

Food Insecurity Pipeline: How Latinx Immigration-Impacted Students in Higher Education Navigate the Food Insecurity Cycle

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Abstract

Systemic inequities increase the risk of material hardships, including food insecurity, among immigrant households. Informed by 33 qualitative interviews with Latina/o/x undergraduate students who are undocumented or U.S. citizens with undocumented parents, we examine their experiences of food insecurity in their day-to-day lives. We find a *food insecurity pipeline* as students' experiences of food insecurity begin early in childhood in their homes and continue in their adulthood on their college campuses. Food insecurity has implications for their well-being, and they rely on their strengths and networks to survive food insecurity. The study has implications for immigration policy, practice, and higher education institutions serving this vulnerable population.

Keywords

undocumented youth, mixed-status families, immigration-impacted youth, material hardship, food insecurity, resilience, community resources

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Immigrants across the United States face social inequities rooted in restrictive immigration policy and exploitative labor practices which increase their risk of poverty and material hardship. Food insecurity, a dimension of material hardship, or the absence of nutritionally adequate and safe food is prevalent among immigrant families (Gelatt et al., 2019). The immigrant population is classified under four statuses in the United States: Permanent status includes lawful permanent residents or green card holders; temporary status is held by visa holders who are temporarily present in the United States for the purpose of employment or education; discretionary status

is temporary status not intended to result in permanent presence such as Deferred Action for Childhood Arrivals (DACA) and Temporary Protection Status; and undocumented status refers to individuals who entered the

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country without authorization or who entered with a visa but stayed beyond its expiration (Waters & Gerstein-Pineau, 2015). These statuses determine access to economic, health, housing, education, and civic opportunities with undocumented immigrants experiencing more restrictions to resources and afforded few legal protections. Structural inequities also prevent immigrant families from accessing needed services. Immigrant households face exclusionary policies that limit their ability to obtain federal resources (Perreira & Pedroza, 2019; Pineau et al., 2021), moreover, creating stigma, shame (Distel et al., 2019), and fear when attempting to access basic needs services (Bernstein et al., 2020). Young adult children of immigrants, who may be undocumented or U.S. citizen members of mixed-status families, hereafter referred to jointly as immigration-impacted youth, face the risk of food insecurity within their families and as they transition to adulthood.

The structural inequities experienced by undocumented and mixed-status families continue to manifest in the lives of youth as they transition to their college campus. Often members of low-income families (Suárez-Orozco et al., 2015), immigration-impacted students will have to work while completing their degree to pay their way through school (Enriquez et al., 2019; Nichols & Guzmán, 2017; Suárez-Orozco et al., 2015) and/or to supplement their families' income (Nichols & Guzmán, 2017). While less is known about the prevalence of food insecurity among immigration-impacted college students, studies find that food insecurity disproportionately affects students of color in U.S. colleges (Dubick et al., 2016; Watson et al., 2017).

We focus on Latinx youth because they account for a fifth of all college students (Mora, 2022) and approximately half of the estimated 450,000 undocumented students in higher education in the United States (Feldblum et al., 2020). In addition, Latinx youth and their families are disproportionately subjected to punitive immigration policies (Armenta, 2016; Kretesedemas & Brotherton, 2017) increasing their risks for poor outcomes. Despite extensive research on barriers

to educational attainment among Latinxs (Bean et al., 2015; Portes & Rumbaut, 2001), limited research has examined their experiences of food insecurity and implications for their well-being, including academic trajectories. This study is informed by interviews with Latinx immigration-impacted college students. We examine the *food insecurity pipeline* (reflecting students' experiences of food insecurity from childhood in their homes to adulthood on their college campuses), the impact of food insecurity on their well-being, and their resilience as they implement food insecurity survival strategies. The study has implications for immigration policy, practice, and higher education institutions serving this vulnerable population.

Background

In contrast to poverty which is an absolute measure of deprivation based on household income and household size, material hardship assesses relative deprivation to identify individuals and households who do not consume a minimum basic level of goods and services (Altman et al., 2020). Various indicators are used to assess material hardship, and this study is focused on food insecurity. Food-insecure households experience difficulties acquiring adequate food due to limited money and other resources (Coleman-Jensen et al., 2022). Food insecurity scholars have distinguished between low and very low food security, where low food security households include those with reduced quality, variability, and desired diet (Coleman-Jensen et al., 2022). In contrast, very low food security is experienced when households 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; Coleman-Jensen et al., 2022; Cook & Frank, 2008). In 2021, 10% of the U.S. population, or 13.5 million households, were food insecure (Coleman-Jensen et al., 2022). Among these, 3.8% of U.S. households (or 5.1 million households) were identified as having very low food security, the most severe form of food

insecurity (Coleman-Jensen et al., 2022). Food insecurity has been recorded at a much higher rate among immigrants; for instance, in California, it is estimated that 45% of undocumented individuals are food insecure (Nourish California & California Immigrant Policy Center, 2022). In a nationally representative sample, Altman and colleagues (2020) found the rate of food insecurity was higher than the national average among undocumented (18.48%) and lawfully present residents (LPR, or green card holders; 13.31%).

Food insecurity is rooted in the economic hardships faced by many immigrant households. Studies have shown that Mexican immigrants who lack documentation experience a higher risk of violations of labor rights, lower wages, and limited job opportunities (Leitz, 2018; Massey & Gentsch, 2018). Hall et al. (2010) revealed a 17% wage gap between Mexican undocumented men when compared to their documented counterparts. Similarly, using the Survey of Income and Program Participation national dataset, Altman and colleagues (2020) found an immigration status gradient in wages, where the unauthorized immigrants reported the lowest mean monthly household income (\$3,830) followed by LPR (\$4,607), and naturalized citizens (\$5,568). Wage theft and exploitative working conditions are frequent among the undocumented populations (Ayón et al., 2012; Bernhardt et al., 2013). Undocumented immigrants may be expected to work under harsh physical conditions, and their wages may be withheld. In addition, immigrants experience limited opportunities for advancement and raises (Bacallao & Smokowski, 2007). Due to their precarious status, undocumented immigrants fear retaliation from employers; thus, many endure these oppressive practices, which are consequential to their families' economic well-being and heighten their risk of material hardships.

Despite the development of social safety net policies and programs to alleviate food-insecure families, eligibility requirements exclude undocumented communities. Eligibility criteria for programs such as the federal Supplemental Nutrition Assistance Program

(SNAP) have excluded undocumented immigrants. In addition to eligibility barriers, increased enforcement of anti-immigrant policy instills fear in immigrants, preventing them from seeking resources they are eligible for (Miller et al., 2022). For instance, the changes to public charge by the Trump administration led to a decline in enrollment in safety net services as accessing public services would jeopardize undocumented parents' opportunity to adjust their status (Barofsky et al., 2020; Miller et al., 2022; Pereira & Pedroza, 2019). Therefore, mixed-status families may fear enrolling their U.S. citizen children in safety net programs, even when children may be eligible, because of immigration-related concerns such as jeopardizing their opportunity to become lawful permanent residents or being deported (Guelespe et al., 2023; Vargas, 2015). Thus, undocumented, and mixed-status families may be fearful or ineligible to access safety net services available to alleviate food insecurity.

