Capstone Project:
Food Insecurity amongst Immigration-Impacted Youth

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Abstract

Systematic inequalities create material hardship among vulnerable communities further impacting the community's food security and creating everlasting health and academic consequences. Recent studies have outlined the significant impact of food insecurity on college students and immigrant populations. Building on existing work, this capstone looks at the relationship between food insecurity among immigration-impacted students in the University of California (UC) system. Based on a quantitative survey (*N*=1,861) and qualitative interviews (*N*=63) with Latina, Latino, and Latinx undergraduate students who are undocumented, U.S. citizens with undocumented parents, and legal status, we examine the relationship between food insecurity, academic performance, and mental health outcomes. We identified significant findings through multivariate linear regression models and constructivist grounded theory. Our results demonstrate that immigration-impacted students face food insecurity, mental health symptomatology, and academic hardships despite accessing campus resources. These findings point to the need for urgent long-term sustainable federal, state, and university policy changes. Findings also stress the need to examine food insecurity among immigration-impacted students across other institutions which may have fewer resources.

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In 2020, 28.7% of Latinx in California (CA) reported living in poverty (Guzman, 2020; Deloitte et al., 2020). The economic upbringing experienced by Latinx immigrant children impacts their childhood as they become adults and make their way to universities. Such economic hardships may create material hardships. Material hardship is a measure of poverty that includes five dimensions (Gelatt et al., 2019). In our capstone, we will discuss one dimension of food insecurity. According to Coleman-Jensen et al. (2022), food security occurs when individuals have access to enough food for a healthy and nourished life. Food security statistics are often measured using survey data where respondents identify their ability to meet food needs. In the United States (US) Current Population Survey Food Security Supplement data estimated 13.5 million households were food insecure at least once in 2021 (Coleman-Jensen et al., 2022). Moreover, structural inequities like exclusionary policies prevent immigrant households from accessing federal resources (Perreira & Pedroza, 2019; Pineau et al., 2021) further creating stigma, shame, (Distel et al., 2019) and fear when attempting to address food insecurity (Bernstein et al., 2020). Therefore, this may discourage children of immigrants from seeking resources to meet their basic needs as adults. Latinx immigrant households share a similar stigma and shame around mental health support (Mendoza et al., 2015). In a college-campus setting, resources provided to meet basic needs such as food resources and mental health resources, have been developed to support students' needs (El Zein et al., 2018). Given this understanding of Latinx immigrant households, our study has implications for understanding the experience of Latinx immigration-impacted college students and the intersectionality of food insecurity, mental health outcomes, and further academic implications.

The purpose of this mixed-methods study is to understand the experience of food insecurity, its implications for immigrant communities, and the intersections of mental health and academic outcomes for Latinx students. More specifically, how exclusionary immigration policies subject immigration-impacted youth to material hardships such as food insecurity; and how food insecurity is associated with mental health and academic outcomes. Our quantitative analysis aims to examine the differences in food insecurity between students (i.e., undocumented students and U.S. citizen-born students with undocumented parents); the relationship between food insecurity, mental health, and academic outcomes; and if access to resources on campus moderates the relationship between food insecurity and outcomes. Our qualitative study attempted to understand how immigration-impacted youth experience food insecurity in their day-to-day lives and the resources youth access to address food insecurity. We hypothesized that undocumented youth experience higher levels of food insecurity than their U.S. citizen-born counterparts due to their limited economic resources. Finally, this capstone provides institutions of higher education with better insight into how immigration policy profoundly impacts the lived experience of immigration-impacted youth and creates material hardships like food insecurity.

Background

In the United States, 13.5 million households are food insecure (Coleman-Jensen et al., 2022). According to Nourish California & the California Immigrant Policy Center (2022), California, home to 2.3 million undocumented immigrants, 45% of undocumented individuals are impacted by food insecurity. Social safety nets have been created for food-insecure families such as food assistance programs. Lamentably safety net policies carry barriers and exclusions for immigrant and mixed-status households. Systemic inequities have created limited economic opportunities for immigrant families, forcing immigrant households in and out of material hardships (Altman et al., 2020). Food insecurity is a dimension of material hardship that impacts individual well-being. This analysis of literature explores the relationship between food

insecurity, immigrant households, immigration-impacted students in higher education, and social safety net policies. Moreover, social safety net policies that are intended to support food-insecure households are called into question regarding their deleterious effects on mixed-status households.

Defining Food Insecurity

Coleman-Jensen et al. (2022) defined food security as always having access to enough nutritionally adequate and safe food, obtained in a socially acceptable manner without resorting to emergency food, scavenging, or stealing. More specifically, food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods, or the limited or uncertain ability to acquire acceptable foods in socially acceptable ways (Anderson, 1990). Food insecurity scholars have distinguished between low and very low food security where low food security includes those with reduced quality, variability & desired diet (Coleman-Jensen et al., 2022). In contrast, very low food security is experienced when individuals report disrupted eating patterns primarily associated with feelings of hunger which is the uneasy or painful sensation caused by a lack of food (Broton & Goldrick-Rab, 2017; Cook & Frank, 2018). Over 10% of the US population, or 13.5 million households, were food insecure in 2021 (Coleman-Jensen et al., 2022). Among these, 3.8% of food-insecure households were identified as having very low food security, the most severe form of food insecurity (Coleman-Jensen et al., 2022).

Food Insecurity in the United States

Food insecurity disproportionately impacts populations that are already underserved (Cady, 2014; Watson et al., 2017). Populations such as African Americans and Latinx; persons with disabilities; persons who identify as LGBTQIA+; immigrants; and women, particularly single women with children have higher percentages of food insecurity (Cady, 2014; Watson et al., 2017). For example, 18% of Latinx households reported very low food insecurity, this is higher than the national average of 3.8% (Coleman-Jensen et al., 2022). Among households with children, 22.7% of African Americans reported food insecurity followed by Hispanics at 18% and Whites at 7.9% (Coleman-Jensen et al., 2022). Moreover, food insecurity leads to devastating short and long-term outcomes. Health experts have linked food insecurity with poor brain and body development and behavioral problems in children (Huang, J. et al., 2010; RND, 2020). For adults, food insecurity has been associated with poor mental health and poor sleep outcomes (Ding M, et al., 2015). Meanwhile, for seniors food insecurity has been correlated with depression (Laraia, BA et al., 2009). Food insecurity has also been recognized to lead to various health conditions including diabetes, obesity, heart disease, and hypertension (Reaven, G., 1998; HHS; Seligman et al., 2010). Banerjee et al. (2021) examines the public health problem of food insecurity in relationship with mortality. Their study found higher risk factors among food-insecure individuals leading to death. The American Heart Association has also associated food insecurity with cardiovascular disease mortality (Sun et al., 2020). As such, understanding food insecurity requires an in-depth analysis of living conditions for vulnerable communities.

Measuring Food Insecurity: Economic and Material Hardships

Since food insecurity is a household resource constraint it is considered a poverty-related condition (Cook and Frank, 2008). Poverty refers to being limited in income and in a position where the household or individual cannot meet their basic needs (Iceland and Bauman, 2007). Scholars have debated the best way to measure poverty, through economic or material hardship measures. Economic hardship is measured solely by considering the limited income of the household (Bellair et al., 2018). Although studies have shown the relationship between income and food insecurity, many non-poor households are food insecure as well (Gundersen et al.,

2011). Material hardship measures poverty more closely, such as exploring the dimensions of poverty and considering the well-being of the individual experiencing poverty (Iceland & Bauman, 2007). Such dimensions may include trouble paying household rent and bills, food insecurity, and medical bills and support (Gelatt et al., 2019). Nevertheless, income-based poverty measures may not fully illustrate households that may be experiencing a dimension of material hardship, such as food insecurity. This is because income measures cannot fully consider the needs of the unique characteristics of households such as single head of households or even immigration status (Leitz, 2018; Gelatt et al., 2019).

Material Hardship among Immigrant Communities

For immigrant communities, it is essential to explore the household characteristics such as the resources available to the households and state characteristics that may influence food insecurity (Leitz, 2018). Household characteristics may include immigration status, income, and job opportunities (Leitz, 2018). Whereas, state characteristics include state wages (Leitz, 2018), and legal violence (Gelatt et al., 2019). However, studies on migration, legal status, and material hardship are limited (Altman et al., 2020). Nevertheless, studies demonstrate the tremendous impact low wages and job opportunities will have on immigrant communities. Especially since, studies have shown that Mexican immigrants who lack documentation experience a higher risk of violations of labor rights and lower wages (Massey & Gentsch, 2018). Hall et al. (2010) revealed a 17% wage gap between Mexican undocumented men when compared to their documented counterparts. Additionally, a study that analyzed data from the National Agricultural Workers Survey found that undocumented migrants were more likely to experience lower wages when compared to their documented counterparts (Pena, 2010). Furthermore, Bernhardt et al. (2013) studied low-wage workers and found that low-wage labor occupations tend to have more prevalent violations of employment and labor laws. These studies conclude that immigration status predicts low wages (Massey and Gentsch, 2018), thus, risks of economic hardship among immigrant households. Moreover, as immigrant households experience lower wages, social safety nets are essential for the prevention of food insecurity among immigrant households.

Previous research has denoted that immigration eligibility rules excluding undocumented communities from economic opportunities and benefits impact everyone in their family (Enriquez, 2015). Despite the development of social safety net policies and programs to alleviate food-insecure families, its eligibility requirements carry exclusions for immigrant communities. Immigrant households may be excluded from accessing food assistance programs due to legal status (Perreira & Pedroza, 2019). These exclusions not only impact undocumented immigrants but U.S. citizen children with undocumented parents, known as mixed-status families (Guelespe et al., 2023). In 2001, it was estimated that 1 in 10 families with children belong to a mixed-status family (Fix and Zimmerman, 2001). More recently, the number of mixed-status households is estimated at over 22 million (Guelespe et al., 2023). Therefore, U.S. citizen children with undocumented parents share in the risks associated with legal status (Enriquez, 2015). Studies have confirmed that policies indeed impact the long-term health of U.S. citizen children of undocumented parents (Delva et al., 2013; Vargas & Ybarra, 2017). Moreover, as children of mixed-status families enter adulthood they are most likely to have lower wages and higher material hardships (Guelespe et al., 2023). These studies provide evidence of the influence of immigration status on material hardship, and thus, food insecurity.

Barriers to Social Safety Nets

Examining food insecurity as a material hardship also requires an understanding of the federal immigration climate. This is because it varies from inclusionary to outright hostile

towards immigrant communities. Federal efforts to support food programs like Supplemental Nutrition Assistance Program (SNAP) have proven to help low-income families (Center on Budget and Policy Priorities, 2022). Despite the well-known benefits of receiving SNAP its eligibility criteria have excluded many based on their immigration status. In addition to eligibility barriers, an increased and perceived enforcement of anti-immigrant policy and rhetoric curtail economic security for millions of immigrant households nationwide (Miller et al., 2022). This became evident through the decline in enrollment in safety net services, like SNAP, after the 2016 leaked proposal of the broader implementation of public charge (Miller et al., 2022). The Trump administration's proposal aimed to expand the scope and enforcement of public charges. Consequently, leading many immigrant households fear that their future opportunities for citizenship or legal permanent residency could be jeopardized if they accessed public services (Barofsky, 2020).

