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The Kids Might Be Alright: How California Colleges are Combating Food Insecurity

Permalink <u>https://escholarship.org/uc/item/2m7876kc</u>

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Publication Date 2024-02-06

UC Center Sacramento

# The Kids Might Be Alright: How California Colleges are Combating Food

Insecurity

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POL195

14 December 2023

Since the mid-2010s, the University of California (UC) and California State University (CSU) systems have sought to understand and decrease student food insecurity rates. In 2014, UC President Janet Napolitano launched the Global Food Initiative (GFI) to research and address food issues on the local, national, and global levels, focusing on student and community basic needs fulfillment. In 2016, the GFI found that 44% of undergraduate students experienced food insecurity.<sup>1</sup> This is compared to the statewide average of 11% in 2017.<sup>2</sup> Findings from a 2018 CSU Basic Needs Initiative study, a program created by CSU to research and solve student needs issues, found that 41.6% of CSU students were reportedly food insecure.<sup>3</sup> Both systems have made efforts to encourage their campuses to combat this issue. This paper seeks to answer the questions: what impact have these food access initiatives had on undergraduate food insecurity rates at University of California schools?

Through my research I hope to analyze the effectiveness of food access initiatives in California public universities, documenting the differences between food insecurity rates at UC schools over time and comparing this to the amount of programs provided to students at each campus, with a focus on the undergraduate experience. Because of a lack of data, the portion of this paper covering food insecurity at CSU schools will solely be categorizing the food access programs available at each campus.

<sup>&</sup>lt;sup>1</sup> *Global Food Initiative: Food and Housing Security at the University of California*. University of California, Dec. 2017, <u>https://www.ucop.edu/global-food-initiative/\_files/food-housing-security.pdf</u> <sup>2</sup> *Overall (All Ages) Hunger & Poverty in California | Map the Meal Gap.* 

https://map.feedingamerica.org/county/2017/overall/california. Accessed 5 Nov. 2023. <sup>3</sup> Crutchfield, Rashida, and Jennifer Maguire. *Study of Student Basic Needs*. California State University, Jan. 2018.

https://www.calstate.edu/impact-of-the-csu/student-success/basic-needs-initiative/Documents/BasicNeed sStudy\_phaseII\_withAccessibilityComments.pdf.

Hopefully, these methods will provide insight into the effectiveness of current programs and help universities offer students a healthier and more fulfilling educational experience.

## Significance of Issue and Background

According to the U.S. Department of Agriculture, someone is considered food insecure when they either have experienced multiple occurrences of "disrupted eating patterns and reduced food intake" or "reports of reduced guality, variety, or desirability of diet" without a reduced food intake.<sup>4</sup> The large deviation between the food insecurity rates at the state level and in California schools signals an issue that should be addressed. This is especially true given the possible effects of food insecurity. College students who are food insecure cite it as a cause of stress or worry. They report that coming to class hungry and having to avoid spending money on meals is distracting and can cause them to stress about where the next one will come from; the feeling of hunger in class is disruptive and makes it harder to pay attention to what they are supposed to be learning. Often, students who are food insecure feel physically ill because of it, with high levels of tiredness and unwanted weight loss due to their reduced diet.<sup>5</sup> They more frequently report depressive symptoms and disordered eating patterns than students who are not food insecure.<sup>6</sup> Students who have been food insecure in the past report a higher average Body Mass Index than students who have

<sup>&</sup>lt;sup>4</sup> USDA ERS - Definitions of Food Security. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-secur ity/. Accessed 12 Dec. 2023.

<sup>&</sup>lt;sup>5</sup> Zigmont, Victoria, et al. "Understanding the Why of College Student Food Insecurity." *Journal of Hunger & Environmental Nutrition*, vol. 16, no. 5, Sept. 2021, pp. 595–610. *DOI.org (Crossref)*, <u>https://doi.org/10.1080/19320248.2019.1701600</u>.

