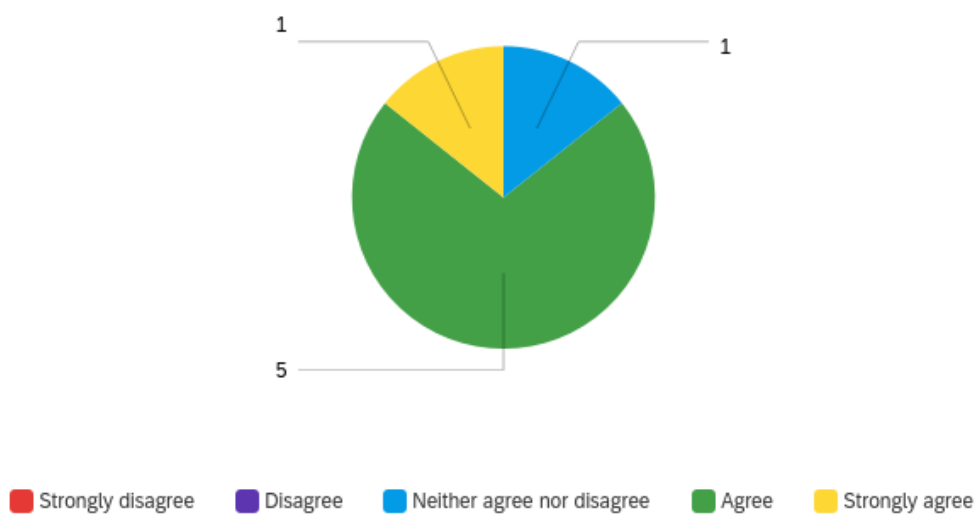


Figure 9. Question 13a. Lion's Pantry Food Quality

The Lion's Pantry offers a variety of food options.

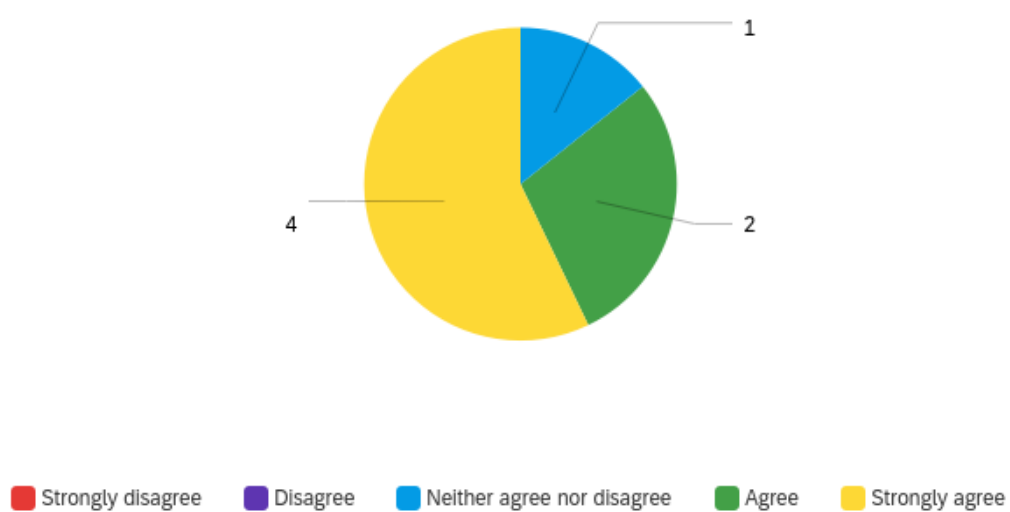


Figure 10. Question 13b: Lion's Pantry Food Variety

Respondents indicated that they felt it was easy for them to access the Lion's Pantry's food resources overall, as depicted in Figure 11. Out of seven students who answered the question, two students neither agreed or disagreed with this statement. Five out of the seven responding students indicated they "agree" or "strongly agree" it is easy for them to access the Lion's Pantry's food resources.

In terms of the convenience of the pick-up hours of the Lion's Pantry, one of six responding students disagreed that they were convenient, two of six responding students neither agreed nor disagreed, and three of the six responding students agreed. In another question, four of six responding students "agreed" or "strongly agreed" that the open hours of the pantry were convenient for them, as shown in Figure 12 below.

Overall, five students agreed that they enjoy the food they get from the pantry, with one student neither agreeing or disagreeing, and five students agreeing, as shown in Figure 14.

It is easy for me to access the Lion's Pantry's food resources.

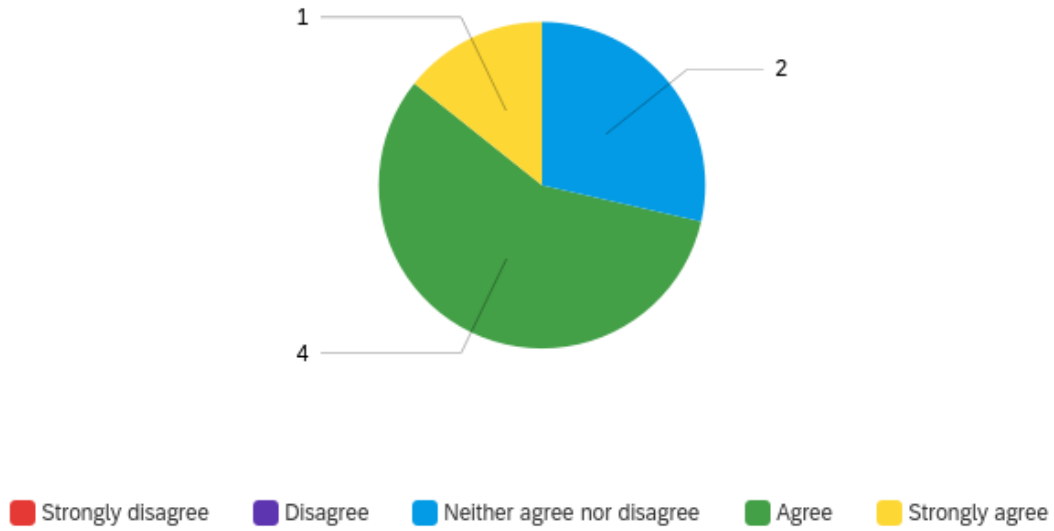


Figure 11. Question 13d: Accessibility of Lion's Pantry's Food Resources

The pick-up hours of the Lion's Pantry are convenient for me.