Immigration-Impacted College Students

Immigration-impacted youth include those who are immigrants themselves or have immigrant parents. Immigration-impacted youth vary in immigration status protections. For immigration-impacted college students, maybe undocumented college students, undocumented students with work authorization, or U.S. citizen children with undocumented parents, also known as students within mixed-status families. For immigration-impacted youth, themselves along with their family members live in a state of "liminal legality" that makes their immigration status ambiguous (Suarez-Orozco, 2011) and critically, their access to resources. Some undocumented college-aged adults, and immigration-impacted youth, have access to the Deferred Action for Childhood Arrivals (DACA) Program. DACA is an administrative protection that provides temporary access to employment authorization and protection from deportation (UC Berkeley, 2022). While DACA beneficiaries are considered unauthorized as they do not hold citizenship, long-term residency visas, or work permits (Suarez-Orozco, 2011), these protections reduce the legal vulnerability experienced by recipients who report better employment opportunities (Pope, 2016), reduced poverty (Amuedo- Dorantes & Antman, 2016), and increased graduation rates (Kuka et al., 2020).

Food Insecurity among immigration-impacted college students

In the University of California (UC) and California State University (CSU) system, undocumented students with no status reported experiencing food insecurity at 66% while those with DACA at 57% (Enriquez et al., 2020). Food insecurity was more prevalent among students of color, first-generation, and students from vulnerable communities (Dubick et al., 2016). According to the University of California, 57% of Latinx college students reported food insecurity compared to only 35% of their white counterparts (University of California, Office of the President, 2020). Although food insecurity is more prevalent among undergraduate students, graduate students also report high rates. For example, 39% of graduate Latinx students reported food insecurity, whereas only 23% of White students reported experiencing food insecurity (University of California, Office of the President, 2020). For immigration-impacted youth, this sheds light on the many challenges they face.

Consequences of food insecurity among immigration-impacted college students

Food insecurity is consequential to immigration-impacted college students' well-being. According to the World Health Organization (2022), mental health is a state of mental well-being that enables people to cope with stressors or life, realize their abilities, learn well and work well, and contribute to their community. As noted by Marmolejo and colleagues (2022), college students' mental health experience is diminished significantly through the experience of food

insecurity. Food insecure college students are more likely to self-report poorer physical and mental health outcomes such as low caloric intake, lower energy levels, depressive symptoms, irregular sleep patterns, and even suicidal ideation (Watson et al., 2017; Martinez et al., 2020; Payne-Sturges et al., 2018; Goldrick-Rab et al., 2017; Pryor et al., 2016; Becerra &Becerra, 2020). As found by Martinez et al. (2018), up to 83% of students experiencing food insecurity express poorer mental health, as indicated by higher rates of hopelessness, loneliness, overwhelm, and physical exhaustion, among other mental health indicators, compared to their food-secure counterparts. Among undocumented students in the UC and CSU systems, food insecurity was associated with increased symptoms of psychological distress and anxiety, and students' social support did not buffer the effects of food insecurity on their mental health outcomes (Valarde Pierce et al., 2021).

In addition to mental health, college students who experience food insecurity are at risk of poorer academic performance (Camelo et al., 2019). van Woerden et al. (2018) indicate that 41% of students who reported low or very low food security also reported lower Grade Point Average (GPA). Food-insecure undocumented UC and CSU students reported more missed assignments, attended class unprepared or skipped class more frequently (Valadez et al., 2021). Similarly, Mechler and colleagues found that food-insecure students fail classes and drop out at higher rates than their food-secure counterparts (2021). Summarizing statistics also requires an understanding of what is leading students to such academic hardship. Watson et al. (2017) explain that food-insecure students worry about their next meal, absence of energy, and lack of ability to focus on their academics. Moreover, van Woerden et al. (2018) found that if food-insecure students have food stability their GPA would increase by 13%. As such, the food insecure experience impacts the well-being, academic, social, and mental health outcomes (Duran & Nunez, 2021).

Barriers to Resources

College students from underrepresented backgrounds may hesitate to seek help due to fear of stigma and shame (Mechler et al., 2021; Cady 2014). Food insecurity-related stigma is experiencing a feeling of embarrassment or judgment detrimental to a person's self-esteem due to one's perception of being unable to provide for themselves, which also negatively impacts physical and psycho-social health which results in a feeling of compromised social standing and social alienation (Pineau et al., 2021). The culture of stigma, accessibility, and misinformation regarding food services like pantries and SNAP keep many students from directly accessing services. Although 70% of students experiencing food insecurity are aware of food pantries on campus, only 38% indicated actively accessing them (El Zein et al., 2018). Furthermore, for eligible immigration-impacted youth on college campuses, this led to fear and discouragement in applying for safety net services (Anderson, 2019). Many members of mixed-status households report not accessing public service programs such as Women, Infants, and Children (WIC) as they fear the long-term consequences if they are deemed a public charge which would prevent them from adjusting their status (Vargas & Pirog, 2016). These barriers are compounded for immigration-impacted youth who may be systematically excluded from receiving resources due to their status or their family members' precarious status.

In the U.S., immigration can seem like a patchwork of policies as it is no longer the sole domain of the federal government but that of individual states as well (Ramakrishnan & Colbern, 2015). Despite the nuances among state policies, immigrant advocates in California have worked towards developing a progressive and inclusionist state. For immigration-impacted college students, this has meant being eligible to further their education and pursue a career. This work

has led to the development of policies that provide avenues for professional state licenses through State Bill (SB) 1159 and guarantee undocumented students in-state tuition at California's public colleges and universities through Assembly Bill (AB) 540 (Oliverez, 2005; Ramakrishnan & Colbern, 2015). SB-1159 and AB-540 have not only served as a foundation to increase access to higher education among undocumented students but have also provided immigration-impacted students with initial resource accessibility within college and university settings (Oliverez, 2006). As students navigate the resource-rich higher education institutions, immigration-impacted youth must also maneuver various obstacles within their education journey. For immigration-impacted students, this means living within systematic inequalities that have developed spill-over effects affecting their academic experience, along with their well-being (Museus et al., 2015).

Purpose of the Study

The present study is focused on food insecurity among immigration-impacted students. We draw on the socio-ecological framework and material hardship literature to guide the study. According to the socio-ecological framework, the macro environment such as immigration policy and related systemic practices that exclude immigrants will have indirect and direct effects on the well-being of youth (Ayón et al., 2022, Suarez-Orosco, 2011). The ecological framework helps bring light to not only the development outcomes for children of immigrant households but how economic hardships manifest because of these systems. For instance, exclusionary federal immigration policy limits the economic opportunities for immigrants with consequences for their families. Undocumented immigrants experience low wages, workplace exploitation, and limited economic mobility due to limited upward mobility in jobs (Ayón et al., 2013; Bacallao & Smokowski, 2013). These employment constraints have economic consequences such that 40% of immigrant households in California fall below the federal poverty threshold (Nourish California & California Immigration Policy Center, 2022). Furthermore, these economic constraints subject immigrant households to material hardship including food insecurity (Gelatt et al., 2019). At the same time, undocumented and mixed-status families are excluded from accessing safety net resources (Altman et al., 2020) minimizing options for economic reprieve. Despite the relatively supportive socio-ecological environment in the California educational system which provides greater access to higher education, in-state tuition rates, and financial aid (Ayón et al., 2022) immigration-impacted youth, face barriers and restrictions from access to safety net services and jobs that would otherwise improve their economic conditions (Atlman et al., 2020). It becomes imperative to understand that immigration-impacted youth often live on the margins with limited protections and resources.

Methods

Data and Procedures

This capstone draws on the original survey and interview data collected by UCProMISE, a larger mixed-methods study designed to inform equitable policies for undocumented and immigration-impacted youth across the University of California (UC) system. The UC system holds various state and national highest-ranking universities that educate 12.5% of California’s top high school students (Craig, 2023; UC Office of the President, 2007).

The cross-sectional quantitative data was collected between May to June 2020. Participants include 2,742 enrolled UC undergraduate students from the nine UC campuses who were at least 18 years of age and had at least one undocumented parent. Students were invited to participate through emails and social media posts from their campus' undocumented student support service office, staff and faculty teaching large general education and ethnic studies

courses, undocumented organizations, and university office newsletters. Participants that engaged in the study received a $10 electronic gift card. The survey encompassed questions on academic performance, health and well-being, resource use, self and family demographics, and educational experience.

The qualitative data were collected from July to September 2021. Sixty-three semi-structured interviews were conducted for the original study. The sample was selected based on the following criteria: (1) self-identified as Latino (2) living in the country without permanent legal status or being a U.S.-born citizen with at least one undocumented parent (3) enrolled as at least a third-year or higher at a UC campus during the 2020-2021 academic year. One faculty member and five research assistants conducted one-1.5 hour of interviews in English through the Zoom platform. All participants provided verbal consent to the interview and received a $40 gift card upon completion of the interview. All research activities were approved by the UC, Irvine Institutional Review Board.

Survey Sample

For this study, we focused the sample on students who self-identified as Latina, Latino, or Latinx and who were either undocumented (*n*=592), U.S. citizens with at least one undocumented parent (*n*=634), and U.S. citizen students with legal permanent residency (LPR) parents (*n*=635). Undocumented students included those with no current immigration status (*n*=155), Deferred Action for Childhood Arrivals (DACA) recipients (*n*=428), temporary protected status (TPS) recipients (*n*=1), and those with U-Visas (*n*=8). For missing values, we used listwise deletion to preserve respondents with non-missing values, leaving us with an analytic sample of 1,861.

Interview Sample

Of the sixty-three participants, only thirty-three met the criteria for this study. Participants must have discussed food insecurity within their interviews, even if not asked directly about food insecurity. All participants self-identified as Latina, Latino, or Latinx. Participants included undocumented students with undocumented parents (*n* = 7), DACA recipients with undocumented parents (*n* = 12), and the remaining students are U.S.-born citizens with at least one undocumented parent (*n* = 14). The majority of participants self-identified as 4th year and older university enrollees. A majority of participants self-identified as female (*n* = 21). Participants' average age was between twenty to twenty-four years old.

Survey Measures

Dependent variables

The dependent variables include two measures of mental health and one measure of academic achievement. Two standardized measures were used to assess mental health. The Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder (GAD-7) ask respondents to indicate how often they have been bothered by various problems over the past two weeks. PHQ and GAD questions were measured by their frequency over the past two weeks including “several days”, “more than half the days” and “nearly every day. Responses for PHQ were then summed across all scale items, resulting in a severity measure of depression score that ranged from 0 to 27 (Kroenke et al., 2001; α=0.89). Questions on the PHQ-9 assess tiredness, appetite, intrusive thoughts, difficulty concentrating, feelings of hopelessness, and lack of interest. Responses for GAD were summed across all scale items, resulting in a severity measure of anxiety score that ranged from 0 to 21. Questions on the GAD assess feelings of nervousness, worrisomeness, restlessness, fear, and difficulty relaxing (Spitzer et al., 2006; α=0.92). Higher scores on the PHQ-9 and GAD as indicative of more mental health symptomatology.