<sup>&</sup>lt;sup>6</sup> Payne-Sturges, Devon C., et al. "Student Hunger on Campus: Food Insecurity Among College Students and Implications for Academic Institutions." *American Journal of Health Promotion*, vol. 32, no. 2, Feb. 2018, pp. 349–54. *DOI.org (Crossref)*, https://doi.org/10.1177/0890117117719620.

never been deemed food insecure. Food insecurity also leads to students often not choosing the most healthy option when shopping, opting instead for fast food or corner-cutting to try and spend less money.<sup>7</sup> These possible impacts on student performance and well-being are evidence that further research into methods of food insecurity reduction is necessary to create a better environment for students and possibly better student outcomes.

These issues are especially prevalent given that certain groups are more likely to experience food insecurity than others. Studies into the relationship between certain demographics and food insecurity amongst college students have found that minority groups, primarily African Americans and non-white Hispanics, are more likely to be considered food insecure. This is true both in student populations<sup>8</sup> and the general population.<sup>9</sup> Another key factor in determining food insecurity is a student's housing situation. Those living on-campus are less likely to experience food insecurity than those living off-campus, as meal plans are purchased less and on-campus food is seemingly more expensive for students who have to pay out of pocket. This, combined with a lack of preparatory space or storage, makes it so that commuting students are less likely to eat when they are away from home during the school day.<sup>10</sup> Students who are independent with no form of financial support from family are at risk for food

<sup>8</sup> Payne-Sturges, Devon C., et al. "Student Hunger on Campus: Food Insecurity Among College Students and Implications for Academic Institutions." *American Journal of Health Promotion*, vol. 32, no. 2, Feb. 2018, pp. 349–54. *DOI.org (Crossref)*, <u>https://doi.org/10.1177/0890117117719620</u>.
<sup>9</sup> Weeks, Julie D., et al. "Adults Living in Families Experiencing Food Insecurity in the Past 30 Days: United States, 2021." *CDC Centers for Disease Prevention and Control*, 18 Apr. 2023,

https://doi.org/10.15620/cdc:125707.

<sup>&</sup>lt;sup>7</sup> Darling, Katherine E., et al. "Physical and Mental Health Outcomes Associated with Prior Food Insecurity among Young Adults." *Journal of Health Psychology*, vol. 22, no. 5, Apr. 2017, pp. 572–81. *DOI.org (Crossref)*, <u>https://doi.org/10.1177/1359105315609087</u>.

<sup>&</sup>lt;sup>10</sup> Zigmont, Victoria, et al. "Understanding the Why of College Student Food Insecurity." *Journal of Hunger & Environmental Nutrition*, vol. 16, no. 5, Sept. 2021, pp. 595–610. *DOI.org (Crossref)*, https://doi.org/10.1080/19320248.2019.1701600.

insecurity, and reception of financial aid is positively associated with being food insecure.<sup>11</sup> Little research has been done on the effectiveness of food programs on student food insecurity. At UC campuses, pantries have been seen to have a positive relationship with the alleviation of depressive symptoms as well as an improvement of perceived health; they are often used by food-insecure students.<sup>12</sup> CalFresh and SNAP (Supplemental Nutrition Assistance Program) enrollment in students has been seen to mitigate the negative effects that food insecurity can have on grade point averages,<sup>13</sup> and in the general population, households that receive SNAP benefits can experience reductions of food insecurity by up to 30%.<sup>14</sup>

In California, Assembly Bill 453, introduced in 2017 by Assemblymember Monique Limón, would have designated all California public Universities (meaning schools in the University of California, California State University, and California Community Colleges systems) as "hunger-free" campuses, ensuring student services like an on-campus food pantry, a meal-sharing program, and an employee designated for CalFresh promotion and information. This bill died in circulation,<sup>15</sup> but a budget approval that same year allocated \$7.5 million to California schools to address student

<sup>&</sup>lt;sup>11</sup> Gaines, Alisha, et al. "Examining the Role of Financial Factors, Resources and Skills in Predicting Food Security Status among College Students." *International Journal of Consumer Studies*, vol. 38, no. 4, July 2014, pp. 374–84. *DOI.org (Crossref)*, <u>https://doi.org/10.1111/ijcs.12110</u>.