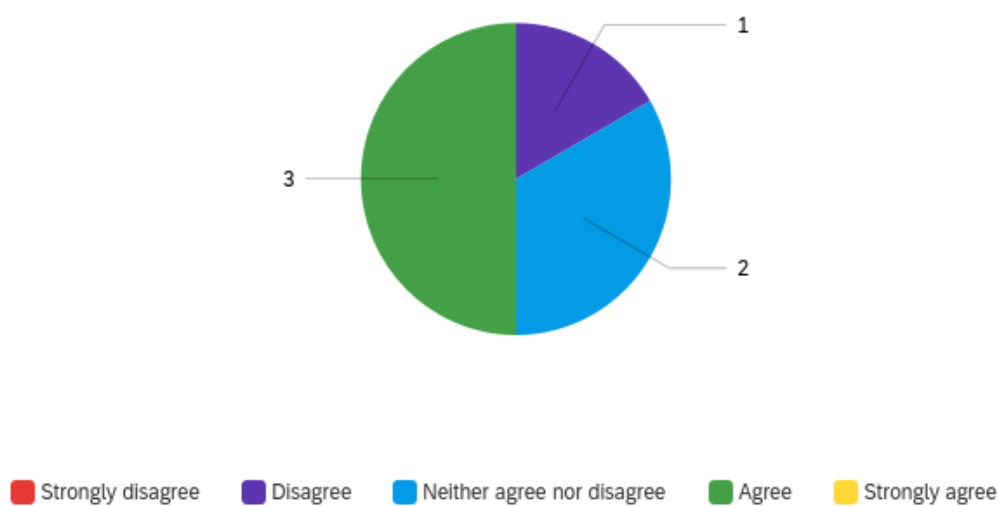


Figure 12. Question 13f: Convenience of Lion's Pantry Pick-up Hours

The open hours of the Lion's Pantry are convenient for me.

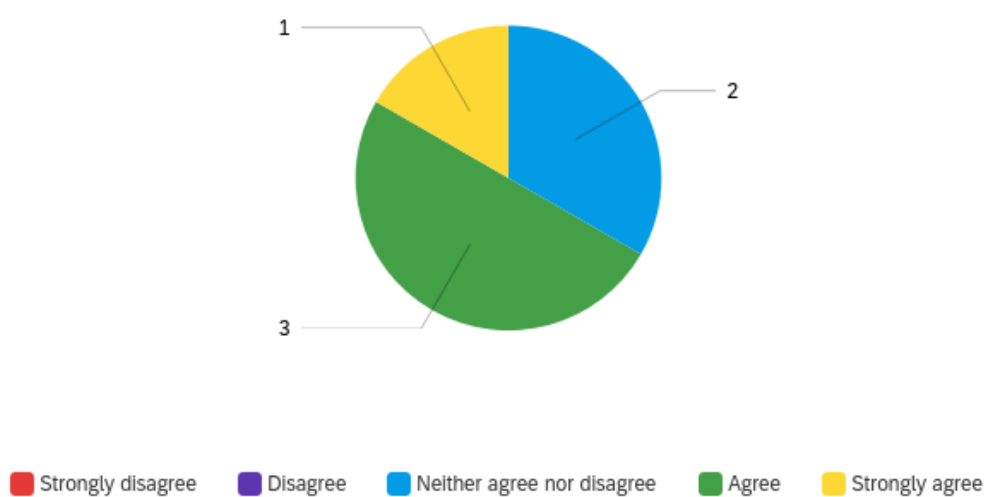


Figure 13. Question 13i: Convenience of Lion's Pantry Open Hours

I enjoy the food I receive from the Lion's Pantry.

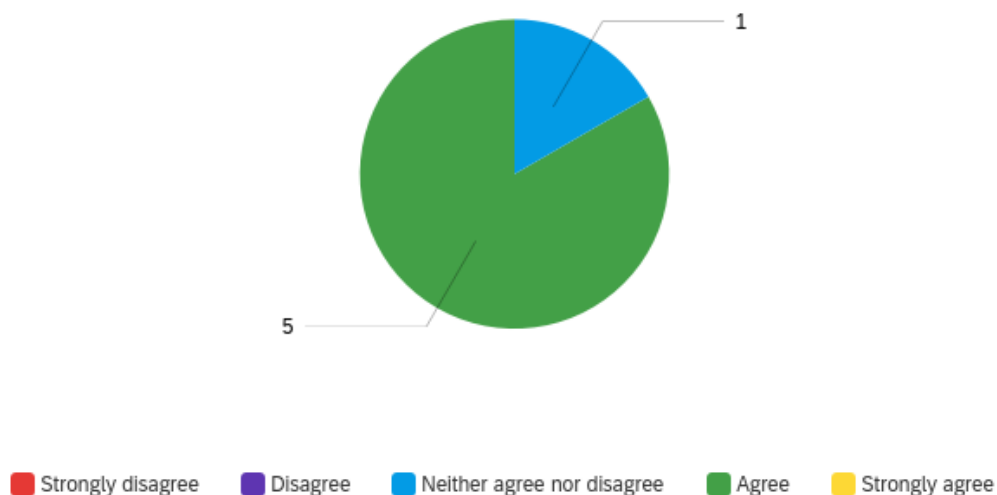


Figure 14. Question 13g: Enjoyment of Lion's Pantry Food

Stigma

Students were asked several questions about the stigma or judgement they may feel in accessing the pantry's services. Figure 15 shows that five out of eight respondents to this question "frequently" or "very frequently" felt nervous of being judged by others for using the Lion's Pantry. However, Figure 16 demonstrates that in another question, two out of seven responding students agreed there was a stigma to using the pantry, while two out of the seven students disagreed. Similarly, from the six responses to another stigma question, two students agreed and two students disagreed that they would be embarrassed if their classmates found out they utilized the pantry's services.

I feel nervous of being judged by others for using the Lion's Pantry.