We measured *academic achievement* using the student's GPA. Respondents were asked to select their overall GPA. Responses ranged from 0.0 to 4.0. A higher GPA is indicative of positive academic performance.

Independent variables

The predictor variable was food insecurity. Food insecurity was measured using the 5-item U.S. Household Food Security Survey Module which asks respondents about food affordability and the food in their home within the last year. Participants were asked to rate how often the 5 statements were true using a scale of 0 to 3 (USDA Economic Research Service, 2012). Responses were then summed and categorized into two categories including those with high or marginal food security and those with low or very low food security. These values were labeled as food security (0) and food insecurity (1).

Moderators

Two moderators were examined. The first moderator variable was immigration status which is based on self and parental immigration status. The moderator was coded into three categories including undocumented students (e.g., no legal status, DACA, or another liminal legal status), U.S. citizen students with at least one undocumented parent, and legal family status with U.S. citizen students and parent is a lawfully permanent resident (referent group). The second moderator variable was the use of food pantry campus resources. Respondents rated the frequency of the use of campus services in the academic year. The responses ranged from "never", "a few times a year", "about once a week", "more than once a week", and "I don't think this exists on my campus". The variable was re-coded to reflect "yes" (1) if the participant ever used the resources and "no" (0) if they never used the resource or if they indicated that "it didn't exist on their campus."

Covariates

We included covariates to control for other variables known to be associated with the outcomes such as age (continuous), and gender (women, queer/non-binary, and men as reference group). We also included students' feelings about their university campus. The campus sense of belonging scale examined students' on-campus participation, university climate, and campus feelings. Scores could range from 1- 4 and higher scores were suggestive of a positive welcoming environment towards immigrants on campus (α=88). Family economic hardship was included as a control variable to account for financial hardships faced by students' families. Family economic hardship was based on two items that address their family's difficulty in accessing food and other basic things. Higher scores on the family economic hardship scale were indicative of family economic insecurity (α=.88).

Quantitative Data Analysis

We first ran univariate descriptives to help us understand the difference in food insecurity among undocumented and mixed-status students. Next, we ran multivariate linear regression models for each outcome variable. We ran sequential models where we included (1) control variables, (2) predictor of interest, food insecurity, and immigration status (3) interaction terms for moderators. All analyses were conducted using SPSS statistical software.

Qualitative Data Analysis

The qualitative analysis was guided by two research questions: how do immigration-impacted youth experience food insecurity in their day-to-day lives? and what strategies or resources do students rely on or access to address food insecurity? Transcripts were managed using HyperRESEARCH, a qualitative-data-analysis software. The analysis was informed by constructivist grounded theory methods (Charmaz, 2006). Index coding was first

completed to identify all content in the initial sixty-three transcripts related to food insecurity. Transcripts were then narrowed down to thirty-three (52%). The following interview questions were the most relevant to the topic of food insecurity: "Being undocumented can come with a lot of financial challenges. Have you found this to be true for you and your family?" "Can you give some examples of financial challenges you have faced?" "Are there any campus resources that might help you manage financial challenges?" "What effect, if any, have these resources had on your academic or mental health?" Additional questions probed the access to food resources on a given campus.

The analysis was completed by three coders. Each transcript was assessed by at least two authors. A comparative approach was used between and within transcripts while completing initial, focused, and axial coding (Charmaz, 2006). All codes were consulted and reviewed with the lead advisor on the project. Initial and focused codes were merged to identify themes. The themes were consistent across the two groups (i.e., undocumented students and U.S. citizen students with undocumented parents). To support the trustworthiness of the study authors regularly meet to discuss the analysis process and debriefed findings. Pseudonyms were used for each participant.

Quantitative Results

The capstone is focused on students who self-identified as Latina, Latino, or Latinx. Table 1 provides a breakdown of the descriptive statistics from the sample (*n*=1,861). Within our sample 31.8% (*n*=592) were undocumented students, 34.1% (*n*=634) were U.S. citizen students with at least one undocumented parent, and 34.1% (*n*=635) were U.S. citizen students with parents who were lawful permanent residents. The average age of participants was 20.64 years old (SD=2.336, Range= 18-40). Of the 1,861 participants, 74.6% (*n*=441) self-identified as females, and 2% (*n*=37) identified as queer, or nonbinary. Participants were in their first year (22%, *n*=409), second year (18.1%, *n*=336), third year (28.2%, *n*=524), or fourth year or higher (26.1%, *n*=485). The students were recruited from nine UCs but the following three campuses had the largest share of participants in the study: UC Riverside (19%, *n*=353), UC Irvine (16.4%, *n*=305), and UC Los Angeles (12.3%, *n*=229).

Table 2 provides a breakdown of the descriptives for predictor, outcomes, and moderator variables. Over half of the participants (57.9%, *n*=1102) reported experiencing food insecurity. Nearly two-thirds of undocumented students and 60% of U.S. citizen students with undocumented parents were food insecure. Food insecurity was also high among U.S. citizen students with parents who are lawful permanent residents (57.9%, *n*=364). The mean average score on the PHQ-6 was higher among U.S. citizen students with an undocumented parent (M=10.62, SD = 6.61), followed by undocumented students (*M*=10.52, *SD* = 6.59) and U.S. citizen students with parents with lawful permanent status (M=9.78, SD =6.25). GAD means were higher for U.S. citizen students with an undocumented parent (M= 9.27, SD= 5.94), then undocumented students (M =9.25, SD =5.93) and U.S. citizen students with parents with lawful permanent status (M = 8.66, SD =5.75). Similarly for academic achievement, undocumented students (60.8%, *n*=360) and mixed-status family students (60.3%, *n*=379) reported a lower percentage of GPAs higher than 3.0 in comparison to U.S. citizen students with parents with lawful permanent status (68.9%, *n*=435). For access to food pantry resources, nearly 70% of undocumented students reported using this service (66.9%, *n*=395), followed by U.S. Citizen students with undocumented parents (60.9%, *n*=384) and U.S. Citizen students with parents who are lawfully present (52.3%, *n*=331).

Table 3 shows the results of our multivariate linear regression models for mental health outcomes. As hypothesized, food insecurity is associated with increased depression and anxiety symptomatology. The findings were similar for both psychological distress and anxiety. Model one, which included the control variables, indicated that women and non-binary participants reported higher levels of mental health symptoms in comparison to men. Sense of belonging on campus was associated with fewer mental health symptoms while participants who reported family economic hardship reported higher levels of mental health symptoms. Model two, added the predictor of interest, food insecurity, moderators, immigration status, and use of food pantry resources. The predictor of interest, food insecurity, was associated with higher levels of mental health symptoms. For every point increase in the food insecurity scale, depression increased by .218 meanwhile anxiety by .175. Additionally, the use of food pantry campus resources was associated with a decline in mental health symptoms (PHQ:-.061 and GAD:-.053). Immigration status was not statistically associated with mental health outcomes; that is, no differences between the groups were observed. We also ran the analysis with interaction terms to assess the relationship between food insecurity*immigration status and mental health, we did not find a significant coefficient. Similarly, we found no statistical significance in the interaction term between food pantry resource*immigration status on mental health. That is, the use of food pantry resources did not buffer the effects of food insecurity on mental health.

Table 4 provides the results of our multivariate linear regression model for academic achievement. Consistent with our hypothesis there is a negative association between food insecurity and academic achievement; that is, students who report being food insecure reported a decline in their GPA. Model one which added the control variables revealed that none of the control variables were statistically associated with GPA. In model 2 we added the predictors of interest. The predictor variable, food insecurity, is associated with lower academic GPA. For every point increase in the food insecurity scale, academic GPA decreased by -.134. Immigration status was also significant, with undocumented and U.S. citizen students with an undocumented parent reporting lower GPAs compared to the U.S. citizen students with parents with lawful permanent status. Similar to the mental health analysis, the use of food pantry campus resources was associated with an increase in academic GPA (0.058). Additionally, we found no support for an interaction effect; that is, no statistical difference in the relationship between food insecurity on academic achievement by the immigration status of Latina, Latino, and Latinx students or the use of food pantry resources.

In summary, being food insecure was associated with higher levels of psychological distress, anxiety, and a decline in academic achievement. Immigration status did not have a main effect on mental health symptoms, but it did have a main effect on academic achievement with undocumented and U.S. citizen students reporting lower GPAs compared to U.S. citizen students with parents who are lawfully present residents. Immigration status and use of food pantry resources were not statistically significant moderators in the relationship between food insecurity and mental health outcomes or academic achievement.

Qualitative Results

Our analysis revealed that food insecurity is not a brief or single-episode experience for Latinx immigration-impacted youth; rather the opposite, it is a repeated and constant experience throughout their lives. Immigration-impacted students, whether undocumented or members of mixed-status families face structural inequities due to their and/or their parents' precarious status that heighten their experience of economic and material hardships such as food insecurity. Consequently, students are exposed to food insecurity early in their lives and it follows them into

their adulthoods and as they transition to the university context. For many, the issue has been normalized in their basic needs tradeoffs, often leaving food out of the equation, which was a normal part of their lives. We find that students use a range of survival strategies to navigate their experience of food insecurity. Many survival strategies stem from economic insecurity in the household during childhood and evolve as they transition to university. The findings between undocumented students and U.S. citizen students with undocumented parents are very similar in many ways, with minor exceptions that will be identified in each section.

Food Insecurity Pipeline

We use the term, food insecurity pipeline, to refer to the experience of food insecurity that begins in students' childhood households and follows youth to their college campuses. At the root, are the systemic inequities that have created economic hardship for immigration-impacted families, where they normalize basic needs tradeoffs throughout their lives such as going without food. Leticia Tazoc's, an undocumented student with DACA, narrative illustrates the origins of the food insecurity pipeline. Throughout the interview, Leticia describes how food insecurity is not a new phenomenon as she has experienced material hardships constantly and recurrently throughout her life.

> ...I knew my mom had to feed my sisters… She wouldn't have a lot of breast milk, so I would count pennies and I would take it to Jack in the Box… I remember I got so happy that I was able to afford two tacos. And so I gave it to my mom because I knew she had to breastfeed my sister, and that was the only thing that I could afford. So I remember I wanted to eat those tacos, but I couldn't because they had to go to my mom. And so I lied to my mom saying that "Oh, I'm not hungry, I already ate." And I would do that a lot because she had to eat. …I would go days without eating food.