<sup>&</sup>lt;sup>12</sup> Martinez, Suzanna M., et al. "Campus Food Pantry Use Is Linked to Better Health Among Public University Students." *Journal of Nutrition Education and Behavior*, vol. 54, no. 6, June 2022, pp. 491–98. *www.jneb.org*, https://doi.org/10.1016/j.jneb.2022.03.001.

<sup>&</sup>lt;sup>13</sup> Loofbourrow, Brittany M., et al. "Understanding the Role of CalFresh Participation and Food Insecurity on Academic Outcomes among College Students during the COVID-19 Pandemic." *Nutrients*, vol. 15, no. 4, Feb. 2023, p. 898. *PubMed Central*, <u>https://doi.org/10.3390/nu15040898</u>.

 <sup>&</sup>lt;sup>14</sup> Keith-Jennings, Brynne, et al. "Links of the Supplemental Nutrition Assistance Program With Food Insecurity, Poverty, and Health: Evidence and Potential." *American Journal of Public Health*, vol. 109, no.
12, Dec. 2019, pp. 1636–40. *PubMed Central*, <u>https://doi.org/10.2105/AJPH.2019.305325</u>.
<sup>15</sup> "California AB453 | 2017-2018 | Regular Session." *LegiScan*,

https://legiscan.com/CA/text/AB453/id/1624718. Accessed 5 Nov. 2023.

hunger and develop the same programs proposed by Limón in AB 453.<sup>16</sup> In 2022, House Representative Adam Schiff (CA-30) sponsored the "Food for Thought Act," H.R. 6934, which would allow for the Department of Education to award grants to secondary educational institutions to provide free meals for low-income students, but this has only been introduced.<sup>17</sup> Overall, efforts have been made in the legislature, both at the state and national levels, to combat student food insecurity, but these have not generally been successful.

#### Theory and Argument

This report seeks to understand the relationship between food insecurity and the food access initiatives promoted by California schools in recent years. I hypothesize that UC schools with more food access programs will see a greater decrease in their food insecurity rates since 2018; as the number of programs increases, the negative change in food insecurity grows. The more programs that a student has access to, the better they can combat food insecurity through direct access to food, information on how to prepare more healthy and nutritious meals, and safety guards against the financial issues that contribute to problems with food access beyond just financial aid. The independent variable, the amount of food access programs at each university, will be measured by a food access index, from 0 to 13, based on the programs available at each campus and the recommended steps by the UC Global Food Initiative. The

<sup>&</sup>lt;sup>16</sup> Metti, Tenille. "Gov. Brown Signs CA State Budget |Approves \$7.5 Million for 'Hunger-Free College Campuses.'" *Swipe Out Hunger*, 27 June 2017,

https://www.swipehunger.org/gov-brown-signs-ca-state-budget-approves-7-5-million-for-hunger-free-colle ge-campuses/.

<sup>&</sup>lt;sup>17</sup> "H.R.6834 - Food for Thought Act of 2022." *Congress.Gov*, <u>https://www.congress.gov/bill/117th-congress/house-bill/6934</u>.

dependent variable, food insecurity rates, will be measured by data from the UC Undergraduate Experience Survey (UCUES) from 2018 to 2022.

This theory is based on the assumption that food insecurity stems from a combination of many factors, including a lack of knowledge on how to properly purchase and prepare healthy foods, an inability to travel to grocery stores, and minimal funds. Another theory for this discrepancy is that food insecurity is almost entirely hinged on financial strains, with food access programs outside of direct financial assistance being extraneous and doing little to target the root of this issue. This is supported by the importance of financial factors in predicting food insecurity in a student.<sup>18</sup> More research into the efficacy of individual food access programs is necessary to gauge what truly helps students in the fight against food insecurity. Still, the promising results of food pantries in UC schools<sup>19</sup> signal that this issue can be addressed in multiple ways. My research is also focused solely on the University's response to food insecurity, which mitigates the role that local government and development could play in a person's access to food. Although limitations in local government and regional development concerning food resources should be examined, the divergence between the general population and the student population provides evidence that the issue of food insecurity on college campuses is unique and requires special attention from the institutions surrounding it.