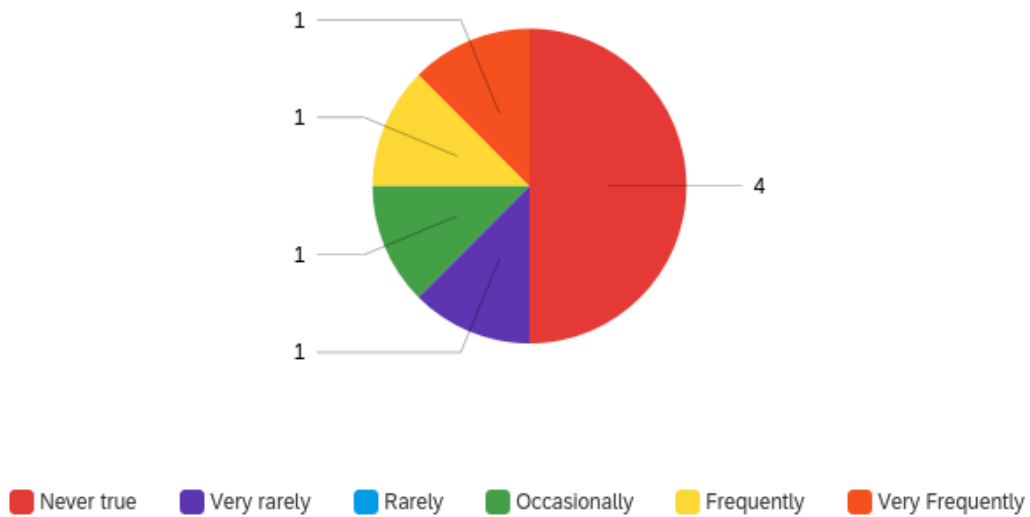


Figure 15. Question 12c: Lion's Pantry Judgement

There is a stigma to using the Lion's Pantry among my fellow students.

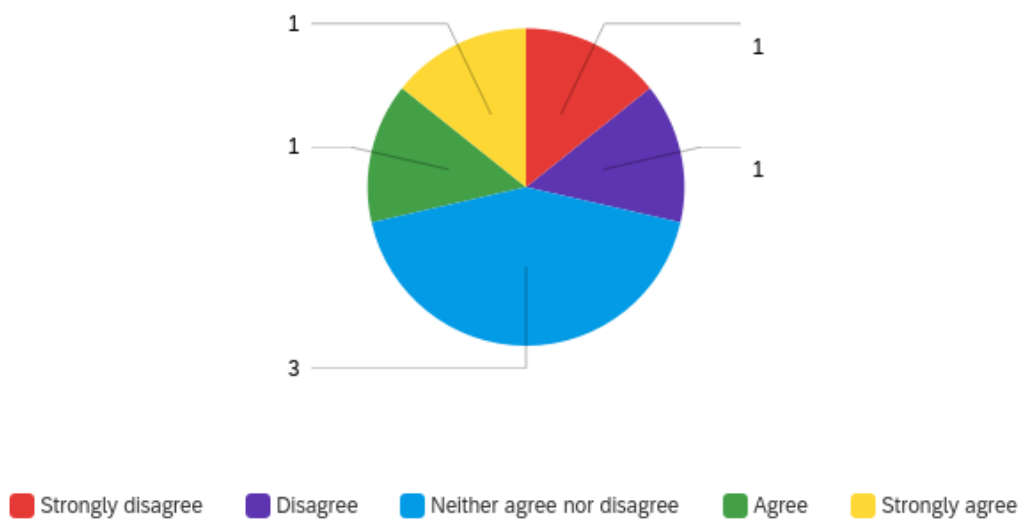


Figure 16. Question 13c: Lion's Pantry Stigma

I would be embarrassed if my fellow classmates knew I was using the Lion's Pantry's services.

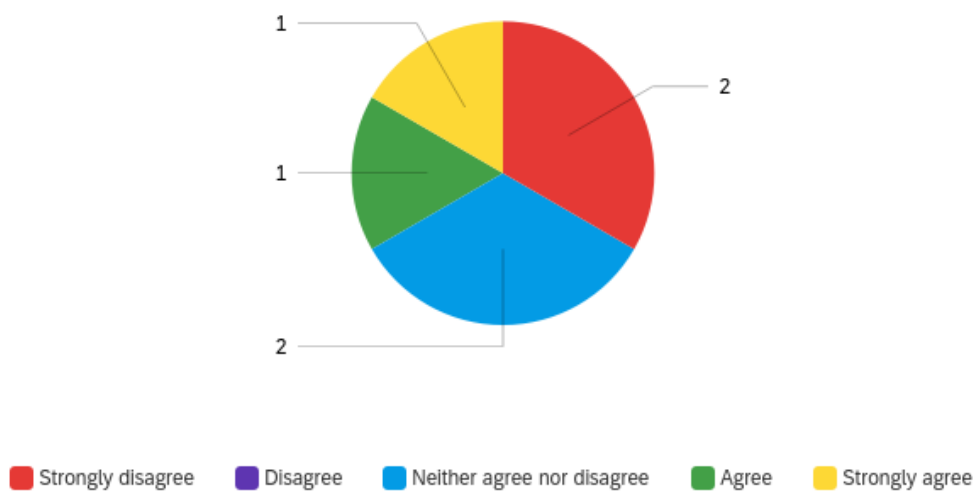


Figure 17. Question 13h: Lion's Pantry Classmate Stigma

Food Assistance Services

Students reported a variety of frequencies in accessing food assistance services to meet their basic need. Figure 18 demonstrates that three out of the eight students who responded to this question reported never using food assistance services, while four of the eight students reported using them "occasionally" or "frequently" to meet basic need.

I used food assistance services to meet my basic need.

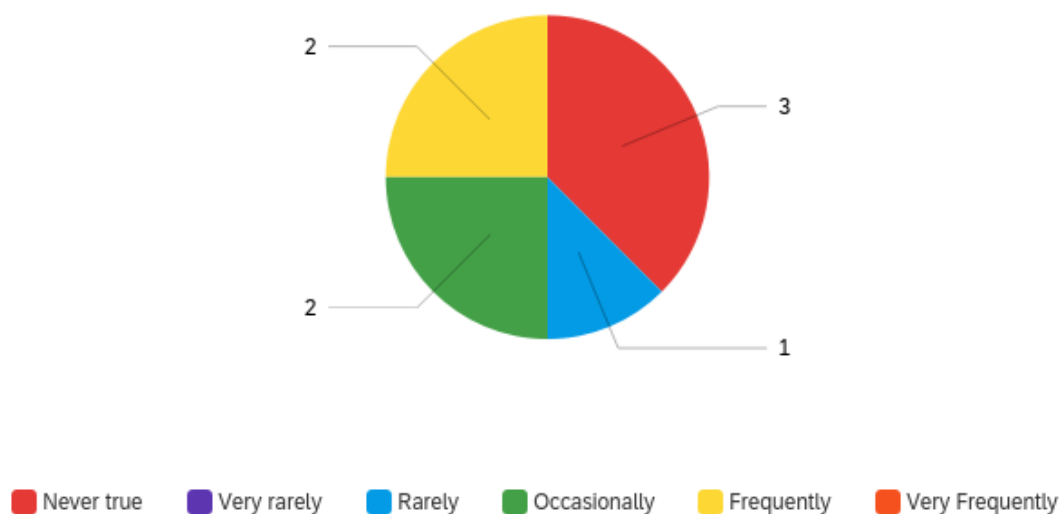


Figure 18. Question 12d: Food Assistance Services

Most students reported they “never,” “very rarely,” or “rarely” utilize food resources in State College other than the Lion’s Pantry. Two out of eight students report “occasionally” or “frequently” accessing other food resources in State College, shown in Figure 19.