Leticia's parents are undocumented limiting the family household's financial opportunities and resulting in material hardships including food insecurity. As a child, she had to grow up quickly as she began to understand the desperate financial circumstances her family faced due to their precarious immigration status. Leticia, now twenty-one years old, has work authorization through Deferred Action for Childhood Arrivals (DACA). Although she has work authorization, she worries constantly about making enough money for necessities for her family and herself. She works multiple jobs, and is extremely cautious of her spending, yet regularly experiences food insecurity. Students reflect that the economic and material hardships their families faced during their childhood continue into their adulthood. For example, Leo Garcia, a U.S. citizen with undocumented parents, reflects on his childhood when his family faced economic hardships.

> When the recession hit…we had no income and we started having to sell most of our personal belongings…And initially, it was more of an issue of "Can we afford food, given that we have to pay the rent and power and water?" And we started taking even more seriously having to, Okay, we're not going to take showers this whole week. That's to the extent that we got, and it [went on while I was] in second and third grade, that we ended up living in our truck just to save money.

Leo's experience demonstrates the basic needs tradeoff that immigration-impacted families engage in to make ends meet. Other students reflect on the limited meals their families had due to economic hardships. For example, Santos Castro, a U.S. citizen with undocumented parents, shares the time his mom made tortillas with oil, salt, and chili as…toppings for a dinner plate.

> There was this one time my mom made tortillas with aceite [oil], and then she'll put chile on it or salt because we didn't have any more food. This is the US. This is not Mexico.

> …we didn't have food stamps or we didn't have money. We would just pay rent. But my mom improvised and she made tortillas and we ate. That's always a harsh memory that I have.

Experiences of economic and material hardship continue into their adulthood. As adults, they limit their financial requests from their family households, even as they experience hunger. For many their financial aid was not enough to make ends meet. Many times, the youth expressed feelings of being a burden on the household if financial requests were made. Edwin Gordillo, an undocumented student, shares how his family's economic uncertainties affected how he navigated food insecurity once he transitioned to the university.

> I would have to go to the [campus food] pantry and get food from there to make sure I was okay because I know my folks didn't have the budget to be able to support me like that, so I didn't want to be a burden on them, so I would just seek different resources for myself. And basically, that's how I managed this whole time while I was up in [UC] Santa Cruz.

Edwin, undocumented students, and U.S. citizen students with undocumented parents alike describe their household financial situation in a similar experience where the material hardship is felt since childhood and affects how they request support in adulthood. By understanding the root of food insecurity among this population, we can reflect on how it is fully experienced.

Normalizing Food Insecurity

Youth normalize the experience of food insecurity by minimizing or disregarding food insecurity as a serious issue. Throughout the interviews, youth describe how they engage in basic needs tradeoffs such as limiting food intake to pay for other necessities. As they share their perspective of their day-to-day lives, they genuinely believe these are normal practices that everyone experiences.

Leticia Tazoc, an undocumented student with DACA, illustrates how she survived hunger on campus, "this $5 should be there for this whole week… I do remember that's how it happened, like three times, I [would] only have $5 for the whole week, and I managed to survive." Leticia's experience highlights how her financial situation forced her to normalize her food choices being restricted to $5/week. Sylvia Molina Santoya, an undocumented student with DACA, shares how food choices were limited based on remaining funds after she paid for rent. Similar to Leticia, Sylvia normalized food as a limited resource only if income allowed. She expresses, "If there were circumstances where I needed food. I wasn't working at the time, by the way. I was just going to school and getting financial aid, which luckily covered my rent. Sometimes, I had an extra $20, $40 left over, which I would use for food." In this way, Sylvia has forcibly normalized food insecurity by prioritizing her housing and education expenses and seeing her nourishment as a luxury.

For other students, normalizing food insecurity meant they restricted their food intake, or they did not recognize the issue as a problem. For Ryan Zepeda, an undocumented student, his food choices included strategically planning to have enough portions for the next day. "So it's like a daily thing, it's sort of like you have to watch yourself every day. Even with the food I would have to watch how much I would eat of my meal to be like, 'Okay, I have enough for tomorrow.'" In this way, Ryan normalizes the constant pattern of limited food choices. Other students normalize food insecurity by denying food insecurity was present in their lives. Fernando Medina, a U.S. citizen with undocumented parents, initially responded that his family did not experience food or housing insecurities, but as the interview continued, he reflected that during financially difficult times, "Yeah, I mean, for a while it was just rice and beans. Given

that, my dad goes in and out of jobs." Belen Mesa, an undocumented student with DACA, illustrates another way that food insecurity is minimized. Her household relies on food banks and affordable food grocery options to meet their needs. Yet, the household denies food insecurity even as they have become food resource dependent due to limited income. She shares, "We don't have food insecurities. My mom does a good job of finding deals at the grocery stores or going to food banks and getting food there." From these stories, it becomes evident that students normalize food insecurity as an experience they must journey through. Some normalize the insecurity by not recognizing it as an issue, others as making basic needs trade-offs or limiting their food intake has become a daily part of their lives.

Food Insecurity and Survival Strategies

We gained a nuanced understanding of students' experience of food insecurity as they shared multiple strategies used to navigate food insecurity. Earlier, Leticia Tzoc, an undocumented student with DACA, was introduced to demonstrate the food insecurity pipeline and illustrate the steps she took to protect her family. Since immigration-impacted youth have experienced repeated episodes of food insecurity throughout their lives they develop survival strategies that they can transition or adapt once on their college campus. We believe these strategies make these students resilient. We highlight examples of individual survival strategies and resources used to navigate food insecurity.

Individual Survival Strategies

Financial hypervigilance

Hypervigilance is the "state of constantly assessing potential threats around you" (American Psychiatric Association, 2013). In the case of immigration-impacted youth, we refer to financial hypervigilance as the state of constantly assessing financial decisions to survive and meet their food intake needs. This can be seen through forms of strict budgeting or even rationing food to offset financial demands. Nevertheless, hypervigilance is a strategy that occurs consciously and subconsciously and can be an emotionally debilitating coping mechanism (Richards et al., 2014). For the youth, this coping mechanism consequently affects their well-being.

Ryan Zepeda, an undocumented student, discussed how he would routinely budget his expenses, yet his financial resources often fell short leaving him with the difficult decision to deprioritize food. Although he knew resources such as an on-campus pantry existed, he had classes during the pantry's open hours. Instead, he would go home after class and go to sleep early to avoid his hunger.

> I had a budget set out. I got good at budgeting myself for every month, but then that became a daily because I knew that if I had already exceeded or had already met, in all my budget for that week it would turn bad though because then I would not have food. Sometimes I wouldn't go to the Fresh [pantry] because I had classes during that time. And then those times I would go to bed early just because I wasn't going to have dinner that night or probably just went home and took naps just because of hunger stuff. That was… [usually] going towards the end of the month. But that's the strictness that I had to really constrict myself to get through every single month.

Students, like Ryan, discuss the economic restrictions they were forced to adjust to. Diana Mora, a U.S. citizen student with undocumented parents, can work and have income; however, because her family has experienced financial challenges, she now anticipates that financial challenges will occur and she has taken on more financial responsibilities in her family's household. She shared, "I am older now and I can work. I did work during the summer, so it's not as bad. But

there are always worries; am I spending too much? What do I have to allocate for the rent here or for food or things we need?" She anticipates the loss of income and is hypervigilant about her spending. Similarly, Lucia Ortega, an undocumented student with DACA, shares how sticking to her budget often had consequences for her social interactions as she would limit spending time with friends when it meant having an additional cost that she had not accounted for in her budget. She shared, "I just feel like it's unfortunate because people will ask to hang out, go out to eat…or go do something that costs money and I can't do that kind of stuff …everything is towards food and rent."

Other students described how they restricted their options to the most affordable food options as a means of stretching their limited funds. Ruben Huerta-Diaz, a U.S. citizen with undocumented parents, shares his experience of staying vigilant of his budget. "We're talking about cheap food, Top Ramen, fast food, super unhealthy, but affordable options." In this similar light, Sylvia Molina Santoyo, an undocumented student with DACA, shares, "I had to consider different brands for some products, just look for cheaper items…, go to the store, and find the cheapest thing I could. That was technically my whole college experience." We can see that food insecurity is not a single episode, but rather students faced this adversity throughout their college experience. While students reconsider their financial choices to survive, they continue to normalize the experience of food insecurity. For example, Rocio Carillo, an undocumented student with DACA, shares, "I didn't even know if it was food insecurity until I went to college…I had to really rationalize my meal swipe and rationalize my budget closely to buy groceries." Students are resilient, they find ways to restrict themselves and learn how to make ends meet. Although students have survived these experiences, it is not a humane way to live.

Food opportunity hypervigilance

We refer to food opportunity hypervigilance as the state of constantly assessing opportunities for obtaining food to survive. Pilar Bautista, an undocumented student with DACA, shares how the center tailored for undocumented immigrant students on campus shared with her the events that provided food. "They had a place for free food where you could come and get free food. They had weekly meetings where you could just come in." This experience was felt similarly for Mateo Olivares Galvan, an undocumented student with DACA, who shares how he would stay vigilant about opportunities to access food. "I would go to a lot of events where there was free food, if they just had free food, I would go to them. I'll just go because there's free food." The student's stories bring to light their resiliency, but also, their hypervigilance around places and events that will provide food on campus. This strategy was not shared by U.S. citizen students with undocumented parents in this sample.

Seeking additional income opportunities

Students find unique streams of income to survive food insecurity. We can see the differences between U.S. citizen students who have legal work status compared to students who do not have legal work status. Madeline Salinas, a U.S. citizen, would pick up additional shifts to make sufficient income for food expenses. "Well, I can just take a couple more shifts" or … I'll just eat sandwiches straight for this week. But I had food. So I think it just felt improper to use [resources]." Whereas undocumented students find creative forms of making income such as entrepreneurial efforts. In this case, Mateo Olivares Galvas, an undocumented student with DACA, shares how he would take pictures for students for additional income. "I did an event on campus and I was like, 'Hey everybody, I'm doing headshots.' … Then after that, I put up a website… that money helped me pay for my textbooks, helped me pay for everything, for food and stuff." Although immigration-impacted students have different ways of making money, it

shows their resilience when faced with food insecurity. Both groups of students find ways to survive through unique forms of income.

Resources on Campus

Universities are aware of food insecurity on their campuses; many campuses have created Basic Needs and Emergency support teams. Unfortunately, students may not always know about all the resources available to them. Among our qualitative interviews, students mention that oftentimes they became aware of resources or opportunities on campus through offices tailored towards assisting immigrant students on campus, such as the Undocumented Student Programs at UC Riverside. For example, Emilia Negrete Romero, an undocumented student, shares how she lives off campus and used community support services for food. However, she was supported by UC Riverside staff to find external support. "Through the Director of Undocumented Student Programs, I found out about food pantries in general…I found one near me." Through this strong network, she was able to connect to external off-campus resources. Unfortunately, there is no standardized way of providing resources on each of the UC campuses. Therefore, students' main way of finding resources is by referral from on-campus staff to resources on or off campus. In the following sections, we outline some of the remedying campus resources that have served students for short-term relief.