Research on material hardships often is focused on households with young children. In this study, we turn attention to young adult children of immigrants who are college students to gain insight into their families and their own experiences with food insecurity. We use the term immigration-impacted to include both youth who are undocumented or U.S.-born citizens with undocumented parents (i.e., members of mixed-status families). Immigration-impacted youth are susceptible to the effects of anti-immigrant policies and enforcement regardless of their own status. The spillover effect of restrictive immigration policies and enforcement is well documented as U.S. citizen children in mixed-status families experience economic hardship (Ayón et al., 2012) and consequences to their social and emotional well-being (Brabeck & Xu, 2010; Vargas et al., 2017). Mixed-status households may also include youth who have access to the DACA program, an administrative protection that provides temporary access to employment authorization and protection from deportation (U.S. Citizenship and Immigration Services, 2023). While

DACA beneficiaries are considered unauthorized (Suárez-Orozco et al., 2011), the work authorization and protection from deportation provided by DACA reduces 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). Nonetheless, systemic inequities are faced among all immigration-impacted youth and the spillover effects are detrimental to their well-being, and academic trajectory (Museus et al., 2015).

Systemic inequities become accentuated when immigration-impacted youth navigate resource-rich environments such as higher education. In these spaces, students are able to access institutional resources designed to support educational success, including resources such as shelter, food, mental health counseling, and academic support. Yet, at the same time, these resources are often insufficient to fully mitigate the inequities faced by immigration-impacted students (Enriquez et al., 2019). Immigration-impacted students face limited economic opportunities due to their status or that of their relatives. Many immigration-impacted students will work, often full-time, to pay their way through school (Nichols & Guzmán, 2017; Suárez-Orozco et al., 2015) and/or supplement their families' income (Nichols & Guzmán, 2017). Undocumented youth, who are without a Social Security number, experience additional constraints as they have fewer employment options and low wages (Suárez-Orozco & López-Hernández, 2020). Thus, the economic hardships experienced by their low-income families continue once youth reach adulthood and transition into college.

The prevalence of food insecurity among college students is high. First-generation students, students of color, and vulnerable underserved communities tend to be the most impacted (Dubick et al., 2016). Among immigration-impacted students, Enriquez and colleagues (2020) found that 66% of undocumented students and 57% of DACA recipients reported experiencing food insecurity. These rates are higher than the general populations of Univer-

sity of California students (40%) and California State University students (42%) (Crutchfield & Maguire, 2018).

Food insecurity is detrimental to students' well-being, manifesting as poor physical and mental health outcomes such as psychological distress and anxiety (Velarde Pierce et al., 2021), low caloric intake, lower energy levels, irregular sleep patterns, and suicidal ideation when compared to their food secure counterparts (Becerra & Becerra, 2020; Crutchfield et al., 2020; Goldrick-Rab et al., 2017; Martinez et al., 2021; Payne-Sturges et al., 2018; Pryor et al., 2016; Watson et al., 2017). In addition, food-insecure students are at an increased risk for poor academic performance (Camelo & Elliott, 2019; Crutchfield et al., 2020). Food-insecure college students are more likely to have lower grade point averages (van Woerden et al., 2018), fail classes, and drop out (Mechler et al., 2021) compared to their food-secure peers. While college students may have many resources at their disposal on college campuses, the incidence of food insecurity is high, and the impact on their well-being is significant.

The present study examines the experience of food insecurity among Latinx immigration-impacted students. We draw on the socio-ecological framework and material hardship literature to guide the study. According to the socio-ecological framework, multiple embedded environments have indirect and direct effects on the well-being of youth (Ayón et al., 2022; Suárez-Orozco et al., 2011). At a macro level, we examine how exclusionary immigration policy limits the economic opportunities for immigrants, which has consequences for students and their families. The absence of a path to permanent residency and U.S. citizenship prevents undocumented individuals from having work authorization, heightening the risk of exploitative practices in the workplace and low wages and constraining access to safety net resources. We find that immigration-impacted youth experience a food insecurity pipeline. That is, they experience food insecurity throughout their lives as a result of exclusionary immigration policies that heighten the economic hardships, they face

due to their own or family member's undocumented immigration status. Despite the relatively pro-integration immigration policy environment in California, where institutions of higher education provide greater access to higher education, in-state tuition, and financial aid to undocumented immigrants (Ayón et al., 2022), immigration-impacted youth face barriers and restrictions that prevent them from accessing safety net services and employment that would otherwise improve their economic conditions (Altman et al., 2020). At a microsystem level, we examine how the food insecurity pipeline is experienced in their childhoods within their family and how it continues as they transition to adulthood and join college environments. While some students are able to access some resources on their campuses, respite from food insecurity is often short-lived. At an individual level, we examine the effects of food insecurity on immigration-impacted students' well-being and the internal resources they rely on to mitigate food insecurity. This study provides practitioners and 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, as well as the resilience of these high-achieving students.

Methods

This study is a secondary data analysis of qualitative interviews from a larger mixed-methods study designed to examine whether and how immigration-related policies produce inequalities in the educational and well-being outcomes of undocumented students and U.S. citizen students with undocumented parents. Initially, a survey was conducted in spring 2020 among children of immigrants attending the University of California (UC) system. Follow-up interviews were conducted with 63 survey participants from July to September 2021. The interview sample was selected based on the following criteria: (1) self-identified as Latina/o/x, (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 to 2021 academic year. Eligibility was restricted to third-year or higher to ensure that the student had ample opportunity to participate in campus opportunities. Six team members conducted 1- to 1.5-hour 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 UCI Institutional Review Board.

Sample

Of the 63 participants, only 33 discussed food insecurity during their interviews. All participants self-identified as Latina/o/x. Participants included undocumented students with undocumented parents ($n = 7$, 21%), DACA recipients with undocumented parents ($n = 12$, 36%), and the remaining students are U.S.-born citizens with at least one undocumented parent ($n = 14$, 42%). Over half of the participants self-identified as 4th-year students ($n = 17$, 51%). A majority of participants self-identified as female ($n = 21$, 63%). On average, the participants were 21 years old ($SD = 2.21$).

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. Index coding was first completed to identify all content in the initial 63 transcripts related to food insecurity, narrowing the sample to 33. 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 probing questions were used as needed.

The analysis was informed by constructivist grounded theory methods (Charmaz, 2006). A comparative approach was used between and within transcripts while completing initial, focused, and axial coding (Charmaz, 2006). Initial coding involved reading, re-reading, labeling, and categorizing data (Charmaz, 2006). Initial coding was completed using line-by-line coding and in-vivo coding to label participants’ narratives. Initial coding remains close to the data, as it is a process of breaking data segments apart. Three team members completed the initial coding, with at least two team members reviewing each transcript. In focused coding, we used a collaborative process to make analytical decisions about categorizing the data into inclusive and comprehensive themes. We applied the focused codes to all the transcripts and redefined codes as needed. Axial coding is used to sort, synthesize, and organize data (Charmaz, 2006). Axial coding involved identifying dimensions and properties of themes. For example, for the theme *food insecurity pipeline*, we identified the following properties: structural inequity faced by participants’ families in their childhoods that led to material hardships, including food insecurity, similar experiences in participants’ adulthood, basic needs tradeoffs in childhood and adulthood, and normalizing of food insecurity.