I accessed food resources in State College other than the Lion's Pantry.

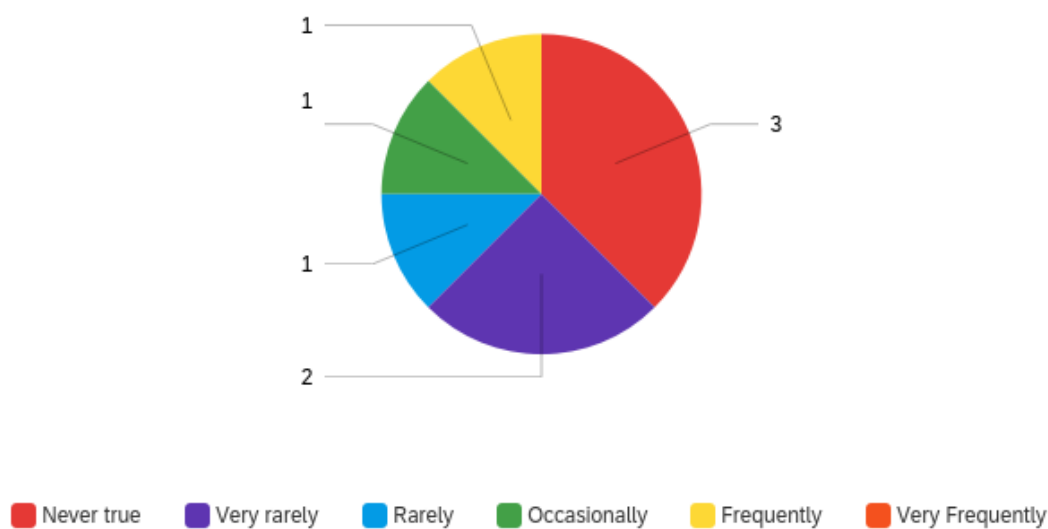


Figure 19. Question 12f: Other food resources in State College

Discussion

Food Insecurity

The majority of students surveyed identified not having enough money or enough time to shop or cook impacted their ability to have enough food to eat. This finding aligns with surveys with larger samples at the national level that find that students are resource constrained in terms of time and finances. It is possible that managing the workload of college academics, working a part-time job, and maintaining healthy social relationships reduces a student's time to shop for food or cook meals at home. This may lead students to purchase more on-the-go and fast-food meals, which are both nutritionally poor, and non-budget-friendly. The lack of financial literacy among students remains a major barrier to effective money management, which can impact budgeting and ability to pay for food costs. Budgeting even the Penn State meal plan dining

dollars has proven confusing and difficult for some students to manage over the course of a semester. As discussed, many students are facing personal and/or financial independence for the first time as a first-year student. This reality, coupled with new bills and the costs of being a student, can be overwhelming and difficult to balance. Overall, the new responsibilities of time and money management can lead to impacts on students' ability to have enough food to eat.

COVID-19 Impact

The coronavirus pandemic has impacted students' food security level, as well as the food security status of many across the state of Pennsylvania. Three students in the survey indicated an increased strain on resources and more difficulty with their food situation because of the coronavirus. In addition, pantry volunteers and organizers reported large increases in clientele utilizing the resources of the Lion's Pantry when the pandemic began. This increased usage has continued through to now, in March 2021, almost a year after the beginning of COVID-19 and the University's remote learning period. This suggests that the pandemic has had a major impact on student's financial and/or food insecurity because of the increased hardships and closures.

The pandemic has also changed some systems structurally which has impacted students' food security levels. Many local businesses have had changing or altered hours of operation, making the reliability and consistency of food sources worse for students. Public transportation in State College has also drastically reduced their operations since the onset of the pandemic, making it more difficult to travel to the Pantry or grocery store. The amount of employment opportunities for students has also decreased as a result of the pandemic. The student jobs that are available are often part-time, minimum wage, and are not flexible to students' schedules. As a result, the ability of students to pay for the costs of living, including food costs, is difficult without some outside financial help from family or aid.

Stigma

Findings related to stigma and embarrassment in using the pantry services were across the board. Most students report feeling nervous of being judged by others for utilizing the Pantry, and a few students report feelings of embarrassment or stigma. Findings from national and university-level studies find that stigma around food insecurity is prevalent and contributes to the confusion about qualifying for resources or accessing services. As mentioned, because of the nature of the survey sample, students who felt sufficient stigma to prevent them from accessing the Lion's Pantry were not captured in the survey responses. Because the pantry is student-run and managed, clients of the pantry are forced to face their peers when accessing services. This may also contribute to feelings of embarrassment.

Perceptions of Pantry

In general, students surveyed reported gratitude for the pantry's services and felt an overall ease in accessing the pantry, in terms of hours. Most students reported agreeing that the pantry offered a variety of quality food and had convenient hours of operation. These respondents indicate that, for the few students willing to complete the survey, there was an overall satisfaction with the pantry. However, because of the limitations of the sample size, it is possible this opinion is not representative of all pantry users. In addition, students who truly faced serious barriers to accessing the pantry, or those who were upset and dissatisfied with services, may not have been able to or been motivated to complete the survey. This major limitation points towards the need for future research on the Lion's Pantry demographics. The most common barrier to accessing the Lion's Pantry resources identified by students surveyed was transportation to the pantry, and its location relative to other student activities.