Pantries

Most of the UC campuses provide food pantries. The pantries may provide fresh food like fruits and vegetables, but most of the time, they provide non-perishable foods. Students reflect on their experience using these resources to reduce food insecurity. Bianca, Madeline, and Maricela share how they used their campus pantries multiple times in the last year.

> *Bianca Mercado (*an undocumented student with DACA*):* My paychecks were barely enough to buy groceries. And so being able to get free groceries from campus was a huge deal for me. You know, being able to get eggs and milk for free was just crazy.
>
> *Madeline Salinas (U.S. Citizen with undocumented parents:* There were a lot of resources that I knew. There was a food pantry which gave out free food. I had a friend who worked there,...she was part of the Chicano student programs and she would always advertise, 'Hey, anybody who has food insecurity, you get this amount of food a week.' It was nice. I would just go get Cheerios, pasta boxes, and things like that. That always really helped.
>
> *Maricela Paredes (U.S. citizen student with undocumented parents):* UC Davis also has a food pantry that would distribute food every week… but the only thing I would take from there was fruits because I have to eat gluten-free. So a lot of the things that they had, I couldn't even have…save me money.

Although these resources are effective in supporting students, Maricela shows that they may not be enough when you consider the health restrictions for some students. Pantries are a great start for supporting food-insecure students, but they are not the end-all-be-all solution. Maricela, like other students, struggles with health conditions that limit their food options. Additionally, we have noted other issues that prevent students from accessing the pantries. Students like Ryan Zepeda mention that at times he could not access the pantry due to his schedule conflict. He had classes at the time the pantry was open and could not access the resource. A college student's priority is their academic success, but as they struggle with feelings of hunger this will affect their day-to-day lives.

UC garden

Some campuses have created gardens to produce fresh fruits and vegetables at no extra cost for their students. Madeline Salinas, a U.S. citizen student, shares how UC Riverside has a

garden that provides fresh produce at zero cost. “I think that was a great resource. I mean, it helped me.” Other campuses partner with community gardens and provide free vouchers for their students. This way, the student can take advantage of gardens nearby. Arely Barajas, an undocumented student, shared “I don't know if you've heard of the Tanaka farms vouchers. So that helps a lot.” The gardens allow students to have fresh fruits and vegetables that pantries may not provide.

Cash or gift card assistance

Emergency grants are another mechanism used to support students. Nicole Robles, an undocumented student, shares how the center tailored to undocumented students on campus assisted her with emergency grants:

> So if it was, let's say, I needed money for rent or food, there's an emergency grant that students can take at our undocumented center up to $500 for basic needs. So food and things like that, which I have taken advantage of in the last few years.

Emergency grants are a very unique form of assistance because they provide direct cash to students. As we have highlighted, students are wise with their money and will use that emergency assistance in their best interests. Grocery gift cards are key to campuses addressing food insecurity because they give students more flexibility in meeting their nutritional needs. These cards are a direct form of cash similar to a debit card. Additionally, these cards can be taken back to their households for support. For example, Catalina Paz Flores, an undocumented student with DACA, shares her experience obtaining gift cards from campus programs. These gift cards allowed her to purchase groceries on her schedule.

> Undocumented Student Program, they just started this program. I think it's just a pilot program to see how it goes…they chose 30 students, and 30 undocumented students to give them two $200 grocery cards for food, so $400 for the summer. And that's so helpful, right there, that's perfect.

Through connecting with their undocumented support centers, students find these creative ways of meeting their needs. Aiden Chacon, an undocumented student with DACA, shares how his legal status prevents him from accessing federally funded services which directed him towards seeking support on campus.

> I feel like something I missed out on because of… status as CalFresh. I feel like that is something huge that my mom and I could have benefited from, but our UndocuCenter made their program where you apply monthly and they give you a $50 to $100 gift card for grocery stores. So, in a way, they made up for that.

Additionally, when a student can support their households with resources such as food it alleviates food insecurity for more than one person. This can best be illustrated by sharing how Nicole Robles, an undocumented student, obtains resources from on-campus and shares them with their households.

> The most common ones [grocery vouchers] that they [Undocumented center on campus] do is Albertans or Save Mart. So the franchise, so students can receive up to 500 per quarter and I have taken advantage of those. And also living at home, I feel like having that support kind of eases my parent's support of just providing everyone with food. So I can support them in that way because I received grocery vouchers. That way we don't have to spend as much money on groceries and that can go to other things such as rent or any emergencies that come up.

Grocery gift cards, like emergency grants, are a great way to put extra income into students' pockets while giving them the autonomy they deserve. All campus resources are essential for

filling the gap in student food insecurity. However, it is even more important to recognize that on top of individual survival strategies and on-campus resources, students may gravitate towards larger communal strategies to support their needs. Although not all students have an external support system, those that do have greater success in addressing their food insecurity.

Family and Communal Resources

Students engaged with resources off-campus when on-campus results were limited or fell short of their needs. Examples included family households providing food for students, community food pantries, and federal resources like food stamps.

Family support system

Through external support, we differentiate students who lean on their family households for food. Students may not be supported financially by their households, but some relied on their household for food if needed. For example, Nicole Robles an undocumented student, stated “I haven't had many needs for financial aid or just any support since I am living with my parents and I don't need to pay out of pocket for rent or groceries.” In a similar case, Aimee Banuelos, a U.S. citizen student shares the financial insecurities in her household but depends on her parents for food. “It's not like they [Parents] could cover a year's worth of tuition or even a month, but because of them sometimes I'm able to eat because they're the ones who can provide at least that, like food.” In these examples, we highlight the importance of family support for college students. Although families may not have the financial means to extensively support their children with tuition or other school-related costs, they can provide the food that they need to relieve food insecurity throughout their academic careers.

Community food pantry

In a similar way to campus food pantries, community food pantries support students who live off-campus or students who do not have access to a food pantry on campus. For example, for Penelope Mejia, an undocumented student, using community-based food pantries is a normal practice to meet her food insecurity needs. Additionally, this resource is expanded to the household. She shares, “I don't think there's a year where I don't remember my mom not going to pantries and donation places, or churches to get food.” Penelope also shares how food pantries offered by local churches have been an accessible resource for food. This resource outside of campus has supported the student throughout her life. On the other hand, Belen Mesa, an undocumented student with DACA, shares that where she works is how she obtains her food. “Where I'm interning right now, they have a food bank, so I take some food home from here…” She shares how this resource has helped her take food back to her college campus and even back to her family’s household.

CalFresh

CalFresh (or food stamps) in California is a great resource for U.S. citizen students as they are eligible to receive this benefit. However, undocumented individuals are not eligible for this resource even if they are food insecure. We highlight the benefits of CalFresh as it is a resource students engage with off-campus.

For undocumented students, their citizen siblings would get Food Stamps and share their food with them. Mateo Olivares Galvan, an undocumented student with DACA, expresses his gratitude for having this resource because of his U.S. citizen siblings. "…with my siblings being from here we do get food stamps. So, I'm very grateful for that and I think that for me now it's more of a motivator.” CalFresh alleviates the stress for immigration-impacted youth. Fernanda Nava, a U.S. citizen with undocumented parents, and Aimee Banuelos, a U.S. citizen with undocumented parents, share the benefits of seeking resources like CalFresh. For example,

Fernanda shares, “I found out that I was eligible for CalFresh, so that kind of alleviated that stressor for me.” To further share the positive benefits, Aimee shares, “Yeah, I think [CalFresh] had a positive one because I don't have to worry about food insecurity. So it's been on the brighter side.”

There are still many barriers to CalFresh for students even when they do have U.S. citizenship. For example, Ruby Pedroda shares the bureaucratic struggles of renewing her CalFresh eligibility. “I would also get food stamps during my third year. I remember I didn't think I submitted this document or something and then they cut it.” This shows that even when students are U.S. citizens and experiencing food insecurity they have to keep up with processes and deadlines to stay eligible for the resource. For other students, they may not know about the resource until they are shared awareness from staff on campus. Fernando Medina, a U.S. citizen with undocumented parents, shares,

> So I got EBT thanks to that. I'm less stressed with money and my meals. So that has been a very positive influence on my college life…. I wasn't finding all these things [resources] or reading up on all these things [resources]. And I think a lot of that, too, was due to the high workload, like unit count. So I was just staying in my lane. It wasn't until, I think, a year and a half ago, I found out that I was eligible.

Although some students keep up with their deadlines, many may not be aware of the existing resources until someone points them in the right direction. Nevertheless, for students that can access the resource it shows to relieve many stressors and assist in meeting students' food insecurity.

Legal Vulnerability

Students’ own or their parent's status makes them legally vulnerable as they experience economic insecurity and subsequently material hardships including food insecurity, and legal vulnerability creates barriers to needed resources/services. Immigrant households may be prevented from accessing resources, such as CalFresh, due to their legal status. Lack of access to federal funding programs becomes an exacerbating factor in food insecurity. Among the students interviewed, undocumented students shared that they do not qualify for resources. Whereas U.S. citizen students with undocumented parents may limit their use of resources due to fear of long-term legal implications for the undocumented parents. Therefore, even when households are in resource-rich environments such as the UC system that could connect them to external resources, their legal vulnerability prevents them from accessing such resources.

For undocumented students, their legal status prevents them from directly accessing CalFresh or food stamps. Rocio Carillo Guerra, an undocumented student with DACA, reflects on the biggest constraint she experienced as an undocumented, food-insecure college student.

> I think one of the biggest, or one of the most recent ones for me was the CalFresh assistance working at the FRESH Basic Needs Hub and always promoting these resources, I'm like, "Oh my God, like I just realized I am not eligible for CalFresh and for food assistance because I am not a resident. I am not a citizen. I don't have the status and I don't meet that requirement." So, yeah, definitely that was one of the big things that would have helped during college.

Even though she participated in bringing awareness to students' basic needs, she was not eligible for the resources she was promoting. JD Armenta, an undocumented student with DACA, shares how he found out the hard way as he attempted to apply for the resources and was rejected. “I tried to apply for food stamps, but because I think I wasn't a resident or a citizen, I wasn't able to. So I wasn't able to get some food.” Many undocumented students like JD, become

aware of how their legal status adds barriers to accessing food resources once in college. For others, they know this added barrier has been present throughout their lives. Concomitantly, U.S. citizen students limit or refrain from using resources they are eligible for because of their parent's precarious status. Ruby Pedrosa, Camila Rios, and Isaiah Avalos either elected to or were persuaded by their parents to discontinue their use of federally funded resources.