Several steps were taken to support the trustworthiness of the study. Using multiple coders enhanced the reflexive strategy in the analysis process (Hill et al., 1997). The analytical team involved three master’s level students and a faculty member; all are bilingual, bicultural, and immigrants or children or immigrants. Our debriefing approach involved critical and sustained discussion about the research teams’ interpretation and emerging themes (Morrow, 2005). Rich quotes were used to support each theme, allowing the reader to see that themes are grounded in the experience of the participants

(Charmaz, 2006). Pseudonyms were used to protect the identity of participants.

Results

Our analysis revealed that food insecurity is not a brief or single-episode experience for Latinx immigration-impacted youth in our sample; rather, the opposite, it is a repeated and constant experience throughout their lives. Immigration-impacted students, whether undocumented or U.S. citizen 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 young adulthood and as they transition to the university context. For many students in our sample the issue has been normalized, for instance, when they engage in basic needs tradeoffs, often leaving food out of the equation. Food insecurity has implications for students’ well-being often taking a toll on them emotionally, physically, and academically. Concomitantly, 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 few exceptions.

Food Insecurity Pipeline

We use the term, food insecurity pipeline, to refer to the experience of food insecurity which was first experienced by participants in their childhood households and follows them into young adulthood as college students. At the root are systemic inequities such as low wages and inconsistent employment that have created economic and material hardship for mixed-status families. Food insecurity is normalized in households, and families engage in basic need tradeoffs such

as having constrained food options or going without food. Leo Garcia, a U.S. citizen with undocumented parents, reflected 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, 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 continued to engage in basic needs trades once at UC Berkeley, where he experienced some challenges with this financial aid. He shared,

. . . in sophomore year there was issues with my financial aid . . . and basically since my father was the only one that gave me money for food . . . the rest . . . was covered by a full ride from Berkeley. [Because there was a problem with my financial aid] the money he was giving me for food, I was basically using that to cover books and other academic costs.

Leo’s experience demonstrates the chronic material hardships immigration-impacted families face and the basic needs tradeoff they engage in to make ends meet as they choose which basic necessity (i.e., food, rent, and utilities) they prioritize at any given time.

Other students reflected on the constrained meal options their families had due to economic hardships. For example, Santos Castro, a U.S. citizen with undocumented parents, shared the time his mom made tortillas with oil, salt, and chili as toppings for a dinner plate:

. . . 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 [in] the U.S. . . not Mexico . . . we didn’t have food stamps or . . . 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.

While this is a harsh memory for Santos, he also sees his mother’s strength as she was able to “improvise” to find some form of substance for the family. He also points to how their food insecurity was not addressed by social safety net programs as they did not access SNAP benefits or “food stamps” despite the eligibility of U.S. citizen household members. Economic insecurity continued to plague his family as he transitioned to college, and food insecurity became consequential to his well-being (see “Food insecurity and student well-being” section).

Experiences of economic and material hardship that begin in participants’ childhood continue into their adulthoods. Leticia, an undocumented student with DACA, described how food insecurity is not a new phenomenon, as she has experienced food insecurity recurrently throughout her life. 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. She recalled an experience from her childhood following the birth of one of her siblings:

. . . I knew my mom had to feed my sister . . . 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, 21 years old at the time of the interview, had work authorization through DACA. Although she had work authorization, she frequently worried about making enough money for necessities for her family and herself. She worked multiple jobs and was extremely cautious with her spending, yet she regularly experienced food insecurity. Food insecurity is part of her “normal” day-to-day experience. She goes on to shared 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, which were restricted to \$5 per week.

Students’ narratives illustrate how food insecurity is normalized in their lives. Similar to Leticia, Sylvia Molina Santoya, an undocumented student with DACA, shared how food choices were limited based on remaining funds after she paid for rent. For Sylvia, access to food is experienced as a limited resource constrained by her budget. She expressed,

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, for Sylvia, food insecurity has been forcibly normalized as she has to prioritize her housing and education expenses while nourishment is experienced as a luxury. For Ryan Zepeda, an undocumented student, his food choices included strategically planning and portioning his food for multiple days. “So it’s like a daily thing . . . 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.’” For Ryan, a limited quantity of food and constant strategizing about the longevity of food was a normal part of his day-to-day life.

For other students, food insecurity is so ingrained in their lives that they do not perceive it as an existing issue. 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 on 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 [because he doesn’t have a social security

number].” Constrained options for food are a component of food insecurity, yet it may become normalized for youth when the experience occurs often. Belen Mesa, an undocumented student with DACA, illustrated 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 limited income and are completely dependent on free food resources to survive. She shared, “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 is evident that immigration-impacted youth and families experience food insecurity long-term to the extent that it becomes part of their day-to-day struggles where they engage in basic needs tradeoffs, limiting food options, or may cope by ignoring this hardship.

Food Insecurity and Student Well-being

Food insecurity took a physical and emotional toll on students and impacted their ability to do well in courses and maintain their grade point average (GPA). Students worry about their next meal and are constantly thinking about how to stretch the limited food they have access to. These stressors place youth at risk for poor health outcomes.

These stressors are compounded as participants fear being a financial burden on their families. For instance, Paloma Montero, a U.S. citizen, described how she still had not 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.

Food insecurity translates into an emotional burden that youth have to regularly contend with.

In addition to the impacts on their mental health, Gabriel Ballon, an undocumented student with DACA, shared 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 skinny. They say like as 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 frequently negotiating his finances and food options; being hypervigilant about his finances and food choices 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 described 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 . . . very heavy-based foods that were easy to cook . . . 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 [performed in] 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.

Immigration-impacted students carry a significant burden to do well and exceed

academically as a path to financial stability for their families (Sy & Romero, 2008). Several students described how food insecurity becomes a roadblock in their academic path. 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 [university]. . . 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 . . . I could have come home, but I didn't have money. I didn't even have money to take a bus . . . I think that throughout my time [at university], 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 . . . 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.

Gael illustrates how food insecurity, being without food or bargaining about when to take your next meal, impacts students both emotionally and academically. In a similar light, Santos Castro, a U.S. citizen student with undocumented parents, shared 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 pay the rent anymore . . . My mom just decided to move out with my sisters. So that was a toll on me when my parents split. . . 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 . . . 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 . . . I was going through depression.

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 transferred from community college to a 4-year university and has been resilient in his pursuit of education. Unfortunately, his resilience does not take away from the significance of his food-insecure experiences and the effects they had on his education. Food insecurity is detrimental to their lives, and overcoming this hardship becomes part of their future aspirations. Carolina Aguilar, a U.S. citizen with undocumented parents, shared 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 are not only aspirations for themselves but a necessity in the path to achieving stability for their families.

Food Insecurity and Survival Strategies: Individual, Campus, and Community

We gained a nuanced understanding of students' experiences as they shared multiple strategies used to navigate food insecurity. Many immigration-impacted youth have experienced repeated episodes of food insecurity throughout their lives; they develop survival strategies that they have transitioned or adapted in their adulthood on their college campus. These strategies demonstrate students' resilience as their basic needs are threatened.