Additional Food Resources

Most students do not report using many additional food assistance services to meet their basic food needs. This could be because there are very few in-kind food aid resources available to students besides the Lion's Pantry. The State College Food bank, while not explicitly off-limits to students, presents eligibility criteria that most students are unable to meet. Other services explored by this thesis are the Student Emergency Fund and other student-led student clubs and efforts. The Student Emergency Fund, run out of the Office of Student Care & Advocacy, is available to students experiencing a personal crisis or an emergency which overwhelms their financial circumstances. The Fund provides one-time awards in the amount specific to the needs of the student, but do not exceed \$1,000. While a valuable resource, some students may be facing food insecurity as a long-term or chronic issue set on by the high costs of college tuition, rent, textbooks, and social culture. The one-time influx of funds could help students facing a temporary phenomenon who would otherwise be okay after the emergency or crisis period subsides. For students facing long-term financial struggle, before and without the onset of an emergency, a one-time injection of cash may not be enough to effectively bring them into food security. While student canned food drives and programs like Project Cahir can provide temporary assistance to students in need, the demand and level of need is greater than what these student-led programs can achieve on their own. The reliance on the Lion's Pantry by students suggests a need to ensure it is effectively serving them, as well as diversifying the resources available to students facing varying levels of need.

Chapter 6 Recommendations and Conclusion

Summary

This thesis project involved a survey of Lion's Pantry users in order to better understand their demographics, motivations, and perceptions of the services provided. While the response rate to the survey was not high enough to make broad conclusions about the state of food insecurity among pantry users, or their perceptions as an entire population, the responses do provide a glimpse into what users think. Findings and conclusions drawn from this survey affirmed major themes about food insecurity among college students found in the literature review. The research attempted to understand how these responses might reflect the capacity of the Lion's Pantry to address the needs of food insecure college students at Penn State University Park. Survey findings were analyzed along with themes found from the literature review in Chapter 2. Press releases, news articles, and other online documentary evidence about the Lion's Pantry were also utilized to build context and form recommendations. Drawing context and observations from the notes from informational meetings with pantry volunteers and organizers also helped create a case description which documents the current state of the pantry at University Park. A final research objective of this project is to formulate recommendations to inform the Lion's Pantry on how they can better serve their demographic of students, with an understanding that these recommendations may be useful to other similar food pantries at other large universities. The recommendations below are purposefully broad and could be interpreted as suggestions for action or food for thought for those at Penn State University Park involved with food insecurity or the pantry. They are intended to build on and fit within other

recommendations formed by the Housing and Food Insecurity Task Force which released their recommendations publicly in March 2021.

Recommendations

1. Increasing Visibility of Hunger on Campus.

Increasing the visibility and awareness of the presence of food insecurity at Penn State University Park may help reduce stigma. A focus on the holistic wellbeing of students in the curricular and co-curricular spaces, including explicit recognitions of poverty's presence on campus, would help students feel less alone in their struggles. Programming, events, and registered student organization efforts which focus on or discuss food insecurity might also help students understand whether or not what they are experiencing qualifies them for resources like the Lion's Pantry or SNAP benefits. Talking about the issue normalizes it and allows students to feel less ostracized and more likely to come forward to access services.

An awareness among administrators, donors, and community members of the harm that food insecurity causes and the severity of the issue might help prioritize funding towards the problem. This should include an understanding of the ways that compounding inequalities impact students of color and minority groups on campus. In the Housing and Food Insecurity Task Force report, released publicly in March 2021, there are zero recommendations which address inequalities based on race, ethnicity, gender, housing type, or access to transportation. Race and ethnicity are only mentioned one time in the report, to report that on a national level Black, Hispanic, or multiple race individuals are the most likely to report food insecurity. People of color are consistently missing from narratives of student life and student poverty at Penn State, yet it is

understood that nationally these groups are the most affected. Finding solutions that directly target the most highly impacted communities can help the Lion's Pantry and the university's response to student hunger be more effective.

A stronger emphasis on Diversity, Equity, and Inclusion initiatives at Penn State since the resurgence of the Black Lives Matter movement during the Summer of 2020 provide an opportunity to recognize the intersectionality of food insecurity. While not a direct finding of this project's survey, it is colloquially understood that University Park's downtown housing within walking distance to campus is more expensive than housing which is farther away and requires transportation. Because of this, it is informally observed that minority students are more likely to live in housing further away from campus, not 'downtown,' and utilize the bus system to reach campus. This further separates minority students from the campus community, furthering their invisibility, and making services more difficult to access. By understanding the intersectionality of these issues, university administrators can become better advocates for funding that would more appropriately address these intersecting challenges. In particular, the way that food insecurity impacts African American, Black, Hispanic and Latino minority groups at much higher rates nationally cannot be ignored. College campuses are not immune to these national inequalities, and students often bring their pre-existing conditions with them when they attend university.

As discussed, the unique experience of food insecurity by students leads to varying definitions and conceptualizations of what it means to truly be 'in need.' Some students do not recognize their own struggles as food insecurity, or realize they may qualify for resources. Stigma and social judgement may also cause students to not come forward and access food aid. Talking about food insecurity's presence on campus, educating students about what the

phenomenon could look like, and actively supporting students' wellbeing would help to reduce the amount of stigma and bring visibility to the issue. Administrators and faculty should work towards a common and shared definition of food insecurity that would allow them to educate students on whether they qualify for various sources of aid. As noted, special attention should be paid to food insecure students facing compounded inequality, who are further marginalized because of other factors like race, ethnicity, class, gender, sexual orientation, housing location, or familial background. Bringing intersectionality to the narratives and conversations about the visibility of food insecurity might help reduce the great inequalities present on college campuses.

2. Pantry Location and Cub Pantries.

The physical location of the pantry contributes to stigma about accessing its resources because it geographically removes the presence of food insecurity far away from daily student life. Because the pantry is not close to any frequently visited buildings or areas on campus, it makes the food insecure community even more invisible. By placing the building so off "the beaten path," it physically ostracizes students by making their process of acquiring foods so hiding. On the contrary, this may be a comfort to students who wish to keep their use of the pantry confidential and away from where their peers might see them. Walking to the pantry is not practical for an overwhelming majority of students, and as discussed, students experiencing food insecurity also lack access to reliable transportation. While the Lion's Pantry is set to be renovated in its current location during the Summer of 2021, I believe that the physical location of the pantry should be reconsidered.

Cub Pantries do help with this issue by providing a place to pick up food or pre-bagged food in different areas on campus. An expansion of the Cub Pantries, more advertisement aimed at students on where those pantries are, and education on how to use them could help alleviate the

stigma surrounding the physical location of the pantry, and any difficulties traveling there. Cub Pantries could be the focus of future research, as well, by seeking to understand if they really are more convenient and practical for students.