<sup>&</sup>lt;sup>18</sup> Gaines, Alisha, et al. "Examining the Role of Financial Factors, Resources and Skills in Predicting Food Security Status among College Students." *International Journal of Consumer Studies*, vol. 38, no. 4, July 2014, pp. 374–84. *DOI.org (Crossref)*, <u>https://doi.org/10.1111/ijcs.12110</u>.

<sup>&</sup>lt;sup>19</sup> Martinez, Suzanna M., et al. "Campus Food Pantry Use Is Linked to Better Health Among Public University Students." *Journal of Nutrition Education and Behavior*, vol. 54, no. 6, June 2022, pp. 491–98. *www.jneb.org*, <u>https://doi.org/10.1016/j.jneb.2022.03.001</u>.

#### **Research Design and Data**

This study covered all 23 California State University campuses and the 9 undergraduate University of California campuses. To measure the amount of food access programs at each school I created an index. This is based on 13 possible programs: 1) a basic needs online hub or website, 2) basic needs training through recipes or lessons on food preparation and financial literacy, 3) CalFresh initiatives or assistance for students, 4) a phone app for students to either engage with their basic needs team or be updated about free food on campus, 5) EBT/SNAP usage available in at least one campus store, 6) an on-campus student garden 7) an in-person basic needs resource center or office, 8) a basic needs specialized team or coordinator, 9) a meal swipe sharing or donation program, 10) emergency basic needs financial assistance, 11) a food pantry, 12) grocery shuttles for students, and 13) a community refrigerator, either for food storage or donation. If a school has one of these programs, they get a point, these are tallied up to give each campus their food access score. This aspect may create issues with this study, as, in reality, not all food access programs are made equal; some are used more by students than others through choice or availability, and they can be more or less successful depending on the campus. Although it would be ideal to consider this when conducting this study, the lack of research into the effects of food access programs did not make me feel comfortable weighing the index based on believed differences in effectiveness.

The variables in my index are based on the programs promoted by the UC Global Food Initiative in their basic needs toolkit<sup>20</sup> and the CSU Basic Needs Initiative's

<sup>&</sup>lt;sup>20</sup> *Student Food Access & Security Toolkit*. University of California Global Food Initiative, <u>https://www.ucop.edu/global-food-initiative/\_files/redefining-student-basic-needs-2020-report.pdf</u>.

2018 Action Report,<sup>21</sup> as well as individual programs created by schools outside of the recommendations of the greater system that still address a common factor in contributing to food insecurity. Each possible program addresses one of these factors. Financially, students feel that they are unable to afford the food on campus, which prevents them from eating while at school; meal share donation programs and EBT in stores help to prevent that issue, and fridges for storage make it so buying on-campus food is not always necessary. Other financial priorities, like bills or personal expenses, competed with the budget for meals for many food-insecure students. CalFresh and SNAP benefits reduce the burden of affording food. An inability to cook makes students turn towards less nutritious and more expensive options, like fast food. Basic needs training, food pantries, and campus gardens teach students how to prepare food and make it so experimentation and learning do not break the bank. Those who can afford food do not often have a reliable form of transportation that allows them to get to grocery stores; a grocery shuttle is a direct solution to this problem.<sup>22</sup> The other programs: a phone app, basic needs coordinator, online hub, and in-person office, all provide information on how to access those mentioned above.