Financial Hypervigilance. Hypervigilance is "a state of abnormally heightened alertness, particularly to threatening or potentially dangerous stimuli" (American Psychological Association (n.d.)). It is a response to trauma and a symptom of posttraumatic stress disorder which are linked to the experience of food insecurity (Whittle et al., 2019). Threat vigilance has also been characterized as a way to adapt to stress (Frankenhuis & Nettle, 2020).

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 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). Since hypervigilance, as a coping mechanism, occurs for long periods, it may become overwhelming thus negatively impacting youths' 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 [on campus 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] towards the end of the month. But that's the strictness that I had to constrict myself to get through every single month.

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 . . . But there are always worries; am I spending too much? What do I have to allocate for the rent . . . 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, described that 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, shared 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, stated, “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. For example, Rocio Carillo, an undocumented student with DACA, said, “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.” The constant monitoring of their budget and attentiveness to low-cost food options illustrates students’ threat vigilance, a consequence of chronic food insecurity. 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 free food to survive. Pilar Bautista,

an undocumented student with DACA, described how the center tailored for undocumented immigrant students on campus shared with her the events that provided food. “They had a place . . . where you could come and get free food. They had weekly meetings where you could just come in [and eat].” This experience was felt similarly for Mateo Olivares Galvan, an undocumented student with DACA, who shared how he would stay vigilant about opportunities to access food on campus. “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.” As students think about securing their next meal, they are vigilant of free food opportunities on campus. The student’s stories bring to light their resilience, 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 with undocumented parents, 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, described taking pictures for students for additional income. “I did an event on campus and I was like, ‘Hey everybody, I’m doing headshots.’ . . . Then . . . 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.

Access to Resources On and Off Campus. UC campuses have created Basic Needs and Emergency support teams. Unfortunately, students may not always know about all the resources available to them. Many students learned about campus resources through referrals by campus-wide or undocumented student services staff. In the following section, we outline some of the remedying campus resources that have served students for short-term relief.

All UC campuses provide food pantries. The pantries may provide fresh food like fruits and vegetables, but mostly they dispense non-perishable foods. Students reflected on their experience using these resources to reduce food insecurity. Bianca, Madeline, and Maricela used their campus pantries multiple times in the last year.

Bianca Mercado (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 that 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 suggested that they may not be enough when you consider the

dietary restrictions of some students. Pantries are a great start for supporting food-insecure students, but they are not the end-all-be-all solution. In addition, we have noted other issues that prevented students from accessing the pantries. For instance, Ryan Zepeda mentioned 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.

Some campuses have created opportunities to provide fresh fruits and vegetables for their students. Madeline Salinas, a U.S. citizen student, indicated that UC Riverside has a garden that provides fresh produce at zero cost: “I think that was a great resource. I mean, it helped me.” At UC Irvine, the Basic Needs Center developed a partnership with a nearby farm that distributes community supported agriculture (CSA) boxes and has a farm stand where they sell their produce. Arely Barajas, an undocumented student, received a voucher to purchase fresh produce from their stand, explaining: “That helps a lot.” The gardens allow students to have fresh fruits and vegetables that pantries may not provide.

On-campus programs that distribute grocery gift cards provide students with more flexibility in meeting their nutritional needs. These cards are a form of cash similar to a debit card. In addition, these cards can be taken back to their households for support. Aiden Chacon, an undocumented student with DACA, shared how his immigration status prevents him from accessing federally funded services, which directed him toward seeking support on campus:

I feel like something I missed out on because of . . . [my] status was 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.

Undocumented students and families are not eligible for CalFresh, therefore, programs that provide gift cards to grocery stores help alleviate food insecurity and offer more flexibility.

Emergency grants are another mechanism used to support students. Nicole Robles, an undocumented student, described 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 another flexible 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. These campus resources help fill some of the gaps in students' food insecurity. However, it is also apparent that students' ties to on-campus staff and undocumented student services programs were critical in accessing these resources. Campus staff also refer students to community and state resources.

In California, U.S. citizen students may be eligible for CalFresh (or food stamps) if they are enrolled at least half-time and meet additional criteria such as participating in work study or being employed for 20 hours or more (see California Department of Social Services for additional information on student eligibility criteria). Students like Fernando Medina, a U.S. citizen with undocumented parents, learned about CalFresh through staff on campus:

So I got EBT thanks to [them]. 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.

Because Fernando is a U.S. citizen and participated in the work study program through his financial aid award, he was able to access

this safety net resource alleviating his material hardships.

While U.S. citizen students are eligible for this benefit, they may face various barriers and challenges in accessing this resource. For example, Ruby Pedroza shared 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." Students' status does not fully facilitate navigating this institution as they have to keep up with processes and deadlines to stay eligible for the resource. In addition, U.S. citizen students limit or refrain from using resources they are eligible for because of their parent's precarious status. Ruby Pedroza and Isaiah Avalos elected to or were persuaded by their parents to discontinue their use of federally funded resources.

Ruby Pedroza (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."

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 got 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 the Trump administrations' changes to public charge threaten their

parents' opportunity to adjust their status in the future. Accessing CalFresh carriers a heavier weight for some students as the long-term implications would keep their family legally vulnerable and economically insecure. Undocumented students are not eligible for CalFresh.

Finally, community food pantries are a resource for students who live off-campus or students who may experience barriers to accessing food pantries on campus. Emilia Negrete Romero, an undocumented student, lived off-campus and used community support services for food: "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. Penelope Mejia, an undocumented student, and her family have relied on community-based food pantries throughout her life. She stated, "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." This is a practice that Penelope picked up from her family and continues to implement to meet her food needs.

Students use a wide range of strategies and resources to navigate their food insecurity and meet their food intake needs. Campuses have played a critical role in providing resources to alleviate students' food insecurity. However, often they only experience short-term relief and are part of a cycle of food insecurity. This repeated and cyclical lived experience has forced students to become accustomed to limited access to food, smaller portions, and thus, hunger. Food insecurity negatively affects the well-being of students, limiting their ability to thrive personally and academically.

Discussion

This study examined how Latinx immigration-impacted youth experience food insecurity in their day-to-day lives, the effects on their well-being, 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 Latinx immigration-impacted youth for both those who are undocumented and those who are U.S. citizens and members of a mixed-status family. Food insecurity stems from material hardship experienced throughout their childhood and into their adulthood. Since the experience is shared among the household members and throughout their lives, food insecurity is often described as a normal day-to-day struggle. Through their resilience, students have implemented survival strategies, which they are able to adapt to once they are on their college campus. Findings show that material hardship, specifically food insecurity, manifests similarly for Latinx undocumented students and U.S. citizens with undocumented parents.