3. Increased Awareness and Advertisement of the Lion's Pantry

More investment from the university in the marketing and education about the pantry would help more students to access and use it as a resource. Broadcasting the resources that are available to students more clearly would allow more students to know and use the pantry. Determining a few main channels where information on food and hunger resources could be shared would help the standardize advertisements about the pantry. Standard channels could be the university's social media pages, Canvas announcements, syllabus announcements, or physical signage around campus in dining and residence halls. This increased education should include education on the public transportation that can help people reach the pantry. This could be in terms of marketing resources, as well as assistance spreading awareness about the pantry at key student touchpoints. The pantry did not have an official marketing package or brand until the Summer of 2018, only three years ago, despite being founded in 2014.

Most students surveyed reported learning of the Lion's Pantry through an Instagram post campaign, or through a friend. These informal methods of finding out about what the pantry offers demonstrates that most who use the pantry are already in a social network with someone else who knows about the pantry, or would share a post about it. Students with no social connections to the pantry, or to anyone who would share a social media post about it, might not hear about it. The Lion's Pantry Instagram account has 833 followers as of March 2021. A focus on the more formal methods of education and awareness, like first-year student education during New Student Orientation, Residential Assistant education, mass emails of resources available to

students, or signage in Dining and Residence Halls might help to reach students who do not have close social ties to rely on to inform them about the pantry. In particular, advertising the Office of Student Care and Advocacy or the Lion's Pantry on course syllabi would help to spread awareness about these resources and about the need that students have for them across campus.

4. Identify staff who can help students navigate SNAP requirements and application process as well as other local, state, and federal programs.

The national SNAP program and other available aid programs like FAFSA can be difficult for students to find and understand. Particularly, for first-generation students, or when parents aren't available to help, students can face major obstacles in completing the applications for these programs, even if they qualify. Identifying staff who can reach out to students that may qualify programs to help them apply could increase the rate of college student enrollment in them. These staff would be able to augment and emphasize existing programming and resources to direct students in need to what is already made available to them. Based on university structures like University Health Services, the Office of Student Care and Advocacy, Counseling and Psychological Services, and other organizational units, the university may be able to identify existing staff, or may need to hire dedicated specialists to public assistance programs.

The Task Force on Housing and Food Insecurity recommended several similar ideas, including the development of a University-wide steering committee on this topic. This committee was estimated to require an additional \$20,000 in funding in order "to create visibility for these coordinated efforts (similar to Invent Penn State and Achieve Penn State), to develop common definitions of food and housing insecurity, and to contribute to the national conversation and research of student food and housing insecurity. Communication efforts would

include providing a website presence, developing social media, and coordinating campaigns to work against stigma” (Housing and Food Insecurity Report, 2021).

5. Increased Skills Training.

This project found that students lack a thorough understanding of financial systems and budgeting. Universities could further improve the education on budgeting, financial literacy, and time management they provide to students. Additionally, educating students on appropriate food storage, cooking, and purchasing habits may alleviate some common traps that students fall into with managing their own food. The Sokolov-Miller Family Financial and Life Skills Center at Penn State offers group and individual counseling and training sessions which can provide students with a wealth of information about topics such as budgeting, student loans, debt, saving, and investing. This Center is under-utilized and under-advertised. Furthering the awareness on campus of this resource, and incorporating it into syllabi or course curriculums, might help more students discover and use this resource. Empowering Resident Assistant’s to spread information about these topics, as well as the Financial and Life Skills Center, would also help first-year students be aware of the resources available to them. In order to create a holistic community of care for students, a greater emphasis should be placed on life skills training in general for first-year students finding independence for the first time.

6. Furthering momentum post-pandemic around food insecurity and student poverty.

Several student leaders of the pantry describe how since the start of the COVID-19 pandemic more attention has been paid to the Lion’s Pantry. Whether it be the increased media coverage, or increase in large donations, the Lion’s Pantry has received a much greater amount of attention since the coronavirus began. While this is generally positive, the increased attention during the pandemic raises questions about why it took a global attention for donor and administrative

attention to be paid to the issue. In addition, the Lion's Pantry should not be the sole solution focused on and invested in to "solve" food insecurity on campus. A more comprehensive approach to food insecurity and a better distribution of donor funds might allow other useful resources to flourish and alleviate student poverty from various fronts other than food, like housing, transportation, cost of textbooks and technology, or other resource constraints students face. Balancing resources and ensuring programs are holistically addressing various facets of student poverty on campus would create a stronger community of care at Penn State University Park.

7. Future Research.

The limits of the researcher being an enrolled student and the evolving coronavirus pandemic prevented the conducting of in-person interviews. As discussed, the lived experience of food insecurity for college students is uniquely experienced and difficult to capture with one blanket definition. When food insecurity is examined as a life circumstance, rather than a temporally and spatially bound experience, a more useful understanding of the phenomenon may be found. Food insecurity, even experienced during a short period, continuously forces students to make decisions that sacrifice certain spheres of life. The long-term mental and physical health impacts, as well as the trauma of hunger, can impact decision-making and wellbeing after the period of insecurity ends. By conducting interviews to capture the narrative stories of food insecure students, a better understanding of how to serve them may be found. It may also find a more nuanced and complete understanding of the gravity, depth, and context of the problem. Future research should focus on gathering the lived experience and narrative stories of how college students at Penn State experience the phenomenon.

More research is also needed on the needs of the Penn State University Park. It would be useful to know the exact levels of food insecure students and additional details of their situation. This could be achieved through a survey that is supported by the university so that it can reach a significant portion of the student population and receive a high response rate. In the Housing and Food Insecurity Task Force's Recommendations in March 2021, they suggest that Penn State utilize existing tools like Starfish to partner with national food insecurity programs that would have the power to assess housing and food insecurity across all campuses. Utilizing this survey feature in Starfish would help the university to assess and track food insecurity by important distinguishing factors like race and ethnicity, campus, housing type, access to food, and other factors mentioned in this project. Administering the survey would only cost the dedicated staff time needed to manage and promote the survey campaign.

Reflections

A major finding of this research project is the presence of invisible communities on campus, and the ways that food insecurity is a hidden problem. Food insecurity on campus should be considered from an intersectional lens that considers aspects of identity like gender, race, and sexual orientation, but also from the lens of various poverty indicators like access to transportation, housing situation, class and work schedule, parental financial support, and amount of government or university financial aid. Currently, Penn State does not consider food insecurity from a perspective that addresses these intersecting and intertwining contextual factors of a student's life. This is apparent from the slow-moving nature of the response to the Task Force's recommendations, as well as the lack of mention of any intersectional identities in the

Task Force's report. In order to fully understand and address food insecurity, concepts such as racial inequality, financial literacy, and food geography or where a student lives, must be considered. Even how convenient it is for a student to access food can impact their food situation, and all such factors should be considered when trying to create holistic solutions for varying facets of the community. In addition, further research is needed to better understand what the community truly wants and needs in terms of food aid resources.