The information on the programs provided was found through online research, mainly what was promoted on campuses' basic needs websites or through social media pages. With this, I hoped to replicate the experience of a student in need searching for help from their university. This method means that some information on programs may

<sup>&</sup>lt;sup>21</sup> Report on CSU Actions to Support Students Facing Food and Housing Insecurity . The California State University Office of the Chancellor,

https://www.calstate.edu/impact-of-the-csu/student-success/basic-needs-initiative/Documents/CSU-Basic-Needs-Action-Report.pdf.

<sup>&</sup>lt;sup>22</sup> Zigmont, Victoria, et al. "Understanding the Why of College Student Food Insecurity." *Journal of Hunger* & *Environmental Nutrition*, vol. 16, no. 5, Sept. 2021, pp. 595–610. *DOI.org (Crossref)*, https://doi.org/10.1080/19320248.2019.1701600.

be inaccurate; those that are not advertised online would not be included and the actual usage and availability of these programs might be misrepresented. An example of this is the UC Santa Barbara Gaucho Grocery Shuttle, which exists but is advertised minimally with few updates on social media. Because I am not a student and cannot physically ride this shuttle, I do not know whether or not it is running and used by students.

For my data on food insecurity at each UC school, I used the University of California Undergraduate Experience Survey (UCUES), a biannual survey covering student behaviors. Since 2018, the UCUES has had a measure documenting student food security from high or marginal to low or very low. I found the rate of food insecurity by combining the measures of low and very low food security and dividing this by the total number of respondents, as some years listed only the raw number of students rather than the percentage of the whole. This metric is based on the sum of scores based on six questions regarding hunger and financial issues around food. The UCUES allows users to split the data between campus, racial group, Pell Grant recipiency, and other variables which will assist me in understanding the change in food insecurity since the measure was created. The limited range of data on food insecurity, from 2018 to 2022, makes it difficult for me to truly grasp the effects that food initiatives have had on food insecurity. With the numbers found, I created a dataset that will help me better understand food insecurity rates over time and directly compare the numbers.

To test my hypothesis in this program evaluation, I will compare the amount of food access programs and the food insecurity rates over time, looking at the data for each campus as well as the UC average. With my dataset, I will find the Pearson correlation coefficient, helping to measure the relationship between the number of programs at a school and its rate of change in food insecurity from 2018 to 2022. I will compare the food insecurity rate at UC schools with the California average to gauge whether or not this change is based on internal or external forces. This metric will be found using Feeding America's annual report on food insecurity and hunger nationwide, including data from 2018-2021. Although this does not directly line up with the UCUES data on food insecurity, I believe that the year difference is not enough to invalidate the comparison between 2021 and 2022. Another possible issue with this data is that it is collected from different sources with different qualifications for food insecurity. While the two sources might deviate slightly in this regard, both studies are based on the U.S. Department of Agriculture's suggested methods for measuring food insecurity, meaning that they are utilizing the same definition with a similar process.<sup>23</sup> <sup>24</sup>

#### Analysis

I found an overall decrease in the food insecurity rates at UC campuses from 2018 to 2022, with a drop of 30%, from 73% to 43% (Figure 1). This drop is shared by all campuses, with the highest being Los Angeles at 44% and the lowest being Merced at 6%. The median drop in food insecurity was 28%. The 2018 rate of campus-wide food insecurity contradicts the Global Food Initiative number reported in 2017, presenting a much higher number than the 44% in the *Food and Housing Security* report. State-wide food insecurity did not experience this same dramatic drop, falling by around .3% from 2017 to 2021. Every campus experienced a sharp fall from 2018-2020

<sup>&</sup>lt;sup>23</sup> Map the Meal Gap 2023 Technical Brief. Feeding America,

https://www.feedingamerica.org/sites/default/files/2023-05/Map%20the%20Meal%20Gap%202023%20Te chnical%20Brief.pdf?s\_src=W23CREFER&s\_referrer=https%3A%2F%2Fmap.feedingamerica.org%2F&s\_ channel=https%3A%2F%2Fmap.feedingamerica.org%2F&s\_subsrc=https%3A%2F%2Fwww.feedingam erica.org%2Fresearch%2Fmap-the-meal-gap%2Fhow-we-got-the-map-data