Through our analysis, we used the term food insecurity pipeline to refer to the experience of food insecurity from childhood to adulthood. This finding illustrates four key characteristics of immigration-impacted youths' experience of food insecurity. First, structural inequities grounded in restrictive immigration policies are consequential to immigrant households' economic security and increase the risk of material hardships including food insecurity. Low wages and job insecurity due to undocumented status are at the root of food insecurity among our participants' households. Second, food insecurity is a repeated and, at times, consistent experience throughout their lives. Material hardships including food insecurity have detrimental effects on youths' development (Gelatt et al., 2019) with long-lasting effects into adulthood (Campbell et al., 2022). Third, immigration-impacted youth describe their food insecurity as a shared family experience with consequences for all family members. Even as college students, they remark on the food insecurity within their households, their concern about relying on parents for food, and shared resources to support their household's economic condition. *Familismo*, a cultural value grounded in strong family ties, may

help explain why immigration-impacted youth feel a sense of responsibility for their family even when they are away at college (Vega, 1990).

Further, immigration-impacted youth are forced to make decisions such as trading one basic need for another to survive. This forced reality becomes a normal day-to-day experience causing students to deprioritize food and limit their food purchases to afford other living expenses. Normalizing food insecurity places immigration-impacted students at risk for internalizing food insecurity or blaming themselves when they are unable to find a solution to the absence of food, or as shared by a participant, stretching \$5 through the duration of a week. This finding coincides with research suggesting that youth internalize the individualized bootstrapping mentality, creating a need for survival and withdrawing responsibility from oppressive systems that create these conditions (Lardier et al., 2019). Concomitantly, if food insecurity is normalized then youth run the risk of not accessing resources their privileged counterparts have access to as they transition through higher education (Lardier et al., 2019). Normalizing food insecurity may lead to a very narrow view of when a hardship is being faced and what services are needed (Rendón, 2002). Through the food insecurity pipeline, we illustrate how food insecurity begins in the household, follows youth to their college campuses, and engenders on-going struggles in their everyday lives.

The findings further illustrate how food insecurity impacts the well-being of immigration-impacted youth, including their mental and physical health and academic trajectories. This coincides with research that establishes the negative effects of material hardship on children of immigrants (Gelatt et al., 2019). Indeed, similarly to young children in immigrant households, immigration-impacted college students who are food-insecure experience higher stress levels, affecting their mental health (Distel et al., 2019). This finding adds to studies that

find that low caloric intake, lower energy levels, depressive symptoms, irregular sleeping patterns, and even suicidal ideation among food-insecure college students (Becerra & Becerra, 2020; Goldrick-Rab et al., 2017; Martinez et al., 2018; Payne-Sturges et al., 2018; Pryor et al., 2016; Watson et al., 2017). Similar to Watson and colleagues (2017), 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. Students need food to thrive, not just food to survive.

We find that students use a range of survival strategies to navigate their experience of food insecurity. These strategies rely on their inner strengths/assets and on campus and community resources. These strategies were developed in childhood and reinforced through adulthood. Students engage in financial hypervigilance, where they are constantly assessing financial decisions to meet their food needs. Examples include strict budgeting or rationing food to offset financial demands. Students engage in food hypervigilance or scavenging, where they constantly seek opportunities to access free food for survival. This finding supports prior research that identifies hypervigilance as an adaptive strategy when an individual feels unsafe and threatened (Timmerman & Volpe, 2023). Although the state of hypervigilance will allow students to adapt to their food insecurity, it will emotionally tax individuals (Timmerman & Volpe, 2023). Financial and food hypervigilance expand our understanding of how/when immigration-impacted individuals experience this trauma and/or adaptive response, beyond existing literature that has focused on hypervigilance due to the threat of deportation or family separation (Rubio-Hernandez & Ayón, 2016). In addition, our findings suggest that students use resources on campus to supplement their food needs. Similar to other studies, immigration-impacted students rely heavily on-campus resources such as food pantries and other forms of emergency relief (Nazmi et al., 2019). Undocumented Student

Resource Centers are additional resources and networks that students can depend on to meet their, and at times, their families, material hardship needs (Tapia-Fuselier, 2021). Community-based resources including food pantries help alleviate food insecurity for youth and their families.

Implications

Institutions of higher education can play a significant role in reducing these disparities. For instance, the UC system has established many mechanisms to provide support to food-insecure students including food pantries, CalFresh outreach, and emergency grants (Nazmi et al., 2019). At the same time, we find that awareness of these resources is not consistent across immigration-impacted students, some students may not be eligible CalFresh or refrain from accessing this resource due to long-term implications for their families, and for many the respite offered by these resources was short-lived as many of these resources only offer short term relief and are unable to meet their chronic food security needs. Future efforts should include campaigns to raise awareness of existing resources. Basic needs departments can collaborate with Undocumented Student Centers to increase awareness of resources among immigration-impacted students. Expanding the Undocumented Student Centers budget to include case managers is another way to link students to services that will alleviate their material hardships. These types of collaborations and investments are necessary, given that representation is key when working with underrepresented communities (Llamas et al., 2021). In addition, faculty and staff across university departments must be equipped to understand the day-to-day experience of immigration-impacted youth including being aware of policies that may affect their financial aid and resource eligibility. Faculty should aim to establish relationships with students so that they feel comfortable asking for assistance and they can include a section in their syllabus where they list basic needs resources available on campus.

Our findings revealed that emergency grants extended students the flexibility to purchase food in various locations and have healthier options. Micro-grants, or small grants that often have no strings attached, are increasingly used in universities to increase graduation rates (Clark, 2020). Micro-grants can be partnered with financial literacy coaching and referrals to wrap around services (Clark, 2020). The use of micro-grants may optimize the relief immigration-impacted students' experience given that they would experience less restrictions and barriers.

Practitioners should implement trauma-informed practices when working with immigration-impacted youth and families. Trauma-informed practice involves collaborative work with clients rather than working "on" them, and building on personal, family, and community/cultural strengths (Valdez et al., 2023). Assessments should encompass the effects of immigration-related threats and deprivation on families (Valdez et al., 2023), such as the chronic experience of material hardships due to structural inequities faced by undocumented and mixed-status families. In addition, practitioners should find creative ways to break down the stigma of basic needs insecurity that may prevent individuals from seeking help (Crutchfield et al., 2020).

Additional policy efforts are needed at the state and federal level. California has made tremendous progress toward supporting the inclusion of immigrant communities. Even with such strides, 45% of undocumented households experience food insecurity (Nourish California & California Immigrant Policy Center, 2022). SB-464, the Food4All bill, proposes to expand food access to undocumented older adults, 55 years and older. Similar to the Health4All campaign, which gradually expanded access to health care to low-income undocumented individuals. Additional efforts are needed to expand Food4All to immigration-impacted youth (18-25) as they are at high risk for food insecurity. Ultimately, securing a path to residency and citizenship for undocumented youth and their family members would help alleviate the economic insecurity they face and eliminate barriers to

basic needs services. Public awareness campaigns on SNAP benefits are needed to help raise awareness of eligibility criteria and destigmatize access to public services among immigrants and other vulnerable populations.