> *Ruby Pedrosa (U.S. citizen with undocumented parents)*: I think there was this one instance where we heard that Trump had put this thing on public charge …I told my mom like, "Hey, there's this thing going on. We need to not get food stamps anymore because if we're going to apply for your papers, then this is going to make us disqualified and stuff.
> *Camila Rios (U.S. citizen with undocumented parents):* [her mother] also used food stamps and section eight housing, but then quickly after when there were rumors that this would impact, your possibility of one day getting a U.S. residency or citizenship my parents cut everything out because they were afraid about that happening.
> *Isaiah Avalos (U.S. citizen with undocumented parents):* For several months I was able to cover the grocery costs for the family, which was one less concern for us. I was going to re-apply [CalFresh] but at the time, there was so much uncertainty in the air because I think Trump had just signed an executive order. I think he passed a law, which said any immigrants who get any help from the federal government will not be considered for their green card. Even though I argued, "I'm the one that's using it, not you guys," they insisted, "Don't renew it. Don't renew it. Just as a precaution." So that's why I didn't end up renewing it.

Students question their use of resources as the political climate and proposed changes to public charge threaten their parents' opportunity to adjust their status in the future. Accessing resource carriers is a heavier weight compared to accessing food to address their food insecurity as the long-term implications would keep their family legally vulnerable and economically insecure. Although resources to address food insecurity, such as CalFresh, fill in the gap for households in the United States, the benefits are not the same for immigration-impacted youth. Food stamps are not a safety net for families who are affected by immigration policies.

Food Insecurity and Student Wellbeing

Students describe how food insecurity has shaped their health and academic journey. Food insecurity took a physical and emotional toll on students; and impacted students ability to do well in courses and maintain GPAs at an acceptable level. Mateo Olivares Galvan, an undocumented student with DACA, described various stressors he faced as he was food insecure and the toll on his academic performance and mental health.

> In my second year, I was under the cheapest meal plan at UCLA even though I was living there, I only had 11 meals a week. So there were certain days where I wouldn't even eat or I would go to free food programs and yes, I could have come home, but I didn't have money. I didn't even have money to take a bus to come back home…I think that throughout my time, I've always sort of had this financial and career burden that hasn't allowed me to always fully focus on my academics. And it has resulted in a multitude of things, like anxiety, depression, and imposter syndrome.

Students worry about their next meal and are constantly thinking about limiting their meals, and the legal implications of accessing resources. These stressors place youth at risk for poor health outcomes. At the same time, experiencing food insecurity impacts the mental well-being of students by feeling like a burden to their families due to their financial constraints to meet their

basic needs. For instance, Paloma Montero, a U.S. citizen, mentions how she still hasn't shared these hidden feelings when it comes to food insecurity with her family.

> So I still kind of, I never told this to my parents, but I still felt like a burden to them… I felt like I should have been independent by that time and I shouldn't have had to depend on my parents for food.

Feeling like they are a burden on their parents becomes additional stressor students contend with. In addition to the impacts on their mental health, Gabriel Ballon, an undocumented student with DACA, shares how the limited access to nutritional food had implications for his physical health.

> Well yeah, in college it was like shit. Sorry, like how I'm going to pay for food, how I'm going to buy my books, gas, and parking. Yeah, it was a lot but honestly, I was really skinny. They say like a freshman in college you gain some weight, but honestly, I think I hardly gained any weight because I hardly ate. After all, it was like, "Damn, I can only eat this today because I don't have enough money for that. And if I do, I'll eat this and save it for tomorrow.

Gabriel was constantly negotiating his finances and food options; his financial hypervigilance did not protect him from going without meals. Financial constraints often informed their food choices which meant they had to compromise on nutritional value and select affordable items. Ryan Zepeda describes how financial constraints shaped his food selection and the consequences for his well-being.

> My diet would be… composed of carbs and starches and not even meat, to be honest. A lot of times it was just lentils or bowls or very heavy-based foods that were easy to cook and just on the go, but also not very nutritious at all. So I gained a lot of weight during that time, but not for good reasons. … And it's an everyday thing because the way that I would eat would impact the way that I would act during the whole day. The way my energy levels would be the way that I would put go to my classes or the way that I would react or feel, or all that just based on me just only having lentils.

Financial hardships plagued students' food options with a range of implications for their health and well-being ranging from weight gain, weight loss, mood shifts, lack of concentration, and low energy levels.

Food Insecurity and Academic Achievement

Earlier we learned from Gael Yepez Corea, an undocumented student, that his experience of food insecurity and related stressors prevented him from fully focusing on his academics and heightened his experience of imposter syndrome. He stated, "It's kind of hard to focus on school or writing a paper or doing anything when you don't have any food in your system." In a similar light, Santos Castro, a U.S. citizen student with undocumented parents, shares how economic uncertainty, and family household uncertainty, created food insecurity and further impacted his emotional well-being and academic success.

> A few months after I started community college… my mom couldn't handle it anymore. We were separated because of economic hardships. My mom couldn't pay the rent anymore. We're paying for this small little house for $900. There were like seven of us and we couldn't pay any more. My mom just decided to move out with my sisters. So that was a toll on me when my parents split, my mom left for Utah Salt Lake City, where my uncle lives, and my tía. So they left, she left with my sisters and I stayed back with my brother and my dad because I had just started community college. And my brother as well was finishing up high school. So we couldn't leave. So we were split and that took a toll on me because I just. Just imagine, you can't afford rent, so your family has separated. So

> it took a toll because my mom was the one that would feed us, so I had to worry about food …that took a toll on my education. I think I failed all my courses at that time, including my summer course. Sorry, my semester in my community college at SMC, Santa Monica College. I was going through depression. I'm just confused because that support system, that family system wasn't there. And that was one factor there.

Support from the household is essential for a student's well-being and academic success. The connection between financial support from the household, and individual food insecurity, highly impacts the way a student navigates their college experience. Santos is now a student at UC Santa Cruz. He transferred from community college to a four-year university and has been resilient in his pursuit of education. Unfortunately, his resiliency does not take away from the significance of his food-insecure experiences and the effects they had on his education. Their experience of food insecurity has implications for their future aspirations.

Carolina Aguilar, a U.S. citizen with undocumented parents, shares her future aspirations to afford food without worry. "I need to have a job…a stable source of income and be able to buy food." These aspirations, similar to all students we interviewed, are not only aspirations for themselves but fulfilling stability to support their families as well.

Discussion

In our capstone, we examined the experience of food insecurity among immigration-impacted students. This study adds to the current literature on food insecurity among immigrant communities, with a unique focus on immigration-impacted college students and their households. Moreover, exploring the relationship between mental health and academic consequential outcomes associated with food insecurity.

Quantitative Discussion

Our quantitative analysis aims to uncover the differences in food insecurity between immigration-impacted students, in the relationship between food insecurity, mental health, and academic outcomes; and to determine if access to resources on campus moderates the relationship between food insecurity and outcomes. We found that food insecurity was associated with psychological distress, anxiety, and academic achievement. That is, students who reported high levels of food insecurity also reported higher levels of psychological distress and anxiety, and lower academic achievement (or GPA). Despite identifying higher food insecure percentages for undocumented and mixed-status students in comparison to U.S citizen students with lawfully present parents, in the descriptive analysis, the moderation analysis revealed there is no statistical significance in food insecurity by immigration status on health and academic outcomes. Significantly, all three immigration-status groups demonstrated above 50% of food insecurity. These rates are higher than what is found among the general college student population in CA (44%) (LAO, 2019).

Our findings are consistent with past research that has found that food insecurity impacts mental health and academic achievement. Martinez (2020) establishes that food insecurity is related to lower student grade point averages and indirectly to poor mental health. Payne-Sturges (2018) conducted a study indicating that food-insecure students experience poorer mental health than food-secure students. Weaver (2019) similarly conducted a study analyzing the association between food insecurity and academic performance. The results revealed that food insecurity increases the probability of being in the lower 10% GPA. Additionally, this study pointed out that marginalized communities had higher odds of being food insecure (Weaver, 2019). Similarly, our findings suggest that food insecurity is associated with higher levels of psychological distress, anxiety, and a decline in academic achievement. Future research on food insecurity must push for

longitudinal studies of food insecurity to understand food insecurity beyond one point in their life but rather across various years.

Since the moderation analysis revealed there is no statistical significance in the relationship between food insecurity and the outcomes (mental health and academics) by immigration status it is imperative to understand the root of this finding. Our findings help to understand the impact of legal violence on mixed-status families or adult children in mixed-status families (Menjivar & Abrego, 2012). The legacy of systematic inequalities in the United States has normalized legal violence even once undocumented communities acquire legal status. Legal violence are practices that harm both legal and undocumented communities, psychologically, economically, or physically (Menjivar & Abrego, 2012). From previous research, it becomes evident that anti-immigrant rhetoric has developed fear in the immigrant community. Even when citizen students attempt to enroll in public safety net services to help bridge some of the food insecurity, fear has driven them away (Bernstein et al., 2020). From the qualitative data, we find that both undocumented and U.S. citizen students considered using public services, fear of public charge for themselves or their family members prevented them from acquiring services. Findings from the present study further support research on the spillover effects of immigration policy on immigrant families (Eskenazi et al., 2019), that is, anti-immigrant policies not only impact those who are undocumented but documented and citizen family members as well. This finding makes it crucial to further analyze the day-to-day experience of food-insecure students and their immediate health and academic outcomes.

Furthermore, the use of campus resources, i.e., food pantry, was associated with improved mental health and academic achievement; however, it did not buffer the effects of food insecurity on mental health or academic achievements. Access to food pantry services may alleviate some stressors; however, it is not able to eliminate the effects of food insecurity on health and academic achievements. For students who access campus programs, immediate support provides a band-aid to hunger, but we recognize it is not a long-term solution for the systematic challenges that have exacerbated students' experience of hunger. Food insecurity in its various forms results from material hardship (Gelatt et al., 2019), therefore resources are essential and should be developed and prioritized by UC campuses. Unfortunately, UC campuses, even when ranked as top US institutions that receive the most state funds, continue to have students who are food insecure and unaware of their resources (LAO, 2023; LAO, 2019). Literature suggests the importance of student advocacy for food pantries on college campuses (Martinez et al., 2019). Similar to our finding, pantries support students but do not solve the issue entirely (Martinez et al., 2019; Mechler et al., 2021). A second explanation is that students may be unaware of resources or may have resistance to the resources. Even when campus programs exist various studies have accounted that students do not use campus resources because of social stigma, miscommunication, not considering that the food pantry was for them, and inconvenient hours (El Zein et al., 2018). In sum, accessing food pantry campus resources is associated with mental health and academic achievement of immigration-impacted students but has not been sufficient to eliminate food insecurity. The qualitative results will fill in the gaps of quantitative results and shed light on the importance of immigration-impacted students connecting to support networks to find food resources on and off campus.

Qualitative Discussion

Our qualitative study explored how immigration-impacted youth experience food insecurity in their day-to-day lives and the resources youth access to address food insecurity. The findings reveal that food insecurity is a repeated and constant experience throughout the lives of

immigration-impacted youth. This experience stems from material hardship experienced throughout their childhood. Even as the survey had unique questions about food insecurity that were framed at the individual level, our qualitative analysis reveals that students describe family-level/household experiences of food insecurity; that is, food insecurity is a shared experience within their households. Since the experience is shared among the household and throughout their lives, students minimize and normalize their food insecurity. Through their resiliency, students have created survival strategies taking them through adulthood, specifically, their college campuses. We illustrated that material hardship, specifically food insecurity, manifests similarly for undocumented Latino students and U.S. citizens with undocumented parents.