Because the presence of food insecurity is rarely physically seen on campus, and is not fully understood by the student population as a present and prevalent problem, food insecure students are part of an invisible community. This community overlaps with others who do not receive the same recognition and visibility as others, such as minority students, first generation students, or disabled students. The physical pantry location is on the outskirts of campus, where few people visit, furthering the 'otherness' of students experiencing a lack of food. In order to really address food insecurity at Penn State, the first step is to work towards a common definition and understanding of its existence at University Park. Increasing visibility would reduce stigma around the issue so that students and administrators could begin co-creating solutions that suit the needs of all parties.

As the Commonwealth Campuses are traditionally underrepresented when it comes to student resources, research, and funding, additional focus on the problem of food insecurity is necessary in those locations. In their own way, because all administrative offices are located at University Park, and it has long been considered and named the "Main" Penn State campus, the Commonwealths present their own challenge as an invisible community. The language of "Main" and "Branch" campus is now being moved away from, but represents the traditional beliefs of the core and periphery model of Penn State. While the Task Force on Housing and

Food Insecurity found that all campuses support students who struggle to access food, through a food pantry, emergency funds, gift cards, or referrals to local agencies, these services vary greatly across campuses. Three campuses, including University Park, have endowments that support their pantries' operations. 15 campuses staff their pantries with full-time staff, and seven campuses incorporate students into their staffing models. Eight campuses report they often run out of inventory. It should be ensured that these discrepancies are tracked, and that each Commonwealth is evaluated and given the appropriate resources needed to meet the needs of their unique student populations.

Part of the issue with food insecurity and food pantries on campus is that they do not fully address the root causes of the issue. University institutions are more and more frequently being run and operated from a business mindset which prioritizes profit or fiduciary responsibility first, and focuses on student wellbeing second. The Penn State Board of Trustees being fairly conservative in nature, Penn State's hierarchical organizational structure, and the great width and breadth of the bureaucracy are a few reasons why effective and innovative solutions take a long time with much advocacy to be reached. Penn State administration frequently compares itself to other schools in the Big 10 Conference, and enjoys competing to reach important benchmarks and milestones faster than our 'rival' universities. This mindset itself limits us to comparing our progress only to what other similar universities have done, without considering that we have the expertise, manpower, and passion to do better than any Big 10 school has ever done before. While the entire structure of how universities function in the United States is not something that will transform overnight, using mindsets that facilitate innovation and creative solutions to some of the root causes of food insecurity may allow for better progress. It is important to consider how the comparisons drawn to other Big 10

universities might limit the scope of what is possible for Penn State. It is also important to consider how our organizational structures and processes limit the amount of progress that can be made in pursuit of alleviating student poverty or addressing the root causes of high tuition in the United States.

Conclusion

This project sought to better understand the Lion's Pantry and their users through a survey which was conducted in the Fall semester of 2020. While the survey did not receive a high response rate, the project still found results consistent with various themes and conclusions about food insecurity on college campuses from a literature and documentary evidence review and informational meetings with key stakeholders. It is incredibly important to research and evaluate programs designed to reduce food insecurity in order to understand what clients think about the services being provided and to ultimately determine whether or not they are actually helpful. Furthering the research on the Lion's Pantry user demographics, food insecurity at Penn State, and how to best address the issue should be prioritized particularly as pandemic conditions worsen economic situations for many students in the Penn State community. It was found that students experience food insecurity differently than the general population because of several situational factors, like differences in employment opportunities, maintaining a full course load, paying for tuition with a part-time salary, and housing or transportation circumstances that limit access to affordable grocery stores. The unique and distinct understanding of food insecurity by college students leads to students being unable to identify when they qualify for food aid resources like the Lion's Pantry. In addition, the lack of visibility of student poverty on campus

contributes to feelings of shame and stigma that reduce the number of students who reach out for help. By focusing more attention and resources on the issue of student poverty, even as the present dangers of the pandemic come to an end, programs to alleviate food insecurity can be improved. Several recommendations were given to improve the food security programming at Penn State University Park, including increased advertisement of available resources, a more intersectional understanding of this and other invisible communities, and future research on the phenomenon at University Park. The idea that students are perpetually “broke” and surviving off of cheap food alternatives with low nutrient densities like ramen noodles should no longer be accepted as normal. As tuition continues rising nationally each year at a much higher rate than average household income, student poverty will become more and more common. Because of the insidious ways that food insecurity impacts student life, from impacts on academic performance, to social exclusion, to mental health problems, it is a challenge that cannot continue being ignored. The hope is that this project can serve as an additional voice in a growing body of work that is calling for increased resource allocation, attention, and visibility for the topic of food insecurity among college students. The circumstances presented here are not unique to Penn State University Park and some themes may be relevant to other universities also seeking to better understand the landscape of hunger and food insecurity on their own campus.

Appendix A Survey Instrument*

*Adapted from online Qualtrics format.

The Lion's Pantry Student User Survey

Start of Block: Introduction

The Lion's Pantry Student User Survey

This survey is being conducted in order to assess the needs and opinions of the users of Penn State University Park's Lion's Pantry food assistance program, in order to better understand how to serve students. The responses of this survey will be used to help improve the services and operation of the Lion's Pantry.

This survey should take around 10 minutes to complete. All questions are optional and you can exit the survey should you wish to end your participation at any time by exiting the browser.

Survey answers are anonymous and confidential. Your willingness to submit this completed online survey indicates your consent to participate in this study.

Any questions or concerns about this research can be sent to lmc6127@psu.edu.

End of Block: Introduction

Start of Block: Default Question Block

Q1 How old are you?

Q2 What is your race or ethnicity?

Q3 What is your gender?

Male (1)

Female (2)

Other (3) _____

Q4 What is your student status? Select all the apply.

Undergraduate student (1)

Graduate Student (2)

Post-Doctoral Researcher (3)

Visiting Scholar (4)

Transfer student (5)

Full-time student (6)

Part-time student (7)

Q5 What year are you?

Freshmen (1)

Sophomore (2)

Junior (3)

Senior (4)

Other (5) _____

Q6 What is your primary residence while attending classes at University Park?