Limitations and Future Research

Food insecurity was not the focus of the original UC PromISE study; therefore, there may be aspects of this experience that were not captured in the interviews. However, it was an issue that was discussed at length by half of the participants in the original study and all themes are supported with multiple quotes. The sample is composed of college students attending the UC university system and thus is not reflective of students in other college settings such as community colleges or private universities or youth who do not follow a college trajectory. In 2018, it was reported that four out of five undocumented students attended community colleges (The Campaign for College Opportunity, 2018). A majority of undocumented students begin at a community college; future research should include immigration-impacted students in 2- and 4-year university systems to increase the representativeness in the sample. Participants were Latina/o/x and mostly women, so findings may differ across other ethnic/racial and gender identities. Data collection for the study took place during the onset of the COVID-19 pandemic, and this may have influenced their responses as undocumented students and mixed-status families faced unique pandemic stressors due to their legal vulnerability. The study took place in California, a state that advocates advancing equity for immigrant communities. Thus, participants in this study may have access to a wider breadth of campus and community-based resources compared to immigration-impacted students in other states. Future research should continue to examine the long-term consequences of the food insecurity pipeline among immigration-impacted youth and their families. For example, the

consequences to immigration-impacted students' social capital, mobility, and health. In addition, having access to basic needs services and emergency funding may serve as a protective factor for immigration-impacted college students. Future studies should examine how campus resources buffer the effects of food insecurity on their well-being. Finally, we need to identify mechanisms that offer long-term relief for students facing food insecurity so that they can have an opportunity to thrive academically without being forced to operate in survival mode.

Conclusion

The article drew from the socio-ecological framework and material hardship literature to inform an analysis of food insecurity among Latinx immigration-impacted students—undocumented students and U.S. citizen students with undocumented parents. Findings reveal a *food insecurity pipeline* as students' experiences of food insecurity begin early in childhood in their homes and continue in their adulthood on their college campuses. Latinx immigration-impacted students are resilient, and they implement various survival strategies to survive food insecurity. Policies and practices that are informed by the experiences of immigration-impacted students are needed to support their opportunities to thrive in academia and post-graduation.

Author Contribution

Zambrano-Torres co-conceptualized the study, completed data analysis, led the writing for the results and discussion, and co-wrote the remaining sections of the paper. Haro-Contreras co-conceptualized the study, completed data analysis, led the writing for the implications section, and co-wrote the remaining sections of the paper. Ayón co-conceptualized the study, supported the analysis, co-wrote the background and discussion sections, edited the whole paper, and completed revisions. Enriquez led data collection as the Principal Investigator of the UC PromISE study.

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References

- Altman, C. E., Heflin, C. M., Jun, C., & Bachmeier, J. D. (2020). Material hardship among immigrants in the United States: Variation by citizenship, legal status, and origin in the 1996–2008 SIPP. *Population Research and Policy Review, 40*(3), 363–399. <https://doi.org/10.1007/s11113-020-09588-6>
- American Psychological Association. (n.d.). *APA dictionary of psychology*. <https://dictionary.apa.org/hypervigilance>
- Amuedo-Dorantes, C., & Antman, F. (2016). Can authorization reduce poverty among undocumented immigrants? Evidence from the deferred action for childhood arrivals program. *Economic Letters, 147*, 1–4.
- Armenta, A. (2016). Racializing criminalization: Structural racism, colorblindness, and the institutional production of immigrant criminality. *Sociology of Race and Ethnicity, 3*(1), 82–95.
- Ayón, C., Ellis, B. D., Hagan, M. J., Enriquez, L. E., & Offidani-Bertrand, C. (2022). Mental health help-seeking among Latina/o/X undocumented college students. *Cultural Diversity and Ethnic Minority Psychology*. Advance online publication. <https://doi.org/10.1037/cdp0000573>
- Ayón, C., Gurrrola, M., Moya-Salas, L., Androff, D., & Krysik, J. (2012). Intended and unintended consequences of the employer sanction law on Latino families. *Qualitative Social Work, 11*(6), 587–603. <https://doi.org/10.1177/14733325011418871>
- Bacallao, M., & Smokowski, P. (2007). The costs of getting ahead: Mexican family system changes after immigration. *Family Relations, 56*, 52–66. <https://doi.org/10.1111/j.1741-3729.2007.00439.x>
- Barofsky, J., Vargas, A., Rodriguez, D., & Barrows, A. (2020). Spreading fear: The announcement of the public charge rule reduced enrollment in child safety-net programs. *Health Affairs, 39*(10), 1752–1761. <https://doi.org/10.1377/hlthaff.2020.00763>
- Bean, F. D., Brown, S. K., & Bachmeier, J. D. (2015). *Parents without papers: The progress and pitfalls of Mexican-American integration*. Russell Sage Foundation.
- Becerra, M. B., & Becerra, B. K. (2020). Psychological distress among college students: Role of food insecurity and other social determinants of mental health. *International Journal of Environmental Research and Public Health, 17*(11), 4118.
- Bernhardt, A., Spiller, M. W., & Polson, D. (2013). All work and no pay: Violations of employed and labor laws in Chicago, Los Angeles, and New York City. *Social Forces, 91*(3), 725–746.
- Bernstein, H., Gonzalez, D., Karpman, M., & Zuckerman, S. (2020). *Amid confusion over the public charge rule, immigrant families continued avoiding public benefits in 2019*. Urban Institute. https://www.urban.org/sites/default/files/publication/102221/amid-confusion-over-the-public-charge-rule-immigrant-families-continued-avoiding-public-benefits-in-2019_1.pdf
- Brabeck, K., & Xu, Q. (2010). The impact of detention and deportation on Latino immigrant children and families: A quantitative exploration. *Hispanic Journal of Behavioral Sciences, 32*(3), 341–361. <https://doi.org/10.1177/0739986310374053>
- Bron, K. M., & Goldrick-Rab, S. (2017). Going without: An exploration of food and housing insecurity among undergraduates. *Educational Researcher, 47*(2), 121–133. <https://doi.org/10.3102/0013189x17741303>
- Camelo, K., & Elliott, M. (2019). Food insecurity and academic achievement among college students at a public university in the United States. *Journal of College Student Development, 60*(3), 307–318. <https://doi.org/10.1353/csd.2019.0028>
- The Campaign for College Opportunity. (2018). *Higher education affordability for undocumented students in California*. <https://collegecampaign.org/publication/higher-education>