Through our analysis, we used the food insecurity pipeline to refer to the experience of food insecurity from childhood to adulthood. Food insecurity is a repeated and constant experience throughout their lives. Material hardships such as food insecurity are consequences of the structural inequities faced by immigrant families every day (Gelatt et al., 2019). Such consequences may have a detrimental impact on children's development (Gelatt et al., 2019). Chilton et al. (2009) identified how childhood health status affects health and socioeconomic status in adulthood. Campbell et al. (2022) suggest that material hardship can have adverse and long-lasting effects on the individual. Hence, why immigration-impacted youth feel indistinguishable hardships through adulthood. Furthermore, limited economic opportunities were identified as the root cause of material hardships. Similarly, research suggests that immigrant communities experience limited economic opportunities due to their status (Menjivar and Abrego, 2012). Moreover, immigration-impacted youth describe their food insecurity as a shared household experience, rather than an individual experience. *Familismo,* a cultural value grounded in strong family ties, may help explain why immigration-impacted youth feel a sense of shared household experience even as they are away at college (Vega, 1990). Our findings support prior research that identifies how structural inequities affect the well-being of immigrants and their families in the United States (Avery et al., 2010). Overall, we illustrated how food insecurity begins in the household, follows youth to their college campuses, and creates negative implications for their everyday lives. Future research should further examine the consequences of the food insecurity pipeline among immigration-impacted youth and identify additional systematic problems that must be dismantled.

Immigration impacted youth to normalize their food insecurity by sharing their daily experience of basic needs tradeoffs. They minimize food as a basic need and limit their food purchases to afford other living expenses. By normalizing this experience, students place themselves in danger of adapting and further internalizing food insecurity. This finding coincides with research suggesting that youth internalize the individualized bootstrapping mentality creating a need for survival and withdrawing responsibility for the system that created this environment (Lardier et al., 2019). Hence, by normalizing this experience students become unaware of the social and capital resources their privileged counterparts access to transition through higher education (Lardier et al., 2019). Placing immigration-impacted youth in isolation and with the risk of blinding them from potential resources in their environment. Additionally, this normalization may determine how students decide what basic needs and services they need (Rendón, 2002). Furthermore, the normalization of food insecurity creates a health disparity or coping mechanism known as shift and persist. Chen and Miller (2012) identify the shift as a subconscious acceptance of the uncontrollable life stressor, while the persist refers to the formation of hope for a better future. Although this coping mechanism creates endurance for this

population, it pushes youth to blame themselves for individual failures and to continuously normalize basic needs tradeoffs. Future research should develop studies regarding the intersectionality of food insecurity and American exceptionality and bootstrapping.

We find that students use a range of survival strategies to navigate their experience of food insecurity. These strategies were developed in childhood and reinforced through adulthood. Individual survival strategies are seen through hypervigilance of financial and food opportunities. Financial hypervigilance is the state of constantly assessing financial decisions to meet their hunger. Whereas food hypervigilance is the state of constantly assessing food opportunities for survival. This can be seen through forms of strict budgeting or even rationing food to offset financial demands. This finding supports prior research that identifies hypervigilance as an adaptive strategy when an individual feels unsafe and threatened (Timmerman & Volpe, 2021). Although the state of hypervigilance will allow students to adapt to their food insecurity, it will emotionally tax individuals (Timmerman & Volpe, 2021). However, as students use campus resources to brace their food insecurity, it reduces their state of hypervigilance. Our findings suggest that students use resources on campus to supplement their food needs. This finding coincides with research suggesting that resources mitigate material hardship (Campbell et al., 2022). Through our study, students identify campus resources such as pantries, gardens, cash, and gift card assistance. For UC undocumented students the development of Undocumented Student Resource Centers has brought additional resources and networks that work towards providing support to meet the needs of undocumented students and families (Tapia-Fuselier, 2021). Furthermore, youth lean on family and communal resources for added support, including their familial household, community food pantries, and federal support like CalFresh. Nevertheless, as mentioned earlier in this paper, campus resources are only a bandaid to food insecurity and do not eliminate the experience (Martinez et al., 2019; Mechler et al., 2021). Future research should explore how to change and prevent structural and social inequities that place food-insecure immigration-impacted youth in a predicament to fend for themselves by creating survival strategies.

The findings between undocumented students and U.S. citizen students with undocumented parents are very similar in many ways. The quantitative data provides evidence for the intersection of food insecurity, mental health, and academic outcomes. However, the qualitative data further illustrates how food insecurity impacts the well-being of immigration-impacted youth, including their mental and physical health. This coincides with research that establishes the negative effects of material hardship on children of immigrant households (Gelatt et al., 2019). Students mentioned it was difficult to focus on school and synthesize classroom materials when they are hungry and worried about where they will get their next meal. Our findings are aligned with existing studies where students report spending more time worrying about where to obtain their next meal and distracting them from their academic studies (Watson et al., 2017). This coincides with research that denotes that children of immigrant households who are food insecure experience higher stress levels affecting their mental health (Distel, 2019). Additionally, studies have proven that low caloric intake, lower energy levels, depressive symptoms, irregular sleeping patterns, and even suicidal ideation among food-insecure students (Watson et al., 2017; Martinez et al., 2018; Payne-Sturges et al., 2018; Goldrick-Rab et al., 2017; Pryor et al., 2016; Becerra & Becerra, 2020). Hence, why students mention an impact on their overall well-being, such as their physical and mental health. Students need food to thrive, not just food to survive. Future research should continue to assess the impact of food insecurity among college students that are part of immigrant households.

Limitations

Our study has several limitations. First, the college student sample is representative of students in the UC system and thus is not reflective of students in other college settings such as community colleges, state or private universities, or educational institutions in other states. In 2018, reports shared that four out of five undocumented students attend community colleges (The Campaign for College Opportunity). As a majority of undocumented students begin at a community college, future research should examine experiences across community colleges to have a better representation of the relationship between immigration status, food insecurity, and health and academic outcomes. Secondly, we focused on students who self-identified as Latina, Latino, or Latinx because of the underrepresentation across other racial identities in the data. Future research should consider a more diverse sample of youth across institutions and with varying immigration backgrounds. Moreover, when attempting future studies, researchers should work with ethically trained personnel that focus on supporting immigration-impacted youth before engaging a larger and more diverse sample of students. Thirdly, the measurement of access to campus resources was limited in scope. Future research should aim to capture all types of food assistance resources, beyond food pantries. This must include the impact of federal, state, and university-based resources as our study proves that students survive because of the resources on and off their college campuses. Fourthly, we included resources in the UC setting, specifically food pantry use, as a moderator. These resources are not standardized across the UC system and food pantry access does not capture all the needs-based resources available. Despite having more undocumented students, community colleges tend to provide fewer resources for immigration-impacted communities (Teranishi et al., 2011; Suárez-Orozco et al., 2015). Finally, it is imperative to denote that our study is focused on California, a leading state that advocates advancing equity for immigrant communities. Although CA has a long road to equitable opportunities, future research should delve into the experience of immigration-impacted students in other higher-education institutions across the U.S.

Implications for Policy, Practice, and Research

Immigration-impacted students deserve to thrive and live beyond survival mode. Students in the study face structural inequities due to the immigration policy climate which prevents access to status for them or their family members. Consequently, immigration-impacted students and their families experience limited economic mobility and are prevented from accessing needed resources. While students in this study are part of a resource-rich environment and have access to many resources (i.e., therapy/counseling services, basic needs, emergency funds); immigration-impacted students continue to struggle to meet their basic needs as they experience food insecurity. We propose that educational institutions take a significant role in addressing these needs to continue reducing and eliminating the experience of food insecurity. We discuss additional recommendations at the state and federal levels to develop long-lasting progress.

At the university level, university administrators and stakeholders should first understand the experience immigration-impacted students face since childhood and how this carries impact on their lives as university students. By understanding the current conditions, they can outline possible changes that encompass all students regardless of immigration status. Institutions need to reflect on whether their administrative leaders and practices represent the students at their university campus. As multiple studies have examined, representation matters when working with marginalized communities (Llamas, 2021). This is because lived experience becomes the principal guide to understanding the urgency and developing concrete advocacy. This would

require institutions to develop committees focused on these efforts and develop strategic plans, and policy initiatives that outline the necessary programming, services, and resources food insecure immigration-impacted students require.

These changes are urgent in admission processes when planning the financial distribution of student financial aid packages. Administrative staff can be trained to examine and identify the barriers immigration-impacted students face. They can then analyze the impact of providing immigration-impacted students with an equitable financial starting point. This consideration would require an in-depth understanding of the situation of incoming students and their families. Such effort can be through an outgoing survey that captures food-insecure students at the initial stages of admission and thus offers a feasible financial aid package that fits their needs. Once students are identified, universities can develop targeted service literacy outreach campaigns. Additionally, students can be offered workshops informing them about the resources offered by the institution. Previous research has examined the importance of outreach to develop awareness and increase resource usage (Nazmi, 2018). By doing so, students will have the opportunity to engage in their education and prioritize their well-being from the early stages of their academic careers rather than worry about stretching their meals.

Institutional efforts should carry throughout students' academic careers. Especially since many students shared that they were not aware of resources until a year or two into their academic journeys. It is evident that emergency grants have served students with the flexibility to purchase foods in various locations and have healthier options. In our analysis, we also noted the support gift cards serve an entire family. Fain (2016) refers to these forms of financial support as microgrants that have supported vulnerable students. Similarly, Clark (2020) examines the impact that microgrants have on helping youth navigate and get through school. Furthermore, we found that students saw gift cards and emergency grants as useful methods of receiving financial support. As identified, students were able to purchase food for themselves and their families without any strings attached. By developing year-round microgrants, universities can provide immigration-impacted students with financial support that will help cover their food expenses. Microgrants can eliminate the additional difficulties students face in trying to access fresh foods.

On top of microgrants, universities can work with the state of California to revise its Cal Grant Programs which have contributed to a cycle of struggle. The current grant program has developed various requirements that have weaved out vulnerable communities like immigration-impacted students. For CAL Grant A, qualifying students must have a 3.0 or higher. For CAL Grant B, qualifying students must have a 2.0 or higher. Meanwhile, for CAL Grant C, there is no GPA requirement. The annual awards for each CAL grant vary across attending institutions. However, CAL Grant C is only for students that choose to attend a vocational, technical, or occupational program of at least 4 months in length. Additionally, even when GPA is not a requirement for CAL Grant C, its annual award amount is below half of what CAL Grant A provides (CSAC, 2022-2023). As such students who do not meet the GPA requirement are left with only CAL Grant C. CA can take innovative initiatives such as eliminating the GPA requirement that excludes students who have below a 2.0 GPA (CSAC, 2022-2023). As noted in our analysis, students' GPAs are associated with food insecurity. Therefore, basing eligibility on GPA does not consider the various factors that impact a student's academic achievement. Providing fewer state funds to students who have lower GPAs ignores the academic effects of being food insecure. Thus, it also contributes to the cycle of economic struggles that prevent food-insecure students from accessing rich institution environments. Changing Cal grants can be

a starting point to counteract structural racism that has limited the opportunities for immigrant communities.