On campus housing (1)

Off campus housing (2)

Other (3) _____

Q7 Do you have a Penn State meal plan?

Yes (1)

No (2)

Other (3) _____

Q8 Here are some reasons people do not always have enough to eat. Please check all that apply to your food situation over the past 6 months.

- Not enough money for food. (1)
- Not enough time for grocery shopping or cooking. (2)
- No consistent housing situation. (3)
- No access or limited access to cooking appliances, like a stove or a refrigerator. (4)
- Not able to get to a grocery store (like Weis or Giant). (5)
- Not able to get to a convenience store (like McLanahans or Sheetz). (6)
- Other (7) _____

Q9 Which of the following services of the Lion's Pantry have you utilized in the past? Please select all that apply and indicate how many times over the past 6 months you've utilized each service.

- Pre-bagged pick-up at Lion's Pantry. (1)

- Pre-bagged pick-up at Abba Java. (2)

- Pick-up at a Cub's Pantry location. (3)

- Pre-bagged delivery service. (4) _____
- Visiting the Lion's Pantry during open hours to "shop" for food. (5)

- Other (6) _____

Q10 How did you first hear about the Lion's Pantry?

Q11 Please explain any barriers or challenges you have experienced in accessing the Lion's Pantry's food services.

Q12 For these statements, please indicate whether the statement was very frequently, frequently, occasionally, rarely, very rarely, or never true for you **over the last 6 months**.

	Never true (1)	Very rarely (2)	Rarely (3)	Occasionally (4)	Frequently (5)	Very Frequently (6)
I was worried whether my food would run out before I got money to buy more. (1)						
The food that I bought just didn't last, and I didn't have money to get more. (2)						
I couldn't afford to eat balanced meals. (3)						
I used food assistance services to meet my basic need. (4)						
I feel nervous of being judged by others for using the Lion's Pantry. (5)						
I accessed food resources in State College other than the Lion's Pantry. (6)						

Q13 For each statement, please indicate whether you strongly agree, agree, disagree, strongly disagree, or neither agree nor disagree with it.

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I receive high quality food from the Lion's Pantry. (1)					
The Lion's Pantry offers a variety of food options. (2)					
The quality of food I receive in the prepackaged bags is enough for my needs. (3)					
It is easy for me to access the Lion's Pantry's food resources. (4)					
There is a stigma to using the Lion's Pantry among my fellow students. (5)					
The pick-up hours of the Lion's Pantry are convenient for me. (6)					
I enjoy the food I receive from the Lion's Pantry. (7)					
I would be embarrassed if my fellow classmates knew I was using the Lion's Pantry. (8)					
The open hours of the Lion's Pantry are convenient for me. (9)					

Q14 Do you have any suggestions or feedback on how the pantry's services could be improved?
(for example, what food is carried, locations, hours, volunteers, communications, potential resources that would be helpful for you beyond food, etc.)

Q15 Do you have any other comments about the Lion's Pantry or this survey you wish to include?

Q16 Has the coronavirus impacted your food situation, and how?

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[park/#:~:text=The%20largest%20campus%20in%20the,of%20about%2046%2C000%20undergraduate%20students.](https://admissions.psu.edu/pennstate/campuses/university-park/#:~:text=The%20largest%20campus%20in%20the,of%20about%2046%2C000%20undergraduate%20students.)

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doi:10.1017/S1368980018003531

ACADEMIC VITA

Lydia Carey

EDUCATION

The Pennsylvania State University | Schreyer Honors College | May 2021

Bachelor of Science in **Community, Environment, and Development**; *Concentration:*
International Development

Bachelor of Arts in **Global and International Studies**; *Concentration:* Human Rights

Minor: **Spanish**

Universidad Iberoamericana Puebla | Summer 2018 | 9 credits in Spanish language, Mexican Culture & Art History

The University of Auckland | Summer 2019 | Northern Hemisphere Research Scholar | Int'l Business of Modern Slavery

LEADERSHIP EXPERIENCE

Council Chair *Student Sustainability Advisory Council – Penn State* (August 2018 – Current)

- Lead council meetings, guide and mentor members on their proposals, plan final annual meeting presentation.
- Appointed by University President and Sustainability Institute as 1 of 15 students to act as council liaison.
- Research, create, propose and advise strategic policy and program recommendations regarding renewable energy, waste stream management, and community development on campus.

Student Sustainability Coordinator *Penn State Auxiliary and Business Services* (August 2018 – Current)

- Develop, promote, market, and carry out efficient programming and policy focused on reducing food waste, local food systems, waste stream management, and alternative take-out containers.
- Present educational and interactive info sessions on food waste to dining administrators and student groups.
- Collect data for benchmarks, write proposals, plan outreach events, oversee volunteers, market new initiatives.
- Marketing and policy efforts have led to a 50% increase in alternative take-out container use by students and over \$15,000 in back-of-house food cost savings in one semester.
- Co-wrote grant proposal for Pepsi Zero Impact Fund, winning \$10,000 to further reusable programming.

Outreach Director *Penn State Climate Action Movement* (February 2020 – Current)

- Coordinate club and organization outreach, as well as social media communications, for a grassroots movement demanding a commitment to climate action by Penn State senior leadership.

Council Member *Council of Sustainable Leaders – Penn State* (August 2019 – Current)

- Provide sustainability consulting, resources, and support for organizations and student groups across campus.

Eco Rep *Penn State Housing Department* (August 2017 – May 2019)

- Analyzed self-collected data while overseeing sustainable research projects in campus residence halls, attempting to impact real change in recycling data and student perceptions on campus.

Undergraduate Researcher *UNESCO Youth as Researchers* (September 2017 – May 2018)

- Conducted survey research on food insecurity and sustainability habits at Penn State under PhD fellow.

WORK EXPERIENCE

Research Assistant *Penn State Center for Economic and Community Development* (January 2019 – August 2020)

- Assist in the Center's development of work culture, research deliverables, and teambuilding.
- Create research reports, white papers, and infographics for internal and community use.
- Plan and facilitate the Research Roundtable monthly event series, aiming to foster a community of collaboration and discussion for undergraduate researchers.
- Analyze survey data with Excel and community engagement interviews with NVivo to create deliverables within a 5-year USDA project Water 4 Agriculture, a water resources and community practice project.

Faculty Assistant *Distinguished Honors Faculty Program – Schreyer Honors College* (January 2018 – May 2019)

- Coordinated a range of small group events as envisioned by honors faculty to foster discussion.