- cation-affordability-for-undocumented-students-in-california
- Campbell, C., O'Brien, G., & Tumin, D. (2022). Timing and persistence of material hardship among children in the United States. *Maternal and Child Health Journal*, 26(7), 1529–1539. <https://doi.org/10.1007/s10995-022-03448-9>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.
- Clark, A. (2020). *What works for today's students—Microgrants by Higher Learning Advocates*. <https://tacc.org/sites/default/files/documents/2020-02/microgrants-policy-brief.pdf>
- Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2022). *Household food security in the United States in 2021* (ERR-309). Economic Research Service, U.S. Department of Agriculture.
- Cook, J. T., & Frank, D. A. (2008). Food security, poverty, and human development in the United States. *Annals of the New York Academy of Sciences*, 1136(1), 193–209. <https://doi.org/10.1196/annals.1425.001>
- Crutchfield, R. M., Carpena, A., McCloyn, T. N., & Maguire, J. (2020). The starving student narrative: How normalizing deprivation reinforces basic need insecurity in higher education. *Families in Society*, 101(3), 409–421.
- Crutchfield, R. M., & Maguire, J. (2018). *California State University office of the chancellor study of student basic needs*. The California State University. https://www2.calstate.edu/impact-of-the-csu/student-success/basic-needs-initiative/Documents/BasicNeedsStudy_phaseII_withAccessibility-Comments.pdf
- Distel, L. M. L., Egbert, A. H., Bohnert, A. M., & Santiago, C. D. (2019). Chronic stress and food insecurity: Examining key environmental family factors related to body mass index among low-income Mexican-origin youth. *Family & Community Health: The Journal of Health Promotion & Maintenance*, 42(3), 213–220. <https://doi.org/10.1097/FCH.0000000000000228>
- Dubick, J., Mathews, B., & Cady, C. L. (2016). *Hunger on campus: The challenge of food insecurity for college students*. <https://student-sagainsthunger.org/hunger-on-campus/>
- Enriquez, L. E., Ayón, C., Chavarria, K., Ellis, B., Hagan, M. J., Jefferies, J., Lara, J., Morales Hernandez, M., Murillo, E., Najera, J., Offidani-Bertrand, C., Oropeza Fujimoto, M., Ro, A., Rodriguez, V. E., Rosales, W., Sarabia, H., Soltero Lopez, A. K., Valadez, M., Valarde Pierce, S., & Valdez, Z. (2020). *Persisting inequalities and paths forward*. https://cpb-us-e2.wpmucdn.com/sites.uci.edu/dist/4/3807/files/2020/12/State_Of_Undocumented_Students_2020report.pdf?courseID=113805&assignmentID=1222410
- Enriquez, L. E., Morales Hernandez, M., Millán, D., & Vazquez Vera, D. (2019). Mediating illegality: Federal, state, and institutional policies in the educational experiences of undocumented college students. *Law & Social Inquiry*, 44(3), 679–703.
- Feldblum, M., Hubbard, S., Lim, A., Penichet-Paul, C., & Siegel, H. (2020). *Undocumented students in higher education*. Presidents' Alliance on Higher Education and Immigration. <https://www.presidentsalliance.org/report-undocumented-students-in-higher-education-how-many-students-are-in-u-s-colleges-and-universities-and-who-are-they/>
- Frankenhuis, W. E., & Nettle, D. (2020). The strengths of people in poverty. *Current Directions in Psychological Science*, 29(1), 16–21.
- Gelatt, J., Koball, H., & Bernstein, H. (2019). State immigration enforcement policies and material hardship for immigrant families. *Child Welfare*, 96(5), 1–28. <https://www.jstor.org/stable/48626718>
- Goldrick-Rab, S., Richardson, J., & Hernandez, A. (2017). *Hungry and homeless in college: Results from a national study of basic needs insecurity in higher education* [Report]. <https://eric.ed.gov/?id=ED610982>
- Guespe, D., Echave, P., & Gonzalez, D. (2023). *Mixed-status immigrant families disproportionately experience material hardships in 2021*. <https://www.urban.org/research/publication/mixed-status-immigrant-families-disproportionately-experienced-material>
- Hall, M., Greenman, E., & Farkas, G. (2010). Legal status and wage disparities for Mexican immigrants. *Social Forces*, 89(2), 491–513. <https://doi.org/10.1353/sof.2010.0082>
- Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. *The Counseling Psychologist*, 25, 517–572.
- Kretesedemas, P., & Brotherton, D. C. (2017). Introduction: Immigration in the age of

- punishment. In D.C. Brotherton & P. Kretsedemas (Eds.), *Immigration policy in the age of punishment: Detention, deportation, and border control* (pp. 1–34). Columbia University Press.
- Kuka, E., Shenhav, N., & Shih, K. (2020). Do human capital decisions respond to the returns to education? Evidence from DACA. *American Economic Journal: Economic Policy*, *12*(1), 293–324. <https://doi.org/10.1257/pol.20180352>
- Lardier, D. T., Herr, K. G., Barrios, V. R., Garcia-Reid, P., & Reid, R. J. (2019). Merit in meritocracy: Uncovering the myth of exceptionalism and self-reliance through the voices of urban youth of color. *Education and Urban Society*, *51*(4), 474–500. <https://doi.org/10.1177/0013124517727583>
- Leitz, D. (2018). Identifying the risk factor for food insecurity in the United States. *Major Themes in Economics*, *20*(1), 49–71. <https://scholarworks.uni.edu/mtie/vol20/iss1/4/>
- Llamas, J., Nguyen, K., & Tran, A. (2021). The case for greater faculty diversity: Examining the educational impacts of student-faculty racial/ethnic match. *Race Ethnicity and Education*, *24*(3), 375–391. <https://doi.org/10.1080/13613324.2019.1679759>
- Martinez, S. M., Esaryk, E. E., Moffat, L., & Ritchie, L. (2021). Redefining basic needs for higher education: It's more than minimal food and housing according to California university students. *American Journal of Health Promotion*, *35*(6), 818–834. <https://doi.org/10.1177/0890117121992295>
- Martinez, S. M., Frongillo, E. A., Leung, C., & Ritchie, L. (2018). No food for thought: Food insecurity is related to poor mental health and lower academic performance among students in California's public university system. *Journal of Health Psychology*, *12*, 1930–1939. <https://doi.org/10.1177/1359105318783028>
- Massey, D. S., & Gentsch, K. (2018). Undocumented migration to the United States and the wages of Mexican immigrants. *International Migration Review*, *48*(2), 482–499. <https://doi.org/10.1111/imre.1206>
- Mechler, H., Coakley, K., Walsh-Dilley, M., & Cargas, S. (2021). Examining the relationship between food insecurity and academic performance: Implications for diversity and equity in higher education. *Journal of College Student Retention: Research, Theory & Practice*, *0*(0). <https://doi.org/10.1177/15210251211053863>
- Miller, D. P., John, R. S., Yao, M., & Morris, M. (2022). The 2016 presidential election, the public charge rule, and food and nutrition assistance among immigrant households. *American Journal of Public Health*, *112*(12), 1738–1746. <https://doi.org/10.2105/ajph.2022.307011>
- Mora, L. (2022). *Hispanic enrollment reaches new high at four-year colleges in the U.S., but affordability remains an obstacle*. <https://www.pewresearch.org/short-reads/2022/10/07/hispanic-enrollment-reaches-new-high-at-four-year-colleges-in-the-u-s-but-affordability-remains-an-obstacle/>
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, *52*(2), 250–260.
- Museum, S. D., Ledesma, M. C., & Parker, T. L. (2015). Racism and racial equity in Higher Education. *ASHE Higher Education Report*, *42*(1), 1–112. <https://doi.org/10.1002/aehe.20067>
- Nazmi, A., Martinez, S., Byrd, A., Robinson, D., Bianco, S., Maguire, J., Crutchfield, R. M., Condron, K., & Ritchie, L. (2019). A systematic review of food insecurity among US students in higher education. *Journal of Hunger and Environmental Nutrition*, *14*(5), 725–740. <https://doi.org/10.1080/19320248.2018.1484316>
- Nichols, L., & Guzmán, M. (2017). *Getting, staying, and being in college: The experiences of students*. <https://doi.org/10.5422/fordham/9780823276165.003.0006>
- Nourish California & California Immigrant Policy Center. (2022). *Food insecurity among undocumented immigrants in California & exclusion*. <https://nourishca.org/wp-content/uploads/2022/04/Food4All-FoodInsecurityBrief-April2022.pdf>
- Payne-Sturges, D. C., Tjaden, A., Caldeira, K. M., Vincent, K. B., & Arria, A. M. (2018). Student hunger on campus: Food insecurity among college students and implications for academic institutions. *American Journal of Health Promotion*, *32*(2), 349–354. <https://doi.org/10.1177/0890117117719620>
- Perreira, K. M., & Pedroza, J. M. (2019). Policies of exclusion: Implications for the health of immigrants and their children. *Annual Review of Public Health*, *40*(1), 147–166.