Through the interviews, we also learned some of the difficulties students faced when attempting to access resources including accessibility. As such one consideration continuously proposed by scholars is the expansion of food pantry hours (El Zein et al., 2018). Through this institutional change, youth who work, have classes or must attend other responsibilities, have the flexibility of acquiring resources at various times. Moreover, as institutions create flexibility and access to resources they must continue being creative in sharing the resources. Through outreach and developing a sense of community, campuses can begin to address the stigma around accessing resources. In a study among college students at the University of Florida, 48.4% of students reported food insecurity but only 38.5% accessed resources to address their challenges such as pantries (El Zein et al., 2018). In comparison, we found that 59.7% of immigration-impacted youth are food insecure and 59.8% of immigration-impacted youth have accessed campus resources (campus food pantry). These descriptives make it clear that immigration-impacted students are accessing campus resources yet continue to experience food insecurity. Therefore, prioritizing outreach and a sense of belonging on campus will attempt to reduce the stigma associated with accessing resources on campus.

Various studies have recognized the impact of federal and state assistance programs. Hoynes et al. (2016) examine how the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) reduce food insecurity. Meanwhile, others believe assistance programs lack sufficient power to reduce food insecurity (Hines, 2021). Hines proposes an expansion of federal food assistance programs by expanding eligibility and removing requirements that weave out vulnerable communities. Similarly, to Hines's recommendation, other scholars have proposed a similar approach to state programs. Phillips (2018) proposes that eliminating requirements for state programs like CalFresh could be a stepping stone to increasing food security. University institutions could contribute to these efforts as a catalyst by pushing the state to rethink its requirements. Universities' roles are highly important in federal and state program expansion, especially since previous research outlines efficiency in creating access to resources from effective communication efforts (El Zein et al., 2018). Nazmi (2018) denotes that universities' efforts to increase student awareness through CalFresh outreach could help reduce food insecurity as well. Nonetheless, the state of CA could be a leader in reducing this barrier for immigration-impacted families through the SB-464, Food4All bill. SB-464 proposes to achieve food access for undocumented older adults 55 years and older. CFAP would function as an alternative program to CalFresh for those who are undocumented. However, there are still immense limitations with this bill since it does not include immigration-impacted youth (18-25) as they are at high risk for food insecurity. CA can make food accessible to everyone at faster rates by rethinking the current Food For All bill and making CFAP requirements accessible regardless of immigration status or age.

California has made tremendous progress toward supporting the inclusion of immigrant communities. Even with such strides 20.3% of the state is experiencing food insecurity (Schanzenbach et al., 2020). Among Latinx, 27.3% are considered food insecure in CA (Schanzenbach et al., 2020). This means that the state cannot alone eliminate food insecurity. Congress must be educated on the consequences of the food insecurity pipeline. Immigration reform would provide increased economic opportunities to combat material hardship for both undocumented students and U.S. citizen students with undocumented parents. By addressing

material hardship at the root, and advocating for immigrant households their U.S. citizen children will have successful strives academically and mentally throughout their lives.

Furthermore, food insecurity research should attempt to analyze the impact of food insecurity among a much larger immigrant-impacted youth sample. Future studies should prioritize one variable at a time such as mental health or academic outcomes to fully diagnose interventions for buffering food insecurity among immigrant communities. Secondly, research should analyze mixed-status families, specifically, the food insecurity pipeline for U.S. citizen children with undocumented parents as this population is oftentimes forgotten but may be easier to access than undocumented households. Third, food insecurity research should further expand on food insecurity variance by race and ethnicity. Race and ethnicity may be a factor in the implications of material hardship. Fourth, food insecurity research should take an in-depth approach to how food insecurity is measured provided that it may lead to a more comprehensive understanding of unique factors at the core of the food insecure experience.

The current study offers a glimpse into the long-term experience of food insecurity. Longitudinal studies with immigration-impacted families are needed to better understand how food insecurity and other immigration consequences are experienced by the community and the implications for their health and well-being. Since our quantitative study shows that food insecurity cannot be fully understood at one point in time. Rather, the quantitative simply proves that food insecurity is real. Furthermore, food insecurity does impact negative mental health outcomes and has consequences of reducing students' grades. Whereas the qualitative paints a full picture of the food insecurity experience in the day-to-day lives of immigration-impacted youth. Providing further evidence that food insecurity is not a brief experience but rather a constant and repeated reality for immigration-impacted youth. Additionally, providing evidence that material hardship has followed youth throughout their lives. Therefore, the issue is in legislation that tackles material hardship. Also, research and legislation take a comprehensive look at how food insecurity is measured and assessed among university, state, and federal decisions.

Conclusion

Immigration-impacted students should have the opportunity to focus on their future without having to stretch or worry about their next meal. As these students are key to our future workforce and deserve to be supported. As college access widens, the opportunities to flourish within it should match. These opportunities can begin through university initiatives, state leadership, and federal actions. Leaders can recreate the future of students who often have been forced to navigate spaces with ongoing episodes of food insecurity. Through these possible recommendations and policy changes, students who have been left to fight a generational food insecurity battle finally have a fair opportunity to thrive.

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Appendices

Tables 1- 4
https://docs.google.com/spreadsheets/d/1dancYkT4aEynPRtdeTgYTqmN2vxgytXvrXrmTu_waCE/edit?usp=sharing

Table 1. Participant demographics (N = 1861)

		Undocumented Students	Mixed-Status Families	Legal Student Families	Total Sample
		N= 592 (31.8%)	N= 634 (34.1%)	N= 635 (34.1%)	N= 1861 (100%)
Gender					
	Female	441 (74.6%)	514 (81.2%)	482 (76.1%)	N= 1437 (77.4%)
	Queer/Non-Binary	15 (2.5%)	7 (1.1%)	15 (2.4%)	N= 37 (2%)
Year					
	1st	105 (17.7%)	164 (25.9%)	140 (22.1%)	N= 409 (22%)
	2nd	96 (16.2%)	127 (20%)	113 (17.8%)	N= 336 (18.1%)
	3rd	182 (30.7%)	167 (26.3%)	175 (27.6%)	N= 524 (28.2%)
	4th	167 (28.2%)	143 (22.6%)	175 (27.6%)	N= 485 (26.1%)
	5th or higher	40 (6.8%)	29 (4.6%)	28 (4.4%)	N= 97 (5.2%)
Campus					
	UCRiverside	108 (18.2%)	114 (18%)	131 (20.6%)	N= 353 (19%)
	UCIrvine	121 (20.4%)	115 (18.1%)	69 (10.9)	N= 305 (16.4%)
	UCLos Angeles	75 (12.7%)	76 (12%)	78 (12.3%)	N= 229 (12.3%)
		Mean (SD)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
Age		21.13 (2.783)	20.21 (1.800)	20.62 (2.357)	20.64 (2.366)
Sense of belong		3.5700 (0.81772)	3.4645 (0.84926)	3.5116 (0.89414)	3.5141 (0.85562)
Family Economic		0.70 (0.458)	0.66 (0.475)	0.45 (0.498)	1.0784 (1.08220)

Hardship	

Table 2. Descriptive: Predictors, Moderator, and Outcome Variables

		Undocumented Student Families	**Mixed-Status Families**	**Legal Student Families**	**Total**
		N= 592 (31.8%)	N= 634 (34.1%)	N= 635 (34.1%)	N= 1861 (100%)
Food Insecurity					
	Food insecure	359 (74.6%)	379 (60%)	364 (57.9%)	N= 1102 (59.7%)
	Food secure	226 (38.6%)	253 (39.9%)	265 (42.1%)	N= 744 (40.3%)
Campus Resources-Food Pantry/Basic Needs					
	Accessed	395 (66.9%)	384 (60.9%)	331 (52.3%)	N= 1110 (59.8%)
	Didn't access	195 (33.1%)	250 (39.4%)	302 (47.7%)	N= 747 (40.2%)
		Mean (SD)	Mean (SD)	Mean (SD)	
PhQ		10.52 (6.589)	10.62 (6.606)	9.78 (6.253)	
GAD		9.25 (5.926)	9.27 (5.940)	8.66 (5.752)	
GPA		12.89 (1.998)	12.90 (2.035)	13.34 (1.959)	

Table 3. Regression Analysis w/ interaction variables

	PHQ				GAD			
	Model 1:		Model 2:		Model 1:		Model 2	
	B(S.E)	β	B(S.E)	β	B(S.E)	β	B(S.E)	β
Age	-.048(.061)	-0.017	-.068(.061)	-0.024	.039(.055)	0.016	.026(.056)	0.01
Women 1	1.505(.354)	0.097***	1.439(.347)	.093***	2.333(.320)	.166***	2.302(.317)	.164***
Non-Binary 2	3.832(1.053)	0.083***	3.804(1.032)	.083***	3.750(.957)	.090***	3.728(.946)	.089***
Sense of Belonging	-1.657(.167)	-0.219***	-1.461(.164)	-.193***	-1.142(.151)	-.167***	-1.003(.150)	-.147***
Economic Family Scale 4	1.669(.133)	.279***	1.301(.141)	.217***	1.500(.121)	.276***	1.246(.129)	.229***
Undocumented			.202(.351)	0.014			.066(.321)	0.005
Mixed			.215(.343)	0.016			.027(.314)	0.002
Food insecurity 5			2.885(.310)	.218***			2.095(.284)	.175***
Frequency: Basic Needs / Food Pantry			-.808(.300)	-.061**			-.642(.274)	-.053*
R2		0.156		0.196		.149***		0.175***
R2 Change		0.156*		0.040*		.149***		0.026***
		65.085		21.78		62.024		13.82

Table #4. Regression Analysis w/ interaction variables

	GPA			
	Model 1:		Model 2:	
	B(S.E)	β	B(S.E)	β
Age	.039(0.02)	0.046	.041(.02)	0.048*
Women 1	-.007(.118)	-0.001	.001(.117)	0
Non-Binary 2	-.052(.358)	-0.004	-.107(.056)	-0.007
Sense of Belonging	.103(.056)	0.044	.072(.056)	0.03
Economic Family Scale 4	-.123(.044)	-0.066	-.026(.048)	-0.014
Undocumented			-.471(.118)	-0.109***
Mixed			-.416(.116)	-0.098***
Food insecurity 5			-.550(.105)	-0.134***
Frequency: Basic Needs / Food Pantry			.237(.101)	.058***
R2		0.008		0.033
R2 Change		0.008		0.025
F		2.965**		11.356