<sup>&</sup>lt;sup>24</sup> *Measuring Food Insecurity*. University of California Institutional Research and Academic Planning, <u>https://www.universityofcalifornia.edu/sites/default/files/measuring-food-insecurity.pdf</u>.

contrasted with a slight rise in food insecurity from 2020 to 2022. This is in line with findings on the effects of the COVID-19 pandemic and shelter-at-home orders on student food insecurity. Students who went home and lived with their families rather than independently were less likely to experience food insecurity and thus had lower stress.<sup>25</sup> To prevent the spread of the virus, all UC campuses closed to in-person instruction. The dip and slight rise in food insecurity shows this encouraged switch to more dependent living arrangements and the following return to normalcy during this period.

Breaking this data down by key demographic factors can provide more insight into the changes in food insecurity since 2018. Racially, the group with the biggest drop in food insecurity was white students, who fell from 80% food insecure to 37%; switching from being the group with the highest rate to the group with the lowest. The number for 2018 is highly unusual, as the Feeding America figures show the non-Hispanic White population having a much lower rate of food insecurity (8%) than Latinos (15%) and African Americans (19%). Because of this large discrepancy from the norm, I believe that there was some sort of methodological error in the data collection for the white population in 2018. Beyond this, there was still an average decrease of 10%. All racial groups had a decrease in their food insecurity rates besides Asian students, who saw an increase from 26% to 38% (Figure 2).

When considering Pell Grant recipiency in the evaluation of food insecurity rates, a similar trend of high numbers falling quickly appears. Students who did not receive a grant had an 80% food insecurity rate in 2018 and 36% in 2022. This is compared to the

<sup>&</sup>lt;sup>25</sup> Davitt, Elizabeth D., et al. "Effects of COVID-19 on University Student Food Security." *Nutrients*, vol. 13, no. 6, June 2021, p. 1932. *PubMed Central*, <u>https://doi.org/10.3390/nu13061932</u>.

numbers for Pell Grant recipients, from 64% being food insecure in 2018 to 36% in 2022. I believe that this is a reflection of the racial discrepancy seen earlier, as studies show that white students are less likely to receive Pell Grants than Hispanic or Black students.<sup>26</sup>

On average, UC schools have a higher amount of food access programs than CSU schools, at 10 and 8 respectively. All campuses had CalFresh assistance and a student food pantry, while the least amount of schools had grocery shuttles and a campus fridge; 11 out of the 23 CSU schools, just under half, had a meal swipe sharing program, while very few UC schools did. Information on these programs was more difficult to find for UC schools than for CSUs, which often had the programs advertised on their basic needs website as a way to reduce hunger and food insecurity. To find the programs available at UC schools, additional searching beyond what was immediately presented to students as a possible alleviation of food access issues was necessary. CSU schools had a high of 10 programs, which was shared by East Bay, Long Beach, Cal Poly Pomona, and San Francisco, and a low of 5 from Maritime (Figure 4). The UC school with the highest amount of programs was San Diego with 12, and the lowest was Santa Cruz with 7.

At CSUs, I found little connection between the student population and the amount of food access programs. When splitting the 23 campuses into three groups, those with the lowest population, the highest population, and the middlemost population,<sup>27</sup> the averages in the amount of food access programs change very little,

<sup>&</sup>lt;sup>26</sup> Digest of Education Statistics, 2017.

https://nces.ed.gov/programs/digest/d17/tables/dt17\_331.35.asp?referer=raceindicators. Accessed 14 Dec. 2023.

<sup>&</sup>lt;sup>27</sup> Workbook: Enrollment Dashboard.

https://tableau.calstate.edu/views/SelfEnrollmentDashboard/EnrollmentSummary?iframeSizedToWindow=

from 7.8 in the lowest population, to 7.6 in the middlemost, and 8.6 in the group with the highest population (Figure 5). Although there is a slight increase from the lowest to the highest, it is by a little more than one program. UCs show a stronger relationship between student population<sup>28</sup> and amount of programs (Figure 6), but this is still minimal.