- <https://doi.org/10.1146/annurev-publ-health-040218-044115>
- Pineau, C., Williams, P. L., Brady, J., Waddington, M., & Frank, L. (2021). Exploring experiences of food insecurity, stigma, social exclusion, and shame among women in high-income countries: A narrative review. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'Alimentation*, 8(3), 107–124. <https://doi.org/10.15353/cfs-rcea.v8i3.473>
- Pope, N. G. (2016). The effects of DACA mentation: The impact of deferred action for childhood arrivals on unauthorized immigrants. *Journal of Public Economics*, 143, 98–114. <https://doi.org/10.1016/j.jpubeco.2016.08.014>
- Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of the immigrant second generation*. University of California Press.
- Pryor, L., Lioret, S., Van Der Waerden, J., Fombonne, É., Falissard, B., & Melchior, M. (2016). Food insecurity and mental health problems among a community sample of young adults. *Social Psychiatry and Psychiatric Epidemiology*, 51(8), 1073–1081. <https://doi.org/10.1007/s00127-016-1249-9>
- Rendón, L. I. (2002). Community college Puente: A validating model of education. *Educational Policy*, 16, 642–667. <https://doi.org/10.1177/0895904802016004010>
- Richards, H. J., Benson, V., Donnelly, N., & Hadwin, J. A. (2014). Exploring the function of selective attention and hypervigilance for threat in anxiety. *Clinical Psychology Review*, 34, 1–13. <https://doi.org/10.1016/j.cpr.2013.10.006>
- Rubio-Hernandez, S. P., & Ayón, C. (2016). Pobrecitos los Niños: The emotional impact of anti-immigration policies on Latino youth. *Children and Youths Services Review*, 60, 20–26. <https://doi.org/10.1016/j.childyouth.2015.11.013>
- Suárez-Orozco, C., Katsiaficas, D., Birchall, O., Alcantar, C. M., Hernandez, E., Garcia, Y., Michikyan, M., Cerda, J., & Teranishi, R. T. (2015). Undocumented undergraduates on college campuses: Understanding their challenges and assets and what it takes to make an undocufriendly campus. *Harvard Educational Review*, 85, 427–463.
- Suárez-Orozco, C., & López-Hernández, G. (2020). “Waking up every day with the worry”: A mixed-methods study of anxiety in undocumented Latinx college students. *Frontiers in Psychiatry*, 13, Article 568167. <https://doi.org/10.3389/fpsy.2020.568167>
- Suárez-Orozco, C., Yoshikawa, H., Teranishi, R. T., & Suárez-Orozco, M. M. (2011). Growing up in the shadows: The development implications of unauthorized status. *Harvard Educational Review*, 81, 438–472.
- Sy, S. R., & Romero, J. (2008). Family responsibilities among Latina college students from immigrant families. *Journal of Hispanic Higher Education*, 7(3), 212–227. <https://doi.org/10.1177/1538192708316208>
- Tapia-Fuselier, N. (2021). Enhancing institutional undocu-competence through establishing undocumented student resource centers: A student-encompassed approach. *Journal of College Access*, 6(2), 132–145.
- Timmerman, J. R., & Volpe, V. (2023). Aspects of campus climate and mental health threats: The role of hypervigilance. *Journal of American College Health*, 71(3), 695–704. <https://doi.org/10.1080/07448481.2021.1904954>
- U.S. Citizenship and Immigration Services. (2023). *Consideration of deferred action for childhood arrivals (DACA)*. <https://www.uscis.gov/DACA>
- Valdez, C. R., Ayón, C., Barajas-Gonzalez, R. G., Brabeck, K., Rojas-Flores, L., & Walsdorf, A. A. (2023). Prevention and intervention implications of an expanded adverse childhood experiences (ACEs) framework to include threat and deprivation associated with U.S. immigration policies and enforcement practices. In S. G. Portwood, M. J. Lawler, & M. C. Roberts (Eds.), *Handbook of adverse childhood experiences (ACEs): A framework for collaborative health promotion*. Springer.
- van Woerden, I., Hruschka, D., & Bruening, M. (2018). Food insecurity negatively impacts academic performance. *Journal of Public Affairs*, 19(3), Article e1864. <https://doi.org/10.1002/pa.1864>
- Vargas, E. D. (2015). Immigration enforcement and mixed-status families: The effects of risk of deportation on Medicaid use. *Child and Youth Services Review*, 57, 83–89. <https://doi.org/10.1016/j.childyouth.2015.07.009>
- Vargas, E. D., Sanchez, G. R., & Juárez, M. (2017). Fear by association: Perceptions of anti-immigrant policy and health outcomes. *Journal of Health Politics, Policy and Law*, 42(3), 459–483. <https://doi.org/10.1215/03616878-3802940>

- Vega, W. A. (1990). Hispanic families in the 1980s: A decade of research. *Journal of Marriage and the Family*, *52*, 1015–1024.
- Velarde Pierce, S., Haro, A. Y., Ayón, C., & Enriquez, L. E. (2021). Evaluating the effect of legal vulnerabilities and social support on the mental health of undocumented college students. *Journal of Latinos and Education*, *20*(3), 246–259. <https://doi.org/10.1080/15348431.2021.1949990>
- Waters, M. C., & Gerstein-Pineau, M. (Eds.). (2015). *The integration of immigrants into American Society*. National Academies Press.
- Watson, T., Malan, H., Glik, D., & Martinez, S. (2017). College students identify university support for basic needs and life skills as key ingredients in addressing food insecurity on campus. *California Agriculture*, *71*(3), 130–138. <https://doi.org/10.3733/ca.2017a0023>
- Whittle, H. J., Sheira, L. A., Wolfe, W. R., Frongillo, E. A., Palar, K., Merenstein, D., Wilson, T. E., Adedimeji, A., Weber, K. M., Adimora, A. A., Ofotokun, I., Metsch, L., Turan, J. M., Wentz, E. L., Tien, P. C., & Weiser, S. D. (2019). Food insecurity is associated with anxiety, stress, and symptoms of posttraumatic stress disorder in a cohort of women with or at risk of HIV in the United States. *Journal of Nutrition*, *149*, 1393–1403. <https://doi.org/10.1093/jn/nxz093>