The comparison of these extremes with changes in food insecurity does not show an obvious relationship between the two variables. San Diego had a decrease of 28% (not much higher than the average decrease of 26%) while Santa Cruz had a decrease of 21%, a difference of only 7%. At the same time, the school with the greatest decrease in food insecurity, 44%, shared the average amount of food access programs, this is Los Angeles with 10. Merced, the lowest change in food insecurity, had a decrease of 6% but had only one less program than Los Angeles (Figure 7). When looking at the totality of the system, a moderate negative correlation (r= -0.36) exists between the amount of food access programs and the negative change in food insecurity, but the small n makes this not statistically significant.

#### **Conclusion and Implications**

This research project sought to answer whether or not food access programs and initiatives at California public universities in the past decade have had an impact on food insecurity rates. The extreme disparity between food insecurity rates in the general population and the student population signals an issue, especially considering the effects that these conditions may have on student performance, stress levels, and

true&%3Aembed=y&%3AshowAppBanner=false&%3Adisplay\_count=no&%3AshowVizHome=no. Accessed 14 Dec. 2023.

<sup>&</sup>lt;sup>28</sup> "Fall Enrollment at a Glance." *University of California*, 3 Mar. 2023, <u>https://www.universityofcalifornia.edu/about-us/information-center/fall-enrollment-glance</u>.

mental and physical health. By comparing data from the UC Undergraduate Experience Survey and my food access index for UC schools, I found that there is a slight relationship between the amount of food access programs and the rate of food insecurity since 2018; as the amount of food access programs goes up, the rate of change in insecurity decreases in some cases.

On average, UC students have access to more food programs than CSU students, although there was not much variation in the number and types of programs available on each campus. All schools had food pantries, CalFresh application assistance and initiatives, and a website documenting basic needs programs that students could access.

Although there was a slight correlation between the two variables, the lack of data, both in the number of schools included in this study and the period I had data on, reduces the validity and the statistical significance of my findings. To truly understand student food insecurity, its origins, and what should be done to combat it, more data needs to be found. This is especially true of California State University. The lack of continued public investigation into food insecurity rates since 2018 makes so efforts to fight against them seem meaningless. Continuing to document student food insecurity rates past 2018 would allow for the tangible effect of these programs to be seen. This would be more difficult for CSU to implement than it was for UC in 2018 with the food access metric on the UCUES, since the survey was able to provide the figure with existing infrastructure that it could latch itself onto. Although it would take more effort, I still believe that this change would be extremely helpful in understanding the impact of investments and their role in the student experience.

Overall, I believe that more time is needed to see the effectiveness of these programs, both systemwide and on a campus-to-campus basis. More data on food insecurity from the UCUES would allow me to observe a concrete trend, this is shown especially well in the sharp declines and increases in my data. Also, more time would allow schools to put different programs into place and solidify their existence in student's minds. Research into student food insecurity is extremely important and must be continued if universities wish to be a space of equal opportunity and learning for people from diverse backgrounds.



Figures

Data source: UC Undergraduate Experience Survey and Feeding America Figure 1. Undergraduate Food Insecurity Rates at UC Campuses versus California, 2018-2022.



Figure 2. UC Undergraduate Food Insecurity Rates by Race, 2018-2022



Data Source: UC Undergraduate Experience Survey, 2018-2022

Figure 3. UC Undergraduate Food Insecurity by Pell Grant Recipiency, 2018-2022



Figure 4. Amount of Food Access Programs at CSU Schools



Data Source: The California State University Academic and Student Affairs



Figure 5. Food Access Programs at CSUs Compared to Average Populations

Data Source: University of California Fall Enrollment at a Glance 2022



Figure 6. UC Food Access Programs Compared to Student Population

Figure 6. Food Access Programs and Change in Food Insecurity at UC Schools

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